Land Development Review
Division
(619) 446-5460

FINAL
MITIGATED NEGATIVE DECLARATION

Project No. **412987**
SCH No. *Not Applicable*

SUBJECT: Francis Parker Master Plan Amendment: Amendment to Planned Development Permit No. 84875 and Site Development Permit No. 215276 (PDP/SDP), approved by the City of San Diego Planning Commission on May 12, 2005 to authorize changes to Francis Parker's Master Plan for its Linda Vista campus. The campus consists of a middle school (Grades 6-8) and an upper school (Grades 9-12) with an existing student population of 800 and a proposed student population of 940. The project would demolish three buildings comprising 41,229 square feet, retain 133,753 square feet of existing buildings, and would add 103,182 square feet of proposed buildings (kitchen/dining hall, athletic complex including a gymnasium, two multi-purpose student centers, and a maker's space). The total Gross Floor Area (GFA) would be 236,935 square feet which is a difference of 67,734 square feet over the 169,201 square feet authorized by the PDP/SDP. The Floor Area Ratio (FAR) is calculated to be 0.25 where the allowable FAR is 0.75. The proposal would also include the construction of a two-level underground parking structure in the center of the Campus which would provide 283 parking spaces in addition to the 238 parking spaces in surface lots for a total of 521 parking spaces. Additionally the project would provide an outdoor aquatic center; and reorient the football field to add an eight-lane track. All construction would be contained within the existing development footprint on a 22.45-acre parcel at 6501 Linda Vista Road in the City of San Diego
Applicant: Francis Parker School

I. PROJECT DESCRIPTION: See attached Initial Study.

II. ENVIRONMENTAL SETTING: See attached Initial Study.

III. DETERMINATION: The City of San Diego conducted an Initial Study, which determined that the project could have a significant environmental effect on the following areas: **Cultural Resources (Paleontology),** Hazards and Hazardous Materials, **and Transportation/Traffic.** Subsequent revisions in the project proposal, create the specific mitigation identified in Section V of this Mitigated Negative Declaration. The project as revised now avoids or mitigates the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report will not be required.

IV. DOCUMENTATION: The attached Initial Study documents support the above Determination.

V. MITIGATION, MONITORING AND REPORTING PROGRAM (MMRP):

A. GENERAL REQUIREMENTS – PART I Plan Check Phase (prior to permit issuance)

1. Prior to the issuance of a Notice To Proceed (NTP) for a subdivision, or any construction permits, such as Demolition, Grading or Building, or beginning any construction-related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and approve all Construction Documents (CD), plans, specification, details, etc. to ensure the MMRP requirements are incorporated into the design.

2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of this project are included VERBATIM, under the heading, "**ENVIRONMENTAL/MITIGATION REQUIREMENTS**."

3. These notes must be shown within the first three sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website:

   http://www.sandiego.gov/development-services/industry/standtemp.shtml

4. The **TITLE INDEX SHEET** must also show on which pages the "Environmental/Mitigation Requirements" notes are provided.

5. **SURETY AND COST RECOVERY** – The DSD Director or City Manager may require appropriate surety instruments or bonds from private Permit Holders to ensure the long-term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

B. GENERAL REQUIREMENTS – PART II Post Plan Check (After permit issuance/Prior to start of construction)

1. **PRE CONSTRUCTION MEETING IS REQUIRED 10 WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.** The PERMIT HOLDER/OWNER is responsible to arrange and perform this meeting by contacting the CITY RESIDENT ENGINEER (RE) of the Field Engineering Division and City staff from MITIGATION MONITORING COORDINATION (MMC). Attendees must also include the Permit holder's Representative(s), Job Site Superintendent and the following consultants:

   Qualified Paleontology Monitor, a representative from The City of San Diego Local Enforcement Agency (LEA) and a 40-hour Hazwoper-trained environmental professional experienced in the identification of burn ash.

Note: Failure of all responsible Permit Holder's representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division – 858-627-3200**

b) For Clarification of ENVIRONMENTAL REQUIREMENTS, applicant is also required to call **RE and MMC at 858-627-3360**

2. **MMRP COMPLIANCE:** This Project, Project Tracking System (PTS) Number **412987** and/or Environmental Document Number 412987, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD's Environmental Designee (MMC) and the City Engineer (RE). The requirements may not be reduced or changed but may be annotated (i.e., to explain when and how compliance is being met and location of verifying proof, etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc.

Note: Permit Holder's Representatives must alert RE and MMC if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by RE and MMC BEFORE the work is performed.

3. **OTHER AGENCY REQUIREMENTS:** Evidence of compliance with all other agency requirements or permits shall be submitted to the RE and MMC for review and acceptance prior to the beginning of work or within one week of the Permit Holder obtaining documentation of those permits or requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency.

Not Applicable

4. **MONITORING EXHIBITS**

All consultants are required to submit, to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.

NOTE: Surety and Cost Recovery – When deemed necessary by the DSD Director or City Manager, additional surety instruments or bonds from the private Permit Holder may be required to ensure the long-term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

5. **OTHER SUBMITTALS AND INSPECTIONS:**

The Permit Holder/Owner's representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and MMC for approval per the following schedule:

DOCUMENT SUBMITTAL/INSPECTION CHECKLIST		
Issue Area	Document Submittal	Associated Inspection/Approvals/Notes
General	Consultant Qualification Letters	Prior to Preconstruction Meeting
General	Consultant Construction Monitoring Exhibits	Prior to or at Preconstruction Meeting
Paleontology	Paleontology Report	Paleontology Site Observation

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS

PALEONTOLOGICAL RESOURCES MITIGATION
Paleo-1

I. Prior to Permit Issuance

A. Entitlements Plan Check
   1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, but prior to the first preconstruction meeting, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. The applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
   3. Prior to the start of work, the applicant shall obtain approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. PI Shall Attend Precon Meetings
   1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified paleontologist shall attend any grading/excavation related Precon

Meetings to make comments and/or suggestions concerning the Paleontological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to be Monitored
   Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
3. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.

III. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching
   1. The monitor shall be present full-time during grading/excavation/trenching activities as identified on the PME that could result in impacts to formations with high and moderate resource sensitivity. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**
   2. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.
   3. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process
   1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
   2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
   3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the

resource in context, if possible.

C. Determination of Significance
   1. The PI shall evaluate the significance of the resource.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the PI.
      b. If the resource is significant, the PI shall submit a Paleontological Recovery Program (PRP) and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume.
      c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.
      d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.

IV. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
   1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
   2. The following procedures shall be followed.
      a. No Discoveries
         In the event that no discoveries were encountered during night and/or weekend work, The PI shall record the information on the CSVR and submit to MMC via fax by 8AM on the next business day.
      b. Discoveries
         All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction.
      c. Potentially Significant Discoveries
         If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction shall be followed.
      d. The PI shall immediately contact MMC, or by 8AM on the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night work becomes necessary during the course of construction
   1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
   2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

V. Post Construction

A. Preparation and Submittal of Draft Monitoring Report
   1. The PI shall submit two copies of the Draft Monitoring Report (even if negative),

prepared in accordance with the Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring,

a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program shall be included in the Draft Monitoring Report.
b. Recording Sites with the San Diego Natural History Museum
The PI shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Fossil Remains
1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.
2. The PI shall be responsible for ensuring that all fossil remains are analyzed to identify function and chronology as they relate to the geologic history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate

C. Curation of fossil remains: Deed of Gift and Acceptance Verification
1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
2. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
1. The PI shall submit two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.
2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

TRANSPORTATION/TRAFFIC

Trans-1

Prior to the issuance of any building permits, the Owner/Permittee shall assure, by permit and bond, the installation of a new traffic signal at the intersection of Linda Vista Road and Northrim Court, with signal interconnect to the adjacent traffic signals, and install striping to provide a left-turn lane and right-turn lane on Northrim Court, satisfactory to the City Engineer.

Hazards and Hazardous Materials

Haz Mat-1

I. Prior to Start of Construction/Preconstruction Meeting

Prior to the issuance of the grading permit, the applicant shall provide verification, in letter form, to the Mitigation Monitoring and Coordination Section (MMC) that the City of San Diego LEA has reviewed and approved the proposed Health and Safety Work Plan as required in the approved Burn Ash Management Plan (AECOM, December 2015). The safety plan is for the treatment and disposal of hazardous materials or contaminated soils that may be encountered within the project site.

The work plan would contain specific procedures for encountering both expected and unexpected contaminants. The plan would prescribe sa fe work practices, contaminant monitoring, personal protective equipment, emergency response procedures, and safety training requirements for the protection of construction workers and third parties. The health and safety plan would meet the requirements of 29 CFR 1910 and 1926 and all other applicable federal, state, and local requirements.

II. During Construction

A. Monitoring

1. All grading or excavation that disturbs surface soil and or soil to a depth of three feet below ground surface will require observation by a 40-hour Hazwoper-trained environmental professional experienced in the identification of burn ash. If burn ash is identified, grading or excavation will stop and a burn ash management plan and the community health and safety plan will be immediately implemented.

2. If burn ash-containing soil is encountered it will be managed in accordance with the site specific burn ash management plan and the elements of the community health and safety plan, including air monitoring, will be implemented as long as burn ash-containing soil is exposed. If burn ash is encountered during grading that cannot be managed in place an appropriate regulator-approved cap, as defined in the burn ash management plan, it will be profiled and disposed of under manifest, at an appropriately licensed offsite facility.

III. End of Construction

A. Final Clearance

1. Following the completion of grading, a report will be submitted to the LEA, detailing the results of the on-site observations and corrective action measures implemented with regard to observed burn ash materials.

VI. PUBLIC REVIEW DISTRIBUTION

Draft copies or notice of the MITIGATED NEGATIVE DECLARATION were distributed to:

City of San Diego
- Council Member Sherman, District 7
- City Attorney
  - Shannon Thomas (MS 59)
- Development Services Department
  - John Fisher (MS 302)
  - Jeffrey Szymanski (MS 501)
  - Terre Lien (MS 501)
  - Jack Canning (MS 501)
  - Daniel Neri (MS 501)
  - Eddmond Alberto (MS 501)
  - Patrick Thomas (MS 501)
  - Renee Robertson (MS 606L)
- Mitigation Monitoring Coordination Section (77a)
- Planning Department
  - Tara Lieberman (MS 413)
  - Victoria White (MS 413)
- Central Library MS 17 (81a)
- Linda Vista Branch Library (81m)

Other
- Linda Vista Community Planning Group (267)
- University Of California (269)
- San Diego Gas and Electric (114)
- Metropolitan Transit System (115)
- San Diego Natural History Museum (167)

VI. RESULTS OF PUBLIC REVIEW

( ) No comments were received during the public input period.

( ) Comments were received but did not address the draft Mitigated Negative Declaration finding or the accuracy/completeness of the Initial Study. No response is necessary. The letters are attached.

(x) Comments addressing the findings of the draft Mitigated Negative Declaration and/or accuracy or completeness of the Initial Study were received during the public input period. The letters and responses follow.

Copies of the draft MITIGATED NEGATIVE DECLARATION, the Mitigation Monitoring and Reporting Program and any Initial Study material are available in the office of the Development Services Center for review, or for purchase at the cost of reproduction.

Jeffrey Szymanski, Senior Planner
Development Services Department

March 9, 2016
Date of Draft Report

July 5, 2016
Date of Final Report

Analyst: Jeff Szymanski

Attachments Initial Study Checklist
Figure 1 –Project Location Map
Figure 2 – Site Plan

FRANCIS PARKER SCHOOL MASTER PLAN UPDATE
DRAFT MITIGATED NEGATIVE DECLARATION COMMENT LETTERS

The following comment letters were received from agencies, organizations, and individuals during the public review of the draft MND. A copy of each comment letter along with corresponding staff responses has been included. Many of the comments received during public review of the Draft MND did not address the adequacy and/or sufficiency of the environmental document; however, staff endeavored to provide responses as appropriate as a courtesy to the commenters.

Letter	Author	Address	Date	Representing	Page Number of Letter
INDIVIDUALS					
A	Tyler McLaughlin	tjmclaug91@gmail.com	March 22, 2016	Self	9
B	Gail A. Laughlin	glaughlin@ucsd.edu	March 22, 2016	Self	11
C	Judy Millin	jmillin@san.rr.com	March 22, 2016	Self	12
D	Thomas Sekreta	tsekreta@yahoo.com	March 22, 2016	Self	13
E	Lou Lipschultz	lou-lip@hotmail.com	March 22, 2016	Self	14
F	Ruth Oram	roram@san.rr.com	March 22, 2016	Self	15
G	Kathleen Day	kday619@gmail.com	March 22, 2016	Self	18
H	Janet Gambrell	janet.gambrell@gmail.com	March 22, 2016	Self	20
I	Andrew Feraco	aaferaco@gmail.com	March 22, 2016	Self	21
L	Lisa Newby	lisajnewby1@gmail.com	March 22,2016	Self	22
K	Robin Hughes	rocknrobin57@icloud.com	March 23, 2016	Self	23
L	Donna Mills	djmills09@sbcglobal.net	March 23, 2016	Self	24
M	Joan LoMonico	joanlo48@aol.com	March 23, 2016	Self	25
N	Joan LoMonico	joanlo48@aol.com	March 23, 2016	Self	26
O	Betsy A. Blakely	bblakely@san.rr.com	March 23, 2016	Self	27
P	Demi Brown, Executive Director	dbrown@empowercharter.org	March 23, 2016	EMPOWER Charter School	28
Q	Carrie Beinert	carrie500@email.com	March 24, 2016	Self	29

Letter	Author	Address	Date	Representing	Page Number of Letter
R	Darlene R. Newcomb Corresponding Secretary	secretariat@sandiegobahai.org	March 24, 2016	Local Spiritual Assembly of the Bahá'ís of San Diego	30
S	Lori Walker	jahman.1@netzero.com	March 25, 2016	Self	31
T	Elaine Medosch	emedosch299@gmail.com	March 25, 2016	Self	33
U	Patricia Whitelaw	pwhitelaw@att.net	March 25, 2016	Self	37
V	Todd Hooker and Amie Wong-Hooker	thooker@san.rr.com	March 25, 2016	Self	38
W	Patricia Whitelaw	pwhitelaw@att.net	March 25, 2016	Self	39
X	G.T. Kaye and Janet C. Kaye	jkaye703@gmail.com	March 25, 2016	Self	40
Y	Carole Melidonian	jinxy222@yahoo.com	March 26, 2016	Self	41
Z	Craig A. Sherman	craigshermanapc@gmail.com	March 28, 2016	North Rim Homeowners Association	44
AA	Joan LoMonico	joanlo48@aol.com	March 28, 2016	Self	62
BB	Sharon Barcelona	sbarcelona@ymail.com	March 27, 2016	Self	63
CC	Ana Estrada, Ph.D.	estradaa@sandiego.edu	March 28, 2016	Self	64
DD	Jacquelyn Landis	jackielandis@gmail.com	March 28, 2016	Self	65
EE	Marjorie Patrick, Ph.D	mpatrick@sandiego.edu	March 28, 2016	Self	67
FF	Patricia Whitelaw	pwhitelaw@att.net	March 28, 2016	Self	68
GG	Debbie Collins, AICP Senior Environmental Specialist	dcollins@semprautilities.com	March 28, 2016	San Diego Gas & Electric	72
HH	Lisa Rivera-Serra	lisa.rivera-serra@ge.com	March 28, 2016	Self	74
II	Susan Lindgren	sdsusanl@aol.com	March 29, 2016	Self	79
JJ	Beverly F. Ryan	bshanti7@gmail.com	March 29, 2016	Self	80
KK	Leticia D. Fernandez	lety92111@yahoo.com	March 29, 2016	Self	81

Letter	Author	Address	Date	Representing	Page Number of Letter
LL	Sofía Fernández	sof_fernandez@ymail.com	March 29, 2016	Self	83
MM	Gervy Alota	bernicealota@gmail.com	March 29, 2016	Self	85
NN	Axel Probst	aprobst@fpbarch.com	March 29, 2016	Self	86
COMMENTS RECEIVED AFTER THE CLOSE OF THE PUBLIC COMMENT PERIOD					
INDIVIDUALS					
OO	Seth & Paula Mayer	paula@mayerstudios.com	March 30, 2016	Self	91
PP	Ron Goins	Dclimeybrit@aol.com	April 18, 2016	Self	92

General Responses

1. Linda Vista Road/Northrim Court Intersection Volume and Safety Issues

The project includes relocating one of the four existing campus access driveways from Linda Vista Road to Northrim Court. It should be noted that not all school traffic will use Northrim Court. As discussed in Section 6.0 of the traffic impact analysis (TIA), Middle School traffic will use the main entrance at Alcala Knolls Drive, while Upper School traffic will use the right-in/right-out only driveway on Linda Vista Road and the relocated driveway on Northrim Court. -The project would have a significant impact at the Linda Vista Road/Northrim Court intersection. - Mitigation measure (Trans-1) requires the Owner/Permittee (Francis Parker School) to install a traffic signal at the intersection of Linda Vista Road and Northrim Court, with signal interconnect to the adjacent traffic signals, along with striping to provide a left-turn lane and right-turn lane on northbound Northrim Court.

The intersection of Northrim Court and Linda Vista Road presently operates at level of service "C" during the morning peak hour with the existing stop control on Northrim Court, as shown in Table 5-2 of the TIA. The afternoon peak period school departure hours are between 2:45 and 3:45 PM, before the typical residential afternoon peak. The new configuration will reduce queuing problems and safety issues on Linda Vista Road during drop-off and pick-up times by spreading some of the school traffic to access Linda Vista Road via Northrim Court.

Currently, one signal serves the campus, at Linda Vista Road and Alcala Knolls Drive. The proposed signal at Northrim Court will be approximately 800 feet east of the Alcala Knolls signal, which is more than the 600-foot minimum signal spacing noted in the City Street Design Manual for a major road. In addition, the new signal will be interconnected with adjacent signals to coordinate the signals and minimize delays along Linda Vista Road.

Pedestrian access to the campus is currently and will continue to be provided by sidewalks along both sides of Linda Vista Road and Northrim Court. There is a marked pedestrian crosswalk at the main signalized entrance to the campus. In addition, the proposed signal at Linda Vista Road and Northrim Court will provide marked crosswalks as shown in Figure 13-1 of the TIA. Onsite traffic monitors at the campus's driveways during the morning and afternoon peak periods will control the school's vehicular traffic to minimize any conflict with pedestrians and bicyclists. They will monitor traffic queues on Northrim Court near Linda Vista Road and control the flow of vehicles exiting the site to keep the roadway clear for vehicles traveling on Northrim Court.

Section 12.3 of the TIA evaluates construction traffic for the entire project. Due to restricted hours, construction traffic would not be expected to cause significant impacts. The applicant agrees to restrict construction traffic to the existing driveways on Linda Vista Road, not the new Northrim Court driveway. However, the driveway onto Northrim Court will be built as part of near term construction to help facilitate school drop-off and pickup.

During construction, the campus will temporarily lose approximately 100 parking spaces per the applicant. However, replacement parking will be available at nearby locations, the Baha'i Faith San Diego Center to the north of campus and the Church of the Nazarene at 6736 Linda Vista Road, pursuant to agreements between the school and the owner of each respective location. Per the applicant, construction workers will utilize both on-site and off-site parking areas.

Interactions with traffic from the existing 7-Eleven and the apartments being built on Linda Vista Road adjacent to that store were considered. The TIA did take existing 7-Eleven traffic into account. Figure 5-3 of the TIA (on page 5-8) includes this traffic during the morning and afternoon peaks at intersection #9. The TIA analyzed this intersection in all six study scenarios, i.e., Existing through Year 2035 with Project. Traffic exiting the 7-Eleven has two options for traveling west on Linda Vista Road: vehicles can exit onto Northrim Court and turn left at the new signal, or exit the easterly driveway on Linda Vista Road and turn left to travel west. The apartment project to the east of the 7-Eleven store has its own driveway access onto Linda Vista Road and there will be no vehicular connection between

the apartments and 7-Eleven. Therefore, apartment traffic would not be expected to use the drive aisles in the 7-Eleven store parking lot to enter onto Northrim Court and then proceed on to Linda Vista Road.

2. Northrim Court Volume and Safety Issues

The project impact to Northrim Court would be less than significant as shown in Attachment Y since this segment is projected to operate at an acceptable level of service A from the Existing condition to the future Year 2035 condition. Northrim Court is an unclassified street with 52 ft. of pavement (curb-face-to-curb-face) in a right-of-way that is 72 ft. wide. Based on Table 2 of the City of San Diego Traffic Impact Study Manual, a street of this type has a capacity of 8,000 cars daily at the level of service D/E threshold. There are 296 residences using Northrim Court. Northrim Court has an existing count of 973 ADT collected on Wednesday April 6, 2016 when USD and local schools were in session. Relocation of one driveway from Linda Vista Road to Northrim Court would redistribute existing Upper School traffic of 634 ADT onto Northrim Court. The additional 140 students would add an additional 224 ADT onto Northrim Court for a total of 858 ADT. 973 ADT of existing traffic plus 858 of project traffic results in 1,831 ADT, which in turn represents a volume to capacity ratio of 0.23, a level of service "A". If a typical trip generation rate of eight trips for each residence were used, calculations would result in an existing ADT of 2,368 plus relocated and future school traffic of 858 ADT for a total ADT of 3,226, representing a volume to capacity ratio of 0.40, a level of service "B".

The project includes onsite traffic monitors who will minimize conflicts with pedestrians and bicycles by holding traffic before it enters Northrim Court if pedestrians, bicyclists, or motorists are crossing the driveway and by ensuring that traffic flow on-site travels in only a westbound direction in the northern drive aisle and in an eastbound direction in the southern drive aisle. With the signal at the intersection, the project will improve safety for motorists entering Linda Vista Road. The school will provide parents with a circulation plan clearly showing the revised circulation pattern for drop-off and pick-up during the school year and the onsite monitors will enforce the circulation plan to ensure that conflicts are avoided.

The reason for the driveway re-location is that the change will provide more onsite queuing areas for pick-up and drop-off. In the current situation, all of the Middle and Upper School drop-off and pick-up traffic enters and exits the campus along Linda Vista Road; thus, the change will reduce back-up and queuing on Linda Vista Road by spreading the traffic out, thereby contributing to a safer roadway.

The project will not adversely affect fire and emergency response times in the area for several reasons. First, fire and emergency response vehicles have the right-of-way and are exempted from rules of the road in emergency situations. (California Vehicle Code 21806.) Second, fire and emergency vehicles have the ability to override traffic signals along Linda Vista Road, including the proposed signal at Northrim Court. Third, drivers of fire and emergency vehicles may utilize center turn lanes or travel in the opposing through lane to bypass congested intersections. Finally, the school's onsite traffic monitors will ensure that vehicles exiting the school are held on-site in order to avoid a conflict with fire and emergency vehicles.

Several commenters were concerned about construction vehicles using Northrim Court. As noted above, the applicant has agreed that construction vehicles will be directed to not use Northrim Court. Section 12.3 of the TIA accounts for short-term and long-term impacts due to construction.

3. Sight Distance

Several commenters were concerned about potential line-of-sight restrictions between Linda Vista Road, the new exit driveway on Northrim Court, and traffic on Northrim Court. As previously mentioned, Northrim Court to the south of the proposed access is a two-lane unclassified street with a prima facie speed limit of 25 mph. Sight distance was evaluated on Northrim Court to determine if adequate line of sight is provided to both school traffic exiting the proposed driveway and

for residents. Attachment X shows a conceptual striping layout of the intersection sight distance and line of sight for the proposed driveway and a driver traveling northbound up the hill on Northrim Court. The 25 MPH intersection sight distance for this roadway is provided consistent with the City Street Design Manual and Caltrans, Highway Design Manual Standards (Topic 405.1c) and AASHTO standards. As shown on the drawing, a driver traveling north on Northrim Court (up the hill) should have clear line of sight to a vehicle exiting the proposed school driveway and vice-versa. As shown in Attachment X, six (6) existing parallel parking spaces would be removed on the west side of Northrim Court and two (2) existing parallel parking spaces would be removed on the east side of Northrim Court to accommodate the proposed driveway. No parking would be allowed for approximately 50 feet between the proposed driveway and the first parallel parking space to accommodate clear line of sight between a driver stopped at the proposed driveway and a driver traveling north.

4. Northrim Court Parking Issues

Several commenters were concerned that installation of the proposed traffic signal in mitigation measure Trans-1 could potentially eliminate some public parking along Northrim Court, a public street. As explained in Attachment X, six (6) existing parallel parking spaces would be removed on the west side of Northrim Court and two (2) existing parallel parking spaces would be removed on the east side of Northrim Court to accommodate the proposed driveway.

The project will eliminate any incentives that students may have to park on Northrim Court, a public street, by increasing parking on the campus. The project includes demolishing the existing cafeteria and middle school gym to accommodate construction of a subterranean parking structure. The project also includes reconfiguring existing parking lots to separate middle school and upper school drop-off and pick-up activities. There are currently 290 surface parking spaces on site; after construction of the parking structure there will be 238 surface parking spaces and 279 underground parking spaces for a total of 517 spaces.

As discussed in Chapter 12.0 of the traffic study, the Municipal Code requires a total of 306 spaces be provided by Francis Parker School. Since 517 spaces are being provided where only 306 are required, City Code requirements are fully met and no significant parking issues, either on or offsite, are expected to occur based on City CEQA significance thresholds. Under the City's CEQA significance threshold for impacts to parking, impacts may be considered significant if a project is deficient by more than ten percent in the amount of parking required by the City's parking ordinance and the project's displacement of existing parking would substantially affect the availability of parking in an adjacent residential area, including the availability of public parking. Because the amount of parking to be provided by the project exceeds the amount of required parking, the project does not result in a significant impact to parking.

Further, the displacement of eight (8) existing parallel parking spaces on Northrim Court is not considered to substantially affect the availability of parking on this street because the loss of eight (8) of approximately 90 spaces represents less than a 10% loss of parking on this public street. Finally, Francis Parker School does not charge students for parking. Consequently, students will have every incentive to park on campus, thus avoiding or minimizing offsite parking impacts.

5. Noise Issues

Many commenters were concerned about potential noise impacts from ordinary school operations and special events. However, the project was specifically designed to minimize noise impacts. Furthermore, the acoustical analysis prepared for the MND determined that there would be no significant operational noise impacts associated with the project as analyzed in the Initial Study Checklist. The acoustical analysis addressed all noise sources, including the outdoor aquatic center, the indoor gymnasium, the reconfigured sports field/multi-purpose track and field facility, and their various associated uses, facilities, and PA systems.

The proposed aquatic center/pool was designed to afford maximum accessibility to the existing campus while also minimizing noise and visual impacts to the surrounding community. The bleachers will be placed immediately to the north and west of the pool, which are the only sides with direct access to and from the

campus. The pool deck, including the deck for the bleachers, will be approximately 12 feet below the surrounding grade. A retaining wall approximately six feet tall is proposed for the south side of the pool, and a retaining wall approximately 14 feet tall is proposed for the east side. The depression of the pool deck below the surrounding grade and the retaining walls proposed for the south and east sides of the aquatic center will reduce both noise and visual impacts to the surrounding community.

The public address (PA) system on the athletic fields shall be located on the northwestern portion of the fields to ensure a minimum distance of 375 feet between the PA system and residential receptors and the sound output of the PA system at this location shall be limited to 90 dBA. Alternatively, prior to the issuance of a building permit for Athletic Center Building 201A as shown on Exhibit "A", upon approval of the Director, Development Services Department, of an updated Noise Attenuation Study, a PA system may be located in another location, including on the east side of the fields facing west, provided that the one-hour average sound level does not exceed 86 dBA in the daytime, 81 dBA in the evening, and 76 dBA at night at the property line, as provided in the City's Noise Ordinance. For the purposes of this condition, daytime is 7:00 a.m. until 7:00 p.m., evening is 7:00 p.m. until 10:00 p.m., and night is 10:00 p.m. until 7:00 a.m.

6. Lighting Issues

Many commenters were concerned about the potential for spillover lighting impacts.

Similar to noise, the project has been designed to avoid lighting impacts to the neighbors. Project design features include high-technology light-emitting diodes (LED) lighting and cut-off shields/hoods. The six new light poles proposed for the sports deck will actually be shorter (at 39') above ground level; they will also be located farther away from sensitive receptors and closer to Linda Vista Road, an adjacent retail commercial use, and the rest of the campus. There will be no increase in the height or number of lights being proposed for the reconfigured athletic field. Moreover, the City's Municipal Code requires that all lighting be shaded and adjusted to fall on the project site (i.e., the campus). Photometric studies, including computer simulations, that were submitted with the project's plans concluded that light spill from the lights at the athletic field to the east side of Northrim Court will be between 0.5 and 0.7 foot-candles (FC) in intensity; by comparison, an average intensity of 1.0 FC is generally consistent with the average lighting intensity for public streets. Furthermore, light impacts were analyzed in the Initial Study Checklist and no impacts were identified.

7. Enforcement issues

Several commenters were concerned about what they understood were past violations by the school and whether the project's conditions, such as the onsite traffic monitor, would be enforced. The one violation that was reported to the school was promptly rectified: In September 2014, neighbors complained that the athletic field was used after 8:00 p.m. more than the allowable three times per week during an approximately two-week period because a youth soccer organization was violating its usage agreement with the school. The school not only reminded the organization of its duties, it also installed a timer that automatically turned off field lighting at 7:45 p.m.

The City has mechanisms to enforce project conditions. Section 59.5.0404 (Construction Noise) of the Municipal Code provides that demolition and construction activities may NOT occur between 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays (as specified in Section 21.04) or Sundays.

8. Special Events Issues

Several commenters were concerned about noise, lighting, and traffic from special events on campus. Noise and lighting produced by special events will be constrained by the same design features, such as height and shading, which result in those potential impacts generally being less than significant.

As to traffic, special events at the school are limited in number and either do not occur during peak traffic hours (e.g., Upper School Commencement) or do not attract large crowds (e.g., a swim meet). Section 14 of the TIA evaluated potential single-event impacts from the special events expected to exceed approximately 200 vehicles during school hours; the analysis was based on historical data that appears in Appendix K of the TIA. The traffic volumes will not create significant intersection or street segment impacts; for example, adding 200 vehicles to existing traffic on Northrim Court would not significantly impact the level of service on the road. Analysis is provided in Attachment Y. The school will modify its existing Traffic Management Program to ensure adequate off-site parking is available by providing designated off-site parking locations, such as the San Diego Bahai Center and USD, and by assigning contracted security guards onsite to direct traffic before and after each special event, which will be required per the project permit conditions. As part of the Traffic Management Plan, Francis Parker will provide shuttle service between the school and the off-site parking locations before and after each special event.

Several commenters were concerned that the school may charge non-school organizations to hold special events on campus. If Francis Parker School plans to rent out its facilities for non-school special events, the Traffic Management Plan would be used to determine what measures the school would apply to each situation. Maintenance and application of the Traffic Management Plan will be a permit condition of the school's PDP/SDP.

Specific Responses

Responses to specific issues in the comment letters received are provided on the following pages.

COMMENT

From: Tyler McLaughlin [mailto:tjmclaug91@gmail.com]
Sent: Tuesday, March 22, 2016 10:16 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Hi Jeffrey,

My name is Tyler McLaughlin and I am a current North Rim community resident. It has been brought to my attention that the Francis Parker School plans to expand parking capacity and add a driveway entrance at the top of Northrim Ct.

At face value, this may not seem like much of an issue. However, upon my careful consideration, I am strongly opposed to this plan.

A-1 1) Pedestrian Safety: There are many children, middle schoolers, pets and seniors that utilize the area which this expansion is planned. I myself walk from my unit at the bottom of the street, down to USD and back on a regular basis. Cars exiting the Francis Parker lots onto Linda Vista, do so with limited caution and regard for people on the sidewalks and crossing the driveways they use to enter and exit. I've had several close calls where individuals are looking west for traffic, and start to pull out almost hitting myself or my dog. I fear this will be the case, or even more so if an additional driveway is added on Northrim Ct.

A-2 2) Health Concerns: The Francis Parker site used to be part of Camp Kearny, used for military operations and testing. The hill on the West side of Northrim Ct. is covered with "Burn Ash" which is toxic and would be disrupted during removal of the dirt for the underground parking struecture. The potential for this material to blow directly onto the North Rim residents, possibly causing health issues, is high.

A-3 3) Traffic/Congestion: One of, if not THE main reason I purchased property in North Rim, is due to the fact that it resides on a quiet street with NO through traffic (due to the fact that it is a cul-de-sac). This reduces crime, parking congestion and litter, amongst other things. The residents pay hefty monthly dues to ensure these things remain a non-issue. Having hundreds (thousands?) of cars a week redirected onto a small, quiet, dead end, residential street is a poor way to overcome whatever traffic concerns they are attempting to alleviate.

A-4 As a 29 year old professional who travels a lot for recreation and business, I don't typically concern myself with meaningless day to day issues facing our HOA (Someone installed a window that's the wrong color, this person left their trash cans out, this modification costs $100 more than this other one, etc etc). In addition, I don't plan to live at North Rim forever like some of my neighbors. So, when I chime in on things like this, it's because I truly care about the cause, and feel strongly about the impact the project would have on myself and those around me. To put it simply, this plan is a bad idea for everyone that isn't a student or parent at Francis Parker. I fail to see how these changes would positively affect more people than those it harms.

Please consider these concerns carefully before allowing the project to progress to the next level.

Best regards,

Tyler McLaughlin
tjmclaug91@gmail.com

RESPONSE

A-1 Pedestrian access to the campus is currently and will continue to be provided by sidewalks along both sides of Linda Vista Road and Northrim Court. There is a marked pedestrian crosswalk at the main signalized entrance to the campus. In addition, the proposed signal at Linda Vista Road and Northrim Court will provide marked crosswalks. Onsite traffic monitors at the campus's driveways during the morning and afternoon peak periods will control the school's vehicular traffic to minimize any conflict with pedestrians and bicyclists.

A-2 A burn ash management plan (AECOM, December 2015) has been reviewed and approved by the City's Local Enforcement Agency (LEA). The approved plan includes a site- and project-specific Community Health and Safety Plan.

As noted within the project plans, all grading or excavation that disturbs surface soil and or soil to a depth of three feet below ground surface will require observation by a 40-hour Hazwoper-trained environmental professional experienced in the identification of burn ash. If burn ash is identified, grading or excavation will stop and a burn ash management plan and a community health and safety plan will be immediately implemented. The identification and management of burn ash per the approved burn ash management plan would reduce to a level of less than significant, and/or eliminate the likelihood that school staff, students and workers, either nearby or involved in the proposed construction, would be exposed to unacceptable concentrations of constituents of concern associated with burn ash-containing soil identified as being present beneath the ground surface at the site.

In order to ensure that a significant hazard would not occur to the public or to the school population, Section V of the draft MND details mitigation measure HAZ MAT 1. HAZ MAT 1 requires that the approved Community Health and Safety Plan be resubmitted to the LEA and revised as necessary to meet all federal, state, and local requirements then in effect. With implementation of HAZ MAT 1, impacts would be reduced to below a level of significance.

The design features discussed above and HAZ MAT 1 are standard requirements that have been proven to avoid or reduce impacts to a level less than significant.

A-3 The project is expected to add 858 ADT, 403 (197 inbound and 206 outbound) AM peak hour trips and 190 (44 inbound and 146 outbound) PM peak hour trips to the northern end of Northrim Court, as well as install a traffic signal at Linda Vista Road/Northrim Court to mitigate the project's impact at this location. Attachment Y includes a roadway capacity analysis on Northrim Court between Linda Vista Road and the proposed school driveway. As shown in the table, the street segment is projected to operate at an acceptable level of service "A" with the

COMMENT	RESPONSE
	project in the Existing and Near Term conditions and also the future (Year 2035) conditions.
	A-4 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT

From: Gail Laughlin [mailto:glaughlin@ucsd.edu]
Sent: Tuesday, March 22, 2016 10:17 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Jeffrey Szymanski,

B-1 I am writing to offer my strongest opposition to the section of the Francis Parker Master Plan that deals with impact. The proposed emptying of all morning and afternoon Francis Parker drop off and pick up traffic onto North Rim Court will have a tremendous negative effect on the residents of North Rim condominiums. All 300 townhouses and their residents (up to 600 vehicles) have ONLY ONE EXIT from the North Rim complex and that is via North Rim Court. Our exit to work in the morning and arrival home in the evening will be slowed by a major degree to the high level of traffic into and out of Francis Parker school. That impact is already felt on Linda Vista Road during the morning commute and will be MUCH worse if Francis Parker is allowed to go through with their plans.

It also presents a safety hazard in that this is again the ONLY exit from North Rim and several members of the community are in their elder years.

I urge rejection of this portion of the FP Master Plan.

Thank you for your consideration.

Sincerely,
Gail Laughlin

Gail A. Laughlin, PhD, FAHA
Associate Professor of Epidemiology
Family Medicine & Public Health
University of California San Diego
Co-Director Epidemiology Track
Joint Doctoral Program in Public Health
Ph: 858-822-2416 | Fax: 858-534-4642
Office: MTF 264| Mailcode: 0725

RESPONSE

B-1 See Response to Comment A-3.

COMMENT	RESPONSE

From: Judy Millin [mailto:jmillin@san.rr.com]
Sent: Tuesday, March 22, 2016 10:21 AM
To: DSD EAS
Subject: Francis Parker Master plan Amendment, 412987 OPPOSE PROJECT

C-1 This Amendment might not impact the "environment" except for the planned driveway to empty on North Rim Court. The increase in cars (as many as 300 2 times per day) will cause those of us who live here to sit in Francis Parker traffic & lose as many as 18 parking spaces on N. Rim Court. In addition, I have a back problem that pinches a nerve when I sit too long. The thought of trying to leave My North Rim Development & starting my day with a muscle spasm is unacceptable.

C-2 What is Francis Parker going to do to mitigate my pain? I have lived here for almost 20 years & bought in North Rim because of the accessibility of freeways & the LACK of traffic on Linda Vista Road. What do you think this unnecessary driveway will do to my property value? What is Francis Parker going to do to mitigate the loss of property value?

C-3 The traffic consultant for Francis Parker has admitted that Francis Parker does NOT need the driveway proposed for North Rim Court & that traffic for Francis Parker can be re-routed ON THE CAMPUS.

I OPPOPSE this unnecessary encroachment by Francis Parker on this street.

Judy Millin, #90, North Rim
858-505-8155

C-1 See General Response #4 and Response to Comment A-3.

C-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

C-3 The TIA prepared by the applicant's traffic engineering consultant provides for and analyzes improvements to on-campus circulation by separating Middle School and Upper School traffic. As discussed in Section 6.0 of the TIA, Middle School traffic will use the main entrance at Alcala Knolls Drive, while Upper School traffic will use the right-in/right-out only driveway on Linda Vista Road and the relocated driveway on Northrim Court. The relocated driveway on Northrim Court is needed to implement the on-campus circulation improvements. Also see General Response #1.

COMMENT	RESPONSE
D-1	D-1 See General Response #1 & 2 and Response to Comment A-3.

From: tsekreta@yahoo.com [mailto:tsekreta@yahoo.com]
Sent: Tuesday, March 22, 2016 10:37 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Hi,

I am writing to you to express my opposition to the driveway. I believe the driveway will negatively impact North Rim Court The intersection of North Rim and Linda Vista Road will become even more dangerous, a real safety issue. I noticed that the driveway has not been mitigated. Why is this not included when it poses such an impact to the area?

Thank you,
Thomas

COMMENT

From: Lou Lip [mailto:lou-lip@hotmail.com]
Sent: Tuesday, March 22, 2016 10:51 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Mr. Szymanski

I am writing to tell you that I am **strongly opposed** to Francis Parker's planned driveway improvements on Northrim Court.

E-1 And for good reason....I own a unit at 1565 Northrim Court. My common access driveway is situated directly across from the proposed driveway improvements. Me and perhaps 25 other families will not be unable to turn right from our driveways and onto Northrim Court to leave the complex in the morning. Further, turning onto Northrim Court in the morning and evening peak hours will be dangerous, as cars will be turning left, across traffic from the planned driveway.

It is quite obvious to me that vehicles exiting out of Francis Parker and onto Northrim Court would create severe and prolonged traffic jams at least three times daily and on weekends - during school sporting events. This situation will be worsened by general vehicular traffic in and out of the 7-11 convenience store, and peak-hour general traffic on Linda Vista Road.

Please come and visit the proposed driveway location in person during peak morning and evening hours. You will quickly conclude that adding another source of heavy traffic via the proposed driveway to a confined area would create general chaos, undo hardship, and danger to an already volatile situation.

Sincerely,

Lou Lipschultz
1565 Northrim Court
Mobile: 619/890-5235

RESPONSE

E-1 The comment is incorrect in stating that the common access driveway to 1565 Northrim Court residences is directly across from the proposed Northrim Court driveway for the school. The proposed school driveway would be approximately 100 feet north of the residential driveway, as shown on Attachment X. The proposed Northrim Court driveway will not prevent traffic exiting the driveway at 1565 Northrim Court from making a right turn to head north. Additionally, see General Responses #1 & 2 and Response to Comment A-3.

COMMENT

From: RORAM [mailto:roram@san.rr.com]
Sent: Tuesday, March 22, 2016 11:23 AM
To: DSD EAS
Subject: FW: Objection to Francis Parker Master Plan Amendment Project #412987

Dear Jeffrey Szymanski, (or to whomever applicable in Environmental Department)

I understand that this project is in a public comment period, so I am writing to express my opposition. My name is Ruth Oram and I am a home owner at the North Rim Condominiums in Linda Vista.

F-1 Regarding page 44 of North Rim/Traffic, we find that there has been no mitigation of the traffic and safety concerns that were expressed by North Rim residents at the Linda Vista Planning Board Group in February. The committee voted in favor of the plan, but asked Francis Parker to re-consider the drive way

F-2 proposal on North Rim because of the many concerns of the residents North Rim and its neighbors. North Rim residents are highly opposed to this plan.
Apparently, no such concessions were made but consider this: Francis Parker already has three large driveway

F-3 access points on Linda Vista road. This highly unnecessary driveway will wreak havoc on North Rim. It will endanger runners, drivers, dog walkers as well as taking significant parking spaces from the residents and guests. It is a bad idea from any angle you look.

Thank you for your time.
Ruth Oram

I am forwarding an email that I sent to Scott Sherman regarding the Francis Parker Master Plan Amendment Project No 412987, please read that as well. Thank you.

From: RORAM [mailto:roram@san.rr.com]
Sent: Wednesday, March 16, 2016 9:34 AM
To: 'Zemen, Sheldon'
Subject: RE: Objection to Francis Parker Master Plan Update Project #412987

Thank you, Sheldon.
Ruth

From: Zemen, Sheldon [mailto:SZemen@sandiego.gov]
Sent: Tuesday, March 15, 2016 4:47 PM
To: roram@san.rr.com
Subject: RE: Objection to Francis Parker Master Plan Update Project #412987

Ruth,

RESPONSE

F-1 Page 31 in Section XVI of the Draft MND discusses transportation impacts and mitigation measures. The proposed project has one (1) significant direct project impact at the intersection of Linda Vista Road / Northrim Court. The project will install a traffic signal at Linda Vista Road / Northrim Court to fully mitigate the project's direct impact at this location.

F-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND. To clarify the record, the following are the Linda Vista Planning Group's approved minutes for action taken on the project on February 22, 2016: "Motion by Margarita Castro to accept the Francis Parker Master Plan Update, with the stipulation that the City will address the concerns of the driveway and traffic flow on North Rim Court with Francis Parker. Second by Doug Beckham. Vote 7-1-0. Motion carried."

F-3 See General Response #4 regarding the loss of parking on Northrim Court and Response to Comment A-1 regarding pedestrian safety.

COMMENT

I have noted your Opposition to the Project.
Thanks,
Sheldon

Sheldon Zemen
Council Representative
District 7 - Councilmember Scott Sherman
619.236.6677
szemen@sandiego.gov

From: Powell, Jeff **On Behalf Of** Councilmember Scott Sherman
Sent: Tuesday, March 15, 2016 3:44 PM
To: Zemen, Sheldon <SZemen@sandiego.gov>
Subject: FW: Objection to Francis Parker Master Plan Update Project #412987

From: RORAM [mailto:roram@san.rr.com]
Sent: Tuesday, March 15, 2016 1:12 PM
To: Councilmember Scott Sherman <ScottSherman@sandiego.gov>
Subject: Objection to Francis Parker Master Plan Update Project #412987

Dear Mr. Sherman,

F-4 My name is Ruth Oram and I am a resident and home owner at the North Rim Condominiums in Linda Vista. I am writing to express my opposition to the driveway part of the Master plan. This intended driveway will negatively impact property values and create traffic pandemonium. Our residents (286 units with at least one or more occupants) are extremely opposed to this driveway because they know the chaos it will create. Francis Parker has two-four other exit points already in place that could be utilized instead of North Rim Court. North Rim Court has limited parking and the featured plan will extract 8-9 spaces. There is no other place to park nearby. There is no parking on Linda Vista and there is no other street in close proximity. How would handicap people have close access to their homes if no close parking exits? The configuration of the condominium is a one or two car garage, and if a person cannot easily climb stairs, he or she can park on the street close by in the present environment. If these spaces are gone, everyone suffers. The traffic problems are guaranteed in this plan. While our residents will be going to work they will have to battle traffic going to the school and cutting across North Rim Ct. And, driving home from work the same problem exists. This cannot be wise in anyone's estimation and the traffic engineer we spoke to agreed.

F-5 This plan's only purpose is to convenience the parents dropping their kids at Francis Parker whilst inconveniencing the community it purports to be serving. Most of these we learned, do not live in this 92111 zip. 32 zip codes attend this school.
Only 20 kids out of 800+ live in Linda Vista.

RESPONSE

F-4 See General Response #4 regarding the loss of parking on Northrim Court and Response to Comment F-1 regarding the traffic impact and proposed mitigation at Linda Vista Road / Northrim Court.

F-5 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT	RESPONSE
Please help us, the community you serve, get this plan amended. We are circulating a petition to demonstrate our fervor on this issue. Please support this cause Mr. Sherman. Thank you kindly, Ruth Oram 1545 North Rim Ct # 271 SD, CA 92111	

COMMENT

From: Kathleen Day [mailto:kday619@gmail.com]
Sent: Tuesday, March 22, 2016 11:33 AM
To: DSD EAS
Cc: Councilmember Scott Sherman
Subject: Francis Parker Master Plan Amendment, Project No. 412987

ATTN: Jeffrey Szymanski, Environmental Planner, City of San Diego Development Services Center

I am writing in regards to the proposed above referenced Master Plan Amendment by Francis Parker with specific comment regarding Section XVI. TRANSPORTATION/TRAFFIC.

G-1 Frankly, I am shocked that the analysis by the City denotes less than significant and no impact by the closing of one driveway on Linda Vista and the creation of a driveway on Northrim Court.

My unit is directly across from the Francis Parker athletic field and I work from home. As a result, I have a bird's eye view of the street and foot and auto traffic.
Northrim residents have only Northrim Ct as their access in/out of the community.

In the early morning and late afternoon/evening hours, there is a lot of traffic associated with residents on their way to and from work. There is also a HUGE amount of traffic at the 7/11 on the corner of Linda Vista Rd and Northrim Ct.continuously throughout the day, most notably, students on foot.

Creating a driveway and placing a light at Northrim Ct will significantly increase the queuing of traffic in and out of Francis Parker markedly increasing the safety hazard of traffic, foot and auto, on Northrim Ct.

With the addition of an apartment building next to the 7/11, auto and foot traffic will increase at this corner and overflow onto Northrim Ct.

Francis Parker currently has four driveways in and out of their parking lot. Two can used for traffic circulation for the middle school and two for the high school without negatively impacting the safety of Northrim residents, 7/11 patrons, and most importantly, students on foot.

As a Northrim resident, I fully realize I live across the street from a school and there will be necessary changes. I welcome many of the features included in the Master Plan Amendment, however, I am vehemently opposed to introduction of the driveway in our community. Their lack of any type of compromise does not promote goodwill to the community and basic "good neighbor" practices. They clearly have talented and experienced staff advising on the project. Surely they have more than one way to design traffic patterns.

The driveway presents a MAJOR impact to safety in our neighborhood. Those who do not think so should spend one day in my office to see the traffic.

RESPONSE

G-1 See Responses to Comment A-1 and F-1 and General Responses #1 and 2.

COMMENT	RESPONSE
We only have one street in and out of our community. Francis Parker already has four driveways into their parking lot and can definitely improve their traffic flow with the existing infrastructure. I implore you to consider the voices of long-time, stable, caring citizens of this area and make the right decision to NOT introduce hazardous conditions to the Linda Vista community. Thank you, Kathleen Day	

COMMENT	RESPONSE
From: Janet Gambrell [mailto:janet.gambrell@gmail.com] **Sent:** Tuesday, March 22, 2016 12:08 PM **To:** DSD EAS **Subject:** Francis Parker Master Plan Amendment, Project #412987 Mr Szymanski, H-1 The proposed traffic flow change to the North Rim Court entrance from the Francis Parker Project will have a significant effect on our housing complex. It will be detrimental to all of the tenants of North Rim and have a negative impact on the traffic and safety of our neighborhood. I strongly object to this project Janet Gambrell Property Owner	H-1 See Responses to Comment A-1 and F-1.

COMMENT	RESPONSE
From: Andrew Feraco [mailto:aaferaco@gmail.com] **Sent:** Tuesday, March 22, 2016 2:13 PM **To:** DSD EAS **Subject:** Francis Parker Master Plan Amendment,Project No. 412987 I am a resident at the North Rim community and would like to express my concern over part of the Francis Parker Plan. I reside on North Rim Crt. and very concerned over the plan Francis Parker has pertaining to their underground parking facility specifically the exit onto North Rim Crt. We have approximately 291 condo units with only one way in and out, that being North Rim Crt. This garage exit will create dangerous traffic congestion involving the flow of vehicles on Linda Vista Ave. entering North Rim Crt. as well as the 7 Eleven store at this corner location. There is a large flow of vehicle's leaving our community on North Rim Crt.at the same time vehicles will be exiting from this garage. Also there are a number of vehicles entering the 7 Eleven for breakfast, all of this traffic at the corner of Linda Vista Ave. and North Rim Crt. Aside from vehicle's going to the 7 Eleven there are number of students that walk to the 7 Eleven crossing this intersection. Other then the traffic issue the creation of this garage exit will cause the loss of approximately eighteen parking places on North Rim Crt. Presently there are a number of people residing at the apartments on Linda Vista Ave. that park their vehicles on North Rim Crt. along with an unknown amount of vehicles from apartments currently under construction at this location It has been noted that student's as well as people attending sporting events park at this location.There are a number of condo's in our community that have one car garage's, in most cases the occupants have more then one car and use North Rim Crt. for parking. Presently Francis Parker has an adequate exit and entrance to the school with a traffic light on Linda Vista Ave. It should be noted the school has two other driveways on Linda Vista Ave. It appears this is a convenience and not a necessity for Francis Parker where as this will be a major inconvenience and potential hazard for the resident's of North Rim along with people using the 7 Eleven store. Due to these circumstances it is requested that you not approve this garage exit plan.	I-1 See General Response #1 and Responses to Comment A-1 and A-3.

I-1

COMMENT	RESPONSE
J-1 -----Original Message----- From: Newby lisa [mailto:lisajnewby1@gmail.com] Sent: Tuesday, March 22, 2016 6:33 PM To: DSD EAS Subject: Francis Parker Master Plan Amendment, Project No. 412987 To Whom It May Concern, As a 20 year resident of Northrim , I am concerned about the proposed driveway that Francis Parker will have on our tranquil community. I already have my quality of life impacted by their lights that illuminate my home which i was told would not. I also have to hear the sounds of many events, even exceeding the amount granted by their CUP and all days on weekends. Since we do not have AC, our doors are often open , so there is little relief from the noise. Now Francis Parker wants to take up valuable parking spots, increase the noise, traffic and congestion on our street and decrease the value of our homes. They have yet to conduct any business with honesty and integrity saying it's for the community yet less than 10% of the students are from the community. They say they would only increase students to 880 now it's over 900. They say they need to get the cars from parking on alcala knolls across the street because it is a safety issue yet there have been no accidents/incidents. While I support the Master Plan, I vehemently oppose the driveway on Northrim Court. They already have enough driveways/entrances on Linda Vista that can be re-configured so that it is a win-win for everyone in the community. Lisa Newby	J-1 Much of this comment concerns an existing condition. Also see General Responses #1, 2, 4, 5, 6, and 7. See also Responses to Comment A-3 and F-1.

COMMENT

From: Robin Hughes [mailto:rocknrobin57@icloud.com]
Sent: Wednesday, March 23, 2016 8:57 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

K-1 I wholeheartedly support Francis Parker's new parking garage. I am grateful that the school decided to build it underground so our community doesn't have a huge eyesore. I can't wait to be able to park in front of my house again without competing with student parking.

Sincerely,

Robin Hughes

6560 Alcala Knolls Dr.

San Diego, CA 92111

Sent from my iPad

RESPONSE

K-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND.

COMMENT	RESPONSE
L-1	L-1 See General Responses #1 and 2 as well as Responses to Comment A-1 and F-1.

-----Original Message-----
From: Donna Mills [mailto:djmills09@sbcglobal.net]
Sent: Wednesday, March 23, 2016 12:22 AM
To: DSD EAS
Cc: Landis Jacquelyn
Subject: Francis Parker Master Plan Amendment, Project No. 412987

I am a Northrim condo owner and I would like you to know I am VERY opposed to the Francis Parker school expansion plan, specifically the proposed gatehouse with traffic exit onto Northrim court. Northrim Court is the only entrance for 300 homeowners. It is a dead end street.....only one way in & out of the complex. If the Francis Parker school traffic is allowed to flow onto Northrim, I know it will bottleneck residents ability to get in & out of the complex; could impact access for emergency & service vehicles and created an overall unsafe situation. The neighboring 7-11 store traffic also flows onto Northrim.

Please take a close look at this plan & deny it. It is NOT in the best interest of the people who live in this community. Francis Parker school's traffic issues should not be shifted to....dumped on....the Northrim residents.

Thank you. Donna Mills. 760-586-7125. Unit 270.

Sent from my iPhone

COMMENT	RESPONSE
From: Joanlo48@aol.com [mailto:Joanlo48@aol.com] **Sent:** Wednesday, March 23, 2016 1:02 PM **To:** DSD EAS **Subject:** FRANCIS PARKER *Dear Mr.* *I am opposed the Master Plan update proposed by Francis Parker School. I have lived/owned my home at North Rim condos since 1982. Francis Parker wants to create a driveway on North Rim Court and a traffic light at the only ingress/egress to the North Rim Community condos.* M-1 *North Rim is very much sought after and the community is beautiful and has a calm atmosphere.* *The traffic on North Rim Court will negatively affect our tranquil community of North Rim. We do not want anything negative to change what makes North Rim great.* *Francis Parker should use their existing driveways (they don't use one of them), instead of encroaching onto North Rim's entry and parking spaces.* *They proposed a consolation of a new entry monument and enhanced landscaping. It is not an option.* *North Rim Court is the only ingress/egress for the entire community of 296 townhomes. The new driveway will create a traffic line of cars on North Rim Court, twice a day during high traffic times and special events. In addition, it will take away several spaces of parking that our homeowners need and have relied on for over 30 years. Think about 200 cars lined up on North Rim Court every morning going to work.* *North Rim Court is already noisy and lit up for ball games at the school. We don't need any other obstacles to down grade North Rim and degrade property values.* *There is also a serious safety issue should there be a fire.* *Mr. , please do not approve Francis Parker's plan.* *Thank you,* *Joan LoMonico* *North Rim Homeowner/Resident of 33 years.* **Go Green - Recycle CONGRESS!!**	M-1 See Response to Comment F-1 and General Response #2.

COMMENT

From: Joanlo48@aol.com [mailto:Joanlo48@aol.com]
Sent: Wednesday, March 23, 2016 1:06 PM
To: DSD EAS
Subject: FRANCIS PARKER MASTER PLAN UPDATE

Dear Mr. Szymanski,

I am opposed the Master Plan update proposed by Francis Parker School. I have lived/owned my home at North Rim condos since 1982. Francis Parker wants to create a driveway on North Rim Court and a traffic light at the only ingress/egress to the North Rim Community condos.

North Rim is very much sought after and the community is beautiful and has a calm atmosphere.

The traffic on North Rim Court will negatively affect our tranquil community of North Rim. We do not want anything negative to change what makes North Rim great.
Francis Parker should use their existing driveways (they don't use one of them), instead of encroaching onto North Rim's entry and parking spaces.

N-1

They proposed a consolation of a new entry monument and enhanced landscaping. It is not an option.

North Rim Court is the only ingress/egress for the entire community of 296 townhomes. The new driveway will create a traffic line of cars on North Rim Court, twice a day during high traffic times and special events. In addition, it will take away several spaces of parking that our homeowners need and have relied on for over 30 years. Think about 200 cars lined up on North Rim Court every morning going to work.

There is also a serious safety issue should there be a fire.

North Rim Court is already noisy and lit up for ball games at the school. We don't need any other obstacles to down grade North Rim and degrade property values.

Mr. Szymanski, please do not approve Francis Parker's plan.

Thank you,

Joan LoMonico
North Rim Homeowner/Resident of 33 years.

RESPONSE

N-1 See Response to Comment F-1 and General Response #2.

COMMENT	RESPONSE
From: Betsy Blakely [mailto:bblakely@san.rr.com] **Sent:** Wednesday, March 23, 2016 3:34 PM **To:** DSD EAS **Subject:** Frances Parker Master Plan Amendment Project Number 412987 Dear Jeffrey Szymanski, O-1 I'm an original owner at North Rim Condominiums. I am opposed to Frances Parker making an entrance to their school on North Rim Court. It is the only outlet for the residents. O feel it would cause major traffic problems. Sincerely, Betsy A. Blakely	O-1 See General Responses #1 and 2.

COMMENT

EMPOWER Charter School

Empowering healthy global leaders & creative thinkers

2230 East Jewett Street, San Diego CA 92111
email: dbrown@empowercharter.org
Tel 858.292.1304
Fax 858.292.1328

March 23, 2016

RE: Francis Parker School Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

P-1 I am a Linda Vista community member and I would like to write in support of Francis Parker School's proposed Master Plan Update.

The school has done a good job of familiarizing neighbors with their plans through mailers and, by offering community briefings and campus tours.

- I am very much in favor of the plans to building a parking structure on the Parker campus.
- The on-campus circulation plan identified in the negative declaration is going to be a tremendous improvement to the traffic flow and safety on Linda Vista Road.
- The traffic light proposed for the intersection of Linda Vista Road and Northrim Court will help regulate the merging of traffic onto Linda Vista Road and create a safer environment for motorists and pedestrians.
- The improvements proposed with the Master Plan Update will significantly improve the quality of life for the greater Linda Vista community.

In short, I am pleased to offer my support for Parker's construction plans.

Sincerely,

Demi Brown
Executive Director

RESPONSE

P-1 Comments noted. As these comments do not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

COMMENT	RESPONSE
From: Carrie Beinert [mailto:carrie500@email.com] **Sent:** Thursday, March 24, 2016 9:37 PM **To:** DSD EAS **Subject:** Francis Parker Master Plan Amendment, Project No. 412987 TO: Jeffrey Szymanski Environmental Planner City of San Diego Development Services Center RE: Francis Parker Master Plan Amendment, Project No. 412987 Linda Vista Community Plan, Council District 7 Q-1 I oppose the driveway and in my opinion impact on North Rim Court will be significant and has not been mitigated. Carrie Beinert 1262 River Glen Row, Unit 18 San Diego, CA. 92111	Q-1 See Response to Comment F-1.

COMMENT

Local Spiritual Assembly of the Bahá'ís of San Diego
6545 Alcala Knolls Dr. San Diego, CA 92111 858-268-3999, secretariat@sandiegobahai.org

March 24, 2016

Mr. Jeffrey Szymanski
dsdeas@sandiego.gov

SUBJECT LINE: Francis Parker School Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

R-1 Greetings from the Local Spiritual Assembly of the Bahá'í Faith Community of San Diego. We are residents of Linda Vista writing in support of Francis Parker School's proposed Master Plan Update.

The Bahá'í Center in San Diego is opposite Francis Parker along Linda Vista Road, the entrance to our building is on Alcala Knolls Drive and we have enjoyed and nurtured a long standing reciprocal relationship with Francis Parker for more 12 years. Francis Parker has supported our spiritual education programs by providing space for our growing childrens classes, space for spring and summer junior youth camps, youth gatherings, and other community events when our own facility has been insufficient to serve these purposes. We have hosted Francis Parker activities including cooking classes, annual testing, and overflow parking for Francis Parker staff during the school day and sports and other events after school.

The school has done a good job of familiarizing neighbors with their plans through mailers and, by offering community briefings and campus tours.

- Our Faith Community is very much in favor of the plans to building a parking structure on the Parker campus.
- The on-campus circulation plan identified in the negative declaration is going to be a tremendous improvement to the traffic flow and safety on Linda Vista Road.
- The traffic light proposed for the intersection of Linda Vista Road and Northrim Court will help regulate the merging of traffic onto Linda Vista Road and create a safer environment for motorists and pedestrians.
- The improvements proposed with the Master Plan Update will significantly improve the quality of life for the greater Linda Vista community.

In short, we are pleased to offer our community support for Parker's construction plans.

Warmest regards,

Local Spiritual Assembly of the Bahá'ís of San Diego

Darlene R. Newcomb,
Corresponding Secretary

RESPONSE

R-1 Comments noted. As these comments do not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

COMMENT

From: gareth walker [mailto:jahman.1@netzero.com]
Sent: Friday, March 25, 2016 7:51 AM
To: DSD EAS
Subject: Francis Parker School Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

I have been a resident of Linda Vista since 1965, and I am writing to express my support for Francis Parker School's proposed Master Plan Update. The school has done a good job of familiarizing neighbors with their plans through mailers and by offering community briefings and campus tours.

S-1 • I am very much in favor of the plans to building a parking structure on the Parker campus. I have three children who graduated from Francis Parker. As a mother, I was concerned when my teenage drivers had to park off campus due to the lack of parking on campus. They had to park across the street, around the corner, and sometimes down a hill if they arrived either at 8:00 am or slightly later. Any time that you have children walking alone in any neighborhood, it exposes them to unnecessary risks from unsavory people who just by chance might be in the area. The students of Francis Parker who drive to school should be guaranteed a parking space on campus to ensure that they are safe once they arrive at school.

S-2 • The on-campus circulation plan identified in the negative declaration is going to be a tremendous improvement to the traffic flow and safety on Linda Vista Road. The upper school students will be heading south on Northrim Court in the mornings to enter the proposed parking structure. The residents will be heading north in the direction of Linda Vista Road in the mornings. There will be some parents who drop off their high school students in the morning and will need to exit on Northrim Court, but most of the cars entering the school at that proposed location will be parking and will not add significantly to the traffic flow of the residents exiting their neighborhood. At the end of the school day, the students will be leaving the campus and driving north on Northrim Court, which will be opposite of the traffic flow for residents who may be returning home. Francis Parker has committed to having traffic guards to monitor the traffic flow during peak hours to help the vehicles flow smoothly into and out of the proposed driveway on Northrim court, while making sure that the residents are able to drive along Northrim court without being negatively impacted by the additional cars entering and leaving the campus.

S-3 • The traffic light proposed for the intersection of Linda Vista Road and Northrim Court will help regulate the merging of traffic onto Linda Vista Road and create a safer environment for motorists and pedestrians. Currently, during peak traffic hours, it is often difficult to safely make a left turn from Northrim Court to Linda Vista Road. The traffic light will reduce the need for drivers to take the risk of entering the intersection while other motorists are approaching at sometimes high speeds. It will also help pedestrians who may be walking to the nearby 7/11 Store along the north side of Linda Vista Road, since they will be able to cross at a traffic light instead of running across the street to avoid being hit by an approaching vehicle. With the traffic light installation, the risks will be reduced, and the safety will be increased for all drivers and pedestrians.

S-4 • The improvements proposed with the Master Plan Update will significantly improve the quality of life for the greater Linda Vista community. It will help to reduce the number of students parking in the surrounding neighborhood streets, the traffic light will improve the safety for motorists and pedestrians, and the cars backed up on Linda Vista Road to enter the current entrance to the school will be reduced and help to make the traffic flow smoother for the Linda Vista residents.

In short, I am pleased to offer my support for Parker's construction plans.

Thank you,

RESPONSE

S-1 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

S-2 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

S-3 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

S-4 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

COMMENT	RESPONSE
Lori Walker 6618 Preece Court San Diego, CA 92111 (858) 213-5706	

COMMENT	RESPONSE

From: Elaine Medosch <emedosch299@gmail.com>
Sent: Friday, March 25, 2016 11:38 AM
To: DSD EAS; Szymanski, Jeffrey; Tetlow, Barrett
Subject: Francis Parker School mitigated negative declaration

March 25,2016

Dear Mr. Jeff Syzmanski,

My name is Elaine Medosch. My husband and I moved into 1565 Northrim Court #290 on Jan 12, 2016. We knew nothing about the Francis Parker School (FPS) Master Plan. But we attended an invitation by Francis Parker representatives for dinner and a "Q and A on the Master Plan" meeting on March 1.

There were more unanswered questions at that meeting than answered. We were appalled by the rudeness shown to the Northrim neighbors by FPS representatives. Afterwards, we spoke with our new neighbors and saw the site plan FPS has submitted to the city for upcoming construction of new facilities, complete with traffic adjustments that affect all the residents of Northrim Court.

So we have a few questions to ask and I thank you in advance for your response.

T-1 1.The site plan map we were given shows key yellow areas designated as "Near Term Construction." One such yellow area is for traffic construction at the intersection of Northrim Court and Linda Vista Road.

But one area that is NOT marked in yellow is a tiny blank space on the property line which is to become the driveway we're all most concerned about.

Is the driveway intended as "near term construction"?

Our understanding from other sources is that FPS plans to do the driveway work immediately beginning in June so that construction trucks and vehicles can enter on our street instead of Linda Vista Road.

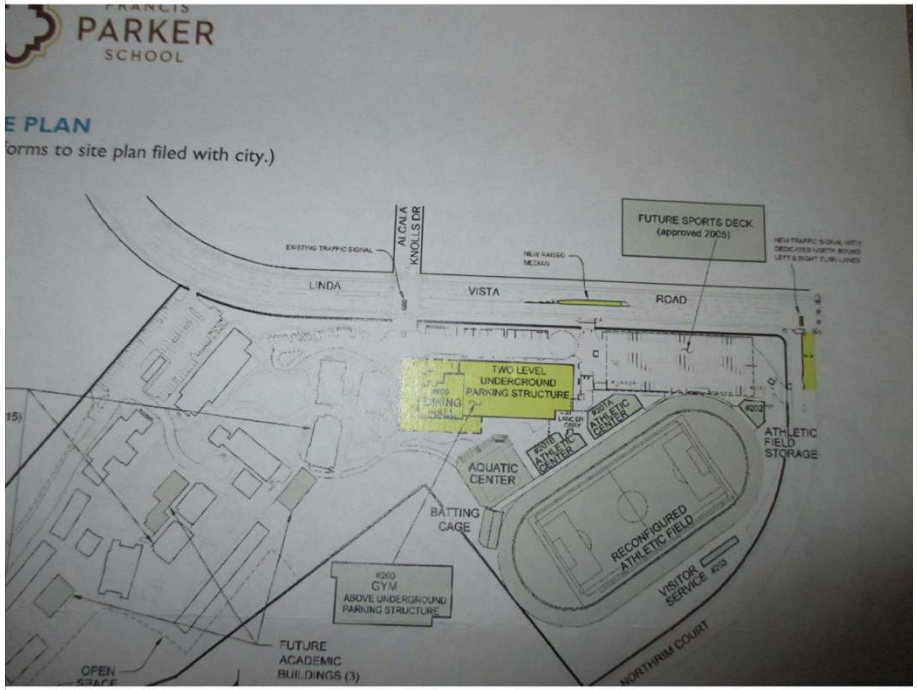
T-2 2. I visited three other sites on the sandiego.gov site that include the Linda Vista Community Plan, the Linda Vista amended land use community plan and the existing conditional use permit for FPS.

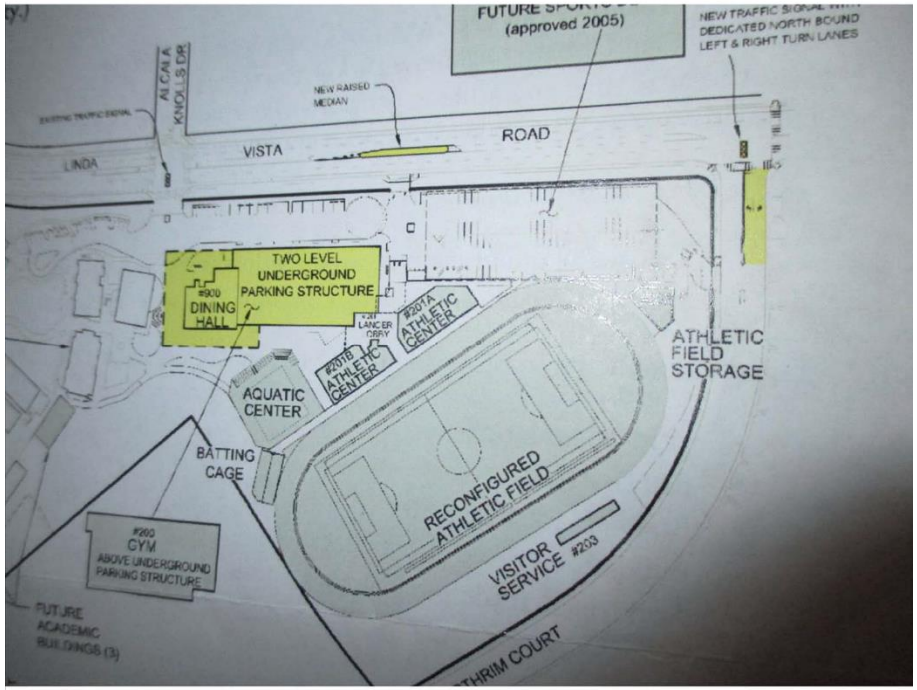
Each of those three documents state explicitly that "The growth of Francis Parker School should be regulated to ensure that impacts to the surrounding neighborhoods, ESPECIALLY TRAFFIC AND CIRCULATION IMPACTS, are minimized." (From LVCP - but the caps are mine.)

T-1 The applicant has agreed to direct construction vehicles to not use Northrim Court. Construction traffic will use the signal at Linda Vista Road / Alcala Knolls Drive to enter and exit the site. Construction traffic is discussed in Section 12.0 of the TIA. The applicant does intend to construct the Northrim Court driveway in the near term.

T-2 The comment quotes two statements found in the Linda Vista Community Plan adopted by the City Council in 1998 and amended in 2008 and 2011. The comment also references "the existing conditional use permit for FPS". The site lies within the RM-1-1 and OR-1-1 zones, with the developed portion of the site within the RM-1- zone. Educational facilities kindergarten through grade 12 have been allowed by right in the RM-1-1 zone with no requirement for a conditional use permit (CUP) since at least January 1, 2000, when the City updated its Land Development Code. The school no longer operates under a CUP. The project complies with the Linda Vista Community Plan and applicable regulations of the RM-1-1 and OR-1-1 zones. The proposed expansion of the school has been accounted for in the referenced land use documents.

COMMENT	RESPONSE
The lindavistaalucp/amendment/11510b.pdf also calls for "regulating the growth and operation of educational institutions so that impacts to the community are minimized."	
T-3 And the Linda Vista Planning Group at their Feb.22, 2016 meeting specifically called for a reconsideration of the driveway element and withheld approval on that particular feature.	T-3 See Response to Comment F-2.
T-4 My question here is - since there's no action by the city or Linda Vista Planning Group that seem to supercede these community- and City Council-approved agreements specifically regarding FPS, how can that documentation simply be ignored by a mitigated negative declaration?	T-4 The project is located in the Linda Vista community planning area and has a land use designation of School/Institution and the General Plan designation of Institutional & Public and Semi-Public Facilities. The project site is zoned as RM-l-1 and OR-l -1. The proposed project has been reviewed by staff and the Draft MND states that the project would not adversely affect the goals and policies of the land use documents.
It's as if the community and local governing bodies were not to be taken seriously.	
T-5 3. Finally, the FPS Mitigated Negative Declaration claims that which there IS a direct impact to traffic and parking at Northrim Court but that installing a traffic light at that intersection reduces that impact to "less than significant." - a very serious understatement indeed.	T-5 The Draft MND analyzes the potential impacts of the project presented by the applicant. CEQA does not require that alternatives be analyzed in a Draft MND. See General Responses #1 and 2 and Response to Comment F-1.
I know the FPS facts, figures and projections (which show no significant impacts in horizon year 2035) were prepared by their own experts.	
But given that there is a direct impact (which FPS itself states), then where are the alternatives to these plans that wreak such havoc on our community? Couldn't FPS have included information showing how the project will proceed using the two existing entrances and two exits the school already has on its property?	
T-6 Finally, there's the issue of noise. Talk about loud. Complete with very bright lights. It's like living on the 50 yard line at Qualcomm Stadium. Had we known about the intensity of lights and noise from FPS, we wouldn't be living here.	T-6 Much of this comment concerns an existing condition. Also see General Responses #5 and 6.
But we are. Hence this letter.	
I'm attaching two photos of the site plan.	
And please know that this letter is respectfully submitted,	
Elaine Medosch 562-243-4893	

COMMENT	RESPONSE
	

COMMENT	RESPONSE
	

COMMENT	RESPONSE

From: pwhitelaw@att.net [mailto:pwhitelaw@att.net]
Sent: Friday, March 25, 2016 3:40 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment Project No. 412987

Dear Mr. Szymanski,

I am a North Rim Condominium Complex homeowner and resident. I strongly OPPOSE the construction of a driveway from the Francis Parker parking lot onto North Rim Court, our only exit.

Francis Parker's (FP) plan fails to mitigate these areas of concern regarding the proposed North Rim Court Driveway:

U-1 - How will the cars exiting the driveway be able to see cars coming up North Rim Court (NRC) to their left due to the curvature of the road and steepness of the hill in order to make a safe left turn?

U-2 - How will FP replace the parking that their master plan will take away from NR residents and local businesses on NRC? They allege that not more than six spots will be removed. However, it appears that several on the east side of NRC would need to be removed as well. Please note that there is no on-street parking on Linda Vista Road for residents.

U-3 - Diagonal parking on NRC would not mitigate damages, but only increase safety hazards for the following reasons: Cars leaving the diagonal parking will have zero visibility of traffic coming down NRC; will tend to back out and then make a U-turn in the middle of NRC; will mash on the gas pedal to get momentum to back out uphill quickly, thus increasing the possibility of impact with downhill traffic.

U-4 - FP says that there would be an average of 850 extra cars a day on NRC if the driveway is constructed. What would be the high usage rate? If you have 400 or more NR homeowners/guests coming in and out of NRC per day (800 cars) and add that to the 850 and perhaps another 300 or more cars using the NRC driveway, won't that well exceed the 1500 car per day usage for NRC?

U-5 - What redress will NR residents have when FP fails to provide a monitor for traffic using the proposed driveway? Will there be any meaningful sanctions against FP when they fail to follow the permit requirements?

U-6 - Will the NRC driveway by used by construction traffic? If so, will there be a traffic monitor to give right of way to the NR residents or will residents need to leave an extra 10 minutes early for their work commute in case they have to wait for construction traffic?

U-7 - Will the proposed driveway and signal really help FP traffic flow when the cars will have to give right of way to traffic entering NRC from Linda Vista Road, traffic leaving NRC driveways and traffic coming up the NRC hill?

U-8 - FP seeks to increase their student population by 140 students. This would increase traffic on NRC if a driveway is constructed. Keep their student population at the current level to mitigate this damage.

U-9 - FP seeks to rent out their facilities to third parties, which would increase noise and light pollution as well as traffic safety hazards on NRC. FP would be making a profit at the expense of NR homeowners as increased field usage would increase NRC traffic.

U-10 - In case of an emergency, will NR residents and emergency personnel be blocked from entering/exiting NRC by a mass exodus of FP traffic?

U-11 - How will FP compensate the NR homeowners for loss of value of their property for the noise, light and traffic pollution that their master plan will cause?

U-12 - FP defines "events" for purposes of field lighting as only those times when outside parties are using the field. However, lighting pollution for NR residents includes anytime the lights are on past 8:00 o'clock p.m.
The term event needs to defined as whenever the lights are on past 8:00 p.m.

U-1 See General Response #3.

U-2 See General Response #4.

U-3 See General Responses #3 and 4 and Response to Comment F-1.

U-4 See General Responses #1 and 2. See also Response to Comment A-3 regarding the ADT capacity analysis on Northrim Court.

U-5 See General Response #7. Please note that the applicant intends that the traffic monitors will be onsite monitors only.

U-6 The applicant has agreed to direct construction vehicles to not use Northrim Court. Construction traffic will use the signal at Linda Vista Road / Alcala Knolls Drive to enter and exit the site. Construction traffic is discussed in Section 12.0 of the TIA.

U-7 See General Response #1.

U-8 This comment does not raise any issues with respect to the adequacy of the Draft MND; all identified significant impacts would be mitigated. See also General Responses #1 and 2.

U-9 All impacts of the proposed project have been evaluated in the Draft MND for potential impacts to the physical environment, including traffic, noise and light, regardless of whether those impacts would be the result of use of the facilities by the applicant, the community, or other third party users. Also see General Responses #1, 2, 5 and 6.

U-10 See General Response #2 regarding emergency access.

U-11 See General Responses #1, 2, 6, and 7 regarding traffic and light impacts. The portion of the comment regarding property values does not address the adequacy and/or sufficiency of the environmental document.

U-12 See General Response #8. Consistent with the entitlements currently in place, evening events are defined as those that take place on the athletic fields after 8:00 p.m., or that begin before 8:00 p.m. and continue beyond 8:00 p.m., regardless of whether the event is sponsored by the applicant, the community, or other third party user.

COMMENT

From: Todd Hooker [mailto:thooker@san.rr.com]
Sent: Friday, March 25, 2016 3:51 PM
To: DSD EAS
Cc: Todd Hooker; Amie Wong-Hooker
Subject: Francis Parker School Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

My name is Todd Hooker and my wife Amie and I and our daughters are residents of the Linda Vista area. Our daughters have attended Francis Parker since Junior Kindergarten. My daughter Kiley is a sophomore in high school and my daughter Chloe is in 6th grade both of which attend Francis Parker School's Linda Vista campus. I am writing to you today in support of Francis Parker School's proposed Master Plan Update and offer my support for the construction of Francis Parker's proposed parking structure, traffic light installation at the intersection of Linda Vista Road and Northrim Court, and for the implementation of overall traffic flow improvements.

Francis Parker has been our extended family for the past 12 years and it has had a wonderfully positive impact on our daughters. Francis Parker not only seeks to help out local organizations within its reach through community service such as the Linda Vista Boys and Girls club, but it has also greatly helped my local family keep our daughters enrolled during very difficult financial times for our family by providing very generous financial aid towards the cost of tuition.

Not only am I resident of the Linda Vista area and parent of Francis Parker students, I'm also the father of a teen driver in training. With all of these roles in mind, I have read some of the Francis Parker Master Plan Update documents and attended two public review meetings for area residents and I strongly believe the new parking structure, new traffic light at Northrim Court, and redesigned traffic flow should reduce the traffic and parking impact on the immediate neighborhood and increase safety for all drivers and pedestrians in the area.

V-1

As I understand it, the redesigned traffic flow should enable a more orderly entry and departure of vehicles coming to school from both East and West directions on Linda Vista Road and eliminate some of the traffic moving through and across Alcala Knolls Drive. The new parking structure will enable more students to park on school grounds, eliminate some of the traffic flow in the immediate neighborhoods and free up parking for neighborhood residents. These changes should also make it safer for students by allowing more students to park on school grounds eliminating the need to walk across a busy intersection to reach their vehicles.

In summary, I pledge my full support of the Francis Parker Master Plan updates and construction plans and respectfully request the City of San Diego support the plan as well. Thank you for your time!

Sincerely,

Todd Hooker and Amie Wong-Hooker
3823 Mount Albertine Avenue
San Diego, CA 92111
858-278-8211 Home Phone
619-316-4398 Mobile Phone
thooker@san.rr.com

RESPONSE

V-1 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

COMMENT	RESPONSE
From: pwhitelaw@att.net [mailto:pwhitelaw@att.net] **Sent:** Friday, March 25, 2016 4:05 PM **To:** DSD EAS **Subject:** Earlier email regarding Francis Parker Project No. 412987 Hello, Mr. Szymanski, W-1 I accidentally hit "send" on my unfinished email regarding Francis Parker Master Plan mitigation of damages. Final, easier-to-read email to follow. Thanks! Sincerely, Patricia Whitelaw North Rim Homeowner	W-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required. The commenter's apparently finished e-mail has been identified as Comment Letter FF. Responses to comments in Comment Letter FF are provided below.

COMMENT

Tom Kaye & Associates, Inc.

TK&A
Defense Technology Consultants

March 25, 2016

Mr. Jeffrey Szymanski
City of San Diego
202 C Street
San Diego, CA 92101

Re: Francis Parker Master Plan Amendment, Project No. 412987

Mr. Szymanski,

The Francis Parker Master Plan continues to be updated. This educational institution continues as a "Good Neighbor" in the Linda Vista community. Our single family housing development is directly across the street from the school and we will most likely be affected by future development on campus. We look forward to working with the City and Francis Parker to best serve those affected.

X-1 The positive aspects are the planned on-campus parking structure, improved traffic flow on Linda Vista Road and a proposed traffic signal at Northrim Court. Presently, traffic backups occur on Northrim Court, a Stop-sign-controlled T-intersection with Linda Vista Road. This generally occurs during morning and afternoon hours. The current plan will likely improve the quality of life for the surrounding neighbors, as well as Francis Parker. We support the Mitigated Declaration.

Thank you for the opportunity to express our opinion on this important project.

Sincerely,

G.T. Kaye

Janet C. Kaye

cc: S. Sherman

6414 Corsica Way * San Diego CA * 92111-6906

RESPONSE

X-1 As this comment does not raise any issues with respect to the adequacy of the Draft MND, no specific response is provided.

COMMENT

-----Original Message-----
From: Carole Melidonian [mailto:jinxy222@yahoo.com]
Sent: Saturday, March 26, 2016 6:37 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Mr. Szymanski,

Y-1 I am writing to you as a concerned citizen and resident of the Northrim Condominiums regarding the proposed driveway by Francis Parker School onto Northrim Court near Linda Vista Road. It is very unsettling to imagine the increased traffic hazard this would create for both Francis Parker attendees and Northrim residents. It is overwhelming to consider the cumulative intersection impact on everyone involved. Realizing that Francis Parker has nearly 1,000 (800 current plus 140 proposed) students, most of whom need to dropped off/picked up, the traffic congestion problem is astounding.

In close proximity to Francis Parker School stands the University of California, San Diego with over 8,000 students. It is noted that college students are of legal age to drive and many have and use automobiles unlike Francis Parker students, most of whom need a driver to be dropped off/picked up from school. The traffic on Linda Vista Road has recently had a severe impact with the construction and opening of the Carmel Pacific Ridge Apartments. On top of which, currently next to the 7-11 store on the corner of Linda Vista Road and Northrim Court construction of an apartment complex is taking place which will create more traffic to the immediate area of concern. Are we to have a traffic light on every block just to move around in the area? Is this fair to the current residents?

The Northrim Condominium complex which houses 296 units is a lovely, quiet complex with compliant, concerned residents of whom have many concerns about an additional driveway onto Northrim Court proposed by Francis Parker School. I have lived here for 17 years. Some of my fellow residents are concerned about the following:

Y-2 How will I get to work in the morning with all the cars from Francis Parker attendees being dropped off and using Northrim Court as an exit?

Y-3 How long will it take me to get home from work in the afternoon with all the cars from Francis Parker attendees being picked up and exiting onto Northrim Court?

Y-4 How will a driveway from Francis Parker School onto Northrim court impact my daily life? Will I be frustrated? How long will I have to wait to get onto my block? Isn't there another solution?

Y-5 What about the traffic jam from construction of the driveway trying to leave my home from Northrim Court or trying to get home onto Northrim Court?

Y-6 Are there pollutants from construction of the proposal from Francis Parker School for this driveway? What are the noise factors?

Y-7 Will I have to wait for a traffic light just to get onto Linda Vista Road?

RESPONSE

Y-1 Existing traffic on Linda Vista Road, including traffic generated by the applicant's existing uses, USD, the Carmel Ridge Apartments, and the 7-11 store was included in the analysis provided in the TIA, along with analysis of traffic projected to be generated by the project. Also see General Responses #1 and 2.

Y-2 The traffic signal proposed to be installed at the Linda Vista Road/Northrim Court intersection would mitigate the project's traffic impacts. Also see General Responses #1 and 2.

Y-3 See General Responses #1 and 2.

Y-4 See General Responses #1 and 2.

Y-5 The applicant has agreed to direct construction vehicles to not use Northrim Court. Construction traffic will use the signal at Linda Vista Road / Alcala Knolls Drive to enter and exit the site. Construction traffic is discussed in Section 12.0 of the TIA. See also General Responses #1 and 2.

Y-6 Refer to the Initial Study, Section IX, e. To ensure no pollutants are discharged from the construction of the proposed driveway on NorthRim Court, the Project will be conditioned to comply with the State Water Resources Control Board (SWRCB) Order No. 2009-0009 DWQ as amended by Order No. 2012-0006 DWQ and the San Diego Regional Water Quality Control Board (SDRWQCB) Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Post Construction Activity. A Storm Water Pollution Prevention Plan (SWPPP) and a Monitoring Program Plan shall be implemented concurrently with the commencement of grading activities. These regulations assure that there will be no significant impacts. Also see General Response #5.

Refer to the Initial Study, Section III, Air Quality, Subsections a through d. No air quality impacts have been identified, from operations, mobile sources (traffic), or construction activity. As noted in the Initial Study, the City's CEQA Significance Thresholds indicate that significant emissions from cars idling (i.e., intersection hot spot impacts) occur for projects that produce 9,500 Average Daily Trips or result in traffic Level of Service (LOS) impacts. The proposed project would generate 476 Average Daily Trips, well below the 9,500 Average Daily Trip Significance threshold. Additionally, with the project's construction of a traffic signal, LOS would improve at the intersection of Linda Vista Road and Northrim Court with project traffic. Therefore, excessive emissions from cars idling would not occur as a result of the proposed project. The construction permits will require that standard dust control measures be used, including wet suppression watering

COMMENT	RESPONSE
	during grading and demolition, placement of gravel or asphalt surfacing, equipment wash-out areas, and haul truck covers. Refer to the Initial Study, Section VIII (Hazardous Materials). A Burn Ash Management Plan (AECOM, December, 2015, was prepared and approved by the City's Local Enforcement Agency (LEA). This Plan directs the safe handling of potential contact with burn ash during grading and construction activities. Lastly, prior to demolition, a qualified testing firm will survey all existing buildings to determine the presence or absence of Lead Based Paint (LBP) and Asbestos Containing Materials (ACM). The firm will prepare a report summarizing its findings as to the presence of LBP and ACM. Should LBP and ACM be present, a qualified hazardous materials and abatement contractor will proceed with the removal and disposal of identified materials in accordance with state and federal regulations. Compliance with these regulations is a standard requirement associated with demolition of existing structures and will avoid the concerns identified.
	Y-7 See General Responses #1 and 2.

COMMENT	RESPONSE
Y-8 How much traffic delay will I experience if Francis Parker has a special event after the driveway onto Northrim court is in place? These are just a few of the concerns. My fellow residents and I implore you to consider our concerns and block this proposal of a driveway onto Northrim Court from Francis Parker School. I appreciate your consideration. Sincerely, Carole Melidonian 6626 Canyon Rim Row # 89 San Diego, CA 92111 Jinxy222@yahoo.com Sent from my iPad	Y-8 The TIA identified four annual special events according to the criteria stated in Section 14.0 of the study and based on the historical data provided in Appendix K to the study. The study contains a specific recommendation that the school's existing Traffic Management Program described in Appendix K to the study be used for traffic control and to accommodate parking off-site as needed for "special" events, defined as those which are expected to exceed approximately 200 vehicles during school hours (7:45 a.m. to 3:05 p.m. Monday through Friday).

COMMENT

Craig A. Sherman
A Professional Law Corporation

1901 FIRST AVENUE, SUITE 219
SAN DIEGO, CA 92101

TELEPHONE
(619) 702-7892

FACSIMILE
(619) 702-9291

March 28, 2016

Via Email
DSDEAS@sandiego.gov

Jeffrey Szymanski, Environmental Planner
CITY OF SAN DIEGO
Development Services Center
1222 First Avenue, MS 501
San Diego, CA 92101

Re: MND Comments – Francis Parker Master Plan Amendment, Project No. 412987

This office has been retained and represents the North Rim Homeowners Association and hereby provides comments on the proposal and project described as an Amendment to Planned Development Permit No. 84875 and Site Development Permit No. 215276 (PDP/SDP), approved by the City of San Diego Planning Commission on May 12, 2005, to authorize changes to Francis Parker's Master Plan for its Linda Vista campus, as more fully set forth in the *PUBLIC NOTICE OF A DRAFT MITIGATED NEGATIVE DECLARATION* dated March 9, 2016 (hereafter, the "Project").

Z-1 On behalf of my client and other similarly situated members of the public, this office contends there are multiple defects and deficiencies in the circulated MND for the Project and that disclosures, corrections, clarifications, and findings of significant adverse impacts need to be made on the following subjects and points:

Z-2 1. Is the addition of a driveway to Northrim Court within the existing campus footprint as considered and approved under any of the prior permits? If so (and if not) please explain so the public and decision-makers can evaluate appropriate originally intended, baseline, and current conditions.

Z-3 2. Planned Development Permit No. 84875 and Site Development Permit No. 215276 (PDP/SDP) were approved in 2005 (Hereafter, "Master Plan"). Has the draft MND analyzed the prior adopted or amended SDPs and PDPs and whether the proposed development Project has significantly changed or is in substantial conformance with these original permits when analyzing the proposed amendments to said permits?

Z-4 3. The MND for the proposed Project must analyze all potential adverse impacts arising under the Master Plan (including both near-term and future construction) and not the just currently proposed incremental adjustment/amendments. Please advise exactly how this was done for all potential impact subject areas, including but not limited to the impact issues of off-site traffic, community character, internal traffic circulation, on- and off-site parking, traffic circulation, greenhouse gases, athletic field amplified sound and lighting uses, and all other noise sources including construction, and school-related athletic and other facility visitor and/or potential third party uses.

RESPONSE

Z-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

Z-2 The proposed driveway on Northrim Court has not been previously approved by the City. Comment Z-2 does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no further response is required or provided.

Z-3 The project is an application to amend PDP 84875/SDP 215276. The draft MND analyzes the project as described in the Public Notice of a Draft Mitigated Negative Declaration JO No.: 24005672 Subject paragraph and the draft MND Subject paragraph and as further described within the draft MND and technical studies referenced in the draft MND. The draft MND considered the existing facilities, including those constructed in reliance upon PDP 84875/SDP 215276, in analyzing the project, which is an amendment to those permits. Comment Z-3 does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no further response is required.

Z-4 The draft MND analyzes the project's potentially significant impacts to the physical environment. Please see response to Comment Z-3 for information on the description of the project. The draft MND analyzes the project which includes all improvements that may be constructed with approval of the project, both near-term and longer-term.

Off-site traffic, off-site parking, on-site traffic circulation, and on-site parking are addressed in the draft MND Section XVI. The analysis provided in the TIA and discussed in the draft MND concluded that the project would have less than significant direct and cumulative impacts to off-site street segments. The TIA and draft MND concluded that the project would have one (1) significant direct impact at the Linda Vista Road/Northrim Court intersection, which would be mitigated by installation of a traffic signal at the intersection. Assuming installation of the traffic signal, the project would have no cumulative impacts to intersections. Project traffic on nearby freeway segments and metered freeway ramps are expected to be less than 20 peak hour trips and therefore were not evaluated.

The project includes construction of a two-level underground parking structure in the near-term. Currently 290 surface level parking spaces are provided on site. The project would reduce surface level parking to 238 spaces and add 279 parking spaces in the underground structure, for a total of 517 spaces. The project also includes improvements to the on-site circulation pattern, separating morning and afternoon pick-up and drop-off areas for Middle School and Upper School

COMMENT	RESPONSE

students, where a single area is provided now with access solely from and onto Linda Vista Road. The circulation pattern for the Upper School also provides access to the underground parking structure for those Upper School students who drive to school.

Potential impacts to community character were analyzed in draft MND Section I. No impacts were identified. The site has been used as a school since 1959. The project would remain within the footprint established in reliance upon the project entitlements approved in 2005. The project site is located in a largely developed area, surrounded by institutional, commercial, and residential uses.

Greenhouse gas emissions associated with the project were analyzed in the Greenhouse Gas Analysis conducted by Baker dated January 2016 and are discussed in draft MND Section VII. Direct and indirect construction, area source, and mobile source emissions were analyzed, along with energy consumption, water demand, and solid waste associated with the project. The analysis and the draft MND concluded that impacts associated with greenhouse gas emissions would be less than significant.

Potential impacts that could result from the project were it to create a new source of light or glare were analyzed in draft MND Section I. Six (6) new light poles are proposed to be constructed on the future sports deck approved as part of the entitlements issued in 2005 but not yet constructed. Photometric studies confirmed that high technology LED fixtures would focus lighting on the sports deck. All outdoor lights, other than security and safety lighting, would be turned off by 10:00 p.m. unless for CIF-sanctioned play, in which case lights would be turned off no later than 11:00. New buildings would incorporate largely non-reflective finishes to minimize glare. The draft MND concluded that the project will not create any new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Potential noise impacts of the project were analyzed in an acoustical analysis report prepared by Baker and dated September 2015, and discussed in draft MND Section XII. Both short-term construction noise and long-term project operational noise were analyzed, including direct and cumulative operational traffic noise. Both types of activities would comply with the City's Noise Ordinance codified in Municipal Code Section 59.5.0404. The acoustical analysis report and the draft MND included analysis of outdoor public address systems associated with the athletic fields and the aquatic center proposed as part of the project. All impacts were determined to have either no impact or a less than significant impact on the existing environment.

COMMENT

Craig A. Sherman
A Professional Law Corporation

Z-5 4. The MND fails to identify and describe any and all prior mitigation measures and/or conditions that have been or are required to be imposed by the City of San Diego, other CEQA responsible agencies, or other regulatory agencies pertaining to development and operation of the past, present, and future Francis Parker Master Plan facilities since January 1, 2005 to the present proposed Project. The MND fails as an informational document by not clearly listing and stating why one or more of those measures are not (or are) being continued or required as part of the proposed Project.

Z-6 5. Since the time applicant Francis Parker (or its predecessor in interest) sold the land where the North Rim Homeowners Association residential development was created, the MND fails to identify and describe any and all prior written and/or verbal agreements that were made or entered into between Francis Parker, North Rim HOA (or any of their other predecessor, successor or related entities) for the protection, mitigation, abatement, or avoidance of adverse environmental or other potential impacts arising from the construction and/or operation of the Francis Parker School.

Z-7 6. The impact of emissions from cars idling at the intersection of Linda Vista Road and Northrim Court was not adequately reviewed. Please identify all variables considered as part of the analysis and study for potential air quality in the MND related to potential queuing and wait times.

Z-8 7. Please identify and explain if (or why not) emissions from vehicles from the anticipated parking garage element of the Project, including idling cars from potential congestion caused by the construction of a driveway at the intersection of Linda Vista Road and Northrim Court, were considered as part of the greenhouse gas impact analysis. (I/S at p. 3)

Z-9 8. Please elaborate on the applicant's suggested number or amount of Project lighted and activity/team participatory athletic field uses that may result from the Project, whether being a limit (or use amount) of "x" events per year that either or both overhead lighting or amplified sound use may be part of the proposed Project construction, maintenance, or operation. Also, the MND fails to define the term "events," as used within the above context and as said term is used within the MND for both applicant (school) and non-school or third party events.

Z-10 9. The MND does not adequately describe sufficient material details of the track and field sound and lighting systems, or locations of the lights and speakers so that the public and decision-makers can assess the power, strength, direction and other objective factors and standards used to determine whether there will, or will not, be any potential adverse environmental affect arising from any near or long-term development or use of the these aspects of the proposed Project. The MND also fails to identify and describe all such details and potential impacts arising from the same, as well as mitigation measures or objective and enforceable project design features that you contend can or will mitigate and/or avoid any and all potential adverse environmental impacts. To the extent project design features (location, wattage, decibels, manner of use, types of difference uses or events, number of events, etc.) are intended to reduce or avoid impacts, please list and identify the same so the public and decision-makers can evaluate and understand the bases and reasoning for the MND's analyses and findings.

RESPONSE

Z-5 The draft MND analyzes the project's potentially significant impacts to the physical environment. Please see response to Comment Z-3 for information on the description of the project. Measures required to reduce the project's potentially significant impacts are provided in draft MND Section V MMRP.

Z-6 The existence or non-existence of private oral or written agreements between or among parties and their substance if they do exist are not subjects that fall within the purview of CEQA, even if the agreements do or may involve issues related to the protection, mitigation, abatement, or avoidance of environmental or other impacts. The draft MND is concerned under CEQA with impacts to the physical environment that could result from the project if the City approved the project and the City's imposition of mitigation measures to mitigate those impacts, if any and if feasible. The City does not enforce private agreements, were they to exist. The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no additional response is required or provided.

Z-7 Refer to Initial Study Section III (Air Quality). As noted in the Initial Study, the City's CEQA Significance Thresholds indicates that significant emissions from cars idling (i.e., intersection hot spot impacts) occur for projects that produce 9,500 Average Daily Trips or result in traffic Level of Service (LOS) impacts. The proposed project would generate 476 Average Daily Trips, well below the 9,500 Average Daily Trip Significance threshold. Additionally, with the project's construction of a traffic signal, LOS would improve at the intersection of Linda Vista Road and Northrim Court with project traffic. Therefore, excessive emissions from cars idling would not occur as a result of the proposed project.

Z-8 Refer to Initial Study Section VII (Greenhouse Gas Emissions). The Greenhouse Gas (GHG) emissions analysis within the Initial Study includes both mobile source and construction-related emissions, as well as emissions associated with area sources, energy sources, water consumption, and solid waste generation. The analysis within the Initial Study quantifies mobile source emissions for the total vehicle trips generated by the project. The emissions in the Initial Study are based on idling, startup, and running emissions factors compiled by the California Air Resources Board (CARB). Additionally, as noted in Response to Comment Z-7, above, with incorporation of Mitigation Measure Trans-1, installation of a traffic signal at the Linda Vista Road/Northrim Court intersection, the project would not degrade intersection LOS and create congestion.

Z-9 See Response to Comment Y-8 and General Responses #5, 6, and 8.

COMMENT	RESPONSE
	Z-10 Also see Responses to Comments Y-4 and Y-8 and General Responses #5, 6, and 8. The draft MND relies upon project-specific studies that each analyzed potential impacts of the project. Analyses of light and noise impacts are detailed in the studies and summarized in the draft MND. From those studies and the project description submitted by the applicant, the City has derived the following conditions of approval to address noise and light concerns related to the operation of the athletic fields and aquatic center complex when in use by the applicant or by third parties: ▪ Athletic field activities must be ended and athletic field lights must be turned off by 10:00 p.m. except where play-off games enter overtime and California Interscholastic Federation (CIF) regulations require that the game not end in a tie. In no case shall the activities extend beyond or the lights remain on after 11:00 p.m, regardless of the event. ▪ All outdoor lighting, except lighting deemed necessary for safety and security purposes, must be turned off between 11:00 p.m. and 6:00 a.m. ▪ Activities on the athletic fields are not allowed to begin earlier than 8:00 a.m. on Saturdays and 9:00 a.m. on Sundays. ▪ Evening events, defined for purposes of this condition as events that begin after 8:00 p.m. or begin before 8:00 p.m. but do not end by that time and which take place wholly or partially on the athletic fields, are limited to 60 evening events per year, and no more than three in a week, Sunday to Saturday. ▪ The public address (PA) system on the athletic fields shall be located on the northwestern portion of the fields to ensure a minimum distance of 296 feet between the PA system and the property line, and the sound output of the PA system at this location shall be limited to 90 dBA. Alternatively, prior to issuance of a building permit for Athletic Center Building 201A as shown on Exhibit "A," upon approval of the Director, Development Services Department, of an updated Noise Attenuation Study, a PA system may be located in another location, including on the east side of the athletic fields facing west, provided that the one-hour average sound level does not exceed 86 dBA in the daytime, 81 dBA in the evening, and 76 dBA at night at the property line, as provided in the City's Noise Ordinance. For purposes of this condition, daytime is 7:00 a.m. until 7:00 p.m., evening is 7:00 p.m. until 10:00 p.m., and night is 10:00 p.m. until 7:00 a.m.

COMMENT

Craig A. Sherman
A Professional Law Corporation

Z-11 10. The MND does not adequately describe or evaluate all details of intended or potential third party (non-applicant) athletic facilities or field uses - during evening, weekend or other non-school uses - such that potential adverse noise, lighting, and traffic impacts can be appropriately vetted, analyzed, disclosed and mitigated as a part of the proposed Project. To be a legally sufficient and informative document, MND must identify and describe all such details and potential impacts arising from the same, as well as identify and describe mitigation measures or objective and enforceable project design features that the City and applicant contend can or will mitigate and/or avoid any and all potential adverse environmental impacts.

Z-12 11. In addition to the objections and defects posed in No. 8 above, please explain why the Traffic Study only analyzes four yearly "special events" (p. 14-2) when the Greenhouse Gas Analysis (GGA) estimates 60 nighttime events per year (GGA at p. 3)? The MND must reconcile this discrepancy and confusing information, and explain related analyses, including but not limited to providing a clear and understandable definition of "event" and "special event" so that the public, decision-makers and reviewing experts can appropriately understand the potential impacts arising therefrom the Project, the conclusions and findings of the MND, and the supporting reasons for the same.

Z-13 12. The MND is deficient because it does not explain how ordinary school student use, school events, and non-school events may utilize street parking outside the Frances Parker campus under conditions and scenarios whether or not campus parking has reached capacity.

Z-14 13. Please explain how a new parking garage, with its proposed 283 spaces, was selected and what other alternatives were considered. Please explain the efforts of the applicant to include local, regional, public, and private transportation providers, facilities, and services that would or could reduce or obviate the potential parking and/or transportation impacts arising from the Project.

Z-15 14. Related to the above query, please explain the need for the requested Project increase to 283 spaces when the current student and staff increase is expected to be 153 persons, as included in the Traffic Study performed for the MND (p. 3-1).

Z-16 15. The MND fails to explain how a new traffic signal at the intersection of Linda Vista Road and Northrim Court will impact current traffic a.m., p.m. and midday wait and traffic flow patterns at said intersection during peak and non-peak hours? In layman's terms, the MND needs to explain the current best-case and worst-case scenarios for all users (including the applicant queuing within the campus property).

Z-17 16. The MND and related traffic studies have not sufficiently identified and explained all potential impacts arising from a new two-way driveway at the east end of the property at Northrim Court. Nor has the MND and related traffic studies sufficiently identified and explained all potential impacts arising from a new traffic signal at the intersection of Linda Vista Road and Northrim Court. The design and planned Project configuration is in conflict with the City's and SANDAG's traffic and street design manuals by, including but not limited

RESPONSE

Z-11 The draft MND and technical resources referenced in the draft MND analyze the potentially significant impact of the project on the physical environment. No differentiation is made or should be made based on sponsorship of the activities, whether they be sponsored by the applicant, the community, or by another third party. See also General Responses 1, 2, 5, 6, and 8. The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no further response is required or provided.

Z-12 The TIA identified four special events according to the criteria stated in Section 14.0 of the study and based on the historical data provided in Appendix K to the study. The study contains a specific recommendation that the school's existing Traffic Management Program described in Appendix K to the study be used to accommodate parking off-site as needed for "special" events, defined as those which are expected to exceed approximately 200 vehicles during school hours (7:45 a.m. to 3:05 p.m. Monday through Friday). Other sections of the study analyze the potential impacts of every day student activities as well as recurring special events that do not meet the criteria stated in Section 14.0 of the study.

Because the TIA identifies special events for purposes of analyzing traffic and parking impacts as events that are expected to exceed approximately 200 vehicles during school hours (7:45 a.m. to 3:05 p.m. Monday through Friday), the evening events discussed as such in the greenhouse gas analysis (Baker, January 2016) are different from those discussed in Section 14.0 of the Traffic Impact Study. See also General Response #8.

Z-13 The TIA and draft MND Section XVI address parking under all of the conditions described in the comment. The project will result in a net gain of 227 on-site parking spaces for a total of 517 spaces on-site. Those spaces will accommodate all students eligible to drive, all faculty, all staff, and provide an excess of spaces for visitors and guests. Only when special events, defined as events that occur while school classes are in session which events are reasonably expected to draw more than 200 vehicles to the campus, exceed the need for more than 517 spaces is use associated with the school expected to use street parking spaces. Francis Parker School does not charge students, faculty, staff, visitors, or guests to park on-campus. See also General Response #8.

Z-14 Since CEQA does not require that MND's analyze alternatives, the City is not aware what, if any, alternatives to the 283-space parking structure were considered by the applicant. Per the applicant, the size of the new 283 space parking garage was based on the space available on-site as well as the funding necessary to construct the subterranean garage. See also General Response #8.

COMMENT	RESPONSE
	Z-15 As discussed in the Special Events chapter of the TIA, additional parking beyond student and staff requirements would be provided based on historical data for special events. See also General Response #8.
	Z-16 The TIA evaluated the worst-case scenario for peak hour traffic at the intersection of Linda Vista Road / Northrim Court. AM and PM peak hour traffic is typically analyzed in traffic studies vs. mid-day traffic since the AM and PM peaks are typically higher than mid-day peak traffic. See also General Responses #1 and 2.
	Z-17 The TIA, the Draft MND, and Attachment Y identify and analyze potential impacts of the relocated driveway to Northrim Court and a new traffic signal at the Linda Vista Road/Northrim Court intersection. The driveway and the traffic signal will be designed to be consistent with all applicable City regulations and manuals. Also see General Responses #1, 2, and 3.

COMMENT

Craig A. Sherman
A Professional Law Corporation

to, (1) having too many lighted signals serving the same property within a close proximity, (2) having too many signals on Linda Vista Road in the immediate and localized vicinity of the Project, (3) the Project's proposed new Northrim Court driveway is too close to the proposed new signalized intersection at Northrim Court and Linda Vista Road, and (4) the proposed new Northrim Court driveway is not properly designed, nor has it been properly evaluated, as to how it will handle expected peak a.m. and peak p.m. school hour entries and exits. Ordinary peak a.m. and p.m. travel and trip computer modeling calculations are not appropriate for this uniquely located and narrow window of school rush hour exits and entries.

Z-18 17. The MND is deficient due to failing to identify and describe the construction and dirt-hauling circulation plan related to any or all of the planned Project construction. The MND needs to include a description and map for said construction traffic and dirt-hauling, along with the dates and length of time that these activities are expected to commence, continue, and be completed.

Z-19 18. The Traffic Study and all its related transportation-related impact findings and conclusions are deficient and incorrect because they do not take into account both long- and short-term impacts arising from the construction of the parking garage element of the Project. Please explain how and where the construction analyses were conducted and set forth so that the public and decision-makers can be fully apprised of all potential impacts arising from said developments and occurrences.

Z-20 19. Page 3-9 of the Traffic Study indicates that the trip rate for the applicant school is higher than San Diego published rates (3.4 versus 1.8). Did the Traffic Study consider higher trip rates for every aspect of the proposed Project, and/or were there any other assumptions made by the Traffic Study – using data from the City of San Diego or otherwise – where the actual existing or future conditions at the project site were taken into consideration whereby standards for CEQA review or other impact thresholds were altered.

Z-21 20. The MND is deficient because it states, in an unsupported and conclusory manner, that there will *not* be an increase in U-turns resulting from the inclusion of a median on Linda Vista Road to prevent left hand turns into Driveway No. 2. In any event, the behavior and frequency and likelihood of teenagers and others not following the proposed Project "no u-turn" street signs needs to be included and discussed to better understand the likelihood of circulation plan failure and other calamity.

Z-22 21. The land use section of the MND is substantially flawed because it fails to describe existing road designations and how Northrim Court is substantially intended and used as a residential street serving homeowners on Northrim Court. The MND also fails to discuss the potential impacts to the residents, owners and neighborhood of the North Rim HOA for each of the reasons and purposes that the City's SDP and PDP municipal code provision are designed to protect.

Z-23 22. Omitted from the Traffic Study, please describe any and all potential vehicle delays at the location that Project vehicles (during any and/or all hours of the day) will exit the new driveway at Northrim Court and seek to merge onto the road or into traffic.

RESPONSE

Z-18 The TIA analyzes construction traffic impacts in Section 12.3 of the study. Projected lengths of times of construction and descriptions of haul routes are provided in this section.

Z-19 See Response to Comment Z-18.

Z-20 The trip generation in Table 3-1 assumed a higher trip generation rate than the San Diego published rates for the entire increase in enrollment i.e. 140 additional students since the trip rate was based on the current traffic generated by the school in order to have a conservative analysis. Traffic study procedures were consistent with the City's Traffic Impact Study Manual and no traffic impact thresholds were altered.

Z-21 The Linda Vista Community Plan provides for the installation of a raised median in Linda Vista Road in the location proposed by the project. As discussed in Section 12.0 of the TIA, illegal westbound to eastbound u-turns at Alcala Knolls Drive or Via Las Cumbres to turn right into the garage access on Linda Vista Road would be rare (if any) because the new signal at Linda Vista Road / Northrim Court would be expected to accommodate the westbound to southbound left turns.

Z-22 Northrim Court is an unclassified street with 52 ft. of pavement (curb-face-to-curb-face) in a right-of-way that is 72 ft. wide. Based on Table 2 of the City of San Diego Traffic Impact Study Manual, a street of this type has a LOS E capacity of 8,000 cars daily. There are 296 residences using Northrim Court. Northrim Court has an existing count of 973 ADT collected on Wednesday April 6, 2016 when USD and local schools were in session, reference Attachment Y. Relocation of one driveway from Linda Vista Road to Northrim Court would redistribute existing Upper School traffic of 634 ADT onto Northrim Court. The additional 140 students would add an additional 224 ADT onto Northrim Court for a total of 858 ADT. 973 ADT of existing traffic plus 858 of project traffic results in 1,831 ADT, which in turn represents a volume to capacity ratio of 0.23, a level of service "A". If a typical trip generation rate of eight trips for each residence were used, calculations would result in an existing ADT of 2,368 plus relocated and future school traffic of 858 ADT for a total ADT of 3,226, representing a volume to capacity ratio of 0.40, a level of service "B". Also see General Responses #1, 2 and 4 and Response to Comment A-3.

Z-23 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y regarding the ADT capacity analysis on Northrim Court and capacity analysis for Northrim Court at the proposed driveway intersection.

COMMENT

Craig A. Sherman
A Professional Law Corporation

Page Five
March 28, 2016
MND Comments – Francis Parker MPA, Project No. 412987

Z-24 23. Incorporated and attached hereto are additional comments on the proposed Project and MND that were prepared by RK Engineering Group to be submitted on behalf of my client – the North Rim HOA.

Thank you for your timely consideration and responses to the above comment and concerns.

Sincerely,

Craig A. Sherman

Enclosure: RK Engineering Group ltrs. dated Mar. 23, 2016 and Feb. 29, 2016 appendix (10 pp. total)

RESPONSE

Z-24 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT

RK engineering group, inc.

traffic engineering ▪ transportation planning
acoustical engineering ▪ parking studies
air quality & greenhouse gas analysis

March 23, 2016

Ms. Jackie Landis
NORTHRIM HOA
1555 Northrim Court Suite
San Diego, CA 92111

Subject: Francis Parker School - Draft Mitigated Negative Declaration No. 24005672

Dear Ms. Landis:

Introduction

RK ENGINEERING GROUP, INC. (RK) has reviewed the Draft Mitigated Negative Declaration No. 24005672 dated 03/09/16 for the expansion of the Francis Parker School, in the City of San Diego. The project would accommodate 140 additional students to the existing population of 800 students at the school. Additionally, the project will provide a subterranean parking structure to increase the available parking within the school along with other building additions and a **new full service driveway on Northrim Court** for the upper school. RK previously reviewed the Francis Parker School Master Plan Traffic Impact Analysis, dated February 12th, 2016 prepared by Urban Systems Associates, Inc. Our comments on that traffic study are included in the attached February 29th, 2016 letter report (Appendix A).

Z-25

RK has reviewed Draft Mitigated Negative Declaration No. 24005672 and many of our comments were previously identified in our previous review of the traffic impact analysis. It was previously noted that the primary RK concern was the addition of the proposed new full service access at the school's driveway on Northrim Court. This driveway is proposed to be located approximately 130 feet south of Linda Vista Road and would be a full service access serving the upper school (High School). Our concerns that have been identified for this new driveway include limitations of sight distance as a result of on-street parking, elimination of on-street parking capacity and queuing from the driveway back to and from Linda Vista Road.

4000 westerly place, suite 280
newport beach, california 92660
tel 949.474.0809 fax 949.474.0902
www.rkengineer.com

RESPONSE

Z-25 As stated on page 12-1 of the TIA, 95th percentile queues of 131 ft. in the AM peak hour and 73 ft. in the PM peak hour would be expected in the Year 2035 with Project scenario on Northrim Court between the proposed driveway and Linda Vista Road, which would not extend past the project driveway. See also General Responses #3 and 4 regarding sight distance and parking.

COMMENT

Comments on the Draft Mitigated Negative Declaration

Z-26 1. **Public Notice** - In the subject description, it should be identified that the project would add a new full service driveway along Northrim Court located in close proximity of Linda Vista Road and would also provide for a new traffic signal at the intersection of Northrim Court at Linda Vista Road. The impact of the driveway has not been evaluated and would have a significant impact to safety traffic operations as a result of sight distance limitations, loss of on-street parking and potential queuing during peak ingress/egress periods of the school.

Z-27 2. **Specific MMRP Issue Area Conditions/Requirements** – Page 7 Transportation/ Traffic Trans-1: There is a need to review the sight distance limitations, impact to on-street parking and queuing as a result of the new Northrim Court driveway. There is no evaluation of the impacts of the proposed full service driveway on Northrim Court and its affect on sight distance, loss of parking and queuing during the peak 15-minute period entering the school during the AM peak hour and exiting during the PM peak hour. It has to be evaluated and solutions to it would be necessary to accommodate the proposed driveway.

Z-28 3. **Location Map - Figure #1**: The proposed new driveway should be identified on this site plan. It is a critical element of the proposed project and has not been fully evaluated in the Mitigated Negative Declaration.

Z-29 4. **Initial Study Checklist** - Page 33: Under Item, "Substantially increase hazards due to a design feature (e.g. sharp curves are dangerous intersections) or incompatible uses (e.g. farm equipment, etc.)". The proposed new driveway on Northrim Court would cause significant sight distance issues and would adversely affect the availability of on-street parking and could result in substantial queuing during the peak 15-minute period prior to school starting and the release of students. A full evaluation of these impacts has not been completed, therefore, the "No Impact" in the check list is not appropriate.

Z-30 5. **Initial Study** - Page 40 XVII Transportation/Circulation: There needs to be further documentation regarding the impact of the proposed driveway on Northrim Court as it affects sight distance, loss of parking and queuing along Northrim Court. The traffic impact analysis prepared by Urban Systems Associates, Inc., February 2016 does not properly address these significant issues.

RK:dt/RK11618.doc 2
JN:2535-2015-01

RESPONSE

Z-26 While the notice does not have this bit of information it is not the intent of the notice to provide every detail of the project. The project description within the Initial Study Checklist contains the complete project description. See General Responses #1, 2 and 4. See also Response to Comment A-3 and Attachment Y regarding the ADT capacity analysis on Northrim Court.

Z-27 See General Responses #3 and 4 regarding sight distance, parking, and queuing.

Z-28 The proposed driveway to be relocated from Linda Vista Road to Northrim Court is shown on the Location Map on Figure 2-3 of the TIA as an opening from the school campus onto the roadway. See also Response to Comment Z-26.

Z-29 See General Response #4 regarding sight distance.

Z-30 See General Responses #3 and 4 regarding sight distance, parking, and queuing.

COMMENT	RESPONSE

Conclusion

RK has reviewed the Draft Mitigated Negative Declaration No. 24005672 for the expansion of the Francis Parker School. In addition to our previous comments on the traffic impact analysis dated February 29th, 2016 (Appendix A). RK has also identified similar issues in the Draft Mitigated Negative Declaration, as noted above. If you have any questions or need further review, please give me a call at (949) 434-0809/

Sincerely,
RK ENGINEERING GROUP, INC.

Robert Kahn, P.E.
Principal

Registered Civil Engineer 20285
Registered Traffic Engineer 0555

Attachments

RK:dt/RK11618.doc
JN:2535-2015-01

3

COMMENT	RESPONSE
Appendix A Review of the Francis Parker School Traffic Impact Analysis (02/29/16)	

COMMENT

RK engineering group, inc.

traffic engineering ▪ transportation planning
acoustical engineering ▪ parking studies
air quality & greenhouse gas analysis

February 29, 2016

Ms. Jackie Landis
NORTHRIM HOA
1555 Northrim Court Suite
San Diego, CA 92111

Subject: Francis Parker School Traffic Impact Analysis Review for Northrim HOA

Dear Ms. Landis:

Introduction

RK ENGINEERING GROUP, INC. (RK) has reviewed the traffic impact analysis for Francis Parker School Master Plan Update dated February 12th, 2016 prepared by Urban Systems Associates, Inc. The traffic study has evaluated the potential transportation impacts and the appropriate mitigation measures for the proposed addition of 140 students to the existing population of 800 students at the school. Additionally, the project will provide for a subterranean parking structure to increase the available parking within the school along with other building additions, and a new full service driveway on Northrim Court for the upper school.

The traffic study has evaluated a number of intersections and roadway segments within the study area for existing, existing plus project, near-term without/with the project and Year 2035 without project and with project conditions. The traffic study concludes that there are limited significant impacts as a result of the project with the exception of the need to include a traffic signal at Northrim Court at Linda Vista Road as a design feature of the project, modifications to the internal circulation, the development of a traffic management plan for the operation of the school with the additional students and some modifications to the existing access.

Z-31 The primary concern that RK has identified is the addition of the proposed access at the school's new driveway at Northrim Court. This driveway is proposed to be located approximately 130 feet south of Linda Vista Road and would be a full service access, serving the upper school (high school). RK has identified that this proposed driveway will impact the loss of parking on the west side of Northrim Court which is caused by the driveway itself (30 feet wide) and the need to restrict parking as the result of limited sight distance both north and south of the proposed driveway as a result of the existing on-street parking. Northrim Court is a multi-family collector roadway with a design speed of at least 30 mph. This will require a limited use area in both north and south of the driveway of at least 200 feet in each direction which would conflict with existing on-street parking

4000 westerly place, suite 280
newport beach, california 92660
tel 949.474.0809 fax 949.474.0902
www.rkengineer.com

RESPONSE

Z-31 See General Responses #3 and 4 regarding sight distance, parking, and queuing.

COMMENT

that occurs on the west side of Northrim Court. No evaluation of the loss of parking along the west side of Northrim Court has been included in the traffic impact study. This is significant, since on-street parking occurs along Northrim Court as a result of the various commercial/residential uses in the area and because of new projects that are anticipated to utilize parking at this location. This would create a significant impact with respect to existing parking demand which could then overflow into other areas.

Z-32 The other concern with this driveway is its proximity to Linda Vista Road. The traffic study indicates that only 130 feet is necessary for queuing for northbound left turns at the proposed signalized intersection of Northrim Court and Linda Vista Road. The queuing analysis assumed a peak hour factor (phf) of 0.92 for both the A.M. and P.M. peak hours. Although this may be appropriate for traffic at some study area intersections, it may not be appropriate for this intersection as a result of the high peaking created by the school's traffic. A much lower peak hour factor would be appropriate which would greatly increase the queue length at the signalized intersection and would potentially block the driveway along with other driveways located on the east side of Northrim Court. This would have a substantial significant impact to traffic operations along Northrim Court and has not been analyzed in the traffic study.

As noted above, the primary concern with respect to traffic impacts from the proposed expansion of the Francis Parker School is the new driveway along Northrim Court. There are some other comments that we have identified for the traffic study that should be addressed in further evaluating the proposed project. These are discussed in the following section:

Comments

Z-33 Page 1-9 (last paragraph): As noted "the project would route the majority of upper school traffic of the intersection of Linda Vista Road at Northrim to access the site via the new Northrim Court driveway". Based upon my discussion with the HOA it was indicated that this driveway would not serve as a major ingress/egress for all school traffic. This seems to be a counter to what was presented to the HOA and is not what is included in the traffic study.

Z-34 Page 3-6 (Figure 3-3): The project only has average daily traffic on Northrim Court between intersections 9 and 12 should be shown, since the project has a significant traffic contribution to this roadway.

Z-35 Page 3-9 (first paragraph): It is indicated that the trip generation rates were determined based upon driveway counts and utilizing the 800 student capacity of the school. While the counts were taken, what was the actual attendance of students during the count

RK:dt/RK11558.doc 2
JN:2535-2015-01

RESPONSE

Z-32 Traffic counts were collected on Northrim Court just south of Linda Vista Road on Wednesday April 6, 2016 while USD, Francis Parker School and public schools were in session. The intersection of Linda Vista Road / Northrim Court was re-analyzed using the peak hour factors based on the April 6th counts which had a lower peak hour factor of 0.85 in the AM and 0.79 in the PM peak hour. As suggested in the comment, the lower peak hour factor did indeed increase the queue length in the northbound direction on Northrim Court. However, this could be mitigated by restriping the outside lane to be a left-shared-right turn lane thus creating a dual left onto Linda Vista Road. The queuing worksheets attached in Attachment Y show a 95th percentile queue of 134 feet in the AM peak hour and 87 feet in the PM peak in the existing with project scenario for the northbound approach which is not expected to block the proposed driveway. The distance on Northrim Court from the curb face of Linda Vista Road to the center line of the proposed driveway is approximately 145 feet. Therefore, vehicles at the proposed signal are not expected to block the proposed driveway or any Northrim Court HOA driveway, all of which are further south on Northrim Court.

Z-33 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

Z-34 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y regarding the ADT capacity analysis on Northrim Court. Attachment Y provides information regarding project-only traffic on the Northrim Court segment between Linda Vista Road and the project driveway. As shown, 858 daily project trips are added to the segment.

Z-35 Francis Parker School driveway counts were taken on Thursday, October 2, 2014 and used in the analysis. Student attendance on the count day was 788 which represents a 1.5% change from the 800 student capacity of the school. Traffic counts were also taken on April 28, 29, and 30, 2015 to validate the trip generation rate used for analysis and the previous October 2014 counts as discussed in Appendix B of the TIA. Student attendance on those days was 773, 780, and 774, respectively. The student attendance on those three days in April represents a 3% change from the 800 student capacity. The daily variation in driveway counts range from 2.5 to 8.7%. The change in student capacity is within the daily variation found in the traffic counts. Therefore, the trip generation rates based on the driveway counts are appropriate for the TIA.

COMMENT

period? If a significantly less than 800 students were in attendance during the count days, then the trip rates would be potentially significantly higher.

Z-36 Page 4-2 (paragraph 1): The traffic study indicates that the most current HCM is HCM 2010. However, much of the LOS (Level of Service) analysis included in Appendix C, Appendix D, Appendix F, Appendix G, Appendix I and Appendix J was with the HCM 2000 software. Please clarify why the HCM 2010 was not utilized.

Z-37 Pages 5-1 through 5-2: The Northrim Court roadway should be identified and discussed as an existing roadway facility in the area. The project proposes to implement a "new" driveway which currently does not exist on this roadway and the study indicates that a majority of the upper school traffic would utilize this roadway, therefore, it should be discussed with respect to its design standards, existing traffic, roadway capacity and existing parking along this roadway. In fact, as a result of the elimination of the significant amount of parking as a result of the location of the driveway and the need to provide adequate sight distance, a parking survey should be taken to evaluate the impacts upon this roadway. Any other uses proposed in the area that could utilize this roadway for parking will also need to be evaluated.

Z-38 Page 5-3 (Figure 5-1): Existing ADT (Average Daily Traffic) counts should be taken on Northrim Court south of Linda Vista Road while school is in session. This is a critical roadway that serves both commercial and residential development in the area and the amount of traffic should be analyzed based upon actual average daily traffic counts with existing school in session.

Z-39 Page 5-5 (Table 5-1): Northrim Court should be added to the existing segment level of service standards and existing traffic and for counts capacity this roadway should be included in this evaluation.

Z-40 Page 6-3 (Figure 6-1): Existing with project ADT should be added to Northrim Court between intersections 9 and 12. This critical location will be impacted by upper school traffic and should be included in the analysis of ADT.

Z-41 Page 6-4 (Table 6-1): Existing with project ADT should be to Northrim Court between intersection 9 and 12. This critical location will be impacted by upper school traffic and should be included in the analysis of ADT.

Z-42 Page 8-1; Near-term Without Project: Traffic volumes have been estimated based upon existing traffic counts plus the addition of three related projects in the area. Long term projections do not include any "ambient growth factor" which would occur along Linda Vista Road as a result of city wide growth outside of the cumulative projects. As a result of

RK:dt/RK11558.doc 3
JN:2535-2015-01

RESPONSE

Z-36 When the traffic study was initiated, the older Synchro software was utilized for intersection analysis purposes which are based on the HCM 2000. In addition, the Synchro software does not report results in HCM 2010 in certain lane configurations. For example, HCM 2010 computation does not support shared and exclusive lanes for the same turn movement (left turns) and therefore, the delays and LOS are not reported. Therefore, the HCM 2000 is reported for study intersections in the TIA because these types of lane configurations are found within the project's study area.

Z-37 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y.

Z-38 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y.

Z-39 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y.

Z-40 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y.

Z-41 See General Responses #1 and 2. See also Response to Comment A-3 and Attachment Y.

Z-42 The traffic study adhered to the City's Traffic Impact Study Manual. When specific "other" projects are determined to contribute traffic within the project study area, project traffic from other projects are added to existing volumes to derive the Near Term conditions. Therefore, ambient growth factors were not used in this case to derive Near Term conditions. Chapter 7 in the TIA discusses the other projects considered and included in the Near Term analysis. The apartment project under construction on Linda Vista Road was not known at the time that the traffic study was scoped. The site was, however, occupied by a garden shop which generated traffic and which traffic was included in the existing traffic counts.

COMMENT	RESPONSE
this, the near-term without project traffic volumes may be underestimated by not considering ambient growth throughout the City.	
Z-43 Page 8-2 (Figure 8-1): Average Daily Traffic Volumes on Northrim Court south of intersection 9 should be included in this Figure.	Z-43 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y. In addition, this neighborhood along Northrim Court is fully built out and therefore future growth would not be expected.
Z-44 Page 8-3 (Table 8-1): Level of Service and traffic volumes on Northrim Court south of intersection 9 should be included in this evaluation.	Z-44 See General Responses #1 and 2. See Responses to Comment A-3 and Z-43 and Attachment Y.
Z-45 Page 9-2 (Figure 9-1): Traffic volumes on Northrim Court between intersections 9 and 12 should be indicated on this Figure.	Z-45 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-46 Page 9-3 (Table 9-1): An evaluation of Average Daily Traffic volumes and Level of Service for Northrim Court between intersections 9 and 12 should be included in this evaluation.	Z-46 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-47 Page 9-7 (Table 9-2): The need to have Northrim Court evaluated is currently justified based upon the projected peak hour LOS without a traffic signal at this location.	Z-47 See General Responses #1 and 2. As shown in Table 9-2 of the TIA, the intersection of Linda Vista Road / Northrim Court was analyzed in the AM and PM peak hour. Further, this intersection was analyzed in all six study scenarios evaluated in the TIA.
Z-48 Page 10-2 (Figure 10-1): Year 2035 traffic volumes on Northrim Court should be provided as a result of proposed driveway access to the upper school parking lot.	Z-48 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-49 Page 10-3 (Table 10-1): An evaluation of Northrim Court south of intersection 9 should be included in this evaluation.	Z-49 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-50 Page 11-3 (Figure 11-1): Projected Year 2035 With project traffic should be included along Northrim Court between intersections 9 and 12 as a result of the proposed driveway.	Z-50 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-51 Page 11-4 (11-1): An evaluation of the traffic volume and level of service for Northrim Court between intersections 9 and 12 should be included in this evaluation.	Z-51 See General Responses #1 and 2. See Response to Comment A-3 and Attachment Y.
Z-52 Page 12-1 (Access and Circulation Plan): The proposed driveway on Northrim Court would cause substantial impacts with respect to existing on-street parking. The impact of parked vehicles upon sight distance with the 30-foot wide driveway plus the required sight distance with a design speed of 30 mph would eliminate a significant amount of existing parking both north and south of the proposed driveway. No evaluation of existing on-street parking demand have been included in the traffic study which is currently utilized substantially. Also, future development in the area will also contribute to on-street parking which could not occur with the proposed driveway.	Z-52 See General Responses #3 and 4 regarding sight distance and parking on Northrim Court.
Z-53 The queuing analysis for the intersection of Northrim Court at Linda Vista Road may underestimate the 95% percentile queues for this movement. This has been calculated assuming a peak hour factor of 0.92. The actual peak hour factor based upon school traffic	Z-53 See Responses to Comments A-3 and Z-32 and Attachment Y.

RK:dt/RK11558.doc 4
JN:2535-2015-01

COMMENT

would be lower than this value as a result of peaking of school traffic. Typically, school traffic peaks within a 15 to 30 minute period, therefore, a substantially lower peak hour factor would occur which would then result in substantially longer queues than the 130 foot mentioned during the A.M. peak hour and 73 feet during the P.M. peak hour. This would result in traffic queuing south on Northrim Court blocking the driveway and also effecting other driveways along this roadway. A more detailed evaluation with potential queuing at both the proposed driveway and other driveways is necessary.

Z-54 This would cause traffic to backup to the HOA driveways and could cause southbound queuing all the way up to Linda Vista Road. The proposed circulation plan (traffic management plan) discussed on page 12-5 through 12-6 would require trained traffic control personnel to insure that school traffic would not back up to the adjacent roadways particularly on Northrim Court. Traffic controllers would have to be reactive to any potential queuing back onto the adjacent roadways.

Z-55 Page 12-7 through 12-8; Parking Analysis: The study has evaluated internal parking within the site itself with the proposed expansion of 140 students and the construction of the additional parking spaces on site. One area of parking that has not been discussed is existing on-street parking demand along Northrim Court. This parking occurs on a daily basis and with the proposed driveway access a significant portion of this parking will have to eliminate to provide for the driveway and adequate sight distance from a both northbound and southbound directions. Furthermore, an additional new development in the area without onsite parking may also cause increases in on-street parking demand. A full evaluation of existing parking demand along Northrim Court is required to assess the impacts of the proposed driveway.

Z-56 Page 14-1; Special Events: the traffic study indicated a traffic management program will be needed to accommodate special events occurring during at the school. In order for the traffic study to be complete, an actual traffic management plan program is necessary in advance to assess the impacts of such a program.

Z-57 Page 15-4; Project Access: As previously discussed, no assessment of the potential impacts of the proposed Northrim Court driveway has been provided in the traffic study as a result of parked vehicles on Northrim Court. No sight distance evaluation or impact to parking has been assessed on Northrim Court as a result of the new driveway. This must be evaluated to determine whether a significant impact would occur at this location.

RK:dt/RK11558.doc
JN:2535-2015-01

5

RESPONSE

Z-54 See Responses to Comments Z-32 and A-1.

Z-55 See General Response #4, Exhibit X, and Response to Comment Z-13 regarding parking on Northrim Court. The project will result in 517 parking spaces on campus, See General Response #3 regarding sight distance on Northrim Court. The new apartment project on Linda Vista Road to the east of the 7-Eleven store has on-site parking and no direct vehicular access to the 7-Eleven store.

Z-56 A Traffic Management Program is included in Appendix K to the TIA, which is available by contacting the City's Development Services Department.

Z-57 See General Responses #3 and 4 regarding sight distance and parking on Northrim Court. See also Exhibit X.

COMMENT

Conclusions

Z-58 RK has reviewed the traffic impact analysis for the Francis Parker School plan update dated February 12th, 2016. The primary concerns identified in the review of the traffic impact analysis is the potential impact of the proposed Northrim Court driveway on existing conditions and future conditions in the area. The driveway itself and restrictions as a result of limited sight distance both north and south of the driveway need to be considered and the impact to existing on-street parking needs to be evaluated. The queuing both northbound and southbound on Northrim Court south of intersection 9 with Linda Vista Road needs to be assessed with more realistic peak hour factors than has been considered in the traffic study. Queuing in both direction could affect traffic operations on Linda Vista Road and would also block the driveway at the proposed school location and other existing driveways for the Northrim HOA during the peak entering/exiting periods of school.

RK appreciated this opportunity to work with the Northrim HOA and if you have any questions, please give me a call at 949-474-0809.

Sincerely,
RK ENGINEERING GROUP, INC.

Robert Kahn, P.E.
Principal

Registered Civil Engineer 20285
Registered Traffic Engineer 0555

RK:dt/RK11558.doc
JN:2535-2015-01

6

RESPONSE

Z-58 See General Responses #3 and 4. As discussed in Response to Comment Z-32, the 95th percentile northbound queue at the proposed signal at Linda Vista Road / Northrim Court is expected to be 135 feet which would not block any Northrim HOA driveway.

COMMENT	RESPONSE
From: Joanlo48@aol.com [mailto:Joanlo48@aol.com] **Sent:** Monday, March 28, 2016 7:13 PM **To:** DSD EAS **Subject:** Francis Parker Master Plan Amendment, Project No. 412987 Mr. Jeffrey Szymanski, **I am opposed to the Master Plan Amendment referenced above.** AA-1 **How much dirt will be hauled away?** AA-2 **Will the trucks be entering and exiting the driveway?** AA-3 **Who do we call if construction happens outside the allowable hours?** AA-4 **What kind of training will the traffic monitor have?** AA-5 **Please describe the mitigation for the following:** **All items with "Less than significant with mitigation incorporated".** **Thank you for a prompt response to my questions,** **J. LoMonico** **North Rim Owner/Resident since 1982**	AA-1 The comments do not raise specific issues related to the adequacy of the environmental analysis in the draft MND; however, as indicated on the project plans, the project requires up to 45,000 cubic yards of dirt to be exported. AA-2 It is assumed from the comment that the Northrim Court Driveway is the concern. The applicant has agreed to direct their contractors that the Northrim Court driveway not be used for construction traffic/access, including haul-truck traffic. Also see General Response #1. AA-3 The school has provided contact information for Mike Rinehart, Head of Finance and Operations: office telephone number: 858-427-1739; mobile phone number: 858-361-5383 in the event that construction activities occur outside of allowable hours. AA-4 Per the applicant, traffic monitors will be trained by licensed traffic engineers familiar with traffic control for schools and events. Training will be consistent with CA State guidelines and National guidelines. AA-5 All required mitigation measures are enumerated in draft MND Section V MMRP.

COMMENT

From: Sharon Barcelona <sbarcelona@ymail.com>
Sent: Sunday, March 27, 2016 10:34 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

3/27/16

Dear Mr. Jeffrey Szymanski,

BB-1 I have recently learned that Francis Parker School is making a plan to alleviate the congestion at Linda Vista Rd & Alcala Knolls by creating an alternate pick up/drop off area. I am excited to see this plan move forward. The congestion during the AM/PM is aggravating to say the least. I will keep my fingers crossed that a second site is approved for easing traffic and parking. Thank you.
Sincerely,

Sharon Barcelona
1605 Via Madrina St.
San Diego, CA

RESPONSE

BB-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND. The comment supports the analysis presented in the Initial Study of the draft MND Issue XVI Transportation/Traffic.

COMMENT	RESPONSE

From: Ana Estrada [mailto:estradaa@sandiego.edu]
Sent: Monday, March 28, 2016 10:26 AM
To: DSD EAS
Subject: Francis Parker School Master Plan Amendment, Project No. 412987
Importance: High

Dear Mr. Szymanski,

I am writing in strong support of the proposed Master Plan Update proposed by Francis Parker School. I have lived in Linda Vista just west of the school for about 15 years. I have attended 2 meetings with Parker in which they apprised me and my Linda Vista neighbors about the plans. I think Parker has done due diligence in informing neighbors about the changes via email and in offering important and informative community meetings.

CC-1 I believe the new plans will improve traffic flow and safety for both drivers and pedestrians on Linda Vista Road, and I welcome the traffic light proposed for the intersection of Linda Vista Road and Northrim Court. These changes will elevate the quality of life we enjoy in our Linda Vista neighborhood.

Again, I offer my strong support for Parker's construction plans. Please contact me if I can provide additional information.

Sincerely,

Ana Estrada, Ph.D.

1528 Alcala Court, San Diego, CA 92111

Ana Ulloa Estrada, Ph.D.
Department of Counseling & Marital and Family Therapy
School of Leadership and Education Sciences |University of San Diego
5998 Alcalá Park, MRH 215B, San Diego, CA 92110-2492 | P: (619) 260-7547 | F: (619) 849-8125
www.sandiego.edu/soles

CC-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND.

COMMENT

From: Jackie Landis [mailto:jackielandis@gmail.com]
Sent: Monday, March 28, 2016 11:29 AM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Mr. Szymanski,

I am writing to question several elements of the draft Mitigated Negative Declaration for the above-mentioned project.

DD-1 1. **Section 1, Subsection IV. Night and/or Weekend Work:** If night or weekend work becomes necessary, is there a system in place to notify the surrounding neighborhoods in advance? If specified construction hours are not adhered to, is there a person or entity available for surrounding neighborhoods to notify?

DD-2 2. **Transportation/Traffic:** Why has the application not addressed the necessary removal of parking spaces on the east side of Northrim Court to provide room for the dedicated left and right turn lanes?

DD-3 3. **Hazards and Hazardous Materials:** Will the excavated soil (hazardous burn ash) be trucked out of the proposed driveway on Northrim Court?

DD-4 4. **Section XII, Noise:** The decibel-level of noise created by Francis Parker post-construction will probably not increase significantly, but the school's desire to increase the number of its activities as a result of an aquatic center, track and field facilities, and a request for an increased number of nighttime events will create a vastly greater *number* of noise activities. This in turn will have a significant negative effect on the surrounding neighborhood. Has this been taken into consideration? How, exactly, has the potential for increased noise been mitigated?

DD-5 5. **Section XVI, Transportation:** The proposed driveway on Northrim Court will have a massive, negative impact on the surrounding neighborhood, creating a safety hazard as well as the loss of up to 18 desperately needed parking spaces. With traffic entering and exiting the proposed driveway, entering and exiting the existing driveway at 7-Eleven (opposite the proposed driveway), and entering and exiting the neighborhood, the potential for chaos and accidents is huge. How does a traffic signal mitigate this? It appears that it will only increase queuing on Linda Vista Road as well as Northrim Court, blocking emergency vehicle traffic and neighborhood traffic. How is this an improvement?

DD-6 Also, will people attending nighttime events use the proposed driveway for ingress and egress? How will that be managed?

DD-7 Who will control traffic entering and exiting the proposed driveway? Will it be Francis Parker employees with only rudimentary training, or will it be trained professionals?

DD-8 One final note. A new apartment building is under construction next door to 7-Eleven, very close to Northrim Court. As the developer has included four low-income units, fewer-than-normal parking spaces are being built, and those will be tandem spaces, which are not particularly useful. Since Northrim Court is the nearest public street, it's natural to assume that overflow and visitor parking from this new apartment building will find its way to Northrim Court. We need *more*

RESPONSE

DD-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND. Section 59.5.0404 (Construction Noise) of the Municipal Code provides that demolition and construction activities may not occur between 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays (as specified in Section 21.04) or Sundays. Please see Response to Comment AA-3 for contact information if construction should occur outside of the allowable hours.

DD-2 Two (2) parallel parking spaces would be removed on the east side of Northrim Court in front of the 7-Eleven store. Six (6) parallel parking spaces would be removed on the west side of Northrim Court at the same location and to the south. The loss of eight (8) parking spaces on a public street is not a significant impact under the City's CEQA significance threshold because the project provides 517 on-site parking spaces where only 306 are required. Also see General Responses #3 and 4 and Attachment X.

DD-3 The Burn Ash Management Plan (AECOM, December 2015), reviewed and approved by the City's Local Enforcement Agency (LEA), provides at Section 5.3.3 that trucks will haul the burn ash-containing materials through the gate located on the northwest corner of the FPS and turn left onto Linda Vista Road. No trucks will pass through the residential neighborhood east of the campus. The trucks will proceed west on Linda Vista Road and at 1.4 miles stay straight onto Morena Boulevard. The trucks will go right onto the I-8 onramp heading east toward El Centro. The trucks will continue for approximately 200 miles to a disposal facility in Arizona yet to be identified. The final route to the disposal facility and a figure showing the travel route will be presented to the LEA prior to the start of construction activities. Travel time is anticipated to be approximately five hours.

DD-4 See General Response #5.

DD-5 See General Responses #3 and 4 regarding sight distance, parking, and queuing. See General Response #2 regarding emergency access.

DD-6 The applicant intends that people attending nighttime events will not use Northrim Court for ingress and egress unless an onsite monitor is in place at that driveway to control traffic entering and leaving the school.

DD-7 Per the applicant, monitors at the Northrim Court driveway and the driveways on Linda Vista Road will receive training from licensed traffic engineers consistent with California State and National Guidelines.

COMMENT	RESPONSE
parking spaces, not fewer. The proposed driveway and its concomitant removal of up to 18 parking spaces will create permanent damage to the North Rim community. How has that been addressed? Sincerely, Jacquelyn Landis Jacquelyn Landis Writer/Editor http://jackielandis.wordpress.com (858) 503-1271 Cell: (619) 405-9682	DD-8 The loss of parking on Northrim Court is addressed in Response to Comment DD-2 and General Response #4.

COMMENT

From: Marjorie Patrick [mailto:mpatrick@sandiego.edu]
Sent: Monday, March 28, 2016 2:05 PM
To: DSD EAS
Cc: Fisher, John; DSD PlanningCommission; Councilmember Scott Sherman
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Dear Councilman, Environmental Planner and Planning Commission,

I am a resident of Northrim Court (1565, Unit 296) and I am relaying my concerns regarding the Francis Parker Master Plan Project 412987, specifically their plan to build an exit onto Northrim Court and request for a stoplight at the intersection of Northrim Court and Linda Vista Road. My husband and I have owned our townhome directly across from the Francis Parker for 12 years. My detailed concerns are listed below.

EE-1 **1.** Northrim Court is NOT a thruway street. It is the only entrance/exit of our community of 296 townhomes. The addition of cars (200+ in both the am and pm) exiting Francis Parker onto Northrim Court during morning and late afternoon traffic **would simply shift Linda Vista Rd traffic woes due to Francis Parker onto a smaller non-thruway road.** In addition to the resident traffic, we also have a great deal of traffic entering/exiting the 7-11 at the corner of Northrim Court and Linda Vista Rd throughout the day. The proposed exit and stoplight would exacerbate this issue.

EE-2 **2. I have not seen justification for Francis Parker to require 2 sets of stops lights with turn lanes to deal with their traffic issues and potentially larger one if they increase enrollment.** They already have a stop light and turn lanes at their main entrance. Their proposed stop light at Northrim /LVR would not solve their issue to any extent but more importantly, it would negatively impact Northrim Court residents' access and parking.

EE-3 **3. The school already has multiple exit/entrance driveways along Linda Vista Road, why would an additional one, onto a non-thru way street, improve their issue?** Considering the size of their parking lot and their proposed parking garage, it seems that they should be capable of re-configuring traffic flow within their property so as to reduce impacted traffic on Linda Vista Road.

EE-4 **4. In our neighborhood, there are 4 stop lights at 6 of the street intersections blocks of Linda Vista Road.** Between Via Los Cumbres (1 block west of Francis Parker) to Kramer Street. Adding a 6th at Northrim Court would greatly impact traffic flow along this portion of the road. This would negatively impact our community as the existing street lights are rarely synchronized to keep traffic flow going during morning/evening commutes along Linda Vista Road.

I hope that you will take into consideration all of the Northrim Court residents' concerns about the impact the Francis Parker School master plan will have on our neighborhood.

Regards,
Dr. Marjorie Patrick

Marjorie Patrick, Ph.D
Associate Professor
Department of Biology
University of San Diego
5998 Alcala Park, San Diego, 92110
office: 619.260.8863, ST430
lab: 619.260.8601, ST364
fax: 619.260.6804
email: mpatrick@sandiego.edu
webpage: http://sites.sandiego.edu/mpatrick/

RESPONSE

EE-1 Traffic volume analysis on Northrim Court and at the intersection of Linda Vista Road/Northrim Court is provided in General Response #1 and in Attachment Y.

EE-2 See General Responses #1 and 2.

EE-3 The TIA prepared by the applicant's traffic engineering consultant provides for and analyzes improvements to on-campus circulation by separating Middle School and Upper School traffic. As discussed in Section 6.0 of the TIA, Middle School traffic will use the main entrance at Alcala Knolls Drive, while Upper School traffic will use the right-in/right-out only driveway on Linda Vista Road and the relocated driveway on Northrim Court. The relocated driveway on Northrim Court is needed to implement the on-campus circulation improvements. Also see General Responses #1 and 2.

EE-4 Mitigation Measure Trans-1 requires the applicant to install a traffic signal at the Linda Vista Road/Northrim Court intersection and to interconnect it to the adjacent traffic signals to provide coordinated timing and traffic flow. Also see General Response #1.

COMMENT

From: pwhitelaw@att.net [mailto:pwhitelaw@att.net]
Sent: Monday, March 28, 2016 2:38 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment Project No. 412987

March 28, 2016

Dear Mr. Szymanski,

I am a North Rim Condominium Complex homeowner and resident. I strongly OPPOSE the construction of a driveway from the Francis Parker parking lot onto North Rim Court, our only entrance/exit.

Francis Parker's (FP) Master Plan fails to mitigate these areas of concern regarding the proposed North Rim Court Driveway:

FF-1 - How will the cars exiting the driveway be able to see cars coming up North Rim Court (NRC) to their left, due to the curvature of the road and steepness of the hill, in order to make a safe left turn?

FF-2 - How will FP replace the parking that their master plan will take away from NR residents and local businesses on NRC? They allege that not more than six spots will be removed. However, it appears that several on the east side of NRC may need to be removed as well. Please note that there is no on-street parking on Linda Vista Road for residents.

FF-3 - Diagonal parking on NRC would increase safety hazards for the following reasons: Cars leaving the diagonal parking will have zero visibility of traffic coming down NRC; will tend to back out and then make a U-turn in the middle of NRC; will press hard on the gas pedal to get momentum to back out uphill quickly, thus increasing the possibility of impact with downhill traffic.

I currently give a wide berth to cars that are parked passenger side to the curb on NRC to avoid doors opening onto traffic. If diagonal parking were installed, I would likewise and even more want to give these cars a large space to keep them from backing into my car. However, were I to do this on the narrowed NRC, I would be pulling into the oncoming traffic lane, thus creating a further traffic hazard.

FF-4 - FP says that there would be an average of 850 extra cars a day on NRC if the driveway is constructed. What would be the high usage rate? If you have 400 or more NR homeowners/guests coming in and out of NRC per day (800+ cars) and add that to the 850 and perhaps another 300 or more cars using the NRC driveway for an afterschool event, won't that well exceed the 1500 car-per-day usage that FP has stated NRC is zoned for?

FF-5 - What redress will NR residents have when FP fails to provide a traffic monitor using the proposed driveway? Will there be any meaningful sanctions against FP for failing to comply with giving right-of-way to NRC traffic? Who would enforce these sanctions?

FF-6 - Will the NRC driveway by used by construction traffic? If so, will there be a traffic monitor to give right-of-way to the NR residents or will residents need to leave an extra 10 minutes early for their work commute in case they have to wait for construction traffic?

FF-7 - Will the proposed driveway and signal really help FP traffic flow when the cars will have to give right-of-way to traffic entering NRC from Linda Vista Road, traffic leaving NRC driveways, and traffic coming up the NRC hill, then wait at the signal to turn left onto Linda Vista Road? At the Alcala Knolls and Linda Vista Road signal, FP traffic has direct entrance/exit on/off Linda Vista Road.

FF-8 - The University of San Diego has only two driveways onto Linda Vista Road for a much larger campus. FP, a small high school/ middle school actually has four driveways.

FF-9 - How will FP mitigate the traffic concerns created by cars exiting the NRC driveway and then getting into the far right lane to enter the 7-11 Driveway? Would their plan take away more parking spots on the east side of NRC for partial mitigation?

FF-10 - FP seeks to increase their student population by 140 students. This would increase traffic on NRC if a driveway is constructed. Keep their student population at the current level to mitigate this damage.

RESPONSE

FF-1 Sight distance issues are discussed in General Response #3 and Attachment X.

FF-2 Two (2) parallel parking spaces would be removed on the east side of Northrim Court in front of the 7-Eleven store. Six (6) parallel parking spaces would be removed on the west side of Northrim Court at the same location and south. The loss of eight (8) parking spaces on a public street is not a significant impact under the City's CEQA significance threshold because the project provides 517 on-site parking spaces where only 306 are required. Additionally, when the City approved the Northrim Court condominium project along the east side of Northrim Court, the City required that adequate off-street parking be provided. Also see General Responses #3 and 4.

FF-3 The project does not propose to provide diagonal parking along Northrim Court.

FF-4 Northrim Court is an unclassified street with 52 ft. of pavement (curb-face-to-curb-face) in a right-of-way that is 72 ft. wide. Based on Table 2 of the City of San Diego Traffic Impact Study Manual, a street of this type has a LOS E capacity of 8,000 cars daily. If a worst-case scenario typical trip generation rate of eight trips for each residence were used in a calculation, calculations would result in an existing ADT of 2,368 plus relocated and future school traffic of 858 ADT for a total ADT of 3,226, representing a volume to capacity ratio of 0.40, a level of service "B". Also see General Responses #1 and 2 for additional detail.

FF-5 See General Response #7 regarding enforcement of operational conditions.

FF-6 The applicant agrees to restrict construction traffic to the existing driveways on Linda Vista Road, not the new Northrim Court driveway. Also see General Response #1.

FF-7 The TIA prepared by the applicant's traffic engineering consultant provides for and analyzes improvements to on-campus circulation by separating Middle School and Upper School traffic. As discussed in Section 6.0 of the TIA, Middle School traffic will use the main entrance at Alcala Knolls Drive, while Upper School traffic will use the right-in/right-out only driveway on Linda Vista Road and the relocated driveway on Northrim Court. The separation of on-site circulation into two separate areas with different access points to and from public streets will improve on-site traffic flow. The installation of the traffic signal at the Linda Vista Road/Northrim Court intersection is needed to mitigate for project impacts due to the relocated driveway to Northrim Court. With the addition of the traffic signal, level of service will improve at the intersection over existing conditions. Also see General Response #1, 3, and 4 and Response to Comment F-1.

COMMENT	RESPONSE
	FF-8 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.
	FF-9 See Response to Comment FF-2 and General Response #4. Two (2) parking spaces would be removed from the east side of Northrim Court next to the 7-Eleven store and six (6) parking spaces would be removed from the west side of Northrim Court in the same location and to the south as part of the relocated driveway design. The project proposes to restripe northbound Northrim Court in this location, between the relocated driveway and Linda Vista Road, to provide one dedicated left-turn lane and one dedicated right-turn lane.
	FF-10 Installation of the new traffic signal at the Linda Vista Road/Northrim Court intersection would mitigate for traffic impacts of the school's Master Plan Update, including the increase of student enrollment by 140 students. Also see General Response #1.

COMMENT

FF-11 - FP seeks to rent out their facilities to third parties, which would increase noise and light pollution as well as traffic safety hazards on NRC. FP would be making a profit at the expense of NR homeowners who would suffer more from the added safety hazards and light and noise pollution.
Deny added events after 8:00 p.m. to mitigate this damage

FF-12 - Would FP require a trained traffic monitor to be paid for by rental groups?

FF-13 - In case of an emergency, will NR residents and emergency vehicles be blocked from entering/exiting NRC by a mass exodus of FP traffic?

FF-14 - There are far too many traffic lights on this area of Linda Vista Road. Linda Vista does not need another light. If the lights on Linda Vista Road are synchronized as the FP traffic expert described, then NR residents as well as FP traffic would have to wait at the NRC light for the cycle to end. This would slow down, not speed up the outflow of FP and NR traffic on NRC, thus obviating the need for the driveway and signal in the first place.

FF-15 - When FP is not in session Linda Vista Road drivers must stop and wait for the signal at Alcala Knolls Road when there is no reason to do so. How can FP mitigate this damage to the current signal? Would this purposeless wait also occur at NRC and Linda Vista Road for NR residents if a signal were installed?

FF-16 - How will FP keep extra traffic from turning left into the NR complex, especially from going the wrong way on our one-way cul-de-sac?

Other concerns related to FP Master Plan:

FF-17 - How will FP compensate the NR homeowners for loss of value of their property and loss of enjoyment for the noise, light and traffic pollution that their master plan will cause?

FF-18 - FP defines "events" for purposes of field lighting as solely those times when outside parties are using the field. However, lighting pollution for NR residents includes any time the lights are on past 8:00 o'clock p.m.

Mitigate this damage by defining the term "event" as whenever the lights are on past 8:00 p.m. regardless of who is using the facilities.

Mitigate this damage by keeping their past 8:00 p.m. light usage (regardless of who uses the facilities) to the number of currents FP is currently permitted for.

Establish enforceable sanctions for FP's failure to comply with the lighting permit.

In summary, I do not believe that the FP Master plan addresses these concerns. FP has outgrown their facilities and seeks to transfer their overgrowth problems on the Linda Vista residents surrounding their school. FP specifically admitted at a public meeting that they can go ahead with their Master Plan without the construction of the NRC driveway. So let's not construct this driveway!

The best way to mitigate damages is to limit the FP Master Plan permit by denying construction of a driveway on NRC, denying an increase in student population, and denying added events after 8:00 p.m. The current restrictions were put in place to show consideration to the residential area surrounding this school. Let's keep that current permit as is!

I request that these concerns be addressed before this matter goes to vote at the Planning Commission and/or the City Council.

Thank you.

Sincerely,

Patricia Whitelaw
North Rim Resident and Homeowner

RESPONSE

FF-11 See response to Comment Z-11.

FF-12 The conditions of approval for the project will require the school to either keep the Northrim Court gate closed for security reasons if the school rents facilities in the evening or on the weekend; if the school were to rent facilities for an event large enough to warrant the use of the Northrim Court driveway, to post a traffic monitor at the driveway. The school employs a site supervisor who serves as the point of contact for all rental groups. The site supervisor and 24/7 security team ensure that rental groups abide by the school's rules and regulations.

FF-13 See General Response #2 regarding emergency access.

FF-14 The TIA analyzes delay at the Linda Vista Road/Northrim Court intersection in the existing condition, without a traffic signal, and in the future with project scenarios, with a traffic signal. Peak hour delay for vehicles turning left from Northrim Court onto Linda Vista road are expected to improve minimally at the intersection with the addition of project traffic and the traffic signal. Also see General Response #1.

FF-15 Much of this comment concerns an existing condition at the existing traffic signal at Linda Vista Road/Alcala Knolls not related to project impacts. Nevertheless, it should be noted that the signal at that location serves a four-way intersection, serving both the school and the neighborhood to the north of Linda Vista Road on Alcala Knolls and its side streets. Traffic demand heading onto and from Alcala Knolls, as well as Linda Vista Road traffic, triggers the signal. When school is not in session and there are no activities taking place on the campus, there is no traffic to or from the school that would trigger the signal to stop the flow of traffic along Linda Vista Road. The intersection at Linda Vista Road/Northrim Court is a three-way intersection with no traffic segment north of Linda Vista Road. As with the signal at Linda Vista Road/Alcala Knolls, when school is not in session and there are no activities taking place on the campus, there would be no traffic to or from the school that would trigger the signal to stop the flow of traffic along Linda Vista Road. The intersection would operate as it does today with only a stop sign to control traffic exiting Northrim Court. If a group of cars is traveling on Linda Vista Road when a car approached the intersection on Northrim Court, the traffic signal would hold the Northrim Court traffic until the through traffic on Linda Vista Road cleared, which is the same condition as exists today with the stop sign. Both signals will operate the same as traffic signals operate throughout the City. Also see General Response #1.

FF-16 The relocated driveway is substantially north of the Northrim Court cul-de-sac. Onsite traffic monitors at the relocated Northrim Court driveway will direct

COMMENT	RESPONSE
	outgoing school traffic north to Linda Vista Road and direct southbound incoming school traffic into the school.
	FF-17 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.
	FF-18 The proposed number of evening events includes all events which occur after 8:00 p.m., including both school events and those of outside parties using the school's facilities. Also see General Response #6 and Response to Comment F-1.

COMMENT

Debbie Collins, AICP
Senior Environmental Specialist
8315 Century Park Court, CP21E
San Diego, CA 92123-1548
858-654-1239
dcollins@semprautilities.com

March 28, 2016

Jeffrey Szymanski, Environmental Planner
City of San Diego
Development Services Center
1222 First Avenue, MS 501
San Diego, CA 92101

Subject: Francis Parker Linda Vista Campus Master Plan - Draft MND (Project No. 24005672)

Dear Mr. Szymanski:

GG-1 San Diego Gas & Electric (SDG&E) appreciates the opportunity to review and comment on the Draft Mitigated Negative Declaration (MND) for the above referenced project. The proposed project would authorize changes to Francis Parker's Master Plan for its Linda Vista campus. SDG&E has an existing access road along the western edge of the Francis Parker Linda Vista campus, as identified in the attached exhibit, that provides access to our transmission corridor facilities located to the south. SDG&E needs to ensure that access is maintained to our transmission facilities at all times both during and after construction of the proposed phased improvements at the Francis Parker Linda Vista campus.

SDG&E appreciates the opportunity to comment on this Draft MND. Sean Quinn is SDG&E's Land Management Representative who deals with access road issues for the Francis Parker school property. Sean can be reached at squinn@semprautilities.com or 619-200-0610.

Sincerely,

Debbie Collins, AICP
Senior Environmental Specialist

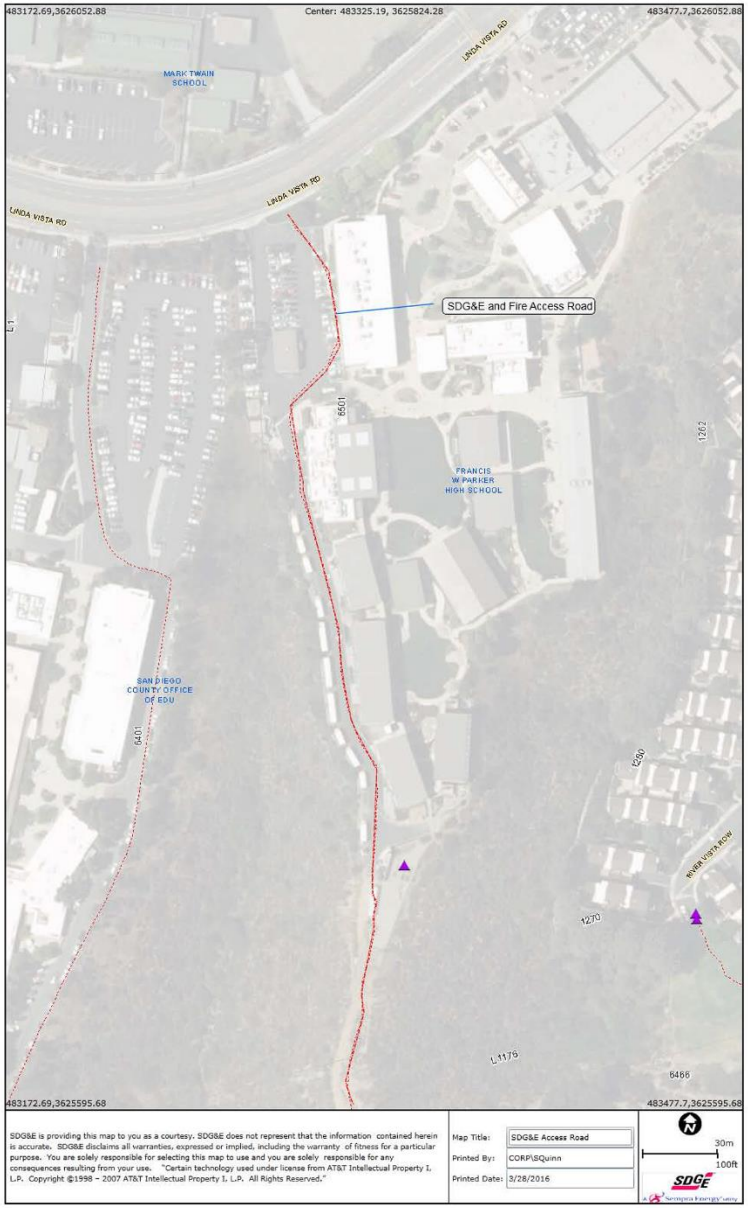
Attachment – Map showing SDG&E's existing access road

Cc: Sean Quinn, Land Management Representative
Tom Acuna, Environmental Planning

RESPONSE

GG-1 The project does not propose improvements within or near the SDG&E access road described in the comment.

COMMENT	RESPONSE



COMMENT

From: Rivera-serra, Lisa (GE Healthcare) [mailto:lisa.rivera-serra@ge.com]
Sent: Monday, March 28, 2016 6:59 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987
Importance: High

Dear Mr. Szymanski

Regarding: **Francis Parker Master Plan Amendment, Project No. 412987**

I writing you regarding the Francis Parker Master Plan Agreement, Project No. 412987 with questions and concerns. I am a Northrim Ct. Homeowner who lives on Northrim Ct. We have been to many community meetings where Francis Parker representatives presented their plan. They listened to some of our objections, but will not compromise on anything. I am asking you to look at my questions/objections.

Garage/Driveway on Northrim

One of the main concern is the proposed new garage/ driveway with the main entrance/exit on our dead end street on Northrim Court.

HH-1 1. My big issue is the parking spaces lost on Northrim Ct. Their traffic report say 6, our's say 10. If you come between the hours of 9pm- 6am (which I implore you to do), the entire street is full. Usually not one parking spot available the whole length of Northrim Court. Losing any parking spots would have a great impact on our lives. Where are we supposed to park our cars at night? There is also a multiple family complex being built next to the 7 Eleven parking lot, and the closest street in Northrim, so in addition to our Northrim Community vying for parking spots, now we will have the addition of the multiple family complex looking for parking spots also.
How does Francis Parker plan to address/justify this?

HH-2 2. Stated that traffic report done- did they take into account the 7 Eleven exit on Northrim Court. There will be a left or right turn lane on Northrim at the propose light (on Northrim & Linda Vista Rd). If 7 Eleven customer want to go west on Linda Vista, and there is a line of cars a peak hours leaving, their option is to try pull out to get in turn line (blocking traffic), or the other option is to try and to turn left on with a 7 Eleven exit on Linda Vista Road, but remember there will be vehicles going east from Northrim, so high potential for increased traffic accident.
There will be a potential risk of increased accidents, because of this traffic flow would be high, how do they answer this question?

HH-3 3. The Synchronization of the lights with other lights on road. Currently they are not.
Who is responsible to ensure that these lights are synchronized?

RESPONSE

HH-1 Two (2) parallel parking spaces would be removed on the east side of Northrim Court in front of the 7-Eleven store. Six (6) parallel parking spaces would be removed on the west side of Northrim Court at the same location and south. The loss of eight (8) parking spaces on a public street is not a significant impact under the City's CEQA significance threshold because the project provides 517 on-site parking spaces where only 306 are required. Residents who choose to park on Northrim Court are subject to the variability in the number of available spaces, currently estimated at 90 and at 82 with implementation of the project. Also see General Responses #3 and 4.

HH-2 Interactions with traffic from the existing 7-Eleven store were considered in the TIA. Figure 5-3 of the TIA (on page 5-8) includes this existing traffic during the morning and afternoon peaks at intersection #9. The TIA analyzed this intersection in all six study scenarios, i.e., Existing through Year 2035 with Project. With the installation of the traffic signal at the Linda Vista Road/Northrim Court intersection and the re-striping of northbound Northrim Court to provide one left turn lane and one right turn lane, traffic conditions are not expected to deteriorate with the addition of project traffic. Also see General Responses #1 and 2.

HH-3 The comment suggests the signals along Linda Vista Road are not synchronized. The signals are coordinated (synchronized) and analyzed in the traffic study as they exist in the field. Also see General Response #1.

COMMENT	RESPONSE
HH-4 4. Northrim is a dead end street. I am concerned people will turn south on Northrim Ct only to have to do a U-turn at the end of the street. **How will traffic will be mitigated coming out of the Francis Parker Driveway on Northrim to prevent increase traffic going south on Northrim Ct which is a dead end street ?**	HH-4 See Response to Comment FF-16 regarding potential school traffic heading south on Northrim Court.
HH-5 5. Francis Parker stated, they will have a traffic monitors. Is this requirement addressed in the report or just something Francis Parker may or may not elect to do? It has been seen many times at the main entrance of Francis Parker when the school is let out that a monitor is there pushing the walk signal to change the light on Linda Vista light to turn red and let traffic out of Francis Parker. **What detail plan do they have how the traffic monitor manage the traffic, and if a monitor is not there every time, what penalty would they have?**	HH-5 Per the applicant, onsite Traffic monitors will manage traffic consistent with training received from licensed traffic engineers consistent with State and National guidelines. Also see General Response #7 regarding enforcement.
6. Non-school event- HH-6 **How will those events be monitored regarding traffic?**	HH-6 See Response to Comment FF-12.
Francis Parker currently has 4 driveways (one being a main entrance/exit) already to access the campus HH-7 **Did their traffic study do an analysis on creating a traffic flow within the confines of the campus on the peak times to alleviate the need to spill their traffic into all aspects of the community, just to make it more convenient for Francis Parker?**	HH-7 The applicant developed a plan to improve traffic circulation conditions by improving on-campus traffic circulation patterns. On-campus improvements will separate what is now a single drop-off/pick-up area into two. Middle School students will access a drop-off/pick-up area at the Alcala Knolls intersection. Upper School students will access their area to the east through the right-in/right-out driveway on Linda Vista Road and the relocated driveway on Northrim Court. The two areas will be separated by bollards that prohibit through-traffic between the two areas onsite. Onsite traffic monitors will be stationed at the Alcala Knolls driveway, the right-in/right-out driveway on Linda Vista Road, and the Northrim Court Driveway. Also see General Responses #1 and 2.
HH-8 **Francis Parker talks about creating a safer environment regarding reducing accidents. There hasn't been an increase in that regarding people leaving Francis Parker campus turning West on to Linda Vista Road. If so where is that in the traffic report and evidence of such?**	HH-8 The traffic study addresses conflict points to improve safety at the project driveways. For example, a 130 foot raised median is proposed at the Garage driveway on Linda Vista Road to reduce the amount of conflict points by restricting the access to a right-in / right-out only.
Construction HH-9 1. **During Construction- where will construction workers park? Also, where will school staff, teachers and students park since a majority of the existing parking will be torn up for the new construction?**	HH-9 The campus will temporarily lose approximately 100 parking spaces during construction. Per the applicant, replacement parking will be available at nearby locations, the Baha'i Faith San Diego Center to the north of campus and the Church of the Nazarene at 6736 Linda Vista Road, pursuant to agreements between the school and the owner of each respective location. Construction workers will utilize both on-site and off-site parking areas. Also see General Response #1.
HH-10 2. **How many additional parking spots will be taking away during construction for equipment, and how will that be mitigated to not disrupt the residence need for parking, and having a place for us to park our cars at night?**	HH-10 See Response to Comment HH-9 and General Response #1.
HH-11 3. **What is the timeframe for construction, if they go past it, what penalties will there be for prolong disruption?**	HH-11 Section 59.5.0404 (Construction Noise) of the Municipal Code provides that demolition and construction activities may NOT occur between 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays (as specified in Section 21.04) or Sundays. Violations may be reported to the City's Code Enforcement division. Also, the school has provided contact information for Mike Rinehart, Head of Finance and Operations: office telephone number: 858-427-1739; mobile phone number: 858-361-5383 in the event that construction activities occur outside of allowable hours. Also see General Response #7.
HH-12 4. **What is the time that constructions can start and stop? What days of the weeks can construction happen?**	
HH-13 5. **If construction start or stop outside the allotted allowable time, who do we call to report it?**	
Other Master Plan issues HH-14 1. **With the plan for an elevated sports deck, the setback is 10 feet instead of the required 25 feet, when 25 feet is the city requirements. How can this be approved given the city requirements?**	
Events at Francis Parker	

COMMENT	RESPONSE
	HH-12 See General Response #7.
	HH-13 See General Response #7.
	HH-14 The elevated sports deck is not part of the proposed project. The deck was approved by the City in 2005 in issuance of PDP 84875/SDP 215276.

COMMENT

In the previous expansion, promises were made from Francis Parker regarding the neighbors' concerns, and put at ease our concerns once it was built. Because of history we have some issue what Francis Parker promises without it being written in a contract. Examples below:

HH-15
- They said they would never rent out facility? They do now, when brought up at the meeting, they said that person was no longer there who promised that.
- They stated that they would only have 60 school events a year to not to disrupt the neighborhood. One year a neighbor counted way over 100 events that the PA/lights on. How Francis Parker gets around the allotted number is they say it not an official school event. They allow others (whether it be rented, parents ect) to be the sponsor. So they can say the school only has 60 events, now they want to increase that.

HH-16

The event numbers should be all inclusive no matter who sponsor the event, once number is reached, not more events should be allowed without penalties.

How will this be monitored, and available for audit to the communities?

Lighting/Noise on Francis Parker Field

HH-17 1. **How will higher then allowed lighting poles mitigate the already intrusive lighting already into homes on Northrim which is well past Francis Parker property line?**

HH-18 2. **Should they not have an allowable decibel for PA system? If they do have them out lowballed decibel level, how will it be monitored so they will not exceed the allowable limit? Are there penalties in place if they do go past the allowable limit?**

Aquatic Center

HH-19 1. **Will this be an open or closed-in facility?**

HH-20 2. **Will the community have access to it?**

HH-21 3. **Has Francis Parker address how they will manage the noise from any events at the aquatic center?**

Other comments:

HH-22
- **Francis Parker has said they have community support. I would ask them to break down the support. The ones in favor of this expansion, many are Francis Parker Families who currently go to school there, and alumni, all of which I really do not live in the area. Only a very small percentage of the Francis Parker community, whether current or past, actually live in the surrounding community. To make their lives more enhanced, they are asking us to bear all the brunt and accept all the changes, that will impact our lives well past the school hour times.**

HH-23
- **Have you received the Northrim Homeowners petition against the Driveway access on Northrim?**

HH-24
- **Many from our community came together to oppose many aspects of the Master Plan at the Linda Vista community meeting. Except for the Francis Parker collation, no one voiced support for their plan, but had the biggest objection from the audience is for the driveway proposal on Northrim.**

In Conclusion:

RESPONSE

HH-15 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

HH-16 Consistent with the entitlements currently in place, evening events are defined as those that take place on the athletic fields after 8:00 p.m., or that begin before 8:00 p.m. and continue beyond 8:00 p.m., regardless of whether the event is sponsored by the applicant, the community, or other third party user. Also see Response to Comment FF-12 regarding permit conditions and General Response #7 enforcement.

HH-17 Much of this comment concerns an existing condition. Also see General Response #6.

HH-18 See General Response #5.

HH-19 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND. The aquatic center includes both indoor facilities, including administrative offices, equipment storage, showers and locker room facilities and an outdoor pool with spectator seating for 150 people in bleachers.

HH-20 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

HH-21 See General Response #5.

HH-22 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

HH-23 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

HH-24 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT	RESPONSE

I thank you in advance for reading my email about the concerns and questions regarding Francis Parker Master Plan expansion. I am looking forward to receiving your responses to my questions. I am hoping that you will take in consideration our concerns when reviewing their Master Plans before any approvals are done.
We are especially concerned on the impact of the entrance/exit of the proposed garage on Northrim. We are proud of our community, and it is exciting to watch Northrim come together on this.

Thank you for your time and consideration of my questions/concerns.

Sincerely,

Lisa Rivera-Serra
1525 Northrim CT
Lisa.Rivera-Serra@ge.com

COMMENT

From: Susan Lindgren <sdsusanl@aol.com>
Sent: Tuesday, March 29, 2016 9:11 AM
To: DSD EAS
Subject: Comments: Francis Parker Master Plan Amendment, Project #412987

Dear Mr. Szymanski,

As an affected homeowner and resident of North Rim, I am concerned about the reasonably foreseeable negative impact on our North Rim community if the Francis Parker plan comes to fruition. More specifically, the impact results from the proposed new driveway from FP (Francis Parker School) onto Northrim Court, as well as the proposed new traffic signal at Northrim Court and Linda Vista Road. (See section XVI, Transportation/Traffic, on page 44 of the MND.) The addition of a new traffic signal on a stretch of Linda Vista Road already burdened with too many will impact not only North Rim residents, but also the entire local community who use the road on a regular basis.

II-1 • Why is FP closing two of their four direct entrances/exits onto Linda Vista Road?

II-2 • Must local residents, business people, and college students (USD) face daily congestion and delays waiting at yet another red light on Linda Vista Road?

II-3 • Are planners aware that Northrim Court is essentially a driveway into the North Rim residential community of townhomes? It is in fact the one and only method of entry and exit to our complex.

II-4 • 100% of vehicles exiting the new driveway will (should) be turning left onto Northrim Court, cutting across homeowner traffic, and proceeding uphill to Linda Vista Road. What is being done to mitigate the interference with and delay to homeowners?

II-5 • What will be done to prevent student traffic from turning right, downhill, and diverting into the North Rim dead-end, cul-de-sac, private road?

II-6 • Noise from FP is already a significant nuisance for some North Rim residents. To understand the impact, it is helpful to understand how the two properties are situated in relation to each other. FP perches at the top of a steep slope overlooking the North Rim residential complex. At times FP seems to be shouting down at us with their PA system, and blinding us with the bright, towering lights of the athletic field. What recourse and complaint process will residents have for anticipated future violations?

II-7 • How does Francis Parker define a special event? This label has been used to excuse noise and lighting violations in the past.

II-8 • Will Francis Parker facilities be used only for FP student activities, or marketed as a "venue" to outsiders for profit?

II-9 • More events would translate to more noise, more traffic.

II-10 • Will construction of the new parking garage lead to future demolition of existing parking lots?

II-11 • Will (potential) demolished parking lots be replaced with new school buildings, leading to increased traffic and a new shortage of parking?

Mr. Szymanski, I urge you to reject: 1) the FP driveway onto Northrim Court, and 2) the traffic signal at Northrim Court and Linda Vista Road.

Sincerely,
Susan Lindgren
6635 Canyon Rim Row #186
858-560-0587

RESPONSE

II-1 The comment suggests two of the four driveways on Linda Vista Road will be closed as a result of the proposed Master Plan. As noted on page 12-1 of the TIA, only one of the existing driveways on Linda Vista Road (Int. #7 in TIA) will be relocated to become a driveway onto Northrim Court for Upper School traffic. There will be three (3) driveways to the school on Linda Vista Road. It should be noted the westerly driveway (Int. #5 in TIA) is primarily used for school bus drop-off/pick-up and staff parking. The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no additional response is required or provided.

II-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

II-3 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

II-4 See General Responses #1 and 2. To mitigate the project's impact at the intersection of Linda Vista Road / Northrim Court, the project proposes to install a traffic signal, including signal interconnect to the adjacent signals.

II-5 See Response to Comment FF-16.

II-6 Much of this comment concerns an existing condition. Also see General Response #7.

II-7 See General Response #8.

II-8 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

II-9 See General Response #8.

II-10 The existing cafeteria and Middle School gym will be demolished to accommodate construction of the subterranean parking structure. Existing parking lots will be reconfigured to accommodate a separation between Middle School and Upper School drop-off/pick-up activities. Currently there are 290 surface parking spaces on site. After construction of the parking structure there will be 238 surface parking spaces and 279 underground parking spaces for a total of 517 spaces.

II-11 No new school buildings will be constructed on existing parking lots.

COMMENT

From: B Ryan <bshanti7@gmail.com>
Sent: Tuesday, March 29, 2016 9:25 AM
To: DSD EAS
Subject: Re: Francis Parker Master Plan Amendment Project No. 412987

Dear Jeffery Szymanski,

JJ-1 I am a North Rim resident of 22 years and have enjoyed living in the quiet neighborhood of North Rim complex in Linda Vista.
This proposal from Francis Parker will change all that by adding congestion and traffic issues to my cul-de-sac. There is one entrance to my complex and now Francis Parker wants to add a driveway that will cause traffic concerns for all 296 residents. Also, in creating a driveway it will lessen the street parking that is already limited for residents on the top of our hill.

JJ-2 I am not sure when this master plan was developed by Francis Parker but during the duration of all this a low income housing complex on the corner of Linda Vista Road and North Rim (near 7-11) is being constructed. This new development will house 14 units and will provide "tandem" parking for its residents. I've lived in a house where I needed to do "tandem" parking and it was a nuisance. Having to wake up earlier than a roommate or spouse to move your car isn't fun so what I would do is park out on the street. I feel these new tennants will do the same which will further impact North Rim residents with the already minimal parking availibility.

JJ-3 I feel that with a traffic light added at the corner it will cause congestion and back up of cars on our street along with cars trying to access the 7-11 store on the corner. I think a new scenerio will be to use 7-11 as a thoroughfare to avoid waiting for the proposed traffic light. This will further add congestion and traffic problems especially when huge gas tanker trucks are refilling gas along with grocery truck deliveries.

JJ-4 As a neighbor of Francis Parker school I happily agreed to the installation of their football field to in order to help update of their Sports Facilities to benefit their students. We as a community were all onboard as we were promised certain restrictions regarding noise levels and lighting. Many of these promises have been abused and as far as I'm concerned my property value has decreased as a result and Francis Parkers' profits have increased. The old saying, "Give them an inch and they'll take a mile" applies to Francis Parker now as they are still taking advantage of our neighborly relationship. Francis Parker has 3 driveways already and now they want another.....whereas we have only one way in and out of our community.

Please review this carefully as it will impact many NEGATIVELY . Thank you for your time and concern.

Sincerely,
Beverly F. Ryan
bshanti7@gmail.com

RESPONSE

JJ-1 See General Responses #2 and 4.

JJ-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided. However, see General Responses #3 and 4.

JJ-3 See General Response #1.

JJ-4 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT

From: Leticia Fernandez <lety92111@yahoo.com>
Sent: Tuesday, March 29, 2016 10:06 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment Project #412987

Mr. Szymanski,

First of all let me Thank you for taking the time to take our input on this Project that Francis Parker has initiated.

My name is Leticia Fernandez, my husband and I own a condo in Northrim Ct. with my daughter. We purchased it in 2006.

We have been quiet happy with it and hoped to keep it for our grand children. I am in Real Estate so I have a good eye for Real Estate. We were very intrigued with the Location, the complex and most of all (believe it or not) the parking.

KK-1 We strongly OPPOSE the Construction for Francis Parker. As, it is very evident that they have OUT GROWN their parcel for the need that it started off with. We feel that they are over flowing the parcel and now want to occupy public property, which belongs to all Tax payers.

KK-2 The street parking, the addition of more street lights. The LOUD SPEAKER NOISE. Not to say, the new rented events that they want to broaden up to more LARGER EVENTS, which truly do not belong in a quiet neighborhood with there is families with young children and elderly people as well.

KK-3 PLEASE, PLEASE take into consideration that the Northrim Residents were there before the school decided to expand, so at one point it was fine. Except now it has gotten carried away. Us Owners have been paying property taxes for a very long time.....this project will definitely decrease values dramatically. As no one wants to live in such a hoop la of a mess.

KK-4 Also, all people who live or rent homes have the RIGHT TO QUIET ENJOYMENT AND SOME REASONABLE AMOUNT OF PEACE. This would become a sort of harrassment with all the activities and noise and trash. Last of all the 15 through 18 year olds driving erratically in the area were there is no space for such a large school.

KK-5 Does the City allow for people or Corporations to over build for the size of their parcel? I feel if the City allows this it will be PRECEDENT for any other Entity to follow suit and it will turn our Beautiful Cities into a congested mess.

KK-6 PLEASE KEEP IN MIND WE ARE FIGHTING FOR OUR HOMES, THEY ARE FIGHTING FOR THE PROFITS.

RESPONSE

KK-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND therefore; no response is required or provided.

KK-2 See General Responses #4 and 5.

KK-3 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

KK-4 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

KK-5 As detailed on the site plan for the project, City regulations allow for a floor area ratio of 0.75. The project proposes to increase the floor area of the school to a floor area ratio of 0.25.

KK-6 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT	RESPONSE
Thank you kindly, ***Leticia D. Fernandez*** CA BRE #00900556 ***Professional Real Estate Services*** Cell: (619) 889-1393 Email: lety92111@yahoo.com	

COMMENT

From: Sofia Fernandez <sof_fernandez@ymail.com>
Sent: Tuesday, March 29, 2016 10:09 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 41287

Dear Mr. Szymanski,

I am writing to you as I am deeply saddened that this is even an issue that has to be addressed.

I am a new homeowner at Northrim Court and I love my home very much. My sister has also lived at Northrim for over 10 years and so I have fallen in love with the development and the community. The biggest appeal was that Northrim was a little gem and had a characteristic driveway into a beautiful complex.

LL-1 The master plan proposed by Francis Parker poses many threats to the homeowners and residents of Northrim Court. Needless to state the obvious that it will ruin the private entrance, it will cause permanent chaos.

The plan lures you to believe that this is for the student's best interest and will enhance their education. However, the only relief it is creating is for their drop off and pick up rotation. They don't want to inconvenience the parents that have to wait. Rather, they want to disrupt city property and their neighbors, not only Northrim, but 7-11 and the residents near by. By granting a light to be installed at the Northrim intersection poses two concerns; 1.) strange drivers - there will be no doubt that there will be confusion. Northrim only has one entrance and exit. This will be a nightmare to leave for work and come home. Further, if a driver is confused they are going to make a right turn and go all the way down to our complex. This just brings strangers to our home area. Northrim residents pay high HOA fees to keep a nice complex. There will no doubt be more trash and fendbenders. There will

LL-2 be drivers not familiar with the area and young drivers. There will be a lot going on at the intersection. Apparently, there will be a traffic monitor and a light. If Francis parker states this will reduce traffic, why is a monitor needed? How much experience will they have? Will they only be there during the week? What about the weekends when the school is rented out to other vendors, will there be monitors to assist stranger drivers and help them ease the awkwardness? The street is not that wide to have two exits coming from 7-11 and Francis Parker, plus from Northrim. We pay taxes as well and we are losing our parking and are not given another option. There is not just one resident per unit. We have families and visitors on weekends. We are going to have to essentially fight for parking to have visitors because with less parking spots, people will also want to come park on our street instead of the parking structure. It is true, it will happen.

LL-3 2.) Weekend rental - the school intends to rent the parking lot and school premises out on weekends. They already rent it out to a church. So in REALITY the intersection will always

RESPONSE

LL-1 Northrim Court is a public street maintained by the City of San Diego. The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

LL-2 See General Responses #1, 2 and 4.

LL-3 See General Response #8 regarding special events.

COMMENT	RESPONSE

be busy everyday 7 days a week. The students and their parents and the staff get to go home and not be bothered by someone blocking their driveways and taking their parking. But we will still have to live with the situation 24 hours a day.

Again, this has NOTHING to do with furthering the student's education at Francis Parker. This is hurting the community entirely. Plus, I am not even talking about the construction impacts.

I would hope the city would take in consideration the homeowners reality.

thank you for your time in reading my concern,

Sofía Fernández

COMMENT

From: Bernice Alota <bernicealota@gmail.com>
Sent: Tuesday, March 29, 2016 3:16 PM
To: DSD EAS; gervy alota
Subject: Francis Parker School Master Plan Amendment, Project No. 412987

Dear Mr. Jeffrey Szymanski,

I am writing to support the proposed Master Plan Update for Francis Parker School.

I am a San Diego native and am now raising my family in Linda Vista. As a long time resident, I'm very interested in preserving a good quality of life for my community. I am familiar with Parker's plans for their property. I attended the Linda Vista Town Council hearing on the project and have reviewed the available background on the project.

MM-1 Linda Vista is my home and I'm very much in favor of Parker's plans to build a parking structure on their campus. I believe the project will bring safety improvements not only for the school but for the community. Traffic on Linda Vista Road will be better controlled with the addition of the signal planned for Northrim Court. Adding a median on Linda Vista Road in front of Francis Parker School will also prevent cars leaving the school from pulling into traffic in a dangerous left hand turn. The parking structure will not only provide added safety for students who will now be able to park on the school grounds instead of the neighborhood streets, but will also free-up street parking in the surrounding neighborhood.

MM-2 All motorists will benefit from having fewer pedestrians crossing Linda Vista Road on the way to and from the school. The separation of the Middle and Upper School student drop-off/pick-up traffic into two streams will improve the flow of cars in and off campus to reduce the line of traffic that backs up on Linda Vista Road on school mornings.

Because of these tangible benefits of the proposed project, I am happy to endorse Parker's Master Plan Update.

Sincerely,

Gervy Alota
CDR, USN

RESPONSE

MM-1 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

MM-2 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT

Axel Probst
aprobst@fpbarch.com
Northrim Resident
San Diego, CA 92111
March 29, 2016

Jeffrey Szymanski
Environmental Planner
City of San Diego Development Services Center
1222 First Avenue, MS 501
San Diego, CA 92101

RE: **Francis Parker Master Plan Amendment, Project No. 412987**

Dear Jeffrey Szymanski:

I am a long-time resident of our city, including the Northrim neighborhood, and I am writing to express my concern about recent discussions and the pending decision to allow changes to the Francis School Campus. I understand that the decision is being considered to approve/authorize changes to Francis Parker's Master Plan for its Linda Vista campus.

Northrim resisdents have been to many of the community meetings where Francis Parker representatives presented their plans. They listened to some of our objections, but will not compromise on anything. Below are my questions and concerns.

Proposed New Driveway on Northrim

One of my main concerns is the proposed new driveway proposed on our dead end street on Northrim Court.

1. Francis Parker had their consultant complete a traffic report.
   a. **Did they take into account the existing 7 Eleven driveway exiting onto Northrim Court in the traffic study?** NN-1
   b. **There will be a potential risk of increased accidents, because of this traffic flow would be high, how do they answer this question?** NN-2
2. Adding a new traffic signal and synchronization of the traffic signals with other traffic signals nearby on Linda Vista Road. Currently they are not or do not appear to be synchronized. NN-3

RESPONSE

NN-1 Northrim Court is an unclassified street with 52 ft. of pavement (curb-face-to-curb-face) in a right-of-way that is 72 ft. wide. Based on Table 2 of the City of San Diego Traffic Impact Study Manual, a street of this type has a LOS E capacity of 8,000 cars daily. There are 296 residences using Northrim Court. Northrim Court has an existing count of 973 ADT collected on Wednesday April 6, 2016 when USD and local schools were in session. Relocation of one driveway from Linda Vista Road to Northrim Court would redistribute existing Upper School traffic of 634 ADT onto Northrim Court. The additional 140 students would add an additional 224 ADT onto Northrim Court for a total of 858 ADT. 973 ADT of existing traffic plus 858 of project traffic results in 1,831 ADT, which in turn represents a volume to capacity ratio of 0.23, a level of service "A". If a typical trip generation rate of eight trips for each residence were used, calculations would result in an existing ADT of 2,368 plus relocated and future school traffic of 858 ADT for a total ADT of 3,226, representing a volume to capacity ratio of 0.40, a level of service "B". Also see Response to Comment A-3, Attachment Y, and General Response #1.

NN-2 The project includes onsite traffic monitors who will minimize conflicts with pedestrians and bicycles by holding traffic before it enters Northrim Court if pedestrians, bicyclists, or motorists are crossing the driveway and by ensuring that traffic flow on-site travels in only a westbound direction in the northern drive aisle and in an eastbound direction in the southern drive aisle. With the signal at the intersection, the project will improve safety for motorists entering Linda Vista Road. Also see Response to Comment NN-1 and General Responses #1 and 2.

NN-3 See General Response #1.

COMMENT

Jeffrey Szymanski
March 29, 2016
Page 2

NN-4
a. Since Northrim is a dead-end street and there could be no further development in our area for the future, the traffic generated and the need for a traffic signal is only for the additional traffic Francis Parker is creating. How is this acceptable?

NN-4
b. Why do they need the driveway on Northrim? This will impact our property values, is this not considered an impact?

NN-5
c. Who is responsible to ensure that these lights are synchronized?

3. Northrim is a dead end street. I am concerned people will turn south on Northrim Ct, only to have to do a U-turn at the end of the street.

NN-6
a. How will traffic will be mitigated coming out of the Francis Parker Driveway on Northrim to prevent increase traffic going south on Northrim Ct which is a dead end street ?

4. A big issue here is the parking spaces lost on Northrim Ct. Their traffic report say 6, but it's probably more like 8-10 spaces. If you come between the hours of 9pm-6am), the entire street is full. Usually not one parking spot available the whole length of Northrim Court. Losing any parking spots would have a great impact on our lives.

NN-7
Where are we supposed to park our cars at night? There is also a multiple family complex being built next to the 7 Eleven parking lot, and the closest street in Northrim, so in addition to our Northrim Community vying for parking spots, now we will have the addition of the multiple family complex looking for parking spots also.

a. How does Francis Parker plan to address/justify this?

NN-8
b. Was there a parking analysis/study done for Northrim Ct? If not, shouldn't there have been a parking study done?

NN-9
c. **If we lose parking spots on Northrim, is this not considered an impact?**

5. Francis Parker stated, they will have a traffic monitors. Is this requirement addressed in the report or just something Francis Parker may or may not elect to do? It has been seen many times at the main entrance of Francis Parker when the school is let out that a monitor is there pushing the walk signal to change the light on Linda Vista light to turn red and let traffic out of Francis Parker.

NN-10
a. **What detail plan do they have how the traffic monitor/manage the traffic, and if a monitor is not there every time, what penalty would they have? It reall should not be up to the residents to have to monitor these situations.**

NN-11
b. **Non-school event-How will those events be monitored regarding traffic?**

6. Francis Parker currently has 4 driveways (one being a main entrance/exit) already to access the campus.

NN-12
a. **Did Francis Parker's traffic study do an analysis on creating a traffic flow within the confines of the campus on the peak times using their existing**

RESPONSE

NN-4 The traffic signal at the intersection of Linda Vista Road and Northrim Court, both public streets, is needed to mitigate the project's impact due to the relocation of one driveway from Linda Vista Road to Northrim Court. Also see Response to Comment F-1 and General Responses #1 and 2.

NN-5 Traffic signals along Linda Vista Road are currently synchronized. Mitigation measure Trans-1 requires the applicant to install a traffic signal at the Linda Vista Road/Northrim Court intersection and to synchronize it with adjoining signals. See General Responses #1 and 2. The mitigation measure requires that the traffic signal be installed and interconnected to each signal to the west and east of the new signal.

NN-6 See Response to Comment FF-16.

NN-7 See General Response #4.

NN-8 Two (2) parallel parking spaces would be removed on the east side of Northrim Court in front of the 7-Eleven store. Six (6) parallel parking spaces would be removed on the west side of Northrim Court at the same location and to the south. Under the City's CEQA significance threshold for impacts to parking, impacts are considered significant if a project is deficient by more than ten percent in the amount of parking required by the City's parking ordinance. Because the amount of parking to be provided by the project exceeds the amount of required parking, the project does not result in a significant impact to parking. Residents who choose to park on Northrim Court are subject to the variability in the number of available spaces, currently estimated at 90 and at 82 with implementation of the project. Also see General Responses #3 and 4.

NN-9 See Response to Comment NN-8 and General Response #4.

NN-10 Per the applicant, onsite traffic monitors will monitor and manage traffic as trained by licensed traffic engineers consistent with State and National Guidelines. Also see Response to Comment HH-6 and General Response #7 regarding enforcement.

NN-11 See Response to Comment FF-12.

NN-12 The applicant developed a plan to improve traffic circulation conditions by improving on-campus traffic circulation patterns. On-campus improvements will separate what is now a single drop-off/pick-up area into two. Middle School students will access a drop-off/pick-up area at the Alcala Knolls intersection. Upper School students will access their area to the east through the right-in/right-out driveway on Linda Vista Road and the relocated driveway on Northrim Court. The two areas will be separated by bollards that prohibit through-traffic between

COMMENT

Jeffrey Szymanski
March 29, 2016
Page 3

driveways to alleviate the need to spill their traffic into all aspects of the community, just to make it more convenient for them?

NN-13 **b. Francis Parker talks about creating a safer environment regarding reducing accidents. There hasn't been an increase in that regarding people leaving Francis Parker campus turning West on to Linda Vista Road. If so where is that in the traffic report and evidence of such?**

Construction

7. Construction questions:

NN-14 **a. During Construction- where will construction workers park? Also, where will school staff, teachers and students park since a majority of the existing parking will be torn up for the new construction?**

NN-15 **b. How many additional parking spots will be taking away during construction for equipment, and how will that be mitigated to not disrupt the residence need for parking, and having a place for us to park our cars at night?**

NN-16 **c. What is the timeframe for construction, if they go past it, what penalties will there be for prolong disruption?**

NN-17 **d. What is the time that constructions can start and stop?**

NN-18 **e. What days of the weeks can construction happen?**

NN-19 **f. If construction start or stop outside the allotted allowable time, who do we call to report it?**

NN-20 **g. They plan to demo existing buildings, do these building have asbestos? If, so, how will this be handled?**

Other Master Plan issues

8. With the plan for an elevated sports deck, the setback is 10 feet instead of the required 25 feet, when 25 feet is the city requirements.

NN-21 **a. How can this be approved given the city requirements?**

NN-22 **b. How will lighting the sports deck be addressed so it doesn't impact the neighborhood?**

NN-23 **c. The noise from these activities will now be closer to family dwellings, how will this be mitigated?**

Events at Francis Parker

9. In the previous expansion, promises were made from Francis Parker regarding the neighbors' concerns, and put at ease our concerns once it was built. Because of history

RESPONSE

the two areas. Onsite traffic monitors will be stationed at the Alcala Knolls driveway, the right-in/right-out driveway on Linda Vista Road, and the Northrim Court Driveway. Also see General Responses #1 and 2.

NN-13 The applicant seeks to create a safer environment by improving traffic circulation on-site, thereby reducing queuing on Linda Vista Road, and increasing parking on-site. The applicant equates a safer environment with a reduced risk of accidents. Also see Response to Comment HH-8.

NN-14 The campus will temporarily lose approximately 100 parking spaces during construction. Per the applicant, replacement parking will be available at nearby locations, the Baha'i Faith San Diego Center to the north of campus and the Church of the Nazarene at 6736 Linda Vista Road, pursuant to agreements between the school and the owner of each respective location. Construction workers will utilize both on-site and off-site parking areas. Also see General Response #1.

NN-15 See Response to Comment NN-14 and General Response #1.

NN-16 See General Response #7.

NN-17 See General Response #7.

NN-18 See General Response #7.

NN-19 See General Response #7.

NN-20 The existing structures on-site have potential to contain asbestos and lead, as they were constructed in prior to 1980. Per OSHA (29 CFR 1926.1101 and 29 CFR 1910.1001), insulation, surfacing, asphalt, and vinyl flooring materials prior to 1980 should be assumed to be asbestos-containing materials and handled accordingly. However, U.S. EPA, CalEPA, and OSHA heavily regulate both asbestos- and lead- containing materials. Regulations (CFR Part 61, Subpart M; 16 CFR Part 1305; and 16 CFR 1304) and OSHA (29 CFR 1926.1101 and 29 CFR 1910.1001) require proper abatement and disposal of asbestos- and lead-containing materials to protect human health and safety. As the abatement activities would potentially involve over 100 square feet of asbestos - containing materials, asbestos abatement would be completed or overseen by a certified consultant (Title 8, CCR, Article 2.6, Section 341.15). Compliance with these regulations would ensure that impacts associated with asbestos or lead-containing materials would be less than significant.

NN-21 Please see response to Comment HH-14.

NN-22 See General Response #6.

COMMENT

Jeffrey Szymanski
March 29, 2016
Page 4

we have some issue what Francis Parker promises without it being written in a contract. Examples below:

NN-24 a. They said they would never rent out facility? They do now, when brought up at the meeting, they said that person was no longer there who promised that.

NN-25 b. They stated that they would only have 60 school events a year to not to disrupt the neighborhood. One year a neighbor counted way over 100 events that the PA/lights on. How Francis Parker gets around the allotted number is they say it not an official school event. They allow others (whether it be rented, parents etc.) to be the sponsor. So they can say the school only has 60 events, now they want to increase that?

NN-26 c. The event numbers should be all inclusive no matter who sponsor the event, once number is reached, no more events should be allowed without penalties.

NN-27 **d. How will events be monitored, and available for audit/review to our community?**

Lighting/Noise on Francis Parker Field

NN-28 **10. How will higher then allowed lighting poles mitigate the already intrusive lighting already into homes on Northrim which is well past Francis Parker property line?**

NN-29 **11. Should they not have an allowable decibel limit for PA system? If they do have a limit, how will it be monitored so they will not exceed the allowable limit? Are there penalties in place if they do go past the allowable limit?**

Aquatic Center

NN-30 **12. Will this be an open or closed-in facility?**

NN-31 **13. Will the community have access to it?**

NN-32 **14. Has Francis Parker address how they will manage the noise from any events at the aquatic center?**

Other comments:

NN-33 Francis Parker has said they have community support. I would ask them to break down the support. The ones in favor of this expansion, many are Francis Parker Families who currently go to school there, and alumni, all of which I really do not live in the area. Only a very small percentage of the Francis Parker community, whether current or past, actually live in the surrounding community. To make their lives more enhanced, they are asking us to bear all the brunt and accept all the changes, that will impact our lives well past the school hour times.

RESPONSE

NN-23 See Response to Comment HH-14.

NN-24 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

NN-25 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

NN-26 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

NN-27 See General Response #7.

NN-28 See General Responses #1, 2, 5 and 6.

NN-29 See General Response #5 and 7.

NN-30 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND. The aquatic center includes both indoor facilities, including administrative offices, equipment storage, showers and locker room facilities and an outdoor pool with spectator seating for 150 people in bleachers.

NN-31 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is provided or required. Community access, if any, would be arranged with the school.

NN-32 Refer to response to Comment HH-21.

NN-33 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT

15. Have you received the Northrim Homeowners petition against the Driveway access on Northrim?

NN-34 Many from our community came together to oppose many aspects of the Master Plan at the Linda Vista community meeting. Except for the Francis Parker collation, no one voiced support for their plan, but had the biggest objection from the audience is for the driveway proposal on Northrim.

NN-35 **16. This will impact our property values so why has this impact not beed addressed?**

In conclusion, I thank you in advance for reading my email about the concerns and questions regarding Francis Parker Master Plan expansion. I am looking forward to receiving your responses to my questions. I am hoping that you will take in consideration our concerns when reviewing their Master Plans before any approvals are done.

We are especially concerned on the impact of the entrance/exit of the proposed driveway on Northrim. We are proud of our community, and it is exciting to watch Northrim come together on this.

Thank you for your time and consideration of my questions/concerns.

Sincerely,

Axel Probst

Axel Probst
aprobst@fpbarch.com

RESPONSE

NN-34 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

NN-35 The comment does not raise specific issues related to the adequacy of the environmental analysis in the draft MND; therefore, no response is required or provided.

COMMENT	RESPONSE
OO-1	OO-1 See General Responses #1, 2, 3, and 4.
OO-2	OO-2 A Landscape Development Plan has been prepared and approved for the Project in accordance with City landscape standards. While existing trees will be removed to accommodate the new construction, including two trees for the proposed driveway on Northrim Court, eight, 48" box trees, and 24, 24" box trees will be planted throughout the project. Eight of these trees will be street trees planted in the public right-of-way.

From: Paula Mayer <paula@mayerstudios.com>
Sent: Wednesday, March 30, 2016 3:48 PM
To: DSD EAS
Subject: Francis Parker Master Plan Amendment, Project No. 412987

Hello,

OO-1 My name is Paula Mayer. My husband, Seth and I have lived in the North Rim Community for more than 15 years and enjoy the peaceful tranquility of the area while still being very centrally located. It has been brought to our attention that Francis Parker school would like to make modifications which would encroach on our community. **We oppose their plan to create a driveway on Northrim court** as this would significantly disrupt our commute time, make it more dangerous entering and leaving the property and reduce what is already rather limited parking. If they have other options we would ask that they exercise those and leave North Rim intact. They already negatively impact our area with loudspeakers when they host games and we would ask for no further expansion into our community . We also are

OO-2 fearful that more trees will be lost due to their project.

Thanks for your time and consideration.
Best regards,

Seth & Paula Mayer
1275 River Vista Row #137
San Diego, CA 92111
858-279-5007

COMMENT	RESPONSE
PP-1	PP-1 The distance on Linda Vista Road from the proposed garage driveway to the Alcala Knolls Drive intersection is approximately 310 feet (crosswalk to stop bar). The distance on Linda Vista Road from the Alcala Knolls Drive intersection to the proposed signal at Northrim Court is approximately 825 feet centerline to centerline which meets the City's design standards for signal spacing. Additionally, a single access point for Upper School traffic via Linda Vista Road would result in over 300 (104 turning left + over 200 turning right) vehicles entering the site in the morning, causing vehicles to stack on Linda Vista Road. The amount of storage for queuing on-site during drop-off would be limited (approx. 400 feet) if there were only one access point for Upper School traffic. With the Northrim Court driveway, there is more on-site storage (approx. 750 feet) for drop-off and pick-up because traffic can wrap around the surface parking lot near the field. Further, the proposed circulation plan results in Upper School students driving their own vehicles entering the garage driveway so they have direct access into the parking structure and limits the interaction with Upper School drop-off traffic. The signalization of Northrim Court and relocation of an existing driveway on Linda Vista Road to Northrim Court is a better solution for handling the school's drop-off and pick-up traffic. See also General Responses #1 and #2 regarding traffic flow on Northrim Court and the proposed signal at Linda Vista Road and Northrim Court.

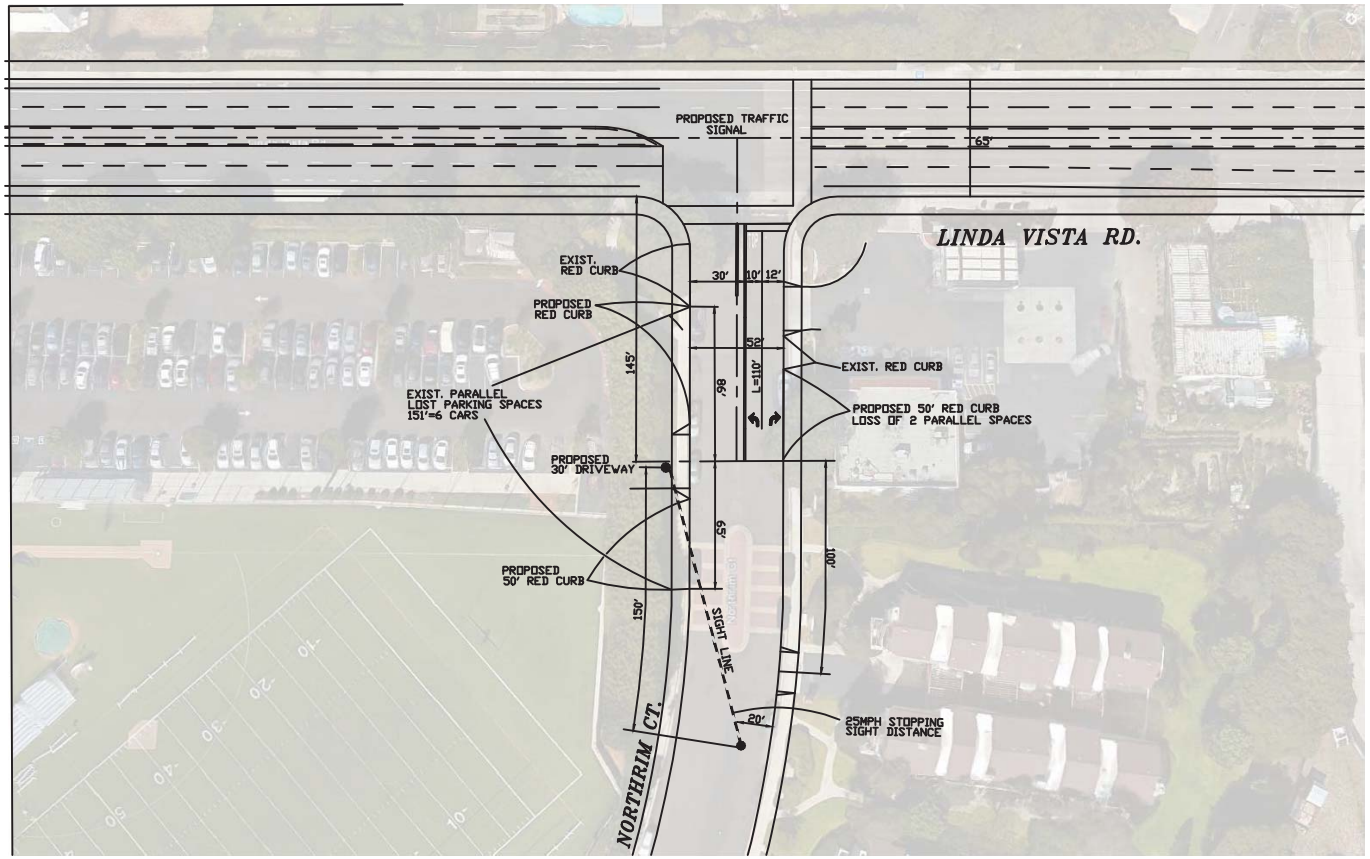
From: Dclimeybrit@aol.com [mailto:Dclimeybrit@aol.com]
Sent: Monday, April 18, 2016 10:50 AM
To: DSD EAS
Cc: jmillin@san.rr.com
Subject: Francis Parker Master Plan Amendment, Project #412987

Dear Mr. Szymanski:

With regards to the proposed projects for Francis Parker school, I have a concern about traffic flow, but a possible alternate plan for that traffic that would satisfy all parties. This is with regards to the cars being directed on to North Rim Court. I was quite surprised to see Francis Parker automobile traffic directed to a neighborhood street as opposed to a major thorough fare, Linda Vista Rd. I propose that the signal planned at North Rim Ct. be placed at an exit in front of the 500 car parking garage discussed at one of the meetings. This signal could be synchronized with the existing signal from Francis Parker exiting to Linda Vista Rd., moving cars much faster on a major thorough fare than funneling traffic into the bottle neck of North Rim Ct. and eliminate congestion and additional pollution in our neighborhood. Please consider this option.

Sincerely,
Ron Goins
North Rim Resident

SIGNING/STRIPING CONCEPT FOR THE
NORTHRIM COURT DRIVEWAY ACCESS



STRIPING CONCEPT BY:

URBAN SYSTEMS ASSOCIATES, INC.
8451 MIRALANI DRIVE, SUITE "A"
SAN DIEGO, CA 92126, (858) 560-4911

ATTACHMENT X

ATTACHMENT Y

Northrim Court Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Existing						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	973	0.12	A
Existing With Project*						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	1,831	0.23	A
Near Term Without Project						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	973	0.12	A
Near Term With Project						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	1,831	0.23	A
Year 2035 Without Project						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	1,000	0.13	A
Year 2035 With Project						
Northrim Court	Linda Vista Road to Project Driveway	2-Cd	8,000	1,858	0.23	A

Legend:

Class. = Functional Classification

Cap. = LOS "E" Capacity

LOS = Level of Service

2-Cd = 2 lane Collector (Multi-Family)

Notes:

Existing Count Date: April 6, 2016

* Project ADT on Northrim Court between Linda Vista Road and project driveway is 858 daily trips (224 new trips due to increased enrollment plus 634 redistributed trips)

ATTACHMENT Y

Northbound Approach Queueing Analysis Summary for Linda Vista Road at Northrim Court

Peak Hour Factor*		Existing With Project Queue Length (ft)		Near Term With Project Queue Length (ft)		Year 2035 With Project Queue Length (ft)	
AM	**PM**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
0.85	0.79	134	87	137	88	140	89

Note:

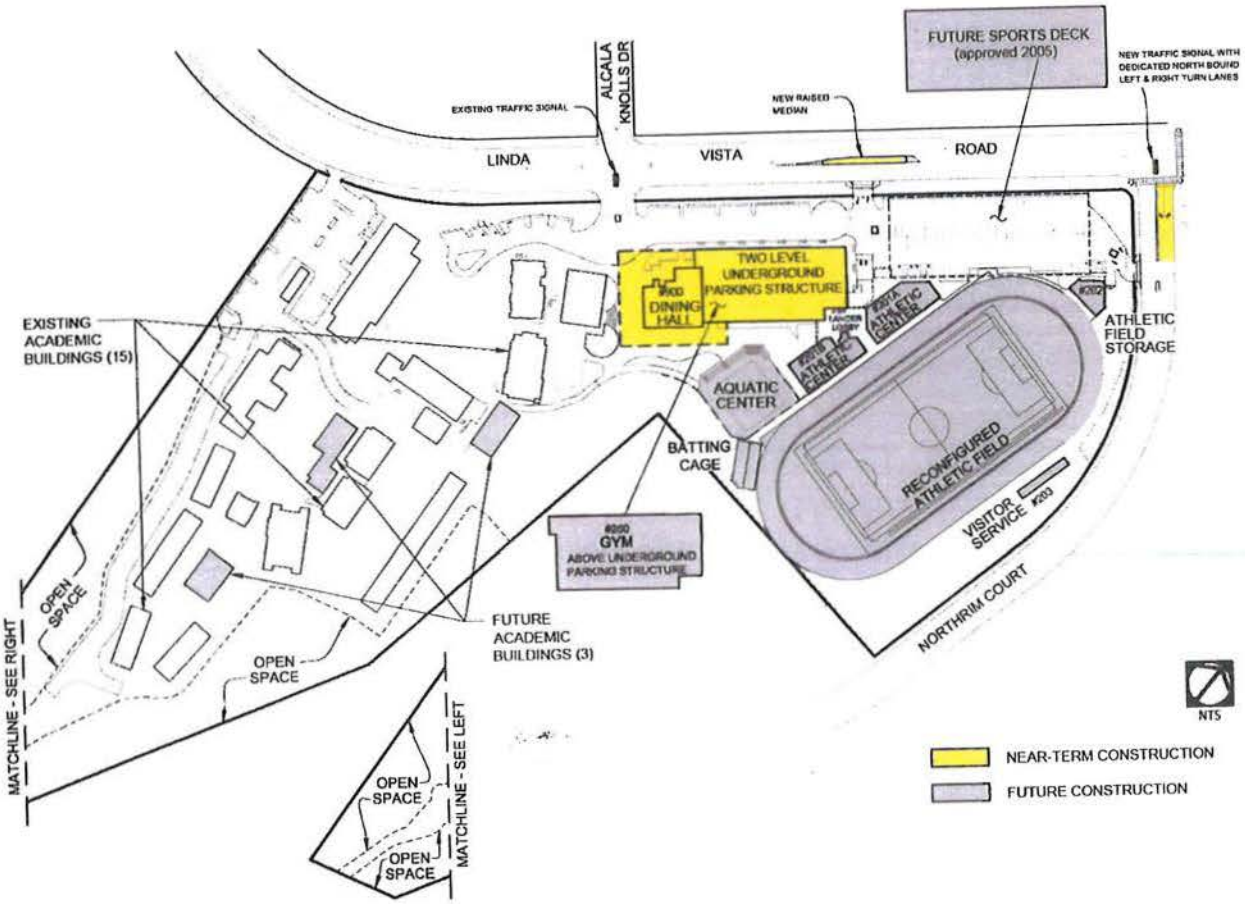
*Based on April 6, 2016 counts

Attachment Y
Francis Parker School Driveway Level of Service

#	Intersection	Existing With Project				Near Term With Project				Year 2035 With Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		D	LOS	D	LOS	D	LOS	D	LOS	D	LOS	D	LOS
12	Northrim Court / FPS Driveway	12.5	B	10.6	B	12.5	B	10.6	B	12.5	B	10.6	B

Notes:

LOS = Level of Service
Δ = Change
S = Significant
D= Delay



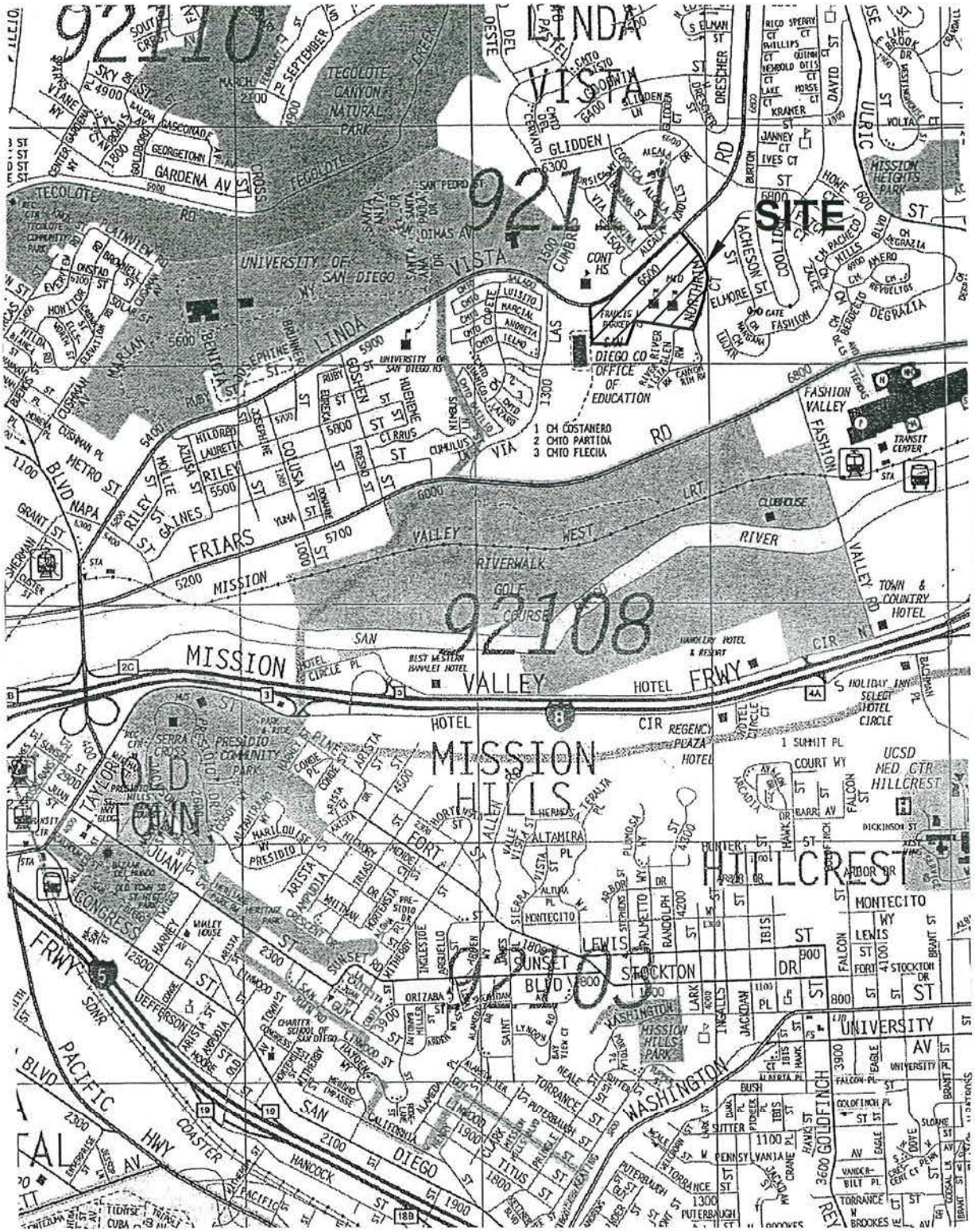
Location Map

Francis Parker Master Plan/Project No. 412987

City of San Diego – Development Services Department

FIGURE

No. 1



Site Plan

Francis Parker Master Plan/Project No. 412987

City of San Diego – Development Services Department

FIGURE

No. 2

Initial Study Checklist

1. **Project Title/Project number**: Francis Parker Master Plan Amendment/ 412987
2. **Lead agency name and address**: City of San Diego, Development Services Department, 1222 First Avenue, MS 501, San Diego, CA 92101
3. **Contact person and phone number**: Jeff Szymanski, (619) 446-5324
4. **Project location**: The project is located at 6501 Linda Vista Road, east of Via Las Cumbres, San Diego, within the Linda Vista community planning area. Legal Description: Parcel 1 of Parcel Map NO. 5465, In the City of San Diego, County of San Diego, State of California, Filed January 6, 1977 In the Office of the County Recorder of San Diego County. (Figure 1)
5. **Project Applicant/Sponsor's name and address**: Francis Parker School, Mike Rinehart, 6501 Linda Vista Road, San Diego, California 92111: (858) 427-1739.
6. **General Plan designation**: Institutional and Public and Semi-Public Facilities
7. **Zoning**: RM-1-1 within the area of development; OR-1-1 on the perimeter slopes
8. **Description of project**: Amendment to Planned Development Permit No. 84875 and Site Development Permit No. 215276 (PDP/SDP), approved by the City of San Diego City Council on June 28, 2005 to authorize changes to Francis Parker's Master Plan for its Linda Vista campus. The campus consists of a middle school (Grades 6-8) and an upper school (Grades 9-12) with an existing student population of 800 and a proposed student population of 940. The project would demolish three buildings comprising 41,229 square feet, retain 133,753 square feet of existing buildings, and would add 103,182 square feet of proposed buildings (kitchen/dining hall, athletic complex including a gymnasium, two multi-purpose student centers, and a maker's space). The total Gross Floor Area (GFA) would be 236,935 square feet which is a difference of 67,734 square feet over the 169,201 square feet authorized by the PDP/SDP. The Floor Area Ratio (FAR) is calculated to be 0.25 where the allowable FAR is 0.75. The proposal would also include the construction of a two-level underground parking structure in the center of the Campus which would provide 283 parking spaces in addition to the 238 parking spaces in surface lots for a total of 521 parking spaces. Additionally, the project would provide an outdoor aquatic center; and reorient the football field to add an eight-lane track. All construction would be contained within the existing development footprint on a 22.45-acre parcel at 6501 Linda Vista Road in the City of San Diego (Figure 2).

   There would be no change to existing brush management requirements. Approximately 41,000 cubic yards of excavation would result from the construction of the underground parking structure, athletic center, and aquatic center. The project includes three deviations from development regulations: (1) a deviation of 1'8" to the height limit to provide for elevator shafts in the proposed dining hall and proposed athletic center; (2) a deviation of 12'0" for six light poles proposed for a proposed elevated sports deck; and (3) a deviation to allow a 25' setback along Northrim Court where the minimum required is 10' or 10% of the premises width, whichever is greater.

In addition to the existing main entrance on Linda Vista Road at the signalized intersection with Alcala Knolls Drive, there are three other existing openings onto Linda Vista Road serving the Campus; one to the west of the main entrance and two to the east. The two openings to the east will be closed, one will be relocated further east on Linda Vista Road and the other will be relocated to Northrim Court. The easternmost opening onto Linda Vista Road would be reconfigured as a right-in/right-out driveway to allow for direct access into the proposed underground parking garage and to provide emergency vehicle access to the proposed Dining/Athletic Complex. The project would add a raised median along a portion of Linda Vista Road to preclude left-hand turns in and out of this driveway. A small guard house, similar to the one at the main entrance, would be placed at each relocated entrance. The project would add a traffic signal at the intersection of Linda Vista Road and Northrim Court.

9. **Surrounding land uses and setting**: The 22.45-acre project site is located in the Linda Vista community, on Linda Vista Road, east of Via Las Cumbres. The site has been in continuous use since 1959 as a private school, from 1959 to 1971 as the San Miguel School, and from 1971 through the present as the Francis Parker School Linda Vista Campus. The Campus is bounded on the north by Linda Vista Road, to the east by Northrim Court, to the south by on-site slopes of natural vegetation, and to the west by the San Diego County Office of Education. To the north across Linda Vista Road is San Diego Unified School District's Mark Twain School. To the east across Northrim Court is a commercial use (7-Eleven) and a multi-family residential project. The same multi-family residential project lies to the south of the project site at the toe of the on-site slopes. The project site is not in or adjacent to the Multi-Habitat Planning Area (MHPA).

10. **Other public agencies whose approval is** required (e.g., permits, financing approval, or participation agreement.): None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Population / Housing
☐ Agriculture and Forestry Resources	☒ Hazards & Hazardous Materials	☐ Public Services
☐ Air Quality	☐ Hydrology / Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use / Planning	☒ Transportation / Traffic
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities / Service
☐ Geology/Soils	☐ Noise	☒ Mandatory Findings of Significance

DETERMINATION
(To be completed by Lead Agency)

On the basis of this initial evaluation:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or (MITIGATED) NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or (MITIGATED) NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

I. AESTHETICS

Would the project:

a) Have a substantial adverse effect on a scenic vista? ☐ ☐ ☐ ☒

Neither the General Plan nor the Linda Vista Community Plan has identified a scenic vista or view corridor in or adjacent to this project site. Also, there are no existing view sheds to a scenic vista within the project site. Further, the project site is located within a largely urban and developed area, surrounded by institutional, commercial, and residential uses. The project site is currently developed with a private educational facility. All proposed improvements would occur within the existing development footprint. Therefore, the project would not have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ☐ ☐ ☐ ☒

The project site is not located within a state scenic highway area. It is located within a largely urban and developed area, surrounded by institutional, commercial, and residential uses. The project site is currently developed with a private educational facility serving Grades 6-12, and contains no significant scenic resources. The project proposes a Covenant of Easement to protect the site's only area of natural vegetation and slope, located along its southerly perimeter. The existing site contains an existing school campus and does not include scenic resources such as native trees or stone outcroppings and is not located within a scenic highway area. Therefore, impacts to scenic resources would not occur.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? ☐ ☐ ☐ ☒

The project site is currently developed with a private educational facility, located within a largely urban and developed area. The project site is surrounded by institutional, commercial, and residential uses. The project proposes demolition of three non-historically significant buildings and construction of new facilities. The new facilities would be located entirely within the existing campus footprint and all required parking will be contained onsite. The proposed subterranean garage would house the majority of onsite parking spaces, thereby reducing the amount of exposed parking. Surface parking would be screened by additional landscaping and tree plantings. Proposed plantings further reinforce the native, drought-tolerant landscape design of the existing campus grounds. Proposed buildings would be constructed of materials and textures similar to the plaster and wood trim finishes of the existing buildings, and would be color-matched to tie into the existing facilities, creating a unified contemporary campus design. Articulated roof lines and building planes of the proposed facilities serve to

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

reduce visual prominence, and integrate the new facilities into the existing campus. Proposed fences and walls would be architecturally compatible with the architectural design of the buildings, and would incorporate materials and finishes found in the existing campus. All proposed lighting would be shielded and focused away from neighboring properties. Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? ☐ ☐ ☐ ☒

All lighting would be required to be shaded and adjusted to fall on the project's site as required in the City's municipal code. The project site is currently developed with a private, non-profit educational facility, located within a largely urban and developed area. There would be no increase in the height or number of existing athletic field light poles, which would be painted a non-reflective gray to minimize their visibility. Six new light poles would be added to the elevated sports deck previously approved but not yet built in the northeast corner of the campus. Institutional uses lie across Linda Vista Road to the north of the future sports deck and commercial uses lie across Northrim Court to the east of the future sports deck. High technology LED fixtures would focus lighting onto the athletic field and the future sports deck, reducing off-site light spill and avoiding residential receptors, as validated by photometric studies. New buildings would incorporate largely non-reflective finishes to minimize glare. No "building wash" lights are proposed. All outdoor lights, other than security and safety lighting, must be turned off by 10:00 p.m. unless for CIF-sanctioned play, in which case, all lights must be out by 11:00 p.m. Therefore, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

II. AGRICULTURAL AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the project:

a) Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California ☐ ☐ ☐ ☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Resources Agency, to non-agricultural use?				

The project site is not classified as farmland by the Farmland Mapping and Monitoring Program (FMMP). Similarly, the land surrounding the project site is not in agricultural production and is not classified as farmland by the FMMP. Therefore, the project would not convert farmland to non-agricultural uses.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? ☐ ☐ ☐ ☒

Please see II.a. The project would not conflict with the Williamson Act Contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? ☐ ☐ ☐ ☒

This area of Linda Vista is not designated as forest land. Therefore, the project would not conflict with existing zoning for forest land.

d) Result in the loss of forest land or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒

The project is located in a largely developed and urbanized area and is not designated as forest land. Therefore, the proposed project would not convert forest land to non-forest use.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒

Agricultural uses are not located in proximity to the project site. Therefore, the project would not convert farmland to non-agricultural uses.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations - Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan? ☐ ☐ ☒ ☐

The project site is located within the San Diego Air Basin (SDAB) and is regulated by the San Diego Air Pollution Control District (SDAPCD). The SDAPCD monitors air pollution, implementation of the County's portion of the State Implementation Plan (SIP), and application

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

of the SDAPCD Rules and Regulations. The SIP contains strategies and tactics to be applied in order to attain and maintain acceptable air quality in the County, called the Regional Air Quality Strategy (RAQS). The RAQS is the applicable air quality plan for the proposed project.

Consistency with the RAQS is determined by two standards: (1) whether the proposed project would exceed assumptions contained in the RAQS; and (2) whether a project would increase the frequency or severity of violations of existing air quality standards, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS.

The air quality emission projections and emission reduction strategies in the RAQS are based on information from the California Air Resources Board (CARB) and San Diego Association of Governments (SANDAG) regarding mobile and area source emissions, as well as growth in the County (including the City of Santee). The CARB mobile source emissions projections and SANDAG growth projections are derived from population and vehicle use trends, and land use plans developed by the cities and County as part of their general plans. A project that proposed development consistent with the growth anticipated in a general plan would be consistent with the RAQS.

The project involves the modification of an existing school site, largely within a developed residential and commercial neighborhood and would not change the site's land use designation. Use of the property as a school is a permitted use by right under the existing zoning. As the project is not anticipated to result in substantial population growth, nor exceed building coverage and floor area ratio limits of the zone, the project would be consistent with SANDAG's growth projections for the City, and not exceed assumptions contained in the RAQS or conflict with the RAQS strategies developed for the reduction of emissions through regulatory controls. Additionally, the project does not have the bulk and scale to cause any obstruction in the implementation of the existing air quality plan, increase or worsen violations, or otherwise cause any adverse air movement within the area. In accordance with the City's CEQA Significance Thresholds projects that would typically result in significant hot spot air quality impacts would consist of projects that would produce 9,500 Average Daily Trips or would result in traffic Level of Service (LOS) impacts to streets, intersections and freeways. The project would result in the addition of 140 students with a resultant increase of 476 Average Daily Trips, well below the 9,500 Average Daily Trip significance threshold. The project would result in a LOS impact at the intersection of Linda Vista Road and Northrim Court in the a.m. peak hour from LOS C to LOS E. However, the project includes construction of a traffic signal at the intersection which will improve the a.m. peak hour existing LOS C to an LOS B with project traffic. With this mitigation, significant impacts to air quality would not occur.

Future construction of the new buildings could increase the amount of pollutants entering the air basin but these emissions would be temporary and finite. Construction Best Management Practices (BMPs), such as watering for dust abatement, would reduce construction dust emissions by 75 percent. Therefore, emissions associated with the construction of the project

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

would not be significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? ☐ ☐ ☐ ☒

Please see IIIa. Air quality impacts would not occur during the construction or operation of the school project.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ☐ ☐ ☐ ☒

Please see IIIa. and IIIb, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standards.

d) Create objectionable odors affecting a substantial number of people? ☐ ☐ ☐ ☒

Please see IIIa-d, the residential development does not have the potential to release objectionable odors.

IV. BIOLOGICAL RESOURCES

Would the project:

a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ☐ ☐ ☐ ☒

The project site is currently developed with an active school; however, there is sensitive and potentially sensitive vegetation mapped along the edge of the existing development and a narrow perimeter of slope is designated as "Open Space". Although the sensitive vegetation is not located within the MHPA.

All of the proposed buildings and facilities would be contained within the approved development footprint of the Linda Vista Campus and no encroachment is proposed into the sensitive vegetation or Open Space and there would be no potential to impact any sensitive

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
species of plants or animals.				
b) Have a substantial adverse effect on any riparian habitat or other community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
Please see IV a. riparian habitat does not exist on site and impacts would not occur.				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
Please see IV a., no substantial effect would occur.				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
The proposed project site is surrounded by development and there are no migratory corridors in the area. As previously mentioned there is sensitive and potentially sensitive vegetation mapped along the periphery of the project but this vegetation is isolated and lacks connectivity to other habitat areas.				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
Please see IVa. no significant impacts would occur.				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
The project is not located in or directly adjacent to the City's MHPA or any other conservation planning area. Therefore, the project does not have the potential to conflict with any habitat conservation plans.				

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

V. CULTURAL RESOURCES

Would the project:

a) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5? ☐ ☐ ☐ ☒

The purpose and intent of the *Historical Resources Regulations of the Land Development Code (Chapter14, Division 3, and Article 2*) is to protect, preserve and, where damaged, restore the historical resources of San Diego. The regulations apply to all proposed development within the City of San Diego when historical resources are present on the premises. CEQA requires that before approving discretionary projects, the Lead Agency must identify and examine the significant adverse environmental effects, which may result from that project. A project that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (Sections 15064.5(b) and 21084.1). A substantial adverse change is defined as demolition, destruction, relocation, or alteration activities, which would impair historical significance (Sections 15064.5(b)(1)). Any historical resource listed in, or eligible to be listed in the California Register of Historical Resources, including archaeological resources, is considered to be historically or culturally significant.

Qualified City Staff conducted a record search of the California Historic Resources Information System (CHRIS) digital database to determine presence or absence of potential resources within the project site and one-mile radius. No on-site archaeological resources were identified and the project site is not located on the City's Historical Sensitivity Map.

Due to previously developed nature of the project setting along with the fact that the surrounding area is not known to be sensitive for archaeological resources impacts to these resources were not identified and mitigation is not required.

Plan Historic Staff has reviewed the photos; Assessor's Building Record; water and sewer records; written description of the property and alterations; chain of title; and listing of occupants; as well as any available historic photographs; Sanborn maps; and Notices of Completion. In addition, staff has considered any input received through applicable public noticing and outreach and determined that the property does not meet local designation criteria as an individually significant resource under any adopted Historical Resources Board Criteria. Therefore, no impacts to any historical resource would occur and mitigation is not required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ☐ ☐ ☐ ☒

Please see V.a., the project would not cause a substantial adverse on an archaeological resource.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The project area is underlain by the geologic Lindavista Formation which has a moderate sensitivity rating for paleontological resources. In accordance with the City of San Diego CEQA Significance Determination Thresholds if a project would excavate over 2,000 cubic yards and 10 feet or more in depth, it would result in a significant impact on these resources.

Because the project would excavate over 41,000 cubic yards of soil to a depth greater than 10 feet there is the potential that the project would result in a significant impact to paleontological resources. Section V of the MND contains a mitigation measure that would require paleontological monitoring to be present during the grading of the site. This requirement would reduce the impact to below a level of significance.

d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Please see V.a., the project would not cause a substantial adverse effect on an archaeological resource and disturbances to human remains would not occur.

VI. GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒

In order to address potential geologic issues associated with the project a preliminary geotechnical report (Construction Testing and Engineering Inc., January 2015) and an addendum to that report (Construction Testing and Engineering Inc., May 2015) were prepared. The reports have been reviewed and approved by City Geology staff.

The reports determined that no known active fault traces underlie or project toward the site. Additionally, the site is not located within an earthquake fault zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. Therefore, no impacts in this category would occur.

ii) Strong seismic ground shaking?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Seismic ground shaking as a result of potential faulting was addressed in VI.ai. above, no impacts would occur.

iii) Seismic-related ground failure, including liquefaction? ☐ ☐ ☐ ☒

The reports determined that due to the generally dense to very dense nature of the underlying bedrock, the potential for liquefaction or seismic settlement damage to proposed improvements is low and that no impacts would occur.

iv) Landslides? ☐ ☐ ☐ ☒

The reports indicate that the site materials are considered marginally susceptible to landsliding. However, based upon the conditions encountered during the advancement of exploratory borings at the subject site, landsliding is not considered a significant hazard.

b) Result in substantial soil erosion or the loss of topsoil? ☐ ☐ ☐ ☒

The project includes a landscape plan that has been reviewed and approved by City staff that precludes erosion of topsoil. In addition, standard construction BMPs would be in place to ensure that the project would not result in a substantial amount of topsoil erosion.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ☐ ☐ ☐ ☒

Please see previous discussion throughout Section VI. The reports did not identify significant hazards and in addition proper engineering design and utilization of standard construction practices would be verified at the construction permitting stage that would ensure impacts in this category would not occur.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ☐ ☐ ☐ ☒

Undocumented Fill and the upper limits of engineered fill are considered to be compressible in their present condition. However, sandstone of the Qvop deposits at the site is dense to very dense and typically has a very low compressibility. Site preparatory grading recommendations herein have been developed to mitigate compressible fill materials.

The design of the project would utilize proper engineering design and standard construction practices to ensure that the potential for impacts would not occur.

e) Have soils incapable of adequately supporting ☐ ☐ ☐ ☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				

The project does not propose the use of septic tanks. As a result, septic tanks or alternative wastewater systems would not be used. Therefore, no impact with regard to the capability of soils to adequately support the use of septic tanks or alternative wastewater disposal systems would result.

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

The City utilizes the California Air Pollution Control Officers Association (CAPCOA) report "CEQA and Climate Change" (CAPCOA 2009) to determine whether a Greenhouse Gas (GHG) analysis would be required for submitted projects. The CAPCOA report references a 900 metric ton guideline as a conservative threshold for requiring further analysis and possible mitigation. This emission level is based on the amount of vehicle trips, the typical energy and water use associated with projects, and other factors. In order to determine if the project would exceed the 900 metric ton screening threshold a GHG analysis was conducted (Baker, January 2016) and is summarized below.

Project-related GHG emissions would include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions Estimator Model (CalEEMod) was utilized to determine direct and indirect GHG emissions. CalEEMod relies upon project specific land use data to calculate emissions. Table 2, *Estimated Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and CH_4 emissions of the proposed project. CalEEMod outputs are contained within Attachment A of the study.

Direct Project-Related Greenhouse Gas Emissions

- Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

operational emissions.[1] As seen in Table 2, the proposed project would result in 121.77 $MTCO_2eq/yr$ from direct construction-related sources of GHG emissions.

- Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 2 of the report, the proposed project would result in a nominal amount of area source GHG emissions.
- Mobile Source. CalEEMod relies upon trip generation data and project specific land use data to calculate mobile source emissions. As shown in Table 2 of the report, using CALEEMod's emissions data without consideration of specific project design features discussed below, the project would directly result in 359.29 $MTCO_2eq/yr$ of mobile source-generated GHG emissions.

Table 2 from the Greenhouse Gas Analysis: Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
• Construction (amortized over 30 years)	121.27	0.02	0.50	0.00	0.00	121.77
• Area Source	0.01	0.00	0.00	0.00	0.00	0.01
• Mobile Source	358.95	0.02	0.40	0.00	0.00	359.29
Total Unmitigated Direct Emissions[3]	***480.23***	***0.04***	***0.90***	***0.00***	***0.00***	***481.07***
Indirect Emissions						
• Energy	294.29	0.01	0.28	0.00	0.83	295.38
• Water Demand	42.55	0.13	3.29	0.00	1.02	46.37
• Solid Waste Generation	11.56	0.68	17.08	0.00	0.00	25.91
Total Unmitigated Indirect Emissions[3]	***348.4***	***0.82***	***20.65***	***0.00***	***1.85***	***367.66***
Total Unmitigated Project-Related Emissions[3]	***848.73 $MTCO_2eq/yr$***					
900 $MTCO_2eq$ Screening Threshold Exceeded?	***No***					

Notes:
1. Emissions calculated using CalEEMod.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 2016.
3. Totals may be slightly off due to rounding.

Refer to Attachment A, *Greenhouse Gas Emissions Data*, for detailed model input/output data.

Indirect Project-Related Greenhouse Gas Emissions

[1] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- Energy Consumption. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via San Diego Gas & Electric. Using CALEEMod's emissions data without consideration of specific project design features discussed below, the proposed project would indirectly result in 295.38 $MTCO_2eq/yr$ due to energy consumption; refer to Table 2.
- Water Demand. Water demand associated with operation of the proposed project was calculated using CalEEMod and project-specific land use data. Emissions from indirect energy impacts due to water demand would result in an approximate net increase of 46.37 $MTCO_2eq/yr$; refer to Table 2.
- Solid Waste. Solid waste associated with operations of the proposed project would result in 25.91 $MTCO_2eq/yr$; refer to Table 2.

Total Project-Related Greenhouse Gas Emissions

As shown in Table 2, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 848.73 $MTCO_2eq/yr$.

Project Design Features

The project includes various project design features that would further reduce project-related GHG emissions. The project would redevelop a portion of the existing campus and would place the proposed multi-purpose Student Center, dining and recreational uses of the Linda Vista Campus less than 0.05-mile from local San Diego Metropolitan Transit System (SDMTS) bus lines. The project design also includes access refinements and pedestrian connections that connect pedestrian and vehicle access to external streets and pedestrian facilities contiguous with the project site. The project would integrate the project components and does not include physical barriers (e.g., walls, landscaping, or slopes) that would impede pedestrian circulation.

The project would design buildings to be water and energy efficient, exceeding Title 24 requirements, as well as the California Green Building Code standards. The project would apply low volatile organic compounds (VOC) cleaning and painting supplies, install high efficient light-emitting diodes (LED) lighting, and institute recycling and composting services to reduce solid waste by at least 50 percent. Trash and recycling bins would be provided in public areas throughout the Linda Vista Campus. Trash and recycling compactors would also be installed to reduce the number of waste disposal hauling trips. Low-flow and energy efficient fixtures and water-efficient irrigation systems are incorporated into the project design to maximize the efficient use of water and minimize the effects of drought within the City. The project would also replace approximately 9,000 square feet of grass with native drought-tolerant landscaping, thereby reducing high levels of irrigation use.[2] Photovoltaic solar panels

[2] The Linda Vista Campus already utilizes artificial turf for the existing athletic field. It should be noted that the proposed reconfigured athletic field would also use artificial turf. The CalEEMod emissions data depicted in Table 2 does not include reductions for artificial turf. Therefore, reductions for artificial turf have been applied as a project design feature and associated emissions are depicted in Table 3.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

are proposed on the roof of the Performing Arts Center that would offset the project's energy consumption by approximately 15,842 kilowatt hours (kWh) annually.

Greenhouse Gas Emissions With Project Design Features

Implementation of proposed project design features described above would result in reduced project-related GHG emissions. GHG reductions were applied using CalEEMod. Table 3, *Greenhouse Gas Emissions With Project Design Features*, shows the reduced GHG emissions resulting from implementation of project design features associated with water, energy, solid waste, and land use efficiency measures.

Reduction measures applied in CalEEMod and accounted for in Table 3 from project design features include the following:

- Transit accessibility, as the project site is located adjacent to SDMTS bus stops;
- Pedestrian connections to the off-site circulation network;
- Include facilities that encourage/accommodate the use of ridesharing, transit, school bus, pedestrian, and bicycle commuting;
- Low VOC cleaning and painting supplies;
- Exceed Title 24 requirements by including LED lighting and solar panels on the Performing Arts Center that would generate approximately 15,842 kWh annually;
- Low-flow faucets, toilets, and showers;
- Installation of artificial turf;
- Water-efficient irrigation systems; and
- Institute recycling and composting services to reduce solid waste by at least 50 percent.

Table 3 from the Greenhouse Gas Analysis:
Greenhouse Gas Emissions With Project Design Features

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
• Construction (amortized over 30 years)	121.27	0.02	0.50	0.00	0.00	121.77
• Area Source	0.01	0.00	0.00	0.00	0.00	0.01
• Mobile Source	358.95	0.02	0.40	0.00	0.00	359.29
Total Unmitigated Direct Emissions[3]	***480.23***	***0.04***	***0.90***	***0.00***	***0.00***	***481.07***
Indirect Emissions						
• Energy	174.34	0.01	0.16	0.00	0.51	175.00

Issue			Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
• Water Demand	42.55	0.13	3.29	0.00	1.02	46.37
• Solid Waste Generation	11.56	0.68	17.08	0.00	0.00	25.91
Total Unmitigated Indirect Emissions[3]	***228.45***	***0.82***	***20.56***	***0.00***	***1.53***	***247.28***
Total Unmitigated Project-Related Emissions[3]	***728.35 $MTCO_2eq/yr$***					
900 $MTCO_2eq$ Screening Threshold Exceeded?	***No***					

Notes:
1. Emissions calculated using CalEEMod.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 2016.
3. Totals may be slightly off due to rounding.

Refer to Attachment A, *Greenhouse Gas Emissions Data*, for detailed model input/output data.

Additional Sustainable Development Practices and Planned Initiatives

Francis Parker School has developed a Sustainability Action Plan to evaluate existing practices and to identify initiatives for additional sustainable development practices. Although these initiatives cannot be quantified and applied in CalEEMod (because they are planned for the future or otherwise not quantifiable), these practices would further reduce GHG emissions beyond what is depicted in Table 3. The project includes sustainable development practices such as retrofitting light fixtures in older buildings and the athletic field with LED fixtures and achieving Leadership in Energy & Environmental Design (LEED) Gold certification for future buildings.

Francis Parker School also continues to participate in sustainable activities such as providing San Diego Rescue Mission food donations (Francis Parker donates an average of 120 pounds of food per week); the San Diego Gas & Electric Level 2 energy audit; the City's pre-consumer composting program; an information technology [IT] energy management program; utilizing the Energy Star Portfolio Manager; incorporating sustainability education in the classroom and providing awareness training among the student body association, faculty, contracted service providers (i.e., food service and janitorial service), and supporting donors; and planning for the installation of several energy efficient improvements on campus.

The various energy efficient improvements include photovoltaic solar panels on other campus buildings roofs and parking lot spaces, variable refrigerant flow (VRF) with "smart" temperature control thermostats in all classrooms, offices, and other facilities, window replacement on older buildings, cool roof technology, electric vehicle (EV) charging stations, conversion from disposable to reusable lunch dishware, paperless account billing, and carbon credit purchases associated with global studies trips. The school also plans to retrofit fixtures in the interior of older buildings (that will not be demolished as part of the Master Plan Update), as well as the exterior site lighting, with LED lights in order to reduce energy consumption by approximately

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

75,000 kWh annually, which would result in a GHG emissions reduction of 32 $MTCO_2eq/yr$.[3]

Additional planned initiatives include providing incentives to members of faculty and staff who rideshare, take public transportation, or use vehicles (e.g., bikes) that do not emit GHGs. Francis Parker School has also established a potential initiative to transition to a grey water irrigation system contingent upon the City of San Diego providing the necessary infrastructure improvements.

The planned initiative to provide options for employees and enrolled students to commute to and from campus through promoting rideshare, public transportation, and available facilities for carpoolers, school bus services, bicyclists, and pedestrians would also be in agreement with the City's *Transportation Demand Management Program* (TDM program), which sets forth recommendations to improve mobility, reduce congestion and air pollution.

In summary the proposed project's GHG emissions would not exceed the 900 MT screening threshold and impacts in this category would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☐ ☐ ☐ ☒

The project as proposed would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions in that the project would be located in an established urban area with services and facilities available. In addition, the project is consistent with the underlying zone and land use designation.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials? ☐ ☐ ☐ ☒

The project does not propose the use or transport of any hazardous materials. Construction and demolition activities may require the use of hazardous materials (fuels, lubricants, solvents, etc.), which would require proper storage, handling, use and disposal; however, the school would not routinely transport, use or dispose hazardous materials. Therefore, the project would not create a significant hazard to the public or environment.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the ☐ ☐ ☐ ☒

[3] Based on the following San Diego Gas and Electric GHG intensity factors from CalEEMod version 2013.2.2: 720.49 pounds per megawatt hour (lb/MWh) for CO_2, 0.029 lb/MWh for CH_4, and 0.006 lb/MWh for N_2O.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
environment?				
Please see VIIIa.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐

The former Camp Kearny Mesa Burn Site lies within the Linda Vista neighborhood in the City of San Diego, California approximately four miles north-northwest of downtown San Diego, north of Mission Valley. The former burn site is located on the eastern margin of the campus. The former burn site lies beneath the eastern portion of the athletic field and is exposed on a steep east-facing slope that adjoins Northrim Court. The burn site is bounded by Northrim Court and River Glen Row to the east and south, Linda Vista Road to the north, and other parts of the Francis Parker campus to the west.

In 2004 approximately 1,820 tons of burn ash-containing materials were removed from the top of the slope to accommodate the excavation and grading for development of the athletic field. The burn ash removal was completed under the oversight of the City's Local Enforcement Agency (LEA). Residual burn ash remains onsite under a clean soil cap with an approximate minimum thickness of 18 inches located along the eastern edge of the athletic field near the top of the slope. The proposed renovation within this area includes grading and or excavation for the construction of foundations for a Visitor Service Building and bleachers, and trenching for utility line installation.

As noted within the project plans all grading or excavation that disturbs surface soil and or soil to a depth of three feet below ground surface will require observation by a 40-hour Hazwoper-trained environmental professional experienced in the identification of burn ash. If burn ash is identified, grading or excavation will stop and a burn ash management plan and a community health and safety plan will be immediately implemented.

A burn ash management plan (AECOM, December 2015) has been reviewed and approved by the City's LEA. Site-specific and community Health and Safety Plans (HASPs) will be prepared for implementation during the management of burn ash-containing materials during construction activities. The site-specific HASP will be prepared in accordance with OSHA guidelines and will outline monitoring requirements and hazards related to burn ash. The plan will be approved by a certified industrial hygienist and will comply with current safety standards as defined by the U.S. EPA, the Occupational Safety and Health Administration (OSHA), and the National Institute of Occupational Safety and Health (NIOSH) and in accordance with guidelines set forth in Title 8 of the California Code of Regulations, Section 5192. Any modifications to the plan would need to be approved by LEA before the changes are made.

The identification and management of burn ash per the approved burn ash management plan would reduce and/or eliminate the likelihood that school staff, students and workers,

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

either nearby or involved in the proposed construction, would be exposed to unacceptable concentrations of COCs associated with burn ash burn ash-containing soil identified as being present beneath the ground surface at the site. Waste transportation and disposal plan elements, if necessary, are also described. In order to ensure that a significant hazard would not occur to the public or to the Francis Parker population Section V of the MND details mitigation measure HAZ MAT 1 which implements the requirements of the approved burn ash management plan and impacts would be reduced to below a level of significance.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

The project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impacts in this category would not occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two mile of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

The project is located in the Airport Influence Area (AIA) Review Area 2 for the San Diego International Airport (SDIA) as depicted in the adopted 2014 SDIA Airport Land Use Compatibility Plan (ALUCP), and in AIA Review Area 2 for Montgomery Field as depicted in the adopted 2010 Montgomery Field ALUCP.

The maximum height of the proposed new structures is 316.67 feet Above Mean Sea Level (AMSL). The FAA Part 77 notification surface for Montgomery Field is above the site at 597 feet AMSL, and the Part 77 notification surface for SDIA is below the site at 150 ft AMSL. The project does exceed the FAA Part 77 notification surface for SDIA; therefore, FAA notification is required. Notification to the FAA or notification self-certification agreement would be required. Although the notification process is required the project in not located in a Safety Zone as depicted in the 2014 ALUCP and impacts in this category would not occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

No private airstrips are located in the immediate vicinity.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

The project would not alter an emergency response or evacuation plan since the project is not at the scope or scale that would cause such an impact.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

There are existing Brush Management Zones that were established in the previous entitlements for the Francis Parker Master Plan. City Landscaping Planners have reviewed the new landscaping plan and have provided additional conditions to ensure compliance with all City Landscape regulations. The project as conditioned would not expose people or structures to impacts associated with wildland fires.

IX. HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒

A Water Quality Technical Report (Baker International, June 2015) was prepared to address water quality. The report did not identify any significant water quality impacts. In addition, the project contains the following condition which would preclude any impacts:

- Prior to the issuance of any construction permit, the project will be required to adhere to the City of San Diego Storm Water Standards in effect at the time of approval of the ministerial permit.
- Prior to the issuance of any construction permit, the Owner/Permittee shall enter into a Maintenance Agreement for the ongoing permanent BMP maintenance, satisfactory to the City Engineer.
- Development of this project shall comply with all requirements of State Water Resources Control Board (SWRCB) Order No. 2009-0009 DWQ as most recently amended by Order No. 2012-0006 DWQ and the San Diego Regional Water Quality Control Board (SDRWQCB) Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated With Construction and Post Construction Activity. In accordance with Order No. 2012-0006 DWQ, a Storm Water Pollution Prevention Plan (SWPPP) and a Monitoring Program Plan shall be implemented concurrently with the commencement of grading activities, and a Notice of Intent (NOI) shall be filed with the

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

SWRCB.

- Copy of the acknowledgment from the SWRCB that an NOI has been received for this project shall be filed with the City of San Diego when received; further, a copy of the completed NOI from the SWRCB showing the permit number for this project shall be filed with the City of San Diego when received. In addition, the owner(s) and subsequent owner(s) of any portion of the property covered by this grading permit and by SWRCB Order No.2012-0006 DWQ, and any subsequent amendments thereto, shall comply with special provisions as set forth in SWRCB Order No. 2012-0006 DWQ.
- Prior to the issuance of any construction permit, the Water Quality Technical Report and Hydrology Study will be subject to final review and approval by the City Engineer.

Compliance with the City of San Diego's Storm Water Standards and the conditions stated above along with the recommendations of the approved water quality technical report would ensure that water quality impacts would not occur and mitigation is not required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? ☐ ☐ ☐ ☒

The project would be connected to the public water supply. It would not rely directly on groundwater in the area and would not significantly deplete any resources.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site? ☐ ☐ ☐ ☒

Hydrology is defined as the science dealing with the properties, distribution, and circulation of surface water, ground water and atmospheric water. The quantity of water which flows in a creek or river is calculated based on historic climactic conditions combined with the watershed characteristics. The slope and shape of the watershed, soil properties, recharge area, and relief features are watershed characteristics which influence the quantity of surface flows.

To address how the project may impact drainage patterns a hydrology study was prepared (Baker International, June 2015). The report found that drainage from the site will continue to flow within the same patterns. Drainage from the parking lot, buildings, hardscape and field will continue to flow to the crotch of the canyon. Drainage from the parking lot and the hardscape will flow to the 24" storm drain, while the field will flow to the existing 12" storm

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

drain as per the existing condition. Drainage patterns in both the existing and proposed condition will be unchanged.

Although grading would be required for the development, streams or rivers do not occur on or adjacent to the site which would be impacted by the proposed grading activities. Following construction, landscaping would be installed consistent with City landscaping design requirements to further reduce the potential for runoff from the project site to occur. Therefore, based upon the results along with implementation of the proposed BMPs from the WQTR and adherence to City storm water requirements, no adverse impacts to the downstream conveyance system are anticipated. No impacts would occur, and no mitigation measures are required.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☒

Please see IX.c., no flooding would occur.

e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒

Based on City of San Diego review, the proposed project would be adequately served by existing municipal storm water drainage facilities, therefore no impacts would occur. Potential release of sediment or other pollutants into surface water drainages downstream from the site would be precluded by implementation of BMPs required by City of San Diego regulations, in compliance with San Diego Regional Water Quality Control Board requirements to implement the federal Clean Water Act. Therefore, no significant surface water quality impacts are expected to result from the proposed activity. Proper irrigation and landscaping would ensure that runoff would be controlled and unpolluted.

f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

See IX. e)

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

The project does not propose construction of any new housing in the 100-year flood hazard

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
area and impacts in this category would not occur.				
h) Place within a 100-year flood hazard area, structures that would impede or redirect flood flows?	☐	☐	☐	☒

The project does not propose construction of any features that would impede or redirect flows and is not located within a 100-year flood hazard area.

X. LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

The project involves the modification of an existing school site, largely within a developed residential and commercial neighborhood. The project would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The project is located in the Linda Vista community planning area and has a land use designation of School/Institution and the General Plan designation of Institutional & Public and Semi-Public Facilities. The project site is zoned as RM-1-1 and OR-1-1. The proposed project has been reviewed by staff and it was determined that the project would not adversely affect the goals and policies of the land use documents.

The project would require an Amendment to PDP No. 84875 and SDP No. 215276 and would include the following three deviations from development regulations: (1) a deviation of 1'8" to the height limit to provide for elevator shafts in the proposed dining hall and proposed athletic center; (2) a deviation of 12'0" for six light poles proposed for a proposed elevated sports deck; and (3) a deviation to allow a 25' setback along Northrim Court where the minimum required is 10' or 10% of the premises width, which is greater. None of the proposed deviations would result in a secondary environmental impact.

The project is located in the Airport Influence Area (AIA) Review Area 2 for the San Diego International Airport (SDIA) as depicted in the adopted 2014 SDIA Airport Land Use Compatibility Plan (ALUCP), and in AIA Review Area 2 for Montgomery Field as depicted in the adopted 2010 Montgomery Field ALUCP. Long Range Planning Staff has determined that the use and density are consistent with the ALUCP and impacts in this category would not occur.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

As mentioned in Section IV construction for the project would be confined to the existing developed foot print. However, the lot does contain sensitive vegetation which is defined as Environmentally Sensitive Lands (ESL). Section 143.0140(a) of the San Diego Municipal Code requires that ESL outside of the allowable development area be incorporated into a covenant of easement (COE) that shall be recorded against title to the property, in accordance with procedures set forth in Section 143.0152.

Based upon City Staff's review the project is consistent with all applicable land use plans, policies, and regulations and no impacts are identified in this category.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan? ☐ ☐ ☐ ☒

The project site is not located within or adjacent to the MHPA or any other conservation plan area. Conflicts with any such plans would not occur.

XI. MINERAL RESOURCES

Would the project?

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ☐ ☐ ☐ ☒

This project site is located in a developed area not suitable for mineral extraction and is not identified in the General Plan as a mineral resource locality. Therefore, the project would not result in the loss of availability of a known mineral resource.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ☐ ☐ ☐ ☒

See XI a.

XII. NOISE

Would the project result in:

a) Generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? ☐ ☐ ☒ ☐

In order to determine if the project could result in noise generation exceeding City standards an acoustical analysis report was prepared (Michael Baker International, September 2015). The report analyzed both short term construction noise as well as noise from the long term operation of the project to determine if there is a potential for noise generated by the

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

project to exceed the City's CEQA Thresholds, the General Plan or the Municipal Code.

Noise impacts from construction are dependent on the noise generated by the construction equipment, the location and sensitivity of affected land uses, as well as the timing and duration of the activities. Noise levels adjacent to the active construction sites would increase during construction. Construction would not result in long-term impacts, since it would be temporary and daily construction activities would be limited by the City's Noise Ordinance in Municipal Code Section 59.5.0404 to an average sound level of 75 dB from 7:00 a.m. to 7:00 p.m. The report showed that construction noise for the Francis Parker school would occur throughout the project site and would not be concentrated in any one particular area. Noise modeling within the report demonstrated that short-term construction activities would not exceed the City's construction noise standard of 75 dB at residential zoned properties pursuant to Municipal Code Section 59.5.0404 and significant construction noise impacts would not occur.

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of the proposed project. According to the traffic impact analysis, the proposed project would generate approximately 476 daily trips. The report analyzed the operational traffic noise from the project in the near term, year 2035 condition, and from a cumulative noise perspective. The report determined that under all scenarios that noise would not reach 3.0 decibels (dB) and in accordance with the City of San Diego's CEQA Significance Determination Thresholds noise that increases less than 3.0 dB would not be significant.

Upon project completion, stationary noise in the project area would not significantly increase. The project proposes the addition of approximately 103,109 square feet of new facilities to the existing Linda Vista Campus. Stationary noise sources associated with the proposed project would include mechanical equipment and on-site amenities.

Typically, mechanical equipment noise can reach approximately 55 dBA at 50 feet from the source. The nearest residential uses to the project site are the existing multi-family residents located approximately 110 feet to the east of the project site. Heating Ventilation and Air Conditioning (HVAC) units would be included on the roofs of the structures, and would likely be located toward the center of the structures and be located behind a parapet. Thus, the proposed project would likely not result in additional noise impacts to nearby residents from HVAC units. Therefore, the nearest residents would not be directly exposed to substantial noise increases beyond existing conditions from on-site mechanical equipment. Impacts in this regard would be less than significant.

Noise associated with the operation of the recreational facilities was also analyzed in the study. The outdoor aquatic center includes a 25 meter pool, a 15,400 square foot pool deck, and aluminum bleachers that accommodate 150 spectators with room for 150 additional

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

standing spectators. The nearest sensitive receptors (multi-family residences) to the outdoor aquatic center are located approximately 200 feet to the south. Noise levels associated with swimming pools are typically 57 dBA at 75 feet from the edge of the pool for lap swim activities and 56 to 67 dBA for community swim activities. Additionally, during swim events a starting system and public address (PA) system would be utilized. The project proposes to construct a 14-foot block wall barrier around the eastern, southern, and western boundaries of the outdoor aquatic center that would block the line of site to nearby sensitive receptors to the south project site. Block wall barriers have the capability to attenuate noise by up to 15 dBA. Therefore, the block wall barrier would provide the necessary noise reduction from the outdoor aquatic center to below the City's noise standards for multi-family residences [55 dBA during the daytime (7:00 a.m. to 7:00 p.m.) and 50 dBA during the evening (7:00 p.m. to 10:00 p.m.)]. Impacts associated with the outdoor aquatic center would be less than significant.

The indoor gymnasium is proposed to be constructed directly over the underground parking structure. The gymnasium would house indoor sporting events, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms. Noise impacts to nearby sensitive receptors would be nominal, as the gymnasium is centrally located within the project site approximately 300 feet away from the nearest sensitive receptors (multi-family residences), and would host indoor sporting events. Therefore, impacts associated with the indoor gymnasium would be less than significant.

The existing sports field located on the northeastern portion of the project site would be reconstructed into a multi-purpose track and field facility with the inclusion of a regulation eight-lane track around the perimeter. Noise associated with the track and field facility would emanate from spectators and the potential use of a PA system. The project would include design features that would limit the sound output of the PA system to 90 dBA and would locate the PA system on the northwestern portion of the track and field facility to ensure a minimum distance of 375 feet between the PA system and nearby sensitive receptors and therefore impacts would not occur.

Therefore based upon the totality of the acoustical analysis report it was determined that the project would not exceed or conflict with any of City standards and impacts in this category would be less than significant.

b) Generation of, excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐

Project construction can generate varying degrees of groundborne vibration, depending on

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The acoustical analysis did not identify any impacts relating from construction ground borne vibration. In addition, please see the discussion in Section XII a.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ☐ ☐ ☒ ☐

Please see Section XII a., a significant impact was not identified.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing without the project? ☐ ☐ ☒ ☐

Please see Section XII a., a significant impact was not identified.

e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the area to excessive noise levels? ☐ ☐ ☐ ☒

The project is located in the Airport Influence Area (AIA) Review Area 2 for the San Diego International Airport (SDIA) as depicted in the adopted 2014 SDIA Airport Land Use Compatibility Plan (ALUCP), and in AIA Review Area 2 for Montgomery Field as depicted in the adopted 2010 Montgomery Field ALUCP. However, the project is located outside of the 60 decibel (dB) Community Noise Equivalent Level (CNEL) as depicted in the 2014 ALUCP and people residing or working in the area of the project would not be exposed to excessive airport noise.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ☐ ☐ ☐ ☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The project is not located within the vicinity of a private airstrip; therefore, people residing or working in the area of the project would not be exposed to excessive airport noise.

XIII. POPULATION AND HOUSING

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☐ ☒

In accordance with State CEQA Guidelines Section 15126.2(d), an EIR must include an analysis of the growth-inducing impact of the proposed project. The growth inducement analysis must address: (1) the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for the project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. This second issue involves the potential for the project to induce further growth by the expansion or extension of existing services, utilities, or infrastructure. State CEQA Guidelines Section 15126.2(d) further states that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The Francis Parker Master Plan project would demolish three buildings comprising 41,229 square feet, retain 133,753 square feet of existing buildings, and would add 103,182 square feet of proposed buildings and would increase the student population from 800 to 940. The project is not creating substantial new housing nor would it increase or foster any large economic growth. In addition, the project would not extend any existing roadways or other facilities into an undeveloped area or introduce any new roadways or other facilities that could induce growth. Therefore, the project would not induce substantial population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

Please see the project description no displacement of housing would occur as a result of this project.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

See XIII.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

i) Fire Protection ☐ ☐ ☐ ☒

The proposed project would not require the alteration of any fire protection facilities and would not require any new or altered fire protection services.

ii) Police Protection ☐ ☐ ☐ ☒

See XIV i)

iii) Schools ☐ ☐ ☐ ☒

The proposed Francis Parker Master Plan project is proposing to make improvements at its existing private school campus. No impacts to public schools will occur.

iv) Parks ☐ ☐ ☐ ☒

The project would not induce growth that would require substantial alteration to an existing park nor would it require the construction of a new park.

v) Other public facilities ☐ ☐ ☐ ☒

The scope of the project would not substantially increase the demand for electricity, gas, or other public facilities.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☐ ☒

The proposed project would not require any expansion of existing recreational facilities. There would be no increase in the use of existing facilities in the area including parks or other recreational areas as a result of the project.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? ☐ ☒ ☐ ☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The project does include the construction of an athletic complex/gymnasium but the impacts associated with those improvements are among those analyzed in this MND.

XVI. TRANSPORTATION/TRAFFIC

Would the project?

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐

A Traffic Impact Study (Urban Systems Associates Inc., February 2016) was prepared to determine potential transportation impacts and appropriate mitigation measures for the proposed addition of 140 students to the existing school population of 800. The study also evaluated proposed changes in access to the campus and presented a Transportation Management Plan for special events on campus. The study was reviewed and approved by City of San Diego Transportation Development Staff. A summary is provided below and the traffic study is available for review.

Based upon this transportation impact analysis, it was determined that development of the proposed project would have the following impacts:

Impacts:

1. **Street Segments -** The proposed project has less than significant direct project impacts. The analysis shows all segments will have less than significant cumulative project impacts in horizon year 2035.
2. **Intersections -** The proposed project has one (1) significant direct project impact at Linda Vista Road / Northrim Court. The traffic study did not identify any cumulative intersection impacts. The analysis shows all intersections will have less than cumulative significant project impacts in horizon year 2035. The analysis assumes a signal already in place at Linda Vista Road / Northrim Court in the horizon year 2035 since the signal will be installed as mitigation in the near term.
3. **Freeway Segments & Metered Freeway Ramps** – Project traffic on nearby freeway segments and metered freeway ramps are expected to be less than 20 peak hour trips and therefore were not evaluated in this report.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

As shown in the street segment summary tables, there are no significant direct or cumulative impacts as a result of the proposed expansion of the Francis Parker School. As shown in the intersection summary table, there is one significant direct impact at Linda Vista Road / Northrim Court. The project will install a traffic signal at Linda Vista Road / Northrim Court to mitigate the project's direct impact at this location.

The following mitigation measure would reduce the impact to the intersection at Linda Vista Road / Northrim Court:

Trans-1

- Prior to the issuance of any building permits, the Owner/Permittee shall assure, by permit and bond, the installation of a new traffic signal at the intersection of Linda Vista Road and Northrim Court, with signal interconnect to the adjacent traffic signals, and install striping to provide a left-turn lane and right-turn lane on Northrim Court, satisfactory to the City Engineer.

The Francis Parker School Master Plan Update as proposed will accommodate recurring special events with additional parking. These recurring events are typically scheduled during off – peak hours or on weekends. Most special events will be scheduled for late afternoon/evening and will not conflict with student traffic. Events are scheduled on different days for middle school versus upper school activities to best accommodate visitors during these events.

A circulation plan has been prepared that shows how the site will be accessed for student drop – off in the morning, pick – up in the afternoon, and student parking. The plan would close one driveway on Linda Vista Road and add a driveway on Northrim Court.

Based upon the results of the traffic study there would be no impacts associated with special events or with access. However, one direct impact was identified at the intersection of Northrim Court and Linda Vista Road that will be mitigated to below a level of significance. Therefore, with the implementation of the mitigation measure there would be no conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
See XVI a.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a change in location that results in substantial safety risks?				

The project is located in the Airport Influence Area (AIA) Review Area 2 for the San Diego International Airport (SDIA) as depicted in the adopted 2014 SDIA Airport Land Use Compatibility Plan (ALUCP), and in AIA Review Area 2 for Montgomery Field as depicted in the adopted 2010 Montgomery Field ALUCP.

The maximum height of the proposed new structures is 316.67 feet Above Mean Sea Level (AMSL). The FAA Part 77 notification surface for Montgomery Field is above the site at 597 feet Above Mean Sea Level (AMSL), and the Part 77 notification surface for SDIA is below the site at 150 ft AMSL. The project does exceed the FAA Part 77 notification surface for SDIA; therefore, FAA notification is required. Although the notification process is required the project in not located in a Safety Zone and based upon the review by Airport Planning Staff impacts in this category would not occur.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

A project access plan has been prepared that includes on site circulation for drop – off, pick – up and student parking. The plan would close one driveway on Linda Vista Road and add a driveway on Northrim Court. Significant impacts were not identified in this category.

e) Result in inadequate emergency access?	☐	☐	☐	☒

See XVI a.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Pedestrian access to the project is provided via sidewalks along Linda Vista Road. A marked pedestrian crosswalk is provided at the main entrance to the school at the signalized intersection of Linda Vista Road and Alcala Knolls Drive and the traffic study includes a pedestrian circulation plan. Class II bike lanes are provided along both sides of Linda Vista Road which allows bike access to the school. Bike racks are provided on-site. The project would not have the potential to conflict with transit, bicycle or pedestrian facilities nor would the project decrease the safety or performance of these facilities.

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
of the applicable Regional Water Quality Control Board?				

This project would neither exceed the capacity of the existing wastewater facilities nor require additional facilities to be constructed. It would have sufficient water supplies available and would not exceed or create a demand for new wastewater or stormwater facilities. Adequate services exist to serve the proposed project and impacts would not be significant.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

This project would not result in an increase in the intensity of the use and would not be required to construct a new water or wastewater treatment facility.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

See XVII a.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

See XVII a.

e) Result in a determination by the wastewater treatment provided which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

The wastewater treatment system currently serving the area would adequately serve the proposed project. No adverse impacts would occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒

The City of San Diego CEQA Significance Determination Thresholds (January 2011) identifies the threshold level at which a proposed construction, demolition, and/or renovation project may have potentially significant direct or cumulative impacts on solid waste disposal. For projects that exceed these thresholds, preparation of a Waste Management Plan (WMP) is required to

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

ensure that overall waste produced by these projects is reduced sufficiently to comply with City policies regarding waste reduction, recycling, and product procurement. Implementation of a project specific WMP is required in order to offset cumulative impacts of projects proposing construction, demolition, and/or renovation of 40,000 square feet or more of building space (generating 60 tons or more of waste), and to mitigate direct impacts of projects of 1,000,000 square feet or more (generating 1,500 tons of waste or more).

The proposed project would demolish three buildings comprising 41,229 square feet and would add 103,182 square feet of proposed buildings and therefore has the potential result in impacts to the City's solid waste facilities. A WMP has been prepared (KLR Planning, June 2015) to identify measures that would be incorporated into the demolition, grading, construction, and operations (occupancy) phases of the development that would maximize diversion of solid waste from the Miramar Landfill and minimize strain on solid waste services.

Adherence to the measures identified in the approved WMP would reduce or divert construction and demolition waste from the landfill, to meet or exceed City policies regarding waste reduction, recycling, and product procurement. Therefore, the project could be sufficiently served by landfills and an impact would not occur in this category.

g) Comply with federal, state, and local statutes and regulation related to solid waste?	☐	☐	☐	☒

Solid waste pickup would be provided at the subject site. This would include recycling and yard waste pickup.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

The project is located in a developed area and would not degrade the quality of the surrounding environment. However, with respect to the project's location and historically sensitive areas, the excavation at the site has the potential to impact cultural resources in the form of paleontological resources which could incrementally contribute to a cumulative loss of non-renewable resources. Paleontological monitoring would be required and with implementation of mitigation requirements would reduce potential impacts to these resources to below a level of significance; and therefore would not result in a substantial adverse change to the significance of a historical resource or eliminate important examples of California

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
history or prehistory.				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable futures projects)?	☐	☒	☐	☐

Impacts associated with paleontological resources are individually significant and when taken into consideration with other past projects in the vicinity, may contribute to a cumulative impact; specifically, with respect to non-renewable resources. However, with implementation of the MMRP, any information associated with these resources would be collected catalogued and included in technical reports available to researchers for use on future projects, thereby reducing the cumulative impact to below a level of significance. Additionally, the MND has identified direct transportation related impacts but no cumulative ones.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

The City of San Diego conducted an Initial Study which determined that the project could have a significant environmental effect in the following area Cultural Resources (Archaeological Resources) and Transportation. However, with the implementation of mitigation identified in Section V of this MND the project would not have environmental effects which would cause substantial direct or indirect adverse effects on human beings.

INITIAL STUDY CHECKLIST: REFERENCES

I. AESTHETICS / NEIGHBORHOOD CHARACTER

☒ City of San Diego General Plan.

☒ Community Plan.

☐ Local Coastal Plan.

II. AGRICULTURAL RESOURCES & FOREST RESOURCES

☒ City of San Diego General Plan.

☒ U.S. Department of Agriculture, Soil Survey - San Diego Area, California, Part I and II, 1973.

☐ California Agricultural Land Evaluation and Site Assessment Model (1997)

☐ Site Specific Report:

III. AIR QUALITY

☐ California Clean Air Act Guidelines (Indirect Source Control Programs) 1990.

☒ Regional Air Quality Strategies (RAQS) - APCD.

☐ Site Specific Report:

IV. BIOLOGY

☒ City of San Diego, Multiple Species Conservation Program (MSCP), Subarea Plan, 1997

☒ City of San Diego, MSCP, "Vegetation Communities with Sensitive Species and Vernal Pools" Maps, 1996.

☒ City of San Diego, MSCP, "Multiple Habitat Planning Area" maps, 1997.

☐ Community Plan - Resource Element.

☐ California Department of Fish and Game, California Natural Diversity Database, "State and Federally-listed Endangered, Threatened, and Rare Plants of California," January 2001.

☐ California Department of Fish & Game, California Natural Diversity Database, "State and Federally-listed Endangered and Threatened Animals of California," January 2001.

☐ City of San Diego Land Development Code Biology Guidelines.

☐ Site Specific Report:

V. CULTURAL RESOURCES (INCLUDES HISTORICAL RESOURCES)

☒ City of San Diego Historical Resources Guidelines.

☒ City of San Diego Archaeology Library.

☐ Historical Resources Board List.

☐ Community Historical Survey:

☐ Site Specific Report:

VI. GEOLOGY/SOILS

☒ City of San Diego Seismic Safety Study.

☐ U.S. Department of Agriculture Soil Survey - San Diego Area, California, Part I and II, December 1973 and Part III, 1975.

☒ Site Specific Report: Preliminary Geotechnical Report and Addendum Report (Construction Testing and Engineering Inc., January 2015 and May 2015).

VII. GREENHOUSE GAS EMISSIONS

☒ Site Specific Report: Greenhouse Gas Analysis (Baker, January 2016)

VIII. HAZARDS AND HAZARDOUS MATERIALS

☒ San Diego County Hazardous Materials Environmental Assessment Listing

☐ San Diego County Hazardous Materials Management Division

☐ State Water Resources Control Board Geotracker

☐ State Assessment and Mitigation, Unauthorized Release Listing, Public Use Authorized.

☐ Airport Land Use Compatibility Plan.

☒ Site Specific Report: Burn Ash Management Plan (AECOM, December 2015)

IX. HYDROLOGY/WATER QUALITY

☒ Flood Insurance Rate Map (FIRM).

☐ Federal Emergency Management Agency (FEMA), National Flood Insurance Program - Flood Boundary and Floodway Map.

☐ Clean Water Act Section 303(b) list, http://www.swrcb.ca.gov/tmdl/303d_lists.html.

☒ Site Specific Report: Water Quality Technical Report (Baker International, June 25, 2015) and Hydrology Report (Baker International, June 2015)

X. LAND USE AND PLANNING

☒ City of San Diego General Plan.

☒ Community Plan.

☒ Airport Land Use Compatibility Plan 2014 SDIA Airport Land Use Compatibility Plan

☒ City of San Diego Zoning Maps

☐ FAA Determination

XI. Mineral Resources

☐ California Department of Conservation - Division of Mines and Geology, Mineral Land Classification.

☐ Division of Mines and Geology, Special Report 153 - Significant Resources Maps.

☒ California Geological Survey - SMARA Mineral Land Classification Maps.

☐ Site Specific Report:

XII. Noise

☒ Community Plan

☐ San Diego International Airport Master Plan CNEL Maps.

☐ MCAS Miramar ALUCP

☐ Brown Field Airport Master Plan CNEL Maps.

☒ Montgomery Field CNEL Maps.

☐ San Diego Association of Governments - San Diego Regional Average Weekday Traffic Volumes.

☐ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

☐ City of San Diego General Plan.

☒ Site Specific Report: (Michael Baker International, September 2015)

XIII. Paleontological Resources

☒ City of San Diego Paleontological Guidelines.

☐ Deméré, Thomas A., and Stephen L. Walsh, "Paleontological Resources City of San Diego," Department of Paleontology San Diego Natural History Museum, 1996.

☒ Kennedy, Michael P., and Gary L. Peterson, "Geology of the San Diego Metropolitan Area, California. Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW 1/4 Escondido 7 1/2 Minute Quadrangles," California Division of Mines and Geology Bulletin 200, Sacramento, 1975.

☐ Kennedy, Michael P., and Siang S. Tan, "Geology of National City, Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California," Map Sheet 29, 1977.

☐ Site Specific Report:

XIV. Population / Housing

☒ City of San Diego General Plan.

☒ Community Plan.

☐ Series 11 Population Forecasts, SANDAG.

☐ Other:

XV. Public Services

☒ City of San Diego General Plan.

☒ Community Plan.

XVI. Recreational Resources

☒ City of San Diego General Plan.

☒ Community Plan.

☐ Department of Park and Recreation

☐ City of San Diego - San Diego Regional Bicycling Map

☐ Additional Resources:

XVII. Transportation / Circulation

☒ City of San Diego General Plan.

☒ Community Plan.

☐ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

☐ San Diego Region Weekday Traffic Volumes, SANDAG.

☒ Site Specific Report: Traffic Impact Analysis (Urban Systems Associates Inc., February 2016)

XVIII. Utilities

☒ City of San Diego General Plan.

☒ Community Plan.

☐ Site Specific Report:

XIX. Water Conservation

☒ City of San Diego General Plan.

☐ Community Plan.

☐ Sunset Magazine, New Western Garden Book. Rev. ed. Menlo Park, CA: Sunset Magazine.

☐ Site Specific Report:

S O I L M A N A G E M E N T P L A N

BURN ASH MANAGEMENT PLAN
FRANCIS PARKER SCHOOL – LINDA VISTA CAMPUS MASTER PLAN UPDATE
6501 LINDA VISTA ROAD SAN DIEGO, CALIFORNIA

Prepared for

Francis Parker School
6501 Linda Vista Road
San Diego, CA 92111

AECOM Project No. 79447918

December 9, 2015

AECOM

4225 Executive Square, Suite 1600
La Jolla, CA 92037
858.812.9292 Fax: 858.812.9293

TABLE OF CONTENTS

Section 1 Introduction 1-1

Section 2 Site Identification 2-1

2.1 Site Location and Description 2-1
2.2 Adjacent Properties and Uses 2-1
2.3 Surface Water 2-1

Section 3 Assessment Background and Summary 3-1

3.1 Site Assessment Background 3-1
3.1.1 Extent of Burn Ash 3-1
3.1.2 Constituents of Concern 3-1
3.1.3 Waste Characterization 3-2

Section 4 Summary of Proposed Construction 4-1

Section 5 Burn Ash Management 5-1

5.1 Site Preparation 5-1
5.1.1 Health and Safety Plans 5-1
5.1.2 Permitting 5-1
5.1.3 Utility Clearance 5-2
5.1.4 Site Physical Controls 5-2
5.1.5 Scheduling/Agency Notification 5-2
5.1.6 Contractor Requirements 5-2
5.2 Field Activities 5-3
5.2.1 Burn Ash Management Procedures 5-3
5.2.2 Erosion Control 5-3
5.2.3 Air/Dust Monitoring Procedures 5-4
5.2.4 Dust Control Measures 5-4
5.2.5 Confirmation Sampling 5-4
5.2.6 Waste Stockpiling and Temporary Storage 5-5
5.2.7 Record Keeping 5-5
5.2.8 Waste Characterization Procedures 5-6
5.3 Transportation Plan 5-6
5.3.1 Destination of Soil 5-6
5.3.2 Soil Transportation Mode 5-6
5.3.3 Truck Transportation Route 5-7
5.3.4 Traffic Control and Loading Procedures 5-7

Tables

Table 1 Post-Excavation Sample Analytical Results for Lead (2004 Data) Former Camp Kearny Mesa Burn Site

Figures

Figure 1 Vicinity Map
Figure 2 Site Plan
Figure 3 2004 Post Removal Action Confirmation Sample Locations

Appendices

Appendix A Community Health and Safety Plan

SECTION 1 INTRODUCTION

This Soil Management Plan (SMP) for burn ash management has been prepared by AECOM Technical Services, Inc. (AECOM) for the Francis Parker School (FPS) located on a portion of the former Camp Kearny Mesa Burn Site at 6501 Linda Vista Road in San Diego, California (Figure 1). This document specifically addresses Issues Nos. 7 and 8 of the City of San Diego (City) Solid Waste Local Enforcement Agency's (LEA) Cycle Issues Summary letter dated August 6, 2015 regarding the Francis Parker School – Linda Vista Campus Master Plan Update (Plan Update).

This document has been prepared for the area underlain by burn ash-containing materials documented in the Burn Ash Removal Report, Former Camp Kearny Mesa Site prepared for FPS by URS (an AECOM company) in November 2004, and shown on Figure 2 where proposed grading and excavation activities may encounter residual burn ash remaining onsite. The current use of the site as a middle and high school will remain unchanged.

The primary objective of this document is to provide the planning and implementation elements of work for the proposed management of burn ash-containing materials at the site, if encountered, to reduce the potential for human exposure and health risks related to constituents of concern (COCs) during and following the proposed construction activities. The project will address appropriate disposition of burn ash-containing materials. Disposition alternatives include: Burying onsite beneath an appropriate soil and or concrete cap provided the placement of waste soil and cap can be incorporated as an integral part of the proposed grading plan; and alternatively, offsite disposal at an appropriately licensed disposal facility.

SECTION 2 SITE IDENTIFICATION

2.1 SITE LOCATION AND DESCRIPTION

The former Camp Kearny Mesa Burn Site lies within the Linda Vista neighborhood in the City of San Diego, California approximately four miles north-northwest of downtown San Diego, north of Mission Valley (Figure 1). It is located at approximately 32°46' N latitude and 117°10' W longitude, within the La Jolla 7 ½-Minute U.S.G.S. topographic quadrangle (photo revised 1975).

The former burn site is located on the eastern margin of the FPS campus at 6501 Linda Vista Road in San Diego. The assessor's parcel number for the campus is 437-020-12. The campus operates as a private school for children in grades six through 12. The former burn site lies beneath the eastern portion of the athletic field and is exposed on a steep east-facing slope that adjoins Northrim Court. The burn site is bounded by Northrim Court and River Glen Row to the east and south, Linda Vista Road to the north, and other parts of the FPS campus to the west (URS, 2004).

URS managed the removal of approximately 1,820 tons of burn ash-containing materials in 2004 from the top of the slope to accommodate the excavation and grading for development of the exiting athletic field (URS, 2004). The burn ash removal was completed under the oversight of the LEA. Residual burn ash remains onsite under a clean soil cap with an approximate minimum thickness of 18 inches located along the eastern edge of the athletic field near the top of the slope (Figure 2). The proposed renovation within this area includes grading and or excavation for the construction of foundations for a Visitor Service Building and bleachers, and trenching for utility line installation.

The eastern slope adjacent to Northrim Court is a public easement owned by the City that was maintained by the community association of an adjoining condominium complex. To restrict access to the slope area, the City of San Diego installed a fence at the foot of the slope in July 2000 (URS, 2004).

2.2 ADJACENT PROPERTIES AND USES

Adjacent property uses are primarily multi-family residential east and south of the campus. A service station with a convenience store is located on the east corner of Northrim Court and Linda Vista Road.

2.3 SURFACE WATER

Surface water movement on the FPS campus at the top of the slope above Northrim Court is controlled by engineered drainages and paved surfaces associated with the existing artificial turf on the athletic field. Surface water movement on site generally occurs as sheet flow along the eastern slope. However, the slope surface across the entire length of the site is vegetated with ice plant, grass and other herbaceous plants including several eucalyptus trees. Ground cover of this nature, including leaf litter, reduces the potential for storm water runoff. Storm water from the site vicinity flows southward along a curb and gutter system on Northrim Court into a drain system that empties into Mission Valley approximately 0.5 miles south of the site.

SECTION 3 ASSESSMENT BACKGROUND AND SUMMARY

3.1 SITE ASSESSMENT BACKGROUND

URS Corporation conducted two investigations at the site to identify and characterize the lateral and vertical extent of burn ash-containing materials in December 2008 and January 2001 following limited sampling previously conducted by the LEA. Based on these data, and the results of a human health risk assessment, URS conducted a burn ash removal action to facilitate construction of the existing artificial turf athletic field in 2004. A summary of burn ash-containing soil remaining onsite is presented in a Burn Ash Removal Report (URS, 2004). The approximate footprint of these materials is shown on Figure 2. Analytical results for lead concentrations reported in confirmation soil samples collected from materials remaining in place following the removal action are summarized in Table 1 and shown on Figure 3.

3.1.1 Extent of Burn Ash

The lateral extent of residual burn ash-containing materials remaining onsite is illustrated on Figures 2 and 3. The main footprint of burn ash mixed with soil that may conflict with the proposed Plan Update is located under the eastern portion of the field along the eastern property boundary fence and extends generally parallel to the athletic field for approximately 300 feet from nearly goal line to goal line. The width of this band varies from approximately 10 to 30 feet. Because burn ash extended below the pre-construction grade for installation of the athletic field (in 2004), burn ash at depth in this area was not removed on the top of the mesa or from its surface expression on the eastern slope. The residual burn ash in this area is covered by a minimum 18-inch thick clean soil cap beneath the construction subgrade in this area. The burn ash remaining on the eastern slope is generally covered by ice plant and other vegetation although some burn ash is visible on the slope where the vegetation is thin or missing. This exposed area lies within a fenced area that prevents public access.

3.1.2 Constituents of Concern

A human health risk assessment was prepared following initial investigations in 2001 and formed the basis for burn ash management and health and safety planning for the removal action conducted in 2004. This plan included a quantitative evaluation of cancer risks and noncancer hazards due to the identified COCs (except for lead which was evaluated separately), for health risk exposure scenarios for the following four receptor categories:

- School students and staff workers,
- Visitors/trespassers crossing the eastern slope,
- Maintenance workers, and
- Offsite residents.

The COCs originally identified in 2001through the screening evaluation, included:

- Metals, specifically antimony, arsenic, cadmium, and lead;

- Dioxin as 2,3,7,8 tetrachlorodibenzo p dioxin (TCDD) toxicity equivalent concentration (TEQ); and
- Polyaromatic hydrocarbons (PAHs) [screened as benzo(a)pyrene].

Lead was evaluated based on predictive blood lead modeling, which is more indicative of adverse health effects from lead than the typical dose-response relationships of the other COCs. The lead modeling results indicated that site-wide average lead concentrations prior to excavation (in 2004) exceeded targets for school students and staff workers.

Using the maximum detected concentration of each COC (except lead), the estimated cumulative cancer risk for each exposure scenario was less than the de minimis level of 1 x 10-6, with one exception. The school staff worker had a calculated cancer risk slightly greater than 1 x 10-6 but less than the California Proposition 65 target cancer risk of 1 x 10-5 for workers and within U.S. EPA's risk management range of 10 6 to 10 4 (EPA, 1990). The risk management range refers to levels that may be considered acceptable depending on site-specific context. When the 95th percentile upper confidence level (95% UCL) of the mean concentration was used, the staff worker cumulative cancer risk was de minimis.

Based on the findings of the risk assessment only lead was identified as a COC to be monitored during removal activities in 2004. Similarly, lead is considered to be the exposure risk driver and will be monitored accordingly during the proposed construction activities. This is based on the following factors: 1) The volume and aerial footprint of soil which will be disturbed according to the proposed Plan Update is small compared to the volume addressed during the 2004 removal action; and 2) There is a low probability that the physical and chemical characteristics of subsurface soils containing burn ash have changed significantly since 2004 when the removal action occurred in the same general areas. This soil management plan establishes the protocols for workers encountering burn ash material left in place. A separate site-specific health and safety plan (HASP) for the workers will outline specific requirements for minimizing lead exposures. A Community HASP is discussed below and included as Appendix A.

3.1.3 Waste Characterization

The waste characteristics of the burn ash were evaluated during the removal action performed by URS in 2004 when over 1,800 tons of burn ash was disposed offsite as non-Resource Conservation and Recovery Act (RCRA) hazardous, California hazardous waste. Although burn ash is not typically a California hazardous waste based on ignitability, corrosivity or reactivity, it often can be considered a hazardous waste based on toxicity. Several samples of burn ash-containing soil collected from in situ confirmation samples at the completion of burn ash removal in 2004 were reported as containing lead at concentrations exceeding the Total Threshold Limit Concentration (TTLC) of 1,000 mg/kg established for this constituent. This condition for lead would characterize the materials as a possible California hazardous waste. It is anticipated that this condition will also apply to the excavated burn ash-containing soil that may be intended for off-site disposal.

SECTION 4 SUMMARY OF PROPOSED CONSTRUCTION

In addition to extensive construction on other portions of the FPS campus, the proposed renovation in the vicinity of the residual burn ash involves the construction of foundations for a Visitor Service Building and bleachers, associated trenching for installation of a utility line, and construction of an all-weather path with an emergency/fire department access gate. The Visitor Service Building footprint measures approximately 20 feet by 100 feet and the footprint of the bleachers is approximately 15 feet by 85 feet. The proposed utility trenching will extend a total of approximately 70 feet and will be located beneath the all-weather path that will encompass approximately 100 square feet. The path will cut through the existing fence and traverse the eastern slope to Northrim Court. The proposed construction elements are presented on Figure 2 which incorporates Sheet C-2 of the Francis Parker School – Linda Vista Campus Master Plan Update.

The scope of construction is relatively small, therefore it is anticipated that disturbance to the existing buried utilities and surface and subsurface drainage is unlikely. Based on existing conditions, surface water from the fields is controlled by engineered drainages to flow away from the existing slope to Northrim Court where burn ash is exposed on the surface (Figure 2). Although the construction schedule has yet to be determined, it is assumed that grading and excavation activities will be conducted during the dry season, between May 15 and October 1.

SECTION 5 BURN ASH MANAGEMENT

This section addresses the removal, monitoring, and handling of burn ash that may be encountered during the proposed construction activities. This section describes a plan to reduce and/or eliminate the likelihood that school staff, students and workers, either nearby or involved in the proposed construction, may be exposed to unacceptable concentrations of COCs associated with burn ash burn ash-containing soil identified as being present beneath the ground surface at the site. Waste transportation and disposal plan elements, if necessary, are also described.

5.1 SITE PREPARATION

5.1.1 Health and Safety Plans

Site-specific and community HASPs will be prepared for implementation during the management of burn ash containing materials during construction activities. The site specific HASP will be prepared in accordance with OSHA guidelines and will outline monitoring requirements and hazards related to burn ash. The plan will be approved by a certified industrial hygienist and will comply with current safety standards as defined by the U.S. EPA, the Occupational Safety and Health Administration (OSHA), and the National Institute of Occupational Safety and Health (NIOSH) and in accordance with guidelines set forth in Title 8 of the California Code of Regulations, Section 5192.

A community HASP is provided in Appendix A. It will be implemented at the site to protect school staff, students and visitors and residents on nearby properties at times when excavation and or construction activities encounter burn ash-containing materials. Contractors will be informed prior to work that burn ash is present beneath the site. All plans provided to contractors include Plan Update Sheet C-2 that identifies the known locations of burn ash-containing materials on the subject property. It is anticipated that a representative of AECOM will be present during initial grading and/or excavation activities that are likely to cause disturbance to the burn ash-mapped locations to monitor and provide guidance to the construction crew, as required.

5.1.2 Permitting

Various permits are required for implementation of the proposed construction of the Plan Update; however no specific permits are required to manage the burn ash, if encountered. FPS and/or the general contractor will be responsible for obtaining the necessary permits. The FPS may need to obtain a temporary hazardous waste generator number for manifesting waste if excavated materials will require offsite disposal. AECOM will be able to assist the school to obtain this number.

The removal of burn ash-containing materials is exempt from the California Environmental Quality Act (CEQA). Because the construction activity (associated with burn ash removal) costs will not exceed $1 million, the CEQA exemption is based on a Class 30 exemption, as described in Title 14, California Code of Regulations, Section 15330. This exemption is also applicable because the construction activities will not have a significant impact on the environment due to the anticipated volume, short duration, and the controlled manner in which the affected soils will be excavated, loaded onto the trucks, and taken offsite

for disposal at an approved, permitted facility. This exemption was designed for minor cleanup actions to be taken to mitigate areas affected by hazardous substances.

5.1.3 Utility Clearance

Utility clearance will be the responsibility of the general contractor for all excavation activities addressed in the Plan Update including the area where burn ash may be encountered. Based on the Plan Update, existing subsurface utilities in the burn ash area are not anticipated to be disturbed. However, as required by law, before commencing demolition activities, Underground Service Alert (USA) must be contacted at least 48 hours in advance to identify the location of utilities that enter the property.

5.1.4 Site Physical Controls

The existing fence bounding the eastern perimeter of the athletic field will remain in place except for the portion that must be removed for construction of the all-weather path and fire department access gate. This portion of the perimeter fencing will remain in place until the construction of these site appurtenances is complete in order to provide for added security for the construction area. Temporary fencing will be placed around the work area during construction of the all-weather path to restrict public access from Northrim Court. Areas where burn ash is identified and removed will be cordoned off from other areas to restrict access to AECOM and the OSHA-trained excavation subcontractor. Access to the construction area from the FPS campus to the north and west will be through a secured gate in temporary fencing or other similar means. Security of the site will be provided by the general contractor to ensure against unauthorized access to the project area.

The maximum depth of grading and trench excavation is anticipated to be approximately 4 feet or less, therefore no shoring or fall protection is anticipated. Open excavations will either be backfilled or secured at the end of each work day.

5.1.5 Scheduling/Agency Notification

Prior to grading and or excavation in areas where burn ash may be encountered (Figure 2), the activities will be scheduled in advance for oversight purposes and the LEA will be notified of any schedule changes at least one week in advance. If previously unidentified areas are found to be underlain by burn ash, the LEA will be notified immediately.

5.1.6 Contractor Requirements

AECOM will provide oversight and monitoring activities with respect to grading and excavation activities in areas where burn ash-containing materials may be encountered (Figure 2). AECOM will be responsible for implementing site-specific and community health and safety plans during construction activities that involve the disturbance/removal of burn ash. The excavation subcontractor will have 40-hour OSHA certification for working at hazardous waste sites. Conditions during construction will be documented by the AECOM site manager, and appropriate health and safety measures will be taken to mitigate the potential exposure to burn ash and COCs present. It is anticipated that invasive activities that may be conducted in areas where burn ash may be encountered will not be conducted while school is in session.

5.2 FIELD ACTIVITIES

5.2.1 Burn Ash Management Procedures

AECOM will provide oversight during foundation grading and or trenching for the installation of utility lines as described in the Plan Update. Excavation will be accomplished using a backhoe and/or front-end loaders, but removal may be accomplished in areas with difficult access using hand tools (shovels).

AECOM will observe the exposed soil during excavation for the presence of burn ash. Burn ash is easily distinguishable from native or other fill soil on site by its unique characteristics: the presence of fused and melted glass, metal, ceramics, its characteristic dark gray to black color and powdery ash texture. Based on this observation, AECOM will direct the contractor to proceed with construction in areas where no burn ash is observed or anticipated. If burn ash is observed the material will be stockpiled nearby on plastic sheeting pending evaluation of disposition options. Stockpiled burn ash-containing materials will be managed in accordance with County of San Diego Department of Environmental Health Site Assessment and Mitigation (SAM) manual guidelines as described in Section 5.2.6 below.

Burn ash-containing materials exposed at the base foundation subgrade beneath the proposed Visitor's Service Building, bleachers and all-weather path will be covered by a cap consisting of sub-base materials and the concrete slab foundation or concrete pavement described in the Plan Update which will effectively eliminate potential exposure. Burn ash-containing materials exposed at the base and or sidewalls of the utility trench will be over-excavated approximately 12 inches and backfilled with clean soil obtained from non-ash impacted soil available onsite. This will create a clean buffer zone to reduce the potential exposure of burn ash to construction workers both installing the utility line and potentially repairing the line in the future.

Stockpiled burn ash-containing materials will either be buried onsite and covered with an appropriate clean soil cap or placed in trucks and hauled to an appropriate landfill under hazardous waste manifest. If the burn ash is to be buried onsite, it will be located within the footprint of existing burn ash previously identified and shown on Figure 2. The waste material will be covered by a cap consisting of a minimum of 24 inches of clean fill material and compacted in accordance with the grading plan. This option may be limited due to the area and depth required to appropriately cover the waste material and still accommodate the design of the proposed Plan Update. If the Plan Update cannot accommodate burial and capping of the stockpiled waste material, it will be loaded and hauled to an appropriate disposal facility as described below.

5.2.2 Erosion Control

No specific erosion control measures to address burn ash-containing materials beyond those required for the general construction and implementation of the Plan Update are anticipated. The general contractor will be responsible for implementation of such measures and the Storm Water Pollution Prevention Plan (SWPPP). It is anticipated that the construction project will be conducted during the dry weather season (April 30 through October 1, 2004), and this should limit the potential for erosion and storm water control issues during the project.

5.2.3 Air/Dust Monitoring Procedures

The AECOM site manager will conduct monitoring as described in the site-specific and community health and safety plans. Airborne dust monitoring will be conducted to verify and document dust suppression efforts described in the following section. Air monitoring for total particulate concentrations will be conducted in the construction work zone to monitor worker exposure and downwind of daily activities along the site perimeter, to monitor potential fugitive particulate concentrations and dust suppression effectiveness. Periodic meteorological monitoring will be performed on-site away from trees, buildings, or other structures that could influence the measurements. Wind speed and wind direction will also be measured during excavation activities during excavating using an anemometer.

The OSHA Permissible Exposure Limit (PEL) for dust, or Particulates Not Otherwise Classified, is 15 mg/m^3 for total particulates and 5 mg/m^3 for respirable dust. This standard, the OSHA PEL for lead in air of 0.05 mg/m^3, and the highest soil lead concentration data from the site confirmation sampling conducted in 2004 (4,700 mg/kg) have been used to set a total particulate concentration site action level of 5 mg/m^3.

5.2.4 Dust Control Measures

Fugitive dust control measures will be implemented at the site to mitigate dust migration outside of the work area (exclusion zone) and off site; so that there is limited potential for exposure to site workers, school staff, students, visitors and residents in the neighborhood. There are no formal dust control requirements of the San Diego Air Quality Management District (SDAQMD). Lightly spraying of soil during excavation is an effective control measure that has been implemented during removal actions at other burn sites. To mitigate dust migration outside of the work zone and offsite, dust monitoring during investigation and removal actions at burn sites where more extensive activities have been conducted has demonstrated that minimal dust is generated during operations and the potential for exposure to COCs in burn ash is minimal provided that controls are implemented. Potable water will be lightly sprayed at the time of excavation to control dust. Dust control may be accomplished through use of a spray nozzle supplied by a water truck. The volume of water sprayed will not be such that it results in surface water runoff or standing water.

Fugitive dust can be generated during the handling of soil and burn ash after it has been excavated. While the soil is being loaded into the trucks, dust suppression will be performed by lightly spraying or misting the work areas with water. Efforts will be made to minimize the soil drop height from the loader's bucket into the trucks. Depending on the activity conducted, some soil may be manually placed in the bins using wheelbarrows and shovels. These activities are not likely to generate excessive fugitive dust; however, laborers/construction personnel will be required to keep dust generation to a minimum. Additionally, the loader will be positioned so as to place soil into the trucks from the leeward side.

5.2.5 Confirmation Sampling

Confirmation sampling will be conducted to evaluate and document the concentrations of lead in the burn ash-containing soil remaining onsite and buried beneath an appropriate cap. A specific clean up criteria has not been established for this project as removal of burn ash is not the purpose of this management plan. Confirmation sampling will be judgmental in that it will bias those areas where residual materials

may contain burn ash. If there are no visual indications of burn ash, then the samples will be collected from a grid of approximately equally sized cells. Coordinates for sample locations will be generated randomly using a random number generator. The locations of samples will be recorded using a GPS unit.

Soil samples will be collected by hand using disposable gloves, plastic sampling equipment or a trowel. The samples will be placed in a dedicated resealable plastic bag where it will be disaggregated and homogenized. The sample will be placed in a certified-clean glass jar that is sealed, labeled, placed in an insulated cooler with ice (maintained at 4ºC) that will be transported to a state-certified laboratory for possible analyses. Following sampling, non-disposable equipment will be decontaminated between samples using spray bottles containing an Alconox detergent solution followed by spraying twice with distilled or deionized water. The equipment will be allowed to air dry or will be wiped dry using paper towels. No liquid investigation-derived waste (IDW) will be generated.

Results of the prior site characterization and removal action conducted in 2004 at this site, and other burn ash remediation sites, indicate that lead is the primary COC. The other COCs associated with burn ash less frequently exceed their respective removal action goals. In 2004 lead served as the surrogate for all other COCs since it most commonly exceeds its removal action goal in burn ash. No sample analyses for PCBs, PAHs or dioxins and furans were conducted at that time and are not proposed for the final confirmation sampling presently.

Lead analyses will be conducted by a fixed laboratory by EPA Method 6010B or 6020B. The number of samples to be analyzed will depend on the extent of the area excavated. Analyses will be conducted by a State-certified laboratory.

5.2.6 Waste Stockpiling and Temporary Storage

Temporary stockpiling of waste soil, if necessary, will be located near the work area within the secure construction zone. The soil will be place on plastic sheeting and covered at the end of each day in accordance with SAM manual guidelines. Storm water and erosion BMPs will be employed in accordance with the general contractor's SWPPP. Waste soil will be stockpiled pending evaluation of disposal options, either onsite burial and capping or offsite disposal. If the soil is to be disposed offsite, the stockpile will be sampled in accordance with SAM Manual guidelines for waste profiling purposes and analyzed for chemical constituents requested by the disposal facility.

5.2.7 Record Keeping

AECOM will be responsible for maintaining field notes during the construction activities where ash-containing materials may be encountered. The field notes will serve to document observations, personnel on site, equipment arrival and departure times, monitoring results and other vital project information. The notes will be prepared in such a way to permit reconstruction of field activities. Each page will be dated and the time of entry noted. Entries will be legible, written in black or blue ink, and signed by the individual making the entries. Language will be factual, objective, and free of personal opinions or other terminology that might be considered inappropriate. If an error is made, corrections will be made by placing a line through the error and entering the correct information. Corrections will be dated and initialed.

5.2.8 Waste Characterization Procedures

Waste soil designated for offsite disposal is anticipated to be profiled as non-RCRA California hazardous waste based on the results of analytical testing of burn ash during previous site investigations and the removal action conducted in 2004. A Uniform Hazardous Waste Manifest (hazardous waste manifest) form will be used to track the movement of soil from the point of generation to the point of ultimate disposition. The hazardous waste manifests will include information such as:

- Name and address of the generator, transporter, and the destination facility
- U.S. DOT description of the waste being transported and any associated hazards
- Waste quantity
- Name and phone number of a contact in case of an emergency
- U.S. EPA Hazardous Waste Generator Number
- Other information required either by U.S. EPA and DTSC

Prior to transporting the excavated soil offsite, an authorized representative of the City of San Diego LEA will sign each waste manifest. The AECOM site manager will maintain one copy of the hazardous waste manifest on site. Copies of waste manifests will be included in the Site Management Summary Report.

Wastes generated at the site will be incidental to the proposed construction presented in the Plan Update. The estimate volume of waste soil generated requiring offsite disposal ranges from nothing (all waste buried and capped onsite) to approximately 225 tons (185 cubic yards) or approximate 10 end dump loads.

5.3 TRANSPORTATION PLAN

5.3.1 Destination of Soil

Based on past results the materials generated during construction activities will be disposed as California (non-RCRA) hazardous waste. A specific disposal facility has not been identified at the time this SMP was prepared, however it is likely the waste will be disposed in South Yuma Arizona or another appropriately licensed facility. Contact information is to be determined.

5.3.2 Soil Transportation Mode

Before leaving the site, each truck driver will be instructed to notify the AECOM site manager. Each truck driver will be provided with the manifest and the cellular phone number for the AECOM site manager. It will be the responsibility of the AECOM site manager to notify the LEA of any incidences. Additionally, there are call boxes located along the freeways throughout California that will be traveled to reach the disposal facility. The intended use of the call boxes is to report roadside emergencies to the California Highway Patrol (CHP) dispatch center. As such, each truck driver will be instructed to report any roadside emergency to the CHP using the Call Box System. Similarly, call boxes are also located along interstate highways in Arizona.

Each truck will be weighed at local scales upon leaving the site and at the disposal facility before offloading their payload. Because only a few loads at most are anticipated, onsite truck scales will not be utilized. Therefore care will be taken not to overload the trucks upon leaving the site. The load on each truck will be secured to prevent excessive dust generation during transport.

5.3.3 Truck Transportation Route

The trucks will haul the burn ash-containing materials through the gate located on the northwest corner of the FPS and turn left onto Linda Vista Road. No trucks will pass through the residential neighborhood east of the campus. The trucks will proceed west on Linda Vista Road and at 1.4 miles stay straight onto Morena Boulevard. The trucks will go right onto the I-8 onramp heading east toward El Centro. The trucks will continue for approximately 200 miles to a disposal facility in Arizona yet to be identified. The final route to the disposal facility and a figure showing the travel route will be presented to the LEA prior to the start of construction activities. Travel time is anticipated to be approximately five hours.

Any changes necessary in the transportation route will be documented and LEA will be notified. The route selected is intended to minimize the trucks' travel time on surface streets and limit travel to the more heavily traveled streets in the neighborhood. Additionally, given the characteristics of the soil being transported, there are no apparent restrictions that would preclude the trucks from following these routes to the disposal facility.

5.3.4 Traffic Control and Loading Procedures

The trucks will enter the site from Linda Vista Road and approach the work area through temporary fencing. The trucks will be loaded, securely covered and excess soil brushed from the bed and wheels to minimize soil tracked offsite. A flag person will be located at the site to assist the truck drivers to safely drive onto Linda Vista Road. While onsite all vehicles will be required to maintain slow speeds (i.e., less than 5 miles per hour) for safety purposes and as a dust control measure. Vehicles shall comply with all speed limits in the community at a minimum.

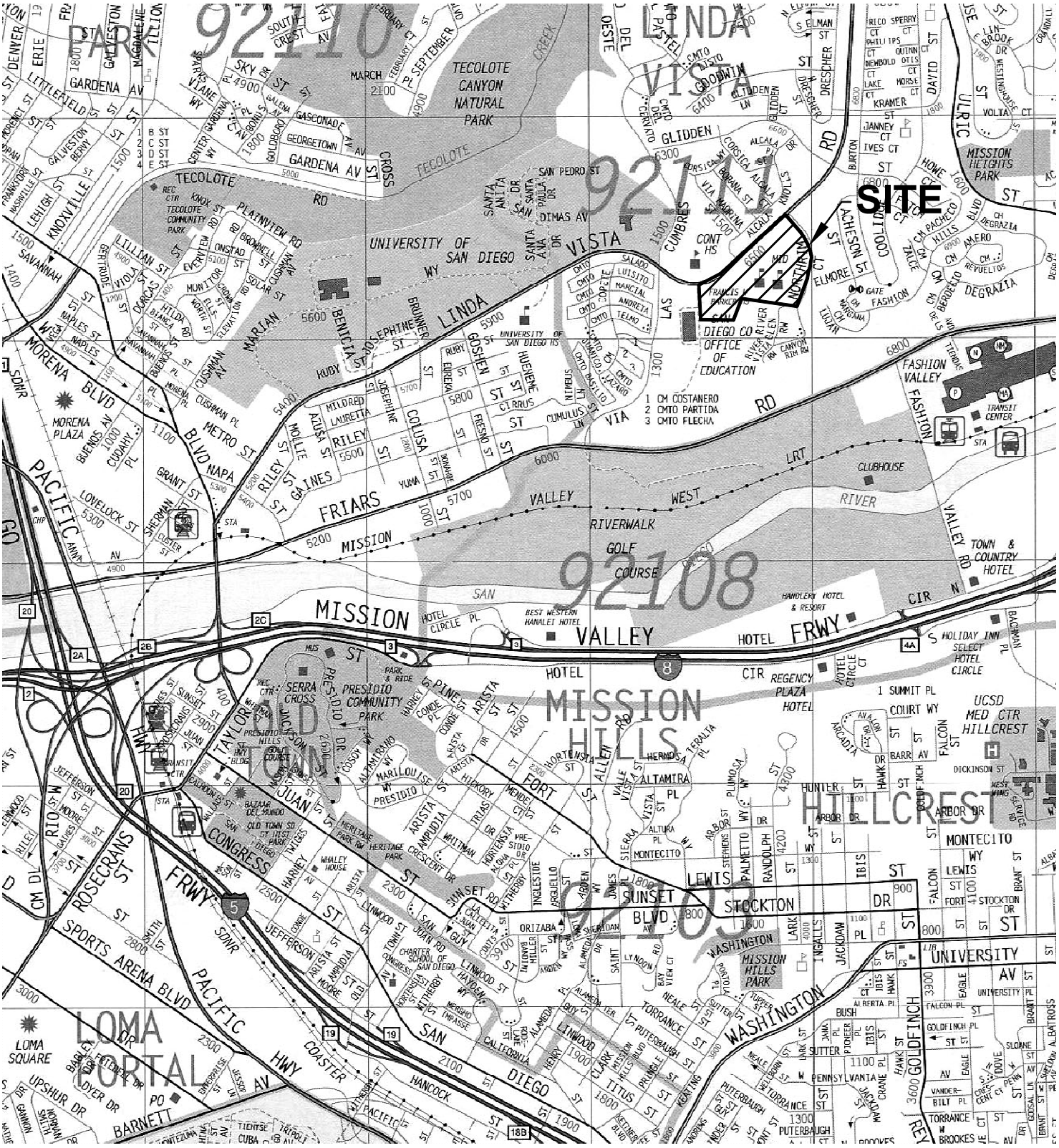
Table 1
Post-Excavation Sample Analytical Results for Lead (2004 Data)
Former Camp Kearny Mesa Burn Site

Sample Name	Date	Lead (mg/kg)	Comment / Sample Description
FPC-02	5/20/04	18.8	Base of excavation of native soil.
FPC-06		22.8	Base of excavation of native soil.
FPC-11	5/28/04	337	Residual ash material remaining in place.
FPC-12		194	Native soil with residual ash.
FPC-13		138	Native soil with residual ash.
FPC-14		407	Moved sample to west of GPS location to sample welded ash at crest of slope.
FPC-15		55.4	Native soil with residual ash.
FPC-17		15.6	Native soil with residual ash.
FPC-18		178	Native soil with residual ash.
FPC-19		6.67	Native soil.
FPC-20		345	Native soil.
FPC-21		266	Residual ash material remaining in place.
FPC-22		453	Native soil with residual ash.
FPC-23		74.6	Native soil with residual ash.
FPC-24		368	Native soil with residual ash.
FPC-25		4700	Residual ash material remaining in place.
FPC-26		1490	Residual ash material remaining in place.
FPC-27		1690	Residual ash material remaining in place.
FPC-28		172	Native soil with residual ash.
FPC-33	6/1/04	94.4	Native soil with residual ash.
FPC-34		100	Moved 6' to west to sample native/residual ash because random point was covered with clean fill.
FPC-35		31.4	Moved 6' to west to sample native/residual ash because random point was covered with clean fill.
FPC-36		41.0	Native soil.
FPC-37		95.0	Base of excavation overlying significant pocket of ash exposed on the east slope above Northrim Court.
FPC-38		27.0	Native soil.

Table 1 (Continued)
Post-Excavation Sample Analytical Results for Lead (2004 Data)
Former Camp Kearny Mesa Burn Site

Sample Name	Date	Lead (mg/kg)	Comment / Sample Description
FPC-39		667.0	Base of excavation overlying significant pocket of ash exposed on east slope above Northrim Court.
FPC-40		3.07	Native soil.
FPC-41		270.0	Moved to sample remaining ash in sidewall.
FPC-42		39.7	Native soil.
FPC-43		2.49	Native soil.
FPC-44		16.6	Native soil.
FPC-45		4.21	Native soil.
FPC-46		1.09	Native soil.
FPC-47		30.7	Native soil.
FPC-48		78.7	Native soil.
FPC-49		79.5	Native soil with residual ash.
FPC-50		22.6	Native soil.
FPC-51		206	Native soil with residual ash.
FPC-52		16.5	Native soil.
FPC-53		60.8	Native soil with residual ash.

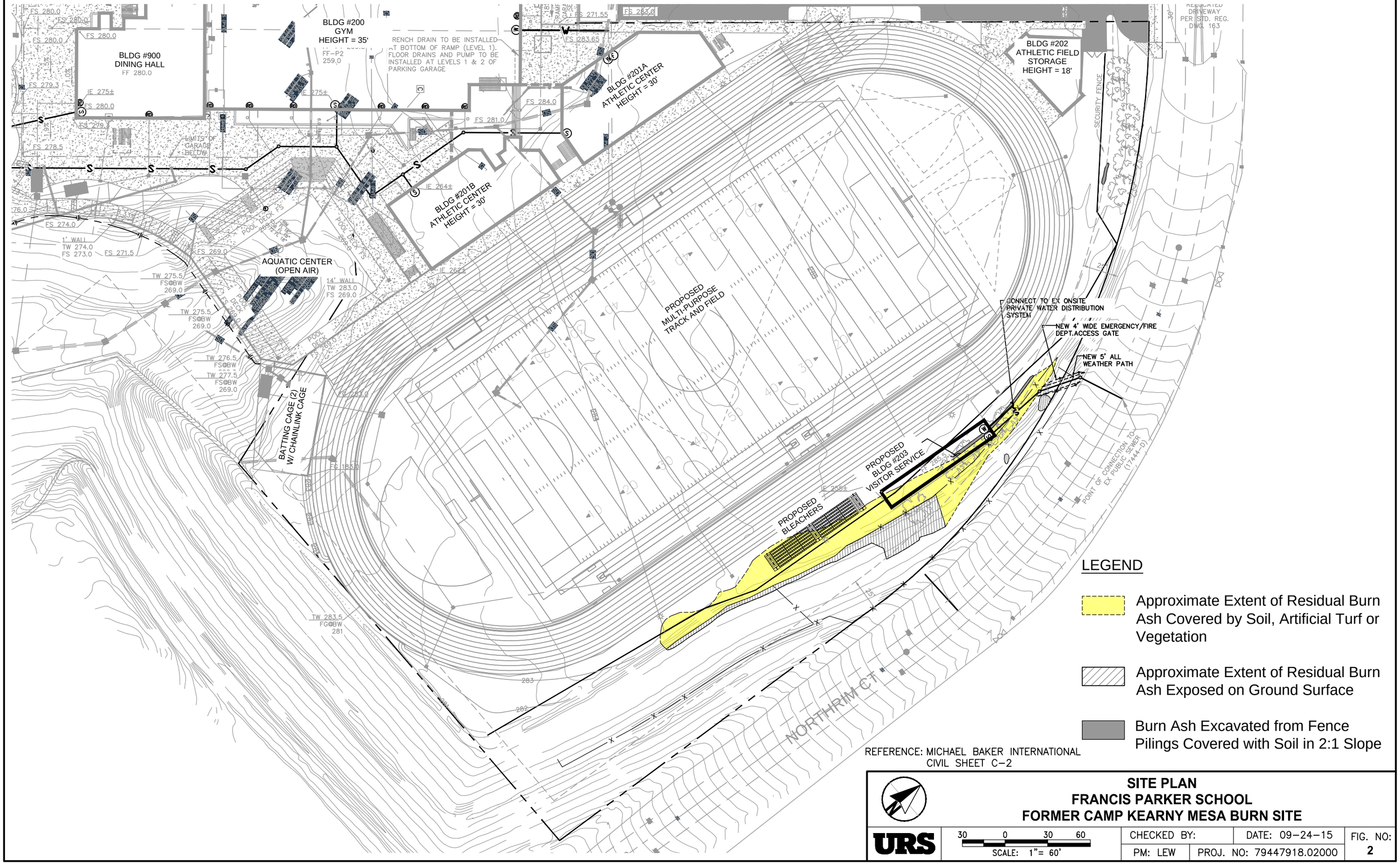
(URS, 2004)



VICINITY MAP
CAMP KEARNY MESA BURN SITE

URS	NOT TO SCALE	CHECKED BY: RKS	DATE: 11–11–04	FIG. NO: 1
		PM: RKS	PROJ. NO: 27704054.01000	

X:\27704054\camp kearny vicmap.dwg Nov 10, 2004 – 4:25pm



LEGEND

- Approximate Extent of Residual Burn Ash Covered by Soil, Artificial Turf or Vegetation
- Approximate Extent of Residual Burn Ash Exposed on Ground Surface
- Burn Ash Excavated from Fence Pilings Covered with Soil in 2:1 Slope

REFERENCE: MICHAEL BAKER INTERNATIONAL CIVIL SHEET C-2

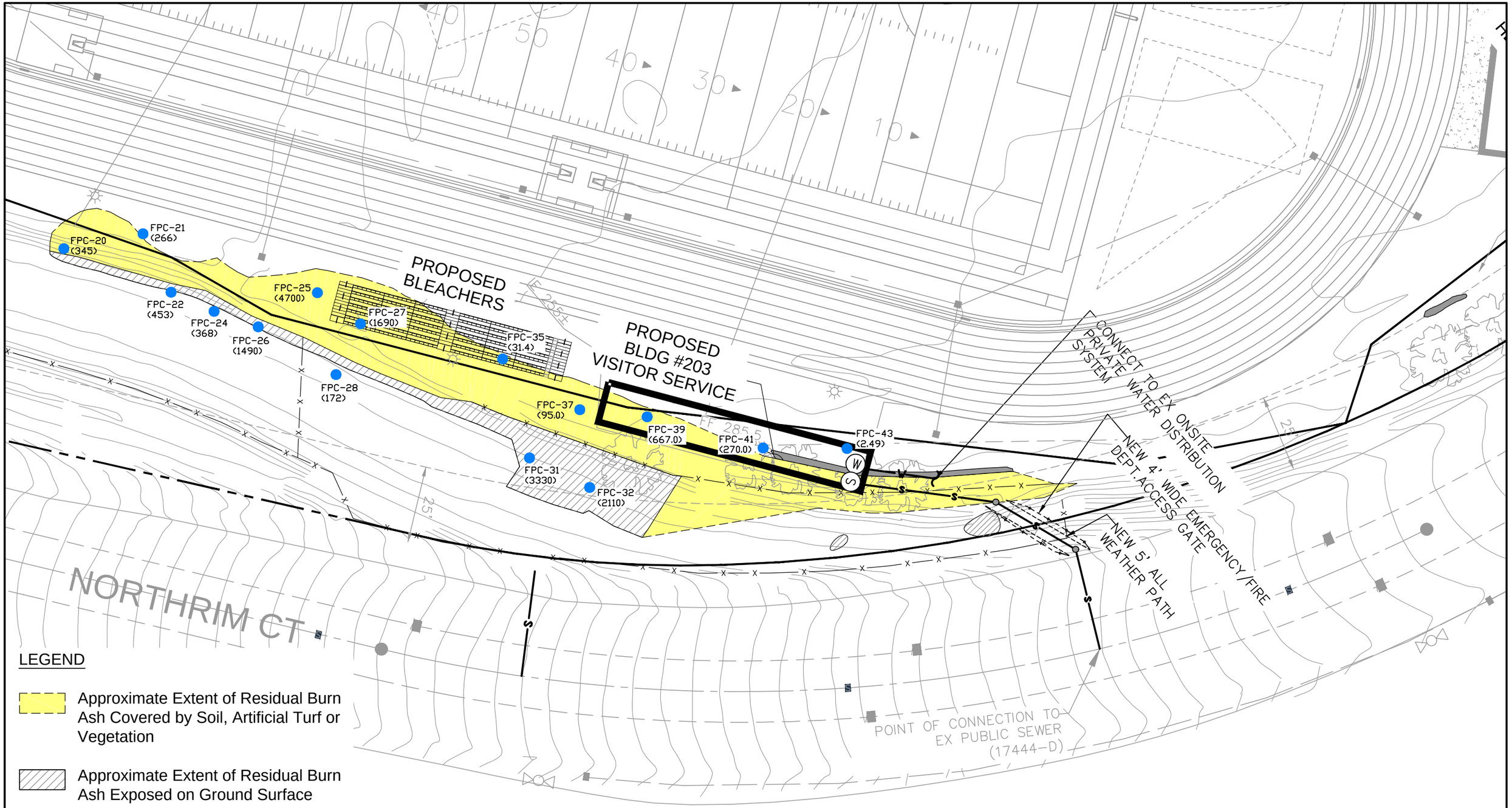
SITE PLAN
FRANCIS PARKER SCHOOL
FORMER CAMP KEARNY MESA BURN SITE

URS

30 0 30 60
SCALE: 1"= 60'

CHECKED BY:	DATE: 09-24-15	FIG. NO:
PM: LEW	PROJ. NO: 79447918.02000	2

U:\Projects\Francis Parker School\60442248_LindaVista\900-Work\910-CAD\20-Sheets\Figure 2.dwg Sep 25, 2015 - 12:40pm



LEGEND

- Approximate Extent of Residual Burn Ash Covered by Soil, Artificial Turf or Vegetation
- Approximate Extent of Residual Burn Ash Exposed on Ground Surface
- Burn Ash Excavated from Fence Pilings Covered with Soil in 2:1 Slope
- FPC-32 (2110) Soil Confirmation Sample Indicating Lead Concentration (mg/kg)

2004 POST REMOVAL ACTION CONFIRMATION SAMPLE LOCATIONS
FRANCIS PARKER SCHOOL
FORMER CAMP KEARNY MESA BURN SITE

URS

15 0 15 30
SCALE: 1"= 30'

CHECKED BY:	DATE: 09-24-15	FIG. NO:
PM: LEW	PROJ. NO: 79447918.02000	3

U:\Projects\Francis Parker School\60442248_LindaVista\900-Work\910-CAD\20-Sheets\Figure 3.dwg Sep 25, 2015 - 12:45pm

This Community Health and Safety Plan (CHSP) is provided as an attachment to the Site Management Plan for burn ash management prepared to meet the requirement of CCR Title 27. The elements of this plan are to be implemented during construction activities that will occur within the footprint of the former Camp Kearny Mesa Burn Site and may encounter burn ash-containing materials remaining in place beneath a soil cap emplaced by URS Corporation in 2004 beneath a portion of the Francis Parker School (FPS) athletic field.

A.1 SITE IDENTIFICATION AND LOCATION

The former Camp Kearny Mesa Burn Site is located beneath the eastern portion of the FPS campus located at 6501 Linda Vista Road in Linda Vista area of San Diego, California. The campus is bounded by Northrim Court and River Glen Row to the east and south, Linda Vista Road to the north and the San Diego Office of Education to the west. The property is owned by FPS and the Assessor's Parcel Number (APN) is 437-020-12.

A.2 PROPOSED CONSTRUCTION PLANS

A detailed site plan of the proposed renovation area that may encounter burn ash is provided as Figure 2. In accordance with the Parker Linda Vista Community Master Plan Update FPS may renovate a portion of its athletic field with construction of a Visitor Service Building and bleachers. Grading and/or excavation for construction of the building foundation and/or footers and trenching for utility lines are proposed. These activities may expose residual burn ash-containing materials beneath a soil cap emplaced in 2004 to facilitate construction of the existing athletic field.

A.3 EVALUATION OF POTENTIAL PUBLIC EXPOSURE RISKS

Receptors of special concern include students, teachers, staff, site visitors on campus and the adjacent residential community to the east and south. To minimize this risk, it is anticipated that the project will be conducted while school is recessed when considerably fewer number of individuals are present. Protection of construction workers is addressed in the site-specific Health and Safety Plan (HSP).

The anticipated hazard for individuals offsite will be dust generated during construction activities that could contain particulates derived from burn ash. The main exposure pathway of concern is inhalation. Materials encountered at the site may be classified as hazardous. Dust emissions during construction when burn ash is present will be controlled by the application of water during excavation, trenching and/or hand sampling at the site. Predominant winds in the site vicinity are expected to be out of the west, blowing toward the east. Residential properties are located adjacent to the east and south of the area proposed for renovation. Furthermore, areas to be excavated or graded (which have the greatest likelihood to generate fugitive dust) lie within the FPS campus and are fenced off to prevent access by the general public. As outlined in Section A.6 of this CHSP, dust will be strictly controlled so as not to present a nuisance or a public health hazard.

A.5 MONITORING EQUIPMENT AND PROCEDURES

A.5.1. TOTAL PARTICULATE MONITORING

Real-time airborne dust will be monitored utilizing Thermo Dataram pDR-1200s (or equivalent) to measure the concentrations of airborne particulates.

The monitors will be positioned at a height that represents the breathing zone, and away from obstructions that might interfere with air flow. In general, a monitor will be placed upwind (west) of daily excavation activities to measure background total particulate concentrations, and two monitors downwind (east) along the renovation site perimeter, to monitor fugitive particulates. The serial numbers and locations of the monitors will be recorded on a daily log sheet.

Total Particulate action levels are based on the California Ambient Air Quality Standard (CAAQS) for Respirable Particulate Matter (PM10). If total dust concentrations exceed 50 µg/m3 over a five-minute period, then additional dust control measures will be implemented. If total dust concentrations cannot be maintained under 50 µg/m3, operations at the site will be halted until dust can be adequately controlled.

The upwind and downwind dust monitoring stations will be checked hourly, and readings will be recorded in a logbook. Site weather data, including wind speed, wind direction, and ambient temperature, will be monitored at an onsite location. Prior to the collection of data, the following activities will be conducted on a daily basis: replace/charge batteries, zero calibrate the units in accordance with the manufacturer's instructions, confirm that the alarm functions are set to the proper action level for total particulate concentrations, and enable the data logging function.

A.5.2 AIRBORNE LEAD MONITORING

Air sampling will be conducted at the downwind site boundary on a daily basis to evaluate the airborne lead concentrations at the site. Ambient air sampling will be conducted to identify background levels of airborne lead. An air sampling pump will be utilized to draw air through a laboratory-supplied sampling cassette in accordance with NIOSH Method 7300. AECOM personnel will adjust and calibrate the pumps on a daily basis. At the end of each work day, the onsite representative will collect the filter cassettes and submit them to an analytical laboratory for total lead analyses.

The air sampling unit locations, serial numbers, sample type, and run start/top times will be recorded on an air sampling daily log sheet. The air sampling daily log sheets will be maintained in the project file. Following daily sample collection, a post-sampling flow check will be performed on each sampling unit to determine average flow rate and total sample volume, which will also be recorded on the air sampling daily log sheet. Air inlet/outlet caps will be placed into the sample filter cassettes to prevent cross-contamination. The sample filter cassettes will be labeled to designate the sample identification. Samples will be stored in a clean, dry, secure location and archived pending the need for laboratory analysis.

The sample flow rates and duration of sampling will be used to determine the concentrations of airborne lead. If laboratory results indicate airborne lead concentrations above 1.5 µg/m3 (TWA), operations at the site will be halted until dust control measures can be improved. Personal dust monitoring will be conducted as deemed necessary by the Health and Safety Officer for personnel working in or around the

work area. Personal protective equipment (such as respirators) and personal dust monitoring procedures will be described in the site-specific HSP.

A.6 CONTROL METHODS

A.6.1 SITE SECURITY

The proposed renovation area lies within the fenced boundaries of the FPS campus. Access to the campus is currently controlled by existing fencing with locked gates and security guards. No public access will be allowed into the work area.

Exclusion zones will be established around work areas prior to start of work each day to prevent unauthorized access to areas with increased potential for exposure to burn ash-containing materials. Fencing and screens, as necessary, will be used in work areas to limit access by unauthorized persons.

A.6.2 VAPORS

Based on the results of previous investigations conducted at the site, significant vapor emissions are not anticipated. However, dust control measures to be implemented during excavation should reduce the likelihood of significant vapor emissions. Vapor monitoring will be conducted daily to confirm that the public is not exposed to fugitive vapor emissions as a result of the activities to be conducted at the site.

A.6.3 DUST

Excavation or grading activities that encounter burn ash-containing materials will be conducted in such a manner as to minimize fugitive dust emissions. Water hoses equipped with spray nozzles will be onsite to continually moisten the soil generated during excavation. Water will be applied to sufficiently reduce the potential for dust emissions, but will not be applied to the point that saturation, ponding or runoff occurs. A biodegradable surfactant (such as Biosol) may be added to the water to improve soil hydration, depending on site conditions. If visible dust emissions cannot be controlled by the application of water, or if dust monitoring action levels specified in Section A.5 are exceeded, operations at the site will be halted until the excavation contractor can adequately control dust emissions. In addition, should excessively windy conditions exist at the site to the point where, in the opinion of the onsite representative, the application of water is unable to control dust emissions, then operations at the site will be halted until the windy conditions subside.

General dust control measures will be taken by lightly spraying the work areas with water. Water mist will also be applied to soil stockpiles, if any, and in transport trucks, if used, to mitigate the potential for fugitive dust. Equipment and vehicles used to load and move burn ash-containing soil will operate at speeds that reduce the likelihood of generating airborne particulates. During soil transfer operations, if employed, the soil will be carefully dropped onto temporary stockpiles or into trucks to reduce the potential for generating dust. Plastic sheeting will be placed on the ground surface at the point of truck loading. At the end of each workday, the plastic sheeting and soil that gets accumulated over it during loading will be rolled or folded up, and placed in a truck for disposal. It is anticipated that standard best management practices (BMPs) such as gravel beds and rumble strips will be placed at the site entrance by the general construction contractor to minimize the tracking of soil offsite. Before leaving the site, each

truck will be inspected to ensure that it has been cleaned of overburdened soil and that soil height in the truck bed does not exceed the height of the truck sideboards. In addition to these measures, a street sweeper may be used to sweep the streets adjacent to the work site, if necessary, to remove any soil that could potentially generate dust, or that may have been tracked off site.

A.6.4. NOISE

Noise will be generated from the heavy equipment operating at the site. Since the site is located adjacent to a residential area, scheduled work hours at the site will be between 8:00 a.m. and 5:00 p.m., Monday through Friday. In addition, no weekend hours are anticipated.

A.6.5 OPEN EXCAVATIONS

As discussed in Section A.4 of this plan, during renovation activities the construction site will be surrounded by permanent and/or temporary fencing and will be securely locked at the end of each work day to prevent unauthorized entry to the site. Based on the proposed renovation plan, the maximum depth to be excavated is not likely to require shoring.

A.6.6 STOCKPILED SOIL

If encountered, burn ash-containing materials will be temporarily stockpiled onsite pending disposition. The waste will be placed on and covered by plastic sheeting in accordance with stockpile best management practices. It is anticipated that these materials will be buried onsite beneath an appropriate soil or concrete cap, provided the cap placement can be incorporated into the site grading plan. If the soil cannot be buried beneath a cap onsite it will disposed offsite at an appropriate licensed disposal facility. AECOM will sample the stockpile in accordance with the County of San Diego Department of Environmental Health (DEH) Site Assessment Manual (SAM) stockpile sampling guidelines and analyze the samples in accordance with the profiling requirements of the disposal facility. Based on previous experience at the site, the burn ash-containing waste will be profiled as non-RCRA, California Hazardous.

A.7 SITE SAFETY MANAGER

The Site Safety Manager will be the AECOM representative on-site. The AECOM project manager is Lowell Woodbury. The on-site AECOM representative will be Sam Haber. Alternate site representative will be Medel Gallardo. This information will be provided to the LEA prior to the start of the project.

AECOM Personnel	Role	Cell Phone Number
Massoud Karimi	Senior Project Manager	619-339-7193
Lowell Woodbury	Project Manager	619-888-0434
Sam Haber	Site Safety Manager	619-204-8953
Medel Gallardo	Alternate Site Safety Manager	619-602-6640

A.8 EMERGENCY PLANNING

This Emergency Response Plan is intended to meet the requirements of Section 21130 of Subchapter 5, Chapter 3 of CCR Title 27 and identify occurrences that may exceed the design of the site and endanger public health and the environment. CCR Title 27 indicates that the events to be considered should include but not be limited to vandalism, fire, explosion, earthquake, flood, collapse and or failure of natural or artificial dikes, levees or dams, surface drainage problems and other waste releases. Of these events, very few pertain to the former burn site at FPS. Because this site is a former burn dump, there is little or no potential for an event that results in a fire or an explosion. Volatile organic compounds are not typically associated with historical burn sites. No landfill gas systems are present at the site. Additionally, the potential for flooding is very unlikely, since the site is located on the top of a mesa and not within a floodplain. There are no dikes, levees or dams in the vicinity of the site. In the case of this burn site, an event that may require emergency response may be any that results in surface exposure of burn ash. These could include inadvertent excavation, vandalism, earthquake or a drainage problem that results in erosion of the cover materials. The site control measures described in Section A.6 provide for adequate safeguards against these conditions.

A.9 PUBLIC NOTIFICATION

Frances Parker School will provide notification to all properties immediately adjacent to the site prior to the initiation of field activities, and will post notices around the perimeter of the site. The public notification will include the following information in English and Spanish:

- 24-hour AECOM, construction contractor and school emergency contact names and phone numbers
- Description of onsite activities to be conducted including dates and times, and that onsite activities may include the disturbance of burn ash-containing waste
- Anticipated duration of onsite activities
- Proposition 65 warning

Hydrology and Hydraulic Study
For
FRANCIS PARKER SCHOOL

Prepared For:
Francis Parker School
6501 Linda Vista Road
San Diego, CA 92124
APN No. 437-020-12

City of San Diego
PTS: 412987

Michael Baker
INTERNATIONAL

Prepared By:
Michael Baker International
9755 Clairemont Mesa Blvd
San Diego, CA 92124
858.614.5000
Richard S. Tomlinson, Jr. PE,
QSP, QSD, CPSWQ

RBF Job Number:
144571

Prepared:
February 25, 2015

Revised:
June 25, 2015

Table of Contents

SECTION 1 PROJECT DESCRIPTION AND SCOPE 2

1.1. PROJECT DATA 2
1.2. SCOPE OF REPORT 2
1.3. PROJECT SITE INFORMATION 3

SECTION 2 STUDY OBJECTIVES 9

SECTION 3 METHODOLOGY 10

3.1. HYDROLOGY 10
3.2. HYDRAULICS 10
3.3. HYDROMODIFICATION 11

SECTION 4 RESULTS 13

4.1. HYDROLOGIC RESULTS 13
4.2. HYDRAULIC RESULTS 14
SECTION 5. CONCLUSIONS 15

SECTION 5 CERTIFICATION 16

SECTION 6 REFERENCES 17

List of Figures

FIGURE 1: VICINITY MAP 3
FIGURE 2: FEMA FIRMETTE 7

List of Tables

TABLE 1: EXISTING CONDITION 100-YEAR HYDROLOGY RESULTS 14
TABLE 2: PROPOSED CONDITION 100-YEAR HYDROLOGY RESULTS (UNMITIGATED) 14
TABLE 3: COMPARISON OF PROPOSED/EXISTING CONDITION 100-YEAR FLOWS (UNMITIGATED) 14

List of Appendixes

Appendix A – Rainfall Isopluvials
Appendix B – FEMA Flood Plan Maps
Appendix C -- Existing Condition Hydrologic Work Map & Calculations
Appendix D -- Proposed Condition Hydrologic Work Map & Calculations

Section 1 Project Description and Scope

1.1. Project Data

Project Owner: Francis Parker School

Project Site Address: 6501 Linda Vista Road

Planning Area/
Community Area/
Development Name: Linda Vista

APN Number(s): 437-020-12

Project Location: Latitude: 32.772241°
Longitude: -117.175861°

Project Site Area: 8.21 acres

Adjacent Streets:

North:	Linda Vista Road
South:	River Glen Row
East:	Northrim Court
West:	Via Los Cumbres

Adjacent Land Uses:

North:	Residential
South:	Residential
East:	Residential
West:	Commercial

1.2. Scope of Report

This report addresses the Hydrologic and Hydraulic aspects of the project. This report does not discuss required water quality measures to be implemented on a permanent basis, nor does it address construction storm water issues. Post construction storm water issue discussions can be found under separate cover in the project "Water Quality Technical Report."

In addition, because this project proposes to disturb just over one acre, a Storm Water Pollution Protection Plan for construction activities has been prepared and an NOI will be filed with the State of California prior to the start of construction.

1.3. Project Site Information

1.3.1 Project Location

The project is located in the Linda Vista area of the City of San Diego. The project is located south of Linda Vista Drive, in a near fully urbanized area, consisting of residential uses. The projects south boundary borders some open space, but most of the area is fully developed. Then project is located about 0.25 miles north of the San Diego River, and about 4.5 miles east of the Pacific Ocean. Please see below for a Vicinity Map.

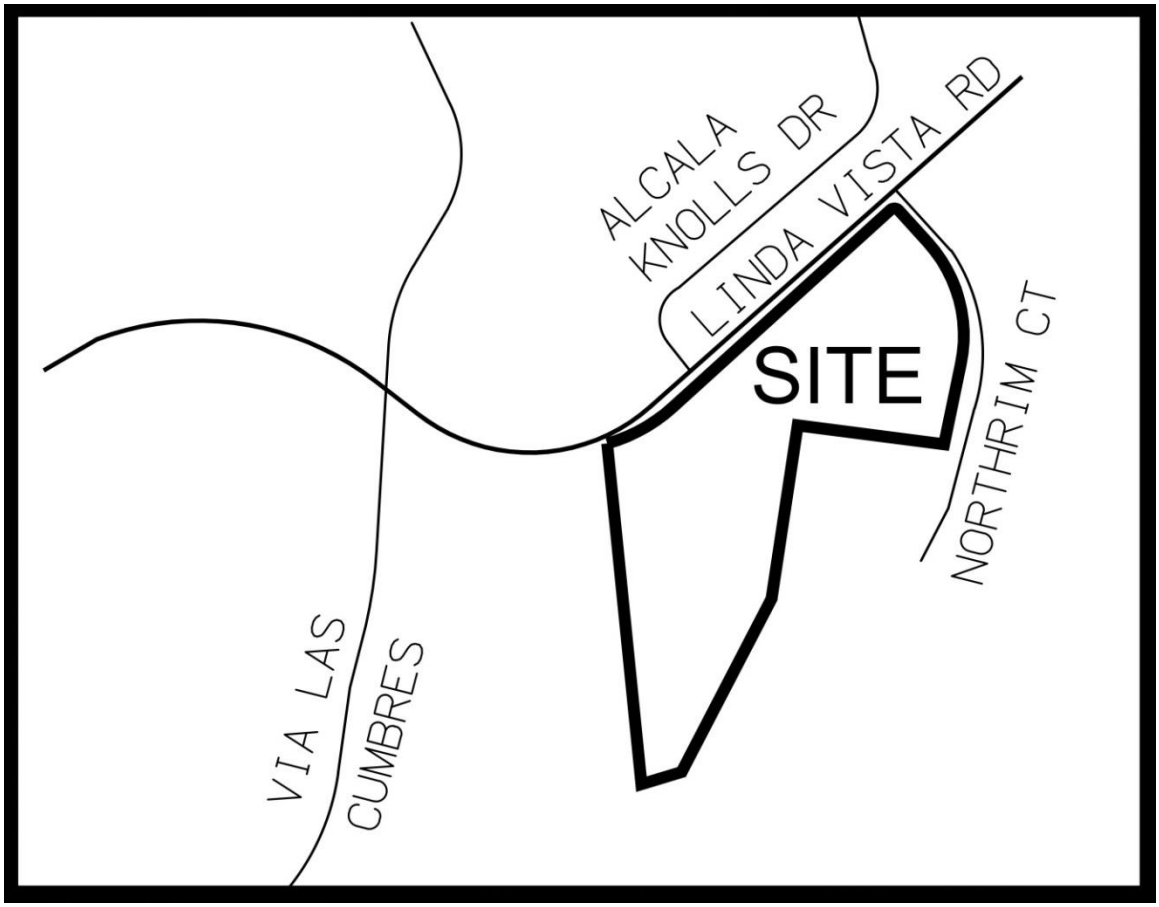


Figure 1: Vicinity Map

1.3.2 Project Description

The amendment to PDP No. 84875/SDP No. 215276 would authorize the changes shown on the updated Master Plan. The updated Master Plan illustrates the building program for the Linda Vista Campus and identifies, among other things, buildings to be demolished, existing buildings and facilities to remain, and proposed buildings and facilities.

Building numbers shown on the updated Master Plan correspond to the School's current building identification system, however, previously used building numbers are included for easy reference and comparison to the most recent Master Plan approval (i.e., SCR No. 2 to PDP No. 84875/SDP No. 215276).

The majority of buildings on the Linda Vista Campus will remain. Several of these buildings were constructed within the last decade and reflect the School's commitment to sustainable and environmentally sensitive design, incorporating two-story stacked classrooms that maximize use of natural light and breezes while minimizing the land footprint. Other features include operable windows, overhangs, and sunshades. A network of courtyards, walkways, and quads connect the indoor spaces to the outdoor environment. These elements are further unified by a landscape design that emphasizes drought-tolerant species, as well as providing demonstration gardens for the students. The buildings that will remain comprise 133,753 square feet.

Continuing this program of sustainable and environmentally sensitive design, three buildings will be demolished to make way for updated facilities. The buildings to be demolished, Buildings 001, 002, and 003, include the Field House, Middle School gymnasium and locker rooms, and the cafeteria. The Field House includes an assembly area, additional locker rooms, restrooms, three classrooms and offices for the athletics staff. Built decades ago, these buildings have been significantly modified over the years. As documented in the historical assessment prepared by Marie Burke Lia, included with the Project documents, these three buildings are not historically significant. The three buildings to be demolished comprise 41,307 square feet.

All of the proposed buildings and facilities will be contained within the existing development footprint. No encroachment is proposed into the perimeter Environmentally Sensitive Lands. The architectural style of the proposed buildings will match the modern contemporary lines of the existing Campus facilities by using compatible finish materials and repeating elements such as overhangs, sunshades, and divided windows, where appropriate and most functional. The buildings will incorporate sustainable design features, and will reinforce the strong indoor space-outdoor space connection found throughout of the Campus by expanding the network of outdoor walkways, spaces, and unified landscape palette. A summary description of the proposed buildings and facilities is provided below; however, the updated Master Plan should be consulted for more detailed information. Proposed buildings comprise 102,109 square feet.

The proposed Dining/Athletic Complex, to be located in the easterly portion of the Linda Vista Campus, comprises several components, the base of which is a

284-space underground parking structure. A portion of the first floor and second floor over the parking structure will house a kitchen/dining hall area with outdoor terraces (Building No. 900). The remaining first floor level over the underground parking structure will house a gymnasium for indoor sports, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms (Building No. 200). Building No. 201 is a covered lobby area connecting the gymnasium to Building Nos. 201A and 201B. Building Nos. 201A and 201B will house athletic offices, a multi-purpose room, press box, locker rooms, training rooms, laundry and restrooms. These two building also will provide rooftop bleacher seating overlooking the track and field. Building No. 202 will provide field storage and a ticketing office for field events. Visitor Services for field events will be provided in Building No. 203. Visitor bleachers will be located southwesterly of Visitor Services.

As part of the Dining/Athletic Complex, the existing play field will be reoriented and fitted with a regulation 8-lane track on its perimeter. An outdoor aquatic center with pool and bleachers will round out the athletic facilities.

Three other buildings are proposed, to be located in the western portion of the Linda Vista Campus. Building No. 106 will be a two-story building providing a Student Center for the Upper School. Building No. 303 will be a two-story building providing multi-purpose space for the Middle School for activities such as student club meetings or other collaborations. Building No. 401 will be a single-story building providing a Maker's Space, an area for students to design and fabricate projects using different types of equipment and tools, such as a 3-D printer. These three buildings are slated for construction at a future date.

The proposed amendment will result in:

- Demolishing 41,307 square feet of existing building;
- Retaining 133,753 square feet of existing building; and
- Adding 102,109 square feet of proposed building.

The proposed amendment results in a total Gross Floor Area (GFA) of 235,862 square feet. Per the Municipal Code, phantom floor area is required to be included in the total GFA (Muni. Code Sections 113.0103 and 113.0234(b)(4)(A)). A phantom floor is the space between actual floors. The GFA of the amended project includes 20,856 square feet of phantom floor area in Building 200 (Gymnasium) and 1,163 square feet of phantom floor area in Building 201 (Lancer Lobby), for a total of 22,019 square feet of phantom floor area. Actual floor area totals 213,843 square feet. The current PDP No. 84875/SDP No. 215276 authorizes a total GFA of 160,201 square feet, resulting in a difference

of 66,661 square feet of total GFA between the current entitlement and the amendment.

1.3.3 Site Topography

The project site is a relatively flat, previously graded site. The main campus has slopes in the 1 to 5% range. The southerly border of the campus is the only sloped portion of the project. Although this portion of the site has slopes over 30 feet in height, the only work proposed for this area is storm drain replacement.

1.3.4 Land Use and Vegetation

The site is a fully developed urban school campus. The site consists of about 50% hardscape and 50% pervious areas. Pervious areas include a combination of the sports fields and non-native plants. The slopes along the southerly portion of the site are fully covered with native type vegetation.

1.3.5 FEMA Information

The Federal Emergency Management Agency (FEMA) has mapped the floodplain of the San Diego River. The project does not lie within any mapped floodplain (FIRM Panel 06073C1618G). The project lies within Zone X which is outside the limits of the 500-year flood.

a) Flood Zone Definitions

Zone A -- Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone AE -- Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone X (Shaded) – Areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood.

Zone X (Unshaded) Areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood.

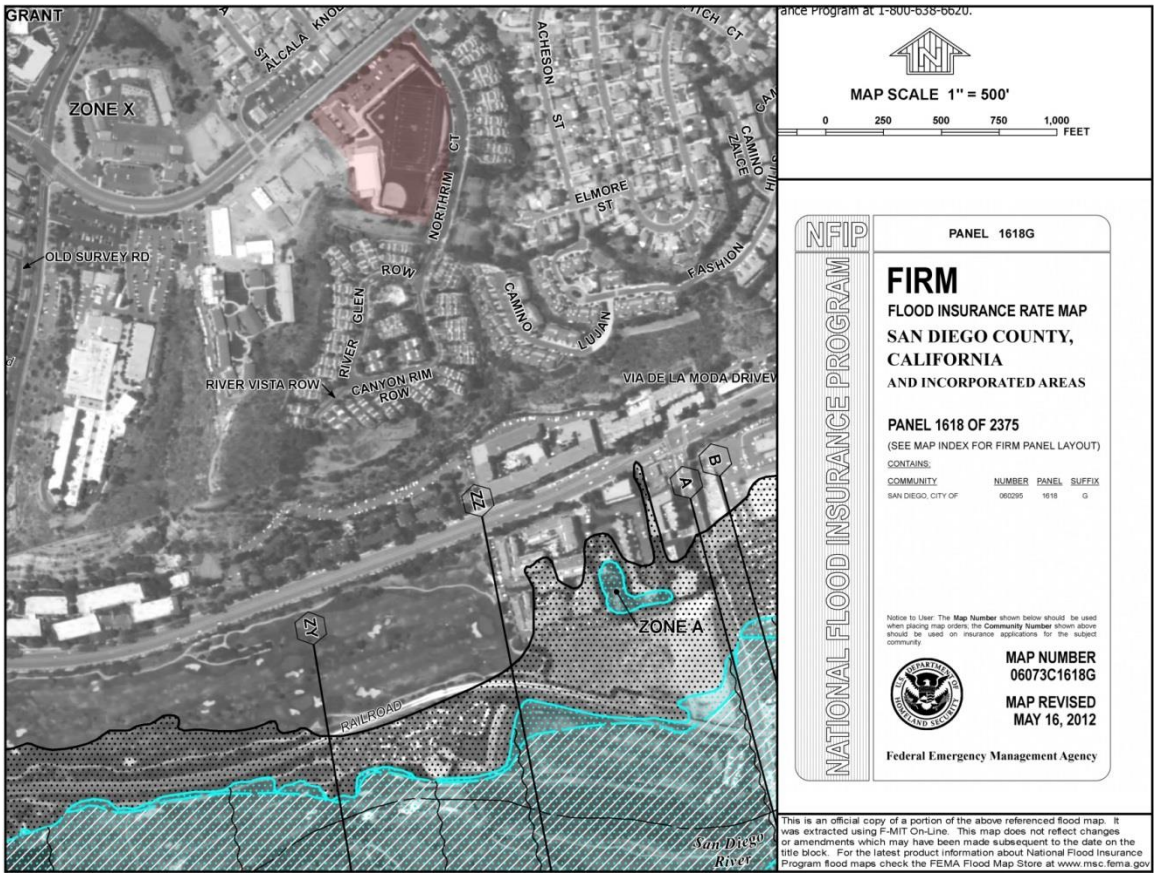


Figure 2: FEMA Firmette

1.3.6 Existing Drainage Improvements

The existing site drains from the north to the south. Drainage collects in a series of storm drain pipes throughout the site. Drainage is collect in these pipes before being directed to the southwest. At the south corner of the site, at the crotch of the canyon, 2 storm drains discharge from the site. The first, a 24" storm drain runs from the main portion of the site, including the parking areas, main buildings and the hardscape. The second storm drain collects drainage from the fields. Both storm drains collect and discharge to the same storm drain system located in the crotch of the canyon before flowing off site.

1.3.7 Proposed Improvements

Drainage from the site will continue to flow within the same patterns. Drainage from the parking lot, buildings, hardscape and field will continue to flow to the crotch of the canyon. Drainage from the parking lot and the hardscape will flow to the 24" storm drain, while the field will flow to the existing 12" storm drain as per the existing condition.

Drainage patterns in both the existing and proposed condition will be unchanged. Prior to discharge from the site, the project proposes 4 modular wetland systems.

Section 2 Study Objectives

The specific objectives of this study are as follows:

- To provide hydrologic analysis of the project site for the 100-year, 6-hour storm event under existing and proposed conditions,
- To provide a hydraulic analysis of the project to ensure that the correct sizes of pipes and inlets have been chosen,
- And to ensure that no additional runoff or downstream impacts occur due to this project.

Section 3 Methodology

3.1. Hydrology

Hydrologic analysis has been completed using the Rational Method (Q = CIA). Whereas,

Q = rate of flow in cubic feet per second

C = Coefficient of runoff,

I = intensity of rainfall based on the time of concentration and the 6-hour, 100-year precipitation

A=Area of the basin.

Runoff from the project was calculated using the modified rational method. The modified rational method was performed using the AES Software computer program.

The following software packages were used in the analysis of the project:

- Microsoft Excel (Rational Method Hydrology)
- AutoCAD Civil 3d Hydraflow Hydragraph Extension 2013 (Storm Routing)
- RatHydro (Rational Method Hydragraphs)
- Flowmaster (Hydraulic Analysis for Open Channels and Pipes for Storm Routing)

3.2. Hydraulics

Proposed improvements include new grated storm drain inlets in paved areas, and a new underground storm drain system. Private underground storm drain will consist of PVC or HDPE pipe with watertight joints. Public storm drain, if applicable, will consist of reinforced concrete pipe, with a minimum strength of 2000-D.

Capacity calculations for the inlets have been performed using the standard weir and orifice equations. Grate perimeter and open area values have been reduced to account for the bars, and an additional 50-percent to account for potential clogging.

Runoff will ultimately be discharged from the project site at the same location as the existing condition, to the existing cleanout at the southwest corner of the project site.

Proposed improvements will not increase the total peak flow runoff, as compared to existing conditions, through the removal of pavement and installation of vegetation.

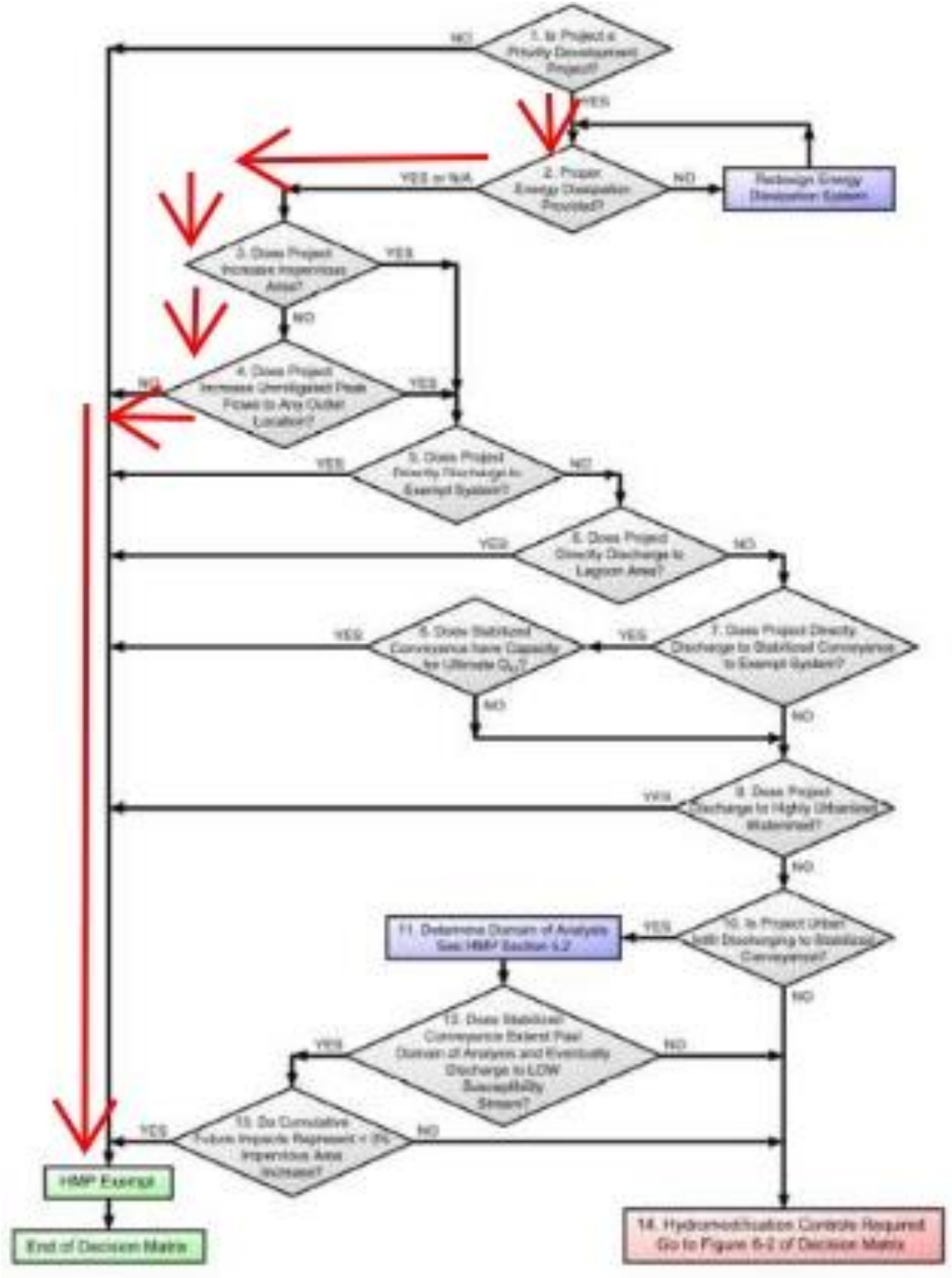
Manning's equation was used to calculate the depth of flow being conveyed through proposed pipes and for existing pipes which experience additional flows as a result of the proposed improvements. Proposed pipes with diameters of less than 12 inches were not individually calculated for depth and velocity, however, the capacity was verified against tables showing the maximum flow in the smaller pipes.

The following software packages were used in the analysis of the project:

- Hydraflow Hydragraph Extension for AutoCAD Civil 3d 2013 (Storm Routing)
- Hydraflow Storm Sewer Extension for AutoCAD Civil 3d 2013 (Hydraulic and Energy Grade Lines)
- Hydraflow Express Extensions Extension for AutoCAD Civil 3d 2013 (Storm Routing)
- RatHydro (Rational Method Hydrographs)
- Bentley Flowmaster (Hydraulic Analysis for Open Channels and Pipes for Storm Routing)

3.3. Hydromodification

Using the Hydromodification Flow chart is was determined that the project is exempt from Hydromodification. A copy of the Hydromodification Flow Chart is shown below. This project proposes a reduction in both pre-project to post project flows, as well as a reduction in the proposed impervious areas.


NO
YES
YES or N/A
NO
YES
NO
NO
YES
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
HMP Exempt
End of Decision Matrix
14. Hydromodification Controls Required
Go to Figure 6-2 of Decision Matrix

Section 4 Results

4.1. Hydrologic Results

The following tables summarize the hydrologic analysis of the project.

- **Table 1**, summarizes the existing hydrologic properties of the project site. **Table 2**Error! Reference source not found. **(Unmitigated)**, summarizes the proposed condition hydrology of the site in the unmitigated condition.

- **Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated),** compares existing flows to the proposed.

Pre-project Condition	Acres	Percentage
Impervious	4.16	50%
Pervious	4.24	50%
Total	8.40	100%

Proposed Condition	Acres	Percentage
Impervious	3.85	47%
Pervious	4.36	53%
Total	8.21	100%

Table 1: Existing Condition 100-Year Hydrology Results

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.22	4.44
A-2	0.85	3.47	3.47	11.76
B-1	0.55	2.77	2.77	4.22
B-2	0.55	2.77	0.94	1.39
TOTALS			**8.40**	**19.99**

Table 2: Proposed Condition 100-Year Hydrology Results (Unmitigated)

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.10	4.44
A-2	0.85	3.98	3.11	10.52
B-1	0.55	2.77	3.05	4.65
B-2	0.55	2.77	1.13	1.68
TOTALS			**8.40**	**16.33**

Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated)

Sub Basin No.	Existing Condition (cfs)	Proposed Condition (cfs)	Difference
Basin A+B	19.99	16.33	-2.66
TOTALS	**19.99**	**16.33**	**-2.66**

4.2. Hydraulic Results

Hydraulic calculations will be performed at the final engineering phase of the project.

Section 5. Conclusions

As indicated in the Table of Hydrologic Results, the proposed improvements will not increase the total 100-year, 6-hour peak flow rate. Because flow has been decreased, no downstream effects are anticipated.

Proposed private grated inlets, all of which are in a sump condition, shall capture the generated flows without significant ponding. In the unlikely event that grated inlets become completely clogged, the proposed site grades shall provide overland release to adjacent drainage areas.

There is not a significant concern for erosion as the site is previously developed. Potential for erosion for the proposed condition shall be minimized by following items listed in the Erosion Control Plan (part of the Rough Grading Plans). Runoff shall flow over relatively flat areas where scour is not a concern. Runoff is not proposed over any sloped areas.

Section 5 Certification

This Hydrology and Hydraulics report has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based. The plans and specifications in this Hydrology and Hydraulics report are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.

Richard S. Tomlinson, Jr. RCE 59276 June 25, 2015

Section 6 References

San Diego Municipal Code, 2008. Land Development Manual (March 2008). Storm Water Standards.

City of San Diego, 1984. Drainage Design Manual (April 1984)

FEMA, 1997. FEMA. (June 17, 1997). Flood Insurance Study, San Diego County.

Michael Baker
INTERNATIONAL

Appendix A
Rainfall Isopluvials

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

Isopluvial (inches)

Orange County

Riverside County

Imperial County

Pacific Ocean

Mexico

SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
SD
CHULA VISTA
IMPERIAL BEACH

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N
W E
S

3 0 3 Miles

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

Isopluvial (inches)

SITE

Orange County

Riverside County

Imperial County

Mexico

Pacific Ocean

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
SD
CHULA VISTA
IMPERIAL BEACH

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

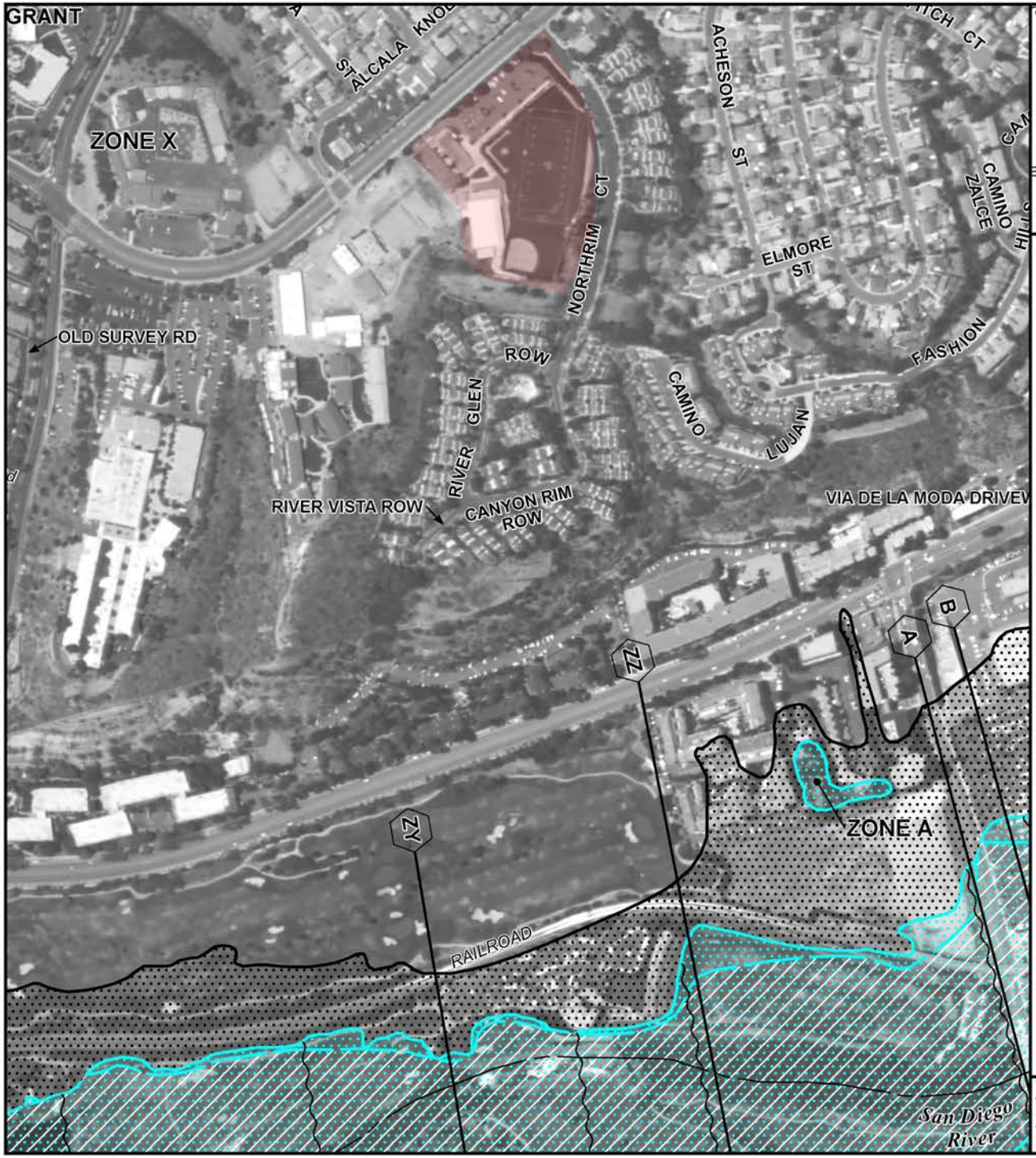
DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N W E S

3 0 3 Miles

Appendix B
FEMA Flood Plain Maps



ance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1618G

FIRM

FLOOD INSURANCE RATE MAP

SAN DIEGO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 1618 OF 2375

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN DIEGO, CITY OF	060295	1618	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06073C1618G

MAP REVISED
MAY 16, 2012

Federal Emergency Management Agency

Appendix C
Existing Condition Hydrologic Work Map & Calculations

```
_____________________________________________________________________________
*****************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                         2003,1985,1981 HYDROLOGY MANUAL
          (c) Copyright 1982-2013 Advanced Engineering Software (aes)
              Ver. 20.0 Release Date: 06/01/2013  License ID 1264

                              Analysis prepared by:

             RBF Consulting, A Michael Baker International Company
                         9755 Clairemont Mesa Blvd.
                            San Diego, CA 92124


 ************************** DESCRIPTION OF STUDY **************************
* FRANCIS PARKER SCHOOL                                                   *
* 100-YEAR FLOWS                                                          *
* JUNE 25, 2015                                                           *
 *************************************************************************

  FILE NAME: C:\FP\EX.DAT
  TIME/DATE OF STUDY: 07:45 06/25/2015
-----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
-----------------------------------------------------------------------------
  1985 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.200
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 1.00
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

*****************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  21
-----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
=============================================================================
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  92
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   409.00
  UPSTREAM ELEVATION(FEET) =    288.00
```

```
 DOWNSTREAM ELEVATION(FEET) =    282.00
 ELEVATION DIFFERENCE(FEET) =      6.00
 URBAN SUBAREA OVERLAND TIME OF FLOW(MIN.) =    8.009
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.277
 SUBAREA RUNOFF(CFS) =      4.44
 TOTAL AREA(ACRES) =      1.22   TOTAL RUNOFF(CFS) =      4.44

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     10.00 IS CODE =  41
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   282.00  DOWNSTREAM(FEET) =   251.00
 FLOW LENGTH(FEET) =   566.00   MANNING'S N =  0.013
 DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.7 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =  10.23
 GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =       4.44
 PIPE TRAVEL TIME(MIN.) =   0.92    Tc(MIN.) =    8.93
 LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.987
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  92
 SUBAREA AREA(ACRES) =    3.47   SUBAREA RUNOFF(CFS) =   11.76
 TOTAL AREA(ACRES) =        4.7   TOTAL RUNOFF(CFS) =      16.20
 TC(MIN.) =    8.93

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  10
----------------------------------------------------------------------------
 >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================

****************************************************************************
 FLOW PROCESS FROM NODE     15.00 TO NODE     13.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
 SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  88
 NATURAL WATERSHED NOMOGRAPH TIME OF CONCENTRATION (APPENDIX X-A)
 WITH 10-MIN. ADDED =  15.70(MIN.)
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   478.00
 UPSTREAM ELEVATION(FEET) =    286.50
 DOWNSTREAM ELEVATION(FEET) =    282.50
 ELEVATION DIFFERENCE(FEET) =      4.00
 NATURAL WATERSHED TIME OF CONCENTRATION =  15.70
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.771
 SUBAREA RUNOFF(CFS) =      4.22
 TOTAL AREA(ACRES) =      2.77   TOTAL RUNOFF(CFS) =      4.22
```

```
****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     11.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   282.50  DOWNSTREAM(FEET) =   280.00
  FLOW LENGTH(FEET) =   225.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.38
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       4.22
  PIPE TRAVEL TIME(MIN.) =   0.70    Tc(MIN.) =   16.39
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     11.00 =     703.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     11.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.695
  SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  88
  SUBAREA AREA(ACRES) =    0.94   SUBAREA RUNOFF(CFS) =    1.39
  TOTAL AREA(ACRES) =        3.7   TOTAL RUNOFF(CFS) =       5.62
  TC(MIN.) =   16.39

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     10.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1         5.62    16.39       2.695        3.71
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     10.00 =     703.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        16.20     8.93       3.987        4.69
  LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1      19.99       8.93        3.987
      2      16.56      16.39        2.695

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      19.99   Tc(MIN.) =    8.93
  TOTAL AREA(ACRES) =        8.4
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.4  TC(MIN.) =      8.93
  PEAK FLOW RATE(CFS)   =      19.99
```

*** PEAK FLOW RATE TABLE ***

	Q(CFS)	Tc(MIN.)
1	19.99	8.93
2	16.56	16.39

==========

==========

END OF RATIONAL METHOD ANALYSIS

TOTAL AREA: 365,653 SQ FT

LEGEND

- LIMITS OF OVERALL DRAINAGE BASIN
- FLOW DIRECTION
- BASIN (X-X)
- POINT OF COMPLIANCE
- EXISTING CONTOUR (400)
- EXISTING WATER (W)
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING STORM DRAIN CO
- EXISTING STORM DRAIN (SD)
- EXISTING SEWER (S)
- EXISTING STREET LIGHT
- EXISTING CURB
- PROPERTY LINE
- EXISTING RECLAIMED WATER (RW)
- FENCE LINE
- GATE
- SITE WALL
- RETAINING WALL
- SEWER MANHOLE
- SEWER CLEAN OUT
- STORM DRAIN MANHOLE
- DRAIN INLET/CATCH BASIN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- ELECTRIC METER
- ELECTRIC PULL BOX
- POWER POLE
- AREA LIGHT
- STREET LIGHT
- SPOT LIGHT
- UTILITY PULL BOX
- GAS METER
- IRRIGATION CONTROL BOX
- IRRIGATION CONTROL VALVE
- STORM DRAIN CLEAN OUT (C.O.)
- BOLLARD
- FLAG POLE
- BACK FLOW PREVENTER (BFP)
- ELECTRIC VAULT (EVLT)
- TELEPHONE PEDESTAL (TELPED)
- TELEPHONE VAULT (TELVLT)
- ELECTRIC TRANSFORMER (TRANS)
- WATER VAULT (WVLT)

40 0 40 80 120
SCALE: 1"=40'

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA

SCALE: 1"=40'

EXISTING DRAINAGE MAP

01 / 21 / 15

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ■ FAX 858.614.5001 ■ www.RBF.com

Michael Baker
INTERNATIONAL

Appendix D
Proposed Condition Hydrologic Work Map & Calculations

```
**************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                         2003,1985,1981 HYDROLOGY MANUAL
          (c) Copyright 1982-2013 Advanced Engineering Software (aes)
              Ver. 20.0 Release Date: 06/01/2013  License ID 1264

                              Analysis prepared by:

             RBF Consulting, A Michael Baker International Company
                         9755 Clairemont Mesa Blvd.
                            San Diego, CA 92124


 ************************** DESCRIPTION OF STUDY **************************
* FRANCIS PARKER SCHOOL                                                   *
* 100-YEAR FLOWS                                                          *
* JUNE 25, 2015                                                           *
 *************************************************************************

  FILE NAME: C:\FP\PR.DAT
  TIME/DATE OF STUDY: 07:47 06/25/2015
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  1985 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.200
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 1.00
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  92
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   409.00
  UPSTREAM ELEVATION(FEET) =    288.00
```

```
 DOWNSTREAM ELEVATION(FEET) =    282.00
 ELEVATION DIFFERENCE(FEET) =      6.00
 URBAN SUBAREA OVERLAND TIME OF FLOW(MIN.) =    8.009
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.277
 SUBAREA RUNOFF(CFS) =      4.00
 TOTAL AREA(ACRES) =      1.10   TOTAL RUNOFF(CFS) =      4.00

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     10.00 IS CODE =  41
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   282.00  DOWNSTREAM(FEET) =   251.00
 FLOW LENGTH(FEET) =   566.00   MANNING'S N =  0.013
 DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.5 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =   9.92
 GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =       4.00
 PIPE TRAVEL TIME(MIN.) =   0.95    Tc(MIN.) =    8.96
 LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.979
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  92
 SUBAREA AREA(ACRES) =    3.11   SUBAREA RUNOFF(CFS) =   10.52
 TOTAL AREA(ACRES) =        4.2   TOTAL RUNOFF(CFS) =      14.52
 TC(MIN.) =    8.96

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  10
----------------------------------------------------------------------------
 >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================

****************************************************************************
 FLOW PROCESS FROM NODE     15.00 TO NODE     13.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
 SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  88
 NATURAL WATERSHED NOMOGRAPH TIME OF CONCENTRATION (APPENDIX X-A)
 WITH 10-MIN. ADDED =  15.70(MIN.)
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   478.00
 UPSTREAM ELEVATION(FEET) =    286.50
 DOWNSTREAM ELEVATION(FEET) =    282.50
 ELEVATION DIFFERENCE(FEET) =      4.00
 NATURAL WATERSHED TIME OF CONCENTRATION =  15.70
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.771
 SUBAREA RUNOFF(CFS) =      4.65
 TOTAL AREA(ACRES) =      3.05   TOTAL RUNOFF(CFS) =      4.65
```

```
****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     11.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   282.50  DOWNSTREAM(FEET) =   280.00
  FLOW LENGTH(FEET) =   225.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.92
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       4.65
  PIPE TRAVEL TIME(MIN.) =   0.63    Tc(MIN.) =   16.33
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     11.00 =     703.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     11.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.702
  SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  88
  SUBAREA AREA(ACRES) =    1.13   SUBAREA RUNOFF(CFS) =    1.68
  TOTAL AREA(ACRES) =        4.2   TOTAL RUNOFF(CFS) =       6.33
  TC(MIN.) =   16.33

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     10.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1         6.33    16.33       2.702        4.18
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     10.00 =     703.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        14.52     8.96       3.979        4.21
  LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1      18.81       8.96        3.979
      2      16.19      16.33        2.702

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      18.81   Tc(MIN.) =    8.96
  TOTAL AREA(ACRES) =        8.4
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.4  TC(MIN.) =      8.96
  PEAK FLOW RATE(CFS)   =      18.81
```

*** PEAK FLOW RATE TABLE ***

	Q(CFS)	Tc(MIN.)
1	18.81	8.96
2	16.19	16.33

==========

==========

END OF RATIONAL METHOD ANALYSIS

TOTAL AREA:

LEGEND

- LIMITS OF OVERALL DRAINAGE BASIN
- FLOW DIRECTION
- BASIN (X-X)
- POINT OF COMPLIANCE
- EXISTING CONTOUR (400)
- EXISTING WATER (W)
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING STORM DRAIN CO
- EXISTING STORM DRAIN (SD)
- EXISTING SEWER (S)
- EXISTING STREET LIGHT
- EXISTING CURB
- PROPERTY LINE
- EXISTING RECLAIMED WATER (RW)
- FENCE LINE
- GATE
- SITE WALL
- RETAINING WALL
- SEWER MANHOLE
- SEWER CLEAN OUT
- STORM DRAIN MANHOLE
- DRAIN INLET/CATCH BASIN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- ELECTRIC METER
- ELECTRIC PULL BOX
- POWER POLE
- AREA LIGHT
- STREET LIGHT
- SPOT LIGHT
- UTILITY PULL BOX
- GAS METER
- IRRIGATION CONTROL BOX
- IRRIGATION CONTROL VALVE
- STORM DRAIN CLEAN OUT (C.O.)
- BOLLARD
- FLAG POLE
- BACK FLOW PREVENTER (BFP)
- ELECTRIC VAULT (E.V.L.T)
- TELEPHONE PEDESTAL (TEL.PED)
- TELEPHONE VAULT (TEL.V.L.T)
- ELECTRIC TRANSFORMER (TRANS)
- WATER VAULT (W.V.L.T)

SCALE 1"=40'

40 0 40 80 120
SCALE: 1"=40'

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA

PROPOSED DRAINAGE MAP

01 / 21 / 15

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ▪ FAX 858.614.5001 ▪ www.RBF.com

(REVISED) PRELIMINARY GEOTECHNICAL REPORT
FRANCIS PARKER MIDDLE SCHOOL
MASTER PLAN IMPROVEMENTS
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

PREPARED FOR:

FRANCIS PARKER SCHOOL
ATTENTION: MR. MIKE RINHART
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA 92111

PREPARED BY:

CONSTRUCTION TESTING & ENGINEERING, INC.
1441 MONTIEL ROAD, SUITE 115
ESCONDIDO, CALIFORNIA 92026

CTE JOB NO.: 10-12361G JANUARY 30, 2015 (REVISED MAY 28, 2015)

TABLE OF CONTENTS

Section Page

1.0 INTRODUCTION AND SCOPE OF SERVICES 1
1.1 Introduction 1
1.2 Scope of Services 2
2.0 SITE BACKGROUND 3
2.1 Site Location and Description 3
2.2 Site Development 4
3.0 FIELD AND LABORATORY INVESTIGATIONS 5
3.1 Field Investigations 5
3.2 Laboratory Investigation 6
4.0 GEOLOGY 7
4.1 General Setting 7
4.2 Geologic Conditions 7
4.2.1 Quaternary Engineered Fill (not mapped) 8
4.2.2 Quaternary Undocumented Fill (not mapped) 9
4.2.3 Quaternary Slope Wash/Colluvium 9
4.2.4 Quaternary Very Old Paralic Deposits (Qvop), (Formally Referred to as Lindavista Formation) 10
4.2.5 Tertiary Stadium Conglomerate 10
4.2.6 Tertiary Friars Formation 11
4.3 Groundwater 12
4.4 Geologic Hazards and Assessment 12
4.4.1 Local and Regional Faulting 13
4.4.2 Liquefaction and Seismic Settlement Evaluation 14
4.4.3 Tsunamis and Seiche Evaluation 15
4.4.4 Landsliding 15
4.4.5 Compressible, Expansive, and Corrosive Soils 16
5.0 CONCLUSIONS AND RECOMMENDATIONS 17
5.1 General 17
5.2 Grading and Earthwork 18
5.3 Site Preparation 18
5.4 Excavations 20
5.5 Fill Placement and Compaction 20
5.6 Fill Materials 21
5.7 Temporary Construction Slopes 21
5.8 Foundations and Slab Preliminary Recommendations 22
5.8.1 Foundations 23
5.8.2 Foundation Settlement 24
5.8.3 Foundation Setback 24

5.8.4 Interior Concrete Slabs 24
5.9 Seismic Design Criteria 25
5.10 Lateral Resistance and Earth Pressures....26
5.11 Exterior Concrete Flatwork....29
5.12 Drainage....29
5.13 Groundwater 31
5.14 Slopes....31
5.15 Construction Observation 32
5.16 Addendum Geotechnical Report and Plan Review....32
6.0 LIMITATIONS OF INVESTIGATION....32

FIGURES

FIGURE 1 SITE INDEX MAP
FIGURE 2 PROPOSED MASTER PLAN IMPROVEMENTS WITH GEOLOGY
FIGURE 2A COMPACTION LOCATION MAP (2006)
FIGURE 2B COMPACTION LOCATION MAP (2007)
FIGURE 2C COMPACTION LOCATION MAP PHASE VI (2009)
FIGURE 3 REGIONAL FAULT AND SEISMICITY MAP

APPENDICES

APPENDIX A REFERENCES CITED
APPENDIX B FIELD METHODS AND EXPLORATION LOGS
APPENDIX C LABORATORY METHODS AND RESULTS
APPENDIX D STANDARD GRADING SPECIFICATIONS

1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

Construction Testing & Engineering, Inc., (CTE) has prepared this Preliminary Geotechnical Report to fulfill the requirements of the requested geologic reconnaissance report for the proposed Francis Parker School Master Plan improvements. A geological reconnaissance report is a type of preliminary geotechnical report that, as the name implies, is reconnaissance in nature and does not typically include in-depth investigations including field investigations and analysis. However, CTE has previously completed geotechnical investigations and reports, grading observations, and as-graded/compaction reports for earlier phases of work at the Francis Parker School site. Therefore, based on our previous studies and knowledge of the project site area, we are providing Francis Parker School with a geologic reconnaissance report that includes updated geotechnical information to meet the current California Building Code regulations and that can be used to initiate preliminary design for the proposed improvements, as desired or necessary. This report is anticipated to surpass the required criteria for a geologic reconnaissance report per the City of San Diego guidelines, and will also address significant criteria associated with the future preliminary geotechnical investigation and report required for obtaining permits and commencing with construction.

However, as the building plans (including grading, shoring, and structural plans) are not complete at this time, additional plan reviews will be required and possible additional geotechnical investigations and/or evaluations such as an updated slope stability analysis, and a

foundation evaluation for a subterranean parking structure may be required and can be provided upon request and at the appropriate time. It is also our understanding that no infiltration devices are proposed as part of the current Master Plan improvements. Therefore, additional characterization of infiltration and/or percolation rates will not be required. This work has been performed in general accordance with the terms of proposal no. G-3346 dated January 15, 2015.

This preliminary geotechnical report presents the results of our previous site investigations and provides conclusions and geotechnical engineering criteria that can be utilized for the design phases of the proposed improvements associated with the Francis Parker School Master Plan improvements. The previous completed site investigations included field exploration, laboratory testing, geologic hazard evaluation, and engineering analysis. This information has been incorporated into the preparation of this report to provide recommendations for site excavations, fill placement, and foundations for the proposed structures. This report updates the above listed geotechnical reports for the presently proposed Master Plan Improvements. Cited references are presented in Appendix A.

1.2 Scope of Services

The goal of our preliminary geotechnical/geologic reconnaissance report was to evaluate geologic conditions and hazards based on review of public records and our previous site specific geotechnical investigations and observations. In addition, we addressed soil materials and properties at the site with respect to their suitability for support of the proposed Master Plan structural modifications.

Our scope of services included:

- Review of readily available geologic reports and documents pertinent to the site area.
- Review of previous field explorations conducted by CTE.
- Review of the previous testing of selected soil samples by CTE to provide data for evaluation of geotechnical characteristics of the site foundation soils.
- Assessment of site geologic conditions pertinent to the site.
- Preparation of this report providing a summary of the previous investigations performed, and conclusions and geotechnical engineering recommendations for the site.

2.0 SITE BACKGROUND

2.1 Site Location and Description

The site is located at 6501 Linda Vista Road in the City of San Diego. The site is an irregular-shaped property that slopes down slightly to the south toward two natural drainage canyons that continue southward to Friars Road. Site investigations have been previously completed on this multiple phase development. CTE previously completed the Geotechnical Investigation Addendum, dated November 15, 2004; Phase 2 Update Geotechnical Investigation, dated January 25, 2006; Phase VI Updated Geotechnical Investigation, dated May 16, 2007; and associated addendums, recommendation letters, pad certifications, and as-graded reports for each of the phases of work.

The Francis Parker School is a combined middle and high school that is situated atop a relatively flat mesa surface on the north side of Mission Valley at an approximate elevation of 270 feet above mean sea level. The mesa is dissected by south to southwest trending canyons that are tributary drainages to the San Diego River, which flows westward down Mission Valley to

Mission Bay (Figure 1). Two of these drainages bound the western and eastern property boundaries resulting in the site being located on a north-northeast to south-southwest trending finger-shaped ridge with steep canyon walls. The east and west facing slopes consists primarily of Stadium Conglomerate capped with Quaternary very old paralic deposits (Qvop, formally referred to as the Linda Vista Formation) consisting of conglomerate and conglomeratic sandstone that are locally covered with a veneer of topsoil consisting of conglomeratic sandstone. These existing slopes have a 2:1 (horizontal: vertical) inclination. Two southerly facing slopes, one within the property boundary of the site and located south of the Artificial Turf fields has a 1.5:1 (horizontal: vertical) slope inclination. This slope consists of Qvop sandstone, conglomeratic sandstone, and conglomerate overlying Stadium Conglomerate. The other south facing slope is located just south of the site's property boundary at the southern tip of the mesa ridge line. This slope runs parallel to Friars Road, has a 1:1 (horizontal: vertical) slope inclination, and consists of Stadium Conglomerate overlying Friars Formation sandstone, siltstone and claystone at approximately 140 feet msl. The regional and local topography of the site area are shown on Figures 1 and 2.

2.2 Site Development

Based upon recent site plans, we understand that demolition of existing structures will include the Field House, Middle School Locker Rooms, and the Cafeteria and Middle School Gym. Proposed new structures (identified with building numbers as shown on Figure 2), include an Upper School Student Center (Bldg. 106), Gymnasium and Second Level Classrooms (Bldg. 200), Lancer Lobby (Bldg. 201), Athletic Complex with Press Box and Offices (Bldg.210A),

Athletic Complex with Offices (Bldg. 201B), Field Storage/Ticket Office (Bldg. 202), Visitor Services (Bldg. 203), Middle School Multipurpose (Bldg. 303), Maker's Space (Bldg.401), Dining Hall (Bldg. 900), and Guard House (Bldg. GH#2). The proposed are new gymnasium complex (Bldg. 200) is to include two subterranean parking levels with a two-story high gymnasium and an attached two-story cafeteria and dining area (Bldg. 900) above the parking structure. Additional proposed improvements include an aquatic center, new parking lots, and associated improvements. The aquatic center main deck is proposed to be constructed at the elevation of the upper parking level and the pool depth is undetermined at this time.

Figure 2 shows the general layout of the portion of the site with the current proposed Master Plan improvements. Figure 2A, 2B, and 2C show the general as-graded limits of previous grading and compaction test locations that were previously completed at the site.

3.0 FIELD AND LABORATORY INVESTIGATIONS

3.1 Field Investigations

Geologic mapping and site reconnaissance studies were completed during each phase of work from 2004 through 2007 as described above. Field explorations that were completed during the April 4, 2007 investigation (updated May 16, 2007) includes the excavation of five subsurface borings using a conventional truck-mounted, eight-inch hollow-stem auger drill-rig. Explorations extended to refusal at a maximum depth of approximately 10 feet below grade (fbg).

Field explorations that were completed during the January, 2006 investigation included the excavation of three test pits using a conventional mini-excavator to the maximum depth of approximately nine fbg. Field explorations that were completed during the November, 2004 investigation included the advancement of three bucket-auger borings to a maximum depth of approximately 86 fbg.

Soils from all investigations were logged in the field by a CTE geologist and visually classified in accordance with the Unified Soil Classification System. Bulk and ring samples were transported for testing to the CTE geotechnical laboratory in Escondido, California. Exploration logs including descriptions of the soils encountered are shown in Appendix B. Field descriptions shown on the exploration logs have been modified, where appropriate, to reflect laboratory test results. Approximate field exploration locations are shown on Figure 2.

3.2 Laboratory Investigation

Laboratory tests were conducted on selected soil samples for classification purposes and to evaluate physical properties and engineering characteristics. Laboratory tests conducted for the previous investigations included: In-Place Moisture Density, Modified Proctor, Expansion Index, Remolded Direct Shear, Consolidation, R-Value, pH, resistivity and soluble sulfates/chlorides. Test method descriptions and laboratory results are included in Appendix C.

4.0 GEOLOGY

4.1 General Setting

San Diego is located within the Peninsular Ranges physiographic province that is characterized by northwest-trending mountain ranges, valleys, and intervening regional faults. The San Diego Region can further be subdivided as the coastal plain, central mountain–valley and eastern mountain-valley area. The project site lies within the coastal plain area which is characterized by wave cut erosion surfaces (abrasion platforms) creating a series of terraces that step down to the Pacific Ocean. The terrace surface is generally at a two percent surface gradient inclined down to the west (toward the ocean). The terrace elevations are controlled by past ocean elevation in combination with tectonic (fault) activity. The wave cut terraces have been incised by westward flowing drainages, and are typically covered with marine sediments and non-marine (terrestrial) deposits.

4.2 Geologic Conditions

According to mapping by Tan and Kennedy (1975, 2008), soils at the site consist of units of the Quaternary very old paralic deposits (formerly referred to as the Lindavista Formation), and underlying units of the Tertiary Stadium Conglomerate and Tertiary Friars Formation (Figure 2). Our explorations confirmed the presence of the mapped materials indicated above, however, our mapping and borehole information show the contact between the Stadium Conglomerate and the Friars Formation is at a lower elevation than mapped by Kennedy (1975), and is not exposed along the east and west facing slopes of the north-northeast trending canyons that bound the site area. In addition, Quaternary Slope Wash/Colluvial deposits, were locally recognized during our

investigations on many existing slopes during the geologic investigation performed by CTE, adjacent to and west of the Francis Parker Middle School Phase 2 Project area (Geotechnical Investigation Addendum Report, Proposed Francis Parker School Redevelopment, CTE Job No.: 10-7275G, dated November 15, 2004). Another reference used in our geologic reconnaissance included a report by Testing Engineers – San Diego, Inc., 2003, "Preliminary Geotechnical Investigation, for the Proposed Francis Parker Middle School, Redevelopment Project, 6501 Linda Vista Road, San Diego, California," Project No.: 2003-0081, dated March 21, 2003 (Boring Logs included in Appendix B).

During the explorations advanced for Phase VI Update Report, Quaternary Engineered Fill was found to overlie the Quaternary very old paralic deposits in Boring 5 (B-5) and the Quaternary Undocumented Fill overlies the Quaternary very old paralic deposits in the remainder of our borings advanced (B-1 through B-4). The site earth materials are further described in the following text.

4.2.1 Quaternary Engineered Fill (not mapped)

Engineered Fill soils were encountered in boring B-5 and were exposed to extend to a maximum depth to approximately nine feet below the ground surface (bgs). These soils generally consist of dense, slightly moist, mottled dark brown and orange, clayey sand with trace silt and gravel. Areas of Engineered Fill are considered to be suitable for the support of improvements after in-place density tests of excavation bottoms have verified a minimum relative compaction of 90%.

4.2.2 Quaternary Undocumented Fill (not mapped)

Undocumented Fill soils were encountered in CTE borings B-1 through B-4 explorations and observed to extend to a maximum depth of approximately 2.5 feet below the ground surface (bgs), and ranged between two to nine feet in the test pits completed in the January (2006) investigation. No fill was observed in bucket auger BA-3 located in northern portion of the property. Previous investigations conducted by Testing Engineers-San Diego (2003) also identified approximately one and half feet of fill in the western portion of the site. In addition, URS (2004) reported approximately one–foot of fill overlying the Qvop deposits and Stadium Conglomerate in the eastern portion of the property, in the area of the artificial turf Athletic fields.

Most of the undocumented fill has been removed during previous grading, however, locally deeper Undocumented Fills cannot be precluded. These soils generally consist of dense, slightly moist, reddish brown to dark brown clayey sand. All areas of Undocumented Fill are considered to be unsuitable for the support of improvements and will require removal and proper recompaction.

4.2.3 Quaternary Slope Wash/Colluvium

Quaternary Slope Wash/Colluvium was observed covering portions of the existing slopes, and ranged in thickness from a few inches up to several feet near the toe area of the slopes. This material consisted or re-worked sands and gravels from the Qvop deposits and Stadium Conglomerate Formation that has been re-deposited as silty to clayey sandstone and silty to clayey conglomeratic sandstone. These materials are

considered suitable for reuse as compacted fill. Colluvium deposits were not observed on the mesa surface.

4.2.4 Quaternary Very Old Paralic Deposits (Qvop), (Formally Referred to as Lindavista Formation).

The Qvop deposits was encountered below the fills in all of the explorations advanced in the previous geotechnical investigations, except for BA-1 were the Tertiary Stadium Conglomerate was just below the surface pavement. The Qvop deposits extended to the maximum depth of the explorations (approximately 10 feet) in the borings advanced during the 2007 investigation and 11 feet in the bucket auger borings completed during the 2004 investigation. The Qvop deposits were observed to consist of hard, slightly moist, orange brown silty sand with gravel. These materials are considered suitable for support of proposed improvements and the addition of compacted fill.

4.2.5 Tertiary Stadium Conglomerate

The Tertiary Stadium Conglomerate is the most abundant rock unit and underlies the entire site. It was encountered in all three of the bucket auger borings (BA-1, BA-2, and BA-3), and was mapped on all the slopes surrounding the site (Figure 2). The Stadium Conglomerate consists of orange to yellow-brown to yellow-gray, dense to very dense, silty, sandy, gravel to cobble matrix-supported to clast-supported conglomerate to conglomeritic sandstone with interlayered lenses and beds of dense to very dense, orange to yellow brown, poorly graded sandstone and silty sandstone. This geologic map unit caps the Tertiary Friars Formation, and was mapped above elevations of approximately 140 feet msl in the site area. Estimates of the thickness based on mapping relationships

indicate that the Stadium Conglomerate is approximately 130 feet thick in the site area. The map unit is relatively flat to very slightly east dipping, with dips typically in the 6 to 9 degree range. Internal structure within the formation varied, such as imbricated clasts, and laminations within sandstone lenses and layers, but were typically west dipping, ranging from 4 to 25 degrees. These materials are very dense and considered suitable for support of additional fills and/or proposed improvements.

4.2.6 Tertiary Friars Formation

The Tertiary Friars Formation outcrops along the southern portion of the mesa, south of the site property boundary, and was mapped to the east and west of the site between elevations of approximately 100 to the 200 feet msl respectively, as partially shown on Figure 2. The formation is relatively flat to undulating, resulting in variable orientations of the layering; however, the layering primarily dips 3 to11 degrees to the east and north. Some southerly dips were also observed, however these were interpreted to be the result of insignificant near surface soil creep on the south facing slope. Previous mapping by Kennedy (1975) shows the Friars Formation at elevations ranging between 100 to 240 feet msl, with map exposures extending north up the canyons that border the site. However, our site-specific mapping indicates the Friars Formation is at lower elevations as mentioned above. This was further verified by observations during the downhole logging of BA-2. The bucket auger boring BA-2 was drilled from a surface elevation of 273 feet msl, and the Stadium Conglomerate was logged to the entire depth of 86 fbg, or to an equivalent elevation of 187 feet msl. These relationships place the top of the Friars formation at elevations below any of the existing east or west facing canyon bottoms in

the site vicinity, and the only free-face exposures of the Friars formation is on the south facing slopes located south of the site area. The Friars Formation consisted of primarily light greenish gray, moist, stiff to very stiff siltstone, medium dense to dense silty and clayey sandstone, and green, variably mottled, stiff to hard, claystone.

4.3 Groundwater

Surface springs or seeps were not observed and groundwater was not encountered by our subsurface explorations. In addition, deep explorations at other locations at the site indicate groundwater to be at depths greater than explored (CTE, 2004). Although groundwater conditions will likely vary, especially during periods of sustained precipitation, groundwater is not expected to affect the proposed development if recommendations regarding site drainage are carried out during design and construction.

4.4 Geologic Hazards and Assessment

The site is located within the geologic hazard zones Category23, 24 and 52 as shown on the City of San Diego Seismic Safety Study Geologic Hazards Maps. As defined by the City, Category 23 is characterized by the Friars Formation with neutral or favorable geologic structure. Category 24 is characterized by the Friars Formation with unfavorable geologic structure. Areas designated as Category 52 are considered to have favorable geologic structure and to be of low geologic risk.

As discussed above, the on-site investigations and geologic mapping indicate that the Friars Formation is present at lower elevations than as mapped by Kennedy (1975), whose mapping was incorporated into the City of San Diego Seismic Safety Study Geologic Hazards Maps to help establish the various hazard zones. Based on the site investigations and mapping, the Friars Formation is considered to pose negligible risk to the existing and proposed site developments. Following is a consideration of typical geologic hazards pertinent to the site. An assessment of potential impacts to the site is also provided.

4.4.1 Local and Regional Faulting

Based on our site reconnaissance, evidence from our explorations, and a review of the referenced literature, no known active fault traces underlie or project toward the site. According to the California Division of Mines and Geology, a fault is active if it displays evidence of activity in the last 11,000 years (Hart and Bryant, 1997). The site is not located within a earthquake fault zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act.

The California Geological Survey broadly groups faults as “Class A” or “Class B” (CDMG, 1996). Class A faults are identified based upon relatively well constrained paleoseismic activity, and a fault slip rate of more than 5 millimeters per year (mm/yr). In contrast Class B faults have comparatively less defined paleoseismic activity and are considered to have a fault slip rate less than 5 mm/yr. The nearest known Class A fault to the site is the Julian segment of the Elsinore Fault, which is approximately 63.1 kilometers northeast of the site. The closest Class B fault is the Rose Canyon Fault,

which is approximately 1.3 kilometers west of the site. Following Table 1 presents the six nearest faults to the site, include magnitude and fault classification. Attached Figure 3 shows regional faults and seismicity with respect to the site.

TABLE 1
NEAR SITE FAULT PARAMETERS

FAULT NAME	DISTANCE FROM SITE (KILOMETERS)	MAXIMUM EARTHQUAKE MAGNITUDE	CLASSIFICATION
Rose Canyon Fault	1.3	7.2	B
Coronado Bank	22.0	7.1	B
Newport-Inglewood (offshore)	49.0	7.6	B
Elsinore-Julian	63.0	7.1	A
Elsinore Temecula	69.0	6.8	A
Earthquake Valley	71.0	6.5	B

The site could be subjected to significant shaking in the event of a major earthquake on any of the faults listed above or other regional faults in the southern California or northern Baja California area. However, the seismicity of the site is similar to conditions in the San Diego area.

4.4.2 Liquefaction and Seismic Settlement Evaluation

Liquefaction occurs when saturated fine-grained sands or silts lose their physical strengths during earthquake induced shaking and behave as a liquid. This is due to loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative

density, and probable intensity and duration of ground shaking. Due to the generally dense to very dense nature of the underlying bedrock, the potential for liquefaction or seismic settlement damage to proposed improvements is low.

4.4.3 Tsunamis and Seiche Evaluation

According to McCulloch (1985), the tsunami potential in the San Diego County coastal area for one-in-100 and one-in-500 year tsunami waves are approximately four and six feet. This suggests that there is a very low probability of site damage due to the elevation of the site, approximately 270 feet above msl, and distance from the ocean. In addition, mapping prepared by the California Emergency Management Association and California Geological Survey indicates that potential tsunami inundation is limited to the low lying shoreline and inlet areas below an approximate elevation of 10 feet. Oscillatory waves (seiches) are considered unlikely due to the absence of large adjacent bodies of water.

4.4.4 Landsliding

The site materials are considered marginally susceptible to landsliding (Tan and Griffin, 1995). However, based upon the conditions encountered during the advancement of exploratory borings at the subject site, landsliding is not considered a significant hazard. In addition, minor proposed slopes will be properly graded and constructed. Therefore, it is our opinion that landslides will not adversely affect the proposed improvements. Additional discussion regarding landsliding is presented in our referenced report for the entire school campus (CTE, 2004) regarding deeper seated, more slide-prone formations, such as the Tertiary Friars Formation. However, Tertiary Friars Formation materials are not present in the vicinity of the currently proposed Master Plan improvements.

4.4.5 Compressible, Expansive, and Corrosive Soils

Undocumented Fill and the upper limits of engineered fill are considered to be compressible in their present condition. However, sandstone of the Qvop deposits at the site is dense to very dense and typically has a very low compressibility. Site preparatory grading recommendations herein have been developed to mitigate compressible fill materials.

Laboratory tests in combination with our observations indicate the site near surface soils have a Low Expansion Index. However, we anticipate site materials have a low to medium expansion potential (EI generally less than 65) based on tests associated with the Phase 2 portion of the site. Recommendations herein have been developed to minimize the potential adverse affects of locally moderate expansion potential site materials.

Laboratory tests conducted for this report indicate site soils have a low potential (according to Table 19A-A-4 of the 2001 California Building Code) for sulfate corrosion of Portland cement concrete. Resistivity testing indicates that the site soils may have a moderate corrosive potential to buried ferrous metal improvements. A qualified corrosion specialist should be consulted to provide recommendations for protection of buried metallic facilities should corrosion sensitive materials be utilized for this project.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General

We conclude that the proposed Master Plan Improvements can be constructed, from a geotechnical perspective, provided recommendations of this report are followed. Undocumented Fill soils are unsuitable for support of structures or structural fill in their present condition. Therefore, in areas to receive structures or additional structural fill, these soils should be excavated, objectionable materials removed, and processed as a compacted fill placed under observation and testing of CTE. Compacted fill should be placed on competent bedrock in structural areas. Compacted Fill soils can also be placed upon pre-existing Engineered Fill, after a minimum relative density has been verified, in the areas receiving the compacted fill. Prior to placement of compacted fill, a suitable surface should be exposed under the observation and testing of a CTE representative. Irreducible materials generally greater than three inches in diameter should not be used in shallow fills on the site. The Geotechnical Consultant should further evaluate oversize particle dimensions and quantity during grading as it applies to placement in site fills.

Recommendations for the proposed earthworks and improvements are included in the following sections and Appendix D. However, recommendations in the text of this report supersede those presented in Appendix D. The recommendations may require modifications based on the conditions encountered during grading or as presented in any appropriate addendums prepared prior to grading as proposed property use and plans become more defined.

5.2 Grading and Earthwork

Upon commencement of work for the demolition, personnel from CTE should continuously observe the grading and earthwork operations for this project. Such observations are intended to: find field conditions that differ from those considered by this and subsequent investigations; adjust recommendations to encountered field conditions; and, observe and report as-graded conditions as they apply to recommendations of this report. CTE personnel should perform observation and testing of soil removal, processing, and placement during grading as they pertain to the Geotechnical Consultant's professional opinions contained herein.

5.3 Site Preparation

The site should be cleared of any existing debris and other deleterious materials including the previously placed Undocumented Fill. Objectionable materials, such as construction debris and vegetation, should be removed from the materials prior to placement as compacted fill. In general, areas to receive structures or distress-sensitive improvements, expansive, surficial eroded, desiccated, burrowed, or otherwise loose or disturbed soils should be removed to the depth of competent formational materials or 24 inches below the bottom of foundations, whichever depth is greater.

However, some of the improvements may be constructed in areas that have relatively shallow Undocumented Fill soils. Accordingly, optional preparation recommendations for these building pad areas are feasible. The following two options exist for preparation of the building pads with

shallow Undocumented fill, or in the case of the subterranean parking structure that is anticipated to be founded entirely on the Tertiary Stadium Conglomerate.

Option 1

Foundations can be deepened to bear entirely on competent native materials, such as Qvop deposits or Stadium Conglomerate (bedrock), in which case overexcavation below the proposed foundations would not be necessary. Undocumented Fill underlying the floor slab should be removed to competent bedrock and at least 12 inches below the bottom of the proposed slab-on-grade, and a compacted engineered fill with a low Expansion Index placed in the resulting volume. Removals should extend a minimum five feet laterally beyond the perimeter of proposed structures, where feasible.

Option 2

The building locations, and a minimum five feet laterally beyond, can be overexcavated to a minimum depth of 24-inches below bottom of proposed foundations and to competent bedrock materials. However, locally deeper removals may be necessary due to loose or unsuitable underlying soils.

An engineer or geologist from CTE should observe all exposed ground surfaces prior to placement of compacted fill/footings. Removals should continue until suitable materials are encountered. Organic and other deleterious materials not suitable for structural backfill should be disposed of offsite at a regulated disposal site. Although not generally anticipated, select

grading to reduce expansion qualities of the site soils may also be necessary depending upon materials encountered at the site.

5.4 Excavations

Excavations in site materials should generally be accomplished with heavy-duty construction equipment under normal conditions. However, formations materials are anticipated to be at least locally very dense and difficult to excavate. Irreducible materials greater than three inches encountered during excavations should not be used in shallow structural fills on the site, if practical. Larger, oversized materials may generally be placed at depth in general accordance with Appendix D. Before placing fill, the exposed bottom of all excavations should be scarified (if necessary), properly moisture conditioned and recompacted.

5.5 Fill Placement and Compaction

The Geotechnical Consultant should observe that site preparation has occurred before placement of compacted fill. Subsequent to removal of loose, disturbed, or vegetation containing soils, areas to receive fills should be scarified, moisture conditioned as recommended, and compacted fill placed. Fill and backfill should be compacted to a minimum relative compaction of 90 percent as evaluated by ASTM D1557 at moisture contents a minimum two percent above optimum. The optimum lift thickness for backfill soil will depend on the type of compaction equipment used. Generally, backfill should be placed in uniform lifts not exceeding eight inches in loose thickness. Backfill placement and compaction should be done in overall conformance with geotechnical recommendations and local ordinances. The Geotechnical Consultant should evaluate the exposed surfaces prior to placement of compacted fill.

5.6 Fill Materials

Low Expansion Index soils derived from the onsite materials are generally considered suitable for reuse on the site as compacted fill. If used, these materials should be screened of significant construction debris, vegetation matter and materials greater than three inches in diameter. Screened deleterious materials and oversize irreducible particles should be removed from the site and disposed of in accordance with applicable regulations and ordinances. Irreducible materials generally greater than three inches in diameter should not be used in shallow fills on the site. The Geotechnical Consultant should further evaluate oversize particle dimensions and quantity during grading as it applies to placement in site fills.

Adverse effects of highly expansive clay soils, if encountered, should be mitigated, where feasible, to a low Expansion Potential (E.I. less than 50) by blending these soils with granular materials and compacting at moisture contents above optimum.

Imported fill beneath structures, pavements and walks should have an Expansion Index of 30 or less with less than 35 percent passing the no. 200 sieve. Imported fill soils for use in structural or slope areas should be evaluated by the soils engineer before placement on the site.

5.7 Temporary Construction Slopes

Sloping recommendations for unshored temporary excavations are provided herein. The recommended slopes should be relatively stable against deep-seated failure, but may experience localized sloughing. Recommended slope ratios are set forth in Table 2.

TABLE 2 RECOMMENDED TEMPORARY SLOPE RATIOS		
SOILS TYPE	SLOPE RATIO (Horizontal: Vertical)	MAXIMUM HEIGHT
B (Quaternary Lindavista Formation and Stadium Conglomerate)	1:1 (MAXIMUM)	10 FEET
C (Fills)	1.5:1 (MAXIMUM)	10 FEET

A "competent person" must verify actual field conditions and soil type designations while temporary excavations exist according to Cal-OSHA regulations. In addition, the above sloping recommendations do not allow for surcharge loading at the top of slopes by vehicular traffic, equipment or materials. Appropriate surcharge setbacks must be maintained from the top of all unshored slopes.

Temporary construction shoring may be necessary for the subterranean parking structure and possibly the Aquatic Center. Should shoring become necessary, CTE will provide additional design and construction recommendations, upon request.

5.8 Foundations and Slab Preliminary Recommendations

The following recommendations are for preliminary planning purposes only. These recommendations should be reviewed after project development plans have been prepared and following completion of earthwork to verify that conditions exposed are as anticipated. As indicated, moderately expansive site soils are not generally anticipated at finish grades.

However, Expansion Index testing of near-surface soils should be performed during or following rough grading.

5.8.1 Foundations

Continuous and isolated spread footings are suitable for use at the site. Based on the expected as-graded conditions, all building footings will bear either entirely in competent engineered fill materials or entirely upon competent bedrock materials. Foundation dimensions and reinforcement should be based on an allowable bearing pressures of 2,500 psf and 3,500 psf for footings bearing on compacted fill and bedrock, respectively. The allowable bearing value may be increased by one third for short duration loading which includes the effects of wind or seismic forces.

For the anticipated construction, footings for the proposed structure should be at least 15 inches wide for continuous footings and 24 inches wide for isolated footings. All foundations should be designed and constructed to have a minimum embedment of 18 inches below the lowest adjacent subgrade.

For the anticipated construction, minimum footing reinforcement for continuous footings should consist of four #4 reinforcing bars, two placed near the top, and two near the bottom of the footing or as per the structural engineer. The structural engineer should design isolated footing reinforcement.

Foundation excavations shall be at slightly above optimum moisture content until concrete placement. Daily or twice-daily moistening of the foundation excavations may be required depending on ambient conditions during construction.

CTE can provide additional recommendations if alternate foundation systems are required or requested for the subterranean parking structure and the aquatic center pending completion of the proposed building plans.

5.8.2 Foundation Settlement

In general, for the anticipated loads and recommended bearing pressure, the maximum total post construction settlement is anticipated to be less than 1.0 inches. Maximum differential settlements are anticipated to be less than 0.5 inches over a distance of 50 feet. Dynamic settlement is not anticipated to affect the proposed improvements.

5.8.3 Foundation Setback

Footings for structures should be designed such that the horizontal distance from the face of nearby slopes to the outer edge of the footing is at least 15 feet. Locally deepening foundations may be an adequate means of attaining the prescribed setback. Upon request and once project foundation plans have been developed, CTE can review affected footings on a case-by-case basis to determine if the required setbacks may be reduced.

5.8.4 Interior Concrete Slabs

Lightly loaded concrete slabs-on-grade should be designed for the anticipated loading, but should be a minimum five inches thick. To minimize the effects of concrete shrinkage cracking and differential soil movements, we recommend that concrete slabs be

reinforced with #4 reinforcing bars spaced no greater than 18-inches on centers, each way. All slab reinforcement should be properly supported to ensure placement at above mid-height of the concrete, and with proper concrete cover.

If elastic slab design is utilized, a 175-pci subgrade modulus of reaction is appropriate. If moisture sensitive floor areas are proposed, a vapor barrier consisting of a minimum ten-mil plastic sheeting or equivalent membrane (with all laps sealed or taped) should underlie such slabs. A maximum four-inch layer of consolidated minimum ½-inch crushed aggregate should also be placed beneath the plastic sheeting or slabs-on-grade, in accordance with the current building code. All slab-on-grade subgrade materials shall be maintained at slightly above optimum moisture content until overlying slab improvements are placed.

5.9 Seismic Design Criteria

The seismic ground motion values listed in the table below were derived in accordance with the ASCE 7-10 Standard that is incorporated into the California Building Code, 2013. This was accomplished by establishing the Site Class based on the soil properties at the site, and then calculating the site coefficients and parameters using the United States Geological Survey Seismic Design Maps application using the site coordinates of 33.771926 latitude and –117.176775 longitude. These values are intended for the design of structures to resist the effects of earthquake ground motions.

TABLE 3 SEISMIC GROUND MOTION VALUES		
PARAMETER	VALUE	CBC REFERENCE (2013)
Site Class	D	ASCE 7, Chapter 20
Mapped Spectral Response Acceleration Parameter, S_S	1.211g	Figure 1613.3.1 (1)
Mapped Spectral Response Acceleration Parameter, S_1	0.468g	Figure 1613.3.1 (2)
Seismic Coefficient, F_a	1.016	Table 1613.3.3 (1)
Seismic Coefficient, F_v	1.532	Table 1613.3.3 (2)
MCE Spectral Response Acceleration Parameter, S_{MS}	1.230g	Section 1613.3.3
MCE Spectral Response Acceleration Parameter, S_{M1}	0.717g	Section 1613.3.3
Design Spectral Response Acceleration, Parameter S_{DS}	0.820g	Section 1613.3.4
Design Spectral Response Acceleration, Parameter S_{D1}	0.478g	Section 1613.3.4
Peak Ground Acceleration PGA_M	0.54g	ASCE 7, Section 11.8.3

5.10 Lateral Resistance and Earth Pressures

The following recommendations may be used for shallow footings on the site. Foundations may be designed using a coefficient of friction of 0.30 (total frictional resistance equals the coefficient of friction times the dead load). A design passive resistance value of 250 pounds per square foot per foot of depth (with a maximum value of 2,500 pounds per square foot) may be used. The allowable lateral resistance can be taken as the sum of the frictional resistance and the passive resistance, provided the passive resistance does not exceed two-thirds of the total allowable resistance.

Retaining walls up to approximately eight feet high and backfilled using select onsite granular soils may be designed using the equivalent fluid weights given in Table 4 below. Conceptually, the values in Table 4 are also anticipated to be appropriate for higher walls, subject to CTE's review.

TABLE 4
EQUIVALENT FLUID UNIT WEIGHTS
(Pounds per cubic foot)

WALL TYPE	LEVEL BACKFILL	SLOPE BACKFILL 2:1 (HORIZONTAL: VERTICAL)
CANTILEVER WALL (YIELDING)	38	58
RESTRAINED WALL	55	78

Lateral pressures on cantilever retaining walls (yielding walls) over six feet high due to earthquake motions may be calculated based on work by Seed and Whitman (1970). The total lateral thrust against a properly drained and backfilled cantilever retaining wall above the groundwater level can be expressed as:

$$P_{AE} = P_A + \Delta P_{AE}$$

For non-yielding (or "restrained") walls, the total lateral thrust may be similarly calculated based on work by Wood (1973):

$$P_{KE} = P_K + \Delta P_{KE}$$

Where P_A = Static Active Thrust (given previously Table 4)
P_K = Static Restrained Wall Thrust (given previously Table 4)
ΔP_{AE} = Dynamic Active Thrust Increment = $(3/8)\ k_h\ \gamma H^2$
ΔP_{KE} = Dynamic Restrained Thrust Increment = $k_h\ \gamma H^2$

k_h = ½ Peak Ground Acceleration = 2/3(PGA_M)
H = Total Height of the Wall
γ = Total Unit Weight of Soil ≈ 135 pounds per cubic foot

The increment of dynamic thrust in both cases should be distributed triangularly, with a line of action located at H/3 above the bottom of the wall.

In addition to the recommended earth pressure, subterranean walls adjacent to the streets or other traffic loads should be designed to resist a uniform lateral pressure of 100 psf. This is the result of an assumed 300-psf surcharge behind the walls due to normal street traffic. If the traffic is kept back at least 10 feet or a distance equal to the retained soil height from the subject walls, whichever is less, the traffic surcharge may be neglected.

We recommend that all walls be backfilled with soil having an expansion index of 20 or less. The backfill area should include the zone defined by a 1:1 sloping plane, extended back from the base of the wall. Therefore, importing of some select granular materials will likely be required. Retaining wall backfill should be compacted to at least 90 percent relative compaction, based on ASTM D1557. Backfill should not be placed until walls have achieved adequate structural strength. Heavy compaction equipment, which could cause distress to walls, should not be used.

The above values assume non-expansive backfill and free draining conditions. Measures should be taken to prevent a moisture buildup behind all walls below grade. Drainage measures should include free draining backfill materials and perforated drains. Drains should discharge to an

appropriate offsite location. The project architect or structural engineer should determine the necessity of waterproofing any subterranean walls to reduce moisture infiltration.

5.11 Exterior Concrete Flatwork

Exterior concrete slabs for pedestrian loads should measure a minimum four inches thick and have minimal reinforcement of number 3 rebar on 18-inch centers (both ways). Reinforcement should be placed in the upper one-third of the slab and with appropriate minimum cover. Flatwork should be installed with reinforcement and crack control joints. Expansive, surficial eroded, desiccated, burrowed, or otherwise loose or disturbed soils should be removed to the depth of competent formational materials or at least 12 inches below the bottom of exterior slab, whichever is greater. Compacted fill with a low Expansion Index (E.I. less than 50) should be placed in the resulting volume, if feasible. Pre-soaking of flatwork areas may also be necessary based on post-graded site conditions. Positive drainage to convey water away from all flatwork to the front of the lot should be established and maintained.

5.12 Drainage

Foundation performance depends greatly on how well the runoff waters drain from the site. This is true both during construction and over the entire life of the structure. The ground surface around structure should be graded so that water flows rapidly away from the structures without ponding. The surface gradient needed to do this depends on the landscaping type. In general, pavements and flowerbeds within five feet of the building should slope away at gradients of at least two percent. Densely vegetated areas should have minimum gradients of five percent away from buildings if doing so is practical.

Planters should be constructed so that water from them will not seep into the foundation areas or beneath slabs and pavement. In any event, the site maintenance personnel should be instructed to limit irrigation to the minimum actually necessary to sustain the landscaping plants properly. Should excessive irrigation, waterline breaks, or unusually high rainfall occur, saturated zones and groundwater may develop. Consequently, the site should be graded so that water drains away readily without saturating the foundation or landscaped areas or cascading over slope faces. A potential source of water, such as water pipes, drains the like should be frequently examined for signs of leakage or damage. Any such leakage or damage should be repaired promptly.

Generally, CTE recommends against allowing water to infiltrate building pads or adjacent to slopes and improvements. However, it is understood that some agencies are encouraging the use of storm-water cleansing devices. Therefore, if storm water cleansing devices must be used, it is generally recommended that they be underlain by an impervious barrier and that the infiltrate be collected via subsurface piping and discharged off site. If infiltration must occur, water should infiltrate as far away from structural improvements as feasible. Additionally, any reconstructed slopes descending from infiltration basins should be equipped with subdrains to collect and discharge accumulated subsurface water.

Even with the general recommendations provided herein, the project Civil Engineer should thoroughly evaluate the on-site drainage and make provisions as necessary to keep surface waters from affecting the site.

5.13 Groundwater

Groundwater was not encountered in our explorations and indications of seepage or springs were not observed. Consequently, groundwater is not anticipated to affect construction of the site improvements. However, positive surface drainage and non erosive collection/conveyance devices should be installed to mitigate the potential adverse impacts of groundwater at the site.

5.14 Slopes

Slopes at this site should be constructed at 2:1 (horizontal: vertical) or flatter surface ratio. Surface water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion resistant vegetation should be maintained on the face of all 2:1 slopes.

Although properly constructed slopes on this site should be grossly stable, the soils will be somewhat erodible. Therefore, runoff water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion resistant vegetation should be maintained on the face of all slopes.

Typically, soils along the top portion of a fill slope face will creep laterally. We do not recommend distress sensitive hardscape improvements be constructed within five feet of slope crests in fill areas.

5.15 Construction Observation

The recommendations provided in this report are based on preliminary design information for the proposed earthworks and the subsurface conditions found in the exploratory boring locations. The interpolated subsurface conditions should be checked in the field during construction.

Recommendations provided in this report are based on the understanding and assumption CTE will provide observation and testing services for the project. All geotechnical related work should be observed and tested as they pertain to recommendations contained within this report. All foundation excavations should be evaluated by a CTE representative.

5.16 Addendum Geotechnical Report and Plan Review

An appropriate addendum report should be prepared as project use and plans are more defined and available. The addendum report would provide additional geotechnical recommendations, as necessary, for the development-specific project proposed. This addendum report may also incorporate a review of the project grading/improvement and/or foundation plans.

6.0 LIMITATIONS OF INVESTIGATION

The recommendations provided in this report are based on the anticipated construction and the subsurface conditions found in our explorations. The interpolated subsurface conditions should be checked in the field during construction.

Recommendations provided in this report are based on the understanding and assumption that CTE will provide the observation and testing services for the project. All earthworks should be observed and tested in accordance with the recommendations of contained within this report. The project Geotechnical Engineer or their designated representative should evaluate all footing trenches before reinforcing steel placement.

The field evaluation, laboratory testing and geotechnical analysis presented in this report have been conducted according to current geotechnical engineering practice and the standard of care exercised by reputable Geotechnical Consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction. The scope of this report does not include an evaluation of environmental conditions at the site.

Our conclusions and recommendations are based on the observed conditions. If conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if required, will be provided upon request.

We appreciate this opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,

CONSTRUCTION TESTING & ENGINEERING, INC.

Dan T. Math, GE #2665
Principal Engineer

Martin E. Siem, CEG #2311
Certified Engineering Geologist

MES/DTM:nri

N

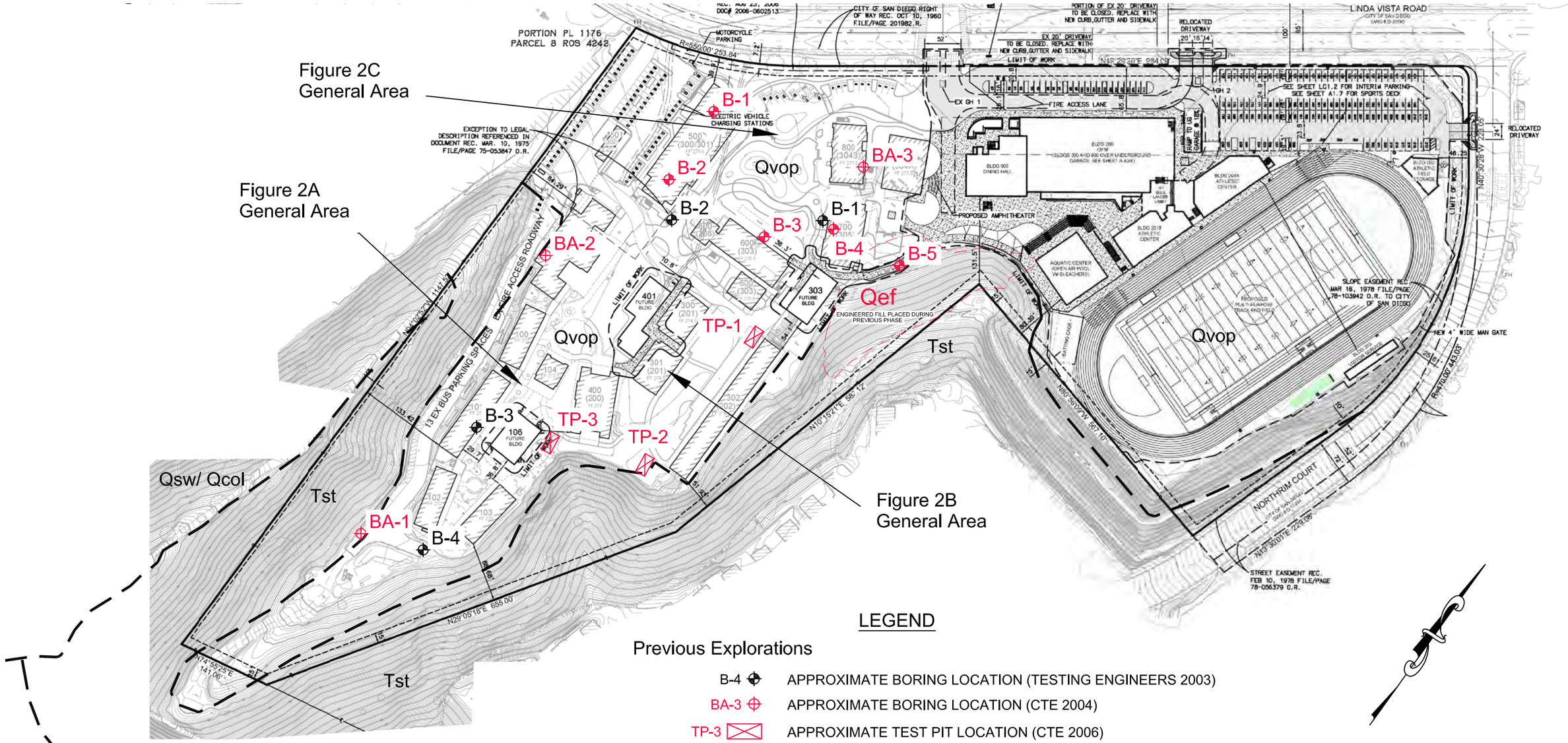
Gardena Ave
Via Las Cumbres
Linda Vista Rd
Volta Ct
Friars Rd
University of San Diego
Morena
Fashion Walk Condos
Camino de la Reina
Riley St
Riverwalk Golf Club
Fashion Valley
Morena Blvd
Presidio Park
Western San Diego
Pine St
Murray Ridge Rd
Hotel Circle S
bing

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

SITE INDEX MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO: 10-12361G
SCALE: NO SCALE
DATE: 6/15
FIGURE: 1



Note: Engineered fill not shown, refer to Figures 2A, 2B, and 2C

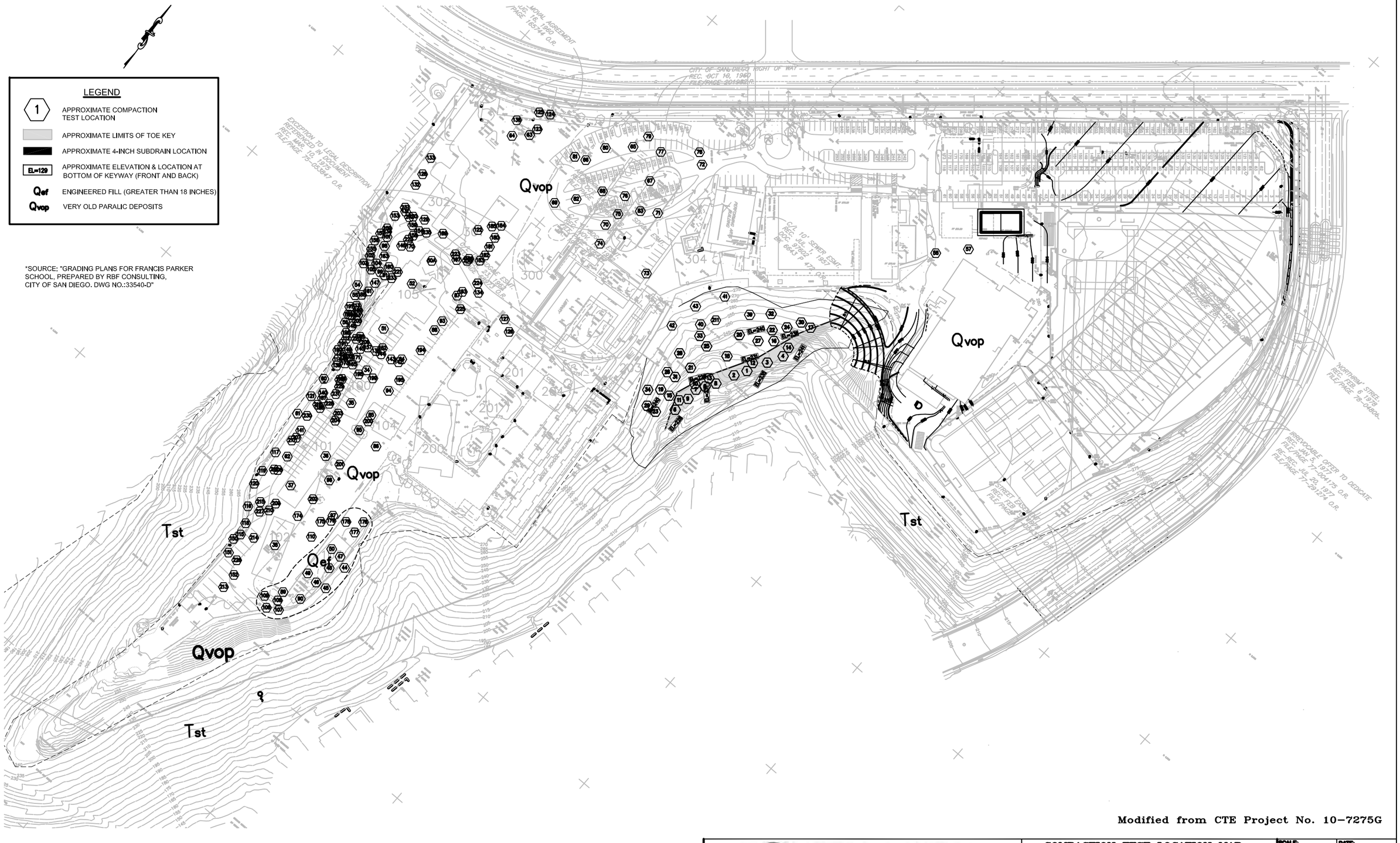
CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

GEOLOGIC/EXPLORATION LOCATION MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

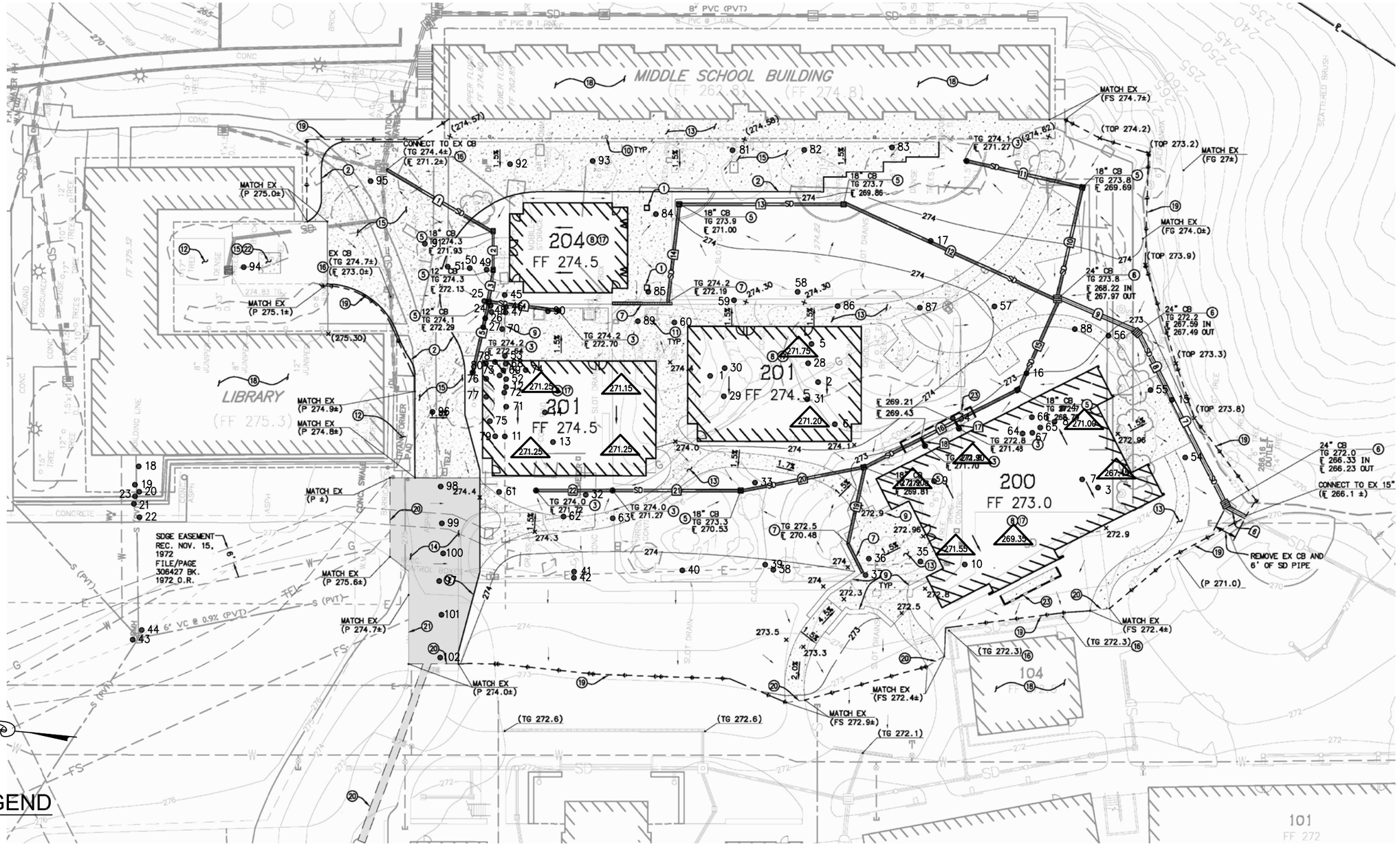
CTE JOB NO: 10-12361G
SCALE: 1" = 150'
DATE: 6/15
FIGURE: 2

\\ESC_SERVER\Projects\10-12361G\Figure 2 (Revised 6-15).dwg



Modified from CTE Project No. 10-7275G

CTE INC. Construction Testing & Engineering, Inc. 1441 Montiel Rd.Ste 115, Escondido, CA 92026 Ph (760) 746-4955	**COMPACTION TEST LOCATION MAP** FRANCIS PARKER MIDDLE SCHOOL 6501 LINDA VISTA ROAD SAN DIEGO, CALIFORNIA	SCALE: 1"=60'	DATE: 6/15
		CTE Job No.: 10-12361G	FIGURE: 2A



LEGEND

● 100 APPROXIMATE LOCATION OF FIELD COMPACTION TEST

271.0 APPROXIMATE ELEVATION OF REMOVALS

NOTE: SOURCE DRAWING FROM RBF CONSULTING

Modified from CTE Project No. 10-8182G

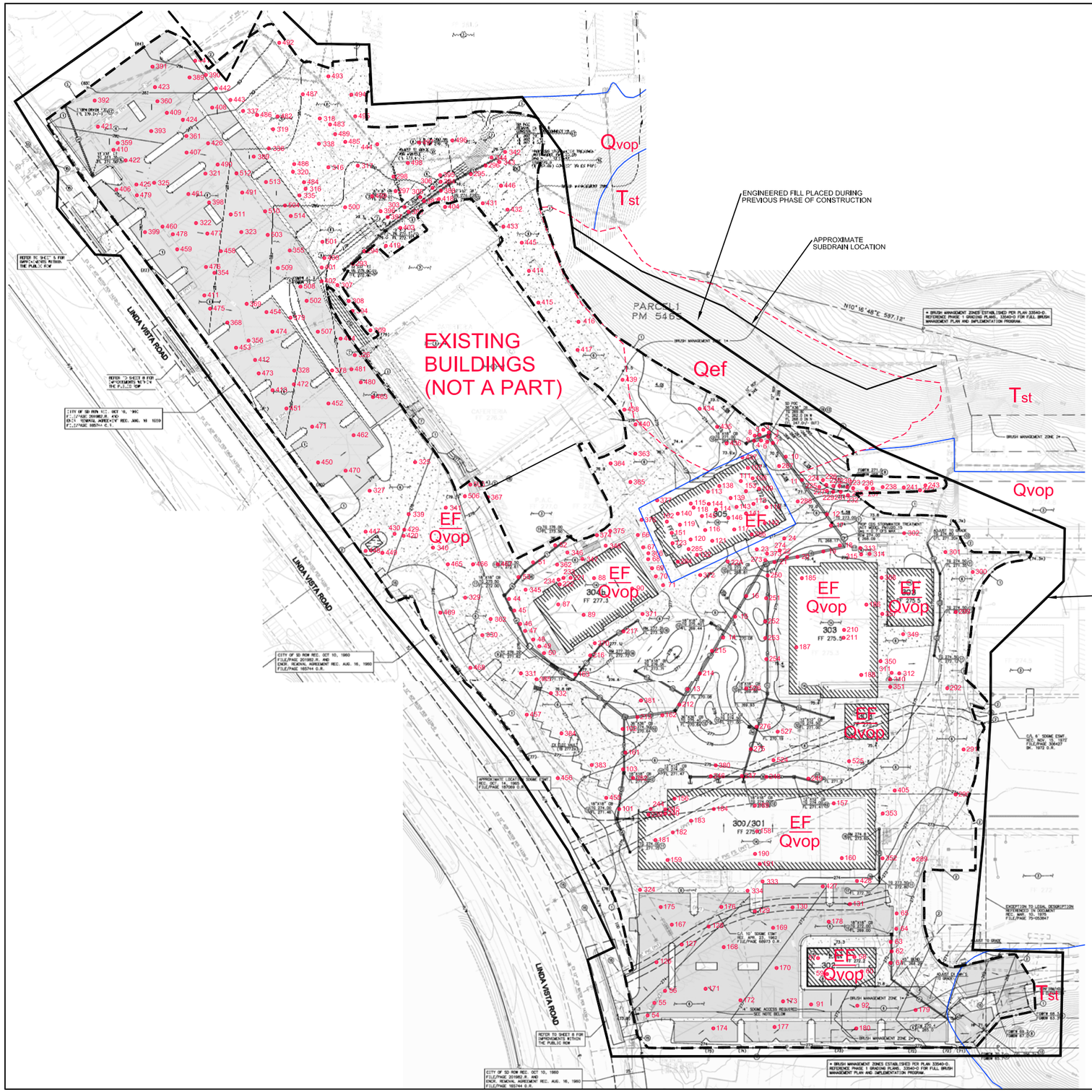
CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

COMPACTION LOCATION MAP

PROPOSED FRANCIS PARKER MIDDLE SCHOOL PHASE 2
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO:	
10-12361G	
SCALE: 1" = 150'	
DATE: 6/15	FIGURE: 2B

\\ESC_SERVER\Projects\10-12361G\Figure 2B (6-15).dwg



LEGEND

- 527 — APPROXIMATE LOCATION OF FIELD COMPACTION TEST
- APPROXIMATE LIMITS OF ENGINEERED FILL PLACED DURING PREVIOUS PHASE OF CONSTRUCTION
- APPROXIMATE LOCATION OF GEOLOGIC CONTACT AND CONTACT BETWEEN PHASE 6 ENGINEERED FILL UNITS
- APPROXIMATE LIMITS OF PHASE 6
- APPROXIMATE PHASE 6 STRUCTURAL FILL LIMITS
- Qef — QUATERNARY ENGINEERED FILL (PLACED DURING PREVIOUS PHASE OF CONSTRUCTION)
- Qvop — QUARTERNARY VERY OLD PARALIC DEPOSITS (MODIFIED FROM KENNEDY 1975)
- Tst — TERTIARY STADIUM CONGLOMERATE (MODIFIED FROM KENNEDY 1975)
- EF — ENGINEERED FILL (DEEPER THAN 3') PLACED DURING PHASE 6
- EF / QIn — ENGINEERED FILL (LESS THAN 3') RIPPED AND RE-COMPACTED OVER QUARTERNARY LINDA VISTA FORMATION
- PHASE 6 PARKING ADDITIONS
- PHASE 6 STRUCTURE ADDITIONS
- EXISTING STRUCTURE TO REMAIN, IF COVERED BY PROPOSED IMPROVEMENTS THEN STRUCTURE WAS DEMOLISHED

Modified from CTE Project No. 10-8933G

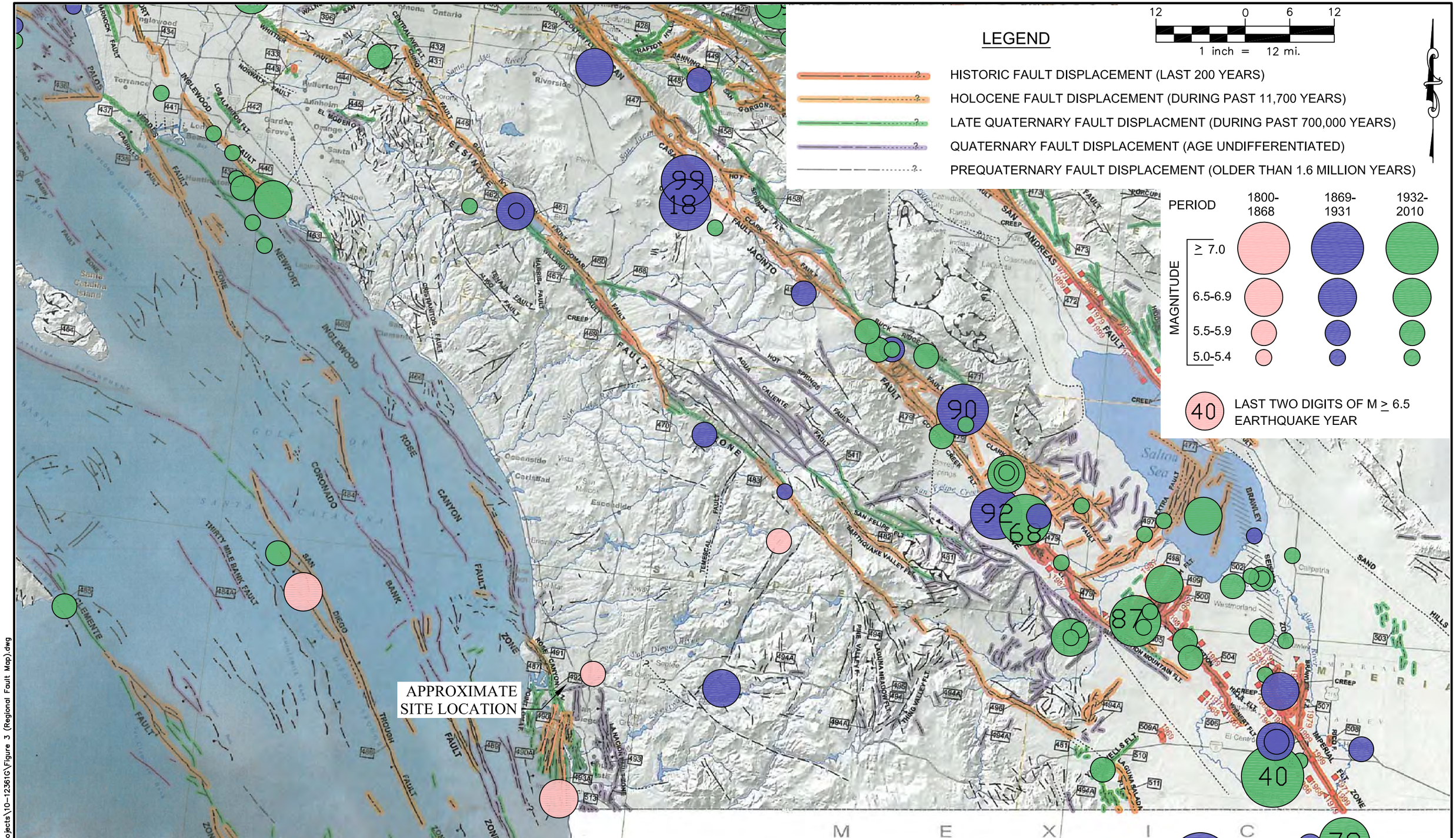
\\ESC_SERVER\Projects\10-12361G\Figure 2C (6-15) 11x17.dwg

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

COMPACTION LOCATION MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

SCALE:	DATE:
1"=40'	6/15
CTE Job No.:	FIGURE:
10-12361G	2C



NOTES: FAULT ACTIVITY MAP OF CALIFORNIA, 2010, CALIFORNIA GEOLOGIC DATA MAP SERIES MAP NO. 6;
EPICENTERS OF AND AREAS DAMAGED BY M≥5 CALIFORNIA EARTHQUAKES, 1800–1999 ADAPTED AFTER TOPPOZADA, BRANUM, PETERSEN, HALLSTORM, CRAMER, AND REICHLE, 2000, CDMG MAP SHEET 49
REFERENCE FOR ADDITIONAL EXPLANATION; MODIFIED WITH CISN AND USGS SEISMIC MAPS

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

REGIONAL FAULT AND SEISMICITY MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO: 10-12361G
SCALE: 1 inch = 12 miles
DATE: 1/15
FIGURE: 3

\\ESC_SERVER\Projects\10-12361G\Figure 3 (Regional Fault Map).dwg

APPENDIX A

REFERENCES CITED

REFERENCES CITED

1. California Building Standards Commission, 2001, "California Building Code, California code of Regulations, Title 24, Part 2, Volume 2.

2. California Emergency Management Agency/California Geological Survey, "Tsunami Inundation Map for Emergency Planning, Point Loma Quadrangle", June 1, 2009.

3. CDMG, 1996, "Probabilistic Seismic Hazard Assessment for the State of California," California Division of Mines and Geology, Open File Report 96-08.

4. CDMG, 2002, "California Geomorphic Provinces," California Division of Mines and Geology, Note 36.

5. City of San Diego Seismic Safety Study, 1995 Edition.

6. CTE Inc. - 2010 "Response to City of San Diego Review Remaining Cycle Issues, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated October 19, 2010.

7. CTE Inc. - 2010 "Response to City of San Diego Review, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated August 20, 2010

8. CTE Inc. - 2010 "Final Report of Testing of Compacted Fill, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated September 30, 2009 (Modified August 20, 2010).

9. CTE Inc. - 2009 "Minimum Static Coefficient of Friction, Parking Lot/Walk Areas, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated December 9, 2009.

10. CTE Inc. - 2009 "Minimum Static Coefficient of Friction, Parking Lot/Walk Areas, Proposed Francis Parker School Redevelopment" CTE Job No.: 10-7275G, dated November 13, 2009.

11. CTE Inc. - 2009 "Final Certification of Foundations and Soils, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, August 25, 2009.

12. CTE Inc. - 2009 "Clarification of Recommendations for Preparatory Grading for Flatwork Areas, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated July 30, 2009.

13. CTE Inc. - 2008 "Review of Precast Concrete Panels, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated December 24, 2008.

14. CTE Inc. - 2008 “Addendum No. 04, Preparatory Grading for Lecture Hall Building, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated September 3, 2008.

15. CTE Inc. - 2008 “Addendum No. 03, Preliminary Pavement Options, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated June 15, 2008.

16. CTE Inc. - 2008 “Addendum No. 02, Update Seismic Design Parameters, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated June 9, 2008.

17. CTE Inc. - 2008 “Review of Foundation Plans, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated April 19, 2008.

18. CTE Inc. - 2007 “Addendum No. 01 Phase VI Design Development Plans Recommendations, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated November 28, 2007 (Revised).

19. CTE Inc. - 2007 “Response to City of San Diego Development Services, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 12, 2007.

20. CTE Inc. - 2007 “Addendum No. 01, Modified Recommendations for Buildings Ad and Ar, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated August 23, 2007.

21. CTE Inc. - 2007 “Final Report for Testing of Compacted Fill, Francis Parker Middle School” CTE Job No.: 10-8182G, dated August 21, 2007.

22. CTE Inc. - 2007 “Final Certification of Foundations and Soils, Francis Parker Middle School (Soils Phase 2)” CTE Job No.: 10-8182G, dated August 17, 2007.

23. CTE Inc. - 2007 “Testing of One-Inch Cable/Coupling, Francis Parker Middle School, Phase 2” CTE Job No.: 10-8182G, dated March 30, 2007.

24. CTE Inc. - 2006 “Final Certification of Foundations and Soils, Building 104 at Francis Parker Middle School” CTE Job No.: 10-8182G, dated November 9, 2006.

25. CTE Inc. - 2006 “Minimum Static Coefficient of Friction, New Buildings 100 Through 105, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 28, 2006.

26. CTE Inc. - 2006 “Addendum 01 to Final Compaction Report, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 22, 2006.

27. CTE Inc. - 2006 “Modified Grading Preparatory Recommendations, Francis Parker Middle School, Phase 2” CTE Job No.: 10-8182G, dated August 21, 2006.

28. CTE Inc. - 2006 “Final Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 17, 2006.

29. CTE Inc. - 2006 “Final Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated July 19, 2006.

30. CTE Inc. - 2006 “Observation of Keystone Wall Failure, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated June 8, 2006.

31. CTE Inc. - 2006 “Review of Grading Plan Sheet 3-D, Francis Parker Middle School” CTE Job No.: 10-8182G, dated March 20, 2006.

32. CTE Inc. - 2006 “Update Geotechnical Investigation, Phase 2 Francis Parker Middle School” CTE Job No.: 10-8182G, dated January 25, 2006.

33. CTE Inc. - 2005 “Installation of Segmental Walls, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 2, 2005.

34. CTE Inc. - 2005 “Keystone Wall Backfill Material, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated October 7, 2005.

35. CTE Inc. - 2005 “Review of Keystone Wall Plans, Details, and Specifications, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated October 1, 2005.

36. CTE Inc. - 2005 “Review of Submittals for Sand and Class 2 Aggregate Base, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated September 12, 2005.

37. CTE Inc. - 2005 “Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 9, 2005.

38. CTE Inc. - 2005 “Review of Keystone Wall Plans and Calculations, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 2, 2005.

39. CTE Inc. - 2005 “Addendum No. 02, Modified Grading Recommendations, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 2, 2005.

40. CTE Inc. - 2005 “Review of Keystone Wall Plans, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated July 19, 2005.

41. CTE Inc. - 2005 “Addendum No. 01 to Geotechnical Investigation Addendum, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated April 16, 2005.

42. CTE Inc. - 2005 “Response to RFI 01, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated February 21, 2005.

43. CTE Inc. - 2004 “Geotechnical Investigation Addendum Report, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 15, 2004.

44. CTE Inc. - 2007 “Update Geotechnical Investigation, Phase VI Francis Parker School” CTE Job No.: 10-8933G, dated May 16, 2007.

45. Hart, Earl W. and Bryant, W.A., 1997, "Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps,” California Division of Mines and Geology, Special Publication 42.

46. Jennings, Charles W., revised 1994, “Fault Map of California with Locations of Volcanoes, Thermal Springs and Thermal Wells.”

47. Kennedy, Michael, 1975, “Geology of the San Diego Metropolitan Area, California” California Division of Mines and Geology Bulletin 200.

48. Kennedy, Michael P. and Tan, Siang S., 2005, Geologic Map of the San Diego 30’ X 60’ Quadrangle, California: California Geologic Survey, Regional Geologic Map No. 3, Scale 1:100,000.

49. McCulloch, D.S., 1985, “Evaluating Tsunami Potential” *in* Ziony, J.I., ed., Evaluating Earthquake Hazards in the Los Angeles Region – An Earth-Science Perspective, U.S. Geological Survey Professional Paper 1360.

50. Munasinghe, T., Rosenberg, P., eds., 1996, “Geology and Natural Resources of Coastal San Diego County, California,” Guidebook to Accompany the 1996 Annual Field Trip of the San Diego Association of Geologists.

51. Tan, S. S.,1995, “Landslide Hazards in the Southern Part of the San Diego Metropolitan Area, San Diego County, California: Landslide Hazard Identification Map No. 33”, California Department of Conservation, Division of Mines and Geology, Open-File Report 95-04, State of California, Division of Mines and Geology, Sacramento, California.

52. Testing Engineers – San Diego, Inc., 2003, “Preliminary Geotechnical Investigation, for the Proposed Francis Parker Middle School, Redevelopment Project, 6501 Linda Vista Road, San Diego, California,” Project No.: 2003-0081, dated March 21, 2003

53. Treiman, J.A., 1993 “Fault Map Rose Canyon Fault Zone, Southern California” California Department of Conservation, Division of Mines and Geology, Open-File Report 93-02.

APPENDIX B

EXPLORATION LOGS

BORING LOGS

CTE JOB NO. 10-8933G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILT
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

Depth (Feet) | Sample: Bulk / Driven | Type | Blows/Foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log

BORING LEGEND

DESCRIPTION

Laboratory Tests

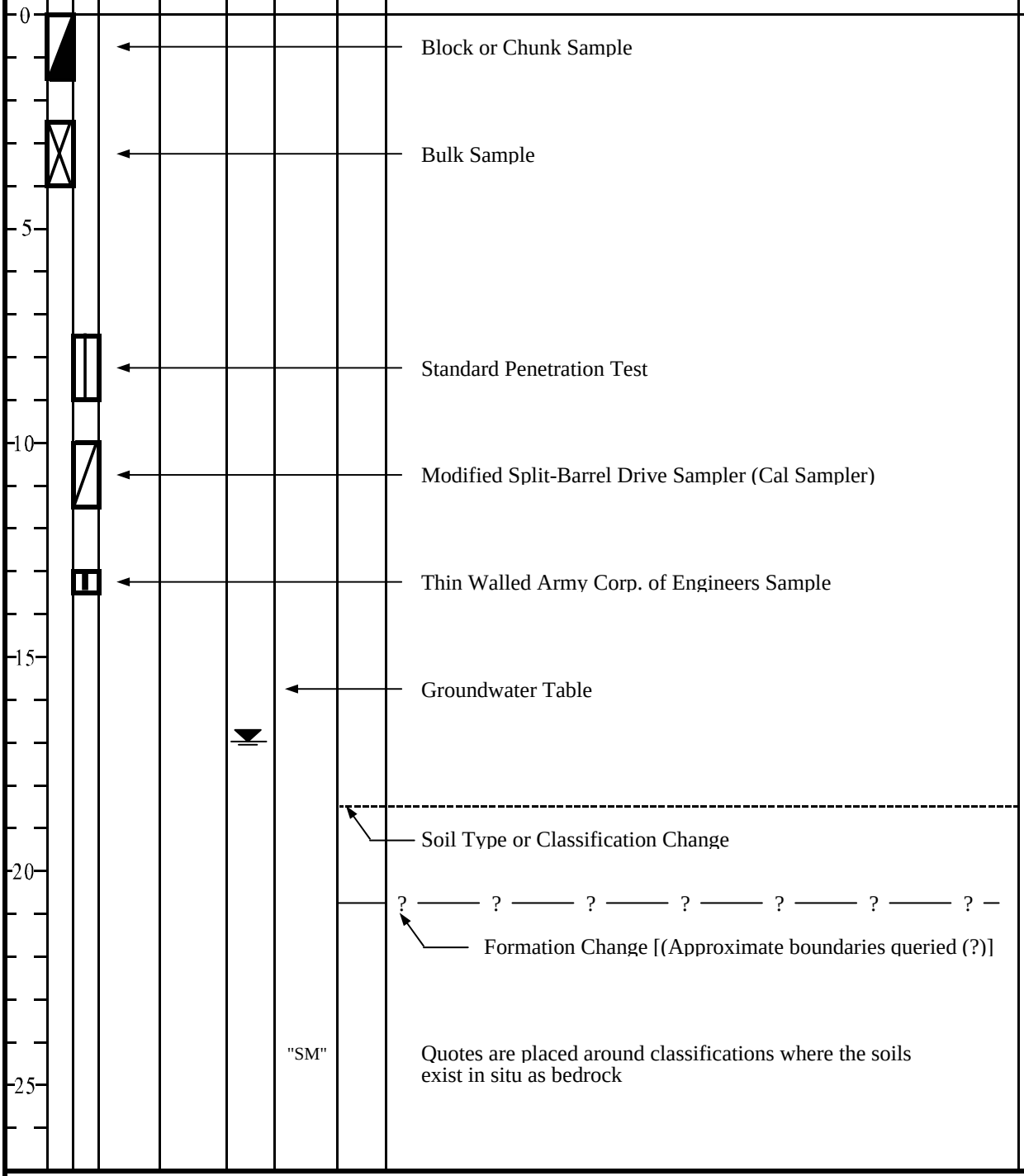


FIGURE: BL2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-1

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0	X								ASPHALT/BASE: 0-0.75". QUATERNARY UNDOCUMENTED FILL (Qudf): 0.75"-2.5': Dense, slightly moist, reddish brown, clayey SAND.	MAX, EI, REM, CHM
									QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	
5									No groundwater. Backfilled with excavated soil and capped with cold patch.	
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								GRAVEL AT SURFACE. QUATERNARY UNDOCUMENTED FILL (Qudf): 0.2-2.5": Dense, slighlty moist, dark brown clayey SAND.	
	X							QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	RV, WA
5								No groundwater. Backfilled with excavated soil.	
10									
15									
20									
25									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-3

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									ASPHALT/BASE: 0-0.75". QUATERNARY UNDOCUMENTED FILL (Qudf): 0.75"-2.5': Dense, slightly moist, reddish brown, clayey SAND.	
									QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	
5									No groundwater. Backfilled with excavated soil and capped with cold patch.	
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-4

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									GRASS AT SURFACE. TOPSOIL/UNDOCUMENTED FILL. 0.25': Medium dense, moist, dark brown, clayey SAND with roots. 0.75': Hard, dry, light brown, silty SAND with gravel and trace cobbles. QUATERNARY LINDAVISTA FORMATION (Qln): 1.5': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal. No groundwater. Backfilled with excavated soil.	
5										
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1	of	1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:			4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:			

BORING: B-5

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								QUATERNARY ENGINEERED FILL (Qef):	
	X							0': Dense, slightly moist, orange brown, clayey SAND with gravel to cobbles and debris; pvc pipe, bottle caps, etc.	WA
								2.5': No recovery; Hard, moist, dark brown, silty SAND with gravel.	
								* moved boring location four feet to NE.	
			18/6"					3.0': Dense to hard, slightly moist, mottled dark brown and orange	WA
			15					clayey SAND with trace gravel.	WA
			18						
			26						MD, CN
5									
			20					6.5': No recovery.	
			18						
			18						
			15					8.0': No recovery.	
			18					QUATERNARY LINDAVISTA FORMATION (Qln):	
			20					9.5': Very dense, slightly moist, orange brown, silty SAND w/ gravel.	
10								Refusal.	
								No groundwater.	
								Backfilled with excavated soil.	
15									
20									
25									

TEST PIT LOGS

CTE JOB NO. 10-8182G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILT
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

Depth (Feet) | Sample: Bulk / Driven | Type | Blows/Foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log

BORING LEGEND

DESCRIPTION

Laboratory Tests

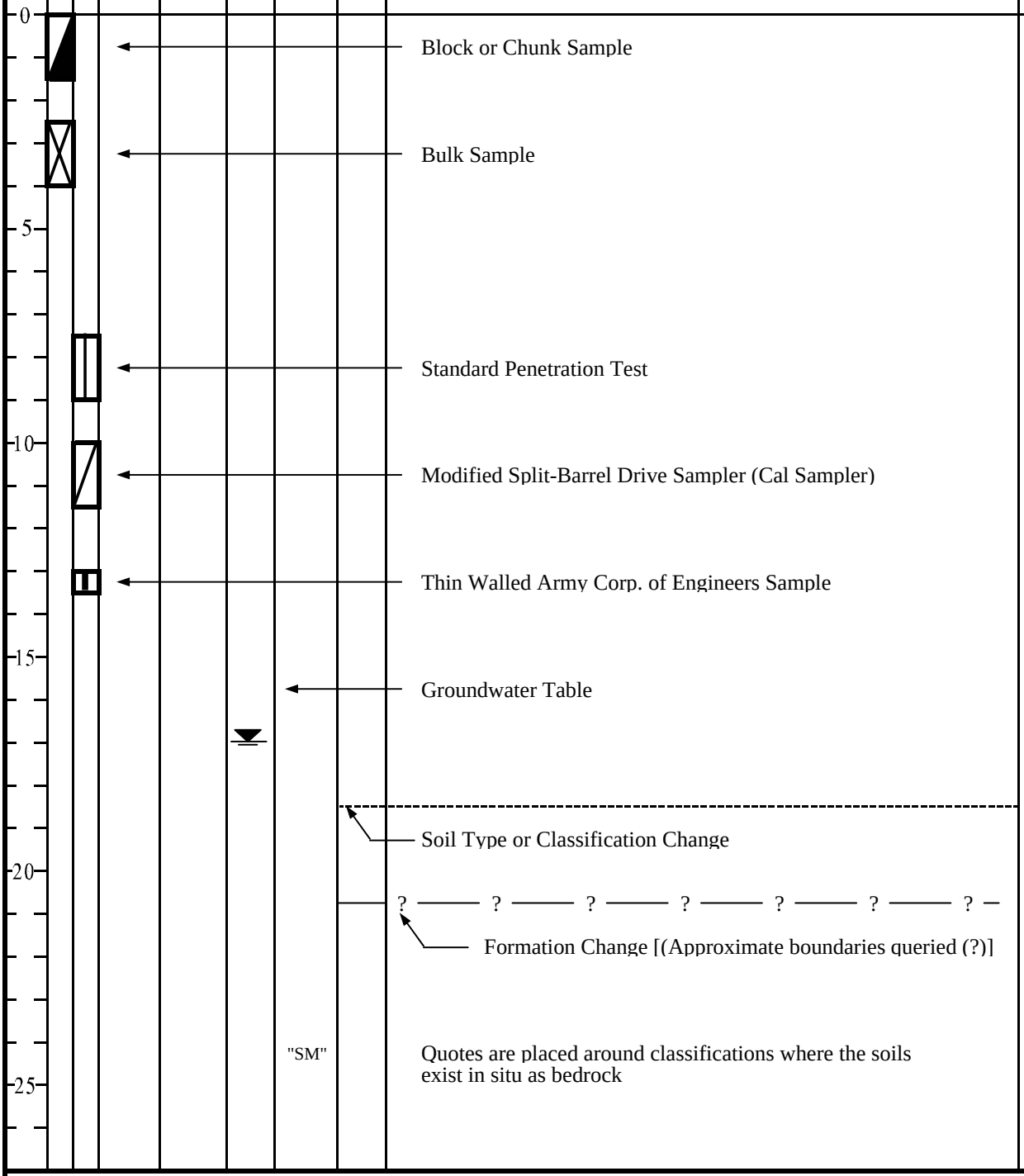


FIGURE: BL2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35
CTE JOB NO:	10-8182G	EXCAVATION METHOD:	EXCAVATION DATE: 12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD: CHUNKS AND BULKS	ELEVATION: -

TEST PIT LOG: TP-1

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample: Bulk	Sample: Driven	DESCRIPTION	Laboratory Tests
		SM/SC	Qaf	0			ARTIFICIAL FILL (Qaf): Medium dense, moist, medium to dark brown silty clayey SAND (SM/SC) with gravel.	
		SM	Qln	5			LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM) with some cobbles.	
				10			Refusal at 9'	
				15				

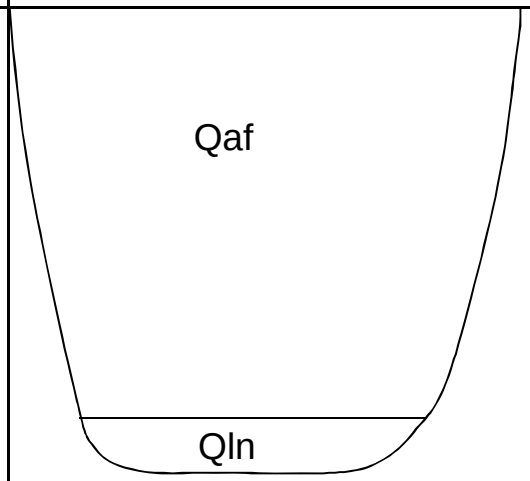


FIGURE: TP-1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35
CTE JOB NO:	10-8182G	EXCAVATION METHOD:	EXCAVATION DATE: 12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD:	CHUNKS AND BULKS ELEVATION: -

TEST PIT LOG: TP-2

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample Type: Bulk	Sample Type: Driven	DESCRIPTION	Laboratory Tests
		SM	Qaf	0			ARTIFICIAL FILL (Qaf): Loose, slightly moist, medium brown silty SAND (SM) with some gravel.	
			Qln		X		LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM).	
				5			Refusal at 3'	
				10				
				15				

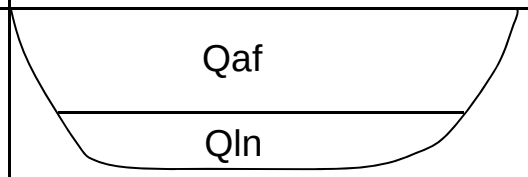


FIGURE: TP-2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35		
CTE JOB NO:	10-8182G	EXCAVATION METHOD:		EXCAVATION DATE:	12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD:	CHUNKS AND BULKS	ELEVATION:	-

TEST PIT LOG: TP-3

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample Type: Bulk	Sample Type: Driven	DESCRIPTION	Laboratory Tests
		SM/SC	Qaf	0			ARTIFICIAL FILL (Qaf): Medium dense, moist, medium to dark brown silty clayey SAND (SM/SC) with gravel.	
				5				
		SM	Qln	10			LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM) with some cobbles.	
				15				

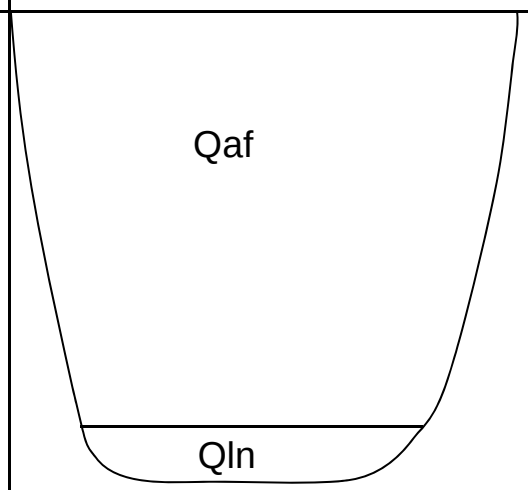


FIGURE: TP-3

BUCKET AUGERS

CTE JOB NO. 10-7275G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL			DRILLER:	LARUIE DRILLING	SHEET:	1 of 2
CTE JOB NO:	10-7275			DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	10/29/04
LOGGED BY:	MES			SAMPLE METHOD:	BULK	ELEVATION:	271

BORING: BA-1

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Aspahlt and gravel base 4"thick FILL: Dense, moist, brown silty SAND with gravel and concrete, wood debre (SM).	
						GM		TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, orangish-gray conglomerate but conglomeritic sandstone, matrix-supported, matrix consist of poorly graded sand with silt to silty SAND, cobbles well rounded coarse gravel to 0.6' diameter.	
5	X								WA,CHEM
10									
	X								EI
15									
								↓ Matrix material becomes orange-brown.	
20									
								Bedding orrentation: N/S; 16E on sandstone lense within conglemerate.	
25									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	10/29/04
LOGGED BY:	MES	SAMPLE METHOD:	BULK	ELEVATION:	271

BORING: BA-1

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25								TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, orangish-gray pebble to cobble conglemerate to conglomentic sandstone, with occassional sandstone lenses.	
30								Contact Dips 6" to East Dense to very dense, moist, greenish-gray with orange staining, poorly graded SAND with silt (SP-SM) trace coarse gravel at 33'. Lamination within sandstone N75E; 14NW.	
35	X	I						Very dense, moist, orange-gray, pebble to cobble conglomerate.	
40								Sandstone lense bedding orientation: N5E, 11NW	
45									
50								Total Depth at 50' No Groundwater Observed During Dillings and Logging	

CONSTRUCTION TESTING & ENGINEERING, INC.

GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION

2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	1 of 4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Asphalt and road base, approx 3-4 inches.	
								FILL: Dense to medium dense, moist, red-brown clayey to silty SAND with cobbles (SM), plus concrete and miscelleous debre.	
								QUATERNARY LINDA VISTA FORMATION (Qln): Very dense, moist, orangish-brown, matrix-supported conglomerate to conglomeratic sandstone, with pebble to cobble size clasts.	
5								(Easterly dip to contact)	
	X							TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, dry, yellow-brown, matrix to clast supported pebble to cobble conglomerate, consisting of slightly weathered, very strong, very hard quartzice and volcanic clasts, with trace amounts of highly weathered, weak volcanic clasts.	EI
10									
								Very dense, moist, orange-brown, locally moderately well cemented, silty sandstone, bedding orientation. N70W; 25SW/	
		I	5/12			GM		Very dense, moist, orange-brown, conglomeratic silty sandstone	GS
15								Very dense, moist, orange-brown, locally moderately well cemented, silty sandstone.	
								Very dense, moist, orange to gray, pebble to cobble matrix to clast-supported conglemerate. South dipping approximately 10^{o} sandstone dense.	
								> Sandstone lense, N70E, 12NW laminations.	
20									
								Dense to very dense, moist, white, medium-grained silty sandstone.	
								> Gravel lense N60E; 22SE orientation.	
		I	6/12			SM			MD, DS
25									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL			DRILLER:	LARUIE DRILLING	SHEET:	2 of 4
CTE JOB NO:	10-7275			DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES			SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25								TERTIARY STATIUM CONGLEMERATE: (Tst) Dense to very dense, moist, whited, medium-grained sandstone.	
								> Lamination within sandstone orientation: E-W; 11N	
30								> Gravel layer-irregular flat contact.	
								Very dense, moist, light greenish gray, fine silty sandstone to sandy siltstone.	
			12/6						WA
35								Flat-contact Very dense, moist, brown, conglomeratic sandstone.	
								Becomes greenish brown.	
40									
45								Very dense, moist, gray with orange staining silty sandstone, flat to 6° westerly dipping.	
								Very dense, moist, brown conglomerate sandstone.	
50									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	3 of 4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
50								Very dense, moist, brown conglomerate sandstone.	
55									
60								N9E; 20SE siltstone lense.	
65									
70								N S	
75								Very dense, moist, gray with orange staining, massive, poorly graded sandstone with silt. Lamination N60E, 25SE.	

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	4	of	4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04		
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273		

BORING: BA-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
75								TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, brown to orange brown, matrix to clast supported pebble to cobble conglomerate.	
80									
85									
								Total Depth at 86' No Groundwater Observed During Drilling and Logging Drilled 11/1/04 to 11/2/04	

CONSTRUCTION TESTING & ENGINEERING, INC.

GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION

2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	11/3/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	277

BORING: BA-3

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Asphalt and Road Base	
						GM		QUATERNARY LINDA VISTA FORMATION: Very dense, moist, orange to brown, matrix-supported pebble to cobble conglomerate, with poorly graded SAND with silt matrix.	
5								Contact orientation N20 to 45E; 65E	
	X					SM		Very dense, moist, orange, silty sandstone.	GS
10			4/12					Very dense, moist, orange to yellow gray, cobble-pebble conglomerate	
								TERTIARY STADIUM CONGLOMERATE: (Tst) Very dense, moist, gray with orange staining, pebble to cobble conglmerate locally clast supported.	
15									
20								Total Depth at 20' No Groundwater Observed During Drilling and Logging.	
25									

BORING LOGS

TESTING ENGINEERS JOB NO. 2003-0801, REPORT DATE MARCH 21, 2003

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N:	Standard Penetration: Blows per foot of a 140 lb hammer falling 30 " on a 2 " O.D. split-spoon.
Qu:	Unconfined compressive strength, tsf.
Qp:	Penetrometer value, unconfined compressive strength, tsf.
Mc:	Water content, %.
LL:	Liquid limit, %.
Pl:	Plasticity index, %.
äd:	Natural dry density, PCF.
∀ :	Apparent groundwater level at time noted after completion.

DRILLING AND SAMPLING SYMBOLS

CAL:	Modified California Sampler - 2 5/8" I.D., 3.0" O.D., except where noted.
SS:	Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
ST:	Shelby Tube - 3" O.D., except where noted.
DC:	Drive Cylinder Sample.
BK:	Large Bulk Sample.
SB:	Small Bulk Sample.
SC:	Sand Cone.
HD:	Hand Drive Sample.
Bulk :	Bulk Bag Sample
Block:	Undisturbed Block Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

TERM (NON-COHESIVE SOILS)	STANDARD PENETRATION RESISTANCE (SPT)
Very Loose	0 to 4
Loose	4 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	Over 50

TERM (COHESIVE SOILS)	SPT	QU - (TSF)
Very Soft	0 to 2	0 - 0.25
Soft	2 to 4	0.25 - 0.50
Medium Stiff	4 to 8	0.50 - 1.00
Stiff	8 to 16	1.00 - 2.00
Very Stiff	16 to 32	2.00 - 4.00
Hard	Over 32	4.00+

PARTICLE SIZE

Boulders	12 in. +	Coarse Sand	No. 4 - No. 30	Silt	No. 200 - Hydrometer
Cobbles	12 in -3.in	Medium Sand	No. 30 - No.70	Clay	Hydrometer
Gravel	3 in –No. 4	Fine Sand	No. 70 – No. 200		

DATE DRILLED 2/18/03 BORING NO. B-1

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
			< 100			(GW)		ASPHALT: 3.5 inches thick Gravelly SAND with Clay (Lindavista Formation) Light Brown, damp, loose to medium dense in upper 6-8 inches, becomes dense to very dense below. Fine to medium grained sand; contains approx. 50% - 60% rounded to subrounded gravel to cobble size crystalline rock. Becomes dry to damp at -18.
5	1.5							Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0							
15	4.6							
20	6.1							

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-1

DATE DRILLED 2/18/03 BORING NO. B-2

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								ML	Sandy SILT (Topsoil): Dark Brown, moist, soft fine grained sand. Approximately 2 inches thick.
								(GW)	Sandy GRAVEL (Lindavista Formation) with clay: Light orange-brown, damp, dense to very dense. Contains approximately 50% gravel to cobble size subrounded to rounded crystalline rock.
			X	< 100					
5	1.5								Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-2

DATE DRILLED 2/18/03 BORING NO. B-3

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
						GW		ASPHALT: 3 inches thick.
						GL		Sandy GRAVEL: Light gray, damp, medium dense (Class II). Approximately 6 inches thick.
						(GW)		Gravelly CLAY/ Clavey GRAVEL with Sand: Light orange-brown, damp, medium dense.
		X	< 100					Sandy GRAVEL (Lindavista Formation) with Clay: Tan to light brown, dry to slightly damp, dense to very dense. Fine-grained sand contains approximately 50% gravel to cobble size crystalline rock.
5	1.5							
10	3.0							Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
15	4.6							
20	6.1							

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-3

DATE DRILLED 2/18/03 BORING NO. B-4

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	ANALYTICAL RESULTS	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								(GC)	ASPHALT: Approximately 3.0 inches thick. Clayey GRAVEL (Lindavista Formation) with fine sand. Brown, damp, dense to very dense.
			X	< 100		NO RECOVERY			
5	1.5								Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-4

DATE DRILLED 2/18/03 BORING NO. B-5

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	ANALYTICAL RESULTS	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								(GC)	Clayey GRAVEL (Lindavista Formation) with fine sand. Light brown to brown, damp to moist, loose at - 1.0 feet becomes medium dense. At - 2.0 feet becomes slightly damp, dense to very dense. Sand becomes fine to medium grained.
			X	< 100		NO RECOVERY			
5	1.5								Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-5

APPENDIX C

LABORATORY METHODS AND RESULTS

APPENDIX C
LABORATORY METHODS AND RESULTS

Laboratory tests were performed on representative soil samples to detect their relative engineering properties. Tests were performed following test methods of the American Society for Testing Materials or other accepted standards. The following presents a brief description of the various test methods used. Laboratory results are presented in the following section of this Appendix.

Classification
Soils were classified visually according to the Unified Soil Classification System. Visual classifications were supplemented by laboratory testing of selected samples according to ASTM D2487.

In-Place Moisture/Density
The in-place moisture content and dry unit weight of selected samples were determined using relatively undisturbed chunk soil samples.

Expansion Index
Expansion testing was performed on selected samples of the matrix of the onsite soils according to Building Code Standard No. 29-2.

Particle-Size Analysis
Particle-size analyses were performed on selected representative samples according to ASTM D422.

Modified Proctor
To determine the maximum dry density and optimum moisture content, a soil sample was tested in accordance with ASTMD-1557.

Direct Shear
Direct shear tests were performed on either samples direct from the field or on samples recompacted to 90% of the laboratory maximum value overall. Direct shear testing was performed in accordance with ASTM D3080-72 to evaluate the shear strength characteristics of selected materials. The samples were inundated during shearing to represent adverse field conditions.

Consolidation
Consolidation testing was performed on selected samples in accordance with ASTM D 2435-90.

Resistance "R"-Value
The resistance "R"-value was determined by the California Materials Method No. 301 for representative subbase soils. Samples were prepared and exudation pressure and "R"-value determined. The graphically determined "R"- value at exudation pressure of 300 psi is the value used for pavement section calculation.

Chemical Analysis
Soil materials were collected with sterile sampling equipment and tested for Sulfate and Chloride content, pH, Corrosivity, and Resistivity.

LABORATORY RESULTS

CTE JOB NO. 10-8933G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

200 WASH ANALYSIS

LOCATION	DEPTH (feet)	PERCENT PASSING #200 SIEVE	CLASSIFICATION
B-2	2.5-3.0	18.6	SM
B-5	1	24.5	SC
B-5	3	26.1	SC
B-5	3-4	17.5	SM

EXPANSION INDEX TEST

UBC 18-2

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
B-1	1-2	27	LOW

IN-PLACE MOISTURE AND DENSITY

LOCATION	DEPTH (feet)	% MOISTURE	DRY DENSITY
B-5	4	12.5	116.5

RESISTANCE "R"-VALUE

CALTEST 301

LOCATION	DEPTH (feet)	R-VALUE
B-2	2.5-3.0	66

SULFATE

LOCATION	DEPTH (feet)	RESULTS ppm
B-1	1-2	85.1

CHLORIDE

LOCATION	DEPTH (feet)	RESULTS ppm
B-1	1-2	53.8

CONDUCTIVITY

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS uS/cm
B-1	1-2	190

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION

RESISTIVITY

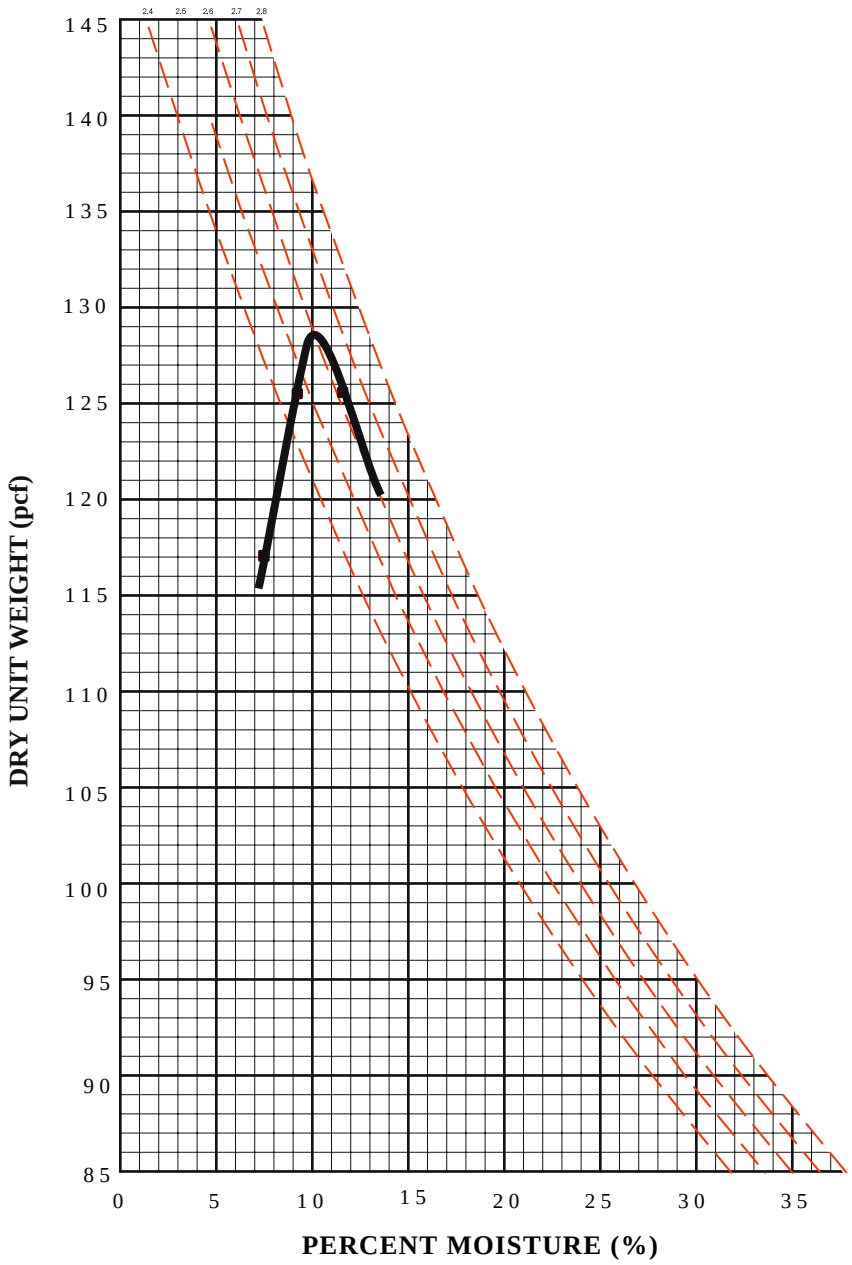
CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS ohms/cm
B-1	1-2	5260

MAXIMIMUM DENSITY AND OPTIMUM MOISTURE CONTENT

(MODIFIED PROCTOR)

LOCATION	DEPTH (feet)	OPTIMUM MOISTURE (%)	DRY DENSITY (pcf)
B-1	1-2	10.0/9.0 w/RC	128.5/131.0 w/RC



ASTM D1557 METHOD ☒ A ☐ B ☐ C

MODIFIED PROCTOR RESULTS

LAB NUMBER	SAMPLE NUMBER	DEPTH (FEET)	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)
17224	B-1	1-2	light brown silty sand	128.5/131.0 w/RC	10.0/9.0 w/RC

CTE JOB NO: 10-8933G	CONSTRUCTION TESTING & ENGINEERING, INC. GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION 1441 MONTIEL ROAD, STE 115 ESCONDIDO CA. 92026 (760) 746-4955	DATE: 5/07 FIGURE: C-1

LABORATORY RESULTS

CTE JOB NO. 10-8182G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

200 WASH ANALYSIS

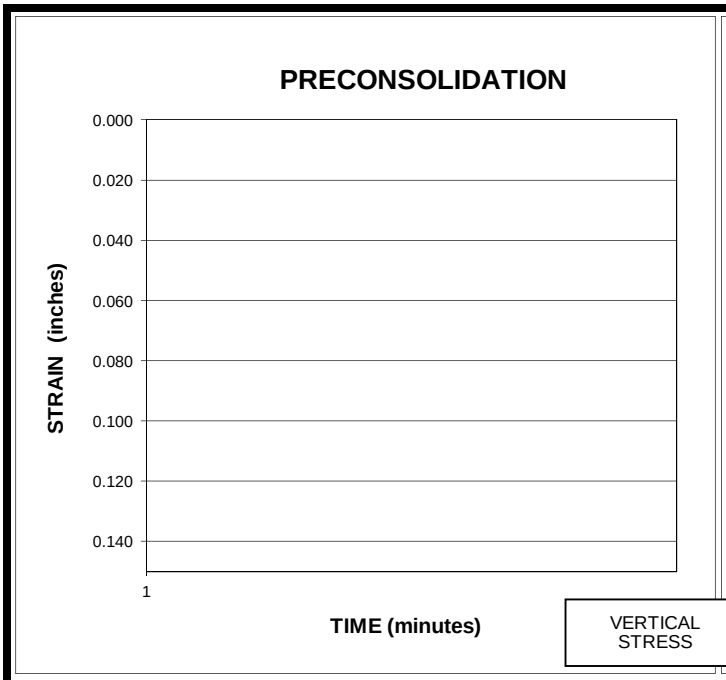
LOCATION	DEPTH (feet)	PERCENT PASSING	CLASSIFICATION
TP-2	2-3	16.7	SM
TP-3	1-4	23.9	SC-SM

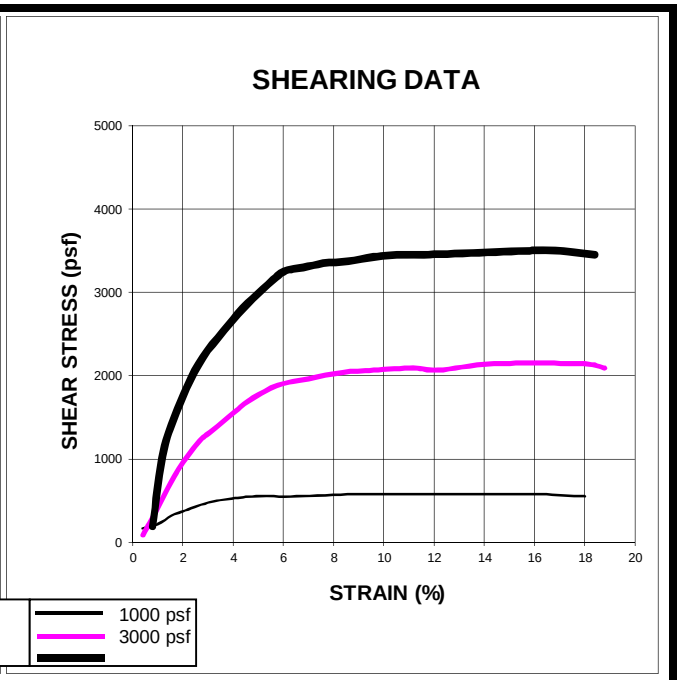
SAND EQUIVALENT

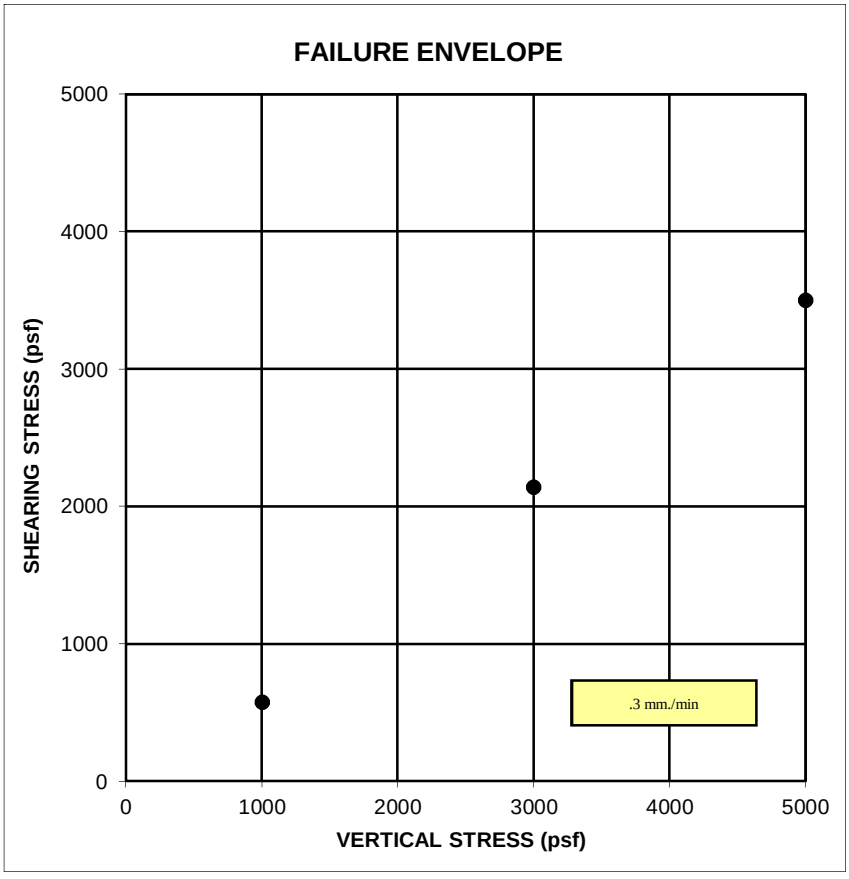
LOCATION	DEPTH (feet)	SAND EQUIVALENT
TP-2	2-3	25
TP-3	1-4	20

MODIFIED PROCTOR

LOCATION	DEPTH (feet)	MAXIUM DRY DENSITY (PSF)	OPTIMUM MOISTURE (%)
TP-3	1-4	131.0	9.0







SHEAR STRENGTH TEST

Sample Designation	Depth (ft)	Cohesion	Angle of Friction	Sample Description	
TP-3	1-4'	0 psf	35.3	Remolded @ 90% Clayey Silty Sand	
Initial Moisture (%):	8.6%	Initial Dry Density (pcf)	117.9		CTE JOB NO: 10-8182G
Final Moisture (%):	16.0%	Final Dry Denstiy (pcf)	110.3		FIGURE No: C-1

LABORATORY RESULTS

CTE JOB NO. 10-7275G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

200 WASH ANALYSIS

LOCATION	DEPTH (feet)	PERCENT PASSING #200 SIEVE	CLASSIFICATION
BA-1	5.0 to 6.0	20.9	SM
BA-2	34.0	41.9	SM

EXPANSION INDEX TEST

UBC 18-2

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
BA-1	13.0 to 14.0	11	Very :Low
BA-2	7.5	7	Very Low

ATTERBERG LIMITS

LOCATION	Elevation (msl)	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
South Slope adj to Friars Rd 42 ft msl.	42	66.2	47	CH

Hydrometer

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS (% Clay fraction)
South Slope adj to Friars Rd 42 ft msl.	5.0 to 6.0	58

IN-PLACE MOISTURE AND DENSITY

LOCATION	DEPTH (feet)	% MOISTURE	DRY DENSITY
BA-2	24.0	6.1	111.9

SULFATE

LOCATION	DEPTH (feet)	RESULTS ppm
BA-1	5.0 to 6.0	61

CHLORIDE

LOCATION	DEPTH (feet)	RESULTS ppm
BA-1	5.0 to 6.0	19

CONDUCTIVITY

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS uS/cm
BA-1	5.0 to 6.0	109

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

RESISTIVITY

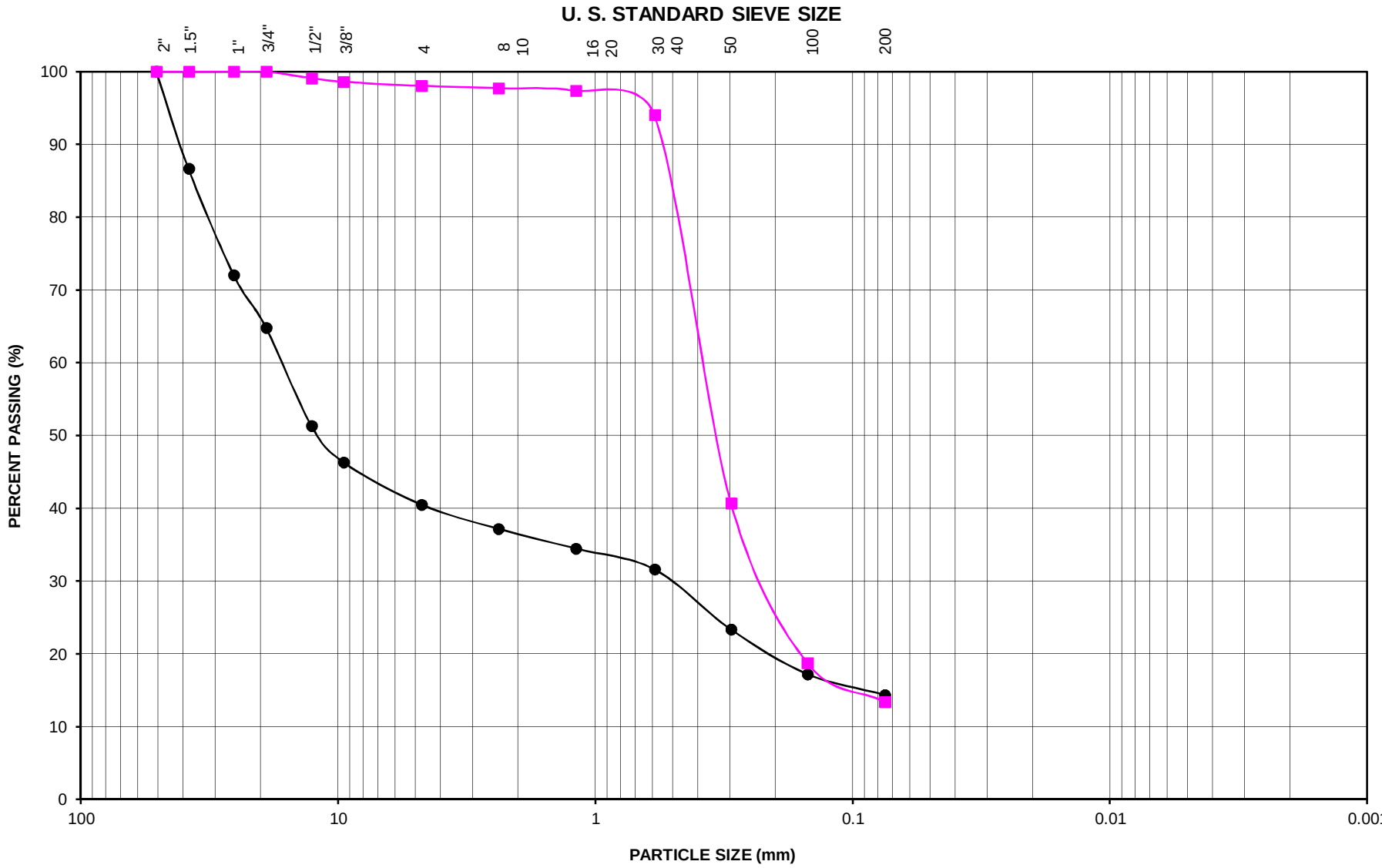
CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS ohms/cm
BA-1	5.0 to 6.0	7790

pH

CALIFORNIA TEST 424

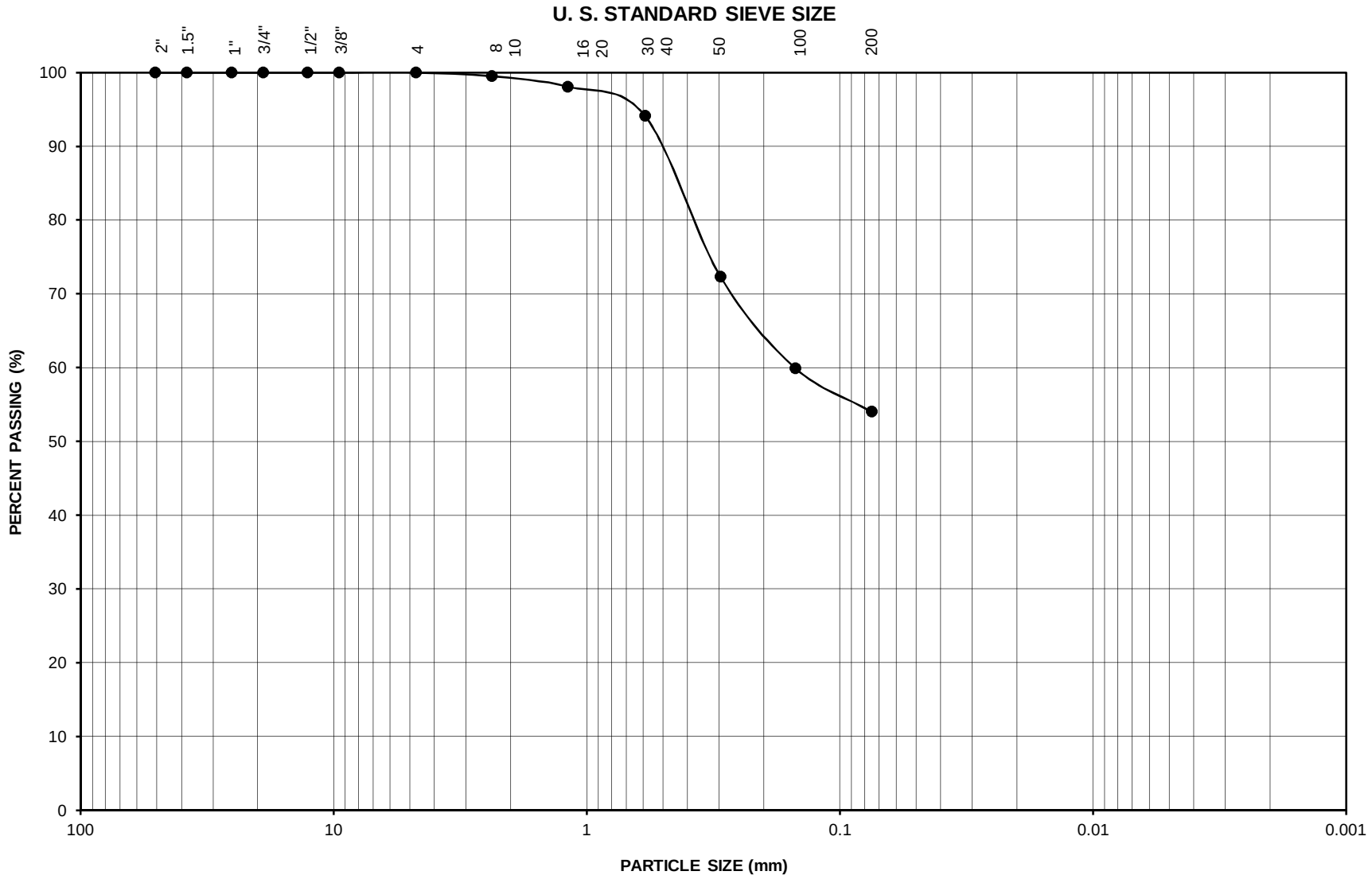
LOCATION	DEPTH (feet)	RESULTS
BA-1	5.0 to 6.0	8.13



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
BA-2	13-14	●	-	-	GM
BA-3	10	■	-	-	SM
CTE JOB NUMBER:		10-7275		FIGURE:	C-1



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
Slope to West	60	●	-	-	Claystone
0	0	■	-	-	0

CTE JOB NUMBER: 10-7275 FIGURE: C--2

APPENDIX D

STANDARD SPECIFICATIONS FOR GRADING

Section 1 - General

Construction Testing & Engineering, Inc. presents the following standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications. Recommendations contained in the body of the previously presented soils report shall supersede the recommendations and or requirements as specified herein. The project geotechnical consultant shall interpret disputes arising out of interpretation of the recommendations contained in the soils report or specifications contained herein.

Section 2 - Responsibilities of Project Personnel

The geotechnical consultant should provide observation and testing services sufficient to general conformance with project specifications and standard grading practices. The geotechnical consultant should report any deviations to the client or his authorized representative.

The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the geotechnical consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor is responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements.

Section 3 - Preconstruction Meeting

A preconstruction site meeting should be arranged by the owner and/or client and should include the grading contractor, design engineer, geotechnical consultant, owner’s representative and representatives of the appropriate governing authorities.

Section 4 - Site Preparation

The client or contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, root of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the geotechnical consultant at the time of demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the geotechnical consultant.

Section 5 - Site Protection

Protection of the site during the period of grading should be the responsibility of the contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the geotechnical consultant, the client and the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

Rain related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions as determined by the geotechnical consultant. Soil adversely affected should be classified as unsuitable materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the geotechnical consultant.

The contractor should be responsible for the stability of all temporary excavations. Recommendations by the geotechnical consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the contractor. Recommendations by the geotechnical consultant should not be considered to preclude requirements that are more restrictive by the regulating agencies. The contractor should provide during periods of extensive rainfall plastic sheeting to prevent unprotected slopes from becoming saturated and unstable. When deemed appropriate by the geotechnical consultant or governing agencies the contractor shall install checkdams, desilting basins, sand bags or other drainage control measures.

In relatively level areas and/or slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0 foot; they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. If field conditions dictate, the geotechnical consultant may recommend other slope repair procedures.

Section 6 - Excavations

6.1 Unsuitable Materials

Materials that are unsuitable should be excavated under observation and recommendations of the geotechnical consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and nonengineered or otherwise deleterious fill materials.

Material identified by the geotechnical consultant as unsatisfactory due to its moisture conditions should be overexcavated; moisture conditioned as needed, to a uniform at or above optimum moisture condition before placement as compacted fill.

If during the course of grading adverse geotechnical conditions are exposed which were not anticipated in the preliminary soil report as determined by the geotechnical consultant additional exploration, analysis, and treatment of these problems may be recommended.

6.2 Cut Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal: vertical).

The geotechnical consultant should observe cut slope excavation and if these excavations expose loose cohesionless, significantly fractured or otherwise unsuitable material, the materials should be overexcavated and replaced with a compacted stabilization fill. If encountered specific cross section details should be obtained from the Geotechnical Consultant.

When extensive cut slopes are excavated or these cut slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top of the slope.

6.3 Pad Areas

All lot pad areas, including side yard terrace containing both cut and fill materials, transitions, located less than 3 feet deep should be overexcavated to a depth of 3 feet and replaced with a uniform compacted fill blanket of 3 feet. Actual depth of overexcavation may vary and should be delineated by the geotechnical consultant during grading, especially where deep or drastic transitions are present.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm drainage swale and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

Section 7 - Compacted Fill

All fill materials should have fill quality, placement, conditioning and compaction as specified below or as approved by the geotechnical consultant.

7.1 Fill Material Quality

Excavated on-site or import materials which are acceptable to the geotechnical consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement. All import materials anticipated for use on-site should be sampled tested and approved prior to and placement is in conformance with the requirements outlined.

Rocks 12 inches in maximum and smaller may be utilized within compacted fill provided sufficient fill material is placed and thoroughly compacted over and around all rock to effectively fill rock voids. The amount of rock should not exceed 40 percent by dry weight passing the 3/4-inch sieve. The geotechnical consultant may vary those requirements as field conditions dictate.

Where rocks greater than 12 inches but less than four feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with the recommendations below. Rocks greater than four feet should be broken down or disposed off-site.

7.2 Placement of Fill

Prior to placement of fill material, the geotechnical consultant should observe and approve the area to receive fill. After observation and approval, the exposed ground surface should be scarified to a depth of 6 to 8 inches. The scarified material should be conditioned (i.e. moisture added or air dried by continued discing) to achieve a moisture content at or slightly above optimum moisture conditions and compacted to a minimum of 90 percent of the maximum density or as otherwise recommended in the soils report or by appropriate government agencies.

Compacted fill should then be placed in thin horizontal lifts not exceeding eight inches in loose thickness prior to compaction. Each lift should be moisture conditioned as needed, thoroughly blended to achieve a consistent moisture content at or slightly above optimum and thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials and weather conditions.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least six-foot wide benches and a minimum of four feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area after keying and benching until the geotechnical consultant has reviewed the area. Material generated by the benching operation should be moved sufficiently away from

the bench area to allow for the recommended review of the horizontal bench prior to placement of fill.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface or previously compacted fill should be processed by scarification, moisture conditioning as needed to at or slightly above optimum moisture content, thoroughly blended and recompacted to a minimum of 90 percent of laboratory maximum dry density. Where unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be over-excavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

Rocks 12 inch in maximum dimension and smaller may be utilized in the compacted fill provided the fill is placed and thoroughly compacted over and around all rock. No oversize material should be used within 3 feet of finished pad grade and within 1 foot of other compacted fill areas. Rocks 12 inches up to four feet maximum dimension should be placed below the upper 10 feet of any fill and should not be closer than 15 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so those successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the geotechnical consultant at the time of placement.

The contractor should assist the geotechnical consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill. The contractor should provide this work at no additional cost to the owner or contractor's client.

Fill should be tested by the geotechnical consultant for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-00, D 2922-04. Tests should be conducted at a minimum of approximately two vertical feet or approximately 1,000 to 2,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the geotechnical consultant.

7.3 Fill Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal: vertical).

Except as specifically recommended in these grading guidelines compacted fill slopes should be over-built two to five feet and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the geotechnical consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

At the discretion of the geotechnical consultant, slope face compaction may be attempted by conventional construction procedures including backrolling. The procedure must create a firmly compacted material throughout the entire depth of the slope face to the surface of the previously compacted firm fill intercore.

During grading operations, care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately established desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not

exceeding four feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly dozer trackrolled.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished using a berm and pad gradient of at least two percent.

Section 8 - Trench Backfill

Utility and/or other excavation of trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 90 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to one foot wide and two feet deep may be backfilled with sand and consolidated by jetting, flooding or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of backfill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the contractor may elect the utilization of light weight mechanical compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review of the geotechnical consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the geotechnical consultant. Clean granular backfill and/or bedding are not recommended in slope areas.

Section 9 - Drainage

Where deemed appropriate by the geotechnical consultant, canyon subdrain systems should be installed in accordance with CTE's recommendations during grading.

Typical subdrains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, and concrete swales).

For drainage in extensively landscaped areas near structures, (i.e., within four feet) a minimum of 5 percent gradient away from the structure should be maintained. Pad drainage of at least 2 percent should be maintained over the remainder of the site.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns could be detrimental to slope stability and foundation performance.

Section 10 - Slope Maintenance

10.1 - Landscape Plants

To enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect should be the best party to consult regarding actual types of plants and planting configuration.

10.2 - Irrigation

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

10.3 - Repair

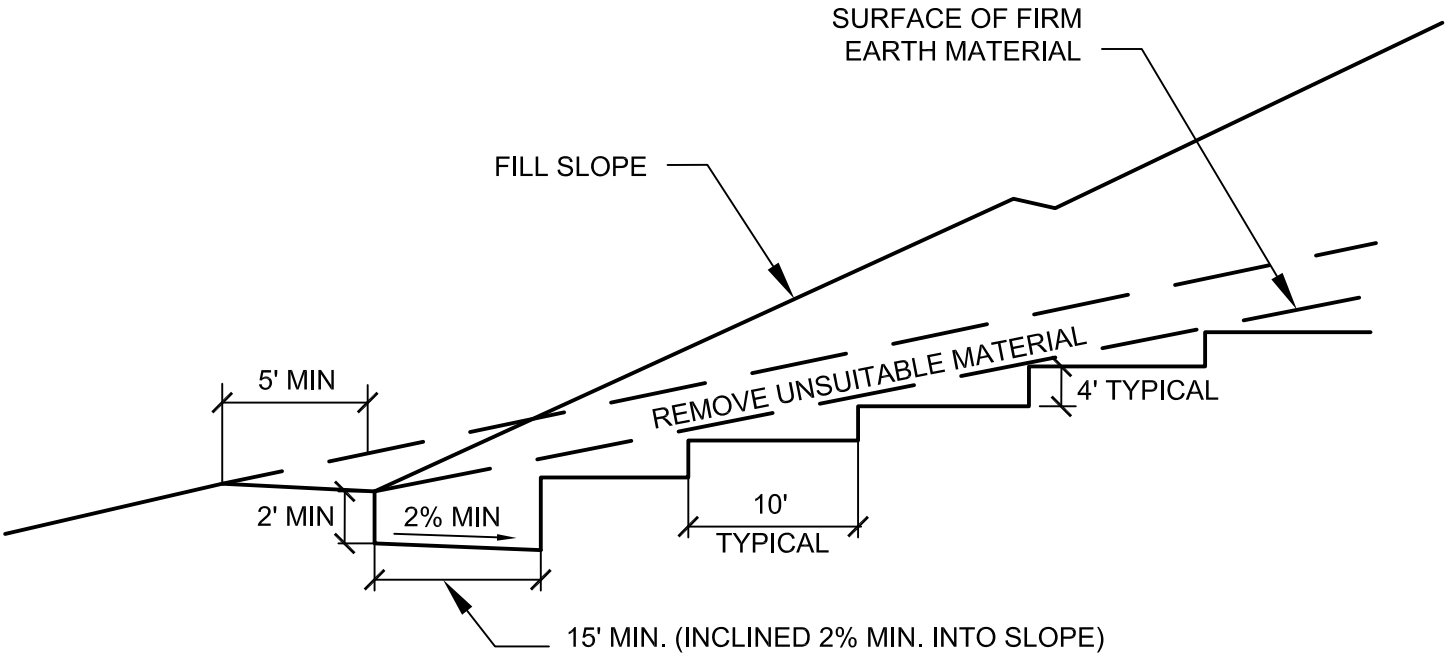
As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period prior to landscape planting.

If slope failures occur, the geotechnical consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

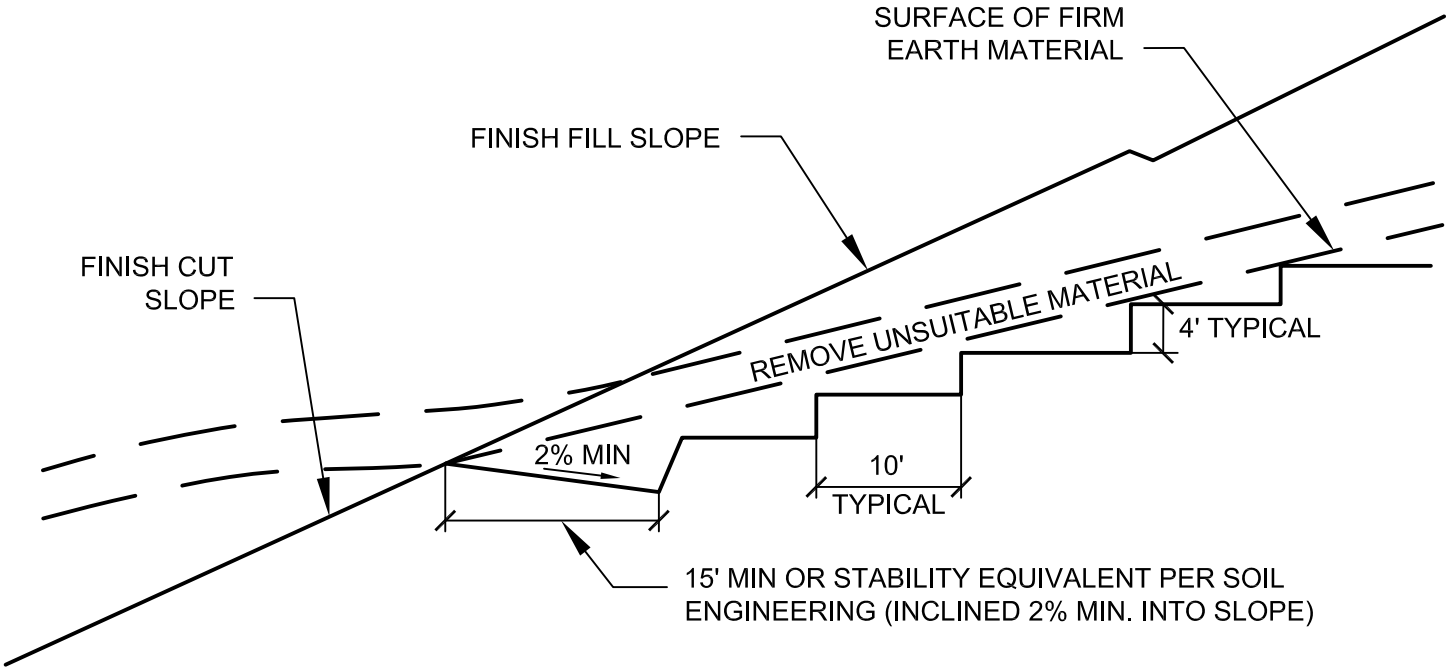
If slope failures occur as a result of exposure to period of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer one foot to three feet of a slope face).

BENCHING FILL OVER NATURAL

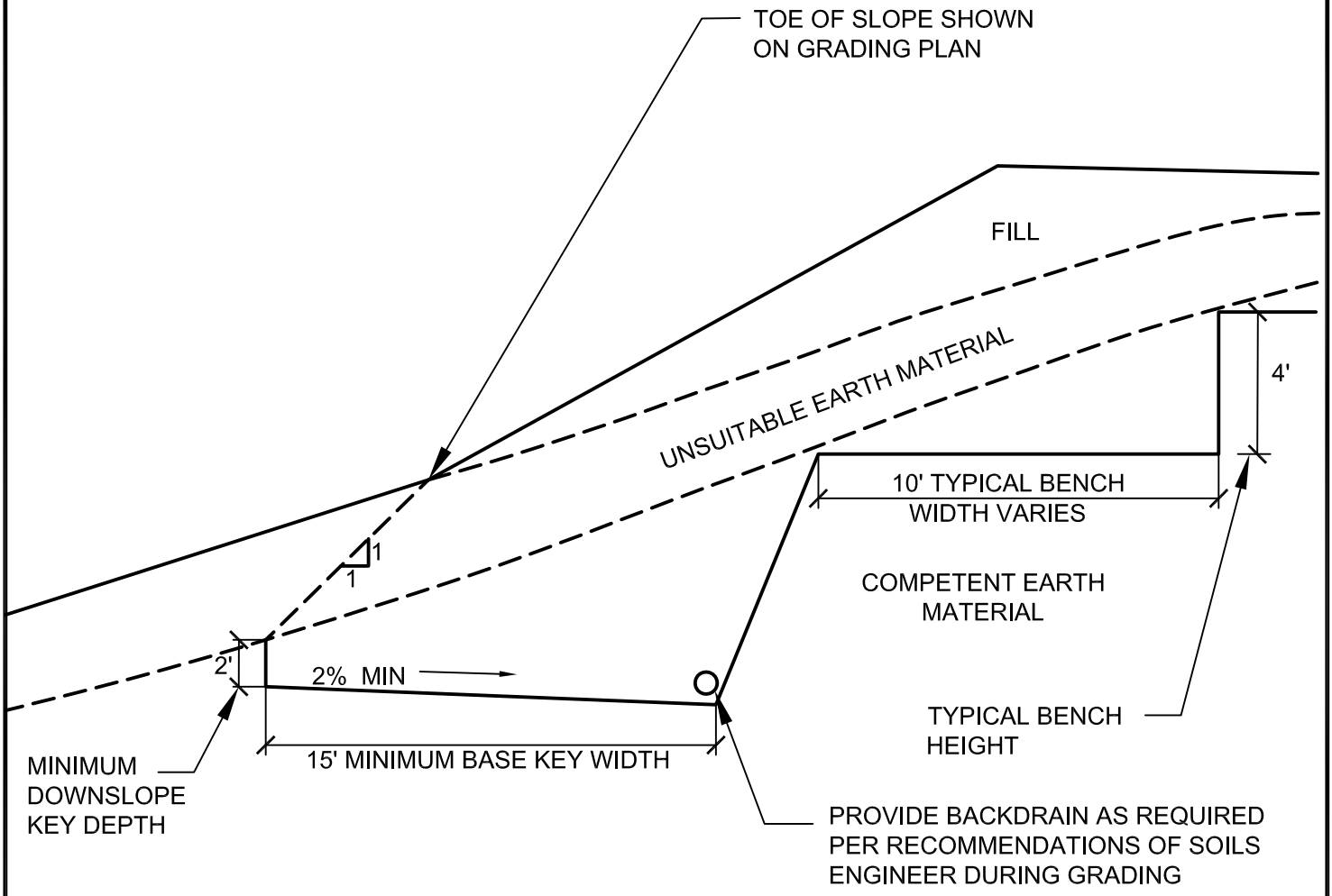


BENCHING FILL OVER CUT



NOT TO SCALE

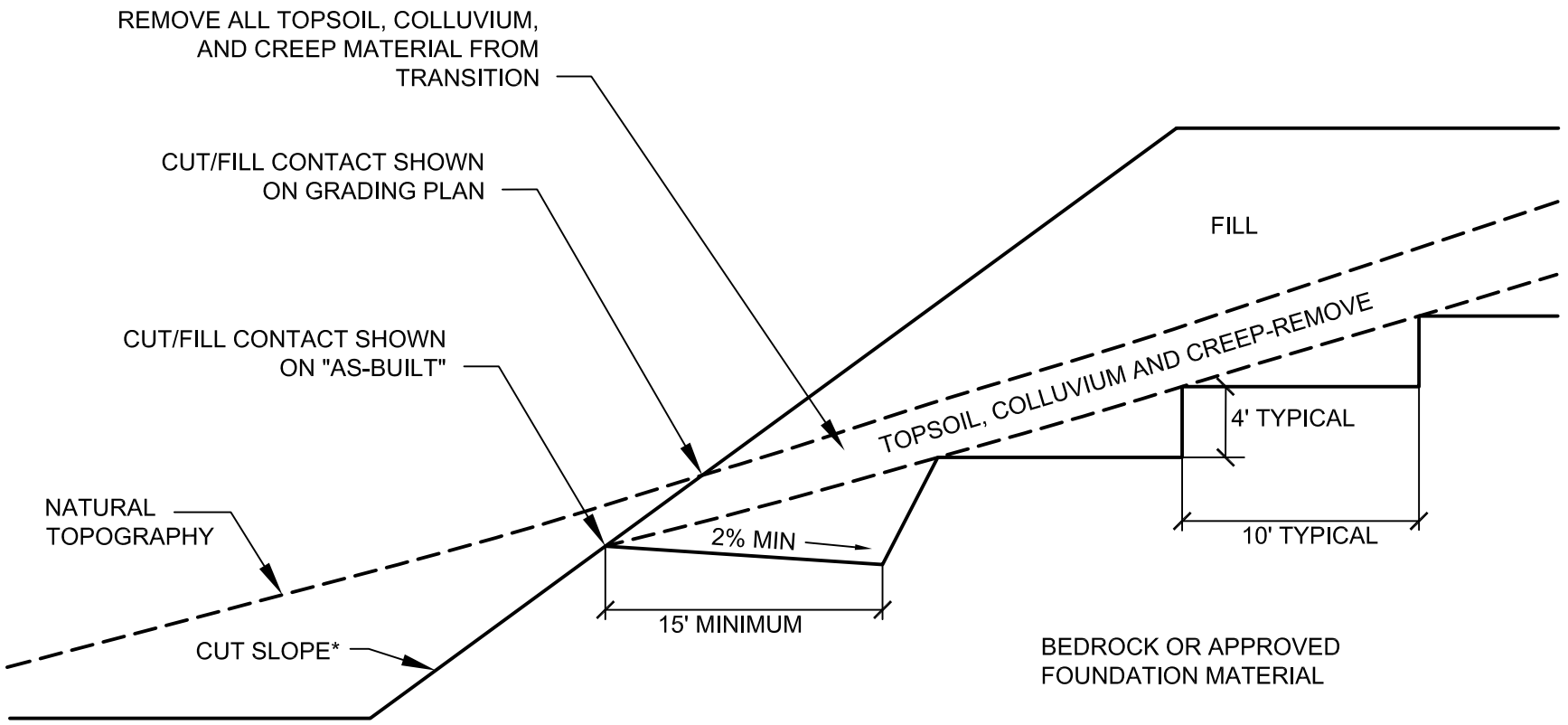
BENCHING FOR COMPACTED FILL DETAIL



WHERE NATURAL SLOPE GRADIENT IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.

NOT TO SCALE

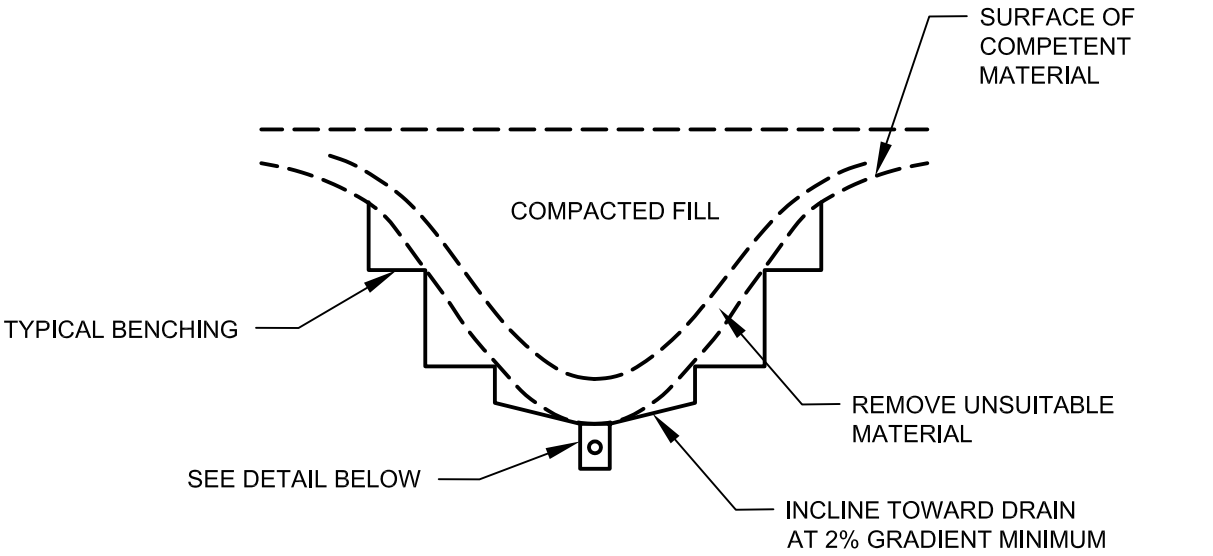
FILL SLOPE ABOVE NATURAL GROUND DETAIL



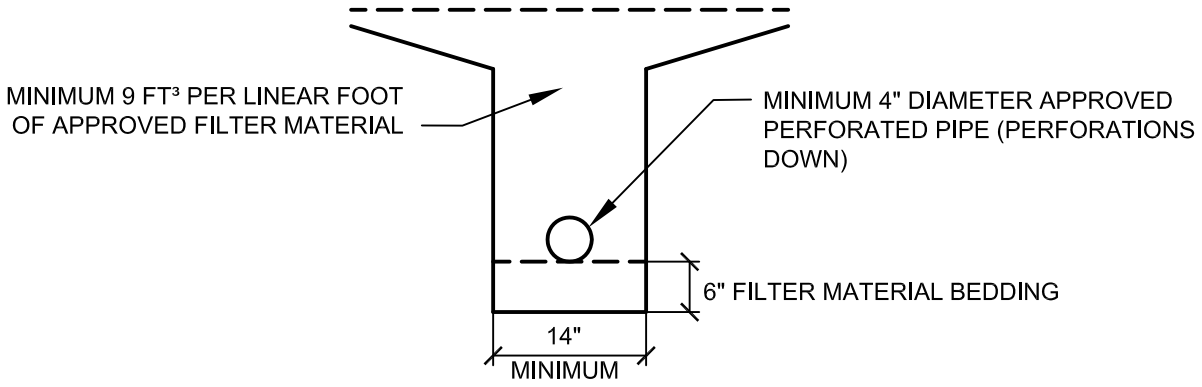
*NOTE: CUT SLOPE PORTION SHOULD BE MADE PRIOR TO PLACEMENT OF FILL

NOT TO SCALE

FILL SLOPE ABOVE CUT SLOPE DETAIL



DETAIL



CALTRANS CLASS 2 PERMEABLE MATERIAL
FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

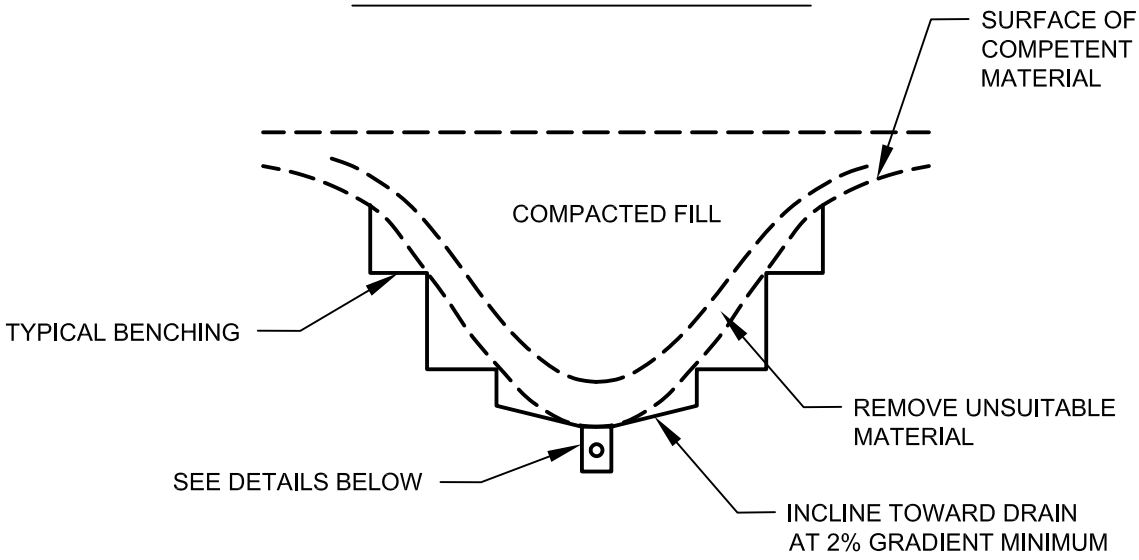
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

NOT TO SCALE

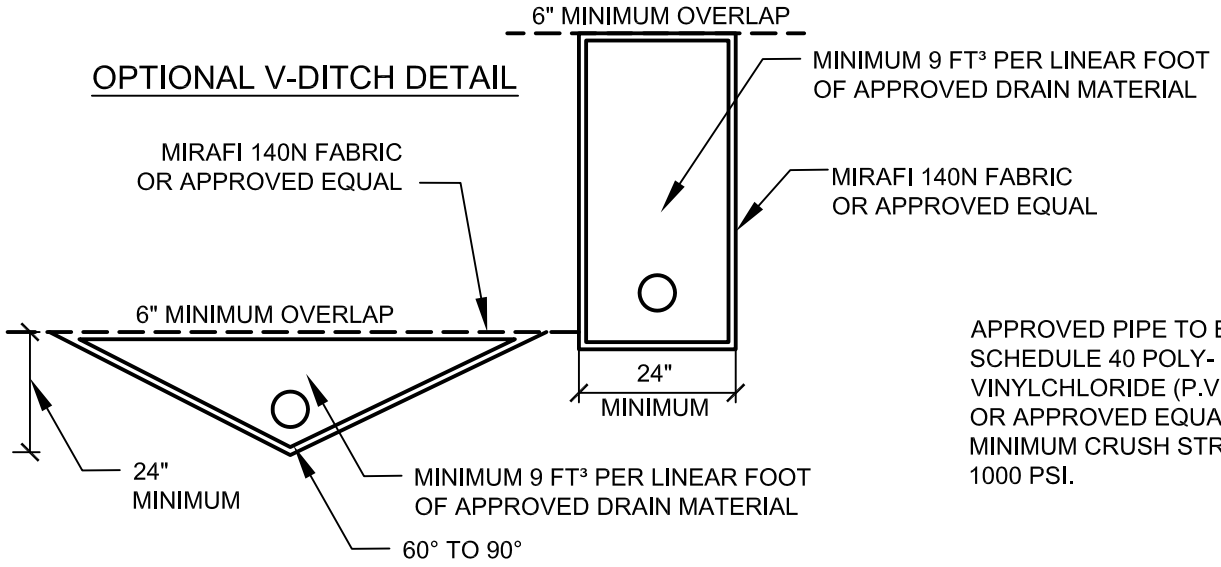
TYPICAL CANYON SUBDRAIN DETAIL

CANYON SUBDRAIN DETAILS



TRENCH DETAILS

OPTIONAL V-DITCH DETAIL



APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYLCHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 PSI.

DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 ½"	88-100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

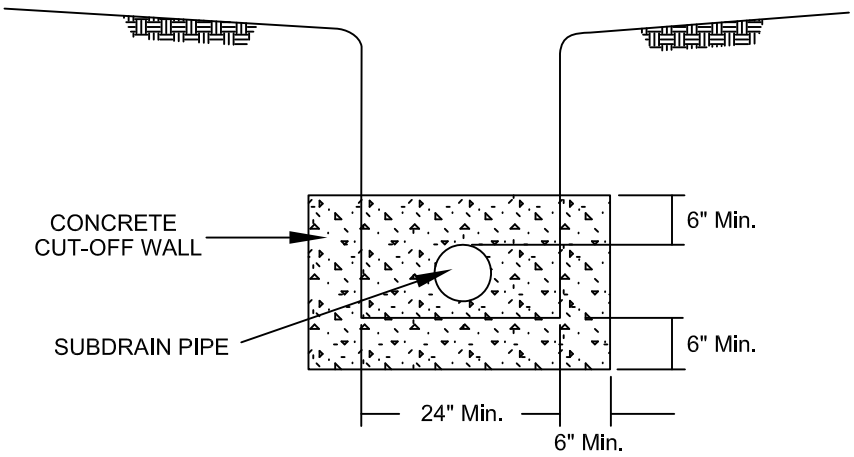
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

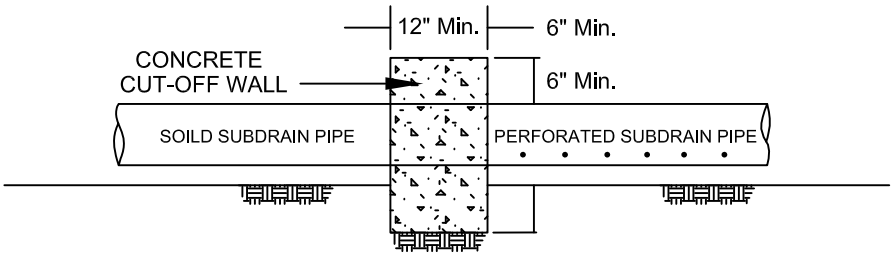
NOT TO SCALE

GEOFABRIC SUBDRAIN

FRONT VIEW



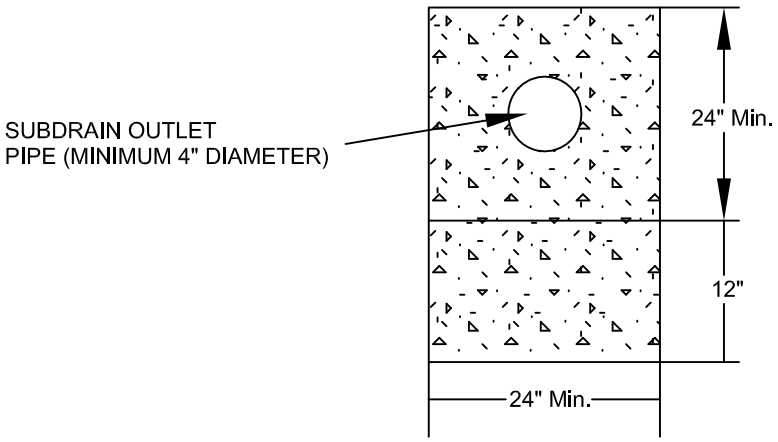
SIDE VIEW



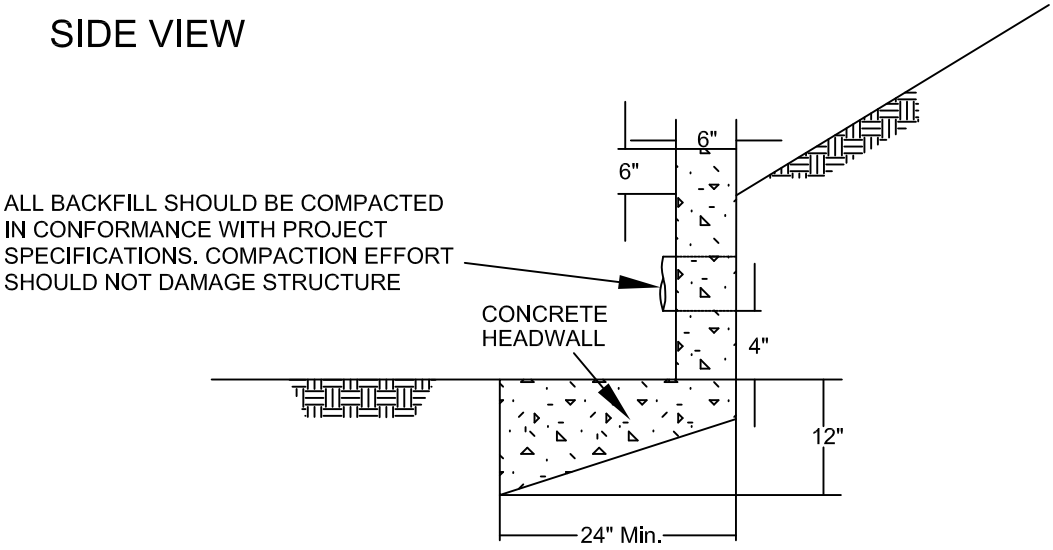
NOT TO SCALE

RECOMMENDED SUBDRAIN CUT-OFF WALL

FRONT VIEW



SIDE VIEW



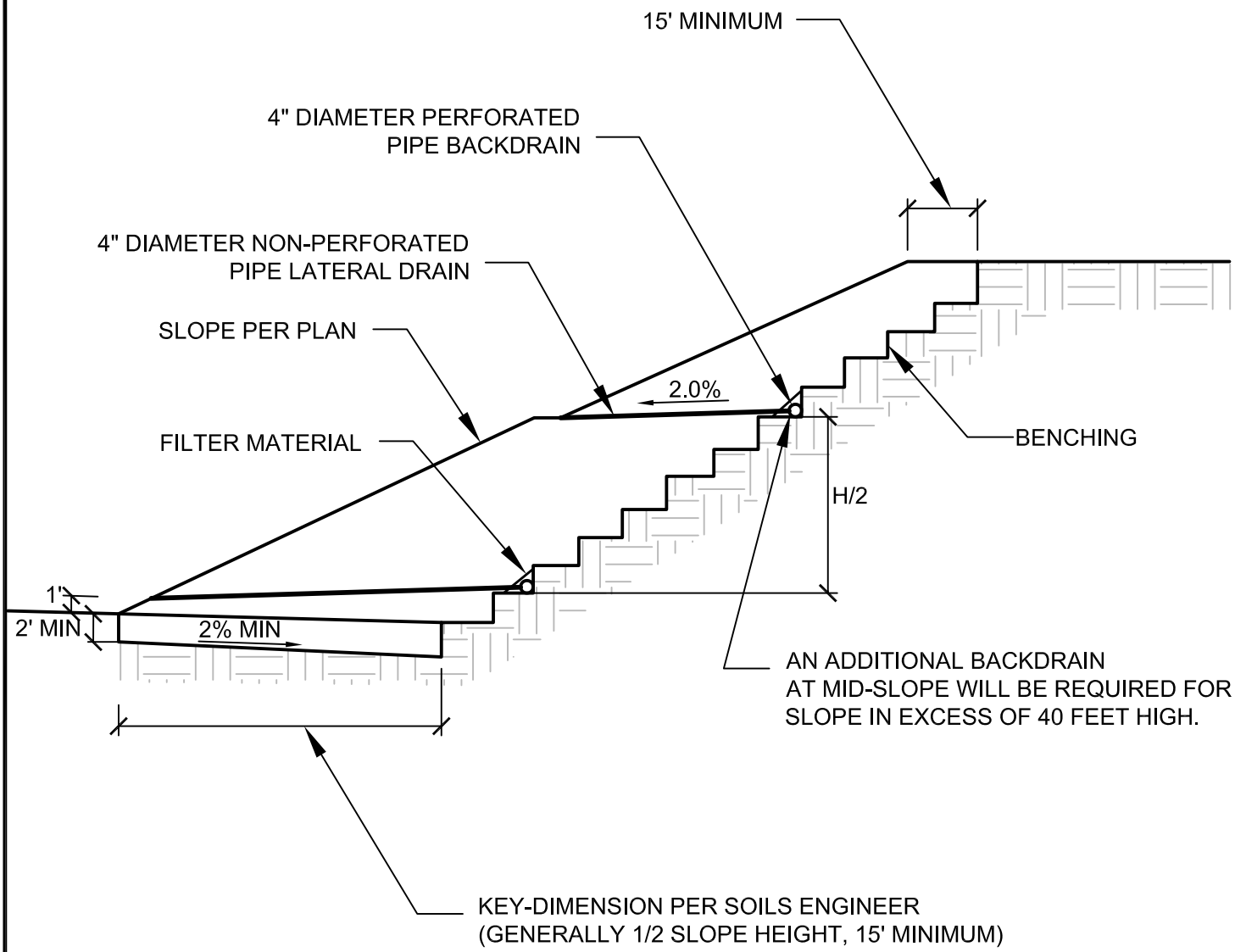
NOTE: HEADWALL SHOULD OUTLET AT TOE OF SLOPE
OR INTO CONTROLLED SURFACE DRAINAGE DEVICE

ALL DISCHARGE SHOULD BE CONTROLLED

THIS DETAIL IS A MINIMUM DESIGN AND MAY BE
MODIFIED DEPENDING UPON ENCOUNTERED
CONDITIONS AND LOCAL REQUIREMENTS

NOT TO SCALE

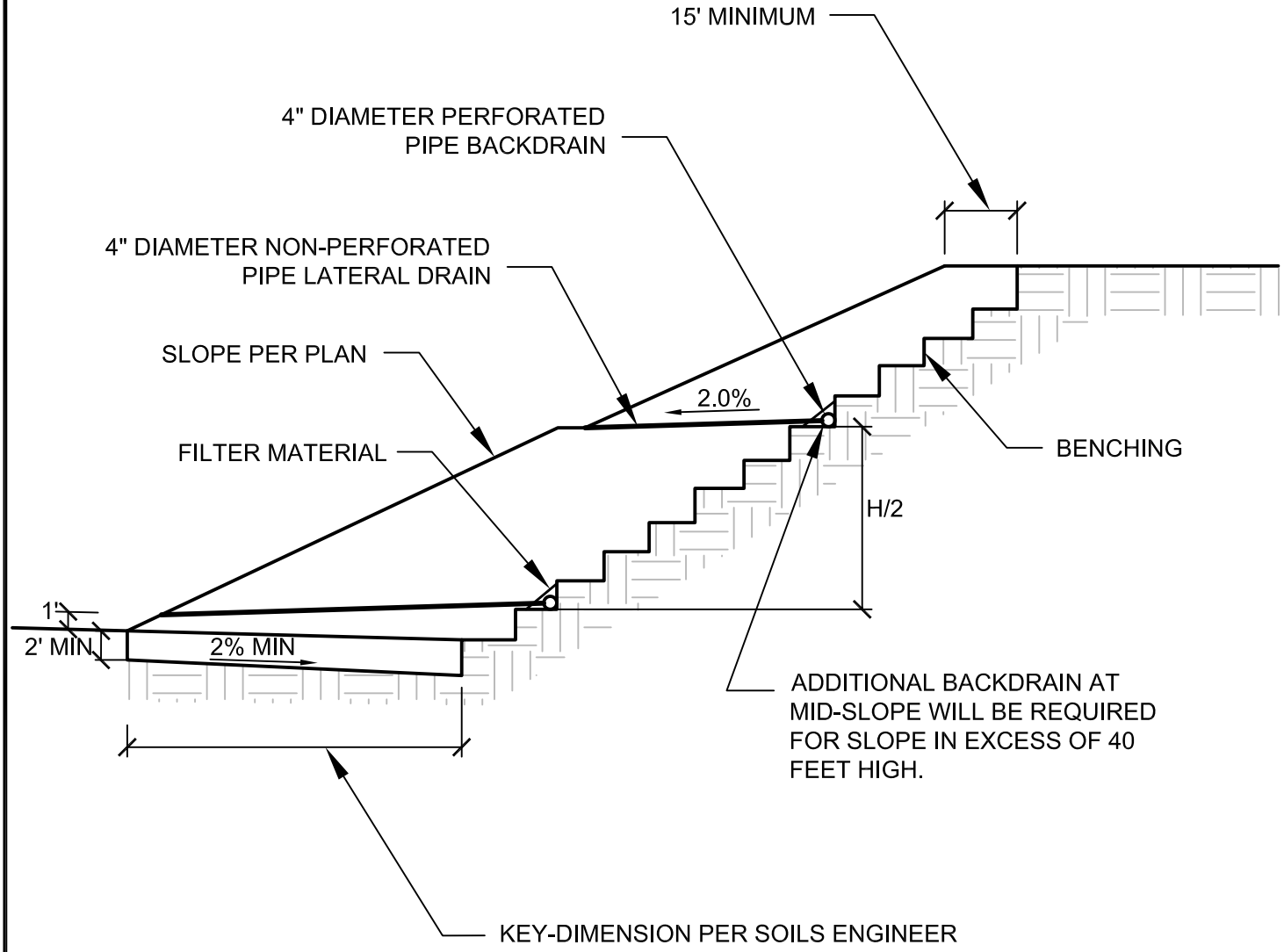
TYPICAL SUBDRAIN OUTLET HEADWALL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

NOT TO SCALE

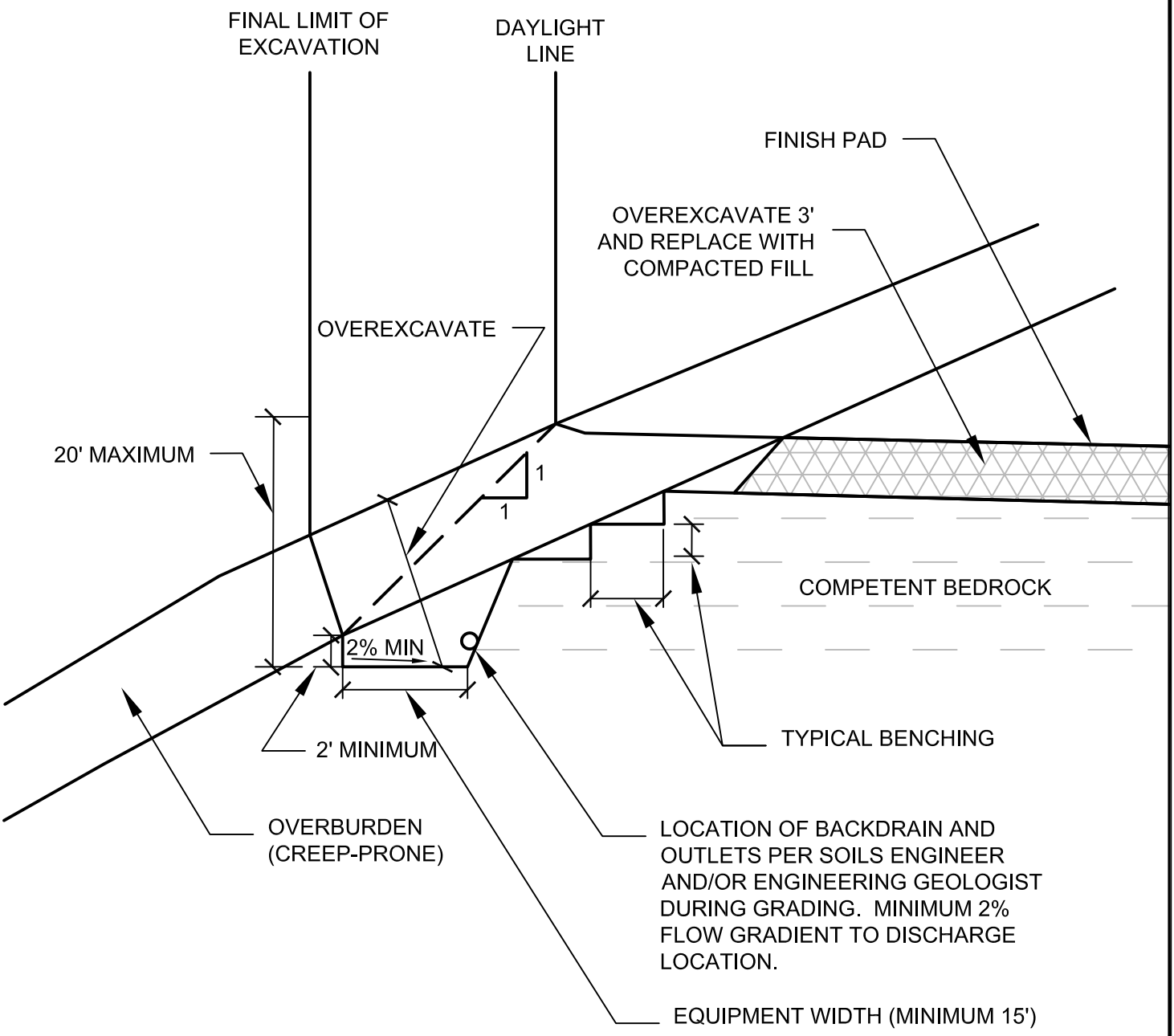
TYPICAL SLOPE STABILIZATION FILL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

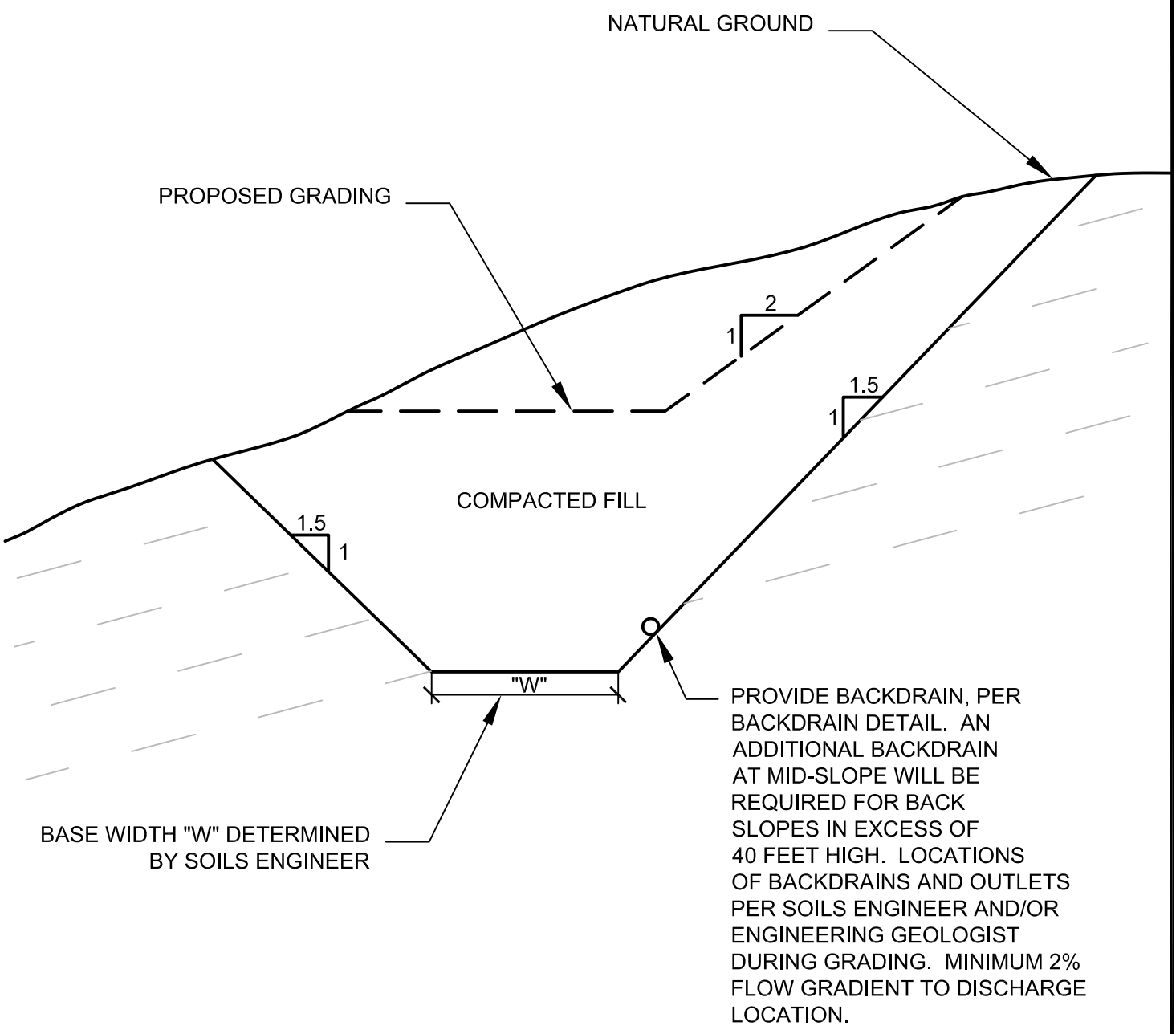
NOT TO SCALE

TYPICAL BUTTRESS FILL DETAIL



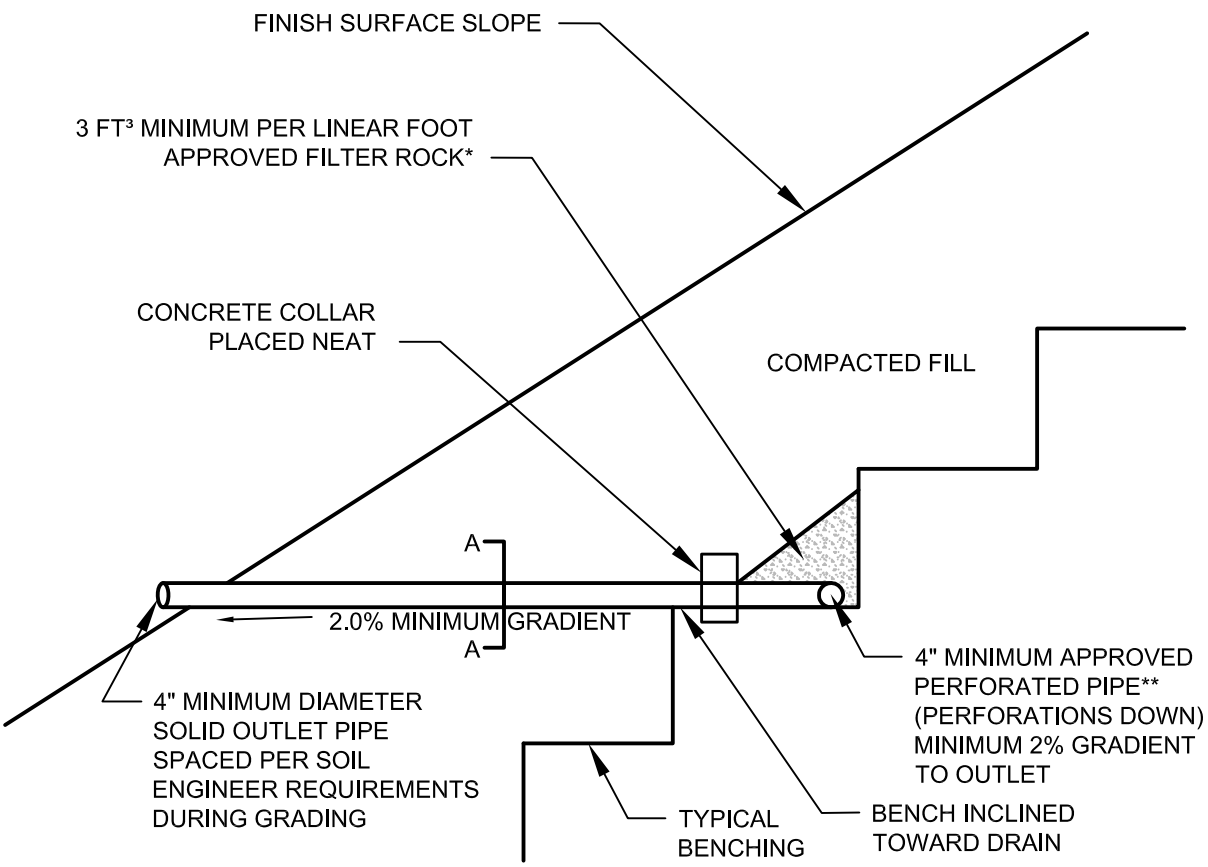
NOT TO SCALE

DAYLIGHT SHEAR KEY DETAIL

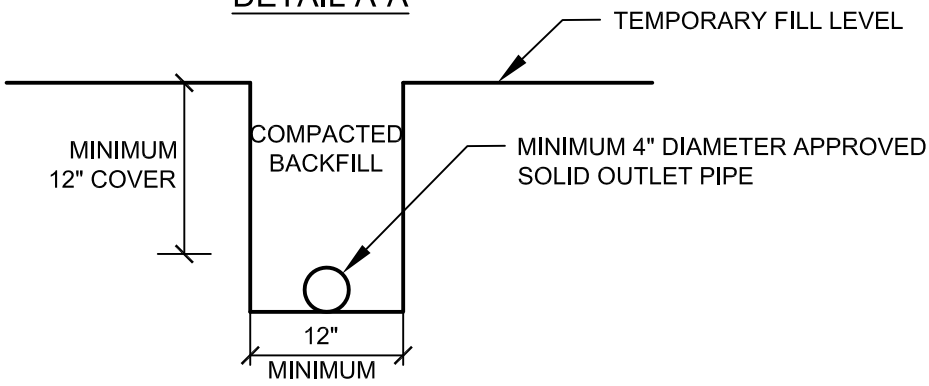


NOT TO SCALE

TYPICAL SHEAR KEY DETAIL



DETAIL A-A



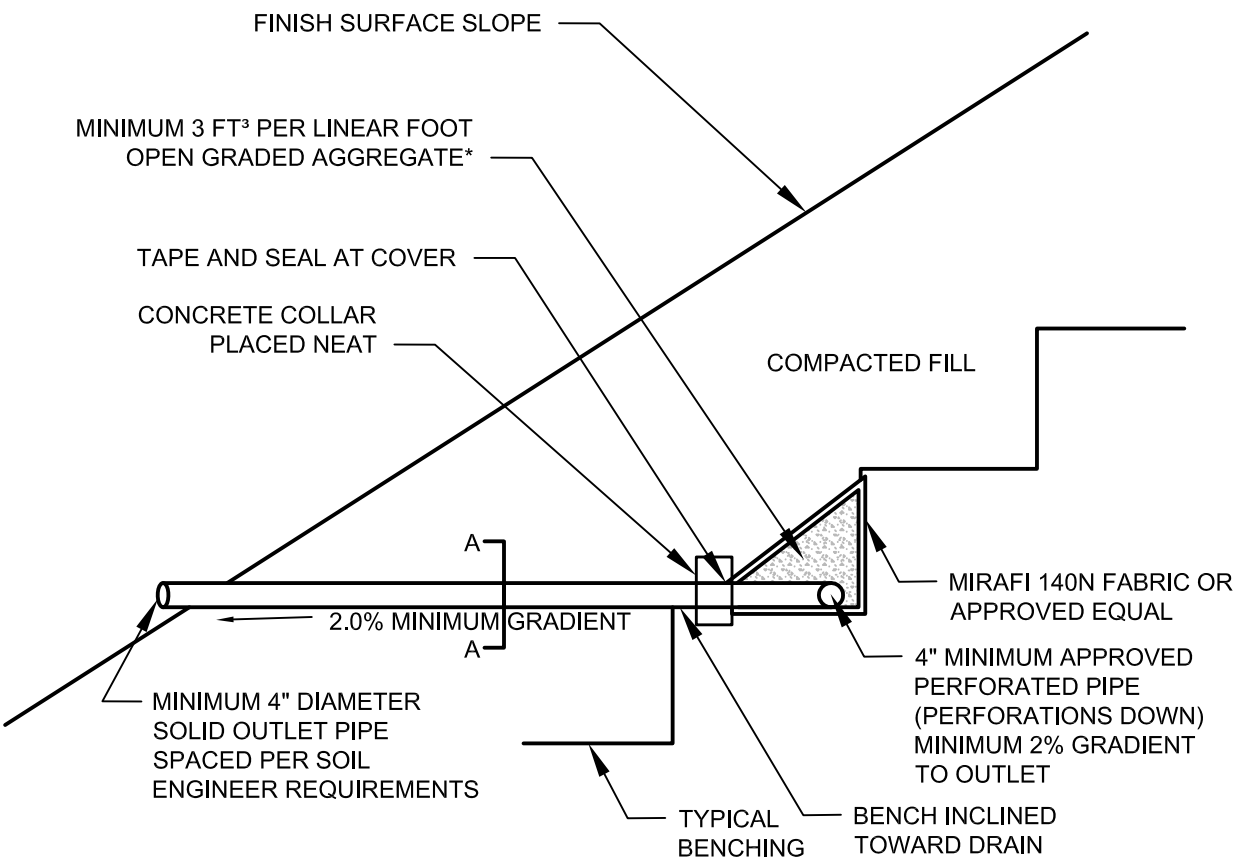
**APPROVED PIPE TYPE:
SCHEDULE 40 POLYVINYL CHLORIDE
(P.V.C.) OR APPROVED EQUAL.
MINIMUM CRUSH STRENGTH 1000 PSI

*FILTER ROCK TO MEET FOLLOWING
SPECIFICATIONS OR APPROVED EQUAL:

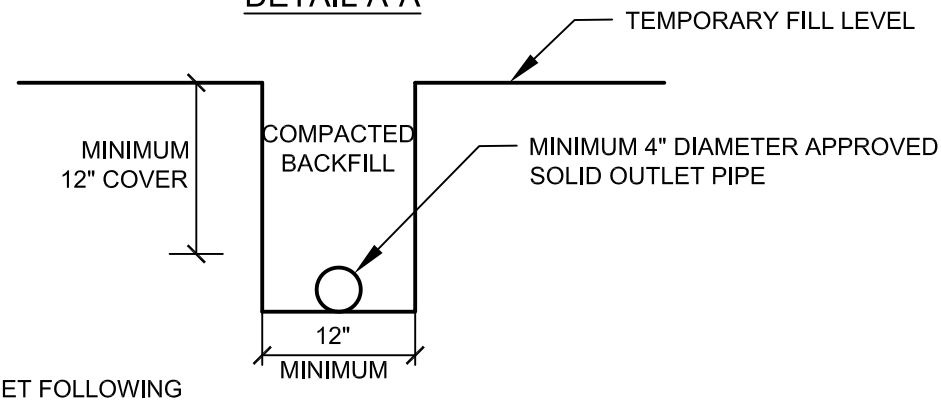
SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

NOT TO SCALE

TYPICAL BACKDRAIN DETAIL



DETAIL A-A

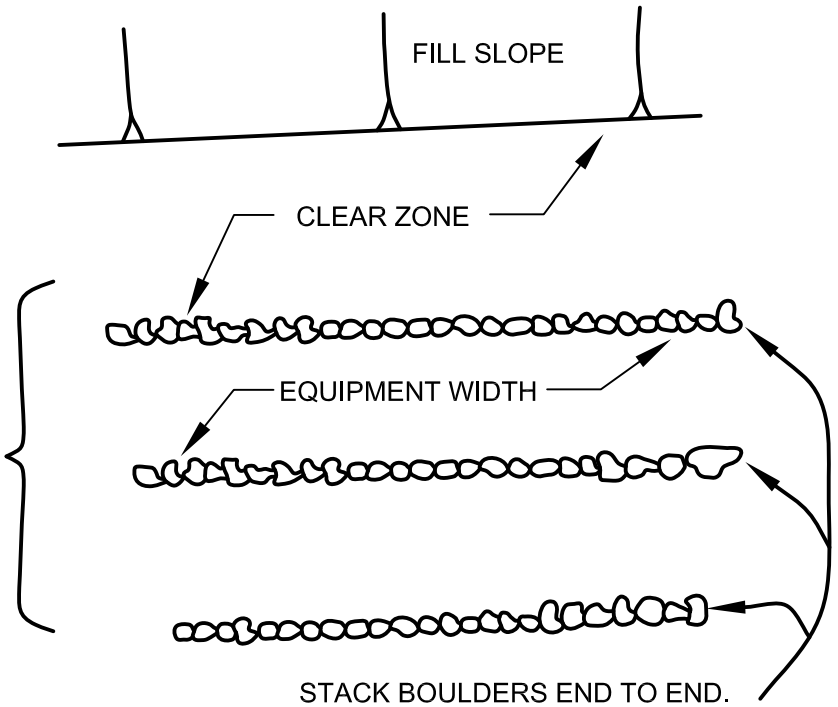


*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

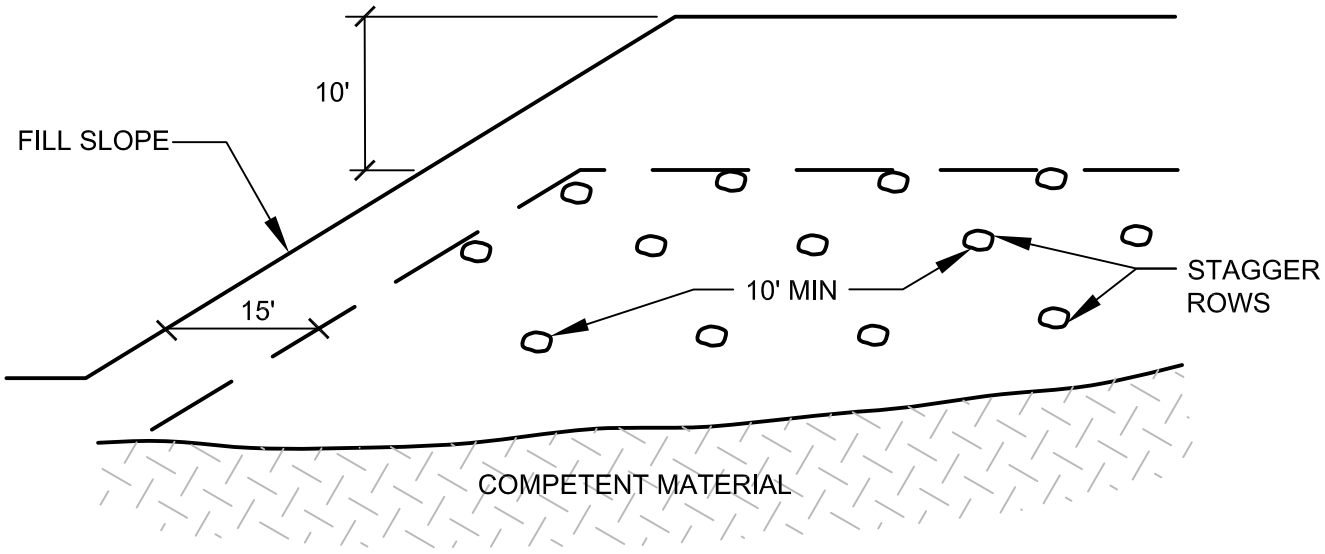
SIEVE SIZE	PERCENTAGE PASSING
1 ½"	100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

NOT TO SCALE

BACKDRAIN DETAIL (GEOFRABIC)

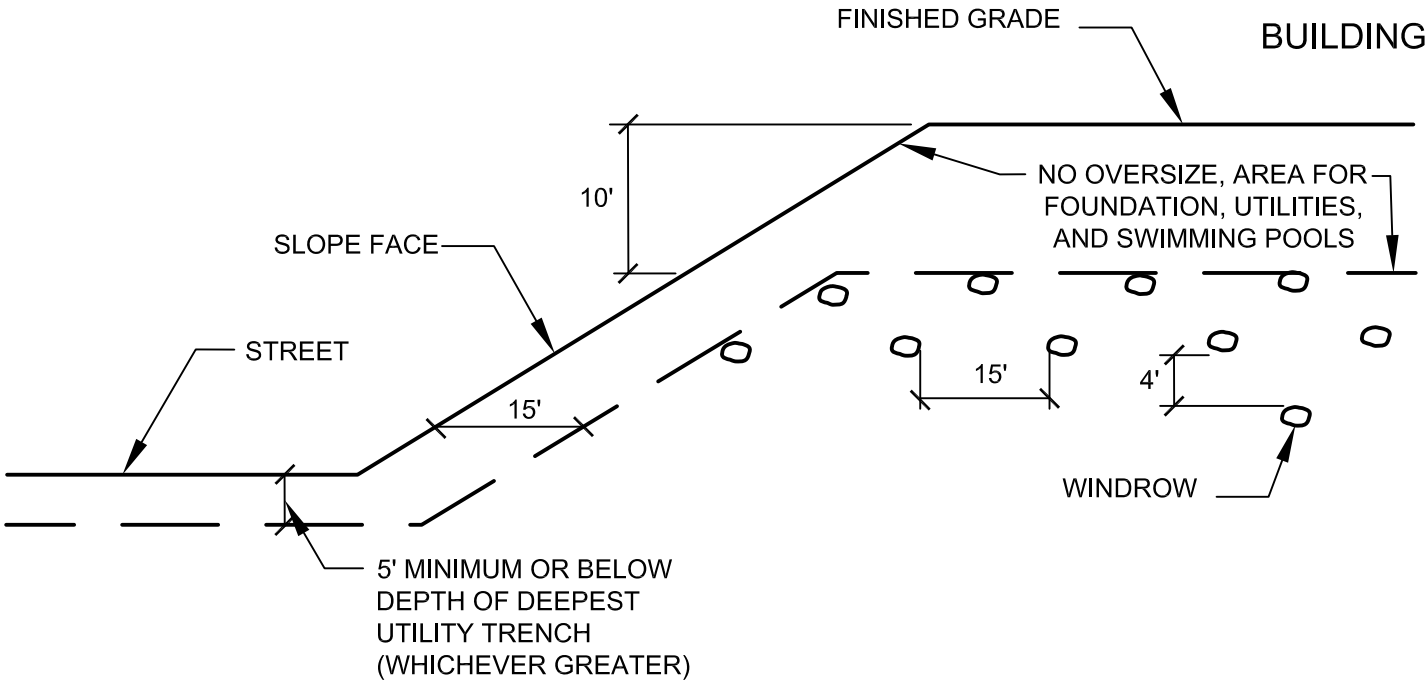


SOIL SHALL BE PUSHED OVER ROCKS AND FLOODED INTO VOIDS. COMPACT AROUND AND OVER EACH WINDROW.

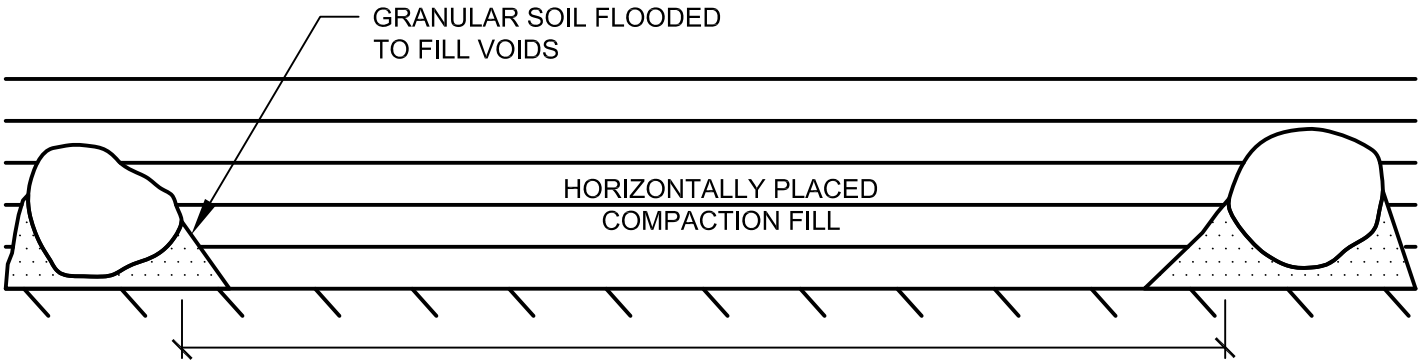


NOT TO SCALE

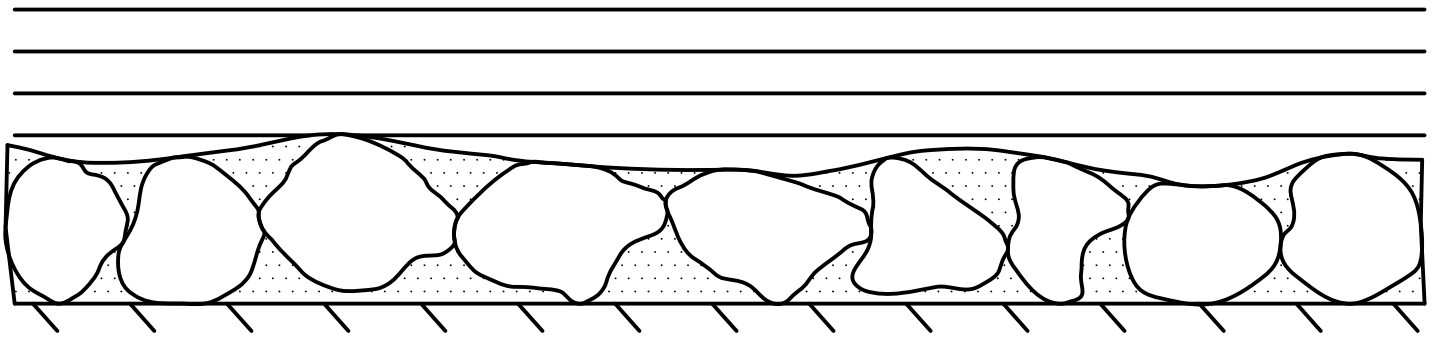
ROCK DISPOSAL DETAIL



TYPICAL WINDROW DETAIL (EDGE VIEW)



PROFILE VIEW

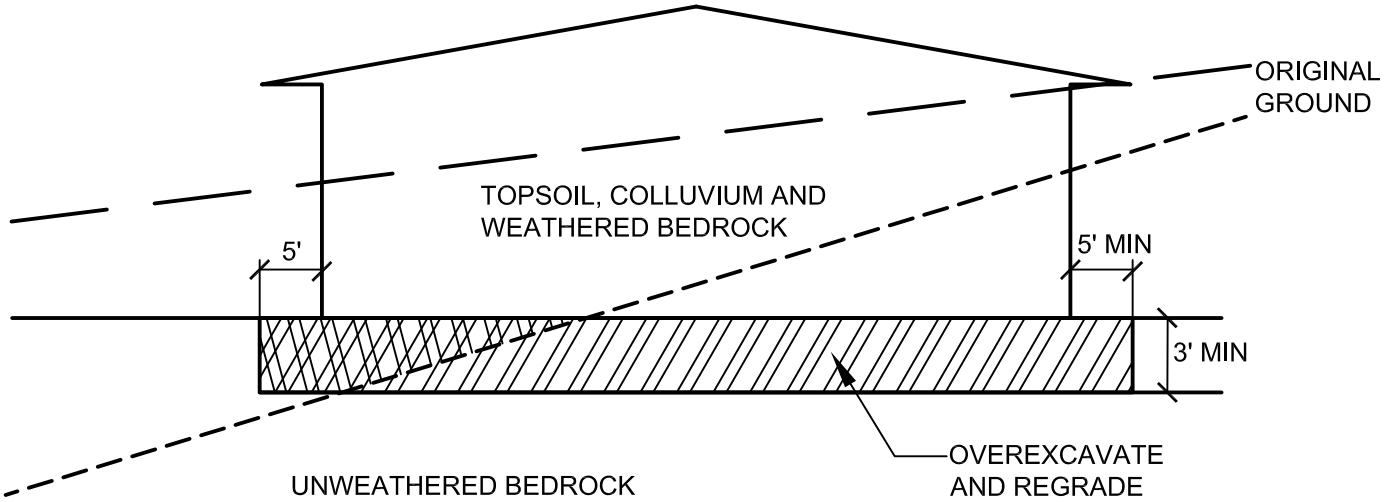


NOT TO SCALE

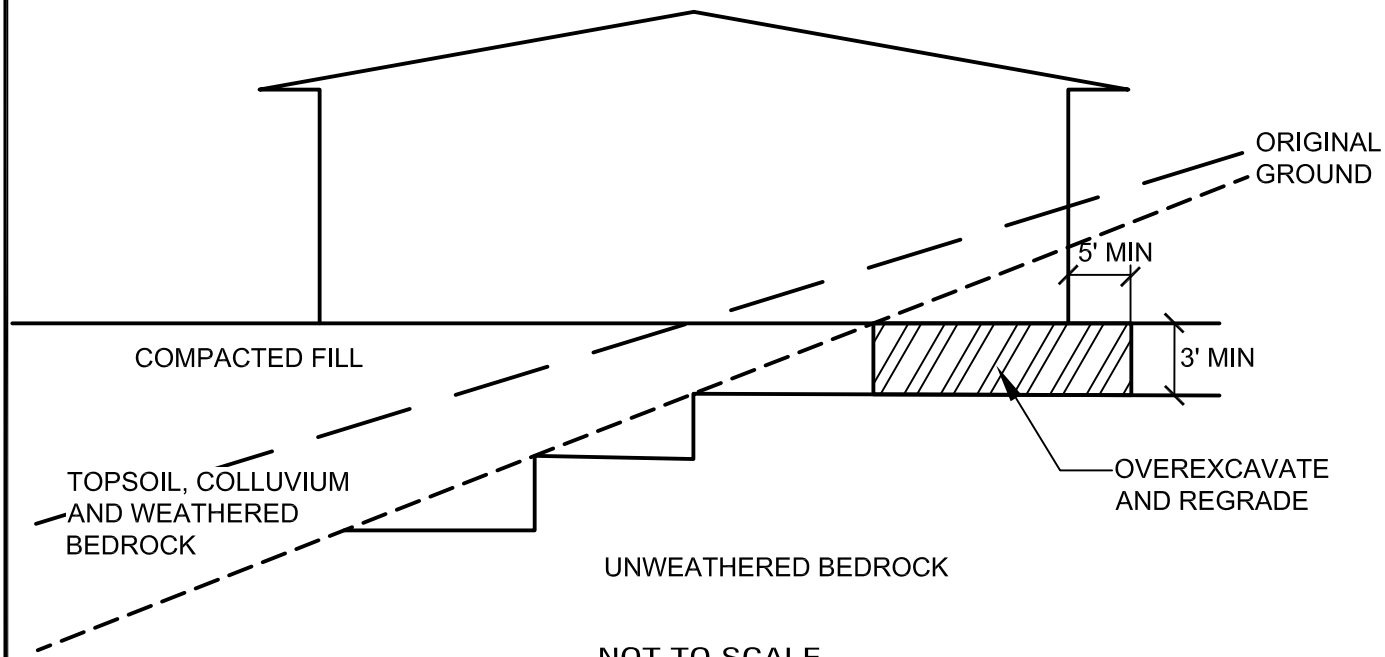
ROCK DISPOSAL DETAIL

GENERAL GRADING RECOMMENDATIONS

CUT LOT



CUT/FILL LOT (TRANSITION)



NOT TO SCALE

TRANSITION LOT DETAIL

Construction Testing & Engineering, Inc.
Inspection | Testing | Geotechnical | Environmental & Construction Engineering | Civil Engineering | Surveying

June 6, 2015 CTE Project No: 10-12361G

Francis Parker School
Attention: Mr. Mike Rinehart, Head of Finance and Operations
6501 Linda Vista Road
San Diego, California Via Email: mrinehart@francisparker.org

Subject: Response to City of San Diego Cycle Issues
Cycle Type: 3 - LDR Geology, Dated April 14, 2015
Parker LVC Master Plan Update
San Diego, California
City of San Diego Project No: 412987

Reference: Preliminary Geotechnical Report,
Francis Parker Middle School Master Plan Improvements,
6501 Linda Vista Road, San Diego, California
Prepared by Construction Testing & Engineering Inc.; Dated January 30, 2015
Project Number 10-12361G

Additional References: Attachment 1

Mr. Rinehart:

As requested, presented herein is CTE's response to the City of San Diego's Review of Documents, Cycle Type 3 (Multi-discipline), dated April 14, 2015. To facilitate review of this document, our responses correspond to the LDR issue numbers on page 15 of 20 in the Cycle Issues Letter (Attachment 2). The remaining Cycle Issue pages and comments are directed to other disciplines that are presumable being responded to under a separate letterhead(s).

This response to comment letter is to serve as an Addendum 01 to the above referenced preliminary geotechnical report, including the attached revised preliminary geotechnical report with modified figures (Attachment 3).

Cycle 3-LDR Comments Issues # 1 and #2: These issue numbers cite project references.

Response: No response required**.**

Cycle 3-LDR Comment Issue #3: The referenced plans indicate improvements beyond the area addressed by the referenced geotechnical report.

Response: At the time of issuance of the above reference preliminary geotechnical report, the provided site plan for the proposed Master Plan improvements did not incorporate all of the currently proposed improvements. Therefore, we have updated Figure 1 and Figure 2 from the preliminary geotechnical report to include all of the currently proposed improvements/improvement areas (Attachment 3). As detailed in the original referenced preliminary geotechnical report, CTE has previously completed geotechnical investigations and reports, grading observations, and as-graded/compaction reports for earlier phases for the Francis Parker School improvements. The previous completed site investigations included field exploration, laboratory testing, geologic hazard evaluation, and engineering analysis, as appropriate. The results of our previous site investigations provides conclusions and geotechnical engineering criteria that can be utilized for the design phases of the proposed improvements associated with the Francis Parker School Master Plan improvements. This information has been incorporated into the above referenced preliminary geotechnical report, incorporates updated geotechnical information to meet the current California Building Code regulations, and can be used to initiate preliminary design for the proposed improvements, as desired or necessary.

Cycle 3-LDR Comment Issue # 4: Submit an addendum geotechnical report that addresses the referenced master plans and the following issues.

Response: This response letter and Attachment 3 are to be considered Addendum 01 to the referenced geotechnical report and address the referenced master plans.

Cycle 3-LDR Comment Issue # 5: The geotechnical consultant should clarify if the proposed development will be impacted by slope instability. Provide updated slope stability analysis.

Response: Based on our previous investigations and slope stability analysis, the slopes adjacent to the currently proposed improvements are considered to be grossly stable. At this time, the project is still in planning stages and building and foundation plans are not yet available. CTE will provide additional slope stability analysis as warranted when the building plan set is completed and prior to issuance of grading and/or building permits. However, slope instability is not anticipated to be a significant concern in the areas of proposed improvements.

BDR Comment Issue # 6: Provide details for the proposed new athletic fields. Indicate whether or not storm water infiltration is proposed.

Response: It is the understanding of CTE that no storm water infiltration devices are proposed for the proposed modifications to the existing athletic fields.

Cycle 3-BDR Comment Issue # 7: If storm water infiltration is proposed, the project's geotechnical consultant must indicate if storm water infiltration or percolation would result in adverse impacts on the proposed improvements or adjacent properties. The geotechnical consultants' evaluation must be prepared in accordance with Appendix "F" of the City's Guidelines for Geotechnical reports.

Response: It is the understanding of CTE that no storm water infiltration devices are proposed for any of the proposed Master Plan improvements.

LIMITATIONS

The field evaluation, laboratory testing, and analysis presented herein and in our referenced documents have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction.

The findings are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

CTE's conclusions and recommendations are based on an analysis of the observed conditions. If conditions different from those described are encountered, our office should be notified and additional recommendations, if required, will be provided. This document is also subject to the same limitations presented in our previous documents.

We appreciate the opportunity to be of service on this project. If you have additional questions or comments, please contact our office.

Respectfully submitted,

CONSTRUCTION TESTING & ENGINEERING, INC.

Martin E. Siem CEG #2311
Senior Engineering Geologist

Dan T. Math, GE #2665
Principal Engineer

Attachments:

Attachment 1: Project References

Attachment 2: City of San Diego Cycle Issues Comments LDR-Geology,
Page 15 of 20, Dated April 14, 2015.

Attachment 3: Addendum 01 to Preliminary Geotechnical Report,
Francis Parker Middle School Master Plan Improvements,
6501 Linda Vista Road, San Diego, California
Prepared by Construction Testing & Engineering Inc.; Dated January 30, 2015
Project Number 10-12361G

ATTACHMENT 1

PROJECT REFERENCES

REFERNCES

Addendum 01 to Preliminary Geotechnical Report, Francis Parker Middle School Master Plan Improvements,6501 Linda Vista Road, San Diego, California. Prepared by Construction Testing & Engineering Inc.; Dated January 30, 2015. Project Number 10-12361G

Preliminary Geotechnical Report, Francis Parker Middle School Master Plan Improvements, 6501 Linda Vista Road, San Diego, California. Prepared by Construction Testing & Engineering Inc.; Dated January 30, 2015. Project Number 10-12361G

Civil Site Plan-Sheet C1; "Francis Parker School-Linda Vista Campus Master Plan Update. Amends PDP 84875/SDP 215276". Prepared by RBF Consulting, Original Date February 27, 2015.

ATTACHMENT 2

CITY OF SAN DIEGO-DEPARTMENT OF DEVELOPMENT SERVICES
BDR-GEOLOGY CYCLE ISSUE COMMENTS, DATED APRIL 14, 2015

THE CITY OF SAN DIEGO
Development Services
1222 First Avenue, San Diego, CA 92101-4154

L64A-003B

Review Information

Cycle Type:	3 Submitted (Multi-Discipline)	**Submitted:**	03/04/2015	Deemed Complete on 03/06/2015
Reviewing Discipline:	LDR-Geology	**Cycle Distributed:**	03/06/2015	
Reviewer:	**Thomas, Patrick**	**Assigned:**	03/09/2015	
	(619) 446-5296	**Started:**	03/09/2015	
	pathomas@sandiego.gov	**Review Due:**	04/14/2015	
Hours of Review:	4.00	**Completed:**	04/14/2015	
Next Review Method:	Submitted (Multi-Discipline)	**Closed:**		

. The review due date was changed to 04/17/2015 from 04/17/2015 per agreement with customer.
. The reviewer has indicated they want to review this project again. Reason chosen by the reviewer: First Review Issues.
. The reviewer has requested more documents be submitted.
. Your project still has 7 outstanding review issues with LDR-Geology (all of which are new).

Information

Cleared?	Issue Num	Issue Text
☐	1	The project site is located within geologic hazard zones 23, 24 and 52 as shown on the City's Seismic Safety Study Geologic Hazards Maps. Zone 23 is characterized by the Friars Formation with neutral or favorable geologic structure. Zone 24 is characterized by the Friars Formation with unfavorable geologic structure. The Friars Formation is considered to be a slide-prone formation. Zone 52 is characterized by other level areas, gently sloping to steep terrain with favorable geologic structure, low risk. (New Issue)

Cycle 3 References

Cleared?	Issue Num	Issue Text
☐	2	Francis Parker School-Linda Vista Campus Master Plan Update, Amends PDP 84875/ SDP 215276, San Diego, California, prepared by RBF Consulting, dated February 27, 2015. Preliminary Geotechnical Report, Francis Parker Middle School Master Plan Improvements, 6501 Linda Vista Road, San Diego, California, prepared by Construction Testing & Engineering, Inc., dated January 30, 2015 (their project no. 10-12361G). (New Issue)

Cycle 3 Issues

Cleared?	Issue Num	Issue Text
☐	3	The referenced plans indicate improvements beyond the area addressed by the referenced geotechnical report. (New Issue)
☐	4	Submit an addendum geotechnical report that addresses the referenced master plans and the following issues. (New Issue)
☐	5	The geotechnical consultant should clarify if the proposed development will be impacted by slope instability. Provide updated slope stability analysis. (New Issue)
☐	6	Provide details for the proposed new athletic fields. Indicate whether or not storm water infiltration is proposed. (New Issue)
☐	7	If storm water infiltration is proposed, the project's geotechnical consultant must indicate if storm water infiltration or percolation would result in adverse impacts on the proposed improvements or adjacent properties. The geotechnical consultants' evaluation must be prepared in accordance with Appendix 'F' of the City's Guidelines for Geotechnical Reports. (New Issue)

For questions regarding the 'LDR-Geology' review, please call Patrick Thomas at (619) 446-5296. Project Nbr: 412987 / Cycle: 3

ATTACHMENT 3

ADDENDUMN 01 TO PRELIMINARY GEOTECHNICAL REOPRT, FRANCIS PARKER MIDDLE SCHOOLMASTER PLAN IMPROVEMENTS, 6501 LINDA VISTA ROAD,SAN DIEGO, CALIFORNIA. PREPARED BY CONSTRUCTION TESTING & ENGINEERING, INC.; DATED JANUARY 30, 2015 (REVISED MAY 28, 2105). PROJECT NUMBER 10-12361T

ADDENDUM 01 TO PRELIMINARY GEOTECHNICAL REPORT
FRANCIS PARKER MIDDLE SCHOOL
MASTER PLAN IMPROVEMENTS
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

PREPARED FOR:

FRANCIS PARKER SCHOOL
ATTENTION: MR. MIKE RINEHART
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA 92111

PREPARED BY:

CONSTRUCTION TESTING & ENGINEERING, INC.
1441 MONTIEL ROAD, SUITE 115
ESCONDIDO, CALIFORNIA 92026

CTE JOB NO.: 10-12361G JANUARY 30, 2015 (REVISED MAY 28, 2015)

TABLE OF CONTENTS

Section Page

1.0 INTRODUCTION AND SCOPE OF SERVICES 1
1.1 Introduction 1
1.2 Scope of Services 2
2.0 SITE BACKGROUND 3
2.1 Site Location and Description 3
2.2 Site Development 4
3.0 FIELD AND LABORATORY INVESTIGATIONS 5
3.1 Field Investigations 5
3.2 Laboratory Investigation 6
4.0 GEOLOGY 7
4.1 General Setting 7
4.2 Geologic Conditions 7
4.2.1 Quaternary Engineered Fill (not mapped) 8
4.2.2 Quaternary Undocumented Fill (not mapped) 9
4.2.3 Quaternary Slope Wash/Colluvium 9
4.2.4 Quaternary Very Old Paralic Deposits (Qvop), (Formally Referred to as Lindavista Formation) 10
4.2.5 Tertiary Stadium Conglomerate 10
4.2.6 Tertiary Friars Formation 11
4.3 Groundwater 12
4.4 Geologic Hazards and Assessment 12
4.4.1 Local and Regional Faulting 13
4.4.2 Liquefaction and Seismic Settlement Evaluation 14
4.4.3 Tsunamis and Seiche Evaluation 15
4.4.4 Landsliding 15
4.4.5 Compressible, Expansive, and Corrosive Soils 16
5.0 CONCLUSIONS AND RECOMMENDATIONS 17
5.1 General 17
5.2 Grading and Earthwork 18
5.3 Site Preparation 18
5.4 Excavations 20
5.5 Fill Placement and Compaction 20
5.6 Fill Materials 21
5.7 Temporary Construction Slopes 21
5.8 Foundations and Slab Preliminary Recommendations 22
5.8.1 Foundations 23
5.8.2 Foundation Settlement 24
5.8.3 Foundation Setback 24

5.8.4 Interior Concrete Slabs 24
5.9 Seismic Design Criteria 25
5.10 Lateral Resistance and Earth Pressures....26
5.11 Exterior Concrete Flatwork....29
5.12 Drainage....29
5.13 Groundwater 31
5.14 Slopes....31
5.15 Construction Observation 32
5.16 Addendum Geotechnical Report and Plan Review....32
6.0 LIMITATIONS OF INVESTIGATION....32

FIGURES

FIGURE 1 SITE INDEX MAP
FIGURE 2 PROPOSED MASTER PLAN IMPROVEMENTS WITH GEOLOGY
FIGURE 2A COMPACTION LOCATION MAP (2006)
FIGURE 2B COMPACTION LOCATION MAP (2007)
FIGURE 2C COMPACTION LOCATION MAP PHASE VI (2009)
FIGURE 3 REGIONAL FAULT AND SEISMICITY MAP

APPENDICES

APPENDIX A REFERENCES CITED
APPENDIX B FIELD METHODS AND EXPLORATION LOGS
APPENDIX C LABORATORY METHODS AND RESULTS
APPENDIX D STANDARD GRADING SPECIFICATIONS

1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

Construction Testing & Engineering, Inc., (CTE) has prepared this Preliminary Geotechnical Report to fulfill the requirements of the requested geologic reconnaissance report for the proposed Francis Parker School Master Plan improvements. A geological reconnaissance report is a type of preliminary geotechnical report that, as the name implies, is reconnaissance in nature and does not typically include in-depth investigations including field investigations and analysis. However, CTE has previously completed geotechnical investigations and reports, grading observations, and as-graded/compaction reports for earlier phases of work at the Francis Parker School site. Therefore, based on our previous studies and knowledge of the project site area, we are providing Francis Parker School with a geologic reconnaissance report that includes updated geotechnical information to meet the current California Building Code regulations and that can be used to initiate preliminary design for the proposed improvements, as desired or necessary. This report is anticipated to surpass the required criteria for a geologic reconnaissance report per the City of San Diego guidelines, and will also address significant criteria associated with the future preliminary geotechnical investigation and report required for obtaining permits and commencing with construction.

However, as the building plans (including grading, shoring, and structural plans) are not complete at this time, additional plan reviews will be required and possible additional geotechnical investigations and/or evaluations such as an updated slope stability analysis, and a

foundation evaluation for a subterranean parking structure may be required and can be provided upon request and at the appropriate time. It is also our understanding that no infiltration devices are proposed as part of the current Master Plan improvements. Therefore, additional characterization of infiltration and/or percolation rates will not be required. This work has been performed in general accordance with the terms of proposal no. G-3346 dated January 15, 2015.

This preliminary geotechnical report presents the results of our previous site investigations and provides conclusions and geotechnical engineering criteria that can be utilized for the design phases of the proposed improvements associated with the Francis Parker School Master Plan improvements. The previous completed site investigations included field exploration, laboratory testing, geologic hazard evaluation, and engineering analysis. This information has been incorporated into the preparation of this report to provide recommendations for site excavations, fill placement, and foundations for the proposed structures. This report updates the above listed geotechnical reports for the presently proposed Master Plan Improvements. Cited references are presented in Appendix A.

1.2 Scope of Services

The goal of our preliminary geotechnical/geologic reconnaissance report was to evaluate geologic conditions and hazards based on review of public records and our previous site specific geotechnical investigations and observations. In addition, we addressed soil materials and properties at the site with respect to their suitability for support of the proposed Master Plan structural modifications.

Our scope of services included:

- Review of readily available geologic reports and documents pertinent to the site area.
- Review of previous field explorations conducted by CTE.
- Review of the previous testing of selected soil samples by CTE to provide data for evaluation of geotechnical characteristics of the site foundation soils.
- Assessment of site geologic conditions pertinent to the site.
- Preparation of this report providing a summary of the previous investigations performed, and conclusions and geotechnical engineering recommendations for the site.

2.0 SITE BACKGROUND

2.1 Site Location and Description

The site is located at 6501 Linda Vista Road in the City of San Diego. The site is an irregular-shaped property that slopes down slightly to the south toward two natural drainage canyons that continue southward to Friars Road. Site investigations have been previously completed on this multiple phase development. CTE previously completed the Geotechnical Investigation Addendum, dated November 15, 2004; Phase 2 Update Geotechnical Investigation, dated January 25, 2006; Phase VI Updated Geotechnical Investigation, dated May 16, 2007; and associated addendums, recommendation letters, pad certifications, and as-graded reports for each of the phases of work.

The Francis Parker School is a combined middle and high school that is situated atop a relatively flat mesa surface on the north side of Mission Valley at an approximate elevation of 270 feet above mean sea level. The mesa is dissected by south to southwest trending canyons that are tributary drainages to the San Diego River, which flows westward down Mission Valley to

Mission Bay (Figure 1). Two of these drainages bound the western and eastern property boundaries resulting in the site being located on a north-northeast to south-southwest trending finger-shaped ridge with steep canyon walls. The east and west facing slopes consists primarily of Stadium Conglomerate capped with Quaternary very old paralic deposits (Qvop, formally referred to as the Linda Vista Formation) consisting of conglomerate and conglomeratic sandstone that are locally covered with a veneer of topsoil consisting of conglomeratic sandstone. These existing slopes have a 2:1 (horizontal: vertical) inclination. Two southerly facing slopes, one within the property boundary of the site and located south of the Artificial Turf fields has a 1.5:1 (horizontal: vertical) slope inclination. This slope consists of Qvop sandstone, conglomeratic sandstone, and conglomerate overlying Stadium Conglomerate. The other south facing slope is located just south of the site's property boundary at the southern tip of the mesa ridge line. This slope runs parallel to Friars Road, has a 1:1 (horizontal: vertical) slope inclination, and consists of Stadium Conglomerate overlying Friars Formation sandstone, siltstone and claystone at approximately 140 feet msl. The regional and local topography of the site area are shown on Figures 1 and 2.

2.2 Site Development

Based upon recent site plans, we understand that demolition of existing structures will include the Field House, Middle School Locker Rooms, and the Cafeteria and Middle School Gym. Proposed new structures (identified with building numbers as shown on Figure 2), include an Upper School Student Center (Bldg. 106), Gymnasium and Second Level Classrooms (Bldg. 200), Lancer Lobby (Bldg. 201), Athletic Complex with Press Box and Offices (Bldg.210A),

Athletic Complex with Offices (Bldg. 201B), Field Storage/Ticket Office (Bldg. 202), Visitor Services (Bldg. 203), Middle School Multipurpose (Bldg. 303), Maker's Space (Bldg.401), Dining Hall (Bldg. 900), and Guard House (Bldg. GH#2). The proposed are new gymnasium complex (Bldg. 200) is to include two subterranean parking levels with a two-story high gymnasium and an attached two-story cafeteria and dining area (Bldg. 900) above the parking structure. Additional proposed improvements include an aquatic center, new parking lots, and associated improvements. The aquatic center main deck is proposed to be constructed at the elevation of the upper parking level and the pool depth is undetermined at this time.

Figure 2 shows the general layout of the portion of the site with the current proposed Master Plan improvements. Figure 2A, 2B, and 2C show the general as-graded limits of previous grading and compaction test locations that were previously completed at the site.

3.0 FIELD AND LABORATORY INVESTIGATIONS

3.1 Field Investigations

Geologic mapping and site reconnaissance studies were completed during each phase of work from 2004 through 2007 as described above. Field explorations that were completed during the April 4, 2007 investigation (updated May 16, 2007) includes the excavation of five subsurface borings using a conventional truck-mounted, eight-inch hollow-stem auger drill-rig. Explorations extended to refusal at a maximum depth of approximately 10 feet below grade (fbg).

Field explorations that were completed during the January, 2006 investigation included the excavation of three test pits using a conventional mini-excavator to the maximum depth of approximately nine fbg. Field explorations that were completed during the November, 2004 investigation included the advancement of three bucket-auger borings to a maximum depth of approximately 86 fbg.

Soils from all investigations were logged in the field by a CTE geologist and visually classified in accordance with the Unified Soil Classification System. Bulk and ring samples were transported for testing to the CTE geotechnical laboratory in Escondido, California. Exploration logs including descriptions of the soils encountered are shown in Appendix B. Field descriptions shown on the exploration logs have been modified, where appropriate, to reflect laboratory test results. Approximate field exploration locations are shown on Figure 2.

3.2 Laboratory Investigation

Laboratory tests were conducted on selected soil samples for classification purposes and to evaluate physical properties and engineering characteristics. Laboratory tests conducted for the previous investigations included: In-Place Moisture Density, Modified Proctor, Expansion Index, Remolded Direct Shear, Consolidation, R-Value, pH, resistivity and soluble sulfates/chlorides. Test method descriptions and laboratory results are included in Appendix C.

4.0 GEOLOGY

4.1 General Setting

San Diego is located within the Peninsular Ranges physiographic province that is characterized by northwest-trending mountain ranges, valleys, and intervening regional faults. The San Diego Region can further be subdivided as the coastal plain, central mountain–valley and eastern mountain-valley area. The project site lies within the coastal plain area which is characterized by wave cut erosion surfaces (abrasion platforms) creating a series of terraces that step down to the Pacific Ocean. The terrace surface is generally at a two percent surface gradient inclined down to the west (toward the ocean). The terrace elevations are controlled by past ocean elevation in combination with tectonic (fault) activity. The wave cut terraces have been incised by westward flowing drainages, and are typically covered with marine sediments and non-marine (terrestrial) deposits.

4.2 Geologic Conditions

According to mapping by Tan and Kennedy (1975, 2008), soils at the site consist of units of the Quaternary very old paralic deposits (formerly referred to as the Lindavista Formation), and underlying units of the Tertiary Stadium Conglomerate and Tertiary Friars Formation (Figure 2). Our explorations confirmed the presence of the mapped materials indicated above, however, our mapping and borehole information show the contact between the Stadium Conglomerate and the Friars Formation is at a lower elevation than mapped by Kennedy (1975), and is not exposed along the east and west facing slopes of the north-northeast trending canyons that bound the site area. In addition, Quaternary Slope Wash/Colluvial deposits, were locally recognized during our

investigations on many existing slopes during the geologic investigation performed by CTE, adjacent to and west of the Francis Parker Middle School Phase 2 Project area (Geotechnical Investigation Addendum Report, Proposed Francis Parker School Redevelopment, CTE Job No.: 10-7275G, dated November 15, 2004). Another reference used in our geologic reconnaissance included a report by Testing Engineers – San Diego, Inc., 2003, "Preliminary Geotechnical Investigation, for the Proposed Francis Parker Middle School, Redevelopment Project, 6501 Linda Vista Road, San Diego, California," Project No.: 2003-0081, dated March 21, 2003 (Boring Logs included in Appendix B).

During the explorations advanced for Phase VI Update Report, Quaternary Engineered Fill was found to overlie the Quaternary very old paralic deposits in Boring 5 (B-5) and the Quaternary Undocumented Fill overlies the Quaternary very old paralic deposits in the remainder of our borings advanced (B-1 through B-4). The site earth materials are further described in the following text.

4.2.1 Quaternary Engineered Fill (not mapped)

Engineered Fill soils were encountered in boring B-5 and were exposed to extend to a maximum depth to approximately nine feet below the ground surface (bgs). These soils generally consist of dense, slightly moist, mottled dark brown and orange, clayey sand with trace silt and gravel. Areas of Engineered Fill are considered to be suitable for the support of improvements after in-place density tests of excavation bottoms have verified a minimum relative compaction of 90%.

4.2.2 Quaternary Undocumented Fill (not mapped)

Undocumented Fill soils were encountered in CTE borings B-1 through B-4 explorations and observed to extend to a maximum depth of approximately 2.5 feet below the ground surface (bgs), and ranged between two to nine feet in the test pits completed in the January (2006) investigation. No fill was observed in bucket auger BA-3 located in northern portion of the property. Previous investigations conducted by Testing Engineers-San Diego (2003) also identified approximately one and half feet of fill in the western portion of the site. In addition, URS (2004) reported approximately one–foot of fill overlying the Qvop deposits and Stadium Conglomerate in the eastern portion of the property, in the area of the artificial turf Athletic fields.

Most of the undocumented fill has been removed during previous grading, however, locally deeper Undocumented Fills cannot be precluded. These soils generally consist of dense, slightly moist, reddish brown to dark brown clayey sand. All areas of Undocumented Fill are considered to be unsuitable for the support of improvements and will require removal and proper recompaction.

4.2.3 Quaternary Slope Wash/Colluvium

Quaternary Slope Wash/Colluvium was observed covering portions of the existing slopes, and ranged in thickness from a few inches up to several feet near the toe area of the slopes. This material consisted or re-worked sands and gravels from the Qvop deposits and Stadium Conglomerate Formation that has been re-deposited as silty to clayey sandstone and silty to clayey conglomeratic sandstone. These materials are

considered suitable for reuse as compacted fill. Colluvium deposits were not observed on the mesa surface.

4.2.4 Quaternary Very Old Paralic Deposits (Qvop), (Formally Referred to as Lindavista Formation).

The Qvop deposits was encountered below the fills in all of the explorations advanced in the previous geotechnical investigations, except for BA-1 were the Tertiary Stadium Conglomerate was just below the surface pavement. The Qvop deposits extended to the maximum depth of the explorations (approximately 10 feet) in the borings advanced during the 2007 investigation and 11 feet in the bucket auger borings completed during the 2004 investigation. The Qvop deposits were observed to consist of hard, slightly moist, orange brown silty sand with gravel. These materials are considered suitable for support of proposed improvements and the addition of compacted fill.

4.2.5 Tertiary Stadium Conglomerate

The Tertiary Stadium Conglomerate is the most abundant rock unit and underlies the entire site. It was encountered in all three of the bucket auger borings (BA-1, BA-2, and BA-3), and was mapped on all the slopes surrounding the site (Figure 2). The Stadium Conglomerate consists of orange to yellow-brown to yellow-gray, dense to very dense, silty, sandy, gravel to cobble matrix-supported to clast-supported conglomerate to conglomeritic sandstone with interlayered lenses and beds of dense to very dense, orange to yellow brown, poorly graded sandstone and silty sandstone. This geologic map unit caps the Tertiary Friars Formation, and was mapped above elevations of approximately 140 feet msl in the site area. Estimates of the thickness based on mapping relationships

indicate that the Stadium Conglomerate is approximately 130 feet thick in the site area. The map unit is relatively flat to very slightly east dipping, with dips typically in the 6 to 9 degree range. Internal structure within the formation varied, such as imbricated clasts, and laminations within sandstone lenses and layers, but were typically west dipping, ranging from 4 to 25 degrees. These materials are very dense and considered suitable for support of additional fills and/or proposed improvements.

4.2.6 Tertiary Friars Formation

The Tertiary Friars Formation outcrops along the southern portion of the mesa, south of the site property boundary, and was mapped to the east and west of the site between elevations of approximately 100 to the 200 feet msl respectively, as partially shown on Figure 2. The formation is relatively flat to undulating, resulting in variable orientations of the layering; however, the layering primarily dips 3 to11 degrees to the east and north. Some southerly dips were also observed, however these were interpreted to be the result of insignificant near surface soil creep on the south facing slope. Previous mapping by Kennedy (1975) shows the Friars Formation at elevations ranging between 100 to 240 feet msl, with map exposures extending north up the canyons that border the site. However, our site-specific mapping indicates the Friars Formation is at lower elevations as mentioned above. This was further verified by observations during the downhole logging of BA-2. The bucket auger boring BA-2 was drilled from a surface elevation of 273 feet msl, and the Stadium Conglomerate was logged to the entire depth of 86 fbg, or to an equivalent elevation of 187 feet msl. These relationships place the top of the Friars formation at elevations below any of the existing east or west facing canyon bottoms in

the site vicinity, and the only free-face exposures of the Friars formation is on the south facing slopes located south of the site area. The Friars Formation consisted of primarily light greenish gray, moist, stiff to very stiff siltstone, medium dense to dense silty and clayey sandstone, and green, variably mottled, stiff to hard, claystone.

4.3 Groundwater

Surface springs or seeps were not observed and groundwater was not encountered by our subsurface explorations. In addition, deep explorations at other locations at the site indicate groundwater to be at depths greater than explored (CTE, 2004). Although groundwater conditions will likely vary, especially during periods of sustained precipitation, groundwater is not expected to affect the proposed development if recommendations regarding site drainage are carried out during design and construction.

4.4 Geologic Hazards and Assessment

The site is located within the geologic hazard zones Category23, 24 and 52 as shown on the City of San Diego Seismic Safety Study Geologic Hazards Maps. As defined by the City, Category 23 is characterized by the Friars Formation with neutral or favorable geologic structure. Category 24 is characterized by the Friars Formation with unfavorable geologic structure. Areas designated as Category 52 are considered to have favorable geologic structure and to be of low geologic risk.

As discussed above, the on-site investigations and geologic mapping indicate that the Friars Formation is present at lower elevations than as mapped by Kennedy (1975), whose mapping was incorporated into the City of San Diego Seismic Safety Study Geologic Hazards Maps to help establish the various hazard zones. Based on the site investigations and mapping, the Friars Formation is considered to pose negligible risk to the existing and proposed site developments. Following is a consideration of typical geologic hazards pertinent to the site. An assessment of potential impacts to the site is also provided.

4.4.1 Local and Regional Faulting

Based on our site reconnaissance, evidence from our explorations, and a review of the referenced literature, no known active fault traces underlie or project toward the site. According to the California Division of Mines and Geology, a fault is active if it displays evidence of activity in the last 11,000 years (Hart and Bryant, 1997). The site is not located within a earthquake fault zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act.

The California Geological Survey broadly groups faults as “Class A” or “Class B” (CDMG, 1996). Class A faults are identified based upon relatively well constrained paleoseismic activity, and a fault slip rate of more than 5 millimeters per year (mm/yr). In contrast Class B faults have comparatively less defined paleoseismic activity and are considered to have a fault slip rate less than 5 mm/yr. The nearest known Class A fault to the site is the Julian segment of the Elsinore Fault, which is approximately 63.1 kilometers northeast of the site. The closest Class B fault is the Rose Canyon Fault,

which is approximately 1.3 kilometers west of the site. Following Table 1 presents the six nearest faults to the site, include magnitude and fault classification. Attached Figure 3 shows regional faults and seismicity with respect to the site.

TABLE 1
NEAR SITE FAULT PARAMETERS

FAULT NAME	DISTANCE FROM SITE (KILOMETERS)	MAXIMUM EARTHQUAKE MAGNITUDE	CLASSIFICATION
Rose Canyon Fault	1.3	7.2	B
Coronado Bank	22.0	7.1	B
Newport-Inglewood (offshore)	49.0	7.6	B
Elsinore-Julian	63.0	7.1	A
Elsinore Temecula	69.0	6.8	A
Earthquake Valley	71.0	6.5	B

The site could be subjected to significant shaking in the event of a major earthquake on any of the faults listed above or other regional faults in the southern California or northern Baja California area. However, the seismicity of the site is similar to conditions in the San Diego area.

4.4.2 Liquefaction and Seismic Settlement Evaluation

Liquefaction occurs when saturated fine-grained sands or silts lose their physical strengths during earthquake induced shaking and behave as a liquid. This is due to loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative

density, and probable intensity and duration of ground shaking. Due to the generally dense to very dense nature of the underlying bedrock, the potential for liquefaction or seismic settlement damage to proposed improvements is low.

4.4.3 Tsunamis and Seiche Evaluation

According to McCulloch (1985), the tsunami potential in the San Diego County coastal area for one-in-100 and one-in-500 year tsunami waves are approximately four and six feet. This suggests that there is a very low probability of site damage due to the elevation of the site, approximately 270 feet above msl, and distance from the ocean. In addition, mapping prepared by the California Emergency Management Association and California Geological Survey indicates that potential tsunami inundation is limited to the low lying shoreline and inlet areas below an approximate elevation of 10 feet. Oscillatory waves (seiches) are considered unlikely due to the absence of large adjacent bodies of water.

4.4.4 Landsliding

The site materials are considered marginally susceptible to landsliding (Tan and Griffin, 1995). However, based upon the conditions encountered during the advancement of exploratory borings at the subject site, landsliding is not considered a significant hazard. In addition, minor proposed slopes will be properly graded and constructed. Therefore, it is our opinion that landslides will not adversely affect the proposed improvements. Additional discussion regarding landsliding is presented in our referenced report for the entire school campus (CTE, 2004) regarding deeper seated, more slide-prone formations, such as the Tertiary Friars Formation. However, Tertiary Friars Formation materials are not present in the vicinity of the currently proposed Master Plan improvements.

4.4.5 Compressible, Expansive, and Corrosive Soils

Undocumented Fill and the upper limits of engineered fill are considered to be compressible in their present condition. However, sandstone of the Qvop deposits at the site is dense to very dense and typically has a very low compressibility. Site preparatory grading recommendations herein have been developed to mitigate compressible fill materials.

Laboratory tests in combination with our observations indicate the site near surface soils have a Low Expansion Index. However, we anticipate site materials have a low to medium expansion potential (EI generally less than 65) based on tests associated with the Phase 2 portion of the site. Recommendations herein have been developed to minimize the potential adverse affects of locally moderate expansion potential site materials.

Laboratory tests conducted for this report indicate site soils have a low potential (according to Table 19A-A-4 of the 2001 California Building Code) for sulfate corrosion of Portland cement concrete. Resistivity testing indicates that the site soils may have a moderate corrosive potential to buried ferrous metal improvements. A qualified corrosion specialist should be consulted to provide recommendations for protection of buried metallic facilities should corrosion sensitive materials be utilized for this project.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General

We conclude that the proposed Master Plan Improvements can be constructed, from a geotechnical perspective, provided recommendations of this report are followed. Undocumented Fill soils are unsuitable for support of structures or structural fill in their present condition. Therefore, in areas to receive structures or additional structural fill, these soils should be excavated, objectionable materials removed, and processed as a compacted fill placed under observation and testing of CTE. Compacted fill should be placed on competent bedrock in structural areas. Compacted Fill soils can also be placed upon pre-existing Engineered Fill, after a minimum relative density has been verified, in the areas receiving the compacted fill. Prior to placement of compacted fill, a suitable surface should be exposed under the observation and testing of a CTE representative. Irreducible materials generally greater than three inches in diameter should not be used in shallow fills on the site. The Geotechnical Consultant should further evaluate oversize particle dimensions and quantity during grading as it applies to placement in site fills.

Recommendations for the proposed earthworks and improvements are included in the following sections and Appendix D. However, recommendations in the text of this report supersede those presented in Appendix D. The recommendations may require modifications based on the conditions encountered during grading or as presented in any appropriate addendums prepared prior to grading as proposed property use and plans become more defined.

5.2 Grading and Earthwork

Upon commencement of work for the demolition, personnel from CTE should continuously observe the grading and earthwork operations for this project. Such observations are intended to: find field conditions that differ from those considered by this and subsequent investigations; adjust recommendations to encountered field conditions; and, observe and report as-graded conditions as they apply to recommendations of this report. CTE personnel should perform observation and testing of soil removal, processing, and placement during grading as they pertain to the Geotechnical Consultant's professional opinions contained herein.

5.3 Site Preparation

The site should be cleared of any existing debris and other deleterious materials including the previously placed Undocumented Fill. Objectionable materials, such as construction debris and vegetation, should be removed from the materials prior to placement as compacted fill. In general, areas to receive structures or distress-sensitive improvements, expansive, surficial eroded, desiccated, burrowed, or otherwise loose or disturbed soils should be removed to the depth of competent formational materials or 24 inches below the bottom of foundations, whichever depth is greater.

However, some of the improvements may be constructed in areas that have relatively shallow Undocumented Fill soils. Accordingly, optional preparation recommendations for these building pad areas are feasible. The following two options exist for preparation of the building pads with

shallow Undocumented fill, or in the case of the subterranean parking structure that is anticipated to be founded entirely on the Tertiary Stadium Conglomerate.

Option 1

Foundations can be deepened to bear entirely on competent native materials, such as Qvop deposits or Stadium Conglomerate (bedrock), in which case overexcavation below the proposed foundations would not be necessary. Undocumented Fill underlying the floor slab should be removed to competent bedrock and at least 12 inches below the bottom of the proposed slab-on-grade, and a compacted engineered fill with a low Expansion Index placed in the resulting volume. Removals should extend a minimum five feet laterally beyond the perimeter of proposed structures, where feasible.

Option 2

The building locations, and a minimum five feet laterally beyond, can be overexcavated to a minimum depth of 24-inches below bottom of proposed foundations and to competent bedrock materials. However, locally deeper removals may be necessary due to loose or unsuitable underlying soils.

An engineer or geologist from CTE should observe all exposed ground surfaces prior to placement of compacted fill/footings. Removals should continue until suitable materials are encountered. Organic and other deleterious materials not suitable for structural backfill should be disposed of offsite at a regulated disposal site. Although not generally anticipated, select

grading to reduce expansion qualities of the site soils may also be necessary depending upon materials encountered at the site.

5.4 Excavations

Excavations in site materials should generally be accomplished with heavy-duty construction equipment under normal conditions. However, formations materials are anticipated to be at least locally very dense and difficult to excavate. Irreducible materials greater than three inches encountered during excavations should not be used in shallow structural fills on the site, if practical. Larger, oversized materials may generally be placed at depth in general accordance with Appendix D. Before placing fill, the exposed bottom of all excavations should be scarified (if necessary), properly moisture conditioned and recompacted.

5.5 Fill Placement and Compaction

The Geotechnical Consultant should observe that site preparation has occurred before placement of compacted fill. Subsequent to removal of loose, disturbed, or vegetation containing soils, areas to receive fills should be scarified, moisture conditioned as recommended, and compacted fill placed. Fill and backfill should be compacted to a minimum relative compaction of 90 percent as evaluated by ASTM D1557 at moisture contents a minimum two percent above optimum. The optimum lift thickness for backfill soil will depend on the type of compaction equipment used. Generally, backfill should be placed in uniform lifts not exceeding eight inches in loose thickness. Backfill placement and compaction should be done in overall conformance with geotechnical recommendations and local ordinances. The Geotechnical Consultant should evaluate the exposed surfaces prior to placement of compacted fill.

5.6 Fill Materials

Low Expansion Index soils derived from the onsite materials are generally considered suitable for reuse on the site as compacted fill. If used, these materials should be screened of significant construction debris, vegetation matter and materials greater than three inches in diameter. Screened deleterious materials and oversize irreducible particles should be removed from the site and disposed of in accordance with applicable regulations and ordinances. Irreducible materials generally greater than three inches in diameter should not be used in shallow fills on the site. The Geotechnical Consultant should further evaluate oversize particle dimensions and quantity during grading as it applies to placement in site fills.

Adverse effects of highly expansive clay soils, if encountered, should be mitigated, where feasible, to a low Expansion Potential (E.I. less than 50) by blending these soils with granular materials and compacting at moisture contents above optimum.

Imported fill beneath structures, pavements and walks should have an Expansion Index of 30 or less with less than 35 percent passing the no. 200 sieve. Imported fill soils for use in structural or slope areas should be evaluated by the soils engineer before placement on the site.

5.7 Temporary Construction Slopes

Sloping recommendations for unshored temporary excavations are provided herein. The recommended slopes should be relatively stable against deep-seated failure, but may experience localized sloughing. Recommended slope ratios are set forth in Table 2.

TABLE 2 RECOMMENDED TEMPORARY SLOPE RATIOS		
SOILS TYPE	SLOPE RATIO (Horizontal: Vertical)	MAXIMUM HEIGHT
B (Quaternary Lindavista Formation and Stadium Conglomerate)	1:1 (MAXIMUM)	10 FEET
C (Fills)	1.5:1 (MAXIMUM)	10 FEET

A "competent person" must verify actual field conditions and soil type designations while temporary excavations exist according to Cal-OSHA regulations. In addition, the above sloping recommendations do not allow for surcharge loading at the top of slopes by vehicular traffic, equipment or materials. Appropriate surcharge setbacks must be maintained from the top of all unshored slopes.

Temporary construction shoring may be necessary for the subterranean parking structure and possibly the Aquatic Center. Should shoring become necessary, CTE will provide additional design and construction recommendations, upon request.

5.8 Foundations and Slab Preliminary Recommendations

The following recommendations are for preliminary planning purposes only. These recommendations should be reviewed after project development plans have been prepared and following completion of earthwork to verify that conditions exposed are as anticipated. As indicated, moderately expansive site soils are not generally anticipated at finish grades.

However, Expansion Index testing of near-surface soils should be performed during or following rough grading.

5.8.1 Foundations

Continuous and isolated spread footings are suitable for use at the site. Based on the expected as-graded conditions, all building footings will bear either entirely in competent engineered fill materials or entirely upon competent bedrock materials. Foundation dimensions and reinforcement should be based on an allowable bearing pressures of 2,500 psf and 3,500 psf for footings bearing on compacted fill and bedrock, respectively. The allowable bearing value may be increased by one third for short duration loading which includes the effects of wind or seismic forces.

For the anticipated construction, footings for the proposed structure should be at least 15 inches wide for continuous footings and 24 inches wide for isolated footings. All foundations should be designed and constructed to have a minimum embedment of 18 inches below the lowest adjacent subgrade.

For the anticipated construction, minimum footing reinforcement for continuous footings should consist of four #4 reinforcing bars, two placed near the top, and two near the bottom of the footing or as per the structural engineer. The structural engineer should design isolated footing reinforcement.

Foundation excavations shall be at slightly above optimum moisture content until concrete placement. Daily or twice-daily moistening of the foundation excavations may be required depending on ambient conditions during construction.

CTE can provide additional recommendations if alternate foundation systems are required or requested for the subterranean parking structure and the aquatic center pending completion of the proposed building plans.

5.8.2 Foundation Settlement

In general, for the anticipated loads and recommended bearing pressure, the maximum total post construction settlement is anticipated to be less than 1.0 inches. Maximum differential settlements are anticipated to be less than 0.5 inches over a distance of 50 feet. Dynamic settlement is not anticipated to affect the proposed improvements.

5.8.3 Foundation Setback

Footings for structures should be designed such that the horizontal distance from the face of nearby slopes to the outer edge of the footing is at least 15 feet. Locally deepening foundations may be an adequate means of attaining the prescribed setback. Upon request and once project foundation plans have been developed, CTE can review affected footings on a case-by-case basis to determine if the required setbacks may be reduced.

5.8.4 Interior Concrete Slabs

Lightly loaded concrete slabs-on-grade should be designed for the anticipated loading, but should be a minimum five inches thick. To minimize the effects of concrete shrinkage cracking and differential soil movements, we recommend that concrete slabs be

reinforced with #4 reinforcing bars spaced no greater than 18-inches on centers, each way. All slab reinforcement should be properly supported to ensure placement at above mid-height of the concrete, and with proper concrete cover.

If elastic slab design is utilized, a 175-pci subgrade modulus of reaction is appropriate. If moisture sensitive floor areas are proposed, a vapor barrier consisting of a minimum ten-mil plastic sheeting or equivalent membrane (with all laps sealed or taped) should underlie such slabs. A maximum four-inch layer of consolidated minimum ½-inch crushed aggregate should also be placed beneath the plastic sheeting or slabs-on-grade, in accordance with the current building code. All slab-on-grade subgrade materials shall be maintained at slightly above optimum moisture content until overlying slab improvements are placed.

5.9 Seismic Design Criteria

The seismic ground motion values listed in the table below were derived in accordance with the ASCE 7-10 Standard that is incorporated into the California Building Code, 2013. This was accomplished by establishing the Site Class based on the soil properties at the site, and then calculating the site coefficients and parameters using the United States Geological Survey Seismic Design Maps application using the site coordinates of 33.771926 latitude and –117.176775 longitude. These values are intended for the design of structures to resist the effects of earthquake ground motions.

TABLE 3 SEISMIC GROUND MOTION VALUES		
PARAMETER	VALUE	CBC REFERENCE (2013)
Site Class	D	ASCE 7, Chapter 20
Mapped Spectral Response Acceleration Parameter, S_S	1.211g	Figure 1613.3.1 (1)
Mapped Spectral Response Acceleration Parameter, S_1	0.468g	Figure 1613.3.1 (2)
Seismic Coefficient, F_a	1.016	Table 1613.3.3 (1)
Seismic Coefficient, F_v	1.532	Table 1613.3.3 (2)
MCE Spectral Response Acceleration Parameter, S_{MS}	1.230g	Section 1613.3.3
MCE Spectral Response Acceleration Parameter, S_{M1}	0.717g	Section 1613.3.3
Design Spectral Response Acceleration, Parameter S_{DS}	0.820g	Section 1613.3.4
Design Spectral Response Acceleration, Parameter S_{D1}	0.478g	Section 1613.3.4
Peak Ground Acceleration PGA_M	0.54g	ASCE 7, Section 11.8.3

5.10 Lateral Resistance and Earth Pressures

The following recommendations may be used for shallow footings on the site. Foundations may be designed using a coefficient of friction of 0.30 (total frictional resistance equals the coefficient of friction times the dead load). A design passive resistance value of 250 pounds per square foot per foot of depth (with a maximum value of 2,500 pounds per square foot) may be used. The allowable lateral resistance can be taken as the sum of the frictional resistance and the passive resistance, provided the passive resistance does not exceed two-thirds of the total allowable resistance.

Retaining walls up to approximately eight feet high and backfilled using select onsite granular soils may be designed using the equivalent fluid weights given in Table 4 below. Conceptually, the values in Table 4 are also anticipated to be appropriate for higher walls, subject to CTE's review.

TABLE 4
EQUIVALENT FLUID UNIT WEIGHTS
(Pounds per cubic foot)

WALL TYPE	LEVEL BACKFILL	SLOPE BACKFILL 2:1 (HORIZONTAL: VERTICAL)
CANTILEVER WALL (YIELDING)	38	58
RESTRAINED WALL	55	78

Lateral pressures on cantilever retaining walls (yielding walls) over six feet high due to earthquake motions may be calculated based on work by Seed and Whitman (1970). The total lateral thrust against a properly drained and backfilled cantilever retaining wall above the groundwater level can be expressed as:

$$P_{AE} = P_A + \Delta P_{AE}$$

For non-yielding (or "restrained") walls, the total lateral thrust may be similarly calculated based on work by Wood (1973):

$$P_{KE} = P_K + \Delta P_{KE}$$

Where P_A = Static Active Thrust (given previously Table 4)
P_K = Static Restrained Wall Thrust (given previously Table 4)
ΔP_{AE} = Dynamic Active Thrust Increment = $(3/8)\ k_h\ \gamma H^2$
ΔP_{KE} = Dynamic Restrained Thrust Increment = $k_h\ \gamma H^2$

k_h = ½ Peak Ground Acceleration = 2/3(PGA_M)
H = Total Height of the Wall
γ = Total Unit Weight of Soil ≈ 135 pounds per cubic foot

The increment of dynamic thrust in both cases should be distributed triangularly, with a line of action located at H/3 above the bottom of the wall.

In addition to the recommended earth pressure, subterranean walls adjacent to the streets or other traffic loads should be designed to resist a uniform lateral pressure of 100 psf. This is the result of an assumed 300-psf surcharge behind the walls due to normal street traffic. If the traffic is kept back at least 10 feet or a distance equal to the retained soil height from the subject walls, whichever is less, the traffic surcharge may be neglected.

We recommend that all walls be backfilled with soil having an expansion index of 20 or less. The backfill area should include the zone defined by a 1:1 sloping plane, extended back from the base of the wall. Therefore, importing of some select granular materials will likely be required. Retaining wall backfill should be compacted to at least 90 percent relative compaction, based on ASTM D1557. Backfill should not be placed until walls have achieved adequate structural strength. Heavy compaction equipment, which could cause distress to walls, should not be used.

The above values assume non-expansive backfill and free draining conditions. Measures should be taken to prevent a moisture buildup behind all walls below grade. Drainage measures should include free draining backfill materials and perforated drains. Drains should discharge to an

appropriate offsite location. The project architect or structural engineer should determine the necessity of waterproofing any subterranean walls to reduce moisture infiltration.

5.11 Exterior Concrete Flatwork

Exterior concrete slabs for pedestrian loads should measure a minimum four inches thick and have minimal reinforcement of number 3 rebar on 18-inch centers (both ways). Reinforcement should be placed in the upper one-third of the slab and with appropriate minimum cover. Flatwork should be installed with reinforcement and crack control joints. Expansive, surficial eroded, desiccated, burrowed, or otherwise loose or disturbed soils should be removed to the depth of competent formational materials or at least 12 inches below the bottom of exterior slab, whichever is greater. Compacted fill with a low Expansion Index (E.I. less than 50) should be placed in the resulting volume, if feasible. Pre-soaking of flatwork areas may also be necessary based on post-graded site conditions. Positive drainage to convey water away from all flatwork to the front of the lot should be established and maintained.

5.12 Drainage

Foundation performance depends greatly on how well the runoff waters drain from the site. This is true both during construction and over the entire life of the structure. The ground surface around structure should be graded so that water flows rapidly away from the structures without ponding. The surface gradient needed to do this depends on the landscaping type. In general, pavements and flowerbeds within five feet of the building should slope away at gradients of at least two percent. Densely vegetated areas should have minimum gradients of five percent away from buildings if doing so is practical.

Planters should be constructed so that water from them will not seep into the foundation areas or beneath slabs and pavement. In any event, the site maintenance personnel should be instructed to limit irrigation to the minimum actually necessary to sustain the landscaping plants properly. Should excessive irrigation, waterline breaks, or unusually high rainfall occur, saturated zones and groundwater may develop. Consequently, the site should be graded so that water drains away readily without saturating the foundation or landscaped areas or cascading over slope faces. A potential source of water, such as water pipes, drains the like should be frequently examined for signs of leakage or damage. Any such leakage or damage should be repaired promptly.

Generally, CTE recommends against allowing water to infiltrate building pads or adjacent to slopes and improvements. However, it is understood that some agencies are encouraging the use of storm-water cleansing devices. Therefore, if storm water cleansing devices must be used, it is generally recommended that they be underlain by an impervious barrier and that the infiltrate be collected via subsurface piping and discharged off site. If infiltration must occur, water should infiltrate as far away from structural improvements as feasible. Additionally, any reconstructed slopes descending from infiltration basins should be equipped with subdrains to collect and discharge accumulated subsurface water.

Even with the general recommendations provided herein, the project Civil Engineer should thoroughly evaluate the on-site drainage and make provisions as necessary to keep surface waters from affecting the site.

5.13 Groundwater

Groundwater was not encountered in our explorations and indications of seepage or springs were not observed. Consequently, groundwater is not anticipated to affect construction of the site improvements. However, positive surface drainage and non erosive collection/conveyance devices should be installed to mitigate the potential adverse impacts of groundwater at the site.

5.14 Slopes

Slopes at this site should be constructed at 2:1 (horizontal: vertical) or flatter surface ratio. Surface water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion resistant vegetation should be maintained on the face of all 2:1 slopes.

Although properly constructed slopes on this site should be grossly stable, the soils will be somewhat erodible. Therefore, runoff water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion resistant vegetation should be maintained on the face of all slopes.

Typically, soils along the top portion of a fill slope face will creep laterally. We do not recommend distress sensitive hardscape improvements be constructed within five feet of slope crests in fill areas.

5.15 Construction Observation

The recommendations provided in this report are based on preliminary design information for the proposed earthworks and the subsurface conditions found in the exploratory boring locations. The interpolated subsurface conditions should be checked in the field during construction.

Recommendations provided in this report are based on the understanding and assumption CTE will provide observation and testing services for the project. All geotechnical related work should be observed and tested as they pertain to recommendations contained within this report. All foundation excavations should be evaluated by a CTE representative.

5.16 Addendum Geotechnical Report and Plan Review

An appropriate addendum report should be prepared as project use and plans are more defined and available. The addendum report would provide additional geotechnical recommendations, as necessary, for the development-specific project proposed. This addendum report may also incorporate a review of the project grading/improvement and/or foundation plans.

6.0 LIMITATIONS OF INVESTIGATION

The recommendations provided in this report are based on the anticipated construction and the subsurface conditions found in our explorations. The interpolated subsurface conditions should be checked in the field during construction.

Recommendations provided in this report are based on the understanding and assumption that CTE will provide the observation and testing services for the project. All earthworks should be observed and tested in accordance with the recommendations of contained within this report. The project Geotechnical Engineer or their designated representative should evaluate all footing trenches before reinforcing steel placement.

The field evaluation, laboratory testing and geotechnical analysis presented in this report have been conducted according to current geotechnical engineering practice and the standard of care exercised by reputable Geotechnical Consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction. The scope of this report does not include an evaluation of environmental conditions at the site.

Our conclusions and recommendations are based on the observed conditions. If conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if required, will be provided upon request.

We appreciate this opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,

CONSTRUCTION TESTING & ENGINEERING, INC.

Dan T. Math, GE #2665
Principal Engineer

Martin E. Siem, CEG #2311
Certified Engineering Geologist

MES/DTM:nri

N

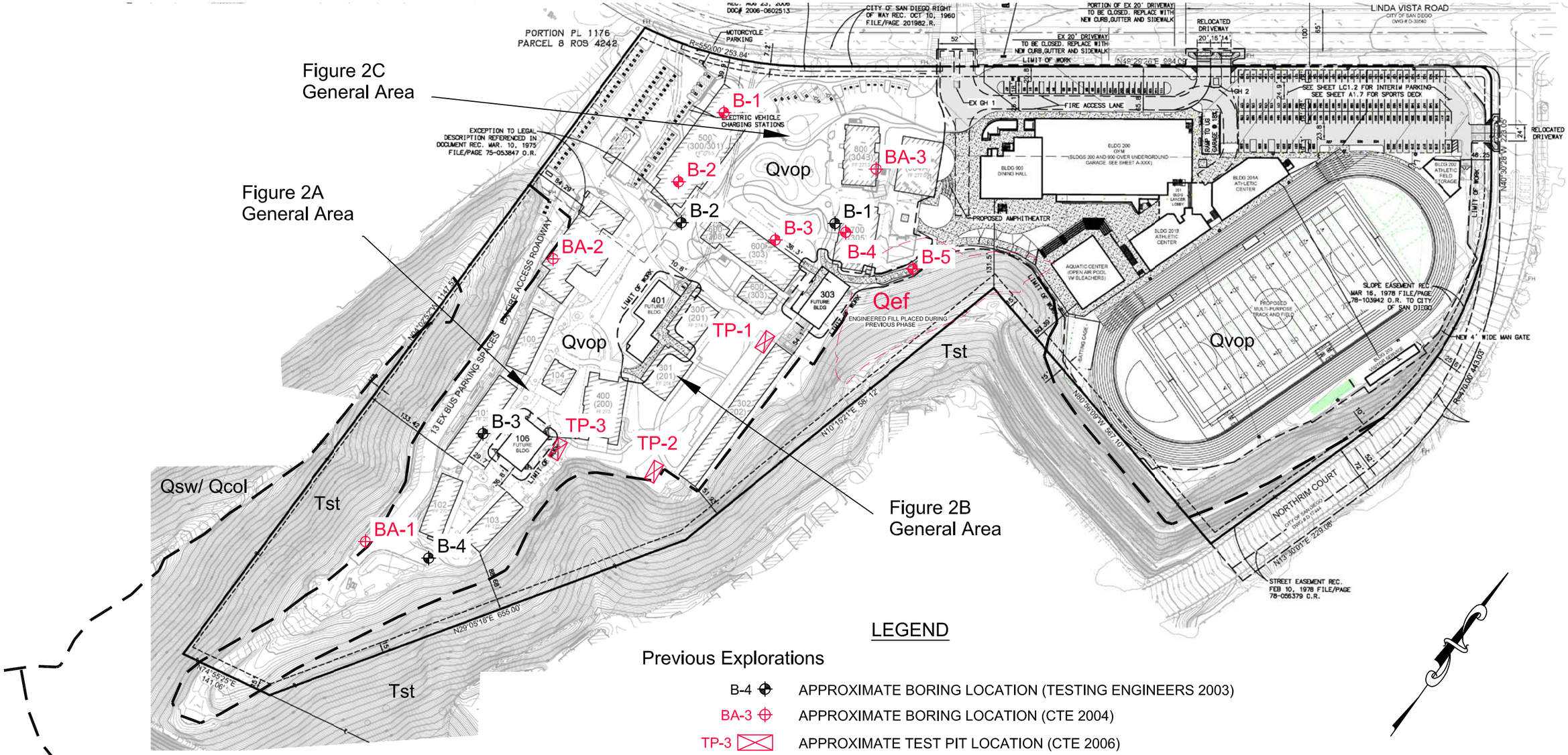
Gardena Ave
Via De La Cumbres
Linda Vista Rd
Volta Ct
Friars Rd
University of San Diego
Morena
Riley St
Fashion Walk
Condos
Camino de la Reina
Riverwalk Golf Club
Fashion
Valley
Mission
Morena Blvd
Hotel Circle S
Presidio Park
Western San Diego
Pine St
Taylor St
Murray Ridge Rd
bing

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

SITE INDEX MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO:	10-12361G
SCALE:	NO SCALE
DATE: 6/15	FIGURE: 1



LEGEND

Previous Explorations

B-4	APPROXIMATE BORING LOCATION (TESTING ENGINEERS 2003)
BA-3	APPROXIMATE BORING LOCATION (CTE 2004)
TP-3	APPROXIMATE TEST PIT LOCATION (CTE 2006)
B-5	APPROXIMATE BORING LOCATION (CTE 2007)
Qsw/Qcol	QUATERNARY SLOPEWASH/ COLLUVIUM
Qvop	QUATERNARY VERY OLD PARALIC DEPOSITS
Tst	TERTIARY STADIUM CONGLOMERATE
Tf	TERTIARY FRIARS FORMATION
	APPROXIMATE GEOLOGIC CONTACT

Compaction Reports

CTE 2006 Figure 2A

CTE 2007 Figure 2B

CTE 2009 Figure 2C

150' 0 75' 150'

Note: Engineered fill not shown, refer to Figures 2A, 2B, and 2C

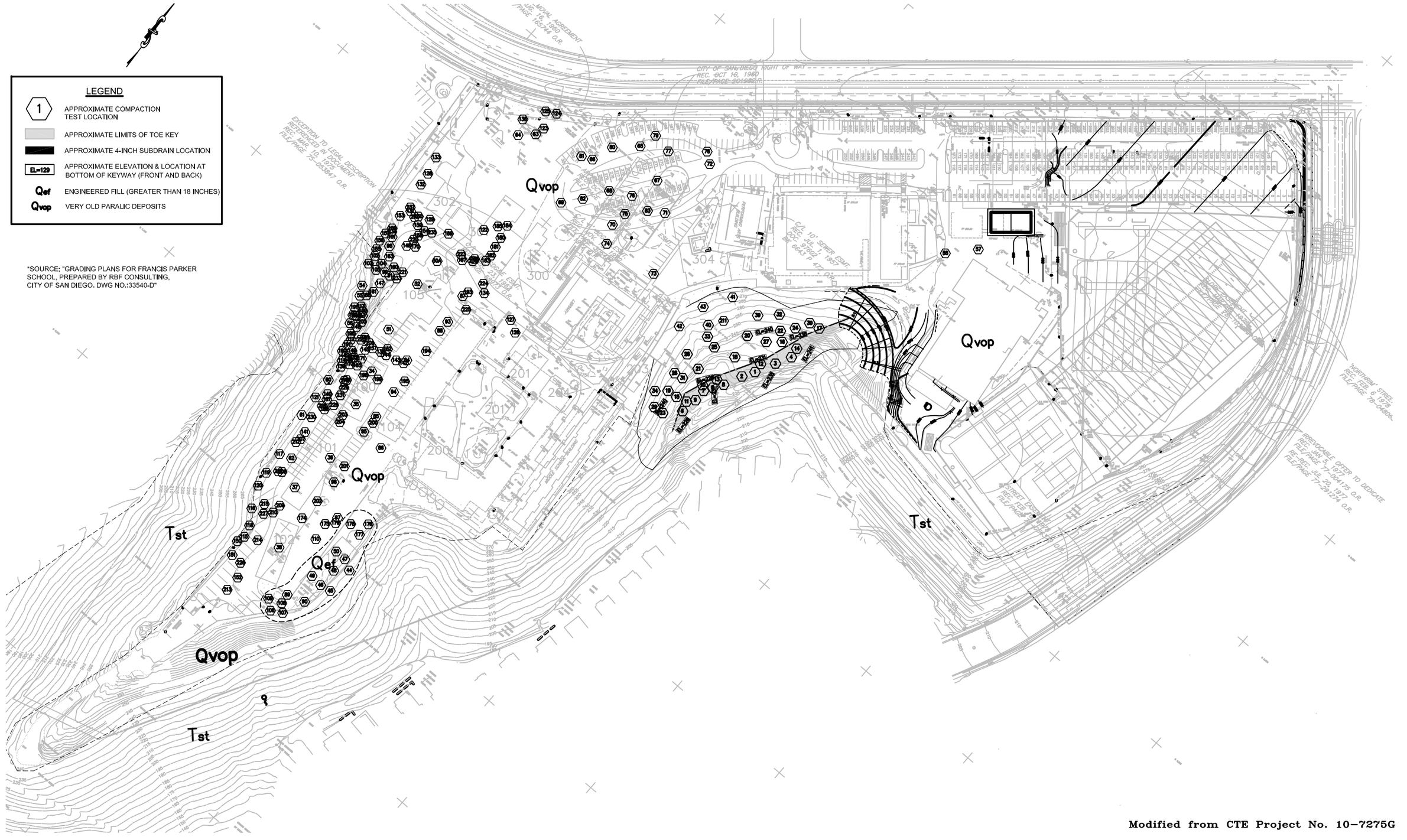
CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

GEOLOGIC/EXPLORATION LOCATION MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

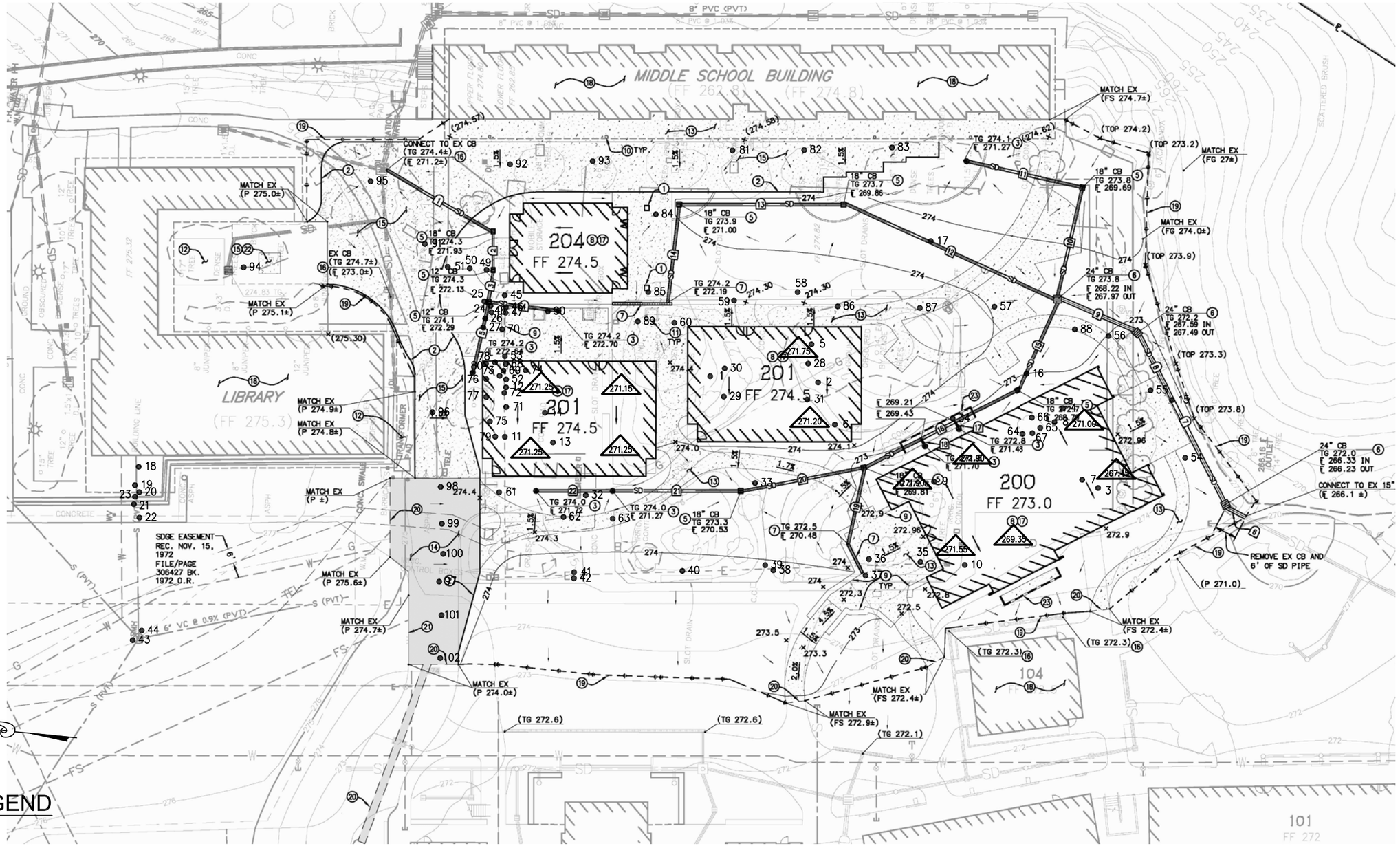
CTE JOB NO:	10-12361G
SCALE:	1" = 150'
DATE:	6/15
FIGURE:	2

\\ESC_SERVER\Projects\10-12361G\Figure 2 (Revised 6-15).dwg



Modified from CTE Project No. 10-7275G

CTE INC. Construction Testing & Engineering, Inc. 1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955	**COMPACTION TEST LOCATION MAP** FRANCIS PARKER MIDDLE SCHOOL 6501 LINDA VISTA ROAD SAN DIEGO, CALIFORNIA	SCALE: 1"=60'	DATE: 6/15
		CTE Job No.: 10-12361G	FIGURE: 2A



LEGEND

● 100 APPROXIMATE LOCATION OF FIELD COMPACTION TEST

271.0 APPROXIMATE ELEVATION OF REMOVALS

NOTE: SOURCE DRAWING FROM RBF CONSULTING

Modified from CTE Project No. 10-8182G

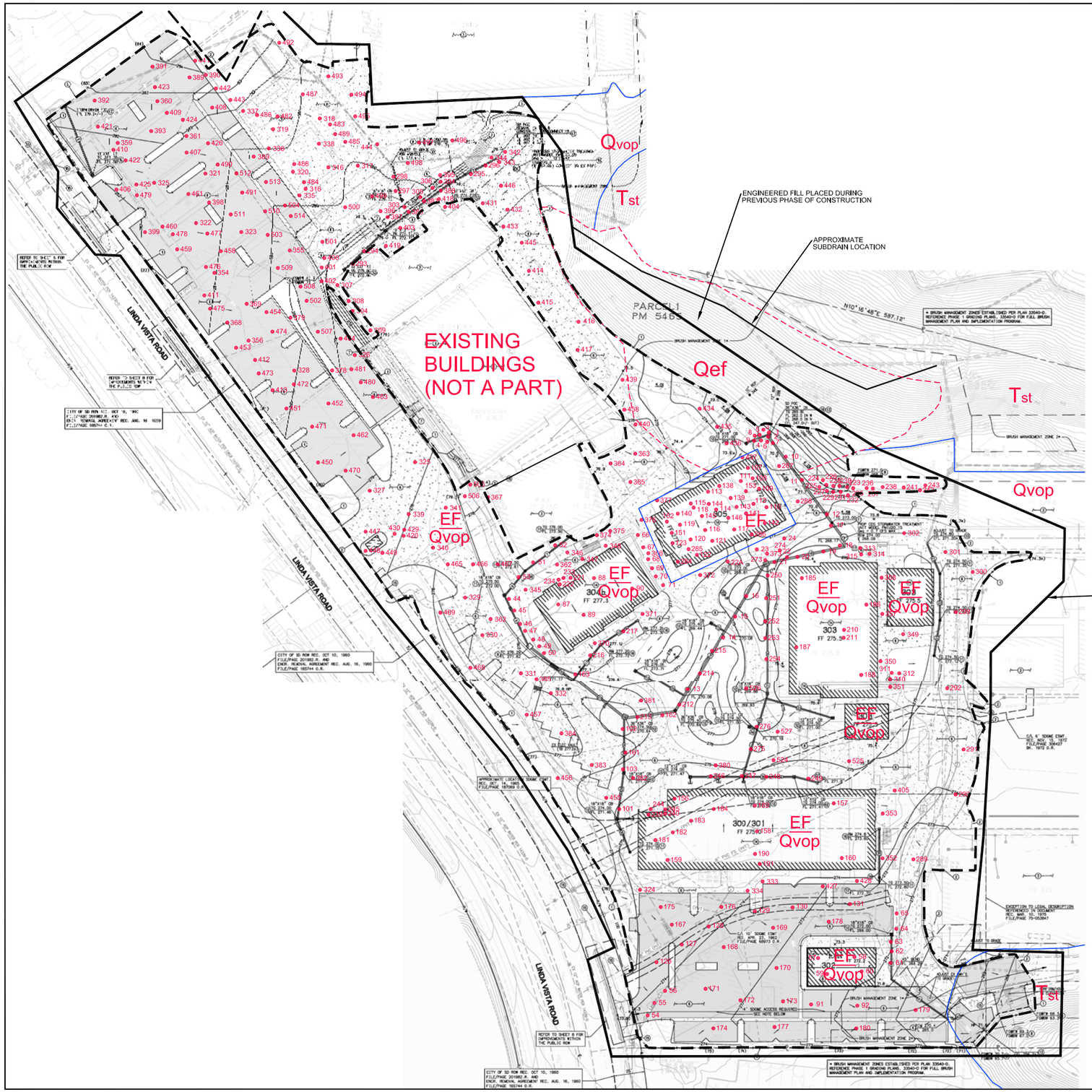
CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

COMPACTION LOCATION MAP

PROPOSED FRANCIS PARKER MIDDLE SCHOOL PHASE 2
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO:	
10-12361G	
SCALE:	
1" = 150'	
DATE:	FIGURE:
6/15	2B

\\ESC_SERVER\Projects\10-12361G\Figure 2B (6-15).dwg



LEGEND

- 527 — APPROXIMATE LOCATION OF FIELD COMPACTION TEST
- APPROXIMATE LIMITS OF ENGINEERED FILL PLACED DURING PREVIOUS PHASE OF CONSTRUCTION
- APPROXIMATE LOCATION OF GEOLOGIC CONTACT AND CONTACT BETWEEN PHASE 6 ENGINEERED FILL UNITS
- APPROXIMATE LIMITS OF PHASE 6
- APPROXIMATE PHASE 6 STRUCTURAL FILL LIMITS
- Qef — QUATERNARY ENGINEERED FILL (PLACED DURING PREVIOUS PHASE OF CONSTRUCTION)
- Qvop — QUARTERNARY VERY OLD PARALIC DEPOSITS (MODIFIED FROM KENNEDY 1975)
- Tst — TERTIARY STADIUM CONGLOMERATE (MODIFIED FROM KENNEDY 1975)
- EF — ENGINEERED FILL (DEEPER THAN 3') PLACED DURING PHASE 6
- EF / Qln — ENGINEERED FILL (LESS THAN 3') RIPPED AND RE-COMPACTED OVER QUARTERNARY LINDA VISTA FORMATION
- PHASE 6 PARKING ADDITIONS
- PHASE 6 STRUCTURE ADDITIONS
- EXISTING STRUCTURE TO REMAIN, IF COVERED BY PROPOSED IMPROVEMENTS THEN STRUCTURE WAS DEMOLISHED

Modified from CTE Project No. 10-8933G

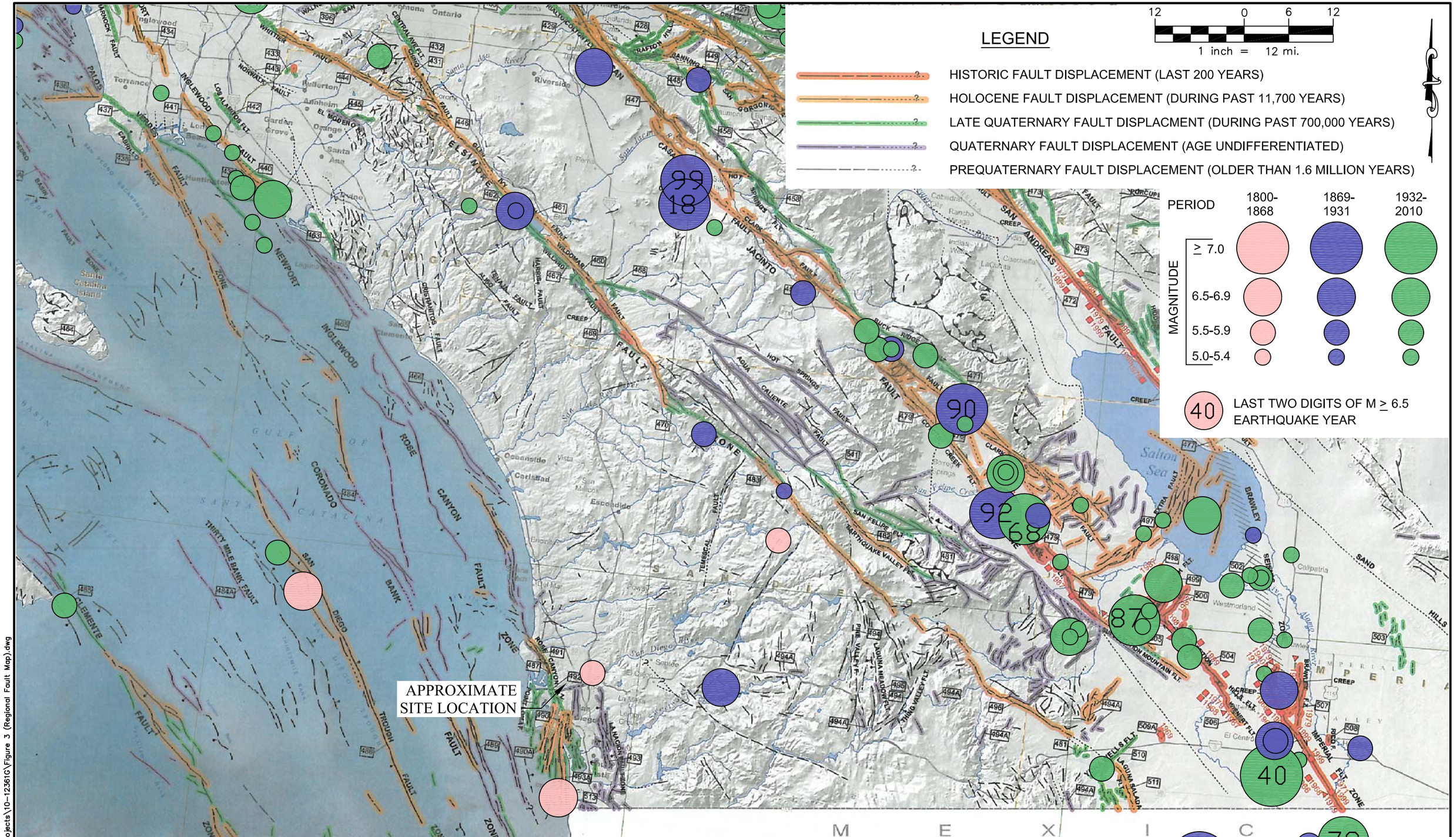
\\ESC_SERVER\Projects\10-12361G\Figure 2C (6-15) 11x17.dwg

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

COMPACTION LOCATION MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

SCALE:	DATE:
1"=40'	6/15
CTE Job No.:	FIGURE:
10-12361G	2C



NOTES: FAULT ACTIVITY MAP OF CALIFORNIA, 2010, CALIFORNIA GEOLOGIC DATA MAP SERIES MAP NO. 6;
EPICENTERS OF AND AREAS DAMAGED BY M≥5 CALIFORNIA EARTHQUAKES, 1800–1999 ADAPTED AFTER TOPPOZADA, BRANUM, PETERSEN, HALLSTORM, CRAMER, AND REICHLE, 2000, CDMG MAP SHEET 49
REFERENCE FOR ADDITIONAL EXPLANATION; MODIFIED WITH CISN AND USGS SEISMIC MAPS

CTE INC. Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

REGIONAL FAULT AND SEISMICITY MAP

FRANCIS PARKER MIDDLE SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA

CTE JOB NO: 10-12361G
SCALE: 1 inch = 12 miles
DATE: 1/15
FIGURE: 3

\\ESC_SERVER\Projects\10-12361G\Figure 3 (Regional Fault Map).dwg

APPENDIX A

REFERENCES CITED

REFERENCES CITED

1. California Building Standards Commission, 2001, "California Building Code, California code of Regulations, Title 24, Part 2, Volume 2.

2. California Emergency Management Agency/California Geological Survey, "Tsunami Inundation Map for Emergency Planning, Point Loma Quadrangle", June 1, 2009.

3. CDMG, 1996, "Probabilistic Seismic Hazard Assessment for the State of California," California Division of Mines and Geology, Open File Report 96-08.

4. CDMG, 2002, "California Geomorphic Provinces," California Division of Mines and Geology, Note 36.

5. City of San Diego Seismic Safety Study, 1995 Edition.

6. CTE Inc. - 2010 "Response to City of San Diego Review Remaining Cycle Issues, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated October 19, 2010.

7. CTE Inc. - 2010 "Response to City of San Diego Review, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated August 20, 2010

8. CTE Inc. - 2010 "Final Report of Testing of Compacted Fill, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated September 30, 2009 (Modified August 20, 2010).

9. CTE Inc. - 2009 "Minimum Static Coefficient of Friction, Parking Lot/Walk Areas, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated December 9, 2009.

10. CTE Inc. - 2009 "Minimum Static Coefficient of Friction, Parking Lot/Walk Areas, Proposed Francis Parker School Redevelopment" CTE Job No.: 10-7275G, dated November 13, 2009.

11. CTE Inc. - 2009 "Final Certification of Foundations and Soils, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, August 25, 2009.

12. CTE Inc. - 2009 "Clarification of Recommendations for Preparatory Grading for Flatwork Areas, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated July 30, 2009.

13. CTE Inc. - 2008 "Review of Precast Concrete Panels, Francis Parker Middle School Phase VI" CTE Job No.: 10-8933G, dated December 24, 2008.

14. CTE Inc. - 2008 “Addendum No. 04, Preparatory Grading for Lecture Hall Building, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated September 3, 2008.

15. CTE Inc. - 2008 “Addendum No. 03, Preliminary Pavement Options, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated June 15, 2008.

16. CTE Inc. - 2008 “Addendum No. 02, Update Seismic Design Parameters, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated June 9, 2008.

17. CTE Inc. - 2008 “Review of Foundation Plans, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated April 19, 2008.

18. CTE Inc. - 2007 “Addendum No. 01 Phase VI Design Development Plans Recommendations, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated November 28, 2007 (Revised).

19. CTE Inc. - 2007 “Response to City of San Diego Development Services, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 12, 2007.

20. CTE Inc. - 2007 “Addendum No. 01, Modified Recommendations for Buildings Ad and Ar, Francis Parker Middle School Phase VI” CTE Job No.: 10-8933G, dated August 23, 2007.

21. CTE Inc. - 2007 “Final Report for Testing of Compacted Fill, Francis Parker Middle School” CTE Job No.: 10-8182G, dated August 21, 2007.

22. CTE Inc. - 2007 “Final Certification of Foundations and Soils, Francis Parker Middle School (Soils Phase 2)” CTE Job No.: 10-8182G, dated August 17, 2007.

23. CTE Inc. - 2007 “Testing of One-Inch Cable/Coupling, Francis Parker Middle School, Phase 2” CTE Job No.: 10-8182G, dated March 30, 2007.

24. CTE Inc. - 2006 “Final Certification of Foundations and Soils, Building 104 at Francis Parker Middle School” CTE Job No.: 10-8182G, dated November 9, 2006.

25. CTE Inc. - 2006 “Minimum Static Coefficient of Friction, New Buildings 100 Through 105, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 28, 2006.

26. CTE Inc. - 2006 “Addendum 01 to Final Compaction Report, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 22, 2006.

27. CTE Inc. - 2006 “Modified Grading Preparatory Recommendations, Francis Parker Middle School, Phase 2” CTE Job No.: 10-8182G, dated August 21, 2006.

28. CTE Inc. - 2006 “Final Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 17, 2006.

29. CTE Inc. - 2006 “Final Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated July 19, 2006.

30. CTE Inc. - 2006 “Observation of Keystone Wall Failure, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated June 8, 2006.

31. CTE Inc. - 2006 “Review of Grading Plan Sheet 3-D, Francis Parker Middle School” CTE Job No.: 10-8182G, dated March 20, 2006.

32. CTE Inc. - 2006 “Update Geotechnical Investigation, Phase 2 Francis Parker Middle School” CTE Job No.: 10-8182G, dated January 25, 2006.

33. CTE Inc. - 2005 “Installation of Segmental Walls, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 2, 2005.

34. CTE Inc. - 2005 “Keystone Wall Backfill Material, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated October 7, 2005.

35. CTE Inc. - 2005 “Review of Keystone Wall Plans, Details, and Specifications, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated October 1, 2005.

36. CTE Inc. - 2005 “Review of Submittals for Sand and Class 2 Aggregate Base, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated September 12, 2005.

37. CTE Inc. - 2005 “Report of Observation and Testing of Compacted Fill, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 9, 2005.

38. CTE Inc. - 2005 “Review of Keystone Wall Plans and Calculations, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 2, 2005.

39. CTE Inc. - 2005 “Addendum No. 02, Modified Grading Recommendations, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated August 2, 2005.

40. CTE Inc. - 2005 “Review of Keystone Wall Plans, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated July 19, 2005.

41. CTE Inc. - 2005 “Addendum No. 01 to Geotechnical Investigation Addendum, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated April 16, 2005.

42. CTE Inc. - 2005 “Response to RFI 01, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated February 21, 2005.

43. CTE Inc. - 2004 “Geotechnical Investigation Addendum Report, Proposed Francis Parker School Redevelopment” CTE Job No.: 10-7275G, dated November 15, 2004.

44. CTE Inc. - 2007 “Update Geotechnical Investigation, Phase VI Francis Parker School” CTE Job No.: 10-8933G, dated May 16, 2007.

45. Hart, Earl W. and Bryant, W.A., 1997, "Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps,” California Division of Mines and Geology, Special Publication 42.

46. Jennings, Charles W., revised 1994, “Fault Map of California with Locations of Volcanoes, Thermal Springs and Thermal Wells.”

47. Kennedy, Michael, 1975, “Geology of the San Diego Metropolitan Area, California” California Division of Mines and Geology Bulletin 200.

48. Kennedy, Michael P. and Tan, Siang S., 2005, Geologic Map of the San Diego 30’ X 60’ Quadrangle, California: California Geologic Survey, Regional Geologic Map No. 3, Scale 1:100,000.

49. McCulloch, D.S., 1985, “Evaluating Tsunami Potential” *in* Ziony, J.I., ed., Evaluating Earthquake Hazards in the Los Angeles Region – An Earth-Science Perspective, U.S. Geological Survey Professional Paper 1360.

50. Munasinghe, T., Rosenberg, P., eds., 1996, “Geology and Natural Resources of Coastal San Diego County, California,” Guidebook to Accompany the 1996 Annual Field Trip of the San Diego Association of Geologists.

51. Tan, S. S.,1995, “Landslide Hazards in the Southern Part of the San Diego Metropolitan Area, San Diego County, California: Landslide Hazard Identification Map No. 33”, California Department of Conservation, Division of Mines and Geology, Open-File Report 95-04, State of California, Division of Mines and Geology, Sacramento, California.

52. Testing Engineers – San Diego, Inc., 2003, “Preliminary Geotechnical Investigation, for the Proposed Francis Parker Middle School, Redevelopment Project, 6501 Linda Vista Road, San Diego, California,” Project No.: 2003-0081, dated March 21, 2003

53. Treiman, J.A., 1993 “Fault Map Rose Canyon Fault Zone, Southern California” California Department of Conservation, Division of Mines and Geology, Open-File Report 93-02.

APPENDIX B

EXPLORATION LOGS

BORING LOGS

CTE JOB NO. 10-8933G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	**GRAVELS** MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	**SILTS AND CLAYS** LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILT
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

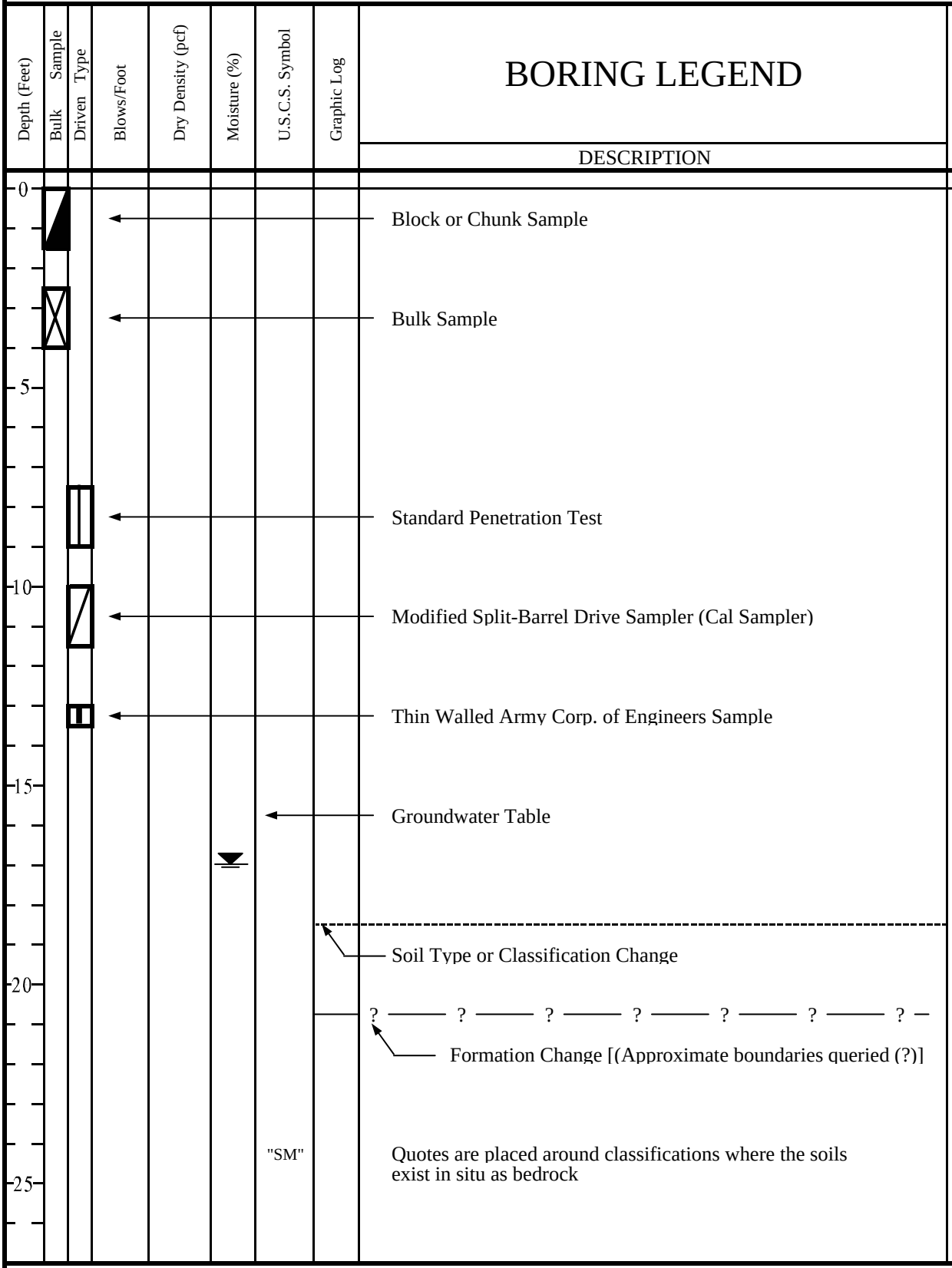


FIGURE: BL2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-1

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0	X								ASPHALT/BASE: 0-0.75". QUATERNARY UNDOCUMENTED FILL (Qudf): 0.75"-2.5': Dense, slightly moist, reddish brown, clayey SAND.	MAX, EI, REM, CHM
									QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	
5									No groundwater. Backfilled with excavated soil and capped with cold patch.	
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-2

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									GRAVEL AT SURFACE. QUATERNARY UNDOCUMENTED FILL (Qudf): 0.2-2.5": Dense, slighlty moist, dark brown clayey SAND.	
	X								QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	RV, WA
5									No groundwater. Backfilled with excavated soil.	
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-3

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									ASPHALT/BASE: 0-0.75". QUATERNARY UNDOCUMENTED FILL (Qudf): 0.75"-2.5': Dense, slightly moist, reddish brown, clayey SAND.	
									QUATERNARY LINDAVISTA FORMATION (Qln): 3.0': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal.	
5									No groundwater. Backfilled with excavated soil and capped with cold patch.	
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:	4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:	

BORING: B-4

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0									GRASS AT SURFACE. TOPSOIL/UNDOCUMENTED FILL. 0.25': Medium dense, moist, dark brown, clayey SAND with roots. 0.75': Hard, dry, light brown, silty SAND with gravel and trace cobbles. QUATERNARY LINDAVISTA FORMATION (Qln): 1.5': Hard, dry, orange brown, silty SAND with trace cobbles. Refusal. No groundwater. Backfilled with excavated soil.	
5										
10										
15										
20										
25										

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOLL	DRILLER:	SCOTT'S DRILLING	SHEET:	1	of	1
CTE JOB NO:	10-8933G	DRILL METHOD:	8" HOLLOW STEM	DRILLING DATE:			4/4/2007
LOGGED BY:	SC	SAMPLE METHOD:	BULK, SPT, CAL	ELEVATION:			

BORING: B-5

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0	X								QUATERNARY ENGINEERED FILL (Qef):	
									0': Dense, slightly moist, orange brown, clayey SAND with gravel to cobbles and debris; pvc pipe, bottle caps, etc.	WA
									2.5': No recovery; Hard, moist, dark brown, silty SAND with gravel.	
									* moved boring location four feet to NE.	
				18/6"					3.0': Dense to hard, slightly moist, mottled dark brown and orange	WA
				15					clayey SAND with trace gravel.	WA
				18						
				26						MD, CN
5										
				20					6.5': No recovery.	
				18						
				18						
				15					8.0': No recovery.	
				18					QUATERNARY LINDAVISTA FORMATION (Qln):	
				20					9.5': Very dense, slightly moist, orange brown, silty SAND w/ gravel. Refusal.	
10									No groundwater.	
									Backfilled with excavated soil.	
15										
20										
25										

TEST PIT LOGS

CTE JOB NO. 10-8182G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	**GRAVELS** MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	**SILTS AND CLAYS** LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILT
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

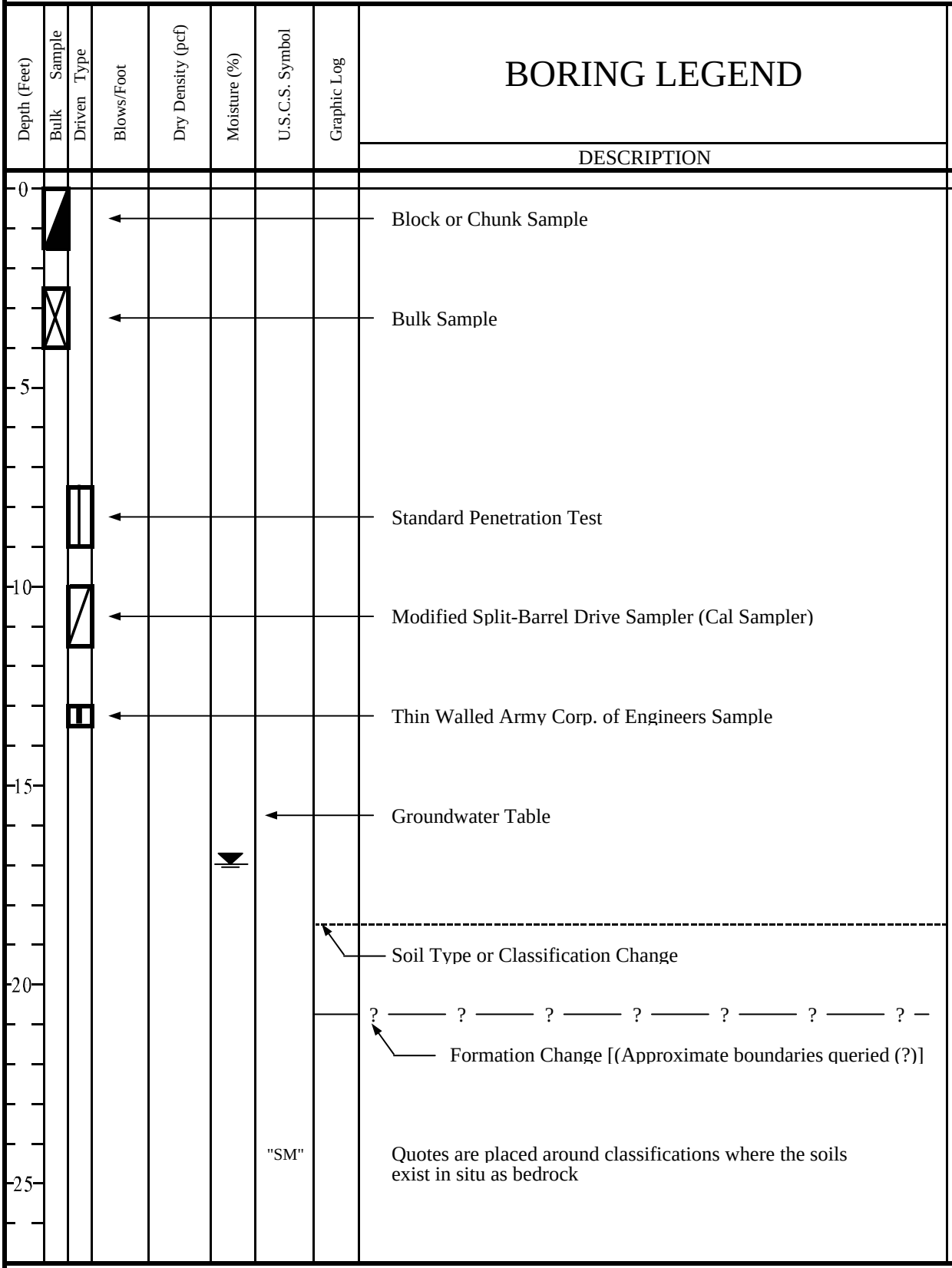


FIGURE: BL2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35
CTE JOB NO:	10-8182G	EXCAVATION METHOD:	EXCAVATION DATE: 12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD: CHUNKS AND BULKS	ELEVATION: -

TEST PIT LOG: TP-1

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample Type: Bulk	Sample Type: Driven	DESCRIPTION	Laboratory Tests
		SM/SC	Qaf	0			ARTIFICIAL FILL (Qaf): Medium dense, moist, medium to dark brown silty clayey SAND (SM/SC) with gravel.	
		SM	Qln	5			LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM) with some cobbles.	
				10			Refusal at 9'	
				15				

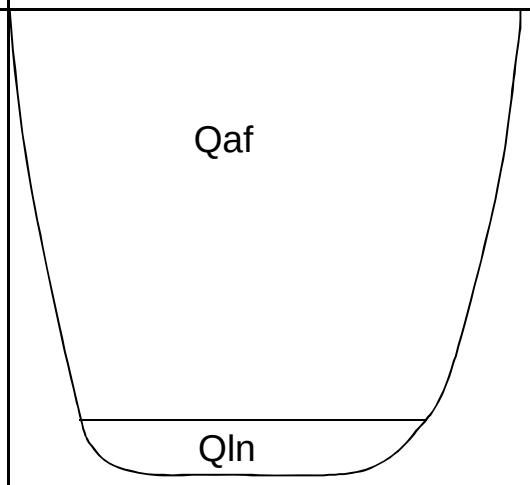


FIGURE: TP-1

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35
CTE JOB NO:	10-8182G	EXCAVATION METHOD:	EXCAVATION DATE: 12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD:	CHUNKS AND BULKS ELEVATION: -

TEST PIT LOG: TP-2

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample Type: Bulk	Sample Type: Driven	DESCRIPTION	Laboratory Tests
		SM	Qaf	0			ARTIFICIAL FILL (Qaf): Loose, slightly moist, medium brown silty SAND (SM) with some gravel.	
			Qln		X		LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM).	
				5			Refusal at 3'	
				10				
				15				

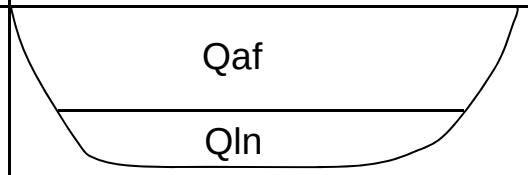


FIGURE: TP-2

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	FRANCIS PARKER MIDDLE SCHOOL	EXCAVATOR:	PC35
CTE JOB NO:	10-8182G	EXCAVATION METHOD:	EXCAVATION DATE: 12/29/2006
LOGGED BY:	STEVE H.	SAMPLING METHOD:	CHUNKS AND BULKS ELEVATION: -

TEST PIT LOG: TP-3

Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	Depth (Feet)	Sample Type: Bulk	Sample Type: Driven	DESCRIPTION	Laboratory Tests
		SM/SC	Qaf	0			ARTIFICIAL FILL (Qaf): Medium dense, moist, medium to dark brown silty clayey SAND (SM/SC) with gravel.	
				5				
		SM	Qln	10			LINDAVISTA (Qln): Very dense, slightly moist, medium reddish brown gravelly silty SAND (SM) with some cobbles.	
				15				

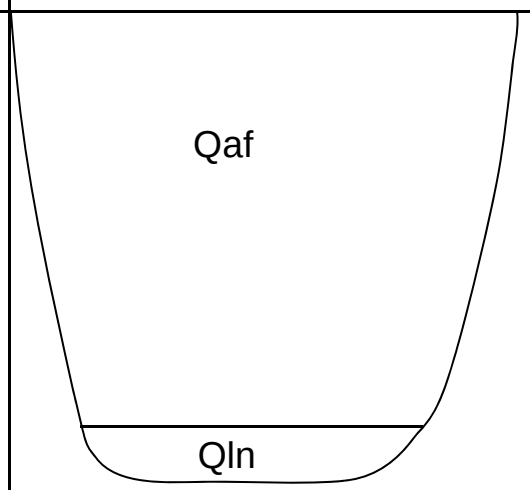


FIGURE: TP-3

BUCKET AUGERS

CTE JOB NO. 10-7275G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL			DRILLER:	LARUIE DRILLING	SHEET:	1 of 2
CTE JOB NO:	10-7275			DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	10/29/04
LOGGED BY:	MES			SAMPLE METHOD:	BULK	ELEVATION:	271

BORING: BA-1

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Aspahlt and gravel base 4"thick FILL: Dense, moist, brown silty SAND with gravel and concrete, wood debre (SM).	
						GM		TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, orangish-gray conglomerate but conglomeritic sandstone, matrix-supported, matrix consist of poorly graded sand with silt to silty SAND, cobbles well rounded coarse gravel to 0.6' diameter.	
5	X								WA,CHEM
10									
	X								EI
15									
								↓ Matrix material becomes orange-brown.	
20									
								Bedding orrentation: N/S; 16E on sandstone lense within conglemerate.	
25									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	10/29/04
LOGGED BY:	MES	SAMPLE METHOD:	BULK	ELEVATION:	271

BORING: BA-1

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25								TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, orangish-gray pebble to cobble conglemerate to conglomentic sandstone, with occassional sandstone lenses.	
30								Contact Dips 6" to East Dense to very dense, moist, greenish-gray with orange staining, poorly graded SAND with silt (SP-SM) trace coarse gravel at 33'. Lamination within sandstone N75E; 14NW.	
35	X							Very dense, moist, orange-gray, pebble to cobble conglomerate.	
40								Sandstone lense bedding orientation: N5E, 11NW	
45									
50								Total Depth at 50' No Groundwater Observed During Dillings and Logging	

CONSTRUCTION TESTING & ENGINEERING, INC.

GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION

2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	1 of 4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Asphalt and road base, approx 3-4 inches.	
								FILL: Dense to medium dense, moist, red-brown clayey to silty SAND with cobbles (SM), plus concrete and miscelleous debre.	
								QUATERNARY LINDA VISTA FORMATION (Qln): Very dense, moist, orangish-brown, matrix-supported conglomerate to conglomeratic sandstone, with pebble to cobble size clasts.	
5								(Easterly dip to contact)	
	X							TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, dry, yellow-brown, matrix to clast supported pebble to cobble conglomerate, consisting of slightly weathered, very strong, very hard quartzice and volcanic clasts, with trace amounts of highly weathered, weak volcanic clasts.	EI
10									
								Very dense, moist, orange-brown, locally moderately well cemented, silty sandstone, bedding orientation. N70W; 25SW/	
		I	5/12			GM		Very dense, moist, orange-brown, conglomeratic silty sandstone	GS
15								Very dense, moist, orange-brown, locally moderately well cemented, silty sandstone.	
								Very dense, moist, orange to gray, pebble to cobble matrix to clast-supported conglemerate. South dipping approximately 10^{o} sandstone dense.	
								> Sandstone lense, N70E, 12NW laminations.	
20									
								Dense to very dense, moist, white, medium-grained silty sandstone.	
								> Gravel lense N60E; 22SE orientation.	
		I	6/12			SM			MD, DS
25									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL			DRILLER:	LARUIE DRILLING	SHEET:	2 of 4
CTE JOB NO:	10-7275			DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES			SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25								TERTIARY STATIUM CONGLEMERATE: (Tst) Dense to very dense, moist, whited, medium-grained sandstone.	
								> Lamination within sandstone orientation: E-W; 11N	
30								> Gravel layer-irregular flat contact.	
								Very dense, moist, light greenish gray, fine silty sandstone to sandy siltstone.	
			12/6						WA
35								Flat-contact Very dense, moist, brown, conglomeratic sandstone.	
								Becomes greenish brown.	
40									
45								Very dense, moist, gray with orange staining silty sandstone, flat to 6° westerly dipping.	
								Very dense, moist, brown conglomerate sandstone.	
50									

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	3 of 4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273

BORING: BA-2

Depth (Feet)	Sample Bulk	Sample Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
50								Very dense, moist, brown conglomerate sandstone.	
55									
60								N9E; 20SE siltstone lense.	
65									
70								N S	
75								Very dense, moist, gray with orange staining, massive, poorly graded sandstone with silt. Lamination N60E, 25SE.	

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	4	of	4
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER-30"	DRILLING DATE:	11/1/04		
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	273		

BORING: BA-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
75								TERTIARY STATIUM CONGLEMERATE: (Tst) Very dense, moist, brown to orange brown, matrix to clast supported pebble to cobble conglomerate.	
80									
85									
								Total Depth at 86' No Groundwater Observed During Drilling and Logging Drilled 11/1/04 to 11/2/04	

CONSTRUCTION TESTING & ENGINEERING, INC.

GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION

2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

PROJECT:	FRANCIS PARKER SCHOOL	DRILLER:	LARUIE DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-7275	DRILL METHOD:	BUCKET AUGER	DRILLING DATE:	11/3/04
LOGGED BY:	MES	SAMPLE METHOD:	DRIVE/BULK	ELEVATION:	277

BORING: BA-3

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0								Asphalt and Road Base	
						GM		QUATERNARY LINDA VISTA FORMATION: Very dense, moist, orange to brown, matrix-supported pebble to cobble conglomerate, with poorly graded SAND with silt matrix.	
5								Contact orientation N20 to 45E; 65E	
	X					SM		Very dense, moist, orange, silty sandstone.	GS
10			4/12					Very dense, moist, orange to yellow gray, cobble-pebble conglomerate	
								TERTIARY STADIUM CONGLOMERATE: (Tst) Very dense, moist, gray with orange staining, pebble to cobble conglmerate locally clast supported.	
15									
20								Total Depth at 20' No Groundwater Observed During Drilling and Logging.	
25									

BORING LOGS

TESTING ENGINEERS JOB NO. 2003-0801, REPORT DATE MARCH 21, 2003

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N:	Standard Penetration: Blows per foot of a 140 lb hammer falling 30 " on a 2 " O.D. split-spoon.
Qu:	Unconfined compressive strength, tsf.
Qp:	Penetrometer value, unconfined compressive strength, tsf.
Mc:	Water content, %.
LL:	Liquid limit, %.
Pl:	Plasticity index, %.
äd:	Natural dry density, PCF.
∀ :	Apparent groundwater level at time noted after completion.

DRILLING AND SAMPLING SYMBOLS

CAL:	Modified California Sampler - 2 5/8" I.D., 3.0" O.D., except where noted.
SS:	Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
ST:	Shelby Tube - 3" O.D., except where noted.
DC:	Drive Cylinder Sample.
BK:	Large Bulk Sample.
SB:	Small Bulk Sample.
SC:	Sand Cone.
HD:	Hand Drive Sample.
Bulk :	Bulk Bag Sample
Block:	Undisturbed Block Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

TERM (NON-COHESIVE SOILS)	STANDARD PENETRATION RESISTANCE (SPT)
Very Loose	0 to 4
Loose	4 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	Over 50

TERM (COHESIVE SOILS)	SPT	QU - (TSF)
Very Soft	0 to 2	0 - 0.25
Soft	2 to 4	0.25 - 0.50
Medium Stiff	4 to 8	0.50 - 1.00
Stiff	8 to 16	1.00 - 2.00
Very Stiff	16 to 32	2.00 - 4.00
Hard	Over 32	4.00+

PARTICLE SIZE

Boulders	12 in. +	Coarse Sand	No. 4 - No. 30	Silt	No. 200 - Hydrometer
Cobbles	12 in -3.in	Medium Sand	No. 30 - No.70	Clay	Hydrometer
Gravel	3 in –No. 4	Fine Sand	No. 70 – No. 200		

DATE DRILLED 2/18/03 BORING NO. B-1

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
			< 100			(GW)		ASPHALT: 3.5 inches thick Gravelly SAND with Clay (Lindavista Formation) Light Brown, damp, loose to medium dense in upper 6-8 inches, becomes dense to very dense below. Fine to medium grained sand; contains approx. 50% - 60% rounded to subrounded gravel to cobble size crystalline rock. Becomes dry to damp at -18.
5	1.5							Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0							
15	4.6							
20	6.1							

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-1

DATE DRILLED 2/18/03 BORING NO. B-2

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								ML	Sandy SILT (Topsoil): Dark Brown, moist, soft fine grained sand. Approximately 2 inches thick.
								(GW)	Sandy GRAVEL (Lindavista Formation) with clay: Light orange-brown, damp, dense to very dense. Contains approximately 50% gravel to cobble size subrounded to rounded crystalline rock.
			X	< 100					
5	1.5								Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-2

DATE DRILLED 2/18/03 BORING NO. B-3

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
						GW		ASPHALT: 3 inches thick.
						GL		Sandy GRAVEL: Light gray, damp, medium dense (Class II). Approximately 6 inches thick.
						(GW)		Gravelly CLAY/ Clavey GRAVEL with Sand: Light orange-brown, damp, medium dense.
		X	< 100					Sandy GRAVEL (Lindavista Formation) with Clay: Tan to light brown, dry to slightly damp, dense to very dense. Fine-grained sand contains approximately 50% gravel to cobble size crystalline rock.
5	1.5							
10	3.0							Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
15	4.6							
20	6.1							

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-3

DATE DRILLED 2/18/03 BORING NO. B-4

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	ANALYTICAL RESULTS	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								(GC)	ASPHALT: Approximately 3.0 inches thick. Clayey GRAVEL (Lindavista Formation) with fine sand. Brown, damp, dense to very dense.
			X	< 100		NO RECOVERY			
5	1.5								Refusal at - 3.0 feet Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-4

DATE DRILLED 2/18/03 BORING NO. B-5

GROUND ELEVATION N/A SHEET 1 OF 1

METHOD DRILLING INGERSOLL-RAND A-300

LOGGED BY CBM DRIVE WEIGHT 140 lbs. DROP 30 inches

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	ANALYTICAL RESULTS	SYMBOL	U.S.C.S. CLASSIFICATION	DESCRIPTION
								(GC)	Clayey GRAVEL (Lindavista Formation) with fine sand. Light brown to brown, damp to moist, loose at - 1.0 feet becomes medium dense. At - 2.0 feet becomes slightly damp, dense to very dense. Sand becomes fine to medium grained.
			X	< 100		NO RECOVERY			
5	1.5								Total Depth = 3.0 feet Groundwater not encountered Backfilled on 2/18/2003
10	3.0								
15	4.6								
20	6.1								

Reviewd Date:

Reviewd By:

BORING LOG BORING LOGS.GPJ TESD.GDT 3/14/03

Testing Engineers - San Diego, Inc.
7895 Convoy Court Suite 18
San Diego, CA 92111

BORING LOG

Francis Parker Middle School
San Diego, CA

PROJECT NO.	REPORT DATE	FIGURE
2003-0081	March 2003	A-5

APPENDIX C

LABORATORY METHODS AND RESULTS

APPENDIX C
LABORATORY METHODS AND RESULTS

Laboratory tests were performed on representative soil samples to detect their relative engineering properties. Tests were performed following test methods of the American Society for Testing Materials or other accepted standards. The following presents a brief description of the various test methods used. Laboratory results are presented in the following section of this Appendix.

Classification
Soils were classified visually according to the Unified Soil Classification System. Visual classifications were supplemented by laboratory testing of selected samples according to ASTM D2487.

In-Place Moisture/Density
The in-place moisture content and dry unit weight of selected samples were determined using relatively undisturbed chunk soil samples.

Expansion Index
Expansion testing was performed on selected samples of the matrix of the onsite soils according to Building Code Standard No. 29-2.

Particle-Size Analysis
Particle-size analyses were performed on selected representative samples according to ASTM D422.

Modified Proctor
To determine the maximum dry density and optimum moisture content, a soil sample was tested in accordance with ASTMD-1557.

Direct Shear
Direct shear tests were performed on either samples direct from the field or on samples recompacted to 90% of the laboratory maximum value overall. Direct shear testing was performed in accordance with ASTM D3080-72 to evaluate the shear strength characteristics of selected materials. The samples were inundated during shearing to represent adverse field conditions.

Consolidation
Consolidation testing was performed on selected samples in accordance with ASTM D 2435-90.

Resistance "R"-Value
The resistance "R"-value was determined by the California Materials Method No. 301 for representative subbase soils. Samples were prepared and exudation pressure and "R"-value determined. The graphically determined "R"- value at exudation pressure of 300 psi is the value used for pavement section calculation.

Chemical Analysis
Soil materials were collected with sterile sampling equipment and tested for Sulfate and Chloride content, pH, Corrosivity, and Resistivity.

LABORATORY RESULTS

CTE JOB NO. 10-8933G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

200 WASH ANALYSIS

LOCATION	DEPTH (feet)	PERCENT PASSING #200 SIEVE	CLASSIFICATION
B-2	2.5-3.0	18.6	SM
B-5	1	24.5	SC
B-5	3	26.1	SC
B-5	3-4	17.5	SM

EXPANSION INDEX TEST

UBC 18-2

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
B-1	1-2	27	LOW

IN-PLACE MOISTURE AND DENSITY

LOCATION	DEPTH (feet)	% MOISTURE	DRY DENSITY
B-5	4	12.5	116.5

RESISTANCE "R"-VALUE

CALTEST 301

LOCATION	DEPTH (feet)	R-VALUE
B-2	2.5-3.0	66

SULFATE

LOCATION	DEPTH (feet)	RESULTS ppm
B-1	1-2	85.1

CHLORIDE

LOCATION	DEPTH (feet)	RESULTS ppm
B-1	1-2	53.8

CONDUCTIVITY

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS uS/cm
B-1	1-2	190

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION

RESISTIVITY

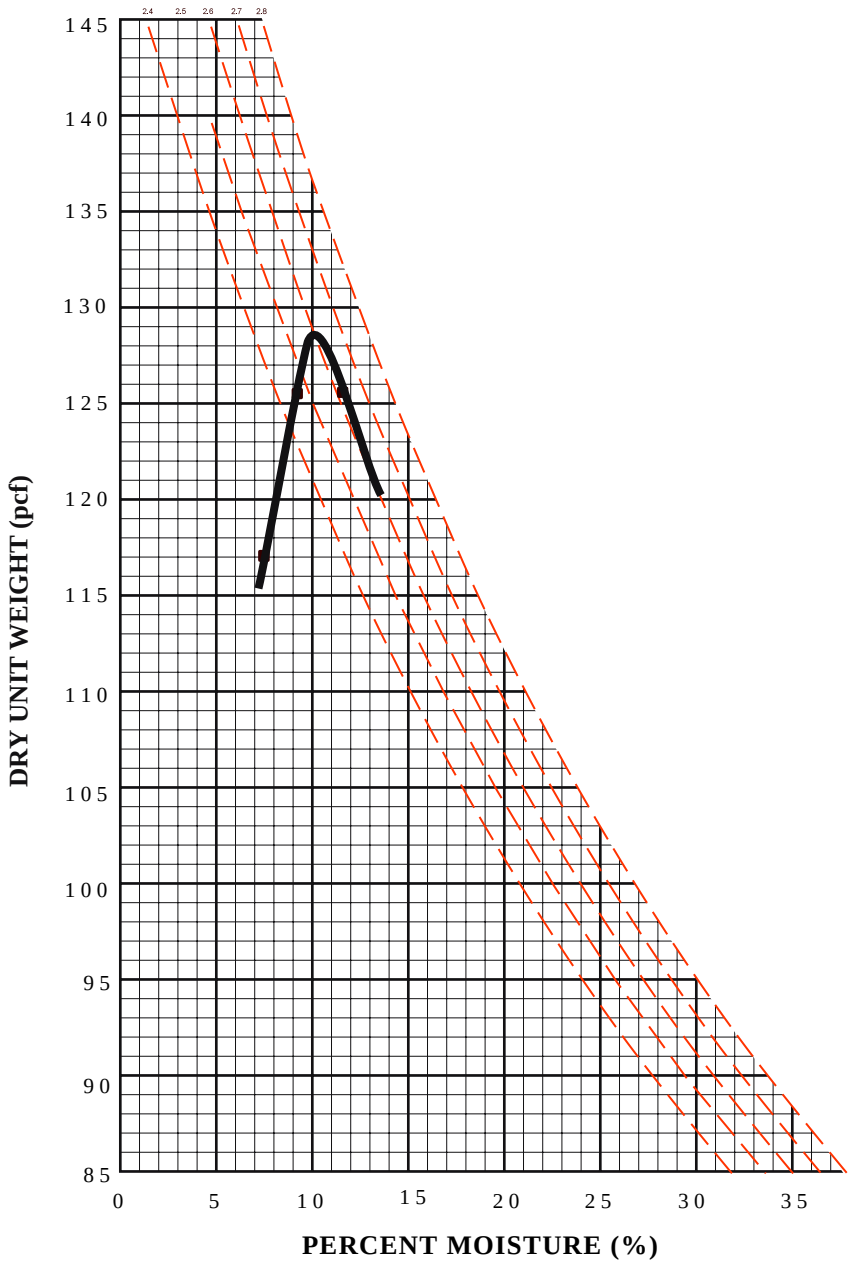
CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS ohms/cm
B-1	1-2	5260

MAXIMIMUM DENSITY AND OPTIMUM MOISTURE CONTENT

(MODIFIED PROCTOR)

LOCATION	DEPTH (feet)	OPTIMUM MOISTURE (%)	DRY DENSITY (pcf)
B-1	1-2	10.0/9.0 w/RC	128.5/131.0 w/RC



ASTM D1557 METHOD ☒ A ☐ B ☐ C

MODIFIED PROCTOR RESULTS

LAB NUMBER	SAMPLE NUMBER	DEPTH (FEET)	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)
17224	B-1	1-2	light brown silty sand	128.5/131.0 w/RC	10.0/9.0 w/RC

CTE JOB NO: 10-8933G	CONSTRUCTION TESTING & ENGINEERING, INC. GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION 1441 MONTIEL ROAD, STE 115 ESCONDIDO CA. 92026 (760) 746-4955	DATE: 5/07 FIGURE: C-1

LABORATORY RESULTS

CTE JOB NO. 10-8182G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

200 WASH ANALYSIS

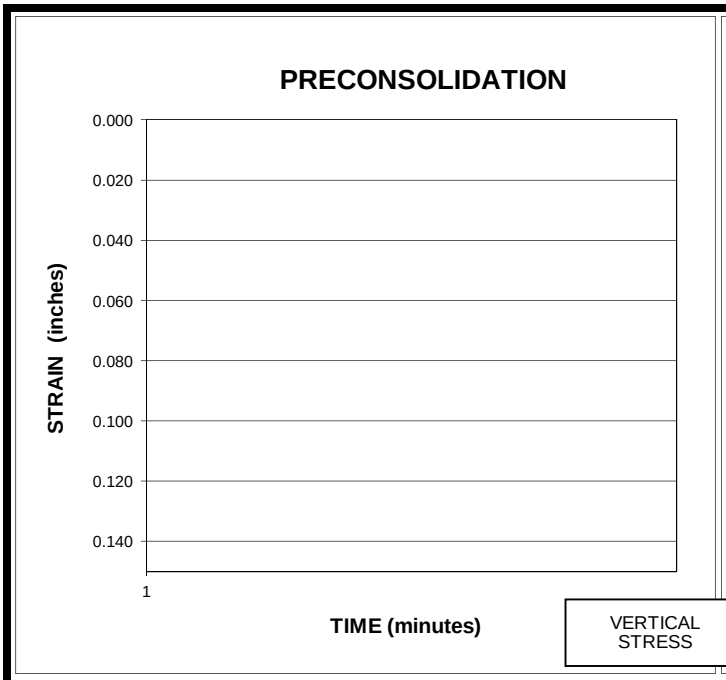
LOCATION	DEPTH (feet)	PERCENT PASSING	CLASSIFICATION
TP-2	2-3	16.7	SM
TP-3	1-4	23.9	SC-SM

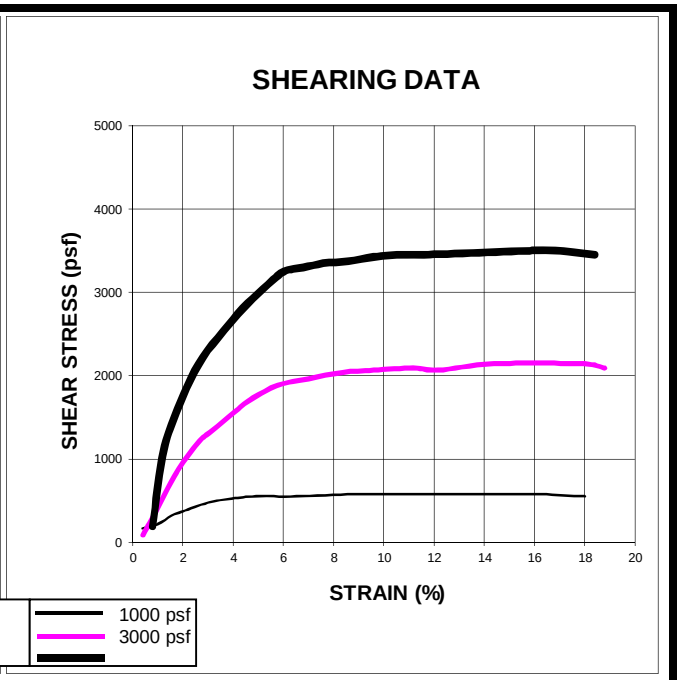
SAND EQUIVALENT

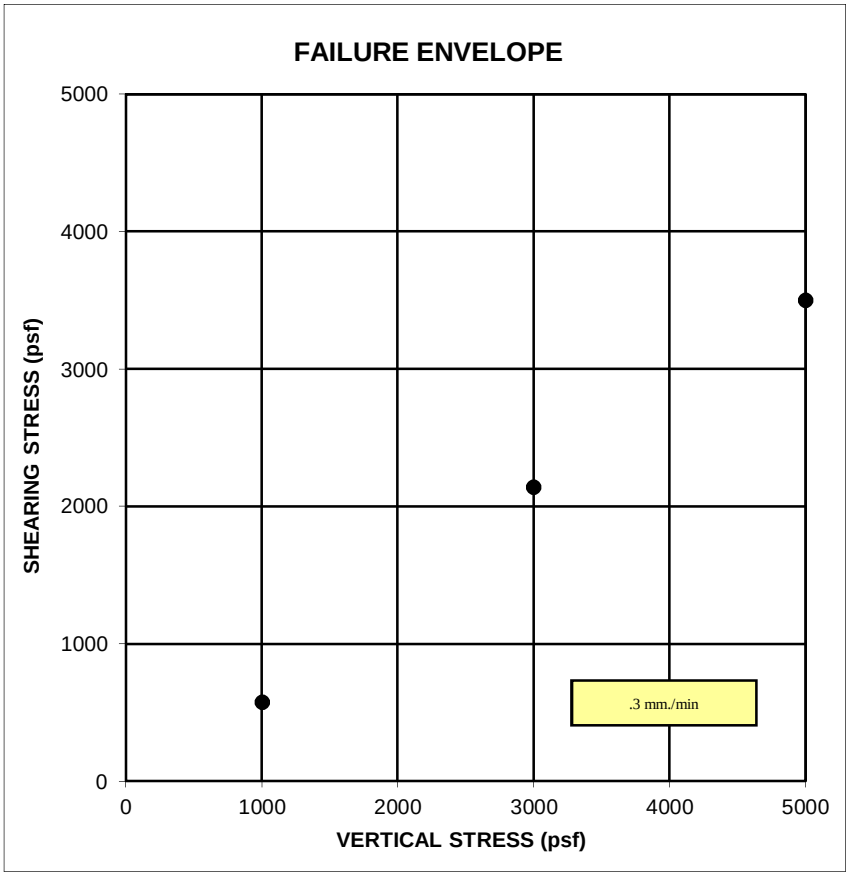
LOCATION	DEPTH (feet)	SAND EQUIVALENT
TP-2	2-3	25
TP-3	1-4	20

MODIFIED PROCTOR

LOCATION	DEPTH (feet)	MAXIUM DRY DENSITY (PSF)	OPTIMUM MOISTURE (%)
TP-3	1-4	131.0	9.0







SHEAR STRENGTH TEST

Sample Designation	Depth (ft)	Cohesion	Angle of Friction	Sample Description	
TP-3	1-4'	0 psf	35.3	Remolded @ 90% Clayey Silty Sand	
Initial Moisture (%):	8.6%	Initial Dry Density (pcf)	117.9		CTE JOB NO: 10-8182G
Final Moisture (%):	16.0%	Final Dry Denstiy (pcf)	110.3		FIGURE No: C-1

LABORATORY RESULTS

CTE JOB NO. 10-7275G

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

200 WASH ANALYSIS

LOCATION	DEPTH (feet)	PERCENT PASSING #200 SIEVE	CLASSIFICATION
BA-1	5.0 to 6.0	20.9	SM
BA-2	34.0	41.9	SM

EXPANSION INDEX TEST

UBC 18-2

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
BA-1	13.0 to 14.0	11	Very :Low
BA-2	7.5	7	Very Low

ATTERBERG LIMITS

LOCATION	Elevation (msl)	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
South Slope adj to Friars Rd 42 ft msl.	42	66.2	47	CH

Hydrometer

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS (% Clay fraction)
South Slope adj to Friars Rd 42 ft msl.	5.0 to 6.0	58

IN-PLACE MOISTURE AND DENSITY

LOCATION	DEPTH (feet)	% MOISTURE	DRY DENSITY
BA-2	24.0	6.1	111.9

SULFATE

LOCATION	DEPTH (feet)	RESULTS ppm
BA-1	5.0 to 6.0	61

CHLORIDE

LOCATION	DEPTH (feet)	RESULTS ppm
BA-1	5.0 to 6.0	19

CONDUCTIVITY

CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS uS/cm
BA-1	5.0 to 6.0	109

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

RESISTIVITY

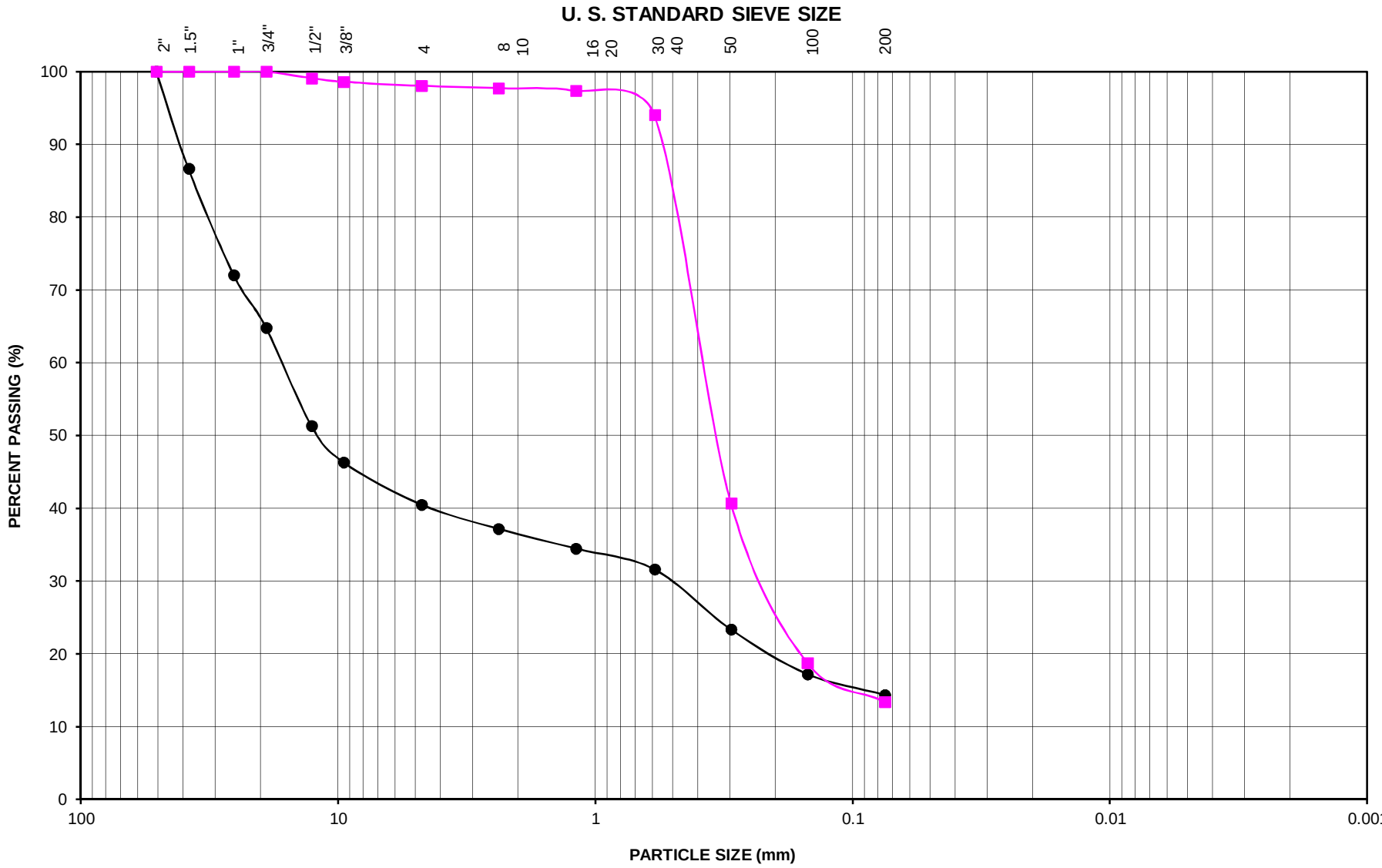
CALIFORNIA TEST 424

LOCATION	DEPTH (feet)	RESULTS ohms/cm
BA-1	5.0 to 6.0	7790

pH

CALIFORNIA TEST 424

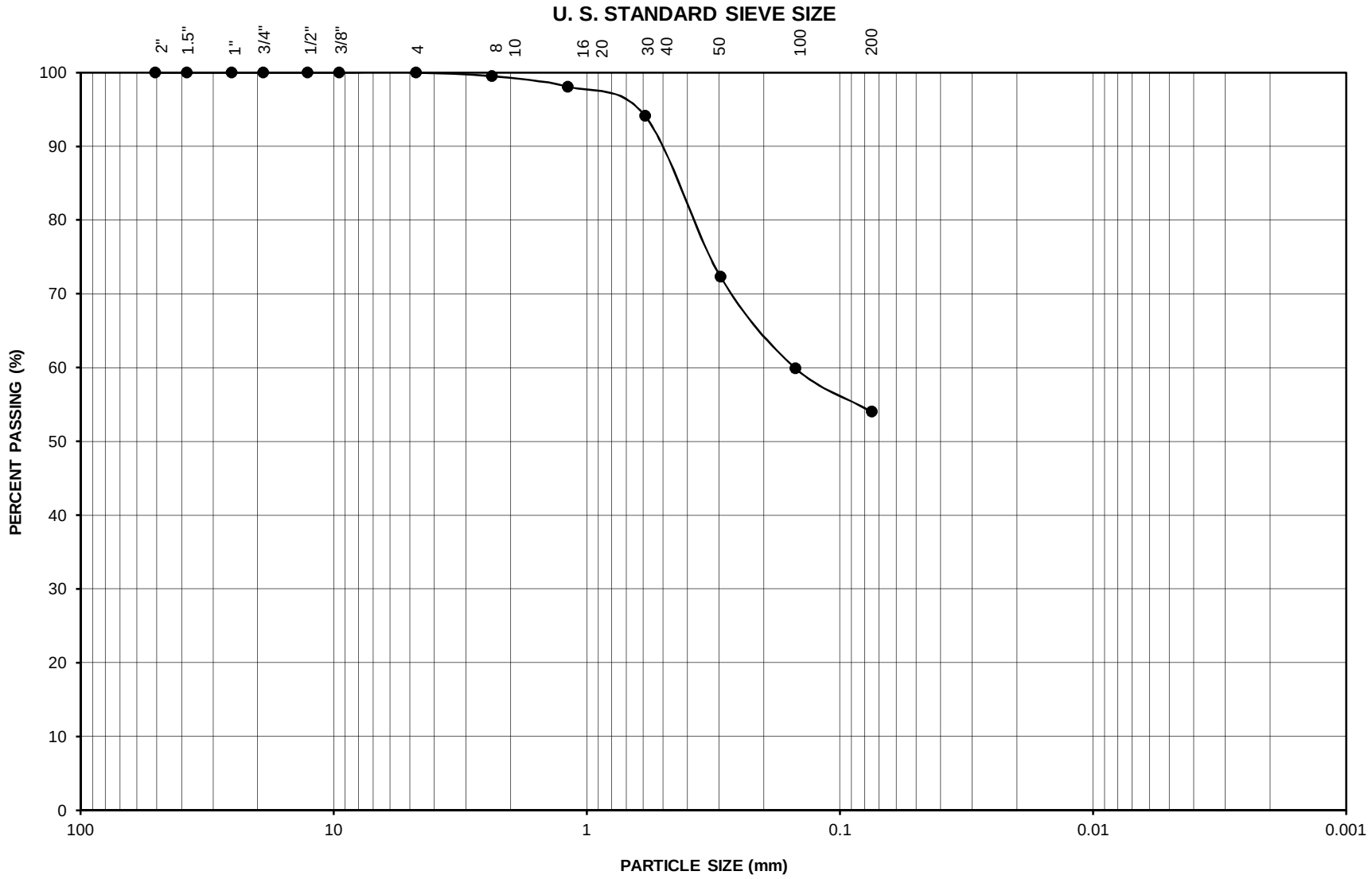
LOCATION	DEPTH (feet)	RESULTS
BA-1	5.0 to 6.0	8.13



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
BA-2	13-14	●	-	-	GM
BA-3	10	■	-	-	SM
CTE JOB NUMBER:		10-7275		FIGURE:	C-1



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
Slope to West	60	●	-	-	Claystone
0	0	■	-	-	0

CTE JOB NUMBER: 10-7275 FIGURE: C--2

APPENDIX D

STANDARD SPECIFICATIONS FOR GRADING

Section 1 - General

Construction Testing & Engineering, Inc. presents the following standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications. Recommendations contained in the body of the previously presented soils report shall supersede the recommendations and or requirements as specified herein. The project geotechnical consultant shall interpret disputes arising out of interpretation of the recommendations contained in the soils report or specifications contained herein.

Section 2 - Responsibilities of Project Personnel

The geotechnical consultant should provide observation and testing services sufficient to general conformance with project specifications and standard grading practices. The geotechnical consultant should report any deviations to the client or his authorized representative.

The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the geotechnical consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor is responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements.

Section 3 - Preconstruction Meeting

A preconstruction site meeting should be arranged by the owner and/or client and should include the grading contractor, design engineer, geotechnical consultant, owner’s representative and representatives of the appropriate governing authorities.

Section 4 - Site Preparation

The client or contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, root of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the geotechnical consultant at the time of demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the geotechnical consultant.

Section 5 - Site Protection

Protection of the site during the period of grading should be the responsibility of the contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the geotechnical consultant, the client and the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

Rain related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions as determined by the geotechnical consultant. Soil adversely affected should be classified as unsuitable materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the geotechnical consultant.

The contractor should be responsible for the stability of all temporary excavations. Recommendations by the geotechnical consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the contractor. Recommendations by the geotechnical consultant should not be considered to preclude requirements that are more restrictive by the regulating agencies. The contractor should provide during periods of extensive rainfall plastic sheeting to prevent unprotected slopes from becoming saturated and unstable. When deemed appropriate by the geotechnical consultant or governing agencies the contractor shall install checkdams, desilting basins, sand bags or other drainage control measures.

In relatively level areas and/or slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0 foot; they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. If field conditions dictate, the geotechnical consultant may recommend other slope repair procedures.

Section 6 - Excavations

6.1 Unsuitable Materials

Materials that are unsuitable should be excavated under observation and recommendations of the geotechnical consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and nonengineered or otherwise deleterious fill materials.

Material identified by the geotechnical consultant as unsatisfactory due to its moisture conditions should be overexcavated; moisture conditioned as needed, to a uniform at or above optimum moisture condition before placement as compacted fill.

If during the course of grading adverse geotechnical conditions are exposed which were not anticipated in the preliminary soil report as determined by the geotechnical consultant additional exploration, analysis, and treatment of these problems may be recommended.

6.2 Cut Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal: vertical).

The geotechnical consultant should observe cut slope excavation and if these excavations expose loose cohesionless, significantly fractured or otherwise unsuitable material, the materials should be overexcavated and replaced with a compacted stabilization fill. If encountered specific cross section details should be obtained from the Geotechnical Consultant.

When extensive cut slopes are excavated or these cut slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top of the slope.

6.3 Pad Areas

All lot pad areas, including side yard terrace containing both cut and fill materials, transitions, located less than 3 feet deep should be overexcavated to a depth of 3 feet and replaced with a uniform compacted fill blanket of 3 feet. Actual depth of overexcavation may vary and should be delineated by the geotechnical consultant during grading, especially where deep or drastic transitions are present.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm drainage swale and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

Section 7 - Compacted Fill

All fill materials should have fill quality, placement, conditioning and compaction as specified below or as approved by the geotechnical consultant.

7.1 Fill Material Quality

Excavated on-site or import materials which are acceptable to the geotechnical consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement. All import materials anticipated for use on-site should be sampled tested and approved prior to and placement is in conformance with the requirements outlined.

Rocks 12 inches in maximum and smaller may be utilized within compacted fill provided sufficient fill material is placed and thoroughly compacted over and around all rock to effectively fill rock voids. The amount of rock should not exceed 40 percent by dry weight passing the 3/4-inch sieve. The geotechnical consultant may vary those requirements as field conditions dictate.

Where rocks greater than 12 inches but less than four feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with the recommendations below. Rocks greater than four feet should be broken down or disposed off-site.

7.2 Placement of Fill

Prior to placement of fill material, the geotechnical consultant should observe and approve the area to receive fill. After observation and approval, the exposed ground surface should be scarified to a depth of 6 to 8 inches. The scarified material should be conditioned (i.e. moisture added or air dried by continued discing) to achieve a moisture content at or slightly above optimum moisture conditions and compacted to a minimum of 90 percent of the maximum density or as otherwise recommended in the soils report or by appropriate government agencies.

Compacted fill should then be placed in thin horizontal lifts not exceeding eight inches in loose thickness prior to compaction. Each lift should be moisture conditioned as needed, thoroughly blended to achieve a consistent moisture content at or slightly above optimum and thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials and weather conditions.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least six-foot wide benches and a minimum of four feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area after keying and benching until the geotechnical consultant has reviewed the area. Material generated by the benching operation should be moved sufficiently away from

the bench area to allow for the recommended review of the horizontal bench prior to placement of fill.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface or previously compacted fill should be processed by scarification, moisture conditioning as needed to at or slightly above optimum moisture content, thoroughly blended and recompacted to a minimum of 90 percent of laboratory maximum dry density. Where unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be over-excavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

Rocks 12 inch in maximum dimension and smaller may be utilized in the compacted fill provided the fill is placed and thoroughly compacted over and around all rock. No oversize material should be used within 3 feet of finished pad grade and within 1 foot of other compacted fill areas. Rocks 12 inches up to four feet maximum dimension should be placed below the upper 10 feet of any fill and should not be closer than 15 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so those successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the geotechnical consultant at the time of placement.

The contractor should assist the geotechnical consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill. The contractor should provide this work at no additional cost to the owner or contractor's client.

Fill should be tested by the geotechnical consultant for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-00, D 2922-04. Tests should be conducted at a minimum of approximately two vertical feet or approximately 1,000 to 2,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the geotechnical consultant.

7.3 Fill Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal: vertical).

Except as specifically recommended in these grading guidelines compacted fill slopes should be over-built two to five feet and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the geotechnical consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

At the discretion of the geotechnical consultant, slope face compaction may be attempted by conventional construction procedures including backrolling. The procedure must create a firmly compacted material throughout the entire depth of the slope face to the surface of the previously compacted firm fill intercore.

During grading operations, care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately established desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not

exceeding four feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly dozer trackrolled.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished using a berm and pad gradient of at least two percent.

Section 8 - Trench Backfill

Utility and/or other excavation of trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 90 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to one foot wide and two feet deep may be backfilled with sand and consolidated by jetting, flooding or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of backfill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the contractor may elect the utilization of light weight mechanical compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review of the geotechnical consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the geotechnical consultant. Clean granular backfill and/or bedding are not recommended in slope areas.

Section 9 - Drainage

Where deemed appropriate by the geotechnical consultant, canyon subdrain systems should be installed in accordance with CTE's recommendations during grading.

Typical subdrains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, and concrete swales).

For drainage in extensively landscaped areas near structures, (i.e., within four feet) a minimum of 5 percent gradient away from the structure should be maintained. Pad drainage of at least 2 percent should be maintained over the remainder of the site.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns could be detrimental to slope stability and foundation performance.

Section 10 - Slope Maintenance

10.1 - Landscape Plants

To enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect should be the best party to consult regarding actual types of plants and planting configuration.

10.2 - Irrigation

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

10.3 - Repair

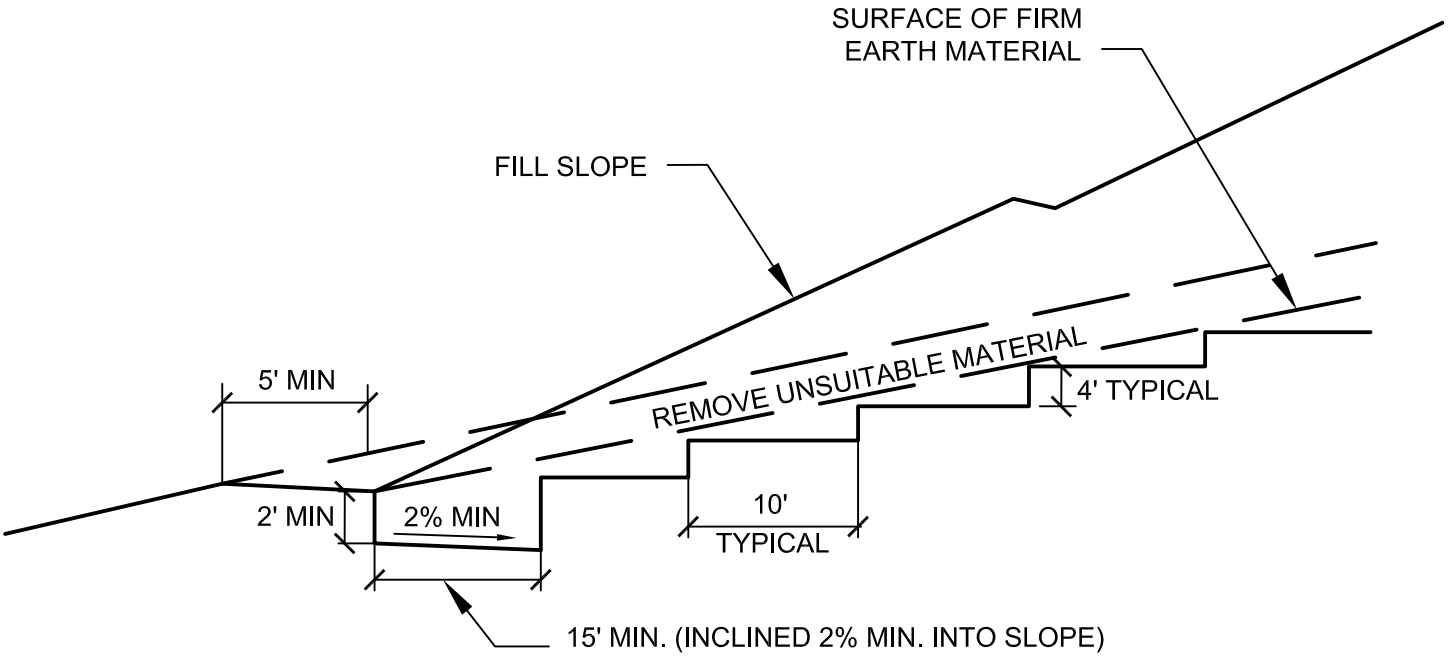
As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period prior to landscape planting.

If slope failures occur, the geotechnical consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

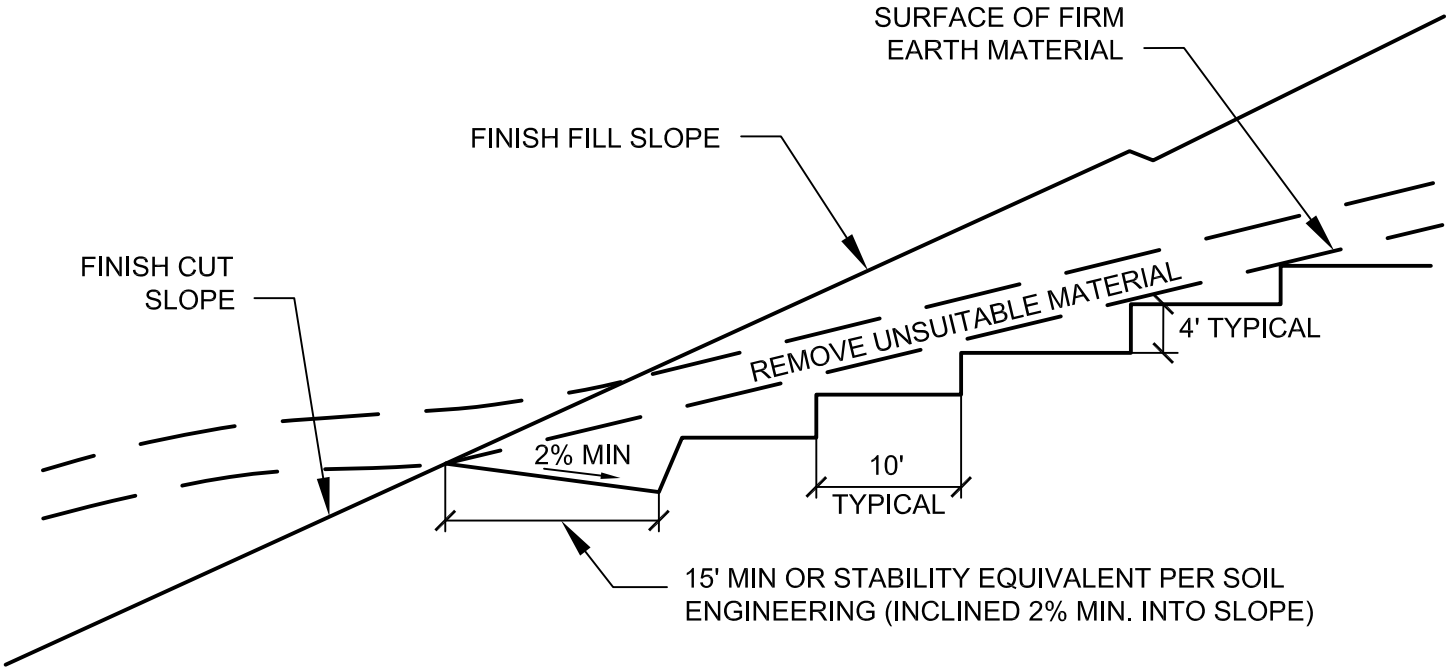
If slope failures occur as a result of exposure to period of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer one foot to three feet of a slope face).

BENCHING FILL OVER NATURAL

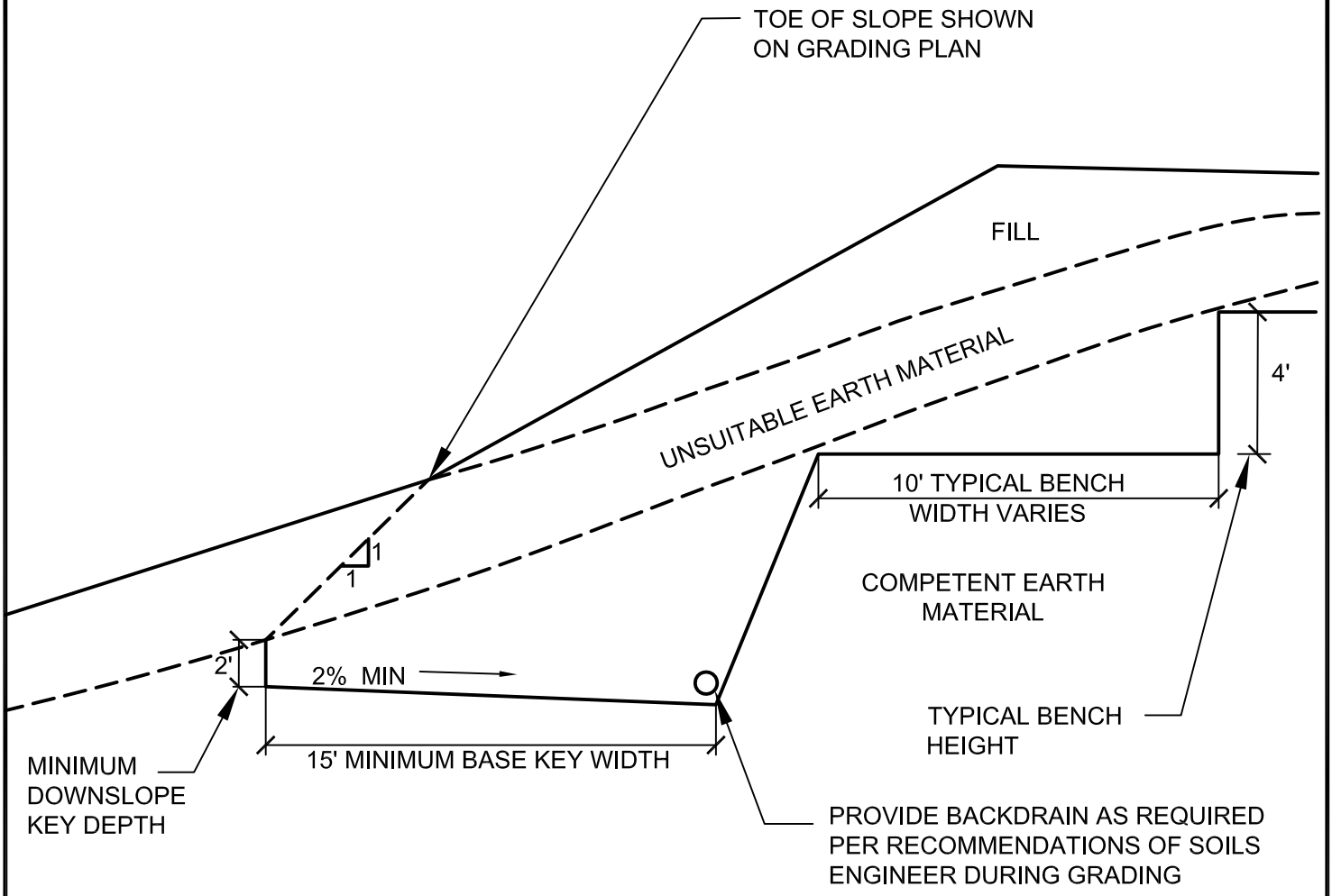


BENCHING FILL OVER CUT



NOT TO SCALE

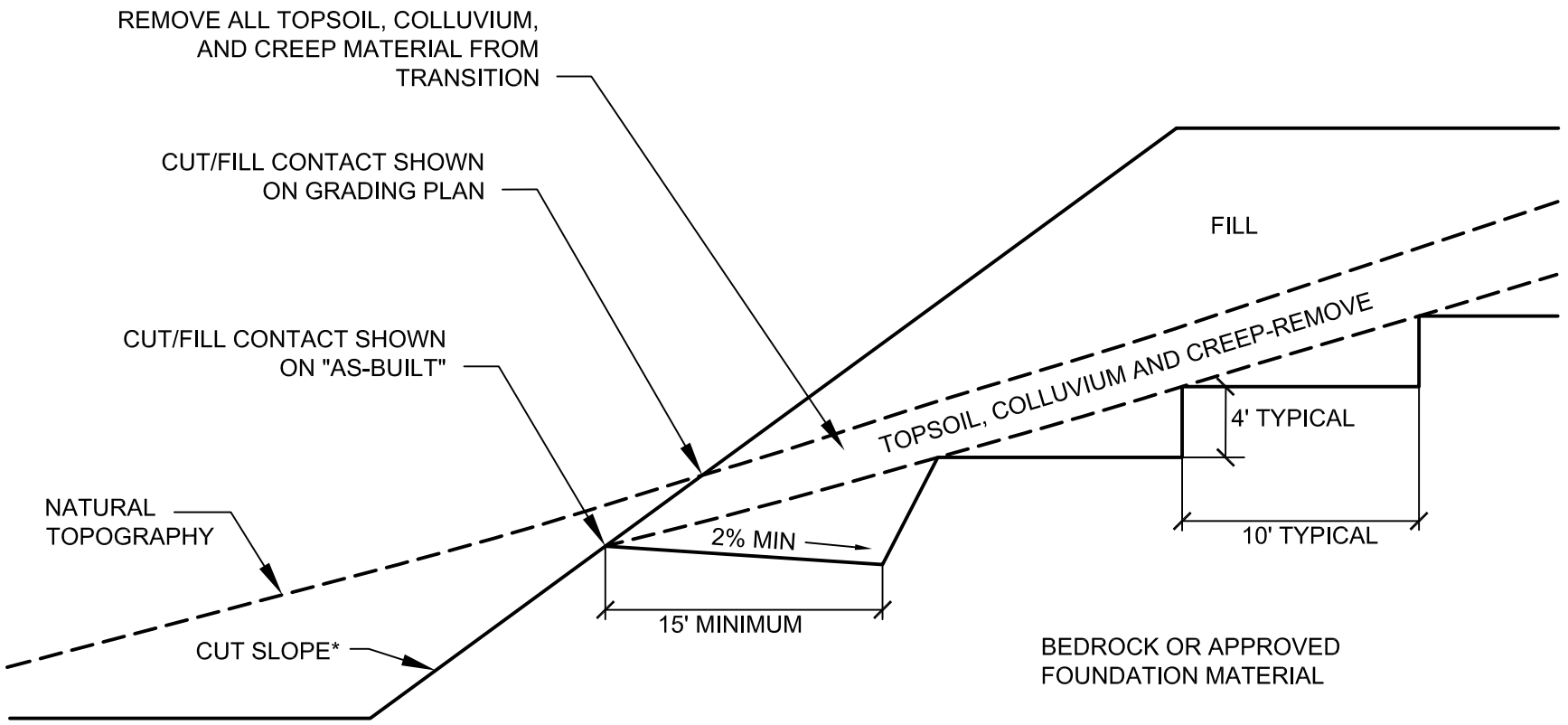
BENCHING FOR COMPACTED FILL DETAIL



WHERE NATURAL SLOPE GRADIENT IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.

NOT TO SCALE

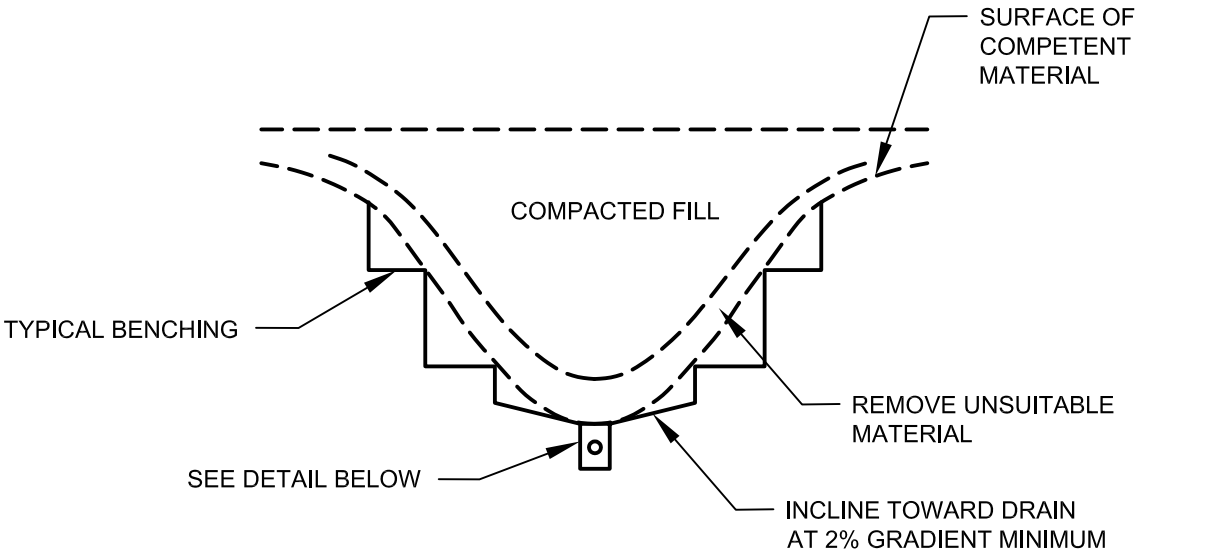
FILL SLOPE ABOVE NATURAL GROUND DETAIL



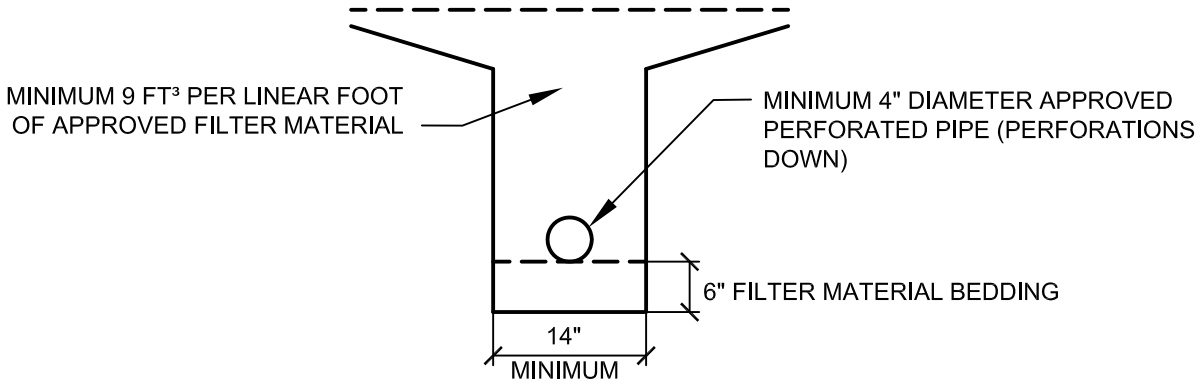
*NOTE: CUT SLOPE PORTION SHOULD BE MADE PRIOR TO PLACEMENT OF FILL

NOT TO SCALE

FILL SLOPE ABOVE CUT SLOPE DETAIL



DETAIL



CALTRANS CLASS 2 PERMEABLE MATERIAL
FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

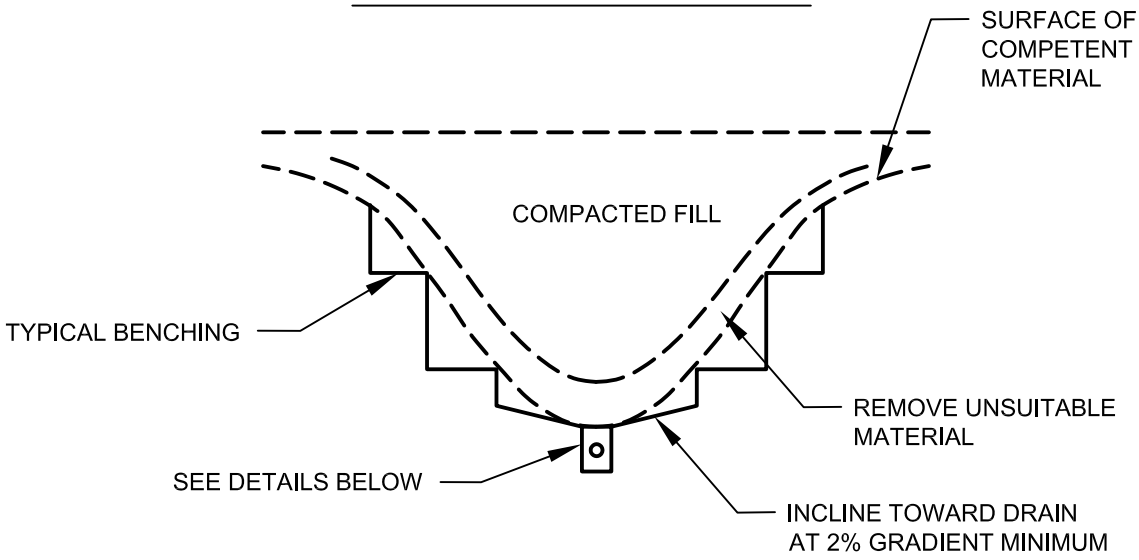
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

NOT TO SCALE

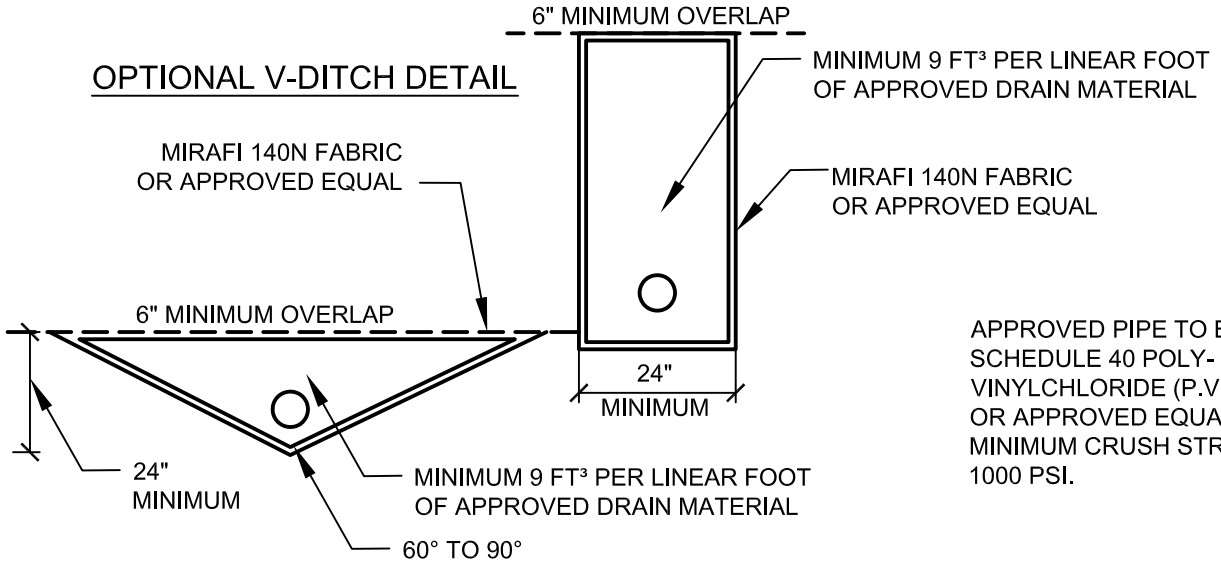
TYPICAL CANYON SUBDRAIN DETAIL

CANYON SUBDRAIN DETAILS



TRENCH DETAILS

OPTIONAL V-DITCH DETAIL



APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYLCHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 PSI.

DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 ½"	88-100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

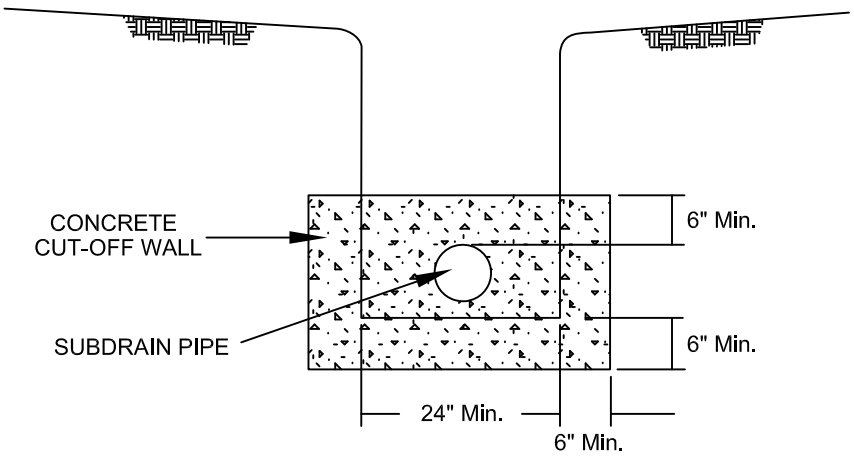
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

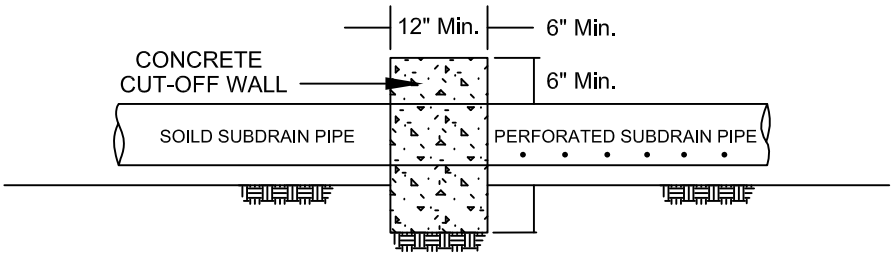
NOT TO SCALE

GEOFABRIC SUBDRAIN

FRONT VIEW



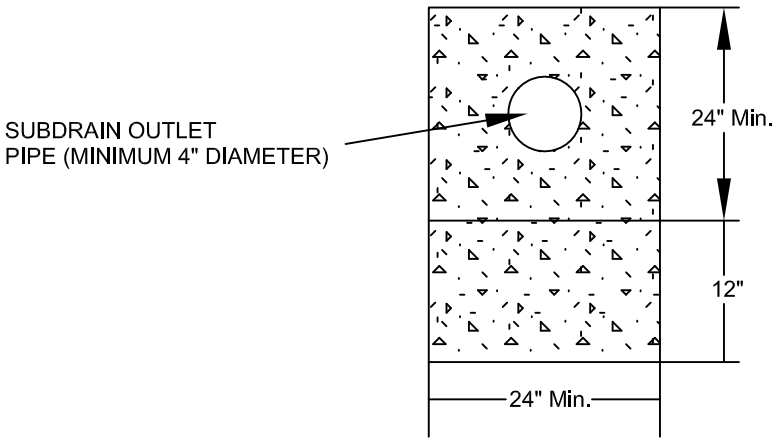
SIDE VIEW



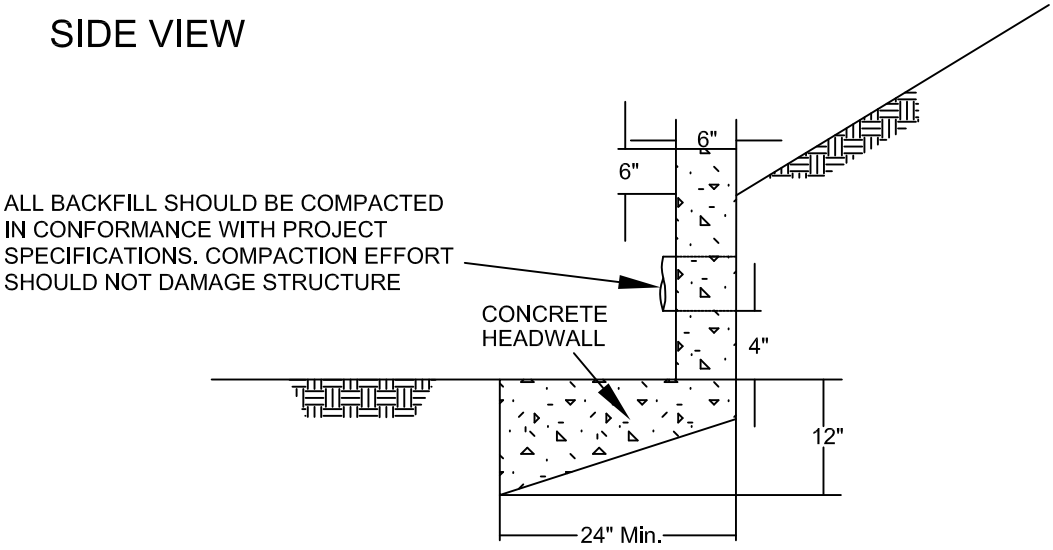
NOT TO SCALE

RECOMMENDED SUBDRAIN CUT-OFF WALL

FRONT VIEW



SIDE VIEW



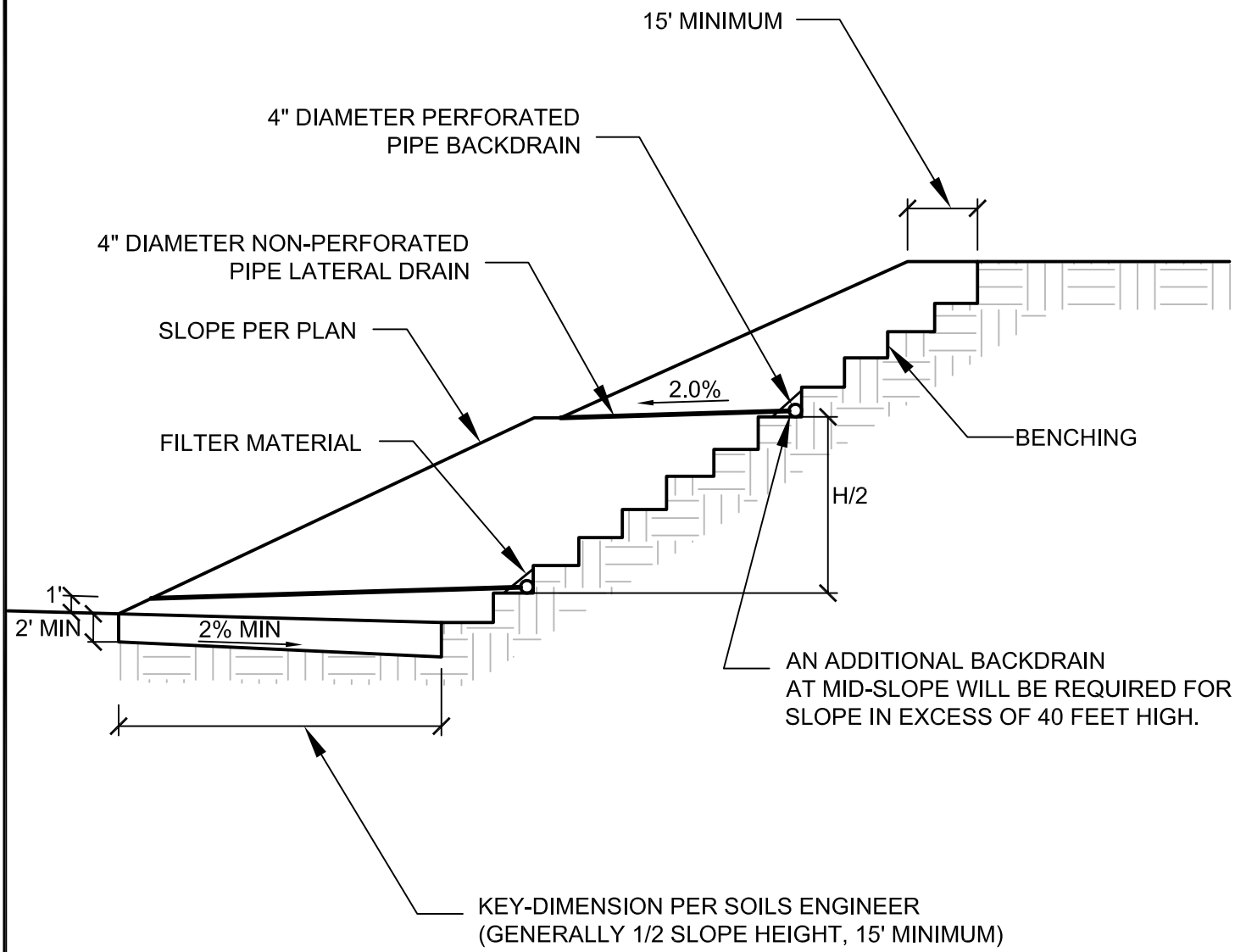
NOTE: HEADWALL SHOULD OUTLET AT TOE OF SLOPE
OR INTO CONTROLLED SURFACE DRAINAGE DEVICE

ALL DISCHARGE SHOULD BE CONTROLLED

THIS DETAIL IS A MINIMUM DESIGN AND MAY BE
MODIFIED DEPENDING UPON ENCOUNTERED
CONDITIONS AND LOCAL REQUIREMENTS

NOT TO SCALE

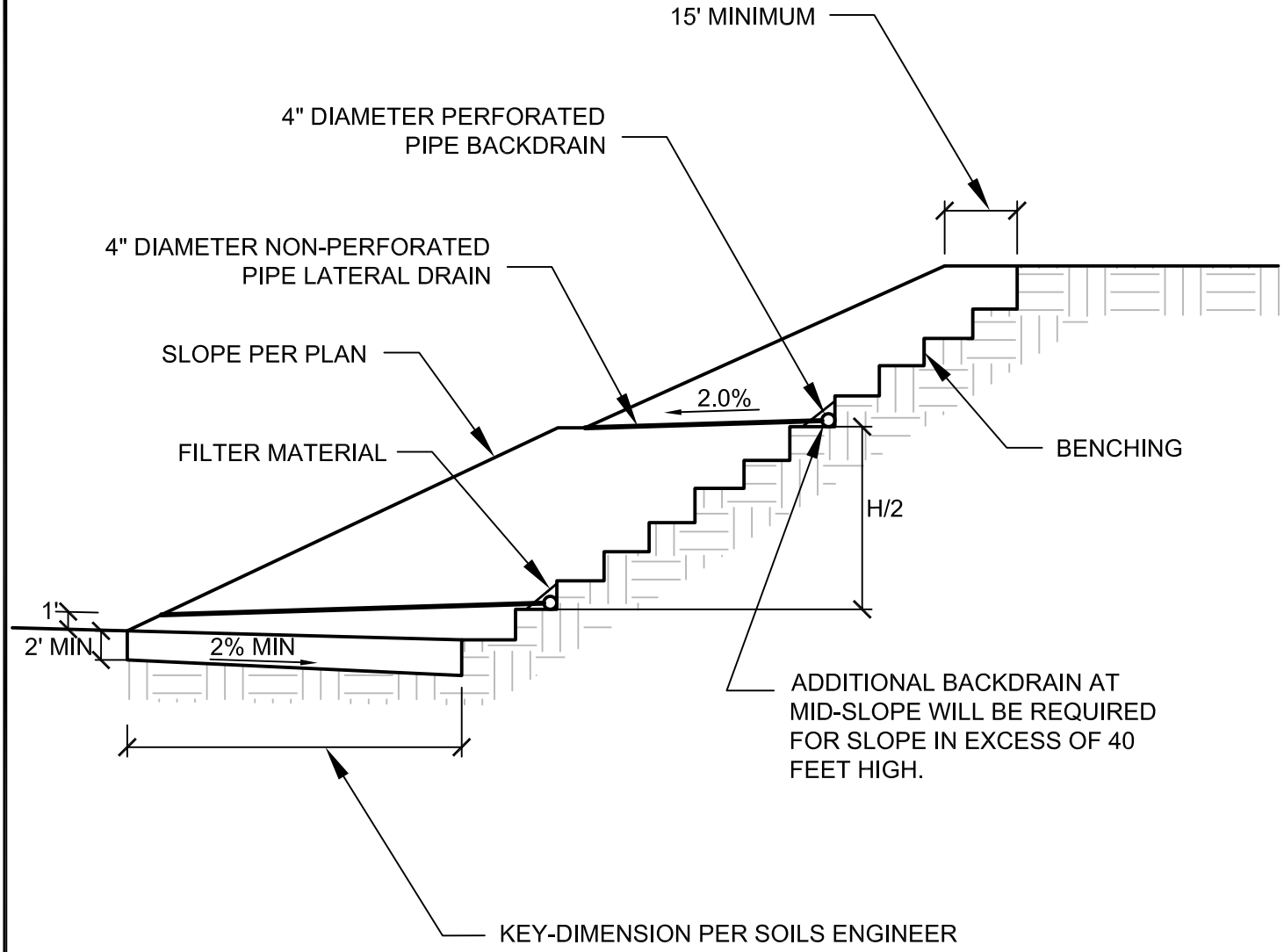
TYPICAL SUBDRAIN OUTLET HEADWALL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

NOT TO SCALE

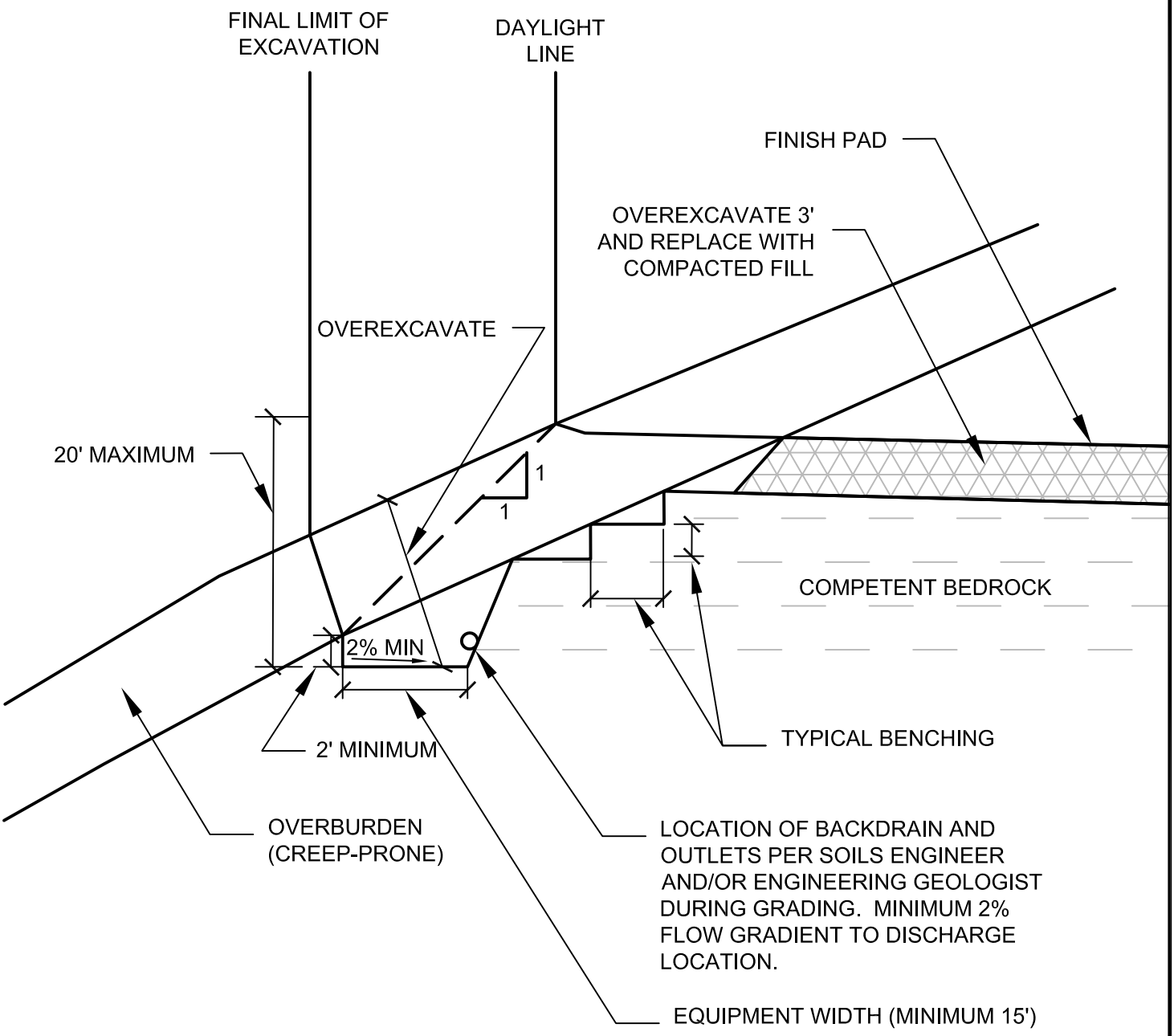
TYPICAL SLOPE STABILIZATION FILL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

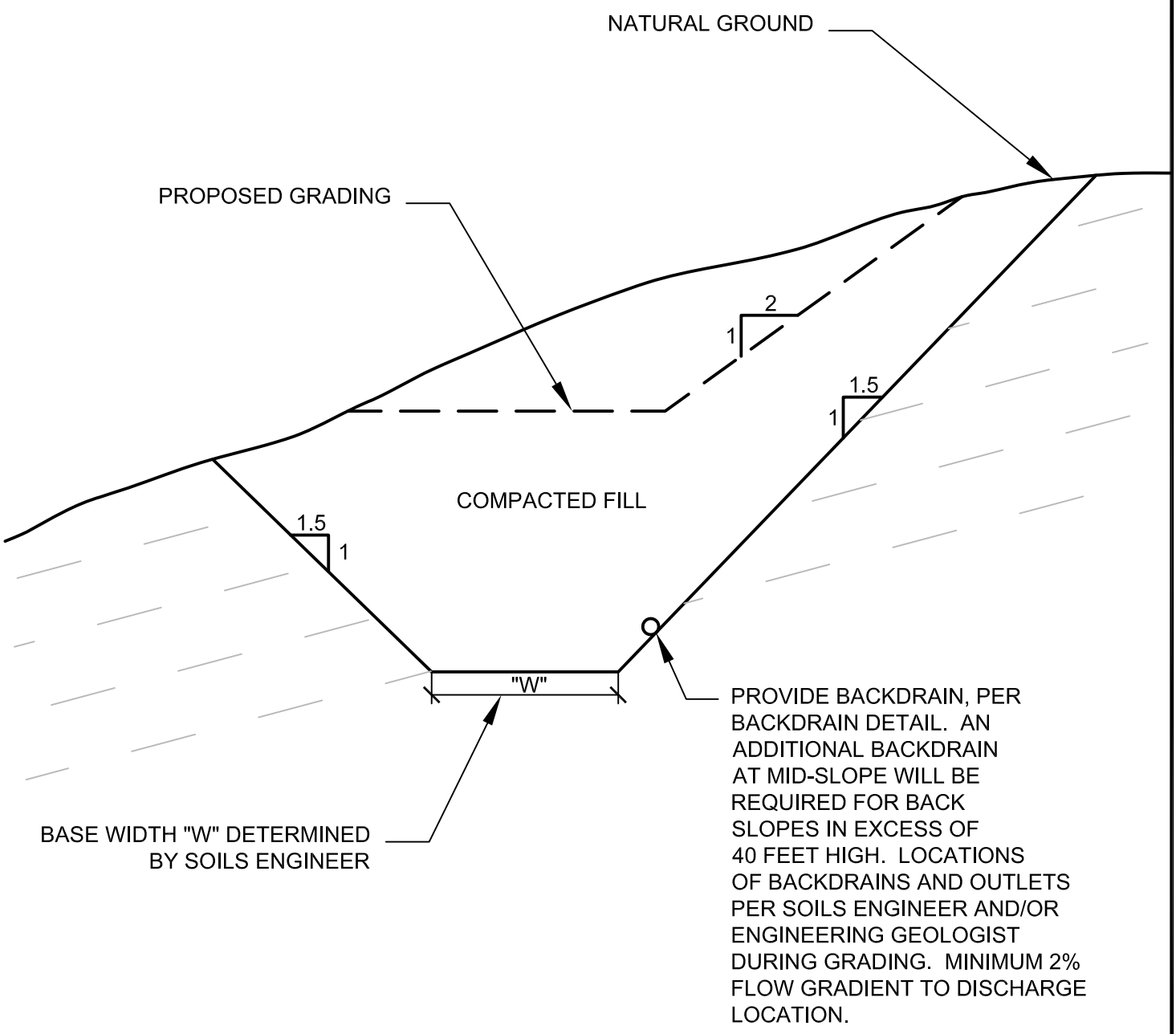
NOT TO SCALE

TYPICAL BUTTRESS FILL DETAIL



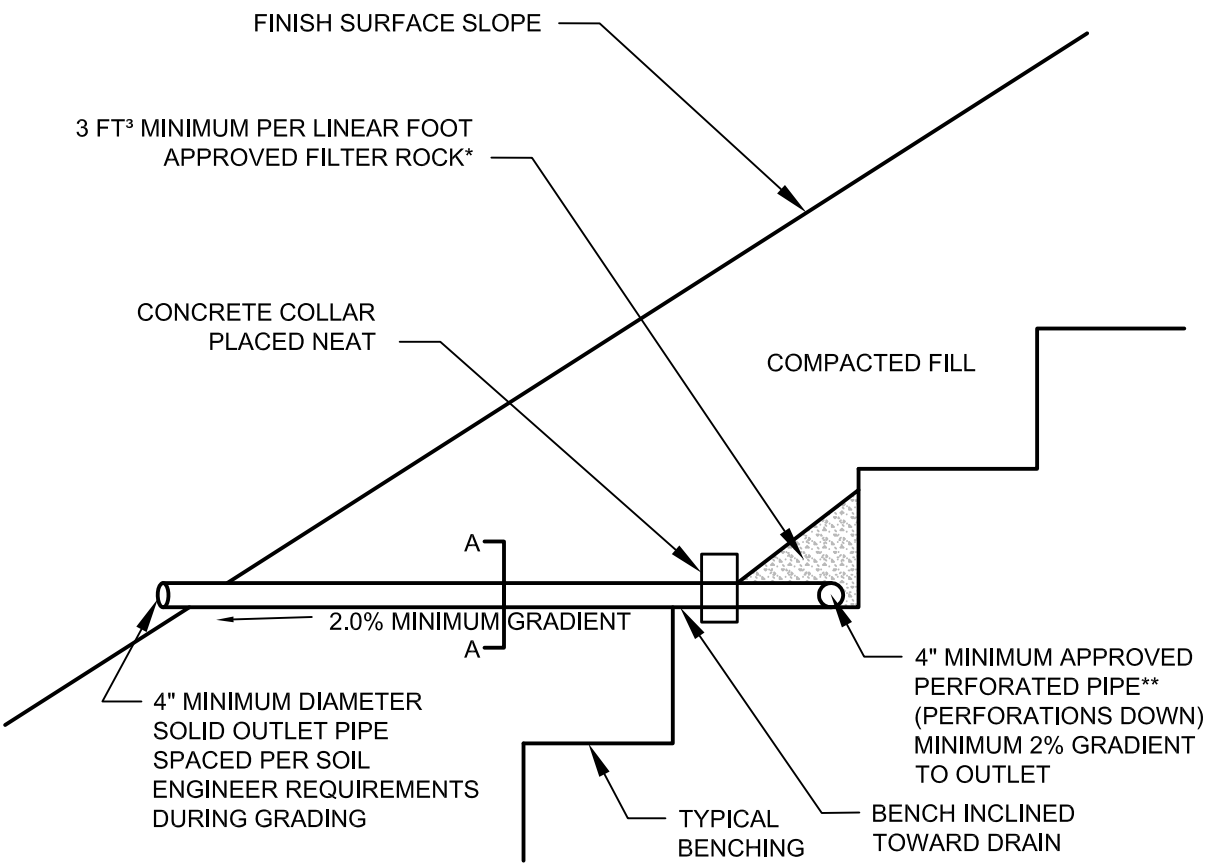
NOT TO SCALE

DAYLIGHT SHEAR KEY DETAIL

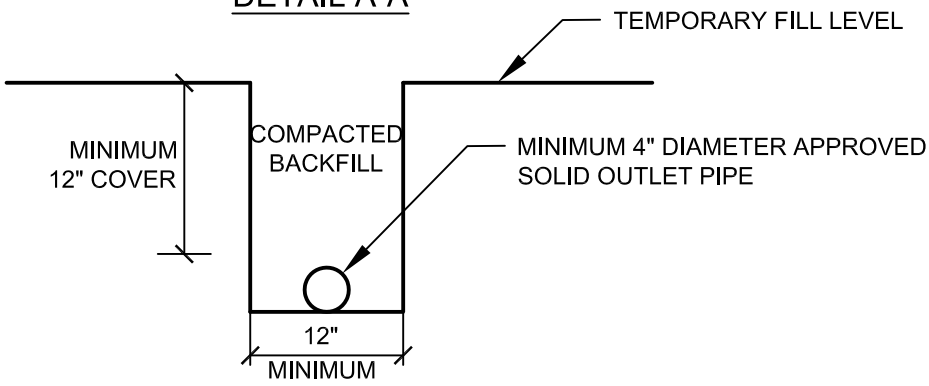


NOT TO SCALE

TYPICAL SHEAR KEY DETAIL



DETAIL A-A



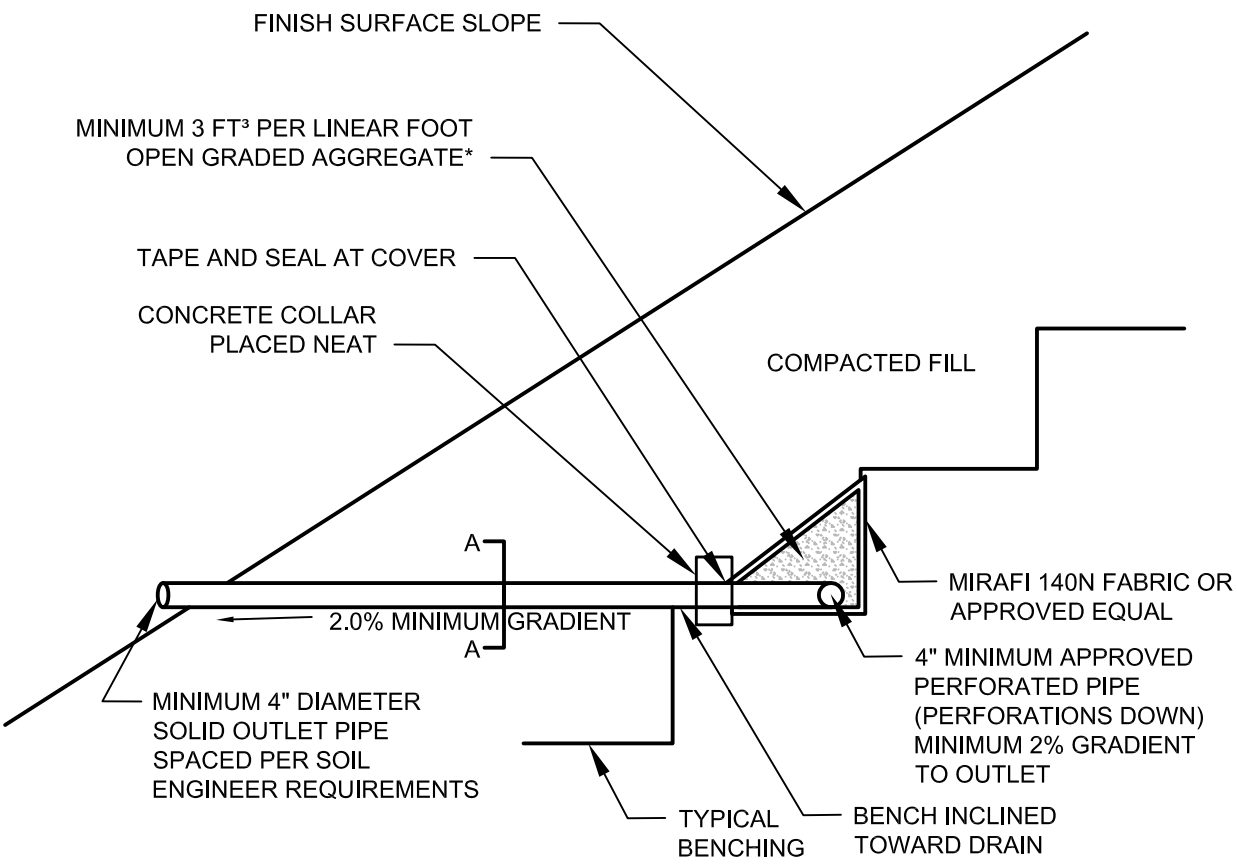
**APPROVED PIPE TYPE:
SCHEDULE 40 POLYVINYL CHLORIDE
(P.V.C.) OR APPROVED EQUAL.
MINIMUM CRUSH STRENGTH 1000 PSI

*FILTER ROCK TO MEET FOLLOWING
SPECIFICATIONS OR APPROVED EQUAL:

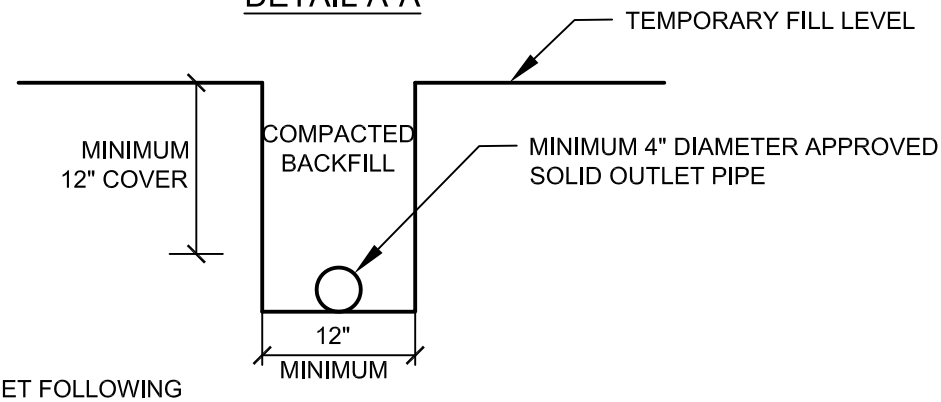
SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

NOT TO SCALE

TYPICAL BACKDRAIN DETAIL



DETAIL A-A

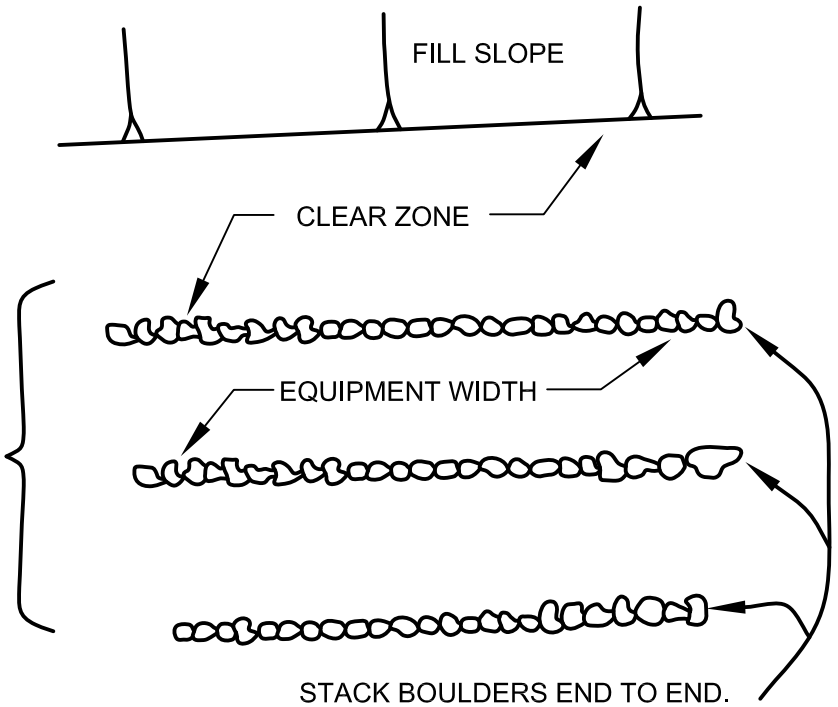


*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

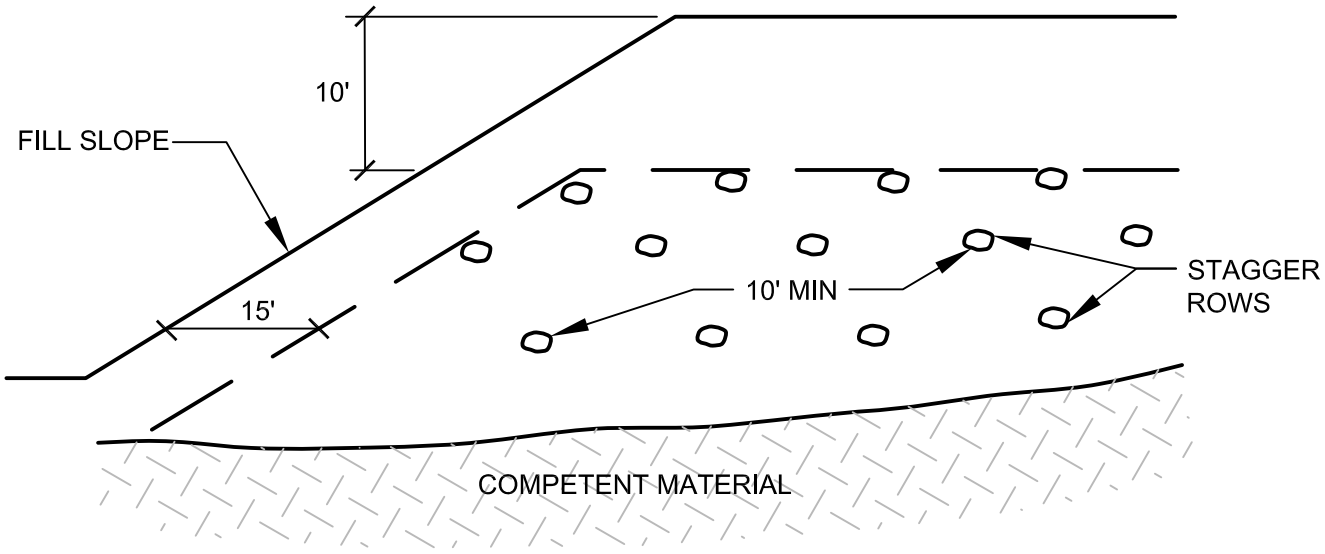
SIEVE SIZE	PERCENTAGE PASSING
1 ½"	100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

NOT TO SCALE

BACKDRAIN DETAIL (GEOFRABIC)

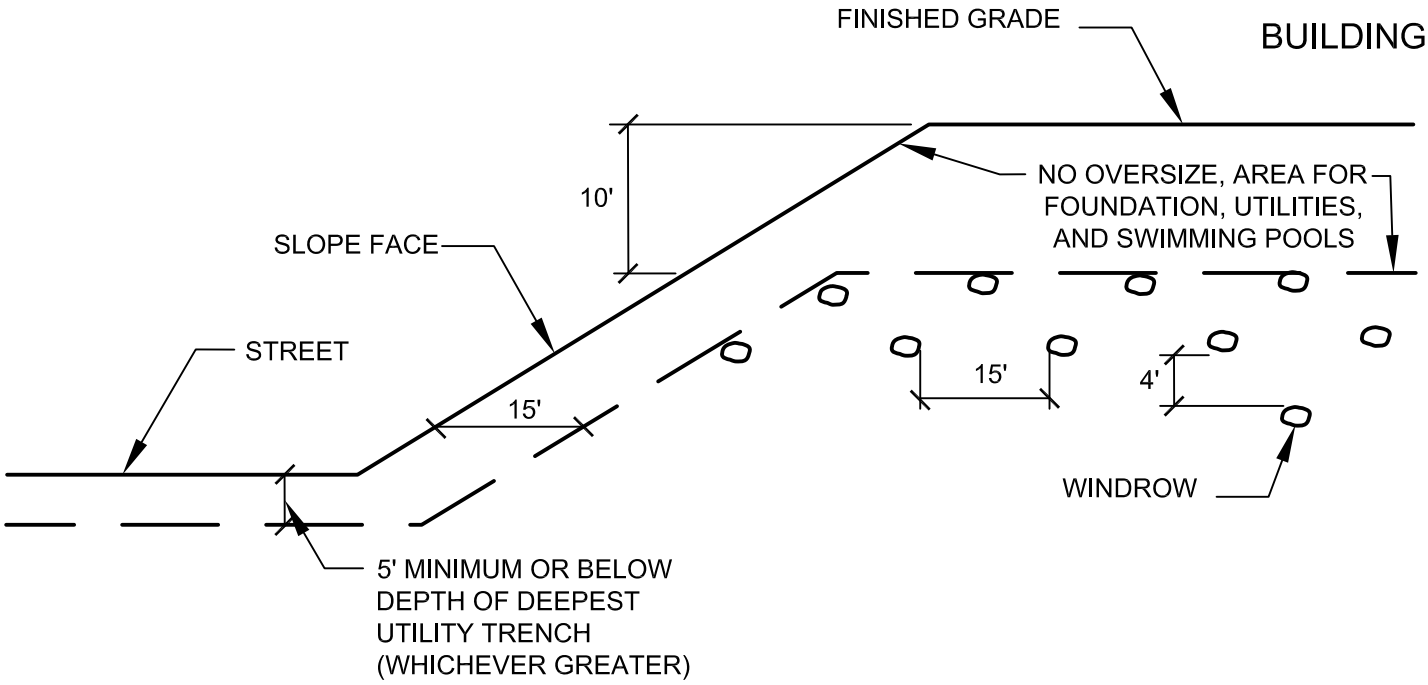


SOIL SHALL BE PUSHED OVER ROCKS AND FLOODED INTO VOIDS. COMPACT AROUND AND OVER EACH WINDROW.

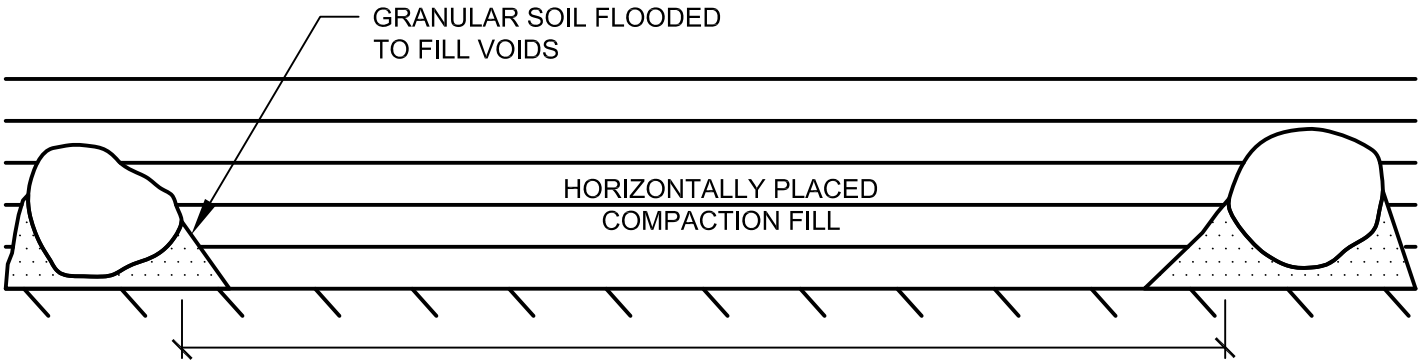


NOT TO SCALE

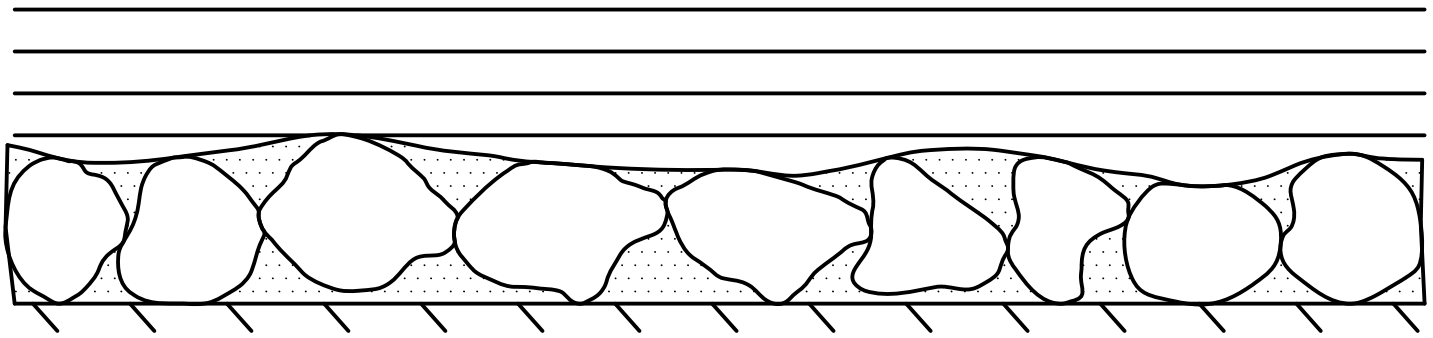
ROCK DISPOSAL DETAIL



TYPICAL WINDROW DETAIL (EDGE VIEW)



PROFILE VIEW

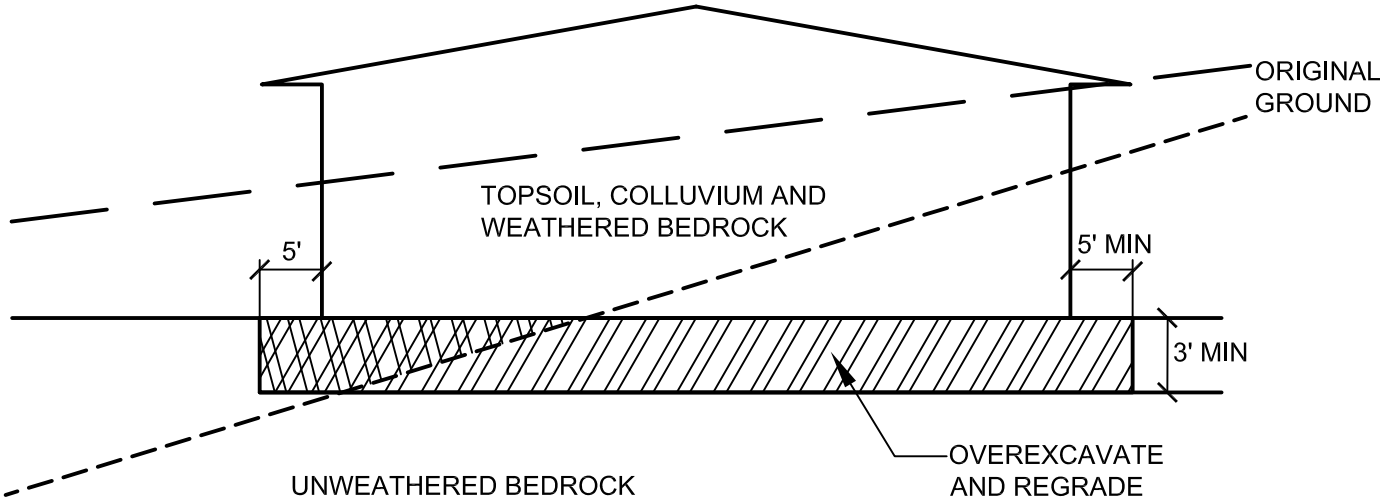


NOT TO SCALE

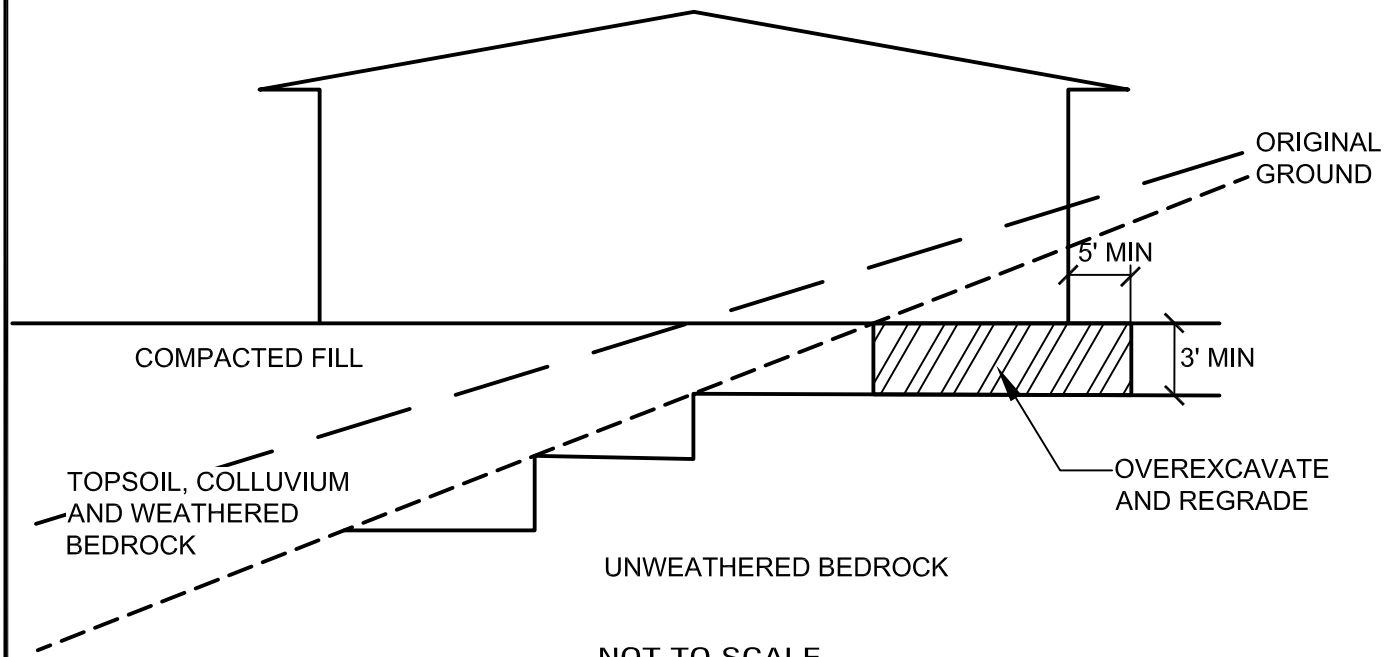
ROCK DISPOSAL DETAIL

GENERAL GRADING RECOMMENDATIONS

CUT LOT



CUT/FILL LOT (TRANSITION)



NOT TO SCALE

TRANSITION LOT DETAIL

GREENHOUSE GAS ANALYSIS

Francis Parker School – Linda Vista Campus
Master Plan Update
PTS #412987

City of San Diego

Prepared By:

Michael Baker International Inc.
14725 Alton Parkway
Irvine, California 92618
Contact: Mr. Achilles Malisos
Manager of Air and Noise Studies
949.472.3505

January 14, 2016

JN 144571

1.0 INTRODUCTION

Francis Parker School (Parker), an independent K-12 school serving San Diego since 1912, proposes amending Planned Development Permit (PDP) No. 84875 and Site Development Permit (SDP) No. 215276 to authorize changes to Parker's Master Plan for its Linda Vista Campus (project). The Linda Vista Campus comprises Parker's Middle School (Grades 6-8) and the Upper School (Grades 9-12). The project is intended to update the existing discretionary permits governing the Linda Vista Campus by integrating existing facilities with proposed new facilities into one comprehensive Master Plan that implement's Parker's vision for creating a modern, cohesive, and sustainable educational environment.

Under the existing PDP/SDP, the Linda Vista Campus serves a student population of up to 800 students. With the improvements and new facilities described in the Master Plan, the Linda Vista Campus would accommodate up to 940 students. The student population is planned to be increased incrementally over a five-year period to reach the 940 number.

1.1 Proposed Project

Demolition

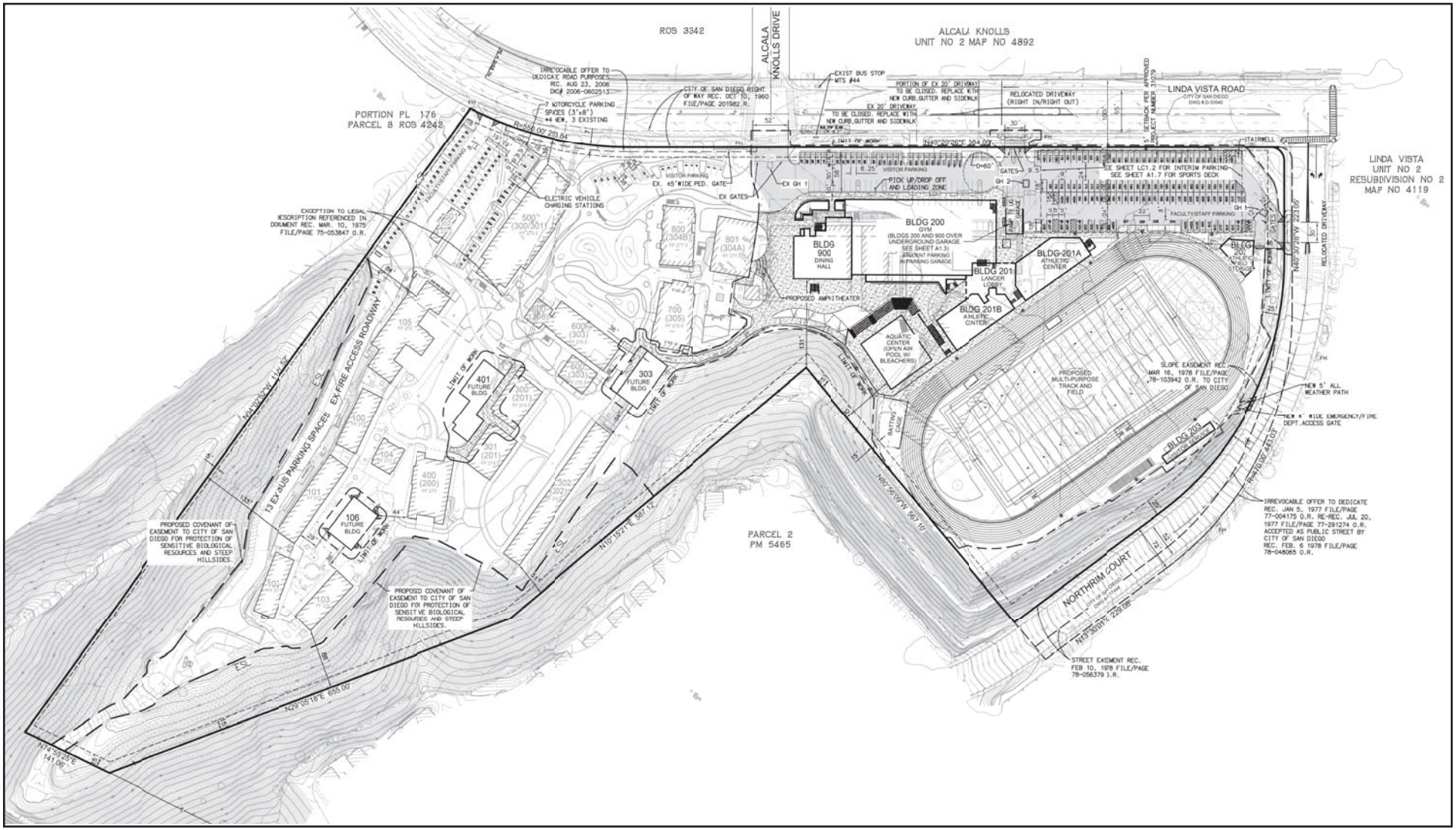
The project proposes demolition of three older buildings (Buildings 001, 002, and 003) that currently house the Field House, Middle School gymnasium and locker rooms, and the cafeteria.

Parking Structure

As part of the updated Master Plan, a two-level underground parking structure would be centrally located within the Linda Vista Campus (refer to Exhibit 1, *Site Plan*). The underground parking structure would accommodate 283 parking spaces. Surface lots within the Linda Vista Campus would provide an additional 238 parking spaces. In total, the Linda Vista Campus would provide 521 parking spaces.

Dining and Athletic Complex

Components of the proposed Dining/Athletic Complex would be built directly over the underground parking structure. A portion of the first floor and second floor over the parking structure would house a kitchen/dining hall area with outdoor terraces (Building No. 900). The remaining first floor level over the underground parking structure would house a gymnasium for indoor sports, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms (Building No. 200). Building No. 201 is a semi-enclosed lobby area connecting the gymnasium to Building Nos. 201A and 201B. Building Nos. 201A and 201B would house athletic offices, a multi-purpose room, press box, locker rooms, training rooms, laundry facilities, and restrooms. These two buildings would also provide rooftop bleacher seating overlooking the track and field. Building No. 202 would provide field storage and a ticketing office for field events. Restroom and concession services for visitors attending events on the athletic field would be provided in Building No. 203. Bleacher seating for visitors would be located in close proximity to Building No. 203. As part of the Dining/Athletic Complex, the existing playing surface on the athletic field would be reoriented and fitted with a regulation 8-lane track on its perimeter. An outdoor aquatic center with a pool and bleacher seating would round out the athletic facilities.



NOT TO SCALE

Michael Baker INTERNATIONAL

01/16 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Site Plan

Exhibit 1

Additional Buildings

Three new buildings are proposed to be located in the western portion of the Linda Vista Campus. Building No. 106 would be a two-story building, multi-purpose Student Center for the Upper School for various activities, meetings, and other collaborations. Building No. 303 would be a two-story multi-purpose Student Center for the Middle School for various activities, meetings, and other collaborations. Building No. 401 would be a single-story Maker's Space for students to design and fabricate projects in a hands-on manner, using different types of equipment and tools, such as 3-D printers. These three buildings are slated for construction at a future date or dates as funding becomes available.

Roadway Modifications

The project also proposes modifications to the circulation within the Linda Vista Campus. In addition to the main entrance, there are three other existing openings onto Linda Vista Road serving the Linda Vista Campus; one to the west of the main entrance and two to the east. The existing opening immediately east of the main entrance would be relocated from Linda Vista Road to Northrim Court. The easternmost opening onto Linda Vista Road would be reconfigured for direct access into the proposed underground parking garage, and to provide emergency vehicle access to the proposed Dining/Athletic Complex. A raised median would be added in Linda Vista Road to limit access at this driveway to right-in/right-out. A small guard house, similar to the one at the main entrance, would be placed at this opening and to the Northrim Court opening. A traffic signal would be added to the intersection of Linda Vista Road and Northrim Court. A second northbound lane would be added to Northrim Court just south of this intersection to provide one dedicated left-hand turn lane and one dedicated right-hand turn lane.

The proposed Northrim Court opening would be part of a reconfiguration of the existing surface parking lot in the northeasterly portion of the Linda Vista Campus. The surface parking lot would be modified to provide emergency vehicle access to the Dining/Athletic Complex, and to accommodate the elevated sports deck approved under the existing PDP/SDP, but not yet constructed. The updated Master Plan provides refinements to further integrate the elevated sports deck with the parking lot below and the Dining/Athletic Complex.

Operations

The following conditions would govern operation of activities on the Linda Vista Campus:

- Limit of 60 evening events per year. An evening event is defined as an event on the athletic field that takes place after 8:00 p.m.
- All field lights must be turned off by 10:00 p.m. unless a varsity game or match extends beyond this time as a result of circumstances beyond the school's reasonable control, but in no event would lights remain on after 11:00 p.m.
- All outdoor lighting, except lighting deemed necessary for safety and security purposes, would be turned off between 11:00 p.m. and 6:00 a.m.
- Activities on the athletic fields are allowed to begin no earlier than 8:00 a.m. on Saturdays and 9:00 a.m. on Sundays.

2.0 GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of carbon dioxide (CO_2) per year.[1] Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit (ºF) over the next century. Methane is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, methane (CH_4), and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 parts per million (ppm) to 300 ppm. For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

3.0 REGULATIONS AND SIGNIFICANCE CRITERIA

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide-equivalent concentration is required to keep global mean warming below two degrees Celsius (ºC), which in turn is assumed to be necessary to avoid dangerous climate change.

Executive Order S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

Additionally, issued in April 2015, Executive Order B-30-15 requires statewide GHG emissions to be reduced 40 percent below 1990 levels by 2030. Assembly Bill (AB) 32 Statutes of 2006, Health and Safety Code section 38500 et seq. requires that the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons of CO_2 equivalent ($MTCO_2eq$).[2] Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

[1] California Energy Commission*, Inventory of California Greenhouse Gas Emissions and Sinks: 2000 to 2012,* 2014.

[2] Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

In June 2008, the California Governor's Office of Planning and Research (OPR) published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in CEQA documents.[3] This is assessed by determining whether the proposed project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan which includes nine Early Action Measures (qualitative approach). For project level analyses, the Attorney General contributed to OPR's Technical Advisory and identified potential Mitigation Measures that address where GHG emissions reductions can be achieved in order to achieve the goals of Assembly Bill 32. As set forth in the OPR Technical Advisory and in the amendments to the *CEQA Guidelines* Section 15064.4, this analysis examines whether the project's GHG emissions are significant based on a qualitative and performance based standard (*CEQA Guidelines* Section 15064.4(a)(1) and (2)).

3.1 City of San Diego

General Plan

The City's 2008 General Plan update (General Plan) included several climate change-related policies aimed at reducing GHG emissions from future development and City operations. The Conservation Element, Land Use and Community Planning Element, Mobility Element, Urban Design Element, and Public Facilities, Services, and Safety Element contain policy language related to sustainable land use patterns, alternative modes of transportation, energy efficiency, water conservation, waste reduction, and greater landfill efficiency. The overall intent of these policies is to support climate protection actions, while retaining flexibility in the design of implementation measures which could be influenced by new scientific research, technological advances, environmental conditions, or state and federal legislation.

Climate Protection Action Plan

The City developed a Climate Protection Action Plan (CPAP) in 2005 that identifies policies and actions to decrease GHG emissions from city operations. The CPAP includes several recommendations for reducing GHG emissions related to transportation and energy usage. The City's General Plan was amended in 2012 to include Policy CE-A.13 to regularly monitor and update the CPAP.

Climate Mitigation and Adaptation Plan

The City's Climate Mitigation Adaptation Plan (CMAP) was developed to provide a mechanism for the City to achieve the goals of AB 32 and the CARB Scoping Plan at a program level. The CMAP elements were prepared pursuant to guidance from the amended CEQA Guidelines and CARB recommendations for what constitutes an effective GHG reduction plan. The City's CMAP is intended to establish a planning horizon of 2013 through 2035, quantify the City's GHG emissions, establish GHG reduction targets for 2020, identify strategies and measures to reduce GHG emissions, and provide guidance for monitoring progress on an annual basis.

Climate Action Plan

The City adopted a Climate Action Plan (CAP) in December 2015. The CAP identifies measures to effectively meet GHG reduction targets for 2020 (15 percent below "business-as-

[3] Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

usual" emission levels) and 2035 (49 percent below "business-as-usual" emission levels). Attainment of the reduction targets would require significant City and regional actions, continued implementation of federal and state mandates, and dedicated residents. Through 2020, the CAP meets the requirements set forth in CEQA Guidelines Section 15183.5, whereby a lead agency (City of San Diego) may analyze and mitigate the significant effects of GHG emissions at a programmatic level.

3.2 CEQA Significance Criteria

Appendix G of the *State CEQA Guidelines* contains analysis guidelines related to the assessment of GHG emissions impacts. These guidelines have been utilized to evaluate the potential for the proposed project to cause potentially significant GHG emissions impacts:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; (refer to Section 4.1, *Direct and Indirect Greenhouse Gas Emissions*); or

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions (refer to Section 4.2, *Applicable Plans, Policies, and Regulations*);

Based on these standards and thresholds, the effects of the proposed project have been categorized as a "less than significant impact."

3.3 City of San Diego Greenhouse Gas Emissions Thresholds

The City does not currently have adopted significance thresholds for GHG emissions. Therefore, in accordance with discussions with City staff, a 900 metric ton (MT) CO_2eq per year screening criterion for determining when a detailed GHG analysis is being used by the City based on guidance from the California Air Pollution Control Officers Association (CAPCOA) report *CEQA & Climate Change* (January 2008).[4,5] The CAPCOA report references the 900 $MTCO_2$eq guideline as a conservative threshold for requiring further analysis and mitigation. The 900 $MTCO_2$eq screening threshold was developed by CAPCOA by analyzing the capture of 90 percent or more of future discretionary developments for residential units and square footage of commercial space. By reviewing data from cities in California on pending development applications, the 90 percent capture was the "market capture" rate that equated to 50 single-family residential units and 30,000 square feet of office. The GHG emissions associated with 50 single-family residential units and 30,000 square feet of office were found to be 900 metric tons and 800 metric tons respectively. Given the variance on individual projects, a single threshold of 900 metric tons was selected for residential and office projects. The 900 metric ton screening threshold was also selected for non-office commercial projects and industrial projects to provide equivalency for different projects in other economic sectors. The objective was to set the emission threshold low enough to capture a substantial fraction of future residential and nonresidential development that would be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that would contribute a cumulatively less than significant amount to

[4] Telephone Communication, Ms. Anna L. McPherson, Senior Planner, City of San Diego Development Services Department, Environmental Analysis Section, January 8, 2016.

[5] City of San Diego Memorandum, *Updated – Addressing Greenhouse Gas Emissions from Projects Subject to CEQA,* August 18, 2010.

statewide GHG emissions. This emission level includes the annual emissions from vehicle trips, typical energy and water use, and other factors associated with projects. Projects that meet the criterion are not required by the City to prepare a detailed GHG technical analysis report.

4.0 PROJECT IMPACT ANALYSIS

The project is proposed to be constructed in sequences. Table 1, *Project Construction Sequences*, summarizes the anticipated dates in which each construction sequence is proposed to start and be completed. Construction activities would include demolition, site preparation, grading, paving, building construction, and architectural coating.

Table 1
Project Construction Sequences

Construction Sequence	Start Date	Completion Date	Duration
1	June 2016	November 2017	18 Months
2	June 2021	January 2023	20 Months
3	June 2025	May 2026	12 Months
4	March 2029	December 2030	22 Months
Note: Dates are subject to change based on several factors including construction schedules, project funding, local policies, etc.			

4.1 Direct and Indirect Greenhouse Gas Emissions

Level of Significance Before Mitigation: *Less Than Significant Impact*

Project-related GHG emissions would include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions Estimator Model (CalEEMod) was utilized to determine direct and indirect GHG emissions. CalEEMod relies upon project specific land use data to calculate emissions. Table 2, *Estimated Greenhouse Gas Emissions*, presents the estimated CO_2, N_2O, and CH_4 emissions of the proposed project. CalEEMod outputs are contained within Attachment A, *Greenhouse Gas Emissions Data*.

Direct Project-Related Greenhouse Gas Emissions

- Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[6] As seen in Table 2, the proposed project would result in 121.77 $MTCO_2eq/yr$ from direct construction-related sources of GHG emissions.

[6] The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,* October 2008.

- Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 2, the proposed project would result in a nominal amount of area source GHG emissions.

- Mobile Source. CalEEMod relies upon trip generation data and project specific land use data to calculate mobile source emissions. As shown in Table 2, using CALEEMod's emissions data without consideration of specific project design features discussed below, the project would directly result in 359.29 $MTCO_2eq/yr$ of mobile source-generated GHG emissions.

Table 2
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
• Construction (amortized over 30 years)	121.27	0.02	0.50	0.00	0.00	121.77
• Area Source	0.01	0.00	0.00	0.00	0.00	0.01
• Mobile Source	358.95	0.02	0.40	0.00	0.00	359.29
Total Unmitigated Direct Emissions[3]	***480.23***	***0.04***	***0.90***	***0.00***	***0.00***	***481.07***
Indirect Emissions						
• Energy	294.29	0.01	0.28	0.00	0.83	295.38
• Water Demand	42.55	0.13	3.29	0.00	1.02	46.37
• Solid Waste Generation	11.56	0.68	17.08	0.00	0.00	25.91
Total Unmitigated Indirect Emissions[3]	***348.4***	***0.82***	***20.65***	***0.00***	***1.85***	***367.66***
Total Unmitigated Project-Related Emissions[3]	***848.73 $MTCO_2eq/yr$***					
900 $MTCO_2eq$ Screening Threshold Exceeded?	***No***					

Notes:
1. Emissions calculated using CalEEMod.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 2016.
3. Totals may be slightly off due to rounding.

Refer to Attachment A, *Greenhouse Gas Emissions Data*, for detailed model input/output data.

Indirect Project-Related Greenhouse Gas Emissions

- *Energy Consumption*. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via San Diego Gas & Electric. Using CALEEMod's emissions data without consideration of specific project design features discussed below, the proposed project would indirectly result in 295.38 $MTCO_2eq/yr$ due to energy consumption; refer to Table 2.

- *Water Demand*. Water demand associated with operation of the proposed project was calculated using CalEEMod and project-specific land use data. Emissions from indirect energy impacts due to water demand would result in an approximate net increase of 46.37 $MTCO_2eq/yr$; refer to Table 2.

- *Solid Waste*. Solid waste associated with operations of the proposed project would result in 25.91 $MTCO_2eq/yr$; refer to Table 2.

Total Project-Related Greenhouse Gas Emissions

As shown in Table 2, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 848.73 $MTCO_2eq/yr$.

Project Design Features

The project includes various project design features that would further reduce project-related GHG emissions. The project would redevelop a portion of the existing campus and would place the proposed multi-purpose Student Center, dining and recreational uses of the Linda Vista Campus less than 0.05-mile from local San Diego Metropolitan Transit System (SDMTS) bus lines. The project design also includes access refinements and pedestrian connections that connect pedestrian and vehicle access to external streets and pedestrian facilities contiguous with the project site. The project would integrate the project components and does not include physical barriers (e.g., walls, landscaping, or slopes) that would impede pedestrian circulation.

The project would design buildings to be water and energy efficient, exceeding Title 24 requirements, as well as the California Green Building Code standards. The project would apply low volatile organic compounds (VOC) cleaning and painting supplies, install high efficient light-emitting diodes (LED) lighting, and institute recycling and composting services to reduce solid waste by at least 50 percent. Trash and recycling bins would be provided in public areas throughout the Linda Vista Campus. Trash and recycling compactors would also be installed to reduce the number of waste disposal hauling trips. Low-flow and energy efficient fixtures and water-efficient irrigation systems are incorporated into the project design to maximize the efficient use of water and minimize the effects of drought within the City. The project would also replace approximately 9,000 square feet of grass with native drought-tolerant landscaping, thereby reducing high levels of irrigation use.[7] Photovoltaic solar panels are proposed on the roof of the Performing Arts Center that would offset the project's energy consumption by approximately 15,842 kilowatt hours (kWh) annually.

Greenhouse Gas Emissions With Project Design Features

Implementation of proposed project design features described above would result in reduced project-related GHG emissions. GHG reductions were applied using CalEEMod. Table 3, *Greenhouse Gas Emissions With Project Design Features*, shows the reduced GHG emissions resulting from implementation of project design features associated with water, energy, solid waste, and land use efficiency measures.

Reduction measures applied in CalEEMod and accounted for in Table 3 from project design features include the following:

- Transit accessibility, as the project site is located adjacent to SDMTS bus stops;
- Pedestrian connections to the off-site circulation network;

[7] The Linda Vista Campus already utilizes artificial turf for the existing athletic field. It should be noted that the proposed reconfigured athletic field would also use artificial turf. The CalEEMod emissions data depicted in Table 2 does not include reductions for artificial turf. Therefore, reductions for artificial turf have been applied as a project design feature and associated emissions are depicted in Table 3.

- Include facilities that encourage/accommodate the use of ridesharing, transit, school bus, pedestrian, and bicycle commuting;
- Low VOC cleaning and painting supplies;
- Exceed Title 24 requirements by including LED lighting and solar panels on the Performing Arts Center that would generate approximately 15,842 kWh annually;
- Low-flow faucets, toilets, and showers;
- Installation of artificial turf;
- Water-efficient irrigation systems; and
- Institute recycling and composting services to reduce solid waste by at least 50 percent.

Table 3
Greenhouse Gas Emissions With Project Design Features

Source	CO_2	CH_4		N_2O		Total Metric Tons of CO_2eq
	Metric Tons/yr[1]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	Metric Tons/yr[1]	Metric Tons of CO_2eq[2]	
Direct Emissions						
• Construction (amortized over 30 years)	121.27	0.02	0.50	0.00	0.00	121.77
• Area Source	0.01	0.00	0.00	0.00	0.00	0.01
• Mobile Source	358.95	0.02	0.40	0.00	0.00	359.29
Total Unmitigated Direct Emissions[3]	***480.23***	***0.04***	***0.90***	***0.00***	***0.00***	***481.07***
Indirect Emissions						
• Energy	174.34	0.01	0.16	0.00	0.51	175.00
• Water Demand	42.55	0.13	3.29	0.00	1.02	46.37
• Solid Waste Generation	11.56	0.68	17.08	0.00	0.00	25.91
Total Unmitigated Indirect Emissions[3]	***228.45***	***0.82***	***20.56***	***0.00***	***1.53***	***247.28***
Total Unmitigated Project-Related Emissions[3]	***728.35 $MTCO_2eq/yr$***					
900 $MTCO_2eq$ Screening Threshold Exceeded?	***No***					

Notes:
1. Emissions calculated using CalEEMod.
2. CO_2 Equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 2016.
3. Totals may be slightly off due to rounding.

Refer to Attachment A, *Greenhouse Gas Emissions Data*, for detailed model input/output data.

Additional Sustainable Development Practices and Planned Initiatives

Francis Parker School has developed a Sustainability Action Plan to evaluate existing practices and to identify initiatives for additional sustainable development practices. Although these initiatives cannot be quantified and applied in CalEEMod (because they are planned for the future or otherwise not quantifiable), these practices would further reduce GHG emissions beyond what is depicted in Table 3. The project includes sustainable development practices such as retrofitting light fixtures in older buildings and the athletic field with LED fixtures and achieving Leadership in Energy & Environmental Design (LEED) Gold certification for future buildings.

Francis Parker School also continues to participate in sustainable activities such as providing San Diego Rescue Mission food donations (Francis Parker donates an average of 120 pounds of food per week); the San Diego Gas & Electric Level 2 energy audit; the City's pre-consumer composting program; an information technology [IT] energy management program; utilizing the Energy Star Portfolio Manager; incorporating sustainability education in the classroom and providing awareness training among the student body association, faculty, contracted service providers (i.e., food service and janitorial service), and supporting donors; and planning for the installation of several energy efficient improvements on campus.

The various energy efficient improvements include photovoltaic solar panels on other campus buildings roofs and parking lot spaces, variable refrigerant flow (VRF) with "smart" temperature control thermostats in all classrooms, offices, and other facilities, window replacement on older buildings, cool roof technology, electric vehicle (EV) charging stations, conversion from disposable to reusable lunch dishware, paperless account billing, and carbon credit purchases associated with global studies trips. The school also plans to retrofit fixtures in the interior of older buildings (that will not be demolished as part of the Master Plan Update), as well as the exterior site lighting, with LED lights in order to reduce energy consumption by approximately 75,000 kWh annually, which would result in a GHG emissions reduction of 32 $MTCO_2eq/yr$.[8]

Additional planned initiatives include providing incentives to members of faculty and staff who rideshare, take public transportation, or use vehicles (e.g., bikes) that do not emit GHGs. Francis Parker School has also established a potential initiative to transition to a grey water irrigation system contingent upon the City of San Diego providing the necessary infrastructure improvements.

The planned initiative to provide options for employees and enrolled students to commute to and from campus through promoting rideshare, public transportation, and available facilities for carpoolers, school bus services, bicyclists, and pedestrians would also be in agreement with the City's *Transportation Demand Management Program* (TDM program), which sets forth recommendations to improve mobility, reduce congestion and air pollution.

Conclusion

As depicted in Table 2, using CALEEMod's emissions data without consideration of specific project design features discussed above, the proposed project's GHG emissions would be 848.73 $MTCO_2eq/yr$. Although the proposed project's GHG emissions are below the 900 $MTCO_2eq/yr$ GHG screening threshold, the proposed project includes the design features described above that would further reduce project-related GHG emissions to 728.35 $MTCO_2eq/yr$; refer to Table 3. Throughout the course of project buildout, additional sustainable development practices would further reduce emissions associated with transportation and energy consumption.

Furthermore, on April 2, 2015, California Governor Jerry Brown signed Executive Order B-29-15, imposing a 25 percent mandatory water reduction in 2015 over 2013 usage for commercial, industrial, and institutional properties (i.e., campuses, golf courses, cemeteries), along with other restrictions. As an institutional property, the Linda Vista Campus would be required to reduce water usage by 25 percent through the use of water conservation strategies, which would further reduce the project's GHG emissions. Therefore, the project's design features and

[8] Based on the following San Diego Gas and Electric GHG intensity factors from CalEEMod version 2013.2.2: 720.49 pounds per megawatt hour (lb/MWh) for CO_2, 0.029 lb/MWh for CH_4, and 0.006 lb/MWh for N_2O.

additional sustainable development practices would further reduce the project's direct and indirect GHG emissions below the 900 $MTCO_2eq/yr$ GHG screening threshold. Impacts in this regard would be less than significant.

4.2 Applicable Plans, Policies, and Regulations

Level of Significance Before Mitigation: *Less Than Significant Impact.*

General Plan

The General Plan Conservation Element provides policies for the long-term conservation and sustainable management of natural resources. These policies formalize the City's commitment to increase energy efficiency and the use of renewable energy. They address both the GHG emissions from the community (residential, commercial, and industrial sectors) and the GHG emissions from City government operations. Further, they address local GHG mitigation strategies to help reduce GHG emissions, identify adaptation goals, and curb the impact of climate change at the local level. The General Plan Public Facilities and Conservation Element together provide policy on both facility infrastructure and management of vital resources such as water and energy. The Mobility Element and the Urban Design Element policies help support, integrate, and implement land use and transportation decisions, which are linked to air quality and sustainability concerns. Project consistency with General Plan policies that are applicable to the project are summarized in Table 4, *Consistency with the City's General Plan*.

Table 4
Consistency with the City's General Plan

General Plan Policy	Project Consistency
CE-A.5.: Employ sustainable or "green" building techniques for the construction and operation of buildings. a. Develop and implement sustainable building standards for new and significant remodels of residential and commercial buildings to maximize energy efficiency, and to achieve overall net zero energy consumption by 2020 for new residential buildings and 2030 for new commercial buildings. This can be accomplished through factors including, but not limited to: • Designing mechanical and electrical systems that achieve greater energy efficiency with currently available technology; • Minimizing energy use through innovative site design and building orientation that addresses factors such as sun-shade patterns, prevailing winds, landscape, and sun-screens; • Employing self generation of energy using renewable technologies; • Combining energy efficient measures that have longer payback periods with measures that have shorter payback periods; • Reducing levels of non-essential lighting, heating and cooling; and • Using energy efficient appliances and lighting. b. Provide technical services for "green" buildings in partnership with other agencies and organizations.	**Consistent.** As the project's proposed buildings would be designed to exceed Title 24 requirements as well as the California Green Building Code standards at a minimum, the project would be consistent with this policy. The project would install energy efficient appliances and lighting. In addition, the project would install photovoltaic solar panels on the roof of the Performing Arts Center, and initiatives for more photovoltaic solar panel installations on other campus building roofs and parking lot spaces, thereby achieving greater energy efficiency with currently available technology. Other energy efficient initiatives the project proposes to reduce energy include variable refrigerant flow (VRF) with "smart" temperature control thermostats, and cool roof technology.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
CE-A.7.: Construct and operate buildings using materials, methods, and mechanical and electrical systems that ensure a healthful indoor air quality. Avoid contamination by carcinogens, volatile organic compounds, fungi, molds, bacteria, and other known toxins. a. Eliminate the use of chlorofluorocarbon-based refrigerants in newly constructed facilities and major building renovations and retrofits for all heating, ventilation, air conditioning, and refrigerant-based building systems. b. Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to protect installers and occupants' health and comfort. Where feasible, select low-emitting adhesives, paints, coatings, carpet systems, composite wood, agri-fiber products, and others.	**Consistent.** Refer to Response CE-A.5. The project would include efficient appliances and non-toxic materials that meet current indoor air quality standards. The project would also utilize low volatile organic compounds (VOC) cleaning and painting supplies.
CE-A.8.: Reduce construction and demolition waste in accordance with Public Facilities Element, Policy PF-1.2., or by renovating or adding on to existing buildings, rather than constructing new buildings.	**Consistent.** Pursuant to State diversion targets, a minimum of 75 percent of construction materials would be recycled. According to the project Waste Management Plan, approximately 3,197 tons of material would be recycled, to include landscaping, concrete, asphalt, foundations, building structure, masonry walls, curb and gutter, and switch gear and cable. Demolition of the existing gym would include salvaging stained and painted wood plank floors. It is the intent of the applicant to donate the wood floor planks so that they may be re-used. The project would also include a Solid Waste Management Coordinator, who would be responsible for working with all contractors and subcontractors to ensure material separation and coordinate proper disposal and diversion of waste generated.
CE-A.9.: Reuse building materials, use materials that have recycled content, or use materials that are derived from sustainable or rapidly renewable sources to the extent possible, through factors including: • Scheduling time for deconstruction and recycling activities to take place during project demolition and construction phases; • Using life cycle costing in decision-making for materials and construction techniques. Life cycle costing analyzes the costs and benefits over the life of a particular product, technology, or system; • Removing code obstacles to using recycled materials in buildings and for construction; and • Implementing effective economic incentives to recycle construction and demolition debris	
CE-A.10.: Include features in buildings to facilitate recycling of waste generated by building occupants and associated refuse storage areas. a. Provide permanent, adequate, and convenient space for individual building occupants to collect refuse and recyclable material. b. Provide a recyclables collection area that serves the entire building or project. The space should allow for the separation, collection, and storage of paper, glass, plastic, metals, yard waste, and other materials as needed.	**Consistent.** Per Assembly Bill (AB) 939, the project would divert (recycle) at least 50 percent of its solid waste stream. This includes providing separate storage and collection areas for recyclables.
CE-A.11.: Implement sustainable landscape design and maintenance. a. Use integrated pest management techniques, where feasible, to delay, reduce, or eliminate dependence on the use of pesticides, herbicides, and synthetic fertilizers. b. Encourage composting efforts through education, incentives, and other activities. c. Decrease the amount of impervious surfaces in developments, especially where public places, plazas and amenities are proposed to serve as recreation opportunities. (see also Recreation Element, Policy RE-A.6 and A.7). d. Strategically plant deciduous shade trees, evergreen trees, and drought tolerant native vegetation, as appropriate, to contribute to sustainable development goals.	**Consistent.** The project would incorporate sustainability education in Math and Science classes, and Advanced Placement Environmental Sciences. The project would create awareness for the sustainability initiatives by meeting with the associated student body, faculty, contracted service providers (i.e., food service and janitorial service), and supporting donors. The school currently implements a pre-consumer composting program with the City of San Diego and has identified onsite post-consumer composting as a potential sustainability initiative.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
e. Reduce use of lawn types that require high levels of irrigation. f. Strive to incorporate existing mature trees and native vegetation into site designs. g. Minimize the use of landscape equipment powered by fossil fuels. h. Implement water conservation measures in site/building design and landscaping. i. Encourage the use of high efficiency irrigation technology, and recycled site water to reduce the use of potable water for irrigation. Use recycled water to meet the needs of development projects to the maximum extent feasible. (see Policy CE-A. 12).	The project would minimize the amount of impervious surfaces by locating a subterranean garage below the dining/athletic complex. The site design includes shade trees shade trees in parking lots and on the south and west sides of new or renovated buildings. The project would also reduce the use of lawn by continuing to utilize artificial turf on the athletic field and by replacing approximately 9,000 square feet of grass with native drought-tolerant landscaping, thereby reducing high levels of irrigation use. These measures would also minimize the use of landscape equipment powered by fossil fuels and conserve water. Water wise irrigation technology is also currently utilized by the school and would be implemented as part of the proposed project.
CE-A. 12.: Reduce the San Diego Urban Heat Island, through actions such as: • Using cool roofing materials, such as reflective, low heat retention tiles, membranes and coatings, or vegetated eco-roofs to reduce heat build-up; • Planting trees and other vegetation, to provide shade and cool air temperatures. In particular, properly position trees to shade buildings, air conditioning units, and parking lots; and • Reducing heat buildup in parking lots through increased shading or use of cool paving material as feasible (see also Urban Design Element, Policy UD-A. 12).	**Consistent.** The project would install cool-roof technology. In addition, the project would install photovoltaic panels over approximately 60 faculty/staff parking spaces in the lot located to the west of the Administrative Building.
CE-C.7.: Encourage conservation measures and water recycling programs that eliminate or discourage wasteful uses of water.	**Consistent.** The project would include efficient appliances and low-flow fixtures and transition to a grey water irrigation system. The project would also reduce the use of lawn by continuing to utilize artificial turf on the athletic field and by replacing approximately 9,000 square feet of grass with native drought-tolerant landscaping, thereby reducing high levels of irrigation use.
CE-F.6.: Encourage and provide incentives for the use of alternatives to single-occupancy vehicle use, including using public transit, carpooling, vanpooling, teleworking, bicycling, and walking. Continue to implement programs to provide City employees with incentives for the use of alternatives to single-occupancy vehicles.	**Consistent.** The project would encourage transportation demand management (TDM) options for employees and students to commute to and from campus through promoting rideshare, public transportation, and available facilities for carpoolers, school bus services, bicyclists, and pedestrians per the City's TDM program. The project would also install electric vehicle (EV) charging stations.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
CE-I.4.: Maintain and promote water conservation and waste diversion programs to conserve energy.	**Consistent.** As described in responses CE-A.10, the project would include waste diversion programs. The project would pay for recycling services as required by Section 66.0707 of the City of San Diego Land Development Code. Pursuant to Executive Order B-29-15, the project, as a portion of the Linda Vista Campus, would reduce water usage by 25 percent through water conservation strategies.
CE-I.5.: Support the installation of photovoltaic panels, and other forms of renewable energy production. a. Seek funding to incorporate renewable energy alternatives in public buildings. b. Promote the use and installation of renewable energy alternatives in new and existing development.	**Consistent.** Refer to Response CE-A.5.
CE-I.9.: Implement local and regional transportation policies that improve mobility and increase energy efficiency and conservation.	**Consistent.** Refer to Response CE-F.6.
CE-I.10.: Use renewable energy sources to generate energy to the extent feasible.	**Consistent.** Refer to Response CE-A.5.
CE-I.13.: Promote and conduct energy conservation education.	**Consistent.** Refer to Response CE-A.11.
CE-K.1.: Promote the recycling and reclamation of construction materials to provide for the City's current and future growth and development needs (see also Public Facilities, Policy PF-1.1 and Conservation Element, Policy CE-A.8).	**Consistent.** Refer to Response CE-A.8.
CE-N.3.: Continue and expand City and regional transportation demand management programs that promote fuel-efficient alternatives to driving alone, such as ridesharing, transit, bicycling, walking, and teleworking (see also Mobility Element, Section E).	**Consistent.** Refer to Response CE-F.6.
CE-N.7.: Support education programs on waste minimization, reuse, recycling and resource recovery that involve the media, schools, industry, government, and academia.	**Consistent.** Refer to Response CE-A.11.
UD-A.4. Use sustainable building methods in accordance with the sustainable development policies in the Conservation Element.	**Consistent.** Refer to Responses CE-A.5., CE-A.7., CE-A.8., CE-A.9., CE-A.10., CE-A.11., CE-A.12., CE-C.7., CE-F.6., CE-I.4., CE-I.5., CE-I.9., CE-I.10., CE-I.13., CE-K.1., CE-N.3., and CE-N.7.
UD-A.8. Landscape materials and design should enhance structures, create and define public and private spaces, and provide shade, aesthetic appeal, and environmental benefits. a. Maximize the planting of new trees, street trees and other plants for their shading, air quality, and livability benefits (see also Conservation Element, Policies CE-A.11, CE-A.12, and Section J). b. Use water conservation through the use of drought-tolerant landscape, porous materials, and reclaimed water where available. c. Use landscape to support storm water management goals for filtration, percolation and e control. d. Use landscape to provide unique identities within neighborhoods, villages and other developed areas. e. Landscape materials and design should complement and build upon the existing character of the neighborhood.	**Consistent.** Refer to Responses CE-A.11, CE-A.12, and CE-C.7.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
f. Design landscape bordering the pedestrian network with new elements, such as a new plant form or material, at a scale and intervals appropriate to the site. This is not intended to discourage a uniform street tree or landscape theme, but to add interest to the streetscape and enhance the pedestrian experience. g. Establish or maintain tree-lined residential and commercial streets. Neighborhoods and commercial corridors in the City that contain tree-lined streets present a streetscape that creates a distinctive character. 1. Identify and plant trees that complement and expand on the surrounding street tree fabric. 2. Unify communities by using street trees to link residential areas. 3. Locate street trees in a manner that does not obstruct ground illumination from streetlights. h. Shade paved areas, especially parking lots. i. Demarcate public, semi-public/private, and private spaces clearly through the use of landscape, walls, fences, gates, pavement treatment, signs, and other methods to denote boundaries and/or buffers j. Use landscaped walkways to direct people to proper entrances and away from private areas. k. Reduce barriers to views or light by selecting appropriate tree types, pruning thick hedges, and large overhanging tree canopies. l. Utilize landscape adjacent to natural features to soften the visual appearance of a development and provide a natural buffer between the development and open space areas.	
ME-B.8.: Support efforts to use alternative fuels in transit vehicles to help implement air quality and energy conservation goals.	**Consistent.** Refer to Response CE-F.6.
ME-C.10.: Provide transportation facilities to serve new growth in accordance with Policies MEK.4-K.6, and Public Facilities Element, Sections A-C.	**Consistent.** Refer to Response CE-F.6
ME-E.1.: Support and implement TDM strategies including, but not limited to: alternative modes of transportation, alternative work schedules, and telework.	**Consistent.** Refer to Response CE-F.6
ME-E.3.: Emphasize the movement of people rather than vehicles.	**Consistent.** Refer to Response CE-F.6
ME-E.5. Support SANDAG's efforts to market TDM benefits to employers and identify strategies to reduce peak period employee commute trips.	**Consistent.** Refer to Response CE-F.6
ME-E.6. Require new development to have site designs and on-site amenities that support alternative modes of transportation. Emphasize pedestrian and bicycle-friendly design, accessibility to transit, and provision of amenities that are supportive and conducive to implementing TDM strategies such as car sharing vehicles and parking spaces, bike lockers, preferred rideshare parking, showers and lockers, on-site food service, and child care, where appropriate.	**Consistent.** Refer to Response CE-F.6
ME-E.7.: Consider TDM programs with achievable trip reduction goals as partial mitigation for development project traffic and air quality impacts.	**Consistent.** The proposed project's TDM design features have been integrated in the environmental analysis. These features would result in reduced project-related GHG emissions.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
PF-I.1.: Provide efficient and effective waste collection services. a. Route City and private fleets to minimize truck trip distances and use fuel –efficient vehicles producing low emissions. b. Design or retrofit City and private operation stations consistent with sustainable development policies (see also Conservation Element, Section A). c. Encourage waste reduction and recycling with source-separated collection of materials. d. Provide space for recycling containers and efficient collection. Identify additional funding sources for all waste management services.	**Consistent.** Refer to Responses CE-A.8., CE-A.9., and CE-A.10.
PF-I.2.: Maximize waste reduction and diversion (see also Conservation Element, Policy CE.A.9). a. Conveniently locate facilities and informational guidelines to encourage waste reduction, diversion, and recycling practices. b. Operate public and private facilities that collect and transport waste and recyclable materials in accordance with the highest environmental standards. c. Support resource recovery programs that produce soil additives, mulch, or compost from yard debris and organic waste. d. Maximize the separation of recyclable and compostable materials. e. Collaborate with public and private entities to support the development of facilities that recycle materials into usable products or that compost organic materials. f. Reduce and recycle Construction and Demolition (C&D) debris. Strive for recycling of 100 percent of inert C&D materials and a minimum of 50 percent by weight of all other material. g. Use recycled, composted, and post-consumer materials in manufacturing, construction, public facilities and in other identified uses whenever appropriate. h. Encourage advance disposal fees to prevent the disposal of materials that cause handling problems or hazards at landfills. i. Provide sufficient information on the movement of waste and recyclable materials to meet regulatory requirements at public and private transfer stations and materials recovery facilities to allow adequate planning. j. Reduce subsidies to disposal and encourage incentives for waste diversion. k. Promote manufacturer and retailer responsibility to divert harmful, reusable, and recyclable products upon expiration from the waste stream. l. Encourage the private sector to build a mixed construction and demolition waste materials recycling facility. m. Expand and stabilize the economic base for recycling in the local and regional economy by encouraging and purchasing products made from recycled materials. Continuously assess new technologies for recycling, com posting, cogeneration, and disposal to maximize efficient use of City resources and environmental protection.	**Consistent.** Refer to Responses CE-A.8 and CE-A.9.

Table 4 (continued)
Consistency with the City's General Plan

General Plan Policy	Project Consistency
PF-I.5.: Plan for sufficient waste handling and disposal capacity to meet existing and future needs. Evaluate existing waste disposal facilities for potential expansion of sites for new disposal facilities.	**Consistent.** Refer to Responses CE-A.8 and CE-A.9.
PF-K.7. Work with the school districts and other education authorities to develop school and educational facilities that are architecturally designed to reflect the neighborhood and community character, that are pedestrian-and cycling-friendly (see also Mobility Element, Policy ME-A.2), and that are consistent with sustainable development policies (see also Conservation Element, Section A) and urban design policies (see also Urban Design Element, Section A).	**Consistent.** Refer to Responses CE-A.5., CE-A.7., CE-A.8., CE-A.9, CE-A.10., CE-A.11., CE-A.12., UD-A.4., and UD-A.8.

As depicted in Table 4, the proposed project would be consistent with the applicable policies contained in the City's General Plan. Furthermore, the project would be consistent with the additional plans and policies summarized in Section 3.1 through implementation of an on-site recycling program and water conservation strategies, utilization of public transportation facilities, and the installation of energy efficient appliances and lighting. Therefore, compliance with the applicable General Plan policies, as summarized above would further reduce the project's direct and indirect GHG emissions below the 900 $MTCO_2eq/yr$ GHG screening threshold. Impacts in this regard would be less than significant.

Climate Action Plan

The City adopted a CAP in December 2015 that identifies a comprehensive set of goals, actions, and targets that the City can use to reduce GHG emissions.[9] These actions include a combination of ordinances, City Council policies, resolutions, programs, and incentives, as well as outreach and education activities. Table 5, *Consistency with the City's CAP* summarizes project consistency with CAP actions and supporting measures that are applicable to the project.

[9] The City adopted the CAP without a CAP consistency checklist or project-level threshold. The City is currently working on a consistency checklist to be updated in the CAP and presented to the City Council for their review and approval.

Table 5
Consistency with the City's CAP

CAP Actions and Supporting Measures	Project Consistency
Strategy 1: Energy & Water Efficient Buildings	
Action 1.5: Implement an Outdoor Landscaping Ordinance that requires use of weather-based irrigation controllers.	
Supporting Measure for Energy & Water Efficient Buildings: Implementation of amendments to the City's Building Code that require installation of cool roof materials consistent with the supplementary measures contained in the CalGreen Code for new construction, significant repairs to existing roofs, and re-roofing.	**Consistent.** The project would install cool-roof technology.
Supporting Measure for Energy & Water Efficient Buildings: Pursue additional financial resources and incentives for implementing energy and water efficiency measures identified by the conservation and ordinances, and to promote the expansion of greywater systems.	**Consistent.** Pursuant to Executive Order B-29-15, the project would reduce water usage by 25 percent through water conservation strategies.
Strategy 2: Clean & Renewable Energy	
Action 2.1: Present to City Council for consideration a Community Choice Aggregation (CCA) or another program that increases the renewable energy supply.	
Supporting Measure for Clean & Renewable Energy: Implement General Plan Policy CE-A.5 to achieve net zero energy consumption by employing sustainable or "green" building techniques for the construction and operation of buildings.	**Consistent.** As the project's proposed buildings would be designed to exceed Title 24 requirements as well as the California Green Building Code standards at a minimum, the project would be consistent with this policy. The project would install energy efficient appliances and lighting. In addition, the project would install photovoltaic solar panels on the roof of the Performing Arts Center, and initiatives for more photovoltaic solar panel installations on other campus building roofs and parking lot spaces, thereby achieving greater energy efficiency with currently available technology. Other energy efficient initiatives the project proposes to reduce energy include variable refrigerant flow (VRF) with "smart" temperature control thermostats, and cool roof technology. Pursuant to State diversion targets, a minimum of 75 percent of construction materials would be recycled. According to the project Waste Management Plan, approximately 3,197 tons of material would be recycled, to include landscaping, concrete, asphalt, foundations, building structure, masonry walls, curb and gutter, and switch gear and cable. Demolition of the existing gym would include salvaging stained and painted wood plank floors. It is the intent of the applicant to donate the wood floor planks so that they may be re-used. The project would also include a Solid Waste Management Coordinator, who would be responsible for working with all contractors and subcontractors to ensure material separation and coordinate proper disposal and diversion of waste generated. Per Assembly Bill (AB) 939, the project would be required to divert (recycle) at least 50 percent of its solid waste stream. This includes providing separate storage and collection areas for recyclables. The school also plans to retrofit fixtures in the interior of older buildings (that will not be demolished as part of the Master Plan Update), as well as the exterior site lighting, with LED lights in order to reduce energy consumption by approximately 75,000 kWh annually.
City of San Diego, *City of San Diego Climate Action Plan,* December 2015.	

CONCLUSION

As shown in Table 3, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 728.35 $MTCO_2eq/yr$, which is below the 900 $MTCO_2eq/yr$ GHG screening threshold. The proposed project's additional sustainable development practices associated with transportation and energy measures would further reduce project-related GHG emissions. Additionally, the project would be consistent with the applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions through implementation of project design features and additional sustainable development practices. Thus, the project would not result in significant impacts in regards to GHG emissions, and no mitigation measures are required.

Attachment A
Greenhouse Gas Emissions Data

Francis Parker School

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	140.00	Student	2.37	103,109.00	0
Enclosed Parking Structure	283.00	Space	1.50	113,200.00	0
Recreational Swimming Pool	15.40	1000sqft	1.00	43,560.00	0
City Park	30.00	Acre	5.00	217,800.00	0
Arena	5.00	1000sqft	3.00	130,680.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - user defined. Arenas were chosen for Gymnasium and track and field facility

Construction Phase - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment -

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment -

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment -

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment - user-defined

Off-road Equipment -

Off-road Equipment -

Grading - user-defined

Demolition -

Trips and VMT - user-defined

Architectural Coating - user-defined

Area Coating - user-defined

Construction Off-road Equipment Mitigation - user-defined

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - user-defined

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Trips - user-defined

Energy Use - user-default

Water And Wastewater - user-defined

Solid Waste - user-defined

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	304,175.00	100,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	304,175.00	150.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	304,175.00	150.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	912,524.00	300,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	912,524.00	3,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	912,524.00	2,000.00
tblAreaCoating	Area_Nonresidential_Interior	912524	300000
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	100
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	300.00	239.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	300.00	347.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	30.00	44.00
tblConstructionPhase	NumDays	300.00	174.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	300.00	327.00

tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	9/29/2017	9/30/2017
tblConstructionPhase	PhaseEndDate	1/31/2018	8/31/2021
tblConstructionPhase	PhaseEndDate	10/29/2021	10/31/2021
tblConstructionPhase	PhaseEndDate	3/28/2023	2/28/2022
tblConstructionPhase	PhaseEndDate	4/29/2022	4/30/2022
tblConstructionPhase	PhaseEndDate	5/30/2022	6/30/2025
tblConstructionPhase	PhaseEndDate	8/29/2025	8/31/2025
tblConstructionPhase	PhaseEndDate	7/1/2026	4/30/2026
tblConstructionPhase	PhaseEndDate	5/30/2029	7/31/2029
tblConstructionPhase	PhaseEndDate	9/28/2029	9/30/2029
tblConstructionPhase	PhaseEndDate	6/1/2026	3/31/2029
tblConstructionPhase	PhaseEndDate	1/29/2031	11/30/2030
tblConstructionPhase	PhaseStartDate	7/30/2016	8/1/2016
tblConstructionPhase	PhaseStartDate	11/1/2017	6/1/2021
tblConstructionPhase	PhaseStartDate	3/1/2023	2/1/2022
tblConstructionPhase	PhaseStartDate	5/1/2022	6/1/2025
tblConstructionPhase	PhaseStartDate	5/1/2026	3/1/2026
tblConstructionPhase	PhaseStartDate	4/1/2029	6/1/2029
tblConstructionPhase	PhaseStartDate	5/1/2026	3/1/2029
tblConstructionPhase	PhaseStartDate	1/1/2031	11/1/2030
tblEnergyUse	LightingElect	3.25	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.48	0.00
tblEnergyUse	T24NG	4.54	0.00
tblGrading	AcresOfGrading	126.50	5.00
tblGrading	AcresOfGrading	112.50	5.00
tblGrading	AcresOfGrading	56.44	5.00

tblGrading	AcresOfGrading	142.44	5.00
tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialExported	0.00	44,000.00
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialExported	0.00	7,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	LandUseSquareFeet	18,572.54	103,109.00
tblLandUse	LandUseSquareFeet	15,400.00	43,560.00
tblLandUse	LandUseSquareFeet	1,306,800.00	217,800.00
tblLandUse	LandUseSquareFeet	5,000.00	130,680.00
tblLandUse	LotAcreage	0.43	2.37
tblLandUse	LotAcreage	2.55	1.50
tblLandUse	LotAcreage	0.35	1.00
tblLandUse	LotAcreage	30.00	5.00
tblLandUse	LotAcreage	1.61	3.00
tblOffRoadEquipment	HorsePower	208.00	162.00
tblOffRoadEquipment	HorsePower	226.00	162.00
tblOffRoadEquipment	HorsePower	174.00	226.00
tblOffRoadEquipment	HorsePower	125.00	89.00
tblOffRoadEquipment	HorsePower	130.00	84.00
tblOffRoadEquipment	HorsePower	85.00	255.00
tblOffRoadEquipment	HorsePower	97.00	255.00
tblOffRoadEquipment	HorsePower	6.00	97.00
tblOffRoadEquipment	HorsePower	64.00	174.00
tblOffRoadEquipment	HorsePower	199.00	97.00
tblOffRoadEquipment	HorsePower	85.00	255.00
tblOffRoadEquipment	HorsePower	80.00	361.00

tblOffRoadEquipment	HorsePower	97.00	46.00
tblOffRoadEquipment	HorsePower	81.00	226.00
tblOffRoadEquipment	HorsePower	208.00	162.00
tblOffRoadEquipment	HorsePower	208.00	162.00
tblOffRoadEquipment	HorsePower	208.00	162.00
tblOffRoadEquipment	HorsePower	205.00	162.00
tblOffRoadEquipment	HorsePower	208.00	162.00
tblOffRoadEquipment	HorsePower	174.00	89.00
tblOffRoadEquipment	HorsePower	199.00	84.00
tblOffRoadEquipment	HorsePower	162.00	174.00
tblOffRoadEquipment	HorsePower	226.00	174.00
tblOffRoadEquipment	HorsePower	162.00	174.00
tblOffRoadEquipment	HorsePower	199.00	255.00
tblOffRoadEquipment	HorsePower	162.00	255.00
tblOffRoadEquipment	HorsePower	174.00	255.00
tblOffRoadEquipment	HorsePower	174.00	255.00
tblOffRoadEquipment	HorsePower	80.00	361.00
tblOffRoadEquipment	HorsePower	162.00	361.00
tblOffRoadEquipment	HorsePower	80.00	361.00
tblOffRoadEquipment	HorsePower	199.00	97.00
tblOffRoadEquipment	HorsePower	255.00	97.00
tblOffRoadEquipment	HorsePower	199.00	255.00
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.29
tblOffRoadEquipment	LoadFactor	0.42	0.20
tblOffRoadEquipment	LoadFactor	0.36	0.74
tblOffRoadEquipment	LoadFactor	0.78	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	LoadFactor	0.82	0.37

tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	LoadFactor	0.78	0.40
tblOffRoadEquipment	LoadFactor	0.50	0.48
tblOffRoadEquipment	LoadFactor	0.37	0.45
tblOffRoadEquipment	LoadFactor	0.73	0.29
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.50	0.38
tblOffRoadEquipment	LoadFactor	0.43	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.20
tblOffRoadEquipment	LoadFactor	0.36	0.74
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblOffRoadEquipment	LoadFactor	0.29	0.41
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.41	0.40
tblOffRoadEquipment	LoadFactor	0.41	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.48
tblOffRoadEquipment	LoadFactor	0.38	0.48

tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Graders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType	Graders	Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Scrapers	Trenchers
tblOffRoadEquipment	OffRoadEquipmentType	Welders	Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Cranes	Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType	Excavators	Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Graders
tblOffRoadEquipment	OffRoadEquipmentType	Generator Sets	Rubber Tired Loaders

tblOffRoadEquipment	OffRoadEquipmentType	Graders	Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Scrapers	Rollers
tblOffRoadEquipment	OffRoadEquipmentType	Scrapers	Rollers
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2030
tblSolidWaste	SolidWasteGenerationRate	0.14	0.00
tblSolidWaste	SolidWasteGenerationRate	25.55	171.55
tblSolidWaste	SolidWasteGenerationRate	87.78	0.00
tblTripsAndVMT	HaulingTripNumber	247.00	1,163.00
tblTripsAndVMT	HaulingTripNumber	5,813.00	5,800.00
tblTripsAndVMT	HaulingTripNumber	49.00	238.00
tblTripsAndVMT	HaulingTripNumber	25.00	113.00
tblTripsAndVMT	HaulingTripNumber	297.00	1,375.00
tblTripsAndVMT	HaulingTripNumber	938.00	940.00
tblTripsAndVMT	HaulingTripNumber	2,813.00	2,800.00
tblTripsAndVMT	VendorTripNumber	0.00	44.00
tblTripsAndVMT	VendorTripNumber	100.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	VendorTripNumber	100.00	44.00
tblTripsAndVMT	VendorTripNumber	100.00	44.00
tblTripsAndVMT	VendorTripNumber	100.00	44.00
tblTripsAndVMT	WorkerTripNumber	35.00	27.00
tblTripsAndVMT	WorkerTripNumber	35.00	129.00
tblTripsAndVMT	WorkerTripNumber	256.00	25.00
tblTripsAndVMT	WorkerTripNumber	51.00	22.00
tblTripsAndVMT	WorkerTripNumber	51.00	22.00
tblTripsAndVMT	WorkerTripNumber	51.00	22.00
tblTripsAndVMT	WorkerTripNumber	256.00	25.00
tblTripsAndVMT	WorkerTripNumber	256.00	25.00
tblTripsAndVMT	WorkerTripNumber	256.00	25.00
tblTripsAndVMT	WorkerTripNumber	25.00	11.00
tblTripsAndVMT	WorkerTripNumber	8.00	3.00
tblTripsAndVMT	WorkerTripNumber	23.00	21.00

tblTripsAndVMT	WorkerTripNumber	25.00	21.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	38.00	65.00
tblVehicleTrips	CC_TTP	81.00	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	DV_TP	0.28	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	PB_TP	0.60	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PR_TP	0.66	0.00
tblVehicleTrips	PR_TP	52.00	0.00
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	1.71	3.40
tblVehicleTrips	WD_TR	32.93	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2016	0.6412	6.8292	4.6142	8.6400e-003	0.2688	0.3061	0.5748	0.1067	0.2845	0.3912	0.0000	794.0411	794.0411	0.1373	0.0000	796.9242
2017	2.8747	5.3526	3.3716	6.0300e-003	0.0223	0.2999	0.3223	5.9600e-003	0.2793	0.2853	0.0000	545.6917	545.6917	0.1469	0.0000	548.7761
2021	0.3107	3.0203	2.7521	6.1200e-003	0.2134	0.1328	0.3461	0.0850	0.1234	0.2084	0.0000	524.3874	524.3874	0.1046	0.0000	526.5847
2022	0.2862	2.2384	2.7859	5.1500e-003	0.0678	0.1073	0.1751	0.0188	0.1008	0.1195	0.0000	433.1868	433.1868	0.0739	0.0000	434.7390
2023	0.0385	0.3190	0.4239	8.0000e-004	0.0102	0.0145	0.0247	2.8400e-003	0.0136	0.0164	0.0000	67.0465	67.0465	0.0113	0.0000	67.2844
2025	0.2036	1.7646	2.1625	4.5400e-003	0.1772	0.0750	0.2522	0.0840	0.0696	0.1535	0.0000	389.4829	389.4829	0.0888	0.0000	391.3485
2026	0.0819	0.6873	1.0283	1.9400e-003	0.0223	0.0282	0.0505	6.1900e-003	0.0264	0.0326	0.0000	163.2126	163.2126	0.0300	0.0000	163.8423
2029	0.1252	1.0694	1.4327	2.8400e-003	0.1452	0.0452	0.1904	0.0702	0.0421	0.1123	0.0000	242.4175	242.4175	0.0502	0.0000	243.4716
2030	0.2251	1.2546	2.6884	5.7500e-003	0.0654	0.0245	0.0899	0.0181	0.0241	0.0422	0.0000	478.5820	478.5820	0.0154	0.0000	478.9060
Total	**4.7870**	**22.5353**	**21.2595**	**0.0418**	**0.9926**	**1.0334**	**2.0259**	**0.3977**	**0.9637**	**1.3614**	**0.0000**	**3,638.0485**	**3,638.0485**	**0.6585**	**0.0000**	**3,651.8767**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.6412	6.8292	4.6142	8.6400e-003	0.1093	0.3061	0.4153	0.0362	0.2845	0.3207	0.0000	794.0405	794.0405	0.1373	0.0000	796.9236
2017	2.8747	5.3526	3.3716	6.0300e-003	0.0174	0.2999	0.3173	4.7300e-003	0.2793	0.2841	0.0000	545.6911	545.6911	0.1469	0.0000	548.7755
2021	0.3107	3.0203	2.7521	6.1200e-003	0.0767	0.1328	0.2094	0.0260	0.1234	0.1493	0.0000	524.3870	524.3870	0.1046	0.0000	526.5842
2022	0.2862	2.2384	2.7859	5.1500e-003	0.0539	0.1073	0.1612	0.0154	0.1008	0.1161	0.0000	433.1864	433.1864	0.0739	0.0000	434.7387
2023	0.0385	0.3190	0.4239	8.0000e-004	8.1400e-003	0.0145	0.0226	2.3300e-003	0.0136	0.0159	0.0000	67.0465	67.0465	0.0113	0.0000	67.2843
2025	0.2036	1.7645	2.1625	4.5400e-003	0.0535	0.0750	0.1285	0.0211	0.0696	0.0907	0.0000	389.4826	389.4826	0.0888	0.0000	391.3482
2026	0.0819	0.6873	1.0283	1.9400e-003	0.0178	0.0282	0.0460	5.0700e-003	0.0264	0.0315	0.0000	163.2125	163.2125	0.0300	0.0000	163.8422

2029	0.1252	1.0694	1.4327	2.8400e-003	0.0417	0.0452	0.0869	0.0170	0.0421	0.0591	0.0000	242.4173	242.4173	0.0502	0.0000	243.4713
2030	0.2251	1.2546	2.6884	5.7500e-003	0.0521	0.0245	0.0765	0.0149	0.0241	0.0389	0.0000	478.5815	478.5815	0.0154	0.0000	478.9056
Total	**4.7870**	**22.5353**	**21.2595**	**0.0418**	**0.4304**	**1.0334**	**1.4638**	**0.1426**	**0.9637**	**1.1062**	**0.0000**	**3,638.0453**	**3,638.0453**	**0.6585**	**0.0000**	**3,651.8735**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.64**	**0.00**	**27.75**	**64.15**	**0.00**	**18.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Demolition	Demolition	6/1/2016	7/29/2016	5	43	
2	Phase 1 Grading	Grading	8/1/2016	9/30/2016	5	45	
3	Phase 1 Building Construction	Building Construction	10/1/2016	8/31/2017	5	239	
4	Phase 1 Paving	Paving	9/1/2017	9/30/2017	5	21	
5	Phase 1 Architectural Coating	Architectural Coating	10/1/2017	10/31/2017	5	22	
6	Phase 2 Demolition	Demolition	6/1/2021	8/31/2021	5	66	
7	Phase 2 Grading	Grading	9/1/2021	10/31/2021	5	43	
8	Phase 2 Building Construction	Building Construction	11/1/2021	2/28/2023	5	347	
9	Phase 2 Paving	Paving	2/1/2022	2/28/2022	5	20	
10	Phase 2 Architectural Coating	Architectural Coating	3/1/2022	4/30/2022	5	44	
11	Phase 3 Demolition	Demolition	6/1/2025	6/30/2025	5	21	
12	Phase 3 Grading	Grading	7/1/2025	8/31/2025	5	44	
13	Phase 3 Building Construction	Building Construction	9/1/2025	4/30/2026	5	174	
14	Phase 3 Paving	Paving	3/1/2026	4/30/2026	5	44	
15	Phase 4 Paving	Paving	3/1/2029	3/31/2029	5	22	
16	Phase 4 Demolition	Demolition	6/1/2029	7/31/2029	5	43	
17	Phase 4 Grading	Grading	8/1/2029	9/30/2029	5	43	

18	Phase 4 Building Construction	Building Construction	10/1/2029	12/31/2030	5	327	
19	Phase 4 Architectural Coating	Architectural Coating	11/1/2030	11/30/2030	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000 (Architectural Coating

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Architectural Coating	Air Compressors	1	6.00	78	0.48
Phase 1 Demolition	Crawler Tractors	2	7.00	162	0.38
Phase 1 Demolition	Concrete/Industrial Saws	2	7.00	81	0.73
Phase 1 Building Construction	Cranes	2	7.00	162	0.38
Phase 1 Paving	Graders	1	7.00	226	0.29
Phase 1 Paving	Pavers	3	7.00	89	0.20
Phase 1 Paving	Paving Equipment	1	7.00	84	0.74
Phase 2 Architectural Coating	Air Compressors	1	6.00	78	0.48
Phase 4 Architectural Coating	Air Compressors	1	6.00	78	0.48
Phase 1 Demolition	Crushing/Proc. Equipment	1	7.00	255	0.40
Phase 1 Building Construction	Tractors/Loaders/Backhoes	1	7.00	255	0.40
Phase 1 Paving	Signal Boards	2	7.00	97	0.37
Phase 1 Building Construction	Skid Steer Loaders	1	7.00	174	0.41
Phase 2 Demolition	Rubber Tired Dozers	1	7.00	255	0.40
Phase 3 Demolition	Concrete/Industrial Saws	1	7.00	81	0.73
Phase 1 Grading	Rubber Tired Loaders	1	7.00	97	0.37
Phase 1 Grading	Crushing/Proc. Equipment	1	7.00	255	0.40
Phase 1 Building Construction	Trenchers	2	7.00	361	0.48
Phase 1 Paving	Tractors/Loaders/Backhoes	1	7.00	46	0.45
Phase 4 Demolition	Concrete/Industrial Saws	1	7.00	81	0.73

Phase 2 Demolition	Concrete/Industrial Saws	2	7.00	81	0.73
Phase 3 Building Construction	Cranes	1	7.00	226	0.29
Phase 4 Building Construction	Cranes	1	7.00	226	0.29
Phase 1 Building Construction	Concrete/Industrial Saws	1	7.00	226	0.29
Phase 2 Building Construction	Cranes	1	7.00	226	0.29
Phase 3 Demolition	Crawler Tractors	1	7.00	162	0.38
Phase 4 Demolition	Excavators	1	7.00	162	0.38
Phase 2 Demolition	Crawler Tractors	2	7.00	162	0.38
Phase 3 Grading	Crawler Tractors	1	7.00	162	0.38
Phase 4 Grading	Excavators	1	7.00	162	0.38
Phase 1 Grading	Bore/Drill Rigs	1	7.00	162	0.38
Phase 2 Grading	Crawler Tractors	2	7.00	162	0.38
Phase 3 Building Construction	Forklifts	3	8.00	89	0.20
Phase 4 Building Construction	Forklifts	3	8.00	89	0.20
Phase 1 Building Construction	Graders	1	7.00	89	0.20
Phase 2 Building Construction	Forklifts	3	7.00	89	0.20
Phase 3 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 4 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1 Building Construction	Rubber Tired Loaders	1	7.00	84	0.74
Phase 2 Building Construction	Generator Sets	1	7.00	84	0.74
Phase 3 Grading	Excavators	1	7.00	174	0.41
Phase 4 Grading	Graders	1	7.00	174	0.41
Phase 1 Grading	Cranes	1	7.00	174	0.41
Phase 2 Grading	Excavators	1	7.00	174	0.41
Phase 3 Paving	Pavers	1	7.00	125	0.42
Phase 4 Paving	Pavers	1	7.00	125	0.42
Phase 2 Demolition	Rubber Tired Loaders	1	7.00	199	0.36
Phase 2 Paving	Pavers	1	7.00	125	0.42
Phase 3 Paving	Paving Equipment	1	7.00	130	0.36
Phase 4 Paving	Paving Equipment	1	7.00	130	0.36

Phase 2 Paving	Paving Equipment	1	7.00	130	0.36
Phase 1 Building Construction	Welders	1	8.00	46	0.45
Phase 3 Paving	Rollers	1	7.00	80	0.38
Phase 4 Paving	Rollers	1	7.00	80	0.38
Phase 1 Paving	Rollers	1	7.00	80	0.38
Phase 2 Paving	Rollers	1	7.00	80	0.38
Phase 3 Demolition	Rubber Tired Loaders	1	7.00	255	0.40
Phase 4 Demolition	Rubber Tired Dozers	1	7.00	255	0.40
Phase 2 Demolition	Excavators	1	7.00	255	0.40
Phase 3 Grading	Graders	1	7.00	255	0.40
Phase 4 Grading	Rubber Tired Dozers	1	7.00	255	0.40
Phase 2 Grading	Graders	1	7.00	255	0.40
Phase 3 Grading	Rollers	1	7.00	361	0.48
Phase 4 Grading	Scrapers	1	7.00	361	0.48
Phase 1 Grading	Excavators	1	7.00	361	0.48
Phase 2 Grading	Rollers	2	7.00	361	0.48
Phase 3 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 4 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 2 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 3 Grading	Rubber Tired Loaders	1	7.00	97	0.37
Phase 4 Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 2 Grading	Rubber Tired Dozers	1	7.00	97	0.37
Phase 3 Building Construction	Welders	1	8.00	46	0.45
Phase 4 Building Construction	Welders	1	8.00	46	0.45
Phase 2 Demolition	Skid Steer Loaders	1	7.00	64	0.37
Phase 2 Building Construction	Welders	1	7.00	46	0.45
Phase 1 Demolition	Excavators	1	7.00	162	0.38
Phase 1 Demolition	Rubber Tired Loaders	1	7.00	255	0.40
Phase 1 Demolition	Signal Boards	2	7.00	6	0.82
Phase 1 Demolition	Skid Steer Loaders	2	7.00	64	0.37

Phase 1 Demolition	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 3 Demolition	Skid Steer Loaders	1	7.00	64	0.37
Phase 3 Demolition	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 1 Grading	Signal Boards	2	7.00	6	0.82
Phase 1 Grading	Skid Steer Loaders	2	7.00	64	0.37
Phase 1 Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 3 Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 3 Grading	Trenchers	1	7.00	80	0.50
Phase 2 Demolition	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 2 Grading	Rubber Tired Loaders	1	7.00	199	0.36
Phase 2 Grading	Signal Boards	2	7.00	6	0.82
Phase 2 Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Phase 2 Grading	Trenchers	1	7.00	80	0.50
Phase 3 Demolition	Excavators	3	8.00	162	0.38
Phase 1 Building Construction	Forklifts	3	8.00	89	0.20
Phase 1 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1 Grading	Graders	1	8.00	174	0.41
Phase 1 Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Phase 3 Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Phase 3 Grading	Rubber Tired Dozers	1	8.00	255	0.40
Phase 1 Grading	Rubber Tired Dozers	1	8.00	255	0.40
Phase 3 Grading	Scrapers	2	8.00	361	0.48
Phase 1 Grading	Scrapers	2	8.00	361	0.48
Phase 2 Grading	Scrapers	2	8.00	361	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Demolition	14	27.00	0.00	1,163.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Grading	14	129.00	44.00	5,800.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Phase 1 Building Construction	14	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Paving	9	23.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 Architectural Coating	1	22.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Building Construction	9	25.00	44.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 Building Construction	9	25.00	44.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Building Construction	9	25.00	44.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Demolition	10	11.00	0.00	238.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 Demolition	3	3.00	0.00	113.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Demolition	9	21.00	0.00	1,375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Grading	10	21.00	0.00	940.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 Grading	5	15.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Grading	15	65.00	0.00	2,800.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 Paving	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 Paving	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Paving	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Phase 1 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0271	0.0000	0.0271	4.1000e-003	0.0000	4.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1478	1.5123	1.0194	1.4100e-003		0.0775	0.0775		0.0727	0.0727	0.0000	131.4413	131.4413	0.0308	0.0000	132.0887
Total	**0.1478**	**1.5123**	**1.0194**	**1.4100e-003**	**0.0271**	**0.0775**	**0.1046**	**4.1000e-003**	**0.0727**	**0.0768**	**0.0000**	**131.4413**	**131.4413**	**0.0308**	**0.0000**	**132.0887**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0122	0.1689	0.1391	4.3000e-004	9.9200e-003	2.2300e-003	0.0122	2.7200e-003	2.0500e-003	4.7700e-003	0.0000	39.7194	39.7194	2.8000e-004	0.0000	39.7254
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	2.6300e-003	0.0251	6.0000e-005	4.6600e-003	4.0000e-005	4.6900e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.3381	4.3381	2.3000e-004	0.0000	4.3430
Total	**0.0142**	**0.1715**	**0.1642**	**4.9000e-004**	**0.0146**	**2.2700e-003**	**0.0168**	**3.9600e-003**	**2.0800e-003**	**6.0400e-003**	**0.0000**	**44.0576**	**44.0576**	**5.1000e-004**	**0.0000**	**44.0684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7500e-003	0.0000	4.7500e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.1478	1.5123	1.0194	1.4100e-003		0.0775	0.0775		0.0727	0.0727	0.0000	131.4412	131.4412	0.0308	0.0000	132.0886
Total	**0.1478**	**1.5123**	**1.0194**	**1.4100e-003**	**4.7500e-003**	**0.0775**	**0.0823**	**7.2000e-004**	**0.0727**	**0.0734**	**0.0000**	**131.4412**	**131.4412**	**0.0308**	**0.0000**	**132.0886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0122	0.1689	0.1391	4.3000e-004	7.9800e-003	2.2300e-003	0.0102	2.2500e-003	2.0500e-003	4.3000e-003	0.0000	39.7194	39.7194	2.8000e-004	0.0000	39.7254
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	2.6300e-003	0.0251	6.0000e-005	3.6100e-003	4.0000e-005	3.6400e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	4.3381	4.3381	2.3000e-004	0.0000	4.3430
Total	**0.0142**	**0.1715**	**0.1642**	**4.9000e-004**	**0.0116**	**2.2700e-003**	**0.0139**	**3.2300e-003**	**2.0800e-003**	**5.3100e-003**	**0.0000**	**44.0576**	**44.0576**	**5.1000e-004**	**0.0000**	**44.0684**

3.3 Phase 1 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1414	0.0000	0.1414	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1858	2.1011	1.2840	1.9300e-003		0.0983	0.0983		0.0907	0.0907	0.0000	183.1067	183.1067	0.0503	0.0000	184.1639
Total	**0.1858**	**2.1011**	**1.2840**	**1.9300e-003**	**0.1414**	**0.0983**	**0.2397**	**0.0753**	**0.0907**	**0.1660**	**0.0000**	**183.1067**	**183.1067**	**0.0503**	**0.0000**	**184.1639**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0607	0.8421	0.6938	2.1700e-003	0.0495	0.0111	0.0606	0.0136	0.0102	0.0238	0.0000	198.0848	198.0848	1.4200e-003	0.0000	198.1146
Vendor	0.0113	0.0967	0.1355	2.4000e-004	6.4400e-003	1.4300e-003	7.8700e-003	1.8400e-003	1.3100e-003	3.1500e-003	0.0000	21.3589	21.3589	1.7000e-004	0.0000	21.3625
Worker	9.9600e-003	0.0132	0.1254	2.9000e-004	0.0233	1.8000e-004	0.0235	6.1900e-003	1.6000e-004	6.3500e-003	0.0000	21.6907	21.6907	1.1500e-003	0.0000	21.7148
Total	**0.0819**	**0.9519**	**0.9547**	**2.7000e-003**	**0.0792**	**0.0127**	**0.0919**	**0.0216**	**0.0117**	**0.0333**	**0.0000**	**241.1345**	**241.1345**	**2.7400e-003**	**0.0000**	**241.1918**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0248	0.0000	0.0248	0.0132	0.0000	0.0132	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1858	2.1011	1.2840	1.9300e-003		0.0983	0.0983		0.0907	0.0907	0.0000	183.1065	183.1065	0.0503	0.0000	184.1636
Total	**0.1858**	**2.1011**	**1.2840**	**1.9300e-003**	**0.0248**	**0.0983**	**0.1231**	**0.0132**	**0.0907**	**0.1039**	**0.0000**	**183.1065**	**183.1065**	**0.0503**	**0.0000**	**184.1636**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0607	0.8421	0.6938	2.1700e-003	0.0398	0.0111	0.0509	0.0112	0.0102	0.0214	0.0000	198.0848	198.0848	1.4200e-003	0.0000	198.1146
Vendor	0.0113	0.0967	0.1355	2.4000e-004	5.2300e-003	1.4300e-003	6.6600e-003	1.5500e-003	1.3100e-003	2.8600e-003	0.0000	21.3589	21.3589	1.7000e-004	0.0000	21.3625
Worker	9.9600e-003	0.0132	0.1254	2.9000e-004	0.0180	1.8000e-004	0.0182	4.9000e-003	1.6000e-004	5.0600e-003	0.0000	21.6907	21.6907	1.1500e-003	0.0000	21.7148
Total	**0.0819**	**0.9519**	**0.9547**	**2.7000e-003**	**0.0631**	**0.0127**	**0.0758**	**0.0177**	**0.0117**	**0.0293**	**0.0000**	**241.1345**	**241.1345**	**2.7400e-003**	**0.0000**	**241.1918**

3.4 Phase 1 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2087	2.0887	1.1569	2.0300e-003		0.1152	0.1152		0.1073	0.1073	0.0000	188.2291	188.2291	0.0526	0.0000	189.3328
Total	**0.2087**	**2.0887**	**1.1569**	**2.0300e-003**		**0.1152**	**0.1152**		**0.1073**	**0.1073**	**0.0000**	**188.2291**	**188.2291**	**0.0526**	**0.0000**	**189.3328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7900e-003	3.6800e-003	0.0351	8.0000e-005	6.5200e-003	5.0000e-005	6.5700e-003	1.7300e-003	5.0000e-005	1.7800e-003	0.0000	6.0719	6.0719	3.2000e-004	0.0000	6.0786
Total	**2.7900e-003**	**3.6800e-003**	**0.0351**	**8.0000e-005**	**6.5200e-003**	**5.0000e-005**	**6.5700e-003**	**1.7300e-003**	**5.0000e-005**	**1.7800e-003**	**0.0000**	**6.0719**	**6.0719**	**3.2000e-004**	**0.0000**	**6.0786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2087	2.0887	1.1569	2.0300e-003		0.1152	0.1152		0.1073	0.1073	0.0000	188.2289	188.2289	0.0526	0.0000	189.3326
Total	**0.2087**	**2.0887**	**1.1569**	**2.0300e-003**		**0.1152**	**0.1152**		**0.1073**	**0.1073**	**0.0000**	**188.2289**	**188.2289**	**0.0526**	**0.0000**	**189.3326**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7900e-003	3.6800e-003	0.0351	8.0000e-005	5.0500e-003	5.0000e-005	5.1000e-003	1.3700e-003	5.0000e-005	1.4200e-003	0.0000	6.0719	6.0719	3.2000e-004	0.0000	6.0786
Total	**2.7900e-003**	**3.6800e-003**	**0.0351**	**8.0000e-005**	**5.0500e-003**	**5.0000e-005**	**5.1000e-003**	**1.3700e-003**	**5.0000e-005**	**1.4200e-003**	**0.0000**	**6.0719**	**6.0719**	**3.2000e-004**	**0.0000**	**6.0786**

3.4 Phase 1 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5150	5.0525	3.0627	5.4500e-003		0.2813	0.2813		0.2618	0.2618	0.0000	497.2362	497.2362	0.1398	0.0000	500.1718
Total	**0.5150**	**5.0525**	**3.0627**	**5.4500e-003**		**0.2813**	**0.2813**		**0.2618**	**0.2618**	**0.0000**	**497.2362**	**497.2362**	**0.1398**	**0.0000**	**500.1718**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7600e-003	8.9600e-003	0.0847	2.1000e-004	0.0174	1.3000e-004	0.0176	4.6300e-003	1.2000e-004	4.7500e-003	0.0000	15.6260	15.6260	7.9000e-004	0.0000	15.6427
Total	**6.7600e-003**	**8.9600e-003**	**0.0847**	**2.1000e-004**	**0.0174**	**1.3000e-004**	**0.0176**	**4.6300e-003**	**1.2000e-004**	**4.7500e-003**	**0.0000**	**15.6260**	**15.6260**	**7.9000e-004**	**0.0000**	**15.6427**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5150	5.0525	3.0627	5.4500e-003		0.2813	0.2813		0.2618	0.2618	0.0000	497.2356	497.2356	0.1398	0.0000	500.1712

Total	**0.5150**	**5.0525**	**3.0627**	**5.4500e-003**		**0.2813**	**0.2813**		**0.2618**	**0.2618**	**0.0000**	**497.2356**	**497.2356**	**0.1398**	**0.0000**	**500.1712**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7600e-003	8.9600e-003	0.0847	2.1000e-004	0.0135	1.3000e-004	0.0136	3.6700e-003	1.2000e-004	3.7900e-003	0.0000	15.6260	15.6260	7.9000e-004	0.0000	15.6427
Total	**6.7600e-003**	**8.9600e-003**	**0.0847**	**2.1000e-004**	**0.0135**	**1.3000e-004**	**0.0136**	**3.6700e-003**	**1.2000e-004**	**3.7900e-003**	**0.0000**	**15.6260**	**15.6260**	**7.9000e-004**	**0.0000**	**15.6427**

3.5 Phase 1 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2514	0.1645	2.6000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	23.2068	23.2068	5.7900e-003	0.0000	23.3283
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0286**	**0.2514**	**0.1645**	**2.6000e-004**		**0.0164**	**0.0164**		**0.0154**	**0.0154**	**0.0000**	**23.2068**	**23.2068**	**5.7900e-003**	**0.0000**	**23.3283**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0138	0.0204	4.0000e-005	1.0200e-003	2.0000e-004	1.2200e-003	2.9000e-004	1.8000e-004	4.7000e-004	0.0000	3.3406	3.3406	3.0000e-005	0.0000	3.3411
Worker	7.5000e-004	9.9000e-004	9.4000e-003	2.0000e-005	1.9400e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.3000e-004	0.0000	1.7350	1.7350	9.0000e-005	0.0000	1.7369
Total	**2.3900e-003**	**0.0148**	**0.0298**	**6.0000e-005**	**2.9600e-003**	**2.1000e-004**	**3.1700e-003**	**8.0000e-004**	**1.9000e-004**	**1.0000e-003**	**0.0000**	**5.0756**	**5.0756**	**1.2000e-004**	**0.0000**	**5.0780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0286	0.2514	0.1645	2.6000e-004		0.0164	0.0164		0.0154	0.0154	0.0000	23.2067	23.2067	5.7900e-003	0.0000	23.3283
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0286**	**0.2514**	**0.1645**	**2.6000e-004**		**0.0164**	**0.0164**		**0.0154**	**0.0154**	**0.0000**	**23.2067**	**23.2067**	**5.7900e-003**	**0.0000**	**23.3283**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0138	0.0204	4.0000e-005	8.3000e-004	2.0000e-004	1.0300e-003	2.5000e-004	1.8000e-004	4.3000e-004	0.0000	3.3406	3.3406	3.0000e-005	0.0000	3.3411
Worker	7.5000e-004	9.9000e-004	9.4000e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5200e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.7350	1.7350	9.0000e-005	0.0000	1.7369
Total	**2.3900e-003**	**0.0148**	**0.0298**	**6.0000e-005**	**2.3300e-003**	**2.1000e-004**	**2.5500e-003**	**6.6000e-004**	**1.9000e-004**	**8.5000e-004**	**0.0000**	**5.0756**	**5.0756**	**1.2000e-004**	**0.0000**	**5.0780**

3.6 Phase 1 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3175					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6600e-003	0.0240	0.0206	3.0000e-005		1.9100e-003	1.9100e-003		1.9100e-003	1.9100e-003	0.0000	2.8086	2.8086	3.0000e-004	0.0000	2.8148
Total	**2.3212**	**0.0240**	**0.0206**	**3.0000e-005**		**1.9100e-003**	**1.9100e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**2.8086**	**2.8086**	**3.0000e-004**	**0.0000**	**2.8148**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	1.0000e-003	9.4200e-003	2.0000e-005	1.9400e-003	1.0000e-005	1.9600e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.7386	1.7386	9.0000e-005	0.0000	1.7405
Total	**7.5000e-004**	**1.0000e-003**	**9.4200e-003**	**2.0000e-005**	**1.9400e-003**	**1.0000e-005**	**1.9600e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.7386**	**1.7386**	**9.0000e-005**	**0.0000**	**1.7405**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3175					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6600e-003	0.0240	0.0206	3.0000e-005		1.9100e-003	1.9100e-003		1.9100e-003	1.9100e-003	0.0000	2.8086	2.8086	3.0000e-004	0.0000	2.8148
Total	**2.3212**	**0.0240**	**0.0206**	**3.0000e-005**		**1.9100e-003**	**1.9100e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**2.8086**	**2.8086**	**3.0000e-004**	**0.0000**	**2.8148**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	1.0000e-003	9.4200e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5200e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.7386	1.7386	9.0000e-005	0.0000	1.7405
Total	**7.5000e-004**	**1.0000e-003**	**9.4200e-003**	**2.0000e-005**	**1.5000e-003**	**1.0000e-005**	**1.5200e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.7386**	**1.7386**	**9.0000e-005**	**0.0000**	**1.7405**

3.7 Phase 2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0325	0.0000	0.0325	4.9200e-003	0.0000	4.9200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0995	0.9739	0.8335	1.5000e-003		0.0476	0.0476		0.0446	0.0446	0.0000	130.9134	130.9134	0.0341	0.0000	131.6295
Total	**0.0995**	**0.9739**	**0.8335**	**1.5000e-003**	**0.0325**	**0.0476**	**0.0801**	**4.9200e-003**	**0.0446**	**0.0495**	**0.0000**	**130.9134**	**130.9134**	**0.0341**	**0.0000**	**131.6295**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0118	0.1045	0.1425	5.1000e-004	0.0117	2.1800e-003	0.0139	3.2200e-003	2.0100e-003	5.2300e-003	0.0000	43.5010	43.5010	3.2000e-004	0.0000	43.5078
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	2.1100e-003	0.0199	7.0000e-005	5.5600e-003	4.0000e-005	5.6000e-003	1.4800e-003	4.0000e-005	1.5100e-003	0.0000	4.3584	4.3584	2.0000e-004	0.0000	4.3627
Total	**0.0134**	**0.1066**	**0.1624**	**5.8000e-004**	**0.0173**	**2.2200e-003**	**0.0195**	**4.7000e-003**	**2.0500e-003**	**6.7400e-003**	**0.0000**	**47.8594**	**47.8594**	**5.2000e-004**	**0.0000**	**47.8704**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.7000e-003	0.0000	5.7000e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0995	0.9739	0.8335	1.5000e-003		0.0476	0.0476		0.0446	0.0446	0.0000	130.9132	130.9132	0.0341	0.0000	131.6293
Total	**0.0995**	**0.9739**	**0.8335**	**1.5000e-003**	**5.7000e-003**	**0.0476**	**0.0533**	**8.6000e-004**	**0.0446**	**0.0455**	**0.0000**	**130.9132**	**130.9132**	**0.0341**	**0.0000**	**131.6293**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0118	0.1045	0.1425	5.1000e-004	9.4300e-003	2.1800e-003	0.0116	2.6600e-003	2.0100e-003	4.6600e-003	0.0000	43.5010	43.5010	3.2000e-004	0.0000	43.5078
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	2.1100e-003	0.0199	7.0000e-005	4.3100e-003	4.0000e-005	4.3500e-003	1.1700e-003	4.0000e-005	1.2100e-003	0.0000	4.3584	4.3584	2.0000e-004	0.0000	4.3627
Total	**0.0134**	**0.1066**	**0.1624**	**5.8000e-004**	**0.0137**	**2.2200e-003**	**0.0160**	**3.8300e-003**	**2.0500e-003**	**5.8700e-003**	**0.0000**	**47.8594**	**47.8594**	**5.2000e-004**	**0.0000**	**47.8704**

3.8 Phase 2 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1175	0.0000	0.1175	0.0628	0.0000	0.0628	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1214	1.3043	0.9545	2.0100e-003		0.0574	0.0574		0.0529	0.0529	0.0000	176.2677	176.2677	0.0566	0.0000	177.4571
Total	**0.1214**	**1.3043**	**0.9545**	**2.0100e-003**	**0.1175**	**0.0574**	**0.1749**	**0.0628**	**0.0529**	**0.1157**	**0.0000**	**176.2677**	**176.2677**	**0.0566**	**0.0000**	**177.4571**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0240	0.2128	0.2902	1.0400e-003	0.0239	4.4400e-003	0.0283	6.5600e-003	4.0900e-003	0.0106	0.0000	88.5838	88.5838	6.6000e-004	0.0000	88.5976
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	4.2600e-003	0.0401	1.4000e-004	0.0112	8.0000e-005	0.0113	2.9800e-003	8.0000e-005	3.0500e-003	0.0000	8.7891	8.7891	4.1000e-004	0.0000	8.7977
Total	**0.0273**	**0.2171**	**0.3303**	**1.1800e-003**	**0.0351**	**4.5200e-003**	**0.0396**	**9.5400e-003**	**4.1700e-003**	**0.0137**	**0.0000**	**97.3729**	**97.3729**	**1.0700e-003**	**0.0000**	**97.3953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0206	0.0000	0.0206	0.0110	0.0000	0.0110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1214	1.3043	0.9545	2.0100e-003		0.0574	0.0574		0.0529	0.0529	0.0000	176.2675	176.2675	0.0566	0.0000	177.4569
Total	**0.1214**	**1.3043**	**0.9545**	**2.0100e-003**	**0.0206**	**0.0574**	**0.0780**	**0.0110**	**0.0529**	**0.0639**	**0.0000**	**176.2675**	**176.2675**	**0.0566**	**0.0000**	**177.4569**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0240	0.2128	0.2902	1.0400e-003	0.0192	4.4400e-003	0.0237	5.4100e-003	4.0900e-003	9.5000e-003	0.0000	88.5838	88.5838	6.6000e-004	0.0000	88.5976
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-003	4.2600e-003	0.0401	1.4000e-004	8.6800e-003	8.0000e-005	8.7700e-003	2.3600e-003	8.0000e-005	2.4400e-003	0.0000	8.7891	8.7891	4.1000e-004	0.0000	8.7977
Total	**0.0273**	**0.2171**	**0.3303**	**1.1800e-003**	**0.0279**	**4.5200e-003**	**0.0324**	**7.7700e-003**	**4.1700e-003**	**0.0119**	**0.0000**	**97.3729**	**97.3729**	**1.0700e-003**	**0.0000**	**97.3953**

3.9 Phase 2 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0397	0.3671	0.3471	5.6000e-004		0.0201	0.0201		0.0189	0.0189	0.0000	48.6503	48.6503	0.0120	0.0000	48.9020
Total	**0.0397**	**0.3671**	**0.3471**	**5.6000e-004**		**0.0201**	**0.0201**		**0.0189**	**0.0189**	**0.0000**	**48.6503**	**48.6503**	**0.0120**	**0.0000**	**48.9020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0400e-003	0.0496	0.1083	2.3000e-004	6.4400e-003	8.6000e-004	7.3000e-003	1.8400e-003	7.9000e-004	2.6300e-003	0.0000	19.7862	19.7862	1.5000e-004	0.0000	19.7892
Worker	1.3300e-003	1.7100e-003	0.0161	6.0000e-005	4.5100e-003	3.0000e-005	4.5400e-003	1.2000e-003	3.0000e-005	1.2300e-003	0.0000	3.5377	3.5377	1.6000e-004	0.0000	3.5411
Total	**9.3700e-003**	**0.0513**	**0.1244**	**2.9000e-004**	**0.0110**	**8.9000e-004**	**0.0118**	**3.0400e-003**	**8.2000e-004**	**3.8600e-003**	**0.0000**	**23.3238**	**23.3238**	**3.1000e-004**	**0.0000**	**23.3303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0397	0.3671	0.3471	5.6000e-004		0.0201	0.0201		0.0189	0.0189	0.0000	48.6502	48.6502	0.0120	0.0000	48.9020
Total	**0.0397**	**0.3671**	**0.3471**	**5.6000e-004**		**0.0201**	**0.0201**		**0.0189**	**0.0189**	**0.0000**	**48.6502**	**48.6502**	**0.0120**	**0.0000**	**48.9020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0400e-003	0.0496	0.1083	2.3000e-004	5.2300e-003	8.6000e-004	6.0900e-003	1.5500e-003	7.9000e-004	2.3400e-003	0.0000	19.7862	19.7862	1.5000e-004	0.0000	19.7892
Worker	1.3300e-003	1.7100e-003	0.0161	6.0000e-005	3.5000e-003	3.0000e-005	3.5300e-003	9.5000e-004	3.0000e-005	9.8000e-004	0.0000	3.5377	3.5377	1.6000e-004	0.0000	3.5411
Total	**9.3700e-003**	**0.0513**	**0.1244**	**2.9000e-004**	**8.7300e-003**	**8.9000e-004**	**9.6200e-003**	**2.5000e-003**	**8.2000e-004**	**3.3200e-003**	**0.0000**	**23.3238**	**23.3238**	**3.1000e-004**	**0.0000**	**23.3303**

3.9 Phase 2 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2055	1.8970	1.9791	3.2600e-003		0.0979	0.0979		0.0920	0.0920	0.0000	281.2047	281.2047	0.0689	0.0000	282.6505
Total	**0.2055**	**1.8970**	**1.9791**	**3.2600e-003**		**0.0979**	**0.0979**		**0.0920**	**0.0920**	**0.0000**	**281.2047**	**281.2047**	**0.0689**	**0.0000**	**282.6505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0446	0.2518	0.6012	1.3500e-003	0.0372	4.9000e-003	0.0421	0.0106	4.5100e-003	0.0152	0.0000	114.2018	114.2018	8.6000e-004	0.0000	114.2199
Worker	7.3100e-003	9.3500e-003	0.0880	3.2000e-004	0.0261	1.9000e-004	0.0263	6.9300e-003	1.8000e-004	7.1100e-003	0.0000	20.0995	20.0995	9.1000e-004	0.0000	20.1186
Total	**0.0519**	**0.2611**	**0.6892**	**1.6700e-003**	**0.0633**	**5.0900e-003**	**0.0684**	**0.0176**	**4.6900e-003**	**0.0223**	**0.0000**	**134.3012**	**134.3012**	**1.7700e-003**	**0.0000**	**134.3385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2055	1.8970	1.9790	3.2600e-003		0.0979	0.0979		0.0920	0.0920	0.0000	281.2044	281.2044	0.0689	0.0000	282.6501

Total	**0.2055**	**1.8970**	**1.9790**	**3.2600e-003**		**0.0979**	**0.0979**		**0.0920**	**0.0920**	**0.0000**	**281.2044**	**281.2044**	**0.0689**	**0.0000**	**282.6501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0446	0.2518	0.6012	1.3500e-003	0.0302	4.9000e-003	0.0351	8.9300e-003	4.5100e-003	0.0134	0.0000	114.2018	114.2018	8.6000e-004	0.0000	114.2199
Worker	7.3100e-003	9.3500e-003	0.0880	3.2000e-004	0.0202	1.9000e-004	0.0204	5.4900e-003	1.8000e-004	5.6600e-003	0.0000	20.0995	20.0995	9.1000e-004	0.0000	20.1186
Total	**0.0519**	**0.2611**	**0.6892**	**1.6700e-003**	**0.0504**	**5.0900e-003**	**0.0555**	**0.0144**	**4.6900e-003**	**0.0191**	**0.0000**	**134.3012**	**134.3012**	**1.7700e-003**	**0.0000**	**134.3385**

3.9 Phase 2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0306	0.2822	0.3173	5.3000e-004		0.0137	0.0137		0.0129	0.0129	0.0000	45.4421	45.4421	0.0111	0.0000	45.6742
Total	**0.0306**	**0.2822**	**0.3173**	**5.3000e-004**		**0.0137**	**0.0137**		**0.0129**	**0.0129**	**0.0000**	**45.4421**	**45.4421**	**0.0111**	**0.0000**	**45.6742**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7500e-003	0.0354	0.0931	2.2000e-004	6.0100e-003	7.7000e-004	6.7800e-003	1.7200e-003	7.1000e-004	2.4300e-003	0.0000	18.4067	18.4067	1.3000e-004	0.0000	18.4094
Worker	1.1300e-003	1.4300e-003	0.0135	5.0000e-005	4.2100e-003	3.0000e-005	4.2400e-003	1.1200e-003	3.0000e-005	1.1500e-003	0.0000	3.1978	3.1978	1.4000e-004	0.0000	3.2008
Total	**7.8800e-003**	**0.0368**	**0.1066**	**2.7000e-004**	**0.0102**	**8.0000e-004**	**0.0110**	**2.8400e-003**	**7.4000e-004**	**3.5800e-003**	**0.0000**	**21.6045**	**21.6045**	**2.7000e-004**	**0.0000**	**21.6102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0306	0.2822	0.3173	5.3000e-004		0.0137	0.0137		0.0129	0.0129	0.0000	45.4420	45.4420	0.0111	0.0000	45.6742
Total	**0.0306**	**0.2822**	**0.3173**	**5.3000e-004**		**0.0137**	**0.0137**		**0.0129**	**0.0129**	**0.0000**	**45.4420**	**45.4420**	**0.0111**	**0.0000**	**45.6742**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7500e-003	0.0354	0.0931	2.2000e-004	4.8800e-003	7.7000e-004	5.6500e-003	1.4400e-003	7.1000e-004	2.1500e-003	0.0000	18.4067	18.4067	1.3000e-004	0.0000	18.4094
Worker	1.1300e-003	1.4300e-003	0.0135	5.0000e-005	3.2600e-003	3.0000e-005	3.2900e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.1978	3.1978	1.4000e-004	0.0000	3.2008
Total	**7.8800e-003**	**0.0368**	**0.1066**	**2.7000e-004**	**8.1400e-003**	**8.0000e-004**	**8.9400e-003**	**2.3300e-003**	**7.4000e-004**	**3.0700e-003**	**0.0000**	**21.6045**	**21.6045**	**2.7000e-004**	**0.0000**	**21.6102**

3.10 Phase 2 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7300e-003	0.0477	0.0625	1.0000e-004		2.4400e-003	2.4400e-003		2.2400e-003	2.2400e-003	0.0000	8.5756	8.5756	2.7700e-003	0.0000	8.6339
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7300e-003**	**0.0477**	**0.0625**	**1.0000e-004**		**2.4400e-003**	**2.4400e-003**		**2.2400e-003**	**2.2400e-003**	**0.0000**	**8.5756**	**8.5756**	**2.7700e-003**	**0.0000**	**8.6339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.3000e-004	2.1700e-003	1.0000e-005	6.4000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4948	0.4948	2.0000e-005	0.0000	0.4952
Total	**1.8000e-004**	**2.3000e-004**	**2.1700e-003**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**6.5000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.4948**	**0.4948**	**2.0000e-005**	**0.0000**	**0.4952**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7300e-003	0.0477	0.0625	1.0000e-004		2.4400e-003	2.4400e-003		2.2400e-003	2.2400e-003	0.0000	8.5756	8.5756	2.7700e-003	0.0000	8.6339
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7300e-003**	**0.0477**	**0.0625**	**1.0000e-004**		**2.4400e-003**	**2.4400e-003**		**2.2400e-003**	**2.2400e-003**	**0.0000**	**8.5756**	**8.5756**	**2.7700e-003**	**0.0000**	**8.6339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.3000e-004	2.1700e-003	1.0000e-005	5.0000e-004	0.0000	5.0000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4948	0.4948	2.0000e-005	0.0000	0.4952
Total	**1.8000e-004**	**2.3000e-004**	**2.1700e-003**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4948**	**0.4948**	**2.0000e-005**	**0.0000**	**0.4952**

3.11 Phase 2 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-003	0.0310	0.0399	7.0000e-005		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	5.6172	5.6172	3.7000e-004	0.0000	5.6248
Total	**0.0228**	**0.0310**	**0.0399**	**7.0000e-005**		**1.8000e-003**	**1.8000e-003**		**1.8000e-003**	**1.8000e-003**	**0.0000**	**5.6172**	**5.6172**	**3.7000e-004**	**0.0000**	**5.6248**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	1.3900e-003	0.0131	5.0000e-005	3.8800e-003	3.0000e-005	3.9100e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	2.9933	2.9933	1.4000e-004	0.0000	2.9961
Total	**1.0900e-003**	**1.3900e-003**	**0.0131**	**5.0000e-005**	**3.8800e-003**	**3.0000e-005**	**3.9100e-003**	**1.0300e-003**	**3.0000e-005**	**1.0600e-003**	**0.0000**	**2.9933**	**2.9933**	**1.4000e-004**	**0.0000**	**2.9961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	4.5000e-003	0.0310	0.0399	7.0000e-005		1.8000e-003	1.8000e-003		1.8000e-003	1.8000e-003	0.0000	5.6172	5.6172	3.7000e-004	0.0000	5.6248
Total	**0.0228**	**0.0310**	**0.0399**	**7.0000e-005**		**1.8000e-003**	**1.8000e-003**		**1.8000e-003**	**1.8000e-003**	**0.0000**	**5.6172**	**5.6172**	**3.7000e-004**	**0.0000**	**5.6248**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	1.3900e-003	0.0131	5.0000e-005	3.0100e-003	3.0000e-005	3.0400e-003	8.2000e-004	3.0000e-005	8.4000e-004	0.0000	2.9933	2.9933	1.4000e-004	0.0000	2.9961
Total	**1.0900e-003**	**1.3900e-003**	**0.0131**	**5.0000e-005**	**3.0100e-003**	**3.0000e-005**	**3.0400e-003**	**8.2000e-004**	**3.0000e-005**	**8.4000e-004**	**0.0000**	**2.9933**	**2.9933**	**1.4000e-004**	**0.0000**	**2.9961**

3.12 Phase 3 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.4200e-003	0.0000	5.4200e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0299	0.2574	0.3365	5.9000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	51.4668	51.4668	0.0153	0.0000	51.7873
Total	**0.0299**	**0.2574**	**0.3365**	**5.9000e-004**	**5.4200e-003**	**0.0116**	**0.0170**	**8.2000e-004**	**0.0107**	**0.0115**	**0.0000**	**51.4668**	**51.4668**	**0.0153**	**0.0000**	**51.7873**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7600e-003	0.0128	0.0218	9.0000e-005	2.0300e-003	3.7000e-004	2.4000e-003	5.6000e-004	3.4000e-004	9.0000e-004	0.0000	7.4987	7.4987	5.0000e-005	0.0000	7.4999
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	2.9000e-004	2.7000e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.6856	0.6856	3.0000e-005	0.0000	0.6862
Total	**1.9900e-003**	**0.0131**	**0.0245**	**1.0000e-004**	**2.9600e-003**	**3.8000e-004**	**3.3300e-003**	**8.1000e-004**	**3.5000e-004**	**1.1500e-003**	**0.0000**	**8.1843**	**8.1843**	**8.0000e-005**	**0.0000**	**8.1861**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.5000e-004	0.0000	9.5000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0299	0.2574	0.3365	5.9000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	51.4667	51.4667	0.0153	0.0000	51.7873
Total	**0.0299**	**0.2574**	**0.3365**	**5.9000e-004**	**9.5000e-004**	**0.0116**	**0.0125**	**1.4000e-004**	**0.0107**	**0.0108**	**0.0000**	**51.4667**	**51.4667**	**0.0153**	**0.0000**	**51.7873**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	1.7600e-003	0.0128	0.0218	9.0000e-005	1.6300e-003	3.7000e-004	2.0000e-003	4.6000e-004	3.4000e-004	8.0000e-004	0.0000	7.4987	7.4987	5.0000e-005	0.0000	7.4999
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	2.9000e-004	2.7000e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6856	0.6856	3.0000e-005	0.0000	0.6862
Total	**1.9900e-003**	**0.0131**	**0.0245**	**1.0000e-004**	**2.3500e-003**	**3.8000e-004**	**2.7200e-003**	**6.5000e-004**	**3.5000e-004**	**1.0000e-003**	**0.0000**	**8.1843**	**8.1843**	**8.0000e-005**	**0.0000**	**8.1861**

3.13 Phase 3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1357	0.0000	0.1357	0.0732	0.0000	0.0732	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0888	0.8213	0.7928	1.7200e-003		0.0368	0.0368		0.0339	0.0339	0.0000	150.7541	150.7541	0.0488	0.0000	151.7780
Total	**0.0888**	**0.8213**	**0.7928**	**1.7200e-003**	**0.1357**	**0.0368**	**0.1725**	**0.0732**	**0.0339**	**0.1070**	**0.0000**	**150.7541**	**150.7541**	**0.0488**	**0.0000**	**151.7780**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.9400e-003	0.0505	0.0861	3.5000e-004	8.0200e-003	1.4500e-003	9.4700e-003	2.2000e-003	1.3400e-003	3.5400e-003	0.0000	29.6169	29.6169	2.1000e-004	0.0000	29.6213
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1500e-003	0.0108	5.0000e-005	3.7000e-003	3.0000e-005	3.7300e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	2.7423	2.7423	1.2000e-004	0.0000	2.7448
Total	**7.8500e-003**	**0.0517**	**0.0970**	**4.0000e-004**	**0.0117**	**1.4800e-003**	**0.0132**	**3.1800e-003**	**1.3700e-003**	**4.5500e-003**	**0.0000**	**32.3592**	**32.3592**	**3.3000e-004**	**0.0000**	**32.3661**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0238	0.0000	0.0238	0.0129	0.0000	0.0129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0888	0.8213	0.7928	1.7200e-003		0.0368	0.0368		0.0339	0.0339	0.0000	150.7539	150.7539	0.0488	0.0000	151.7778
Total	**0.0888**	**0.8213**	**0.7928**	**1.7200e-003**	**0.0238**	**0.0368**	**0.0606**	**0.0129**	**0.0339**	**0.0467**	**0.0000**	**150.7539**	**150.7539**	**0.0488**	**0.0000**	**151.7778**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.9400e-003	0.0505	0.0861	3.5000e-004	6.4500e-003	1.4500e-003	7.9000e-003	1.8200e-003	1.3400e-003	3.1500e-003	0.0000	29.6169	29.6169	2.1000e-004	0.0000	29.6213
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-004	1.1500e-003	0.0108	5.0000e-005	2.8700e-003	3.0000e-005	2.9000e-003	7.8000e-004	3.0000e-005	8.1000e-004	0.0000	2.7423	2.7423	1.2000e-004	0.0000	2.7448
Total	**7.8500e-003**	**0.0517**	**0.0970**	**4.0000e-004**	**9.3200e-003**	**1.4800e-003**	**0.0108**	**2.6000e-003**	**1.3700e-003**	**3.9600e-003**	**0.0000**	**32.3592**	**32.3592**	**3.3000e-004**	**0.0000**	**32.3661**

3.14 Phase 3 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0599	0.5460	0.7063	1.1800e-003		0.0231	0.0231		0.0217	0.0217	0.0000	101.6221	101.6221	0.0239	0.0000	102.1230
Total	**0.0599**	**0.5460**	**0.7063**	**1.1800e-003**		**0.0231**	**0.0231**		**0.0217**	**0.0217**	**0.0000**	**101.6221**	**101.6221**	**0.0239**	**0.0000**	**102.1230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0130	0.0724	0.1797	4.5000e-004	0.0126	1.6300e-003	0.0142	3.6000e-003	1.5000e-003	5.1000e-003	0.0000	38.5672	38.5672	2.8000e-004	0.0000	38.5729
Worker	2.1700e-003	2.7400e-003	0.0257	1.1000e-004	8.8200e-003	7.0000e-005	8.8900e-003	2.3400e-003	6.0000e-005	2.4100e-003	0.0000	6.5293	6.5293	2.8000e-004	0.0000	6.5352
Total	**0.0151**	**0.0751**	**0.2055**	**5.6000e-004**	**0.0214**	**1.7000e-003**	**0.0231**	**5.9400e-003**	**1.5600e-003**	**7.5100e-003**	**0.0000**	**45.0965**	**45.0965**	**5.6000e-004**	**0.0000**	**45.1081**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0599	0.5460	0.7063	1.1800e-003		0.0231	0.0231		0.0217	0.0217	0.0000	101.6220	101.6220	0.0239	0.0000	102.1228

Total	**0.0599**	**0.5460**	**0.7063**	**1.1800e-003**		**0.0231**	**0.0231**		**0.0217**	**0.0217**	**0.0000**	**101.6220**	**101.6220**	**0.0239**	**0.0000**	**102.1228**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0130	0.0724	0.1797	4.5000e-004	0.0102	1.6300e-003	0.0119	3.0200e-003	1.5000e-003	4.5200e-003	0.0000	38.5672	38.5672	2.8000e-004	0.0000	38.5729
Worker	2.1700e-003	2.7400e-003	0.0257	1.1000e-004	6.8400e-003	7.0000e-005	6.9000e-003	1.8600e-003	6.0000e-005	1.9200e-003	0.0000	6.5293	6.5293	2.8000e-004	0.0000	6.5352
Total	**0.0151**	**0.0751**	**0.2055**	**5.6000e-004**	**0.0171**	**1.7000e-003**	**0.0188**	**4.8800e-003**	**1.5600e-003**	**6.4400e-003**	**0.0000**	**45.0965**	**45.0965**	**5.6000e-004**	**0.0000**	**45.1081**

3.14 Phase 3 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0585	0.5336	0.6902	1.1500e-003		0.0226	0.0226		0.0212	0.0212	0.0000	99.3125	99.3125	0.0233	0.0000	99.8020
Total	**0.0585**	**0.5336**	**0.6902**	**1.1500e-003**		**0.0226**	**0.0226**		**0.0212**	**0.0212**	**0.0000**	**99.3125**	**99.3125**	**0.0233**	**0.0000**	**99.8020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0124	0.0696	0.1723	4.4000e-004	0.0123	1.5700e-003	0.0139	3.5200e-003	1.4500e-003	4.9700e-003	0.0000	37.6938	37.6938	2.7000e-004	0.0000	37.6994
Worker	2.0500e-003	2.5900e-003	0.0243	1.1000e-004	8.6200e-003	7.0000e-005	8.6900e-003	2.2900e-003	6.0000e-005	2.3500e-003	0.0000	6.3140	6.3140	2.7000e-004	0.0000	6.3196
Total	**0.0144**	**0.0722**	**0.1966**	**5.5000e-004**	**0.0209**	**1.6400e-003**	**0.0226**	**5.8100e-003**	**1.5100e-003**	**7.3200e-003**	**0.0000**	**44.0078**	**44.0078**	**5.4000e-004**	**0.0000**	**44.0190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0585	0.5336	0.6902	1.1500e-003		0.0226	0.0226		0.0212	0.0212	0.0000	99.3124	99.3124	0.0233	0.0000	99.8019
Total	**0.0585**	**0.5336**	**0.6902**	**1.1500e-003**		**0.0226**	**0.0226**		**0.0212**	**0.0212**	**0.0000**	**99.3124**	**99.3124**	**0.0233**	**0.0000**	**99.8019**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0124	0.0696	0.1723	4.4000e-004	0.0100	1.5700e-003	0.0116	2.9500e-003	1.4500e-003	4.4000e-003	0.0000	37.6938	37.6938	2.7000e-004	0.0000	37.6994
Worker	2.0500e-003	2.5900e-003	0.0243	1.1000e-004	6.6800e-003	7.0000e-005	6.7500e-003	1.8100e-003	6.0000e-005	1.8800e-003	0.0000	6.3140	6.3140	2.7000e-004	0.0000	6.3196
Total	**0.0144**	**0.0722**	**0.1966**	**5.5000e-004**	**0.0167**	**1.6400e-003**	**0.0183**	**4.7600e-003**	**1.5100e-003**	**6.2800e-003**	**0.0000**	**44.0078**	**44.0078**	**5.4000e-004**	**0.0000**	**44.0190**

3.15 Phase 3 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6400e-003	0.0811	0.1374	2.1000e-004		3.9600e-003	3.9600e-003		3.6400e-003	3.6400e-003	0.0000	18.8586	18.8586	6.1000e-003	0.0000	18.9867
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.6400e-003**	**0.0811**	**0.1374**	**2.1000e-004**		**3.9600e-003**	**3.9600e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**18.8586**	**18.8586**	**6.1000e-003**	**0.0000**	**18.9867**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	4.2000e-004	3.9800e-003	2.0000e-005	1.4100e-003	1.0000e-005	1.4200e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0337	1.0337	4.0000e-005	0.0000	1.0347
Total	**3.4000e-004**	**4.2000e-004**	**3.9800e-003**	**2.0000e-005**	**1.4100e-003**	**1.0000e-005**	**1.4200e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0337**	**1.0337**	**4.0000e-005**	**0.0000**	**1.0347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6400e-003	0.0811	0.1374	2.1000e-004		3.9600e-003	3.9600e-003		3.6400e-003	3.6400e-003	0.0000	18.8586	18.8586	6.1000e-003	0.0000	18.9867
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.6400e-003**	**0.0811**	**0.1374**	**2.1000e-004**		**3.9600e-003**	**3.9600e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**18.8586**	**18.8586**	**6.1000e-003**	**0.0000**	**18.9867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	4.2000e-004	3.9800e-003	2.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0337	1.0337	4.0000e-005	0.0000	1.0347
Total	**3.4000e-004**	**4.2000e-004**	**3.9800e-003**	**2.0000e-005**	**1.0900e-003**	**1.0000e-005**	**1.1000e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.0337**	**1.0337**	**4.0000e-005**	**0.0000**	**1.0347**

3.16 Phase 4 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3200e-003	0.0405	0.0687	1.1000e-004		1.9800e-003	1.9800e-003		1.8200e-003	1.8200e-003	0.0000	9.4293	9.4293	3.0500e-003	0.0000	9.4933
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3200e-003**	**0.0405**	**0.0687**	**1.1000e-004**		**1.9800e-003**	**1.9800e-003**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**9.4293**	**9.4293**	**3.0500e-003**	**0.0000**	**9.4933**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.9000e-004	1.8200e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.5047	0.5047	2.0000e-005	0.0000	0.5051
Total	**1.5000e-004**	**1.9000e-004**	**1.8200e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.1000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.5047**	**0.5047**	**2.0000e-005**	**0.0000**	**0.5051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3200e-003	0.0405	0.0687	1.1000e-004		1.9800e-003	1.9800e-003		1.8200e-003	1.8200e-003	0.0000	9.4293	9.4293	3.0500e-003	0.0000	9.4933

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3200e-003**	**0.0405**	**0.0687**	**1.1000e-004**		**1.9800e-003**	**1.9800e-003**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**9.4293**	**9.4293**	**3.0500e-003**	**0.0000**	**9.4933**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.9000e-004	1.8200e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.5047	0.5047	2.0000e-005	0.0000	0.5051
Total	**1.5000e-004**	**1.9000e-004**	**1.8200e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**0.5047**	**0.5047**	**2.0000e-005**	**0.0000**	**0.5051**

3.17 Phase 4 Demolition - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7100e-003	0.0000	2.7100e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0212	0.1803	0.2316	3.8000e-004		8.0000e-003	8.0000e-003		7.5000e-003	7.5000e-003	0.0000	33.5789	33.5789	8.0300e-003	0.0000	33.7476
Total	**0.0212**	**0.1803**	**0.2316**	**3.8000e-004**	**2.7100e-003**	**8.0000e-003**	**0.0107**	**4.1000e-004**	**7.5000e-003**	**7.9100e-003**	**0.0000**	**33.5789**	**33.5789**	**8.0300e-003**	**0.0000**	**33.7476**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.9000e-004	5.7900e-003	9.8900e-003	4.0000e-005	9.6000e-004	1.7000e-004	1.1400e-003	2.6000e-004	1.6000e-004	4.2000e-004	0.0000	3.5611	3.5611	2.0000e-005	0.0000	3.5616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.4000e-004	1.3400e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.3699	0.3699	2.0000e-005	0.0000	0.3702
Total	**9.0000e-004**	**5.9300e-003**	**0.0112**	**5.0000e-005**	**1.4800e-003**	**1.7000e-004**	**1.6600e-003**	**4.0000e-004**	**1.6000e-004**	**5.6000e-004**	**0.0000**	**3.9310**	**3.9310**	**4.0000e-005**	**0.0000**	**3.9319**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0212	0.1803	0.2316	3.8000e-004		8.0000e-003	8.0000e-003		7.5000e-003	7.5000e-003	0.0000	33.5789	33.5789	8.0300e-003	0.0000	33.7476
Total	**0.0212**	**0.1803**	**0.2316**	**3.8000e-004**	**4.8000e-004**	**8.0000e-003**	**8.4800e-003**	**7.0000e-005**	**7.5000e-003**	**7.5700e-003**	**0.0000**	**33.5789**	**33.5789**	**8.0300e-003**	**0.0000**	**33.7476**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	7.9000e-004	5.7900e-003	9.8900e-003	4.0000e-005	7.8000e-004	1.7000e-004	9.5000e-004	2.2000e-004	1.6000e-004	3.8000e-004	0.0000	3.5611	3.5611	2.0000e-005	0.0000	3.5616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.4000e-004	1.3400e-003	1.0000e-005	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3699	0.3699	2.0000e-005	0.0000	0.3702
Total	**9.0000e-004**	**5.9300e-003**	**0.0112**	**5.0000e-005**	**1.1800e-003**	**1.7000e-004**	**1.3500e-003**	**3.3000e-004**	**1.6000e-004**	**4.9000e-004**	**0.0000**	**3.9310**	**3.9310**	**4.0000e-005**	**0.0000**	**3.9319**

3.18 Phase 4 Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1163	0.0000	0.1163	0.0626	0.0000	0.0626	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.3463	0.3854	7.2000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	63.5408	63.5408	0.0206	0.0000	63.9723
Total	**0.0383**	**0.3463**	**0.3854**	**7.2000e-004**	**0.1163**	**0.0155**	**0.1318**	**0.0626**	**0.0143**	**0.0769**	**0.0000**	**63.5408**	**63.5408**	**0.0206**	**0.0000**	**63.9723**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3800e-003	0.0321	0.0547	2.3000e-004	5.3300e-003	9.5000e-004	6.2800e-003	1.4600e-003	8.7000e-004	2.3300e-003	0.0000	19.6964	19.6964	1.4000e-004	0.0000	19.6993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	7.1000e-004	6.6800e-003	3.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	1.8496	1.8496	8.0000e-005	0.0000	1.8512
Total	**4.9400e-003**	**0.0328**	**0.0614**	**2.6000e-004**	**7.9200e-003**	**9.7000e-004**	**8.8900e-003**	**2.1500e-003**	**8.9000e-004**	**3.0400e-003**	**0.0000**	**21.5460**	**21.5460**	**2.2000e-004**	**0.0000**	**21.5505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0204	0.0000	0.0204	0.0110	0.0000	0.0110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0383	0.3463	0.3854	7.2000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	63.5407	63.5407	0.0206	0.0000	63.9723
Total	**0.0383**	**0.3463**	**0.3854**	**7.2000e-004**	**0.0204**	**0.0155**	**0.0359**	**0.0110**	**0.0143**	**0.0253**	**0.0000**	**63.5407**	**63.5407**	**0.0206**	**0.0000**	**63.9723**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3800e-003	0.0321	0.0547	2.3000e-004	4.2900e-003	9.5000e-004	5.2300e-003	1.2100e-003	8.7000e-004	2.0800e-003	0.0000	19.6964	19.6964	1.4000e-004	0.0000	19.6993
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	7.1000e-004	6.6800e-003	3.0000e-005	2.0000e-003	2.0000e-005	2.0200e-003	5.4000e-004	2.0000e-005	5.6000e-004	0.0000	1.8496	1.8496	8.0000e-005	0.0000	1.8512
Total	**4.9400e-003**	**0.0328**	**0.0614**	**2.6000e-004**	**6.2900e-003**	**9.7000e-004**	**7.2500e-003**	**1.7500e-003**	**8.9000e-004**	**2.6400e-003**	**0.0000**	**21.5460**	**21.5460**	**2.2000e-004**	**0.0000**	**21.5505**

3.19 Phase 4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.4095	0.5297	8.9000e-004		0.0173	0.0173		0.0163	0.0163	0.0000	76.2166	76.2166	0.0179	0.0000	76.5922
Total	**0.0449**	**0.4095**	**0.5297**	**8.9000e-004**		**0.0173**	**0.0173**		**0.0163**	**0.0163**	**0.0000**	**76.2166**	**76.2166**	**0.0179**	**0.0000**	**76.5922**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0100e-003	0.0521	0.1257	3.4000e-004	9.4500e-003	1.2100e-003	0.0107	2.7000e-003	1.1100e-003	3.8100e-003	0.0000	28.9386	28.9386	2.1000e-004	0.0000	28.9429
Worker	1.4300e-003	1.8100e-003	0.0171	8.0000e-005	6.6200e-003	5.0000e-005	6.6700e-003	1.7600e-003	5.0000e-005	1.8100e-003	0.0000	4.7316	4.7316	1.9000e-004	0.0000	4.7357
Total	**0.0104**	**0.0539**	**0.1428**	**4.2000e-004**	**0.0161**	**1.2600e-003**	**0.0173**	**4.4600e-003**	**1.1600e-003**	**5.6200e-003**	**0.0000**	**33.6702**	**33.6702**	**4.0000e-004**	**0.0000**	**33.6786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0449	0.4095	0.5297	8.9000e-004		0.0173	0.0173		0.0163	0.0163	0.0000	76.2165	76.2165	0.0179	0.0000	76.5921

Total	**0.0449**	**0.4095**	**0.5297**	**8.9000e-004**		**0.0173**	**0.0173**		**0.0163**	**0.0163**	**0.0000**	**76.2165**	**76.2165**	**0.0179**	**0.0000**	**76.5921**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0100e-003	0.0521	0.1257	3.4000e-004	7.6800e-003	1.2100e-003	8.8800e-003	2.2700e-003	1.1100e-003	3.3800e-003	0.0000	28.9386	28.9386	2.1000e-004	0.0000	28.9429
Worker	1.4300e-003	1.8100e-003	0.0171	8.0000e-005	5.1300e-003	5.0000e-005	5.1800e-003	1.3900e-003	5.0000e-005	1.4400e-003	0.0000	4.7316	4.7316	1.9000e-004	0.0000	4.7357
Total	**0.0104**	**0.0539**	**0.1428**	**4.2000e-004**	**0.0128**	**1.2600e-003**	**0.0141**	**3.6600e-003**	**1.1600e-003**	**4.8200e-003**	**0.0000**	**33.6702**	**33.6702**	**4.0000e-004**	**0.0000**	**33.6786**

3.19 Phase 4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5281	341.5281	0.0137	0.0000	341.8160
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5281**	**341.5281**	**0.0137**	**0.0000**	**341.8160**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0353	0.2049	0.4938	1.3500e-003	0.0374	4.7800e-003	0.0421	0.0107	4.3900e-003	0.0151	0.0000	114.4521	114.4521	8.1000e-004	0.0000	114.4692
Worker	5.4700e-003	6.9600e-003	0.0659	3.2000e-004	0.0262	2.1000e-004	0.0264	6.9500e-003	1.9000e-004	7.1400e-003	0.0000	18.6036	18.6036	7.5000e-004	0.0000	18.6193
Total	**0.0407**	**0.2118**	**0.5597**	**1.6700e-003**	**0.0635**	**4.9900e-003**	**0.0685**	**0.0176**	**4.5800e-003**	**0.0222**	**0.0000**	**133.0557**	**133.0557**	**1.5600e-003**	**0.0000**	**133.0885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0333	2.1051	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.5277	341.5277	0.0137	0.0000	341.8156
Total	**0.1702**	**1.0333**	**2.1051**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.5277**	**341.5277**	**0.0137**	**0.0000**	**341.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0353	0.2049	0.4938	1.3500e-003	0.0304	4.7800e-003	0.0351	8.9700e-003	4.3900e-003	0.0134	0.0000	114.4521	114.4521	8.1000e-004	0.0000	114.4692
Worker	5.4700e-003	6.9600e-003	0.0659	3.2000e-004	0.0203	2.1000e-004	0.0205	5.5100e-003	1.9000e-004	5.7000e-003	0.0000	18.6036	18.6036	7.5000e-004	0.0000	18.6193
Total	**0.0407**	**0.2118**	**0.5597**	**1.6700e-003**	**0.0506**	**4.9900e-003**	**0.0556**	**0.0145**	**4.5800e-003**	**0.0191**	**0.0000**	**133.0557**	**133.0557**	**1.5600e-003**	**0.0000**	**133.0885**

3.20 Phase 4 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	8.9900e-003	0.0189	3.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.6809	2.6809	1.1000e-004	0.0000	2.6832
Total	**0.0138**	**8.9900e-003**	**0.0189**	**3.0000e-005**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.1000e-004**	**0.0000**	**2.6832**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.9000e-004	4.6600e-003	2.0000e-005	1.8500e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.3172	1.3172	5.0000e-005	0.0000	1.3183
Total	**3.9000e-004**	**4.9000e-004**	**4.6600e-003**	**2.0000e-005**	**1.8500e-003**	**1.0000e-005**	**1.8700e-003**	**4.9000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.3172**	**1.3172**	**5.0000e-005**	**0.0000**	**1.3183**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	8.9900e-003	0.0189	3.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.6809	2.6809	1.1000e-004	0.0000	2.6832
Total	**0.0138**	**8.9900e-003**	**0.0189**	**3.0000e-005**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.1000e-004**	**0.0000**	**2.6832**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	4.9000e-004	4.6600e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3172	1.3172	5.0000e-005	0.0000	1.3183
Total	**3.9000e-004**	**4.9000e-004**	**4.6600e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.3172**	**1.3172**	**5.0000e-005**	**0.0000**	**1.3183**

Francis Parker School - Operations Without Design Features

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	140.00	Student	1.80	79,683.00	0
Enclosed Parking Structure	283.00	Space	0.92	40,000.00	0
Arena	8.03	1000sqft	2.58	8,026.00	0
City Park	4.00	Acre	4.00	174,240.00	0
Recreational Swimming Pool	15.40	1000sqft	0.35	15,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2016
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Arenas were chosen for Gymnasium

Construction Phase - operations only run

Off-road Equipment -

Off-road Equipment -

Trips and VMT - operations only run

Demolition -

Grading - user-defined

Architectural Coating - user-defined

Vehicle Trips - 140 students, 476 new daily trips

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Area Coating - user-defined

Energy Use - user-default

Water And Wastewater -

Solid Waste - user-defined

Construction Off-road Equipment Mitigation - user-defined

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - user-defined

Energy Mitigation - 2013 building code reduces energy consumption by 25-30 percent over 2008 code per CEC.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVa lue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVal ue	250	100
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	LandUseSquareFeet	18,572.54	79,683.00
tblLandUse	LandUseSquareFeet	113,200.00	40,000.00
tblLandUse	LandUseSquareFeet	8,030.00	8,026.00
tblLandUse	LotAcreage	0.43	1.80
tblLandUse	LotAcreage	2.55	0.92
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	DV_TP	0.28	28.00

tblVehicleTrips	PB_TP	0.60	6.00
tblVehicleTrips	PR_TP	0.66	66.00
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.71	3.40
tblVehicleTrips	WD_TR	32.93	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6076	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Energy	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	295.8488	295.8488	0.0113	2.7800e-003	296.9461
Mobile	0.2418	0.5598	2.5188	5.1200e-003	0.3516	7.0000e-003	0.3586	0.0941	6.4400e-003	0.1005	0.0000	405.3217	405.3217	0.0177	0.0000	405.6939
Waste						0.0000	0.0000		0.0000	0.0000	23.1186	0.0000	23.1186	1.3663	0.0000	51.8104
Water						0.0000	0.0000		0.0000	0.0000	1.5820	47.1104	48.6924	0.1644	4.2300e-003	53.4555
Total	**1.8525**	**0.5887**	**2.5473**	**5.2900e-003**	**0.3516**	**9.2100e-003**	**0.3609**	**0.0941**	**8.6500e-003**	**0.1027**	**24.7007**	**748.2889**	**772.9896**	**1.5596**	**7.0100e-003**	**807.9144**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2943	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Energy	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	294.2863	294.2863	0.0112	2.7700e-003	295.3783
Mobile	0.2323	0.5044	2.3141	4.5400e-003	0.3102	6.2400e-003	0.3164	0.0830	5.7300e-003	0.0887	0.0000	358.9542	358.9542	0.0159	0.0000	359.2875
Waste						0.0000	0.0000		0.0000	0.0000	11.5593	0.0000	11.5593	0.6831	0.0000	25.9052
Water						0.0000	0.0000		0.0000	0.0000	1.2656	41.2871	42.5527	0.1316	3.4100e-003	46.3735
Total	**1.5297**	**0.5333**	**2.3426**	**4.7100e-003**	**0.3102**	**8.4500e-003**	**0.3186**	**0.0830**	**7.9400e-003**	**0.0909**	**12.8249**	**694.5357**	**707.3606**	**0.8418**	**6.1800e-003**	**726.9530**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.43**	**9.41**	**8.03**	**10.96**	**11.80**	**8.25**	**11.71**	**11.80**	**8.21**	**11.49**	**48.08**	**7.18**	**8.49**	**46.02**	**11.84**	**10.02**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2323	0.5044	2.3141	4.5400e-003	0.3102	6.2400e-003	0.3164	0.0830	5.7300e-003	0.0887	0.0000	358.9542	358.9542	0.0159	0.0000	359.2875
Unmitigated	0.2418	0.5598	2.5188	5.1200e-003	0.3516	7.0000e-003	0.3586	0.0941	6.4400e-003	0.1005	0.0000	405.3217	405.3217	0.0177	0.0000	405.6939

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
High School	476.00	85.40	35.00	935,207	824,853
Recreational Swimming Pool	0.00	0.00	0.00		
Total	476.00	85.40	35.00	935,207	824,853

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-[illegible]	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	9.50	7.30	7.30	0.00	81.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510118	0.073510	0.192396	0.133166	0.036737	0.005265	0.012605	0.021642	0.001847	0.002083	0.006548	0.000610	0.003471

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	262.8731	262.8731	0.0106	2.1900e-003	263.7739
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264.4356	264.4356	0.0106	2.2000e-003	265.3418
NaturalGas Mitigated	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	31.4132	31.4132	6.0000e-004	5.8000e-004	31.6044
NaturalGas Unmitigated	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	31.4132	31.4132	6.0000e-004	5.8000e-004	31.6044

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High School	494035	2.6600e-003	0.0242	0.0203	1.5000e-004		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	26.3636	26.3636	5.1000e-004	4.8000e-004	26.5240

Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Arena	94626.5	5.1000e-004	4.6400e-003	3.9000e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0496	5.0496	1.0000e-004	9.0000e-005	5.0804
Total		**3.1700e-003**	**0.0289**	**0.0242**	**1.8000e-004**		**2.1900e-003**	**2.1900e-003**		**2.1900e-003**	**2.1900e-003**	**0.0000**	**31.4132**	**31.4132**	**6.1000e-004**	**5.7000e-004**	**31.6044**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High School	494035	2.6600e-003	0.0242	0.0203	1.5000e-004		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	26.3636	26.3636	5.1000e-004	4.8000e-004	26.5240
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Arena	94626.5	5.1000e-004	4.6400e-003	3.9000e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0496	5.0496	1.0000e-004	9.0000e-005	5.0804
Total		**3.1700e-003**	**0.0289**	**0.0242**	**1.8000e-004**		**2.1900e-003**	**2.1900e-003**		**2.1900e-003**	**2.1900e-003**	**0.0000**	**31.4132**	**31.4132**	**6.1000e-004**	**5.7000e-004**	**31.6044**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	72234	23.6067	9.5000e-004	2.0000e-004	23.6876
City Park	0	0.0000	0.0000	0.0000	0.0000

Enclosed Parking Structure	262000	85.6239	3.4500e-003	7.1000e-004	85.9173
High School	474911	155.2050	6.2500e-003	1.2900e-003	155.7368
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**264.4356**	**0.0107**	**2.2000e-003**	**265.3418**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	72234	23.6067	9.5000e-004	2.0000e-004	23.6876
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	262000	85.6239	3.4500e-003	7.1000e-004	85.9173
High School	470130	153.6425	6.1800e-003	1.2800e-003	154.1690
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**262.8731**	**0.0106**	**2.1900e-003**	**263.7739**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2943	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Unmitigated	1.6076	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3677					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Total	**1.6076**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0500e-003**	**8.0500e-003**	**2.0000e-005**	**0.0000**	**8.5300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Total	**1.2942**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0500e-003**	**8.0500e-003**	**2.0000e-005**	**0.0000**	**8.5300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.5527	0.1316	3.4100e-003	46.3735
Unmitigated	48.6924	0.1644	4.2300e-003	53.4555

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	3.45908 / 0.220793	16.6188	0.1133	2.7900e-003	19.8640
City Park	0 / 4.76593	17.3043	7.0000e-004	1.4000e-004	17.3636
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
High School	0.616694 / 1.58579	8.5777	0.0204	5.4000e-004	9.1755
Recreational Swimming Pool	0.910804 / 0.558235	6.1916	0.0299	7.5000e-004	7.0524
Total		**48.6924**	**0.1644**	**4.2200e-003**	**53.4555**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	2.76727 / 0.207324	13.4065	0.0907	2.2300e-003	16.0016
City Park	0 / 4.4752	16.2488	6.5000e-004	1.4000e-004	16.3045
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
High School	0.493356 / 1.48905	7.6625	0.0164	4.4000e-004	8.1432
Recreational Swimming Pool	0.728644 / 0.524183	5.2350	0.0239	6.0000e-004	5.9242
Total		**42.5527**	**0.1316**	**3.4100e-003**	**46.3735**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	23.1186	1.3663	0.0000	51.8104
Mitigated	11.5593	0.6831	0.0000	25.9052

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.22	0.0447	2.6400e-003	0.0000	0.1001
City Park	0.34	0.0690	4.0800e-003	0.0000	0.1547
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
High School	25.55	5.1864	0.3065	0.0000	11.6231
Recreational Swimming Pool	87.78	17.8186	1.0531	0.0000	39.9325
Total		**23.1187**	**1.3663**	**0.0000**	**51.8104**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.11	0.0223	1.3200e-003	0.0000	0.0500
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0773
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
High School	12.775	2.5932	0.1533	0.0000	5.8116
Recreational Swimming Pool	43.89	8.9093	0.5265	0.0000	19.9663
Total		**11.5593**	**0.6831**	**0.0000**	**25.9052**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Francis Parker School - Operations With Design Features

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	140.00	Student	1.80	79,683.00	0
Enclosed Parking Structure	283.00	Space	0.92	40,000.00	0
Arena	8.03	1000sqft	2.58	8,026.00	0
City Park	4.00	Acre	4.00	174,240.00	0
Recreational Swimming Pool	15.40	1000sqft	0.35	15,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2016
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Arenas were chosen for Gymnasium

Construction Phase - operations only run

Off-road Equipment -

Off-road Equipment -

Trips and VMT - operations only run

Demolition -

Grading - user-defined

Architectural Coating - user-defined

Vehicle Trips - 140 students, 476 new daily trips

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Area Coating - user-defined

Energy Use - user-default

Water And Wastewater -

Solid Waste - user-defined

Construction Off-road Equipment Mitigation - user-defined

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - user-defined

Energy Mitigation - 2013 building code reduces energy consumption by 25-30 percent over 2008 code per CEC.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior Value	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVa lue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVal ue	250	100
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	LandUseSquareFeet	18,572.54	79,683.00
tblLandUse	LandUseSquareFeet	113,200.00	40,000.00
tblLandUse	LandUseSquareFeet	8,030.00	8,026.00
tblLandUse	LotAcreage	0.43	1.80
tblLandUse	LotAcreage	2.55	0.92
tblProjectCharacteristics	OperationalYear	2014	2016
tblVehicleTrips	DV_TP	0.28	28.00

tblVehicleTrips	PB_TP	0.60	6.00
tblVehicleTrips	PR_TP	0.66	66.00
tblVehicleTrips	ST_TR	10.71	0.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	SU_TR	10.71	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	WD_TR	10.71	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.71	3.40
tblVehicleTrips	WD_TR	32.93	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6076	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Energy	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	295.8488	295.8488	0.0113	2.7800e-003	296.9461
Mobile	0.2418	0.5598	2.5188	5.1200e-003	0.3516	7.0000e-003	0.3586	0.0941	6.4400e-003	0.1005	0.0000	405.3217	405.3217	0.0177	0.0000	405.6939
Waste						0.0000	0.0000		0.0000	0.0000	23.1186	0.0000	23.1186	1.3663	0.0000	51.8104
Water						0.0000	0.0000		0.0000	0.0000	1.5820	47.1104	48.6924	0.1644	4.2300e-003	53.4555
Total	**1.8525**	**0.5887**	**2.5473**	**5.2900e-003**	**0.3516**	**9.2100e-003**	**0.3609**	**0.0941**	**8.6500e-003**	**0.1027**	**24.7007**	**748.2889**	**772.9896**	**1.5596**	**7.0100e-003**	**807.9144**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2943	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Energy	2.5100e-003	0.0228	0.0192	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	174.3383	174.3383	6.4900e-003	1.7000e-003	175.0018
Mobile	0.2323	0.5044	2.3141	4.5400e-003	0.3102	6.2400e-003	0.3164	0.0830	5.7300e-003	0.0887	0.0000	358.9542	358.9542	0.0159	0.0000	359.2875
Waste						0.0000	0.0000		0.0000	0.0000	11.5593	0.0000	11.5593	0.6831	0.0000	25.9052
Water						0.0000	0.0000		0.0000	0.0000	1.2656	41.2871	42.5527	0.1316	3.4100e-003	46.3735
Total	**1.5290**	**0.5273**	**2.3376**	**4.6800e-003**	**0.3102**	**7.9900e-003**	**0.3181**	**0.0830**	**7.4800e-003**	**0.0904**	**12.8249**	**574.5877**	**587.4126**	**0.8372**	**5.1100e-003**	**606.5765**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.46**	**10.44**	**8.23**	**11.53**	**11.80**	**13.25**	**11.84**	**11.80**	**13.53**	**11.94**	**48.08**	**23.21**	**24.01**	**46.32**	**27.10**	**24.92**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2323	0.5044	2.3141	4.5400e-003	0.3102	6.2400e-003	0.3164	0.0830	5.7300e-003	0.0887	0.0000	358.9542	358.9542	0.0159	0.0000	359.2875
Unmitigated	0.2418	0.5598	2.5188	5.1200e-003	0.3516	7.0000e-003	0.3586	0.0941	6.4400e-003	0.1005	0.0000	405.3217	405.3217	0.0177	0.0000	405.6939

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
High School	476.00	85.40	35.00	935,207	824,853
Recreational Swimming Pool	0.00	0.00	0.00		
Total	476.00	85.40	35.00	935,207	824,853

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-[illegible]	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	9.50	7.30	7.30	0.00	81.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510118	0.073510	0.192396	0.133166	0.036737	0.005265	0.012605	0.021642	0.001847	0.002083	0.006548	0.000610	0.003471

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Kilowatt Hours of Renewable Electricity Generated

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	149.4919	149.4919	6.0200e-003	1.2400e-003	150.0042
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264.4356	264.4356	0.0106	2.2000e-003	265.3418
NaturalGas Mitigated	2.5100e-003	0.0228	0.0192	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.8465	24.8465	4.8000e-004	4.6000e-004	24.9977
NaturalGas Unmitigated	3.1700e-003	0.0289	0.0242	1.7000e-004		2.1900e-003	2.1900e-003		2.1900e-003	2.1900e-003	0.0000	31.4132	31.4132	6.0000e-004	5.8000e-004	31.6044

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

High School	494035	2.6600e-003	0.0242	0.0203	1.5000e-004		1.8400e-003	1.8400e-003		1.8400e-003	1.8400e-003	0.0000	26.3636	26.3636	5.1000e-004	4.8000e-004	26.5240
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Arena	94626.5	5.1000e-004	4.6400e-003	3.9000e-003	3.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	5.0496	5.0496	1.0000e-004	9.0000e-005	5.0804
Total		**3.1700e-003**	**0.0289**	**0.0242**	**1.8000e-004**		**2.1900e-003**	**2.1900e-003**		**2.1900e-003**	**2.1900e-003**	**0.0000**	**31.4132**	**31.4132**	**6.1000e-004**	**5.7000e-004**	**31.6044**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High School	380088	2.0500e-003	0.0186	0.0157	1.1000e-004		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	20.2829	20.2829	3.9000e-004	3.7000e-004	20.4064
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Arena	85517	4.6000e-004	4.1900e-003	3.5200e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5635	4.5635	9.0000e-005	8.0000e-005	4.5913
Total		**2.5100e-003**	**0.0228**	**0.0192**	**1.4000e-004**		**1.7400e-003**	**1.7400e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**24.8465**	**24.8465**	**4.8000e-004**	**4.5000e-004**	**24.9977**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	72234	23.6067	9.5000e-004	2.0000e-004	23.6876

City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	262000	85.6239	3.4500e-003	7.1000e-004	85.9173
High School	474911	155.2050	6.2500e-003	1.2900e-003	155.7368
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**264.4356**	**0.0107**	**2.2000e-003**	**265.3418**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	43746.3	14.2967	5.8000e-004	1.2000e-004	14.3457
City Park	-9867.4	-3.2248	-0.0001	0.0000	-3.2358
Enclosed Parking Structure	149813	48.9601	1.9700e-003	4.1000e-004	49.1279
High School	283605	92.6846	3.7300e-003	7.7000e-004	93.0022
Recreational Swimming Pool	-9867.4	-3.2248	-0.0001	0.0000	-3.2358
Total		**149.4919**	**6.0200e-003**	**1.2400e-003**	**150.0042**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2943	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Unmitigated	1.6076	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3677					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Total	**1.6076**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0500e-003**	**8.0500e-003**	**2.0000e-005**	**0.0000**	**8.5300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.2500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0500e-003	8.0500e-003	2.0000e-005	0.0000	8.5300e-003
Total	**1.2942**	**4.0000e-005**	**4.2500e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0500e-003**	**8.0500e-003**	**2.0000e-005**	**0.0000**	**8.5300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.5527	0.1316	3.4100e-003	46.3735
Unmitigated	48.6924	0.1644	4.2300e-003	53.4555

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	3.45908 / 0.220793	16.6188	0.1133	2.7900e-003	19.8640
City Park	0 / 4.76593	17.3043	7.0000e-004	1.4000e-004	17.3636
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
High School	0.616694 / 1.58579	8.5777	0.0204	5.4000e-004	9.1755
Recreational Swimming Pool	0.910804 / 0.558235	6.1916	0.0299	7.5000e-004	7.0524
Total		**48.6924**	**0.1644**	**4.2200e-003**	**53.4555**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	2.76727 / 0.207324	13.4065	0.0907	2.2300e-003	16.0016
City Park	0 / 4.4752	16.2488	6.5000e-004	1.4000e-004	16.3045
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
High School	0.493356 / 1.48905	7.6625	0.0164	4.4000e-004	8.1432
Recreational Swimming Pool	0.728644 / 0.524183	5.2350	0.0239	6.0000e-004	5.9242
Total		**42.5527**	**0.1316**	**3.4100e-003**	**46.3735**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	23.1186	1.3663	0.0000	51.8104
Mitigated	11.5593	0.6831	0.0000	25.9052

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.22	0.0447	2.6400e-003	0.0000	0.1001
City Park	0.34	0.0690	4.0800e-003	0.0000	0.1547
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
High School	25.55	5.1864	0.3065	0.0000	11.6231
Recreational Swimming Pool	87.78	17.8186	1.0531	0.0000	39.9325
Total		**23.1187**	**1.3663**	**0.0000**	**51.8104**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.11	0.0223	1.3200e-003	0.0000	0.0500
City Park	0.17	0.0345	2.0400e-003	0.0000	0.0773
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
High School	12.775	2.5932	0.1533	0.0000	5.8116
Recreational Swimming Pool	43.89	8.9093	0.5265	0.0000	19.9663
Total		**11.5593**	**0.6831**	**0.0000**	**25.9052**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI #_____
Trinomial_____
NRHP Status Code 6Z

Other Listings _____
Review Code_____Reviewer_____Date_____

***Page** 1 of 18 ***Resource Name or #:** 6501 Linda Vista Road, San Diego CA 92111
***P1. Other Identifier:** Francis Parker School – Linda Vista Campus
***P2: Location:** Not for publication Unrestricted **X** a. County: San Diego
And (P2b and P2c or P2d. Attach a location map as necessary.)
***b. USGS Quad** La Jolla ***Date:** 1996 T; R; ¼ of ¼ of Sec. _____ B.M._____
c. Address: 6501 Linda Vista Road City: San Diego Zip: 92111
d. UTM: (Give more than one large or linear resources) Zone: Me/ mN
e. Other Locational Data (e.g. parcel #, directions to resource, elevation, etc. as appropriate);
APN: 437-020-12, Parcel 1 of Parcel Map No. 5465.
***P3a. Description** (Describe resource and its major elements, include design, materials, condition, alterations, size, setting and boundaries.)

The subject property is 46 acre site on a bluff on the northwest side of Mission Valley in the Linda Vista community. In the early 1960s, two canyons within the site were converted to form 12 acres of flat land for athletic fields by a previous school on the property. The property has served as the Francis W. Parker Upper and Middle School since 1971. Only two buildings are the subject of this Report, Building #002, a 1962 locker room and Building #003, a 1965 combined cafeteria and auxiliary gymnasium building. These two concrete block, utilitarian single-story school buildings have flat roofs, square or rectangular shapes and were designed for their respective educational uses in the Modern International architectural style. See Continuation Sheets for further descriptive information.

***P3b. Resource Attributes:** (List attributes and codes) HP 15: Education Buildings
P4. Resources Present: **Building X**
Structure Object Site District
Element of District Other
P5b. Description of Photo: (View, date Accessions #) View: NW: January 2015
***P6. Date Constructed/Age and Source**
Historic X Prehistoric Both
1962 & 1965 Assessor's Building Records
***P7. Owner and Address:**
Francis Parker School, Linda Vista Campus 6501 Linda Vista Road, San Diego CA 92111
***P8: Recorded by:** (Name, Affiliation, Address) K. A. Crawford/Office of Marie Burke Lia, 427 C Street, #416, San Diego, CA 92101
***P9. Date Recorded:** February 2015

***P10. Type of Survey:** Intensive ***P11: Report Citation** (Cite Survey Report and other sources: None e
***Attachments:** Location Map Sketch Map **Continuation Sheet X** **Building, Structure and Object Record X**
Archaeological Record District Record Linier Resource Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # _____
HRI# _____
***NRHP Status Code** 6Z

***Page** 2 of 18 ***Resource Name or # (Assigned by Recorder)** 6501 Linda Vista Road. San Diego CA 92111
B1. Historic Name: San Miguel School for Boys
B2: Common Name: Francis Parker School, Linda Vista Campus
B3. Original Use: Middle and High School
B4: Present Use: Middle and High School
***B5: Architectural Style:** Modern International Style
***B6: Construction History:** (Construction Date, alterations and dates of alterations)
Building #002 constructed in 1962, altered in 1978; Building #003 constructed in 1965, altered in 1978
***B7. Moved?** X **No** Yes Unknown Date: _____ Original Location _____
***B8. Related Features:** School campus containing 18 other structures less than 45 years of age
B9a. Architect: Richard G. Wheeler #002 & Unknown #003. **b. Builder:** H.H. Johnson Inc. & Peterbuilt Corp.
***B10. Significance:** Development of Linda Vista/Modern International Style **Area:** Linda Vista **Period of Significance:** 1959-2005 **Property Type:** Educational **Applicable Criteria:** A, C, D
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This school campus was developed after the property was cleared of WW II war time housing. This parcel was chosen for its size, partial site improvements and central location, it does not represent special elements of the city or community under Criterion A. It is not identified with significant persons or events under Criterion B. It possesses an insufficient amount of the character-defining characteristics of the International Style under Criterion C and does not represent the work of a Master Architect under Criterion D because of its alterations. Furthermore, the site has lost almost all of its original Integrity due to its 2005 redevelopment. See the Continuation Sheets for further significance discussion.

B11. Additional Resource Attributes: (List attributes and codes) None
***B12. References:** *San Diego Historic Modernism Context Statement,* 2007; City of San Diego Building Department Records; County of San Diego Assessor's Department Records; City of San Diego Water and Sewer Records; San Diego City Directories; Modern San Diego Dot Com etc.
B13. Remarks: None
***B14: Evaluators:** K.A. Crawford
***Date of Evaluation:** 2/2015

(This space reserved for official comments.)

P3a. Building Description – Building #002

Building #002 was constructed in 1962 and doubled in size in 1978. It serves as the Locker Room for the adjacent Auxiliary Gymnasium. The building is an asymmetrical, one-story, basically rectangular shaped, Modern style, education building. The building has a concrete foundation, concrete block walls, and a flat roof with wide eave overhangs. The northern half of the building was constructed in 1962 and the southern half in 1978. The two building extensions on the northeast façade also date from 1978.

On the Southeast façade the concrete block is covered with stucco presenting a blank wall surface. No windows or doors are present. The façade faces the open campus area. A small garden with grass plantings is present between the wall surface and the concrete walkway that extends across the area.

The Northeast façade has an irregular shape with two rectangular shaped extensions that project forward from the main mass of the building that were added in 1978. The two sections have flat roofs with wide eave overhangs. The south extension contains single metal doors and a section of four rectangular shaped, metal framed, double hung sash style windows on the front wall of the extension. The north extension contains a pair of metal doors and a small, rectangular shaped, metal framed slider style window on the front wall. The metal window and door section has a wood framing detail around the section. Restrooms are located at either end of this façade with entrances screened by horizontal metal trellis elements attached to the roof overhang. The area between the two extensions contains an additional door area with the same screen detail and single metal door access.

The Northwest façade contains a flat wall surface composed of concrete block. The façade has a wide eave overhang and no door or window openings. A small semi-circular garden with plantings is present between two fixed benches supported by round metal poles. Metal piping is present on the flat wall surface.

The Southwest façade faces the open corridor/passageway area between the Locker Room and Gym buildings. The wall is composed of concrete block. The north and south ends of the wall feature different styles of block wall surfaces, which reflect the 1962 portion on the north and the 1978 portion on the south. Three single metal doors are present along the concrete corridor. The roof extends over a portion of the area creating a roofed passageway. A bench with round metal supports is present at the north end of the corridor.

The building is in good condition.

B6. Alterations – Building #002

The alterations to this building are, surprisingly, graphically documented in the Assessor's Building Record for Building #003, which shows the 1995 conditions of both buildings. The Assessor's Building Record for Building #002 shows this building's conditions after 1978 when the building was more than doubled in size going from 2400 square feet to 5432 square feet. The new northern half of the building was 2600 square feet and eastern extensions were 432 square feet. The only facades of the building that were unaffected were the northwest

The Northwest façade is the northern exterior wall of the gymnasium and approximately 125' in length and divided into five bays. The three central bays contain five wide by two high, metal framed awning-over-fixed sash windows in blocks set in the upper portion of the wall. The bays are divided by vertical wall divisions and overhang roof detail with metal supports. A small garden area runs along the base of the wall and contains grass and flowering trees set in a row along the wall.

The Southwest façade serves as a blank wall surface of both the cafeteria and gymnasium portions of the building with the same wide eave overhang element as seen on the other facades. The area serves as a basic utility and service area for the building and contains fencing to block the equipment and trash cans stored in this area from view. A flat roof with round metal supports is present at midpoint on this façade. Metal doors lead from the interior into the storage area. An L-shaped section with vertical siding and a shed roof is present on the ground floor and the wall contains electric meters and other electrical equipment. The area forms a small enclosed courtyard with a single entry door in the southwest corner that provides access into the utility area. Metal piping is present on the wall surface. Small storage units are present within the courtyard service area. The walls are composed of concrete block.

The building is in good condition.

B6. Alterations

This building was constructed in 1965, and renovated in 1978. Changes made to the building during this renovation project are not documented in the Assessor's Building Records. And while no Building Permit for the 1965 construction was found in the City's permit records, the Assessor's Building Record documents the 1965 Permit as #A05439. The 1978 Permit #E71035 is attached to this Report. Its Plan File can be found on Reel A1065 at Frames 226-250 in the City Building Permit Archives. From this source, it can be determined that fifth bay on the southeast façade had not yet been altered in 1978 to contain the seven wide window sections and the double entrance door that exists at this location today.

Property History

Linda Vista Community History

Housing Development began in Linda Vista with the Silver Terrace subdivision in the late 1880s and development continued at a moderate pace through the first four decades of the 1900s. The community's greatest growth spurt occurred between 1941 and 1945. The unanticipated defense boom of World War II resulted in an enormous influx of residents to staff the burgeoning defense industry. Housing shortages became so acute that the availability of sufficient labor was in jeopardy. As a result, the federal government began to build housing in San Diego and Linda Vista was the largest beneficiary. Three thousand dwelling units were built over one year using mass production techniques. The subject property was one of such housing sites as shown in the 1951 Photograph in Attachment D.1. The Linda Vista Shopping Center was designated in 1945 by Eleanor Roosevelt as the nation's first shopping center. (It was extensively redeveloped during the 1970s.)

Since its purchase of the site in 1971, the Francis Parker Upper School has continued to expand with the construction of new buildings, renovation of existing buildings and site improvements. Between 1971 and 1986, the architectural firm of Mosher Drew Watson & Ferguson was responsible for a variety of site improvements including retaining walls, a new Gym and Storage building, new classroom buildings including a two story classroom building hereafter referred to as Building #202, additions to the office buildings and the library, and an expansion of the locker room, Building #002, in 1978.

New construction continued on the campus after 1986. In 1995, the architectural firm of Richard Yen was responsible for the new Gymnasium and Locker Rooms, referred to hereafter as Building #001. In 1997, the same firm was responsible for the construction of the Performing Arts Center on the campus.[2]

In June of 2005, a discretionary Conditional Use Permit, Planned Development Permit and Site Development Permit [3] was issued by the City Council to permit phased modifications to the campus to include demolition, renovation and construction of new school facilities on the site which were described as: Demolition of a total of ten existing buildings, renovation of three existing buildings and construction of a total of fifteen new buildings serving middle and upper school educational uses. Said buildings to include administration and maintenance buildings, student union, multi-purpose rooms, library, art studios, fine arts theater and music rooms, cafeteria and gymnasium, locker rooms and field house, athletic fields and courts, parking structure and tennis courts, off-street surface and bus parking lots, field lighting, and tennis court fencing totaling approximately 160,000 square feet of floor area. Consequently, the historical character and integrity of the entire parcel was substantially changed by the 2005 Permit.

The Site Plan (Linda Vista Campus Map) included in Attachment A.5 to this Report identifies the number of structures on the campus that represent Post-2003 construction. Before 2003, there were 17 structures on the campus but only 5 of those earlier structures remain. After a review of the Assessor's Building Records, Building Permits and Aerial Photographs attached to this Report, it has been determined that those 5 buildings and their construction and alteration dates are as follows:

Middle School Office and Classrooms (Building #202) – Constructed 1985, Renovated 2005
Field House and Hilgren Court (Building #001) - Constructed 1995
Locker Rooms (Building #002) – Constructed 1962, Enlarged 1978
Auxiliary Gym/Cafeteria (Building #003) – Constructed 1965, Renovated 1978
Performing Arts Center – Constructed 1997

Site Chronology

---

[2] *Historic Site Survey Report for the Francis W. Parker Upper School*, Office of Marie Burke Lia, December 2003.
[3] *Conditional Use Permit No. 84874, Planned Development Permit No. 84874 and Site Development Permit No. 215276*, copies included in Attachment E.1.

2005 Parker Classrooms Demolition, RBF Consulting (Building Permit)
2005 Parker Buildings & Parking Demolition, RBF Consulting (Building Permit)

Conclusion: On the basis of the above Property History and Site Chronology it appears that the only two buildings on the campus more than 45 years of age are Buildings #002 and #003 and both of them have been altered since their construction. Therefore, this Report will focus on these two buildings.

Property Documentation:

The Assessor's Office Records for this campus describe it as Parcel 1 of Parcel Map No. 5465, recorded with the San Diego County Recorder on January 6, 1977. The Assessor's Parcel Number is 437-020-12. Copies of the original Pueblo Lot Map and the current Parcel Map are included in Attachments C.4 and C.5 of this Report.

The Assessor's Building Record for Building #002 identifies this building as a locker room, constructed in May of 1962, and as a single story concrete block building with a reinforced concrete foundation, concrete floors, metal windows, paint exterior finish and a flat roof. The original building was 60' x 40' or 2400 square feet and it was separated from the adjacent gym building to the east, Building #003, by a 16' wide breezeway. In 1978, the building was increased in size by a 65' x 40' south addition built with adjacent storage and office portions resulting in a 3032 square foot addition.

The Assessor's Building Record for Building #003 identifies it as a gym/cafeteria, constructed in May of 1965 as a single story building with a reinforced concrete foundation, concrete floors, metal windows, paint exterior finish and a flat wood roof. The gym portion of the building faces north toward the street and the cafeteria portion faces south toward the rest of the campus. The building measures 125' by 111' or 13,485 square feet. The graphic portion of this record also illustrates the construction history of Building #002 by showing its 1962 footprint. Copies of the Assessor's Building Records for the two buildings are included in Attachment A.1.

No Notices of Completion were recorded for the construction of Buildings #002 or #003.

Water and Sewer Records were found to the subject property and include a 1960 water service order for San Miguel School, a 1967 Water Meter Data Card for San Miguel School, 1967 and 1981 Water Relocation service for San Miguel School and a 1978 Water Meter Data Card for Francis Parker School. Copies of these records are included in Attachment A.3.

A Chain of Title was obtained for the property that documents the federal condemnation of the parcel in 1942 for war time housing, and its subsequent transfer to the San Miguel School in 1959, the 1960 Notice of Completion for Building #202, (the Middle School Office and Classrooms Building which was renovated and retained in 2005), the transfer to Francis W. Parker School in 1971. A copy of this Chain of Title is included in Attachment B.1.

Application of the City's Guidelines for finding Integrity:

According to the City's Guidelines for the application of the Historical Resources Board Designation Criteria,[4] there are two important principles for understanding Integrity:

1. Integrity is the authenticity of a historical resource's physical integrity clearly indicated by the retention of characteristics that existed during the resource's period of significance.

2. Integrity relates to the presence or absence of historic materials and character defining features.

Understanding Integrity:

Historical resources eligible for designation by the HRB must meet one or more of the designation criteria and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.

Application of the seven aspects of integrity:

Location: Location is the place where a resource was constructed or where an event occurred.
The subject buildings #002 and #003 remain in their original locations on the campus and, therefore, they meet this aspect of integrity.

Design: Design results from intentional decisions made during the conception and planning of a resource. Design includes form, plan, space, structure, and style of a property. The design of Building #002 has substantially changed because of the 1978 alterations. The design of Building #003 does not appear to have substantially changed, therefore, only Building #003 meets this aspect of integrity.

Setting: Setting applies to a physical environment, the character of a resource's location and a resource's relationship to the surrounding area. The physical environment of this property started with World War II housing and transitioned into use as a middle/high school beginning in 1959. Since that time a series of one or two story buildings have been constructed on the property in a standard school layout taking into account the topography of the site. However, there were once seventeen school buildings on this campus and only five of those remain and, of those five, only two were constructed more than 45 years ago. As the result of discretionary permits issued in 2005, the physical environment has changed and the setting aspect of integrity is not present for either building.

[4] Guidelines for the Application of Historical Resources Board Designation Criteria, page 3, Historical Resources Guidelines, Appendix E, Part 2.

and 2003, multiple structures were constructed to serve the school. In 2003, seventeen such structures were present and all but five of them were removed for a complete redevelopment of the property. The property represents a middle and upper school developed by a well-established private institution that was almost completely redeveloped in 2005. Only two buildings are present that were constructed more than 45 years ago and both of these and their setting have been subsequently modified. The theme that the property represents is an educational institution that has been continually modified and today contains only two buildings more than 45 years of age out of the twenty buildings present on the site now. The geographical limits are Linda Vista and the period the property represents is 1971 to 2005.

2. Determine how the theme of the context is significant in the history of the local area:

Although this parcel was first developed as war time housing during World War II, since 1959 it has served as a private Middle and Upper School. Slightly northwest of this campus is the University of San Diego, a private Catholic University. In this same vicinity, a short distance away, the private Catholic University High School was formerly located. The availability of large vacant parcels of land in this vicinity in the middle of the last century is likely the reason for the development of these educational institutions in this vicinity. Single and multi-family housing was also developed in this area after World War II. The development of the subject property as a private educational institution was not significant in the history of this area.

3. Determine what the property type is and whether it is important in illustrating the historic context:

The property type is a combined middle and high school campus that has continually been modified resulting in only two of its current twenty buildings being old enough to qualify as potential local historical resources. Although it represents the "historic context" of the area, that context is not historically significant.

4. Determine how the property represents the context through HRB Criteria:

The property does not represent any context through HRB Criteria. It does not exemplify or reflect "special elements" of the City's, community's or neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development under Criterion A because this educational complex was established and expanded at this location because: the land was available, it had already been partially improved, and it was in a central location. No special elements of development were or are present.

The property is not identified with persons or events significant in local, state, or national history as required by Criterion B.

The property does not embody the distinctive characteristics of a style, type, period or method of construction and is not a valuable example of the use of indigenous materials or craftsmanship under Criterion C. It has been evaluated as an example of the Modern International style of architecture but neither building possesses a sufficient number of the character-defining characteristics of that style.

In order for a property to be eligible for designation under this criterion, it must embody the distinctive characteristics of a style, type, period or method of construction.

"Style of construction" means the composition, massing, scale, materials and details that exhibit the essential physical features of a *recognized architectural style*. In order to determine whether these two educational buildings exhibit the essential physical features of a recognized architectural style, these buildings were evaluated as an example of the Modern International style of architecture. The following information on this style was taken from the *San Diego Modernism Historic Context Statement.*

- The International style was a major world-wide architectural trend of the 1920s and 1930s and reflects the formative decades of Modernism prior to World War II.
- The International Style is characterized by a radical simplification of form and a complete rejection of ornament.
- Common features of this style include square and rectangular building footprints, simple cubic or extended rectangular forms, horizontal bands of windows, and strong right angles. Predominant building materials include concrete, smooth stucco, brick and glass.
- In San Diego, examples of true International style architecture are rare with no great concentrations occurring in any one area. International style buildings in San Diego generally have commercial or institutional uses such as schools.
- Location and setting are particularly relevant for International style resources which are institutional and related to a campus environment.
- The primary character-defining features of the style are: (1) flat roofs (cantilevered slabs or parapets); (2) lack of applied ornament; (3) horizontal bands of flush windows, and (4) asymmetrical facades.
- The secondary character-defining features of the style are (1) square corners; (2) common exterior materials include concrete, brick and stucco; (3) steel sash windows (typically casement); and (4) corner windows.

Building #002, constructed in 1962, was substantially altered in 1978 such that only 1.5 of its 4 facades are intact. As described above, of the seven aspects of integrity, it retains only one: location. Therefore, its original physical integrity has been lost and whether it embodies a particular architectural style is irrelevant.

Building #002 is not representative of a notable work of Richard George Wheeler, because of its alterations. Not all examples of a Master's work are eligible for designation particularly one that has been altered to the extent that this one has. Contractor H.H. Johnson has not been determined to be a Master Builder. Therefore, this building cannot be considered to be representative of the work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman.

Building #003 is not representative of a notable work of a Master Architect or Builder because its architect and contractor are unknown.

Criterion E. National or California Register Eligible: Is listed or determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historic Preservation Office for listing on the California Register of Historical Resources;

The property has not been listed or determined eligible for either the National or California Registers.

Criterion F: Historic District: Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood.

The property is not a finite group of resources.

Conclusion: These buildings are not eligible for the San Diego Historical Resources Register because they lack Integrity and they do not meet any of the applicable criteria.

B12. References

California Lot Book, Inc., Chain of Title 6501 Linda Vista Road, San Diego, California, February 2014.

California Room, San Diego Public Library, San Diego Union Tribune indexes and articles, other research materials.

City of San Diego, Building Permit Files and Archived Plan Files at Development Services Department.
City of San Diego, *Conditional Use Permit No. 84874, Planned Development Permit No. 84874 and Site Development Permit No. 215276*, 2005.

City of San Diego, *Guidelines for the Application of Historical Resources Board Designation Criteria*, Land Development Manual, Historical Resources Guidelines, Appendix E, Part 2.

City of San Diego, *Historical Resources Research Report Guidelines and Requirements*, Land Development Manual, Historical Resources Guidelines, Appendix E, Part 1.1.

A.1 - COUNTY ASSESSOR'S BUILDING RECORD

ATTACHED

COMMERCIAL-INDUSTRIAL BUILDING RECORD

Account No. _____

ASSESSOR, SAN DIEGO COUNTY

Parcel No. 457-020-05-12

NAME ~~San Miguel School for Boys~~ ADDRESS 6521 LINDA VISTA RD. LINDA VISTA

SHEET 1 OF 2 AND 11

CLASS & SHAPE	FRAME	TRUSSES	EXT. FINISH	ROOF	LIGHTING	FRONT
Gym/CAFETERIA	Wood	Light X Heavy	FLR/B	X Flat	X Standard	Type
Stories 1	Concrete Reinf. X	Light Wood Steel	Stucco	Shed	Below Standard	
Bsmt Mezz	Steel	72' Span Spacedzo'	Metal	Arch		
USE DESIGN	X No Frame	FLOORS	Veneer	Gable	FIXTURES	Glass in
Garage	FLR/B WALLS 12	X Concrete "	Wood	X Wood	X Fluorescent	Metal Wood
Store	Wood	Wood	Glass	Metal	Incandescent	Glass Doors
Office	XXXX Conc.Blk 8"	Sub-Floor	Unfinished	Concrete		Auto No.
Factory	Metal	Elevation	XXXX PAINT		Quality	Bulkhead
Warehouse	Tilt Up	FOUNDATION	WINDOWS	ROOF COVER	Quantity	Back Trim
X GYM/CAFETER X	Pilasters	X Concrete Reinf.	X Metal	Composition	PLUMBING	Lighting
	Party	Masonry	Wood	X Built-Up	15 Fixtures & Fixts No.	Drop Ceiling
				Metal	Quality	Disp.Platform
					Sprinklers	Quality

INTERIOR CONSTRUCTION

NUMBER OF ROOMS						MATERIALS					
Desc.	B	M	1	2	3	FLOORS	GD	WALLS	GD	CEILING	GD
All			X			HD. WD.		PT.		DRY/PT	24
CAFETER.			1			A.T.		PT.		PL.	10
KIT			1			TI		PL. & EN.		PL. & EN.	10
SERV Rm.			1			TI		PL. & EN.		PL. & EN.	12
STG.			1			CONC.				PL.	10
Office											
Lobby											
Hall											
Bath											
Rest room			4			TI		6 CT. (2) PLY & EN. (2)		PL. & EN	8'

CONSTRUCTION RECORD

Permit No.	For R.E. HAZARD JR.	Amount	Date	EFFEC. YEAR	APPR. YEAR	NORMAL % GOOD Age	Rem. Life	Table	%	RATING (E G A F P) Cond.	Arch. Attr.	Func. Plan	Ade-quacy	Wkm-ship
A05439	Gym/CAFETERIA	189000	5/6/65	1965	1966	1	49	OR 50	100					
				1946	1973	7	43	OR 50	96					

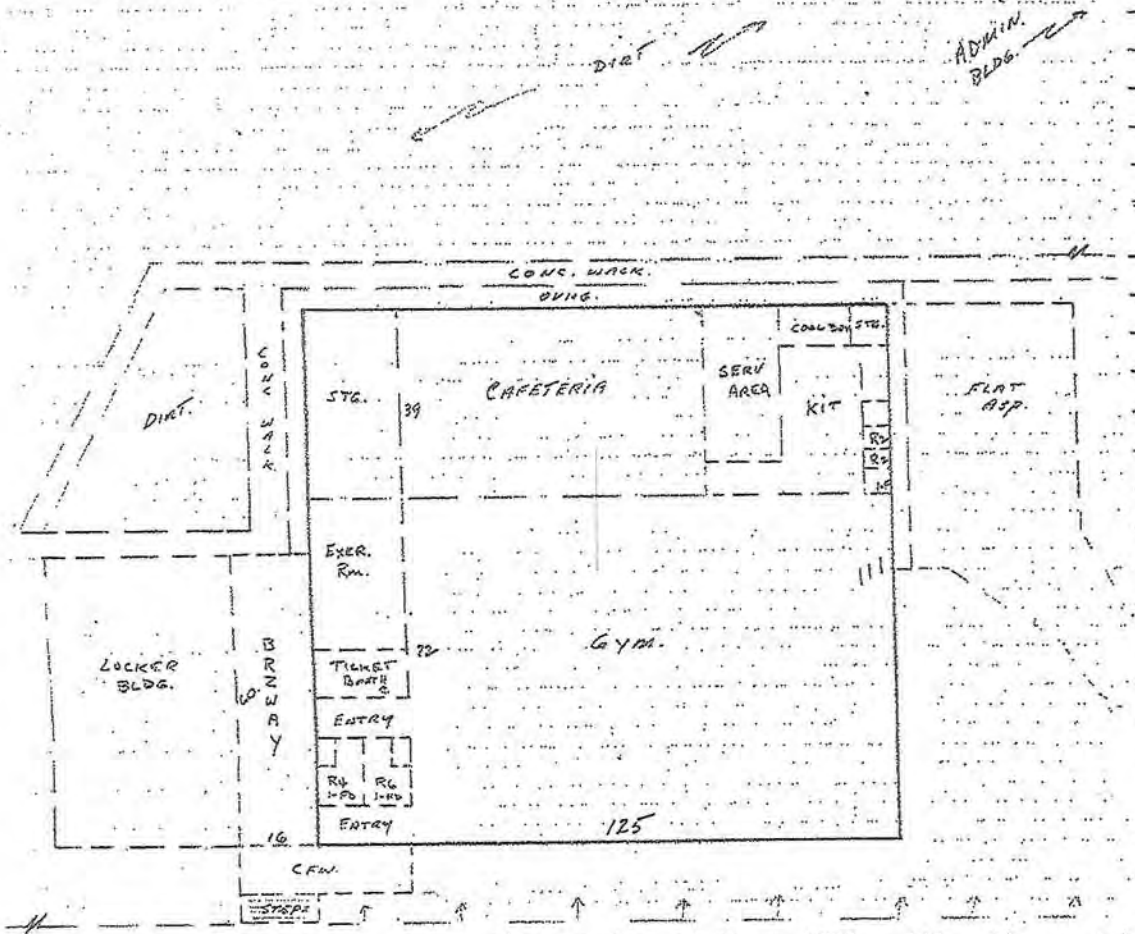
SPECIAL FEATURES

ITEM	NO.-CAPACITY	MATERIAL OR TYPE	QUAL.
Air Cond.	4 - 250M BTU	Susp. Gas - Gym.	
	2 - 100 M BTU	Susp Gas - CAFETERIA.	
Doors			
Sky-Lites			
Elevator			

Appraiser and Date		Schmidt 4/66		Finch 1/8/73		1-76 See 1/10									
UNIT	AREA/ UNIT	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST
Gym/CAFETERIA	13875	10.60	147075	15.00	208125										
AC			3000		3000										
TOTAL			150075		211125										
NORMAL % GOOD			100		96										
R.C.L.N.D.			150075	C.T.	202680										
CHECKED															
REVIEWED	RK														

A-2 L (1-58)

Scale: 1" = 40 Ft.



MISCELLANEOUS STRUCTURES

STRUCTURE	FOUND.	FLOOR	CONST.	EXT.	ROOF	DIM.	AREA/UNIT

COMPUTATIONS

AREA:

111 X 125 = 13875

P = 472

BE (By Appr.) 10.60

REMARKS: ① Reported Contract Cost $ 152000 4/6/16 (CFW)

02/19/2015 THU 13:50 FAX ←→ CAC ROOM 109

☑020/034

COMMERCIAL-INDUSTRIAL BUILDING RECORD

Account No. _____ Parcel No. 437-020-~~5~~ 12

ASSESSOR, SAN DIEGO COUNTY

NAME ~~SAN MIGUEL SCHOOL~~ 6491 ADDRESS 6501 LINDA VISTA Rd SHEET 2R2 OF ~~2~~ 4

CLASS & SHAPE	FRAME	TRUSSES	EXT. FINISH	ROOF	LIGHTING	FRONT
SPEC	Wood	Light / Heavy	FLRS	X Flat	X Standard	Type
Stories 1	Concrete Reinf.	Wood / Steel	Stucco	Shed	Below Standard	
Bsmt 0 Mezz 0	Steel	Span Spaced	Metal	Arch		
USE / DESIGN	X No Frame	FLOORS	Veneer	Gable	FIXTURES	Glass in
Garage	Wood	X Concrete	Wood	Wood	Fluorescent	Metal / Wood
Store	Brick	Wood	Glass	Metal	X Incandescent	Glass Doors
Office	Conc. Blk 8"	Sub-Floor	Unfinished	Concrete		Auto / No.
Factory	Metal	Elevation	PT		Quality A	Bulkhead
Warehouse	Tilt Up	FOUNDATION	WINDOWS	ROOF COVER	Quantity A	Back Trim
X LOCKER RM	Pilasters	X Concrete Reinf.	X Metal	Composition	PLUMBING	Lighting
	Party	Masonry	Wood	X Built-Up	16 Fixtures	Drop Ceiling
				Metal	Quality A	Disp. Platform
					Sprinklers	Quality

FRAME: FLRS; WALLS 12"

INTERIOR CONSTRUCTION												
NUMBER OF ROOMS						MATERIALS						
Desc.	B	M	1	2	3	FLOORS	GD	WALLS	GD	CEILING	GD
All			X			CONC	A	PT	A	PL	
Office											
Lobby											
Hall											
Both											
Restroom			1			T1		T1 W/C			

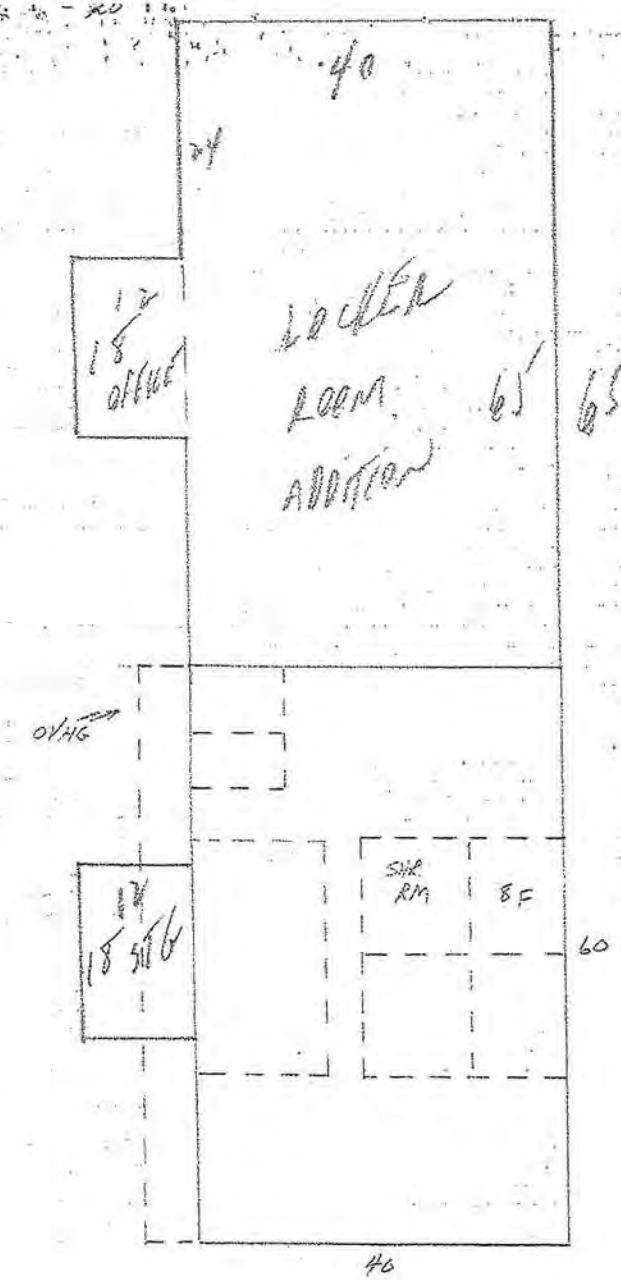
CONSTRUCTION RECORD

Permit No.	Permit For	Amount	Date	EFFEC. YEAR	APPR. YEAR	NORMAL % GOOD Age	Rem. Life	Table	%	RATING (E,G,A,F,P) Cond.	Arch. Attr.	Func. Plan	Ade-quacy	Wkm-ship
B50849	LOCKER RM	24000	5/62	1962	1963	0	45	OR45	100					
M42156	ADD MECH RM	22500	12-27-78	1962	1964	2	43	OR45	99					
				1943	1973	10	35	OR45	90					

SPECIAL FEATURES

ITEM	NO.-CAPACITY	MATERIAL OR TYPE	QUAL.
Air Cond.	1- 5 USP	HTR	
Doors			
Sky-Lites			
Elevator			

Appraiser and Date		Mabe 10/3/62		Gmc Sec		Estimate 1/8/79		8076 Sec 10							
UNIT	AREA/ UNIT	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST
~~ATHLETIC FIELD HSE~~ BLDG	2400	7.15	17160	7.15	17160	12.00	28800								
AC			210		210		300								
ADDITION	303							4000	12/280						
TOTAL		17370		17370		29100		+12280							
NORMAL % GOOD		100		99		90									
R.C.L.N.D.		17370	CJ	17196	CJ	26190									
CHECKED								+12280							
REVIEWED															



MISCELLANEOUS STRUCTURES

STRUCTURE	FOUND.	FLOOR	CONST.	EXT.	ROOF	/DIM.	AREA/UNIT

COMPUTATIONS SHELL

40 x 60 = 2400.
P = 200.

ADD
40 x 65 = 2600
12 x 18 = 216
12 x 18 = 216
3032

B.F.		1.20
HGT ADJ	+	.23
PART	+	.76
PLMG	+	.94
INT CEIL FIN	+	.35
INT WALL FIN	+	.14
TI TRIM	+	.20
EXT FIN	+	.14
OVHG	+	.21
ADJ B.F.		4.17

REMARKS: W17-63 - D. Grant - 5/23/63
Values shown in red indicate portion used exclusively for welfare purposes, & also values indicate non-exemptions. Posted for 1963: Land 6350 Imps 37800 pp 31690 6150 B/I School + 630/3
W13-64 - D. Grant - 5/15/64,
Exemptions and non-exemptions granted as shown for 1964. Posted: Land exempt value increased from 6350 to 37010; Imps purchased from exempt Land value decreased from 6350 to 6240; Imps values exempt increased from 37800 to 36880; Non-exempt Land decreased from 6150 to 6030 - B/I School Trim exempt from 1964 from 630/3 to 630/3 - pp non-exempt decreased W-28-66, 5/11/66, Roming, land partial, imps exempt 1966

02/19/2015 THU 13:45 FAX →→→ CAC ROOM 109

☑010/034

A.2 - NOTICE OF COMPLETION

NONE FOUND

A.3 - WATER/SEWER CONNECTION RECORDS

ATTACHED

CITY OF SAN DIEGO, CALIFORNIA
WATER DEPARTMENT

AUG 10 1960

B 33640

SERVICE ORDER AND RECEIPT

Date Book 165 | Meter Book | W.O. Number 29797 | Rev. Acct.

ORDER COPY

Date 8-9- 1960

Payment Having Been Made By San Miguel School Dedy Fund

Of Lux Humble Service Station

Dollars ($ 6 73 100)

Install 2 Service and 2" Meter at 6501 Linda Vista Rd

Lot Block Portion Parcel 7 PL 176 (RS 222) Addition

Map Book Page 50 A (Copy) Portion 18' E of West Lot Line Subdivision

The undersigned hereby subscribes to and agrees to be bound by terms of agreement printed below.

Owner San Miguel School

By

Mail Water Bills To Address 1493 E. 24th St

Issued By

WATER RELOCATION

WATER MAIN CONN. CHARGE

AREA CHARGE

Plan File Number

Description Code

Loc 105 Ft. E. of N. S. E. W. LOT LINE

THIS SPACE FOR USE OF WATER FOREMAN ONLY

DATE

Service Location Pl. of Line of Street on LINDA VISTA RD. Between

Make of Meter 2" B&D Meter No. B267761

Meter Reading 00

Size and Kind of Pipe Used 2" Copper

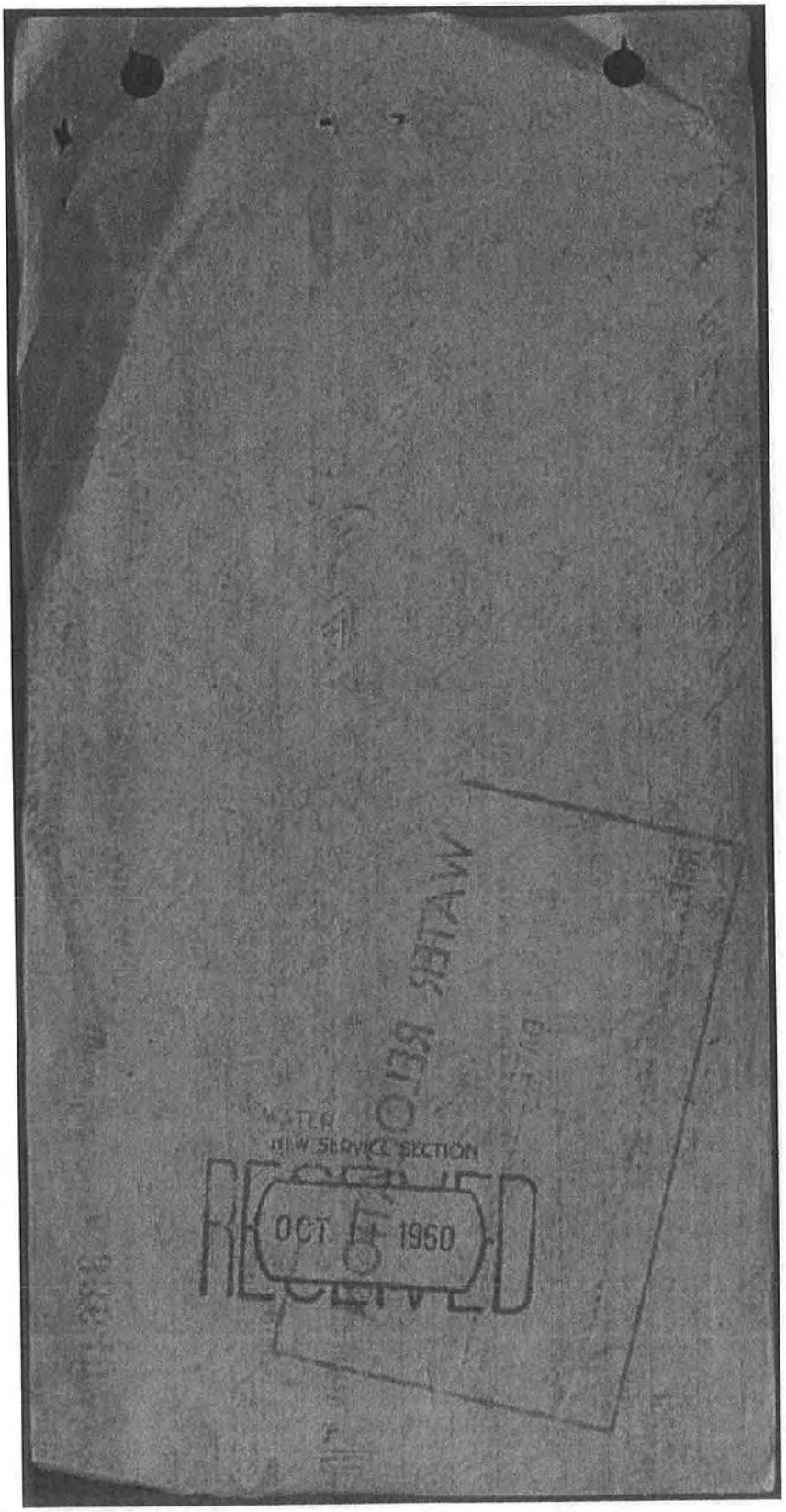
Kind of Paving Blacktop Pl. Date Installed 8-19- 1960

Signed:

Foreman

SPECIAL INSTRUCTIONS Backflow Protector

Set 10' East of Existing Meter


WATER
NEW SERVICE SECTION
RECEIVED
OCT 1960

THIS FORM TO BE COMPLETED BY CITY AND SIGNED BY APPLICANT

WATER METER DATA CARD

JOB ADDRESS (PRINT) 6501 Linda Vista Road, S.D.

OWNER'S NAME (PRINT) San Miguel Boys School

TELEPHONE NUMBER 278-3535

METER TO BE LOCATED IN [ ] ALLEY [X] STREET EXIST. (PRINT STREET NAME)

DISTANCE METER TO BE FROM LEFT PROPERTY LINE (WHEN FACING PROPERTY) — FT.

WATER PRESSURE REGULATOR (REQUIRED IF MAX. PRESSURE OVER 100 PSI)

[X] NOT REQUIRED [ ] WILL BE PROVIDED [ ] WILL NOT BE PROVIDED

WATER SOFTNER CONNECTION [ ] WILL [X] WILL NOT BE PROVIDED

LENGTH OF WATER SYSTEM (FROM METER TO FARTHEST OUTLET)

EXISTING SYSTEM: — PROPOSED SYSTEM: 450'

DIAMETER OF BLDG. SUPPLY LINE 2" METER SIZE EXIST. 2-1/2"

PRESSURE CORRECTION FOR CHANGE IN ELEVATION: VERTICAL DIST. (FT.) — MINUS 6 PSI

METER TO HIGH OUTLET 4.43 PSI — PSI

WATER PRESSURE BOOSTER PUMP INCREASES PRESSURE — PSI

FLUSHOMETER VALVE FIXTURES [X] WILL [ ] WILL NOT BE USED

BLDG. — NO. STORIES 2 — OCCUPANCY Dorm — WATER FOR [X] NEW [ ] EXIST. BLDGS.

TYPE OF FIXTURE	EXIST. PUBLIC USE	EXIST. PRIVATE USE	NEW PUBLIC FIXTURES	NEW PRIVATE FIXTURES	NEW TOTAL FIXTURES	EXISTING PUBLIC FIXTURES	EXISTING PRIVATE FIXTURES	EXISTING TOTAL FIXTURES
BATHTUB & OR SHOWER	1	2	6	3	30			
DENTAL UNIT OR LAVATORY	1	1						
DRINK. FOUNTAIN - EA. H'D.	1	1						
HOSE BIBB		3	4		20	2		10
LAUNDRY TUB - CL. WASHER	3	2						
SINK, BAR	2	1						
SINK, CLINIC, FLUSHING	10	-						
SINK, KIT OR DISHWASHER	4	2	2	2	4	3		12
SINK, SERVICE	4	2						
SINK, WASH, EA. FAUCET SET	2	-	6	2	16	2		4
SINK WASH, CIRCLE SPRAY	4	-						
TRAILER, HOUSE	6	6						
URINAL, PEDESTAL	10	-						
URINAL, FLUSH TANK	3	-						
URINAL, WALL/STALL	5	-	2		10			
WATER CLOSET, TANK	5	3		3	15	2		10
WATER CLOSET, FLUSH VALVE	10	6	4		40			
WATER SUPPLY OUTLET - 3/8"	2	1						
WATER SUPPLY OUTLET - 1/2"	4	2	1		4	4		16
WATER SUPPLY OUTLET - 3/4"	6	3						
WATER SUPPLY OUTLET - 1"	10	6						
SPRINKLER HEADS, (FULL)	1	1						

FIXTURE UNIT SUB TOTAL — NEW. 139 — EXIST. 52

FIXTURE UNIT TOTAL 191 FU = ~~[illegible]~~ GPM

OTHER WATER REQ. (SAME METER) none = GPM

EXIST WATER REQ. (SAME METER) none = GPM

TOTAL WATER REQ. (SAME METER) 191 = 88 GPM

I AFFIRM THAT THE INFORMATION GIVEN IS CORRECT; THAT THE APPROVAL GIVEN HEREIN FOR MINIMUM METER SIZE AND MAXIMUM WATER CAPACITY OF WATER PIPE ARE BASED SOLELY ON THIS INFORMATION AND ANY DEVIATION IN CONSTRUCTION WILL REQUIRE RESUBMISSION OF CORRECTED DATA FOR DETERMINATION OF ADEQUACY OF WATER PIPE AND METER SIZES.

SIGNATURE (OWNER OR AGENT) C. G. McDonald — DATE SIGNED 2/15/67

ADDRESS

WATER METER RECEIPT NO. — DATE — PLAN FILE NUMBER 714-D

GPM FOR SPECIAL FIRE PROTECTION SYSTEM — APPROVED BY FIRE PREV. BUR.

FIRE

[ ] GPM FOR (1) OR (2) HIGHEST OUTLETS. (A & B OCCUP.)
50 GPM FOR HIGHEST OUTLET (ALL OTHER OCCUPANCIES)
[ ] TOTAL FIRE PROTECTION WATER TO BE SUPPLIED FROM DOMESTIC W. METER [ ] SEPARATE CONN. TO W. MAIN.

UTILITY

WATER PRESSURE DATA — FOR MIN. PRESS. 108 PSI — NORMAL MAXIMUM PRESSURE 123 — [X] OVER [ ] UNDER 100 PSI max

BACKFLOW PROTECTOR REQUIRED AT METER [ ] YES [ ] NO

APPROVED METER SIZE 2-2" IN. — PRESS. DROP — PSI

SIGNATURE OF UTILITIES DEPT. REP. PROVIDING WATER DATA Max S. Hogan

[X] APPLICANT REQUESTS PERMISSION TO MAKE THE ALTERATIONS TO THE EXISTING BUILDING. WATER SYSTEM NECESSARY FOR THE INDICATED ADDITIONAL PLUMBING FIXTURES ON THE BASIS THAT A REASONABLY ADEQUATE WATER SUPPLY WILL EXIST. APPLICANT STATES THAT OCCUPANCY OF THE BUILDING IS NOT BEING CHANGED.

[ ] APPLICANT REQUESTS PURCHASE OF METER AND SERVICE PRIOR TO FINAL APPROVAL OF PLANS OR ISSUANCE OF BUILDING PERMIT. APPLICANT ACKNOWLEDGES THAT HE WILL PAY FOR REPLACEMENT OF SAID METER AND SERVICE SHOULD PLAN CHECK OR FIELD INSPECTION INDICATE THAT THEY DO NOT COMPLY WITH CODE REQUIREMENTS. APPLICANT UNDERSTANDS COST OF ORIGINAL METER AND SERVICE IS NOT REFUNDABLE EXCEPT AS PROVIDED IN ART. ", CHAPTER VI, MUNICIPAL CODE.

SIGNATURE (OWNER OR AGENT) — DATE SIGNED

DESIGN WATER PRESSURE (FOR TABLE 10-2) — PSI

DESIGN WATER PRESSURE (FOR APPENDIX A) 76 PSI

WATER SUPPLY LINE - NEW 2 IN.

WATER SUPPLY LINE - OLD 2½ IN.

MIN. METER SIZE COMPATIBLE WITH TABLE BELOW EXIST IN.

[ ] PERMIT MAY BE ISSUED ON BASIS OF MINOR CHANGES AND/OR ALTERATIONS PER SIGNED REQUEST ABOVE.

[ ] FLUSH TANK SYSTEM IS APPROVED FOR INSTALLATION PER UPC TABLE 10-2. PRESSURE RANGE — TO — PSI.

[ ] SYSTEM MUST BE INSTALLED PER UPC APPENDIX "A" IF OVER 200' IN LENGTH OR IF CONTAINING FLUSHOMETER VALVES. MINIMUM WATER PIPE SIZES TO BE AS INDICATED BELOW:

APPROVED BASIS OF PIPE SIZING

PIPE SIZE (IN.)	¾	1	1¼	1½	2	2½	3	3½	4	5	6
GPM	45	90	180	380	500	800	1200	1800			
FLUSH TANK SYS.	5.5	13.5	26	80	127	240	490	844			
FLUSH VALVE SYS.				25	47	100	360	804			
GPM	5½	11	20½	45	64	125					
FLUSH TANK SYS.	6	15	30	77	195	585					
FLUSH VALVE SYS.	1	2	5	34	90	340					

INSPECTION DEPARTMENT APPROVAL [signature]

CITY OF SAN DIEGO — INSPECTION DEPARTMENT — FORM 10-16 (2-65)

DATE 3/14/67

USE TYPEWRITER OR BALLPOINT PEN PRESS HARD. TO GET LEGIBLE COPIES

SERVICE ADDRESS				DATE CHECKED	CHECKED BY	PLAN FILE NO.	TAP NO.
6501 Linda Vista Rd.			11	5-11-67	n G.S.		B. 57-80

PLAT PAGE	SERVICE SIZE	METER SIZE & KIND	LOT	BLOCK	TRACT
220-1713	6" F.S.	5/8" Det.	~~EXX~~	Portion	Par. 7, P L 1176 (R.S. 4212)

REQUESTED METER OR P.C. LOCATION	OWNERS NAME	OCCUPANCY CODE
At vault location	San Miguel Schools	U

W.O. OR C.A. NO.	WORK UNITS	CREW MANHOURS	CREW NO.	OWNERS MAIL ADDRESS
29019	1	96	6659	Same

WATER RELOCATION

SERVICE INSTALLED:
372 FT. E OF E P-LINE OF ALCALA

ON STREET
LINDA VISTA RD S

SPECIAL INSTRUCTIONS
DATE: 12/8/71
FIRE SERVICE Rec. #20968 POH
Test Fittings No vault

METER SIZE & MAKE	METER SERIAL NUMBER	METER READING	AREA CHARGE	WATER MAIN CONN. CHARGE
5/8 W.	6395991	0003	# $1139-5-D	# S

PIPE KIND	PIPE SIZE & LENGTH	KIND WATER MAIN	CI	AC	OTHER	WATER FEE	DATE PAID	DATE ISSUED	ISSUED BY
AC	6" 14FT		10"			$1 [illegible].00 PSF.	5-11-67	5-11-67	G.S.

DATE RECEIVED	DISTRICT ASSIGNED	CHECK PRESSURE	MAIN DEPTH	NO TEL. U.G.	METER BOOK & PAGE	DATE INSTALLED	FOREMAN
5-15-67	N W / C H / S B	85 PSI	36"		F-17-A	8 14 67	Koehler

FORM UM-784 (REV. 9-52) CITY OF SAN DIEGO

WATER SERVICE ORDER

USE TYPEWRITER OR BALLPOINT PEN. PRESS HARD. TO GET LEGIBLE COPIES

SERVICE ADDRESS: 6501 Linda Vista Rd. 11

DATE CHECKED: 5-11-67 | CHECKED BY: G.S. | PLAN FILE #: B- 57480

PLAT PAGE	SERVICE SIZE	METER SIZE & KIND	LOT	BLOCK	TRACT
220-1713	6" F.C.	5/8" Det.	XXX	Portion	Par. 7, P.M. 1176 (R.S. 4212)

REQUESTED METER OR P.C. LOCATION: Rt vault location

OWNERS NAME: San Miguel School | OCCUPANCY CODE: U

W.O. OR C.A. NO.	WORK UNITS	CREW MANHOURS	CREW NO.	OWNERS MAIL ADDRESS
29019	1	32	--51	Same

SERVICE INSTALLED: 37 FT. E OF E P-LINE OF ALCALA

ON STREET: LINDA VISTA DR S

SPECIAL INSTRUCTIONS: FIRE SERVICE Rec. #20968 Test Fittings No vault (N) FIRE MARKED (N)

METER SIZE & MAKE	METER SERIAL NUMBER	METER READING
5/8 W.	6278741	0000

AREA CHARGE #	AREA CHARGE $	WATER MAIN CONN. CHARGE #	WATER MAIN CONN. CHARGE $

PIPE KIND	PIPE SIZE & LENGTH	KIND WATER MAIN	CI	AC	OTHER	WATER FEE	DATE PAID	DATE ISSUED	ISSUED BY
AC	6" WFT	AC				$1,251.00	5-11-67	5-11-67	G.S.

DATE RECEIVED	DISTRICT ASSIGNED N/W	C/H	S/B	CHECK PRESSURE	PSI	MAIN DEPTH	NO TEL. U.S.	METER BOOK & PAGE	DATE INSTALLED	FOREMAN
5-15-67								960-532		

FORM LW-784 (REV. 9-82) CITY OF SAN DIEGO — 8, 9, 094 — WATER SERVICE ORDER

WATER RELOCATION

DATE: 11/23/71

REASON FOR PROPOSED WORK: Requested by Sosna

DETAIL OF ESTIMATED COST

LABOR		EQUIPMENT	
130 Hrs.	$429.00	Crew Truck 14439-D	$18.00
		Compressor	66.00
		Backhoe	56.00
		Dump Truck	8.00
		Transit Mix	20.00

~~6503~~ WATER METER DATA CARD

CENSUS TRACT NUMBER 89.01

PLAN FILE NUMBER E71035

JOB ADDRESS (PRINT) 6501 LINDA VISTA RD.

GPM FOR SPECIAL FIRE PROTECTION SYSTEM

APPROVED BY FIRE PREV. REP

OWNER'S NAME (PRINT) Francis Parker School

TELEPHONE NUMBER

70 GPM @ 25 PSI REQ'D. AT (2) HIGHEST OUTLETS.

GPM TOTAL FIRE PROTECTION WATER TO BE SUPPLIED FROM ☐ DOMESTIC W. METER ☐ SEPARATE CONN. TO W. MAIN.

MAX. LENGTH OF WATER SYSTEM: 300 FT.

WATER PRESSURE DATA	NOR. MIN. PRESS.	NOR. MAX PRESS.	PRESS. REGULATOR REQD.
	110 PSI	125 PSI	N/A ☒ YES ☐ NO

WATER SOFTNER CONNECTION ☐ WILL ☒ WILL NOT BE PROVIDED

BACKFLOW PROTECTOR REQUIRED AT METER ☐ YES ☒ NO

FLUSHOMETER VALVE FIXTURES ☒ WILL ☐ WILL NOT BE USED.

APPROVED METER SIZE 2-2.5 IN.

NO. OF BLDG. STORIES: 1

SIGNATURE OF UTILITIES DEPT. REP. PROVIDING WATER DATA

PRESSURE CORRECTION FOR CHANGE IN ELEVATION, VERT. DIST. ____ (FT.)

METER TO HIGH OUTLET X.43. PLUS 25 PSI MINUS 30 PSI

☒ APPLICANT REQUESTS PERMISSION TO MAKE THE ALTERATIONS TO THE EXISTING BUILDING WATER SYSTEM NECESSARY FOR THE INDICATED ADDITIONAL PLUMBING FIXTURES ON THE BASIS THAT A REASONABLY ADEQUATE WATER SUPPLY WILL EXIST. APPLICANT STATES THAT OCCUPANCY OF THE BUILDING IS NOT BEING CHANGED.

☐ APPLICANT REQUESTS PURCHASE OF METER AND SERVICE PRIOR TO FINAL APPROVAL OF PLANS OR ISSUANCE OF BUILDING PERMIT. APPLICANT ACKNOWLEDGES THAT HE WILL PAY FOR REPLACEMENT OF SAID METER AND SERVICE SHOULD PLAN CHECK OR FIELD INSPECTION INDICATE THAT THEY DO NOT COMPLY WITH CODE REQUIREMENTS. APPLICANT UNDERSTANDS COST OF ORIGINAL METER AND SERVICE IS NOT REFUNDABLE EXCEPT AS PROVIDED IN ART. 7, CHAPTER VI, MUNICIPAL CODE.

SIGNATURE (OWNER OR AGENT) CHARLES A PARKER

DATE SIGNED 17 OCT 73

DETERMINATION OF METER SIZE & WATER DEMAND NUMBER OF FIXTURES X THE FIXTURE UNITS (PUBLIC OR PRIVATE) = TOTAL FIXTURE UNITS.

TYPE OF FIXTURE	FIX. UNITS PUBLIC USE	FIX. UNITS PRIVATE USE	NEW PUBLIC FIXTURES	NEW PRIVATE FIXTURES	NEW TOTAL FIXTURES	EXISTING PUBLIC FIXTURES	EXISTING PRIVATE FIXTURES	EXISTING TOTAL FIXTURES
BATHTUB & OR SHOWER	4	2	11		44			
BIDET	4	2						
DENTAL UNIT OR DENTAL LAV.	1	-						
DISHWASHER, COMMERCIAL	4	-						
DRINK FOUNTAIN - EACH H.D.	1	-	4		4			
HOSE BIBB	5	3		1	3			
LAUNDRY TUB OR CL. WASHER	4	2						
MOBILE HOME	6	6						
SINK, BAR OR LAVATORY	2	1	10		20			
SINK, CLINIC, FLUSHING	10	-						
SINK, KITCHEN	4	2	5		20			
SINK, OTHER	4	2		1	2			
SINK WASH, CIRCLE SPRAY	4	-						
SPRINKLER HEADS (FULL)	1	1						
URINAL, FLUSH TANK	3	-						
URINAL, PEDESTAL	10	-						
URINAL, WALL OR STALL	5	-						
WATER CLOSET, TANK	5	3						
WATER CLOSET, FLUSH VALVE	10	6	11		110			
FIXTURE UNIT SUB TOTAL			NEW=		203	EXIST=		93
FIXTURE UNIT TOTAL			FU =		203 GPM =			103
OTHER WATER REQ. (SAME METER)			FU =		GPM =			
EXIST WATER REQ. (SAME METER)			FU =		GPM =			170
TOTAL WATER REQ. (SAME METER)			FU =		GPM =			273

DESIGN WATER PRESSURE (FOR TABLE 10-2) ____ PSI

APPENDIX "A" CALCS BASED ON 6.3 FT FRICTION LOSS PER 100 FOOT LENGTH

WATER SUPPLY LINE 3 IN.

MIN. METER SIZE 2-2.5 IN.

☐ FLUSH TANK SYSTEM (PER TABLE 10-2)

PRESSURE RANGE: ☐ 30-45 ☐ 46-60 ☐ OVER 60

☒ SYSTEM MUST BE INSTALLED PER UPC APPENDIX "A" IF OVER 200' IN LENGTH OR IF CONTAINING FLUSHOMETER VALVES. MINIMUM WATER PIPE SIZES TO BE AS INDICATED BELOW:

Pipe Size Inches	½	¾	1	1¼	1½	2	2½	3	4	5	6
GPM	6	13	23	49	73	140	220	334			
Flush Tank System	7	18	36	125	234	380	1090	2420			
Flush Valve System	1	3	7	46	126	487	1090	2420			
GPM											
Flush Tank System											
Flush Valve System											

I AFFIRM THAT THE INFORMATION GIVEN IS CORRECT; THAT THE APPROVAL GIVEN HEREIN FOR MINIMUM METER SIZE AND MAXIMUM WATER CAPACITY OF WATER PIPE ARE BASED SOLELY ON THIS INFORMATION AND ANY DEVIATION IN CONSTRUCTION WILL REQUIRE RESUBMISSION OF CORRECTED DATA FOR DETERMINATION OF ADEQUACY OF WATER PIPE AND METER SIZES.

SIGNATURE (OWNER OR AGENT) CHARLES A PARKER

DATE SIGNED 17 OCT 73

ADDRESS 1255 CAMT BLVD LA JOLLA CA

BUILDING INSPECTION DEPARTMENT APPROVAL

BUILDING INSPECTION DEPARTMENT

DATE 12/2/74

City of SAN DIEGO File Copy

IN-16 (3-78)

A.4 - BUILDING PERMIT RECORDS

ATTACHED

Building Permit Application

APPLICANT FILL INSIDE HEAVY LINES

PLAN FILE NUMBER 55573 | BUILDING PERMIT NUMBER B50849

OWNER'S NAME: SAN MIGUEL SCHOOL

MAIL ADDRESS: 6501 LINDA VISTA ROAD

CITY: SAN DIEGO | TEL. NO.

ARCHITECT or ENGINEER: RICHARD GEORGE WHEELER

STREET ADDRESS: 3276 ROSECRANS BLVD.

STATE LICENSE NO. | TEL. NO.: AC3-7101

BUILDING CONTRACTOR: H. H. JOHNSON, INC.

STREET ADDRESS: 856 G STREET

CITY: CHULA VISTA | TEL. NO.: GA2-8361

STATE LICENSE NO.: 118042 | CITY LICENSE: 13201

JOB DESCRIPTION

LEGAL DESCRIPTION: (Attach Metes & Bounds If Necessary)

LOT | BLOCK | TRACT: P.L. 1176 R.S. 4212

BUILDING ADDRESS

NEW ☑ ADD ☐ | ALTER ☐ REPAIR ☐ | DEMOLISH ☐ MOVE ☐

RESIDENTIAL ☐ NON-RESIDENTIAL ☑ | NUMBER OF STORIES: 1 | NUMBER OF DWELLING UNITS: 1

COUNTY SANITATION DISTRICT RECEIPT NO. | PRIVATE DISPOSAL APPROVAL

STATEMENT OF PROPOSED USE

SHOWER AND LOCKER ROOM FOR STUDENTS

I hereby acknowledge that I have read this application; that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. I agree to comply with city and state laws regulating construction; and in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

SIGNATURE OF OWNER or AGENT: Chris S. Whittenburg Agent for H. H. Johnson

ADDRESS: 856 G St. Chula Vista

EVIDENCE OF AGENCY NOTED

PLOT PLAN CHECK & APPROVED

HEALTH DEPT. APPROVAL

CITY OF SAN DIEGO

JOB ADDRESS: 6501 Linda Vista Rd.

SIDE YARD: 5	SET BACK: 15	REAR YARD	
USE ZONE: R1	MAP NO.: 274	VACANT SITE: YES ☐ NO ☑	PLANNING
BLS CODE: 19	ECONOMIC LOCATION EA. LBD. TAX	CENSUS TRACT: 089	
BUILDING AREA: 2400	LOT AREA	VARIANCE NO. C-2640	
Encroachment Yes ☐ Permit Req'd No ☐	PERMIT NUMBER	ST. GRADE CHECK	ENG.
METER SIZE: 2"	CLEARANCE B41549	CHECKED BY: MAX.	WATER
REQUESTED METER LOCATION: EXISTING ☐	CENTER LINE ☐ OF PROPERTY	OTHER	
TYPE OF CONNECTION: 1" C.	BOOK PAGE: PRINT	VERIFIED BY: R. S.	SEW'R
FIRE ZONE: 1 2 (3)	Type of Construction: I II III IV (V)	STREET IMPROVED: YES ☑ NO ☐	
SPECIAL INSPECTOR REQ'D: YES ☐ NO ☐	OCCUPANCY GROUP: A B C D E F G H I J		INSPECTION
PLAN CHECKED BY: [illegible]	PLAN CHECK RECEIPT NO.: 40278		

BUILDING VALUATION: 24,000 00

BUILDING PERMIT FEE: 84 00

LESS PLAN-CHECK FEE: 27 00

SEWER FEE: 9 50

AMOUNT DUE: 66, 50

ATTENTION:

THIS PERMIT AUTHORIZES ONLY THE WORK NOTED

INSPECTION DEPARTMENT

APPLICATION APPROVAL

THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY; AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN SPACE PROVIDED.

By: A. Steinfeldt

Date: 5-23-62

INSPECTOR

FORM NO. 17-258 (7-60)

Building Permit Application

APPLICANT FILL INSIDE HEAVY LINES

OWNER
NAME (OR NAME OF BUSINESS): FRANCIS PARKER SCHOOL
MAILING ADDRESS (NUMBER) (STREET): 6950 LINDA VISTA RD
CITY: SAN DIEGO CA ZIP: TELEPHONE NUMBER:

DESIGNER
NAME: MOTHER CREW WARSH
ADDRESS (NUMBER) (STREET): 1255 COAST BLVD
CITY: LA JOLLA ZIP: 92037 TELEPHONE NUMBER: 459 4491

BUILDER
NAME: MELHORN CONST. CO.
ADDRESS (NUMBER) (STREET): 2147 SAN DIEGO AVE
CITY: SAN DIEGO ZIP: TELEPHONE NUMBER: 296-2117
STATE LICENSE NUMBER: 199084 CLASS NO: B-1 CITY LICENSE NUMBER: 722

JOB LOCATION
LOT: PORTION OF 1175, 1176, 1179, 1180 & 1190 BLOCK: SUBDIVISION: PUEBLO LANDS PARCEL #7 UNIT:
JOB ADDRESS: 6950 LINDA VISTA RD
CONDITION OF SOIL AT JOB SITE: [X] ORIGINAL [ ] COMPACTED FILL [ ] LOOSE FILL
NO. OF EXISTING BUILDINGS ON LOT AND USE: 8 - PRIVATE SCHOOL

PROPOSED WORK
DESCRIBE WORK TO BE DONE: CONSTRUCT NEW GYM & ~~CLASSROOM BLDGS~~ Storage Room
EXISTING USE OF BUILDING OR PROPERTY: PRIVATE SCHOOL
PROPOSED USE OF BUILDING OR PROPERTY: PRIVATE SCHOOL

I hereby acknowledge that I have read this application; that the information given is correct, and that I am the owner, or the duly authorized agent of the owner. I agree to comply with city and state laws regulating construction. In the event I do not comply with the Workman's Compensation law, this permit shall be deemed revoked.

SIGNATURE (OWNER OR AGENT): [signature] DATE SIGNED: 11 OCT 78
AGENT FOR: FRANCIS PARKER SCHOOL
ADDRESS: 7905 COAST BLVD. LA JOLLA CA

WATER	METER SIZE	SERVICE SIZE	CREDIT	CHECKED BY
	REMARKS: All classroom bldgs			
SEWER	NO ADDITIONAL CONNECTIONS REQ'D	TYPE CONN	CHECKED BY	
	REMARKS: 6950 ... V			

I-H-258 (REV. 8/77)

JOB ADDRESS: 6950 LINDA VISTA RD
CENSUS TRACT NUMBER: 89.01
PERMIT NUMBER: M42156

USE ZONE	COORD. INDEX	PLAN FILE NO.
R-1-5	221-175	F71035

SETBACK FRONT YARD	REAR YD	SIDE YD	(INT)	(STR)	NAME OF STREET
15	20		4		

ALLOWABLE COVERAGE	FLOOR AREA RATIO % ALLOWED	MAX. ALLOWABLE HEIGHT (FT.)	VARIANCE NO.

LOT SPLIT DATE	AGREEMENT NO.:	NO. OF BAR SIZES	CURB TO P.L. F	S

DATE PLANS SUBMITTED: 10/12/78
PLAN CHK. RECPT. NO: 97732
PLAN CHECK FEE RECEIVED: $ 1/4 of 1%

WORK TO BE DONE: [ ] SIGN [ ] MOVE [ ] ALTER [ ] DEMOLISH [ ] REPAIR [X] NON RESID [ ] NEW [ ] RESIDENTIAL [X] ADD

U.C. CODE	DWELL UNITS
320	NA

BEDROOMS	S	1	2
		NA	
	3		4 or more

FUND & ACCT.	DESCRIPTION OF WORK	NO. UNITS	PER UNIT	TOTAL
	Classroom ~~Gym~~		~~225,000~~	225,000

100 73421	PLAN CHECK FEE		1/4 of 1%	
100 73421	SUPPLEMENTAL PLAN CHK FEE			31 50
100 73422	BUILDING PERMIT FEE			351 50
320 9660	STATE FEE			15 75
506 79750	SEWER FEE			
500 79080	WATER FEE			
73423	PARK FEE			

SPECIAL INSPECTION REQUIRED FOR
[ ] CONCRETE
[ ] MASONRY
[ ] WELDING, H.S. BOLTS
[ ] PILE DRIVING
[ ] SOILS
[ ] OTHER (IDENTIFY)

TOTAL FEES DUE: 398 75

FIRE ZONE	TYPE OF CONST	OCCUP GRP
3	2	F-2
BLDG AREA	**NO STORIES**	**TOT FLR AREA**
+3308	1	+3308
SPRINKLERS REQD FOR		**HGT. IN FT.**

ATTENTION: THIS PERMIT AUTHORIZES ONLY THE WORK NOTED
BUILDING INSPECTION DEPARTMENT
CITY OF SAN DIEGO

398.75 3 CODE 398.75+

PLANS CHECKED: D. RIDEOUT DATE: 11/14/78
PLANS APPROVED: D. Schwart DATE: 12/
PLOT PLAN CHK'D & APP'D: per planning DATE: 1/78

APPLICATION APPROVAL
THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY, AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN SPACE PROVIDED.

SIGNATURE OF BUILD. INSP. DEPT. DEPUTY: D. Schwartz
DATE: 12/27/78 FILE

APPLICATION RECEIVED AT COUNTER BY: [signature]

EXPIRATION DATE: 4/1/79

DS.

WORKMAN'S INSURANCE CERTIFICATION

INSPECTION
ZONING APPROVAL:
ENGINEERING & DEV. APPROVAL:
HEALTH DEPT. APPROVAL:

Legacy BPIS Permits

THE CITY OF SAN DIEGO
Development Services
1222 First Avenue, San Diego, CA 92101-4154

Y41-920-01

Project Information

Plan File: A-104947-94 Status: A OTC: ☐ Submitted: 07/28/1994
Contractor Info: PETERBUILT CORPORATION Worker's Comp. Ins: CALIFORNIA COMPENSATION C Owner Builder: ☐
License: 477592 Phone: (619)597-8800 Policy: W933009241 CLS: B
Expires: Expires: 03/17/1995 BTC: 86010497

Purpose of Permit

Address: 006501 LINDA VISTA RD Address ID: 192501 APN: 437-020-1200
Permit Num: B-203012-94 Status: F Issued: 10/07/1994 Structure: 001
Comments: Expires: 11/05/1995 BC Code: 3200
Finaled: 05/09/1995 BC Desc: INDUSTRIAL BUILDING

Desc. of Work: NEW GYMNASIUM AND LOCKER ROOMS FOR FRANCIS PARKER SCHOOL

Code	Quantity	Use/Type of Construction	Rate	Unit	Value
E10	22,925	SCHOOL TYPE II-1 HOUR	$64.00	SF	$1,467,200.00

Structure Information

Lot: PAR Model/Desc: GYM & LOCKER RM Type of Constr: II-N,SP IN LIE Insp Cat: S Soil: C
Bedrooms: Stories: OCC Group: A2.1/E1
Studio: 0 Permitted: Units: 0 OCC Load:
1: 0 Flr Area:
2: 0
3: 0 Total: Units: 0 Plan Chech Fee: $3,366.35
4: 0 Flr Area: 22925 Valuation: Init: $1,467,200.00
5: 0 Bldg Area: Final: $1,467,200.00

Inspection Status

Inspection Type		Scheduled	By	Complete	Init	Status	Other	Remarks
22	FOOTINGS	10/19/1994		10/19/1994	LFB	P		ANOP
22	FOOTINGS	10/20/1994		10/20/1994	LFB	F	NR	
22	FOOTINGS	10/21/1994		10/21/1994	LFB	P		
22	FOOTINGS	11/07/1994		11/07/1994	JMR	F		CANCEL
22	FOOTINGS	12/14/1994		12/14/1994	LFB	P		STAIR FTGS
24	GRADE BEAM/SLAB	11/02/1994		11/02/1994	LFB	P		ANOP
24	GRADE BEAM/SLAB	11/08/1994		11/08/1994	JMR	P		SLAB ON GRADE
26	MASONRY, PRE-GROUT	10/31/1994		10/31/1994	LFB	P		1ST LIFT
26	MASONRY, PRE-GROUT	11/17/1994		11/17/1994	LFB	P		2ND LIFT ANOP
26	MASONRY, PRE-GROUT	11/28/1994		11/28/1994	LFB	P		ANOP
26	MASONRY, PRE-GROUT	12/01/1994		12/01/1994	LFB	P		ANOP
26	MASONRY, PRE-GROUT	12/05/1994		12/05/1994	LFB	P		ANOP
26	MASONRY, PRE-GROUT	12/07/1994		12/07/1994	RAL	P	PP	ANOPO
28	UFER	10/21/1994		10/21/1994	LFB	P		
32	INTERIOR WALL CONST	01/30/1995		01/30/1995	LFB	F		BRACES
32	INTERIOR WALL CONST	01/31/1995		01/31/1995	LFB	P		ANOP
32	INTERIOR WALL CONST	04/28/1995		05/01/1995	JMR	F	NR	
35	SUSPENDED CEILINGS	01/31/1995		01/31/1995	LFB	P		ANOP
35	SUSPENDED CEILINGS	02/02/1995		02/02/1995	LFB	P		
38	ROOF SYSTEM	01/23/1995		01/23/1995	LFB	P		
79	ALL INSULATION	02/07/1995		02/07/1995	LFB	P		
83	DRYWALL	02/07/1995		02/07/1995	LFB	P		ANOP
83	DRYWALL	02/08/1995		02/08/1995	LFB	P		
90	FINAL	05/04/1995		05/04/1995	SLB	F		IN-13
90	FINAL	05/08/1995		05/08/1995	SLB	F		SEE PREV IN-13
90	FINAL	05/09/1995		05/09/1995	SLB	P		

Y41-920-01

Additional Info for Plan File: A-104947-94 **Permit: B-203012-94**

Project Fee Calculation

Qty	Description	Fee	Fund	Account	Paid	Key
1	< ACCESS PC FEE >	$168.32	41300	73419	$168.32	AC01
1	< APPLICATION FEE >	$80.00	41300	73528	$80.00	AP01
1	< ENERGY CONSV PC FEE>	$336.64	41300	73418	$336.64	EC02
1	PLAN CHECK FEES	$3,366.35	41300	73411	$3,366.35	PC01
1	FIRE PLAN CHECK FEES	$1,567.77	100	77303	$1,567.77	PC08
1	LSCP PLAN CHECK FEE	$100.00	100	77122	$100.00	PL01
1	PLAN DEPT LG RES/CML	$425.00	100	77137	$425.00	PL03
0	LSCP SUBMITTAL FEE	$50.00	100	77122	$50.00	PR03
1	ENGINEERING DISC. REV.	$52.00	41300	73411	$52.00	PR06
1	UTILITIES PLAN REV FEE	$2,137.99	41300	73451	$2,137.99	UT01

Permit Fee Calculation

Qty	Description	Fee	Fund	Account	Paid	Key
1	< ACCESS PC FEE >	$168.32	41300	73419	$168.32	AC01
1	ACCESS INSPECTION FEE	$258.95	41300	73427	$258.95	AC03
1	< APPLICATION FEE >	$80.00	41300	73528	$80.00	AP01
1	BUILDING PERMIT FEE	$5,179.00	41300	73422	$5,179.00	B001
1	ENERGY CONSERVATION	$517.90	41300	73426	$517.90	EC01
1	< ENERGY CONSV PC FEE>	$336.64	41300	73418	$336.64	EC02
1	HOUSING TRUST FUND	$1,580.04	10421	73550	$1,580.04	HF01
1	HAZARDOUS MATERIALS FE	$23.00	41300	73428	$23.00	HM01
1	STATE FEE (NON-RES.)	$220.08	63010	77941	$220.08	ST02
1	SEISMIC FEE (NON-RES.)	$88.03	63085	77941	$88.03	ST04

Project Fee Summary

Invoice No		Amount	Printed	Init	Payment	Time	Cashier	ST	Revenue Date
0029464	94	$12,199.76	10/07/1994	DEC	10/07/1994	10:49	LLS	P	10/10/1994
0021683	94	$3,951.31	07/28/1994	RSK	07/28/1994	10:49	MER	P	07/29/1994

Total Fees Incurred: $16,151.07 **Amount Paid To Date:** $16,151.07

Final Clearance Checklist

Clearance	Required	Approved	Appr. Date	Init	Comments	Key
CONCRETE	☒	☒	04/26/1995	APD	PSI #059-40156	CONC
FIRE DEPT	☒	☒	09/23/1994	JFC		FIRE
LANDSCAPING	☒	☒	05/03/1995	PXM	CHK RAIN/MOISTURE SENSORSBFK66	LSCP
SOILS REPORT	☒	☒	05/01/1995	APD	GEOCON#05283-32-02A	SOIL
FINL S.I. REPRT	☒	☒	05/03/1995	APD	BY R.J.G.,BUSS.MGR.	SPIR
SPECIAL INSP 1	☒	☒	04/26/1995	APD	HIGH STR BOLTS-PSI #059-40156	SPI1
SPECIAL INSP 2	☒	☒	05/01/1995	APD	NON-DESTRUCTIVE TEST FOR MOMEN	SPI2
SPECIAL INSP 3	☒	☒	05/01/1995	APD	FRAME WELDS,BY W.T.SMALL#492	SPI3
SPECIAL INSP 4	☒	☒	04/26/1995	APD	HILTI HIT ANCHORS-PSI #059-401	SPI4
WELDING	☒	☒	05/01/1995	APD	ALL FIELD WELDS,BY W.J.SMALL#4	WELD
WTR&SWR PERMITS	☒	☒	01/24/1995	WTR	073117	WTR

Y41-920-01

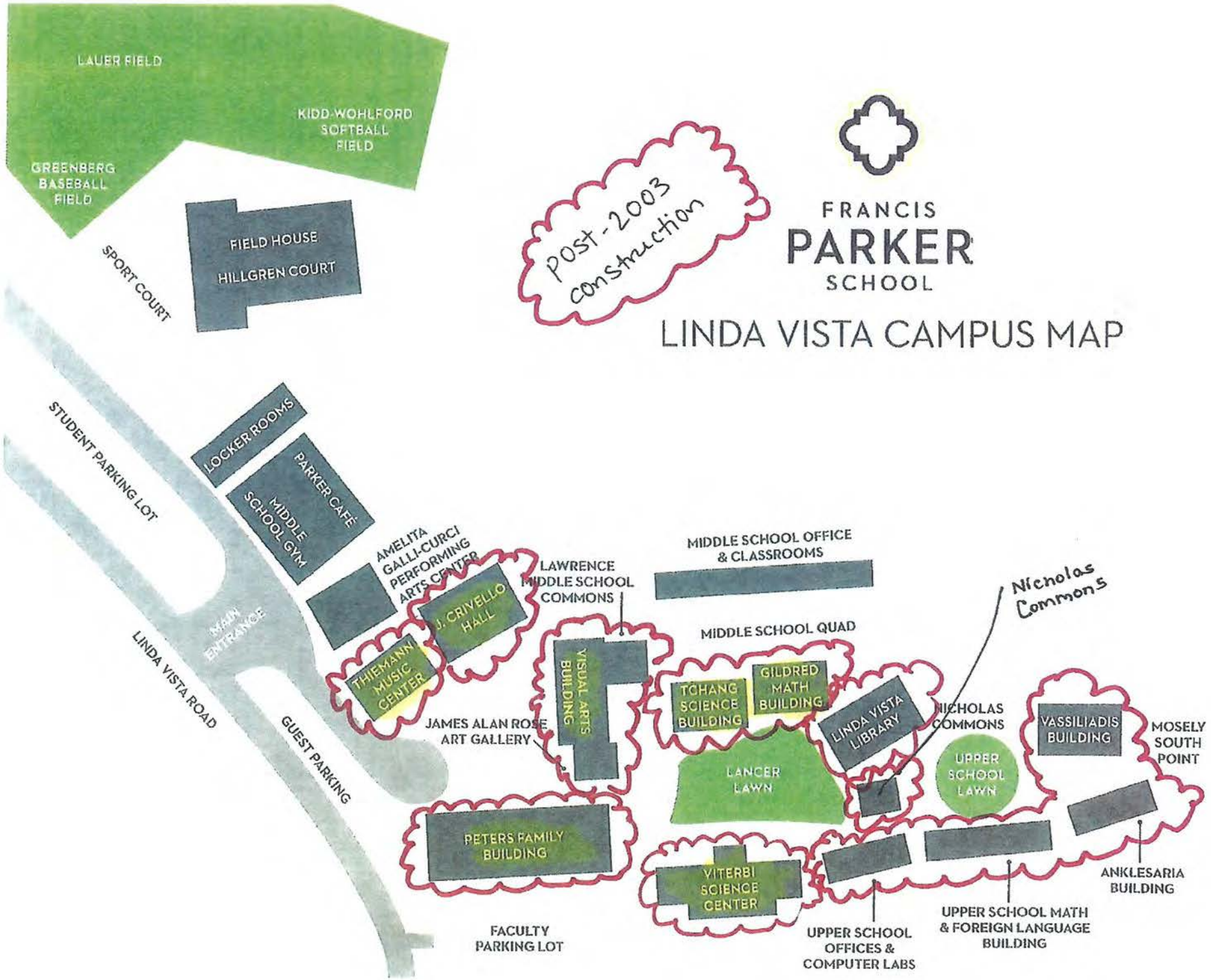
Additional Info for Plan File: A-104947-94 **Permit: B-203012-94**

Clearance Checklist

Clearance	Required	Approved	Appr. Date	Init	Comments
APCD FORM	☒	☒	10/07/1994	DEC	
STRUCTURAL CALC	☒	☒	10/07/1994	DEC	
CWA/CAPACITY CH	☒	☒	10/07/1994	DEC	CERT 002054
E&D FAC FINANCE	☒	☒	08/08/1994	GHH	
HSNG TRUST/EDFF	☒	☒	09/13/1994	GHH	PARTIAL VARIANCE GRANTED
ELECTRICAL	☒	☒	09/22/1994	KFM	
ENG PERMITS	☒	☒	09/14/1994	ABS	PER SUBDIVISION PERMIT W44008
EMERGENCY POWER	☒	☒	09/22/1994	KFM	
FIRE DPT HAZMAT	☐	☐	09/23/1994	CMJ	
FIRE DEPT	☒	☒	10/05/1994	TNB	PC,SPK,FA JFC
GEOLOGIC REPORT	☐	☒	09/23/1994	WRL	
GEOL HAZ REVIEW	☒	☒	09/23/1994	WRL	SEE A102898-94 FOR REPORT
HAZMATS	☒	☒	10/07/1994	DEC	
LANDSCAPING	☒	☒	09/14/1994	PXM	PER PATRICK HOOPER
MECHANICAL	☒	☒	09/21/1994	JRS	T-24, ENERGY FEE
MICROFILM PLANS	☒	☒	02/26/1996	SYS	ROLL: A2798 FRAME: 0001
MICROFILM CALCS	☒	☒	02/26/1996	SYS	ROLL: B1066 FRAME: 1442
MICROFILM SOILS	☒	☒	02/26/1996	SYS	ROLL: D0127 FRAME: 0972
MICROFILM FIRE	☒	☒	10/27/1998	SYS	ROLL: F0068 FRAME: 0083 *
PLANNING	☒	☒	08/09/1994	JXH	LSCP CORRECTIONS REQ'D
SAN DIEGO UNIF	☐	☐	09/23/1994	CMJ	EXEMPT PER A. CHERRY (293-8065)
SPEC INSP AGRMT	☒	☒	10/07/1994	DEC	
SOIL REPORT(S)	☒	☒	10/07/1994	DEC	
STRUCTURAL	☒	☒	10/05/1994	BNY	
2% SEWER PC FEE	☒	☒	09/21/1994	PRL	
WTR&SWR PERMITS	☒	☒	10/07/1994	DEC	RCPT 87182
2% WATER PC FEE	☒	☒	09/21/1994	PRL	

A.5 - SITE PLAN

ATTACHED


LAUER FIELD
KIDD-WOHLFORD SOFTBALL FIELD
GREENBERG BASEBALL FIELD
FIELD HOUSE
HILLGREN COURT
SPORT COURT
post-2003 construction
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MAP
STUDENT PARKING LOT
LOCKER ROOMS
PARKER CAFÉ
MIDDLE SCHOOL GYM
AMELITA GALLI-CURCI PERFORMING ARTS CENTER
J. CRIVELLO HALL
THIEMANN MUSIC CENTER
LAWRENCE MIDDLE SCHOOL COMMONS
MIDDLE SCHOOL OFFICE & CLASSROOMS
MIDDLE SCHOOL QUAD
Nicholas Commons
MAIN ENTRANCE
LINDA VISTA ROAD
GUEST PARKING
VISUAL ARTS BUILDING
JAMES ALAN ROSE ART GALLERY
TCHANG SCIENCE BUILDING
GILDRED MATH BUILDING
LINDA VISTA LIBRARY
NICHOLAS COMMONS
VASSILIADIS BUILDING
MOSELY SOUTH POINT
LANCER LAWN
UPPER SCHOOL LAWN
PETERS FAMILY BUILDING
VITERBI SCIENCE CENTER
ANKLESARIA BUILDING
FACULTY PARKING LOT
UPPER SCHOOL OFFICES & COMPUTER LABS
UPPER SCHOOL MATH & FOREIGN LANGUAGE BUILDING

FRANCIS PARKER SCHOOL
SUBSTANTIAL CONFORMANCE REVIEW No. 2

FOR

- CONDITIONAL USE PERMIT No. 84874
- PLANNED DEVELOPMENT PERMIT No. 84875
- SITE DEVELOPMENT PERMIT No. 215276

AS AMENDMENT TO

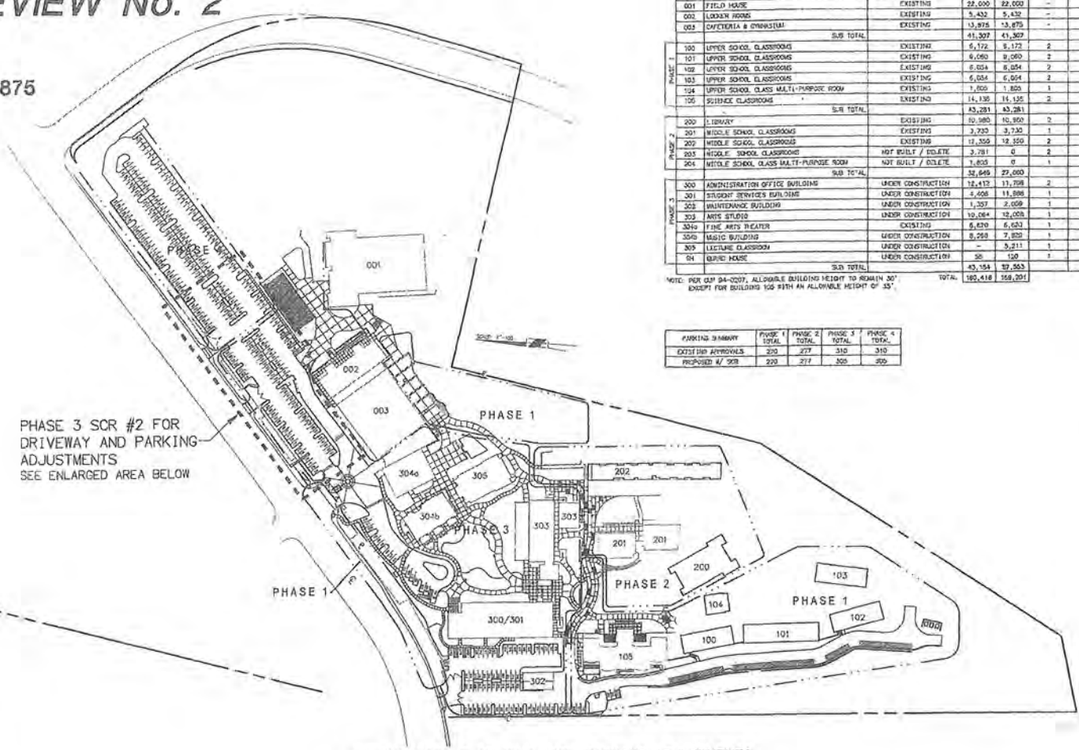
- CONDITIONAL USE PERMIT 94-0207

BUILDING SUMMARY						
BLDG. #	BUILDING PURPOSE	CURRENT STATUS	GLA S.F.	GSF S.F.	NUMBER OF FLOORS GLA	NUMBER OF FLOORS GSF
001	FIELD HOUSE	EXISTING	22,000	22,000	–	–
002	LOCKER ROOMS	EXISTING	5,432	5,432	–	–
003	CAFETERIA & GYMNASIUM	EXISTING	13,875	13,875	–	–
	SUB TOTAL		41,307	41,307		
PHASE 1	100 UPPER SCHOOL CLASSROOMS	EXISTING	5,172	5,172	2	2
	101 UPPER SCHOOL CLASSROOMS	EXISTING	9,060	9,060	2	2
	102 UPPER SCHOOL CLASSROOMS	EXISTING	8,054	8,054	2	2
	103 UPPER SCHOOL CLASSROOMS	EXISTING	8,054	8,054	2	2
	104 UPPER SCHOOL CLASS MULTI-PURPOSE ROOM	EXISTING	1,805	1,805	1	1
	105 SCIENCE CLASSROOMS	EXISTING	14,138	15,135	2	2
	SUB TOTAL		45,281	47,281		
PHASE 2	200 LIBRARY	EXISTING	10,980	10,980	2	2
	201 MIDDLE SCHOOL CLASSROOMS	EXISTING	3,735	3,735	1	1
	202 MIDDLE SCHOOL CLASSROOMS	EXISTING	12,350	12,350	2	2
	203 MIDDLE SCHOOL CLASSROOMS	NOT BUILT / DELETE	3,781	0	2	–
	204 MIDDLE SCHOOL CLASS MULTI-PURPOSE ROOM	NOT BUILT / DELETE	1,805	0	1	–
	SUB TOTAL		32,649	27,065		
PHASE 3	300 ADMINISTRATION OFFICE BUILDING	UNDER CONSTRUCTION	15,437	17,758	2	2
	301 STUDENT SERVICES BUILDING	UNDER CONSTRUCTION	4,406	11,886	1	2
	302 MAINTENANCE BUILDING	UNDER CONSTRUCTION	1,357	2,008	1	1
	303 ARTS STUDIO	UNDER CONSTRUCTION	10,064	10,008	1	2
	304a FINE ARTS THEATER	EXISTING	6,620	6,620	1	1
	304b MUSIC BUILDING	UNDER CONSTRUCTION	8,258	7,832	1	2
	305 LECTURE CLASSROOM	UNDER CONSTRUCTION	–	3,211	1	1
	04 GUARD HOUSE	UNDER CONSTRUCTION	58	128	1	1
	SUB TOTAL		43,154	59,553		
		TOTAL	162,391	175,206		

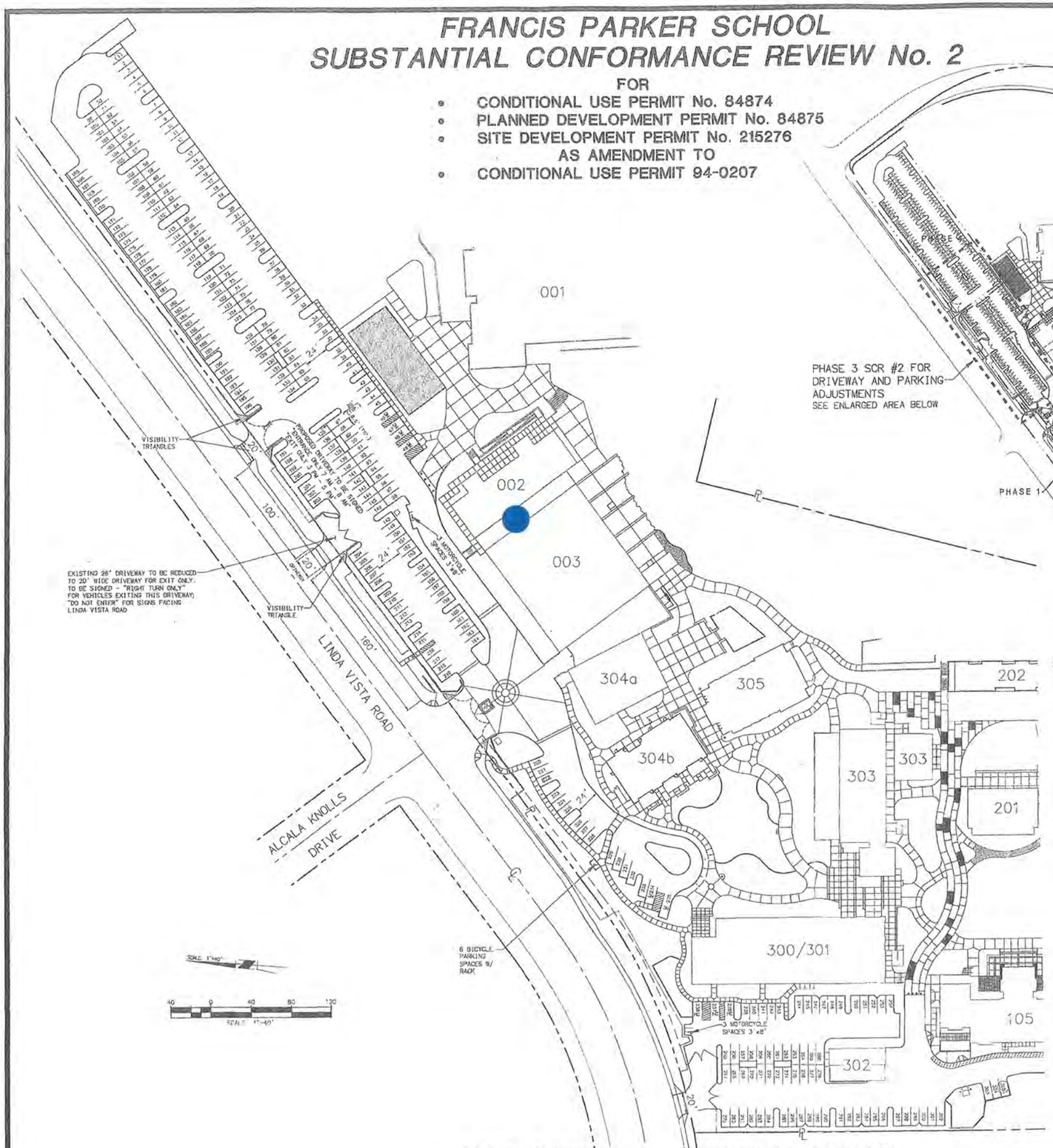
NOTE: PER CUP 94-0207, ALLOWABLE BUILDING HEIGHT TO REMAIN 30' EXCEPT FOR BUILDING 105 WITH AN ALLOWABLE HEIGHT OF 33'.

PARKING SUMMARY	PHASE 1 TOTAL	PHASE 2 TOTAL	PHASE 3 TOTAL	PHASE 4 TOTAL
EXISTING APPROVALS	310	277	310	310
PROPOSED W/ SCR	220	217	305	305

PHASE 3 SCR #2 FOR DRIVEWAY AND PARKING ADJUSTMENTS
SEE ENLARGED AREA BELOW



CAMPUS SITE PLAN WITH SCR PARKING ADJUSTMENTS
SCALE: 1"=100'



PHASE 3 SCR No. 2 - PARKING ADJUSTMENTS

SCR NOTES:

1. SCR No. 2 IS A REQUEST FOR THE EXISTING DRIVEWAY NORTH OF ALCALA KNOLLS DRIVE TO REMAIN OPEN FOR EXIT/RIGHT TURN ONLY. NO CHANGE FOR "PROPOSED" DRIVEWAY.
2. SEE REVISED PARKING SUMMARY BY PHASE ABOVE.
3. NO OBJECTS OVER 36" HIGH ARE PROPOSED IN VISIBILITY TRIANGLE AREAS.
4. BUILDING SUMMARY HAS BEEN UPDATED TO REFLECT CONSTRUCTION PROGRESS.

SUBSTANTIAL CONFORMITY REVIEW

APPROVED EXHIBIT "A"
Approved This: December 8, 2009
Permit No.: SCR 090574 TO CUP 94074, PDP 84875, SDP 215276

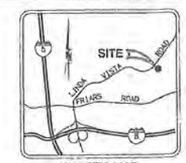
* PROJECT CONSULTANTS *

ARCHITECT
LAKE / FLATO ARCHITECTS, INC.
CONTACT: GREG PAPAY
311 THIRD STREET, SUITE 200
SAN ANTONIO, TX 78205
TEL: (210) 227-3335
FAX: (210) 224-9315

LANDSCAPE ARCHITECT
1'N'Y
CONTACT: MICHEAL VAIL
434 WEST CEDAR STREET, SUITE 309
SAN DIEGO,CA 92101
TEL: (619) 235-5360
FAX: (619) 235-5369

PLANNER/CIVIL ENGINEER
RBF CONSULTING
CONTACT: JEFF BARFIELD
9755 CLAREMONT MESA BLVD., #100
SAN DIEGO, CA. 92124
TEL: (858) 614-5000
FAX: (858) 614-5080

* PROJECT LOCATION *



VICINITY MAP
NOT TO SCALE

CCS 83 COORDINATE = 1861N-6276E
LAMBERT COORDINATE = 221-1712

OWNER/APPLICANT
FRANCIS PARKER SCHOOL
CONTACT: GRANT LICHTMANN
6501 LINDA VISTA ROAD
SAN DIEGO, CA 92111
TEL: (858) 569-7900
FAX: (858) 569-0821

Prepared By:
RBF CONSULTING
CONTACT PERSON: JEFF BARFIELD
9755 CLAREMONT MESA BLVD. #100
SAN DIEGO, CA 92124
TEL: (858) 614-5000
FAX: (858) 614-5080

Project Address:
6501 LINDA VISTA ROAD

Project Name:
FRANCIS PARKER SCHOOL
SUBSTANTIAL CONFORMANCE REVIEW No. 2 (SCR) FOR PHASE 3 PARKING PLAN ADJUSTMENT

Sheet Title:
SITE PLAN

Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3:
Revision 2:
Revision 1: 08/04/2009
Original Date: 09/17/2009
Sheet 1 of 1
PTS# 133441

SHEET 1

RBF CONSULTING

Imagery ©2015 Google, Map data ©2015 Google 50 ft

A.6 - LOT AND BLOCK BOOK PAGE

NONE FOUND

A.7 - PREVIOUS SURVEY FORMS

ATTACHED

HISTORIC SITE SURVEY REPORT

FOR THE

FRANCIS W. PARKER UPPER SCHOOL

6501 LINDA VISTA ROAD

SAN DIEGO, CALIFORNIA 92111

Prepared For:

The Francis W. Parker School

6501 Linda Vista Road

San Diego, California 92111

Prepared By:

The Office of Marie Burke Lia

Attorney at Law

427 C Street, Suite 416

San Diego, California 92101

(619) 235-9766

December 2003

1. INTRODUCTION

The Francis W. Parker School is proposing the redevelopment of its Upper School campus, located at 6501 Linda Vista Road in the San Diego community of Linda Vista, California.

The Francis W. Parker School is proposing new construction totaling approximately 96,000 square feet; substantial renovation of approximately 14,100 square feet; cosmetic renovation of approximately 12,350 square feet; demolition of approximately 45,000 square feet of structures; construction of a half-below grade parking structure with elevated tennis courts on top, totaling approximately 45,000 square feet; and the addition of parking spaces, the relocation of parking and athletic fields, and the replacement of athletic field surfaces and the addition of field lighting.

The proposed project is subject to the California Environmental Quality Act (CEQA). Among the proposed project's anticipated environmental issues to be addressed are impacts to historical resources.

The purposes of this Historic Site Survey Report is to identify all buildings located on the Francis W. Parker School Upper School campus more than 45 years of age and assess those resources in accordance with local, state and federal standards; to analyze impacts to such resources in accordance with adopted standards; to recommend mitigation measures for any impacts identified; and to determine the significance of the identified impacts after mitigation measures are applied.

2. EXISTING CONDITIONS

The Francis W. Parker Upper School campus is located atop a high bluff within San Diego's Linda Vista community. For cultural resource purposes, all of the buildings were evaluated in terms of structures more than 45 years of age as required by CEQA. Historically, the Francis W. Parker Upper School campus developed after 1959. Therefore, none of the buildings or structures located thereon, are to date, more than 44 years of age. All of the buildings and structures are today used for, or in conjunction with, educational purposes. In terms of their design/construction, all of the buildings and/or structures are Modern architectural examples, consistent with the time period during which they were built.

For purposes of this Historic Site Survey Report, a total of eleven (11) buildings were evaluated due to the fact that they are proposed for either demolition or substantial or cosmetic renovation. These buildings include three (3) office buildings (constructed in 1962 and 1964); five (5) classroom buildings (constructed between 1960 through the 1980s); one library/administration building (constructed in 1965); and two (2) art buildings (constructed in 1965). Other large buildings on the campus, include a gymnasium/cafeteria (constructed in 1965); a performing arts building (constructed in 1997); and locker room building (constructed in 1962). See Appendix A–Historic Site Survey Map.

For purposes of this Historic Site Survey Report, each of the eleven (11)buildings located on the Francis W. Parker School Upper School campus impacted by the proposed project, was evaluated

in accordance with local, state and national historical site register criteria for a determination as to whether they may be eligible for listing on any of these three Registers, individually or as contributors to one or more historic districts. The specific facts and evaluation pertaining to each building will be presented on State Department of Parks and Recreation Forms 523A and 523B attached to this Historic Site Survey Report.

If any structure more than 45 years of age is found eligible for any of the three Registers, individually or as a contributor to a district, any project which would demolish or substantially alter that structure would be considered to cause a significant impact under CEQA.

Brief History Of The Francis W. Parker Upper School Campus

The history of the Francis Parker Upper School began in September, 1971 when the school acquired 46 acres of property, located at 6501 Linda Vista Road, on a site formerly occupied by the San Miguel School for Boys. The San Miguel School was founded in 1952 as an Episcopal boys school which would serve as a companion to The Bishop's School in La Jolla. Named after the San Miguel Mountain, the San Miguel School was founded along a "rural tree-lined neighborhood overlooking the Sweetwater Valley" in National City. While San Miguel slowly expanded during the mid to late 1950s, a pressing need to acquire a new campus was realized in 1959. During this year, land was purchased on a bluff on the northwest side of Mission Valley in the Linda Vista community. Ground breaking for the new site, presently occupied by Francis Parker, occurred in the Spring of 1959.

In December, 1959, the first classroom cornerstone was laid. The faculty of the school at this time numbered twelve with about 110 students. Several years later in 1963, the school had its largest enrollment to date with 122 boys and 44 boarders from as far away as El Salvador and Peru. In 1964, a home for the headmaster was constructed as well as locker rooms, and tennis, volleyball, and basketball courts. In addition, two canyons were converted to form 12 acres of flat land for use as athletic fields.

In 1965, an impressive building fund allowed for the construction of more structures on the San Miguel campus. During this year, an administration-library building, gymnasium, field house, dining hall, and new dormitory were constructed. This administration-library building housed offices, a faculty lounge, storage rooms, and a bookstore. The library section of the building included a reading room and a stack room for additional books. The gymnasium, named after Roscoe E. Hazard, featured a full-size basketball court with seating for 300, an exercise room, and equipment room. The dining hall featured seating for 200 and had a completely equipped kitchen with cafeteria style service. Finally, the new dormitory had space to accommodate 40 boys in large double rooms, a lounge, and apartments for the house parents. Several years later, in 1968, another dormitory was completed which housed 40 more boys.

In 1971, San Miguel School for Boys merged with the Bishop's School in La Jolla. At this time, the Francis Parker School of San Diego, located in Mission Hills, purchased the former San Miguel property in Linda Vista (for a detailed history of the Francis Parker School see Scott A. Moomjian, *Historical Assessment Of The Francis W. Parker School Campus Buildings, 4201 Randolph Street,*

October 2000). Since its purchase in 1971, Francis Parker continued to expand with the construction of new buildings. In 1979, four new classrooms, a science lab, a girl's locker room, and a new entryway were completed. With an increase in students, eight new classrooms and three new science labs were completed in 1994. One year later, a new field house was constructed. Finally, in 1997, the Performing Arts Building was constructed.

3. IMPACT SIGNIFICANCE CRITERIA

HISTORICAL RESOURCES

The determination of significance in all historical resources and potential historical resources is based upon the criteria utilized by the National Register of Historic Places. The National Register of Historic Places is the official federal list of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology, engineering and culture as authorized by the National Historic Preservation Act of 1966. (16 U.S.C. Sec. 470 et seq.)

National Register Criteria

The criteria for determining eligibility for the National Register of Historic Places are as follows:

> The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:
>
> - That are associated with events that have made a significant contribution to the broad patterns of our history; or
> - That are associated with the lives of persons significant in our past; or
> - That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> - That have yielded, or may be likely to yield, information important in prehistory or history.

The National Register criteria is applied to local historical resources and potential historical resources in a local context. A property is to be evaluated, therefore, in terms of (1) its association with persons or events who were significant in shaping local history, (2) its design or construction qualities in the context of local architectural history, (3) whether it might constitute a local historic district, or (4) whether it presents a potential for archaeological resources. A property achieving significance within the last fifty years is eligible for the National Register only if it is determined to be of "exceptional importance."

California Register Criteria

The California Register utilizes the above quoted National Register criteria with minor variations. One variation adds the concept of "cultural heritage" to the first criterion. Cultural heritage, for purposes of the California Register, is defined as "pertaining to the sum total of traditions, body of knowledge, etc. inherited as possessions, characteristics, or conditions expressing a traditional way of life subject to gradual, but continuous modifications by succeeding generations." The California Register also uses the term "work of an important creative individual" in the place of the National Register term "work of a master." In both instances, this California Register terminology is consistent with the principles applied to determine National Register eligibility and, therefore, for purposes of this Cultural Resource Study, these variations in terminology between the National and California Registers are not significant.

Local Register Criteria

According to the City of San Diego, Land Development Code, *Historical Resources Guidelines* (Adopted September 28, 1999; Amended June 6, 2000; Amended April 30, 2001), a building, structure, sign, interior element and fixture, feature, site, place, district, area or object may be designated as historic by the City of San Diego Historical Resources Board if it meets any of the following criteria:

- If it exemplifies or reflects elements of a City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development; or
- Is identified with persons or events significant in local, state, or national history; or
- Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship; or
- Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman; or
- Is listed on or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or
- Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

CEQA Criteria

California Public Resources Code Section 21084.1 provides that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. For purposes of this section, an historical resource is defined as one which is listed or determined eligible for listing in the California Register of Historical Resources, one which is included in a local register of historical resources, or one which has been included in a historic resource inventory which meets specified criteria. At present, none of the structures on the Francis W. Parker Upper School Campus meet this definition of an historical resource.

4. IMPACT ANALYSIS

HISTORICAL RESOURCES

As discussed above in the Existing Conditions section, none of the buildings or structures located on the Francis W. Parker Upper School Campus were determined to have been built before 1958. As such, none of the buildings or structures, including the eleven (11) buildings evaluated as part of this Historic Site Survey Report, are more than 45 years of age for purposes of CEQA review. Nevertheless, each of the structures were the subject of an analysis as to whether they qualify for the local, state or federal registers of historic places. Because the National and California Registers follow essentially the same criteria, that criteria will be addressed in one impact analysis and the Local Register criteria will be addressed in a separate impact analysis.

For purposes of all three criteria, however, none of the buildings were found to have been of "exceptional importance." In addition, none of the buildings were found to have been associated with events that have made a significant contribution to the broad patterns of the City's history or its cultural heritage. None of the buildings were found to have been associated with the lives of persons significant in our past. None of the buildings were found to represent the work of a master or an important creative individual. None of the buildings were found to possess high artistic value. None of the buildings were found to have yielded or to be likely to yield, information important in local history or prehistory.

All of the structures were specifically evaluated as to whether they embody the distinctive characteristics of a type, period or method of construction, the third criterion for the National and California Registers. Pursuant to National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*, for the application of this particular criterion, the "distinctive characteristics" are the physical features or traits that commonly recur in individual types, periods or methods of construction. To be eligible, a property must clearly contain enough of those characteristics to be considered a true representative of a particular type, period or method of construction. "Type, period or method of construction" refers to the way certain properties are related to one another by dates of construction or style, or by choice or availability of materials and technology. A structure is eligible as a specimen of its type or period of construction if it is an important example (within its context) of building practices of a particular time in history. After a

careful analysis, none of the Modern educational buildings were found to be a true representative of the type, period or method of construction or an important example of the building practices of a particular time in history. Most certainly, none of the buildings were considered to be of "exceptional importance" as structures which embody the distinctive characteristics of a type, period, or method of Modern educational construction.

For purposes of the Local Register criteria, none of the buildings were found to exemplify or reflect elements of the City's, the Linda Vista community's, or the Linda Vista Road neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development. None of the buildings are listed, or have been determined to be eligible by the National Park Service for listing on the National Register of Historic Places, or is listed, or have been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources. Finally, none of the buildings are a finite group of resources related to one another in a clearly distinguishable way or are a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

The last aspect of the applicable criteria is whether these structures represent a significant and distinguishable entity whose components may lack individual distinction, i.e. whether a potential historic district is present. Under National Register standards, a district must possess a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development. A district must be significant as well as being an identifiable entity, it must be important for historical, architectural, archaeological, engineering or cultural values. The same standards apply to California Register districts except that the concentration need not be a significant concentration. Local Register districts also require the presence of identifiably significant structures within the group of structures. Because none of the evaluated structures were found to be significant under any aspect the above National and California criteria, it cannot be found that an historic district is present under these same criteria.

5. SIGNIFICANT IMPACTS

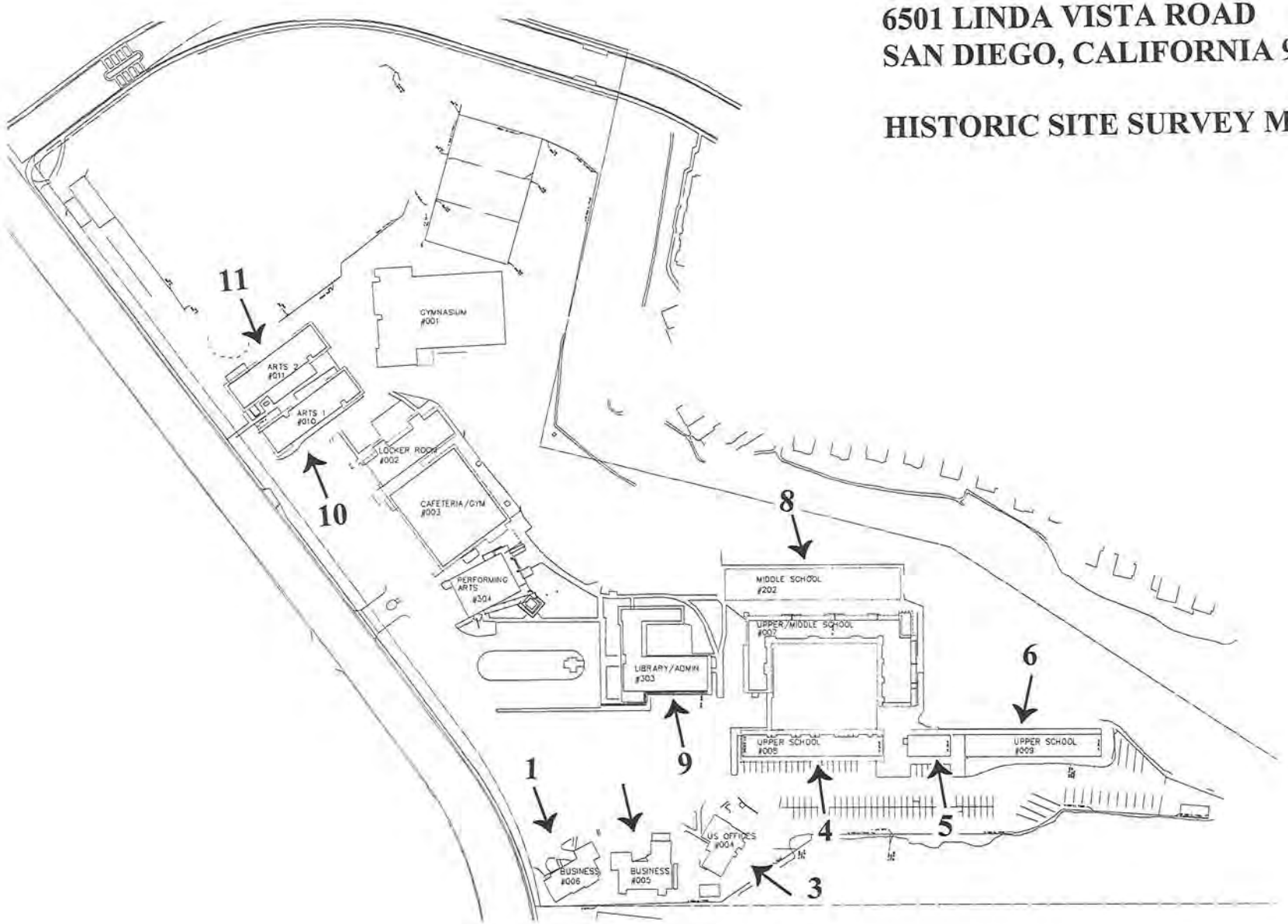
The proposed project will not have a significant environmental impact on historic resources since none of the eleven (11) buildings on the Francis W. Parker Upper School Campus have been determined to be historically or architecturally significant.

6. MITIGATION MEASURES

Since the proposed project will not have a significant environmental impact on historic resources due to the fact that none of the eleven (11) buildings on the Francis W. Parker Upper School Campus have been determined to be historically or architecturally significant, no mitigation measures are required.

FRANCIS W. PARKER SCHOOL
UPPER CAMPUS
6501 LINDA VISTA ROAD
SAN DIEGO, CALIFORNIA 92111

HISTORIC SITE SURVEY MAP



B.1 - CHAIN OF TITLE

ATTACHED

California Lot Book, Inc.
dba California Title Search Co.
P.O. Box 9004
Rancho Santa Fe, CA 92067
(858) 278-8797 Fax (858) 278-8393
info@lotbook.com
WWW.LOTBOOK.COM

Chain of Title Report

Marie Burke Lia
427 C Street, #416
San Diego, CA 92101

CTS Reference No.: 0215369
Your Ref. No.: 1156

Title Search Through: February 4, 2015

Property Address: 6501 Linda Vista Rd.
San Diego, CA 92111

Assessor's Parcel No.: 437-020-12-00

Assessed Value: $50,114,957

Exemption: None

Property Characteristics

Use: Public Service

Improvements:

Short Legal Description

PARCEL 1 OF PARCEL MAP NO. 5465, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED JANUARY 6, 1977 IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

Chain of Title
(August 28, 1942 through February 4, 2015)

1. Final Judgment and Decree in Condemnation in Favor of the United States of America, Plaintiff

Plaintiff:	United States of America
Defendant:	C. C. Culbertson, et al.
Recorded:	August 28, 1942, #52167, Book 1394, Page 129

2. Quitclaim Deed

Grantor:	United States of America
Grantee:	San Miguel School
Recorded:	May 6, 1959, #90301, Book 7644, Page 597

3. Notice of Completion

Recorded:	July 15, 1960, Recorders File No. 60-144043

4. Corporation Grant Deed

Grantor:	San Miguel School
Grantee:	Francis W. Parker School
Recorded:	September 1, 1971, Recorders File No. 71-197755

5. Grant Deed

Grantor:	Francis Parker School
Grantee:	Francis Parker School
Recorded:	November 5, 2010, Recorders File No. 10-601630

– End of Report –

B.2 - CITY DIRECTORY LISTINGS OF OCCUPANTS

ATTACHED

SAN DIEGO CITY DIRECTORY

6501 Linda Vista Road
San Diego, CA 92111

Year	Occupant
1942-59	U.S. Government Military Housing
1960-71	San Miguel School
1971-Present	Francis Parker School

B.3 - DEED FROM DATE OF CONSTRUCTION

DOCUMENT NO. 90301
RECORDED REQUEST OF
Union Title Insurance Co.
MAY 6 1959 9:00 A.M.
7644 PAGE 597
OFFICIAL RECORDS
SAN DIEGO COUNTY, CALIF.
ROGER N. HOWE, RECORDER

DUPLICATE ORIGINAL

BOOK 7644 PAGE 597

QUITCLAIM DEED

THIS INDENTURE, made this 7th day of April, 1959, between the UNITED STATES OF AMERICA, acting by and through the Secretary of Health, Education, and Welfare (herein called the Secretary), acting by and through the Regional Director for Region IX of the Department of Health, Education, and Welfare (herein called the Department), under and pursuant to the powers and authority contained in the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, GRANTOR, and SAN MIGUEL SCHOOL, a nonprofit corporation, organized and existing under the laws of the State of California, GRANTEE;

WITNESSETH:

The said GRANTOR, in consideration of the sum of Forty-Four Thousand Dollars and no cents ($44,000.00) to it in hand paid, and of other good and valuable considerations, receipt of which is hereby acknowledged, and of the conditions, reservations, covenants and restrictions hereinafter set forth and the agreement of the said GRANTEE faithfully to observe and perform the same, does hereby REMISE, RELEASE and QUITCLAIM unto the said GRANTEE, its successors and assigns, all of the right, title, interest, property and estate of the said GRANTOR in or to the real property situate in the County of San Diego, State of California, and particularly described as follows:

Parcel 7 as shown and delineated on Record of Survey Map No. 4212 filed in the office of the County Recorder of San Diego County March 1, 1957, said Survey being portions of Pueblo Lots 1175, 1176, 1179, 1180, and 1190 of the PUEBLO LANDS OF SAN DIEGO, in the City of San Diego, County of San Diego, State of California, according to Map thereof made by James Pascoe in 1870, a copy of which said Map was filed in the office of the County Recorder of San Diego County, said Parcel 7 being more particularly described as follows:

Beginning at the most Easterly corner of Lot 1, Block 85, LINDA VISTA UNIT NO. 2, according to Map thereof No. 3072, filed in the office of the County Recorder of San Diego County; thence along the boundary line of said Parcel 7 as shown on said Record of Survey Map No. 4212 as follows:

South 49° 32' 20" West, 268.14 feet; thence North 40° 27' 40" West, 175.00 feet to the Southeasterly line of Linda Vista Road; thence South 49° 32' 20" West along said Southeasterly line, 1062.15 feet to the beginning of a tangent 525.00 foot radius curve concave Northerly; thence Westerly along said curve 237.88 feet through an angle of 25° 57' 40" to the Northeasterly corner of said Parcel 7; thence along the Westerly line thereof, South 40° 10' 13" East 1172.29 feet to the Southwesterly corner of said Parcel 7, being also a point in the Northerly line of the land conveyed to the San Diego Gas and Electric Company by deed recorded in Book 6053, page 104 of Official Records; thence North 74° 57' 40" East along said Northerly line being also the Southerly line of said Parcel 7 a distance of 1140.30 feet to an angle point therein; thence North 75° 08' 37" East, 229.22 feet; thence North 15° 47' 15" West 565.80 feet; thence North 74° 16' 25" East, 220.39 feet; thence North 15° 43' 55" West 247.80 feet; thence North 74° 15' 40" East 208.57 feet; thence North 15° 18' 05" West 727.10 feet to a point in the arc of a 143.44 foot radius curve concave Northeasterly, a radial line of said curve bearing South 37° 39' West to said point; thence Northwesterly along said curve 29.76 feet; thence tangent to said curve North 40° 27' 40" West, 49.68 feet to the point of BEGINNING.

The above Parcel 7 contains 46.9754 Acres.

SUBJECT TO all easements, liens, reservations, exceptions or interests of record or now existing on the premises above described.

TOGETHER WITH, all and singular, the tenements, hereditaments and appurtenances, thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof and also all the estate, right, title, interest, property, possession, claim and demand whatsoever in law as well as in equity of the said GRANTOR, of, in or to the foregoing described premises, for every part and parcel thereof, except as hereinafter otherwise expressly provided and except as the same or any thereof are hereinafter reserved, conditioned, limited or restricted.

TO HAVE AND TO HOLD the foregoing described property together with the appurtenances, unto the said GRANTEE, its successors and assigns and each of them, PROVIDED, HOWEVER, that this deed is made and accepted upon each of the following conditions subsequent, which shall be binding upon and enforceable against the said GRANTEE, its successors or assigns, and each of them, as follows:

1. That for a period of twenty (20) years from the date of this deed the above described property herein conveyed shall be utilized continuously for educational purposes

in accordance with the proposed program and plan as set forth in the application of the said GRANTEE dated December 18, 1957 as supplemented by the Supplemental Application of March 31, 1958, including the enclosures submitted with said applications, and for no other purpose.

2. That during the aforesaid period of twenty (20) years, the said GRANTEE will resell, lease, mortgage, or encumber, or otherwise dispose of the above described property or any part thereof or interest therein only as the Secretary, or his successor in function, in accordance with the applicable regulations, may authorize in writing.

3. That one year from the date of this deed and annually thereafter for the aforesaid period of twenty (20) years, unless the Secretary, or his successor in function, otherwise directs, the GRANTEE will file with the Department, or its successor in function, reports on the operation and maintenance of the above described property and will furnish, as requested, such other pertinent data evidencing continuous use of the property for the purpose specified in the above identified application.

In the event of a breach of any of the conditions set forth above whether caused by the legal or other inability of said GRANTEE, its successors or assigns, to perform any of the obligations herein set forth, all right, title and interest in and to the above described property shall, at the option of the GRANTOR, revert to and become the property of the UNITED STATES OF AMERICA, which in addition to all other remedies for such breach, shall have an immediate right of entry thereon, and the said GRANTEE, its successors or assigns, shall forfeit all right, title, and interest in and to the above described property and in any and all of the tenements, hereditaments, and appurtenances thereunto belonging; PROVIDED, HOWEVER, that the failure of the Secretary, or his

successor in function, to insist in any one or more instances upon complete performance of any of the said conditions shall not be construed as a waiver or a relinquishment of the future performance of any such conditions, but the obligations of the said GRANTEE, its successors and assigns, with respect to such future performance shall continue in full force and effect; PROVIDED FURTHER that in the event the UNITED STATES OF AMERICA fails to exercise its option to re-enter the premises for any such breach of said conditions within twenty-one (21) years from the date of this conveyance, the conditions set forth above together with all rights of the UNITED STATES OF AMERICA to re-enter as in this paragraph provided, shall, as of that date, terminate and be extinguished.

In the event title to the above described premises is reverted to the UNITED STATES OF AMERICA for noncompliance or voluntarily reconveyed in lieu of reverter, the said GRANTEE, its successors and assigns, at the option of the Secretary, or his successor in function, shall be responsible and shall be required to reimburse the UNITED STATES OF AMERICA for the decreased value of the above described property not due to reasonable wear and tear, acts of God, and alterations and conversions made by the said GRANTEE to adapt the property to the educational use for which the property was acquired. The UNITED STATES OF AMERICA shall, in addition thereto, be reimbursed for such damages including such costs as may be incurred in recovering title to or possession of the above described property, as it may sustain as a result of the noncompliance.

The said GRANTEE may secure abrogation of the conditions numbered 1, 2 and 3 herein by:

a. Obtaining the consent of the Secretary, or his successor in function; and

b. Payment to the UNITED STATES OF AMERICA of the public benefit allowance granted to the said GRANTEE of eighty (80) per cent from the current market value of Two Hundred Twenty Thousand Dollars ($220,000.00) less a credit at the rate of five (5) per cent of said public

benefit allowance for each twelve (12) months during which the property has been utilized in accordance with the purposes specified in the above identified application.

The GRANTEE, by acceptance of this deed, covenants and agrees, for itself, its successors and assigns, that in the event the property conveyed hereby is sold, leased, mortgaged, encumbered, or otherwise disposed of, or is used for purposes other than those set forth in the above identified program and plan without the consent of the Secretary, or his successor in function, all revenues or the reasonable value, as determined by the Secretary, or his successor in function, of benefits to the GRANTEE deriving directly or indirectly from such sale, lease, mortgage, encumbrance, disposal, or use shall be considered to have been received and held in trust by the GRANTEE for the GRANTOR and shall be subject to the direction and control of the Secretary, or his successor in function.

The GRANTEE, by the acceptance of this deed, further covenants and agrees for itself, its successors or assigns, that at all times during the period that title to said property is vested in the GRANTEE subject to conditions 1, 2 or 3 hereinbefore set forth (except for any period during which the GRANTOR exercises the right to repossess, control and use the same as provided in the next succeeding paragraph hereof) the GRANTEE shall at its own sole cost and expense keep and maintain the improvements, including all buildings, structures and equipment, at any time situate upon said property, in good order, condition and repair, free from any waste; and in the event any of the same shall need repair, or shall become lost, damaged or destroyed by any cause other than ordinary wear and tear, acts of God or alterations or conversions made by the GRANTEE to adapt the property to the use for which it was acquired, the GRANTEE will promptly repair such improvements and restore the same to their former condition. Should the GRANTEE, its successors or assigns, fail to repair or replace any improvements which need repair or which have been lost, damaged or destroyed as aforesaid, within ninety (90) days after written notice so to do, given to the

GRANTEE by the Secretary, or his successor in function, the GRANTOR shall be authorized, as the agent of the GRANTEE, its successors and assigns, to enter upon the premises and to cause such repairs or replacements to be made on behalf and at the expense of the GRANTEE, its successors and assigns, and any amounts expended by the GRANTOR in connection therewith shall forthwith become a debt due and owing by the GRANTEE, its successors or assigns, to the GRANTOR. If the GRANTEE, its successors or assigns, shall cause any of said improvements to be insured against loss, damage or destruction and any such loss, damage or destruction shall occur during the period GRANTEE holds title to said property subject to said conditions 1, 2 and 3, said insurance and all moneys payable to the GRANTEE, its successors or assigns, thereunder shall be held in trust by the GRANTEE, its successors or assigns, and shall be promptly used by the GRANTEE for the purpose of repairing such improvements and restoring the same to their former condition, or, if not so used, shall be paid over to the Treasurer of the United States in an amount not exceeding the unamortized public benefit allowance.

The said GRANTEE by the acceptance of this deed, further covenants and agrees, for itself, its successors and assigns, that the UNITED STATES OF AMERICA shall have the right during any period of emergency declared by the President of the United States or by the Congress of the United States to the full unrestricted possession, control and use of the property hereby conveyed, or of any portion thereof, including any additions or improvements thereto made subsequent to this conveyance. Prior to the expiration or termination of the period of restricted use by the GRANTEE, such use may be either exclusive or nonexclusive and shall not impose any obligation upon the Government to pay rent or any other fees or charges during the period of emergency, except that the Government shall (i) bear the entire cost of maintenance of such portion of the property used by it exclusively or over which it may have exclusive possession or control, (ii) pay the fair share, commensurate with the use, of the cost of maintenance of such of the property as it may use nonexclusively or over which it may have

nonexclusive possession or control, (iii) pay a fair rental for the use of improvements or additions to the premises made by the said GRANTEE without Government aid, and (iv) be responsible for any damage to the property caused by its use, reasonable wear and tear, and acts of God and the common enemy excepted.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed as of the day and year first above written.

UNITED STATES OF AMERICA
Acting by and through the
Secretary of Health, Education,
and Welfare, GRANTOR

By _____
Regional Director, Region IX
Department of Health, Education,
and Welfare

SAN MIGUEL SCHOOL,
A nonprofit corporation, GRANTEE

By _____
Vice President

STATE OF CALIFORNIA)
City and County of San Francisco) ss

On this 7th day of September, 1959,

before me, _____, a Notary Public in and for the City and County of San Francisco, State of California, personally appeared F. W. HUNTER, known to me to be the Regional Director for Region IX, Department of Health, Education, and Welfare, and known to me to be the person who executed the within instrument on behalf of the Secretary of Health, Education, and Welfare for the United States of America and acknowledged to me that he subscribed to the said instrument the name of the United States of America and the name of the Secretary of Health, Education, and Welfare on behalf of the United States of America, and further that the United States of America executed the said instrument.

Witness my hand and official seal.

_____
Notary Public in and for the City
and County of San Francisco,
State of California

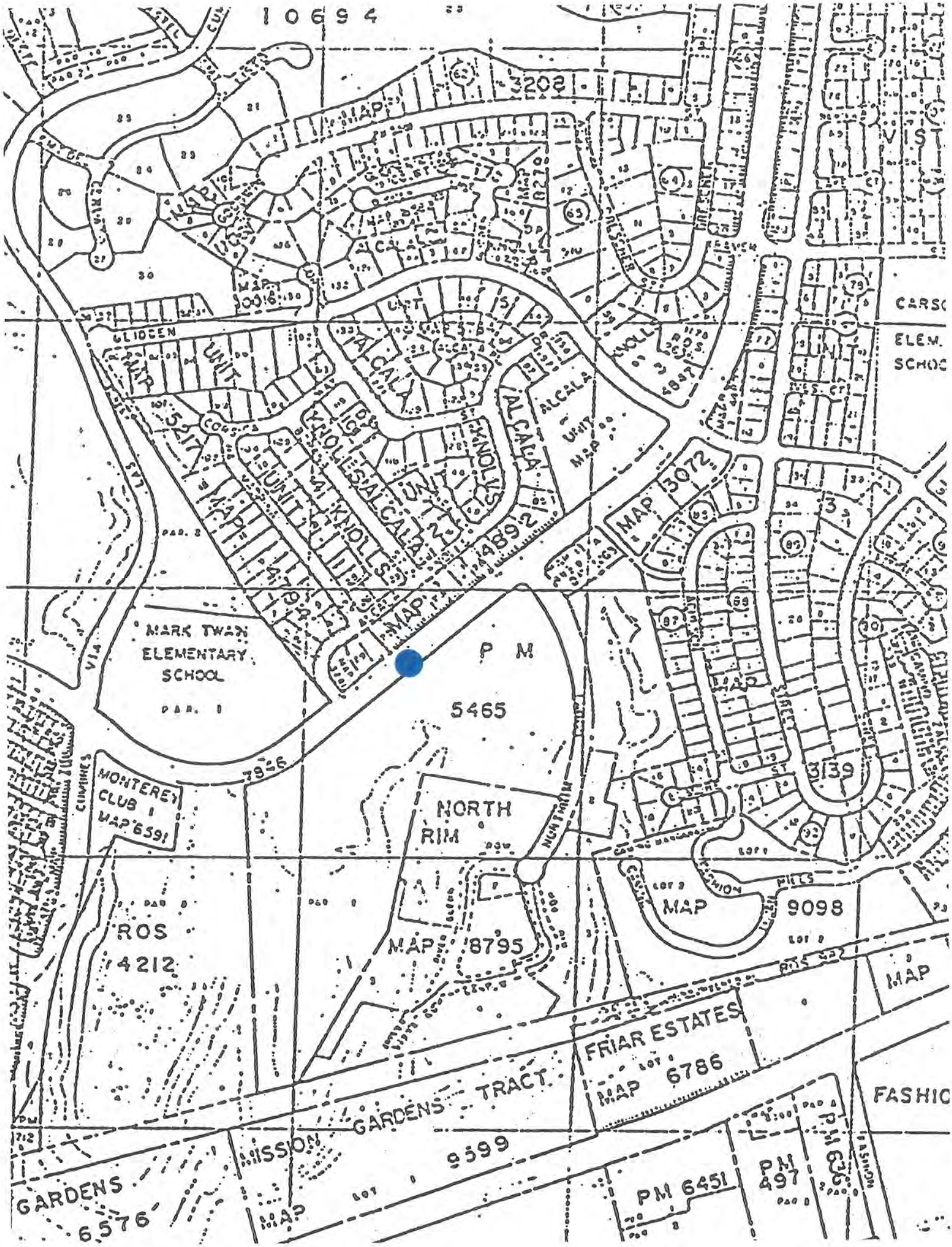
(SEAL)

My Commission Expires:

My Commission Expires June 29, 1962

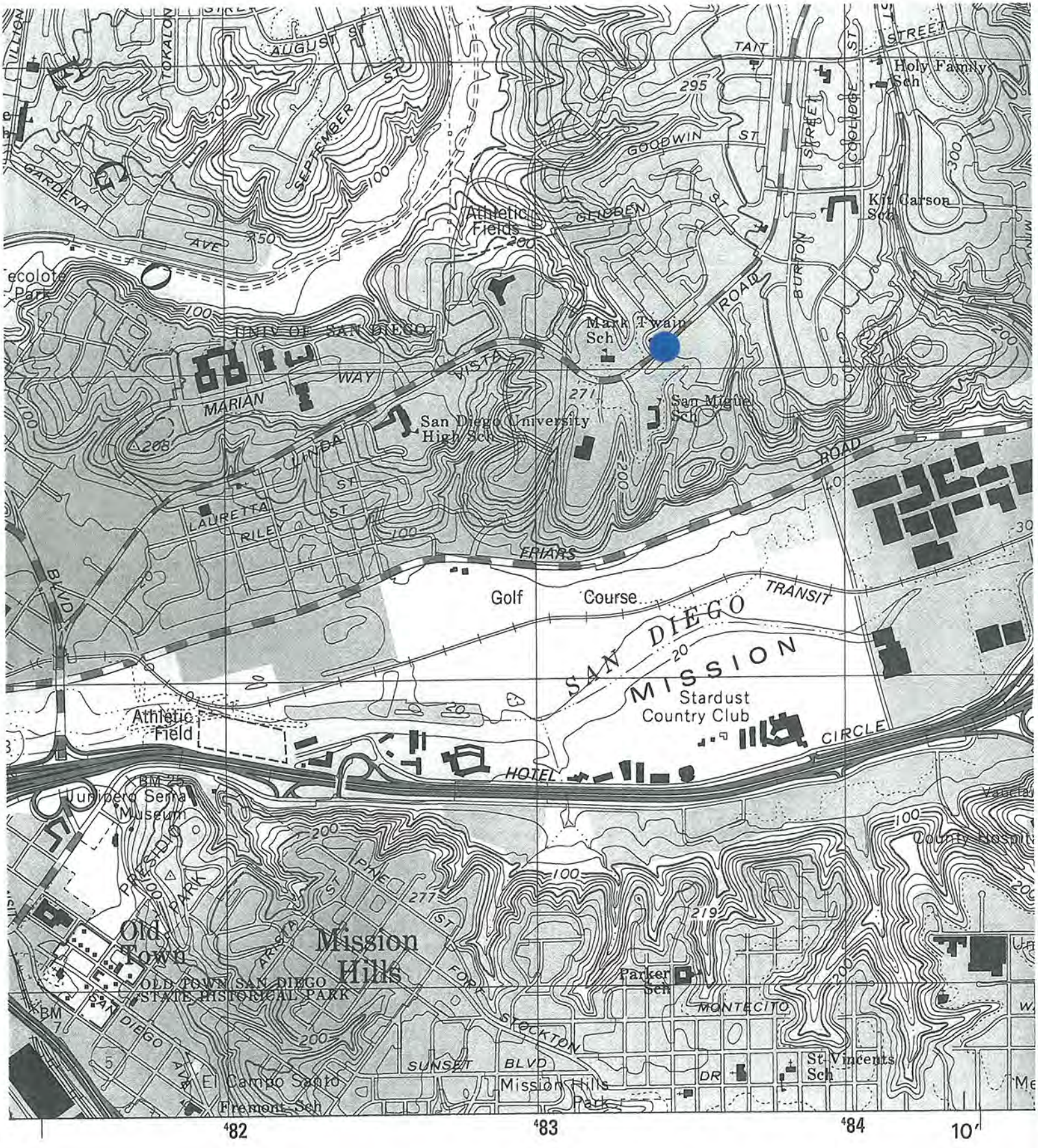
C.1 - CITY OF SAN DIEGO 800 SCALE ENGINEERING MAP

ATTACHED


10694
3202
MAP
GLIDDEN
UNIT
MAP
5217
ALCALA
KNOLLS
UNIT 2
4892
ALCALA
UNIT
MAP
3072
MAP
MARK TWAIN
ELEMENTARY
SCHOOL
PAR. 1
P M
5465
MONTEREY
CLUB 1
MAP 6591
NORTH
RIM
NIGHTHAWK
3139
MAP
9098
ROS
4212
MAP
8795
FRIAR ESTATES
MAP 6786
GARDENS
TRACT
9599
GARDENS
6576
MAP
PM 6451
PM
497
PM 6361
FASHIO

C.2 – CURRENT UNITED STATES GEOLOGICAL SURVEY MAP (USGS)

ATTACHED

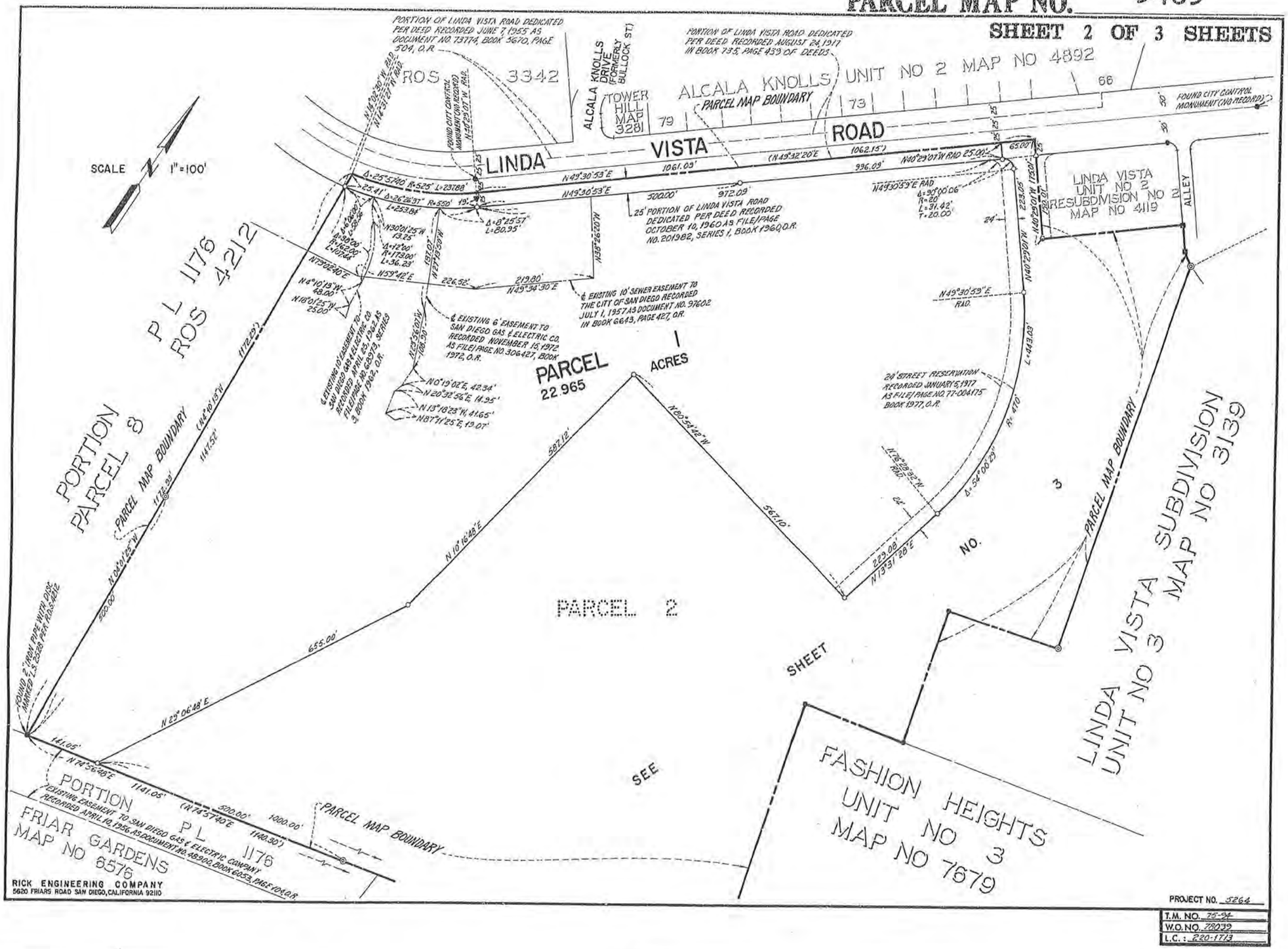

AUGUST ST
TOKALON
SEPTEMBER ST
GARDENA AVE
ecolote Park
UNIV OF SAN DIEGO
MARIAN WAY
LINDA VISTA
LAURETTA ST
RILEY ST
BLVD
Athletic Fields
Mark Twain Sch
GLENDEN ST
TAIT ST
GOODWIN ST
COLLEGE ST
BURTON ROAD
Holy Family Sch
Kit Carson Sch
San Diego University High Sch
San Miguel Sch
ROAD
FRIARS
Golf Course
TRANSIT
SAN DIEGO MISSION
Stardust Country Club
CIRCLE
HOTEL
Athletic Field
BM 25
Junipero Serra Museum
PRESIDIO PARK
PINE ST
ARISTA ST
Old Town
Mission Hills
OLD TOWN SAN DIEGO STATE HISTORICAL PARK
SAN DIEGO AVE
BM 7
El Campo Santo
Fremont Sch
FORT STOCKTON
SUNSET BLVD
Mission Hills Park
Parker Sch
MONTECITO
DR
St Vincents Sch
County Hospital
4482
4483
4484
10'
2
2000
1
8000
9000
10000
CA

C.3 – ORIGINAL SUBDIVISION MAP

ATTACHED

PARCEL MAP NO. 5465

SHEET 2 OF 3 SHEETS



RICK ENGINEERING COMPANY
5620 FRIARS ROAD SAN DIEGO, CALIFORNIA 92110

PROJECT NO. 5264
T.M. NO. 75-94
W.O. NO. 78039
L.C. : 220-1713

C.4 - CURRENT ASSESSOR'S PARCEL MAP AND

ATTACHED

08

437-020

437-02

1"=400'

N

CHANGES				
BLK	OLD	NEW	YR	CUT
020	6	INTO ST. PUBLIC	74	2629
	3,4	11	75	2586
	11	SPLIT & ADD	75	3547
	5	12 & 13	77	3323
	11	SPLIT & ADD	78	4864
	12	SPLIT & ADD	78	4912
	13	ADD TO PARCEL	78	2886
	14	TO PC 5	79	10000

SAN DIEGO COUNTY
ASSESSOR'S MAP
BOOK 437 PAGE 02

MAP 8795-NORTH RIM
MM 36 - PUEBLO LANDS
ROS 591, 4212

C.5 - SANBORN FIRE INSURANCE MAPS

NONE FOUND

D.1 - HISTORICAL PHOTOGRAPHS

ATTACHED

Years

- » 1953
- » 1964
- » 1966
- » 1981
- » 1989
- » 1994
- » 2003

Compari

Import

Download

Measures

All Roads

Years

- » 1953
- » 1964
- » 1966
- » 1981
- » 1989
- » 1994
- » 2003

Compare

Import

Download

Measures

All Roads

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

Compar

Import

Download

Measures

All Roads

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

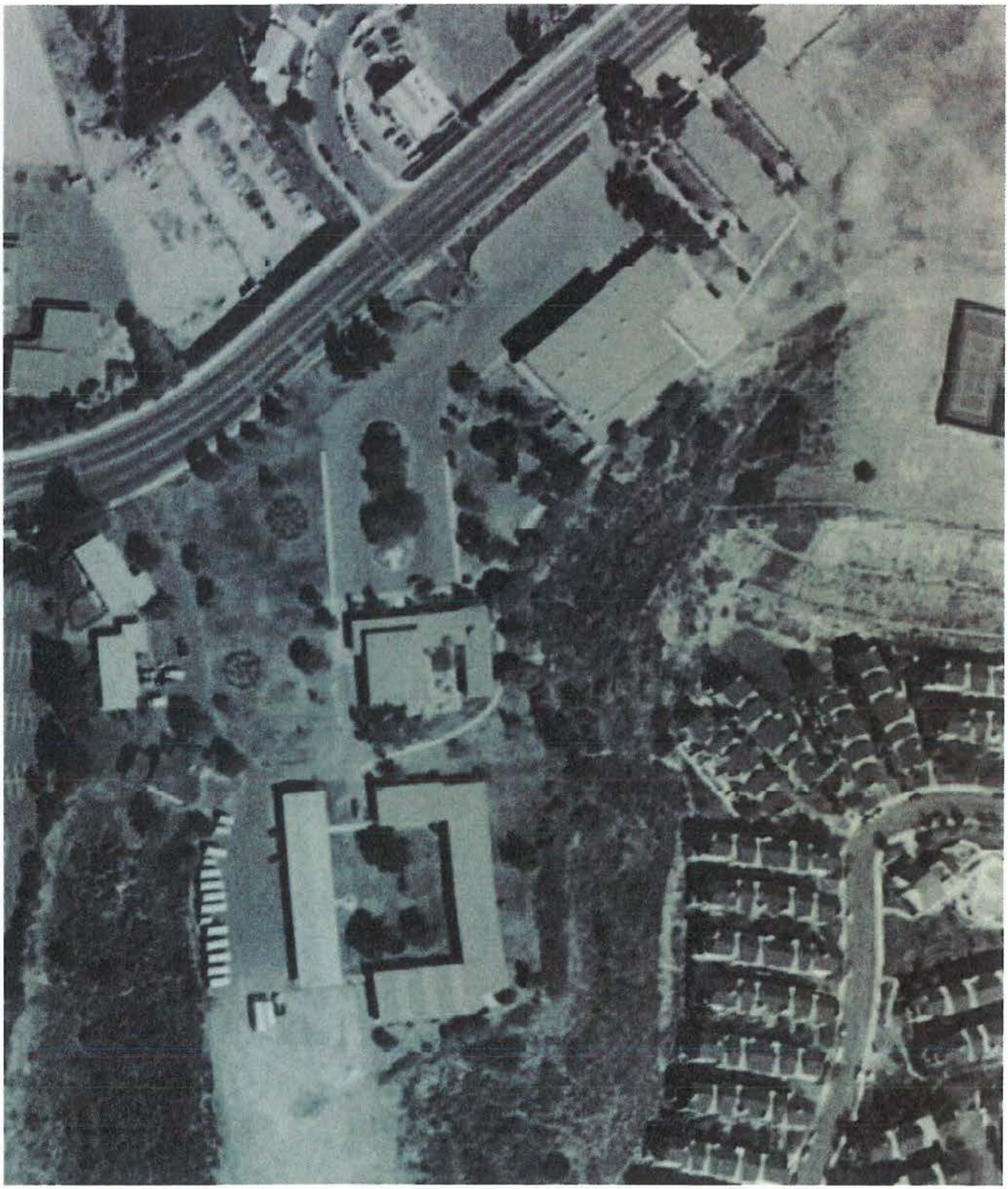
Compare

Import

Download

Measures

All Roads



Years

- » 1953
- » 1964
- » 1966
- » 1981
- » 1989
- » 1994
- » 2003

Compari

Import

Download

Measures

All Roads

Years

- » 1953
- » 1964
- » 1966
- » 1981
- » 1989
- » 1994
- » 2003

Compar

Import

Download

Measures

All Roads

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

Compare

Import

Download

Measures

All Roads

D.2 - CURRENT PHOTOGRAPHS

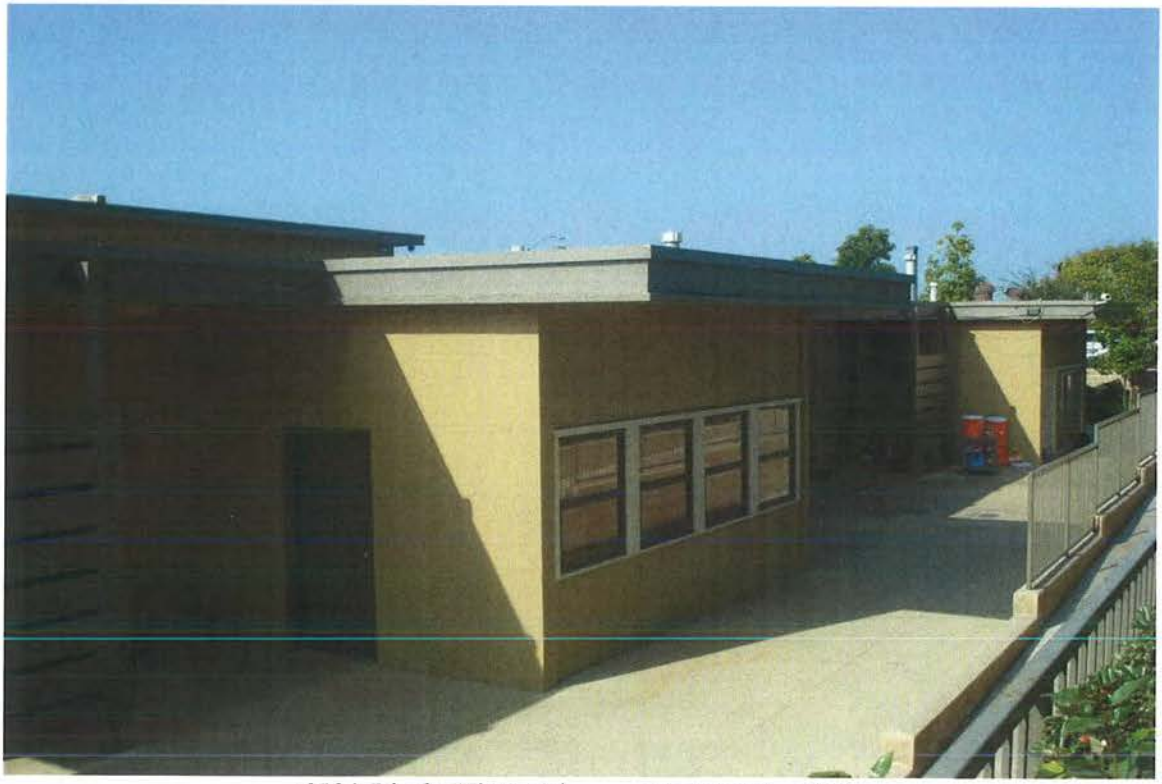
ATTACHED

BUILDING 002 PRECEDES BUILDING 003

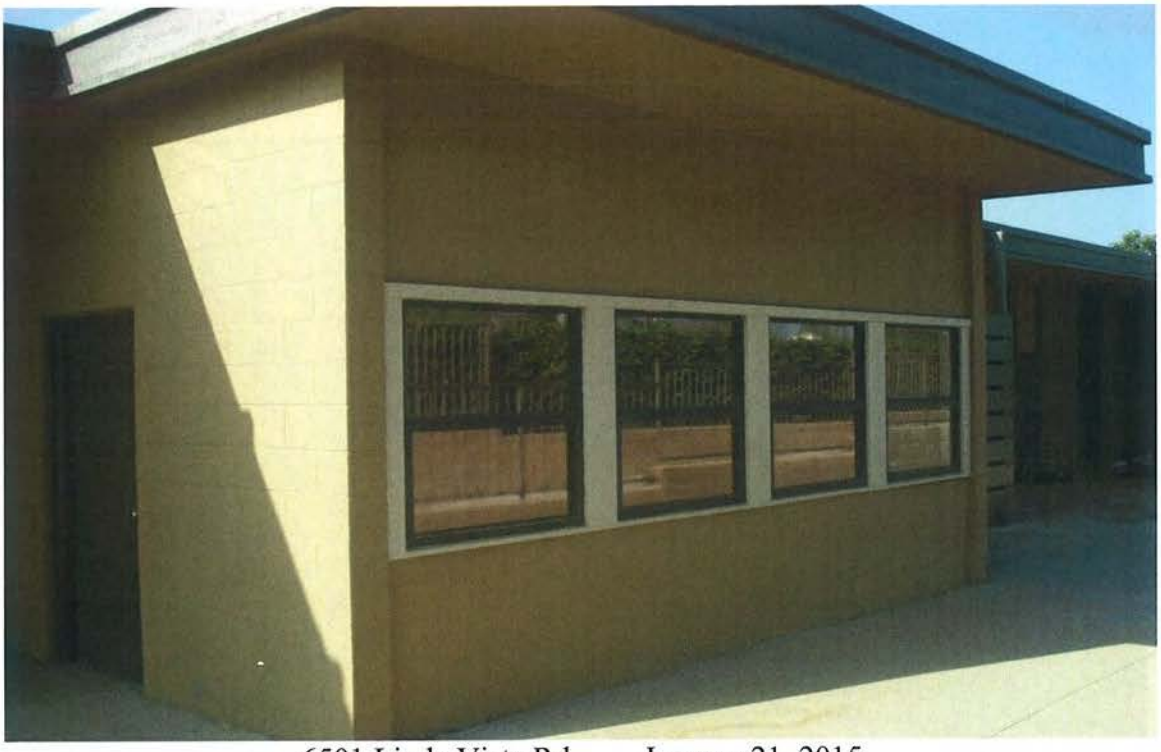
6501 Linda Vista Rd. January 21, 2015
Photograph #1 View north of southeast and of southwest facades

6501 Linda Vista Rd. January 21, 2015
Photograph #2 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #3 View west of northeast façade



6501 Linda Vista Rd. January 21, 2015
Photograph #4 View west of northeast façade



6501 Linda Vista Rd. January 21, 2015
Photograph #5 View west of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #6 View southwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #7 View southwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #8 View west of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #9 View south of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #10 View southwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #11 View south of northeast and of northwest facades

6501 Linda Vista Rd. January 21, 2015
Photograph #12 View southeast of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #13 View southeast of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #14 View east of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #15 View east of southwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #16 View southeast of buildings 002 and 003

6501 Linda Vista Rd. January 21, 2015
Photograph #17 View north of southwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #18 View southeast of southwest facade

6501 Linda Vista Rd. January 21, 2015
Photograph #1 View north of southwest and of southeast facades

6501 Linda Vista Rd. January 21, 2015
Photograph #2 View north of southwest and of southeast facades

6501 Linda Vista Rd. January 21, 2015
Photograph #3 View north of southwest and of southeast facades

6501 Linda Vista Rd. January 21, 2015
Photograph #4 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #5 View north of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #6 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #7 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #8 View north of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #9 View north of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #10 View west of southeast façade

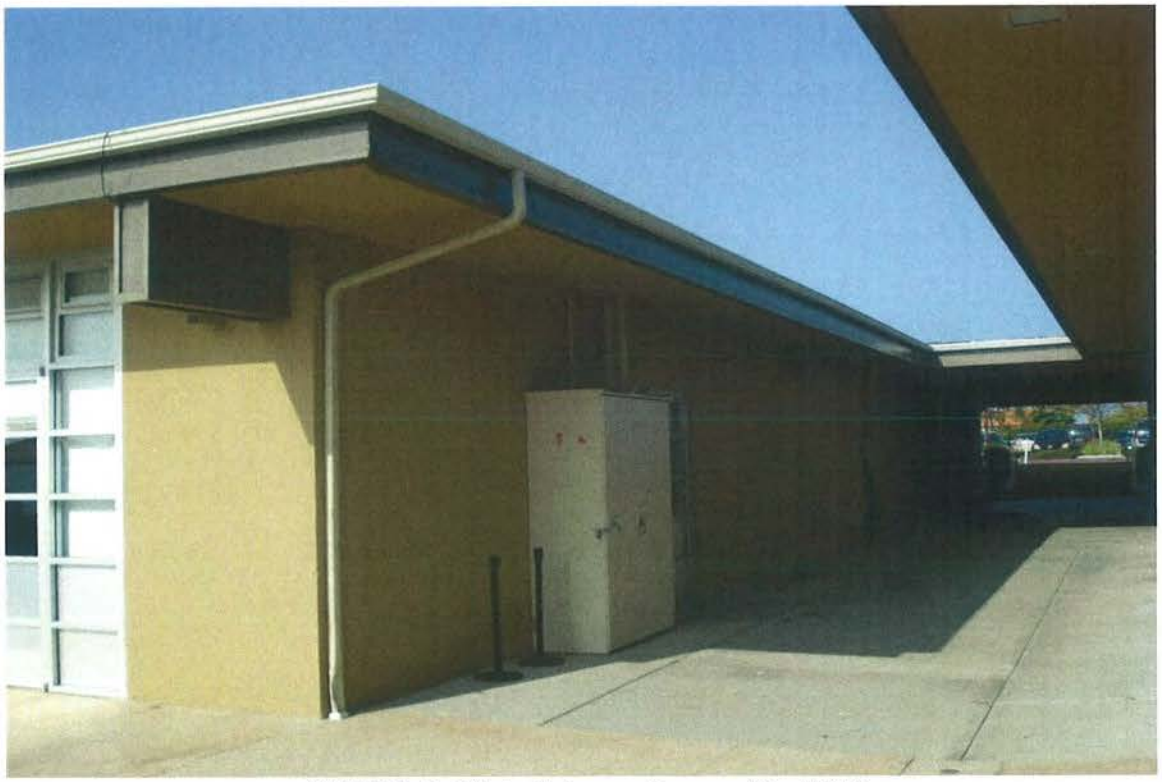
6501 Linda Vista Rd. January 21, 2015
Photograph #11 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #12 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #13 View north of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #14 View northwest of southeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #15 View west of southeast façade



6501 Linda Vista Rd. January 21, 2015
Photograph #16 View northwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #17 View northwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #18 View northwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #19 View northwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #20 View southwest of northeast façade

6501 Linda Vista Rd. January 21, 2015
Photograph #21 View northwest of lower and upper facades

6501 Linda Vista Rd. January 21, 2015
Photograph #22 View northwest of lower and upper facades

6501 Linda Vista Rd. January 21, 2015
Photograph #23 View east of northwest and of southwest facades

6501 Linda Vista Rd. January 21, 2015
Photograph #24 View east of northwest façade

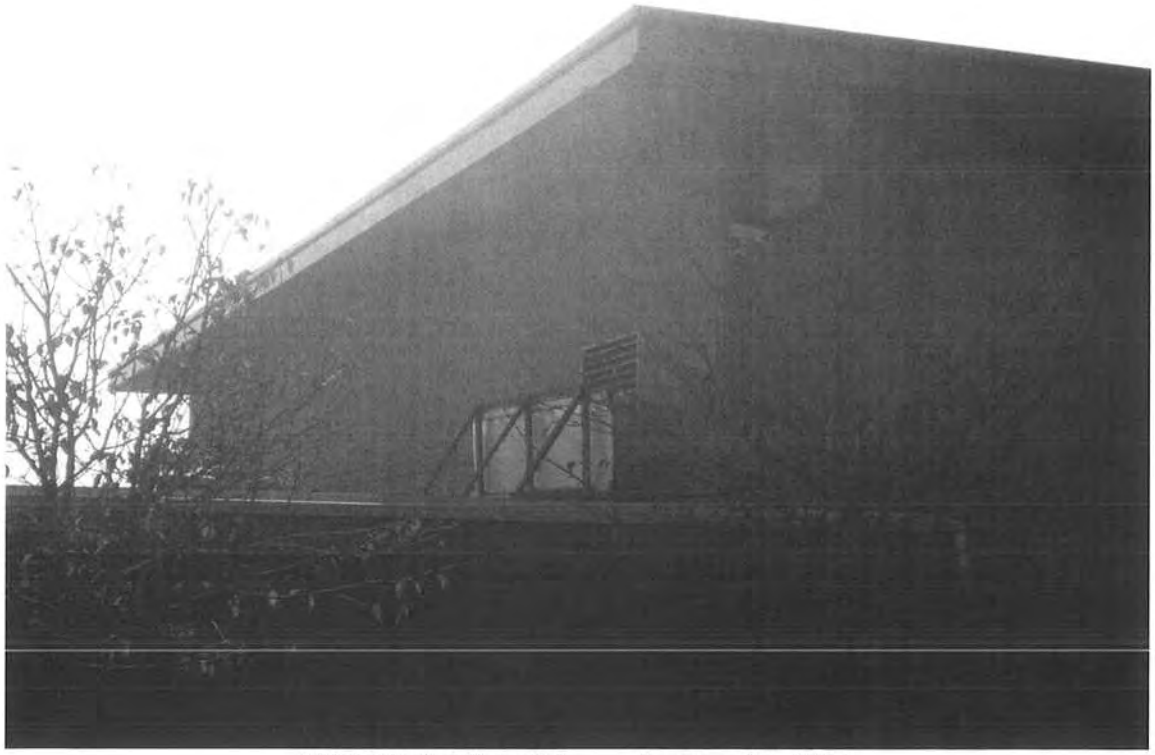
6501 Linda Vista Rd. January 21, 2015
Photograph #25 View southeast of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #26 View southeast of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #27 View southeast of upper façade

6501 Linda Vista Rd. January 21, 2015
Photograph #28 View south of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #29 View southeast of northwest façade



6501 Linda Vista Rd. January 21, 2015
Photograph #30 View south of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #31 View southeast of northwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #32 View east of southwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #33 View north of southwest façade

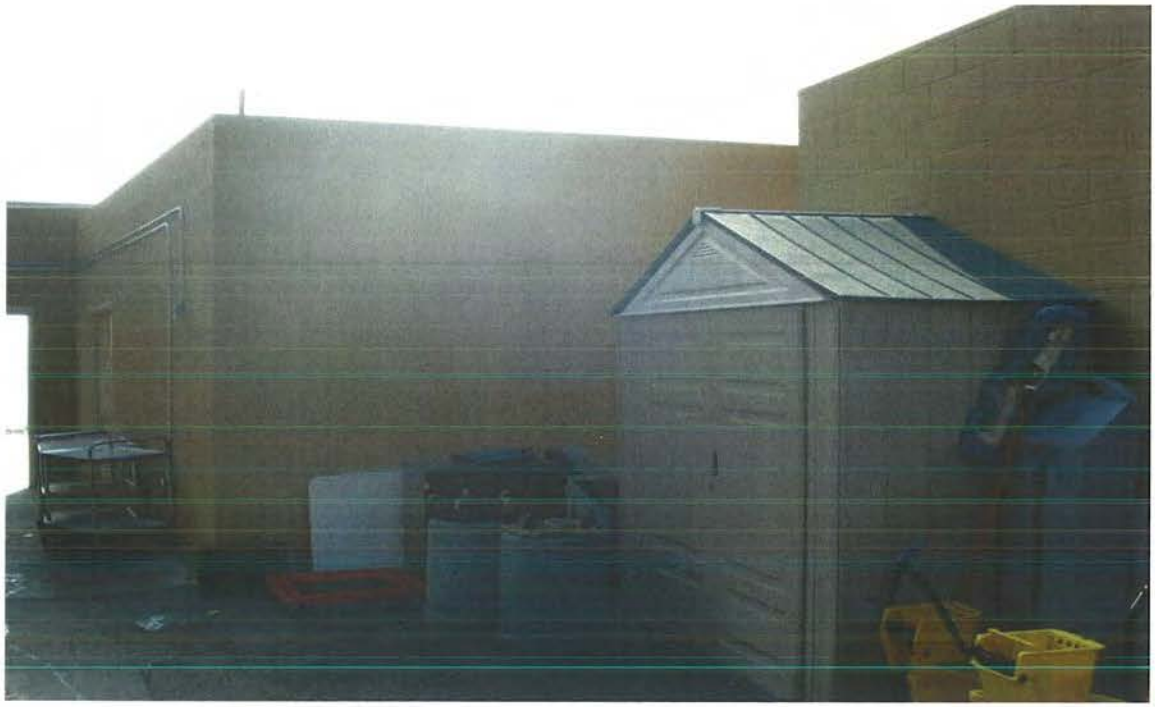
6501 Linda Vista Rd. January 21, 2015
Photograph #34 View east of lower and upper facades

6501 Linda Vista Rd. January 21, 2015
Photograph #35 View east of southwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #36 View east of southwest façade

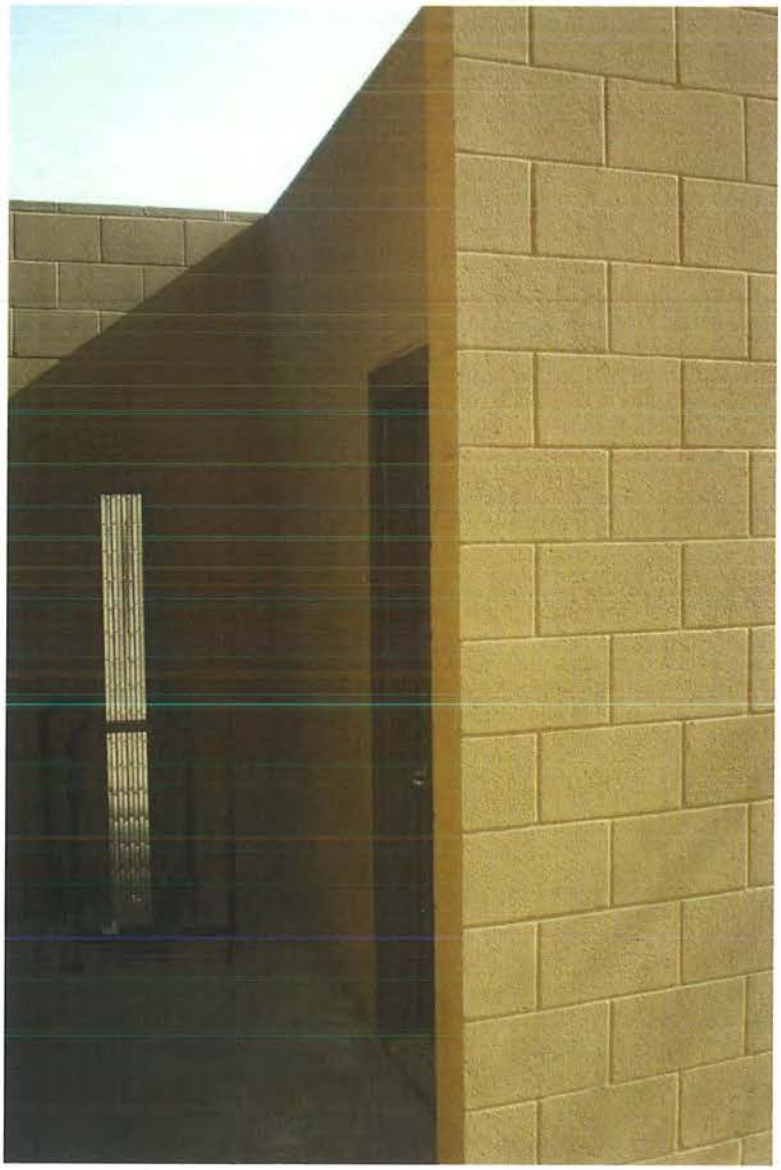
6501 Linda Vista Rd. January 21, 2015
Photograph #37 View east of southwest façade

6501 Linda Vista Rd. January 21, 2015
Photograph #38 View southeast of southwest façade



6501 Linda Vista Rd. January 21, 2015
Photograph #39 View south of northeast of façade of building 304

6501 Linda Vista Rd. January 21, 2015
Photograph #40 View northwest of building 304



6501 Linda Vista Rd. January 21, 2015
Photograph #41 View northeast of southwest corner of building 003 and entrance to service area

6501 Linda Vista Rd. January 21, 2015

Photograph #42 View northeast of southwest corner of building 003 and entrance to service area

6501 Linda Vista Rd. January 21, 2015
Photograph #43 View northeast of southwest corner of building 003 and entrance to service area

E.1 - SUPPLEMENTAL DOCUMENTATION

UNION TRIBUNE RESEARCH

2005 DISCRETIONARY PERMITS

MODERN SAN DIEGO - RICHARD GEORGE WHEELER

ATTACHED

Paper: San Diego Union, published as The San Diego Union; **Date:** 12-10-1959; **Page:** 13; **Location:** San Diego, California

Construction Starts Tuesday On New San Miguel School

Construction will start Tuesday on new quarters in Linda Vista for the San Miguel School for Boys.

The building's cornerstone will be laid at 4 p.m. in ceremonies to which civic, religious and educational leaders have been invited.

Costing $220,000, excluding furnishings, the initial unit of the school will contain 18 classrooms, administration offices, a library, cafeteria and shower room.

The school will be built on a 46-acre site fronting on Linda Vista road and overlooking Mission Valley. It is near Twain Elementary School, 6402 Linda Vista Rd.

A metal box to be sealed in the cornerstone will contain a fragment of the old Boal mansion, 1433 E. 24th St., National City, which has served as school headquarters since its founding seven years ago.

Classes will begin in the new structure next September. The building will accommodate 168 boys, compared with 116 in present quarters.

The school, sponsored by the Episcopal diocese, will be built with proceeds from a public subscription campaign. It was designed by Richard George Wheeler. R. E. Hazard Jr. is the contractor.

4581

DOC # 2005-1020509

RECORDING REQUESTED BY
CITY OF SAN DIEGO
DEVELOPMENT SERVICES DEPARTMENT
PERMIT INTAKE, MAIL STATION 501

WHEN RECORDED MAIL TO
CITY CLERK
MAIL STATION 2A

NOV 28, 2005 10:58 AM

OFFICIAL RECORDS
SAN DIEGO COUNTY RECORDER'S OFFICE
GREGORY J. SMITH, COUNTY RECORDER
FEES: 80.00
PAGES: 25

2005-1020509

SPACE ABOVE THIS LINE FOR RECORDER'S USE

JOB ORDER NUMBER 42-2561

CONDITIONAL USE PERMIT NO. 84874
PLANNED DEVELOPMENT PERMIT NO. 84875
SITE DEVELOPMENT PERMIT (ESL) NO. 215276
FRANCIS PARK SCHOOL
AMENDMENT TO CONDITIONAL USE PERMIT NO. 94-0207
CITY COUNCIL

This conditional use permit/planned development permit/site development permit (ESL) amendment to Conditional Use Permit No. 94-0207 is granted by the Council of the City of San Diego to Francis Parker School, a California Corporation, Owner/Permittee, pursuant to San Diego Municipal Code [SDMC] sections 126.0305, 126.0504, 126.0604 and 125.1001. The 23-acre site is located at 6501 Linda Vista Road in the RM-1-1 (Residential Multi-Family) zone of the Linda Vista Community Plan. The project site is legally described as Parcels 1 and 2 of Parcel Map No. 5465.

Subject to the terms and conditions set forth in this Permit, permission is granted to Owner/Permittee to increase the number of students from 700 to 800, and accommodate phased modifications on the campus to include demolition, renovation and construction of new school facilities to include deviations to height and setback requirements, described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated June 28, 2005, on file in the Development Services Department.

The project or facility shall include:

a. Demolition of a total of ten existing buildings; renovation of a total of three existing buildings; and construction of a total of fifteen new buildings - and associated structures, serving middle and upper school (junior high and high school) educational uses. Said buildings to include administration and maintenance buildings, student union, multi-purpose rooms; library, arts studios, fine arts theater and music rooms, cafeteria and gymnasium, locker rooms and field house, athletic fields and courts, parking structure and tennis courts, off-street surface and bus parking lots,

ORIGINAL

field lighting, and tennis court fencing totaling approximately 160,000 sq. ft. of floor area;;

b. Landscaping (planting, irrigation and landscape related improvements);

c. Off-street parking facilities;

d. Accessory improvements including retaining walls, fences, signs, lighting, and recreational facilities; and

e. Accessory improvements determined by the City Manager to be consistent with the land use and development standards in effect for this site per the adopted community plan, California Environmental Quality Act Guidelines, public and private improvement requirements of the City Engineer, the underlying zone(s), conditions of this Permit, and any other applicable regulations of the SDMC in effect for this site.

STANDARD REQUIREMENTS:

1. Construction, grading or demolition must commence and be pursued in a diligent manner within thirty-six months after the effective date of final approval by the City, following all appeals. Failure to utilize the permit within thirty-six months will automatically void the permit unless an Extension of Time has been granted. Any such Extension of Time must meet all the SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker.

2. No permit for the construction, occupancy or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:

a. The Permittee signs and returns the Permit to the Development Services Department; and

b. The Permit is recorded in the Office of the San Diego County Recorder.

3. Unless this Permit has been revoked by the City of San Diego the property included by reference within this Permit shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the City Manager.

4. This Permit is a covenant running with the subject property and shall be binding upon the Permittee and any successor or successors, and the interests of any successor shall be subject to each and every condition set out in this Permit and all referenced documents.

5. The utilization and continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.

ORIGINAL

6. Issuance of this Permit by the City of San Diego does not authorize the Permittee for this permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).

7. In accordance with authorization granted to the City of San Diego from the United States Fish and Wildlife Service [USFWS] pursuant to Section 10(a) of the ESA and by the California Department of Fish and Game [CDFG] pursuant to Fish and Game Code section 2835 as part of the Multiple Species Conservation Program [MSCP], the City of San Diego through the issuance of this Permit hereby confers upon Permittee the status of Third Party Beneficiary as provided for in Section 17 of the City of San Diego Implementing Agreement [IA], executed on July 16, 1997, and on file in the Office of the City Clerk as Document No. OO 18394. Third Party Beneficiary status is conferred upon Permittee by the City: (1) to grant Permittee the legal standing and legal right to utilize the take authorizations granted to the City pursuant to the MSCP within the context of those limitations imposed under this Permit and the IA, and (2) to assure Permittee that no existing mitigation obligation imposed by the City of San Diego pursuant to this Permit shall be altered in the future by the City of San Diego, USFWS, or CDFG, except in the limited circumstances described in Sections 9.6 and 9.7 of the IA. If mitigation lands are identified but not yet dedicated or preserved in perpetuity, maintenance and continued recognition of Third Party Beneficiary status by the City is contingent upon Permittee maintaining the biological values of any and all lands committed for mitigation pursuant to this Permit and of full satisfaction by Permittee of mitigation obligations required by this Permit, as described in accordance with Section 17.1D of the IA.

8. The Owner/Permittee shall secure all necessary building permits. The applicant is informed that to secure these permits, substantial modifications to the building and site improvements to comply with applicable building, fire, mechanical and plumbing codes and State law requiring access for disabled people may be required.

9. Prior to issuance of any building or grading permits, the Owner/Permittee shall submit all proposed building facility plans to the City Manager for approval. Plans shall be in substantial conformity to Exhibit "A," the Master Plan and design guidelines. No changes, modifications or alterations shall be made unless appropriate application(s) or amendment(s) to this Permit have been granted.

10. All of the conditions contained in this Permit have been considered and have been determined to be necessary in order to make the findings required for this Permit. It is the intent of the City that the holder of this Permit be required to comply with each and every condition in order to be afforded the special rights which the holder of the Permit is entitled as a result of obtaining this Permit.

In the event that any condition of this Permit, on a legal challenge by the Owner/ Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" conditions(s) back to the

ORIGINAL

discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

ENVIRONMENTAL/MITIGATION REQUIREMENTS:

11. Mitigation requirements are tied to the environmental document, specifically the Mitigation, Monitoring, and Reporting Program [MMRP]. These MMRP conditions are incorporated into the permit by reference or authorization for the project.

12. As conditions of Conditional Use Permit No. 84874, Planned Development Permit No. 84875 and Site Development Permit No. 215276, the mitigation measures specified in the MMRP, and outlined in Mitigated Negative Declaration , LDR No. 31079 shall be noted on the construction plans and specifications under the heading ENVIRONMENTAL/MITIGATION REQUIREMENTS.

13. The Owner/Permittee shall comply with the MMRP as specified in Mitigated Negative Declaration, LDR No. 31079 satisfactory to the City Manager and City Engineer. Prior to issuance of the first building and/or grading permit, all conditions of the MMRP shall be adhered to, to the satisfaction of the City Engineer. All mitigation measures as specifically outlined in the MMRP shall be implemented for the following issue areas:

Biological Resources
Health and Safety
Noise

14. Prior to issuance of any construction permit, the applicant shall pay the Long Term Monitoring Fee in accordance with the Development Services Fee Schedule to cover the City's costs associated with implementation of permit compliance monitoring.

BRUSH MANAGEMENT PROGRAM REQUIREMENTS:

15. The Permittee shall implement the following requirements in accordance with the Brush Management Program shown on Exhibit "A," Brush Management Plan.

16. Prior to issuance of any building permits, a complete set of brush management construction documents shall be submitted for approval to the City Manager and the Fire Marshall. The construction documents shall be in Substantial Conformance with Exhibit "A" and shall comply with the Uniform Fire Code, MC section 0889.0201, the Landscape Standards, and San Diego Municipal Code/Land Development Code SDMC/ LDC section 142.0412 (Ordinance - 18451).

17. The Brush Management Program shall consist of two zones consistent with the Brush Management regulations of SDMC/LDC section 142.0412 as follows: A minimum 40-foot zone One with no required zone Two shall extend along eastern portions of the

ORIGINAL

Lot from the Existing Field House – Bldg 001 to the New Middle School Classrooms – Bldg 203. A standard 25-foot zone One and 30-foot zone Two hall extend along eastern portions of the Lot from the Existing Middle School Classrooms – Bldg 103. A minimum 28-foot zone One and 30-foot zone Two shall be provided over the west portion of the Lot adjacent to the Science Classrooms – Bldg 105 and Upper School Classrooms/ Commons – Bldgs 100 through 102.

18. Within zone One, combustible accessory structures (including, but not limited to decks, trellises, gazebos, etc.) are not permitted, while non-combustible accessory structures may be approved within the designated Zone One area subject to Fire Marshall and the City Manger's approval.

19. The following note shall be provided on the Brush Management Construction Documents: "It shall be the responsibility of the Permittee to schedule a pre-construction meeting on-site with the contractor and the Development Services Department to discuss and outline the implementation of the Brush Management Program."

20. In zones One and Two, plant material shall be selected to visually blend with the existing hillside vegetation. No invasive plant material shall be permitted as jointly determined by the Landscape section and the Environmental Analysis section.

21. Prior to final inspection and the issuance of any Certificate of Occupancy for any building, the approved Brush Management Program shall be implemented.

22. The Brush Management Program shall be maintained at all times in accordance with the City of San Diego's Landscape Standards.

23. Regarding Phases One and Two only, all new plant material located on the mesa, within Phase One and Two construction, shall obtain a maximum height of thirty-feet at maturity.

ENGINEERING REQUIREMENTS:

24. Prior to the issuance of any construction permit, the Applicant shall incorporate any construction Best Management Practices [BMP's] necessary to comply with Chapter 14, Article 2, Division 1 (Grading Regulations) of the SDMC, into the construction plans or specifications.

25. Prior to the issuance of any construction permit the Applicant shall incorporate and show the type and location of all post-construction BMP's on the final construction drawings, in accordance with the approved Water Quality Technical Report.

26. Prior to the issuance of a building permit the applicant shall obtain a bonded grading permit for the grading proposed for this project. All grading shall conform to requirements in accordance with the SDMC in a manner satisfactory to the City Engineer.

27. Development of this project shall comply with all requirements of State Water Resources Control Board [SWRCB] Order No. 99-08 DWQ and the Municipal Storm

ORIGINAL

Water Permit, Order No. 2001-01 (NPDES General Permit No. CAS000002 and CAS0108758), Waste Discharge Requirements for Discharges of Storm Water Runoff Associated With Construction Activity. In accordance with said permit, a Storm Water Pollution Prevention Plan [SWPPP] and a Monitoring Program Plan shall be implemented concurrently with the commencement of grading activities, and a Notice of Intent [NOI] shall be filed with the SWRC.

28. A copy of the acknowledgment from the SWRCB that an NOI has been received for this project shall be filed with the City of San Diego when received; further, a copy of the completed NOI from the SWRCB showing the permit number for this project shall be filed with the City of San Diego when received. In addition, the owner(s) and subsequent owner(s) of any portion of the property covered by this grading permit and by SWRCB Order No. 99 08 DWQ, and any subsequent amendments thereto, shall comply with special provisions as set forth in SWRCB Order No. 99 08 DWQ.

LANDSCAPE REQUIREMENTS:

29. No change, modification, or alteration shall be made to the project unless appropriate application or amendment of this Permit shall have been granted by the City.

30. Prior to issuance of any engineering permits for grading, construction documents for the re-vegetation and hydro seeding of all disturbed land shall be submitted in accordance with the Landscape Standards and to the satisfaction of the City Manager. All plans shall be in substantial conformance to this permit (including Environmental conditions) and Exhibit "A."

31. Prior to issuance of any engineering permits for right-of-way improvements, complete landscape construction documents for right-of-way improvements shall be submitted to the City Manager for approval. Improvement plans shall take into account a 40 square-foot area around each tree which is unencumbered by utilities. Driveways, utilities, drains, water and sewer laterals shall be designed so as not to prohibit the placement of street trees.

32. In the event that a foundation only permit is requested by the Permittee or subsequent Owner, a site plan or staking layout plan shall be submitted identifying all landscape areas consistent with Exhibit "A," Landscape Concept Plan. These landscape areas shall be clearly identified with a distinct symbol, noted with dimensions and labeled as 'landscaping area.'

33. Prior to issuance of any construction permits for structures (including shell), complete landscape and irrigation construction documents consistent with the Landscape Standards shall be submitted to the City Manager for approval. The construction documents shall be in substantial conformance with Exhibit "A," Landscape Concept Plan. Construction plans shall take into account a forty square-foot area around each tree which is unencumbered by hardscape and utilities as set forth under SDMC/LDC section 142.0403(b) 5.

34. All existing landscape to remain during phased construction shall be protected in place per Exhibit "A," Landscape Development Plan. Stockpiling, material storage, grading, and other activities shall be prohibited within the drip line of all trees designated to remain without monitoring of a certified consulting arborist. Any root or canopy pruning associated with demolition or new construction shall be under the direction of a certified, consulting arborist.

35. Prior to issuance of any Certificate of Occupancy, it shall be the responsibility of the Permittee or subsequent Owner to install all required landscape and obtain all required landscape inspections consistent with the phased construction delineated on Exhibit "A." A "No Fee" Street Tree Permit shall be obtained for the installation, establishment, and on-going maintenance of all street trees.

36. All required landscape shall be maintained in a disease, weed, and litter free condition at all times. Severe pruning or "topping" of trees is not permitted unless specifically noted in this Permit.

37. The Permittee or subsequent Owner shall be responsible for the maintenance of all landscape improvements in the right-of-way consistent with the Landscape Standards unless long-term maintenance of said landscaping will be the responsibility of a Landscape Maintenance District or other approved entity. In this case, a Landscape Maintenance Agreement shall be submitted for review by the City Manager.

38. If any required landscape (including existing or new plantings, hardscape, landscape features, etc.) indicated on the approved construction document plans is damaged or removed during demolition or construction, it shall be repaired and/or replaced in kind and equivalent size per the approved documents to the satisfaction of the City Manager within thirty days of damage or Certificate of Occupancy.

PLANNING/DESIGN REQUIREMENTS:

39. Consistent with Condition No. 66, no fewer than 290 off-street parking spaces shall be maintained on the property at all times in the approximate locations shown on the approved Exhibit "A." Parking spaces shall comply at all times with the SDMC and shall not be converted for any other use unless otherwise authorized by the City Manager.

40. There shall be compliance with the regulations of the underlying zone(s) unless a deviation or variance to a specific regulation(s) is approved or granted as a condition of approval of this Permit. Where there is a conflict between a condition (including exhibits) of this Permit and a regulation of the underlying zone, the regulation shall prevail unless the condition provides for a deviation or variance from the regulations. Where a condition (including exhibits) of this Permit establishes a provision which is more restrictive than the corresponding regulation of the underlying zone, then the condition shall prevail.

ORIGINAL

41. Height, Maximum 30-foot Height Limit

a. Building Height – Building Nos. 105, and 300 would observe a maximum height of 35-feet.

b. Building 200 shall observe a maximum height of thirty-feet from the current grade, with the objective of minimizing intrusion on the neighbors' sight lines.

c. Athletic Field Light Poles – Poles A and F would observe a maximum height of seventy-feet; Poles B and E would observe a maximum height of ninety-feet; and Poles C and D would observe a maximum height of 80-feet.

42. A topographical survey conforming to the provisions of the SDMC may be required if it is determined, during construction, that there may be a conflict between the building(s) under construction and a condition of this Permit or a regulation of the underlying zone. The cost of any such survey shall be borne by the Permittee.

43. Any future requested amendment to this Permit shall be reviewed for compliance with the regulations of the underlying zone(s) which are in effect on the date of the submittal of the requested amendment.

44. All signs associated with this development shall be consistent with sign criteria established by Citywide sign regulations.

45. Use of On-Campus Athletic Fields and Campus Lighting - with regard to lighting on the Francis Parker School premises, it is the purpose and intent of the following conditions to ensure compliance with SDMC/LDC section 142.0740, Outdoor Lighting Regulations, and to minimize off-site impacts. Lighting for events held on any athletic field shall comply with minimum standards of the California Interscholastic Federation [CIF] and National Federation of State High [NFSH] Schools Association. Outdoor field lighting shall be designed and installed to the specifications detailed in the lighting study, Sports Area Light Study & Recommendations, as prepared on February 29, 2004, by Dream Engineering, Inc.

46. All private outdoor lighting shall be shaded and adjusted to fall on the same premises where such lights are located and in accordance with the applicable regulations in the SDMC, including LDC section 142.0740, Outdoor Lighting Regulations..

47. Prior to the issuance of any building permits, complete outdoor lighting information shall be submitted to the Development Services Department, Land Development Review Division, for review and approval. Complete lighting information shall include a plan view photometric analysis indicating an isofoot candle plot and a point by point plot to include all areas within the private property and to extend a minimum of 50 feet beyond the property line, construction details as necessary to direct installation of the outdoor lighting system, manufacturers name, visors, prisms, lenses and reflectors and a lighting plan locating each fixture in plan view and a legend. The outdoor lighting system shall be designed, manufactured and installed to allow shading,

ORIGINAL

adjusting, and shielding of the light source so all outdoor lighting is directed to fall only onto the same premises as light sources are located.

48. Prior to the issuance of any occupancy permit, a night inspection shall be required to verify compliance of the outdoor lighting system. No light shall be directed to fall outside the property line. Light levels throughout the development shall be the least practical level necessary to effectively illuminate the operation. Sky glow or light halo shall be reduced to the greatest extent practical. The Owner/Permittee, or an authorized representative, shall provide an illuminance meter to measure light levels as required to establish conformance with the conditions of this Permit during the night inspection. Night inspections may require additional fees as determined by the City Manager.

49. The use of textured or enhanced paving shall meet applicable City standards as to location, noise and friction values.

50. No mechanical equipment, tank, duct, elevator enclosure, cooling tower, mechanical ventilator, or air conditioner shall be erected, constructed, converted, established, altered, or enlarged on the roof of any building, unless all such equipment and appurtenances are contained within a completely enclosed structure whose top and sides may include grillwork, louvers, and latticework.

51. Prior to the issuance of building permits, construction documents shall fully illustrate compliance with the Citywide Storage Standards for Trash and Recyclable Materials (SDMC) to the satisfaction of the City Manager. All exterior storage enclosures for trash and recyclable materials shall be located in a manner that is convenient and accessible to all occupants of and service providers to the project, in substantial conformance with the conceptual site plan marked Exhibit "A."

52. This Permit may be developed in phases. Each phase shall be constructed consistent with the conditions and exhibits approved for each respective phase (per the approved Exhibit "A").

53. An evening event shall be defined as an athletic game or other event on the athletic fields that takes place after 8:00 p.m. No restriction shall be placed on events that end before 8:00 p.m.

a. The School shall be limited to a total of fifty-evening events per year, and no more than three in a week.

54. Lights will be turned off no later than 10:00 p.m. except in the case where a play-off game enters overtime and California Interscholastic Federation [CIF] regulations require that the game not end in tie. In no case shall the lights stay on after 11:00 p.m. regardless of the event.

55. The School shall not conduct activities on the athletic fields earlier than 8:00 a.m. on Saturdays and 9:00 a.m. on Sundays.

ORIGINAL

56. All outdoor lighting, including search lights, shall be turned off between 11:00 p.m. and 6:00 a.m.

WASTEWATER REQUIREMENTS:

57. All on-site wastewater systems shall be private.

WATER REQUIREMENTS:

58. Prior to the issuance of any building permits, the Owner/Permittee shall assure, by permit and bond, the design and construction of new water service(s) and the disconnection at the main of all existing unused services, as needed, within the rights-of-way adjacent to the project site, in a manner satisfactory to the Director of the Water Department and the City Engineer. All on-site water facilities shall be private including domestic, fire, and irrigation systems.

59. Prior to the issuance of any building permits, the Owner/Permittee shall apply for a plumbing permit for the installation of appropriate private back flow prevention device(s) on each water service, existing and proposed, in a manner satisfactory to the Director of the Water Department and the City Engineer.

60. Prior to the issuance of any certificates of occupancy, the Owner/Permittee shall design and construct new public water facilities, into acceptable alignments and right-of-way, in the event any public water facility adjacent to the project site loses integrity due to the construction and grading activities associated with this development, in a manner satisfactory to the Director of the Water Department and the City Engineer.

61. Prior to the issuance of any certificates of occupancy, the Owner/Permittee shall install fire hydrants at locations satisfactory to the Fire Marshal, the Director of the Water Department and the City Engineer.

62. Prior to the issuance of any certificates of occupancy, public water facilities necessary to serve the development, including services, shall be complete and operational in a manner satisfactory to the Director of the Water Department and the City Engineer.

63. The Owner/Permittee agrees to design and construct all proposed public water facilities in accordance with established criteria in the most current edition of the City of San Diego Water Facility Design Guidelines and City regulations, standards and practices pertaining thereto. Water facilities as shown on the approved Exhibit "A" shall be modified at final engineering to comply with standards.

METROPOLITAN TRANSIT DEVELOPMENT BOARD (MTDB) REQUIREMENTS:

64. There are two existing bus stops within the project site. To comply with ADA requirements, sidewalks that comprise the bus stop passenger loading areas should measure ten-feet wide and twenty-five feet long.

65. Should access to either of these bus stops be impaired during the construction process, the Owner/Permittee shall notify San Diego Transit at (619) 238-0100, in advance of any impairment.

GEOLOGY REQUIREMENTS:

66. Proposed cut and fill slopes greater than ten-feet in height shall not exceed a gradient of 50-percent (two horizontal-feet to one vertical-foot).

67. An updated geotechnical report will required as grading plans are developed for the project. The geotechnical consultant must review, sign and stamp the grading plans as part of the plan review and grading permit issuance process. A Final As-Building Report is required within fifteen days of completion of grading operations.

68. Additional geotechnical information such as verification of as-graded or existing soil conditions needed for design of structure foundations will be subject to approval by the Division of Building and Safety prior to issuance of building permits.

TRANSPORTATION DEVELOPMENT REQUIREMENTS:

69. All off-street parking spaces shall be permanently maintained on the property within the approximate location shown on the project's Exhibit "A," at a parking rate of 0.31 parking spaces per campus individual. Prior to the issuance of any building permit for each project building phase, the applicant shall provide minimum parking in correlation with campus population (campus population = students + faculty + staff) phasing as follows:

a. Phase 1 of the proposed project shall provide 270 automobile parking spaces for a campus population of 871.

b. Phases 2 and 3 of the proposed project shall provide a total of 277 automobile parking spaces for a campus population of 877.

c. Phase 4 of the proposed project shall provide a total of 290 automobile parking spaces for a campus population of 932.

All on-site parking stalls and aisle widths shall be in compliance with requirements of the SDMC/LDC, and shall not be converted and/or utilized for any other purpose, unless otherwise authorized in writing by the City Manager.

70. Prior to the issuance of any building permits, applicant shall record an Irrevocable Offer of Dedication [IOD] of seven-feet in width extending 300-feet west of the existing limit line at the traffic signal at the main entrance on Linda Vista Road, satisfactory to the City Engineer. This required IOD is to accommodate a potential future improvement by Francis Parker (or any other future project which warrants it) or another party of construction of a Right Hand Turn Lane [RHTL] on east bound Linda Vista Road into the main entrance of the school. Whoever is responsible for the future widening of Linda

Vista Road would be responsible for the costs of future improvements or for utility relocation costs when and if the RHTL is installed.

71. Prior to the issuance of any building permits, the applicant shall submit improvement plans for the widening of the outside eastbound lane on Linda Vista Road by five-feet to accommodate a twenty-foot wide lane for 155-feet west of existing limit line at the main entrance on Linda Vista Road plus sixty-foot transition to the existing curb, satisfactory to the City Engineer. Also, prior to issuance of the first occupancy permit, the Applicant shall complete the above improvement and have it accepted by the City.

72. This project shall comply with all current street lighting standards according to the City of San Diego Street Design Manual (Document No. 297376, filed November 25, 2002) and the amendment to Council Policy 200-18 approved by City Council on February 26, 2002 (Resolution R-296141) satisfactory to the City Engineer.

THE FOLLOWING CONDITIONS ARE HEREBY INCORPORATED INTO THIS PERMIT:

73. The height of the library (Building 200) shall be reduced from the height on the plans submitted for the CUP amendment. The neighbors have asked that the height of the building not exceed thirty-feet from the current grade, with the objective of minimizing intrusion on the neighbors' sight lines. The school has agreed to reduce the height of the building by a combination of building height and grade reduction, to be worked out during construction design. The result shall be that the ridgeline of the building shall not exceed an elevation of 305-feet above sea level, with the exception of a portion of approximately thirty-feet of ridgeline that will contain a skylight; the skylight shall be constructed with the minimum possible additional elevation, not to exceed nine-inches (305-feet and 9-inches above sea level.)

74. The light poles to be constructed to light the athletic fields shall be colored or painted, and maintained, in a flat, non-reflective color in either pale grey or blue-grey, depending on colors available from the manufacturer.

75. The parties agree that the conditions in the amended CUP will require the school mitigate amplified noise in the area of the athletic fields by acquiring specific amplifiers and loud speakers. The parties agree that once this new equipment has been installed and tested, they shall jointly meet to set amplification levels that meet the minimum athletic event needs of the school but are the least disruptive to the neighbors. The school agrees to allow the neighbors to monitor noise levels in the future to ensure compliance with the CUP.

76. The school agrees to install sound attenuation materials inside the existing batting cages, or take other additional measures, to minimize the sound generated form activities in the batting cages.

77. The school agrees to paint the exterior of the existing Field House building. The building will be painted in flat, non-reflective paint in colors to be determined that are

similar to, and blend in with, the colors of the other existing buildings on campus and with the new buildings to be constructed in the Master Plan.

78. All new landscape choices will be varieties that are known to regularly reach maximum heights of approximately thirty-feet when mature.

INFORMATION ONLY:

Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this development permit, may protest the imposition within ninety days of the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code section 66020.

A Development Impact Fee [DIF] of $84,259.51 is required for this project and is due at the time of building permit issuance. This fee is based upon the determination that the project will result in an increase of 66,661 square feet over what currently exists on the site. A Housing Trust Fund [HTF] impact fee of $53,328.80 on nonresidential development is required for this project and is due at the time of building permit issuance. This fee is based on a rate of $0.80 per square foot of school use. Pursuant to Ordinance No.0-17454, the HTF impact fee is dedicated for affordable housing.

APPROVED by the Council of the City of San Diego on June 28, 2005 by Resolution No. R-300618.

AUTHENTICATED BY THE CITY MANAGER

By Mary Halbert
CITY OF SAN DIEGO

The undersigned Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Permittee hereunder.

FRANCIS PARKER SCHOOL
Owner/Permittee

By Grant Lelle

By _____

NOTE: Notary acknowledgments must be attached per Civil Code section 1180 et seq.

PERMIT/OTHER – Permit Shell 11-01-04

RODNEY D. TAYLOR
Commission # 1567312
Notary Public - California
San Diego County
My Comm. Expires Apr 8, 2009

ORIGINAL

MODERN SAN DIEGO

Abrams, Harold
Ain, Gregory
Alexander, Robert E.
Anderson, Guy
Antelline, Jon P.
Applebaum, Norm
Batter-Kay Associates
Beadle, Alfred
Beckett, Welton
Benedict, Hiram Hudson
Bird, Fujimoto & Fish
Bonini, Vincent
Brownell, J. Herbert
Buff, Straub and Hensman
Campbell, Donald
Cody, William F.
Crane, Loch
Dammann, Bruce
Davis, Ronald K.
Decker, Arthur
Deems-Lewis
Delawie, Homer
Des Lauriers, Robert
Drake, Gordon
Eckel, George
Eggers, Henry
Ellwood, Craig
Ferris, Robert
Fickett, Edward
Forester, Russell
Fowble, Robert
French, Stanley J.
Frey, Albert
Gill, Irving
Goldberg, Bertrand
Goldman, Donald
Gordon, Kenneth & Robert
Grossman, Greta
Hagadone, Walter
Harris, Harwell Hamilton
Henderson, John
Hester, Henry
Hope, Frank
Hufbauer, Clyde
Hubbell, James
Jackson-Scott
Jones, A. Quincy
Jones, Robert E.
Kahn, Louis
Kellogg, Dick
Kellogg, Kendrick Bangs
Kesling, William
Killingsworth, Brady & Smith
Kowalski, Joseph
Krisel, William
Ladd, Thornton
Lareau, Richard
Lautner, John
Leitch, Richard

Richard George Wheeler
(1917-1990)

Richard George Wheeler (left) and designer Roger Matthews (1965)

Richard George Wheeler was born the son of prominent San Diego architect William Henry Wheeler on June 30, ' Guy Street in Mission Hills, the young Richard attended Grant Elementary School, Roosevelt Jr. High and San Die his older brother Henry "Hank" L. Wheeler.

Following his graduation from San Diego High School in 1935, Richard attended San Diego State College for *"thre transferring to U.C. Berkeley, to further my architectural studies. I attended Berkeley for 3 years, graduating in Jun in architecture,"* Wheeler wrote in 1989.

Only months after graduating and earning money teaching night class in architecture at Cal Berkeley, Pearl Harbo the US entered World War II. Wheeler recalled, *"I applied for a commission in the Navy. It came through in May 19 They immediately sent me to Sitka, Alaska where I stayed for three years. My first tour of duty was as commandin Armstrong, a converted cannery, then on to Port Althorp as Executive Officer."*

After the war Richard "Dick" Wheeler returned to work for his father at Wheeler & McGowan, Architects and Engin period of time he met and married Marian O'Brien and had two children (Wendy, Brien). *"In May 1947 I received n license and quit Wheeler & McGowan. Dad was old and blind and wished me "God Speed,"* Dick wrote.

"Dick began his career as a self-employed architect in the garage of his Pacific Beach home in 1947," recently rec (since 1957) Katy Baehles. Wheeler opened his first office in two rooms on the 2nd floor (this time above a garage the old Spanish Village (now the 5th Avenue Financial Center and Mister A's). The Wheeler office only had one er Laycock, who left Wheeler & McGowan with Richard. While Dick designed, Clark crafted each project's working dr specifications. They each took a salary of $75.00 per week. Business picked up and commissions started to come within a couple of years increased to 1200 square feet and ten employees.

A couple of years later Richard designed a new office for his firm at the corner of 5th and Ivy Lane (now NuNu's). I 1500 square foot office, Wheeler's brother, and general contractor for the firm, Hank, built four apartments adjacer extra income to the firm.

In 1957, the year Richard would lose his father Henry, Clair Burgener (former Congressman) and Richard built the Horizon House, in the 3200 block of Rosecrans. At this address locally acclaimed architects Tom Tucker, Hal Sadl Gayne Wimer and Roger Matthews would cut their teeth under Wheeler's employ.

The RGW and Associates office started out with primarily residential commissions. The office diversified rapidly, ir Wheeler's relationship with Legler Benbough for whom the office designed several medical buildings. In the late 1 changed its name to Richard G. Wheeler, AIA, & Associates, A Division of Charles Luckman Associates (later the was dropped).

Things began to change rapidly. In 1959, Tucker, Sadler and Bennett left RGW&A to start their own firm, taking th stores account with them. Then, Richard and Marian divorced the next year. Despite losing some of his assets in c allowed to keep his lot at 3223 Sterne where he designed "a house for a bachelor" (according to the *LA Times Ho* Wheeler would then marry Gerry Smith and have three children (Cindi, Jim, Rick).

According to Wheeler, the highlight of his career was the SDG&E building (1967). *"I think the one building that cha the award of the commission to design the corporate headquarters for the San Diego Gas and Electric Co. It was Before starting the design, Pete DeYoung, a Vice President of the Gas Co. toured the country with me studying th around the United States...we were determined to make this a fine building,"* Richard wrote in his autobiography n

Liebhardt, Frederick
Livingstone, Fred
Loring, Arthur
Lotery, Rex
Lykos, George
Macy, Al
Malone, Ed
Marr, Clinton
Matthews, Roger
May, Cliff
McKim, Paul
Mitchell, Delmar
Mock, John
Mortenson, John
Mosher & Drew
Naegle, Dale
Neptune & Thomas
Neutra, Richard
Norris, Fred
Paderewski, CJ
Patrick, William
Paul & Allard
Paulson, Ted
Periera & Luckman
Platt, Robert
Ray, Eugene
Reed, John
Richards, Sim Bruce
Risley and Gould
Rosser, William
Ruocco, Lloyd
Salerno, Daniel
Schindler, Rudolph
Schoell & Geritz
Sigurdson, John
Simpson and Gerber
Skidmore, Owings and Merrill
Soriano, Raphael
Spencer & Lee
Stimmel, William
Stone, Edward Durrell
Therkelsen, Lloyde
Tucker, Sadler & Bennett
Turner, Herb
Veitzer, Leonard
Vickery, Dean
Weir Brothers
Weston, Eugene III
Wheeler, Richard
Wright, Frank Lloyd
Wright, John Lloyd
Wright, Lloyd
Wulff and Fifield

Immediately following the SDG&E project, the firm was awarded contracts by C. Arnholt Smith to design the Execu Plaza and numerous branches for US National Bank.

The firm grew to employ 40 architects, engineers and support staff. In 1970 the firm name was changed to Wheele Associates. The office's work had expanded greatly becoming one of the largest architectural firms in the county.

Richard wrote, "*In January of 1989, I decided to retire. I was 71 and 41 years of practice seemed sufficient. The pr and I felt that I had accomplished my objective as originally planned. I would estimate that we designed...400 built*

Richard George Wheeler died on May 14, 1990.

The following was found among Richard G. Wheeler's hand-written "Architectural Views":

Design for Living

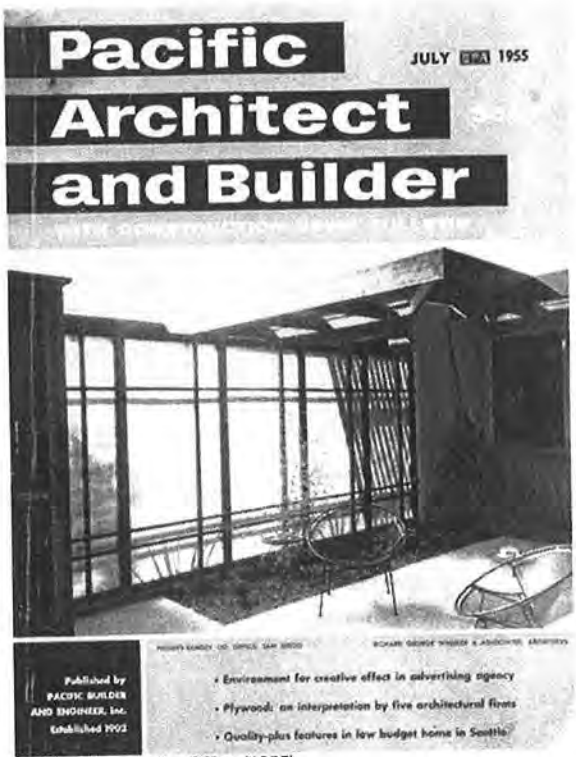
My philosophy of design is my philosophy for living. I would not force my theory upon any society but through logic greatness of man, I will tend to influence the world with that which I think is most fitting and appropriate for moderr

Of paramount importance is the necessity for free thinking and not to be bound by conventional or traditional archi that we are to improve the past, but to study it along with the manner of living in relation to the time in which it was approach. The buildings of the past were designed in relation to the society that was to inhabit them, thus it would to associate the present manner of living with the past and to design our buildings based on this decadent style.

RGW Offices
Photo by Julius Shulman

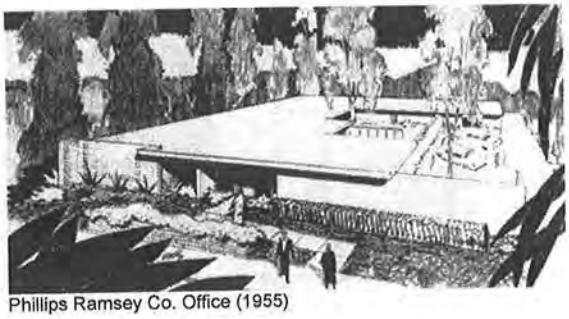
Horizon House rendering

Private Residence, Point Loma

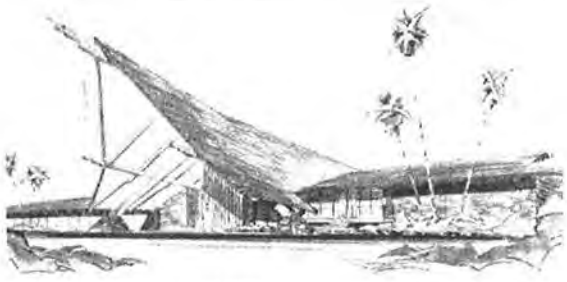


Phillips Ramsey Co. Office (1955)

Phillips Ramsey Co. Office (1955)



Phillips Ramsey Co. Office (1955)



Shelter Island Restaurant (1960)

Restaraunt (1957) at 3780 Park Blvd by Richard George Wheeler

Partial List of San Diego Projects

Allen, Dr. Phillip Office
6th and Ivy, Hillcrest

Associated General Contractors (AGC)

Associated General Contractors (1960)
404 Camino Del Rio South, Mission Valley
Demolished 2005

Bechetel Residence (1952)

Benbough Medical Building

Benbough, Legler Medical Building #1 (1952)
5th-6th and Hawthorne

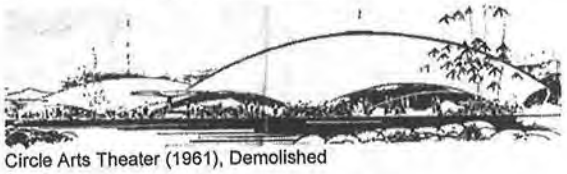
Benbough Professional Building

Benbough Professional Building

Benbough, Legler Medical Building #2 (1958)
2850 6th Avenue (Demolished)

Butter, Hazel Residence (1947)
Granger Street, Point Loma

Circle Arts Theater (1961), Demolished



Circle Arts Theater (1961), Demolished

Circle Arts Theater (1961)
Clairemont Mesa Blvd, Kearney Mesa
Demolished

Convair Off-Site Warehouse (1957)
At 500,000 square feet this was one of the largest steel frame buildings in the world.
Rose Canyon "parallel to Highway 101 and the Atchison, Topeka and Santa Fe Railroad tracks"

Del Norte Housing Tract Brochure

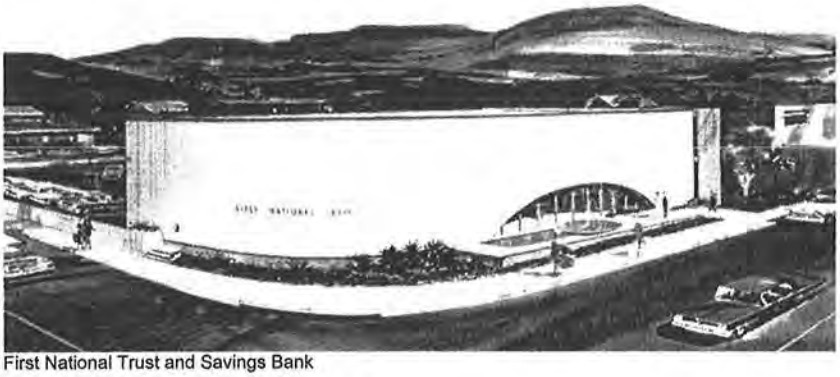
Del Norte Housing Tract
Date, Location Unknown

Edgewater Cove Apartments (1959)
1031 Coast Boulevard

El Cortez Hotel Additions (1954)

First National Bank of San Diego (ca. 1962-1963)
Navajo Shopping Center

First National Bank (1963)
Clairemont Drive and Balboa intersection



First National Trust and Savings Bank

First National Trust and Savings Bank (1961)
NE Corner of Mission Boulevard and Turquoise Street
Demolished

Frame-Grasso Dental Building

Frame-Grosso Dental building (1952)
4060 30th, North Park

Garden of Allah Restaraunt (1954)
3780 Park Blvd, Hillcrest

George Residence (1953)
Clairemont Mesa

Glasson, Bill Residence
Jamul

Greek Orthodox Church
3600 Park Blvd

Gross Center

Gross Center (1959)
3045 Rosecrans, Point Loma

Gross Smith Mall

Gross Smith Mall (1961)
Lemon Grove

Grossmont Junior College (1964)
8800 Grossmont College Drive, El Cajon
Recognized at the 1964 United Masonry Association of San Diego Awards

Gynob Building
Fifth Avenue

Hansen, Mr. & Mrs. Dean Residence (1950)
2455 Poinsettia Drive, Point Loma

Humanities and Social Science Building (1969)
UC San Diego campus, John Muir College

La Jolla Square (1963)
"Cutsom Executive Offices" at Girard and Silverado

Lockwood & Gordon Cinerama Theatre (1962)
58th & University Avenue
Demolished

Loma Square Shopping Center
Point Loma

Loomis, Robert Residence
La Jolla

Loveall, Dr. Medical Building (circa 1950)
4th Avenue

Medical Building
5th and Hawthorne

Medical Building
5th and Juniper

Mission Valley Inn (1958)

Mission Valley Inn (1958)

Mission Valley Inn (1958)
Mission Valley

NARMCO Inc, Kearney Mesa (1960)

Narmco Offices (1960)
Research Park, Kearney Mesa

Paradise Valley Hospital (1964)
2400 East Fourth Street, National City

Parkview Medical Building (1955)
San Diego

Phillips Ramsey Co. Offices (1955)
NE corner of 3rd Avenue and Ivy Street

Point Loma Doctor's Hospital

Point Loma Doctor's Hospital (1959)
3475 Kenyon Street, Point Loma
Now Sharp Cabrillo Hospital

Private Residence (1952)
2425 Poinsettia Drive, Point Loma

Private Residence (1953)
3020 Seville Street, Point Loma

Private Residence
Alvarado Estates

Redwood Baptist Church
Rancho Mission

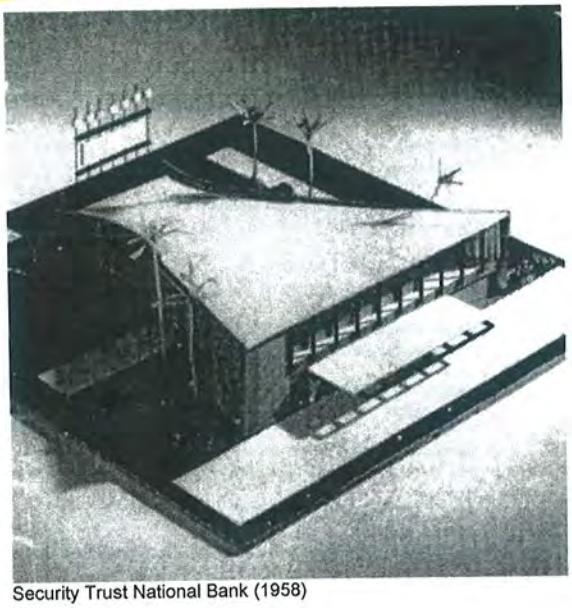
Rohr, Fred Residence
Point Loma

Rosecrans Professional Building (1958)
3276 Rosecrans, Point Loma
aka Horizon House, RGW Associates Office Building

San Diego Gas & Electric (1967)

San Diego Gas & Electric Company (1968)
101 Ash

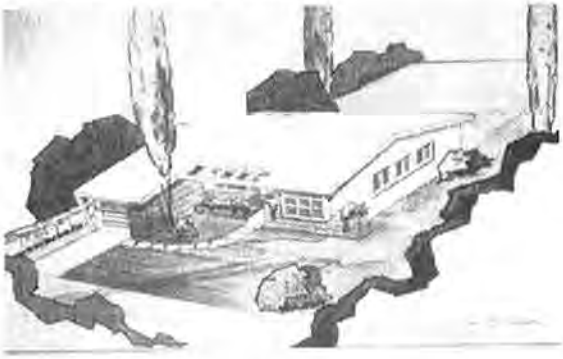
San Miguel School for Boys (1960)
Linda Vista Road



Security Trust National Bank (1958)

Security Trust National Bank (1958)
North Clairemont Quad, Clairemont

Security Trust National Bank (1958)



J.R. Shattuck Residence

Shattuck, J.R. Residence

Shearson-Hammill Building
Northeast corner of 6th & A

Shelter Island Restaraunt/Hotel (1960)
Point Loma

Shelter Island Botel (1958)

Skeoch Residence
Alvarado Estates

Smith, Raymond E. Residence (1954)
646 Bradford Road, El Cajon

Speedee Mart Stores (1961)
10 stores in San Diego County owned by Henry Boney

Thompson, Jack Residence
Point Loma

Union Carbide Electronics Division (1968)
Kearny Mesa

University Lanes (1959)
5933 University Avenue

Valley Shopping Center (1959)
bounded by Johnson Avenue, Magnolia Avenue and Broadway, El Cajon

Vance, Paul Residence
Kensington

Vernetti, Dr. James Dental Office (1947)
543 Orange Avenue, Coronado

Westgate Plaza Hotel (1970)
1055 2nd Avenue
At a cost of $14.5 million, when the Westgate Plaza Hotel was built in 1970, it was the most expensive hotel built i

Westminster Presbyterian Church (1961)
Canon and Talbot Streets, Point Loma

Wheeler, Henry L. Professional Building (1959)
1st Avenue and Maple Street
Noticeable by the seven 18' concrete block (Hazard's Empress Screen Bloc) screen walls facing south and east.

Henry L. Wheeler Professional Building

Wheeler, Richard George & Associates Office (circa 1950)
3537 5th Avenue

Wheeler Residence #1

Wheeler Residence #1 (circa 1948)
3664 Curtis Street, Point Loma

Wheeler Residence #2

Wheeler Residence #2

Wheeler Residence #2 (1960)
3223 Sterne Street

Windago Apartments (1958)
La Jolla Shores, La Jolla

Woods Residence
Alvarado Estates

Marie Burke Lia
Attorney at Law
427 C Street, Suite 416, San Diego CA 92101
619-235-9766 * Fax 235-4410
mbllaw@earthlink.net

MEMO

To: Joseph Castro, Plan-Historic Staff Date: 5/1/15

From: Marie Lia

Re: Parker LVC Master Plan Update, Project #412987

Plan Historic Cycle Issues Comments 4/14/15

The information below and the attachments to this Memo are submitted in response to your Comment 9 dated 4/11/15, as follows:

> "It is not clear the date of construction of buildings on site. It appears based on chronology on page 8 of 18 of the historic research report that there may have been additional buildings over 45 years of age. Provide a map indicating the year of construction of all buildings on site. Include the Headmaster's Residence built in 1964 on the map or clarify if it was demolished, renamed, etc. (New Issue)"

Please consider the following information as our response to this Comment.

1. Updated Site Chronology based upon Historical Aerial Photographs and Building Permits

- In 1964, the San Miguel Headmaster's Residence was constructed and a copy of the building permit is attached to this Memo.
- In 1966, the Headmaster's Residence is shown in place on the aerial photograph, a copy of which is attached.
- In 1981, the Headmaster's Residence is shown in place on the aerial photograph, a copy of which is attached.
- In 1986, the 2 story classroom building was constructed, which is now identified as Building #202, and a copy of the building permit is attached.
- In 2003, the Headmaster's Residence is shown in place on the aerial photograph, a copy of which is attached.

2. On April 30th, I met with Mike Rinehart, Erin Aiston and Victor Virgen of the Francis Parker Staff. [1] They provided me with the attached Current Campus Site Map with the three recent new construction phases identified by color. Phase One, which is identified by the peach colored buildings, dates from 2007. Phase Two, which is identified by the blue colored buildings, dates from 2008. Phase Three, which is identified by the yellow colored buildings, dates from 2009.

This Current Campus Site Map also shows the existing buildings in gray. These buildings were documented in the Site Chronology in the Historical Resources Research Report. Building #002, identified on this map as Lockers, was constructed in 1962. Building #003, identified on this map as Cafeteria, was constructed in 1965. Building #202, the 2 story classroom building identified on this map as adjacent to the Middle School Quad, was constructed in 1986. Building #001, identified on this map as the Gymnasium, was constructed in 1995. Building #304a, identified as the Performing Arts Center, was constructed in 1997.

3. As indicated by the aerial photographs, the Headmaster's Residence was still in place in 2003. Mr. Virgen, the longest serving staff member, identified the former location of this Residence on the Current Campus Site Map. It was located near the corner of the current Administration Building, identified as Building 10 on this Map. Its location is indicated by an arrow on this Map. It was removed as part of Phase Three in 2009.

4. In August of 2009, Exhibit A was prepared for the Francis Parker School Substantial Conformance Review No. 2 and was approved by Development Services. A full copy of Exhibit A is included with this Memo. The Building Summary Legend for Exhibit A, an enlarged copy of which is attached to this Memo, identifies the 13 buildings then existing on the Campus. The Headmaster's Residence is not included within that list. Its former location is again indicated by an arrow. Therefore, this Residence was removed sometime between 2003 and 2009.

Please advise me if I can provide any further information in response to your Comment 9 or any other topic pertaining to the historical resource issues on this campus.

MBL

Attachments:

1. Attachments updating the Site Chronology including building permits and aerial photographs.

2. Current Campus Site Map, annotated with the year of each Construction Phase

3. Current Campus Site Map, annotated with the former location of the Headmaster's Residence.

4. Enlarged Building Summary Legend from Exhibit A.

[1] Mike Rinehart is the Head of Finance and Operations, Erin Aiston has been in Facilities Management for 10 years and Victor Virgen is the Director of Maintenance and has been at Parker for 40 years.

Building Permit Application

APPLICANT FILL INSIDE HEAVY LINES

OWNER
NAME (OR NAME OF BUSINESS): SAN MIGUEL SCHOOL
MAILING ADDRESS (NUMBER) (STREET): 6501 LINDA VISTA ROAD
CITY: SAN DIEGO
TELEPHONE NUMBER: 278-3535

ARCHITECT
NAME: R L MAW
ADDRESS (NUMBER) (STREET): RT 3 Box 599
CITY: Escondido
TELEPHONE NUMBER: 745-1701

CONTRACTOR
NAME: ROBERT L MAW
ADDRESS (NUMBER) (STREET): RT 3 BOX 599
CITY: ESCONDIDO
TELEPHONE NUMBER: 745 1701
STATE LICENSE NUMBER: 123112
CLASS. NO.: B1
CITY LICENSE NUMBER: → 24516

JOB LOCATION
LOT | BLOCK | SUBDIVISION | UNIT
JOB ADDRESS: 6501 LINDA VISTA ROAD
CONDITION OF SOIL AT JOB SITE: ☒ ORIGINAL ☐ COMPACTED FILL ☐ LOOSE FILL

PROPOSED WORK
WORK TO BE DONE: NEW RESIDENCE FOR HEADMASTER
PROPOSED USE:
☒ NEW ☐ ADD ☐ MOVE ☐ DEMOLISH ☐ ALTER ☐ REPAIR
NUMBER OF STORIES: 2
DWELLING UNITS: 1
☒ RESIDENTIAL ☐ NON-RESIDENTIAL

I hereby acknowledge that I have read this application; that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. I agree to comply with city and state laws regulating construction; and in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance

SIGNATURE (OWNER OR AGENT): Robert L Maw
DATE SIGNED: 12-64
AGENT FOR:
ADDRESS:

COUNTY SANITATION DISTRICT RECEIPT NO.
PRIVATE DISPOSAL APPROVAL
HEALTH DEPT. APPROVAL:
PLOT PLAN CHECK & APPROVED: W R [illegible] INSPECTOR

DISTRICT: A-9C
PLAN FILE NUMBER: 7846-B
PERMIT NUMBER: B74834

JOB ADDRESS: 6501 LINDA VISTA Rd
SIDE YARD (INT.): 4
SIDE YARD (ST.):
SET BACK:
REAR YARD: 20
USE ZONE: R-1-5
MAP NUMBER: 170-1713
VACANT SITE: ☐ YES ☒ NO
B.L.S. CODE: 001
CENSUS TRACT: 089
VARIANCE NUMBER: C2540
LOT AREA SQ. FT.:
ALLOWED LOT COVERAGE %:
TOTAL LOT AREA COVERED SQ. FT.:
ENCROACHMENT PERMIT REQ'D. ☐ YES ☒ NO:
PERMIT NUMBER:
STREET IMPROVED ☐ YES ☐ NO:
GRADE CHECK:
METER SIZE: 1 existing
SERVICE SIZE:
CLEARANCE:
CHECKED BY: WR
REMARKS:

NO. OF ADDITIONAL CONNECTIONS REQUIRED:
TYPE CONNECTION: Exist
VERIFIED BY: WR
REMARKS:

FIRE ZONE: 3
TYPE OF CONST.: V-N
OCCUP. GROUP: I & J
TOTAL FLOOR AREA: 2770
SPECIAL INSPECTOR REQ'D. FOR ☐ CONCRETE ☐ MASONRY ☐ WELDING ☐ PILE DRIVING ☐ OTHER
BUILDING AREA: 2285
PLAN CHECKED BY: R.J. Waddell
PLAN CHECK RECEIPT NO.: 26831

		NO. OF BLDGS	PER/BLDG	TOTAL
	BUILDING VALUATION		26200 00	26200 00
1	BUILDING PERMIT FEE		93 00	90 00
2	LESS PLAN CHECK FEE		30 00	30 00
3	SUB-TOTAL OF 1 - 2		63 00	63 00
4	PLUS SEWER FEE		—	—
5	PLUS WATER FEE		—	—
	TOTAL FEES DUE 3 & 4 & 5			63 00

ATTENTION
THIS PERMIT AUTHORIZES ONLY THE WORK NOTED

INSPECTION DEPARTMENT

CITY OF SAN DIEGO

APPLICATION APPROVAL
THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY; AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN SPACE PROVIDED.

SIGNATURE OF DEPT. OF INSP. DEPUTY: W N Mulley
DATE: 5-28-64

FORM IN-258 (2-64)

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

Compare

Import

Download

Measures

All Roads

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

Compar

Import

Download

Measures

All Roads

CITY OF SAN DIEGO

BUILDING PERMIT APPLICATION

PROJECT

ADDRESS: 6501 Linda Vista Road

LEGAL DESCRIPTION — LOT: 1175 BLOCK: SUBDIVISION NAME: Pueblo Lad UNIT NO.: 1176, 1179, 1180, 1190, Lands of S.D. 2

Block: 85

EXISTING USE: Private School

PROPOSED USE: School Buildings

OWNER

NAME: Francis Parker School TEL. NO.: 299-7900

ADDRESS: 6501 Linda Vista Road, San Diego 92111 ZIP CODE

CONTRACTOR

NAME: (NOT CHOSEN) Re Roof Co. LLC

ADDRESS: 5404 Napa St TEL. NO.:

CITY: San Diego ZIP CODE:

STATE LIC. NO.: LIC. CLASS: CITY LIC. NUMBER:

DESIGNER

NAME: Architects Mosher/Drew/Watson/Ferguson LIC. NO.:

ADDRESS: 4206 W. Pt. Loma Blvd., Ste. 200 TEL. NO.: (619) 223-2400

CITY: San Diego, CA ZIP CODE: 92110

① **LICENSED CONTRACTORS DECLARATION:** I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Contractor's Signature

② **OWNER-BUILDER DECLARATION:** I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)

☐ I am exempt under Sec. B.&P.C. for this reason

Owner's Signature

③ **WORKER'S COMPENSATION DECLARATION:** I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.), filed with the Building Inspection Department.

Policy No. 6W8609488 Insurance Company: EIG

Applicant's Signature Expiration Date:

④ **CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE:** I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Owner's or Contractor's Signature

⑤ **CONSTRUCTION LENDING AGENCY.** I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.)

Lender's Name

Lender's Address

APPLICANT

NAME: Architects Mosher/Drew/Watson/Ferguson

ADDRESS: 4206 W. Pt. Loma Blvd. CITY: San Diego, CA ZIP CODE: 92110

I certify that I have read this application and state that the above information is correct and that I am the owner or the duly authorized agent of the owner. I agree to comply with all city and state laws relating to building construction. I hereby authorize representatives of the City of San Diego to enter upon the above-mentioned property for inspection purposes. If after making the Certificate of Exemption from the Workers' Compensation provisions of the Labor Code I should become subject to such provisions, I will forthwith comply. In the event I do not comply with the Workmen's Compensation law, this permit shall be deemed revoked.

SIGNATURE DATE 10/14/82

☐ CONTRACTOR ☐ OWNER ☐ AGENT FOR CONTRACTOR ☒ AGENT FOR OWNER

IN 268 Rev. 2-82

PROJECT ADDRESS: 6501 Linda Vista Rd.

DIST. NO.: CENSUS TRACT NO.: 89.00 PERMIT NUMBER: A 45365

CONDITION OF SOIL AT PROJECT: ☒ UNDISTURBED ☐ COMPACTED FILL ☐ LOOSE FILL

COORD. INDEX NO.: 231-1715 PLAN FILE NO.: 137395

DESCRIPTION OF PROPOSED WORK: 2 [illegible] Classroom Bldg

BUILDING INSPECTION DEPARTMENT

THIS PERMIT AUTHORIZES ONLY THE WORK NOTED.

CITY TREASURER VALIDATION

SERV SIZE | METER SIZE | CREDIT | WATER | SEWER

SEWER CONN. | ☒ SEE ATT. RECPT. 48193 | CKD BY

USE ZONE | COASTAL ZONE ☐ YES ☒ NO | DEV PERMIT NO | NO. OF BAR SINKS | B.C. CODE 170 | DWELL UNITS

HILLSIDE REVIEW ☐ YES ☐ NO | PLANNED DISTRICT ☐ YES ☐ NO

AGREEMT NO | VARIANCE NO. | BEDROOMS: S 1 2 3 4

FUND & ACCT		NO. UNITS	PER UNIT	TOTAL
	VALUATION OF WORK		[illegible]	
100 [illegible]	PLAN CHECK FEE		407.32	
100 [illegible]	SUPPLEMENTAL PLANNING FEE			
100 [illegible]	BUILDING PERMIT FEE			
61010 9032	STATE FEE			1.21
41500 [illegible]	SEWER FEE			
41500 [illegible]	WATER FEE			
73423	PARK FEE			
HOLD ORDER NO.				

SPECIAL INSPECTION REQUIRED: ☐ CONCRETE ☐ MASONRY ☐ WELDING ☐ SOILS ☐ OTHER

TOTAL FEES DUE: 408.53

TYPE OF CONST. | NO. STORIES | OCCUP. GROUP

BUILDING AREA | TOTAL FLOOR AREA

SPRINKLERS REQD FOR | OCCUP. CARD PREPARED BY PLAN CHK. YES ☐ NO ☐

WORK TO BE DONE: ☐ NEW ☐ OUT CUT ☐ ALTER ☐ DEMOLISH ☐ REPAIR ☐ NON-RESID ☐ [illegible] ☐ RESIDENTIAL ☐ ADD

PLANS CHECKED | DATE

PLANS APPROVED | DATE

MECH PLAN CHECK SIGNATURE RELEASED TO FILE PERSONNEL

DATE PLANS [illegible]

PLAN CHK RECEIPT NUMBER

PLAN CHK RECEIPT AMOUNT $ [illegible]

TITLE 24

APPLICATION APPROVAL SIGNATURE OF BUILD. INSP. DEPT. DEPUTY

DATE

Years

- 1953
- 1964
- 1966
- 1981
- 1989
- 1994
- 2003

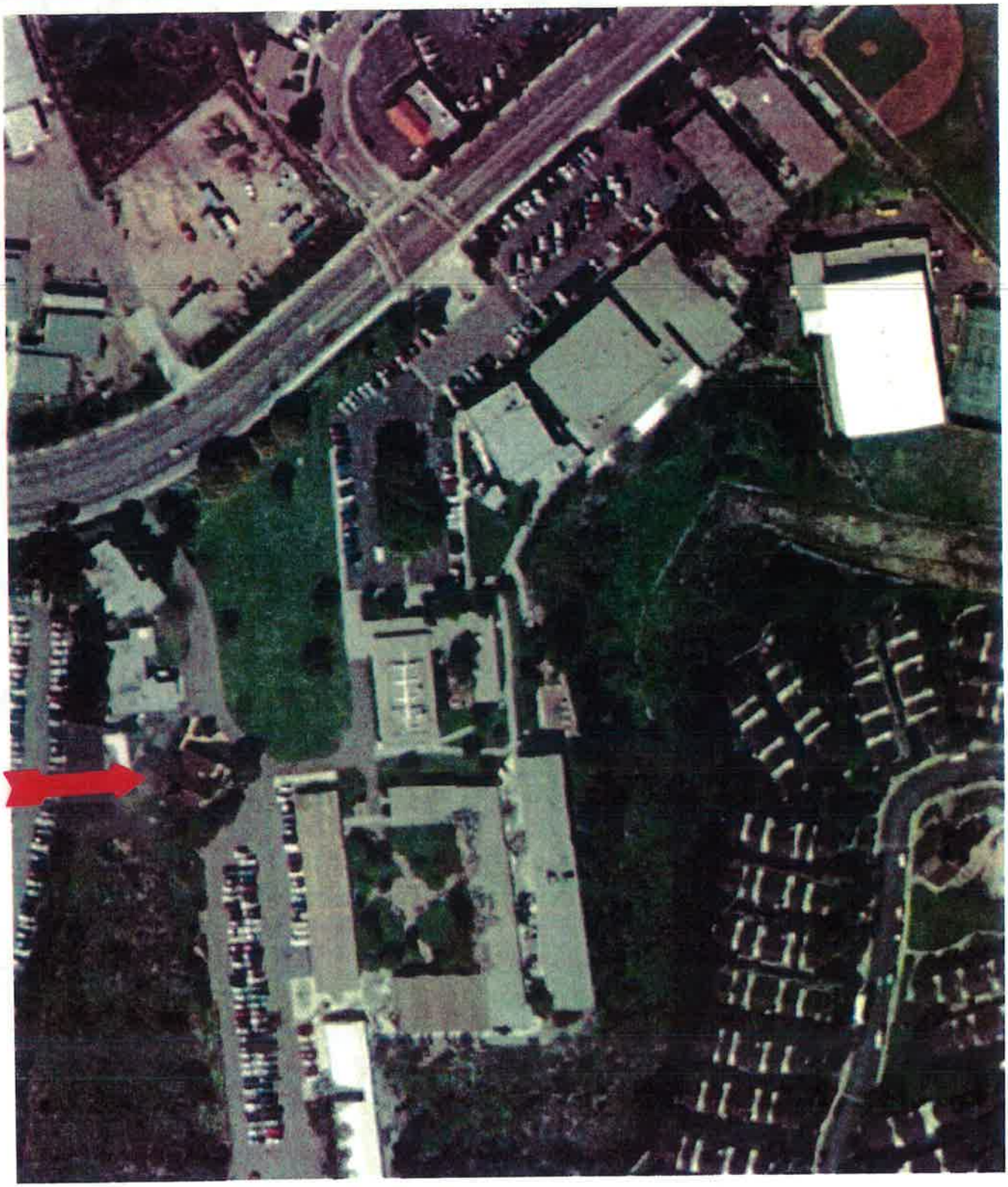
Compari

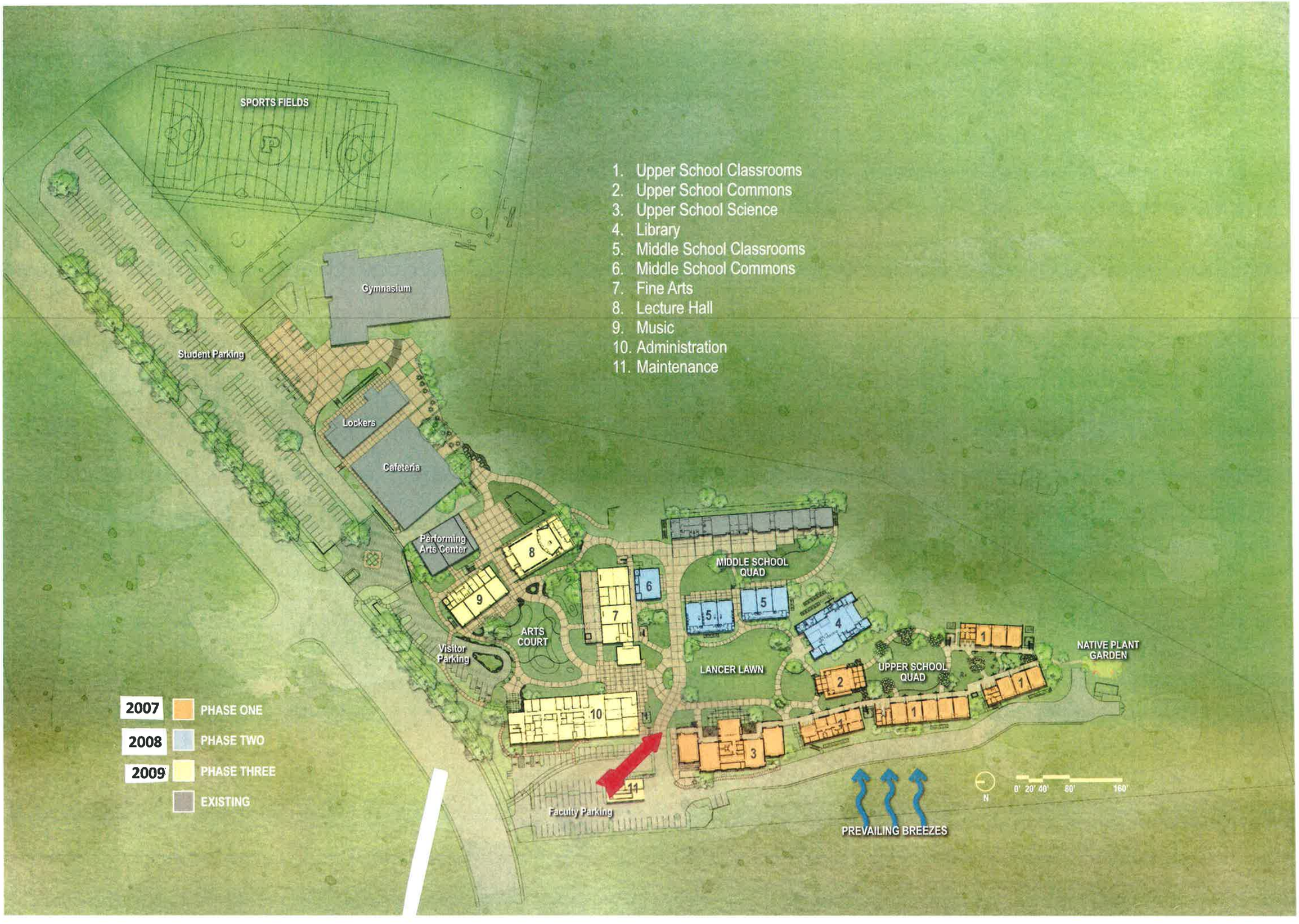
Import

Download

Measures

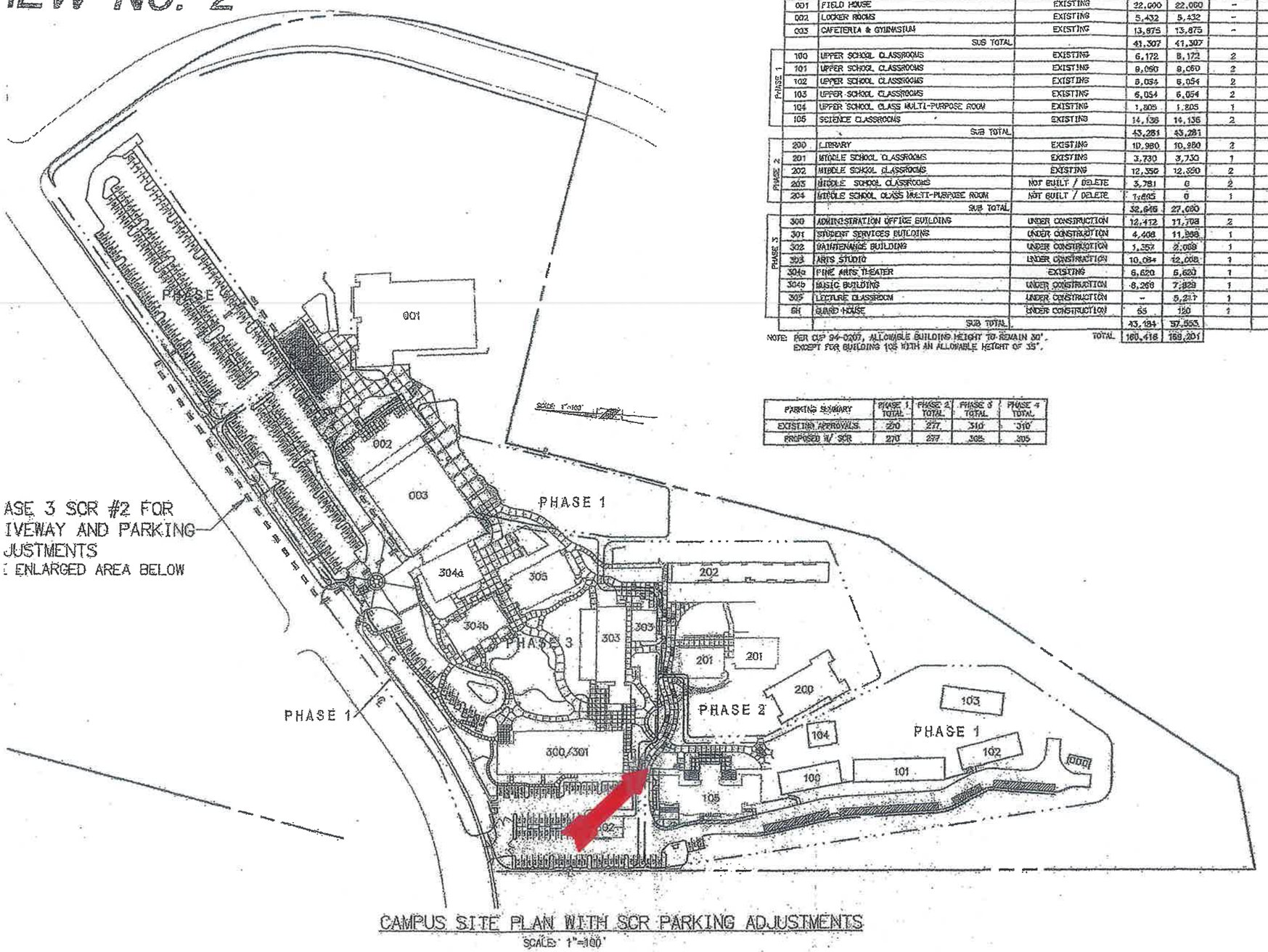
All Roads





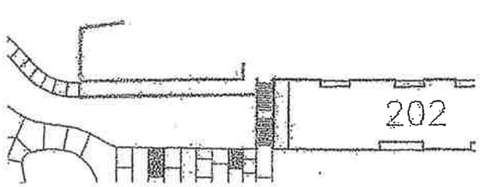
1. Upper School Classrooms
2. Upper School Commons
3. Upper School Science
4. Library
5. Middle School Classrooms
6. Middle School Commons
7. Fine Arts
8. Lecture Hall
9. Music
10. Administration
11. Maintenance

'IEW No. 2



ASE 3 SCR #2 FOR
IVEWAY AND PARKING
JUSTMENTS
ENLARGED AREA BELOW

CAMPUS SITE PLAN WITH SCR PARKING ADJUSTMENTS
SCALE: 1"=100'



BUILDING SUMMARY							
	BLDG. #	BUILDING PURPOSE	CURRENT STATUS	CUP S.F.	SCR S.F.	NUMBER OF FLOORS CUP	NUMBER OF FLOORS SCR
	001	FIELD HOUSE	EXISTING	22,000	22,000	-	-
	002	LOCKER ROOMS	EXISTING	5,432	5,432	-	-
	003	CAFETERIA & GYMNASIUM	EXISTING	13,875	13,875	-	-
		SUB TOTAL		41,307	41,307		
PHASE 1	100	UPPER SCHOOL CLASSROOMS	EXISTING	6,172	8,172	2	2
PHASE 1	101	UPPER SCHOOL CLASSROOMS	EXISTING	8,060	8,060	2	2
PHASE 1	102	UPPER SCHOOL CLASSROOMS	EXISTING	8,054	8,054	2	2
PHASE 1	103	UPPER SCHOOL CLASSROOMS	EXISTING	8,054	8,054	2	2
PHASE 1	104	UPPER SCHOOL CLASS MULTI-PURPOSE ROOM	EXISTING	1,805	1,805	1	1
PHASE 1	105	SCIENCE CLASSROOMS	EXISTING	14,136	14,136	2	2
		SUB TOTAL		43,281	43,281		
PHASE 2	200	LIBRARY	EXISTING	10,980	10,980	2	2
PHASE 2	201	MIDDLE SCHOOL CLASSROOMS	EXISTING	3,730	3,730	1	1
PHASE 2	202	MIDDLE SCHOOL CLASSROOMS	EXISTING	12,350	12,350	2	2
PHASE 2	203	MIDDLE SCHOOL CLASSROOMS	NOT BUILT / DELETE	3,781	0	2	-
PHASE 2	204	MIDDLE SCHOOL CLASS MULTI-PURPOSE ROOM	NOT BUILT / DELETE	1,485	0	1	-
		SUB TOTAL		32,646	27,080		
PHASE 3	300	ADMINISTRATION OFFICE BUILDING	UNDER CONSTRUCTION	12,412	11,708	2	2
PHASE 3	301	STUDENT SERVICES BUILDING	UNDER CONSTRUCTION	4,408	11,998	1	2
PHASE 3	302	MAINTENANCE BUILDING	UNDER CONSTRUCTION	1,357	2,008	1	1
PHASE 3	303	ARTS STUDIO	UNDER CONSTRUCTION	10,084	12,008	1	2
PHASE 3	304a	FINE ARTS THEATER	EXISTING	6,620	6,620	1	1
PHASE 3	304b	MUSIC BUILDING	UNDER CONSTRUCTION	8,268	7,829	1	2
PHASE 3	305	LECTURE CLASSROOM	UNDER CONSTRUCTION	-	5,217	1	1
PHASE 3	GH	GUARD HOUSE	UNDER CONSTRUCTION	55	150	1	1
		SUB TOTAL		43,194	57,553		
			TOTAL	160,428	169,201		

NOTE: PER CUP 94-0207, ALLOWABLE BUILDING HEIGHT TO REMAIN 30', EXCEPT FOR BUILDING 105 WITH AN ALLOWABLE HEIGHT OF 35'.

PARKING SUMMARY	PHASE 1 TOTAL	PHASE 2 TOTAL	PHASE 3 TOTAL	PHASE 4 TOTAL
EXISTING APPROVALS	270	277	310	310
PROPOSED W/ SCR	270	277	308	305

SCR NOTES:

1. SCR No. 2 IS A REQUEST FOR THE EXISTING DRIVEWAY NORTH OF ALCALA KNOLLS DRIVE TO REMAIN OPEN FOR EXIT/RIGHT TURN ONLY. NO CHANGE FOR "PROPOSED" DRIVEWAY.
2. SEE REVISED PARKING SUMMARY BY PHASE ABOVE.

* PROJECT CONSULTANTS *

ARCHITECT

LANDSCAPE ARCHITECT

ACOUSTICAL ANALYSIS

Francis Parker School – Linda Vista Campus
Master Plan Update
PTS #412987

City of San Diego

Prepared By:

Michael Baker International Inc.
14725 Alton Parkway
Irvine, California 92618
Contact: Mr. Achilles Malisos
Manager of Air and Noise Studies
949.472.3505

September 3, 2015

JN 144571

1.0 INTRODUCTION

Francis Parker School (Parker), an independent K-12 school serving San Diego since 1912, proposes amending Planned Development Permit (PDP) No. 84875 and Site Development Permit (SDP) No. 215276 to authorize changes to Parker's Master Plan for its Linda Vista Campus (project). The Linda Vista Campus comprises Parker's Middle School (Grades 6-8) and the Upper School (Grades 9-12). The project is intended to update the existing discretionary permits governing the Linda Vista Campus by integrating existing facilities with proposed new facilities into one comprehensive Master Plan that implement's Parker's vision for creating a modern, cohesive, and sustainable educational environment.

Under the existing PDP/SDP, the Linda Vista Campus serves a student population of up to 800 students. With the improvements and new facilities described in the Master Plan, the Linda Vista Campus would accommodate up to 940 students.

1.1 Proposed Project

Demolition

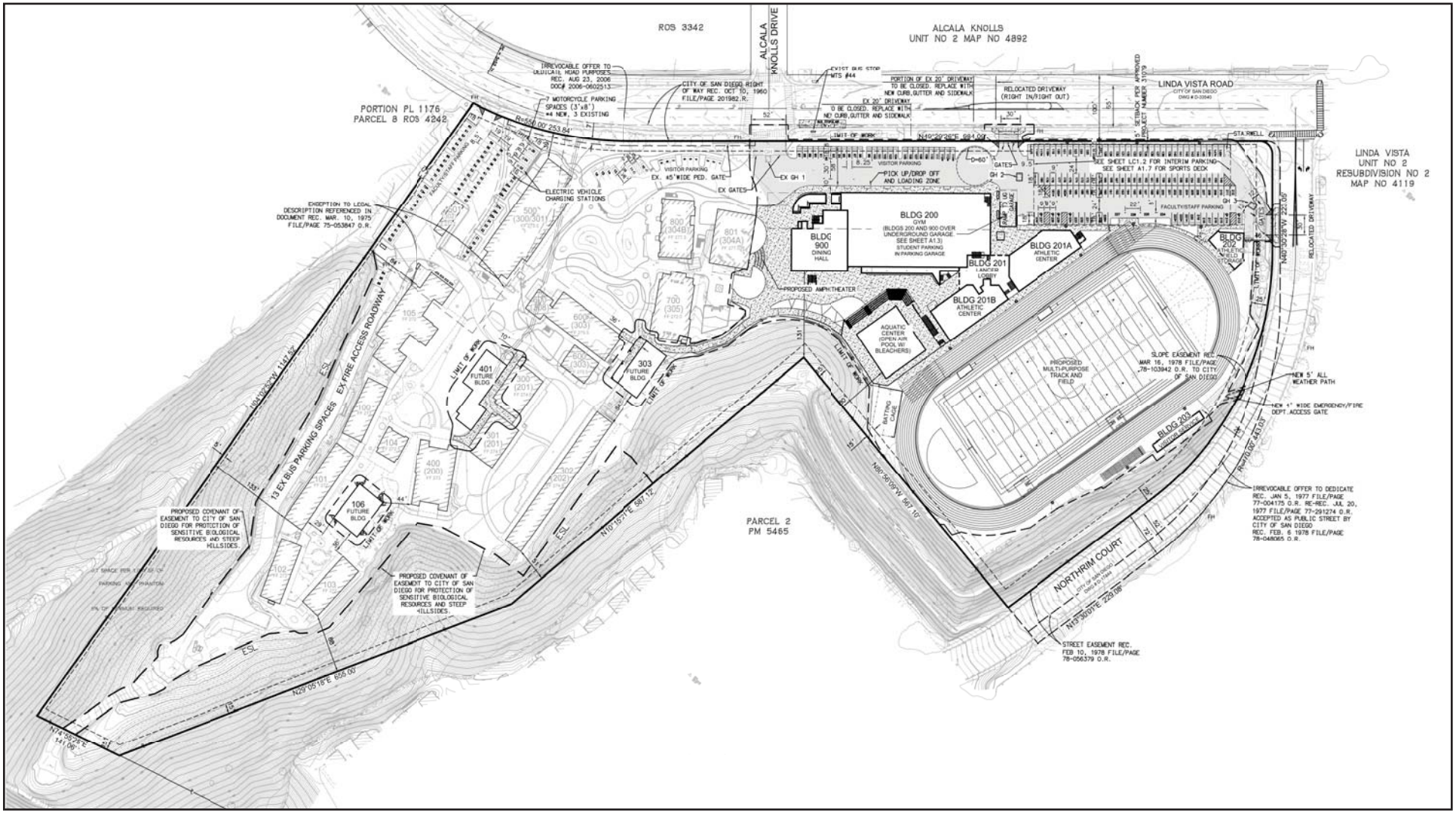
The project proposes demolition of three older buildings (Buildings 001, 002, and 003) that currently house the Field House, Middle School gymnasium and locker rooms, and the cafeteria.

Parking Structure

As part of the updated Master Plan, a two-level underground parking structure would be centrally located within the Linda Vista Campus (refer to Exhibit 1, *Site Plan*). The underground parking structure would accommodate 283 parking spaces. Surface lots within the Linda Vista Campus would provide an additional 238 parking spaces. In total, the Linda Vista Campus would provide 521 parking spaces.

Dining and Athletic Complex

Components of the proposed Dining/Athletic Complex would be built directly over the underground parking structure (refer to Exhibit 1). A portion of the first floor and second floor over the parking structure would house a kitchen/dining hall area with outdoor terraces (Building No. 900). The remaining first floor level over the underground parking structure would house a gymnasium for indoor sports, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms (Building No. 200). Building No. 201 is a semi-enclosed lobby area connecting the gymnasium to Building Nos. 201A and 201B. Building Nos. 201A and 201B would house athletic offices, a multi-purpose room, press box, locker rooms, training rooms, laundry facilities, and restrooms. These two buildings would also provide rooftop bleacher seating overlooking the track and field. Building No. 202 would provide field storage and a ticketing office for field events. Restroom and concession services for visitors attending events on the athletic field would be provided in Building No. 203. Bleacher seating for visitors would be located in close proximity to Building No. 203. As part of the Dining/Athletic Complex, the existing playing surface on the athletic field would be reoriented and fitted with a regulation 8-lane track on its perimeter. An outdoor aquatic center with a pool and bleacher seating would round out the athletic facilities.



NOT TO SCALE

Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Site Plan

Exhibit 1

Additional Buildings

Three new buildings are proposed to be located in the western portion of the Linda Vista Campus. Building No. 106 would be a two-story building, multi-purpose Student Center for the Upper School for various activities, meetings, and other collaborations. Building No. 303 would be a two-story multi-purpose Student Center for the Middle School for various activities, meetings, and other collaborations. Building No. 401 would be a single-story Maker's Space for students to design and fabricate projects in a hands-on manner, using different types of equipment and tools, such as 3-D printers. These three buildings are slated for construction at a future date or dates as funding becomes available.

Roadway Modifications

The project also proposes modifications to the circulation within the Linda Vista Campus. In addition to the main entrance, there are three other existing openings onto Linda Vista Road serving the Linda Vista Campus; one to the west of the main entrance and two to the east. The existing opening immediately east of the main entrance would be relocated from Linda Vista Road to Northrim Court. This opening would be gated, but would allow full access into and out of the campus. The easternmost opening onto Linda Vista Road would be reconfigured for direct access into the proposed underground parking garage, and to provide emergency vehicle access to the proposed Dining/Athletic Complex. A small guard house, similar to the one at the main entrance, would be placed at each of the new openings.

The proposed Northrim Court opening would be part of a reconfiguration of the existing surface parking lot in the northeasterly portion of the Linda Vista Campus. The surface parking lot would be modified to accommodate the elevated sports deck approved under the existing PDP/SDP, but not yet constructed. The updated Master Plan provides refinements to further integrate the elevated sports deck with the parking lot below and the Dining/Athletic Complex. The parking lot directly in front of the Dining Hall (Building No. 900) and the Gym (Building No. 200) would be reconfigured to accommodate emergency vehicle access to the Dining/Athletic Complex and to provide a dedicated pick up/ drop off and loading area.

Operations

The following conditions would govern operation of activities on the Linda Vista Campus:

- All field lights must be turned off by 10:00 p.m. unless a varsity game or match extends beyond this time as a result of circumstances beyond the school's reasonable control, but in no event would lights remain on after 11:00 p.m.

- All outdoor lighting, except lighting deemed necessary for safety and security purposes, would be turned off between 11:00 p.m. and 6:00 a.m.

- Activities on the athletic fields are allowed to begin no earlier than 8:00 a.m. on Saturdays and 9:00 a.m. on Sundays.

Student Enrollment Projections

The project's opening day is expected to begin in the fall of 2016 with the addition of approximately 70 students. By the fall of 2017, the school is expected to include the remaining students to increase the proposed enrollment of 140 students to a total of 940 students.

2.0 DESCRIPTION OF NOISE METRICS

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by differentiating among frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is perceived to be twice as loud and 20 dBA higher is perceived to be four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 2, *Common Environmental Noise Levels*.

Various methods have been developed for evaluating community noise to account for, among other things:

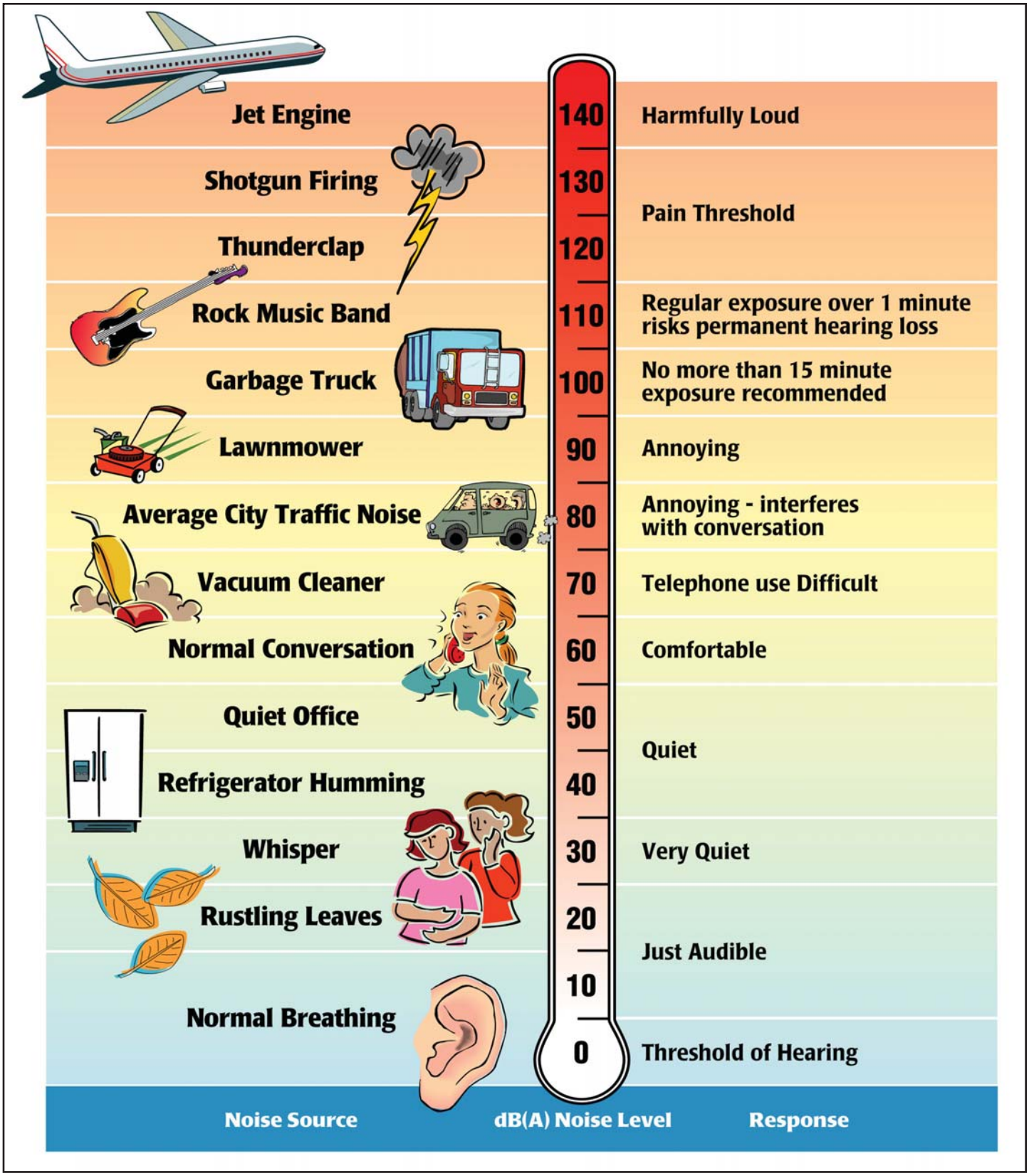
- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Table 1, *Noise Descriptors*, provides a listing of methods to measure sound over a period of time.

Table 1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM) by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01}, L_{10}, L_{50}, L_{90}, respectively) of the time during the measurement period.

Source: Cyril M. Harris, *Handbook of Noise Control*, 1979.



Source: Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA/ONAC 550/9-74-004), March 1974.

NOT TO SCALE

Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Common Environmental Noise Levels

Exhibit 2

3.0 EXISTING SETTING

3.1 Daytime Noise Measurements

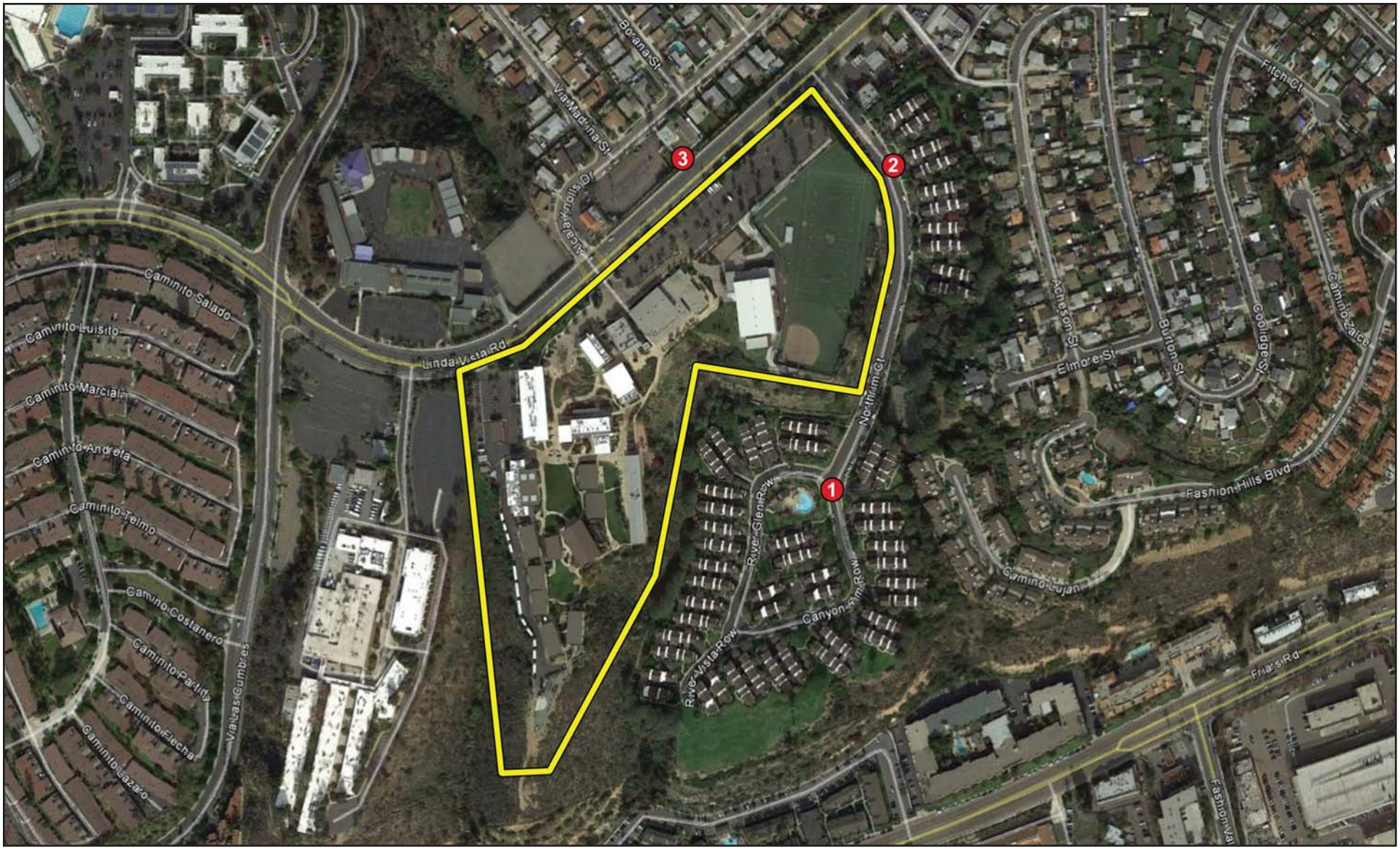
In order to quantify existing ambient noise levels in the project area, Michael Baker International conducted three daytime noise measurements on June 3, 2015; refer to Table 2, *Daytime Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Ten-minute measurements were taken, between 11:32 a.m. and 12:12 p.m., at each site during the day. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day.

Table 2
Daytime Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	South of the project site at the corner of River Glen Row and Northrim Court.	57.2	38.8	67.7	97.8	11:32 a.m.
2	East of the project site, approximately 200 feet south of the intersection of Linda Vista Road and Northrim Court.	57.1	41.8	72.4	90.3	11:47 a.m.
3	North of the project site, along Linda Vista Road.	70.2	46.3	83.0	104.2	12:02 p.m.

Source: Michael Baker International, June 3, 2015.

Meteorological conditions were clear skies, warm temperatures, with light wind speeds (0 to 5 miles per hour), and low humidity. Measured noise levels during the daytime measurements were 57.1 to 70.2 dBA L_{eq}. Elevated noise levels along Linda Vista Road at measurement Site Number 3 are due to higher levels of traffic. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. Refer to Exhibit 3, *Noise Measurement Locations*, for the noise measurement sites.



Source: Google Earth, 2015.
- Approximate Project Boundary

NOT TO SCALE

Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Noise Measurement Locations

Exhibit 3

3.2 Mobile Sources

The majority of the existing noise in the project area is generated from vehicle sources along Linda Vista Road. As shown in Table 3, *Existing Traffic Noise Levels*, mobile noise sources in the vicinity of the project site range from 60.8 to 67.4 dBA.

Mobile source noise was modeled using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the *Traffic Impact Analysis for Francis Parker School Master Plan Update* (*Traffic Impact Analysis*) prepared by Urban Systems Associates on May 12, 2015. A 35-mph and 40-mph average vehicle speed was assumed for existing conditions based on empirical observations and posted maximum speeds along the roadway segments. Average daily traffic estimates were obtained from the *Traffic Impact Analysis*. Existing modeled traffic noise levels are shown in Table 3.

Table 3
Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Linda Vista Road					
Napa Street to Mildred Street	25,703	67.4	603	191	60
Mildred Street to USD Main Entrance	16,440	65.5	386	122	39
USD Main Driveway to Via Las Cumbres	16,621	65.5	390	123	39
Via Las Cumbres to Alcala Knolls Drive	15,424	65.2	361	114	36
Alcala Knolls Drive to Glidden Street	14,207	64.9	333	105	33
Glidden Street to Kramer Street	15,829	65.4	371	117	37
Via Las Cumbres					
Linda Vista Road to Friars Road	7,713	60.8	133	42	13

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Urban Systems Associates, Inc., *Traffic Impact Analysis for Francis Parker School Master Plan Update*, May 12, 2015.

3.3 Sensitive Receptors

Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Existing sensitive receptors located in the project vicinity include single-family residences, multi-family residences, Mark Twain High School, Kingdom Hall of Jehovah's Witnesses, and the Baha'i Faith San Diego Center.

4.0 REGULATORY SETTING

4.1 City of San Diego Noise Standards

The City's standards for governing environmental noise are set forth in Article 9.5, (Noise Abatement and Control) of the San Diego Municipal Code.

Section 59.5.0401 (Sound Level Limits) of the Municipal Code states the following sound level limits:

(a) It shall be unlawful for any person to cause noise by any means to the extent that the one–hour average sound level exceeds the applicable limit given in the following table (Table 4, *San Diego Municipal Code Sound Level Limits*)*, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.*

Table 4
San Diego Municipal Code Sound Level Limits

Land Use	Time of Day	One-Hour Average Sound Level (decibels)
Single Family Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
Multi-Family Residential (Up to a maximum density of 1/2000	7 a.m. to 7 p.m.	55
	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
All other Residential	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 7 p.m.	65
	7 p.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	60
Industrial or Agricultural	Anytime	75

Section 59.5.0404 (Construction Noise) of the Municipal Code states that:

(a) It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sunday to erect, construct, demolish, excavate for, alter, or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator.

(b) Except as provided in subsection C. hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines or any property zoned residential, an average

sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

4.2 City of San Diego Significance Determination Thresholds

In January 2011, the City of San Diego Development Services Department updated their California Environmental Quality Act (CEQA) *Significance Determination Thresholds* guidance document. The purpose of the CEQA *Significance Determination Thresholds* is to assist City of San Diego staff, project proponents, and the public in determining whether, based on substantial evidence, a project may have a significant effect on the environment. The City's *Significance Determination Thresholds* document provides guidance in the following topical areas related to noise:

- Interior and Exterior Noise Impacts from Traffic Generated Noise
- United Stated Department of Housing and Urban Development (HUD) funded projects and Noise
- Airport Noise Impacts
- Noise from Adjacent Stationary Uses (Noise Generators) (refer to Section 59.5.0401 of the Municipal Code)
    - Impacts to Sensitive Wildlife
- Temporary Construction Noise
- Noise/Land Use Compatibility

Table K-4 of the guidelines provides land use compatibility noise factors; refer to Table 5, *City of San Diego Noise Land Use Compatibility Chart*. The compatible land uses in Table 5 are shaded and the incompatible land uses are unshaded. Additionally, the guidelines include the following questions from the City's Initial Study Checklist to provide guidance to determine potential significant impacts related to noise:

Would the project:

1. Result or create a significant increase in the existing ambient noise levels (refer to Section 5.1, *Short-Term Construction Noise* and Section 5.2*, Long-Term Operational Noise*);
2. Exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with Table K-4 (refer to Section 5.1, *Short-Term Construction Noise* and Section 5.2*, Long-Term Operational Noise*);
3. Exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted airport Comprehensive Land Use Plan (refer to Section 5.2*, Long-Term Operational Noise* and Section 5.4, *Airport Noise*);
4. Result in land uses which are not compatible with aircraft noise levels as defined by an adopted airport Comprehensive Land Use Plan (CLUP) (refer to Section 5.4, *Airport Noise*);

Table 5
City of San Diego Noise Land Use Compatibility Chart

Land Use		Annual Community Equivalent Level in Decibels					
		50	55	60	65	70	75
1	Outdoor amphitheaters						
2	Schools, libraries						
3	Nature preserves, wildlife preserves						
4	Residential single-family, multi-family, mobile homes, transient housing						
5	Retirement homes, intermediate care facilities, convalescent homes						
6	Hospitals						
7	Parks, playgrounds						
8	Office buildings, business and professional						
9	Auditoriums, concert halls, indoor arenas, churches						
10	Riding stables, water recreation facilities						
11	Outdoor spectator sports, golf courses						
12	Livestock farming, animal breeding						
13	Commercial-retail, shopping centers, restaurants, movie theaters						
14	Commercial-wholesale, industrial manufacturing, utilities						
15	Agriculture (except livestock), extractive industry, farming						
16	Cemeteries						

Source: City of San Diego Development Services Department, *California Environmental Quality Act (CEQA) Significance Determination Thresholds* (Table K-4), January 2011.

4.3 Significance of Changes in Traffic Noise Levels

An off-site traffic noise impact typically occurs when there is a discernible increase in traffic and the resulting noise level exceeds an established noise standard. In community noise considerations, changes in noise levels greater than 3 dB are often identified as substantial, while changes less than 1 dB would not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. However, this is based on a direct, immediate comparison of two sound levels. Community noise exposures occur over a long period of time and changes in noise levels occur over years (rather than the immediate comparison made in a laboratory situation). Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB is the most commonly accepted discernible difference. A 5 dB change is generally recognized as a clearly discernible difference.

As traffic noise levels at sensitive uses likely approach or exceed the applicable land use compatibility standard, a 3 dB increase as a result of the project is used as the increase threshold for the project. Thus, a project would result in a significant noise impact when a permanent increase in ambient noise levels of 3 dB occur upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

5.0 PROJECT IMPACT ANALYSIS

5.1 Short-Term Construction Noise

Construction Equipment

The project is proposed to be constructed in sequences. Table 6, *Project Construction Sequences*, summarizes the anticipated dates in which each construction sequence is proposed to start and be completed. Construction activities would include demolition, site preparation, grading, paving, building construction, and architectural coating. Ground-borne noise and other types of construction-related noise impacts would typically occur during demolition and excavation activities of the grading phase. These phases of construction have the potential to create the highest levels of noise.

Table 6
Project Construction Sequences

Construction Sequence	Start Date	Completion Date	Duration
1	June 2016	November 2017	18 Months
2	June 2021	January 2023	20 Months
3	June 2025	May 2026	12 Months
4	March 2029	December 2030	22 Months

Note: Dates are subject to change based on several factors including construction schedules, project funding, local policies, etc.

Typical noise levels generated by construction equipment are shown in Table 7, *Maximum Noise Levels Generated by Construction Equipment*. While Municipal Code Section 59.5.0404 limits construction noise to an average sound level of 75 dB from 7:00 a.m. to 7:00 p.m., it should be noted that the noise levels identified in Table 7 are maximum sound levels (L_{max}), which are the highest individual sound levels occurring at an individual time period. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Construction activities would also cause increased noise along access routes to and from the site due to movement of equipment and workers. Demolition and grading activities would require export and import of materials (i.e., demolition debris and soil) for each sequence of construction. However, substantial material hauling on local roads is not anticipated to occur along local roadways due to the project site's proximity to the Interstate 8. Impacts in this regard would be less than significant.

Pursuant to Municipal Code Section 59.5.0404, construction activities may occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and Saturdays, and is prohibited on Sundays and legal holidays. These permitted hours of construction are included in the code in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. It should be noted that Municipal Code Section 59.5.0404 limits construction noise to an average sound level of 75 dB at properties zoned residential. The potential for construction-related noise to affect nearby sensitive receptors would depend on the location and proximity of construction activities to these receptors. Construction would occur throughout the project site and would not be concentrated or confined in the areas

adjacent to sensitive receptors. Therefore, construction noise would be acoustically dispersed throughout the project site and not concentrated in one area near adjacent sensitive uses. It should be noted that the noise levels depicted in Table 7 are maximum noise levels, which would occur sporadically when construction equipment is operated in proximity to sensitive receptors.

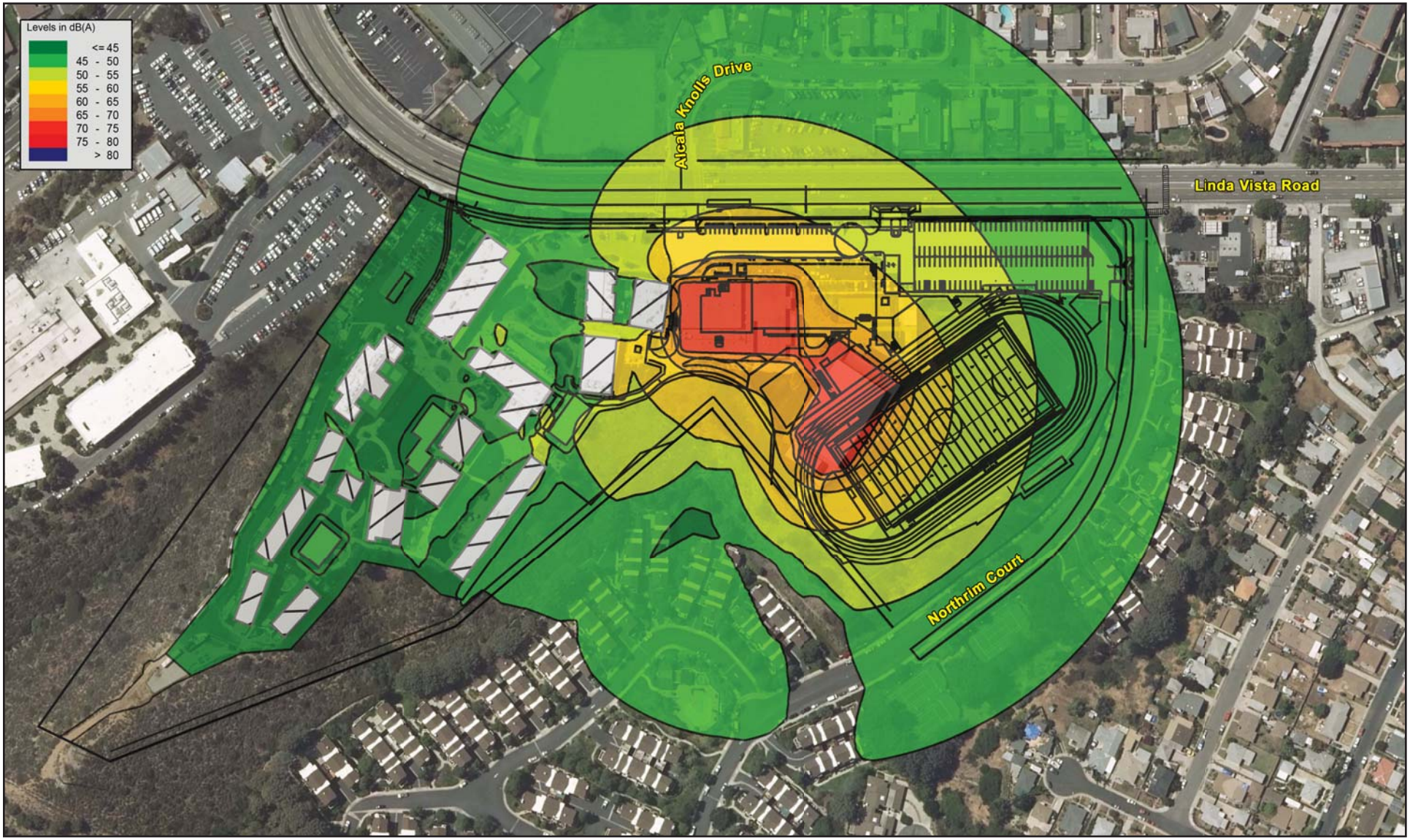
Table 7
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)
Concrete Saw	20	90
Crane	16	81
Concrete Mixer Truck	40	79
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Paver	50	77
Roller	20	80
Tractor	40	84
Water Truck	40	80
Grader	40	85
General Industrial Equipment	50	85

Note:
1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* January 2006.

As noted above, construction activities would involve the demolition of Buildings 001, 002, and 003 that currently house the Field House, Middle School gymnasium and locker rooms, and the cafeteria. Additionally, building activities would occur in the four distinct areas that would consist of the following: (1) dining hall, parking structure, and North Rim Court driveway; (2) gymnasium, athletic complex, and pool; (3) track and field; and (4) additional buildings 106, 303, and 404. Noise associated with demolition and construction in each of the distinct work areas was modeled with the SoundPLAN Essential 3.0 software (SoundPLAN). SoundPLAN allows computer simulations of noise situations, and creates noise contour maps using reference noise levels, topography, point and area noise sources, mobile noise sources, and intervening structures. Each individual construction area was modeled to determine the average construction noise levels in the vicinity. As depicted in Exhibits 4 through 8, *Construction Noise Contours*, construction noise would not exceed the City's standard of 75 dB at any properties (including those zoned residential) surrounding the project site. Thus, a less than significant noise impact would result from construction activities.



Source: Eagle Aerial, 2015.

NOT TO SCALE

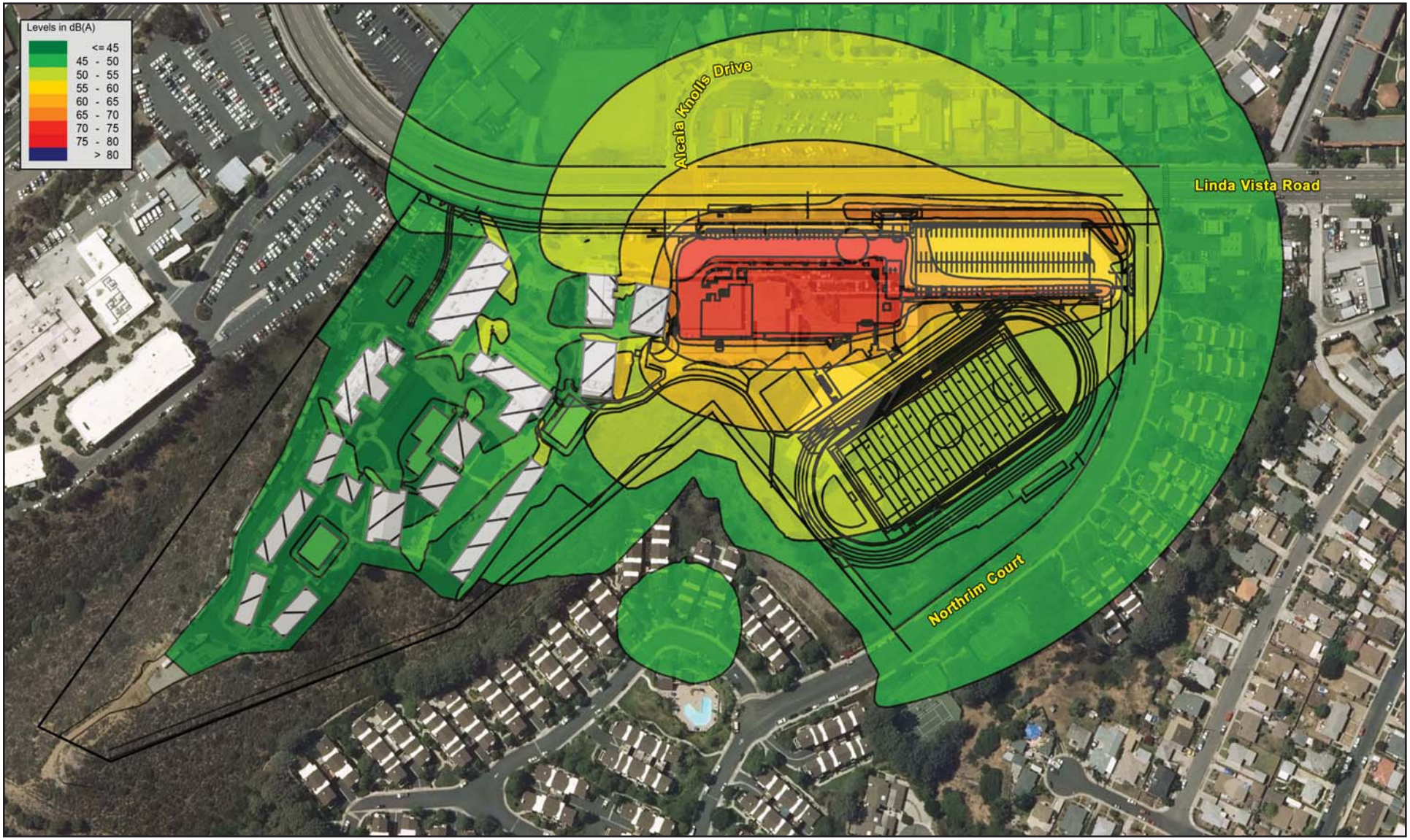
Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Construction Noise Contours – Demolition

Exhibit 4



Source: Eagle Aerial, 2015.

NOT TO SCALE

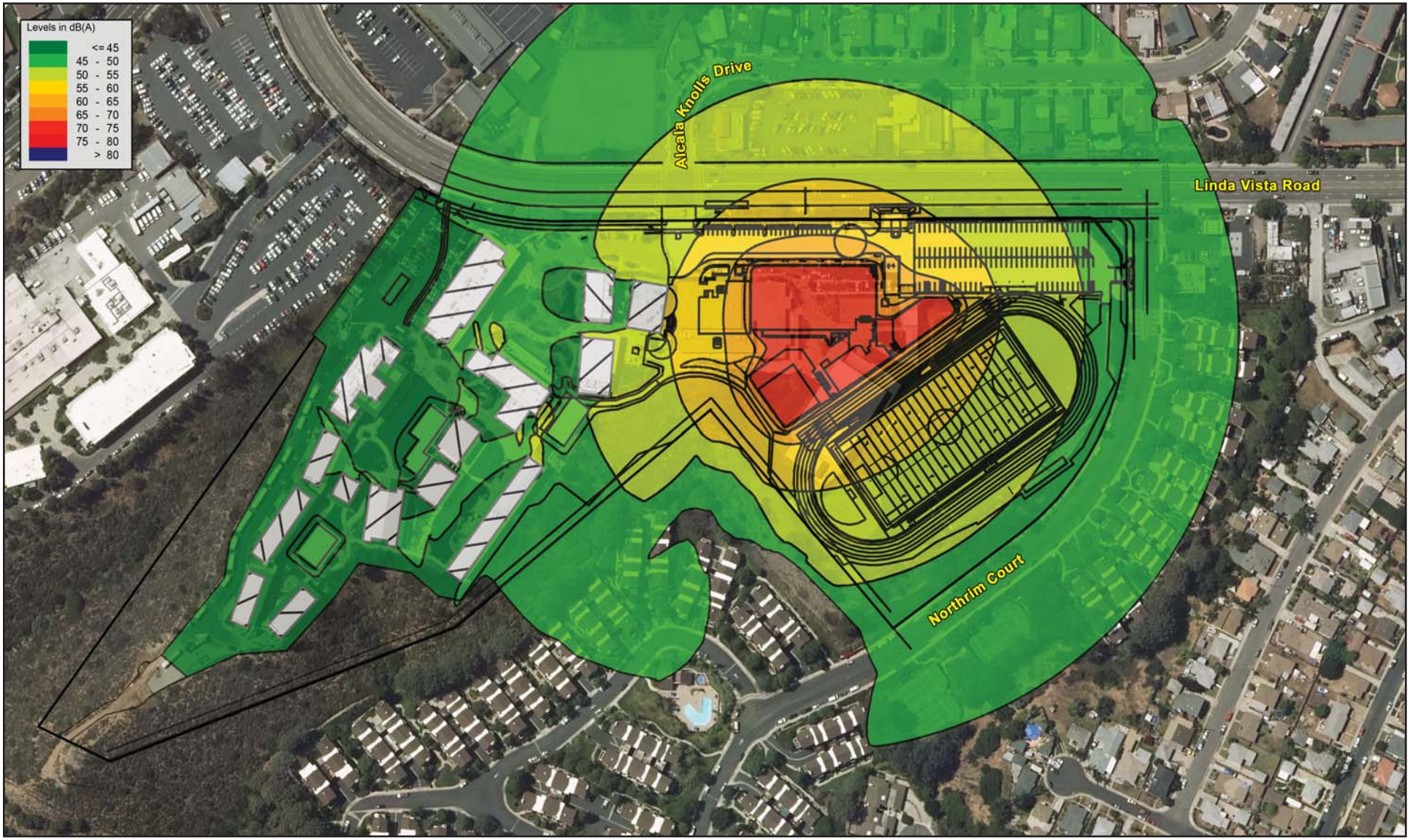
Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Construction Noise Contours – Area 1

Exhibit 5



Source: Eagle Aerial, 2015.

NOT TO SCALE

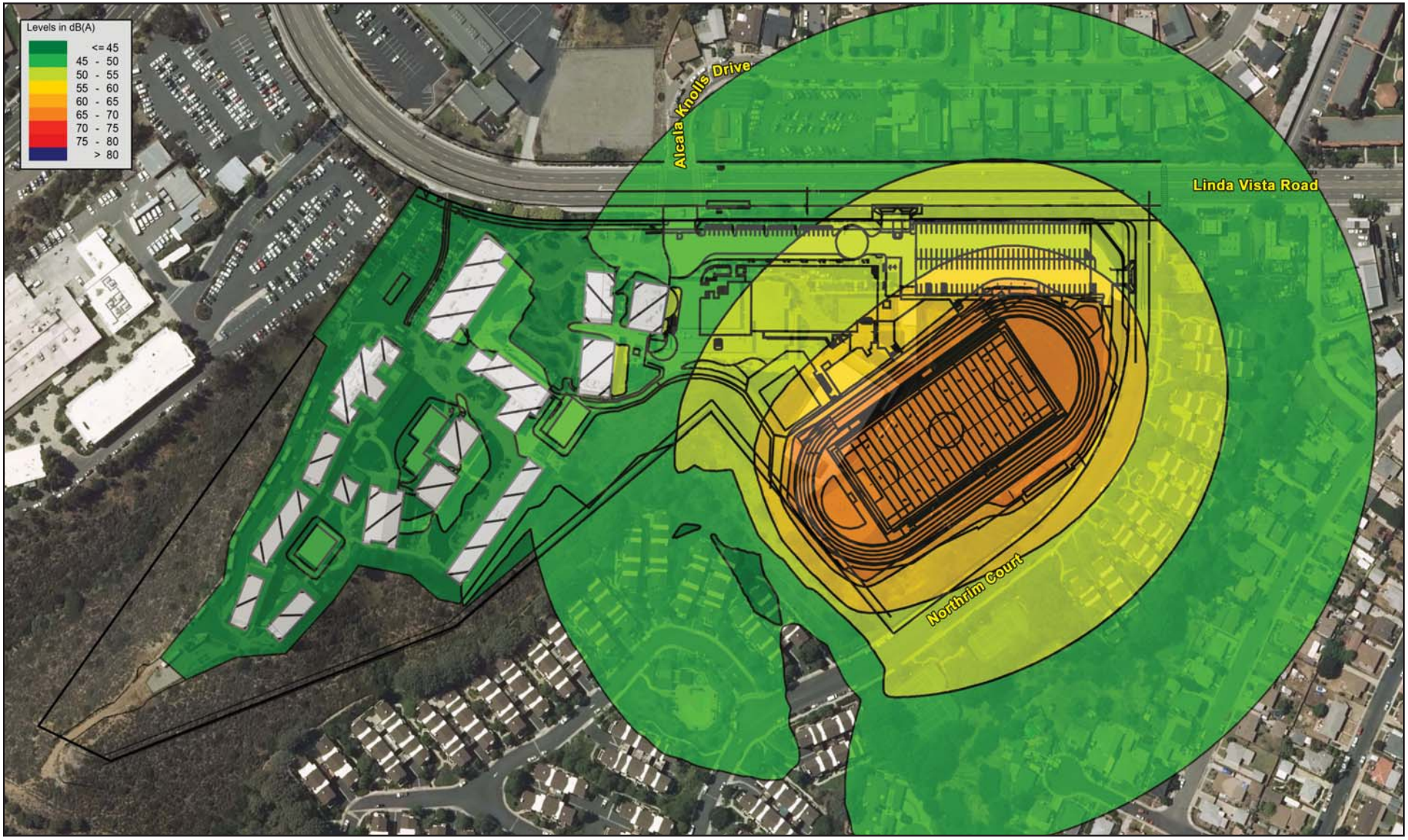
Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Construction Noise Contours – Area 2

Exhibit 6



Source: Eagle Aerial, 2015.

NOT TO SCALE

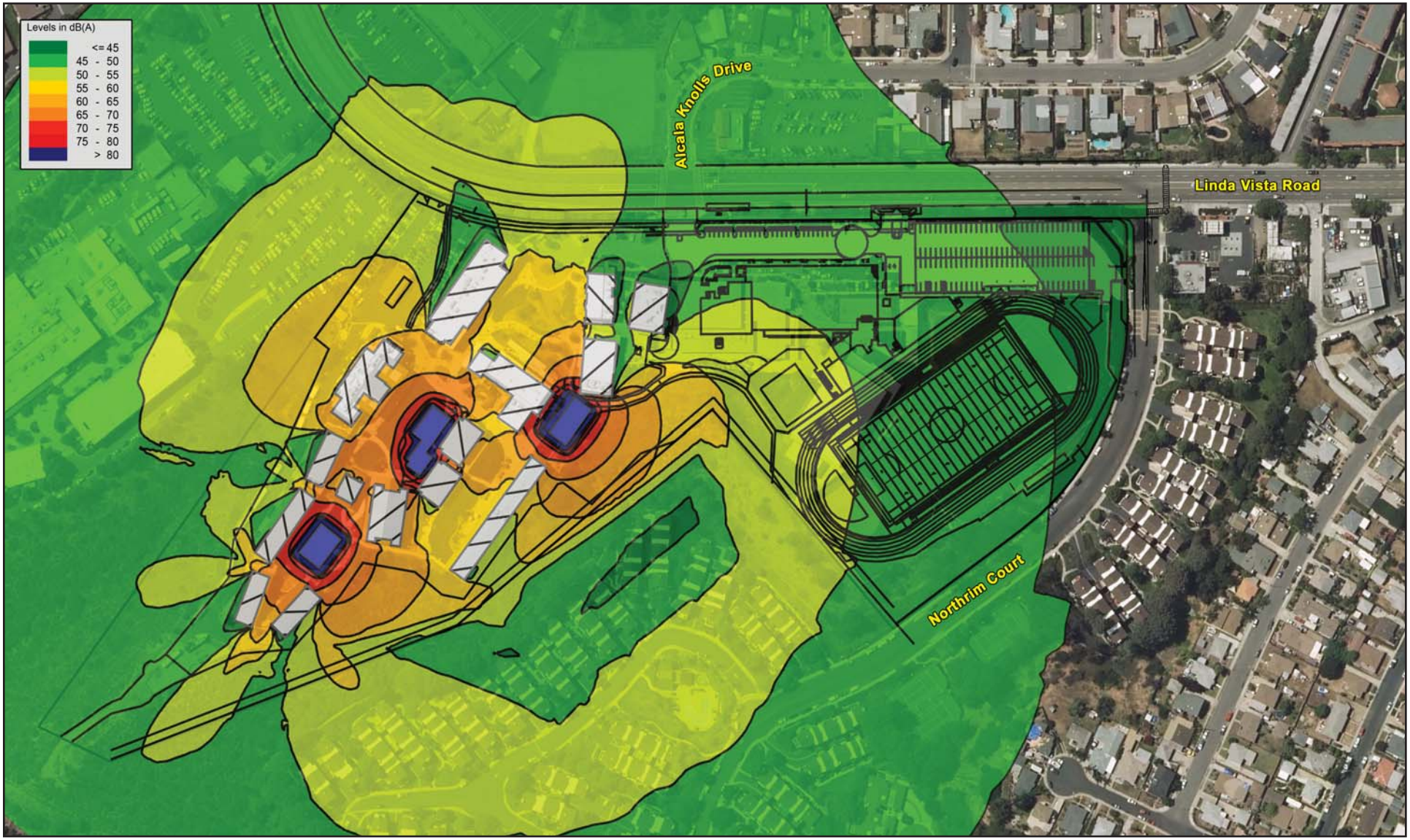
Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Construction Noise Contours – Area 3

Exhibit 7



Source: Eagle Aerial, 2015.

NOT TO SCALE

Michael Baker INTERNATIONAL

08/15 • JN 144571

MEMORANDUM
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS MATER PLAN UPDATE

Construction Noise Contours – Area 4

Exhibit 8

5.2 Long-Term Operational Noise

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of the proposed project. According to the *Traffic Impact Analysis*, the proposed project would generate approximately 476 daily trips.

Existing Condition

The "Existing Without Project" and "Existing With Project" scenarios were compared. According to Table 8, *Existing With Project Traffic Noise Levels*, under the "Existing Without Project" scenario, noise levels would range from 60.8 to 67.4 dBA. Traffic noise levels under the "Existing With Project" scenario noise levels would range from 60.9 to 67.5 dBA. As a result, some roadway segments already currently exceed the City's traffic noise standards of 65 dBA for residential uses. The highest noise levels would occur along Linda Vista Road, with a 0.1 dBA increase occurring along all roadway segments except between Glidden Street and Kramer Street. However, as this noise level increase is below 3.0 dBA, a less than significant impact would occur in this regard.

Table 8
Existing With Project Traffic Noise Levels

Roadway Segment	Existing Without Project					Existing With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Linda Vista Road											
Napa Street to Mildred Street	25,703	67.4	603	191	60	25,917	67.5	608	192	61	0.1
Mildred Street to USD Main Entrance	16,440	65.5	386	122	39	16,659	65.6	390	123	39	0.1
USD Main Driveway to Via Las Cumbres	16,621	65.5	390	123	39	16,840	65.6	395	125	40	0.1
Via Las Cumbres to Alcala Knolls Drive	15,424	65.2	361	114	36	15,767	65.3	370	117	37	0.1
Alcala Knolls Drive to Glidden Street	14,207	64.9	333	105	33	14,450	65.0	339	107	34	0.1
Glidden Street to Kramer Street	15,829	65.4	371	117	37	15,948	65.4	373	118	37	0.0
Via Las Cumbres											
Linda Vista Road to Friars Road	7,713	60.8	133	42	13	7,818	60.9	135	43	13	0.1

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Urban Systems Associates, Inc., *Traffic Impact Analysis for Francis Parker School Master Plan Update*, August 28, 2015.

Near Term Condition

The "Near Term Without Project" and "Near Term With Project" scenarios were compared. According to Table 9, *Near Term Traffic Noise Levels*, under the "Near Term Without Project" scenario, noise levels would range from 61.0 to 67.7 dBA. Traffic noise levels under the "Near Term With Project" scenario noise levels would range from 61.0 to 67.8 dBA. The highest noise levels would occur along Linda Vista Road, with a 0.1 dBA increase occurring between Napa Street and Mildred Street, between USD Main Driveway and Via Las Cumbres, between Alcala Knolls Drive and Glidden Street, and between Glidden Street to Kramer Street. However, as this noise level increase is below 3.0 dBA, a less than significant impact would occur in this regard.

Table 9
Near Term Traffic Noise Levels

Roadway Segment	Near Term Without Project					Near Term With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Linda Vista Road											
Napa Street to Mildred Street	27,428	67.7	643	203	64	27,642	67.8	649	205	65	0.1
Mildred Street to USD Main Entrance	17,766	65.9	416	132	42	17,985	65.9	422	133	42	0.0
USD Main Driveway to Via Las Cumbres	17,386	65.7	407	129	41	17,605	65.8	413	131	41	0.1
Via Las Cumbres to Alcala Knolls Drive	16,011	65.4	376	119	38	16,354	65.4	383	121	38	0.0
Alcala Knolls Drive to Glidden Street	14,794	65.1	347	110	35	15,037	65.2	353	111	35	0.1
Glidden Street to Kramer Street	16,416	65.5	385	122	38	16,535	65.6	387	123	39	0.1
Via Las Cumbres											
Linda Vista Road to Friars Road	7,917	61.0	137	43	14	8,022	61.0	138	44	14	0.0

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Urban Systems Associates, Inc., *Traffic Impact Analysis for Francis Parker School Master Plan Update*, August 28, 2015.

Year 2035 Condition

The "Year 2035 Without Project" and "Year 2035 With Project" scenarios were compared. According to Table 10, *Year 2035 Traffic Noise Levels*, under the "Year 2035 Without Project" scenario, noise levels would range from 62.2 to 68.2 dBA. Traffic noise levels under the "Year 2035 With Project" scenario noise levels would also range from 62.2 to 68.2 dBA. The highest noise levels would occur along Linda Vista Road, with a 0.1 dBA increase occurring between Mildred Street and USD Main Entrance and between Via Las Cumbres and Alcala Knolls Drive. However, as this noise level increase is below 3.0 dBA, a less than significant impact would occur in this regard.

Table 10
Year 2035 Traffic Noise Levels

Roadway Segment	Year 2035 Without Project					Year 2035 With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Linda Vista Road											
Napa Street to Mildred Street	30,400	68.2	713	225	71	30,614	68.2	718	227	72	0.0
Mildred Street to USD Main Entrance	21,140	66.6	496	157	50	21,359	66.7	500	158	50	0.1
USD Main Driveway to Via Las Cumbres	21,320	66.6	500	158	50	21,539	66.6	505	160	51	0.0
Via Las Cumbres to Alcala Knolls Drive	16,700	65.5	391	125	39	17,043	65.6	400	126	40	0.1
Alcala Knolls Drive to Glidden Street	15,485	65.3	363	115	36	15,728	65.3	368	116	37	0.0
Glidden Street to Kramer Street	17,100	65.7	401	127	40	17,219	65.7	404	128	40	0.0
Via Las Cumbres											
Linda Vista Road to Friars Road	10,500	62.2	181	57	18	10,605	62.2	183	58	18	0.0

ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level
Source: Urban Systems Associates, Inc., *Traffic Impact Analysis for Francis Parker School Master Plan Update*, August 28, 2015.

Cumulative Mobile Source Impacts

A project's contribution to a cumulative traffic noise increase would be considered significant when the project exceeds both a combined effect (i.e., auditory level increase) and incremental effects threshold. The following discusses the combined and incremental effects criteria:

Combined Effect. The cumulative with project noise level ("Year 2035 With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects. The "Year 2035 With Project" causes a 1.0 dBA increase in noise over the "Year 2035 Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site's general vicinity would contribute to cumulative noise impacts. Table 11, *Cumulative*

Noise Scenario, lists the traffic noise effects along the affected roadway segment for "Existing," "Year 2035 Without Project," and "Year 2035 With Project," conditions, including incremental and net cumulative impacts.

Table 11
Cumulative Noise Scenario

Roadway Segment	Existing	Year 2035 Without Project	Year 2035 With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Year 2035 With Project	Difference In dBA Between Year 2035 Without Project and Year 2035 With Project	
Linda Vista Road						
Napa Street to Mildred Street	67.4	68.2	68.2	0.8	0.0	***No***
Mildred Street to USD Main Entrance	65.5	66.6	66.7	1.2	0.1	***No***
USD Main Driveway to Via Las Cumbres	65.5	66.6	66.6	1.1	0.0	***No***
Via Las Cumbres to Alcala Knolls Drive	65.2	65.5	65.6	0.4	0.1	***No***
Alcala Knolls Drive to Glidden Street	64.9	65.3	65.3	0.4	0.0	***No***
Glidden Street to Kramer Street	65.4	65.7	65.7	0.3	0.0	***No***
Via Las Cumbres						
Linda Vista Road to Friars Road	60.8	62.2	62.2	1.4	0.0	***No***

Notes: ADT = average daily traffic; dBA = A-weighted decibels

Source: Urban Systems Associates, Inc., *Traffic Impact Analysis for Francis Parker School Master Plan Update*, August 28, 2015.

As indicated in Table 11, the noise levels under the *Combined Effects* criterion do not exceed 3.0 dBA, and noise levels under the *Incremental Effects* criterion do not exceed 1.0 dBA. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in less than significant impacts with regards to off-site mobile noise.

On-Site Mobile Noise

As part of the updated Master Plan, the project proposes a two-level underground parking structure that would be centrally located within the Linda Vista Campus. Potential audible sources of noise from the parking structure would include activation of car alarms, sounding of car horns, slamming of car doors, engine revs, and tire squeals. These sources typically range from about 30 to 66 dBA, and are generally short-term and intermittent. Table 12, *Parking Structure Noise*, provides typical noise levels associated with parking structures.

Table 12
Parking Structure Noise

Noise Source	dBA at 100 Feet
Autos at 14 miles per hour	44
Sweepers	66
Car alarm signal	63
Car alarm chirp	48
Car horns	63
Door slams or radios	58
Talking	30
Tire Squeals	60

Source: Gordon Bricken & Associates, *Acoustical Analysis Addendum to the Adopted Environmental Impact Report Disneyland Resort*, February 1996.

According to Table 12, the greatest potential noise level generated by a typical parking structure would be 66 dBA at a distance of 100 feet. Given the two-level parking structure would be enclosed and located underground at a distance of approximately 300 feet from the nearest sensitive receptors to the project site, impacts in this regard would be less than significant.

Stationary Source Noise

Upon project completion, stationary noise in the project area would not significantly increase. The project proposes the addition of approximately 103,109 square feet of new facilities to the existing Linda Vista Campus. Stationary noise sources associated with the proposed project would include mechanical equipment and on-site amenities.

Typically, mechanical equipment noise can reach approximately 55 dBA at 50 feet from the source. The nearest residential uses to the project site are the existing multi-family residents located approximately 110 feet to the east of the project site. Heating Ventilation and Air Conditioning (HVAC) units would be included on the roofs of the structures, and would likely be located toward the center of the structures and be located behind a parapet. Thus, the proposed project would likely not result in additional noise impacts to nearby residents from HVAC units. Therefore, the nearest residents would not be directly exposed to substantial noise increases beyond existing conditions from on-site mechanical equipment. Impacts in this regard would be less than significant.

Recreational Noise

The project proposes recreational areas that include an indoor gymnasium, an outdoor aquatic center, and an outdoor multi-purpose track and field facility. The outdoor recreational facilities would be located within the central and western portions of the project site. Sensitive receptors are located beyond the eastern and southern boundaries of the project site. With the exception of a small portion of sensitive receptors located beyond the northeastern boundary of the project site, sensitive receptors to the east and south are shielded from the project site by a sloped hillside with a large grade differential, ranging from approximately 15 feet on the eastern boundary to approximately 75 feet on the southern boundary. As indicated in Table 2, the existing noise level in the area closest to the project site and neighboring multi-family residents was measured at 57.1 dBA.

Indoor Gymnasium

The indoor gymnasium is proposed to be constructed directly over the underground parking structure. The gymnasium would house indoor sporting events, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms. Noise impacts to nearby sensitive receptors would be nominal, as the gymnasium is centrally located within the project site approximately 300 feet away from the nearest sensitive receptors (multi-family residences), and would host indoor sporting events. Therefore, impacts associated with the indoor gymnasium would be less than significant.

Outdoor Aquatic Center

The outdoor aquatic center includes a 25 meter pool, a 15,400 square foot pool deck, and aluminum bleachers that accommodate 150 spectators with room for 150 additional standing spectators. The nearest sensitive receptors (multi-family residences) to the outdoor aquatic center are located approximately 200 feet to the south. Noise levels associated with swimming pools are typically 57 dBA at 75 feet from the edge of the pool for lap swim activities and 56 to 67 dBA for community swim activities.[1] Additionally, during swim events a starting system and public address (PA) system would be utilized. PA systems combined with spectator noise can generate noise levels up to 95 dBA at one meter from the source. Utilizing these reference levels and a noise attenuation factor of six dBA for every doubling of distance, noise levels at the nearest sensitive receptors (approximately 200 feet to the south) would be up to 59.3 dBA. The project proposes to construct a 14-foot block wall barrier around the eastern, southern, and western boundaries of the outdoor aquatic center that would block the line of site to nearby sensitive receptors to the south project site. Block wall barriers have the capability to attenuate noise by up to 15 dBA.[2] Therefore, the block wall barrier would provide the necessary noise reduction from the outdoor aquatic center to below the City's noise standards for multi-family residences [55 dBA during the daytime (7:00 a.m. to 7:00 p.m.) and 50 dBA during the evening (7:00 p.m. to 10:00 p.m.)]. Impacts associated with the outdoor aquatic center would be less than significant.

Multi-Purpose Track and Field Facility

The existing sports field located on the northeastern portion of the project site would be reconstructed into a multi-purpose track and field facility with the inclusion of a regulation eight-lane track around the perimeter. Noise associated with the track and field facility would emanate from spectators and the potential use of a PA system. Spectators would be concentrated at the proposed bleachers located on both the northwestern and southeastern portions of the track and field facility. The nearest sensitive receptors to the proposed bleachers are located approximately 150 feet to the east, and separated by an approximate 20-foot grade differential. As the track and field facility would host a limited number of events throughout the year, and noise generated by spectators would be intermittent and not concentrated near sensitive receptors, impacts in this regard would be less than significant.

In the event that a PA system is utilized, the PA system could generate noise levels in excess of the City's daytime noise standard of 55 dBA at nearby multi-family residential uses to the east and south of the project site. Based on a daytime noise standard of 55 dBA and a distance attenuation factor of six dBA for every doubling of distance, the PA system could generate noise

[1] Illingworth & Rodkin, *Los Altos Aquatic Center Noise Study*, November 25, 2003.

[2] Cyril M. Harris, *Handbook of Noise Control*, 1979.

levels up to 95 dBA at one meter from the source and not exceed the City's daytime noise standard of 55 dBA if located at a minimum distance of 375 feet away from the nearest sensitive receptors. Moreover, the PA system would need to be reduced to 90 dBA to be within the City's nighttime noise standard of 50 dBA. The project would include design features that would limit the sound output of the PA system to 90 dBA and would locate the PA system on the northwestern portion of the track and field facility to ensure a minimum distance of 375 feet between the PA system and nearby sensitive receptors. These design features would also be included as conditions of approval by the City. Thus, impacts in this regard would be less than significant.

Groundborne Vibration

Short-Term Construction

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 inch per second (in/sec) (102 velocity decibels [VdB]) is considered safe and would not result in any construction vibration damage. The vibration produced by construction equipment is illustrated in Table 13, *Typical Vibration Levels for Construction Equipment*.

It should be noted that pile driving would not be required during construction of the proposed project. Instead, the project applicant has indicated that construction activities would include use of a drill rig and a crane to set vertical columns, and a concrete pump to place concrete flag pole type footings around the columns. Additionally, a horizontal boring machine would drill the sides of the excavation for underground tie back rods as holes are excavated. When use of the drill rig occurs, it would be intermittent and not continuous throughout the entire day.

Table 13
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)[1]	Approximate peak particle velocity at 50 feet (inches/second)[2]	Approximate peak particle velocity at 75 feet (inches/second)[2]	Approximate peak particle velocity at 100 feet (inches/second)[2]
Large bulldozer	0.089	0.031	0.017	0.011
Loaded trucks	0.076	0.027	0.015	0.010
Small bulldozer	0.003	0.001	0.001	0.000

Notes:

1 – Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.
2 – Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*

D = the distance from the equipment to the receiver

The nearest existing, on-site structures that are proposed to remain as part of the updated Master Plan are approximately 25 feet away from proposed construction areas. As indicated in Table 13, based on the Federal Transit Administration (FTA) data, vibration velocities from typical heavy construction equipment operation that would be used during project construction range from 0.003 to 0.089 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. With regard to the proposed project, groundborne vibration would be generated primarily during grading activities on-site and by off-site haul-truck travel. Although the nearest existing, on-site structures are located approximately 25 feet away from proposed construction areas, proposed construction activities would not be capable of exceeding the 0.2 inch-per-second PPV significance threshold for vibration, as construction activities would be limited and would not be concentrated within 25 feet of nearby structures for an extended period of time. Therefore, vibration impacts would be less than significant.

Long-Term Operations

The project proposes the addition of approximately 103,109 square feet of new facilities to the existing Linda Vista Campus, including additional classrooms and recreational facilities that would not generate groundborne vibration. Therefore, impacts in this regard would be less than significant.

5.3 Airport Noise

Aircraft noise primarily affects communities within an airport influence area. In general, aircraft noise varies with the type and size of the aircraft, the power the aircraft is using, and the altitude or distance of the aircraft from the receptor. Aircraft noise is one of the factors that the state-required Airport Land Use Compatibility Plan (ALUCP) addresses with established policies for land use compatibility for each public use airport and military air installation. The ALUCP, as discussed in the Land Use Element of the City's General Plan, incorporates the California Airport Noise Standards that establishes the 65 dBA CNEL as the boundary for the normally acceptable

level of aircraft noise for noise-sensitive land uses including residential uses near airports. The City implements the noise policies contained in the compatibility plans through development regulations and zoning ordinances.

The San Diego International Airport is the nearest public use airport to the project site, located approximately 2.3 miles to the southwest of the project site at 3225 North Harbor Drive. There are no private airstrips located within two miles of the project site. The San Diego International Airport ALUCP defines two Review Areas within the San Diego International Airport's Airport Influence Area. Review Area 1 is defined by the 60 dB CNEL noise contour. While the project site is located within Review Area 2 of the San Diego International Airport's Airport Influence Area, it is located approximately two miles north of Review Area 1.[3] Therefore, the project would not expose people residing or working in the project area to excessive aircraft noise levels above 60 dB CNEL, and is not subject to review by the Airport Land Use Commission. Impacts in this regard would be less than significant.

CONCLUSION

As depicted in Table 2, existing noise levels in the project area range from 57.1 to 70.2 dBA, which already exceed the City's noise standard. Short-term construction activities would not exceed the City's construction noise standard of 75 dB at residential zoned properties pursuant to Municipal Code Section 59.5.0404. Long-term operational noise is not anticipated to exceed the City's Noise Ordinance. The project would include design features that would limit the sound output of the PA system to 90 dBA and would locate the PA system on the northwestern portion of the track and field facility to ensure a minimum distance of 375 feet between the PA system and nearby sensitive receptors. These design features would also be included as conditions of approval by the City. While the project site is located within the San Diego International Airport's Airport Influence Area, it is located approximately two miles north of Review Area 1. Therefore, the project would not expose people residing or working in the project area to excessive aircraft noise levels above 60 dB CNEL. Following implementation of the project design features and conditions of approval, the proposed project would result in less than significant impacts related to short-term and long-term noise exposure in the project area.

[3] Airport Land Use Commission, *San Diego International Airport Land Use Compatibility Plan*, amended May 1, 2104.

Attachment A
Noise Data

Site Number: 1			
Recorded By: Adam Furman			
Job Number: 144571			
Date: 6/3/15			
Time: 11:32 a.m.			
Location: Southeast of Project site, near apartment complex			
Source of Peak Noise: Vehicles			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
57.2	38.8	67.7	97.8

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**7/12/2013**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**7/12/2013**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**7/12/2013**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**7/12/2013**	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Clear, Sunny
	Note: dBA Offset		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	2.3 mph	68	29.95

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		06/03/2015 11:32:55
End Time:		06/03/2015 11:42:55
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.51

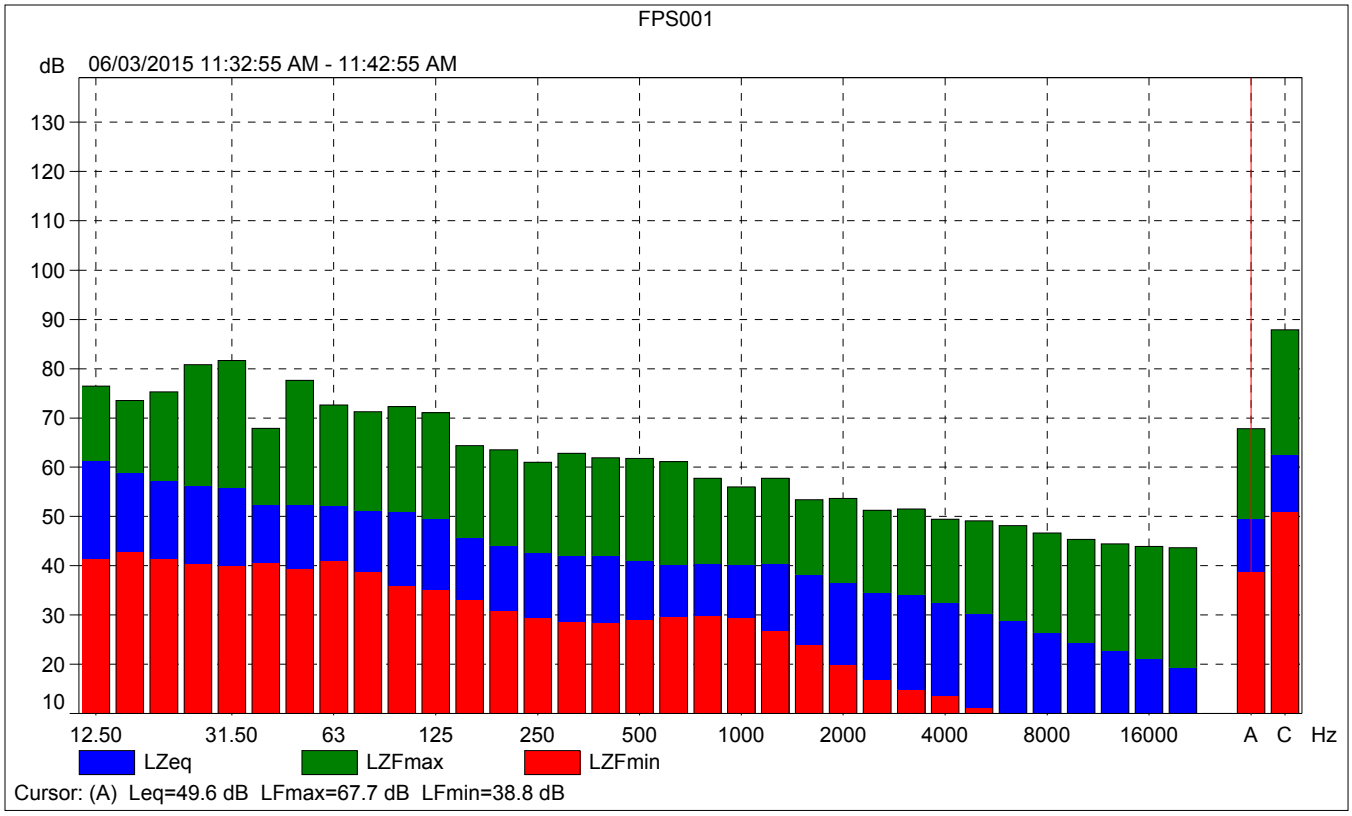
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

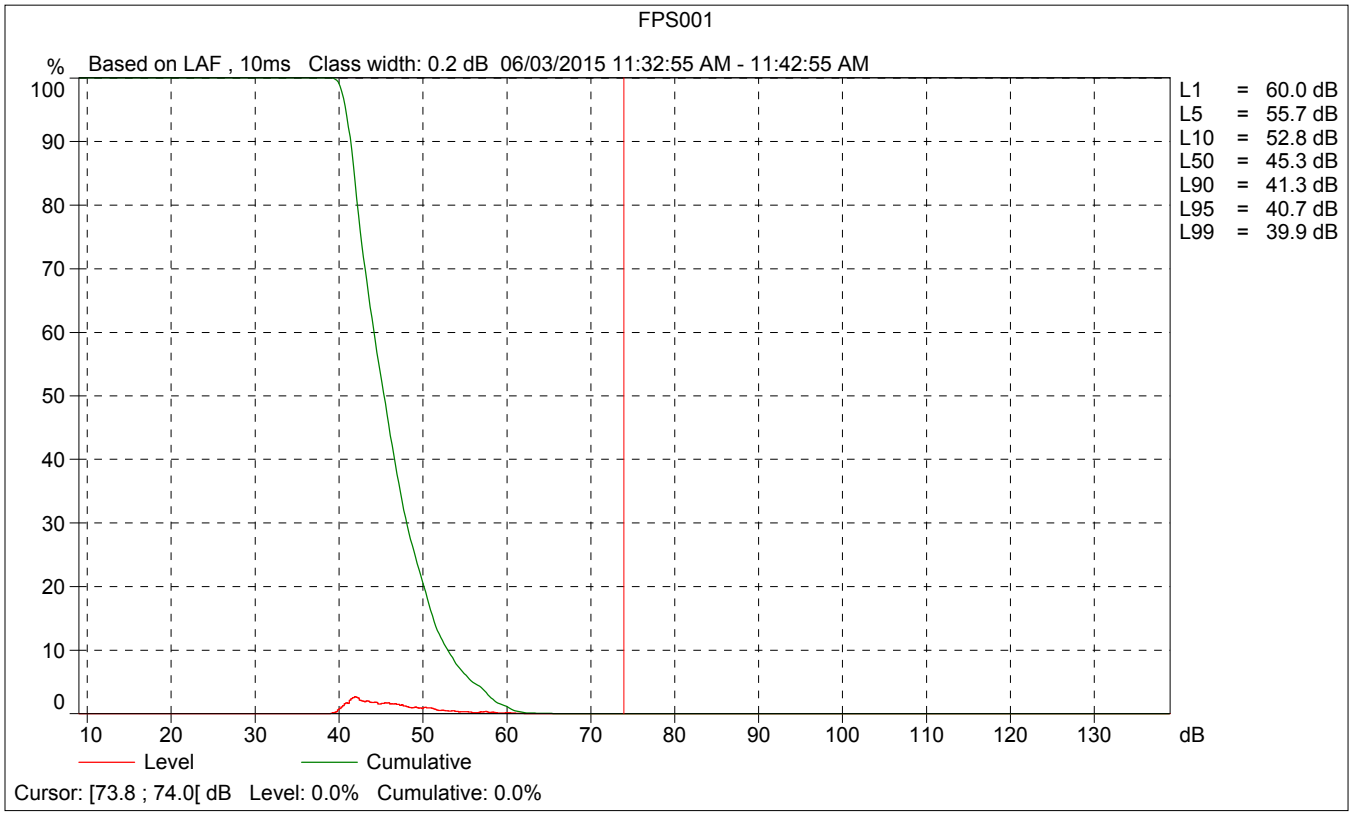
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

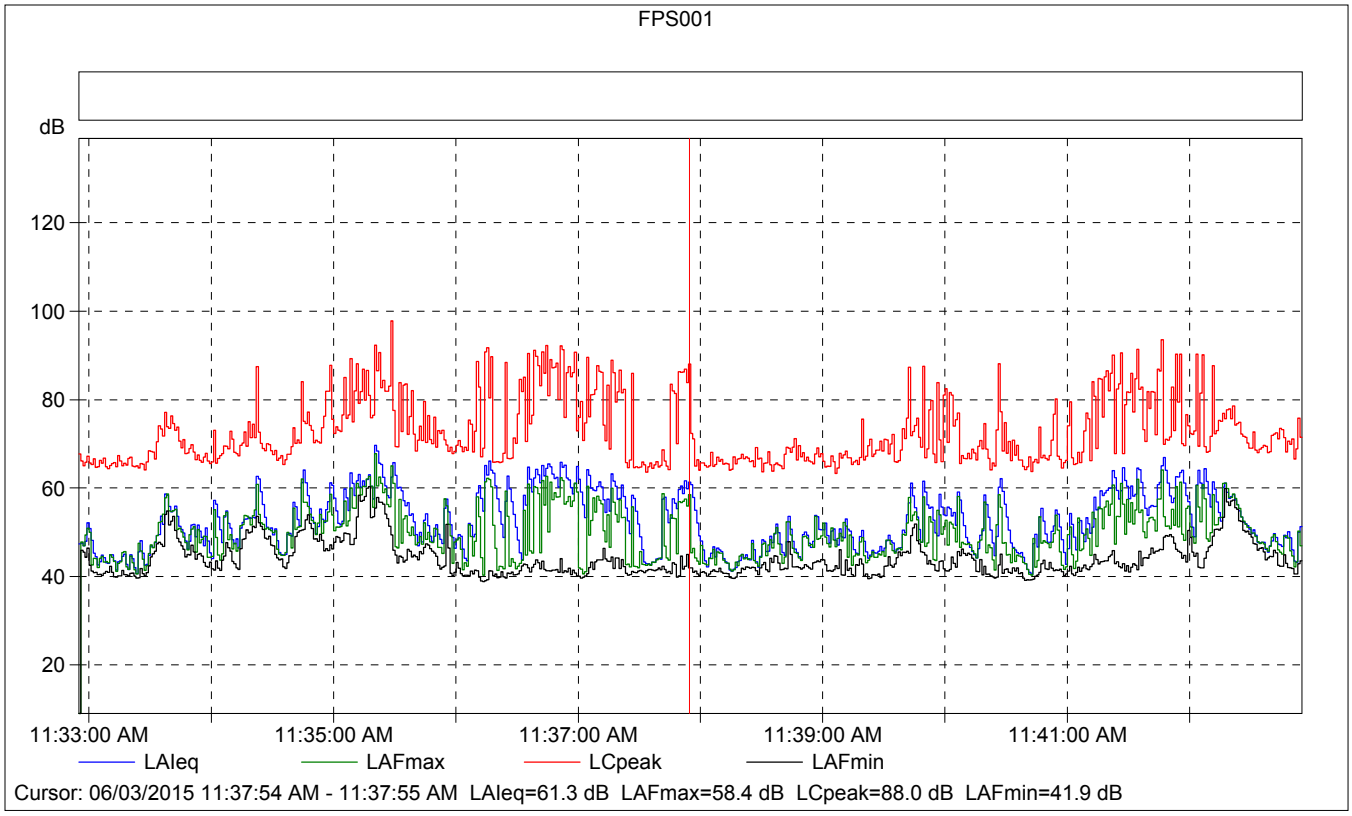
Calibration Time:		06/03/2015 09:08:54
Calibration Type:		External reference
Sensitivity:		66.2160664796829 mV/Pa

FPS001

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	49.6	67.7	38.8
Time	11:32:55 AM	11:42:55 AM	0:10:00				
Date	06/03/2015	06/03/2015					

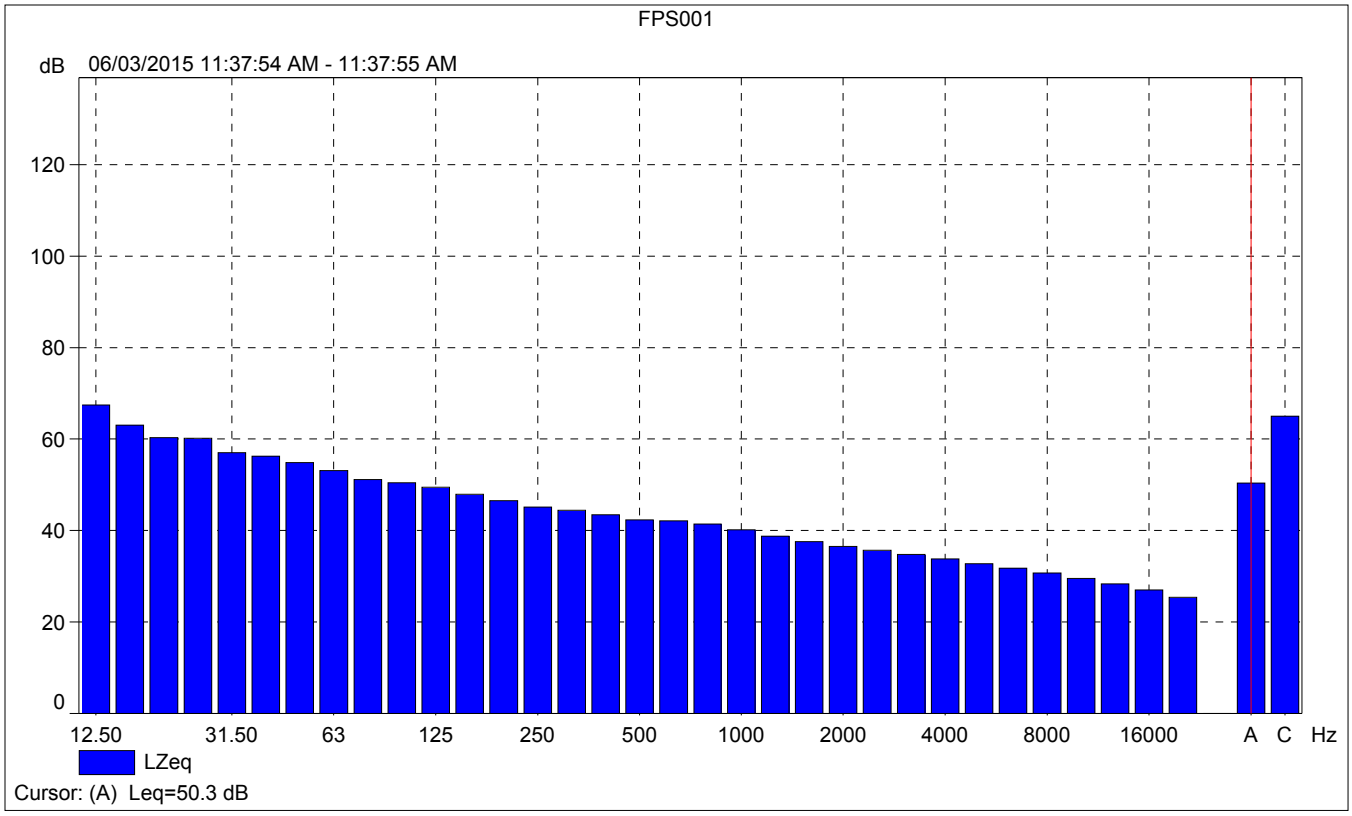

FPS001
dB
06/03/2015 11:32:55 AM - 11:42:55 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=49.6 dB LFmax=67.7 dB LFmin=38.8 dB

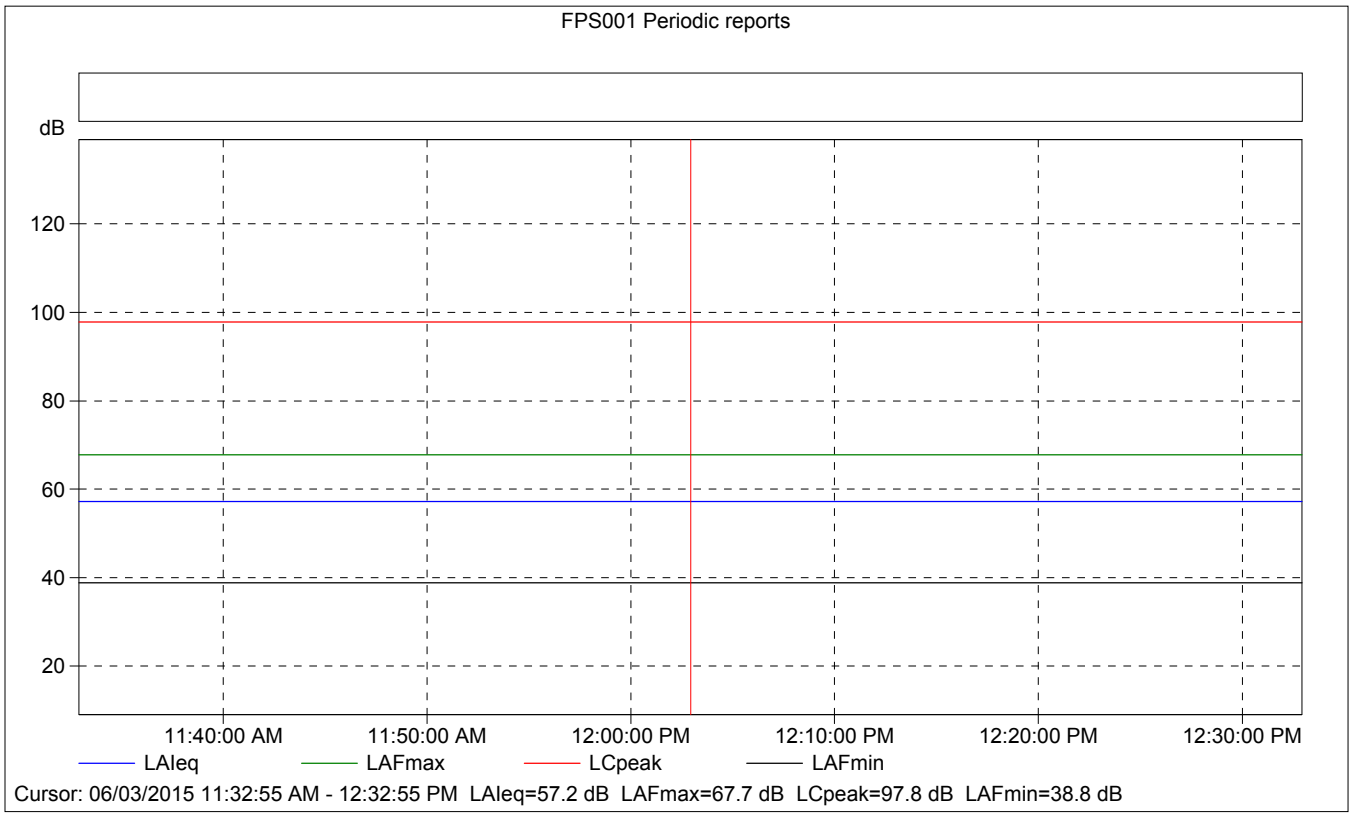

FPS001
%
Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 11:32:55 AM - 11:42:55 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
dB
L1 = 60.0 dB
L5 = 55.7 dB
L10 = 52.8 dB
L50 = 45.3 dB
L90 = 41.3 dB
L95 = 40.7 dB
L99 = 39.9 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.0% Cumulative: 0.0%



FPS001

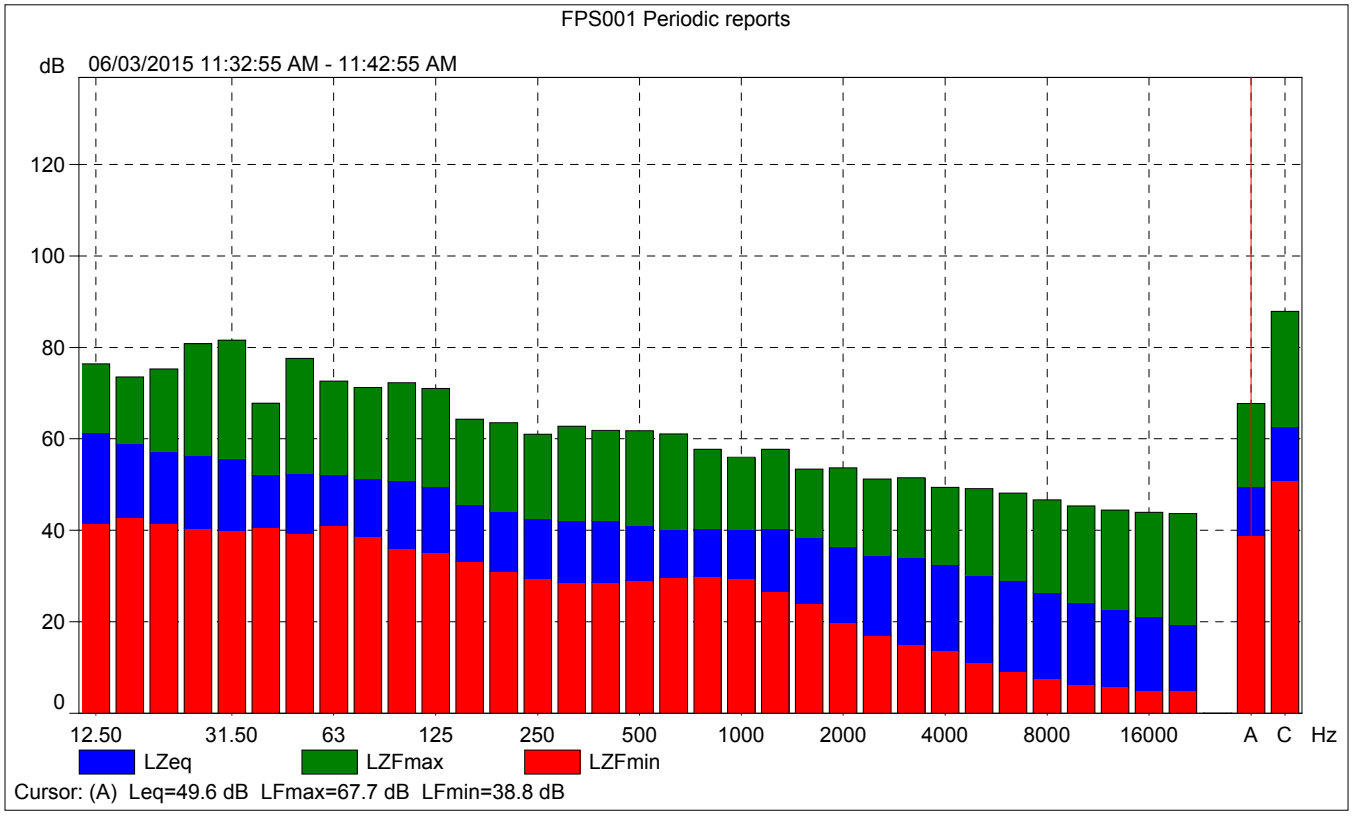
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			61.3	58.4	41.9
Time	11:37:54 AM	0:00:01			
Date	06/03/2015				

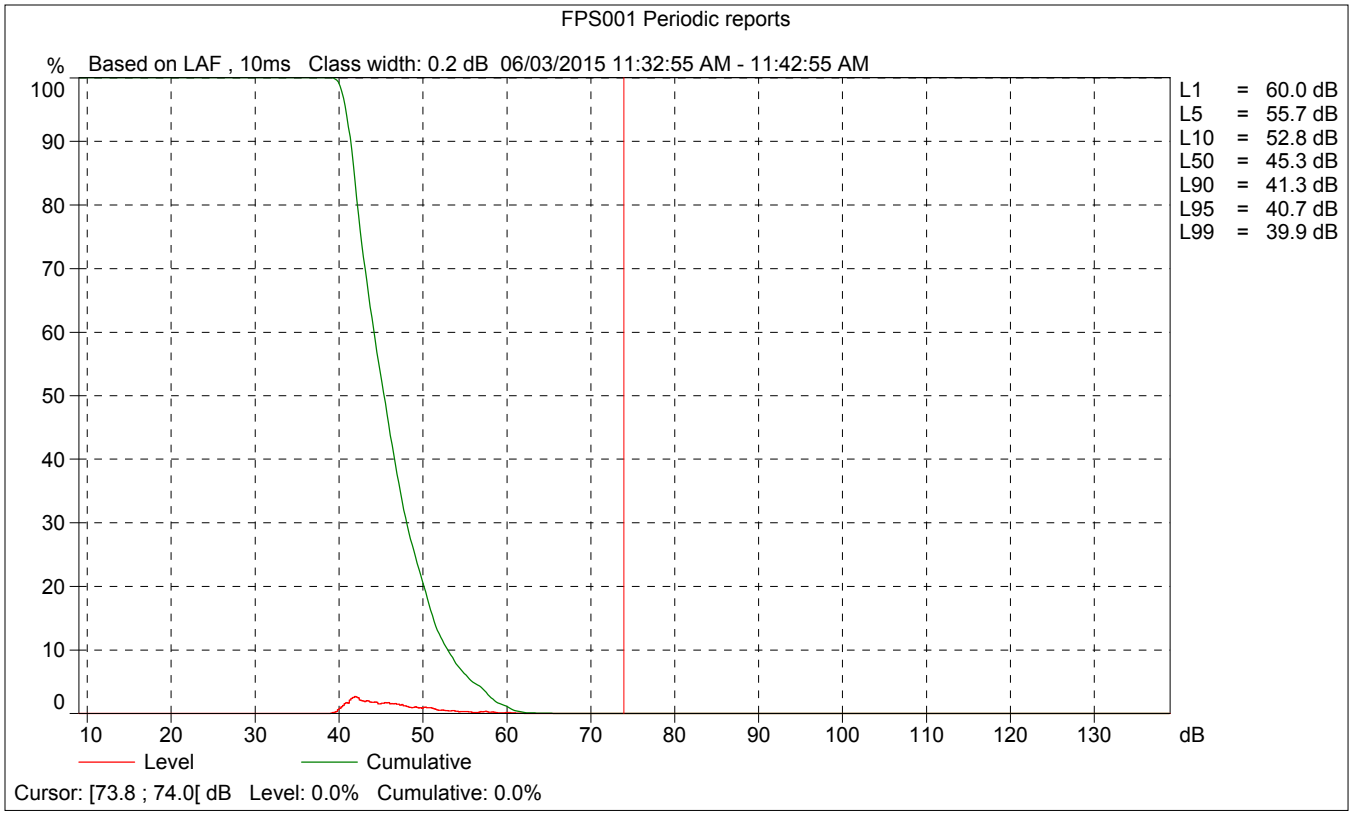

FPS001
dB
06/03/2015 11:37:54 AM - 11:37:55 AM
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=50.3 dB


FPS001 Periodic reports
dB
120
100
80
60
40
20
11:40:00 AM
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 06/03/2015 11:32:55 AM - 12:32:55 PM LAIeq=57.2 dB LAFmax=67.7 dB LCpeak=97.8 dB LAFmin=38.8 dB

FPS001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAleq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	57.2	67.7	38.8
Time	11:32:55 AM	0:10:00				
Date	06/03/2015					




FPS001 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 11:32:55 AM - 11:42:55 AM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 dB
L1 = 60.0 dB
L5 = 55.7 dB
L10 = 52.8 dB
L50 = 45.3 dB
L90 = 41.3 dB
L95 = 40.7 dB
L99 = 39.9 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 2			
Recorded By: Adam Furman			
Job Number: 144571			
Date: 6/3/15			
Time: 11:47 a.m.			
Location: Northeast corner of project site, across Northrim Court, near apartment complex			
Source of Peak Noise: Vehicles			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
57.1	41.8	72.4	90.3

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**7/12/2013**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**7/12/2013**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**7/12/2013**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**7/12/2013**	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Clear, Sunny
	Note: dBA Offset		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	4.2 mph	68	29.95

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		06/03/2015 11:47:51
End Time:		06/03/2015 11:57:51
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.51

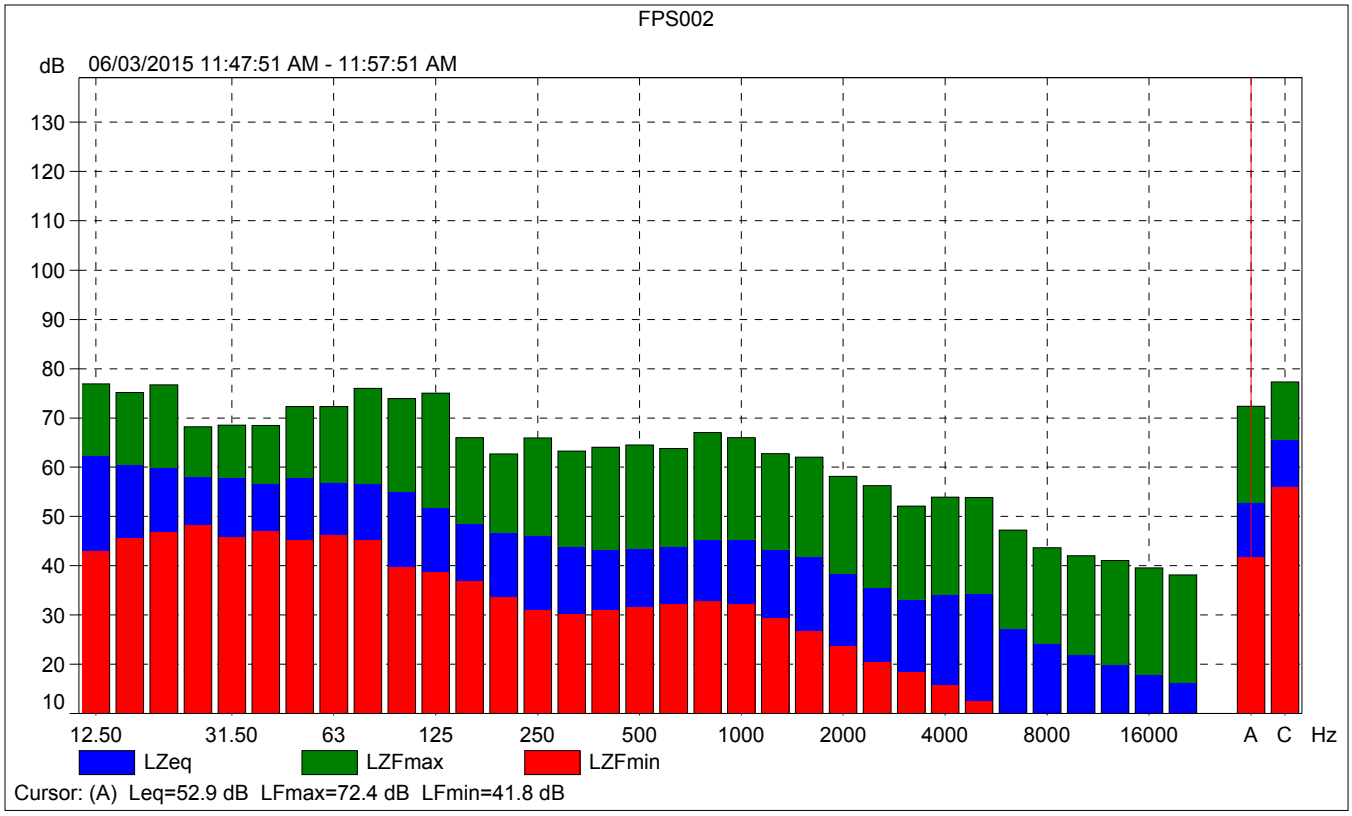
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

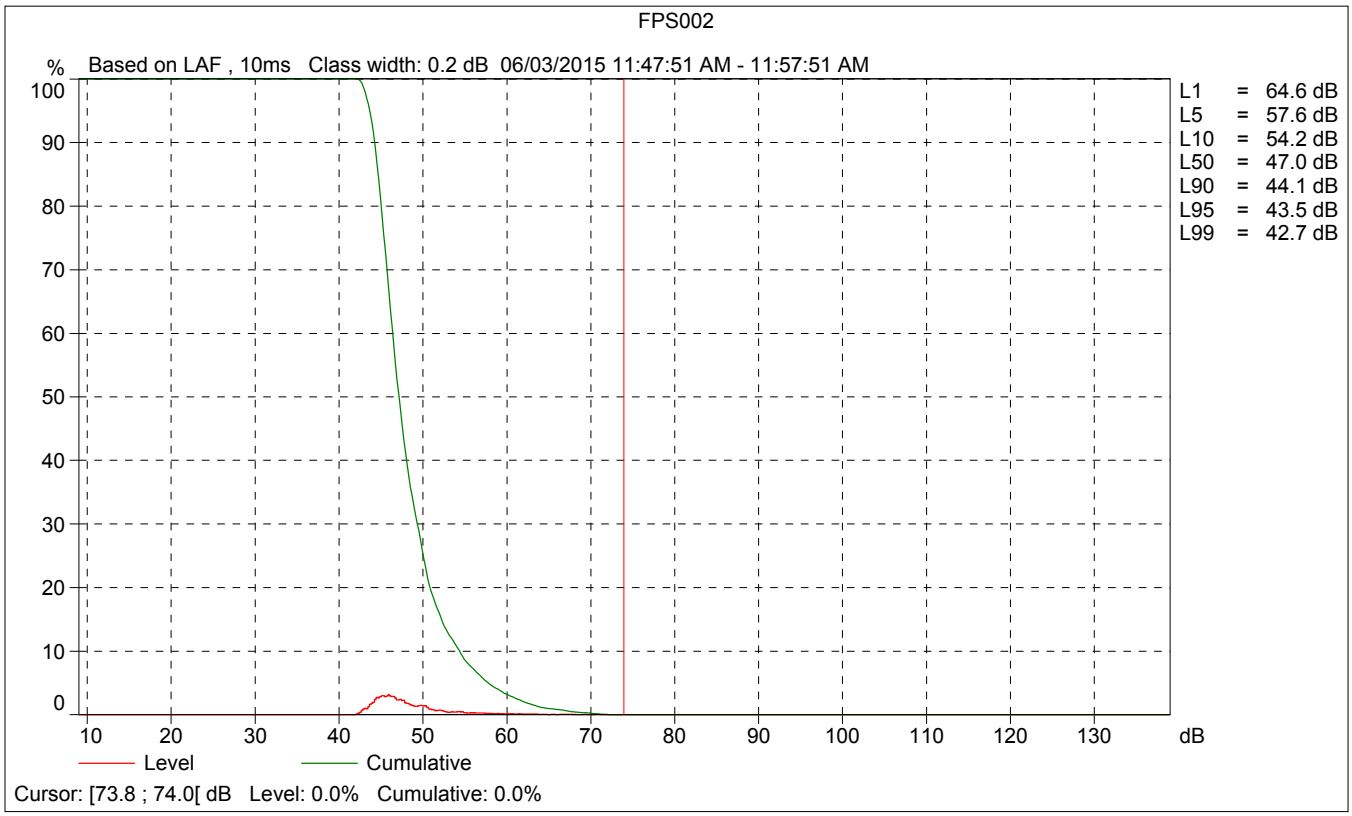
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

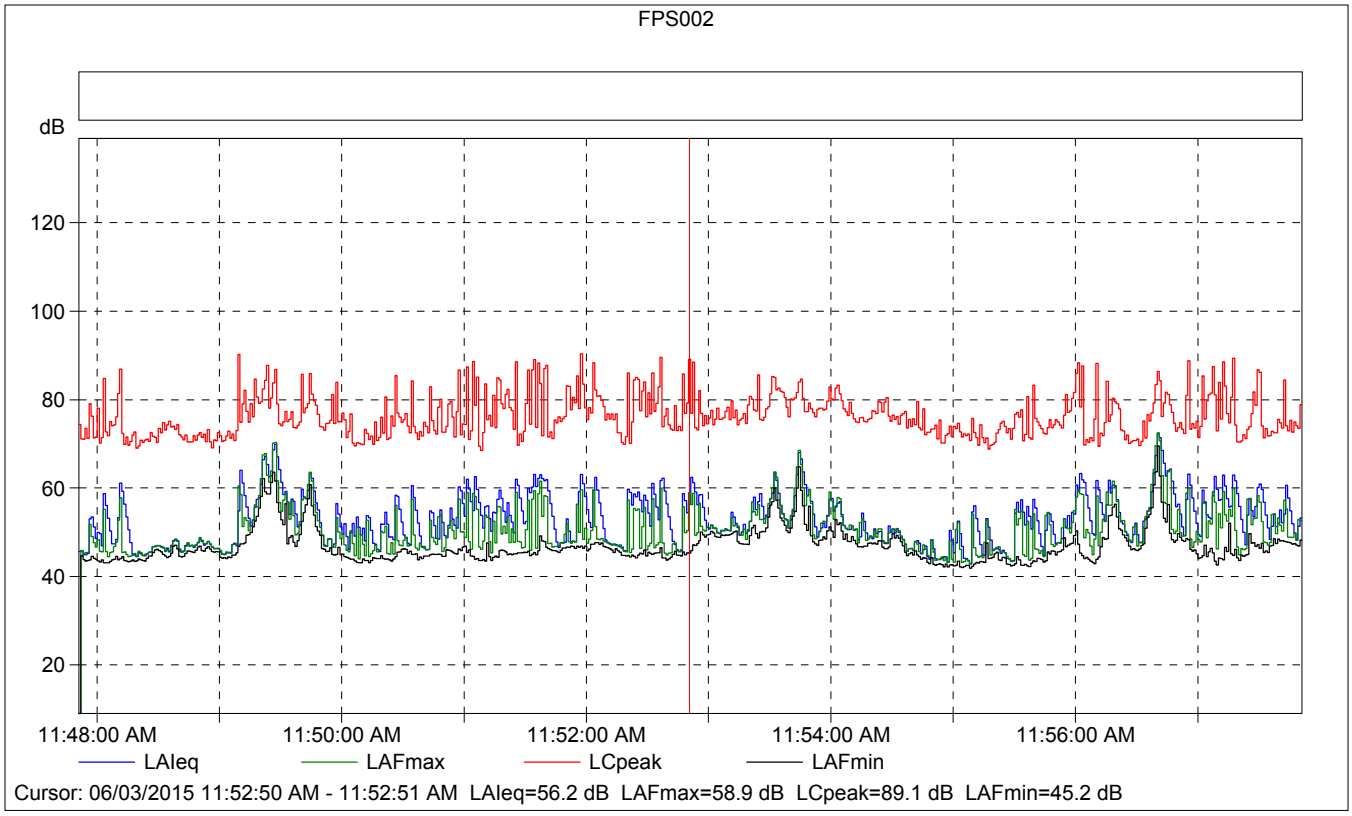
Calibration Time:		06/03/2015 09:08:54
Calibration Type:		External reference
Sensitivity:		66.2160664796829 mV/Pa

FPS002

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	52.9	72.4	41.8
Time	11:47:51 AM	11:57:51 AM	0:10:00				
Date	06/03/2015	06/03/2015					

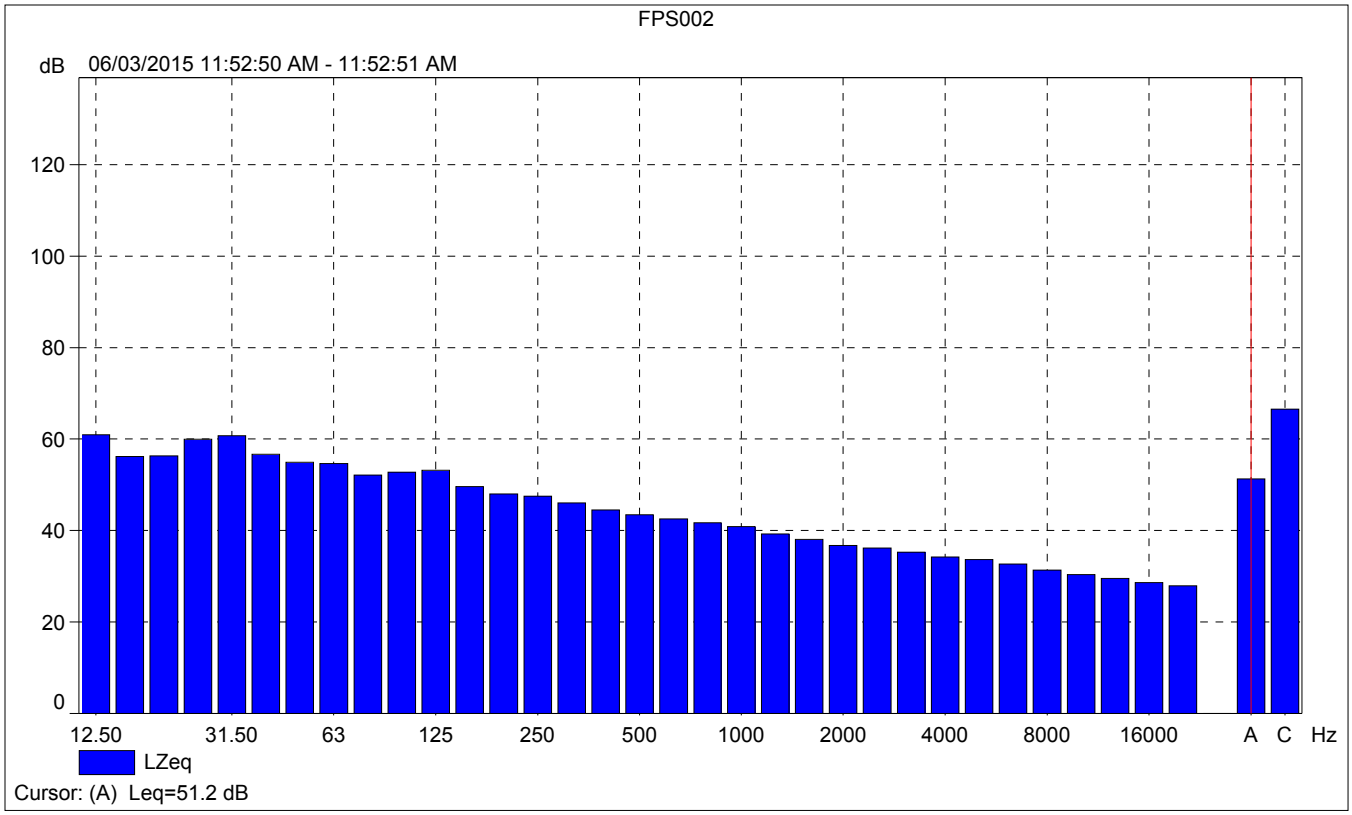

FPS002
dB
06/03/2015 11:47:51 AM - 11:57:51 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=52.9 dB LFmax=72.4 dB LFmin=41.8 dB

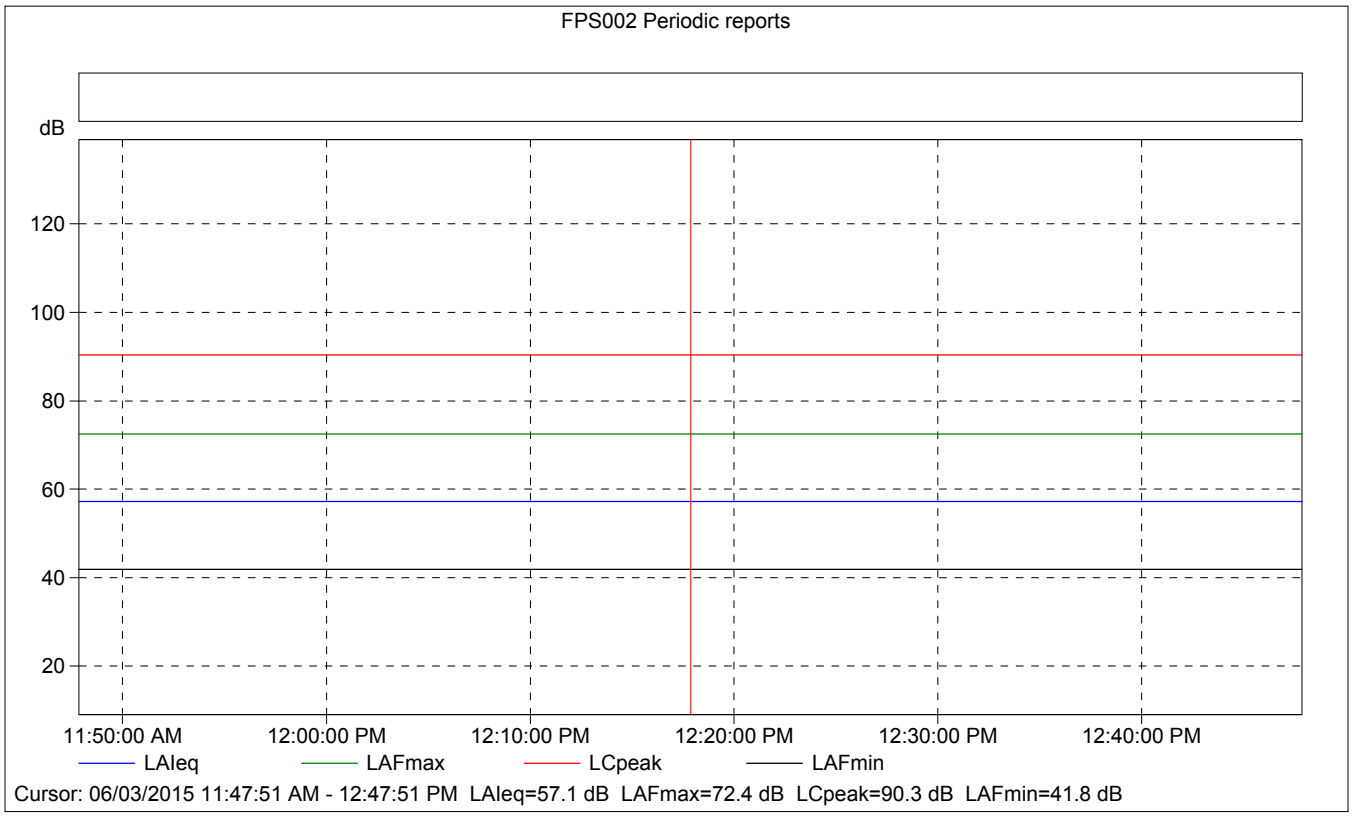

FPS002
%
Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 11:47:51 AM - 11:57:51 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
dB
L1 = 64.6 dB
L5 = 57.6 dB
L10 = 54.2 dB
L50 = 47.0 dB
L90 = 44.1 dB
L95 = 43.5 dB
L99 = 42.7 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.0% Cumulative: 0.0%



FPS002

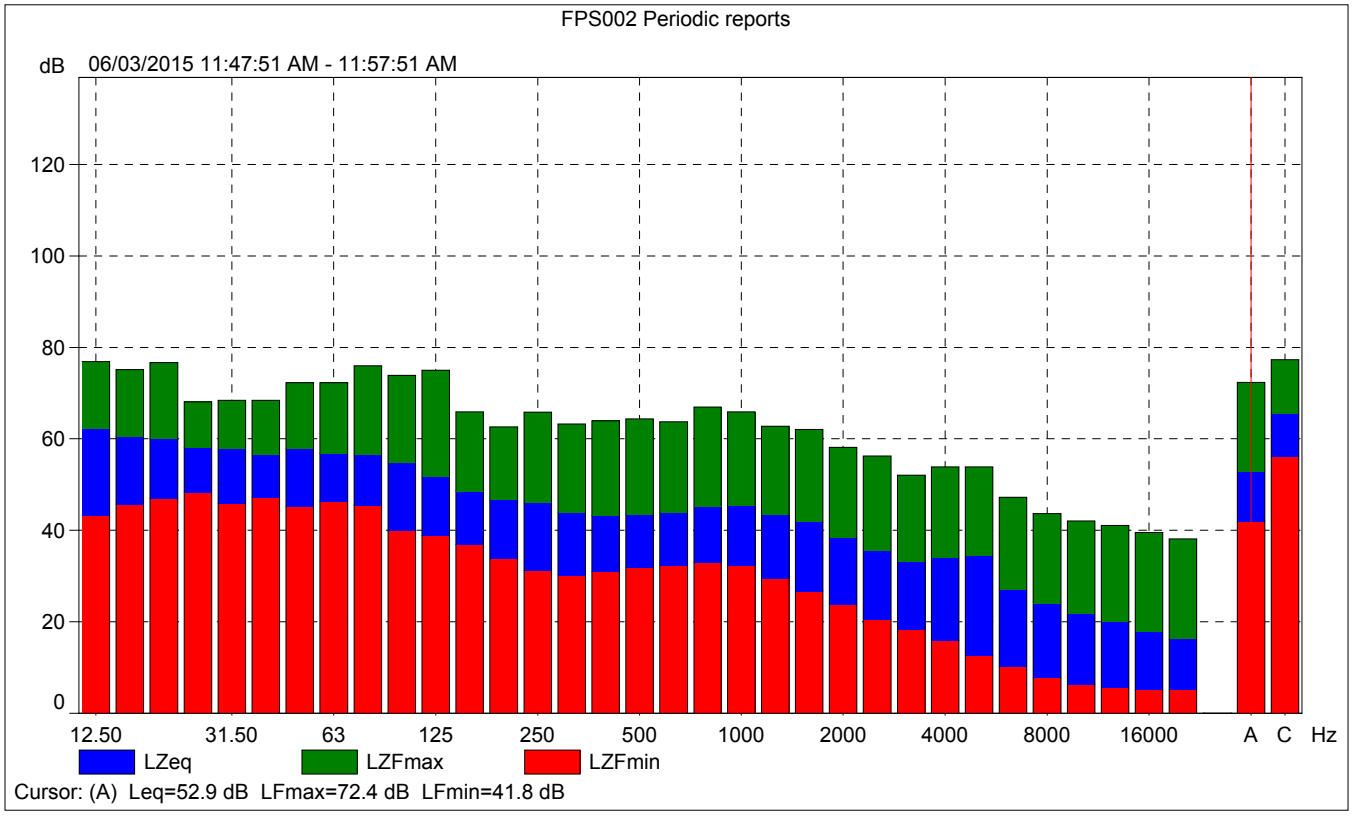
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			56.2	58.9	45.2
Time	11:52:50 AM	0:00:01			
Date	06/03/2015				

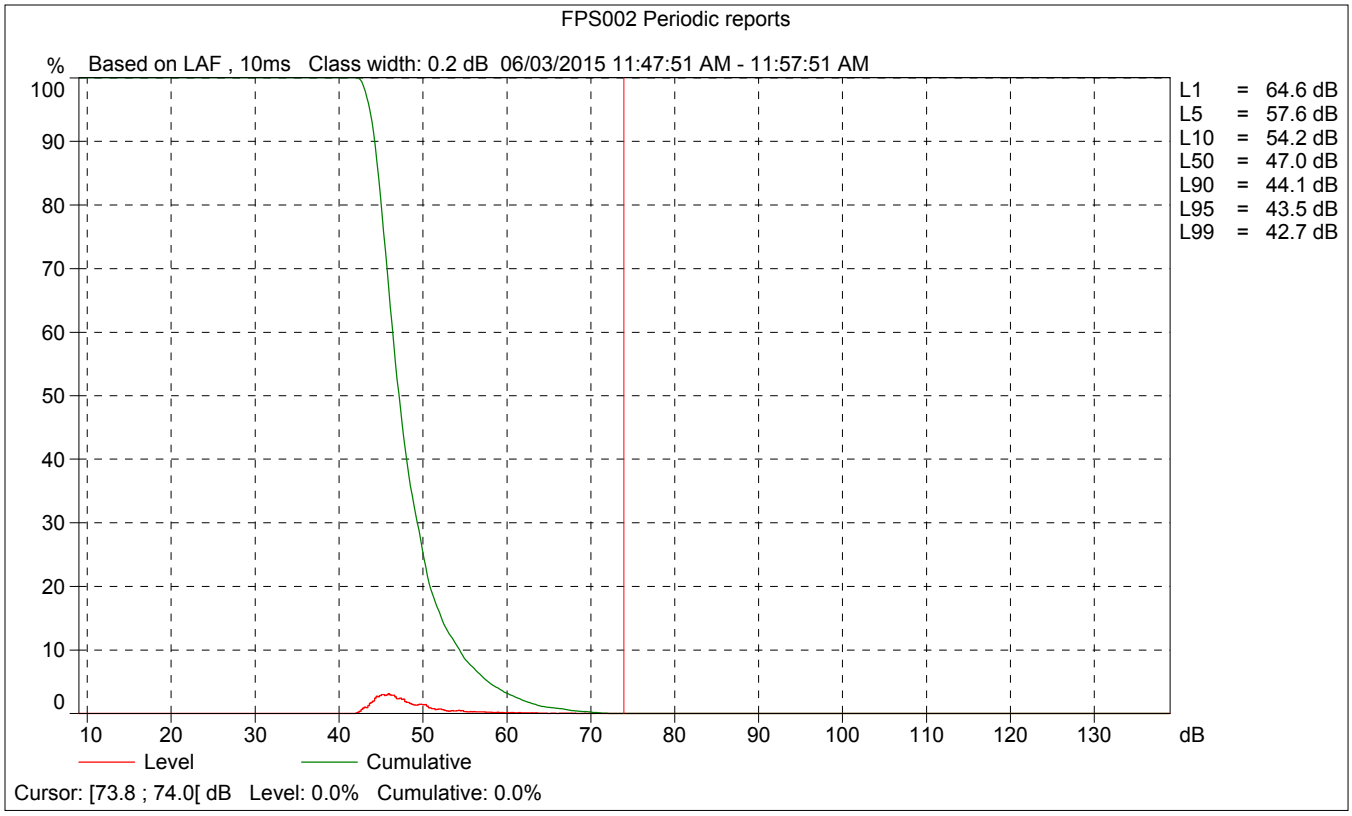

FPS002
dB
06/03/2015 11:52:50 AM - 11:52:51 AM
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=51.2 dB


FPS002 Periodic reports
dB
120
100
80
60
40
20
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 06/03/2015 11:47:51 AM - 12:47:51 PM LAIeq=57.1 dB LAFmax=72.4 dB LCpeak=90.3 dB LAFmin=41.8 dB

FPS002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAleq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	57.1	72.4	41.8
Time	11:47:51 AM	0:10:00				
Date	06/03/2015					




FPS002 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 11:47:51 AM - 11:57:51 AM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 dB
L1 = 64.6 dB
L5 = 57.6 dB
L10 = 54.2 dB
L50 = 47.0 dB
L90 = 44.1 dB
L95 = 43.5 dB
L99 = 42.7 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.0% Cumulative: 0.0%

Site Number: 3			
Recorded By: Adam Furman			
Job Number: 144571			
Date: 6/3/15			
Time: 12:02 p.m.			
Location: North of project site, across Linda Vista Road			
Source of Peak Noise: Vehicles			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
70.2	46.3	83.0	104.2

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**2548189**	**7/12/2013**	
	Microphone	**Brüel & Kjær**	**4189**	**2543364**	**7/12/2013**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**4265**	**7/12/2013**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**7/12/2013**	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Clear, Sunny
	Note: dBA Offset		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	4.6 mph	68	29.95

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.4
Start Time:		06/03/2015 12:02:39
End Time:		06/03/2015 12:12:39
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.51

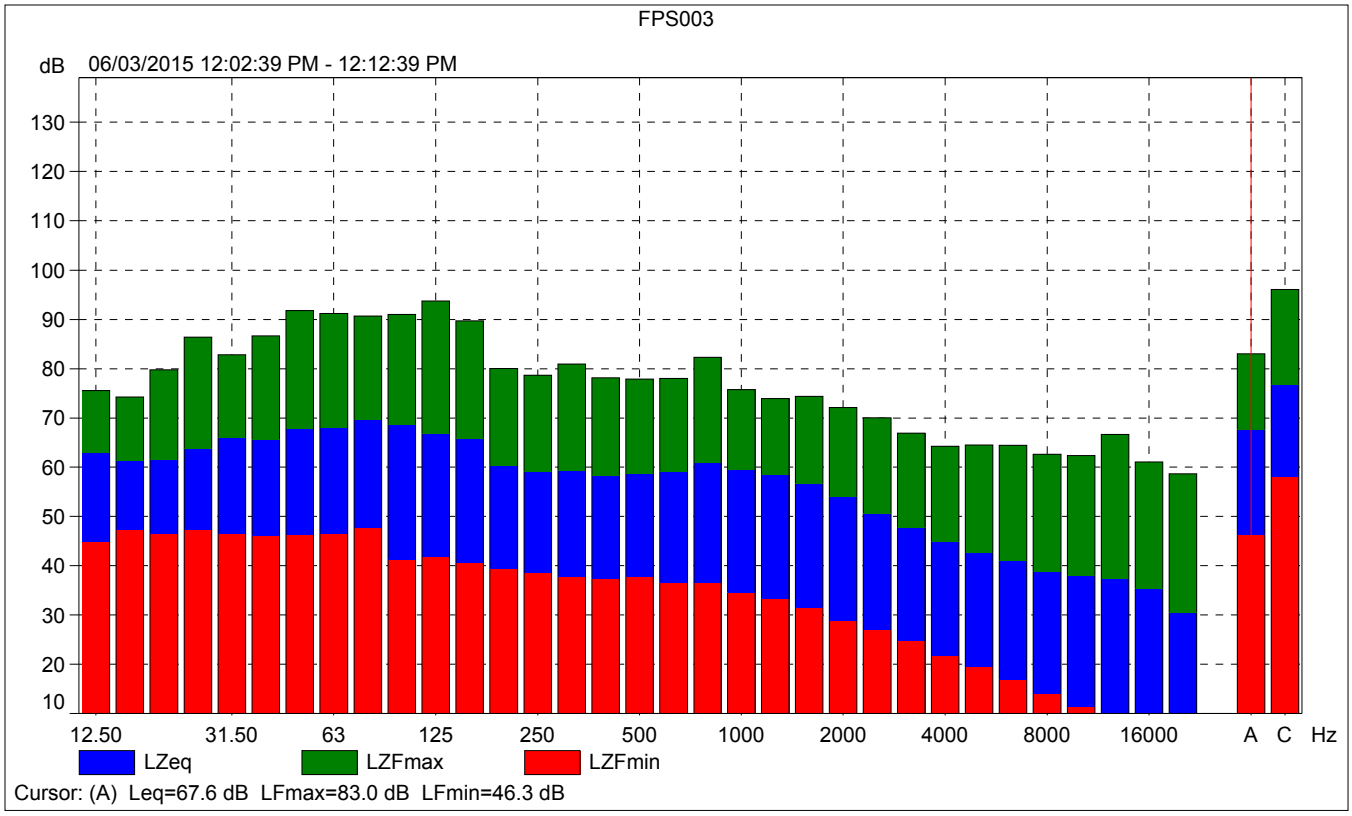
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

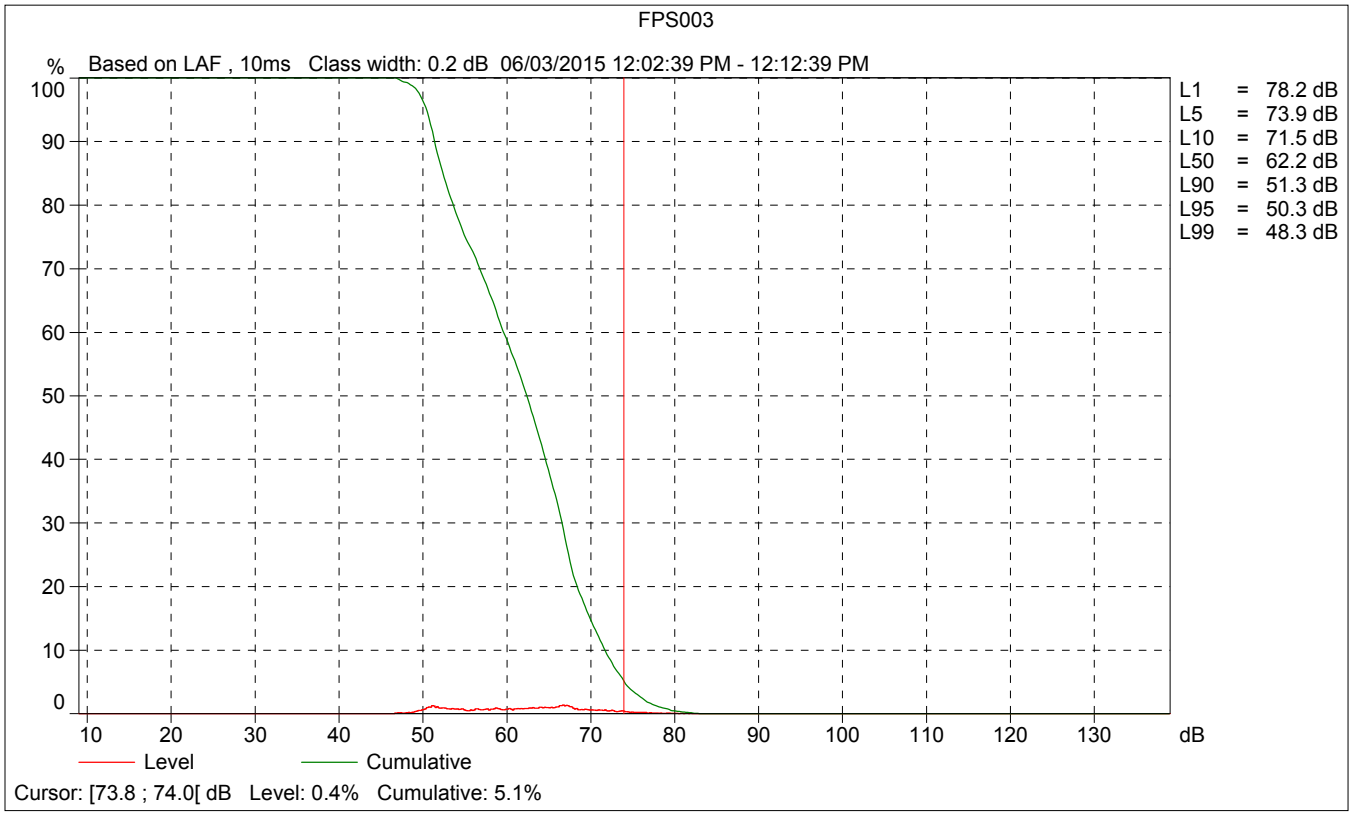
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		None
Sound Field Correction:		Free-field

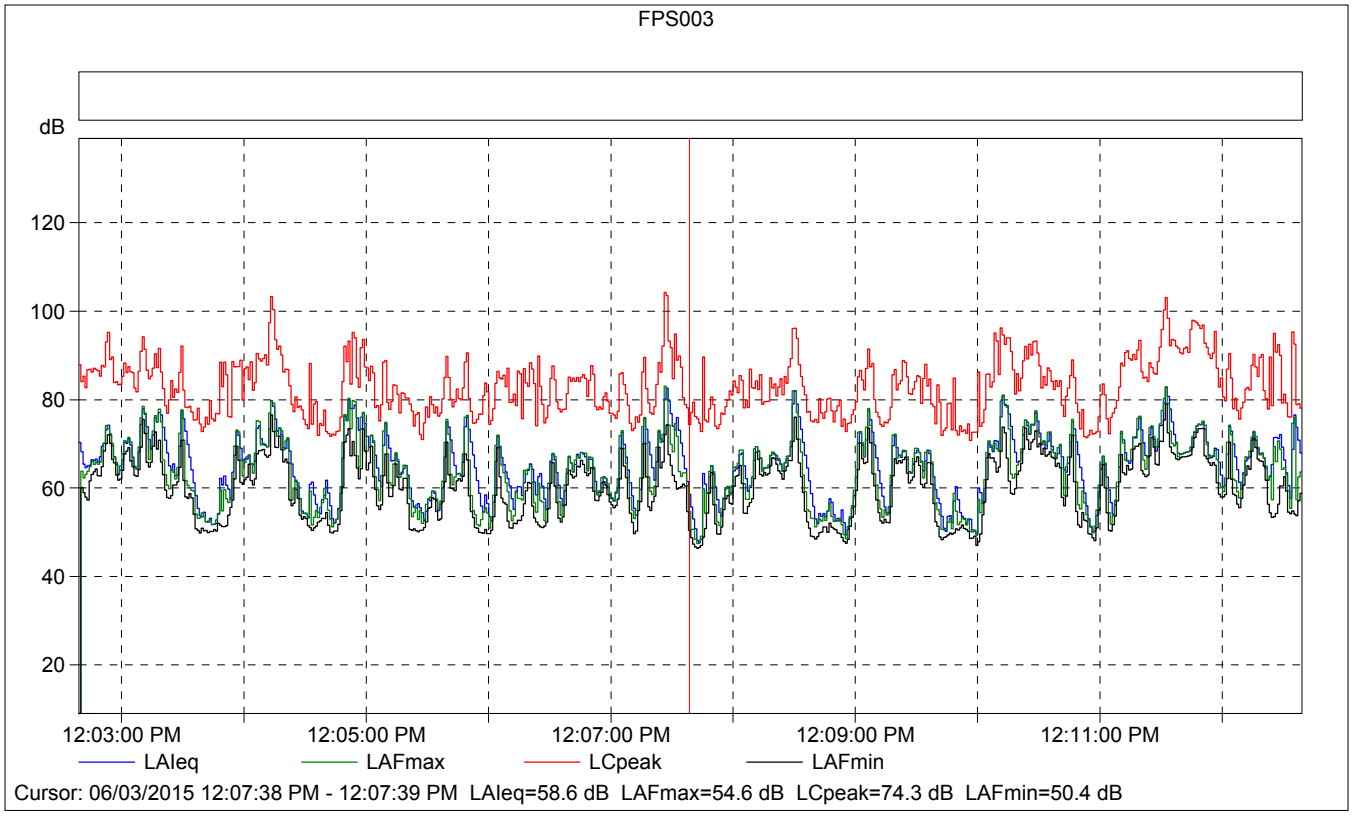
Calibration Time:		06/03/2015 09:08:54
Calibration Type:		External reference
Sensitivity:		66.2160664796829 mV/Pa

FPS003

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	67.6	83.0	46.3
Time	12:02:39 PM	12:12:39 PM	0:10:00				
Date	06/03/2015	06/03/2015					

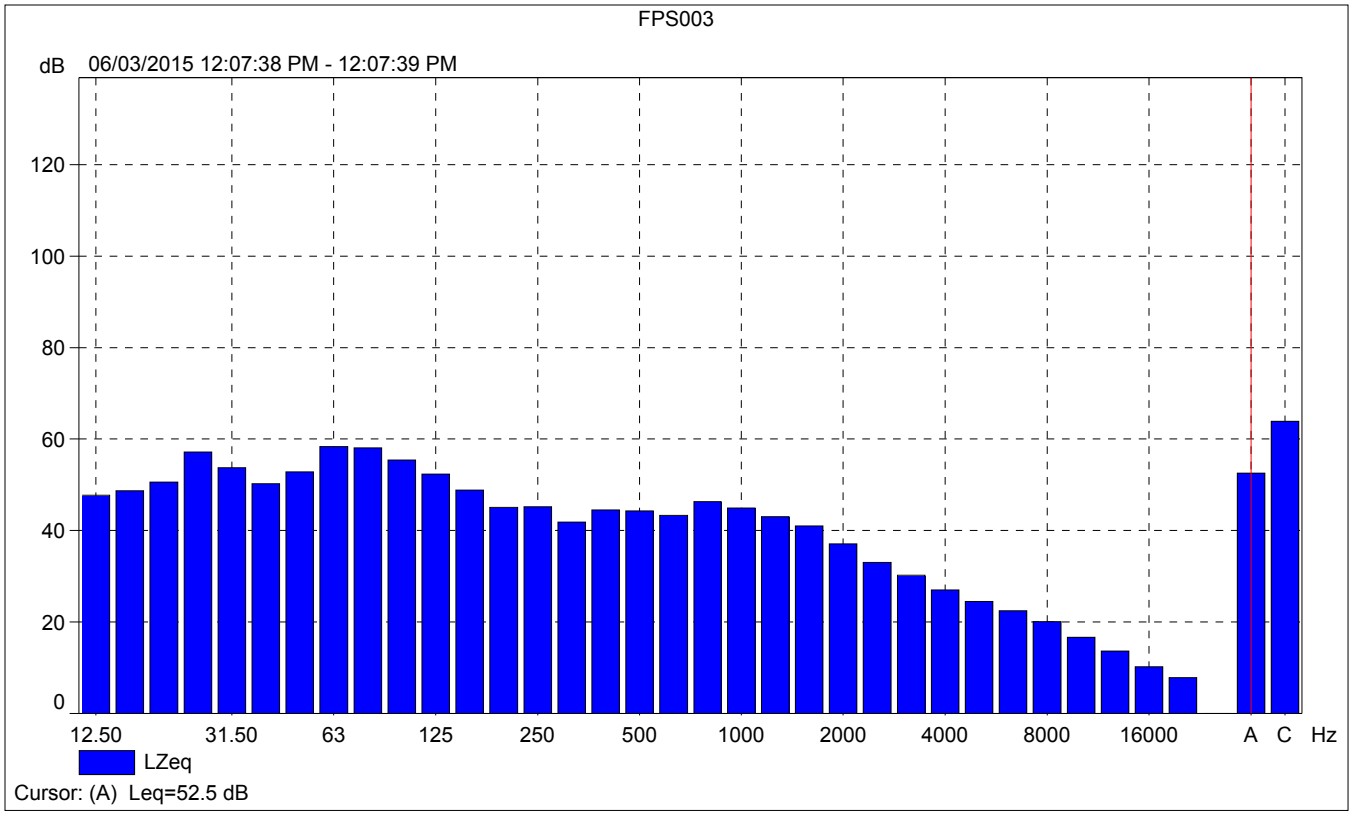

FPS003
dB
06/03/2015 12:02:39 PM - 12:12:39 PM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=67.6 dB LFmax=83.0 dB LFmin=46.3 dB

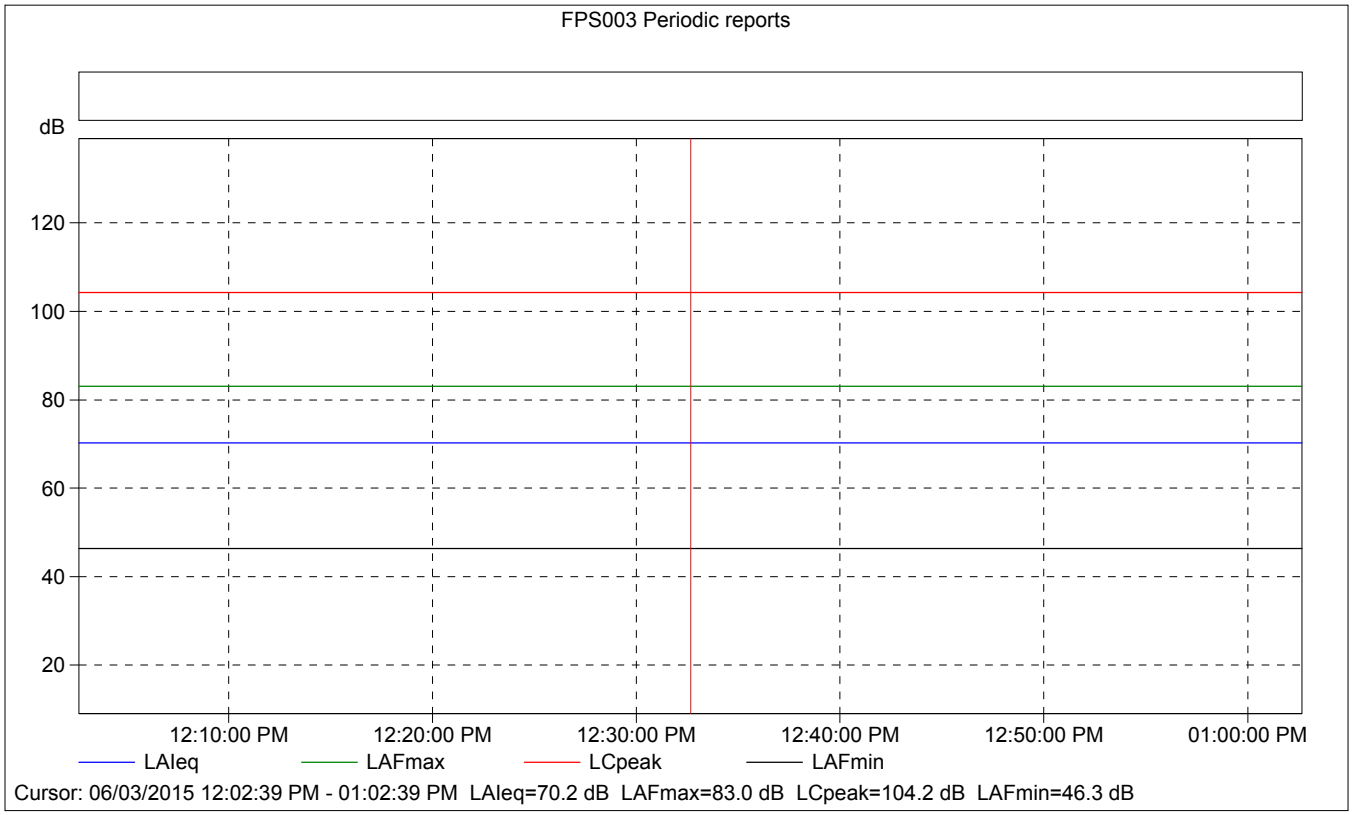

FPS003
%
Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 12:02:39 PM - 12:12:39 PM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
dB
L1 = 78.2 dB
L5 = 73.9 dB
L10 = 71.5 dB
L50 = 62.2 dB
L90 = 51.3 dB
L95 = 50.3 dB
L99 = 48.3 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.4% Cumulative: 5.1%



FPS003

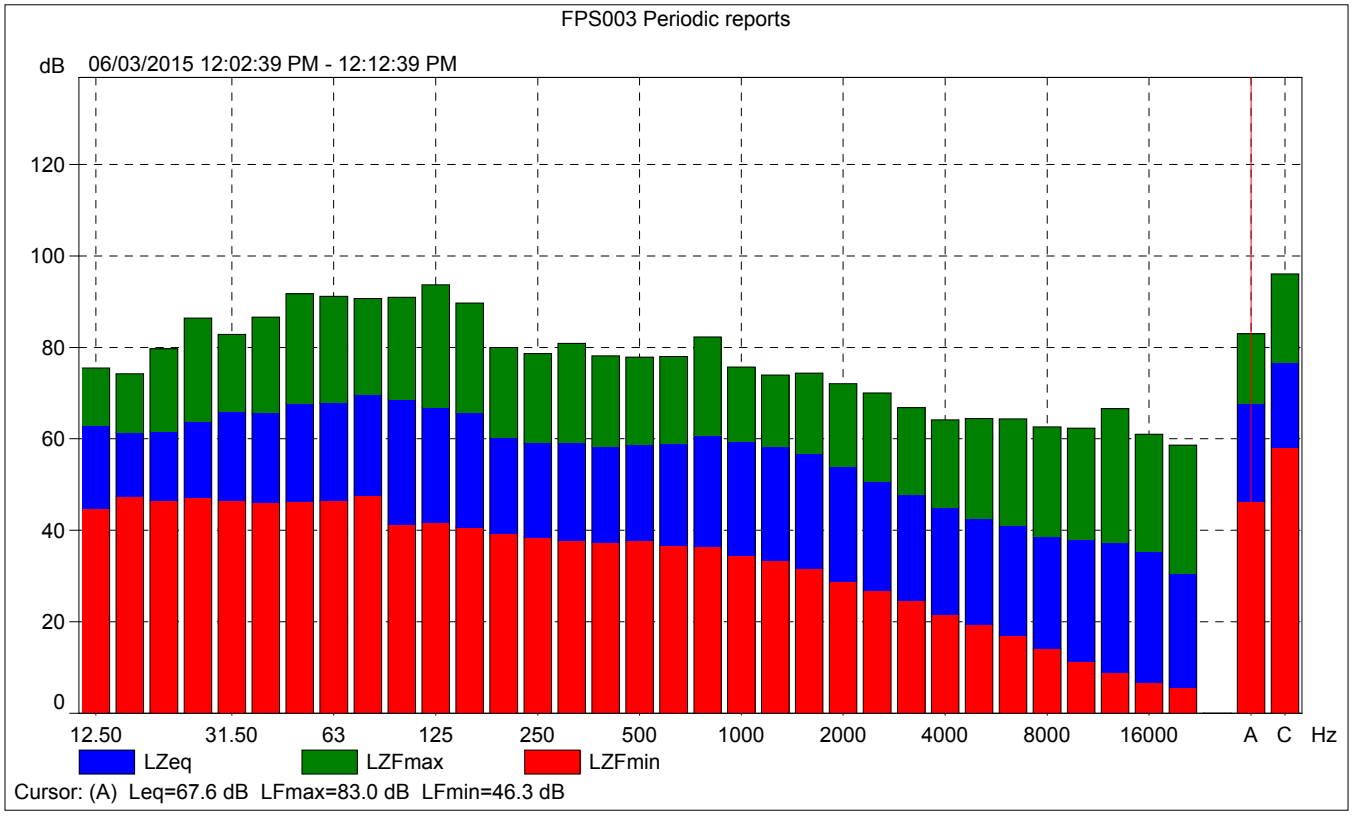
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			58.6	54.6	50.4
Time	12:07:38 PM	0:00:01			
Date	06/03/2015				

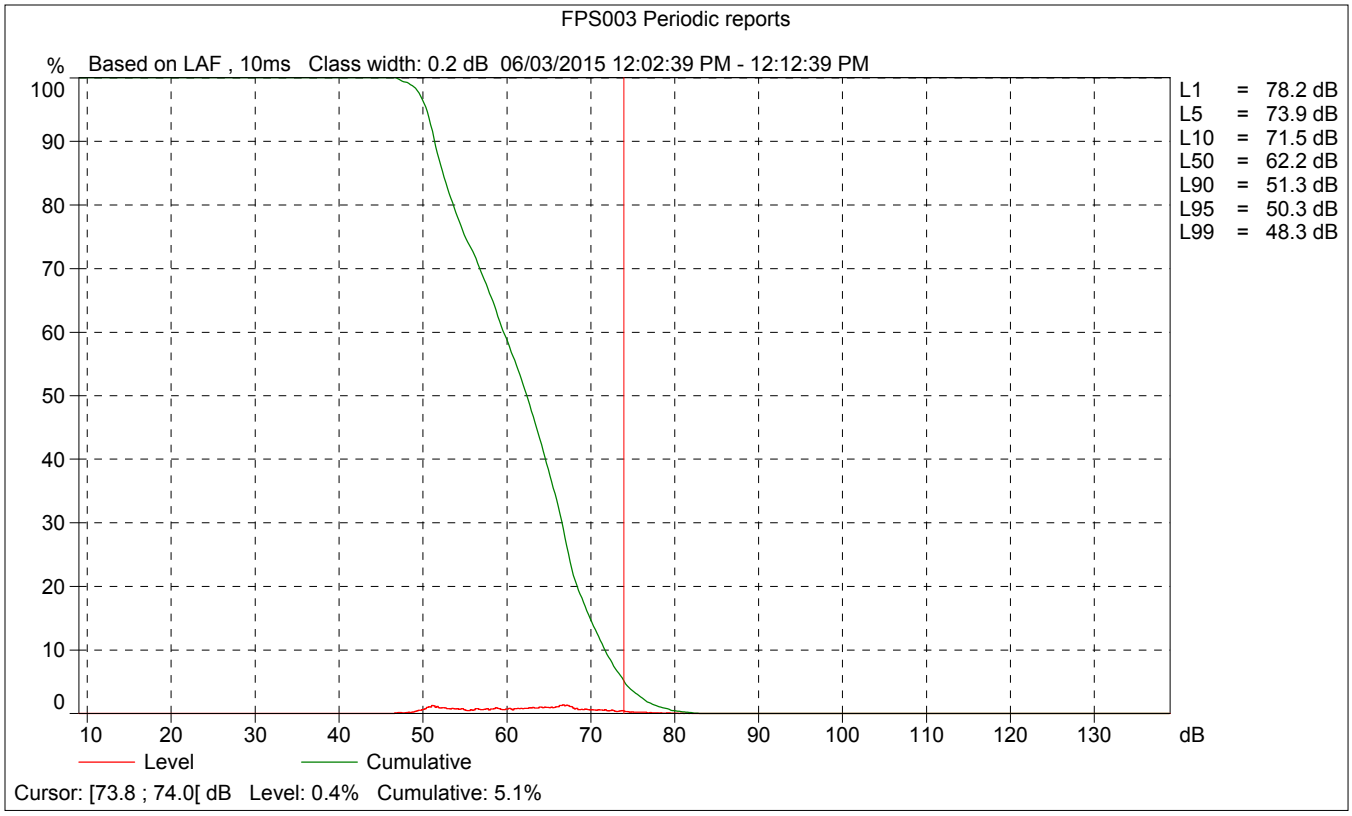

FPS003
dB
06/03/2015 12:07:38 PM - 12:07:39 PM
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=52.5 dB


FPS003 Periodic reports
dB
120
100
80
60
40
20
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
12:50:00 PM
01:00:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 06/03/2015 12:02:39 PM - 01:02:39 PM LAIeq=70.2 dB LAFmax=83.0 dB LCpeak=104.2 dB LAFmin=46.3 dB

FPS003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAleq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	70.2	83.0	46.3
Time	12:02:39 PM	0:10:00				
Date	06/03/2015					




FPS003 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 06/03/2015 12:02:39 PM - 12:12:39 PM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 dB
L1 = 78.2 dB
L5 = 73.9 dB
L10 = 71.5 dB
L50 = 62.2 dB
L90 = 51.3 dB
L95 = 50.3 dB
L99 = 48.3 dB
Level
Cumulative
Cursor: [73.8 ; 74.0[dB Level: 0.4% Cumulative: 5.1%

Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,703
Peak Hour Traffic:	**2570.3**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

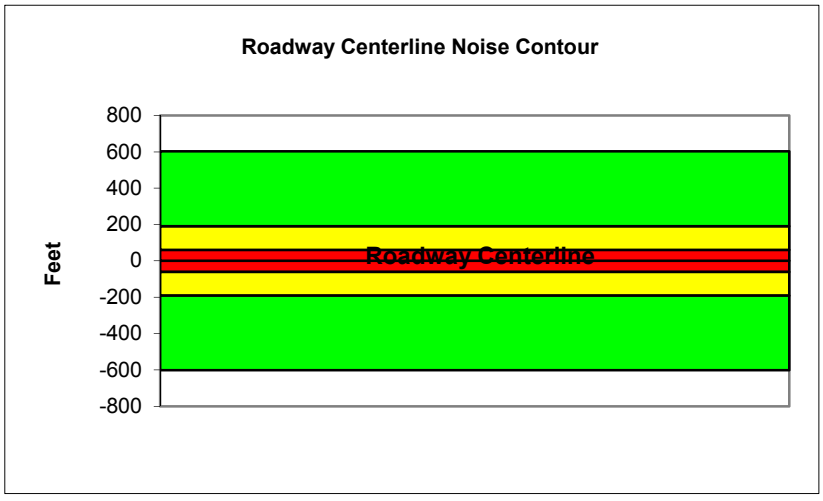
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.9	64.7	62.9	56.8	65.5	66.1
Medium Trucks:	64.8	56.8	50.4	48.8	57.3	57.5
Heavy Trucks:	69.7	57.8	48.7	49.9	59.6	59.8
Vehicle Noise:	**72.1**	**66.3**	**63.3**	**58.4**	**67.0**	**67.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	603
65 dBA	191
70 dBA	60
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	16,440
Peak Hour Traffic:	**1644**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

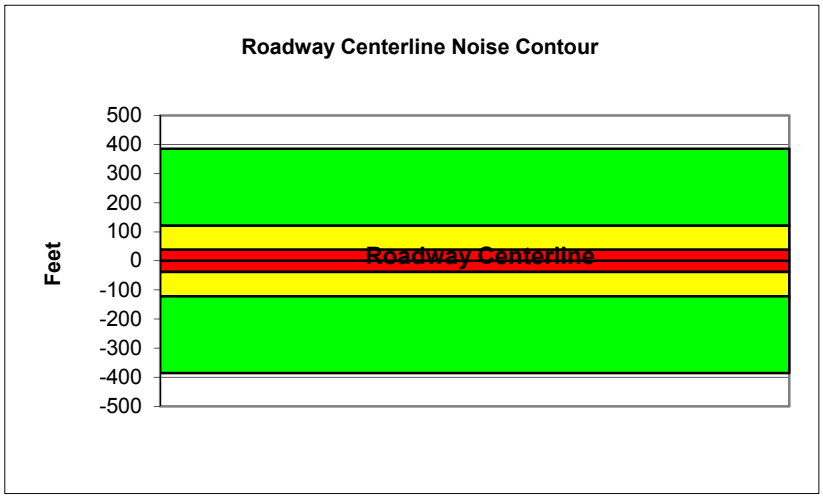
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	54.9	63.6	64.2
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	67.8	55.9	46.8	48.0	57.7	57.9
Vehicle Noise:	**70.2**	**64.4**	**61.4**	**56.5**	**65.1**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	386
65 dBA	122
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,621
Peak Hour Traffic:	**1662.1**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

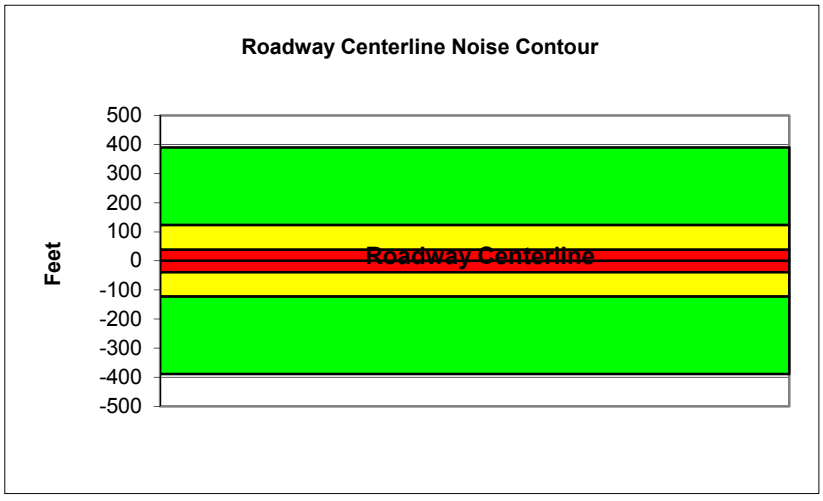
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.7	61.0	54.9	63.5	64.1
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	67.8	55.8	46.8	48.0	57.7	57.8
Vehicle Noise:	**70.1**	**64.3**	**61.4**	**56.5**	**65.0**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	390
65 dBA	123
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15,424
Peak Hour Traffic:	**1542.4**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

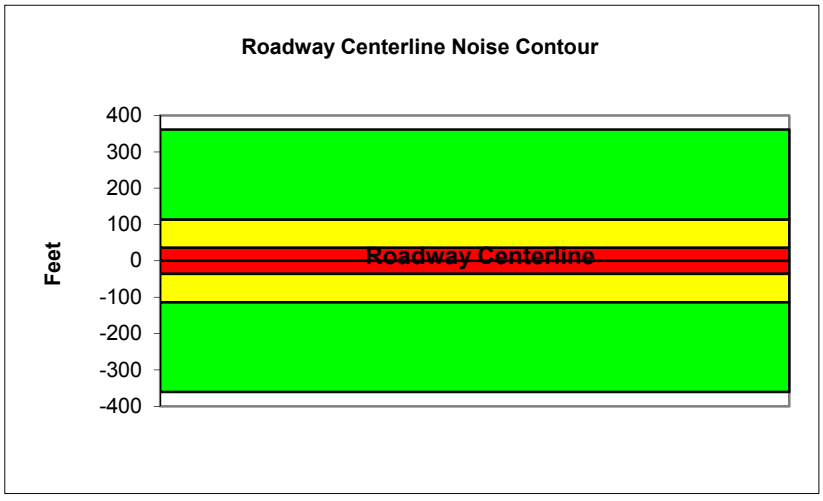
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.6	62.4	60.6	54.5	63.2	63.8
Medium Trucks:	62.6	54.5	48.1	46.6	55.1	55.3
Heavy Trucks:	67.4	55.5	46.4	47.7	57.4	57.5
Vehicle Noise:	**69.8**	**64.0**	**61.1**	**56.1**	**64.7**	**65.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	361
65 dBA	114
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	14,207
Peak Hour Traffic:	**1420.7**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

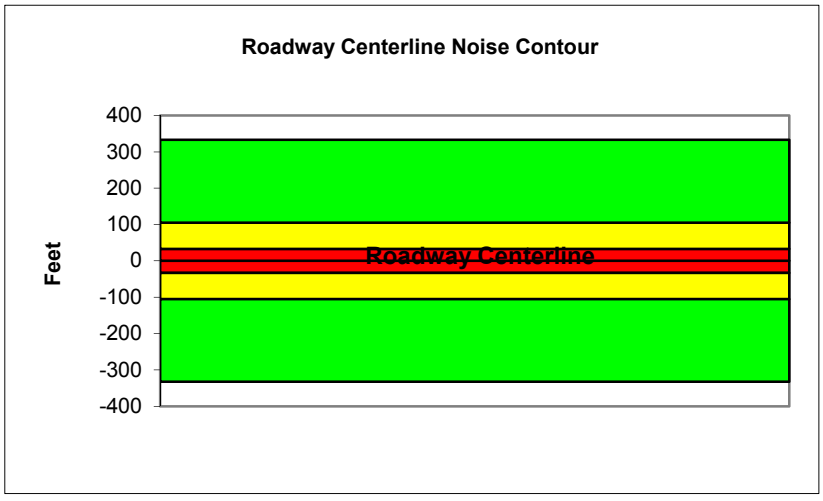
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.4	62.1	60.3	54.3	62.9	63.5
Medium Trucks:	62.3	54.2	47.9	46.3	54.8	55.0
Heavy Trucks:	67.2	55.2	46.2	47.4	57.1	57.2
Vehicle Noise:	**69.5**	**63.7**	**60.8**	**55.8**	**64.4**	**64.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	333
65 dBA	105
70 dBA	33
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	15,829
Peak Hour Traffic:	**1582.9**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

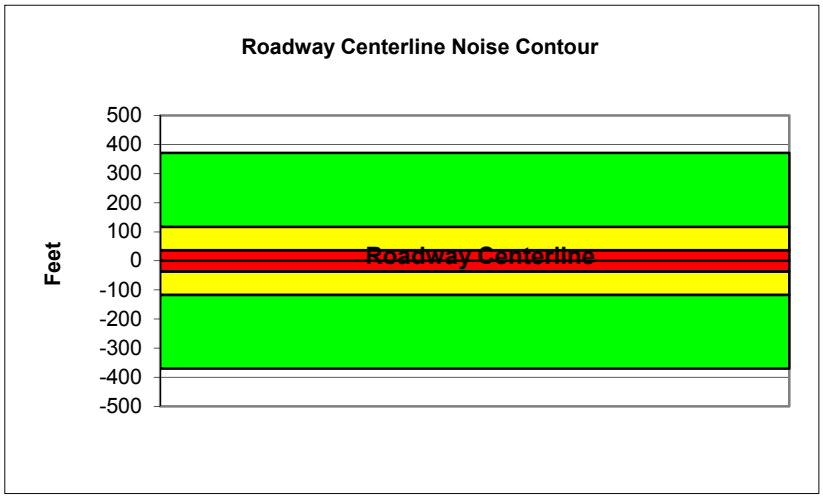
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.6	60.8	54.7	63.4	64.0
Medium Trucks:	62.8	54.7	48.3	46.8	55.2	55.5
Heavy Trucks:	67.6	55.7	46.6	47.9	57.6	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.3**	**56.3**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	371
65 dBA	117
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	7,713
Peak Hour Traffic:	**771.3**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

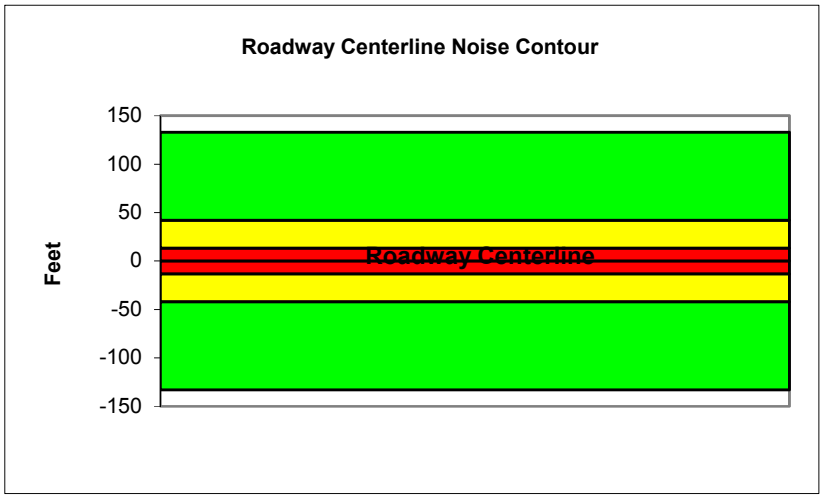
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.0	57.7	56.0	49.9	58.5	59.1
Medium Trucks:	58.7	50.6	44.2	42.7	51.1	51.4
Heavy Trucks:	63.9	52.0	42.9	44.1	54.0	54.2
Vehicle Noise:	**66.3**	**59.7**	**56.5**	**51.8**	**60.4**	**60.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	133
65 dBA	42
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25,917
Peak Hour Traffic:	**2591.7**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

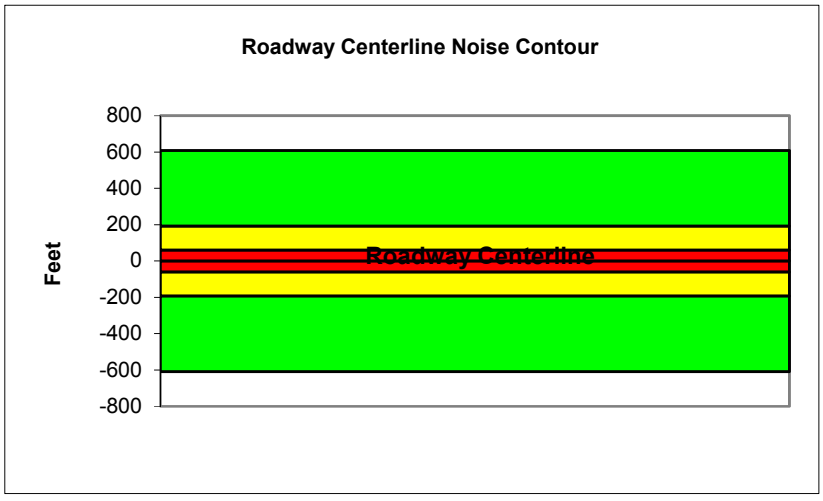
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.9	64.7	62.9	56.8	65.5	66.1
Medium Trucks:	64.9	56.8	50.4	48.9	57.3	57.6
Heavy Trucks:	69.7	57.8	48.7	50.0	59.7	59.8
Vehicle Noise:	**72.1**	**66.3**	**63.4**	**58.4**	**67.0**	**67.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	608
65 dBA	192
70 dBA	61
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,659
Peak Hour Traffic:	**1665.9**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

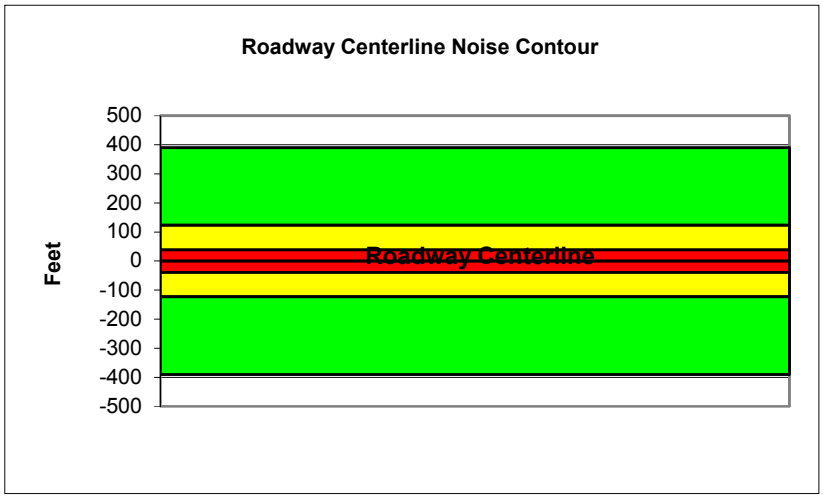
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	55.0	63.6	64.2
Medium Trucks:	63.0	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	67.8	55.9	46.9	48.1	57.8	57.9
Vehicle Noise:	**70.2**	**64.4**	**61.5**	**56.5**	**65.1**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	390
65 dBA	123
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	16,840
Peak Hour Traffic:	**1684**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

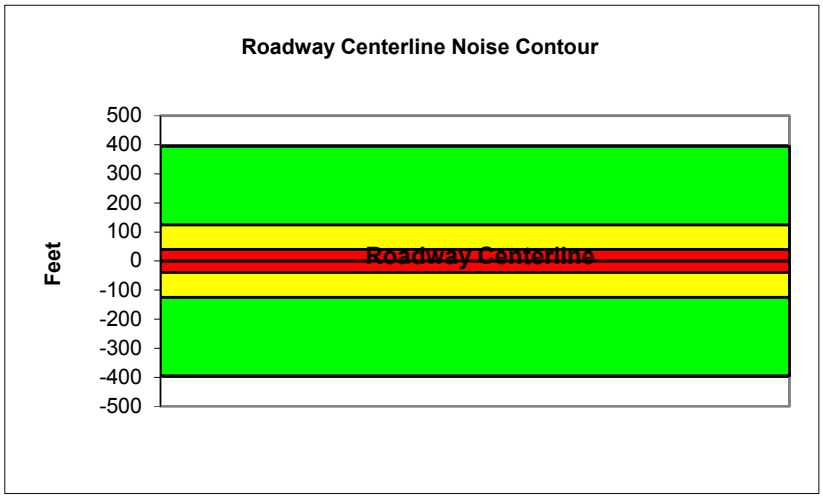
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	54.9	63.6	64.2
Medium Trucks:	63.0	54.9	48.5	47.0	55.4	55.7
Heavy Trucks:	67.8	55.9	46.8	48.0	57.8	57.9
Vehicle Noise:	**70.2**	**64.4**	**61.5**	**56.5**	**65.1**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	395
65 dBA	125
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	15,767
Peak Hour Traffic:	**1576.7**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

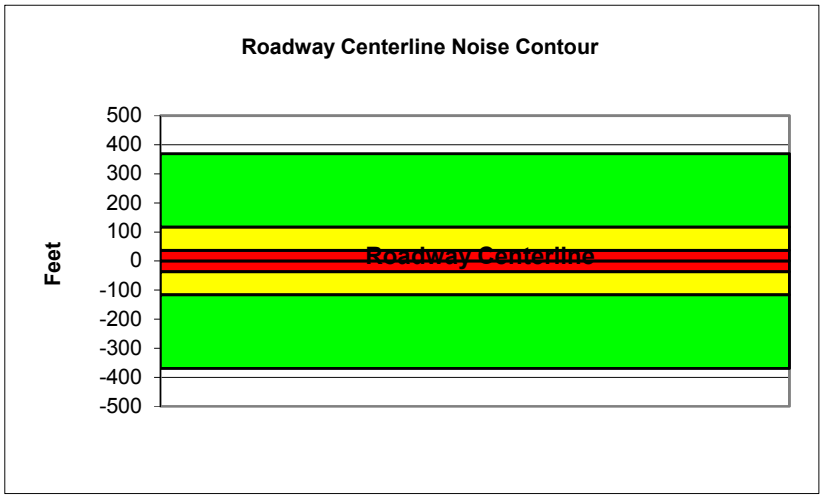
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.7	62.5	60.7	54.6	63.3	63.9
Medium Trucks:	62.7	54.6	48.2	46.7	55.2	55.4
Heavy Trucks:	67.5	55.6	46.5	47.8	57.5	57.6
Vehicle Noise:	**69.9**	**64.1**	**61.2**	**56.2**	**64.8**	**65.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	370
65 dBA	117
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	14,450
Peak Hour Traffic:	**1445**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

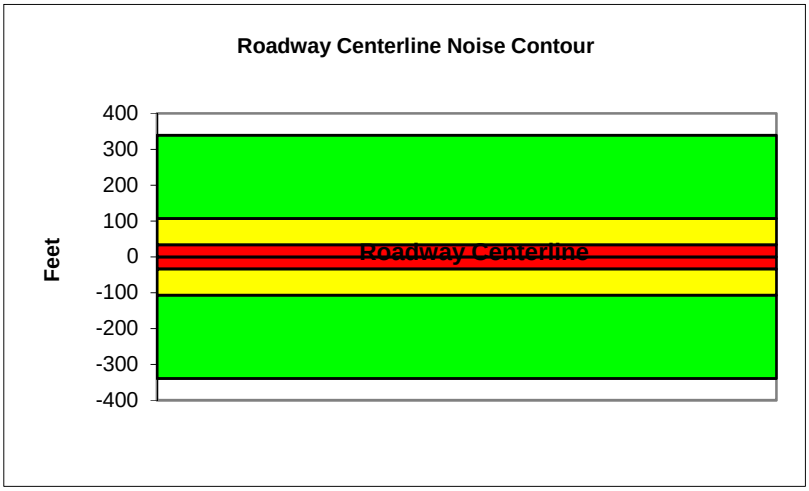
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.4	62.2	60.4	54.3	63.0	63.6
Medium Trucks:	62.4	54.3	47.9	46.4	54.8	55.1
Heavy Trucks:	67.2	55.3	46.2	47.5	57.2	57.3
Vehicle Noise:	**69.6**	**63.8**	**60.9**	**55.9**	**64.5**	**65.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	339
65 dBA	107
70 dBA	34
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	15,948
Peak Hour Traffic:	**1594.8**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

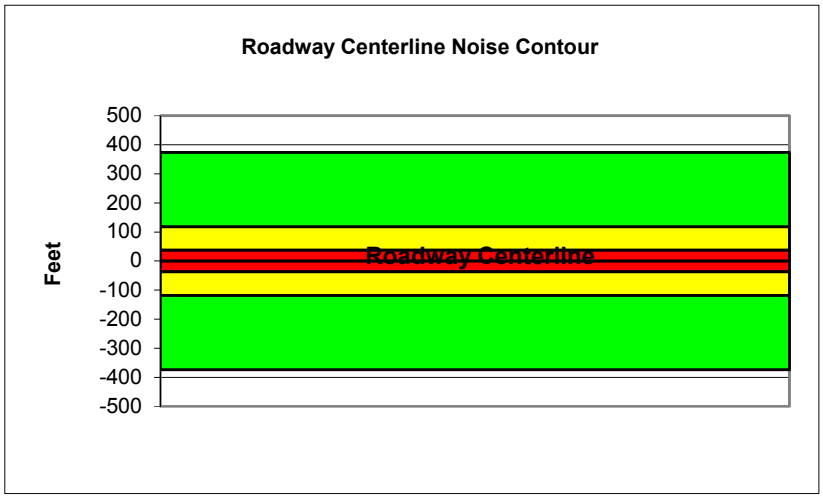
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.9	62.6	60.9	54.8	63.4	64.0
Medium Trucks:	62.8	54.7	48.4	46.8	55.3	55.5
Heavy Trucks:	67.7	55.7	46.7	47.9	57.6	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.3**	**56.3**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	373
65 dBA	118
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	7,818
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**781.8**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	35
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	20
Barrier Far lane CL Dist:	**0**	**NOISE INPUTS**	
Pad Elevation:	**0.5**	Site conditions **HARD SITE**	
Road Elevation:	**0**	**FLEET MIX**	
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

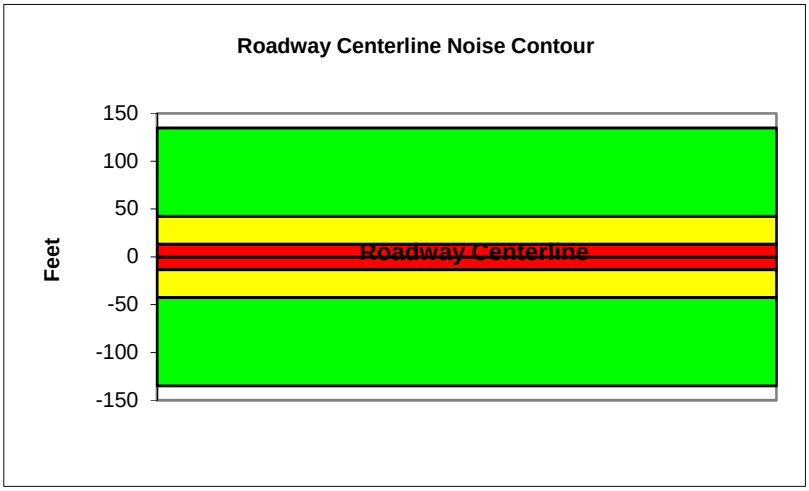
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.0	57.8	56.0	49.9	58.6	59.2
Medium Trucks:	58.7	50.7	44.3	42.7	51.2	51.4
Heavy Trucks:	64.0	52.0	43.0	44.2	54.1	54.2
Vehicle Noise:	**66.4**	**59.8**	**56.6**	**51.9**	**60.4**	**60.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	135
65 dBA	43
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	27,428
Peak Hour Traffic:	**2742.8**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

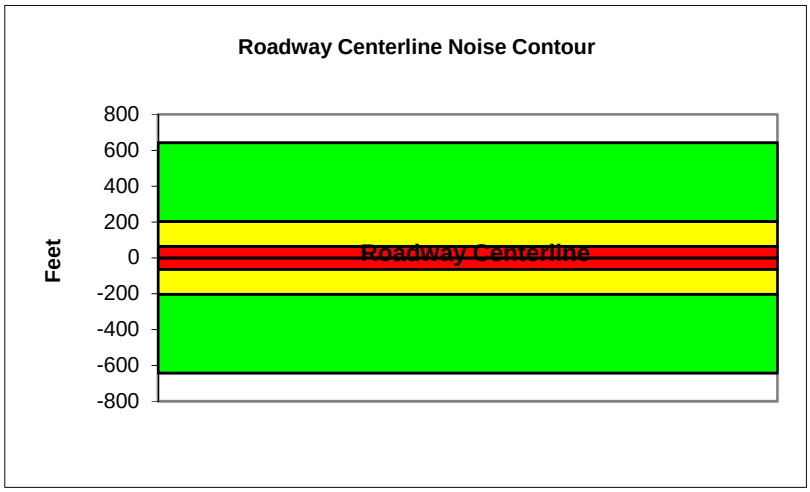
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	65.0	63.2	57.1	65.7	66.3
Medium Trucks:	65.1	57.1	50.7	49.1	57.6	57.8
Heavy Trucks:	70.0	58.0	49.0	50.2	59.9	60.0
Vehicle Noise:	**72.4**	**66.5**	**63.6**	**58.7**	**67.2**	**67.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	643
65 dBA	203
70 dBA	64
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,766
Peak Hour Traffic:	**1776.6**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

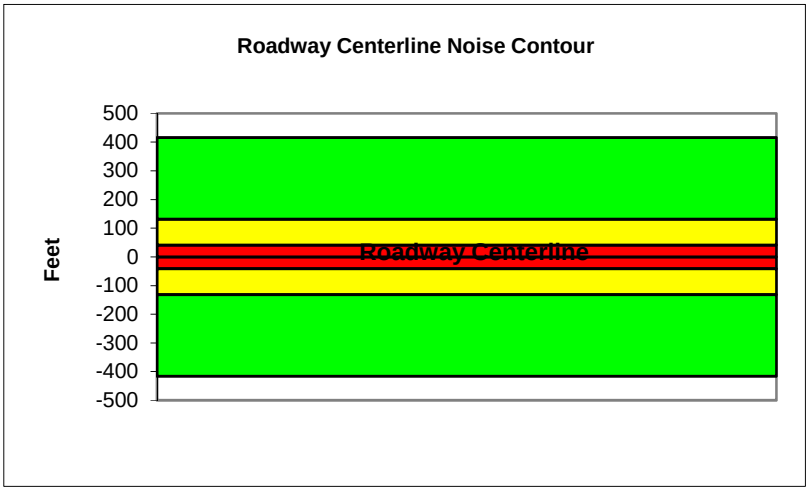
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.3	63.1	61.3	55.2	63.9	64.5
Medium Trucks:	63.3	55.2	48.8	47.3	55.7	56.0
Heavy Trucks:	68.1	56.2	47.1	48.4	58.1	58.2
Vehicle Noise:	**70.5**	**64.7**	**61.8**	**56.8**	**65.4**	**65.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	416
65 dBA	132
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,386
Peak Hour Traffic:	**1738.6**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

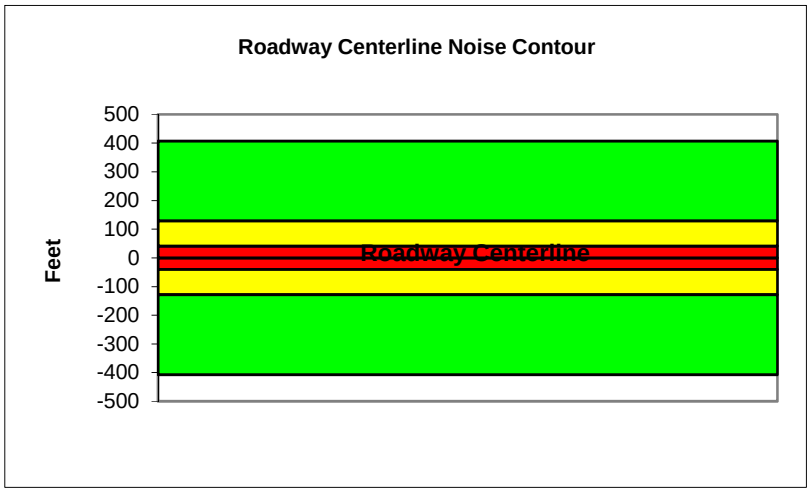
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.2	62.9	61.2	55.1	63.7	64.3
Medium Trucks:	63.1	55.0	48.7	47.1	55.6	55.8
Heavy Trucks:	68.0	56.0	47.0	48.2	57.9	58.0
Vehicle Noise:	**70.3**	**64.5**	**61.6**	**56.6**	**65.2**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	407
65 dBA	129
70 dBA	41
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,011
Peak Hour Traffic:	**1601.1**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

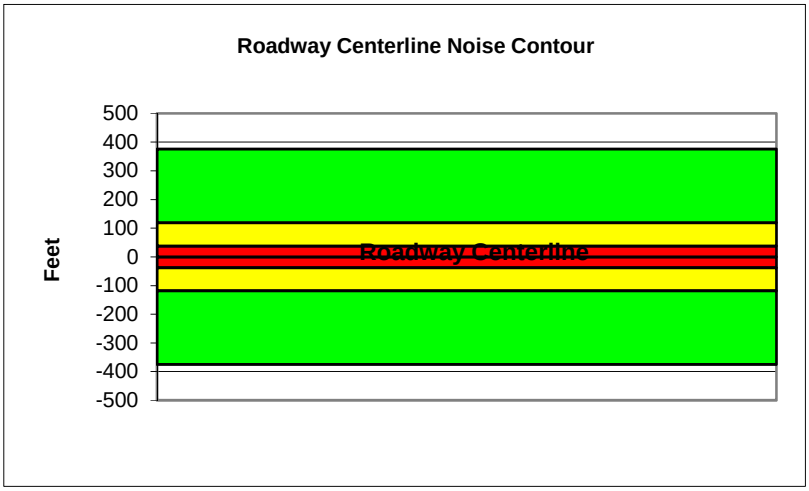
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.6	60.8	54.7	63.4	64.0
Medium Trucks:	62.8	54.7	48.3	46.7	55.2	55.5
Heavy Trucks:	67.6	55.7	46.6	47.8	57.5	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.2**	**56.3**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	376
65 dBA	119
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	14,794
Peak Hour Traffic:	**1479.4**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

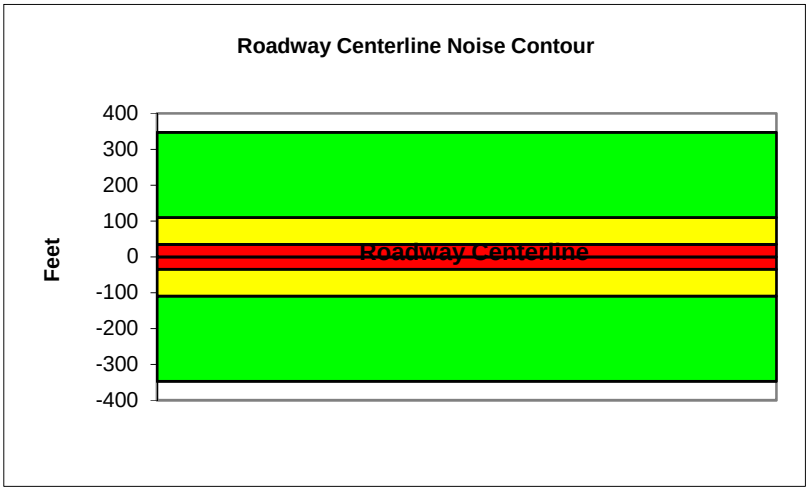
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.5	62.3	60.5	54.4	63.1	63.7
Medium Trucks:	62.5	54.4	48.0	46.5	55.0	55.2
Heavy Trucks:	67.3	55.4	46.3	47.6	57.3	57.4
Vehicle Noise:	**69.7**	**63.9**	**61.0**	**56.0**	**64.6**	**65.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	347
65 dBA	110
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,416
Peak Hour Traffic:	**1641.6**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

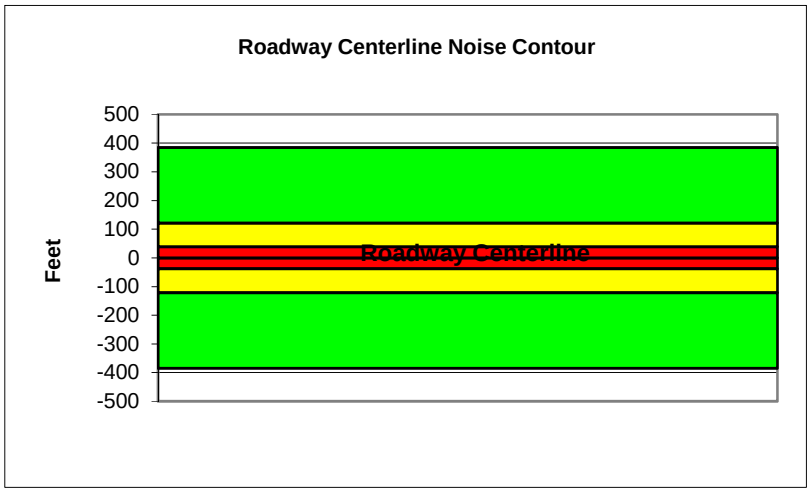
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	54.9	63.5	64.2
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	67.8	55.8	46.8	48.0	57.7	57.9
Vehicle Noise:	**70.2**	**64.3**	**61.4**	**56.5**	**65.1**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	385
65 dBA	122
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7,917
Peak Hour Traffic:	**791.7**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

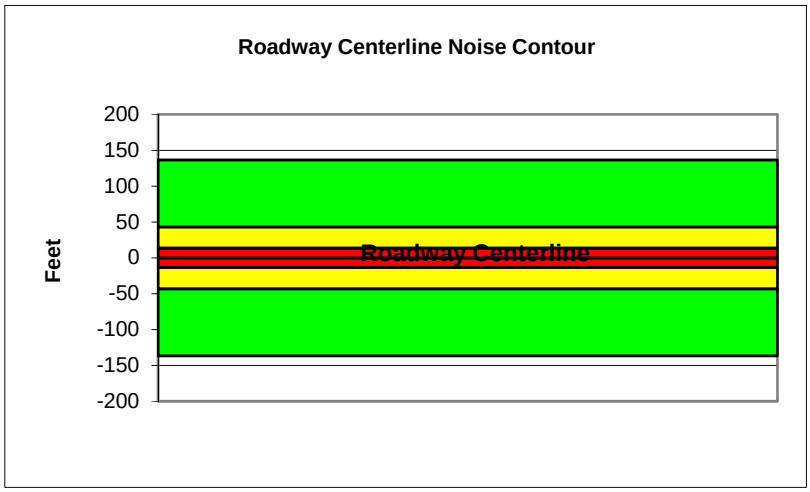
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.1	57.9	56.1	50.0	58.6	59.2
Medium Trucks:	58.8	50.7	44.3	42.8	51.3	51.5
Heavy Trucks:	64.0	52.1	43.0	44.2	54.1	54.3
Vehicle Noise:	**66.4**	**59.8**	**56.6**	**51.9**	**60.5**	**61.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	137
65 dBA	43
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	27,642
Peak Hour Traffic:	**2764.2**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

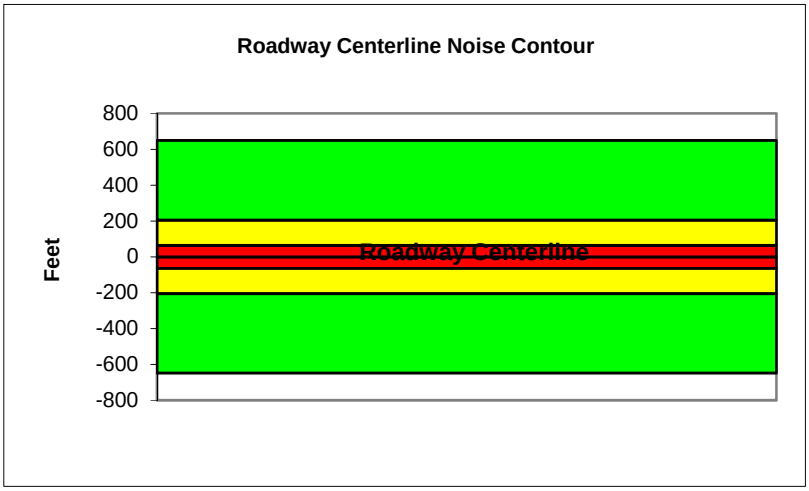
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	65.0	63.2	57.1	65.8	66.4
Medium Trucks:	65.2	57.1	50.7	49.1	57.6	57.9
Heavy Trucks:	70.0	58.1	49.0	50.2	60.0	60.1
Vehicle Noise:	**72.4**	**66.6**	**63.6**	**58.7**	**67.3**	**67.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	649
65 dBA	205
70 dBA	65
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,985
Peak Hour Traffic:	**1798.5**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

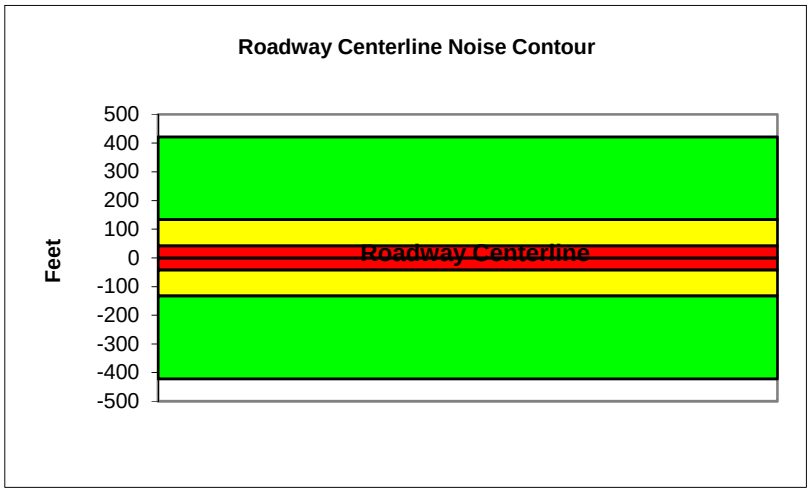
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.2	61.4	55.3	63.9	64.5
Medium Trucks:	63.3	55.3	48.9	47.3	55.8	56.0
Heavy Trucks:	68.2	56.2	47.2	48.4	58.1	58.2
Vehicle Noise:	**70.6**	**64.7**	**61.8**	**56.9**	**65.4**	**65.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	422
65 dBA	133
70 dBA	42
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Existing
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,605
Peak Hour Traffic:	**1760.5**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

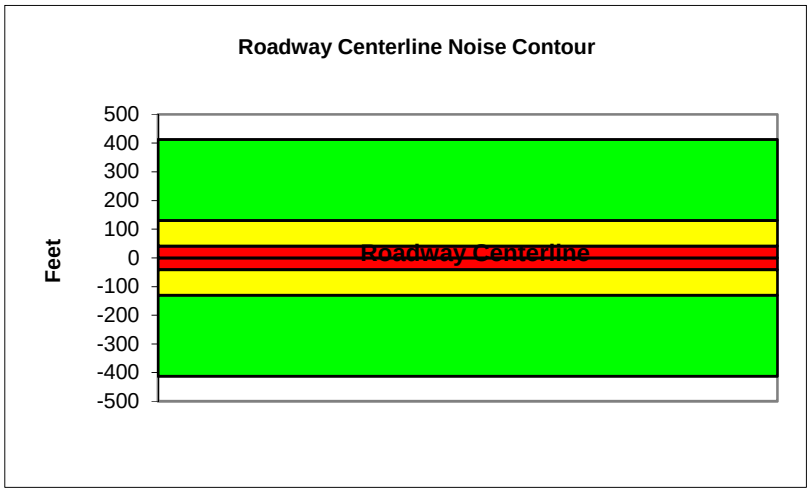
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.2	63.0	61.2	55.1	63.8	64.4
Medium Trucks:	63.2	55.1	48.7	47.1	55.6	55.9
Heavy Trucks:	68.0	56.1	47.0	48.2	58.0	58.1
Vehicle Noise:	**70.4**	**64.6**	**61.7**	**56.7**	**65.3**	**65.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	413
65 dBA	131
70 dBA	41
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,354
Peak Hour Traffic:	**1635.4**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

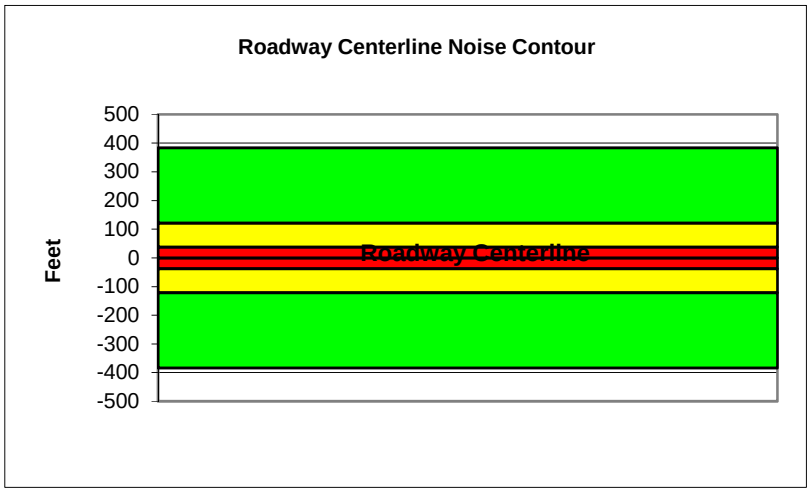
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.9	62.7	60.9	54.8	63.5	64.1
Medium Trucks:	62.8	54.8	48.4	46.8	55.3	55.5
Heavy Trucks:	67.7	55.8	46.7	47.9	57.6	57.8
Vehicle Noise:	**70.1**	**64.3**	**61.3**	**56.4**	**65.0**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	383
65 dBA	121
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15,037
Peak Hour Traffic:	**1503.7**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

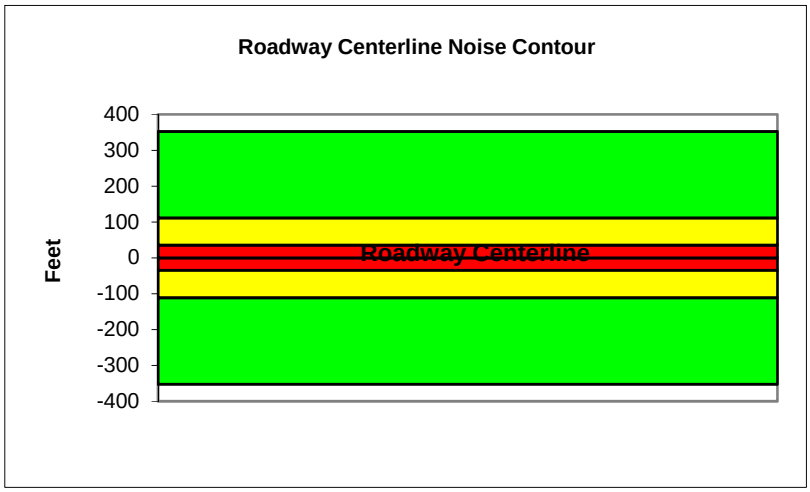
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.6	62.4	60.6	54.5	63.2	63.8
Medium Trucks:	62.6	54.5	48.1	46.5	55.0	55.3
Heavy Trucks:	67.4	55.5	46.4	47.6	57.3	57.5
Vehicle Noise:	**69.8**	**64.0**	**61.0**	**56.1**	**64.7**	**65.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	353
65 dBA	111
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16,535
Peak Hour Traffic:	**1653.5**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

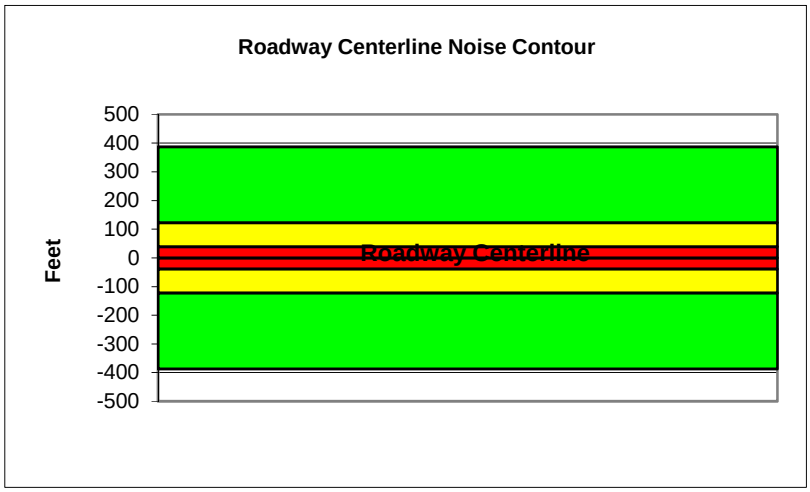
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	54.9	63.6	64.2
Medium Trucks:	63.0	54.9	48.5	46.9	55.4	55.7
Heavy Trucks:	67.8	55.9	46.8	48.0	57.8	57.9
Vehicle Noise:	**70.2**	**64.4**	**61.5**	**56.5**	**65.1**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	387
65 dBA	123
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Near Term Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8,022
Peak Hour Traffic:	**802.2**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

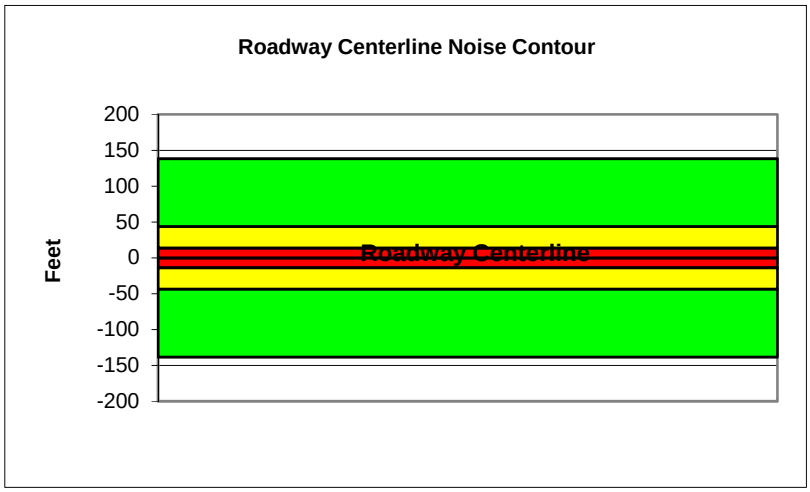
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.1	57.9	56.1	50.0	58.7	59.3
Medium Trucks:	58.8	50.8	44.4	42.8	51.3	51.5
Heavy Trucks:	64.1	52.1	43.1	44.3	54.2	54.3
Vehicle Noise:	**66.5**	**59.9**	**56.7**	**52.0**	**60.6**	**61.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	138
65 dBA	44
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30,400
Peak Hour Traffic:	**3040**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

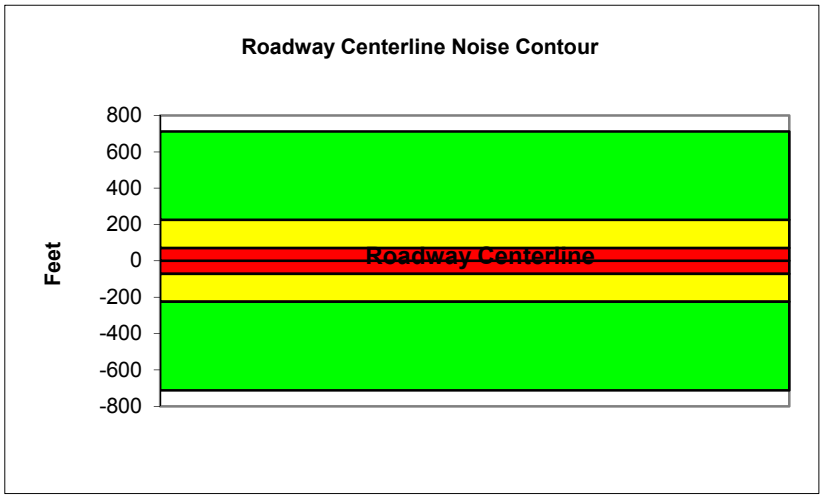
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.6	65.4	63.6	57.5	66.2	66.8
Medium Trucks:	65.6	57.5	51.1	49.6	58.0	58.3
Heavy Trucks:	70.4	58.5	49.4	50.7	60.4	60.5
Vehicle Noise:	**72.8**	**67.0**	**64.1**	**59.1**	**67.7**	**68.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	713
65 dBA	225
70 dBA	71
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	21,140
Peak Hour Traffic:	**2114**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

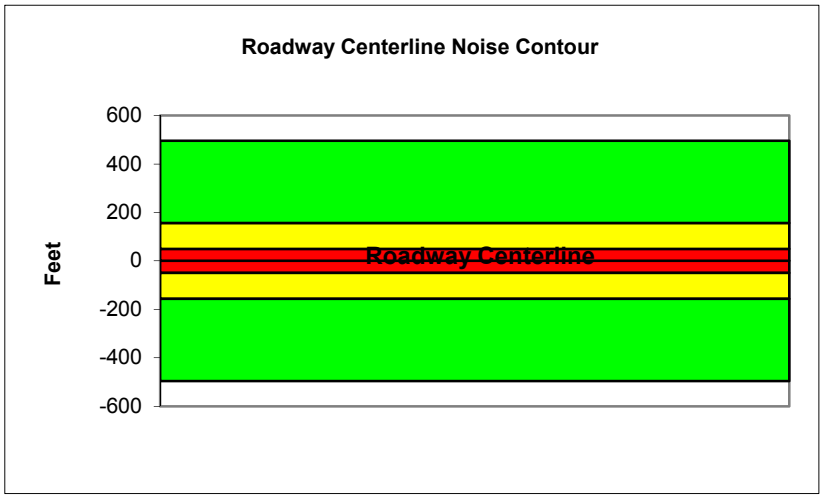
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.0	64.6	65.2
Medium Trucks:	64.0	56.0	49.6	48.0	56.5	56.7
Heavy Trucks:	68.9	56.9	47.9	49.1	58.8	58.9
Vehicle Noise:	**71.3**	**65.4**	**62.5**	**57.6**	**66.2**	**66.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	496
65 dBA	157
70 dBA	50
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	21,320
Peak Hour Traffic:	**2132**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

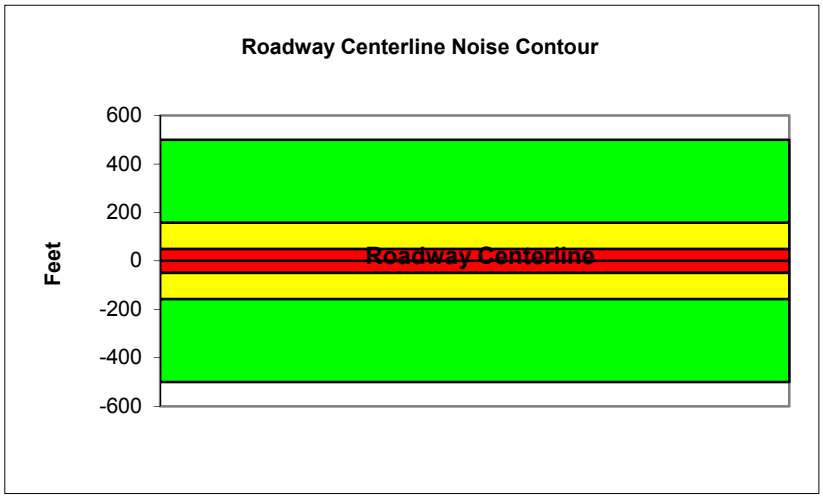
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	63.8	62.0	56.0	64.6	65.2
Medium Trucks:	64.0	55.9	49.5	48.0	56.5	56.7
Heavy Trucks:	68.8	56.9	47.9	49.1	58.8	58.9
Vehicle Noise:	**71.2**	**65.4**	**62.5**	**57.5**	**66.1**	**66.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	500
65 dBA	158
70 dBA	50
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	16,700
Peak Hour Traffic:	**1670**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

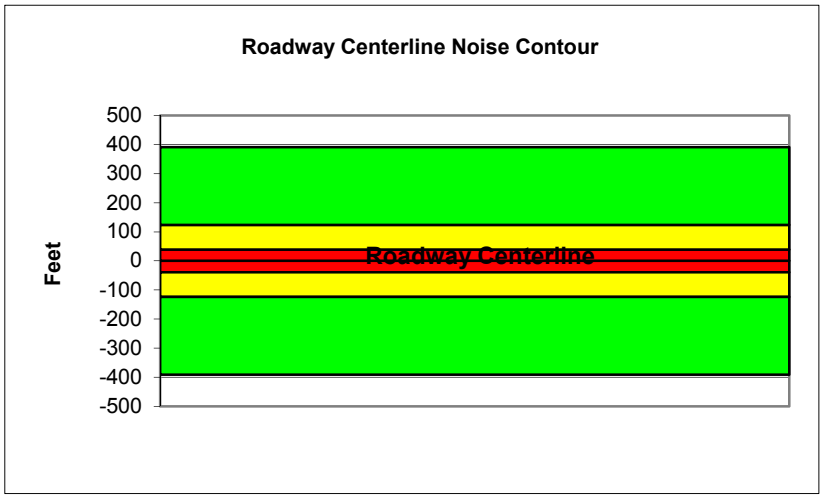
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.0	62.8	61.0	54.9	63.5	64.2
Medium Trucks:	62.9	54.9	48.5	46.9	55.4	55.6
Heavy Trucks:	67.8	55.8	46.8	48.0	57.7	57.9
Vehicle Noise:	**70.2**	**64.3**	**61.4**	**56.5**	**65.1**	**65.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	391
65 dBA	124
70 dBA	39
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15,485
Peak Hour Traffic:	**1548.5**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

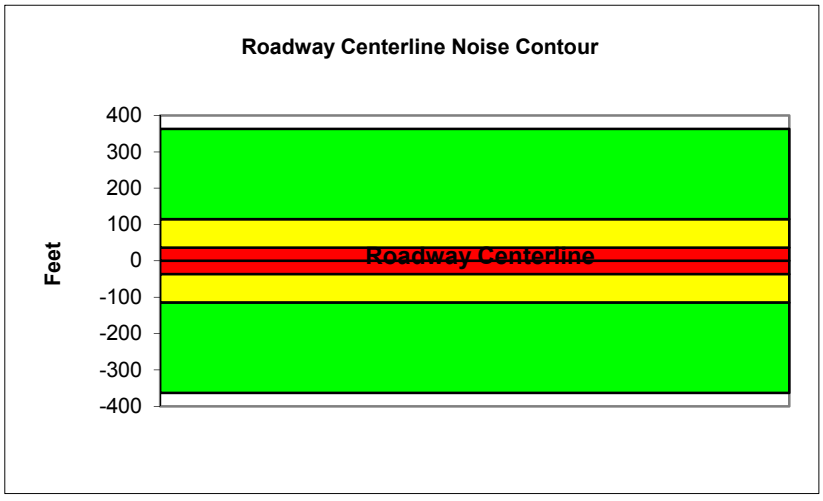
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.7	62.5	60.7	54.6	63.3	63.9
Medium Trucks:	62.7	54.6	48.2	46.7	55.1	55.4
Heavy Trucks:	67.5	55.6	46.5	47.8	57.5	57.6
Vehicle Noise:	**69.9**	**64.1**	**61.2**	**56.2**	**64.8**	**65.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	363
65 dBA	115
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	17,100
Peak Hour Traffic:	**1710**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

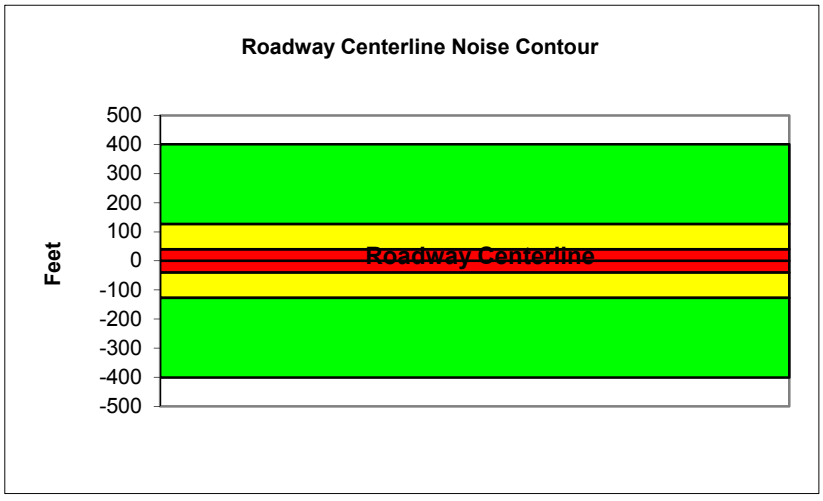
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.2	62.9	61.2	55.1	63.7	64.3
Medium Trucks:	63.1	55.0	48.7	47.1	55.6	55.8
Heavy Trucks:	68.0	56.0	47.0	48.2	57.9	58.0
Vehicle Noise:	**70.3**	**64.5**	**61.6**	**56.6**	**65.2**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	401
65 dBA	127
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	10,500
Peak Hour Traffic:	**1050**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

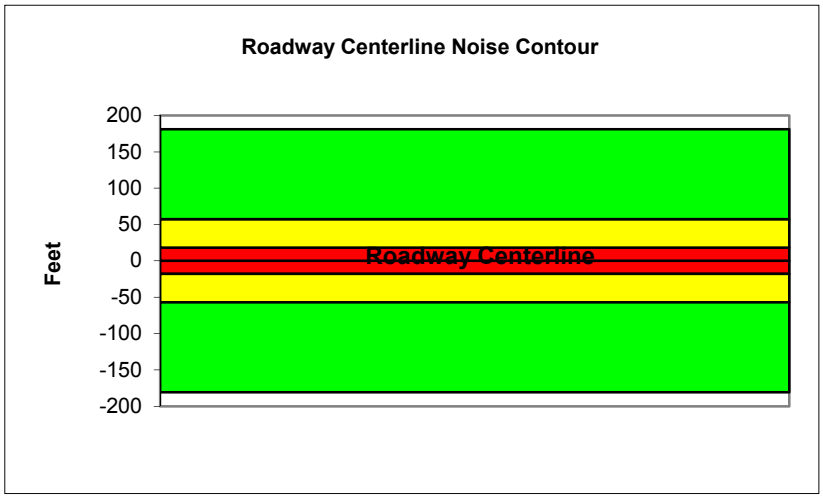
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.1	57.3	51.2	59.9	60.5
Medium Trucks:	60.0	52.0	45.6	44.0	52.5	52.7
Heavy Trucks:	65.2	53.3	44.2	45.5	55.4	55.5
Vehicle Noise:	**67.7**	**61.0**	**57.9**	**53.2**	**61.7**	**62.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	181
65 dBA	57
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista Road		
Road Segment:	Napa to Mildred		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30,614
Peak Hour Traffic:	**3061.4**
Vehicle Speed:	40
Centerline Separation:	18

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

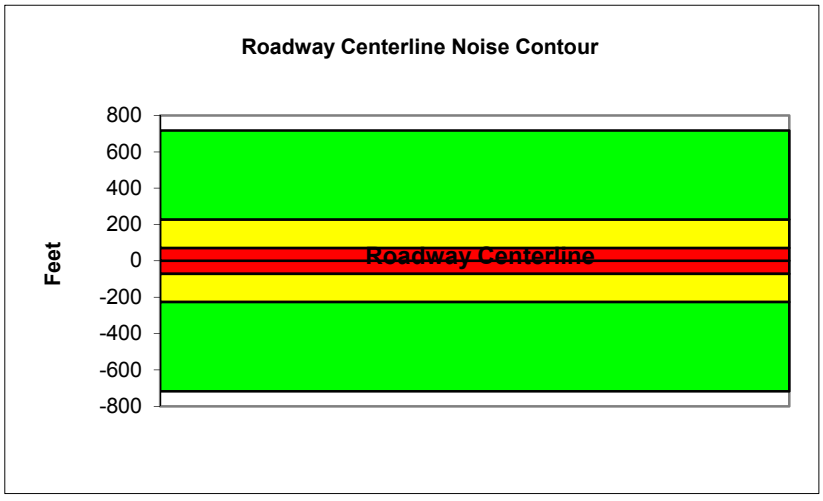
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.7	65.4	63.6	57.6	66.2	66.8
Medium Trucks:	65.6	57.5	51.2	49.6	58.1	58.3
Heavy Trucks:	70.5	58.5	49.5	50.7	60.4	60.5
Vehicle Noise:	**72.8**	**67.0**	**64.1**	**59.1**	**67.7**	**68.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	718
65 dBA	227
70 dBA	72
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Milderd to USD Main		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	21,359
Peak Hour Traffic:	**2135.9**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

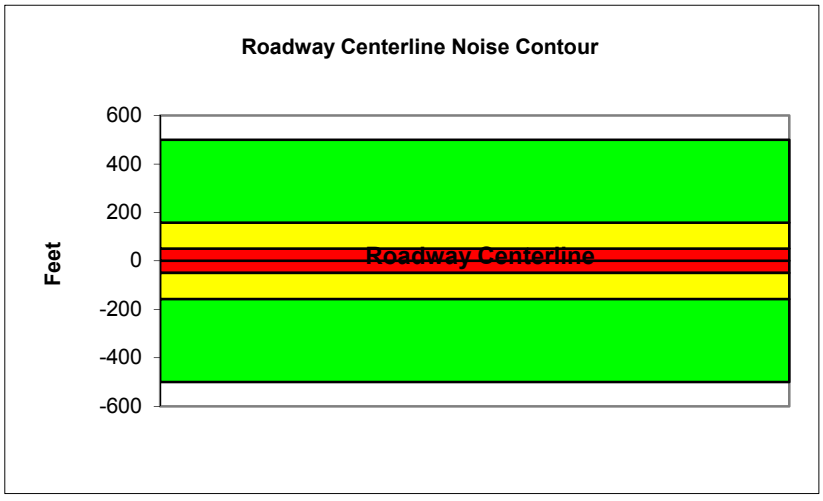
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.0	64.7	65.3
Medium Trucks:	64.1	56.0	49.6	48.1	56.5	56.8
Heavy Trucks:	68.9	57.0	47.9	49.2	58.9	59.0
Vehicle Noise:	**71.3**	**65.5**	**62.6**	**57.6**	**66.2**	**66.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	500
65 dBA	158
70 dBA	50
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	USD Main to Cumbres		

PROJECT DATA		SITE DATA	
Centerline Dist to Barrier	**0**	Road Grade:	0
Barrier (0=wall, 1= berm):	**0**	Average Daily Traffic:	21,539
Receiver Barrier Dist:	**0**	Peak Hour Traffic:	**2153.9**
Centerline Dist. To Observer:	**100**	Vehicle Speed:	40
Barrier Near Lane CL Dist:	**0**	Centerline Separation:	20
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View: **90**	Lft View: **-90**		

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

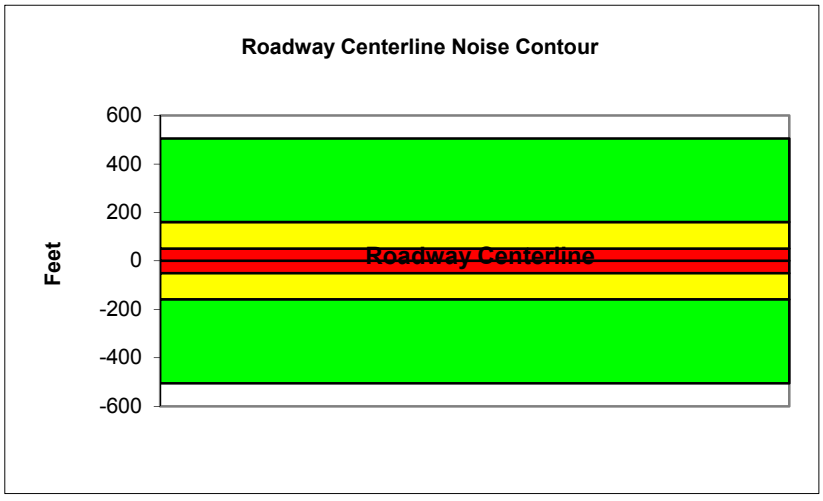
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.0	64.6	65.3
Medium Trucks:	64.0	56.0	49.6	48.0	56.5	56.7
Heavy Trucks:	68.9	57.0	47.9	49.1	58.8	59.0
Vehicle Noise:	**71.3**	**65.5**	**62.5**	**57.6**	**66.2**	**66.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	505
65 dBA	160
70 dBA	51
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Cumbres to Alcala		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	17,043
Peak Hour Traffic:	**1704.3**
Vehicle Speed:	40
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

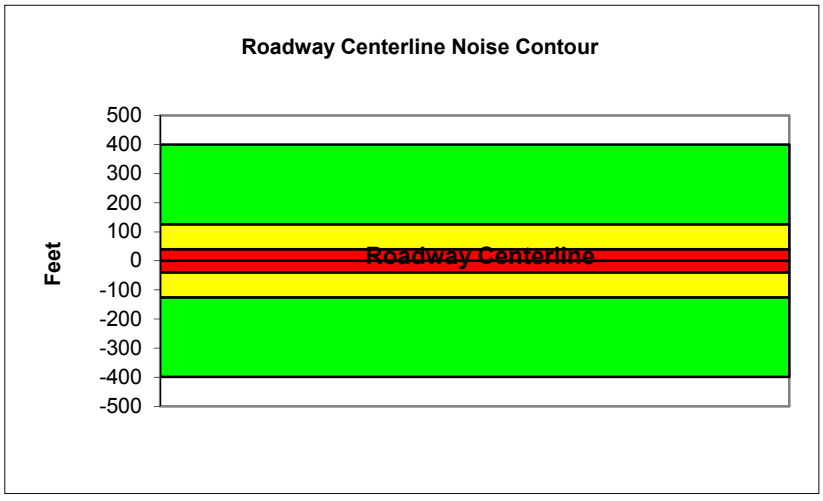
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.1	62.9	61.1	55.0	63.6	64.2
Medium Trucks:	63.0	55.0	48.6	47.0	55.5	55.7
Heavy Trucks:	67.9	55.9	46.9	48.1	57.8	57.9
Vehicle Noise:	**70.2**	**64.4**	**61.5**	**56.6**	**65.1**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	400
65 dBA	126
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Alcala to Glidden		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**

Rt View: **90** Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15,728
Peak Hour Traffic:	**1572.8**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

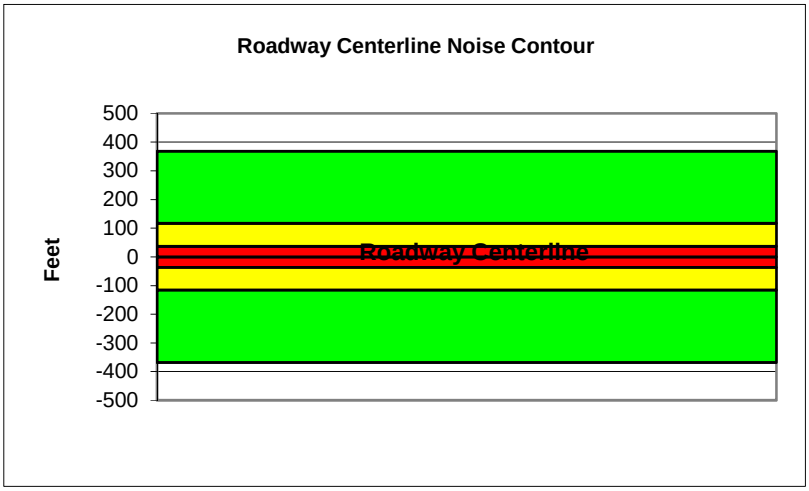
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.8	62.6	60.8	54.7	63.4	64.0
Medium Trucks:	62.8	54.7	48.3	46.7	55.2	55.4
Heavy Trucks:	67.6	55.7	46.6	47.8	57.5	57.7
Vehicle Noise:	**70.0**	**64.2**	**61.2**	**56.3**	**64.9**	**65.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	368
65 dBA	116
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Linda Vista		
Road Segment:	Glidden to Kramer		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	17,219
Peak Hour Traffic:	**1721.9**
Vehicle Speed:	40
Centerline Separation:	16

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

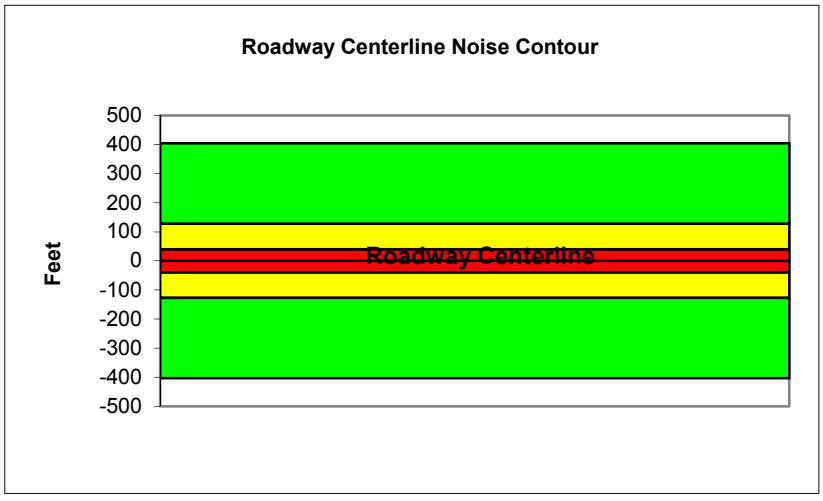
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.2	63.0	61.2	55.1	63.8	64.4
Medium Trucks:	63.1	55.1	48.7	47.1	55.6	55.8
Heavy Trucks:	68.0	56.1	47.0	48.2	57.9	58.1
Vehicle Noise:	**70.4**	**64.6**	**61.6**	**56.7**	**65.3**	**65.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	404
65 dBA	128
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Francis Parker	Scenario:	Future Plus Project
Analyst:	Adam Furman	Job #:	144571
Roadway:	Via Las Cumbres		
Road Segment:	Linda Vista to Friars		

PROJECT DATA			
Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)	
Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA	
Road Grade:	0
Average Daily Traffic:	10,605
Peak Hour Traffic:	**1060.5**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

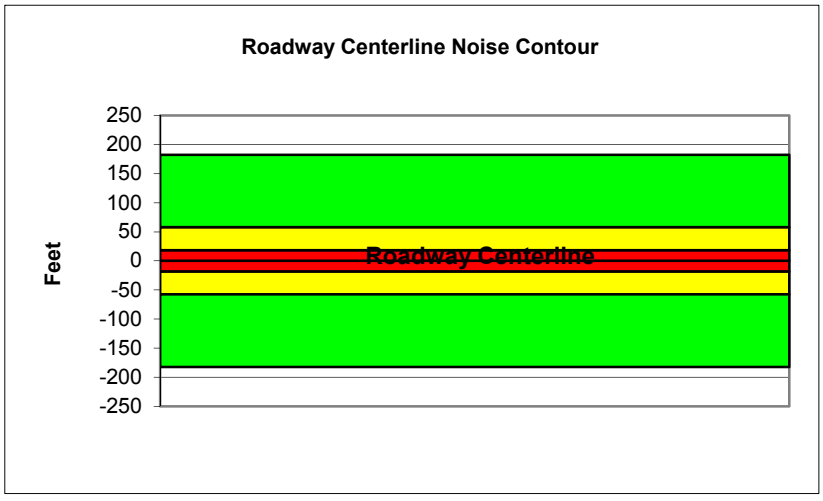
UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.1	57.3	51.3	59.9	60.5
Medium Trucks:	60.1	52.0	45.6	44.0	52.5	52.8
Heavy Trucks:	65.3	53.3	44.3	45.5	55.4	55.5
Vehicle Noise:	**67.7**	**61.1**	**57.9**	**53.2**	**61.8**	**62.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	183
65 dBA	58
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



TRAFFIC IMPACT ANALYSIS

For

FRANCIS PARKER SCHOOL MASTER PLAN UPDATE

Prepared for

THE CITY OF SAN DIEGO

and

FRANCIS PARKER SCHOOL

FINAL: February 12, 2016

TRAFFIC PLANNING & ENGINEERING, MARKETING & PROJECT SUPPORT
CONSULTANTS TO INDUSTRY AND GOVERNMENT
8451 Miralani Drive, Suite A
San Diego, CA 92126
(858) 560-4911

TRANSPORTATION ANALYSIS
TABLE OF CONTENTS

Section		Page
1.0	EXECUTIVE SUMMARY	1-1
2.0	INTRODUCTION	2-1
3.0	PROPOSED PROJECT	3-1
4.0	METHODOLOGY	4-1
5.0	EXISTING CONDITIONS	5-1
6.0	EXISTING WITH PROJECT	6-1
7.0	OTHER PROJECTS	7-1
8.0	NEAR TERM WITHOUT PROJECT	8-1
9.0	NEAR TERM WITH PROJECT	9-1
10.0	YEAR 2035 WITHOUT PROJECT	10-1
11.0	YEAR 2035 WITH PROJECT	11-1
12.0	ACCESS, PARKING ANALYSIS, AND CONSTRUCTION TRAFFIC	12-1
13.0	PEDESTRIANS, BICYCLES, AND TRANSIT MODES	13-1
14.0	SPECIAL EVENTS	14-1
15.0	CONCLUSIONS AND RECOMMENDATIONS	15-1
16.0	URBAN SYSTEMS ASSOCIATES, INC. PREPARERS	16-1

LIST OF FIGURES

Number		Page
2-1	Project Location Map	2-2
2-2	Existing Site Plan	2-3
2-3	Proposed Site Plan	2-4
2-4	Intersection Key & Study Area Boundary	2-5
3-1	Project Only Traffic Distribution (2 Pages)	3-3
3-2	Project Only Traffic Distribution	3-5
3-3	Project Only Average Daily Traffic	3-6
3-4	Project Only AM/PM Peak Hour Traffic (2 pages)	3-7
5-1	Existing Average Daily Traffic	5-3
5-2	Existing Lane Configurations (2 Pages)	5-6
5-3	Existing AM/PM Peak Hour Traffic (2 Pages)	5-8
6-1	Existing With Project Average Daily Traffic	6-3
6-2	Lane Configurations – With Project(2 Pages)	6-5
6-3	Existing With Project AM/PM Peak Hour Traffic (2 Pages)	6-7
7-1	Other Projects Location Map	7-3
7-2	Other Projects Average Daily Traffic Volumes - Near Term	7-4
7-3	Other Projects AM/PM Peak Hour Traffic Volumes (2 Pages)	7-5
8-1	Near Term Without Project Average Daily Traffic	8-2
8-2	Near Term Without Project AM/PM Peak Hour Traffic (2 Pages)	8-5
9-1	Near Term With Project Average Daily Traffic Volumes	9-2
9-2	Near Term With Project AM/PM Peak Hour Traffic (2 Pages)	9-5
10-1	Year 2035 Without Project Average Daily Traffic	10-2

LIST OF FIGURES (Cont.)

Number **Page**

10-2 Year 2035 Without Project AM / PM Peak Hour Traffic Volumes (2 Pages) 10-5

11-1 Year 2035 With Project Average Daily Traffic Volumes 11-3

11-2 Year 2035 With Project AM / PM Peak Hour Traffic Volumes (2 Pages)..... 11-5

12-1 Middle & Upper School Circulation Plan..... 12-2

12-2 Morning – Bus Parking & Circulation Plan..... 12-3

12-3 Afternoon – Bus Parking & Circulation Plan 12-4

13-1 Pedestrian Circulation Plan..... 13-2

LIST OF TABLES

Number **Page**

1-1 Existing With and Without Project Street Segment Significance 1-3
1-2 Near Term With & Without Project Street Segment Significance 1-4
1-3 Year 2035 With & Without Project Street Segment Significance 1-5
1-4 Existing With & Without Project Intersection Significance 1-6
1-5 Near Term With & Without Project Intersection Significance 1-7
1-6 Year 2035 With & Without Project Intersection Significance 1-8
3-1 Project Trip Generation 3-2
4-1 Levels of Service Criteria for Signalized and Un-signalized Intersections 4-4
4-2 Significance Thresholds 4-6
4-3 Roadway Classifications 4-7
5-1 Existing Street Segment Levels of Service 5-5
5-2 Existing Intersection Levels of Service 5-10
6-1 Existing With Project Street Segment Levels of Service 6-4
6-2 Existing With Project Intersection Levels of Service 6-9
8-1 Near Term Without Project Street Segment Levels of Service 8-3
8-2 Near Term Without Project Intersection Levels of Service 8-7
9-1 Near Term With Project Street Segment Levels of Service 9-3
9-2 Near Term With Project Intersection Levels of Service 9-7
10-1 Year 2035 Without Project Street Segment Levels of Service 10-3
10-2 Year 2035 Without Project Intersection Levels of Service 10-7
11-1 Year 2035 With Project Street Segment Levels of Service 11-4

LIST OF TABLES (Cont.)

Number **Page**

11-2 Year 2035 With Project Intersection Levels of Service 11-7

12-1 Year 2035 With Project Intersection Levels of Service 12-5

12-2 Parking Calculation 12-8

12-3 Construction Traffic 12-10

12-4 Near Term Without and With (Project and Construction) Street Segment Comparison 12-11

APPENDICES

A. Existing Uses and Project Information

B. Existing Traffic Counts & FPS Driveway Traffic Volume Memo

- Traffic Volume Count Summaries
- Traffic Signal Timing Sheets

C. Existing Conditions

- HCS & Synchro Intersection LOS Worksheets

D. Existing With Project Conditions

- HCS & Synchro Intersection LOS Worksheets
- Signal Warrants
- Adjusted Existing and Project Traffic Based on New Driveways and Updated On-Site Circulation Plan

E. Other Projects Information

- List of Projects
- Project Description

F. Near Term Without Project Conditions

- HCS & Synchro Intersection LOS Worksheets

G. Near Term With Project Conditions

- HCS & Synchro Intersection LOS Worksheets

H. Year 2035

- Factoring Worksheets

I. Year 2035 Without Project Conditions

- HCS & Synchro Intersection LOS Worksheets

J. Year 2035 With Project Conditions

- HCS & Synchro Intersection LOS Worksheets

K. Special Event Historical Data

L. Traffic Model Memorandum

1.0 EXECUTIVE SUMMARY

This study was commissioned by the Francis Parker School to determine potential transportation impacts and appropriate mitigation measures for the proposed addition of 140 students to the existing population of 800. The study also evaluates proposed changes in access to the campus and presents a Transportation Management Plan for special events on campus. The Francis Parker School is located on Linda Vista Road east of Via Las Cumbres. The additional students would generate 476 average daily trips (ADT) with 114 (91 in / 23 out) trips in the AM peak hour and 67 (20 in / 47 out) trips in the PM peak hour.

In order to determine a scope of work for the Transportation Impact Study, staff of Urban Systems Associates, Inc. (USAI) completed a scope of work and study area map which was proposed to City Transportation staff. Based on the scope of work proposed, study area intersections and street segments were identified for the analysis and traffic generation and distribution were determined. The traffic analysis was based on a SANDAG Series 12 travel forecast and both machine and manual traffic counts of the existing daily and peak hour traffic flow data for the study intersections and street segments.

The traffic generation of the Francis Parker School additional 140 students was based on actual school driveway traffic counts. The project traffic was then added to the Existing, Near Term, and Year 2035 scenarios, and an impact analysis was completed in which six scenarios were analyzed: Existing, Existing With Project, Near Term Without Project, Near Term With Project, Year 2035 Without Project, and Year 2035 With Project. The term Near Term is meant to discuss a condition occurring within the next several years where traffic from other known development projects in the area are added onto existing traffic levels. This reflects the best information available for determining what traffic would be in the next several years. The term Year 2035 is meant to discuss traffic conditions to the year 2035. The analysis

year used for modeling purposes is the Year 2035. The SANDAG Series 12 Transportation Model was used to determine the future Year 2035 without and with project traffic volumes.

The project's opening day is expected to begin in the fall of 2016 with the addition of approximately 70 students. By the fall of 2017, the school is expected to include the remaining students to increase the proposed enrollment of 140 students to the total of 940 students (800 existing + 140 proposed).

Study Results:

Based upon this transportation impact analysis, it was determined that development of the proposed project would have the following impacts:

Impacts:

1. **Street Segments -** The proposed project has less than significant direct project impacts as shown in **Table 1-1 and Table 1-2**. For cumulative street segment impacts, see **Table 1-3**. The analysis shows all segments will have less than significant cumulative project impacts in horizon year 2035.
2. **Intersections -** The proposed project has one (1) significant direct project impact at Linda Vista Road / Northrim Court as shown in **Table 1-4 and Table 1-5**. For cumulative intersection impacts, see **Table 1-6**. The analysis shows all intersections will have less than cumulative significant project impacts in horizon year 2035. The analysis assumes a signal already in place at Linda Vista Road / Northrim Court in the horizon year 2035 since the signal will be installed as mitigation in the near term.
3. **Freeway Segments & Metered Freeway Ramps** – Project traffic on nearby freeway segments and metered freeway ramps are expected to be less than 20 peak hour trips and therefore were not evaluated in this report.

TABLE 1-1

Existing With & Without Project Street Segment Significance

Road	Segment	# of Lanes	Functional Classification	Lane Capacity	Existing			Existing + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Linda Vista Road	Napa Street to Mildred Street	4	4-C	30,000	E	25,703	0.86	E	25,917	0.86	0.005	***NO***
	Mildred Street to USD Main Entrance	4	4-C	30,000	C	17,660	0.59	C	17,879	0.60	0.005	***NO***
	USD Main Drwy. to Via Las Cumbres	4	4-C	30,000	C	16,621	0.55	C	16,840	0.56	0.005	***NO***
	Via Las Cumbres to Alcala Knolls Drive	4	4-C	30,000	C	15,424	0.51	C	15,767	0.53	0.008	***NO***
	Alcala Knolls Drive to Glidden Street	4	4-C	30,000	C	14,207	0.47	C	14,450	0.48	0.005	***NO***
	Glidden Street to Kramer Street	4	4-C	30,000	C	15,829	0.53	C	15,948	0.53	0.003	***NO***
Via Las Cumbres	Linda Vista Road to Friars Road	3	3-C	15,000	C	7,713	0.51	C	7,818	0.52	0.007	***NO***

Legend:

Cap. = Capacity in ADT at LOS "E"

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

4-C = 4 Lane Collector

3-C = 3 lane Collector

TABLE 1-2

Near Term With & Without Project Street Segment Significance

Road	Segment	# of Lanes	Functional Classification	Lane Capacity	Near Term			Near Term + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Linda Vista Road	Napa Street to Mildred Street	4	4-C	30,000	E	27,428	0.91	E	27,642	0.92	0.007	***NO***
	Mildred Street to USD Main Entrance	4	4-C	30,000	C	18,986	0.63	C	19,205	0.64	0.007	***NO***
	USD Main Drwy. to Via Las Cumbres	4	4-C	30,000	C	17,386	0.58	C	17,605	0.59	0.007	***NO***
	Via Las Cumbres to Alcala Knolls Drive	4	4-C	30,000	C	16,011	0.53	C	16,354	0.55	0.011	***NO***
	Alcala Knolls Drive to Glidden Street	4	4-C	30,000	C	14,794	0.49	C	15,037	0.50	0.008	***NO***
	Glidden Street to Kramer Street	4	4-C	30,000	C	16,416	0.55	C	16,535	0.55	0.004	***NO***
Via Las Cumbres	Linda Vista Road to Friars Road	3	3-C	15,000	C	7,917	0.53	C	8,022	0.53	0.007	***NO***

Legend:

Cap. = Capacity in ADT at LOS "E"

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

4-C = 4 Lane Collector

3-C = 3 lane Collector

TABLE 1-3

Year 2035 With & Without Project Street Segment Significance

Road	Segment	# of Lanes	Functional Classification	Lane Capacity	Year 2035			Year 2035 + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Linda Vista Road	Napa Street to Mildred Street	4	4-C	30,000	F	30,400	1.01	F	30,614	1.02	0.007	***NO***
	Mildred Street to USD Main Entrance	4	4-C	30,000	D	21,140	0.70	D	21,359	0.71	0.007	***NO***
	USD Main Drwy. to Via Las Cumbres	4	4-C	30,000	D	21,320	0.71	D	21,539	0.72	0.007	***NO***
	Via Las Cumbres to Alcala Knolls Drive	4	4-C	30,000	C	16,700	0.56	C	17,043	0.57	0.011	***NO***
	Alcala Knolls Drive to Glidden Street	4	4-C	30,000	C	15,485	0.52	C	15,728	0.52	0.008	***NO***
	Glidden Street to Kramer Street	4	4-C	30,000	C	17,100	0.57	C	17,219	0.57	0.004	***NO***
Via Las Cumbres	Linda Vista Road to Friars Road	3	3-C	15,000	D	10,500	0.70	D	10,605	0.71	0.007	***NO***

Legend:

Cap. = Capacity in ADT at LOS "E"

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

4-C = 4 Lane Collector

3-C = 3 lane Collector

TABLE 1-4

Existing With & Without Project Intersection Significance

#	Intersection	Existing				Existing With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
1	Linda Vista Road / Napa Street	40.3	D	49.5	D	40.8	D	0.5	No	50.1	D	0.6	No
2	Linda Vista Road / Marian Way	21.3	C	32.9	C	21.1	C	-0.2	No	33.6	C	0.7	No
3	Linda Vista Road / USD Main Entrance	19.6	B	24.4	C	19.4	B	-0.2	No	24.5	C	0.1	No
4	Linda Vista Road / Via Las Cumbres	33.2	C	32.1	C	33.4	C	0.2	No	33.3	C	1.2	No
5	Linda Vista Road / Francis Parker School Drwy. #1*	18.8	C	23.7	C	13.7	B	-5.1	No	15.8	C	-7.9	No
6	Linda Vista Road / Alcala Knolls Drive	24.5	C	14.4	B	19.6	B	-4.9	No	15.0	B	0.6	No
7	Linda Vista Road / Francis Parker School Drwy. #2*	13.0	B	17.4	C	(1)	(1)	N/A	No	(1)	(1)	N/A	No
8	Linda Vista Road / Francis Parker School Drwy. #3*	8.8	A	10.0	B	0.0	A	-8.8	No	0.0	A	-10.0	No
9	Linda Vista Road / Northrim Court *(3)	18.1	C	26.6	D	47.4	E	29.3	Yes	20.9	C	-5.7	No
10	Linda Vista Road / Glidden Street	17.4	B	15.8	B	17.4	B	0.0	No	15.9	B	0.1	No
11	Friars Road / Via Las Cumbres	19.6	B	20.7	C	20.1	C	0.5	No	21.0	C	0.3	No
12	Northrim Ct. / FPS Driveway	(2)	(2)	(2)	(2)	12.5	B	N/A	No	10.6	B	N/A	No

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

Delay = Seconds per vehicles.

S? = Is there a significant impact?

(1) = Driveway to be removed and relocated to Northrim Court

(2) = Project Driveway to be constructed when FPS Driveway #2 is removed.

(3) = Linda Vista Rd. / Northrim Ct. (Int. 9) with a signal would operate at level of service B in both the AM and PM Peak Hour With Project Conditions.

N/A = Not Applicable

TABLE 1-5

Near Term With & Without Project Intersection Significance

#	Intersection	Near Term				Near Term With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
1	Linda Vista Road / Napa Street	41.2	D	51.5	D	41.9	D	0.7	No	52.3	D	0.8	No
2	Linda Vista Road / Marian Way	33.6	C	33.6	C	33.9	C	0.3	No	34.1	C	0.5	No
3	Linda Vista Road / USD Main Entrance	33.5	C	40.7	D	33.9	C	0.4	No	40.7	D	0.0	No
4	Linda Vista Road / Via Las Cumbres	33.6	C	34.4	C	35.1	D	1.5	No	37.0	D	2.6	No
5	Linda Vista Road / Francis Parker School Drwy. #1*	17.9	C	23.0	C	13.7	B	-4.2	No	16.3	C	-6.7	No
6	Linda Vista Road / Alcala Knolls Drive	25.5	C	14.4	C	26.8	C	1.3	No	15.7	B	1.3	No
7	Linda Vista Road / Francis Parker School Drwy. #2*	12.7	B	17.0	C	(1)	(1)	N/A	No	(1)	(1)	N/A	No
8	Linda Vista Road / Francis Parker School Drwy. #3*	8.7	A	10.0	A	0.0	A	-8.7	No	0.0	A	-10.0	No
9	Linda Vista Road / Northrim Court *(3)	18.5	C	28.2	D	49.5	E	31.0	Yes	22.2	C	-6.0	No
10	Linda Vista Road / Glidden Street	17.4	B	15.9	B	17.4	B	0.0	No	16.0	B	0.1	No
11	Friars Road / Via Las Cumbres	19.7	B	20.8	C	20.3	C	0.6	No	20.8	C	0.0	No
12	Northrim Ct. / FPS Driveway	(2)	(2)	(2)	(2)	12.5	B	N/A	No	10.6	B	N/A	No

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

Delay = Seconds per vehicles.

S? = Is there a significant impact?

(1) = Driveway to be removed and relocated to Northrim Court

(2) = Project Driveway to be constructed when FPS Driveway #2 is removed.

(3) = Linda Vista Rd. / Northrim Ct. (Int. 9) with a signal would operate at level of service B in both the AM and PM Peak Hour With Project Conditions.

N/A = Not Applicable

TABLE 1-6

Year 2035 With & Without Project Intersection Significance

#	Intersection	Year 2035				Year 2035 With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
1	Linda Vista Road / Napa Street	45.4	D	55.6	E	46.6	D	1.2	No	56.5	E	0.9	No
2	Linda Vista Road / Marian Way	35.5	D	48.8	D	35.7	D	0.2	No	50.3	D	1.5	No
3	Linda Vista Road / USD Main Entrance	34.6	C	41.2	D	34.9	C	0.3	No	41.4	D	0.2	No
4	Linda Vista Road / Via Las Cumbres	46.0	D	45.6	D	46.7	D	0.7	No	47.3	D	1.7	No
5	Linda Vista Road / Francis Parker School Drwy. #1*	19.3	C	25.4	D	11.9	B	-7.4	No	16.6	C	-8.8	No
6	Linda Vista Road / Alcala Knolls Drive	25.5	C	14.0	B	26.6	C	1.1	No	15.7	B	1.7	No
7	Linda Vista Road / Francis Parker School Drwy. #2*	13.4	B	18.2	C	(1)	(1)	N/A	No	(1)	(1)	N/A	No
8	Linda Vista Road / Francis Parker School Drwy. #3*	8.9	A	10.0	B	0.0	A	-8.9	No	0.0	A	-10.0	No
9	Linda Vista Road / Northrim Court (3)	7.6	A	7.2	A	17.3	B	9.7	No	10.2	B	3.0	No
10	Linda Vista Road / Glidden Street	17.3	B	16.4	B	17.3	B	0.0	No	16.5	B	0.1	No
11	Friars Road / Via Las Cumbres	43.6	D	46.0	D	47.1	D	3.5	No	46.6	D	0.6	No
12	Northrim Ct. / FPS Driveway	(2)	(2)	(2)	(2)	12.5	B	N/A	No	10.6	B	N/A	No

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

Delay = Seconds per vehicles.

S? = Is there a significant impact?

(1) = Driveway to be removed and relocated to Northrim Court

(2) = Project Driveway to be constructed when FPS Driveway #2 is removed.

(3) = In the Year 2035 conditions, the analysis assumes a signal as mitigation at Linda Vista Road / Northrim Court for the project's direct impact already installed.

N/A = Not Applicable

Mitigation:

As shown in the street segment summary tables, there are no significant direct or cumulative impacts as a result of the proposed expansion of the Francis Parker School. As shown in the intersection summary table, there is one significant direct impact at Linda Vista Road / Northrim Court. The project will install a traffic signal at Linda Vista Road / Northrim Court to mitigate the project's direct impact at this location.

Although the project is providing a total of 521 parking spaces on-site for students, faculty, staff, and special events, there are four (4) special events that may require a Traffic Management Program to accommodate additional parking off-site. The school currently utilizes offsite parking resources and traffic control procedures to accommodate the parking needs during certain special events and will continue to do so with the proposed Master Plan Update. Refer to Chapter 14.0 for more information regarding special event parking.

Although not required to mitigate traffic impacts, the project proposes to provide a raised median (approx. 130 feet) on Linda Vista Road fronting the re-located driveway (Int. #8 in this study). The raised median would restrict the driveway access to a right in / right out only onto Linda Vista Road. No left turns in or out of this project access would be permitted.

As discussed in Chapter 12.0 regarding on-site circulation, the project would route the majority of Upper School traffic through the intersection at Linda Vista Road and Northrim Court to access the site via the new Northrim Court driveway. The project proposes to install a traffic signal at the intersection of Linda Vista Road at Northrim Court to mitigate the project'. Traffic signal warrants were evaluated and the intersection would meet the Peak Hour and Interruption of Continuous Traffic warrants as discussed in Section 6.3 of this report.

2.0 INTRODUCTION

Urban Systems Associates, Inc. (USAI) was retained by the Francis Parker School to determine the potential transportation impacts and the appropriate mitigation measures for the proposed increase in student enrollment from 800 to 940 students. The study also evaluates proposed changes in access to the campus and presents a Transportation Management Plan for special events which is currently implemented and utilized. The existing school is located on Linda Vista Road east of Via Las Cumbres. (See **Figure 2-1**) The additional 140 students would generate 476 average daily trips (ADT). The additional 476 ADT includes 114 trips in the AM peak hour (91 in / 23 out) and 67 trips in the PM peak hour (20 in / 47 out). **Appendix A** includes information regarding the existing and proposed uses on-site.

Figure 2-2 shows the existing Francis Parker School site plan.

Figure 2-3 shows the proposed Francis Parker School site plan.

In order to determine the horizon year impacts of the project, USAI used a SANDAG Series 12 Transportation Model Run, see **Appendix A**. For study area purposes, USAI used City guidelines of 50 trips in one direction during a peak hour be used as a threshold for study intersections and street segments. The study area was agreed upon based on a consultation with City Transportation staff. **Figure 2-4** shows the study area boundary and the intersection key selected for the study. USAI then gathered information or oversaw the machine and manual traffic counts of the existing ADT and peak hour traffic flow data for the study intersections and street segments.

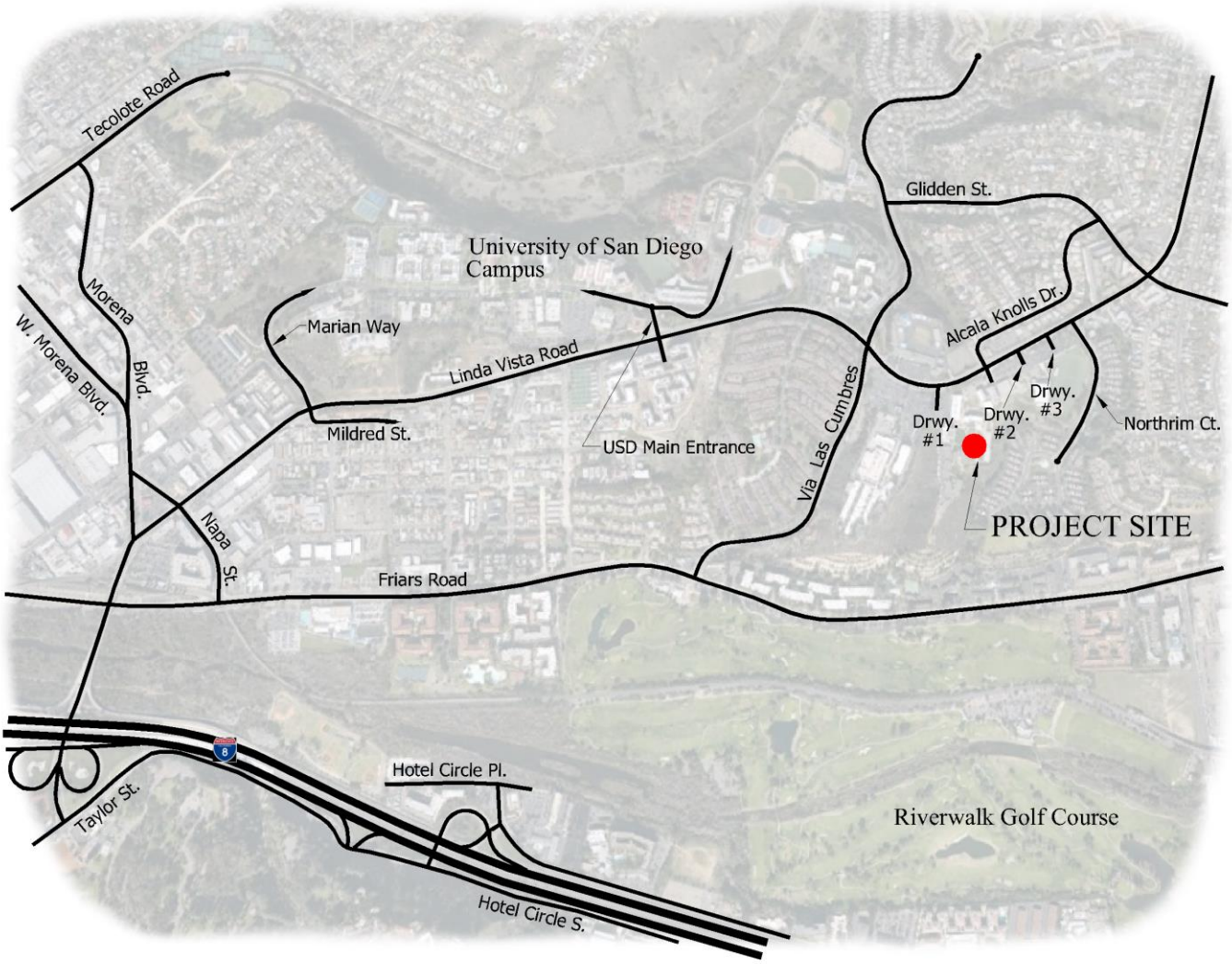


FIGURE 2-1

Project Location Map

The Existing Site Plan is provided on the following sheet (11 x 17)

(Francis Parker School Substantial Conformance Review No. 2)

FIGURE 2-2

Existing Site Plan

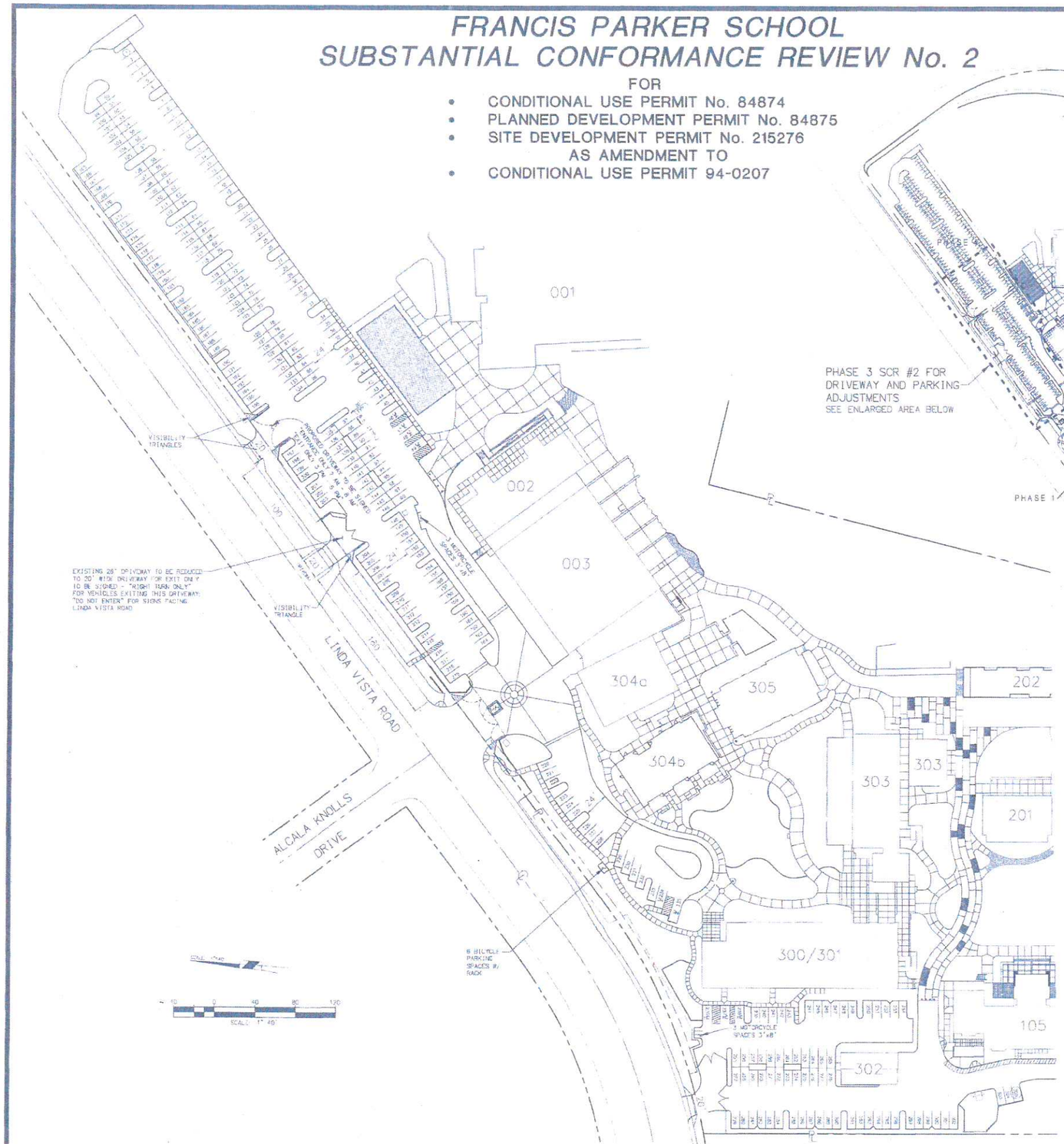
FRANCIS PARKER SCHOOL
SUBSTANTIAL CONFORMANCE REVIEW No. 2

FOR

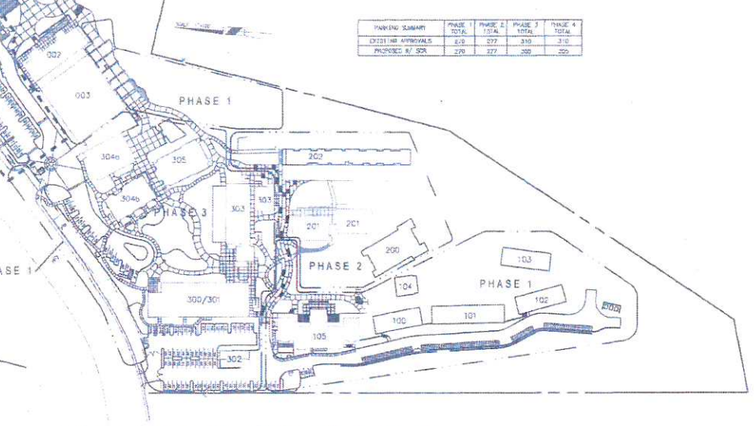
- CONDITIONAL USE PERMIT No. 84874
- PLANNED DEVELOPMENT PERMIT No. 84875
- SITE DEVELOPMENT PERMIT No. 215276

AS AMENDMENT TO

- CONDITIONAL USE PERMIT 94-0207



PHASE 3 SCR #2 FOR DRIVEWAY AND PARKING ADJUSTMENTS
SEE ENLARGED AREA BELOW



CAMPUS SITE PLAN WITH SCR PARKING ADJUSTMENTS
SCALE: 1"=100'

PHASE 3 SCR No. 2 - PARKING ADJUSTMENTS

BUILDING SUMMARY

BLDG. #	BUILDING PURPOSE	ELEMENT STATUS	GSF S.F.	NSR S.F.	NUMBER OF CLASSROOMS	NUMBER OF CLASSROOMS PER GRADE
001	FIELD HOUSE	EXISTING	22,000	22,000	-	-
002	LOCKER ROOMS	EXISTING	5,432	5,432	-	-
003	GYM/LUPTA & GYMNASIUM	EXISTING	13,875	13,875	-	-
	SUB TOTAL		41,307	41,307		
100	UPPER SCHOOL CLASSROOMS	EXISTING	5,175	5,175	3	3
101	UPPER SCHOOL CLASSROOMS	EXISTING	9,060	9,060	3	3
102	UPPER SCHOOL CLASSROOMS	EXISTING	9,054	6,704	2	2
103	UPPER SCHOOL CLASSROOMS	EXISTING	9,054	6,054	2	2
104	UPPER SCHOOL CLASS MULTI PURPOSE ROOM	EXISTING	1,500	1,500	1	1
105	SCIENCE CLASSROOMS	EXISTING	14,138	14,138	3	3
	SUB TOTAL		43,381	43,381		
200	LIBRARY	EXISTING	10,980	10,980	2	2
201	MIDDLE SCHOOL CLASSROOMS	EXISTING	3,130	3,130	1	1
202	MIDDLE SCHOOL CLASSROOMS	EXISTING	12,200	12,200	2	2
203	MIDDLE SCHOOL CLASSROOMS	NOT BUILT / DELETE	2,781	0	2	-
204	MIDDLE SCHOOL CLASS MULTI PURPOSE ROOM	NOT BUILT / DELETE	1,808	0	1	-
	SUB TOTAL		32,848	27,080		
300	ADMINISTRATION OFFICE BUILDING	UNDER CONSTRUCTION	12,412	11,708	2	2
301	STUDENT SERVICES BUILDING	UNDER CONSTRUCTION	4,409	11,898	1	2
302	MAINTENANCE BUILDING	UNDER CONSTRUCTION	1,357	2,069	1	1
303	ARTS STUDIO	UNDER CONSTRUCTION	10,084	13,008	1	2
304a	FINE ARTS THEATER	EXISTING	6,620	8,620	1	1
304b	MUSIC BUILDING	UNDER CONSTRUCTION	6,268	7,879	1	2
305	LECTURE CLASSROOM	UNDER CONSTRUCTION	-	5,231	1	1
BH	ISLAND HOUSE	UNDER CONSTRUCTION	86	120	1	1
	SUB TOTAL		43,384	97,853		
			TOTAL	160,418	169,881	

NOTE: PER SUP 94-0207, ALLOWABLE BUILDING HEIGHT IS REMAIN 30' EXCEPT FOR BUILDING 105 WITH AN ALLOWABLE HEIGHT OF 35'

PARKING SUMMARY	PHASE 1 TOTAL	PHASE 2 TOTAL	PHASE 3 TOTAL	PHASE 4 TOTAL
EXISTING APPROVALS	270	277	310	310
PROPOSED W/ SCR	270	277	289	289

SCR NOTES:

1. SCR No. 2 IS A REQUEST FOR THE EXISTING DRIVEWAY NORTH OF ALCALA KNOLLS DRIVE TO REMAIN OPEN "FOR EXIT/RIGHT TURN ONLY" NO CHANGE FOR "PROPOSED" DRIVEWAY
2. SEE REVISED PARKING SUMMARY BY PHASE ABOVE
3. NO OBJECTS OVER 36" HIGH ARE PROPOSED IN VISIBILITY TRIANGLE AREAS
4. BUILDING SUMMARY HAS BEEN UPDATED TO REFLECT CONSTRUCTION PROGRESS.

SUBSTANTIAL CONFORMITY REVIEW

APPROVED EXHIBIT "A"
Approval Date: September 3, 2009
Permit No.: CUP 84874, PDP 84875, SDP 215276

* PROJECT CONSULTANTS *

ARCHITECT
LAKE / FLATO ARCHITECTS, INC.
CONTACT: GREG PAPAY
311 THIRD STREET, SUITE 200
SAN ANTONIO, TX 78205
TEL: (210) 227-3335
FAX: (210) 224-9515

LANDSCAPE ARCHITECT
IVY
CONTACT: MICHEAL VAIL
434 WEST CEDAR STREET, SUITE 300
SAN DIEGO,CA 92101
TEL: (619) 235-5360
FAX: (619) 235-5369

PLANNER/CIVIL ENGINEER
RBF CONSULTING
CONTACT: JEFF BARFIELD
9755 CLAREMONT MESA BLVD. #100
SAN DIEGO, CA 92124
TEL: (858) 614-5000
FAX: (858) 614-5080

* PROJECT LOCATION *

VICINITY MAP
NOT TO SCALE

CCS 83 COORDINATE = 1951N-6278E
LAMBERT COORDINATE = 221-1712

OWNER/APPLICANT
FRANCIS PARKER SCHOOL
CONTACT: GRANT LICHTMANN
6501 LINDA VISTA ROAD
SAN DIEGO, CA 92111
TEL: (858) 565-7900
FAX: (858) 569-0621

Prepared By:
RBF CONSULTING
CONTACT PERSON: JEFF BARFIELD
9755 CLAREMONT MESA BLVD. #100
SAN DIEGO, CA 92124
TEL: (858) 614-5055
FAX: (858) 614-5080

Project Address:
6501 LINDA VISTA ROAD

Project Name:
FRANCIS PARKER SCHOOL
SUBSTANTIAL CONFORMANCE REVIEW No. 2 (SCR) FOR PHASE 3 PARKING PLAN ADJUSTMENT

Sheet Title:
SITE PLAN

Revision 10: ____
Revision 9: ____
Revision 8: ____
Revision 7: ____
Revision 6: ____
Revision 5: ____
Revision 4: ____
Revision 3: ____
Revision 2: ____
Revision 1: 08/24/2009
Original Date: 08/17/2009
Sheet 1 of 2
RBF # 13441

SHEET 1

RBF CONSULTING

W:\13000\13641\648-SCR-2ND.DWG KBUTTS 8/4/09 7:58 am

The Proposed Site Plan is provided on the following sheet (11 x 17)

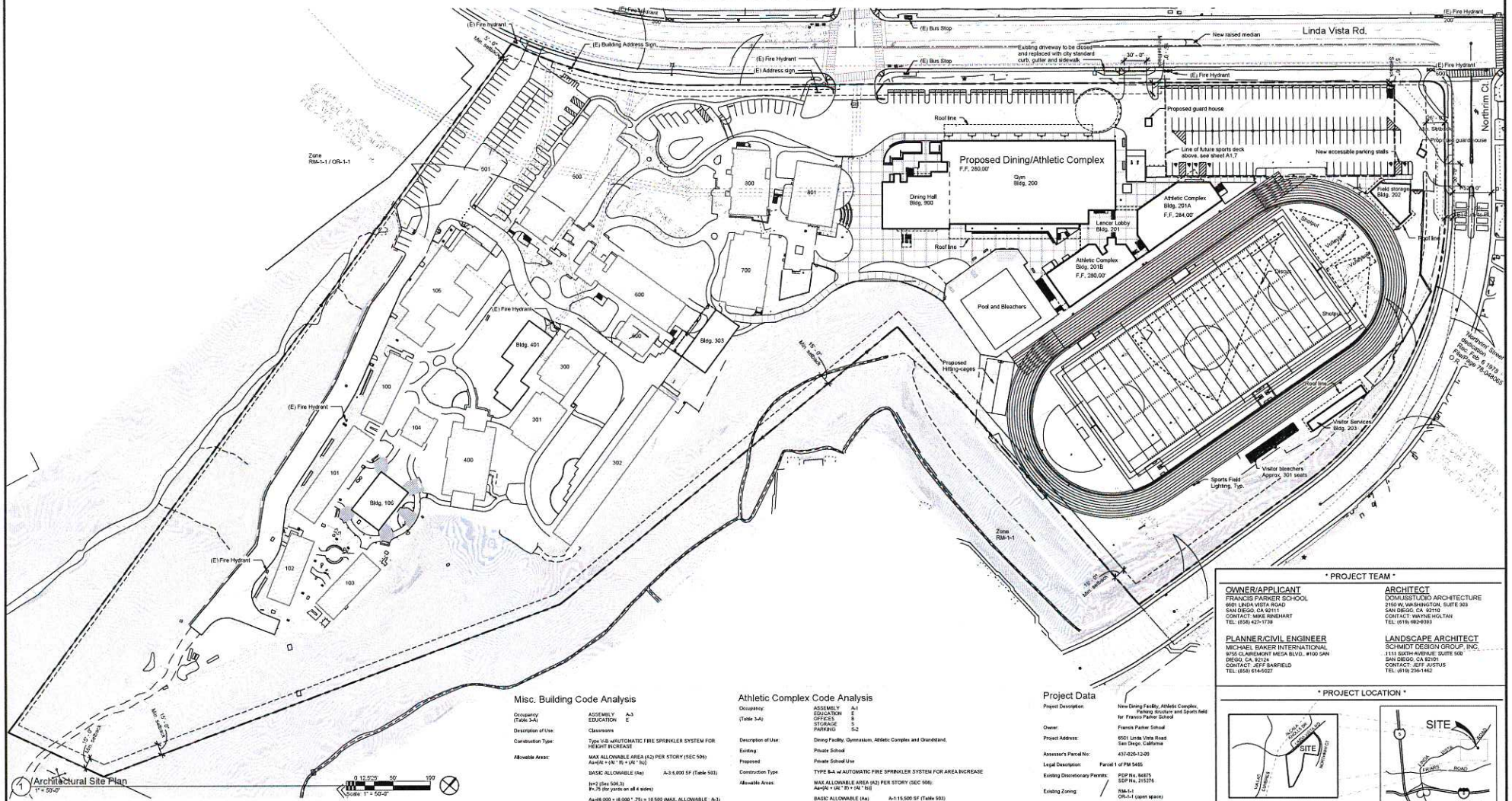
(Francis Parker School – Linda Vista Campus Master Plan Update)

FIGURE 2-3

Proposed Site Plan

FRANCIS PARKER SCHOOL - LINDA VISTA CAMPUS MASTER PLAN UPDATE

AMENDS PDP 84875/SDP 215276



Architectural Site Plan

1" = 50'-0"

Scale: 1" = 50'-0"

Existing Buildings to Remain

Bldg.	Building Purpose	Number of floors	Bulk Floor Area
100	Upper school offices and classrooms	2	6,072
101	Upper school classrooms	2	9,168
102	Upper school classrooms	2	6,056
103	Upper school classrooms	2	6,056
104	Upper school commons	2	1,451
105	Upper school science center	2	15,002
300/301	Middle school math/science classroom	2	6,684
302	Middle school office and classrooms	1	14,318
400	Library	2	10,274
500	Administration/student services	2	23,303
501	Transportation and maintenance work bay	1	699
600	Visual Arts, Middle School commons, Art Gallery	2	14,575
700	Lechce hall (J. Covello Hall)	1	5,473
800	Music	2	7,492
801	Performing Arts Center (PAC)	1	6,627
GH 1	Guard house	1	73
Total Bulk Floor Area			133,753 SF

Total Gross Floor Area and FAR Calculation

Site Area: 959,982 SF
FAR Maximum: .75
B.F.A. Allowable: 959,982 x .75 = 719,986 SF
Total Existing and Proposed B.F.A.: 133,753 + 103,182 = 236,935 SF
FAR Proposed: 236,935/959,982 = .25

Proposed Buildings - Gross Floor Area

Number	Name	Area
106	Upper School Student Center First Level	3,000 SF
106	Upper School Student Center Second Level	3,000 SF
200	Gymnasium	24,500 SF
200	Gymnasium Second Level Classrooms	3,767 SF
200	Gym Phantom Floor	20,856 SF
201	Lancer Lobby	3,367 SF
201	Lancer Lobby Phantom Floor	1,163 SF
201A	Athletic Complex	5,806 SF
201A	Athletic Complex Press Box and Offices	3,166 SF
201B	Athletic Complex	5,482 SF
201B	Athletic Complex Offices	2,544 SF
202	Field Storage	1,901 SF
203	Visitor Services	1,173 SF
303	Middle School Multi-purpose First Level	3,000 SF
303	Middle School Multi-purpose Second Level	4,000 SF
401	Maker's Space	4,000 SF
600	Dining Hall - Lower Level	7,488 SF
600	Dining Hall - Upper Level	4,823 SF
GH 2	Guard House	73 SF
GH 3	Guard House	73 SF
Total Area		103,182 SF

Misc. Building Code Analysis

Occupancy: (Table 3-A) — ASSEMBLY A-3; EDUCATION E

Description of Use: Classrooms

Construction Type: Type V-B; w/AUTOMATIC FIRE SPRINKLER SYSTEM FOR HEIGHT INCREASE

Allowable Areas: MAX ALLOWABLE AREA (A2) PER STORY (SEC 506)
Aa=[Ai + (Ai * If) + (Ai * Is)]

BASIC ALLOWABLE (Aa): A-3 6,000 SF (Table 503)

Is=2 (Sec 506.3)
If=.75 (for yards on all 4 sides)

Aa=[6,000 + (6,000 * .75) + 10,500 (MAX. ALLOWABLE : A-3)

PROPOSED: BUILDING 106: 3,000 SF; BUILDING 202: 1,901 SF; BUILDING 203: 1,173 SF; BUILDING 303: 3,000 SF; BUILDING 401: 4,000 SF.

MIXED USE, SEPARATED OCCUPANCIES

Allowable Height: MAX HT: 40' PER TABLE 503 / 1 Story - Type V/B

Proposed Buildings - Non-Gross Floor Area

Name	Area
Gymnasium Covered Porch - Front	1,256 SF
Gymnasium Covered Porch - Rear	1,225 SF
Parking Level 1	47,092 SF
Parking Level 2	44,724 SF
Parking Ramp	3,511 SF
Athletic Complex Basement Patio	2,578 SF
Athletic Complex Basement	6,314 SF
Covered Bleacher Seating	4,324 SF
Sports Deck	37,790 SF
Dining Covered Terrace	859 SF
Grand total	149,675 SF

Athletic Complex Code Analysis

Occupancy: (Table 3-A) — ASSEMBLY A-1; EDUCATION E; OFFICES B; STORAGE S; PARKING S-2

Description of Use: Dining Facility, Gymnasium, Athletic Complex and Grandstand.

Existing: Private School

Proposed: Private School Use

Construction Type: TYPE II-A, w/ AUTOMATIC FIRE SPRINKLER SYSTEM FOR AREA INCREASE

Allowable Areas: MAX ALLOWABLE AREA (A2) PER STORY (SEC 506)
Aa=[Ai + (Ai * If) + (Ai * Is)]

BASIC ALLOWABLE (Aa): A-1 15,500 SF (Table 503); S-2 39,000 SF (Table 503)

Is=2 (Sec 506.3)
If=.75 (for yards on all 4 sides)

Aa=[15,500 + (15,500 * .75) + (15,500 * 2)] = 58,125 (MAX. ALLOWABLE : A-1)
Aa=[39,000 + (39,000 * .75) + (39,000 * 2)] = 146,250 (MAX. ALLOWABLE : S-2 - SPRINKLERED)

PROPOSED: 47,894 SF - MAX PER STORY: A-1 (AS CALCULATED PER CBC REQM.); 50,603 - MAX PER STORY: S-2 (SPRINKLERED AT PARKING GARAGE)

MIXED USE, SEPARATED OCCUPANCIES

Allowable Height: MAX HT: 65' PER TABLE 503 / 3 Stories - Type IIA

Sports Deck Code Analysis

Occupancy: (Table 3-A) — PARKING S-2

Description of Use: Sports Deck

Construction Type: TYPE IIA

Allowable Areas: MAX ALLOWABLE AREA (A2) PER STORY (SEC 506)
Aa=[Ai + (Ai * If) + (Ai * Is)]

BASIC ALLOWABLE (Aa): S-2: 39,000 SF (Table 503)
If=.75 (for yards on all 4 sides)

Aa=[39,000 + (39,000 * .75) + 68,250 (MAX. ALLOWABLE : S-2 (NON SPRINKLERED)

PROPOSED: 37,790 SF - MAX PER STORY: S-2 (SPORTS DECK)

Allowable Height: MAX HT: 65' PER TABLE 503 / 3 Stories - Type IIA

Project Data

Project Description:	New Dining Facility, Athletic Complex, Parking structure and Sports field for Francis Parker School
Owner:	Francis Parker School
Project Address:	6501 Linda Vista Road San Diego, California
Assessor's Parcel No:	437-020-12-00
Legal Description:	Parcel 1 of PM 5405
Existing Discretionary Permits:	PDP No. 84875 SDP No. 215276
Existing Zoning:	RM-1-1 OR-1-1 (open space)
Gross Lot Area:	22.45 acres
Net Lot Area:	22.04 acres
Existing Building To Remain:	133,753 SF
Proposed Addition:	103,182 SF
Proposed Total:	236,935 SF
Sanitation District:	City of San Diego
Telephone:	AT&T
Gas & Electric:	San Diego Gas & Electric
Water District:	City of San Diego
School District:	San Diego Unified School District
Floor Area Ratio:	.25
Existing Height Limit:	30 FT Max Allowed
Proposed Height:	See sheets A1.6, A1.7, A2.0
Parking:	Surface parking: 234 spaces; Parking Structure 283 spaces; Total: 517 spaces

* PROJECT TEAM *

OWNER/APPLICANT
FRANCIS PARKER SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CA 92111
CONTACT: MIKE RINEHART
TEL: (858) 427-1739

ARCHITECT
DOMUSSTUDIO ARCHITECTURE
2150 W. WASHINGTON, SUITE 303
SAN DIEGO, CA 92110
CONTACT: WAYNE HOLTAN
TEL: (619) 692-9393

PLANNER/CIVIL ENGINEER
MICHAEL BAKER INTERNATIONAL
9755 CLAREMONT MESA BLVD., #100 SAN DIEGO, CA, 92124
CONTACT: JEFF BARFIELD
TEL: (858) 614-5027

LANDSCAPE ARCHITECT
SCHMIDT DESIGN GROUP, INC.
1111 SIXTH AVENUE, SUITE 500
SAN DIEGO, CA 92101
CONTACT: JEFF JUSTUS
TEL: (619) 236-1462

* PROJECT LOCATION *

CCS 83 COORDINATE = 1861N-6276E
LAMBERT COORDINATE = 221-1712

Prepared By:
domusstudio architecture
2150 West Washington, Suite 303
SAN DIEGO, CA 92110
CONTACT: Wayne Holtan
TEL: (619) 692-9393

Project Address:
6501 LINDA VISTA ROAD

Project Name:
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS
MASTER PLAN UPDATE

Sheet Title:
Architectural Site Plan

Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	12/1/2015
Revision 2:	09/25/2015
Revision 1:	06/02/2015
Original Date:	02/27/2015
Sheet	6 of 23
PTS#	84875

A0.1

domusstudio

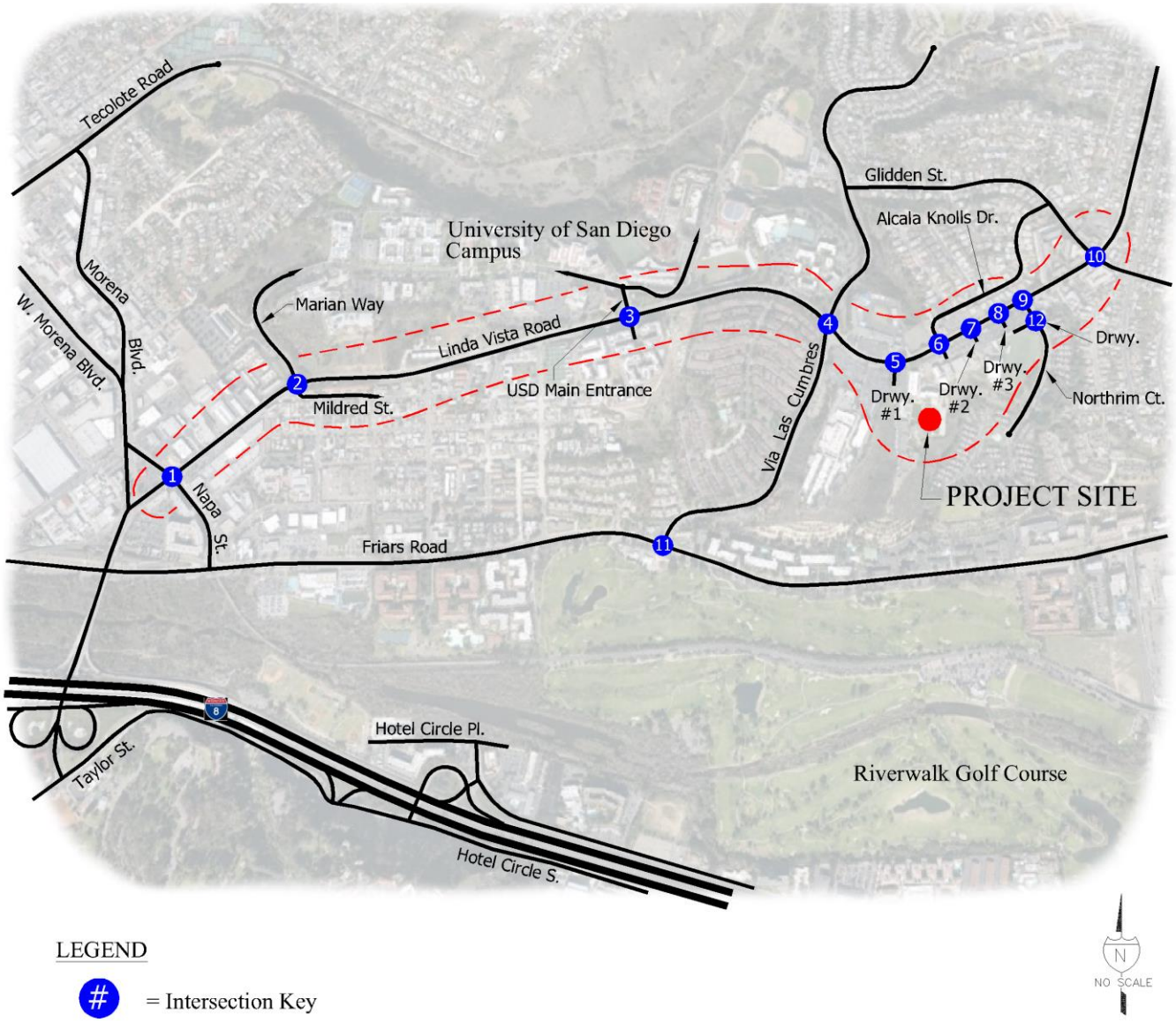


FIGURE 2-4

Intersection Key & Study Area Boundary

In order to summarize project impacts and required mitigation this report is divided into the following text sections:

1.0 Executive Summary

2.0 Introduction

3.0 Proposed Project

4.0 Methodology

5.0 Existing Conditions

6.0 Existing With Project

7.0 Other Projects

8.0 Near Term Without Project

9.0 Near Term With Project

10.0 Year 2035 Without Project

11.0 Year 2035 With Project

12.0 Project Access And Parking

13.0 Pedestrians, Bicycles, and Transit Modes

14.0 Special Events

15.0 Conclusions and Recommendations

3.0 PROPOSED PROJECT

Francis Parker School is an independent K-12 school serving San Diego since 1912 with two campuses, one in Mission Hills serving K – 5th grade and one in Linda Vista serving grades 6th – 12th which proposes to amend Planned Development Permit No. 84875 and Site Development Permit No. 215276 to authorize changes to Parker's Master Plan for its Linda Vista Campus (project). The Linda Vista Campus comprises Parker's Middle School (Grades 6-8) and the Upper School (Grades 9-12). The project evaluated in this study proposes a development of the addition of 140 students to the current enrollment of 800 students at the Linda Vista Campus. Thirteen (13) new staff members are planned to support the additional 140 students. As part of the updated Master Plan, a two-level underground parking structure will be centrally located within the project. The underground parking structure will accommodate 283 parking spaces. Surface lots within the project will provide an additional 238 parking spaces. The project will provide a total of 521 parking spaces. Components of the proposed Dining/Athletic Complex will be built directly over the underground parking structure. Three new buildings are proposed to be located in the western portion of the campus. Building No. 106 will be a two-story building multi-purpose Student Center for the Upper School (Grades 9-12). Building No. 303 will be a two-story multi-purpose Student Center for the Middle School (Grades 6-8). Building No. 401 will be a single story Maker's Space for students to design and fabricate projects. The project will result in demolishing 41,229 square feet of existing building; retaining 133,753 square feet of existing building; and adding 103,109 square feet of proposed buildings. Please refer to the proposed site plan for more information on the project.

3.1 TRIP GENERATION

A trip generation table for the project was developed as shown in **Table 3-1**. The trip generation rate was calculated using driveway traffic counts for average daily and peak hour traffic volumes which were conducted in October 2014, using video recorders to avoid double counting of cars.

TABLE 3-1

Project Trip Generation

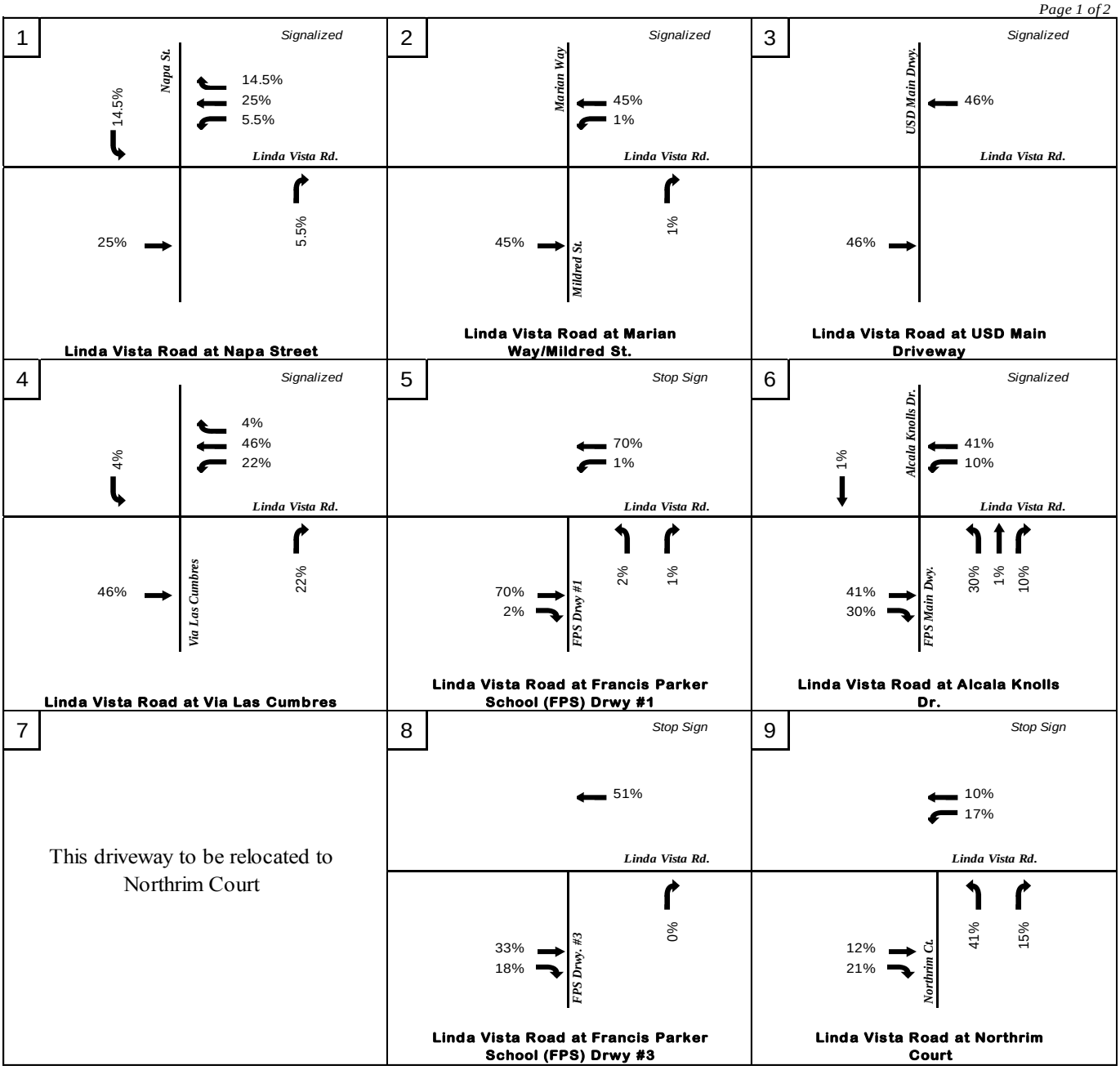
Use	Amount	Trip Rate**	ADT	AM					PM				
				%*	#	In/Out *	In	Out	%*	#	In/Out *	In	Out
SCHOOL	140 STUDENTS	3.4 per Student	**476**	24%	**114**	80% : 20%	**91**	**23**	14%	**67**	30% : 70%	**20**	**47**

Source:

*City of San Diego Trip Generation Manual, Revised May 2003, using highest ratios between High School & Middle School
** Calibrated rate using current driveway volumes

Note:
ADT= Average Daily Trips

Page 1 of 2



Notes:
Int. 8 - No left turn in or out due to raised median on Linda Vista Road.

FIGURE 3-1

Project Only Traffic Distribution

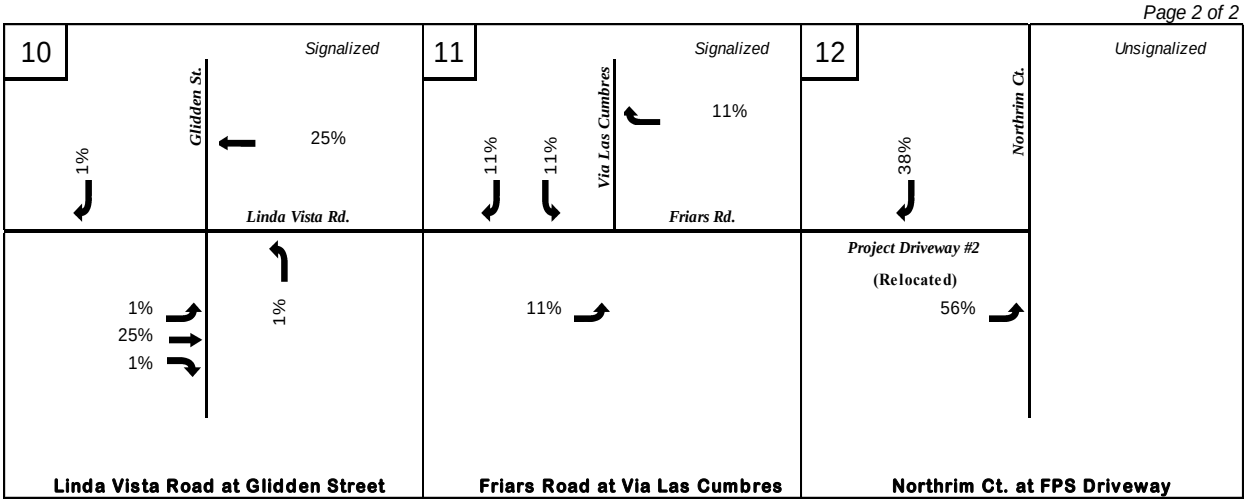


FIGURE 3-1

Project Only Traffic Distribution

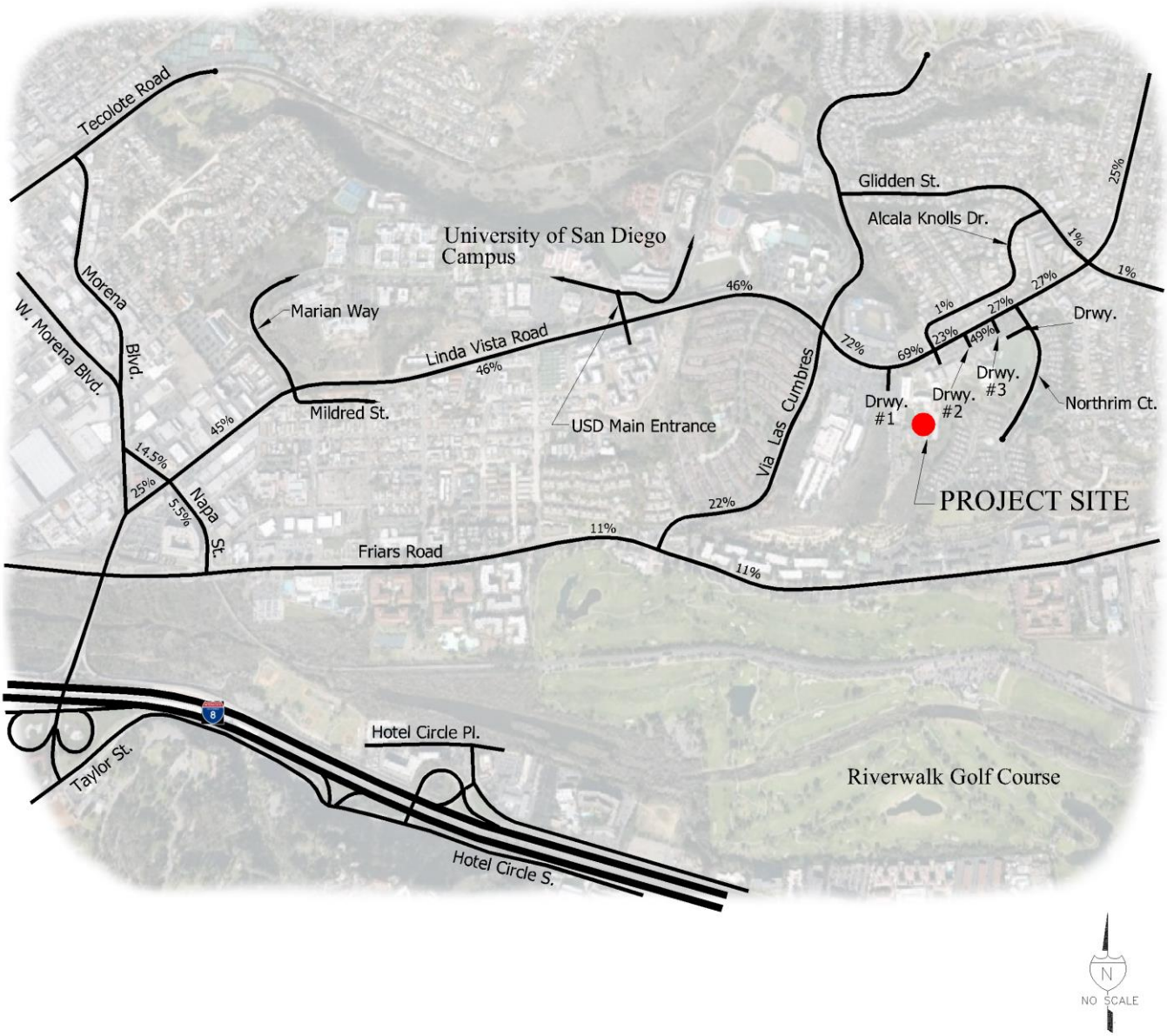


FIGURE 3-2

Project Only Traffic Distribution

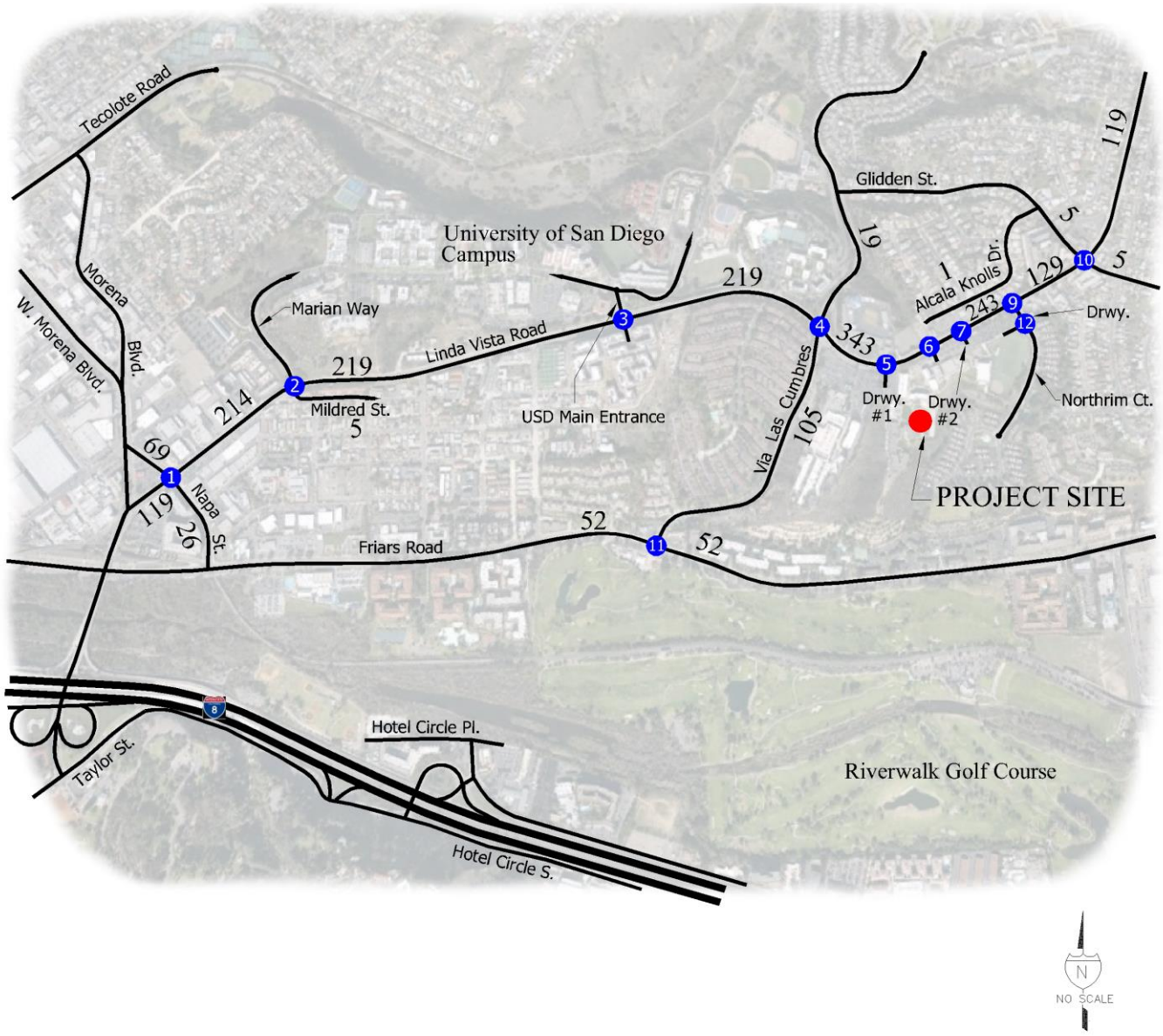


FIGURE 3-3

Project Only Average Daily Traffic

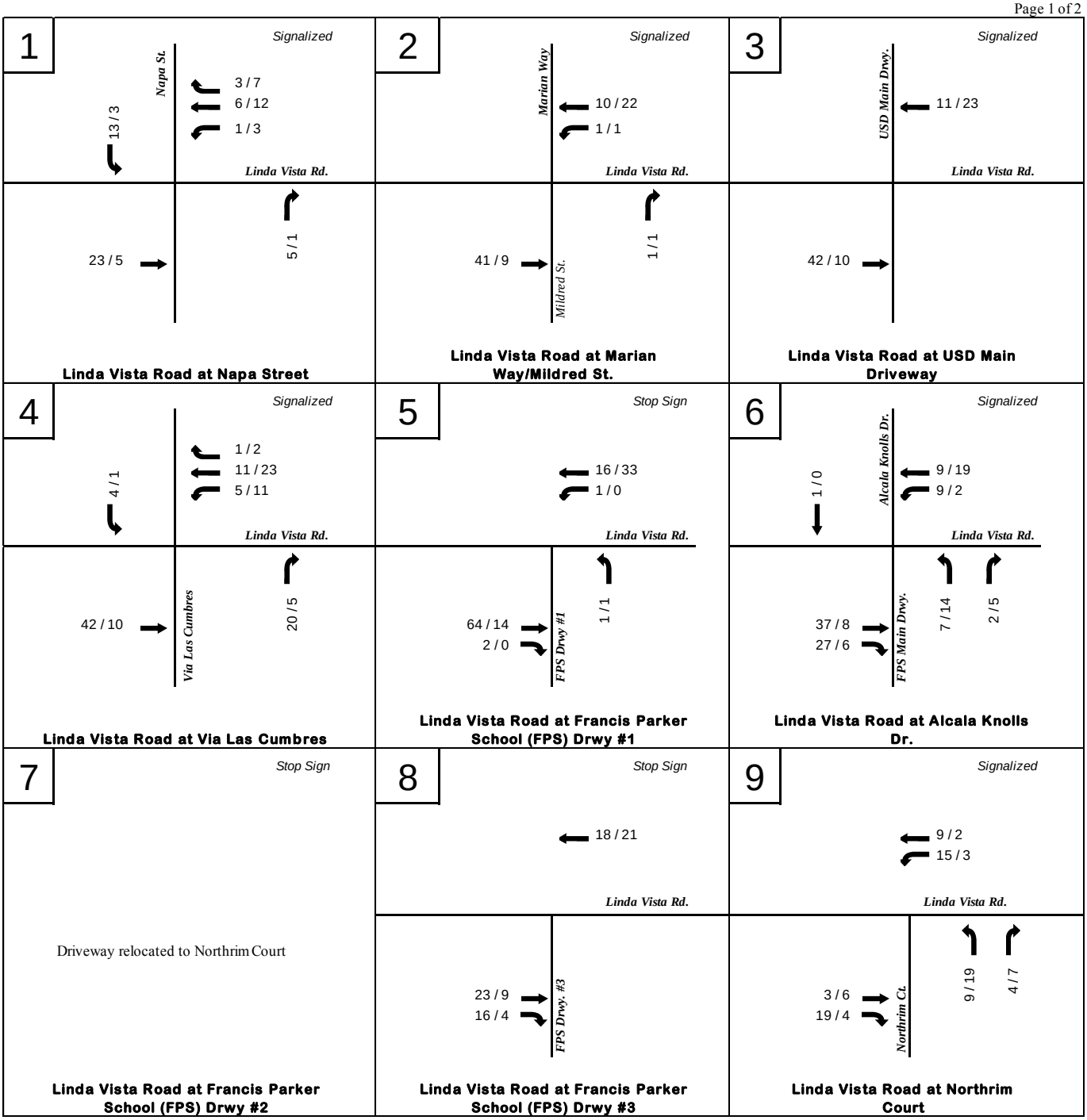


FIGURE 3-4

Project Only AM / PM Peak Hour Traffic

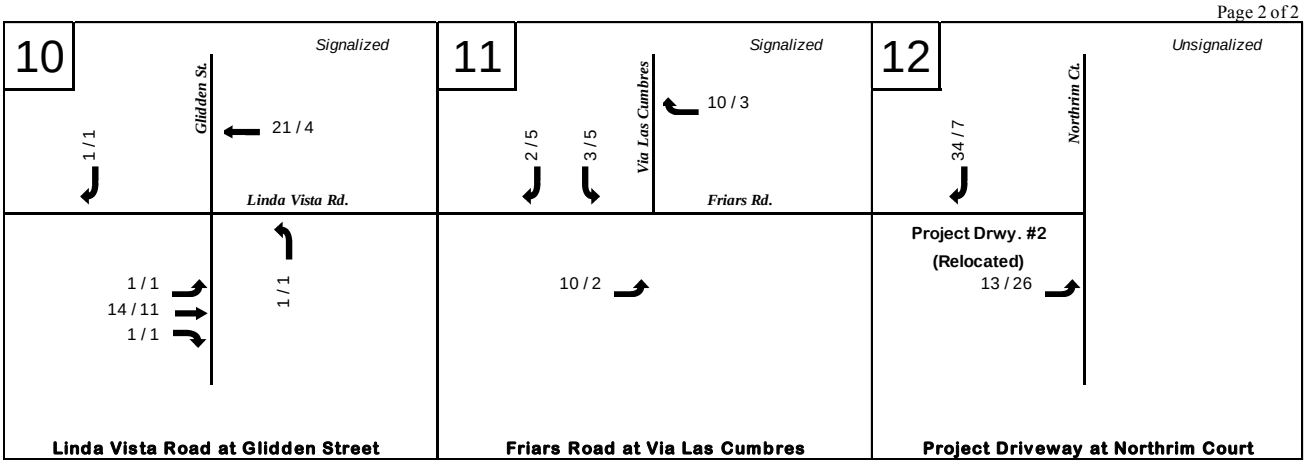


FIGURE 3-4

Project Only AM / PM Peak Hour Traffic

Additional counts for three consecutive days were obtained in April 2015 at the school driveways which verified the trip generation rates and directional distribution percentages used in this analysis, refer to **Appendix B** which includes a memo comparing the new and old driveway counts. The total driveway average daily traffic volumes were then divided by the school enrollment of 800 students to obtain the per student trip generation rate. The calculated trip rate is higher than the City published rate (3.4 trips per student vs. 1.8 for high school and 1.4 for middle school). The peak hour percentages of ADT were taken from the City's trip generation tables since there is a similarity in these percentages. As shown, the proposed additional students would generate **476** average daily trips (ADT) with **114 (91 in / 23 out)** trips in the AM peak hour and **67 (20 in / 47 out)** trips in the PM peak hour.

3.2 PROJECT ONLY TRAFFIC

Figure 3-1 shows the project only trip distribution percentages at study intersections which were derived from existing traffic patterns at the current school driveways. Project only distribution percentages on streets are shown on **Figure 3-2**. To improve traffic flow on campus and in the surrounding area during morning drop-off and afternoon pick-up, the Middle School and Upper School traffic has been re-distributed based on the relocation of driveways on Linda Vista Road and the proposed driveway on Northrim Court. The distribution of project traffic in this analysis assumes all Middle School traffic use the existing signal at the main access on Linda Vista Road for drop-off and pick-up. Upper School students who drive to school and park in the new garage would use the proposed right-in/out driveway (Int. 8 in TIA) on Linda Vista Road. Upper School students who get dropped off and picked up would use the proposed driveway on Northrim Court only in order to eliminate any conflicts with the Middle School drop off/pick up circulation. An on-site circulation plan showing the pick-up and drop-off area for both the Middle and Upper School is provided on **Figure 12-1**. **Figure 3-3** shows the project only average daily traffic volumes which are based on the daily new traffic generation from **Table 3-1** and the distribution of project only traffic from **Figure 3-1**. **Figure 3-4** shows the AM/PM peak hour project only traffic. Refer to Appendix D for the assumptions, worksheets and re-distribution of project only traffic due to the relocated driveways and updated on-site circulation plan.

4.0 METHODOLOGY

This section of the report describes various analysis procedures and criteria that are used to determine if the proposed project has a significant impact and if mitigation is required. Mitigation may be either specific improvements by the project for direct impacts or a financial contribution towards a future improvement for cumulative impacts. Two criteria must be met before project mitigation is required. First, the intersection or street segment must have an unacceptable level of service (LOS), i.e. "E" or "F" as discussed below. Second, the amount of project traffic must be significant based on the application of criteria also discussed below. For an intersection, if the change in delay is greater than 2 seconds at level of service "E", or 1 second at level of service "F", then the intersection project impacts would be considered significant. For a street segment, if the change in volume to capacity ratio (V/C ratio) exceeds 0.02 at level of service "E", or 0.01 at level of service "F", then the street segment project impacts would be considered significant. Alternatively, if project traffic causes an intersection or roadway segment to degrade from LOS "D" to LOS "E" or LOS "F", project mitigation is required as noted in the Significance Criteria table.

4.1 CITY OF SAN DIEGO GUIDELINES

The City of San Diego has developed a Traffic Impact Study Manual (7/98). The stated purpose of the Traffic Impact Study Manual is "....to ensure consistency with all applicable City and State regulations." The Traffic Impact Study Manual provides guidance regarding preparation of traffic impact reports in the City of San Diego. Since the proposed project is located in the City of San Diego, this traffic impact report follows the procedures outlined in the City's traffic manual. The manual includes guidelines for forecasting, trip generation and assignment, and analysis procedures.

The manual also establishes criteria for measuring project impacts at intersections. The City Traffic Impact Study Manual specifies use of the most current Highway Capacity Manual (HCM) operational method for studying intersections. The most current HCM is HCM 2010. For analyzing intersections, a software package called Highway Capacity Software (HCS) + and Synchro Version 9.0 was used. These software packages are a direct and faithful application of the HCM methodology.

4.2 TRIP DISTRIBUTION

The projected trips were distributed based on travel patterns at existing intersections with the exception of the Francis Parker School driveways which are discussed in Section 3.2 of this report.

4.3 STREET LOS THRESHOLD

When analyzing street segments, the level of service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from "A" to "F". LOS "A" represents the best case, and LOS "F" represents the worst case. Generally LOS "A" through "C" represents free flowing traffic conditions with little or no delay. LOS "D" represents limited congestion and some delay. However, the duration of periods of delay is acceptable to most people. LOS "E" and "F" represent significant delays on local streets, which are generally unacceptable for urban design purposes. The LOS descriptions are from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000).

The City of San Diego has developed LOS threshold tables based on the different functional street classifications and their ability to carry traffic. For the City of San Diego, LOS "D" is the acceptable LOS standard for roadways and intersections.

4.4 INTERSECTION LOS PROCEDURES

The City of San Diego Traffic Impact Study Manual Guidelines determines the procedures to be used for intersection peak hour analysis. To determine an intersection peak hour LOS, the guidelines require use of the most recent procedure from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000). The procedure in Chapter 9 which is used to analyze signalized intersection is the "operational method." This method determines LOS based on the average control delay per vehicle expressed in seconds. **Table 4-1** shows the LOS based upon the delay. A computer program is used to complete the analysis. As discussed above, the City guidelines have established LOS "D" or better as the objective for intersections and street segments.

TABLE 4-1

Level of Service Criteria For Signalized Intersections

Level of Service	Control Delay Per Vehicle (sec)
A	≤10
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

Source: Table 9-1, Highway Capacity Manual, 2000

Level of Service Criteria For Unsignalized Intersections

Level of Service	Control Delay Per Vehicle (sec)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Source: Table 10-7, Highway Capacity Manual, 2000

4.5 SIGNIFICANCE THRESHOLDS

The City's *Significance Determination Thresholds*, January 2011 are used in this analysis to determine whether the proposed project may have a significant effect on the environment. The purpose of these thresholds is "to assist City of San Diego staff, project proponents, and the public in determining whether, based on substantial evidence, a project may have a significant effect on the environment under Section 21082.2 of the California Environmental Quality Act (CEQA), and therefore the environmental impact requires mitigation".

The City has significance thresholds which are summarized in **Table 4-2**. These thresholds are used in this analysis along with levels of service to determine if project mitigation is required. **Table 4-3** shows the roadway classifications for the City of San Diego. Two criteria must be met before project mitigation is required. First, the intersection or street segment must have an unacceptable level of service (LOS), i.e. "E" or "F" as discussed below. Second, the amount of project traffic must be significant based on the application of criteria also discussed below. For an intersection, if the change in delay is greater than 2 seconds at level of service "E", or 1 second at level of service "F", then the intersection project impacts would be considered significant. For a street segment, if the change in volume to capacity ratio (V/C ratio) exceeds 0.02 at level of service "E", or 0.01 at level of service "F", then the street segment project impacts would be considered significant. If project traffic causes an intersection or roadway segment to degrade from LOS "D" to LOS "E" or LOS "F", project mitigation is required as noted in the Significance Criteria table.

.

TABLE 4-2
Significance Thresholds

Level of Service with Project*	Allowable Increase Due to Project Impacts**					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	*Speed (mph)*	*V/C*	*Speed (mph)*	*Delay (sec.)*	*Delay (min.)*
E (or ramp meter delays above 15 minutes)	0.01	1.0	0.02	1.0	2.0	2.0
F (or ramp meter delays above 15 minutes)	0.005	0.5	0.01	0.5	1.0	1.0

Note 1: The allowable increase in delay at a ramp with more than 15 minutes delay and freeway LOS E is 2 minutes.

Note 2: The allowable increase in delay at a ramp with more than 15 minutes delay and freeway LOS F is 1 minute.

* All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However,ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/ and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the projects direct significant and / or cumulatively considerable traffic impacts.

Key:

1. V/C =Volume to Capacity Ratio
2. Speed = Arterial speed measured in miles per hour
3. Delay = Average stopped delay per vehicle measured in seconds for intersections, or minutes for ramp meters
4. LOS = Level of Service

TABLE 4-3
Roadway Classifications

Street Classification	Lanes	Level of Service W/ADT				
		A	B	C	D	E
Freeway	8 lanes	60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes	45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes	30,000	42,000	60,000	70,000	80,000
Expressway	6 Lanes	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6 Lanes	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 Lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 Lanes	15,000	21,000	30,000	35,000	40,000
Collector	4 Lanes	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left-turn lane)	4 Lanes 2 Lanes	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 Lanes	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 Lanes	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2 Lanes	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 Lanes	---	---	2,200	---	---

Legend

XXX/XXX =Approximate recommended ADT based on the City of San Diego Street Design Manuel

Notes:

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.
2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

5.0 EXISTING CONDITIONS

The proposed project is located on the south side of Linda Vista Road east of Via Las Cumbres and west of Northrim Court.

5.1 EXISTING ROADWAY FACILITIES

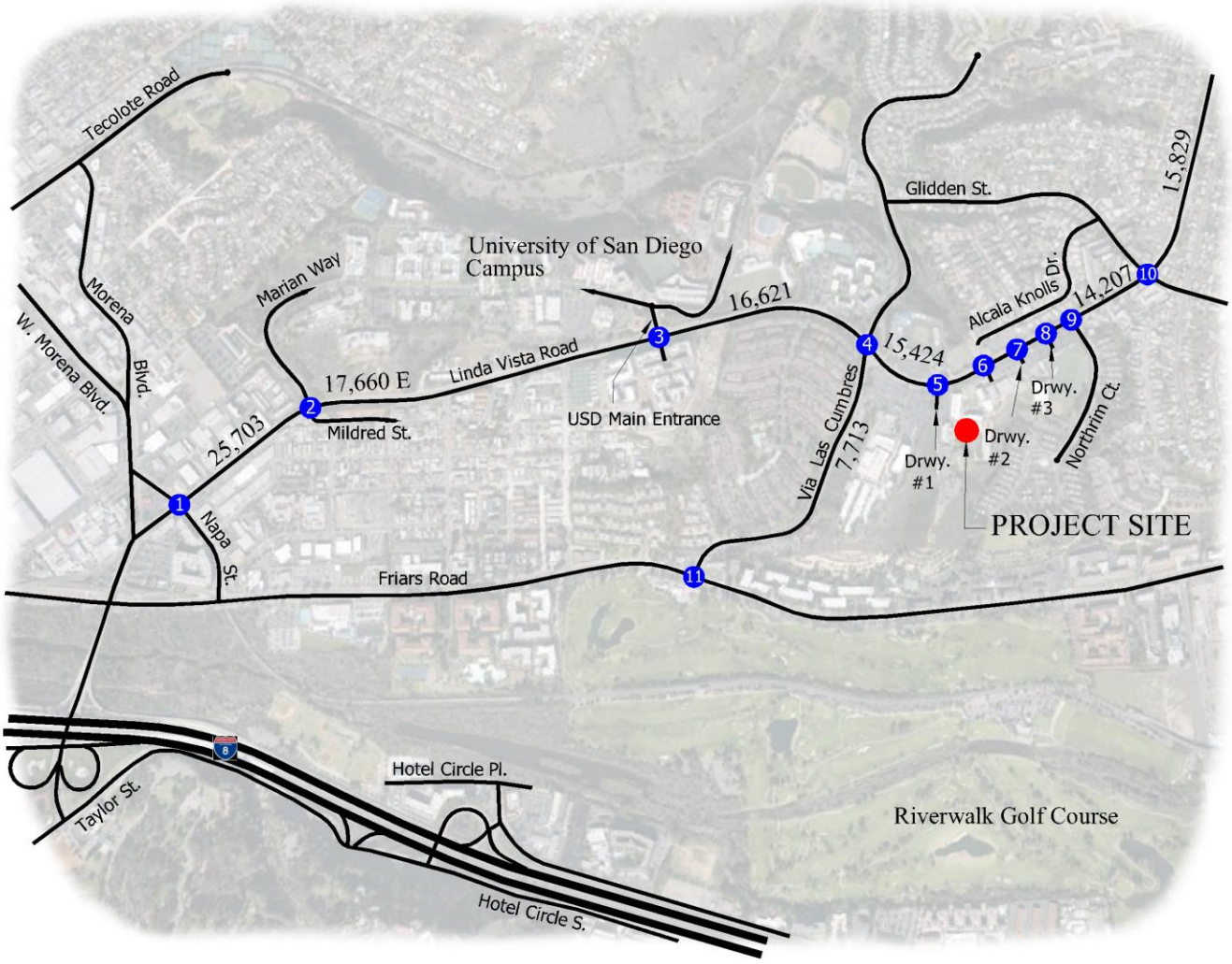
Linda Vista Road – Linda Vista Road is functionally classified as a four lane Collector that is primarily an east-west roadway. According to the Linda Vista Community Plan, this roadway is ultimately classified as a four lane Major Arterial. There are raised medians on Linda Vista Road approaching Alcala Parkway at USD's main entrance, however, there are no raised medians on the rest of the roadway in the study area. On-street parking is not allowed along both sides of the roadway. The roadway width is approximately 76 feet (Napa Street to Via Las Cumbres) and approximately 64 feet (Via Las Cumbres to Kramer Street) with a posted speed limit of 40 mph. Class II bike lanes are included on both sides of the roadway within the project study area. There are existing bus stops near Francis Parker School's main driveway. The Francis Parker School is served by bus routes 44 (from Old Town Transit Center) and 120/44 (from Fashion Valley Transit Center). The school also provides its own school bus service (buses use only the west driveway, Driveway #1).

Via Las Cumbres – Via Las Cumbres is functionally classified as a three lane Collector (2 lanes northbound & 1 lane southbound) from Linda Vista Road to Friars Road and is primarily a north-south roadway. According to the Linda Vista Community Plan, this roadway is ultimately classified as a four lane Collector. On-street parking is allowed along both sides of the roadway. The roadway width is approximately 76 feet and the posted speed limit is 40 mph. Class II bike lanes are provided in the

southbound direction from Linda Vista Road to Camino Costanero. In the northbound direction, Class II bike lanes begin 800 feet north of Friars Road and end at Linda Vista Road.

5.2 EXISTING TRAFFIC VOLUMES

Figure 5-1 shows the existing average weekday 24-hour traffic volumes for street segments in the project study area. Existing street segment functional classifications were used for purposes of this analysis. Traffic counts summarized on this figure were compiled by Transportation Studies, Inc. in October 2013. Existing daily traffic on Linda Vista Road from Marian Way to the USD Main Entrance was estimated by increasing the PM peak hour volume to/from the intersection at Marian Way by ten times based on a 10% (residential peak). This has been noted in the ADT Figure 5-1. **Appendix B** includes the existing count data for street segments and intersections.



Notes:

17,660 E = Estimate based on PM peak hour volume increased 10 times.

N
NO SCALE

FIGURE 5-1

Existing Average Daily Traffic

5.3 STREET SEGMENT ANALYSIS

As shown in **Table 5-1**, all street segments currently operate at acceptable levels of service "C" or better except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS "E".

5.4 EXISTING INTERSECTIONS

Figure 5-2 shows the existing lane configurations in the study area.

5.5 EXISTING INTERSECTION PEAK HOUR VOLUMES AND LOS

Figure 5-3 shows the existing AM and PM peak hour intersection traffic data which was collected at the intersections. The analysis of peak hour intersection performance was based on the 2010 Highway Capacity Manual (HCM) using operational analysis procedures. A computer program which is based on the Highway Capacity Software (HCS +) and Synchro Version 9.0 was used to complete the analysis. Manual intersection turning movement counts were conducted in October 2013 and October 2014. Subsequent to this report, traffic counts were obtained in November, 2014 at four intersections: Linda Vista Rd. & Napa St.; Linda Vista Rd. & Via Las Cumbres; Linda Vista Rd. & Glidden St.; and Friars Rd. & Via Las Cumbres. A review of count volumes indicates October 2013 traffic counts are still valid for this analysis since those counts are more conservative. Refer to **Appendix B** for volume comparison.

As shown on **Table 5-2**, all intersections currently operate at a level of service "D" or better during the AM and PM peak hour periods. A minimum of five pedestrian calls were assumed on all approaches in the intersection analysis. LOS calculation worksheets for existing conditions may be found in **Appendix C**.

TABLE 5-1

Existing Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	25,703	0.86	E
	Mildred Street to USD Main Entrance	4-C	30,000	17,660	0.59	C
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	16,621	0.55	C
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	15,424	0.51	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	14,207	0.47	C
	Glidden Street to Kramer Street	4-C	30,000	15,829	0.53	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	7,713	0.51	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

Notes:

Street Segment Count Date: October 2013

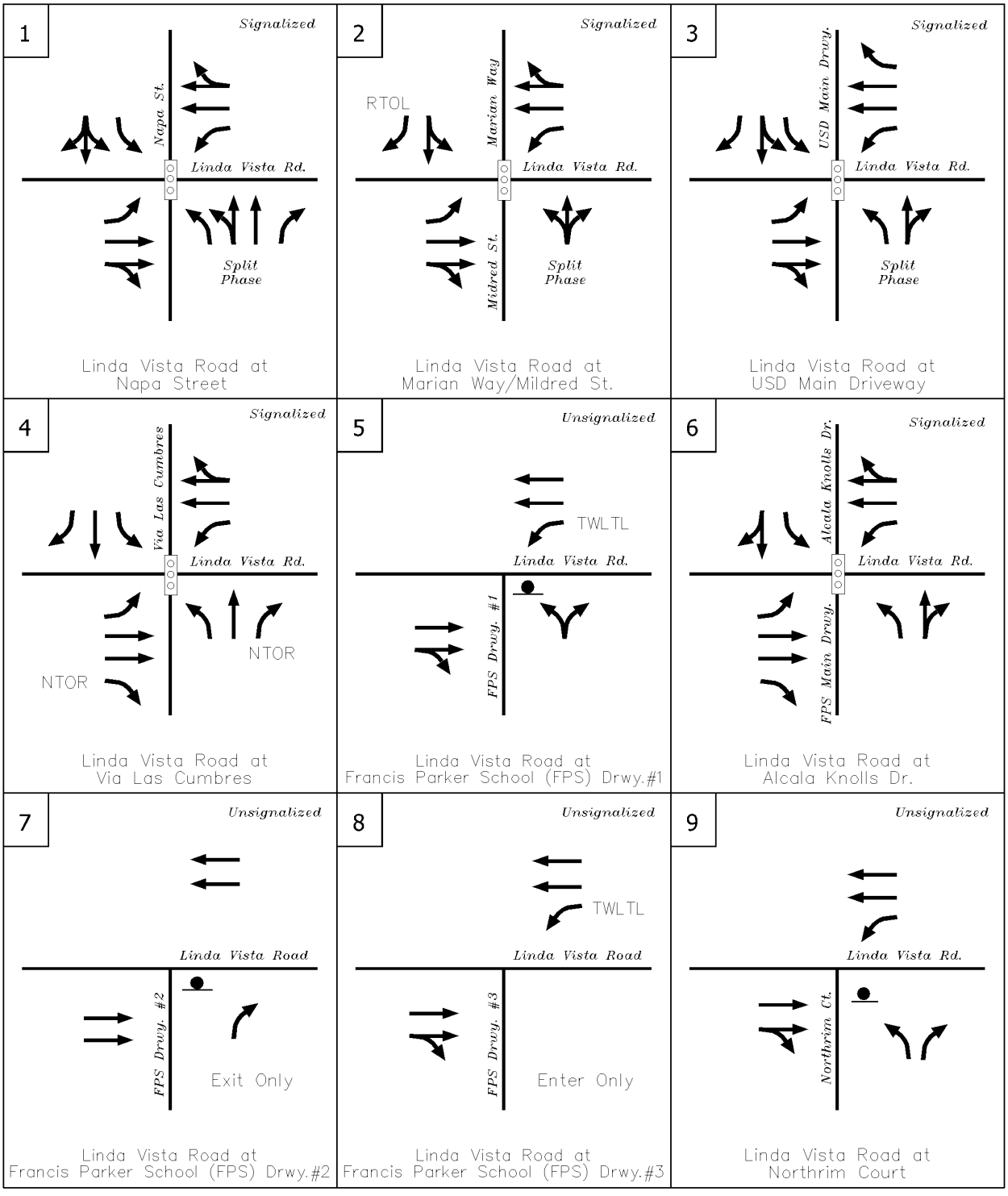


FIGURE 5-2

Existing Lane Configurations

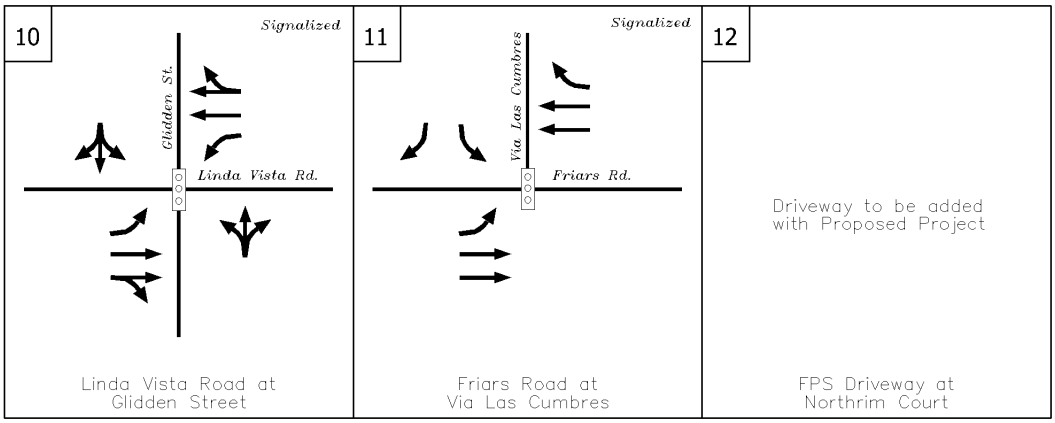


FIGURE 5-2

Existing Lane Configuration

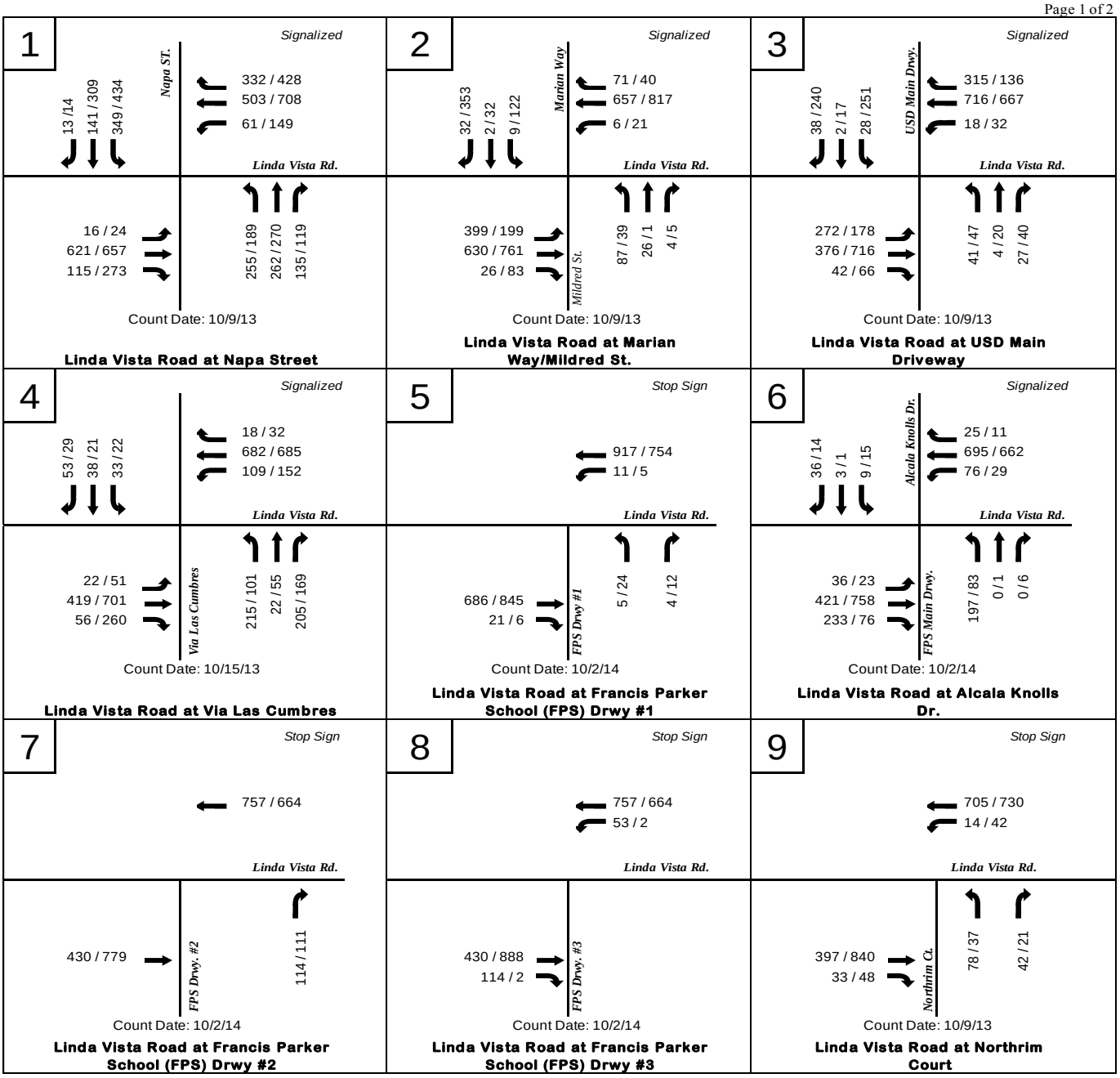


FIGURE 5-3

Existing AM / PM Peak Hour Traffic

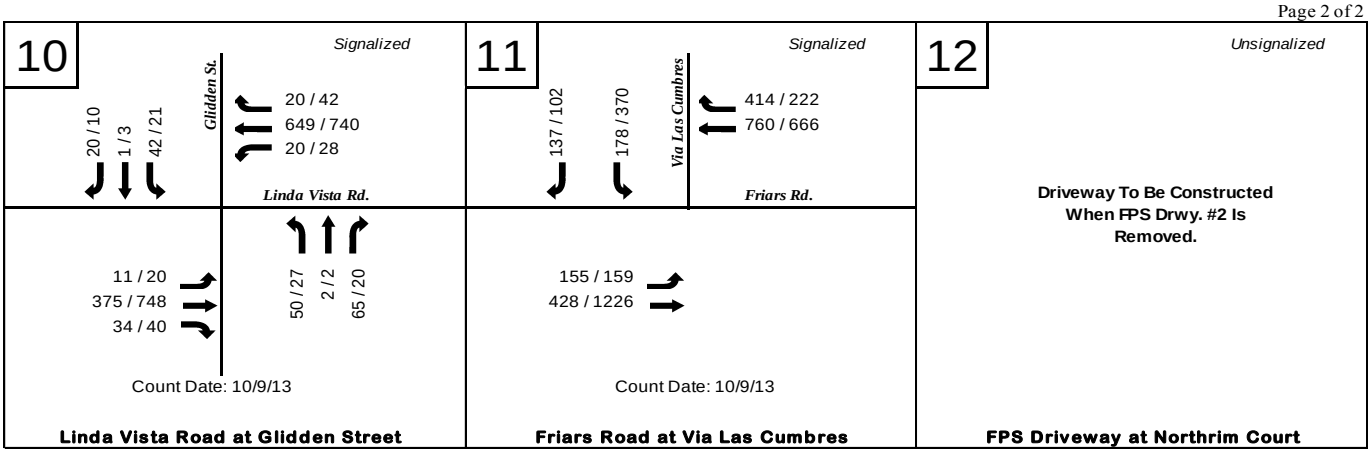


FIGURE 5-3

Existing AM / PM Peak Hour Traffic

TABLE 5-2

Existing Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	40.3	D	49.5	D
2	Linda Vista Road / Marian Way	Signal	21.3	C	32.9	C
3	Linda Vista Road / USD Main Entrance	Signal	19.6	B	24.4	C
4	Linda Vista Road / Via Las Cumbres	Signal	33.2	C	32.1	C
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	18.8	C	23.7	C
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	24.5	C	14.4	B
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	13.0	B	17.4	C
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	8.8	A	10.0	B
9	Linda Vista Road / Northrim Court	NB Stop*	18.1	C	26.6	D
10	Linda Vista Road / Glidden Street	Signal	17.4	B	15.8	B
11	Friars Road / Via Las Cumbres	Signal	19.6	B	20.7	C
12	Northrim Ct. / FPS Driveway	Driveway*	(1)	(1)	(1)	(1)

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

NB = Northbound (one lane)

(1) = Project Driveway to be constructed when FPS Driveway #2 is removed.

Delay = Seconds per vehicle

6.0 EXISTING WITH PROJECT

This section of the report evaluates the Existing with Project traffic conditions by adding the project only traffic volumes to adjusted existing volumes and evaluating possible project direct traffic impacts.

6.1 ADJUSTED EXISTING VOLUMES

To evaluate the Existing With Project scenario, the existing peak hour traffic volumes at the project driveways needed to be adjusted to reflect the relocated driveways and updated on-site circulation. As previously discussed, traffic for the Middle School will use the signal at the Main Access (Linda Vista Road / Alcala Knolls Dr.) to drop-off and pick-up students. Upper School students who drive their own vehicle will primarily use the new driveway on Linda Vista Road (Int. #8 in TIA) to access the proposed parking garage. When exiting the garage, the Upper School students will only be able to use the Northrim Court driveway. Upper School students who are dropped-off and picked-up will use the Northrim Court driveway to eliminate any conflicts with the Middle School drop off/pick-up circulation.

To evaluate the Existing With Project scenario, the Existing peak hour traffic volumes were adjusted to reflect the revised on-site circulation plan separating the Middle and Upper School traffic. This was accomplished by taking the total existing peak hour driveway traffic in/out and then redistributing the traffic based on the amount of Middle School and Upper School students currently enrolled. For example, there are currently 300 Middle School students and 500 Upper School students for a total of 800 students at Francis Parker. Of the 500 Upper School students, approximately 225 drive their own vehicle to school and 275 are dropped-off and picked-up. Therefore, 38% (300/800x100%) is assumed in this analysis to be Middle School traffic and 62% (500/800x100%) is Upper School traffic. Based on these assumptions, the Middle School and Upper School traffic was re-distributed to the school driveways with the exception of the school bus entrance/exit (Int. #5 in TIA) since students and parents don't use this driveway. Project only traffic (additional 140 students) for the school was distributed in a similar manner to the existing traffic volumes with one exception. The project only traffic assumes 3% use the bus entrance /exit for faculty and staff parking. The remaining 97% of project only traffic use the two driveways on Linda Vista Road and Northrim Court. Worksheets and assumptions for the re-distribution of existing and project traffic are provided in **Appendix D**.

6.2 STREET SEGMENTS

Figure 6-1 shows average daily traffic volumes with project traffic added to existing traffic volumes. Although peak hour traffic at the project driveways are re-distributed, the average daily traffic volumes on Linda Vista Road fronting the campus are not expected to change, therefore, no adjustments were made to the daily volumes. **Table 6-1** shows street segment levels of service with Francis Parker School additional project traffic. As shown, all segments are projected to operate at acceptable levels of service except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS "E".

6.3 INTERSECTIONS

Figure 6-2 shows the Existing With Project lane configurations used for analysis. This lane configuration was also used for Near Term With Project and Year 2035 With Project scenario. **Figure 6-3** shows the Existing plus Francis Parker School project combined traffic volumes during AM/PM peak hours at study area intersections. Peak hour traffic expected to exit Int. #8 is (5 AM / 3 PM) trips. This volume is considered very low and was re-distributed to Int. #12 which includes (206 AM / 146 PM) trips exiting onto Northrim Court. Figure 6-3 shows no peak hour egress for Int. #8 since the majority of Upper School traffic will flow through the site and exit onto Northrim Court to utilize the new signal at Linda Vista Road / Northrim Court.

Table 6-2 includes study area intersection levels of service with the Francis Parker School project traffic added. As shown, all intersections are projected to operate acceptably except at Linda Vista Road / Northrim Court which operates at LOS E with the project in the AM peak hour. This intersection is significantly impacted by the project since the LOS is downgraded from a "C" without the project to an "E" with the project. A signal is proposed at the intersection of Linda Vista Road at Northrim Court (Int. #9 in this report) with the proposed project to mitigate a direct significant impact. Signal warrants for Interruption of Continuous Traffic warrant and a Peak Hour warrant were evaluated and expected to be satisfied in the Existing With Project scenario at this location, see **Appendix D**. **Appendix D** also includes the Existing with Project HCS & Synchro worksheets.

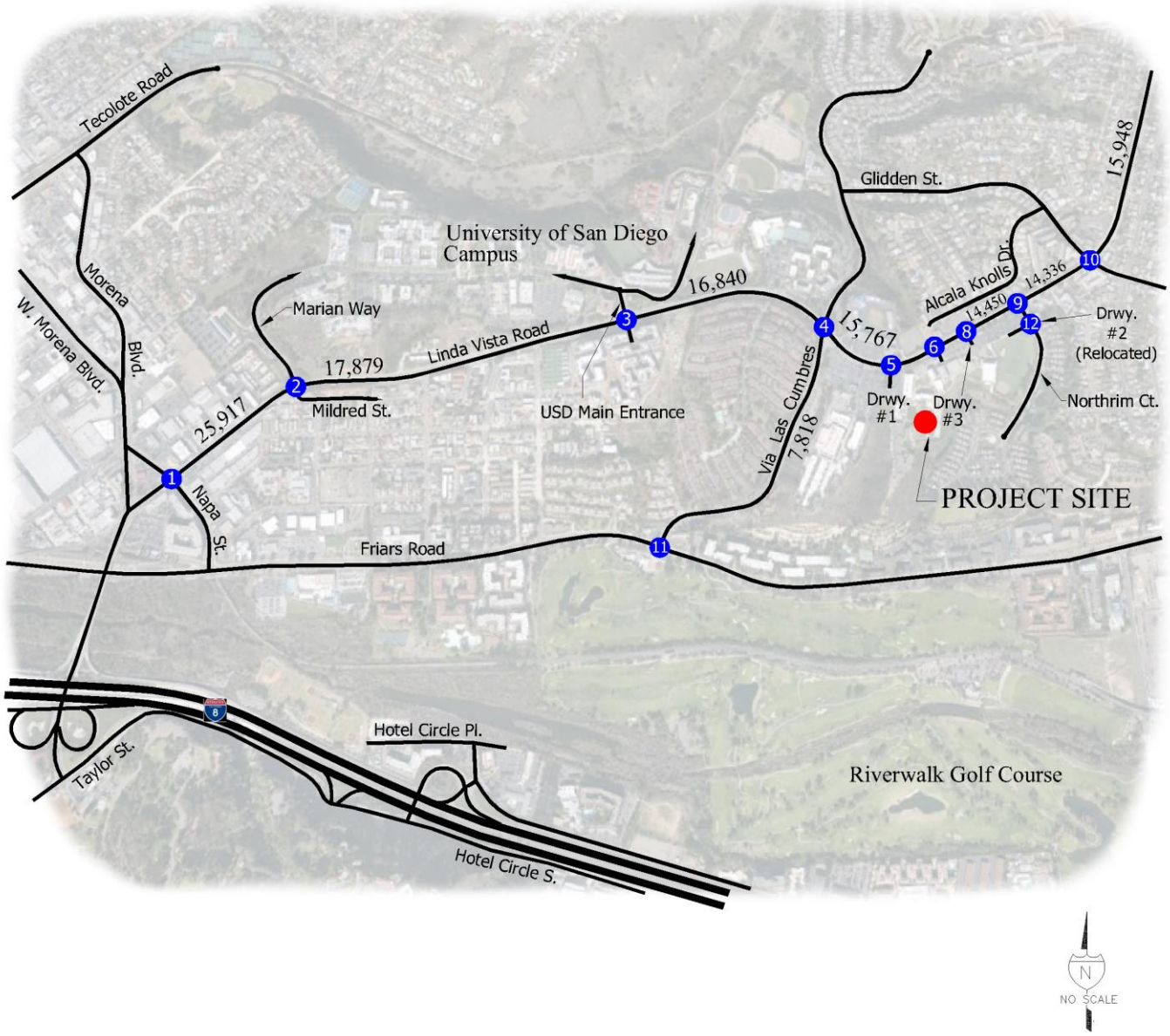


FIGURE 6-1

Existing With Project Average Daily Traffic

TABLE 6-1

Existing With Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	25,917	0.86	E
	Mildred Street to USD Main Entrance	4-C	30,000	17,879	0.60	C
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	16,840	0.56	C
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	15,767	0.53	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	14,450	0.48	C
	Glidden Street to Kramer Street	4-C	30,000	15,948	0.53	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	7,818	0.52	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

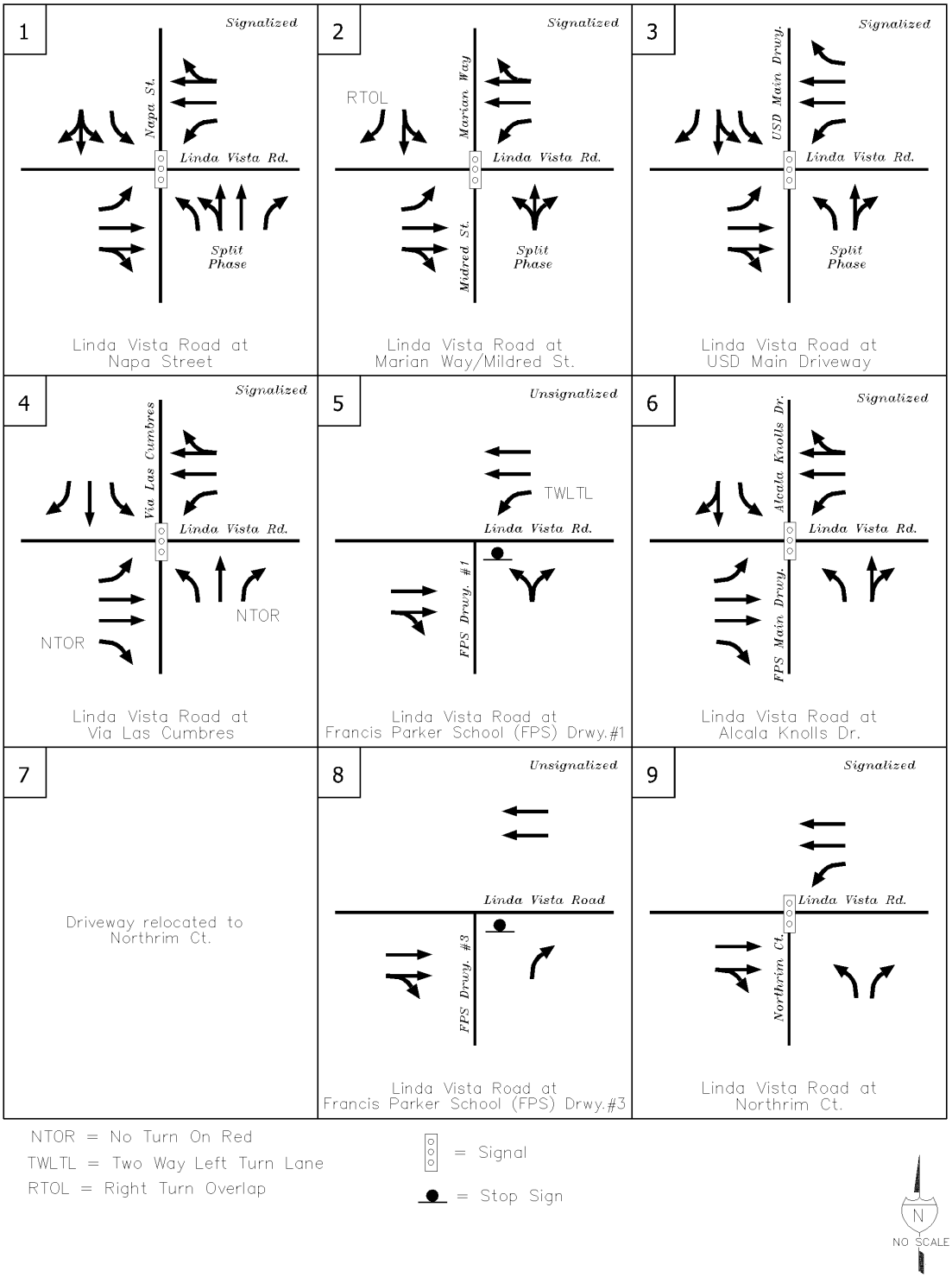


FIGURE 6-2

Lane Configurations – With Project

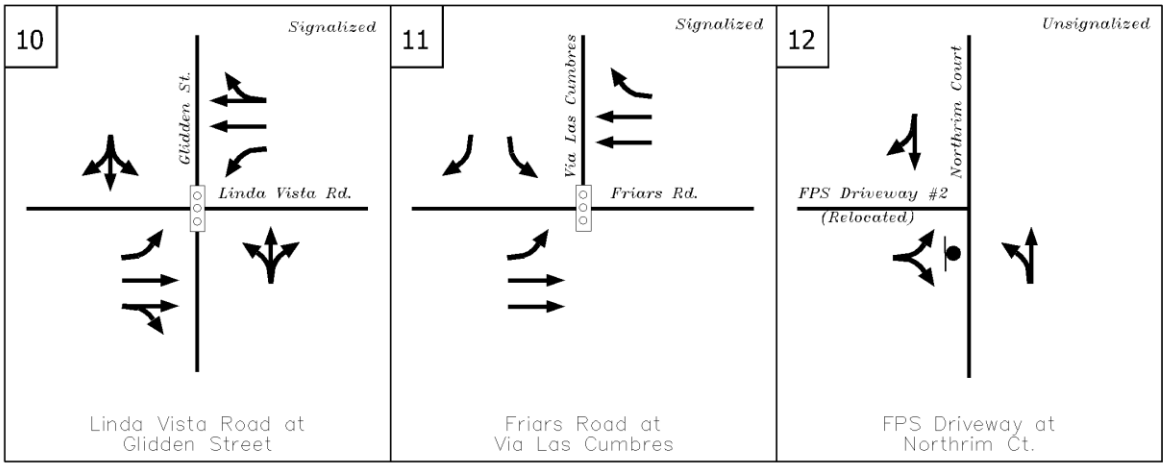
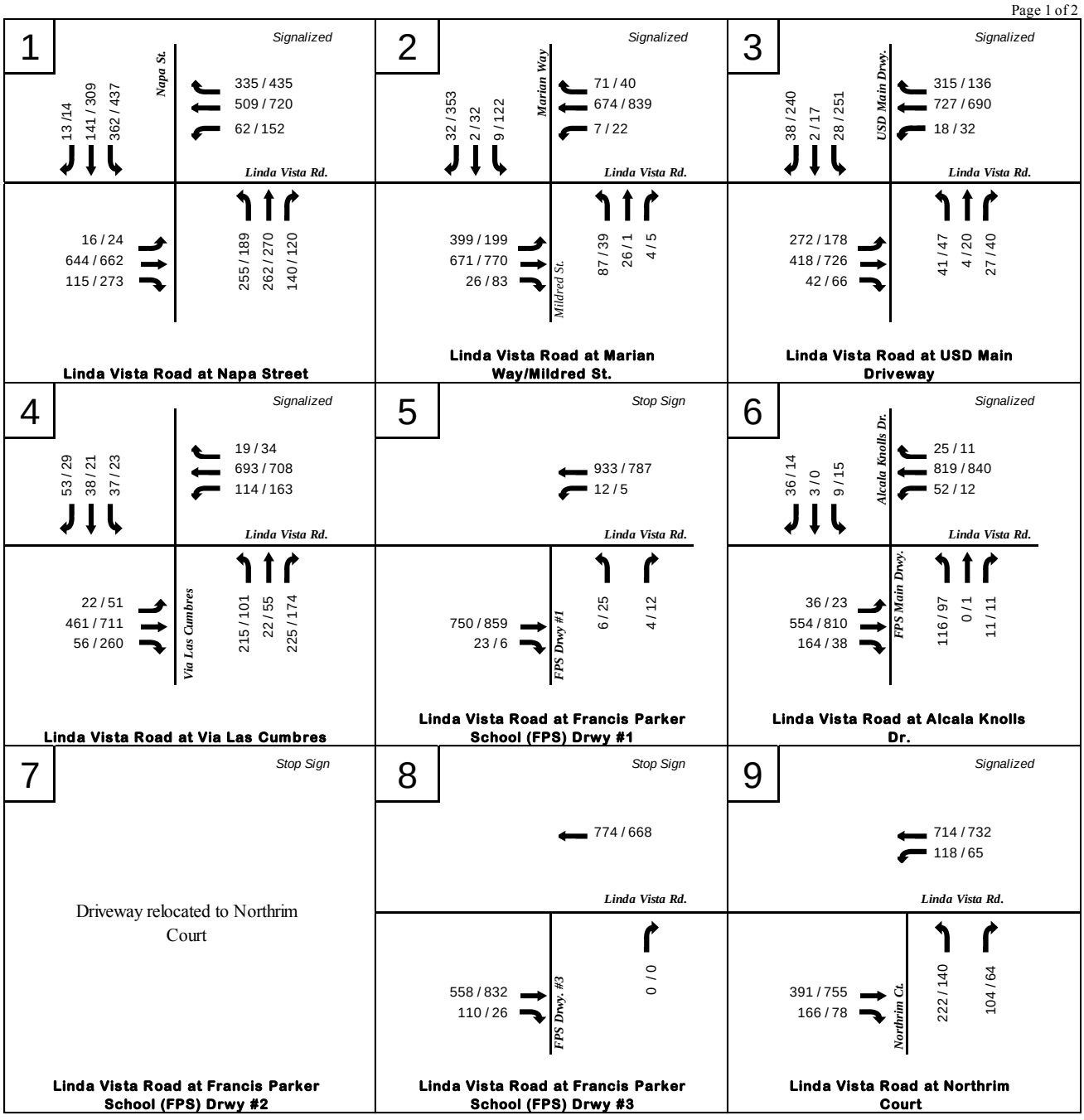


FIGURE 6-2

Lane Configurations – With Project



Notes:

Int. 8 - No left turn in or out due to raised median on Linda Vista Road.

FIGURE 6-3

Existing With Project AM / PM Peak Hour Traffic

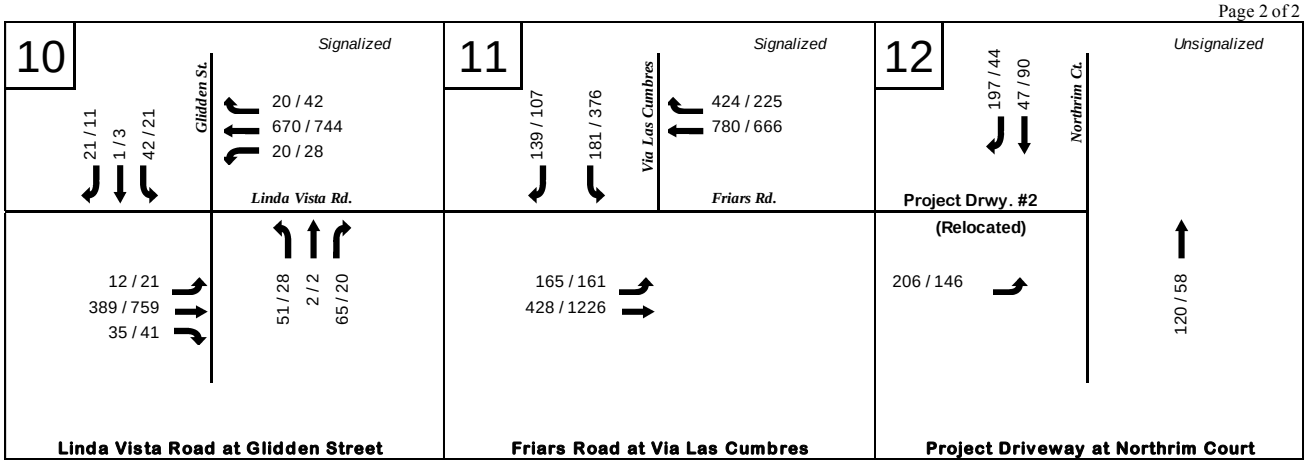


FIGURE 6-3

Existing With Project AM / PM Peak Hour Traffic

TABLE 6-2

Existing With Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	40.8	D	50.1	D
2	Linda Vista Road / Marian Way	Signal	21.1	C	33.6	C
3	Linda Vista Road / USD Main Entrance	Signal	19.4	B	24.5	C
4	Linda Vista Road / Via Las Cumbres	Signal	33.4	C	33.3	C
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	13.7	B	15.8	C
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	19.6	B	15.0	B
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	(1)	(1)	(1)	(1)
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	0.0	A	0.0	A
9	Linda Vista Road / Northrim Court	NB Stop*	47.4	E	20.9	C
10	Linda Vista Road / Glidden Street	Signal	17.4	B	15.9	B
11	Friars Road / Via Las Cumbres	Signal	20.1	C	21.0	C
12	Northrim Ct. / FPS Driveway	EB Stop*	12.5	B	10.6	B

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

EB = Eastbound (one lane)

(1) = Driveway Relocated to Northrim Court

Linda Vista Rd. / Northrim Ct. (Int. 9) with a signal will operate at 18.0 LOS "B" in the AM Peak Hour and 10.5 LOS "B" in the PM Peak Hour, see Appendix D.

Delay = Seconds per vehicle

7.0 OTHER PROJECTS

USAI consulted with City staff to determine other proposed or approved projects that would be expected to contribute traffic within the project study area between the time of existing counts and this project's expected opening day. From that meeting, USAI found there are two other projects that will contribute traffic within the project study area.

Civita - is located on the north side of Friars Road, west of Interstate 805, east of Mission Center Road, and south of Phyllis Place. Civita has been appoved by the City and is divided into four phases. For this analysis, Phase 1 is the only phase considered to be part of the Near Term analysis. Phases two through four are assumed in the Year 2035 analysis. Phase 1 includes 306 senior housing units, 2,171 multi-family dwelling units, and 100,000 square feet of commercial which is expected to generate 17,450 ADT (cumulative). The Civita project is approved and partially constructed. Phase 1 is currently under construction and over half of the dwelling units are built. The remaining units and the commercial portion of Phase 1 is scheduled to be permitted by 2017 and built shortly thereafter. For analysis purposes, Phase 1 is assumed to be built by 2017. The only intersection where Civita contributes traffic within the FPS study area is the intersection of Friars Road at Via Las Cumbres. Civita traffic at this intersection is minor and for this reason, all of Phase 1 is assumed in the Near Term analysis.

University of San Diego (USD) - is located on the north side of Linda Vista Road between Marian Way and Via Las Cumbres. USD is currently revising their master plan which includes the addition of 750 students. Based on the increased student enrollment, USD would generate 2,550 ADT with 153 AM (138 in / 15 out) peak hour trips and 204 PM (82 in / 122 out) peak hour trips. This project is currently under City review and has been included in the Near Term analysis.

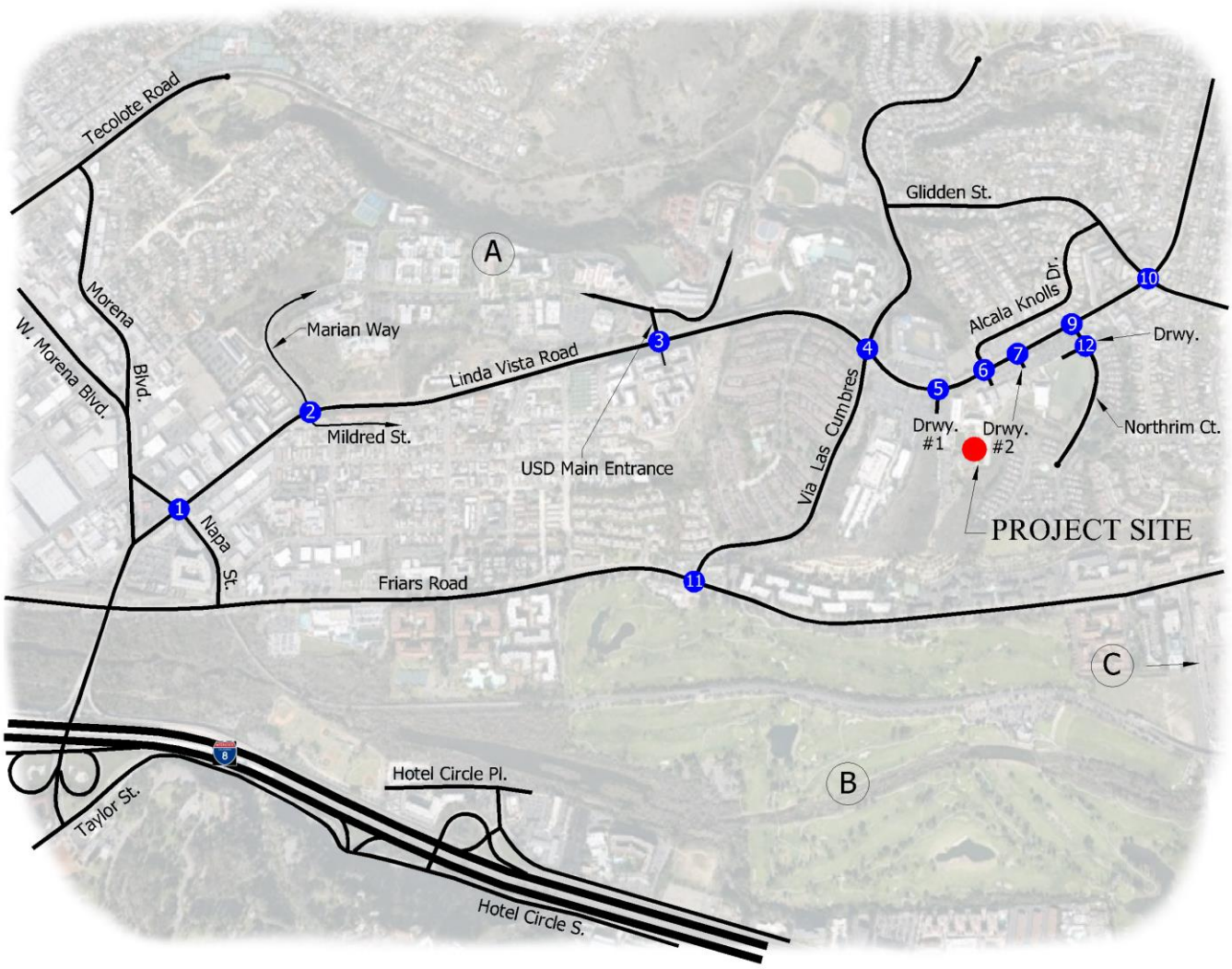
Riverwalk – is located on the existing golf course in Mission Valley bounded by Friars Road to the north, Interstate 8 to the south, and Fashion Valley Road to the east. A previous Riverwalk project was planning to construct approximately 4,000 multi-family residential units and approximately 170,000 square feet of commercial/retail to be constructed by 2035. The Riverwalk project was assumed to generate 31,530 average daily trips with 1,977 AM peak hour trips and 3,171 PM peak hour trips for Phases 1 & 2 which is expected to be built by Year 2035. Phase 3 is expected to be built by 2050 and is unknown at this time. This project is not expected to generate traffic by 2017. For these reasons, the Riverwalk project is not included in the Near Term analysis. However, the future (Year 2035) traffic for the Riverwalk project (Phases 1 & 2) is included in the Year 2035 analysis based on a SANDAG Series 12 Year 2035 traffic model dated October 15, 2014 prepared for a previous version of the Riverwalk project. This traffic model assumed full buildout of the SR-163 / Friars Road interchange although only Phase 1 of the interchange improvements is fully funded. The SR-163/Friars Road interchange is not within the project's study area and therefore not included in the analysis of this report. The analysis results would not be expected to change if the traffic model only assumed phase 1 of the SR-163 / Friars Road interchange improvements.

Trip distribution, trip generation, and project only data for the cumulative projects can be found in **Appendix E.**

Figure 7-1 shows the location of "other" projects included in the Near Term and Year 2035 analysis.

Figure 7-2 shows the Other Projects average daily traffic volumes as well as the location of "Other Projects" included in the analysis.

Figure 7-3 shows the Other Projects AM/PM peak hour traffic volumes.



A = University of San Diego Campus

B = Riverwalk

C = Civita

FIGURE 7-1

Other Projects Location Map

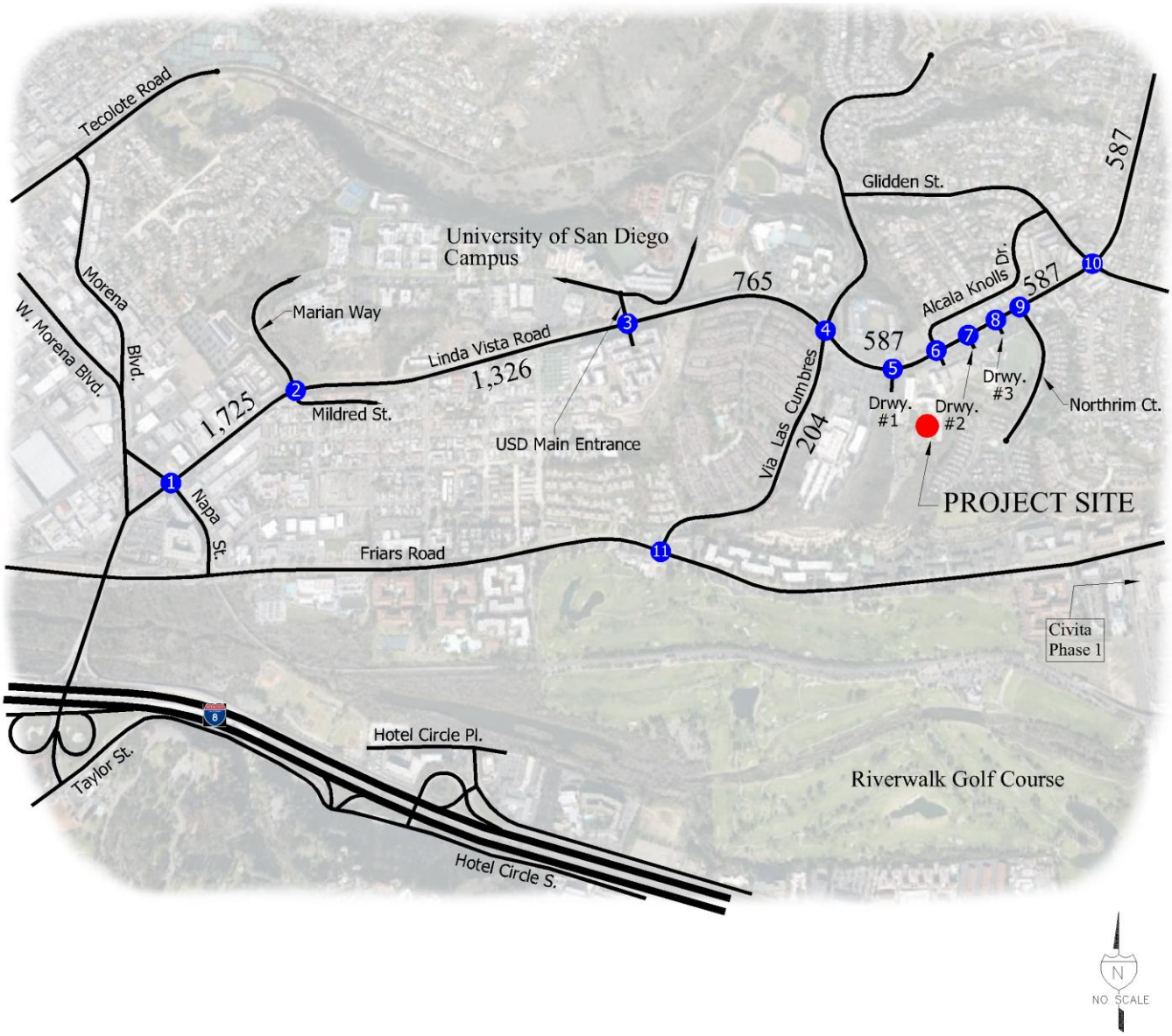


FIGURE 7-2

Other Projects Average Daily Traffic Volumes – Near Term

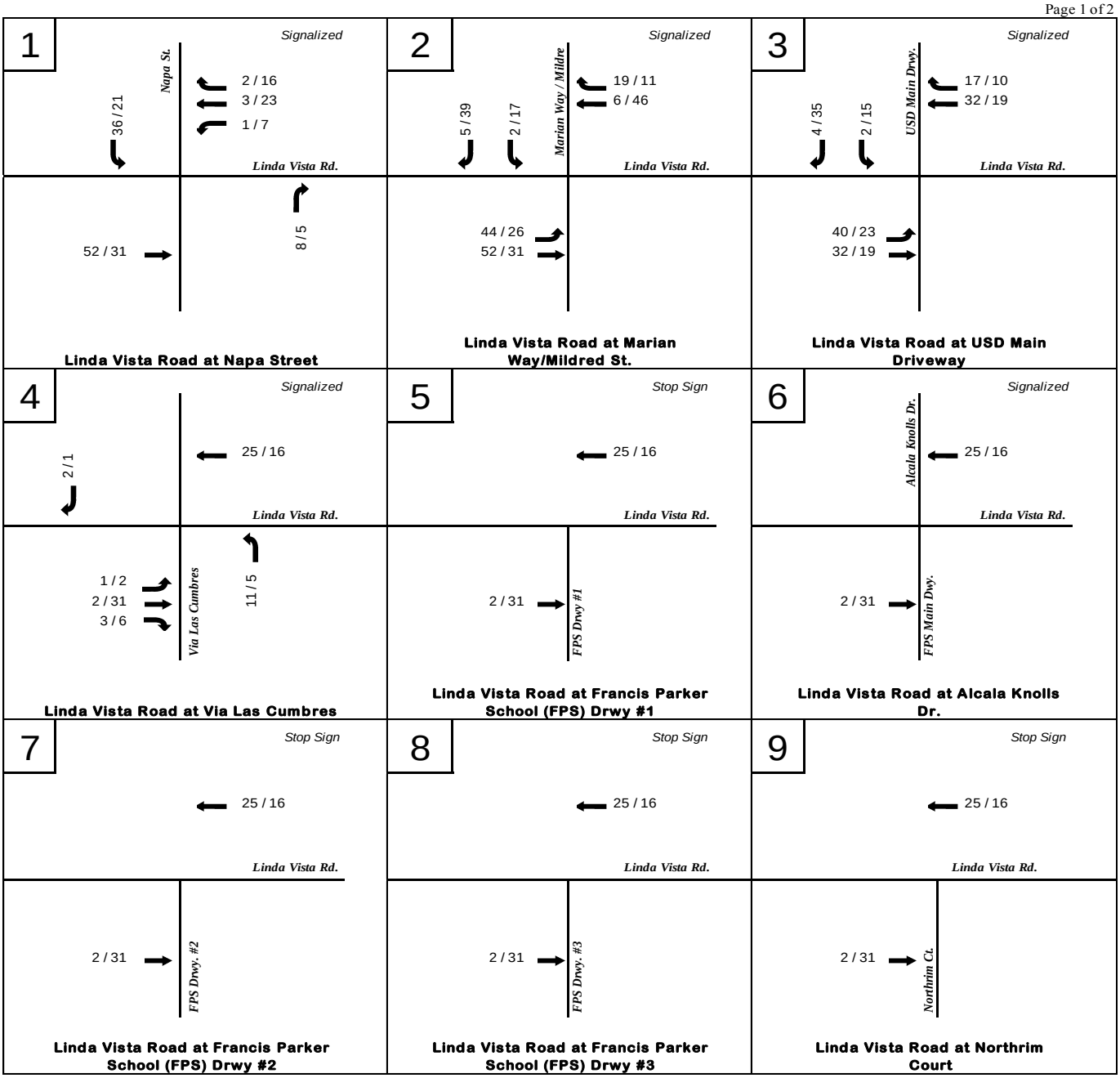


FIGURE 7-3

Other Projects AM/PM Peak Hour Traffic Volumes

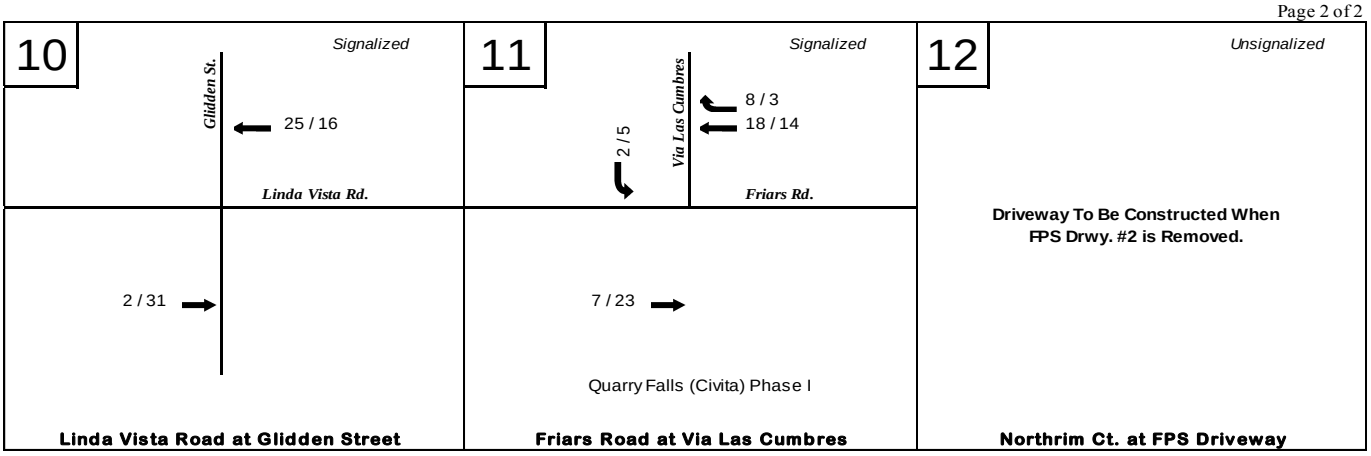


FIGURE 7-3

Other Projects AM/PM Peak Hour Traffic Volumes

8.0 NEAR TERM WITHOUT PROJECT

In order to determine Near Term traffic, USAI followed the methodology outlined in the City of San Diego Traffic Impact Study Manual. The immediate area surrounding Francis Parker School was examined to include several reasonably foreseeable projects that were approved, pending approval, or planned in the area as shown in the previous section of this report. No roadway network changes are assumed in this analysis. The project only traffic for these projects was added to the existing traffic to reflect an "existing plus other project", or Near Term, scenario.

8.1 STREET SEGMENTS

Figure 8-1 shows average daily traffic volumes from the "other projects" added to existing average daily traffic volumes.

Table 8-1 shows street segment levels of service without project traffic. All segments are projected to operate at an acceptable level of service in the Near Term condition without the project except on Linda Vista Road between Napa Street and Mildred Street which operates at LOS "E".

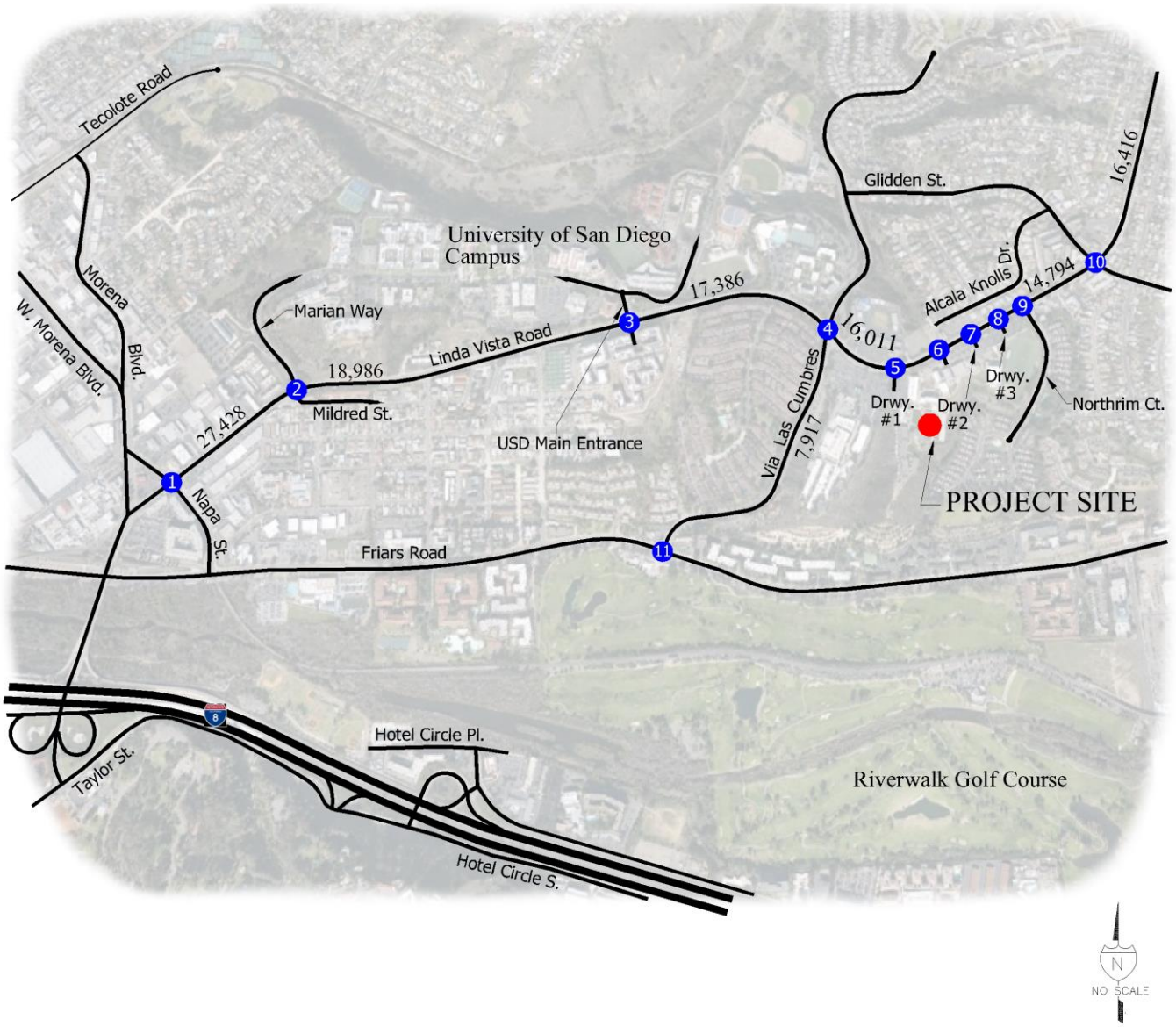


FIGURE 8-1

Near Term Without Project Average Daily Traffic

TABLE 8-1

Near Term Without Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	27,428	0.91	E
	Mildred Street to USD Main Entrance	4-C	30,000	18,986	0.63	C
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	17,386	0.58	C
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	16,011	0.53	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	14,794	0.49	C
	Glidden Street to Kramer Street	4-C	30,000	16,416	0.55	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	7,917	0.53	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

8.2 INTERSECTIONS

Figure 8-2 shows the peak hour traffic volumes from the "other projects" when added to existing peak hour volumes at the study area intersections. **Table 8-2** shows the resulting AM and PM peak hour levels of service. As shown in **Table 8-2**, all intersections are projected to operate at acceptable levels of service.

Appendix F includes the Near Term without Project HCS & Synchro worksheets.

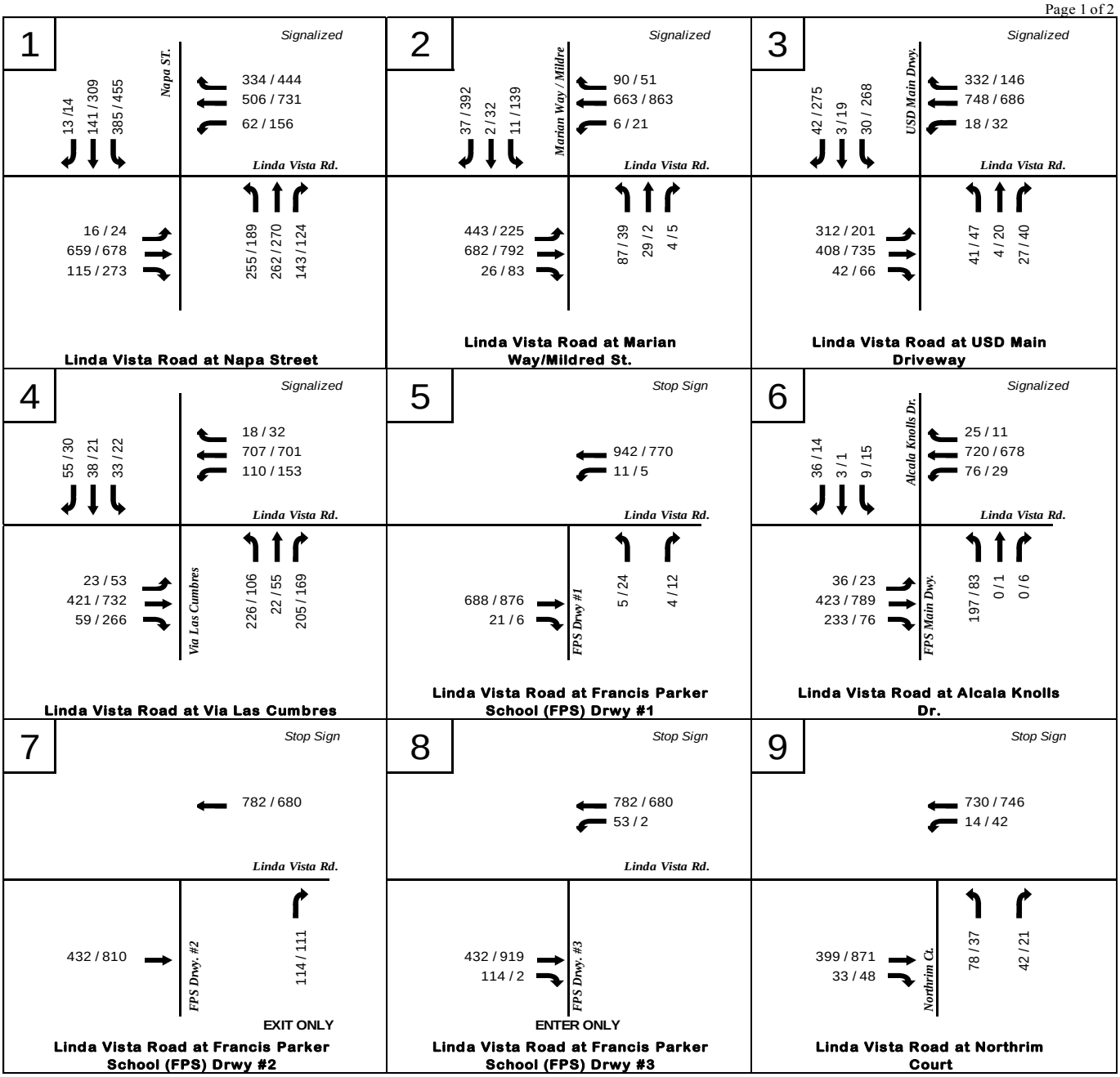


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic

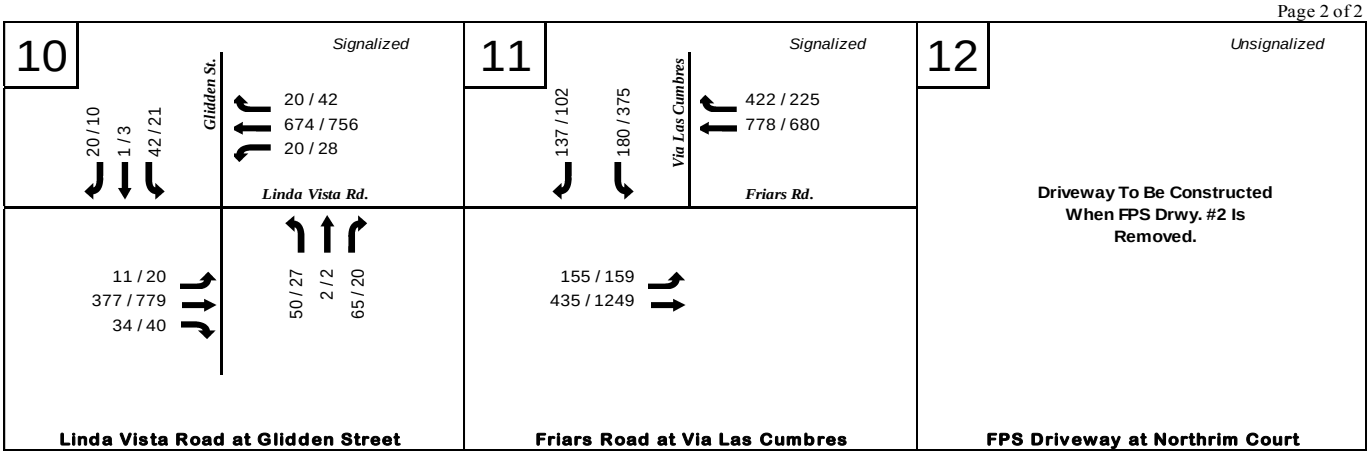


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic

TABLE 8-2

Near Term Without Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	41.2	D	51.5	D
2	Linda Vista Road / Marian Way	Signal	33.6	C	33.6	C
3	Linda Vista Road / USD Main Entrance	Signal	33.5	C	40.7	D
4	Linda Vista Road / Via Las Cumbres	Signal	33.6	C	34.4	C
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	17.9	C	23.0	C
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	25.5	C	14.4	C
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	12.7	B	17.0	C
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	8.7	A	10.0	A
9	Linda Vista Road / Northrim Court	NB Stop*	18.5	C	28.2	D
10	Linda Vista Road / Glidden Street	Signal	17.4	B	15.9	B
11	Friars Road / Via Las Cumbres	Signal	19.7	B	20.8	C
12	Northrim Ct. / FPS Driveway	Driveway*	(1)	(1)	(1)	(1)

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

NB = Northbound (one lane)

(1) = Project Driveway to be constructed when FPS Driveway #2 is removed.

Delay = Seconds per vehicle

9.0 NEAR TERM WITH PROJECT

This section of the report evaluates the Near Term with Project traffic conditions by adding the "other projects" plus the Francis Parker School project traffic to existing volumes and evaluating project traffic impacts. The project's opening day is expected to begin in the fall of 2016 with the addition of approximately 70 students. By the fall of 2017, the school is expected to include the remaining students to increase the proposed enrollment of 140 students to a total of 940 students (800 existing + 140 proposed).

9.1 STREET SEGMENTS

Figure 9-1 shows average daily traffic volumes with project traffic added to existing plus "other projects" traffic volumes.

Table 9-1 shows street segment levels of service with Francis Parker School project traffic. As shown, all segments would operate acceptably except on Linda Vista Road between Napa Street and Mildred Street which operates at LOS "E".

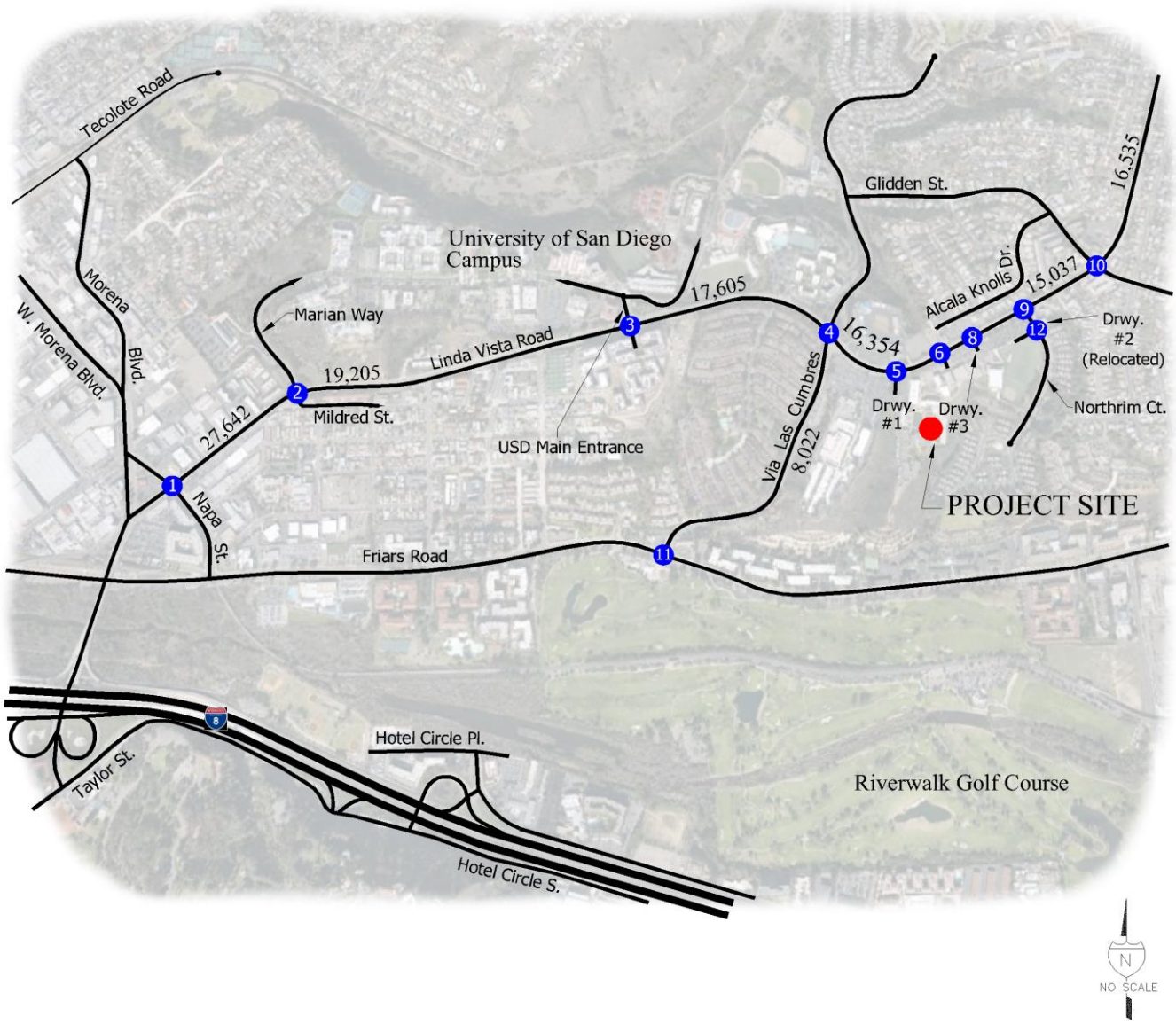


FIGURE 9-1

Near Term With Project Average Daily Traffic

TABLE 9-1

Near Term With Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	27,642	0.92	E
	Mildred Street to USD Main Entrance	4-C	30,000	19,205	0.64	C
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	17,605	0.59	C
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	16,354	0.55	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	15,037	0.50	C
	Glidden Street to Kramer Street	4-C	30,000	16,535	0.55	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	8,022	0.53	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

9.2 INTERSECTIONS

Figure 9-2 shows existing plus "other projects" plus Francis Parker School project combined traffic volumes during AM/PM peak hours at study area intersections.

Table 9-2 includes study area intersection levels of service with the Francis Parker School project traffic added. As shown in this table, all intersections are projected to operate at acceptable levels of service with the exception of Linda Vista Road at Northrim Court which is projected to operate at LOS "E" in the AM peak hour. The installation of a traffic signal at this intersection will mitigate the project's direct impact. Refer to the Mitigation section in the Executive Summary for more information on the signal.

Appendix G includes the Near Term with Project HCS & Synchro worksheets.

Page 1 of 2

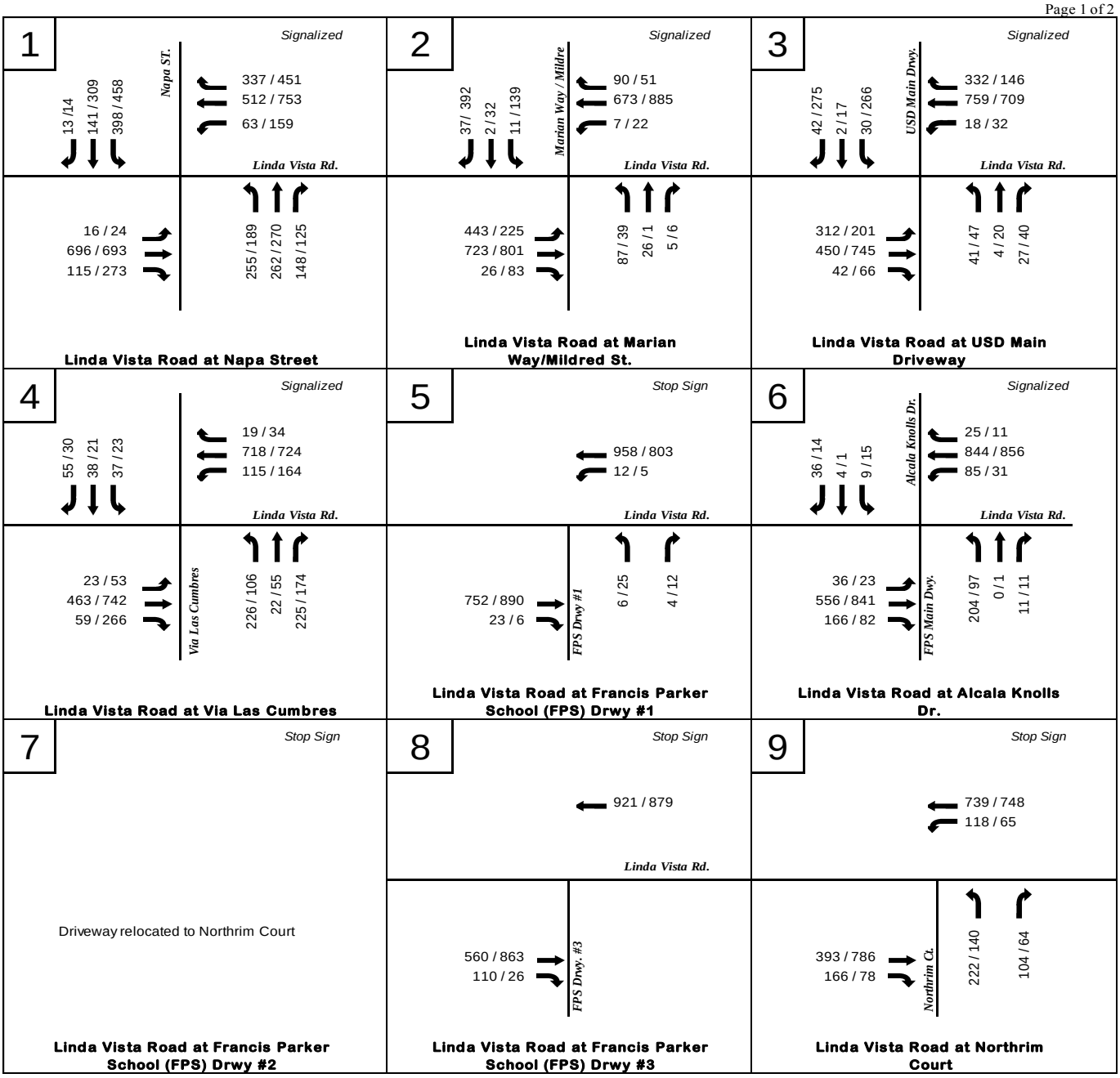


FIGURE 9-2

Near Term With Project AM/PM Peak Hour Traffic

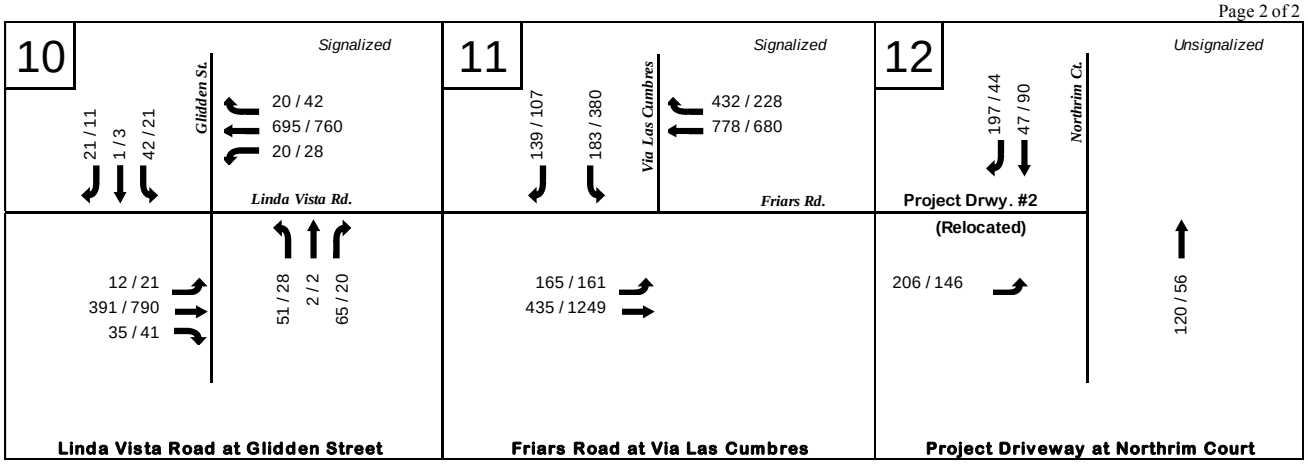


FIGURE 9-2

Near Term With Project AM/PM Peak Hour Traffic

TABLE 9-2

Near Term With Project Intersection Levels Of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	41.9	D	52.3	D
2	Linda Vista Road / Marian Way	Signal	33.9	C	34.1	C
3	Linda Vista Road / USD Main Entrance	Signal	33.9	C	40.7	D
4	Linda Vista Road / Via Las Cumbres	Signal	35.1	D	37.0	D
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	13.7	B	16.3	C
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	26.8	C	15.7	B
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	(1)	(1)	(1)	(1)
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	0.0	A	0.0	A
9	Linda Vista Road / Northrim Court	NB Stop*	49.5	E	22.2	C
10	Linda Vista Road / Glidden Street	Signal	17.4	B	16.0	B
11	Friars Road / Via Las Cumbres	Signal	20.3	C	20.8	C
12	Northrim Ct. / FPS Driveway	EB Stop*	12.5	B	10.6	B

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

EB = Eastbound (one lane)

(1) = Driveway Relocated to Northrim Court

Linda Vista Rd. / Northrim Ct. (Int. 9) with a signal will operate at 19.4 LOS "B" in the AM Peak Hour and 13.5 LOS "B" in the PM Peak Hour, see Appendix G.

Delay = seconds per vehicle

10.0 YEAR 2035 WITHOUT PROJECT

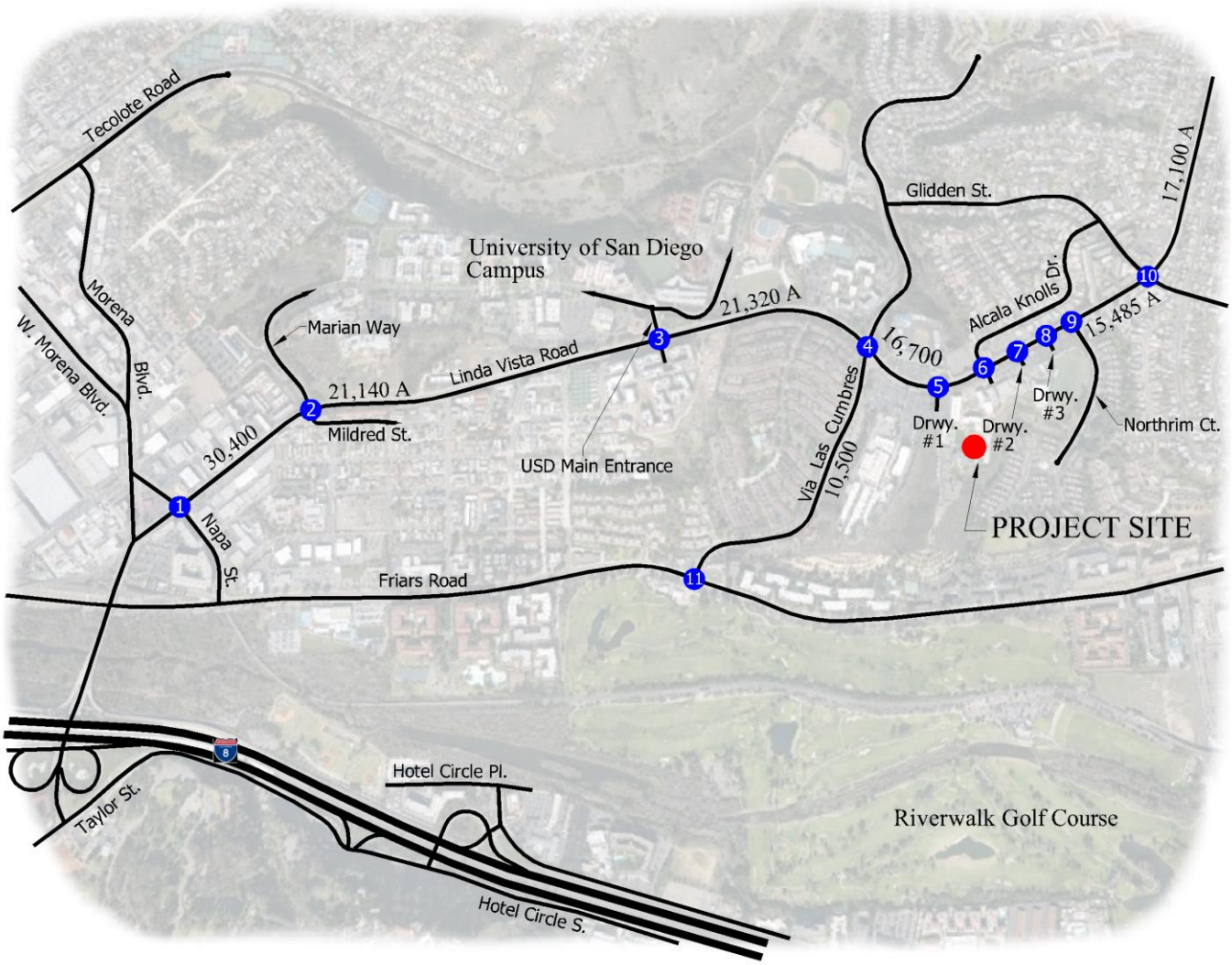
This section of the report evaluates the Year 2035 without project condition. The SANDAG Series 12 regional traffic forecast model is based on planning efforts involving all jurisdictions within the County of San Diego. SANDAG, as the regional planning agency collects data from these plans and collates this data within a traffic model. SANDAG also prepared the regional transportation plan (RTP) utilized by the traffic model as a basis for estimating future traffic with inputs provided by the various jurisdictions. Year 2035 is an interim year in the SANDAG model, with buildout generally assumed to occur in Year 2050. A previous draft Riverwalk traffic forecast was used as the basis for future volumes on Linda Vista Road, Via Las Cumbres, and Friars Road. The Year 2035 analysis assumed a fourth leg (NB approach) to accommodate the proposed Riverwalk project at Friars Road / Via Las Cumbres.

The Series 12 traffic model used assumed the following road network changes:

- Riverwalk Drive extends from Fashion Valley Road to Napa Street.
- Via Las Cumbres extends south of Friars Road but does not cross the San Diego River.
- Hazard Center Drive connection under SR-163 is completed as a two-lane roadway.
- SR-163 / Friars Road interchange project is completed although only phase 1 is fully funded. (Refer to **Appendix L** for more information on the SR-163/Friars Road interchange improvements assumed in the model)

10.1 STREET SEGMENTS

Street segment volumes for Year 2035 conditions without the project are shown in **Figure 10-1**. The street segment levels of service for Year 2035 conditions without the project are shown in **Table 10-1**. As shown in **Table 10-1**, all street segments evaluated are projected to operate at acceptable levels of service "D" or better with the exception of Linda Vista Road between Napa Street and Mildred Street which is projected to operate at LOS "F".



Notes:

21,140 A = Volumes were adjusted since the traffic model volume was lower than existing. The growth increase from the adjacent ADT (30,400) was used to calculate growth along Linda Vista Rd.

Source: SANDAG Series 12, 2035 RC11 Riverwalk, 10/15/14.

FIGURE 10-1

Year 2035 Without Project Average Daily Traffic

TABLE 10-1

Year 2035 Without Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	30,400	1.01	F
	Mildred Street to USD Main Entrance	4-C	30,000	21,140	0.70	D
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	21,320	0.71	D
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	16,700	0.56	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	15,485	0.52	C
	Glidden Street to Kramer Street	4-C	30,000	17,100	0.57	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	10,500	0.70	D

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

10.2 INTERSECTIONS

AM/PM peak hour turn volumes were established by using a factoring method based on Near Term with Project volumes and Year 2035 with Project volumes. All study intersections AM/PM peak hour turn volumes used the factoring method to develop Year 2035 without project volumes. Project only peak hour volumes were added to Year 2035 volumes to reflect Year 2035 with project peak hour volumes. The factoring worksheets for all study intersections can be found in **Appendix H**.

Existing lane configurations, as shown in **Figure 5-2**, were used in both long term cumulative scenarios except at the intersection of Friars Road / Via Las Cumbres. Friars Road is assumed as four lanes and a fourth leg has been added to the intersection of Friars Road / Via Las Cumbres to account for a proposed Riverwalk driveway. The proposed Riverwalk project plans to use this intersection as one of the access points along Friars Road to the site. **Figure 10-2** shows the expected Year 2035 Without Project peak hour volumes at the intersections analyzed.

Table 10-2 shows the peak hour intersection levels of service. The following intersection is projected to operate at unacceptable levels of service:

- Linda Vista Road / Napa Street AM peak hour LOS "D" PM peak hour LOS "E"

The HCS & Synchro worksheets for the Year 2035 without Project condition may be found in **Appendix I**.

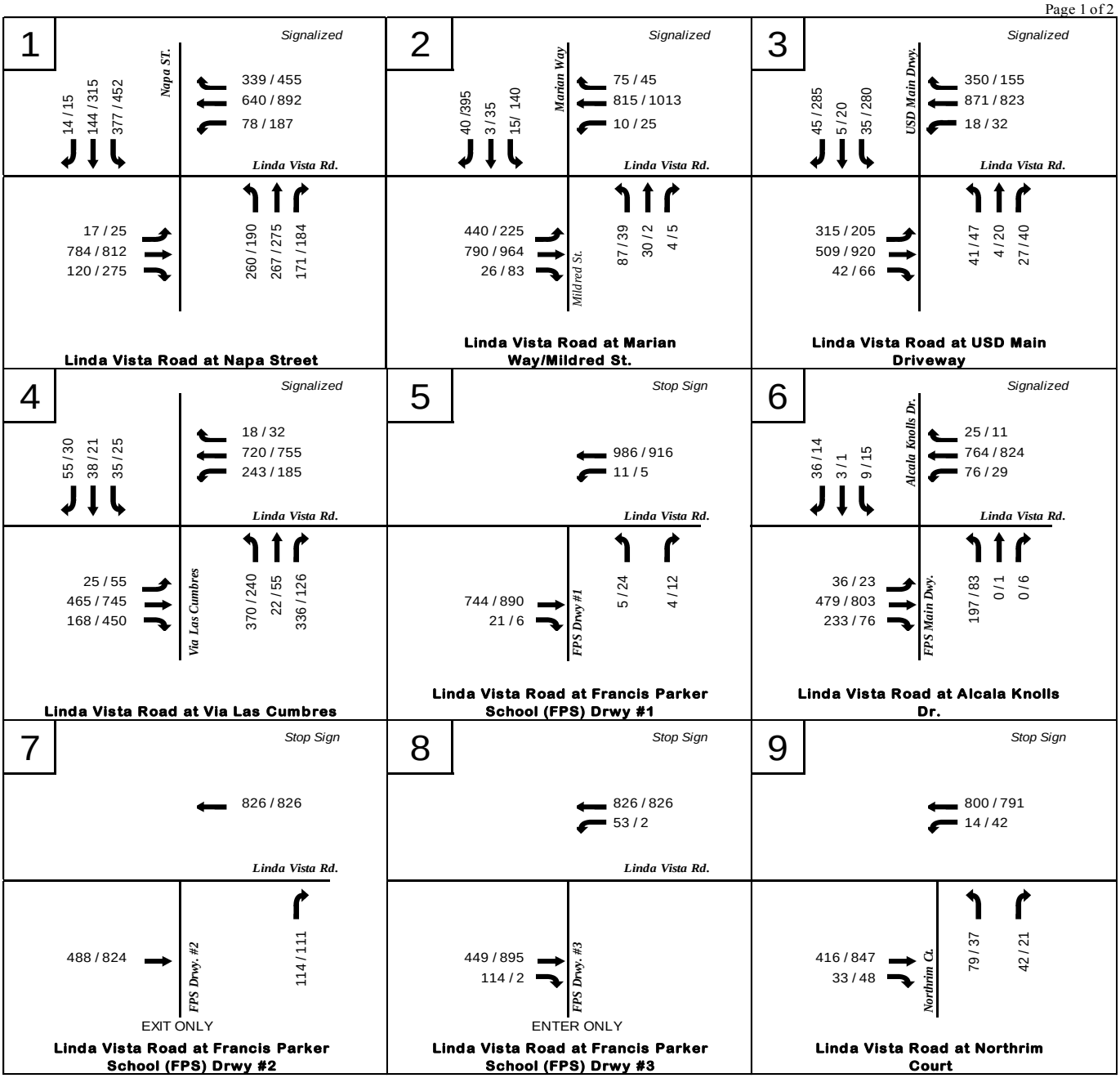


FIGURE 10-2

Year 2035 Without Project AM / PM Peak Hour Traffic Volumes

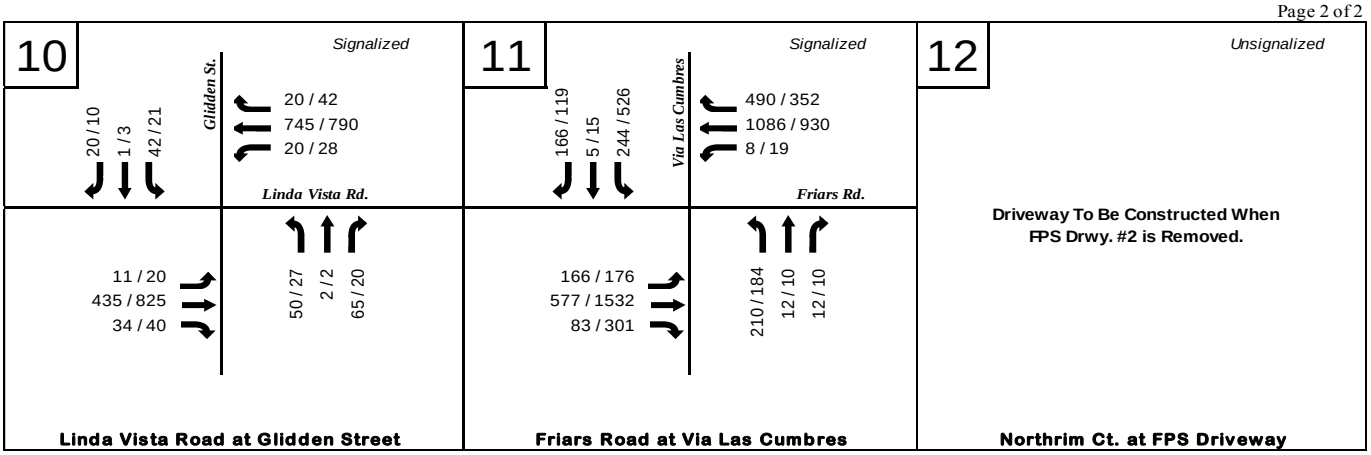


FIGURE 10-2

Year 2035 Without Project AM / PM Peak Hour Traffic Volumes

TABLE 10-2

Year 2035 Without Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	45.4	D	55.6	E
2	Linda Vista Road / Marian Way	Signal	35.5	D	48.8	D
3	Linda Vista Road / USD Main Entrance	Signal	34.6	C	41.2	D
4	Linda Vista Road / Via Las Cumbres	Signal	46.0	D	45.6	D
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	19.3	C	25.4	D
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	25.5	C	14.0	B
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	13.4	B	18.2	C
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	8.9	A	10.0	B
9	Linda Vista Road / Northrim Court (1)	Signal	7.6	A	7.2	A
10	Linda Vista Road / Glidden Street	Signal	17.3	B	16.4	B
11	Friars Road / Via Las Cumbres	Signal	43.6	D	46.0	D
12	Northrim Ct. / FPS Driveway	Driveway*	(2)	(2)	(2)	(2)

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

(1) =The analysis assumes a signal as mitigation for the project's direct impact already installed.

(2) = Project Driveway to be constructed when FPS Driveway #2 is removed.

Delay = Seconds per vehicle

11.0 YEAR 2035 WITH PROJECT

As previously discussed, Year 2035 with project volumes were taken from a SANDAG Series 12, previous draft Riverwalk traffic forecast (not reflecting most recent plans). Year 2035 is an interim year in the SANDAG model, with buildout generally assumed to occur in Year 2050. Project only average daily traffic volumes were added to these base volumes to derive the Year 2035 With Project volumes.

.

11.1 STREET SEGMENTS

Figure 11-1 shows the Year 2035 With Project street segment traffic volumes.

An analysis was completed for street segments in the Year 2035 With Project condition. As shown on **Table 11-1**, all segments examined are projected to operate at acceptable levels of service with the exception of Linda Vista Road from Napa St. to Mildred St. which operates at LOS F. However, project cumulative impacts to street segments are less than significant since the change in v/c ratio with project traffic is less than 0.01.

11.2 YEAR 2035 WITH PROJECT INTERSECTIONS VOLUMES

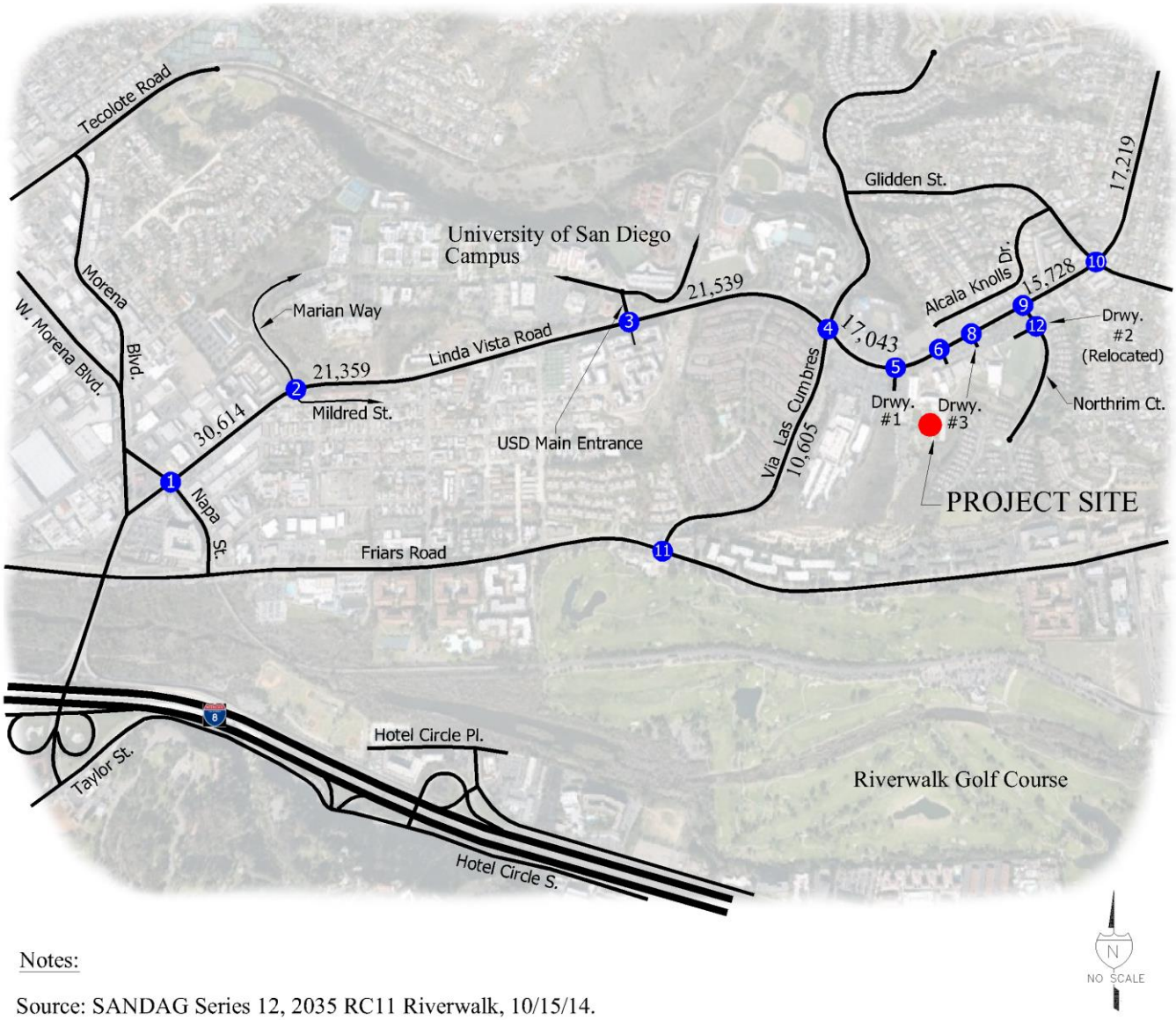
Figure 11-2 shows the expected peak hour volumes at Year 2035 With Project for the intersections analyzed. As shown, all driveways are analyzed in the future condition as they exist today. In the subsequent chapter, Francis Parker School (FPS) driveway #2 has been relocated from Linda Vista Road to Northrim Court. For more information on the relocation of project driveways, please refer to Chapter 12.0 (Project Access). **Table 11-2** shows the AM and PM peak hour levels of service for the Year 2035 with Project condition.

Only the following two intersections are projected to operate at unacceptable levels of service:

- Linda Vista Road / Napa Street AM peak hour LOS "D" PM peak hour LOS "E"

However, the project's increase to delay at Linda Vista Road / Napa Street will be less than two second, at 0.9 seconds, so that the project cumulative impact will be less than significant, and no project mitigation will be required at this location. At Linda Vista Road / Northrim Court, a signal is assumed as mitigation for the project's direct impact.

Appendix J includes HCS & Synchro worksheets for Year 2035 with Project condition.



Notes:

Source: SANDAG Series 12, 2035 RC11 Riverwalk, 10/15/14.

FIGURE 11-1

Year 2035 With Project Average Daily Traffic Volumes

TABLE 11-1

Year 2035 With Project Street Segment Levels of Service

Road	Segment	Class.	Cap.	Volume	V/C	LOS
Linda Vista Road	Napa Street to Mildred Street	4-C	30,000	30,614	1.02	F
	Mildred Street to USD Main Entrance	4-C	30,000	21,359	0.71	D
	USD Main Drwy. to Via Las Cumbres	4-C	30,000	21,539	0.72	D
	Via Las Cumbres to Alcala Knolls Drive	4-C	30,000	17,043	0.57	C
	Alcala Knolls Drive to Glidden Street	4-C	30,000	15,728	0.52	C
	Glidden Street to Kramer Street	4-C	30,000	17,219	0.57	C
Via Las Cumbres	Linda Vista Road to Friars Road	3-C	15,000	10,605	0.71	D

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

4-C = 4 Lane Collector

3-C = 3 lane Collector

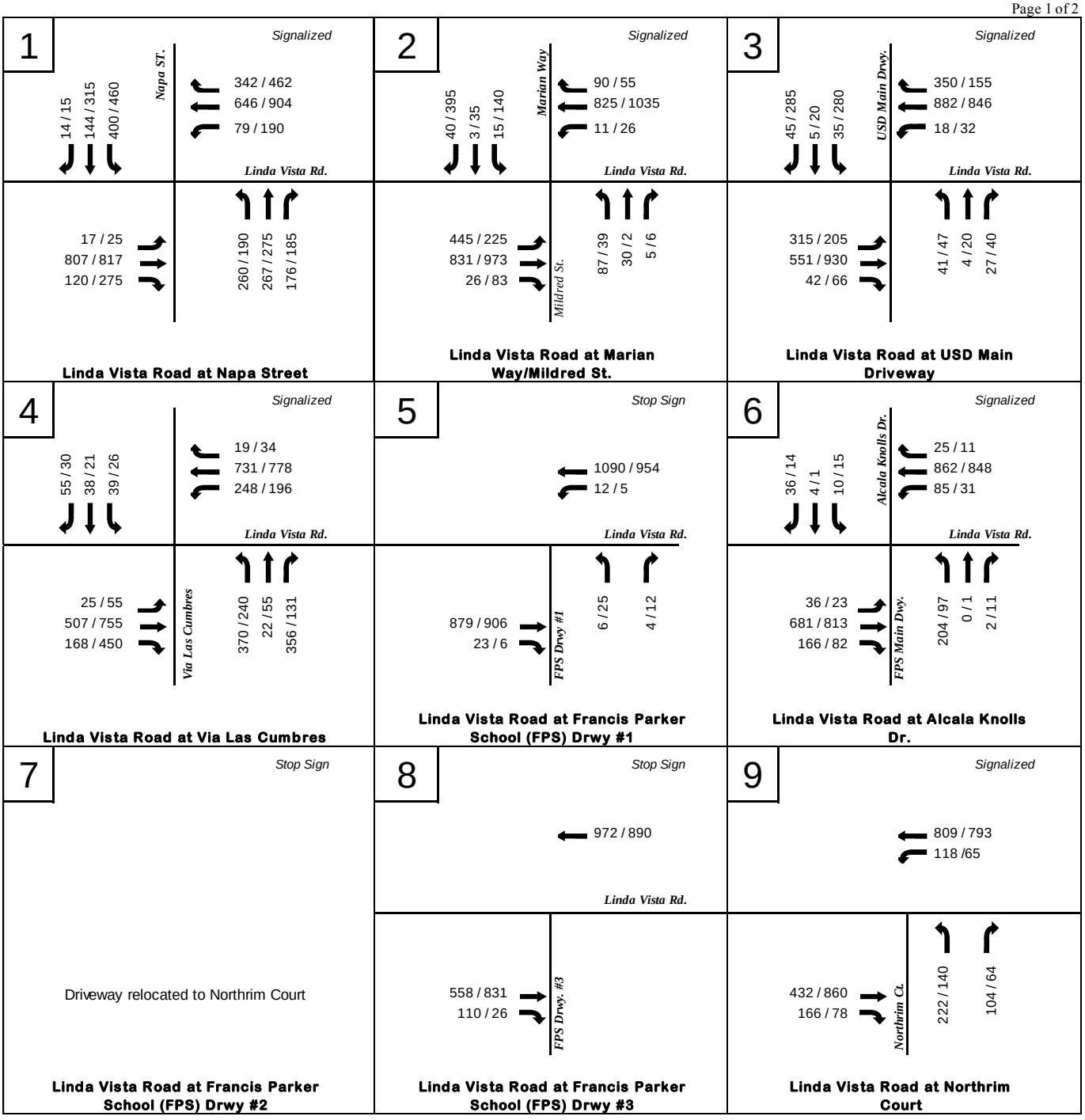


FIGURE 11-2

Year 2035 With Project AM / PM Peak Hour Traffic Volumes

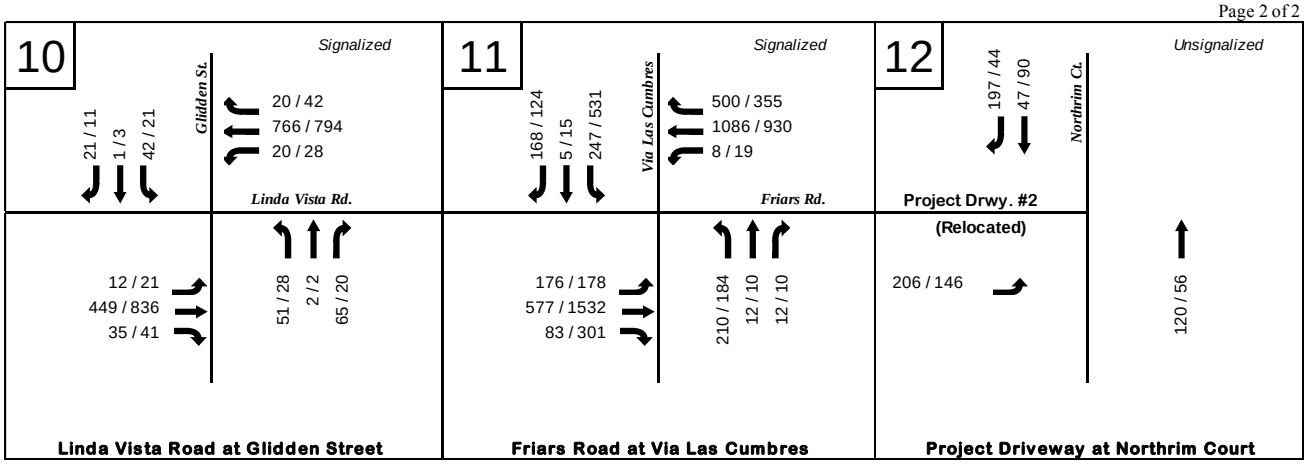


FIGURE 11-2

Year 2035 With Project AM / PM Peak Hour Traffic Volumes

TABLE 11-2

Year 2035 With Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Linda Vista Road / Napa Street	Signal	46.6	D	56.5	E
2	Linda Vista Road / Marian Way	Signal	35.7	D	50.3	D
3	Linda Vista Road / USD Main Entrance	Signal	34.9	C	41.4	D
4	Linda Vista Road / Via Las Cumbres	Signal	46.7	D	47.3	D
5	Linda Vista Road / Francis Parker School Drwy. #1	Driveway*	11.9	B	16.6	C
6	Linda Vista Road / Alcala Knolls Drive (Main Driveway)	Signal	26.6	C	15.7	B
7	Linda Vista Road / Francis Parker School Drwy. #2	Driveway*	(1)	(1)	(1)	(1)
8	Linda Vista Road / Francis Parker School Drwy. #3	Driveway*	0.0	A	0.0	A
9	Linda Vista Road / Northrim Court (2)	Signal	17.3	B	10.2	B
10	Linda Vista Road / Glidden Street	Signal	17.3	B	16.5	B
11	Friars Road / Via Las Cumbres	Signal	47.1	D	46.6	D
12	Northrim Ct. / FPS Driveway	EB Stop*	12.5	B	10.6	B

Notes:

* = Worst Approach Delay & LOS Reported.

LOS = Level of Service

EB = Eastbound (one lane)

(1) = Driveway Relocated to Northrim Court

(2) = The analysis assumes a signal as mitigation for the project's direct impact.

12.0 ACCESS, PARKING ANALYSIS AND CONSTRUCTION TRAFFIC

12.1 ACCESS AND CIRCULATION PLAN

The Francis Parker School Master Plan Update will include a circulation plan on site that will allow access to a new underground parking garage with a 283 car capacity, and provide for student drop – off and pick – up. The improvements will be constructed as funding becomes available. The first priority would be the underground parking structure and surface parking improvements related to the garage, then the Dining/Athletic Complex. The next priority would be the Gymnasium followed by the re-orientation of the athletic field to include a track. The last priority would be the Academic buildings for student collaboration. School buses will continue to use Driveway #1 (westerly school driveway) to drop off and pick up students.

As previously discussed in the Existing With Project (Section 6.0 of this report), the Middle School traffic and Upper School traffic will use separate driveways. One of the existing driveways on Linda Vista Road (Int. #7 in TIA) will be relocated to become a gated driveway onto Northrim Court for Upper School traffic. Because the Northrim Court access is approximately 135 feet from Linda Vista Road, 95th percentile queues at the proposed signal at the intersection of Linda Vista Road / Northrim Court were evaluated in the Year 2035 With Project scenario. In the future study scenario (Year 2035 With Project), the northbound left turn movement reports a queue of 131 feet in the AM peak hour and 73 feet in the PM peak hour. Therefore, northbound traffic on Northrim Court is not expected to block the proposed school driveway in either the AM or PM peak hour. **Appendix J** includes the queuing worksheets in the Year 2035 With Project scenario at the proposed signalized intersection of Linda Vista Road / Northrim Court.

A Circulation Plan for the Middle School and Upper School traffic is shown in **Figure 12–1**.

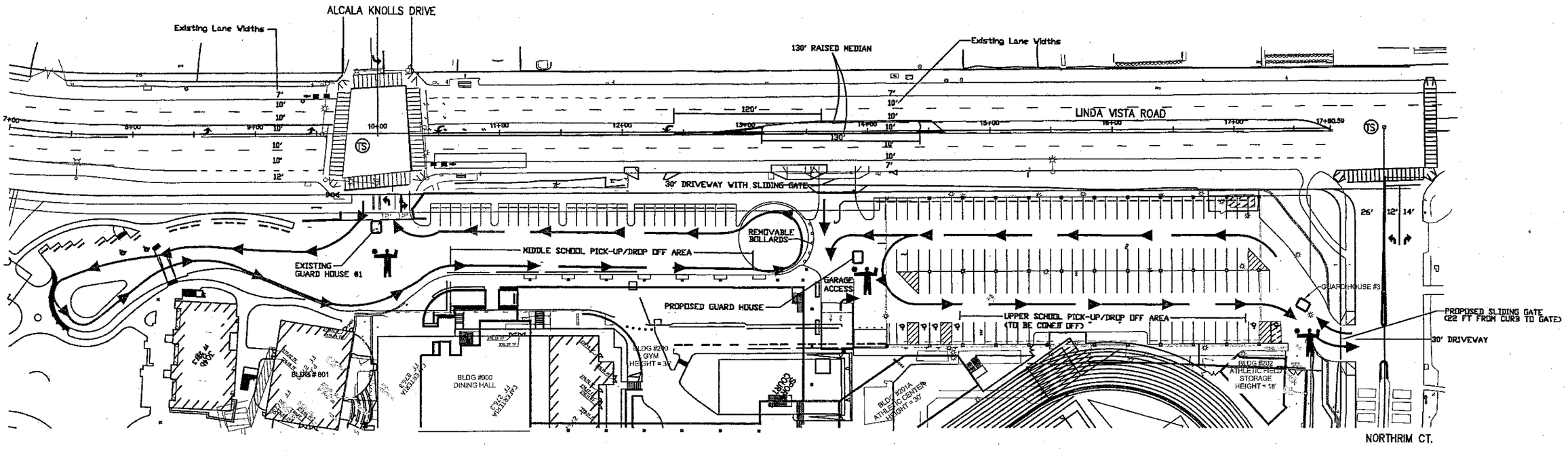
The existing bus circulation plan is shown in **Figure 12-2** & **Figure 12-3**.

See following 11 x 17 plan sheet

FIGURE 12-1

Middle & Upper School Circulation Plan

FIGURE 12–1
MORNING AND AFTERNOON PICK–UP/DROP OFF

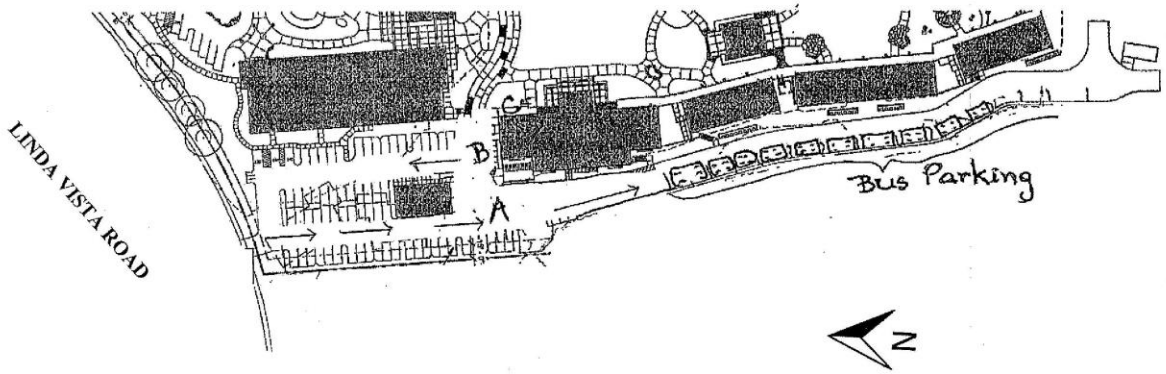


TS = SIGNALIZED INTERSECTION

LEGEND

= TRAFFIC CONTROL PERSONNEL

SCALE: 1"=40'
0 20 40

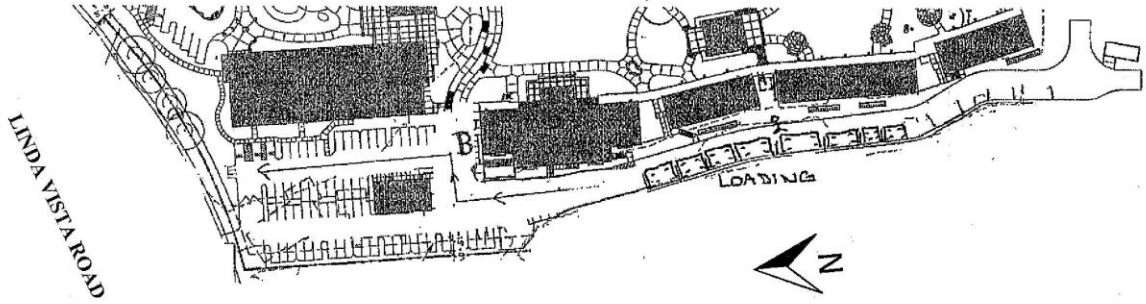


MORNING
Buses enter gate and de-board students (one bus at a time) at Point A. The shuttle bus (es) de-board Upper & Middle School students at Point B. Lower School shuttle students await the bus at Pont C.

Empty buses return to their designated parking spots. The shuttle bus (es) depart through the exit gate.

FIGURE 12-2

Morning – Bus Parking & Circulation Plan



AFTERNOON
Students board their designated bus in its parked spot. At the designated time, the buses depart through the exit gate.

The shuttle bus will de-board Lower School students, & board Middle/Upper School students,at Point B and depart through the exit gate.

FIGURE 12-3

Afternoon – Bus Parking & Circulation Plan

The features of the Circulation Plan (**Figure 12-1**) are as follows:

- The morning drop-off and afternoon pick-up for Middle School students would enter the main signalized driveway at Alcala Knolls Drive, circulate to the west, then easterly along the south curb. These vehicles would then turn back westerly before the driveway into the proposed parking garage, and exit at the Alcala Knolls Drive traffic signal.

- In the morning, Upper School students who drive their own vehicle would enter a single right-in/right-out driveway on Linda Vista Road (Int. #8), east of the Alcala Knolls Drive entrance, to access the proposed parking garage. Although right turn movements exiting this driveway (Int. # 8) would be permitted, the volume exiting this driveway is considered very low (5 AM and 3 PM) and will be re-distributed by trained traffic control personnel to the Northrim Court driveway (Int. #12) to assure safe, smooth, and efficient traffic flow. Upper School students who drive in from the east on Linda Vista Road would turn left at the proposed signal onto Northrim Court and enter the new driveway (Int. #12). Illegal westbound to eastbound u-turns at Alcala Knolls Drive or Via Las Cumbres to turn right into the Garage Access on Linda Vista Road would be minor (if any) because the new signal at Linda Vista Road / Northrim Court is expected to accommodate the westbound to southbound left turns. According to the queuing report at this intersection with the proposed signal in the Horizon Year 2035 With Project condition, the 95th percentile queue length for the WB to SB turn movement is approximately 84 feet in the AM peak hour (worst case). However, the WB left turn storage can accommodate more than 84 feet of storage since the left turn pocket changes into an existing two-way left turn lane that extends to Glidden Street which is approximately 500 feet.

- In the afternoon, Upper School students who drive their own vehicle would exit the proposed parking garage and turn east at the end of the ramp to exit onto Northrim Court. To assist vehicles exiting the garage and circulating on-site in the morning and afternoon, on-site traffic control personnel is proposed by the project to improve safety on-campus.

- On-site traffic control personnel are currently provided at the school's main access at Alcala Knolls Drive during both the morning drop-off and afternoon pick-up. To improve circulation on-site, Francis Parker School is planning to provide traffic control personnel trained to control traffic at two additional locations. As shown in Figure 12-1, the additional traffic control personnel will be located near the Garage driveway and near the Northrim Court driveway during both morning drop-off and afternoon pick-up. Traffic control personnel located near the Northrim Court driveway will be on-site directing school traffic exiting the site to facilitate traffic flow to and from the neighborhood.

- The Upper School students who are dropped-off in the morning and picked-up in the afternoon will use the proposed driveway on Northrim Court. This traffic travels along the north aisle of the parking lot traveling west and then circles back towards the east to pick-up and/or drop-off students.

- The Northrim Court driveway would also be used for special events.

- The signal at Linda Vista Road / Alcala Knolls Drive and the driveway accessing the proposed garage (Int. #8) to the east on Linda Vista Road would also be used for special events. As shown in Figure 12-1, a raised median is proposed on Linda Vista Road at the easterly driveway to prevent left turns in and out of this driveway.

12.2 PARKING ANALYSIS

In addition to the increase of 140 new students and 13 new staff at Francis Parker, a new underground parking garage is to be built on site. With the Master Plan changes, the existing on-site parking count will be increased from the present 290 spaces to a total of 521 spaces. This represents an increase in onsite parking of 231 new spaces, and a shift of location of parking spaces, as the new parking structure would have 283 spaces. School buses currently park on-site on the west side of the campus. The existing bus parking for the school is shown in **Figure 12-2 (AM drop-off)** & **Figure 12-3 (PM pick-up)**.

The Municipal Code establishes parking requirements for educational facilities based on a combination of grade level, number of students and square footage of assembly areas. For the Master Plan, which increases enrollment by 140 students, the Municipal Code requires:

A. 30 spaces per 1,000 square feet of assembly: 6 – 8th Grade

B. 31 spaces per 1,000 square feet of assembly: 9th Grade

C. 1 space per 5 students: 10 – 12th

The 6 – 8th Grade assembly area is 4,000 square feet. The 9th Grade assembly area is 3,000 square feet and there are 465 total students in grades 10 – 12, per the Master Plan update and the Site Plan on **Figure 2-3**. The following **Table 12-2** summarizes the municipal code parking required for the proposed Master Plan. Currently, the Upper School (10th – 12th Grade) students range from 125 up to 155 students per grade level. Per the Master Plan Update which is increasing the total enrollment by 140 students, there would be an increase of approx. 20 students per grade level.

TABLE 12-2

Parking Calculation

Category	Criteria	Amount	Rate	Required Parking
6 – 8th Grade	Assembly Area	4,000 Square Feet	30/1000	120 Spaces
9th Grade	Assembly Area	3,000 Square Feet	31/1000	93 Spaces
10th – 12th Grade	Number of Students	465 Students	1/5 Students	93 Spaces
			TOTAL	**306 Spaces**

With regard to the Master Plan, grades 6 – 8 assemblies will be accommodated in building 106. As shown above, 306 spaces are required to meet Master Plan levels of development. Presently only 290 spaces are provided. The balance of current need is currently served off site via contract with San Diego Bahai Center, San Diego County Office of Education, and the University of San Diego. With the proposed Master Plan, which includes a new two level parking garage, a total of 521 spaces will be provided which satisfies parking demand entirely on site while providing added parking for special events. The 521 spaces would be expected to satisfy the current parking demand as well as the parking demand after implementation of the Master Plan. The total parking provided on-site includes 11 accessible parking spaces, 2 charging station spaces, and 25 designated spaces for carpools and zero low emission vehicles. In addition, the Linda Vista Campus is providing 13 bus parking spaces, 7 motorcycle parking spaces, and 38 bicycle spaces.

12.3 CONSTRUCTION TRAFFIC

This section of the report addresses traffic impacts expected during construction. The Master Plan improvements are composed of four components. The precise construction timing of each project will be determined by charitable fund raising. At this time, the sequence of construction and estimated construction timeframe is expected to be:

Project #1: Subterranean Parking Structure and Dining Hall / Multi-purpose facility to replace the existing cafeteria. (Approx. 15 months to construct)

Project #2: Gymnasium, weight room, and other support facilities to replace the existing athletic complex as well as the Aquatic Center for swimming and water polo. (Approx. 16 months to construct)

Project #3: Re-orientation of the athletic field to include a track. (Approx. 8 months to construct)

Project #4: Academic buildings for student collaboration (e.g. student center, design and fabrication space). (Approx. 12 months to construct)

All estimates and assumptions for construction are based on information provided by the construction manager / contractor. The information provided by the contractor is for the proposed Subterranean Parking Structure (Project #1) since this project is expected to impact traffic more than Project's #2 - 4. The estimated number of trucks exporting 45,000 cubic yards of material from the site would be 15 trucks each day for a period of 40 days. Each truck exporting material from the site is anticipated to run 5 loads per day which equals 10 (5 x 2) trips per day per truck. As shown in **Table 12-3**, an average of 2 deliveries per day is expected. As shown in the table, the truck trips and deliveries were converted to passenger car equivalents (PCE) assuming 1.5 PCE per truck. The average number of employees during construction is 30 per day. The total number of average daily construction trips is estimated to be 291 ADT as shown in **Table 12-3**.

However, the majority of these trips (225 ADT) are trucks exporting material for 40 days. Construction traffic without trucks exporting material is expected to average 66 ADT.

TABLE 12-3

Construction Traffic

Purpose	Number	PCE	Equivalent Autos	Trips	ADT
Trucks*	15	1.5	*23*	10 /Auto	225
Deliveries	2	1.5	*3*	2 /Auto	6
Employees	30	N/A	*30*	2 /Auto	60
Total Construction Trips					**291**
Average Construction Trips (Without Trucks Exporting Material)					**66**

Notes:

ADT = Average Daily Traffic

PCE = Passenger-Car equivalents for trucks assumed to be 1.5 per Exhibit 21-8 of the HCM 2010.

* Each truck exporting material from the site is anticipated to run 5 loads per day (10 trips / day) for approx. 40 days.

The primary truck routes would most likely use the signalized school access for ingress/egress onto Linda Vista Road to travel west to access either Interstate 8 or Interstate 5. Trucks exporting soil will use an alternative route on Linda Vista Road east towards SR-163 to deliver export to the Miramar landfill. The estimated construction traffic (291 ADT) was added to the Near Term With Project traffic volumes to determine if study area segments on Linda Vista Road would be significantly impacted whether trucks route east or west on Linda Vista Rd. For analysis of construction traffic, Near Term was evaluated to

represent the closest timeframe to Opening Day of the project and to be more conservative. As shown in **Table 12-4**, there are no significant street segment impacts expected on Linda Vista Road as a result of construction traffic as well as the addition of 140 students.

TABLE 12-4

Near Term Without & Near Term With (Project & Construction)

Street Segment Comparison

Road	Segment	# of Lanes	Functional Classification	Lane Capacity	Near Term			Near Term + Project + Construction			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Linda Vista Road	Napa Street to Mildred Street	4	4-C	30,000	E	27,428	0.91	E	28,010	0.93	0.019	***NO***
	Mildred Street to USD Main Entrance	4	4-C	30,000	C	18,986	0.63	C	19,573	0.65	0.020	***NO***
	USD Main Drwy. to Via Las Cumbres	4	4-C	30,000	C	17,386	0.58	C	17,973	0.60	0.020	***NO***
	Via Las Cumbres to Alcala Knolls Drive	4	4-C	30,000	C	16,011	0.53	C	16,722	0.56	0.024	***NO***
	Alcala Knolls Drive to Glidden Street	4	4-C	30,000	C	14,794	0.49	C	15,405	0.51	0.020	***NO***
	Glidden Street to Kramer Street	4	4-C	30,000	C	16,416	0.55	C	16,903	0.56	0.016	***NO***

Legend:

Cap. = Capacity in ADT at LOS "E"
LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio
4-C = 4 Lane Collector

Note:

Construction traffic (291 ADT) was added on each study segment on Linda Vista Road to the Near Term with Project traffic volumes.

The main signalized intersection (Linda Vista Rd. / Alcala Knolls Dr.) to Francis Parker School is expected to operate at level of service C in both the AM and PM peak hour in the Near Term with Project scenario. It is anticipated the Schools main signalized access would continue to operate at an acceptable level of service even with the addition of construction traffic. Further, it is anticipated that hauling would be scheduled outside of peak times to avoid traffic congestion during school peaks.

13.0 PEDESTRIAN, BICYCLE AND TRANSIT MODES

Pedestrian & Bikes

Pedestrian access to the project is provided via sidewalks along Linda Vista Road. A marked pedestrian crosswalk is provided at the main entrance to the school at the signalized intersection of Linda Vista Road and Alcala Knolls Drive. **Figure 13-1** includes a pedestrian circulation plan. Class II bike lanes are provided along both sides of Linda Vista Road which allows bike access to the school. Bike racks are provided on-site.

Transit

The San Diego Metropolitan Transit System (MTS) provides transit service to the Linda Vista area. The Francis Parker School is served by bus routes 44 (from Old Town Transit Center) and 120/44 (from Fashion Valley Transit Center). Local bus route 44 travels along Linda Vista Road and stops every 15 minutes from 7:00 AM to 7:00 PM on weekdays. There are two existing bus stops on either side of Linda Vista Road near the main entrance to the school at Alcala Knolls Drive. Francis Parker School also provides its own school bus service encompassing 13 buses total which primarily uses the west driveway (Driveway #1).

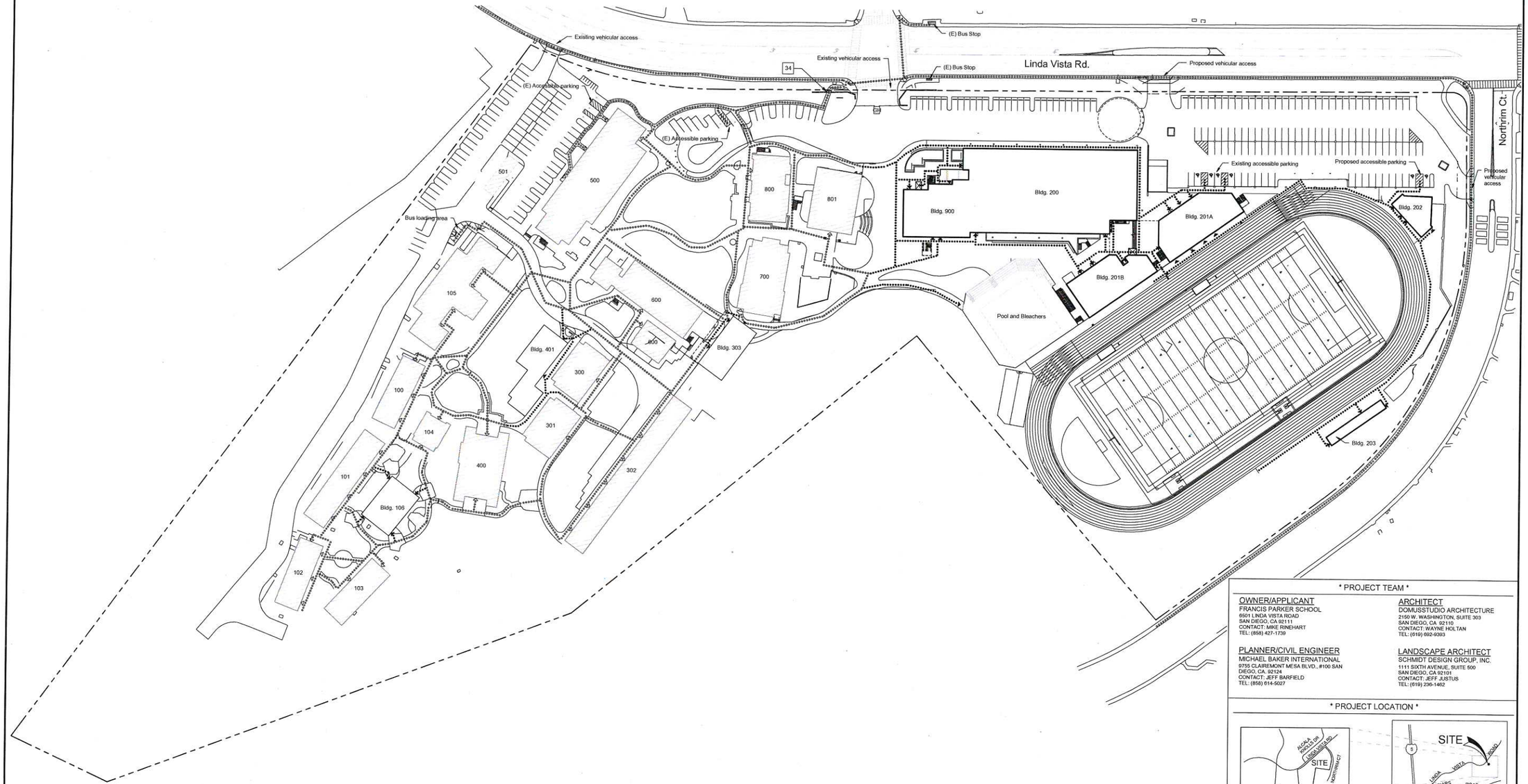
See following 11 x 17 Plan Sheet

FIGURE 13-1

Pedestrian Circulation Plan

FRANCIS PARKER SCHOOL - LINDA VISTA CAMPUS MASTER PLAN UPDATE

AMENDS PDP 84875/SDP 215276



1 Accessibility Plan
1" = 50'-0"

0 12.5 25' 50' 100'
Scale: 1" = 50'-0"

Site Notes

34 Existing gate to remain as part of existing accessible path of travel. Not is scope of work.

Legend

- Existing Approved Accessible Path of travel
- Existing building
- Existing Accessible entrance
- Proposed Accessible Path of travel
- Proposed building
- Future proposed building
- Proposed Accessible entrance

* PROJECT TEAM *

OWNER/APPLICANT
FRANCIS PARKER SCHOOL
6501 LINDA VISTA ROAD
SAN DIEGO, CA 92111
CONTACT: MIKE RINEHART
TEL: (858) 427-1739

ARCHITECT
DOMUSSTUDIO ARCHITECTURE
2150 W. WASHINGTON, SUITE 303
SAN DIEGO, CA 92110
CONTACT: WAYNE HOLTAN
TEL: (619) 692-9393

PLANNER/CIVIL ENGINEER
MICHAEL BAKER INTERNATIONAL
9755 CLAIREMONT MESA BLVD., #100 SAN DIEGO, CA. 92124
CONTACT: JEFF BARFIELD
TEL: (858) 614-5027

LANDSCAPE ARCHITECT
SCHMIDT DESIGN GROUP, INC.
1111 SIXTH AVENUE, SUITE 500
SAN DIEGO, CA 92101
CONTACT: JEFF JUSTUS
TEL: (619) 236-1462

* PROJECT LOCATION *

CCS 83 COORDINATE = 1861N-6278E
LAMBERT COORDINATE = 221-1712

Prepared By:
domusstudio architecture
2150 West Washington, Suite 303
SAN DIEGO, CA 92110
CONTACT: Wayne Holtan
TEL: (619) 692-9393

Project Address:
6501 LINDA VISTA ROAD

Project Name:
FRANCIS PARKER SCHOOL
LINDA VISTA CAMPUS
MASTER PLAN UPDATE

Sheet Title:
Accessibility Plan

Revision 10:	
Revision 9:	
Revision 8:	
Revision 7:	
Revision 6:	
Revision 5:	
Revision 4:	
Revision 3:	12/11/2015
Revision 2:	08/26/2015
Revision 1:	05/23/2015
Original Date:	02/27/2015
Sheet	7 of 25
PTS#	84875

A0.2

domusstudio architecture

14.0 SPECIAL EVENTS

The Francis Parker School Master Plan Update has been proposed to accommodate every day student activities as well as recurring special events.

Other events scheduled for late afternoon/evenings would not conflict with student traffic, and are split into different days for the middle school vs. upper school to best accommodate visitors during those types of events. A Traffic Management Program (TMP) which is currently utilized by the school is recommended for special events where vehicles exceed approximately 200 (521 provided spaces minus 306 required spaces) during school hours (7:45 AM to 3:05 PM) Monday through Friday. Special event parking and traffic control procedures currently used by Francis Parker School are outlined in **Appendix K**. Francis Parker School provided a list of special events based on historical data, see **Appendix K**. Based on this information, special events where a Traffic Management Program may be necessary are listed below.

- In June, the Middle School has an 8th Grade Promotion on Thursday from 10:00 AM to 11:30 AM. This event is expected to average 500 attendees with an average of 400 cars. This event may need a TMP to accommodate parking off-site.
- In late May or early June, the Upper School Commencement is scheduled on Saturday from 3:00 PM to 5:30 PM. Although this event is scheduled outside of typical school day/hours, this event is expected to average 1,500 attendees with an average of 750 cars. Since the school is providing 521 parking spaces on-site with the proposed garage, a TMP for this event would most likely be necessary to accommodate additional parking off-site.

- In late September, the Back to School Night for the Upper School is scheduled from 5:00 PM to 8:00 PM on various days throughout the week. This event is expected to average 700 attendees with an average of 500 cars. Although there are 521 parking spaces planned on-site, this event may need a TMP to accommodate additional parking off-site.
- In mid-October, the Homecoming Game and Festivities for the Upper School is scheduled on Saturday from 11:00 AM to 3:00 PM. This event is expected to average 1,500 attendees with an average of 500 cars. This event may need a TMP to accommodate additional parking off-site.

The majority special events have been scheduled for late afternoon/evening and would not conflict with student traffic. Events are scheduled on different days for middle school versus upper school activities to minimize visitors during these events.

15.0 CONCLUSIONS AND RECOMMENDATIONS

15.1 PROJECT TRIP GENERATION

The Francis Parker School additional 140 students are expected to generate a maximum of 476 average daily vehicle trips with 114 AM peak hour trips and 67 PM peak hour trips.

15.2 EXISTING CONDITIONS

Street Segments:

All street segments operate at an acceptable level of service in the Existing condition except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS E.

Intersections:

All intersections operate at level of service "D" or better in the Existing condition.

15.3 EXISTING WITH PROJECT

Street Segments:

All street segments are expected to operate at an acceptable level of service in the Existing with Project condition except for Linda Vista Road between Napa Street to Mildred Street which operates at LOS E. However, this segment is not significant since the change in v/c ratio with project traffic is less than 0.02.

Intersections:

All intersections are expected to operate at level of service "D" or better in the Existing with Project condition except for Linda Vista Road at Northrim Court which operates at LOS E in the AM peak hour.

15.4 NEAR TERM WITHOUT PROJECT

When "other" project traffic is added to existing traffic, the following conditions result.

Street Segments:

All street segments are anticipated to operate at an acceptable level of service in the Near Term Without Project scenario except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS E.

Intersections:

All intersections are projected to operate at an acceptable level of service in this condition without the project.

15.5 NEAR TERM WITH PROJECT

When the existing plus the "other" projects plus the proposed project is added, the following results occur.

Street Segments:

All street segments are projected to operate at acceptable levels of service in the Near Term With Project condition except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS E. However, this segment is not significant since the change in v/c ratio with project traffic is less than 0.02.

Intersections:

All intersections are projected to operate at an acceptable level of service in this condition except for Linda Vista Road at Northrim Court which operates at LOS E in the AM peak hour.

DIRECT IMPACTS:

Linda Vista Road between Napa Street and Mildred Street operates at LOS E, the project change in v/c is less than 0.02, therefore, the segment is not significantly impacted.

The intersection of Linda Vista Road at Northrim Court is significantly impacted as a result of the proposed project in the Existing With Project and Near Term With Project conditions. The project's direct impact at this location will be mitigated by installation of a traffic signal.

15.6 YEAR 2035 WITH & WITHOUT PROJECT

Street segments and intersections operating at an unacceptable level of service in these conditions were discussed in Section 10.0 & 11.0. All segments will operate acceptably through Year 2035 with project traffic added except for Linda Vista Road between Napa Street and Mildred Street which operates at LOS F. However, project traffic is less than significant (change in v/c ratio less than 0.01) on this segment and therefore, no project mitigation will be needed.

The intersection of Linda Vista Road / Napa Street is projected to operate at LOS "E" during the PM peak. However, with project added, the increase in delay will be less than two seconds, so that project impacts will be less than significant and no project mitigation will be required.

The analysis shows all intersections will have less than cumulative significant project impacts in horizon year 2035. In the Year 2035 scenarios, the analysis assumes a signal as mitigation at Linda Vista Road / Northrim Court since the signal will be installed in the near term.

15.7 PROJECT ACCESS

A project access plan has been prepared that includes on site circulation for drop – off, pick – up and student parking. The plan would close one driveway on Linda Vista Road and add a driveway on Northrim Court.

15.8 SPECIAL EVENTS

The Francis Parker School Master Plan Update as proposed will accommodate recurring special events with additional parking.

These recurring events are typically scheduled during off – peak hours or on weekends.

Most special events will be scheduled for late afternoon/evening and will not conflict with student traffic. Events are scheduled on different days for middle school vs upper school activities to best accommodate visitors during these events.

16.0 REFERENCES

San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE), California Border Section, Guidelines for Congestion Management Program (CMP) Traffic Impact Report, San Diego, CA

City of San Diego, Development Services Department, Traffic Impact Study Manual, July 1998, San Diego, CA

City of San Diego, Development Services Department, San Diego Municipal Code, Land Development Code, Trip Generation Manual, May 2003, San Diego, CA

City of San Diego, Development Services Department, California Environmental Quality Act, Significant Determination Thresholds, January 2011, San Diego, CA

17.0 URBAN SYSTEMS ASSOCIATES, INC. PREPARERS

Principal Engineer

Andrew P. Schlaefli; M.S. Civil Engineering, B.S. Civil Engineering
Registered Civil Engineer, Licensed Traffic Engineer

Senior Project Manager

Justin P. Schlaefli; B.S. Civil Engineering, MCE
Registered Civil Engineer, Licensed Traffic Engineer, PTOE

Project Manager

Sam Kab II, TE & Jacob D. Swim

Senior Technical Support, Graphics and Illustrations

Caleb Northcutt, Henryk Pederson & Jackson Schulz

Word Processing, Report Production and Compilation

Stephanie Cosman

This report is site and time specific and is intended for a one-time use for this intended project under the conditions described as "Proposed Project". Any changes or delay in implementation may require re-analysis and re-consideration by the public agency granting approvals. California land development planning involves subjective political considerations as well as frequently re-interpreted principals of law as well as changes in regulations, policies, guidelines and procedures. Urban Systems and their professionals make no warrant, either express or implied, regarding our findings, recommendations, or professional advice as to the ability to successfully accomplish this land development project.

Traffic is a consequence of human behavior and as such is predictable only in a gross cumulative methodology of user opportunities, using accepted standards and following patterns of past behavior and physical constraints attempting to project into a future window of circumstances. Any counts or existing conditions cited are only as reliable as to the time and conditions under which they were recorded. As such the preparer of this analysis is unable to warrant, either express or implied, that any forecasts are statements of actual true conditions which will in fact exist at any future date.

Services performed by Urban Systems professionals resulting in this document are of a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation expressed or implied and no warranty or guarantee is included or intended in this report, document opinion or otherwise.

Any changes by others to this analysis or re-use of document at a later point in time or other location, without the express consent and concurrence of Urban Systems releases and relieves Urban Systems of any liability, responsibility or duty for subsequent questions, claims, or damages.

Michael Baker INTERNATIONAL

Innovation Done Right...We Make a Difference

M E M O R A N D U M

To: Mike Rinehart, Head of Finance and Operations **JN:** 144571

From: Jeffrey C. Barfield, Vice President, Planning

Date: May 27, 2015

Subject: **Parker LVC Master Plan – PTS No. 412987**Response to LDR-Environmental Comment – RE: Water Supply Assessment

---

Issue No. 8/9: For certain types of large projects, Senate Bill 610 requires that the environmental document prepared for each project contain a discussion regarding the availability of water to meet the projected water demands of the project for a 20 year planning horizon.

One type of project subject to Senate Bill 610 is: Projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Demonstrate if this project would exceed this threshold. Please include the pool in your assessment. If the project does exceed this threshold then the preparation of a Water Supply Assessment (WSA) would be required.

Project Overview

Implementation of the proposed project would result in the following:

- Demolition of 41,307 square feet of existing building;
- Retention of 133,753 square feet of existing building;
- Adding 103,109 square feet of proposed building;
- Construction of a two-level underground parking structure; and
- An outdoor aquatic center with a pool and bleacher seating.

The Linda Vista Campus currently serves a student population of up to 800 students. With the improvements and new facilities described in the Master Plan, the Linda Vista Campus will accommodate up to 940 students.

Approximate Water Demand

In order to determine if the proposed project would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project, the estimated water usage for the proposed project was compared to the estimated water usage of a 500 dwelling unit project.

The average water use per day per person is 80 to 100 gallons per day (gpd)[1]. According to the City of San Diego General Plan Final EIR, in 2010 there were 2.62 persons per household. The City estimates persons per household will increase to 2.7 persons per household by 2030. Using the 2030 future forecast for persons per household, a 500 dwelling unit project would generate a population increase of approximately 1,350 persons. Water demand per dwelling unit would range from 216 gpd to 270 gpd. Therefore, 500 dwelling units would result in a water demand of approximately 108,000 gpd to 135,000 gallons per day (39.4 million gallons per year to 49.3 million gallons per year). Please note that this estimate does not include landscaping and irrigation needs that would also be required for a 500 dwelling unit subdivision.

The City of San Diego Water Meter Data Card was used to calculate the number of proposed new fixtures. According to the project architect, the proposed new uses will result in the addition of approximately 331 fixture units (FUs) including private and public lavatories, showers, sinks, water closets and urinals. In order to calculate water demand for the proposed project, the fixure count was converted to *equivalent dwelling units* (EDUs). One EDU equals 20 FUs. Additionally, one EDU equals 500 gallons of water per day (gpd). Therefore, 331 FUs is equivalent to 16.55 EDUs and would result in an approximate water demand of 8,275 gpd (3.02 million gallons per year). The proposed new uses also include a pool as part of a new aquatic center. According to the project architect, the pool will demand approximately 799 gpd of water (291,720 gallons of water year).

Table 1 below illustrates the landscaping water demand for the proposed changes to the campus. As shown in Table 1, landscape irrigation would result in a water demand of approximately 502 gpd (183,296 gallons per year).

[1] U.S. Geological Survey. http://water.usgs.gov/edu/qa-home-percapita.html, 2014.

Table 1: Landscape Irrigation Calculations

	Maximum Applied Water Allowance (MAWA)	Estimated Total Water Use (ETWU)
Total Landscape Area (HA)(Sq Ft)	11,952	11,952
Special Landscape Area (SLA)	0	0
Reference Evapotranspiration (ETo)	47	47
ET Adjustment Factor (ETAF)	0.7	0.7
Plant Factor (Kc)	-	1.0/0.3
Conversion Factor (inches to gallons/sf)	0.62	0.62
SLA ET Adjustment Factor	0.3	-
Total Gallons Per Year	243,797	183,296

Notes:

Maximum Applied Water Allowance = ETo x 0.62 x [(ETAF x Landscape Area) + (0.3 x SLA)]

Estimated Total Water Use = ETo x 0.62 [(PF x HA/ETAF) + SLA]

ETo = Reference Evapotranspiration (data can be obtained from California Irrigation Management Information System)

Plant Water Use Category	Plant Factor
Medium	0.50
Very Low	0.10
High	1.00
Low	0.30

Application Method	IE Factor
Bubbler (B)	0.80
Multiple Stream Rotor (MSR)	0.75
Spray (S)	0.55
Drip (D)	0.80
Microspray (MS)	0.80
Rotor (R)	0.70

HA = Hydrozone Area (very low, low, moderate or high water use, in sq ft)

IE = Irrigation Efficiency (0.71 minimum average; specify for ea HA)

LA= Landscape Area (sq. ft)

PF = Plant Factor from WUCOLS* (very low, low, medium, high water use)

*WUCOLS = Water Use Classification of Species

Combining landscape irrigation water demand with the proposed new uses, the project would result in a total water demand of approximately 9,576 gpd (3.50 million gallons per year). Please note that the total estimated water demand does not include the reduction in demand

due to removal of existing in-use fixtures with demolition of 41,307 square feet of existing building.

Conclusion

Five-hundred dwelling units would result in a water demand of approximately 39.4 million gallons per year to 49.3 million gallons per year, without including the demands of landscaping and irrigation needs that would also be required for a 500 dwelling unit subdivision. The proposed project would result in a total water demand of approximately 3.50 million gallons per year, without credit for the reduction in demand due to removal of existing in-use fixtures with demolition of 41,307 square feet of existing building.

As illustrated above, the proposed project does not meet the criteria requiring a Water Supply Assessment (WSA) under SB610, as the project does not propose uses that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. Additionally, the project design integrates design measures (e.g., low-flush toilets) that would further reduce overall water demands (and resulting wastewater) generated by daily operation of the facilities.

WATER QUALITY TECHNICAL REPORT

For

Francis Parker School

Prepared For:

Francis Parker School
6501 Linda Vista Road
San Diego, CA 92124
APN No. 437-020-12

City of San Diego

PTS: 412987

Prepared by:

Michael Baker International
9755 Clairemont Mesa Blvd.
San Diego, CA 92124
858.614.5000
Richard S. Tomlinson, Jr. P.E.,
QSD, QSP, CPSWQ

Job Number:

144571

Prepared:

February 24, 2015

Revised:

June 25, 2015

Michael Baker
INTERNATIONAL

THIS PAGE INTENTIONALLY LEFT BLANK

CERTIFICATION

This Water Quality Technical Report (WQTR) has been prepared under the direction of the following Civil Engineer. The Registered Civil Engineer (Engineer) attests to the technical information contained herein and the engineering data upon which the following design, recommendations, conclusions and decisions are based. The selection, sizing, and design of stormwater treatment and other control measures in this report meet the requirements of Regional Water Quality Control Board Order R9-2007-0001 and subsequent amendments.

_____ June 25, 2015

Richard S. Tomlinson, Jr., PE, QSD, QSP, CPSWQ
RCE 59276, Exp. 6/30/15

TABLE OF CONTENTS

1 Introduction 1
1.1 Report Introduction 1
1.2 Applicability 1
1.3 Report Limitations 1
2 Project Description 3
2.1 Project Data 3
2.2 Project Location/Setting 3
2.3 Project Description 4
2.4 Project Activities 4
2.5 Existing Project Conditions 7
2.6 Existing Drainage Improvements 7
2.7 Proposed Drainage Improvements 7
2.8 Summary of Impervious Areas 7
2.9 Floodplain Mapping 8
2.10 Downstream Conditions 11
2.11 Hydromodification Determination 11
2.12 Hydrologic Context (Watershed Contribution) 15
3 Priority Project Determination 17
4 Summary of Water Quality Issues 19
4.1 Topography 19
4.2 Land Use and Vegetation 19
4.3 Dry Weather Flow 20
4.4 Receiving Waters 20
4.5 303(d) Impairments 20
4.6 Risk Assessment 20
4.7 Total Maximum Daily Load (TMDL) 21
4.8 General Climate 21
4.9 Soil Characteristics 21
4.10 Contaminated Soil and Hazardous Waste Assessment 21
5 Watershed Identification 23
6 Beneficial Uses 25
6.1 Definitions 25
7 Pollutants of Concern 29
7.1 Potential Pollutants 29
7.2 Anticipated Project Pollutants 30
7.3 Pollutants 31
8 Construction BMPs 34
9 Design Criteria 36
9.1 Volume-Based Water Quality Numeric Sizing Criteria 36
9.2 Flow-Based Water Quality Numeric Sizing Criteria 36
10 Source Control BMPs 38

11 Priority Project Site Development LID Requirements 48
12 Buffer Measures 54
13 Structural Treatment Control BMPs 56
13.1 Selection of Treatment Control BMPs 56
13.2 Treatment Control BMP Selection 58
13.3 Treatment Control BMP Design 60
13.4 Treatment Control BMP Descriptions by DMA 60
13.5 DMA Calculation Summary 60
14 Operation and Maintenance 63
14.1 Responsible Parties and Funding 63
14.2 Construction and Maintenance Cost 63
14.3 BMP Inspection 64
14.4 Waste Disposal 64
14.5 Best Management Practices for Maintenance Activities 64
14.6 Record-Keeping 65
14.7 Qualifications of Maintenance Personnel 65
15 Flow Control BMPs 67
15.1 Hydromodification Determination 67
16 Summary 68
17 References 70
17.1 General References 70

LIST OF TABLES

Table 1: Existing Condition 100-Year Hydrology Results 8
Table 2: Proposed Condition 100-Year Hydrology Results (Unmitigated) 8
Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated) 8
Table 3: Comparison of Watershed Areas 15
Table 5: Priority Project Determination 17
Table 6: Water Quality Checklist 19
Table 7: Summary of Receiving Surface Waters 20
Table 8: Watershed Identification 23
Table 9: Receiving Water Identification 23
Table 10: Beneficial Uses of Downstream Inland Surface Waters (RWQCB, 1998). 27
Table 11: Beneficial Uses of Downstream Coastal Waters (RWQCB, 1998). 28
Table 12: Beneficial Use of Downstream Ground Waters (RWQCB, 1998). 28
Table 13: Anticipated and Potential Pollutants by Project Type 29
Table 14: Anticipated Project Pollutants 30
Table 15: Source Control BMP Selection Matrix 38
Table 16: Priority Development Project LID BMP Selection Matrix 48
Table 17: Buffer Measures 54
Table 18: Structural BMP Treatment Control Selection Matrix 57
Table 19: Treatment Control BMP Selection Summary 58
Table 20: Self-retaining Areas 60
Table 21: Areas Draining to Self Retaining Areas 61
Table 22: Self treating Areas 61
Table 23: Bioretention Areas 61
Table 24: Treatment Control 62
Table 25: Preliminary BMP Construction Cost Estimate. 63
Table 26: Estimated Annual Maintenance Cost for Fossil Filter BMPs 64
Table 27: Typical BMPs for BMP Maintenance Activities 65

LIST OF ATTACHMENTS

Attachment A Project Site Map
Attachment B BMP Location Map
Attachment C LID and BMP Calculations
Attachment D Drainage Calculations/Drainage Report
Attachment E Hydromodification Calculations/Hydromodification Exemption Documents
Attachment F Treatment Control BMP Data
Attachment G Geotechnical Report
Attachment H BMP Maintenance Program
Attachment I Water Quality Monitoring Data
Attachment J Storm Water Applicability Checklist
Attachment K Storm Water Maintenance and Discharge Control Agreement
Attachment L Permanent BMP Construction Form (DS-563)

1 Introduction

1.1 Report Introduction

The City of San Diego's Standard Urban Stormwater Mitigation Plan (SUSMP) states a Water Quality Technical Report (WQTR) must accompany all applications for a permit or approval associated with a Land Disturbance Activity Priority Project. The purpose of this WQTR is to describe how the project will minimize the short and long-term impacts on receiving water quality.

The plans and specifications in this WQTR are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.

1.2 Applicability

This project is within the City of San Diego, and subject to the City of San Diego requirements. Because the storm water discharges into the City of San Diego's Municipal Separate Stormwater Sewer System (MS4), the project must meet the requirements of the City of San Diego. Therefore, this report has been prepared using the City of San Diego 'Storm Water Standards Manual," dated January 20, 2012.

1.3 Report Limitations

The plans and specifications in this WQTR are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.

THIS PAGE INTENTIONALLY LEFT BLANK

2 Project Description

2.1 Project Data

Project Owner: Francis Parker School

Project Site Address: 6501 Linda Vista Road

Planning Area/
Community Area/
Development Name: Linda Vista

APN Number(s): 437-020-12

Project Location: Latitude: 32.772241°
Longitude: -117.175861°

Project Site Area: 8.40 acres

Adjacent Streets:

North:	Linda Vista Road
South:	River Glen Row
East:	Northrim Court
West:	Via Los Cumbres

Adjacent Land Uses:

North:	Residential
South:	Residential
East:	Residential
West:	Commercial

2.2 Project Location/Setting

The project is located in the Linda Vista area of the City of San Diego. The project is located south of Linda Vista Drive, in a near fully urbanized area, consisting of residential uses. The projects south boundary borders some open space, but most of the area is fully developed. Then project is located about 0.25 miles north of the San Diego River, and about 4.5 miles east of the Pacific Ocean. Please refer to Figure 1 below for a Vicinity Map.

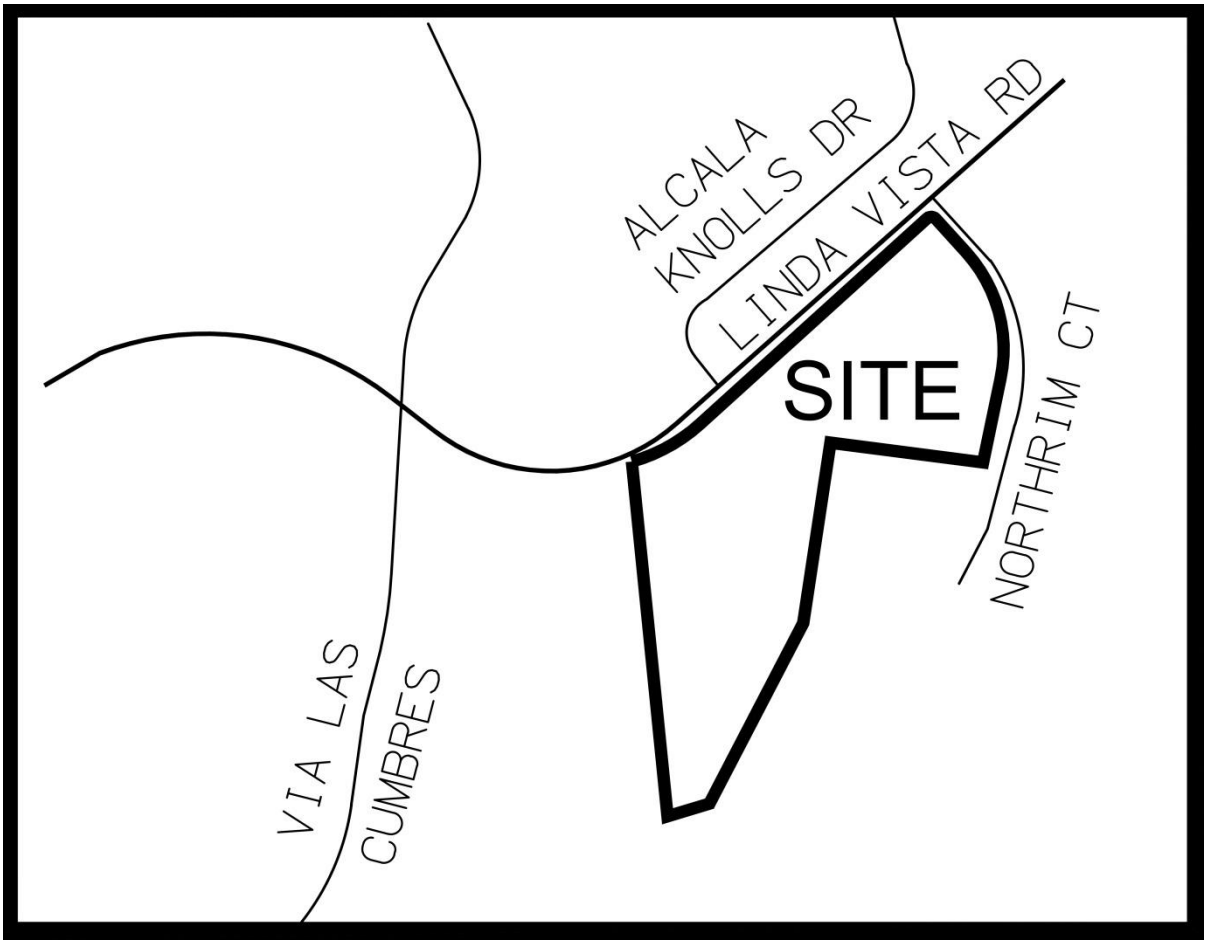


Figure 1: Vicinity Map

2.3 Project Description

The amendment to PDP No. 84875/SDP No. 215276 would authorize the changes shown on the updated Master Plan. The updated Master Plan illustrates the building program for the Linda Vista Campus and identifies, among other things, buildings to be demolished, existing buildings and facilities to remain, and proposed buildings and facilities.

Building numbers shown on the updated Master Plan correspond to the School's current building identification system, however, previously used building numbers are included for easy reference and comparison to the most recent Master Plan approval (i.e., SCR No. 2 to PDP No. 84875/SDP No. 215276).

The majority of buildings on the Linda Vista Campus will remain. Several of these buildings were constructed within the last decade and reflect the School's commitment to sustainable and environmentally sensitive design, incorporating two-story stacked classrooms that maximize use of natural light and breezes while minimizing the land footprint. Other features include operable windows, overhangs, and sunshades. A network of courtyards, walkways, and quads connect the indoor spaces to the outdoor environment. These elements are further unified by a landscape design that emphasizes drought-tolerant species, as well as providing demonstration gardens for the students. The buildings that will remain comprise 133,753 square feet.

Continuing this program of sustainable and environmentally sensitive design, three buildings will be demolished to make way for updated facilities. The buildings to be demolished, Buildings 001, 002, and 003, include the Field House, Middle School gymnasium and locker rooms, and the cafeteria. The Field House includes an assembly area, additional locker rooms, restrooms, three classrooms and offices for the athletics staff. Built decades ago, these buildings have been significantly modified over the years. As documented in the historical assessment prepared by Marie Burke Lia, included with the Project documents, these three buildings are not historically significant. The three buildings to be demolished comprise 41,307 square feet.

All of the proposed buildings and facilities will be contained within the existing development footprint. No encroachment is proposed into the perimeter Environmentally Sensitive Lands. The architectural style of the proposed buildings will match the modern contemporary lines of the existing Campus facilities by using compatible finish materials and repeating elements such as overhangs, sunshades, and divided windows, where appropriate and most functional. The buildings will incorporate sustainable design features, and will reinforce the strong indoor space-outdoor space connection found throughout of the Campus by expanding the network of outdoor walkways, spaces, and unified landscape palette. A summary description of the proposed buildings and facilities is provided below; however, the updated Master Plan should be consulted for more detailed information. Proposed buildings comprise 102,109 square feet.

The proposed Dining/Athletic Complex, to be located in the easterly portion of the Linda Vista Campus, comprises several components, the base of which is a 284-space underground parking structure. A portion of the first floor and second floor over the parking structure will house a kitchen/dining hall area with outdoor terraces (Building No. 900). The remaining first floor level over the underground parking structure will house a gymnasium for indoor sports, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms (Building No. 200). Building No. 201 is a covered lobby area connecting the gymnasium to Building Nos. 201A and 201B. Building Nos. 201A and 201B will house athletic offices, a multi-purpose room, press box, locker rooms, training rooms, laundry and restrooms. These two building also will provide rooftop bleacher seating overlooking the track and field. Building No. 202 will provide field storage and a ticketing office for field events. Visitor Services for field events will be provided in Building No. 203. Visitor bleachers will be located southwesterly of Visitor Services.

As part of the Dining/Athletic Complex, the existing play field will be reoriented and fitted with a regulation 8-lane track on its perimeter. An outdoor aquatic center with pool and bleachers will round out the athletic facilities.

Three other buildings are proposed, to be located in the western portion of the Linda Vista Campus. Building No. 106 will be a two-story building providing a Student Center for the Upper School. Building No. 303 will be a two-story building providing multi-purpose space for the Middle School for activities such as student club meetings or other collaborations. Building No. 401 will be a single-story building providing a Maker's Space, an area for students to design and fabricate projects using different types of equipment and tools, such as a 3-D printer. These three buildings are slated for construction at a future date.

The proposed amendment will result in:

- Demolishing 41,307 square feet of existing building;
- Retaining 133,753 square feet of existing building; and
- Adding 102,109 square feet of proposed building.

The proposed amendment results in a total Gross Floor Area (GFA) of 235,862 square feet. Per the Municipal Code, phantom floor area is required to be included in the total GFA (Muni. Code Sections 113.0103 and 113.0234(b)(4)(A)). A phantom floor is the space between actual floors. The GFA of the amended project includes 20,856 square feet of phantom floor area in Building 200 (Gymnasium) and 1,163 square feet of phantom floor area in Building 201 (Lancer Lobby), for a total of 22,019 square feet of phantom floor area. Actual floor area totals 213,843 square feet. The current PDP No. 84875/SDP No. 215276 authorizes a total GFA of 160,201 square feet, resulting in a difference of 66,661 square feet of total GFA between the current entitlement and the amendment.

2.4 Project Activities

The proposed project will include grading, the construction of new buildings, hardscape and landscape. In addition, the project proposes a large field made of synthetic turf, but with permeable base.

Although the project is proposing parking, the parking is not considered new, as it is just a reconfiguration of the existing parking.

2.5 Existing Project Conditions

The existing site is a fully developed school. The site includes buildings, sports fields and hardscape. The project contains existing landscaping, however, the landscaping consist of non-native planting. Along the southerly edge of the property there are slopes with native planting, but no native planting exists on the developed site.

2.6 Existing Drainage Improvements

The existing site drains from the north to the south. Drainage collects in a series of storm drain pipes throughout the site. Drainage is collect in these pipes before being directed to the southwest. At the south corner of the site, at the crotch of the canyon, 3 storm drains discharge from the site. The first, a 24" storm drain runs from the main portion of the site, including the parking areas and the hardscape. A second storm drain collects flows from the easterly side of the field area, whereas a third storm drain collects drainage from the fields. All three storm drains collect and discharge to the same storm drain system located in the crotch of the canyon before flowing off site.

2.7 Proposed Drainage Improvements

Drainage from the site will continue to flow within the same patterns. Drainage from the parking lot, buildings, hardscape and field will continue to flow to the crotch of the canyon. Drainage from the parking lot and the hardscape will flow to the 24" storm drain, while the field will flow to the existing 12" storm drain as per the existing condition. Drainage patterns in both the existing and proposed condition will be unchanged. Prior to discharge from the site, the project proposes 2 modular wetland systems. See Section 13 below for a full description of LID's and BMP's.

2.8 Summary of Impervious Areas

Pre-project Condition (After Rough Grading)	Acres	Percentage
Impervious	4.16	50%
Pervious	4.24	50%
Total	8.40	100%

Proposed Condition	Acres	Percentage
Impervious	4.03	48%
Pervious	4.37	52%
Total	8.40	100%

Table 1: Existing Condition 100-Year Hydrology Results

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.22	4.44
A-2	0.85	3.47	3.47	11.76
B-1	0.55	2.77	2.77	4.22
B-2	0.55	2.77	0.94	1.39
TOTALS			**8.40**	**19.30**

Table 2: Proposed Condition 100-Year Hydrology Results (Unmitigated)

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.10	4.44
A-2	0.85	3.98	3.11	10.52
B-1	0.55	2.77	3.05	4.65
B-2	0.55	2.77	1.13	1.68
TOTALS			**8.40**	**16.47**

Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated)

Sub Basin No.	Existing Condition (cfs)	Proposed Condition (cfs)	Difference
Basin A+B	19.99	16.33	-2.66
TOTALS	**19.99**	**16.33**	**-2.66**

2.9 Floodplain Mapping

The Federal Emergency Management Agency (FEMA) has mapped the floodplain of the San Diego River. The project does not lie within any mapped floodplain (FIRM Panel 06073C1618G). The project lies within Zone X which is outside the limits of the 500-year flood.

2.9.1 Flood Zone Definitions

Zone A -- Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not

been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone AE -- Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone X (Shaded) – Areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood.

Zone X (Unshaded) Areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood.

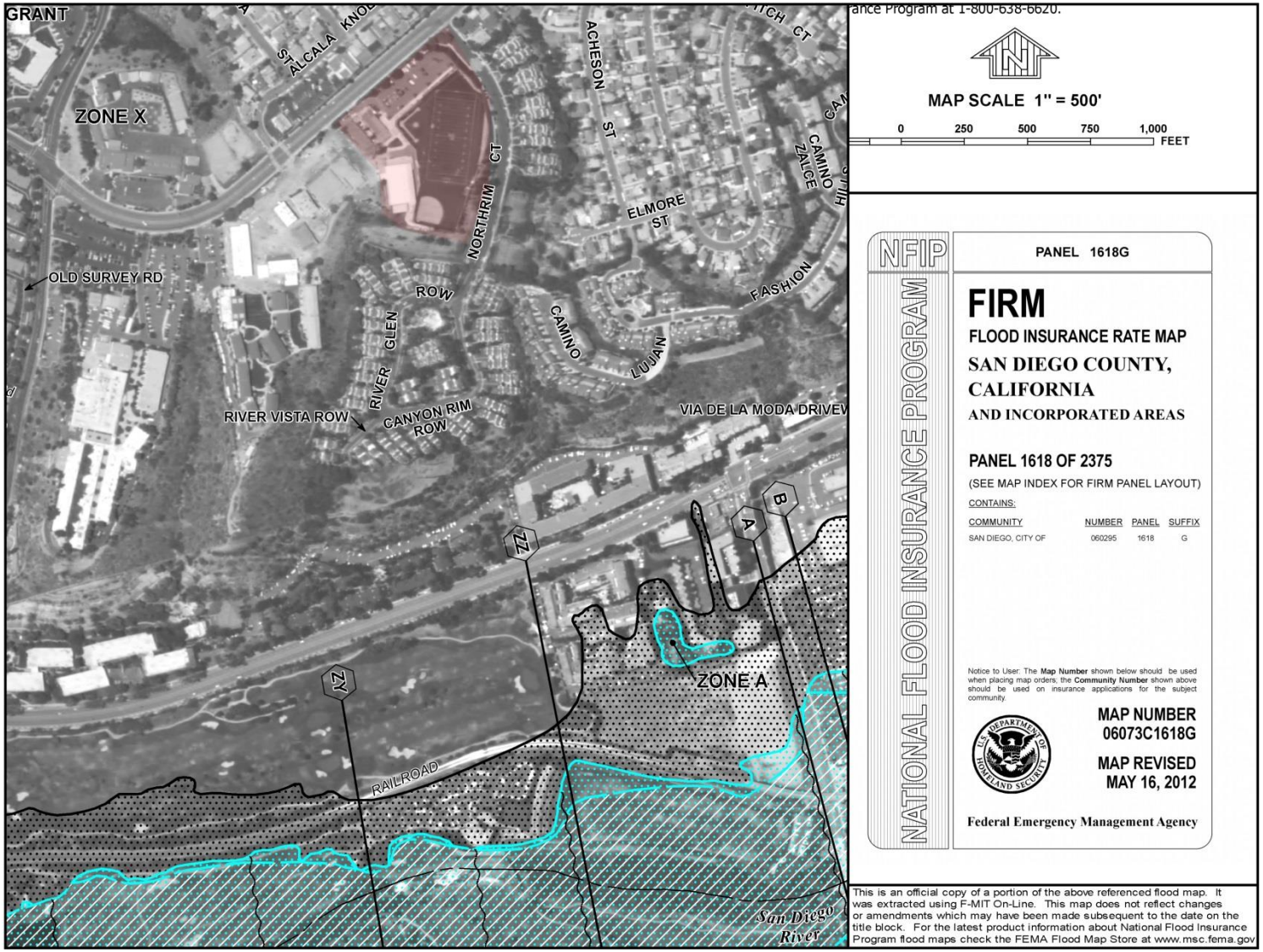


Figure 2: Project FIRM Map

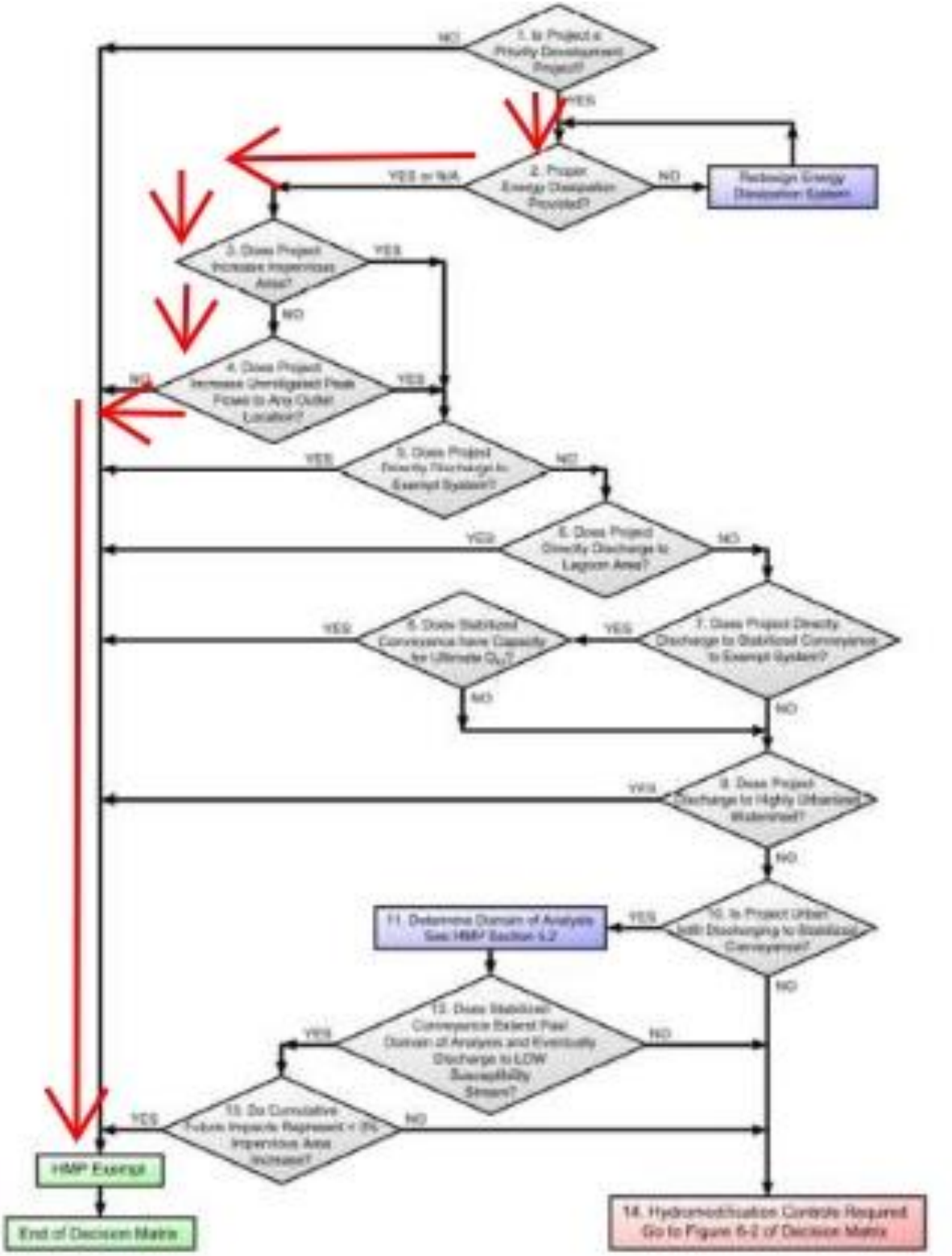
2.10 Downstream Conditions

Because the flow from the site is not being increased, it is not anticipated that there will be any downstream adverse effects.

2.11 Hydromodification Determination

Hydromodification applicability was determined using Figure 4.1 of the Storm Water Standards, "HMP Applicability Determination." Using the flow chart it was determined that the project is exempt from hydromodification (see below.) Supporting documentation showing that the project is exempt from Hydromodification has been included in the Appendix.

The reason for the hydromodification exemption is the reduction in flows and the reduction in impervious areas from the pre-project to post-project.


NO
YES
YES or N/A
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
HMP Exempt
End of Decision Matrix
14. Hydromodification Controls Required. Go to Figure 6-2 of Decision Matrix

HMP Applicability Determination Summary

Node	Component	Response	Response	Supporting Documents Required
1	Priority Development Project	☒ Yes – Go to Node 2	☐ No – Exempt	Storm Water Applicability Checklist
2	Proper Energy Dissipation*	☒ Yes – Go to Node 3	☐ N/a -- Go to Node 3	Plan location of energy dissipation and supporting calculations.
3	Increase Impervious Area*	☐ Yes – Go to Node 5	☒ No – Go to Node 4	Plan showing pre-project impervious area and post-project impervious area.
4	Increase Unmitigated Peak Flows to Any Outlet Location*	☐ Yes – Go to Node 5	☒ No – Exempt	Hydrology Study showing the peak flows at each discharge location. If a separate drainage study has been performed, provide a summary of the report and a reference to the report.
5	Direct Discharge to an Exempt System*	☐ Yes – Exempt	☐ No – Go to Node 6	Provide exhibit showing project location and exempt systems.
6	Direct Discharge to a Tidally Influenced Lagoon Area*	☐ Yes – Potentially Exempt	☐ No – Go to Node 7	Provide exhibit showing project location and tidally influenced lagoon areas.
7	Direct Discharge to Stabilized Conveyance to Exempt System*	☐ Yes – Go to Node 8	☐ No – Go to Node 9	Provide exhibit showing project location, stabilized conveyance and exempt systems.
8	Does Stabilized Conveyance Have Capacity to Convey Ultimate Q10*	☐ Yes – Exempt	☐ No – Go to Node 9	Provide calculations.
9	Discharge to Highly Urbanized Area*	☐ Yes – Exempt	☐ No – Go to Node 10	Provide narrative.
10	Urban Infill Project Discharging to Stabilized Conveyance*	☐ Yes – Go to Node 11	☐ No – Go to Node 14	Provide exhibit showing project location and stabilized conveyance.
11	Determine Domain of Analysis	☐ Yes – Go to Node 12	Intentionally Left Blank	Provide calculations.

Node	Component	Response	Response	Supporting Documents Required
12	Stabilized Conveyance Extends Beyond Domain of Analysis and Eventually Discharges to LOW Susceptibility Stream	☐ Yes – Go to Node 13	☐ No -- Go to Node 14	Provide calculations.
13	Cumulative Future Impacts Represent <3% Impervious Area Increase	☐ Yes – Exempt	☐ No – Go to Node 14	Provide calculations.
14	Project is required to address Hydromodification Criteria			Provide Hydromodification Analysis and Calculations.

2.12 Hydrologic Context (Watershed Contribution)

The project site is located in the San Diego River Watershed. The project is part of the Lower San Diego River Hydrologic Area. The project flows via an unnamed seasonal creek to the San Diego River.

Table 4: Comparison of Watershed Areas

	Area (acres)	Watershed Area	Project Area	Project Impervious Area
Lower San Diego	281,600	100%	-	-
Project Site	8.2	>0.1%	100%	-
Impervious Area (Estimate)	3.8	>0.1%	45%	100%

THIS PAGE INTENTIONALLY LEFT BLANK

3 Priority Project Determination

The following table determines whether the project is a "priority project" according to guidelines laid out in the San Diego Region Municipal Separate Storm Sewer Systems (MS4) Permit (Order No. R9-2007-0001, NPDES No. CAS0108758), adopted in January 2007. Projects are subject to MS4 Priority Project requirements if one or more of the criteria described in the table are met.

Based on the information presented in the table below, the proposed project which involves surface parking and commercial development, this project is a priority project.

Table 5: Priority Project Determination

PRIORITY PROJECT	YES	NO
Residential development of 10 or more dwelling units. Examples: single-family homes, multi-family homes, condominiums, and apartments.		✓
Commercial development and similar non-residential development greater than one acre. Examples: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.	✓	
Heavy industrial development greater than one acre. Examples: manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas (bus, truck, etc.).		✓
Automotive repair shop. A facility categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.		✓
Restaurant. Any facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), and where the land area for development is greater than 5,000 square feet.		✓
Hillside development greater than 5,000 square feet. Any development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions and where the development will grade on any natural slope that is twenty-five percent or greater.		✓
Water Quality Sensitive Area. All development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" is defined as being situated within 200 feet of the Water Quality Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject		✓

PRIORITY PROJECT	YES	NO
development or redevelopment site, and not commingled with flows from adjacent lands.		
Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces and potential exposure to urban runoff (unless it meets the exclusion for parking lot reconfiguration on line 11).	✓	
Street, road, highway, or freeway. Any new paved surface in excess of 5,000 square feet used for the transportation of automobiles, trucks, motorcycles, and other vehicles (unless it meets the exclusion for road reconfiguration on line 11).		✓
Retail Gasoline Outlet (RGO) that is: (a) 5,000 square feet or more or (b) have a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.		✓
Significant Redevelopment; the project installs and/or replaces 5,000 square feet or more of impervious surface and the existing site meets at least one of the categories above. The project is not considered Significant Redevelopment if reconfiguring an existing road or parking lot without a change to the footprint of an existing developed road or parking lot. The existing footprint is defined as the outside curb or the outside edge of pavement when there is no curb.	✓	
Other Pollutant Generating Project. Any other project not covered in the categories above, that disturbs one acre or more and is not excluded by the criteria below. Exclusions that apply to line 12 only: Projects creating less than 5,000 sf of impervious surface and where any added landscaping does not require regular use of pesticides and fertilizers, such as a slope stabilization project using native plants, are excluded from this category. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as for emergency or maintenance access or for bicycle or pedestrian use, if they are built with pervious surfaces or if they sheet flow to surrounding pervious surfaces		✓

4 Summary of Water Quality Issues

This section provides a summary of relevant storm water quality issues pertaining to the project site and identifies the section where further discussion is provided.

Table 6: Water Quality Checklist

QUESTIONS	Section	Completed	N/A
Describe the topography of the project area.	4.1	✓	
Describe the local land use within the project area and adjacent areas.	4.2	✓	
Evaluate the presence of dry weather flow.	0	✓	
Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance, and operation).	4.4	✓	
For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.	4.5	✓	
Determine if there are any High Risk Areas (municipal or domestic water supply reservoirs or groundwater percolation facilities) within the project limits.	4.6	✓	
Determine the Regional Board special requirements, including TMDL's, effluent limits, etc.	4.7	✓	
Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.	4.8	✓	
If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.	4.9	✓	
Determine contaminated or hazardous soils within the project area.	4.10	✓	

4.1 Topography

The project site is a relatively flat, previously graded site. The main campus has slopes in the 1 to 5% range. The southerly border of the campus is the only sloped portion of the project. Although this portion of the site has slopes over 30 feet in height, the only work proposed for this area is storm drain replacement.

4.2 Land Use and Vegetation

The site is a fully developed urban school campus. The site consists of about 50% hardscape and 50% pervious areas. Pervious areas include a combination of the sports fields and non-

native plants. The slopes along the southerly portion of the site are fully covered with native type vegetation.

4.3 Dry Weather Flow

Though it has not been quantified, it is not anticipated that the project site will experience any dry-weather flows. Dry weather flows will enter the landscaped areas prior to collection in the underground storm drain system. Most if not all of the dry weather flows will infiltrate into the soil within the landscaped areas. Although dry weather flows will infiltrate within landscape, the project does not propose infiltration as a BMP or other stormwater measure.

4.4 Receiving Waters

Construction, operation, and maintenance of the project will affect receiving waters throughout the project lifetime. The project drains to the San Diego River and then to the beautiful Pacific Ocean.

4.5 303(d) Impairments

The Environmental Protection Agency (EPA) is the primary federal agency responsible for management of water quality in the United States. The Clean Water Act (CWA) is the federal law that governs water quality control activities initiated by the EPA and others. Section 303 of the CWA requires the adoption of water quality standards for all surface water in the United States. Under Section 303(d), individual states are required to develop lists of water bodies that do not meet water quality objectives after required levels of treatment by point source dischargers. Total maximum daily loads (TMDL's) for all pollutants for which these water bodies are listed must be developed in order to bring them into compliance with water quality objectives. Table 7 shows the receiving waters and the classifications by the RWQCB Region 9.

Table 7: Summary of Receiving Surface Waters

Receiving Water	Hydrologic Unit Code	Approximate Distance From Site	303(d) Impairment(s)
San Diego River	907.1	0.25 mi	Fecal Coliform (Bacteria), Low Dissolved Oxygen (Oxygen Demanding Substances), Phosphorus (Nutrients), Total Dissolved Solids (Sediment)

4.6 Risk Assessment

There are no high-risk drinking water supplies or other sensitive resources within the project limits. Therefore, the project is unlikely to have any effect on nearby drinking water sources.

Therefore, the project presents negligible risk to drinking water supply or other sensitive resources.

4.7 Total Maximum Daily Load (TMDL)

There is currently is not a Total Maximum Daily Load (TMDL) restriction for the project receiving waters San Diego River based on the California Regional Water Quality Control Board San Diego Region, Resolution No. R9-2010-000.

4.8 General Climate

San Diego climate is classified as Mediterranean, with warm, dry summers and mild, wet winters. Annual precipitation averages range from 10 inches along the coast to 18 inches in the eastern mountains, with low to high intensity storms occurring mostly in the winter and spring.

The average annual precipitation for the project watershed area is 11.8 inches.

4.9 Soil Characteristics

The majority of the site is underlain by Olivenhain cobbly loam and Redding and Carlsbad Urban Land Complex. These soils are characterized by very low ability for the soils to transmit and the relatively high runoff potential.

These soils consist of a gravelly to cobbly loam, which are typically highly cemented and no subject to high erosion.

4.9.1 Groundwater

No groundwater is anticipated on this site.

4.9.2 Hydrologic Soil Type

Per City of San Diego Drainage Design Manual requirements, hydrologic Soil Type ‘D’ has been assumed for this site.

4.10 Contaminated Soil and Hazardous Waste Assessment

There are no known contaminated soils, fills, or hazardous wastes at the project site.

THIS PAGE INTENTIONALLY LEFT BLANK

5 Watershed Identification

Table 8: Watershed Identification

☐	San Juan (901)	☐	Santa Margarita (902)	☐	Carlsbad (904)
☐	San Dieguito (905)	☐	Penasquitos (906)	☒	San Diego River (907)
☐	Sweetwater (909)	☐	Otay (910)	☐	Tijuana (911)

Table 9: Receiving Water Identification

Receiving Water	San Diego River
Hydrologic Unit	San Diego River
Hydrologic Area	Lower San Diego River

THIS PAGE INTENTIONALLY LEFT BLANK

6 Beneficial Uses

This section summarizes the beneficial uses of surface water and ground water resources downstream of the project.

6.1 Definitions

The Porter-Cologne Act establishes a comprehensive program for the protection of beneficial uses of the waters of the state. California Water Code Section 13050(f) describes the beneficial uses of surface and ground waters that may be designated by the State or Regional Board for protection as follows:

"Beneficial uses of the waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves."

Beneficial uses for surface waters are designated under the Clean Water Act Section 303 in accordance with regulations contained in 40 CFR 131. The State is required to specify appropriate water uses to be achieved and protected. The beneficial use designation of surface waters of the state must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation.

In 1972, the State Board adopted a uniform list and description of beneficial uses to be applied throughout all basins of the State. During the 1994 San Diego Basin Plan update, beneficial use definitions were revised and some new beneficial uses were added. The following beneficial uses are defined statewide and are designated within the San Diego Region:

Municipal and Domestic Supply. Includes uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.

Agricultural Supply. Includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Industrial Process Supply. Includes uses of water for industrial activities that depend primarily on water quality.

Industrial Service Supply. Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

Ground Water Recharge. Includes uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

Freshwater Replenishment. Includes uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).

Navigation. Includes uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.

Hydropower Generation. Includes uses of water for hydropower generation.

Contact Water Recreation. Includes uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and SCUBA diving, surfing, white water activities, fishing, or use of natural hot springs.

Non-Contact Water Recreation. Includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

Commercial and Sport Fishing. Includes the uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.

Aquaculture. Includes the uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.

Warm Freshwater Habitat. Includes uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.

Cold Freshwater Habitat. Includes uses of water that support cold-water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.

Inland Saline Water Habitat. Includes uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish, or wildlife, including invertebrates.

Estuarine Habitat. Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).

Marine Habitat. Includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).

Wildlife Habitat. Includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Preservation of Biological Habitats of Special Significance. Includes uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.

The tables below describe the beneficial uses for the project hydrologic subarea.

Table 10: Beneficial Uses of Downstream Inland Surface Waters (RWQCB, 1998).

● Existing Beneficial Use ○ Potential Beneficial Use + Exempt from Municipal Use	Beneficial Use														
Receiving Water (Hydrologic Unit Code)	Municipal/Domestic Supply	Agricultural Supply	Industrial Service Supply	Industrial Process Supply	Groundwater Recharge	Freshwater Replenishment	Hydropower Generation	Contact Water Recreation	Non-Contact Water Recreation	Significant Biological Habitats	Warm Freshwater Habitat	Cold Freshwater Habitat	Wildlife Habitat	Rare Species	Fish Spawning and Development
907.11	+	●	●					●	●		●		●		

Table 11: Beneficial Uses of Downstream Coastal Waters (RWQCB, 1998).

● Existing Beneficial Use ✪ Potential Beneficial Use	**Beneficial Use**														
Receiving Water (Hydrologic Unit Code)	Industrial	Navigation	Contact Water Recreation	Non-Contact Water Recreation	Commercial/Sport Fishing	Significant Biological Habitats	Estuarine Habitat	Wildlife Habitat	Rare Species	Marine Habitat	Aquaculture	Aquatic Organism Migration	Spawning	Warm Freshwater Habitat	Shellfish
Mouth of San Diego River			●	●	●		●	●	●	●		●	●		●

Table 12: Beneficial Use of Downstream Ground Waters (RWQCB, 1998).

● Existing Beneficial Use ✪ Potential Beneficial Use + Exempt from Municipal Use	**Beneficial Use**					
Receiving Water (Hydrologic Unit Code)	Municipal/Domestic Supply	Agricultural Supply	Industrial Service Supply	Industrial Process Supply	Freshwater Replenishment	Groundwater Recharge
907.11	✪	●	●	●		

7 Pollutants of Concern

7.1 Potential Pollutants

Table 13 identifies generally anticipated pollutants that might be generated from priority project categories, including commercial, redevelopment and surface parking which are categories representative of the proposed project. As the development is considered a priority project, the anticipated and potential pollutants listed in the San Diego County SUSMP are expected. A description of the pollutants has been included for reference.

Table 13: Anticipated and Potential Pollutants by Project Type

(City of San Diego Storm Water Standards, January 20, 2012)

✓ Anticipated Pollutants P Potential Pollutants	**General Pollutant Categories**								
Priority Project Categories	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash and Debris	Oxygen-Demanding Substances	Oils and Grease	Bacteria and Viruses	Pesticides
Detached Residential Housing Development	✓	✓			✓	✓	✓	✓	✓
Attached Residential Development	✓	✓			✓	P(1)	P(2)	P	✓
Commercial Development	P(1)	P(1)	✓	P(2)	✓	P(5)	✓	P(3)	P(5)
Industrial Development	✓		✓	✓	✓	✓	✓		
Automotive Repair Shops			✓	✓(4)(5)	✓		✓		
Restaurants					✓	✓	✓	✓	P(1)
Steep Hillside Developments	✓	✓			✓	✓	✓		✓
Parking Lots	P(1)	P(1)	✓		✓	P(1)	✓		P(1)
Streets, Highways, and Freeways	✓	P(1)	✓	✓(4)	✓	P(5)	✓	✓	P(1)
Retail Gasoline Outlets			✓	✓	✓	✓	✓		

(1) A potential pollutant if landscaping exists on-site; (2) A potential pollutant if the project includes uncovered parking areas; (3) A potential pollutant if land use involved food or animal waste products; (4) Including petroleum hydrocarbons; (5) Including solvents.

7.2 Anticipated Project Pollutants

The table below list the anticipated project pollutants based on project priority categories. This table lists potential pollutants when it is anticipated that those potential pollutants will be present.

Table 14: Anticipated Project Pollutants

POLLUTANT OF CONCERN	COURSE SEDIMENT AND TRASH	POLLUTANTS THAT TEND TO ASSOCIATE WITH FINE PARTICLES DURING TREATMENT	POLLUTANTS THAT TEND TO BE DISSOLVED FOLLOWING TREATMENT	(A) POLLUTANTS ASSOCIATED WITH PRIORITY DEVELOPMENT PROJECT (Check If Identified in 15)	(B) POLLUTANTS ASSOCIATED WITH TMDLs (Check If Identified)	(C) POLLUTANTS ASSOCIATED WITH 303(d) LIST (Check If Identified)	(D) PRIMARY POLLUTANT OF CONCERN (Check if Columns A and B or A and C are checked)	(E) SECONDARY POLLUTANT OF CONCERN (Check if Column A is checked and Column D is not)
Sediment	X	X		☒	☐	☒	☒	☐
Nutrients		X	X	☒	☐	☒	☒	☐
Heavy Metals		X		☒	☐	☐	☐	☒
Organic Compounds		X		☒	☐	☐	☐	☒
Trash & Debris	X			☒	☐	☐	☐	☒
Oxygen Demanding Substances		X		☒	☐	☒	☒	☐
Oil & Grease		X		☒	☐	☐	☐	☒
Bacteria & Viruses		X		☐	☐	☐	☐	☐
Pesticides		X		☒	☐	☐	☐	☒
Other					☐	☐		☐
Other					☐	☐		☐

7.3 Pollutants

The following discussion briefly describes the pollutants listed in Table 13.

7.3.1 Sediment

Sediments are soils or other surface materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

7.3.2 Nutrients

Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as cultural eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.

7.3.3 Heavy Metals

Metals are raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. The primary sources of metal pollution in storm water are typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. At low concentrations naturally occurring in soil, metals are not toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns, regarding the potential for release of metals to the environment, have already led to restricted metal usage in certain applications.

7.3.4 Organic Compounds

Organic compounds are carbon-based (commercially available or naturally occurring) substances found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.

7.3.5 Trash and Debris

Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

7.3.6 Oxygen-Demanding Substances

This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

7.3.7 Oils and Grease

Oil and grease are characterized as high-molecular weight organic compounds. The primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to the water bodies are very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

7.3.8 Bacteria and Viruses

Bacteria and viruses are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

7.3.9 Pesticides

Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth of organisms. Excessive application of a pesticide may result in runoff containing toxic levels of its active component.

THIS PAGE INTENTIONALLY LEFT BLANK

8 Construction BMPs

Because the project site is larger than one acre in size, and pursuant to the requirements for the Construction General Permit, a full Storm Water Pollution Prevention Plan for Construction Activities (SWPPP) will be developed for the project under separate cover from this WQTR. Please reference the SWPPP and erosion control plans for additional construction-phase BMP information.

THIS PAGE INTENTIONALLY LEFT BLANK

9 Design Criteria

This section summarizes the design criteria and methodology applied during drainage analysis of the project site.

9.1 Volume-Based Water Quality Numeric Sizing Criteria

Volume-based BMPs are designed to capture and treat the most frequent storm events. Volume-based BMPs can include infiltration trenches, extended detention basins, wet detention basins, and water quality treatment wetlands.

The water quality capture volume may be included as part of the configuration of the detention basins (for example, in a forebay or as initial storage in the basin), or as a stand-alone water quality basin. The water quality volumes should be provided in addition to the flood-control detention volume and debris volumes allocated for each basin.

The San Diego Regional Water Quality Control Board (RWQCB Region 9) has defined the sizing criteria for volume-based Best Management Practices as:

> *The volume of runoff produced from each and every storm event up to and including a historical record-based reference 24-hour rainfall criterion for treatment (0.6 inch approximate average for the San Diego County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour event.*

A 24-hour, 0.6-inch rainfall has a return frequency of less than one year. The 85th percentile 24-hour event criterion was used for sizing the volume-based water quality treatment controls within the project site.

9.2 Flow-Based Water Quality Numeric Sizing Criteria

Flow-based BMPs are sized to filter or otherwise treat the peak flow of runoff from a stormwater quality storm event. Flow-based BMPs include vegetated filter strips and swales.

The San Diego RWQCB has defined the design discharge for flow-based BMPs as the runoff generated from a storm with a rainfall intensity of 0.2 inch/hour.

THIS PAGE INTENTIONALLY LEFT BLANK

10 Source Control BMPs

Source-control BMPs are activities, practices, and procedures (primarily non-structural) that are designed to prevent urban runoff pollution. These measures either reduce the amount of runoff from the site or prevent contact between potential pollutants and storm water. Also, source-control BMPs are often the best method to address non-storm (dry-weather) flows. The following table lists source-control BMP alternatives and indicates the practices that will be applied at the project site.

Table 15: Source Control BMP Selection Matrix

(Per section 3.1 of the City of San Diego Stormwater Standards dated January 20, 2012)

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
1.	**Maintenance Bays:** Shall include one of the following				
	1. a. Repairs/maintenance bays shall be indoors			✓	No repair or maintenance bays.
	1. b. Drainage system shall be designed to preclude urban run-on and run-off.			✓	No repair or maintenance bays.
2.	**Vehicle and Equipment Wash Areas:** Areas for washing/steam cleaning of vehicles and areas for outdoor equipment/accessory washing and steam cleaning shall be:				
	2. a. Self-contained to preclude run-on and run-off, covered with a roof or overhang, and equipped with a clarifier or other pretreatment facility; and			✓	No vehicle or equipment washing areas.
	2. b. Properly connected to sanitary sewer.			✓	No vehicle or equipment washing areas.
3.	**Outdoor Processing Areas:** Shall be				
	3.a Cover or enclose areas that would be the most significant source of pollutants;			✓	No outdoor processing areas.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	3. b. Slope the area towards a dead end sump;			✓	No outdoor processing areas.
	3.c. Discharge to the sanitary sewer system.			✓	No outdoor processing areas.
4.	**Retail and Non-retail Fueling Areas** Retail and non-retail fueling areas shall be:				
	4. a Paved with Portland cement concrete or equivalent smooth impervious surface (asphalt concrete is prohibited.)			✓	No fueling areas.
	4. b. Designed to extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less;			✓	No fueling areas.
	4. c. Sloped to prevent ponding;			✓	No fueling areas.
	4. d. Separated from the rest of the site by a grade break that prevents run-on of adjacent urban runoff;			✓	No fueling areas.
	4. e. Designed to drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.			✓	No fueling areas.
	4.f. The overhanging roof structure or canopy shall be equal to or greater than the area within the fuel dispensing area's grade break;			✓	No fueling areas.
	4.g. The overhanging roof structure or canopy shall be: Designed to drain away from the fuel dispensing area.			✓	No fueling areas.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
5.	**Steep Hillside Landscaping**				
	5. a. Steep hillside areas disturbed by project development shall be landscaped with deep-rooted, drought tolerant and/or native plant species selected for erosion control, in accordance with the Landscape Technical Manual.	✓			Development is on the existing graded portion of the site.
6.	**Efficient Irrigation Systems & Landscaping Design**				
	6. a. Implement rain shutoff devices to prevent irrigation during and after precipitation events in accordance with Section 2.3-4 of the City of San Diego's Landscape Standards	✓			See irrigation plans.
	6. b. Reduce irrigation contribution to dry-weather runoff by avoiding spray irrigation patterns where overspray to paved surfaces or drain inlets will occur.	✓			See irrigation plans.
	6. c. To avoid over watering and potential irrigation runoff, design irrigation systems to each landscape area's specific water requirement..	✓			See irrigation plans.
	6.d. Implement flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.	✓			See irrigation plans.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	6.e. Avoid locating drain inlets in lawn areas, since such inlets tend to be sources or irrigation runoff and the transport mechanism for lawn care products. Design the grading and drainage systems such that drain inlets can be located outside of the lawn area, or include a non-turf buffer around the inlet.		✓		Impervious areas are disconnected from storm drains by draining to landscaping. Other measures are used to reduce dry weather flows.
7.	**Trash Storage Areas** Design trash storage areas to reduce pollution contribution, trash storage areas shall:				
	7. a. Be paved with an impervious surface designed to prevent run on from adjoining areas and screened or walled to prevent off-site transport of trash.	✓			All trash areas are paved.
	7. b. Contain attached lids on all trash containers to prevent rainfall intrusion.	✓			All trash bins have attached lids.
	7. c. Contain a roof or awning, at the discretion of the City, for high usage trash areas such as those for fast food establishments, convenience stores, and high-density residential developments..			✓	Not a high usage trash area.
8.	**Outdoor Material Storage Areas** Materials with the potential to contaminate urban runoff shall be:				
	8. a Placed in an enclosure such as a cabinet, shed, or other structure that prevents contact with rainfall or runoff and prevents spillage to the storm water conveyance system.			✓	No outdoor storage areas.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	8. b. Protected by secondary containment structures such as berms, dikes, or curbs when the material storage area includes hazardous materials. The storage area shall be paved and sufficiently impervious to contain leaks and spills and be covered by a roof or awning to minimize direct precipitation within the secondary containment area..			✓	No outdoor storage areas.
9.	**Loading docks** Loading dock areas shall be:				
	9. a. Provide overhead cover where appropriate to prevent precipitation contact with debris and potential spills.			✓	No loading docks.
	9. b. Isolate drainage in the loading dock area through the use of paved berms and/or grade breaks to prevent adjacent runoff from entering the loading area and to prevent liquid spills from discharging from the loading area.			✓	No loading docks.
	9. c. Include an acceptable method of spill containment such as a shut-off valve and containment areas.			✓	No loading docks.
10.	**Employ Integrated Pest Management Principles** Integrated pest management (IPM) is an ecosystem-based pollution prevention strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as:				
	10.a. Biological Control	✓			Biological control will be used to control pest as a first line of defense.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	10.b. Habitat manipulation	✓			This project will implement habitat manipulation as part of the pest management on this project. Habitat manipulation that manipulates the landscape area and surrounding environment with the aim of conserving or augmenting population of natural enemies will be implemented.
	10.c. Use of resistant plant varieties	✓			Species that are resistant to pest will be implemented.
	10.d Pesticides shall be used only after monitoring indicates they are needed according to established guidelines. Pest control materials shall be selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the surrounding environment.	✓			The use of pesticides is not anticipated. All species of planting are resistant to pest. Pesticides will only be used as a last resort and according to established guidelines..
	10.e. To eliminate or reduce the need for pesticide use, the following strategies can be used: Plant pest-resistant or well-adapted plant varieties Discourage pests by modifying the site and landscaping design	✓			As stated above, this project will implement habitat manipulation as part of the pest management on this project. Habitat manipulation that manipulates the landscape area and surrounding environment with the aim of conserving or augmenting population of natural enemies will be implemented. In addition, species that are resistant to pest will be implemented.
	10.f. IPM educational materials should be distributed to future site residents and tenants. These educational materials should address the following: Use of barriers, screens, and caulking to keep pests out of buildings and landscaping Physical pest elimination techniques, such as weeding, washing , or trapping pests Relying on natural enemies to eliminate pests Proper use of pesticides as a last line of defense	✓			See landscape and irrigation plans.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
11.	**Storm Water Conveyance System Stamping and Signage** Provide storm water conveyance system stamping and signage.				
	11. a. Concrete stamping, or approved equivalent method, shall be provided for all storm water conveyance system inlets and catch basins within the project area.	✓			To be installed on all concrete inlets.
	11. b. Language associated with the stamping (e.g., "No Dumping – I Live in San Diego Bay") must be satisfactory to the City Engineer. Stamping may also be required in Spanish.	✓			To be installed on all concrete inlets.
	11. c. Post signs and prohibitive language (with graphical icons) which prohibit illegal dumping at trailheads, parks, building entrances and public access points along channels and creeks within the project area.			✓	No creeks or channels exist within project area. Prohibitive language to be provided at inlets to storm drain system
12.	**Manage Fire Sprinkler Discharges** For new buildings with fire sprinkler systems, design fire sprinkler systems as follows".				
	12. a. Contain discharges from sprinkler systems' operational maintenance and testing and convey discharges to the sanitary sewer system.	✓			See fire sprinkler plans.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
13.	**Manage Air Conditioning Condensate** Air conditioning condensate is a source of dry-weather runoff and elevated copper levels. Include design features to manage this pollutant source, such as the following:.				
	13. a. Direct air conditioning condensate to the sanitary sewer system	✓			Air conditioning condensate will be directed to the landscaping.
	13. b. Direct air conditioning condensate to landscaping areas.	✓			Air conditioning condensate will be directed to the landscaping.
14.	**Use Non-Toxic Roofing Materials Where Feasible:**	✓			
	14 a. Avoid the use of galvanized steel or copper for roofs, gutters, and downspouts.	✓			
	14.b. If using such materials, reduce the potential for leaching of metals by applying a coating or patina	✓			
	14.c. Avoid composite roofing materials that contain copper	✓			
15.	**Other Source Control Requirements**				
	15 a. Require implementation of post-construction soil stabilization practices, such as the re-vegetation of construction sites, in conformance with the approved Landscaping Plan and Grading Plans.	✓			
	15.b. Provide for pet waste collection dispensers where applicable.		✓		Low potential for pets to be in the area.

	SOURCE CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	15.c. Provide trash receptacles in areas of high pedestrian traffic and in front of retail convenience stores	✓			Trash receptacles will be spread around the site.

THIS PAGE INTENTIONALLY LEFT BLANK

11 Priority Project Site Development LID Requirements

Priority Development Projects are to include Low Impact Development, which will include features that attempt to mimic natural hydrologic conditions for the water quality design storm. Although this development is not a Priority Project, Low Impact Development measures such as retention will be implemented on the site.

Table 16: Priority Development Project LID BMP Selection Matrix

(Per section 3.2 of the City of San Diego Stormwater Standards dated January 20, 2012)

	LID BMP OPTION	YES	NO	N/A	EXPLANATION
1.	**Optimize Site Layout.** To minimize storm water related impacts, apply the following design principles to the layout of newly developed and redeveloped sites.				
	Utilize topography to optimize the site layout and reduce the need for grading. Development envelopes should be focused in the upper elevations of a site to promote sheet flow and natural surface drainage to BMPs or Integrated Management Practices (IMPs) located at lower elevations of the site (IMPs are discussed in detail in Appendix I of this manual).	X			Previously disturbed and graded portions of the site are being used for the majority of development.
	Where possible, conform the site layout along natural landforms, avoid excessive grading and disturbance of vegetation and soils, and replicate the site's natural drainage patterns. Set development sufficiently away from creeks, wetlands, and riparian habitats.	X			Previously disturbed and graded portions of the site are being used for the majority of development.
	Hillside areas should be considered more sensitive to development practices than flatter areas.	X			Impacts to hillsides have been minimized by using the flatter portions of the site.
	Identify soils with high infiltration capacity and, if possible, locate storm water treatment facilities in these locations. Concentrate development on portions of the site with less permeable soils.		X		Type 'D' soils cover the entire project.

	LID BMP OPTION	YES	NO	N/A	EXPLANATION
	Areas of the site where the erosive potential of the soil is high should be considered more sensitive to development and areas that should be left undisturbed. Areas devoid of vegetation, including previously graded areas and agricultural fields, and areas of non-native vegetation where receiving waters are not present are typically suitable for development. Conversely, areas of occupied habitat of sensitive species and wetlands areas are typically unsuitable for development.	X			Previously disturbed and graded portions of the site are being used for the majority of development.
	Preserve significant trees, especially native trees and shrubs, and identify locations for planting additional native or drought tolerant and large shrubs.	X			To the maximum extent practicable.
2.	**Minimize Impervious Footprint**. For all types of development, limit the overall coverage of paving and roofs. Examine the site layout and circulation patterns to identify areas where landscaping areas can replace areas of proposed pavement.				
	Increase building density (number of stories above or below ground) through design of compact and taller structures.	X			The building proposed is a multi-story building designed to minimize the impervious footprint.
	Construct walkways, trails, patios, overflow parking lots, alleys and other low-traffic areas with permeable surfaces. Such permeable surfaces could include pervious concrete, porous asphalt, unit pavers, etc.	X			No overflow parking or other low traffic areas due to nature of project (School).
	Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.	X			All driveways have been constructed to the minimum per fire department requirements and municipal code requirements.
	Promote the implementation of shared driveways where possible.	X			Shared driveway for the northerly and southerly portion of the site is proposed.
	Design of smaller parking lots with fewer stalls, smaller stalls, more efficient lanes.	X			Minimum code stalls and aisles are proposed.

	LID BMP OPTION	YES	NO	N/A	EXPLANATION
	Design of indoor or underground parking.	X			Underground parking is proposed.
	Minimize the use of impervious surfaces in the landscape design.	X			
3.	**Disperse Runoff to Adjacent Landscaping.** Project designs should direct runoff from impervious areas to adjacent landscaping areas. The design, including consideration of slopes and soils, must reflect a reasonable expectation that an inch of rainfall will soak into the soil and produce no runoff. Minimize directly connected impervious areas as follows:				
	Drain rooftops into adjacent landscaping areas.	X			All roof drains drain to the landscaping..
	Drain impervious parking lots, sidewalks, walkways, trails, and patios into adjacent landscaping areas.		X		This is performed where possible. Due to minimal grading of the site, not all areas are possible.
	Reduce or eliminate curb and gutters from roadway sections, thus allowing roadway runoff to drain to adjacent pervious areas.		X		Surface parking is merely a reconfiguration of the existing parking. In the event that a structure is constructed on surface parking, this will become negligible.
	Detain and retain runoff through the site. On flatter sites, landscaped areas and IMPs can be interspersed among the buildings and pavement areas. On hillside sites, drainage from upper areas may be collected in conventional catch basins and conveyed to landscaped areas and IMPs in lower areas of the site.	X			Hardscape is drained to landscape where possible.
	Use depressed landscaping areas (also known as Self-Retaining Areas—see Appendix I), vegetated buffers, and bioretention areas as amenities and focal points within the site and landscaping design.	X			Hardscape is drained to landscape where possible.

	LID BMP OPTION	YES	NO	N/A	EXPLANATION
4.	**Design and Implementation of Impervious Surfaces**				
	Consider the implementation of permeable pavements into the site design. Identify locations where permeable pavements, such as turf block, unit pavers, pervious concrete, or pervious asphalt could be substituted for impervious concrete or asphalt paving. The Operations and Maintenance Plan of the site must ensure that permeable pavements will not be sealed in the future.		X		Permeable pavements are not appropriate for the high traffic areas on this project. The engineer of work has found that the use of permeable pavements in high traffic areas tend to break down, leading to increased sediment load.
	Potential benefits of vegetated or green roofs include lower heating and cooling costs and better sound insulation, in addition to air quality and water quality benefits. For SUSMP compliance purposes, runoff from vegetated roofs requires no further treatment or detention. For more information on vegetated roofs, see www.greenroofs.org.		X		Costs of green roofs prohibitive on this type of building construction.
5.	**Construction Considerations:**				
	Minimize soil compaction (see discussion in Countywide Model SUSMP) for landscaped areas of the project site designated for storm water treatment.	X			Landscaped areas will be compacted to a maximum of 85% relative compaction to provide optimum landscape growth and water absorption.
	Implement soil amendments. Landscape topsoil improvements play a significant role in maintaining plant and lawn health. Such soil amendments also improve the soil's capacity to retain moisture, which will reduce runoff from the water quality design storm and improve water quality.	X			Prior to planting, the site soils will be tested. Once the soil has been tested, it will be amended to provide an optimum balance of nutrients.
6.	**Additional Considerations**				
	Stabilize the site. Vegetate disturbed soils and slopes with drought tolerant vegetation and stabilize permanent channel crossings.	X			All disturbed areas will be re-vegetated. Those areas not landscaped will be hydroseeded,

	LID BMP OPTION	YES	NO	N/A	EXPLANATION
	Convey runoff safely away from the tops of slopes (to prevent slope instability caused by infiltrated runoff)	X			All slopes will be bermed at the top to prevent runoff from flowing over the top of the slope.
	Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, or channels that discharge to unlined channels in accordance with applicable specifications to reduce the potential for erosion and minimize impacts to receiving waters.			X	No channels in project.

THIS PAGE INTENTIONALLY LEFT BLANK

12 Buffer Measures

Table 17: Buffer Measures

(Per section 3.3 of the City of San Diego Stormwater Standards dated January 20, 2012)

	Buffer Measures	YES	NO	N/A	EXPLANATION
1.	**Buffer Measures**. According to the Municipal Permit, buffer zones surrounding natural water bodies should be utilized where feasible. Buffer areas, which can include bioretention areas, provide for reduced site imperviousness and opportunities to incorporate LID facilities into the site and landscape design..				
	Buffer zones should be provided between the edge of the proposed development and the limits of the 100-year floodplain for a distance to be determined by the City. Where buffer zones are infeasible, other buffers such as trees, access restrictions, etc., should be used. Bioretention facilities may be placed in buffer zones, provided that the diffused incoming flow velocity is less than 3 feet per second.		X		Not adjacent to100-year floodplain.

THIS PAGE INTENTIONALLY LEFT BLANK

13 Structural Treatment Control BMPs

Post-construction "treatment control" storm water management BMPs provide treatment for storm water emanating from the project site. Implementation of Regional MS4 Permit requirements entails the use of post-construction BMPs that will remain in service to protect water quality throughout the life of the project. Structural BMPs are an integral element of post-construction storm water management and include storage, filtration, and infiltration practices. BMPs have varying degrees of effectiveness versus different pollutants of concern as identified in Table 18.

13.1 Selection of Treatment Control BMPs

The selection, design, and siting of structural BMPs within a project depend largely on the project-wide drainage plan. BMP alternatives were evaluated for their relative effectiveness for treating potential pollutants from the project site; technical feasibility; relative costs and benefits; and applicable legal, institutional, and other constraints. Table 19 lists treatment-control BMP alternatives and identifies the BMPs selected for the project site.

The Treatment Control BMPs have been chosen based on the Selection Matrix, presented in Table 18 comparing the list of pollutants for which the downstream receiving waters are impaired (if any) with the pollutants anticipated to be generated by the project (identified by Table 13)

Any pollutants identified by Table 7 that correspond to a Clean Water Act section 303(d) impairment of the receiving waters of the project, are considered primary pollutants of concern.

13.1.1 When There Are Primary Pollutants of Concern

Priority projects that are anticipated to generate primary pollutants of concern shall select a single or combination of stormwater BMPs from Table 18 which **maximizes pollutant removal** for the particular primary pollutant(s) of concern. Maximizing pollutant removal generally implies the selection of a BMP with a high removal efficiency for the pollutant(s) of concern, or a "treatment train" of BMPs with low or medium removal efficiencies for the pollutant(s) of concern that will maximize the removal of primary pollutant(s) of concern. As previously noted in Section X, there are several primary pollutants of concerns for the project site.

13.1.2 When There Are No Primary Pollutants of Concern

Priority projects that are **not** anticipated to generate a pollutant for which the receiving water is Clean Water Act Section 303(d) impaired shall select a single or combination of stormwater BMPs from Table 18: Structural BMP Treatment Control Selection Matrix which

are effective for pollutant removal of the identified secondary pollutants of concern, consistent with the "maximum extent practicable" standard.

Table 18: Structural BMP Treatment Control Selection Matrix

BMP	LID	HMP Control	Sediment	Nutrients	Trash	Metals	Bacteria	Oils and Grease	Organics
Infiltration Basin	Y	Y	H	H	H	H	H	H	H
Bioretention Basin	Y	Y	H	M	H	H	H	H	H
Cistern Plus Bioretention	Y	Y	H	M	H	H	H	H	H
Vault plus Bioretention	Y	Y	H	M	H	H	H	H	H
Self-retaining area	Y	Y	H	H	H	H	H	H	H
Dry Wells	Y	Y	H	H	H	H	H	H	H
Constructed Wetlands	Y	Y	H	M	H	H	H	H	H
Extended Detention Basin	Y	Y	M	L	H	M	H	M	M
Vegetated Swale	Y	N	M	L	L	M	L	M	M
Vegetated Buffer Strips	Y	N	H	L	M	H	L	H	M
Flow-Through Planter Boxes	Y	Y	H	M	H	H	H	H	H
Vortex Separator or Wet Vault	N	N	M	L	M	L	L	L	L
Media Filter	N	N	H	L	H	H	M	H	H

H = High removal efficiency M = Medium removal efficiency L = Low removal efficiency

13.2 Treatment Control BMP Selection

Table 4 describes the treatment control BMPs for the project and explains why they were (or were not) selected. An explanation and justification is provided if a low performing BMP was selected.

Table 19: Treatment Control BMP Selection Summary

	TREATMENT CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
1.	**Biofilters**				
	1.a. Grass Swale(s)		✓		See 1(d) below
	1. b. Grass Strip(s)		✓		See 1(d) below
	1. c. Wetland Vegetation Swale(s)		✓		See 1(d) below
	1. d. Bio-retention Area(s)		✓		More effective BMP chosen
	1. e Flow Through Planters		✓		See 1(d) above
2.	**Detention Basins**				
	2. a. Extended Dry Detention w/ Grass Lining		✓		Existing site does not have room for this type of facility.
	2. b. Extended Dry Detention Basin(s) w/ Impervious Lining		✓		Existing site does not have room for this type of facility.
3.	**Infiltration Measures**				
	3.a Infiltration Basin(s)		✓		The project hydrologic soil type is D. Therefore, infiltration is not recommended or proposed.
	3. b. Infiltration Trench(es)		✓		See above 3(a)
	3.c Porous Asphalt		✓		See above 3(a)
	3. d. Porous Concrete		✓		See above 3(a)
	3.e Porous Modular Concrete Block		✓		See above 3(a)
4.	**Wet Ponds or Wetlands**				
	4.a Wet Detention Pond or Basin w/ Permanent Pool		✓		Not practical or recommended due to the dry climate at the project area.
	4. b. Constructed Wetland	✓			Modular Wetland System proposed.
5.	**Drainage Inserts***				
	5. a. Oil/Water Separator(s)		✓		More effective BMPs chosen.

	TREATMENT CONTROL BMP OPTION	YES	NO	N/A	EXPLANATION
	5.b Catch Basin Insert(s)		✓		See above (5a)
	5.c. Storm Drain Inserts		✓		See above (5a)
	5. d. Catch Basin Screens		✓		See above (5a)
6.	**Filtration Practices**				
	6. a. Media Filtration		✓		More effective BMPs chosen.
	6. b. Sand Filtration		✓		See above (6a)
7.	**Hydrodynamic Separator(s)**				
	7. a. Swirl Concentrator(s)			✓	More effective BMPs chosen.
	7. b. Cyclone Separator(s)			✓	See above (7a)
	7. c. Baffle Separators			✓	See above (7a)
	7. d. Gross Solids Removal Devices (GSRDs)			✓	See above (7a)
	7. e. Linear Radial Device			✓	See above (7a)

13.3 Treatment Control BMP Design

The treated areas of the project have been broken into 2 separate DMA's.

13.4 Treatment Control BMP Descriptions by DMA

DMA 1 – DMA 1 consists of the parking lot, hardscape and building drainage. Drainage from this DMA is collected in a series of catch basins throughout the site, as well as a catch basin and curb inlet located within the parking lot. Drainage is conveyed into two 8' x 16' modular wetlands systems located at the top of the slope, at the southwest corner of the project. Each of the two modular wetland systems feeds together before leaving the site to the southwest.
DMA 2 – DMA-2 consists of the field, field house, and bleachers. Drainage from this area is collected in a series of storm drains and through sub-drains below the turf. Drainage is conveyed to the west where it enters a modular wetland system that is located just to the west of the batting cages. This Modular Wetland, an 8' x 16' unit treats the storm water before directing it down the slope to combine with the rest of the storm water from the project.

All drainage from the project area is treated prior to it being discharged into the canyon, and to the MS-4 system.

13.5 DMA Calculation Summary

The following tables present the Drainage Management Areas and the proposed BMP/LID's for the project:

Table 20: Self-retaining Areas

DMA	Area SqFt	DMA Draining to SRA*
none		

**For DMA's draining to self-retaining areas (SRA), see*

Table 21 below.

Table 21: Areas Draining to Self-Retaining Areas

DMA	DMA Area SqFt	Area of SRA SqFt	Is DMA > 2 * SRA	Additional Treatment Needed
none				

Table 22: Self treating Areas

DMA	DMA Area SqFt
none	

Table 23: Bioretention Areas

DMA	DMA Area SqFt	Imp. Area SqFt	Perv. Area SqFt	Effective Area(Perv*0.1 + Imp*1.0) SqFt	Factor	IMP Area Needed SqFt	IMP Area provided SqFt	Additional Treatment Required
none								

Table 24: Treatment Control

DMA	DMA Area SqFt	DMA 'C' Value	Water Quality Intensity 'I'	Water Quality Flow	Treatment Control BMP Type	Treatment Control BMP Capacity*	Additional Treatment Needed
1	52,982	0.85	0.2	0.21	8' x 8' Modular Wetland System	0.23	No
2	128,748	0.85	0.2	0.50	Dual 4' x 21' Modular Wetland System	0.54	
3	169,884	0.50	0.2	0.39	8' x 16' Modular Wetland System	0.46	No

**See Appendix*

LID area needed is the sum of the impervious area + 10% or the pervious area multiplied by the treatment factor of 0.04, per the City of San Diego Storm Water Standards.

14 Operation and Maintenance

14.1 Responsible Parties and Funding

The Municipal Permit requires that a mechanism be in place to ensure maintenance of post-construction BMPs. The maintenance mechanisms listed by the Ordinance include: maintenance by another public entity; maintenance by subsequent owner(s); a Special Assessment District; provisions of a lease; provisions of a conditional use permit; or other mechanisms as acceptable to the City.

The owners and subsequent owners of the development will accomplish maintenance of the BMPs. The owners will enter into stormwater maintenance agreement with the City of San Diego to ensure the maintenance of the BMP facilities.

14.2 Construction and Maintenance Cost

This section provides a cost estimate for the construction and maintenance of the post-construction BMPs proposed for the project site.

14.2.1 Construction Cost

Based on the project parameters, the table below describes the approximate costs for the construction of stormwater treatment facilities for the project.

14.2.1.1 Modular Wetland System

The costs of the Modular Wetland System have been based on estimates from the engineer of work. Because they require no outside power source, there is no cost directly associated with operation of the Modular Wetland System areas.

Table 25: Preliminary BMP Construction Cost Estimate.

BMP Description	Unit Cost	Number	Total Cost
Modular Wetland System	$35,000	3	$105,000
TOTAL			$105,000

14.2.2 Annual Maintenance Cost

Table 26 presents an estimate of the maintenance costs associated with a bioretention area. Cost savings can be realized by developing a schedule where the inspector and/or cleaning crew can attend to several bioretention areas on a single convenient route.

Table 26: Estimated Annual Maintenance Cost for Modular Wetland System BMPs

Activity	Unit Cost	Frequency	Annual Cost
Routine Bi-Monthly Inspections	$200	1st year (After 1st year, inspections will vary due to project conditions.)	600
Cleaning	$1400	Semi-Annually	8400
TOTAL			**$9000**

See Maintenance and Repair in Appendix for full Maintenance and Operation requirements.

14.3 BMP Inspection

The owner of the property shall perform maintenance in accordance with the Maintenance and Repair Schedule shown in the appendix of this report. In addition, the property owners shall allow City staff access for inspection of BMPs by City staff.

14.4 Waste Disposal

All sediment or other pollutants removed from treatment control BMPs shall be properly disposed of in a landfill or by another appropriate disposal method as approved by the Regional Water Quality Control Board. All construction waste shall be disposed of off-site in accordance with local, state, and Federal regulations. Interim storage and disposal of these wastes shall also be in accordance with the best management practices outlined in the Storm Water Pollution Prevention Plan for Construction Activities developed for the project site.

14.5 Best Management Practices for Maintenance Activities

Maintenance of the BMPs often requires activities like grading and the use of equipment that can present a potential pollutant source. The BMPs required to address these potential pollutant sources are similar to those found in Stormwater Pollution Prevention Plans for Construction Activities (SWPPPs). Table 27 summarizes the BMPs that may be implemented during typical BMP maintenance activities, which usually include minor grading and other construction activities over a short duration of time outside of the rainy season.

Additional BMPs may be added for major repairs of longer duration or as appropriate to particular site conditions at the time of maintenance. For instance, if a particular BMP required repair of a concrete inlet structure, BMP measures for Paving and Grinding Operations (NS-3) and Concrete Waste Management (WM-8) may become applicable. If BMP repair must take place during the rainy season, sediment control BMPs would be mandatory.

Table 27: Typical BMPs for BMP Maintenance Activities

Soil Stabilization BMPs	Waste Management BMPs
Scheduling (SS-1)	Material Delivery and Storage (WM-1)
Preservation of Existing Vegetation (SS-2)	Material Use (WM-2)
Tracking Control BMPs	Stockpile Management (WM-3)
Stabilized Construction Access (TC-1)	Spill Prevention and Control (WM-4)
Non-Storm Water Management BMPs	Solid Waste Management (WM-5)
Illicit Connection/Discharge Detection/Reporting (NS-6)	Hazardous Waste Management (WM-6)
Vehicle and Equipment Cleaning (NS-8)	Contaminated Soil Management (WM-7)
Vehicle and Equipment Fueling (NS-9)	Sanitary Waste Management (WM-9)
Vehicle and Equipment Maintenance (NS-10)	

14.6 Record-Keeping

Maintenance and inspection records for BMPs must be kept for a minimum of five years.

14.7 Qualifications of Maintenance Personnel

Maintenance personnel must be trained in the proper procedures to inspect treatment and source control BMPs, to determine if maintenance on the BMPs is required, and to perform such maintenance. Training for maintenance personnel will be provided by the contractors retained for storm water facility maintenance by the project owner, and would likely include attendance at training sessions such as those provided by the Regional Water Quality Control Board (RWQCB) and/or the City of San Diego.

THIS PAGE INTENTIONALLY LEFT BLANK

15 Flow Control BMPs

15.1 Hydromodification Determination

Using the Hydromodification flow chart, it was determined that the project was not subject to hydromodification.

16 Summary

During construction of the project, a Water Pollution Control Plan (WPCP) for Construction Activities will ensure proper storm water control, minimizing or eliminating storm water contact with potential pollutants and the discharge of polluted storm water from the site.

After construction, activities on the project site will not involve the discharge of municipal or sanitary waste to surface waters, and the project does not propose non-storm water discharges that might require authorization by the Regional Water Quality Control Board (RWQCB).

The project represents a reduction in the source of polluted runoff. The project includes site design and source control BMPs to reduce the generation of potential pollutants and to reduce exposure of storm water to pollutants. In addition, the project includes LID strategies and treatment control BMPs to treat polluted storm water runoff to the maximum extent practicable before it exits the site. As stated previously, based on the project geotechnical evaluation, infiltration is not recommended or proposed as part of this development. Although significant dry weather flow are not anticipated, in the event that it does occur, the selected treatment BMPs would provide some level of treatment for the dry weather runoff. In addition, the selected BMP's would help reduce the amount of dry weather flows. Therefore, the project will not cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses.

THIS PAGE INTENTIONALLY LEFT BLANK

17 References

17.1 General References

CASQA, 2003a. California Stormwater Quality Association (CASQA). (2004a). Stormwater Best Management Practice Handbook, Volume 1. New Development and Redevelopment.

CASQA, 2003b. California Stormwater Quality Association (CASQA). (2004b). Stormwater Best Management Practice Handbook, Volume 2. Construction.

City of San Diego, 1978. City of San Diego. (July 7, 1978). Drainage Facilities. Council Policy 800-4.

City of San Diego, 2012. City of San Diego. (2012). Standard Drawings. Document No. PITS070112-03

City of San Diego, 2012. City of San Diego (January 20, 2012). Storm Water Standards Manual

FEMA, 1997. FEMA. (June 17, 1997). Flood Insurance Study, San Diego County.

San Diego County, 2003. San Diego County Flood Control District. (June 20033). Hydrology Manual and Design and Procedure Manual. Ref. SFC P3055.

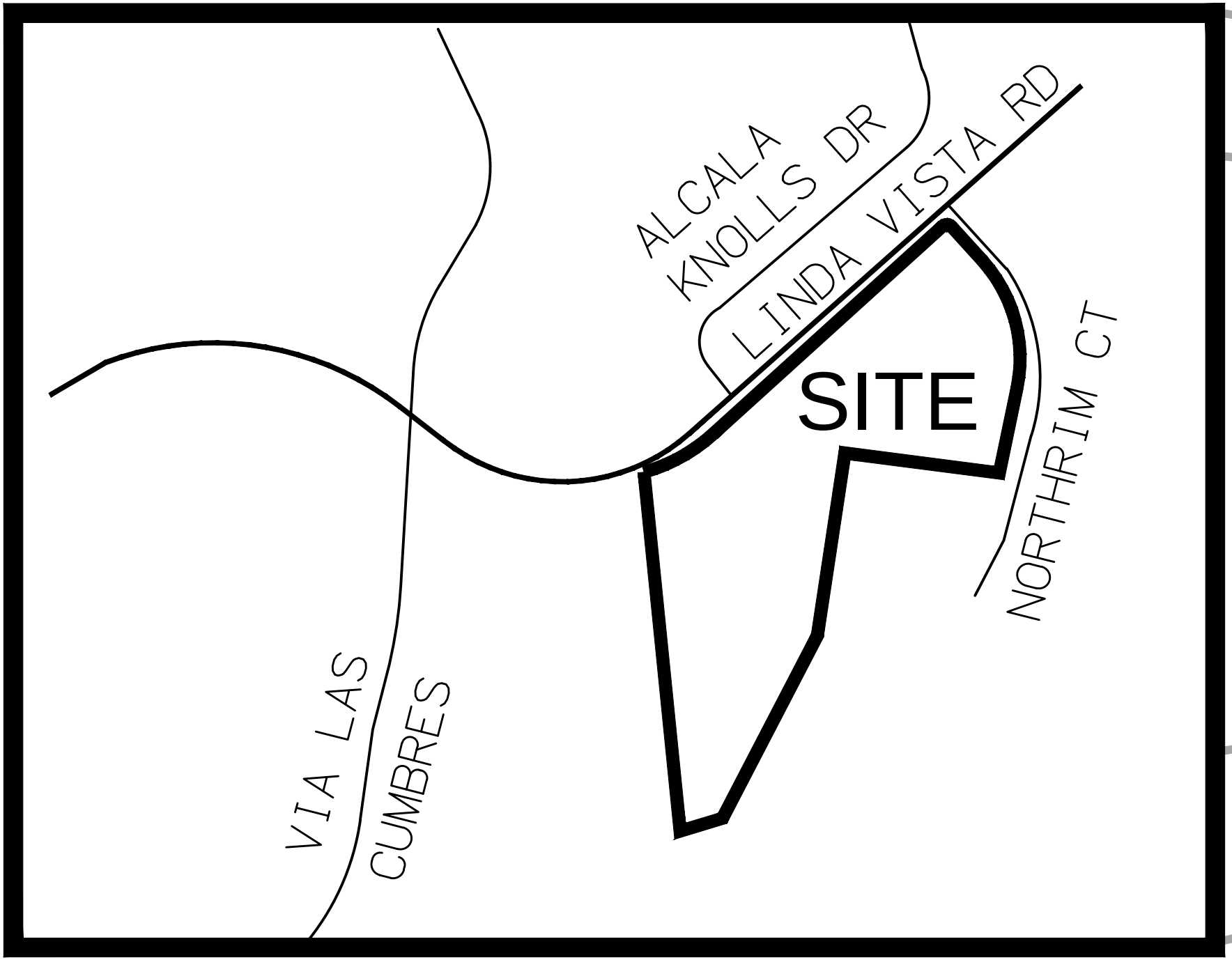
SCS, 1973. Soil Conservation Service. (December, 1973). Soil Survey, San Diego Area, California.

EPA, 1998. U.S. EPA (1998). The NPDES Storm Water Program: Storm Water Discharges, Office of Water.

Michael Baker
INTERNATIONAL

ATTACHMENT A

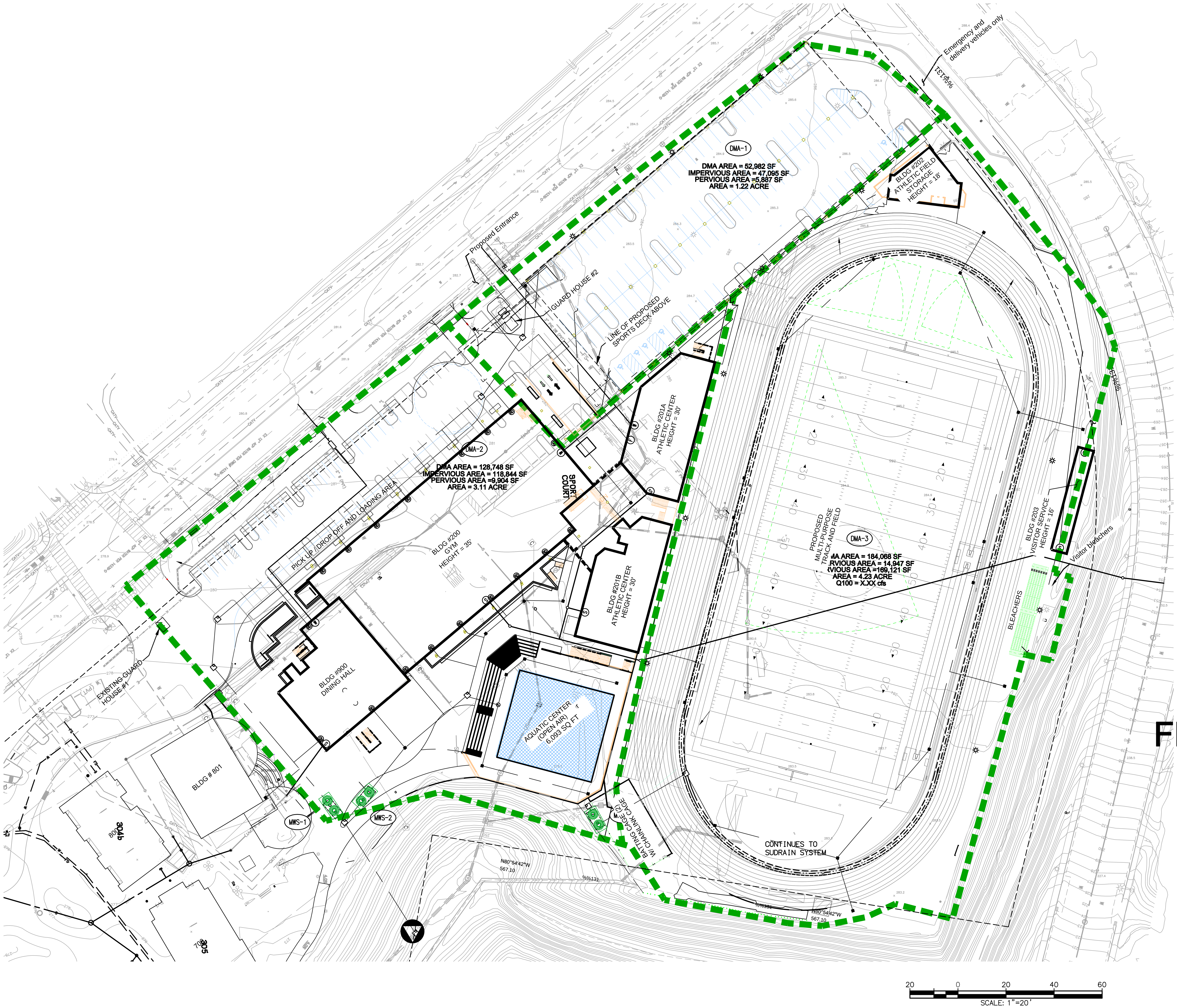
PROJECT SITE MAP


ALCALA KNOLLS DR
LINDA VISTA RD
SITE
NORTHRIM CT
VIA LAS CUMBRES

Michael Baker
INTERNATIONAL

ATTACHMENT B

BMP LOCATION MAP



LEGEND

LIMITS OF OVERALL DRAINAGE BASIN	
IMPERVIOUS AREA	
PERVIOUS AREA	
AQUATIC CENTER	
DRAINAGE BASIN	
FLOW PATH	
POINT COMPLIANCE	
MODULAR WETLAND SYSTEM	

TOTAL AREA: 365,653 SQ FT

AQUATIC CENTER: 6,093 SQ FT

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA
BMP SITE MAP

06 / 03 / 15

SCALE: 1"=20'

RBF CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ▪ FAX 858.614.5001 ▪ www.RBF.com

ATTACHMENT C

LID AND BMP
CALCULATIONS

Michael Baker
INTERNATIONAL

MWS-LINEAR 2.0 STORMWATER FILTRATION SYSTEM

NATURE AND TECHNOLOGY WORKING TOGETHER IN PERFECT HARMONY.

The need for a new stormwater treatment system is evident. Federal and state requirements on cities and industry to reduce stormwater runoff increase every year as our population explodes. The EPA is now reporting that stormwater runoff represents the nation's number one water quality problem, and is the reason why nearly half of our rivers and lakes are not even clean enough to support fishing or swimming. ***Nearly half.***

MODULAR WETLANDS™

To combat this catastrophe, we turned to the expert in this field: **Nature.** By developing technology that imitates the processes found in nature, we've created the most advanced stormwater filtration system available. Years ahead of current EPA requirements, our clients understand that when they invest in our new technology, they are investing in the future. For all of us.

GRATE TYPE

CURB TYPE

MWS-LINEAR TESTED REMOVAL EFFICIENCIES

TSS	Nitrate	Copper	Zinc	Oils & Grease	Bacteria	Turbidity
82% - 98%	74%	>53% - 93%	79% - 81%	84% - 99%	60% - 89%	>90%

Washington State DOE Approved

SIZING

Model #	Dimensions (ft)	WetlandMedia Surface Area (sq ft)	Treatment Flow Rate (cfs)
MWS-L-3-6	3 x 6	34	0.076
MWS-L-4-8	4 x 8	50	0.116
MWS-L-4-13	4 x 13	63	0.144
MWS-L-4-15	4 x 15	76	0.175
MWS-L-4-17	4 x 17	90	0.206
MWS-L-4-19	4 x 19	103	0.236
MWS-L-4-21	4 x 21	117	0.267

VOLUME SIZING

The Modular Wetland System is the only biofilter that can be installed downstream of detention systems.

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

Michael Baker
INTERNATIONAL

ATTACHMENT D

DRAINAGE CALCUALTIONS
DRAINAGE REPORT

Hydrology and Hydraulic Study
For
FRANCIS PARKER SCHOOL

Prepared For:
Francis Parker School
6501 Linda Vista Road
San Diego, CA 92124
APN No. 437-020-12

City of San Diego
PTS: 412987

Michael Baker
INTERNATIONAL

Prepared By:
Michael Baker International
9755 Clairemont Mesa Blvd
San Diego, CA 92124
858.614.5000
Richard S. Tomlinson, Jr. PE,
QSP, QSD, CPSWQ

RBF Job Number:
144571

Prepared:
February 25, 2015

Revised:
June 25, 2015

Table of Contents

SECTION 1 PROJECT DESCRIPTION AND SCOPE 2

1.1. PROJECT DATA 2
1.2. SCOPE OF REPORT 2
1.3. PROJECT SITE INFORMATION 3

SECTION 2 STUDY OBJECTIVES 9

SECTION 3 METHODOLOGY 10

3.1. HYDROLOGY 10
3.2. HYDRAULICS 10
3.3. HYDROMODIFICATION 11

SECTION 4 RESULTS 13

4.1. HYDROLOGIC RESULTS 13
4.2. HYDRAULIC RESULTS 14
SECTION 5. CONCLUSIONS 15

SECTION 5 CERTIFICATION 16

SECTION 6 REFERENCES 17

List of Figures

FIGURE 1: VICINITY MAP 3
FIGURE 2: FEMA FIRMETTE 7

List of Tables

TABLE 1: EXISTING CONDITION 100-YEAR HYDROLOGY RESULTS 14
TABLE 2: PROPOSED CONDITION 100-YEAR HYDROLOGY RESULTS (UNMITIGATED) 14
TABLE 3: COMPARISON OF PROPOSED/EXISTING CONDITION 100-YEAR FLOWS (UNMITIGATED) 14

List of Appendixes

Appendix A – Rainfall Isopluvials
Appendix B – FEMA Flood Plan Maps
Appendix C -- Existing Condition Hydrologic Work Map & Calculations
Appendix D -- Proposed Condition Hydrologic Work Map & Calculations

Section 1 Project Description and Scope

1.1. Project Data

Project Owner: Francis Parker School

Project Site Address: 6501 Linda Vista Road

Planning Area/
Community Area/
Development Name: Linda Vista

APN Number(s): 437-020-12

Project Location: Latitude: 32.772241°
Longitude: -117.175861°

Project Site Area: 8.21 acres

Adjacent Streets:

North:	Linda Vista Road
South:	River Glen Row
East:	Northrim Court
West:	Via Los Cumbres

Adjacent Land Uses:

North:	Residential
South:	Residential
East:	Residential
West:	Commercial

1.2. Scope of Report

This report addresses the Hydrologic and Hydraulic aspects of the project. This report does not discuss required water quality measures to be implemented on a permanent basis, nor does it address construction storm water issues. Post construction storm water issue discussions can be found under separate cover in the project "Water Quality Technical Report."

In addition, because this project proposes to disturb just over one acre, a Storm Water Pollution Protection Plan for construction activities has been prepared and an NOI will be filed with the State of California prior to the start of construction.

1.3. Project Site Information

1.3.1 Project Location

The project is located in the Linda Vista area of the City of San Diego. The project is located south of Linda Vista Drive, in a near fully urbanized area, consisting of residential uses. The projects south boundary borders some open space, but most of the area is fully developed. Then project is located about 0.25 miles north of the San Diego River, and about 4.5 miles east of the Pacific Ocean. Please see below for a Vicinity Map.

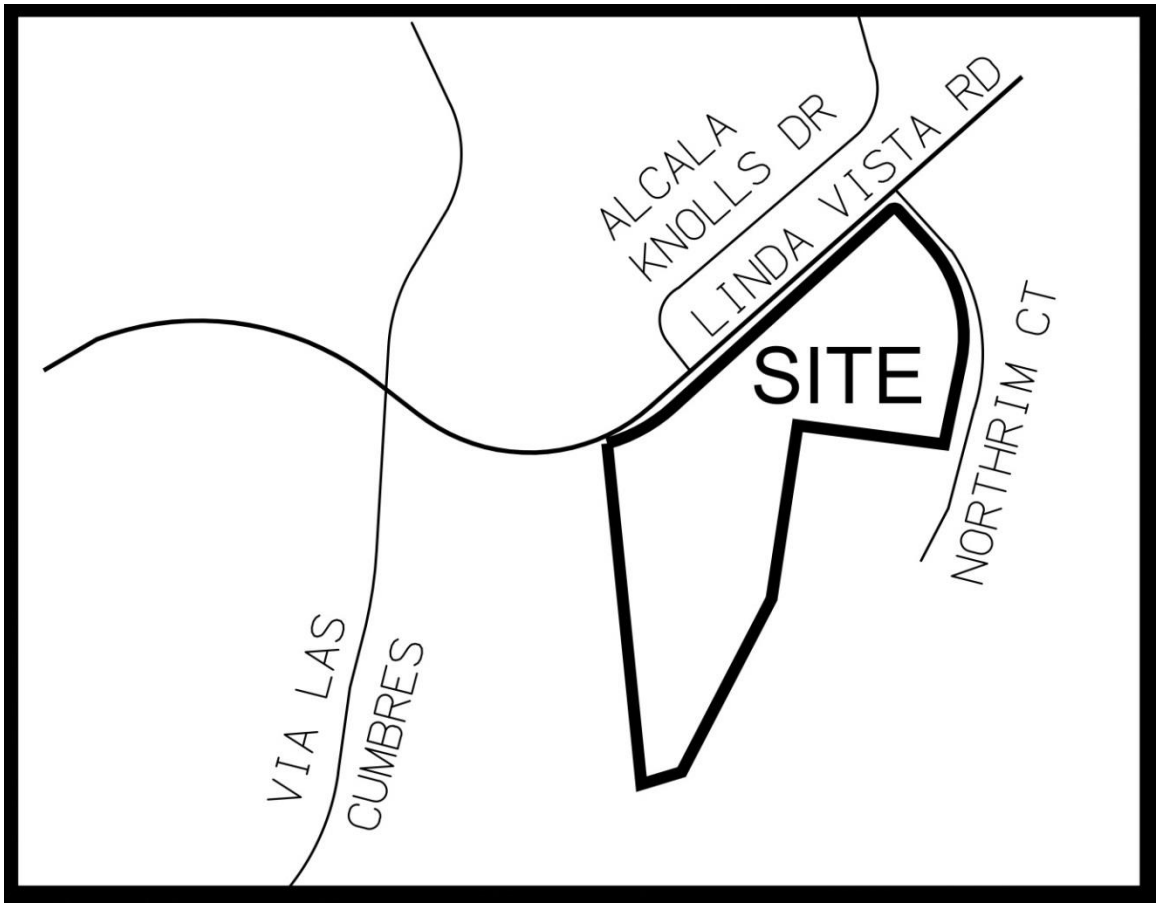


Figure 1: Vicinity Map

1.3.2 Project Description

The amendment to PDP No. 84875/SDP No. 215276 would authorize the changes shown on the updated Master Plan. The updated Master Plan illustrates the building program for the Linda Vista Campus and identifies, among other things, buildings to be demolished, existing buildings and facilities to remain, and proposed buildings and facilities.

Building numbers shown on the updated Master Plan correspond to the School's current building identification system, however, previously used building numbers are included for easy reference and comparison to the most recent Master Plan approval (i.e., SCR No. 2 to PDP No. 84875/SDP No. 215276).

The majority of buildings on the Linda Vista Campus will remain. Several of these buildings were constructed within the last decade and reflect the School's commitment to sustainable and environmentally sensitive design, incorporating two-story stacked classrooms that maximize use of natural light and breezes while minimizing the land footprint. Other features include operable windows, overhangs, and sunshades. A network of courtyards, walkways, and quads connect the indoor spaces to the outdoor environment. These elements are further unified by a landscape design that emphasizes drought-tolerant species, as well as providing demonstration gardens for the students. The buildings that will remain comprise 133,753 square feet.

Continuing this program of sustainable and environmentally sensitive design, three buildings will be demolished to make way for updated facilities. The buildings to be demolished, Buildings 001, 002, and 003, include the Field House, Middle School gymnasium and locker rooms, and the cafeteria. The Field House includes an assembly area, additional locker rooms, restrooms, three classrooms and offices for the athletics staff. Built decades ago, these buildings have been significantly modified over the years. As documented in the historical assessment prepared by Marie Burke Lia, included with the Project documents, these three buildings are not historically significant. The three buildings to be demolished comprise 41,307 square feet.

All of the proposed buildings and facilities will be contained within the existing development footprint. No encroachment is proposed into the perimeter Environmentally Sensitive Lands. The architectural style of the proposed buildings will match the modern contemporary lines of the existing Campus facilities by using compatible finish materials and repeating elements such as overhangs, sunshades, and divided windows, where appropriate and most functional. The buildings will incorporate sustainable design features, and will reinforce the strong indoor space-outdoor space connection found throughout of the Campus by expanding the network of outdoor walkways, spaces, and unified landscape palette. A summary description of the proposed buildings and facilities is provided below; however, the updated Master Plan should be consulted for more detailed information. Proposed buildings comprise 102,109 square feet.

The proposed Dining/Athletic Complex, to be located in the easterly portion of the Linda Vista Campus, comprises several components, the base of which is a

284-space underground parking structure. A portion of the first floor and second floor over the parking structure will house a kitchen/dining hall area with outdoor terraces (Building No. 900). The remaining first floor level over the underground parking structure will house a gymnasium for indoor sports, along with ancillary support spaces, such as meeting rooms, locker rooms, restrooms, and classrooms (Building No. 200). Building No. 201 is a covered lobby area connecting the gymnasium to Building Nos. 201A and 201B. Building Nos. 201A and 201B will house athletic offices, a multi-purpose room, press box, locker rooms, training rooms, laundry and restrooms. These two building also will provide rooftop bleacher seating overlooking the track and field. Building No. 202 will provide field storage and a ticketing office for field events. Visitor Services for field events will be provided in Building No. 203. Visitor bleachers will be located southwesterly of Visitor Services.

As part of the Dining/Athletic Complex, the existing play field will be reoriented and fitted with a regulation 8-lane track on its perimeter. An outdoor aquatic center with pool and bleachers will round out the athletic facilities.

Three other buildings are proposed, to be located in the western portion of the Linda Vista Campus. Building No. 106 will be a two-story building providing a Student Center for the Upper School. Building No. 303 will be a two-story building providing multi-purpose space for the Middle School for activities such as student club meetings or other collaborations. Building No. 401 will be a single-story building providing a Maker's Space, an area for students to design and fabricate projects using different types of equipment and tools, such as a 3-D printer. These three buildings are slated for construction at a future date.

The proposed amendment will result in:

- Demolishing 41,307 square feet of existing building;
- Retaining 133,753 square feet of existing building; and
- Adding 102,109 square feet of proposed building.

The proposed amendment results in a total Gross Floor Area (GFA) of 235,862 square feet. Per the Municipal Code, phantom floor area is required to be included in the total GFA (Muni. Code Sections 113.0103 and 113.0234(b)(4)(A)). A phantom floor is the space between actual floors. The GFA of the amended project includes 20,856 square feet of phantom floor area in Building 200 (Gymnasium) and 1,163 square feet of phantom floor area in Building 201 (Lancer Lobby), for a total of 22,019 square feet of phantom floor area. Actual floor area totals 213,843 square feet. The current PDP No. 84875/SDP No. 215276 authorizes a total GFA of 160,201 square feet, resulting in a difference

of 66,661 square feet of total GFA between the current entitlement and the amendment.

1.3.3 Site Topography

The project site is a relatively flat, previously graded site. The main campus has slopes in the 1 to 5% range. The southerly border of the campus is the only sloped portion of the project. Although this portion of the site has slopes over 30 feet in height, the only work proposed for this area is storm drain replacement.

1.3.4 Land Use and Vegetation

The site is a fully developed urban school campus. The site consists of about 50% hardscape and 50% pervious areas. Pervious areas include a combination of the sports fields and non-native plants. The slopes along the southerly portion of the site are fully covered with native type vegetation.

1.3.5 FEMA Information

The Federal Emergency Management Agency (FEMA) has mapped the floodplain of the San Diego River. The project does not lie within any mapped floodplain (FIRM Panel 06073C1618G). The project lies within Zone X which is outside the limits of the 500-year flood.

a) Flood Zone Definitions

Zone A -- Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone AE -- Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Zone X (Shaded) – Areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood.

Zone X (Unshaded) Areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood.

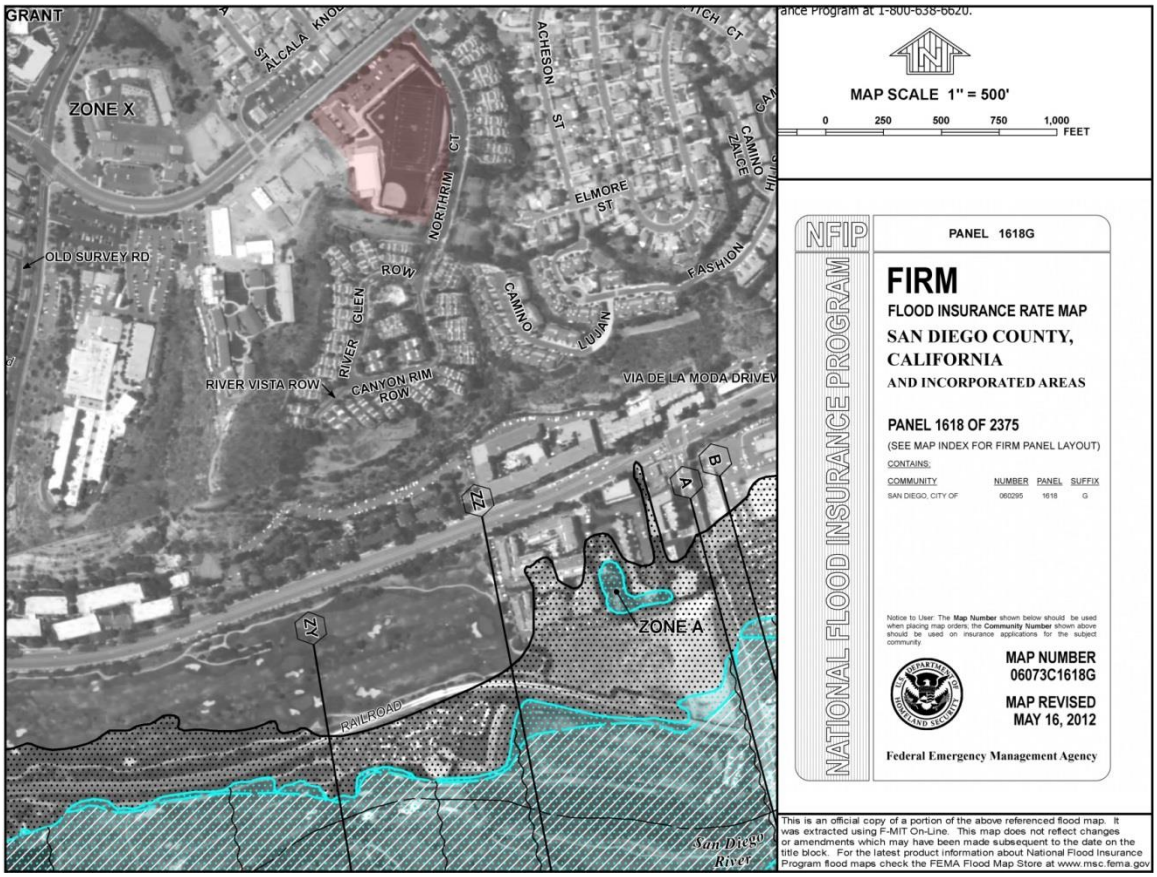


Figure 2: FEMA Firmette

1.3.6 Existing Drainage Improvements

The existing site drains from the north to the south. Drainage collects in a series of storm drain pipes throughout the site. Drainage is collect in these pipes before being directed to the southwest. At the south corner of the site, at the crotch of the canyon, 2 storm drains discharge from the site. The first, a 24" storm drain runs from the main portion of the site, including the parking areas, main buildings and the hardscape. The second storm drain collects drainage from the fields. Both storm drains collect and discharge to the same storm drain system located in the crotch of the canyon before flowing off site.

1.3.7 Proposed Improvements

Drainage from the site will continue to flow within the same patterns. Drainage from the parking lot, buildings, hardscape and field will continue to flow to the crotch of the canyon. Drainage from the parking lot and the hardscape will flow to the 24" storm drain, while the field will flow to the existing 12" storm drain as per the existing condition.

Drainage patterns in both the existing and proposed condition will be unchanged. Prior to discharge from the site, the project proposes 4 modular wetland systems.

Section 2 Study Objectives

The specific objectives of this study are as follows:

- To provide hydrologic analysis of the project site for the 100-year, 6-hour storm event under existing and proposed conditions,
- To provide a hydraulic analysis of the project to ensure that the correct sizes of pipes and inlets have been chosen,
- And to ensure that no additional runoff or downstream impacts occur due to this project.

Section 3 Methodology

3.1. Hydrology

Hydrologic analysis has been completed using the Rational Method (Q = CIA). Whereas,

Q = rate of flow in cubic feet per second

C = Coefficient of runoff,

I = intensity of rainfall based on the time of concentration and the 6-hour, 100-year precipitation

A=Area of the basin.

Runoff from the project was calculated using the modified rational method. The modified rational method was performed using the AES Software computer program.

The following software packages were used in the analysis of the project:

- Microsoft Excel (Rational Method Hydrology)
- AutoCAD Civil 3d Hydraflow Hydragraph Extension 2013 (Storm Routing)
- RatHydro (Rational Method Hydragraphs)
- Flowmaster (Hydraulic Analysis for Open Channels and Pipes for Storm Routing)

3.2. Hydraulics

Proposed improvements include new grated storm drain inlets in paved areas, and a new underground storm drain system. Private underground storm drain will consist of PVC or HDPE pipe with watertight joints. Public storm drain, if applicable, will consist of reinforced concrete pipe, with a minimum strength of 2000-D.

Capacity calculations for the inlets have been performed using the standard weir and orifice equations. Grate perimeter and open area values have been reduced to account for the bars, and an additional 50-percent to account for potential clogging.

Runoff will ultimately be discharged from the project site at the same location as the existing condition, to the existing cleanout at the southwest corner of the project site.

Proposed improvements will not increase the total peak flow runoff, as compared to existing conditions, through the removal of pavement and installation of vegetation.

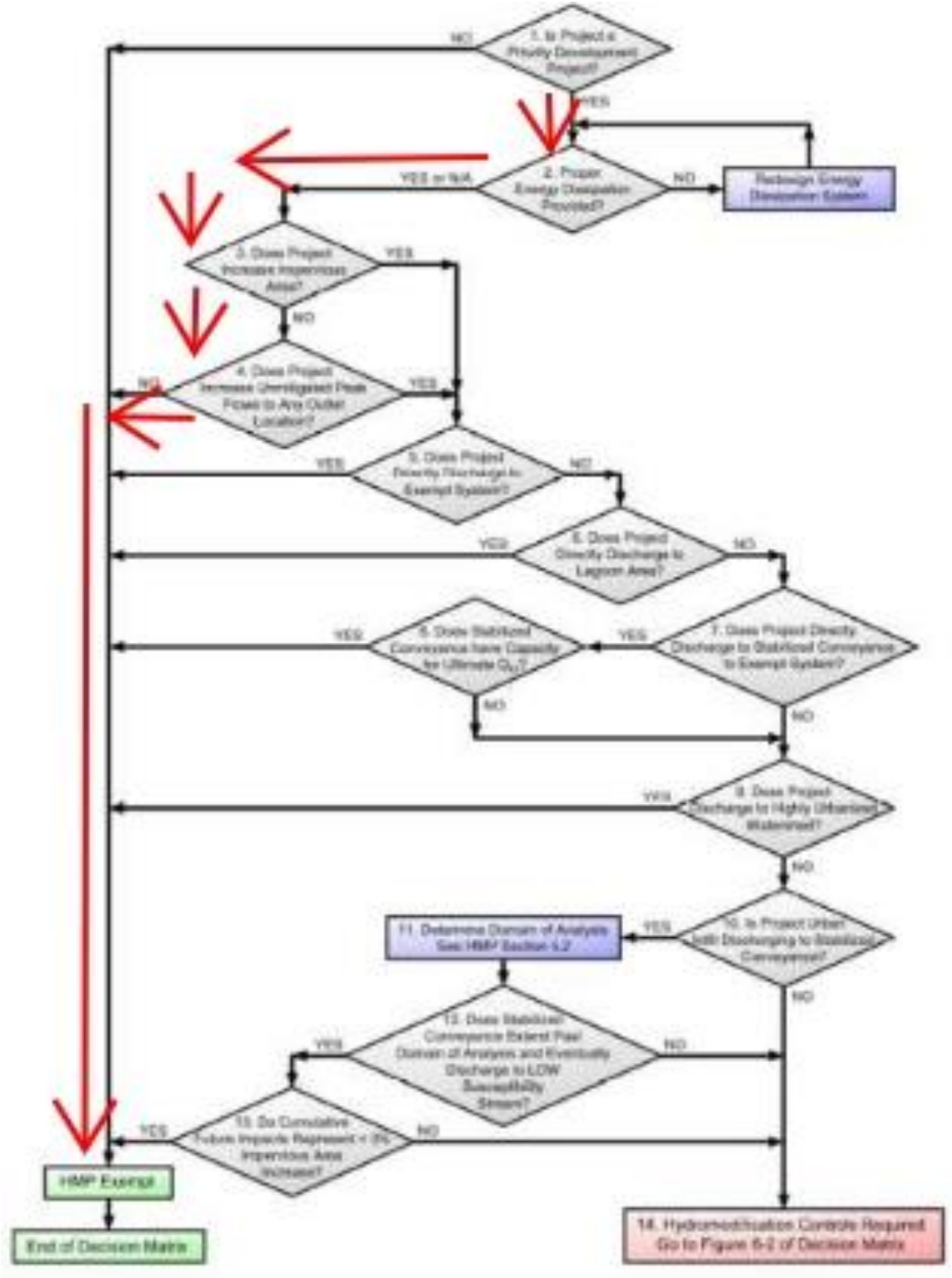
Manning's equation was used to calculate the depth of flow being conveyed through proposed pipes and for existing pipes which experience additional flows as a result of the proposed improvements. Proposed pipes with diameters of less than 12 inches were not individually calculated for depth and velocity, however, the capacity was verified against tables showing the maximum flow in the smaller pipes.

The following software packages were used in the analysis of the project:

- Hydraflow Hydragraph Extension for AutoCAD Civil 3d 2013 (Storm Routing)
- Hydraflow Storm Sewer Extension for AutoCAD Civil 3d 2013 (Hydraulic and Energy Grade Lines)
- Hydraflow Express Extensions Extension for AutoCAD Civil 3d 2013 (Storm Routing)
- RatHydro (Rational Method Hydrographs)
- Bentley Flowmaster (Hydraulic Analysis for Open Channels and Pipes for Storm Routing)

3.3. Hydromodification

Using the Hydromodification Flow chart is was determined that the project is exempt from Hydromodification. A copy of the Hydromodification Flow Chart is shown below. This project proposes a reduction in both pre-project to post project flows, as well as a reduction in the proposed impervious areas.


NO
YES
YES or N/A
NO
YES
NO
NO
YES
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
YES
NO
HMP Exempt
End of Decision Matrix
14. Hydromodification Controls Required
Go to Figure 6-2 of Decision Matrix

Section 4 Results

4.1. Hydrologic Results

The following tables summarize the hydrologic analysis of the project.

- **Table 1**, summarizes the existing hydrologic properties of the project site. **Table 2**Error! Reference source not found. **(Unmitigated)**, summarizes the proposed condition hydrology of the site in the unmitigated condition.

- **Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated),** compares existing flows to the proposed.

Pre-project Condition	Acres	Percentage
Impervious	4.16	50%
Pervious	4.24	50%
Total	8.40	100%

Proposed Condition	Acres	Percentage
Impervious	3.85	47%
Pervious	4.36	53%
Total	8.21	100%

Table 1: Existing Condition 100-Year Hydrology Results

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.22	4.44
A-2	0.85	3.47	3.47	11.76
B-1	0.55	2.77	2.77	4.22
B-2	0.55	2.77	0.94	1.39
TOTALS			**8.40**	**19.99**

Table 2: Proposed Condition 100-Year Hydrology Results (Unmitigated)

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
A-1	0.85	4.28	1.10	4.44
A-2	0.85	3.98	3.11	10.52
B-1	0.55	2.77	3.05	4.65
B-2	0.55	2.77	1.13	1.68
TOTALS			**8.40**	**16.33**

Table 3: Comparison of Proposed/Existing Condition 100-Year Flows (Unmitigated)

Sub Basin No.	Existing Condition (cfs)	Proposed Condition (cfs)	Difference
Basin A+B	19.99	16.33	-2.66
TOTALS	**19.99**	**16.33**	**-2.66**

4.2. Hydraulic Results

Hydraulic calculations will be performed at the final engineering phase of the project.

Section 5. Conclusions

As indicated in the Table of Hydrologic Results, the proposed improvements will not increase the total 100-year, 6-hour peak flow rate. Because flow has been decreased, no downstream effects are anticipated.

Proposed private grated inlets, all of which are in a sump condition, shall capture the generated flows without significant ponding. In the unlikely event that grated inlets become completely clogged, the proposed site grades shall provide overland release to adjacent drainage areas.

There is not a significant concern for erosion as the site is previously developed. Potential for erosion for the proposed condition shall be minimized by following items listed in the Erosion Control Plan (part of the Rough Grading Plans). Runoff shall flow over relatively flat areas where scour is not a concern. Runoff is not proposed over any sloped areas.

Section 5 Certification

This Hydrology and Hydraulics report has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based. The plans and specifications in this Hydrology and Hydraulics report are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.

Richard S. Tomlinson, Jr. RCE 59276 June 25, 2015

Section 6 References

San Diego Municipal Code, 2008. Land Development Manual (March 2008). Storm Water Standards.

City of San Diego, 1984. Drainage Design Manual (April 1984)

FEMA, 1997. FEMA. (June 17, 1997). Flood Insurance Study, San Diego County.

Michael Baker
INTERNATIONAL

Appendix A
Rainfall Isopluvials

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

Isopluvial (inches)

Orange County

Riverside County

Imperial County

Pacific Ocean

Mexico

SITE

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
SD
CHULA VISTA
IMPERIAL BEACH

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N
W E
S

3 0 3 Miles

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

Isopluvial (inches)

SITE

Orange County

Riverside County

Imperial County

Mexico

Pacific Ocean

OCEANSIDE
VISTA
CARLSBAD
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
POWAY
S.D. COUNTY
SANTEE
SAN DIEGO
EL CAJON
LA MESA
LEMON GROVE
CORONADO
SD
CHULA VISTA
IMPERIAL BEACH

117°30' 117°15' 117°00' 116°45' 116°30' 116°15'
33°30' 33°15' 33°00' 32°45' 32°30'

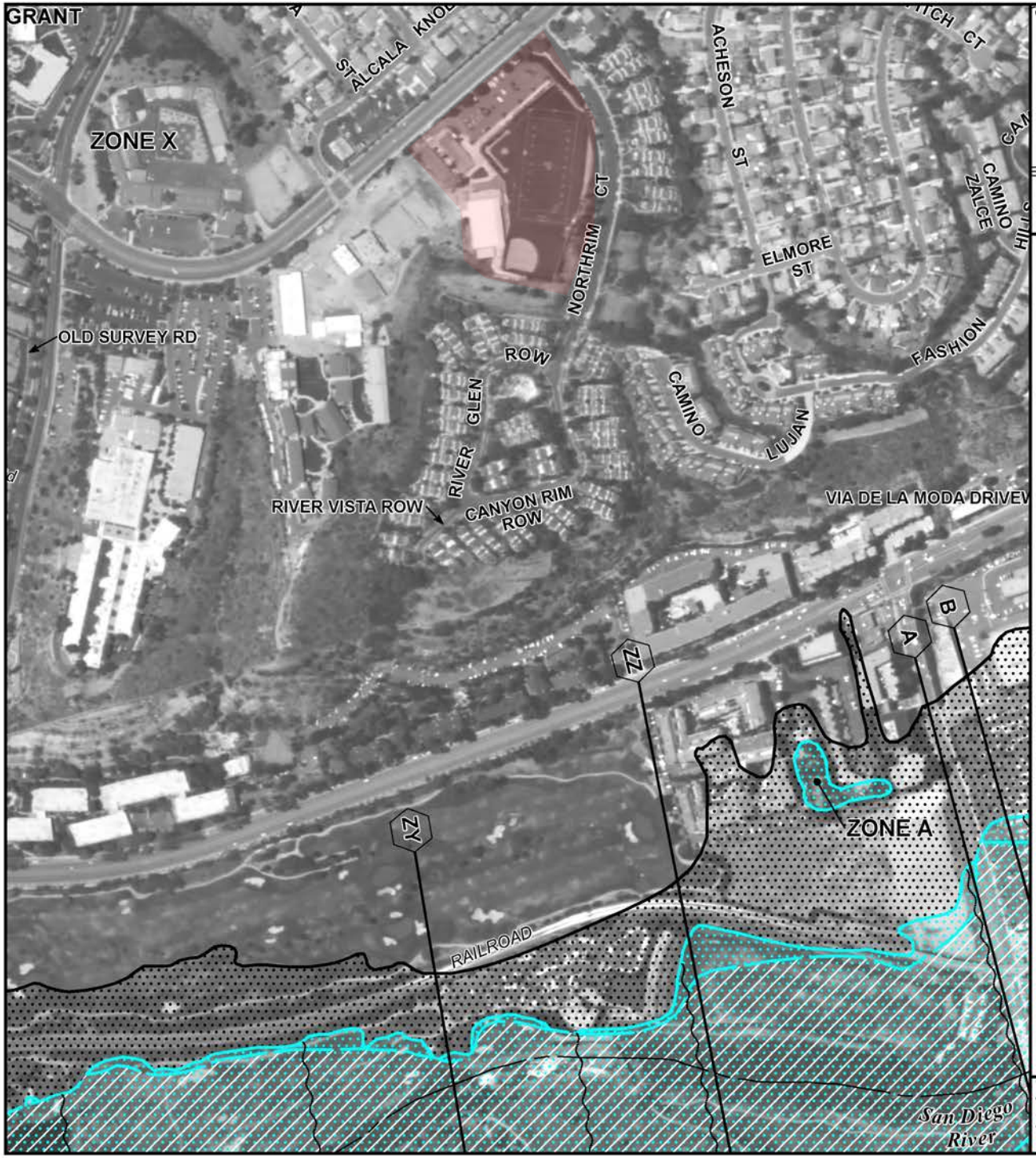
DPW GIS
Department of Public Works
Geographic Information Services

SanGIS
We Have San Diego Covered!

N W E S

3 0 3 Miles

Appendix B
FEMA Flood Plain Maps



ance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1618G

FIRM

FLOOD INSURANCE RATE MAP

SAN DIEGO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 1618 OF 2375

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN DIEGO, CITY OF	060295	1618	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06073C1618G

MAP REVISED
MAY 16, 2012

Federal Emergency Management Agency

Appendix C
Existing Condition Hydrologic Work Map & Calculations

```
_____________________________________________________________________________
*****************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                         2003,1985,1981 HYDROLOGY MANUAL
          (c) Copyright 1982-2013 Advanced Engineering Software (aes)
              Ver. 20.0 Release Date: 06/01/2013  License ID 1264

                              Analysis prepared by:

             RBF Consulting, A Michael Baker International Company
                         9755 Clairemont Mesa Blvd.
                            San Diego, CA 92124


 ************************** DESCRIPTION OF STUDY **************************
* FRANCIS PARKER SCHOOL                                                   *
* 100-YEAR FLOWS                                                          *
* JUNE 25, 2015                                                           *
 *************************************************************************

  FILE NAME: C:\FP\EX.DAT
  TIME/DATE OF STUDY: 07:45 06/25/2015
-----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
-----------------------------------------------------------------------------
  1985 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.200
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 1.00
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

*****************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  21
-----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
=============================================================================
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  92
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   409.00
  UPSTREAM ELEVATION(FEET) =    288.00
```

```
 DOWNSTREAM ELEVATION(FEET) =    282.00
 ELEVATION DIFFERENCE(FEET) =      6.00
 URBAN SUBAREA OVERLAND TIME OF FLOW(MIN.) =    8.009
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.277
 SUBAREA RUNOFF(CFS) =      4.44
 TOTAL AREA(ACRES) =      1.22   TOTAL RUNOFF(CFS) =      4.44

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     10.00 IS CODE =  41
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   282.00  DOWNSTREAM(FEET) =   251.00
 FLOW LENGTH(FEET) =   566.00   MANNING'S N =  0.013
 DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.7 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =  10.23
 GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =       4.44
 PIPE TRAVEL TIME(MIN.) =   0.92    Tc(MIN.) =    8.93
 LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.987
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  92
 SUBAREA AREA(ACRES) =    3.47   SUBAREA RUNOFF(CFS) =   11.76
 TOTAL AREA(ACRES) =        4.7   TOTAL RUNOFF(CFS) =      16.20
 TC(MIN.) =    8.93

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  10
----------------------------------------------------------------------------
 >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================

****************************************************************************
 FLOW PROCESS FROM NODE     15.00 TO NODE     13.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
 SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  88
 NATURAL WATERSHED NOMOGRAPH TIME OF CONCENTRATION (APPENDIX X-A)
 WITH 10-MIN. ADDED =  15.70(MIN.)
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   478.00
 UPSTREAM ELEVATION(FEET) =    286.50
 DOWNSTREAM ELEVATION(FEET) =    282.50
 ELEVATION DIFFERENCE(FEET) =      4.00
 NATURAL WATERSHED TIME OF CONCENTRATION =  15.70
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.771
 SUBAREA RUNOFF(CFS) =      4.22
 TOTAL AREA(ACRES) =      2.77   TOTAL RUNOFF(CFS) =      4.22
```

```
****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     11.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   282.50  DOWNSTREAM(FEET) =   280.00
  FLOW LENGTH(FEET) =   225.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.38
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       4.22
  PIPE TRAVEL TIME(MIN.) =   0.70    Tc(MIN.) =   16.39
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     11.00 =     703.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     11.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.695
  SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  88
  SUBAREA AREA(ACRES) =    0.94   SUBAREA RUNOFF(CFS) =    1.39
  TOTAL AREA(ACRES) =        3.7   TOTAL RUNOFF(CFS) =       5.62
  TC(MIN.) =   16.39

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     10.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1         5.62    16.39       2.695        3.71
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     10.00 =     703.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        16.20     8.93       3.987        4.69
  LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1      19.99       8.93        3.987
      2      16.56      16.39        2.695

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      19.99   Tc(MIN.) =    8.93
  TOTAL AREA(ACRES) =        8.4
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.4  TC(MIN.) =      8.93
  PEAK FLOW RATE(CFS)   =      19.99
```

*** PEAK FLOW RATE TABLE ***

	Q(CFS)	Tc(MIN.)
1	19.99	8.93
2	16.56	16.39

==========

==========

END OF RATIONAL METHOD ANALYSIS

TOTAL AREA: 365,653 SQ FT

LEGEND

- LIMITS OF OVERALL DRAINAGE BASIN
- FLOW DIRECTION
- BASIN (X-X)
- POINT OF COMPLIANCE
- EXISTING CONTOUR (400)
- EXISTING WATER (W)
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING STORM DRAIN CO
- EXISTING STORM DRAIN (SD)
- EXISTING SEWER (S)
- EXISTING STREET LIGHT
- EXISTING CURB
- PROPERTY LINE
- EXISTING RECLAIMED WATER (RW)
- FENCE LINE
- GATE
- SITE WALL
- RETAINING WALL
- SEWER MANHOLE
- SEWER CLEAN OUT
- STORM DRAIN MANHOLE
- DRAIN INLET/CATCH BASIN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- ELECTRIC METER
- ELECTRIC PULL BOX
- POWER POLE
- AREA LIGHT
- STREET LIGHT
- SPOT LIGHT
- UTILITY PULL BOX
- GAS METER
- IRRIGATION CONTROL BOX
- IRRIGATION CONTROL VALVE
- STORM DRAIN CLEAN OUT (C.O.)
- BOLLARD
- FLAG POLE
- BACK FLOW PREVENTER (BFP)
- ELECTRIC VAULT (EVLT)
- TELEPHONE PEDESTAL (TELPED)
- TELEPHONE VAULT (TELVLT)
- ELECTRIC TRANSFORMER (TRANS)
- WATER VAULT (WVLT)

40 0 40 80 120
SCALE: 1"=40'

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA

SCALE: 1"=40'

EXISTING DRAINAGE MAP

01 / 21 / 15

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ■ FAX 858.614.5001 ■ www.RBF.com

Michael Baker
INTERNATIONAL

Appendix D
Proposed Condition Hydrologic Work Map & Calculations

```
**************************************************************************

            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
            Reference: SAN DIEGO COUNTY FLOOD CONTROL DISTRICT
                         2003,1985,1981 HYDROLOGY MANUAL
          (c) Copyright 1982-2013 Advanced Engineering Software (aes)
              Ver. 20.0 Release Date: 06/01/2013  License ID 1264

                              Analysis prepared by:

             RBF Consulting, A Michael Baker International Company
                         9755 Clairemont Mesa Blvd.
                            San Diego, CA 92124


 ************************** DESCRIPTION OF STUDY **************************
* FRANCIS PARKER SCHOOL                                                   *
* 100-YEAR FLOWS                                                          *
* JUNE 25, 2015                                                           *
 *************************************************************************

  FILE NAME: C:\FP\PR.DAT
  TIME/DATE OF STUDY: 07:47 06/25/2015
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  1985 SAN DIEGO MANUAL CRITERIA

  USER SPECIFIED STORM EVENT(YEAR) = 100.00
  6-HOUR DURATION PRECIPITATION (INCHES) =   2.200
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 1.00
  SAN DIEGO HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE     14.00 TO NODE     12.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  92
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   409.00
  UPSTREAM ELEVATION(FEET) =    288.00
```

```
 DOWNSTREAM ELEVATION(FEET) =    282.00
 ELEVATION DIFFERENCE(FEET) =      6.00
 URBAN SUBAREA OVERLAND TIME OF FLOW(MIN.) =    8.009
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  4.277
 SUBAREA RUNOFF(CFS) =      4.00
 TOTAL AREA(ACRES) =      1.10   TOTAL RUNOFF(CFS) =      4.00

****************************************************************************
 FLOW PROCESS FROM NODE     12.00 TO NODE     10.00 IS CODE =  41
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   282.00  DOWNSTREAM(FEET) =   251.00
 FLOW LENGTH(FEET) =   566.00   MANNING'S N =  0.013
 DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.5 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =   9.92
 GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =       4.00
 PIPE TRAVEL TIME(MIN.) =   0.95    Tc(MIN.) =    8.96
 LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.979
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  92
 SUBAREA AREA(ACRES) =    3.11   SUBAREA RUNOFF(CFS) =   10.52
 TOTAL AREA(ACRES) =        4.2   TOTAL RUNOFF(CFS) =      14.52
 TC(MIN.) =    8.96

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =  10
----------------------------------------------------------------------------
 >>>>>MAIN-STREAM MEMORY COPIED ONTO MEMORY BANK # 1 <<<<<
============================================================================

****************************************************************************
 FLOW PROCESS FROM NODE     15.00 TO NODE     13.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
 SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
 SOIL CLASSIFICATION IS "D"
 S.C.S. CURVE NUMBER (AMC II) =  88
 NATURAL WATERSHED NOMOGRAPH TIME OF CONCENTRATION (APPENDIX X-A)
 WITH 10-MIN. ADDED =  15.70(MIN.)
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   478.00
 UPSTREAM ELEVATION(FEET) =    286.50
 DOWNSTREAM ELEVATION(FEET) =    282.50
 ELEVATION DIFFERENCE(FEET) =      4.00
 NATURAL WATERSHED TIME OF CONCENTRATION =  15.70
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.771
 SUBAREA RUNOFF(CFS) =      4.65
 TOTAL AREA(ACRES) =      3.05   TOTAL RUNOFF(CFS) =      4.65
```

```
****************************************************************************
  FLOW PROCESS FROM NODE     13.00 TO NODE     11.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   282.50  DOWNSTREAM(FEET) =   280.00
  FLOW LENGTH(FEET) =   225.00   MANNING'S N =  0.013
  ASSUME FULL-FLOWING PIPELINE
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.92
  PIPE FLOW VELOCITY = (TOTAL FLOW)/(PIPE CROSS SECTION AREA)
  GIVEN PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       4.65
  PIPE TRAVEL TIME(MIN.) =   0.63    Tc(MIN.) =   16.33
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     11.00 =     703.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     11.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.702
  SINGLE FAMILY DEVELOPMENT RUNOFF COEFFICIENT = .5500
  SOIL CLASSIFICATION IS "D"
  S.C.S. CURVE NUMBER (AMC II) =  88
  SUBAREA AREA(ACRES) =    1.13   SUBAREA RUNOFF(CFS) =    1.68
  TOTAL AREA(ACRES) =        4.2   TOTAL RUNOFF(CFS) =       6.33
  TC(MIN.) =   16.33

****************************************************************************
  FLOW PROCESS FROM NODE     11.00 TO NODE     10.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>CONFLUENCE MEMORY BANK # 1 WITH THE MAIN-STREAM MEMORY<<<<<
============================================================================

  ** MAIN STREAM CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1         6.33    16.33       2.702        4.18
  LONGEST FLOWPATH FROM NODE     15.00 TO NODE     10.00 =     703.00 FEET.

  ** MEMORY BANK #  1 CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY     AREA
  NUMBER       (CFS)    (MIN.)   (INCH/HOUR)   (ACRE)
      1        14.52     8.96       3.979        4.21
  LONGEST FLOWPATH FROM NODE     14.00 TO NODE     10.00 =     975.00 FEET.

  ** PEAK FLOW RATE TABLE **
  STREAM    RUNOFF       Tc      INTENSITY
  NUMBER     (CFS)     (MIN.)   (INCH/HOUR)
      1      18.81       8.96        3.979
      2      16.19      16.33        2.702

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      18.81   Tc(MIN.) =    8.96
  TOTAL AREA(ACRES) =        8.4
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.4  TC(MIN.) =      8.96
  PEAK FLOW RATE(CFS)   =      18.81
```

*** PEAK FLOW RATE TABLE ***

	Q(CFS)	Tc(MIN.)
1	18.81	8.96
2	16.19	16.33

==========

==========

END OF RATIONAL METHOD ANALYSIS

TOTAL AREA:

LEGEND

- LIMITS OF OVERALL DRAINAGE BASIN
- FLOW DIRECTION
- BASIN (X-X)
- POINT OF COMPLIANCE
- EXISTING CONTOUR (400)
- EXISTING WATER (W)
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING STORM DRAIN CO
- EXISTING STORM DRAIN (SD)
- EXISTING SEWER (S)
- EXISTING STREET LIGHT
- EXISTING CURB
- PROPERTY LINE
- EXISTING RECLAIMED WATER (RW)
- FENCE LINE
- GATE
- SITE WALL
- RETAINING WALL
- SEWER MANHOLE
- SEWER CLEAN OUT
- STORM DRAIN MANHOLE
- DRAIN INLET/CATCH BASIN
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- ELECTRIC METER
- ELECTRIC PULL BOX
- POWER POLE
- AREA LIGHT
- STREET LIGHT
- SPOT LIGHT
- UTILITY PULL BOX
- GAS METER
- IRRIGATION CONTROL BOX
- IRRIGATION CONTROL VALVE
- STORM DRAIN CLEAN OUT (C.O.)
- BOLLARD
- FLAG POLE
- BACK FLOW PREVENTER (BFP)
- ELECTRIC VAULT (E.V.L.T)
- TELEPHONE PEDESTAL (TEL.PED)
- TELEPHONE VAULT (TEL.V.L.T)
- ELECTRIC TRANSFORMER (TRANS)
- WATER VAULT (W.V.L.T)

SCALE 1"=40'

40 0 40 80 120
SCALE: 1"=40'

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA

PROPOSED DRAINAGE MAP

01 / 21 / 15

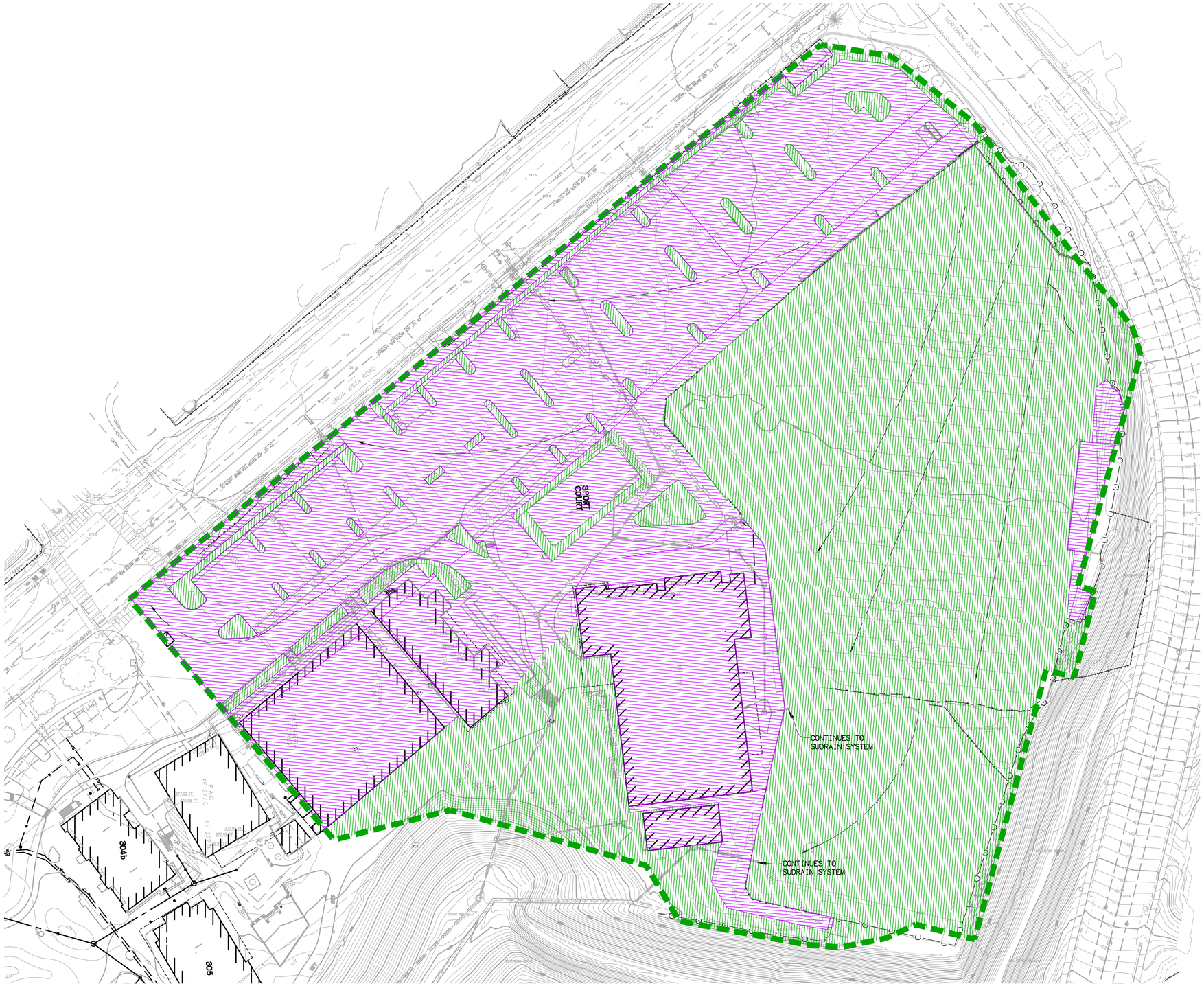
RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ▪ FAX 858.614.5001 ▪ www.RBF.com

ATTACHMENT E

HYDROMODIFICATION DOCUMENTS

HYDROMODIFICATION EXEMPTION DOCUMENTS

Michael Baker INTERNATIONAL



LEGEND

LIMITS OF OVERALL DRAINAGE BASIN

IMPERVIOUS AREA

PERVIOUS AREA

FLOW PATH

TOTAL AREA: 365,653 SQ FT

PREVIOUS AREA: 184,271 SQ FT

IMPREVIOUS AREA: 181,382 SQ FT

SCALE: 1"=40'

FRANCIS PARKER SCHOOL

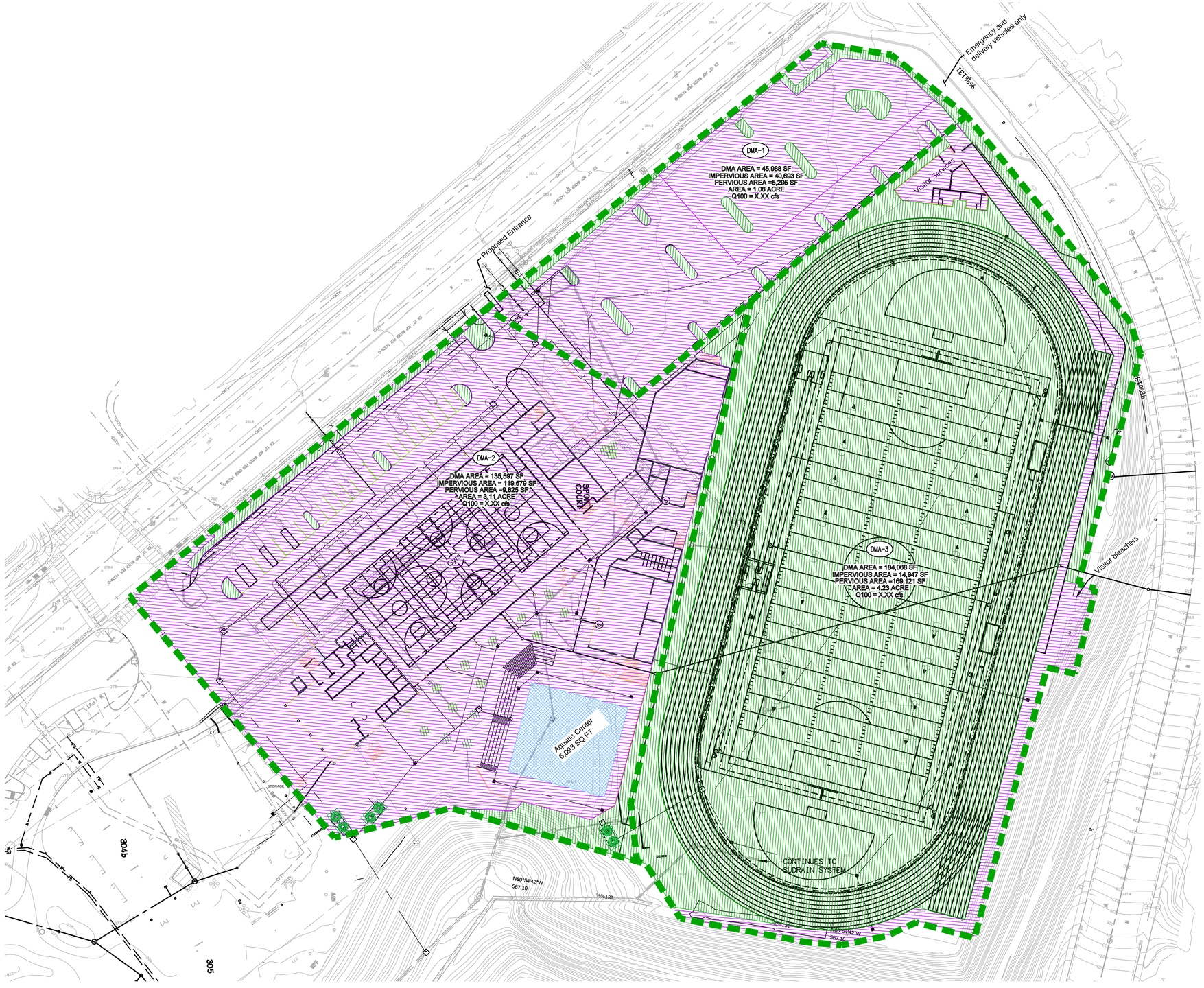
6501 LINDA VISTA ROAD
SAN DIEGO, CA
EXISTING CONDITIONS
IMPERVIOUS AREAS

01/21/15

RBF CONSULTING

PLANNING ■ DESIGN ■ CONSTRUCTION

9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ■ FAX 858.614.5001 ■ www.RBF.com



LEGEND

- LIMITS OF OVERALL DRAINAGE BASIN
- IMPERVIOUS AREA
- PERVIOUS AREA
- AQUATIC CENTER
- DRAINAGE BASIN
- FLOW PATH
- POINT COMPLIANCE
- MODULAR WETLAND SYSTEM
- UNDERGROUND VAULT (UV)

TOTAL AREA: 365,653 SQ FT

AQUATIC CENTER: 6,093 SQ FT

FRANCIS PARKER SCHOOL

6501 LINDA VISTA ROAD
SAN DIEGO CA
PROPOSED CONDITIONS
IMPERVIOUS AREAS

06 / 03 / 15

SCALE: 1"=20'

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ■ FAX 858.614.5001 ■ www.RBF.com

Michael Baker
INTERNATIONAL

ATTACHMENT F

TREATMENT CONTROL BMP DATA

MWS-LINEAR 2.0 STORMWATER FILTRATION SYSTEM

NATURE AND TECHNOLOGY WORKING TOGETHER IN PERFECT HARMONY.

The need for a new stormwater treatment system is evident. Federal and state requirements on cities and industry to reduce stormwater runoff increase every year as our population explodes. The EPA is now reporting that stormwater runoff represents the nation's number one water quality problem, and is the reason why nearly half of our rivers and lakes are not even clean enough to support fishing or swimming. ***Nearly half.***

MODULAR WETLANDS™

To combat this catastrophe, we turned to the expert in this field: **Nature.** By developing technology that imitates the processes found in nature, we've created the most advanced stormwater filtration system available. Years ahead of current EPA requirements, our clients understand that when they invest in our new technology, they are investing in the future. For all of us.

GRATE TYPE

CURB TYPE

MWS-LINEAR TESTED REMOVAL EFFICIENCIES

TSS	Nitrate	Copper	Zinc	Oils & Grease	Bacteria	Turbidity
82% - 98%	74%	>53% - 93%	79% - 81%	84% - 99%	60% - 89%	>90%

Washington State DOE Approved

SIZING

Model #	Dimensions (ft)	WetlandMedia Surface Area (sq ft)	Treatment Flow Rate (cfs)
MWS-L-3-6	3 x 6	34	0.076
MWS-L-4-8	4 x 8	50	0.116
MWS-L-4-13	4 x 13	63	0.144
MWS-L-4-15	4 x 15	76	0.175
MWS-L-4-17	4 x 17	90	0.206
MWS-L-4-19	4 x 19	103	0.236
MWS-L-4-21	4 x 21	117	0.267

VOLUME SIZING

The Modular Wetland System is the only biofilter that can be installed downstream of detention systems.

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

SPECIFICATIONS

MWS – Linear

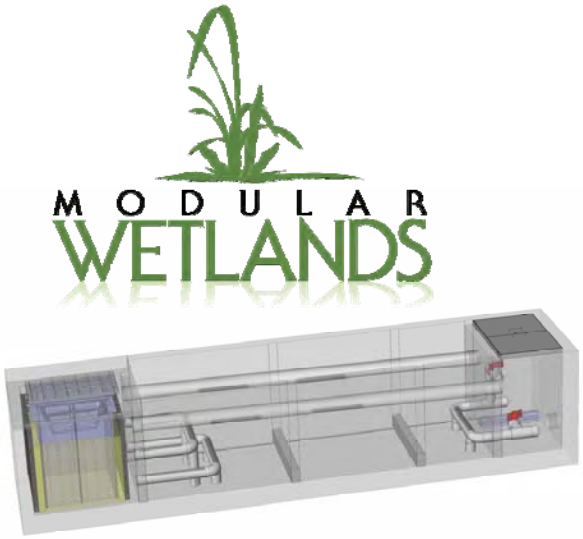
Hybrid Stormwater Filtration System

Modular Wetland Systems, Inc.
P.O. Box 869
Oceanside, CA 92049

www.modularwetlands.com
P 760-433-7640
F 760-433-3179

MWS – Linear

Hybrid Stormwater Filtration System



Save valuable space with small footprint for urban sites.

Improve BMP aesthetics with attractive native and tropical landscape plants.

Reduce lifetime costs with safer and less expensive maintenance

"The MWS – Linear hybrid stormwater treatment system is described as a self contained treatment train. This system utilizes an innovative combination of l treatment processes. Stormwater runoff flows into the system via pipe or curb/grate type catch basin opening. Polluted runoff first encounters a screening device to remove larger pollutants and then enters a hydrodynamic separation chamber which settles out the sediments and larger suspended solids. Next the runoff is treated by a revolutionary filter media, BioMediaGREEN that removes fines and associated pollutants, including bacteria. From there runoff enters of bioretention filter in the form of a subsurface flow vegetated gravel wetland. Within the wetland physical, chemical, and biological mechanisms remove the remaining particulate and dissolved pollutants. The purified runoff leaves the system via the discharge chamber. In the discharge chamber the rate of discharge is controlled by valves set to a desired rate".

Tested Pollutant Removal Efficiencies:

TSS Removal	Dissolved Lead Removal	Dissolved Copper Removal	TPH	E. coli Removal	Turbidity Removal
98%	81%	92%	99%	60.2%	92%

"Nature and Harmony Working Together in Perfect Harmony"

SPECIFICATIONS – MWS- LINEAR

Track Record: The MWS- Linear Hybrid Stormwater Treatment System is manufactured by a company whom is regularly engaged in the engineering design and production of treatment systems for stormwater.

Coverage: The MWS- Linear is designed to treat the water quality volume or water quality flow. For flow based design, high flow bypass is internal, for volume based design, high flow bypass is external and prior to pre-detention system. For offline volume based designs the MWS - Linear has the ability to treat the entire water quality volume when used with pre-storage and properly sized.

Non-Corrosive Materials: The MWS – Linear is designed with non-corrosive materials. All internal piping is SD35 PVC. Catch basin filter components, including mounting hardware, fasteners, support brackets, filtration material, and support frame are constructed of non-corrosive materials (316 stainless steel, and UV protected/marine grade fiberglass). Fasteners are stainless steel. Primary filter mesh is 316 stainless steel welded screens. Filtration basket screens for coarse, medium and fine filtration is ¾" x 1 ¾"expanded, 10 x 10 mesh, and 35 x 35 mesh, respectively. No polypropylene, monofilament netting or fabrics shall be used in this system. Media Protective Panels are constructed of UV protected/marine grade fiberglass. Mounts are constructed of stainless steel. BioMediaGREEN is an inert rock substrate and is non-corrosive. Perimeter filter structure is constructed of lightweight injection molded plastic. Mounting brackets are constructed of SD40 PVC and are mounted with 3/8" diameter stainless steel redheads. Drain down filter cover is constructed of UV protected/marine grade fiberglass and stainless steel hinge and mount.

Weight: Each complete unit weighs approximately 29,000 to 40,000 pounds and requires a boom crane to install. Details of this are provided in the installation section of the MWS-Linear Design Kit.

Transportation: The Modular Wetland System – Linear is designed to be transported on a standard flat bed truck. The unit easily fits on a flat bed truck without the need of special permitting.

Alternative Technology Configurations: The Modular Wetland System – Linear is modular is design. Each module will be up to 22 feet long and 5 feet wide. The system can be made in lengths varying from 13 to 100s of feet long. For lengths longer than 22 feet the system will shipped in modules and assembled on site. The Modular Wetland System – Linear has many alternative configurations. This allows the system to be adapted to many site conditions. Runoff can enter the system through a pipe, and/or a built in curb or grate type opening.

Energy Requirements: The Modular Wetland System – Linear is completely passive and requires no external energy sources.

Buoyancy Issues: Buoyancy is only a an issue when ground water levels rise above the bottom of the Modular Wetland System – Linear's concrete structure. With 8.5 cubic yards of wetland media there is no concern of floatation. As a precaution a footing can also be built into the systems concrete structure.

Durability: The structure of the box will be precast concrete. The concrete will be 28 day compressive strength fc = 5,000 psi. Steel reinforcing will be ASTM A – C857. Structure will support an H20 loading as indicted by AASHTO. The joint between the concrete sections will ship lap and joint sealed with ram-nek. Filter (excluding oil absorbent media) and support structures are of proven durability. The filter and mounting structures are of sufficient strength to support water, sediment, and debris loads when the filter is full, with no slippage, breaking, or tearing. All filters are warranted for a minimum of five (5) years.

Oil Absorbent Media: The MWS – Linear utilizes both physical and biological mechanisms to capture and filter oil and grease. A skimmer and boom system will be positioned on the internal perimeter of the catch basin insert. The primary filtration media, BioMediaGreen, utilized in the perimeter and drain down filters, has excellent hydrocarbon removal abilities. Within the wetland filter biological processes capture and

break down oil and grease. Much of the breakdown and transformation of oil and grease is performed by natural occurring bacteria.

Overflow Protection: The grate and curb type MWS – Linear are designed with an internal bypass consisting of two SD PVC pipes which direct high flows around the perimeter and wetland filter, directly into the discharge chamber. For the volume based vault type configuration, bypass should be located prior to the pre-detention system. For peak flows that exceed internal bypass capacity, external bypass is use.

Filter Bypass: Runoff will bypass filtration (BioMediaGREEN and wetland filter) components of the MWS - Linear. The system will still provide screening and settling during higher flow rates for internally bypassed flows. External bypass will bypass of treatment processes.

Pollutant Removal Efficiency: The MWS - Linear is capable of removing over 90% of the net annual total suspended solids (TSS) load based on a 20-micron particle size. Annual TSS removal efficiency models are based on documented removal efficiency performance from full-scale laboratory tests on BioMediaGreen and quarter-scale laboratory tests on the MWS – Linear flow based system.

POLLUTANT	REMOVAL EFFICIENCY
Trash & Litter	99%
TPH (mg/L)	99%
TSS (mg/L)	98%
E. Coli (MPN/100ml)	60%
Turbidity (NTU)	92%
Dissolved Metals (mg/L)	76%

Sil-Co-Sil 106. Mean particle diameter = 19 microns

Non-Scouring: During heavy storm events the runoff bypasses perimeter and wetland filter components. The system will not re-suspend solids at design flows.

Uniqueness: The Modular Wetland System – Linear is a complete self contained treatment train that incorporates capture, screening, sedimentation, filtration, bioretention, high flow bypass, and flow control into a single modular structure. This system provides four stages of treatment making it the only 4 stage treatment train stormwater filtration system, therefore making it unique to the industry. Other systems do not incorporate all the necessary attributes to make it a complete stormwater management device as with the Modular Wetland System – Linear. Therefore, no equal exists for this system.

Pretreatment & Preconditioning: Since the Modular Wetland System – Linear is a complete capture and treatment train stormwater management system no external pretreatment of preconditioning is necessary.

SPECIFICATIONS – BioMediaGREEN

BioMediaGREEN is a proprietary engineered filter media. Made of a unique combination of the inert naturally occurring material this product is non-combustible and do not pose a fire hazard, stable and non-reactive, and is also biodegradable. It is stable with no known adverse environmental effects.

This product has been tested in long-term carcinogenicity studies [inhalation and intraperitoneal injection (i.p.)] with no significant increase in lung tumors or abdominal tumors. Short-term biopersistent (inhalation and intra-tracheal injection) studies have shown that the products disappear very rapidly from the lung.

In October 2001, IARC classified this product as Group 3, "not classifiable as to its carcinogenicity to humans". The 2001 decision was based on the latest epidemiological studies and animal inhalation studies that show no relation between inhalation exposure and the development of tumors.

The product can typically be disposed of in an ordinary landfill (local regulations may apply). If you are unsure of the regulations, contact your local Public Health Department or the local office of the Environmental Protection Agency (EPA).

Coverage: When properly installed BioMediaGREEN Filter Blocks provide sufficient contact time, at rated flows, of passing contaminate water. The BioMediaGREEN material will capture and retain most pollutants that pass through it. The BioMediaGREEN material is made of a proprietary blend of inert substances. The BioMediaGREEN Filter Blocks can be used in different treatment devices, including but not limited to flume filters, trench drain filters, downspout filters, catch basin inserts, water polishing units, and hydrodynamic separators.

Non-Corrosive Materials: The BioMediaGreen material is made of non-corrosive materials.

Durability: The BioMediaGREEN material has been chosen for its proven durability, with an expected life of 2 plus years. The BioMediaGREEN material is of sufficient strength to support water, sediment, and debris loads when the media is at maximum flow; with no slippage, breaking, or tearing. The BioMediaGREEN material has been tested through rigorous flow and loading conditions.

Oil Absorbent Media: The BioMediaGREEN material has been proven to capture and retain hydrocarbons.

Pollutant Removal Efficiency: The BioMediaGREEN Filter Blocks are designed to capture high levels of Hydrocarbons including but not limited to oils & grease, gasoline, diesel, and PAHs. BioMediaGREEN Filter Blocks have the physical ability to block and filter trash and litter, grass and foliage, sediments, TSS, particulate and dissolved metals, nutrients, and bacteria.

BioMediaGREEN technology is based on a proprietary blend of synthetic inert natural substances aimed at removal of various stormwater pollutants. BioMediaGREEN was created to have a very porous structure capable of selectively removing pollutants while

allowing high flow through rates for water. As pollutants are captured by its structure, BioMediaGREEN captures most pollutants and maintains porosity and filtering capabilities.

Field and laboratory tests have confirmed the BioMediaGREEN capability to capture large percentage of TSS, hydrocarbons, nutrients, and heavy metals. Microbial reduction efficiency will vary depending on colony size, flow rates and site specific conditions.

POLLUTANT	REMOVAL EFFICIENCY
Oil & Grease (mg/L)	90%
TPH (mg/L)	99%
TSS (mg/L)	85%
Turbidity (NTU)	99%
Total Phosphorus (mg/L)	69.6%
Dissolved Metals (mg/L)	75.6%

Sil-Co-Sil 106. Mean particle diameter = 19 microns

Replacement: Removal and replacement of the blocks is simple. Remove blocks from filtration system. Replace with new block of equal size.

DESIGN

MWS – Linear

Hybrid Stormwater Filtration System

Modular Wetland Systems, Inc.
P.O. Box 869
Oceanside, CA 92049

www.modularwetlands.com
P 760-433-7640
F 760-433-3179

Design

The MWS – Linear is a state of the art structural/LID hybrid stormwater treatment system. It contains a bio-retention filter component in the form of a 4th generation subsurface flow enhanced gravel wetland. MWS – Linear system can work with existing drainage and landscaping design to become a major design element of a site plan. The MWS – Linear can capture runoff, detain or retain surface water, attenuate peak runoff rates, improve water quality and convey stormwater. Site plans that apply the MWS – Linear maintain existing drainage design while using the existing landscape areas to filter and attenuate runoff while generating an aesthetically pleasing urban form integrated with the natural features of the site.

The MWS – Linear Hybrid Stormwater Treatment System is modular in design. In the last section volume or flow based design was determined, and the associated calculations were completed to determine the water quality volume and/or water quality flow. This information was entered into the MWS – Linear Flow and Volume Based Sizing Template to determine the number of units needed. The next step is to determine the appropriate configuration. The curb and grate configurations are designed for flow based sizing. Each unit can treat, at high levels, flow rates between 90 to 120 gpm. This equates to approximately one unit per acre. Each unit also has an internal bypass of 2.01 CFS for the curb type and 4.28 CFS for the grate type and therefore can be installed as an online system. Configurations allowing for higher internal bypass flow rates are available upon request.

The grate type configuration can be installed at or below grade. The curb type configuration can only be installed at grade. Installing units at grade along the perimeter of a project's impervious area or as part of a vegetated island of a parking lot is the preferable setup. This allows the system's enhanced sub-surface flow wetland to be vegetated with various plants and integrated into the landscape area. In this configuration the system's natural filtration component is utilized to its full potential, and

is a true natural type treatment system. The plants will also provide an aesthetic enhancement to the project's landscaping.

MWS Linear – Grate Type Architectural Rendering

MWS Linear - Curb Type Architectural Rendering

If the above configurations are deemed impractical considering site constraints, the unit can be installed under sidewalks, landscaping and paved areas. For this configuration three risers or a concrete lid will be needed to provide access to the inflow, wetland and discharge chambers. The risers will usually consist of a manhole access over the inflow and discharge chambers and a set of larger hatch doors over the wetland chamber. This will ensure simple and easy access to the system. Units installed below grade will lose the vegetation, which may have a minor effect on the removal efficiencies of some pollutants. Following are visuals of these different configurations.

A general rule of thumb is the MWS – Linear can be utilized in a similar fashion as traditional catch basins and therefore has little impact on the drainage system design. Design the elevations of the MWS – Linear curb or grate openings in the fashion as traditional curb or grate inlets.

The vault type configuration MWS - Linear is slightly modified for volume based design. In this configuration runoff is not conveyed directly to the system. Volume based design requires a pre-storage/detention of the water quality volume. The storage of this volume is usually accomplished with above ground detention basins or underground detention facilities. The MWS – Linear vault type system will be located on the effluent end of the detention facility. In this configuration the MWS – Linear will provide both treatment and flow control of the water quality volume. The vault type configuration can also be installed at or below grade. As explained on the previous page, systems installed below grade will lose the vegetative component of the enhanced sub-surface flow wetland.

The MWS – Linear can be used as space saving alternative to grass/vegetated swales, turf block paving areas, and bio-retention areas. The bio-treatment component to this system makes use of the project’s existing landscape area and utilizes that area to provide natural treatment of stormwater. These areas therefore act as a BMP, and no additional BMPs to treat the quality of runoff should be required. Site drainage designs must only direct runoff to the MWS - Linear from other areas of the site that require treatment of runoff.

Configuration

In regard to appropriate elevation, the MWS Linear should be installed in the same manner as standard catch basins. For the Grate Type, the top of the grate should be at an elevation equal to that of the flow line, which in most designs is the elevation of the bottom of the gutter, channel, flume or culvert. For the Curb Type the bottom of the curb opening should be at an elevation equal to that of the flow line, which in most designs is the elevation of the bottom of the gutter and curb or culvert.

The MWS –Linear Grate Type should be installed in the landscape (including islands) or perimeter area of the project. Curb and gutter should be built around the exterior of the system. At minimum, the backside of the curb can set within an inch of the outside perimeter of the top of the MWS –Linear's concrete structure. An architectural cap will be installed on top of the MWS –Linear's outer perimeter concrete structure. This will bring the top of the MWS – Linear's outer perimeter up to the height of the top of the curb. This architectural cap will provide a barrier between the MWS – Linear's vegetated wetland chamber and the surrounding landscape and vegetation. The grate opening can be positioned to receive water from drain channels or gutters. Curbs can be built around on top of the catch basin chamber surrounding the grate opening on sides that are not receiving runoff.

The MWS – Linear Curb Type should also be installed in the landscape (including islands) or perimeter area of the project. Curb and gutter should be built against the exterior of the system. At minimum, the backside of the curb can butt up to the outside perimeter wall of the MWS –Linear's concrete structure. No architectural cap will be needed since the top of the MWS –Linear's outer perimeter will already be at an elevation equal to the top of the curb. The curb opening can be positioned to receive water from gutters along the curb. The curb will be built to convey water to the MWS – Linear's curb opening.

The MWS – Linear requires minimum of 3.57 feet (curb type) or 4.13 feet (grate type) of fall between the surface flow line and the MWS – Linear's discharge pipe invert. This

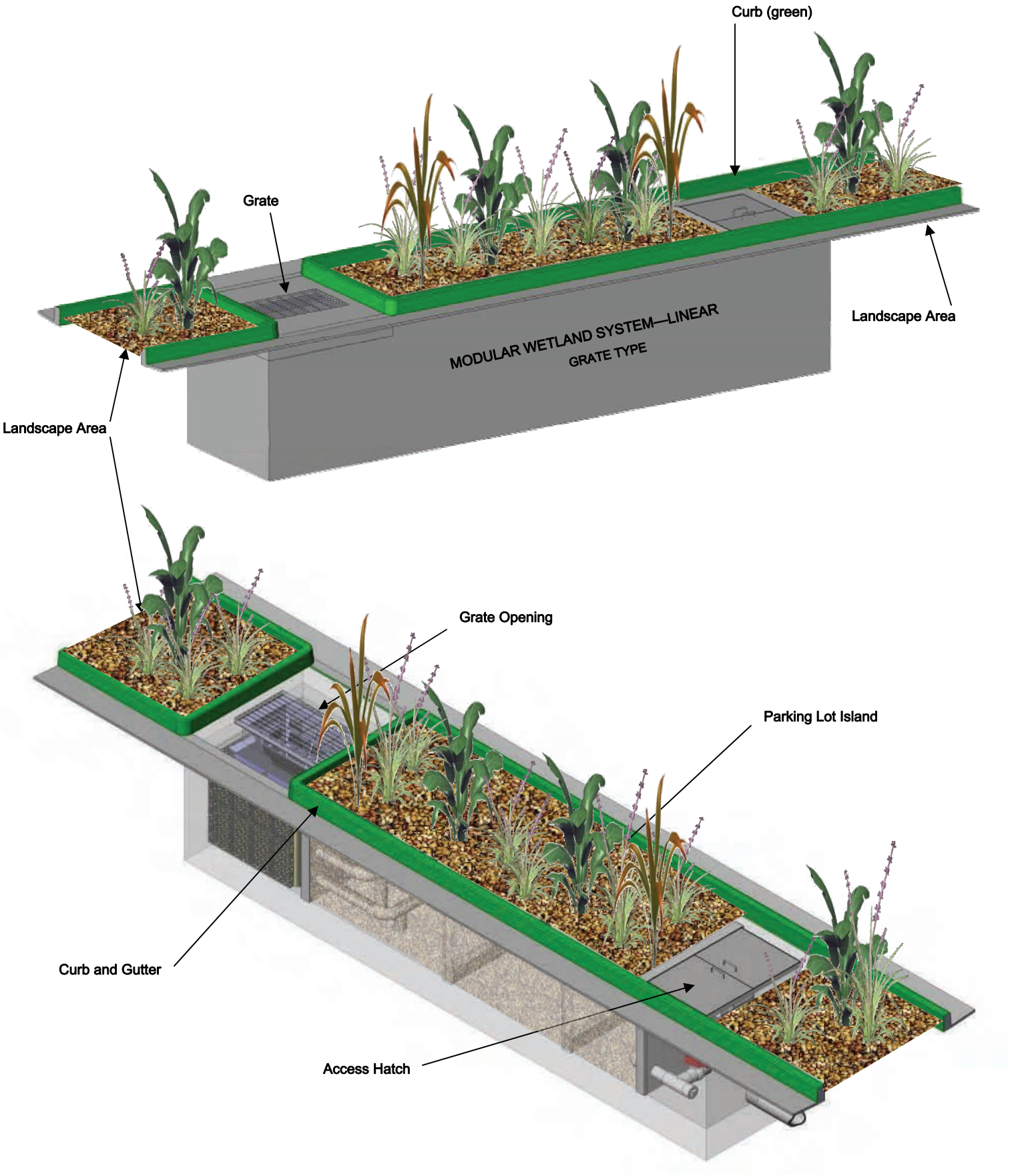
amount of fall will ensure that the MWS – Linear has no standing water. For projects where this amount of fall is not available, an alternate configuration may be possible. Please consultant a Modular Wetland System, Inc. compliance and design specialist for assistance.

The standard pipe size out of the MWS – Linear is 12” diameter. The system can easily be configured to accept larger or smaller pipe size. This standard size has been determined to process a flow rate equal to or greater than the maximum internal bypass flow rate of MWS – Linear (which is equal to 2.01 CFS curb type and 4.28 CFS grate type at peak operating head) plus the sum of the primary and secondary treatment peak flow rates.

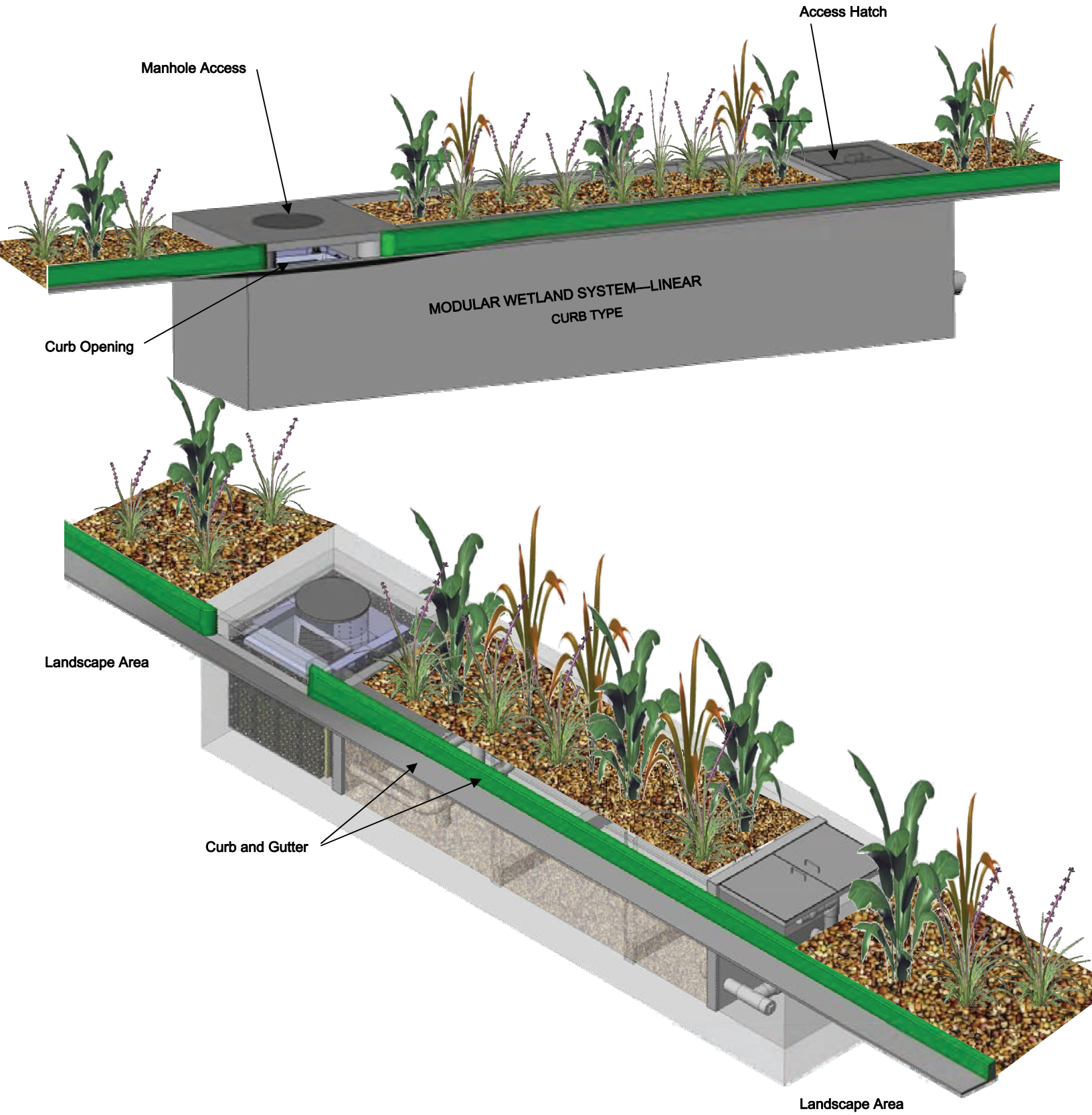
A Modular Wetland System, Inc. compliance and design specialist is always available to provide assistance. Call 760-433-7640 or email info@modularwetlands.com.

Following are illustrations detailing appropriate integration of the MWS – Linear Curb, Grate and Vault Type units. Also included at the end of this section is a design process flow chart and a pollutant of concern land use matrix that can be submitted as part of your water quality management plan to justify what pollutants of concern are expected and anticipated.

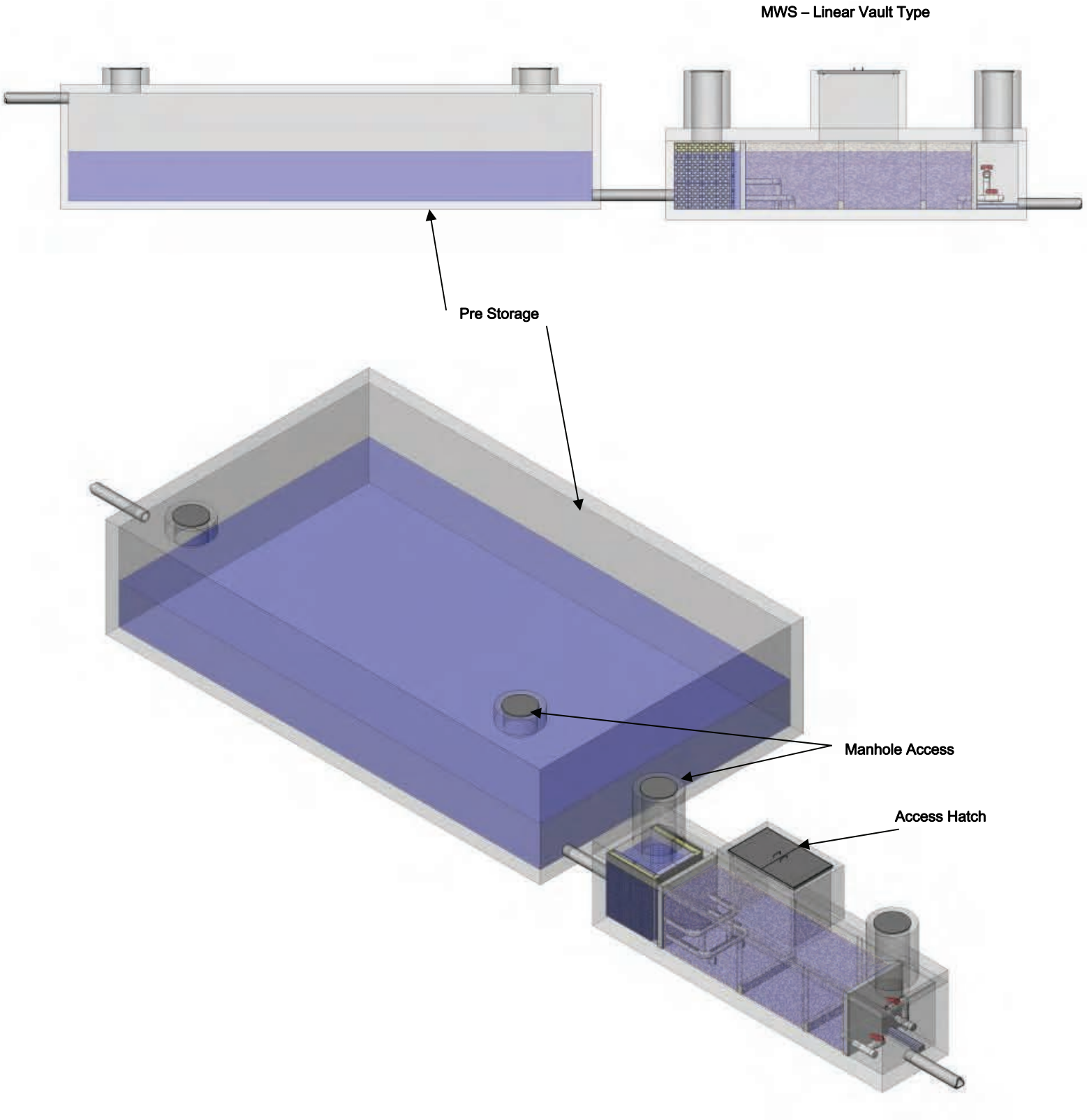
Grate Type (Flow Based) –



Curb Type (Flow Based) –



Vault Type (Volume Based) –



DESIGN FLOW CHART

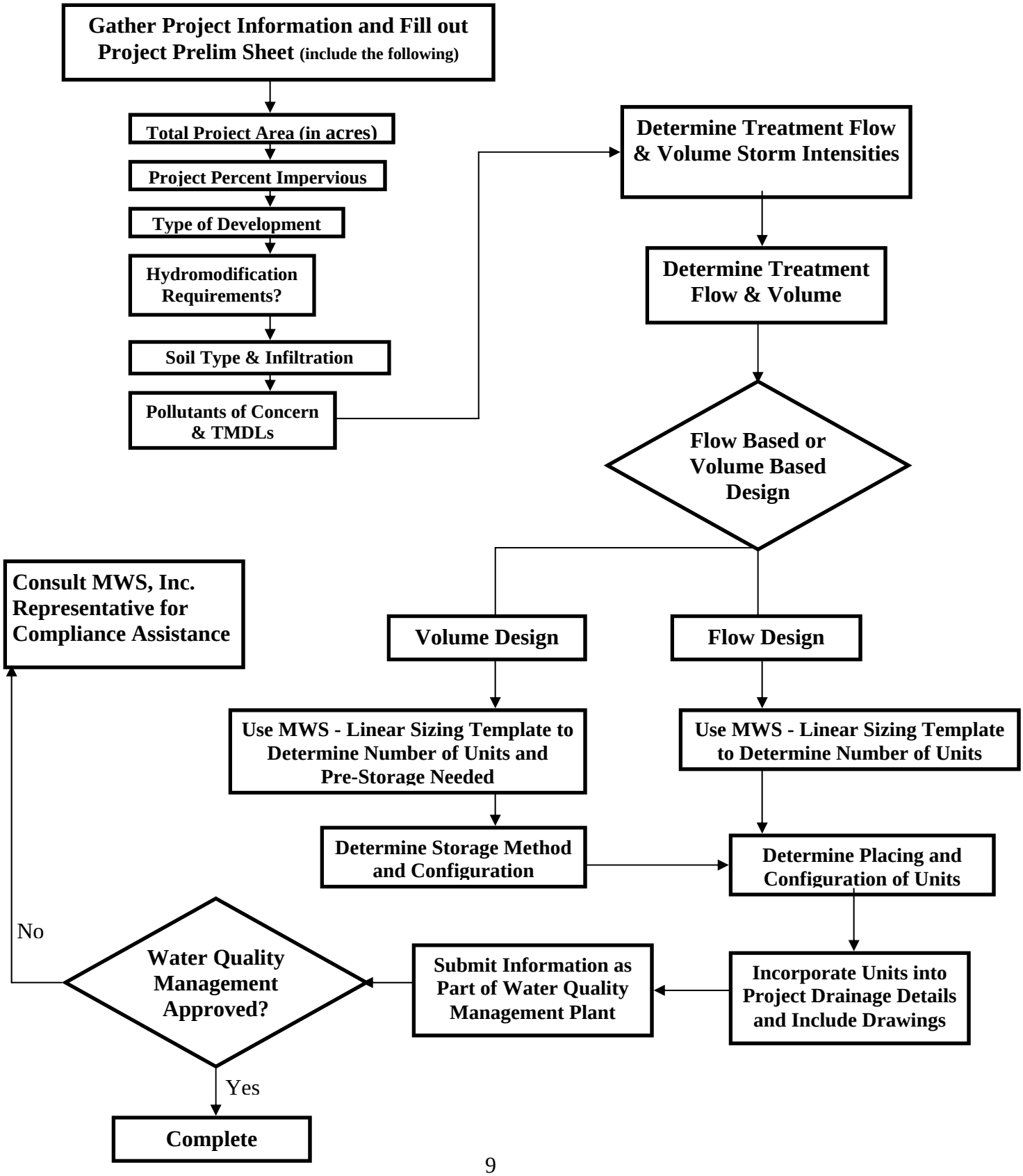


Table 1- Anticipated and Potential Pollutants Generated by Land Use Type									
Priority Project Categories	**Pathogens**	**Heavy Metals**	**Nutrients**	**Pesticides**	**Organic Compounds**	**Sediment**	**Trash & Debris**	**Oxygen Demanding Substances**	**Oil & Grease**
Detached Residential Development	X		X	X		X	X	X	X
Attached Residential Development	P		X	X		X	X	P(1)	P(2)
Commercial/Industiral Development >100,000 ft2	P(3)		P(1)	P(5)	P(2)	P(1)	X	P(5)	X
Automotive Repair Shop		X			X(4)(5)		X		X
Restaurants	X						X	X	X
Hillside Development >5,000 ft2 In SDRWQCB			X	X		X	X	X	X
Hillside Development >100,000 ft2 In SARWQCB			X	X		X	X	X	X
Parking Lots		X	P(1)	P(2)		P(1)	X	P(s)	X
Streets, Highways & Freeways		X	P(1)		X(4)	X	X	P(5)	X

X = anticipated

P = potential

(1) A potential pollutant if landscaping exists on-site

(2) A potential pollutant if the project includes uncovered parking areas

(3) A potential pollutant if land use involves food or animal waste products.

(4) Including petroleum hydrocarbons.

(5) Including solvents.

MWS-LINEAR 2.0 STORMWATER FILTRATION SYSTEM

NATURE AND TECHNOLOGY WORKING TOGETHER IN PERFECT HARMONY.

The need for a new stormwater treatment system is evident. Federal and state requirements on cities and industry to reduce stormwater runoff increase every year as our population explodes. The EPA is now reporting that stormwater runoff represents the nation's number one water quality problem, and is the reason why nearly half of our rivers and lakes are not even clean enough to support fishing or swimming. ***Nearly half.***

MODULAR WETLANDS™

To combat this catastrophe, we turned to the expert in this field: **Nature.** By developing technology that imitates the processes found in nature, we've created the most advanced stormwater filtration system available. Years ahead of current EPA requirements, our clients understand that when they invest in our new technology, they are investing in the future. For all of us.

GRATE TYPE

CURB TYPE

MWS-LINEAR TESTED REMOVAL EFFICIENCIES

TSS	Nitrate	Copper	Zinc	Oils & Grease	Bacteria	Turbidity
82% - 98%	74%	>53% - 93%	79% - 81%	84% - 99%	60% - 89%	>90%

Washington State DOE Approved

SIZING

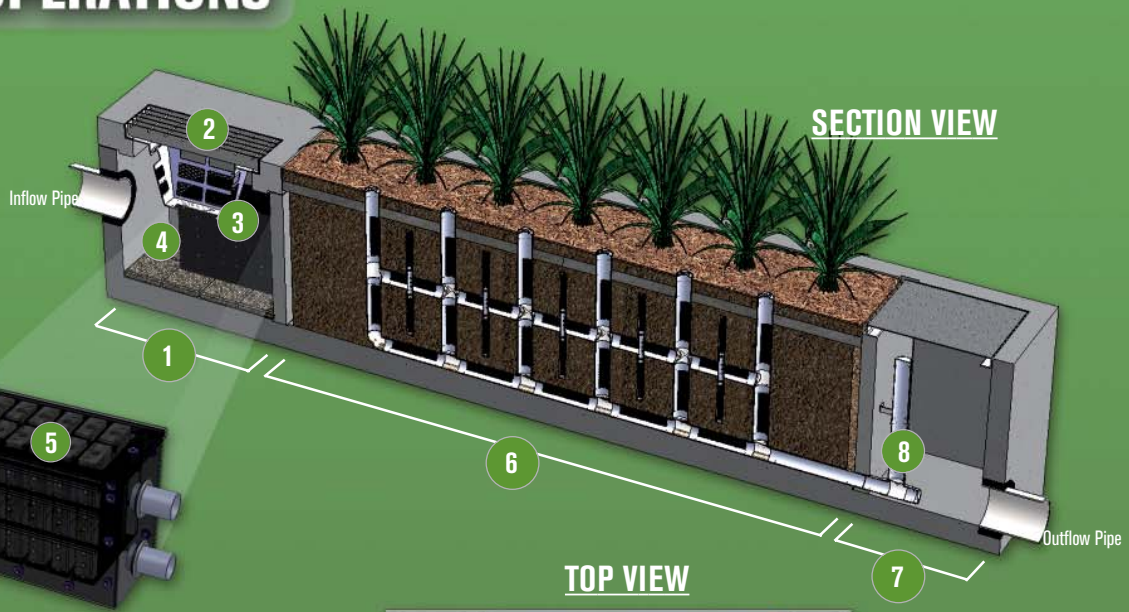
Model #	Dimensions (ft)	WetlandMedia Surface Area (sq ft)	Treatment Flow Rate (cfs)
MWS-L-3-6	3 x 6	34	0.076
MWS-L-4-8	4 x 8	50	0.116
MWS-L-4-13	4 x 13	63	0.144
MWS-L-4-15	4 x 15	76	0.175
MWS-L-4-17	4 x 17	90	0.206
MWS-L-4-19	4 x 19	103	0.236
MWS-L-4-21	4 x 21	117	0.267

VOLUME SIZING

The Modular Wetland System is the only biofilter that can be installed downstream of detention systems.

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

SYSTEM OPERATIONS

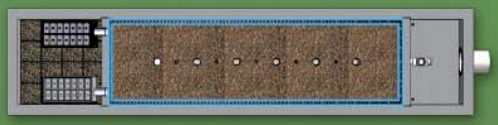


Pre-Filter Cartridge

35 sq ft surface area per cartridge ensures higher effectiveness and lower maintenance requirements.

This pre-filter eliminates maintenance in the Wetland Chamber.

TOP VIEW



Perimeter Wetland Chamber

Pre-filtered runoff entering the wetland chamber flows into a peripheral void area, maximizing the media surface area.

Over 2x to 3x more surface area than traditional downward flow bioretention systems.

INTERNAL HIGH FLOW BYPASS CONFIGURATION AVAILABLE

FEATURES

1. **PRE-TREATMENT CHAMBER**
   Captures incoming runoff and contains the first three stages of treatment.
2. **GRATE TYPE CATCH BASIN INLET**
   A standard 41" x 24" grate type traffic rated catch basin opening directs stormwater into the system.
3. **CATCH BASIN INSERT FILTER**
   Provides the first stage of treatment by capturing trash & litter, gross solids, and sediment.
4. **SETTLING CHAMBER**
   Provides the second stage of treatment by separating out larger suspended solids.
5. **PRE-FILTER CARTRIDGE**
   Provides the third stage of treatment by physically and chemically capturing fine TSS, metals, nutrients, and bacteria.
6. **WETLAND CHAMBER**
   Provides the final stage of treatment through a combination of physical, chemical and biological processes.
7. **DISCHARGE CHAMBER**
   Contains flow control, high flow bypass and optional drain down filter.
8. **MULTI-LEVEL FLOW CONTROL**
   Orifice plates and/or valves are used to control the flow through the treatment stages.

MODULAR WETLANDS

RAINFOREST ALLIANCE CERTIFIED

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

ATTACHMENT G

GEOTECHNICAL REPORT

Michael Baker
INTERNATIONAL

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Diego County Area, California

June 4, 2015

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....7
Soil Map.....8
Legend.....9
Map Unit Legend.....10
Map Unit Descriptions.....10
San Diego County Area, California.....12
CcC—Carlsbad-Urban land complex, 2 to 9 percent slopes.....12
OhF—Olivenhain cobbly loam, 30 to 50 percent slopes.....13
RhC—Redding-Urban land complex, 2 to 9 percent slopes.....14
References.....16

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

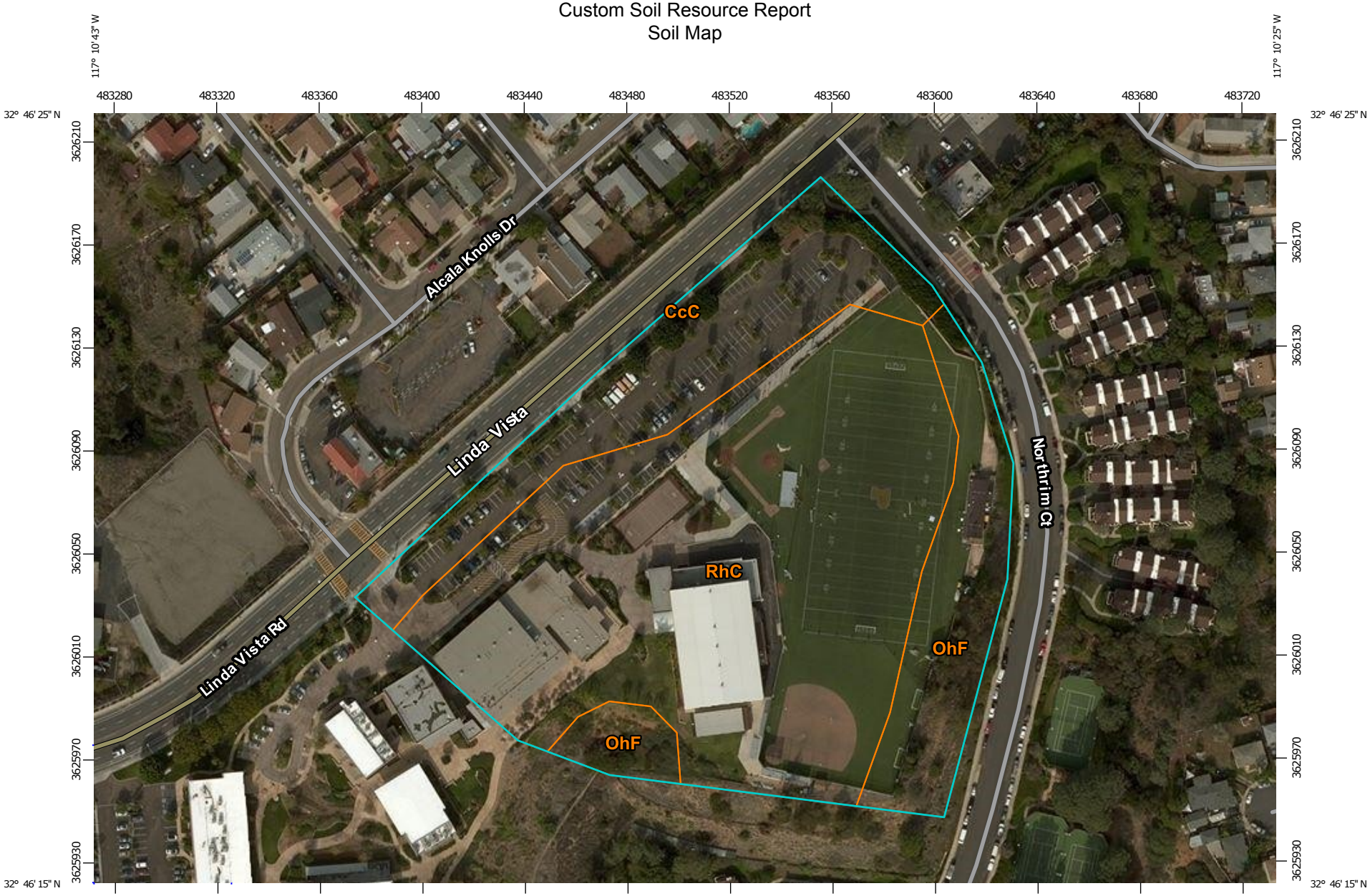
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Diego County Area, California
Survey Area Data: Version 8, Sep 17, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 7, 2014—Jan 4, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

San Diego County Area, California (CA638)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CcC	Carlsbad-Urban land complex, 2 to 9 percent slopes	2.0	20.1%
OhF	Olivenhain cobbly loam, 30 to 50 percent slopes	1.6	16.4%
RhC	Redding-Urban land complex, 2 to 9 percent slopes	6.2	63.5%
Totals for Area of Interest		**9.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments

on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Diego County Area, California

CcC—Carlsbad-Urban land complex, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hb9d
Elevation: 30 to 300 feet
Mean annual precipitation: 10 to 16 inches
Frost-free period: 330 to 350 days
Farmland classification: Not prime farmland

Map Unit Composition

Carlsbad and similar soils: 50 percent
Urban land: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Carlsbad

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Ferruginous sandstone

Typical profile

H1 - 0 to 21 inches: gravelly loamy sand
H2 - 21 to 39 inches: loamy sand
H3 - 39 to 50 inches: indurated

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: 24 to 40 inches to duripan
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Minor Components

Tujunga

Percent of map unit: 10 percent

OhF—Olivenhain cobbly loam, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: hbfd
Elevation: 100 to 600 feet
Mean annual precipitation: 14 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 290 to 330 days
Farmland classification: Not prime farmland

Map Unit Composition

Olivenhain and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Olivenhain

Setting

Landform: Marine terraces
Landform position (three-dimensional): Riser
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Gravelly alluvium derived from mixed sources

Typical profile

H1 - 0 to 10 inches: cobbly loam
H2 - 10 to 27 inches: very cobbly clay, very cobbly clay loam
H2 - 10 to 27 inches: cobbly loam, cobbly clay loam
H3 - 27 to 45 inches:
H3 - 27 to 45 inches:

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: CLAYPAN (1975) (R019XD061CA)

Minor Components

Linne

Percent of map unit: 5 percent

Huerhuero

Percent of map unit: 5 percent

Diablo

Percent of map unit: 5 percent

RhC—Redding-Urban land complex, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hbg1
Elevation: 100 to 1,500 feet
Mean annual precipitation: 14 to 25 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 230 to 320 days
Farmland classification: Not prime farmland

Map Unit Composition

Redding and similar soils: 50 percent
Urban land: 30 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Redding

Setting

Landform: Marine terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from mixed sources

Typical profile

H1 - 0 to 15 inches: gravelly loam
H2 - 15 to 30 inches: gravelly clay loam, gravelly clay
H2 - 15 to 30 inches: indurated
H3 - 30 to 45 inches:

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: 20 to 45 inches to duripan
Natural drainage class: Well drained

Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Minor Components

Oliventain

Percent of map unit: 5 percent

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

ATTACHMENT H

BMP MAINTENANCE PROGRAM

Michael Baker
INTERNATIONAL

BMP Maintenance Program

The following inspection and maintenance activities shall be performed and completed as indicated.

Maintenance Program for Inlet Stenciling	
Inspection Frequency/Indications:	Regular Maintenance Inspections ❑ Before wet season begins (September); ❑ After wet season (April).
Maintenance Indications	**Maintenance Activities**
❑ Inlet stenciling/signage begins to weather or fade	❑ Re-stamp signage
❑ Broken or damaged structure	❑ Repair or replace signage structure

MAINTENANCE

MWS – Linear

Hybrid Stormwater Filtration System

Modular Wetland Systems, Inc.
P.O. Box 869
Oceanside, CA 92049

www.modularwetlands.com
P 760-433-7640
F 760-433-3179

MAINTENANCE

Maintenance Summary –

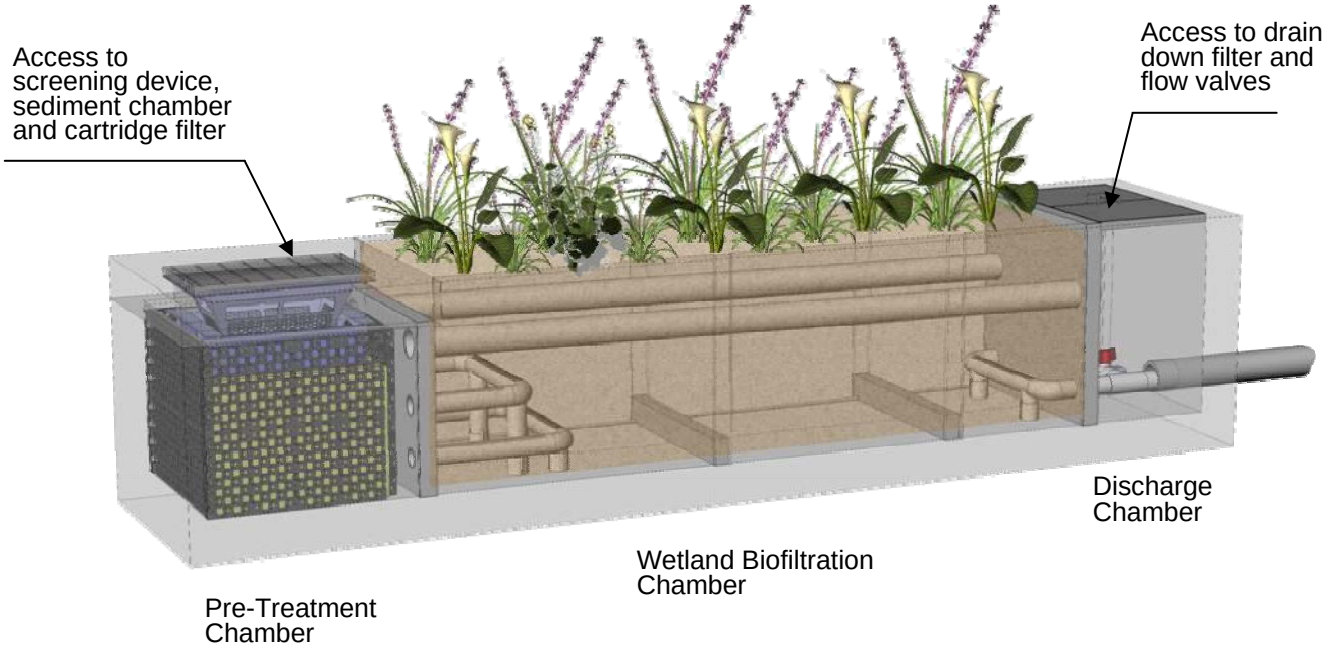
- **<u>Clean Bio Clean® Catch Basin Filter</u> – average maintenance interval is 3 to 6 months.**
  - ***(15 minute service time).***
- **<u>Clean Separation (sediment) Chamber</u> – average maintenance interval is 6 to 18 months.**
  - ***(30 minute service time).***
- **<u>Replace Cartridge Filter Media (BioMediaGREEN™)</u> – average maintenance interval 6 – 12 months.**
  - ***(45 minute service time).***
- **<u>Replace Drain Down Filter Media (BioMediaGREEN™)</u> – average maintenance interval is 6 to 12 months.**
  - ***(5 minute service time).***
- **<u>Trim Vegetations</u> – average maintenance interval is 3 to 6 months.**
  - ***(15 minute service time).***
- **<u>Evaluate Wetland Media Flow Hydraulic Conductivity</u> – average inspection interval is once per year.**
  - ***(5 minute inspection time).***
- **<u>Wetland Media Replacement</u> – average maintenance interval is 5 to 20 years.**
  - ***(6 hours).***

For more information on maintenance procedures, to order replacement media or find an authorized service company please contact:

Modular Wetland Systems, Inc
2972 San Luis Rey Road
Oceanside, CA 92058

Phone: 760-433-7640
Fax: 760-433-3176
Email: info@modularwetlands.com

System Diagram –



Maintenance Overview –

A. Every installed MWS – Linear unit is to be maintained by the Supplier, or a Supplier approved contractor. The cost of this service varies among providers.

B. The MWS – Linear is a multi-stage self-contained treatment train for stormwater treatment. Each stage protects subsequent stages from clogging. Stages include: screening, separation, cartridge media filtration, and biofiltration. The biofiltration stage contains various types of vegetation which will require annual evaluation and trimming.

1. <u>Clean Bio Clean® Catch Basin Filter</u> – Screening is provided by well proven catch basin filter. The filter has a trash and sediment capacity of 2 (curb type) and 4 (grate type) cubic feet. The filter removes gross solids, including litter, and sediments greater than 200 microns. This procedure is easily done by hand or with a small industrial vacuum device. This filter is located directly under the manhole or grate access cover.

2. <u>Clean Separation (sediment) Chamber</u> – separation occurs in the pre-treatment chamber located directly under the curb or grated inlet. This chamber has a capacity of approximately 21 cubic feet for trash, debris and sediments. This chamber targets TSS, and particulate metals and nutrients. This procedure can be performed with a standard vacuum truck. This chamber is located directly under the manhole or grate access cover.

3. <u>Replace Cartridge Filter Media (BioMediaGREEN™)</u> – Primary filtration is provided by a horizontal flow cartridge filter utilizing BioMediaGREEN blocks. Each cartridge has a media surface area of 35 square feet. The large surface area will insure long term operation without clogging. The cartridge filter with BioMediaGREEN targets fine TSS, metals, nutrients, hydrocarbons, turbidity and bacteria. Media life depends on local loading conditions and can easily be replaced and disposed of without any equipment. The filters are located in the pre-treatment chamber. Entry into chamber required to replace BioMediaGREEN blocks. Each cartridge contain 14 pieces of 20" tall BioMediaGREEN.

4. <u>Replace Drain Down Filter Media (BioMediaGREEN™)</u> – A drain down filter, similar in function to the perimeter filter is located in the discharge chamber. This filter allows standing water to be drained and filtered out of the separation chamber. This addresses any vector issues, by eliminating all standing water within this system. Replacement of media takes approximately 5 minutes and is performed without any equipment.

5. <u>Trim Vegetations</u> – The system utilizes multiple plants in the biofiltration chamber to provide enhanced treatment for dissolved pollutants including nutrients and metals. The vegetation will need to be maintained (trimmed) as needed. This can be done as part of the project normal landscape maintenance. **NO FERTILIZER SHALL BE USED IN THIS CHAMBER.**

<u>6. Evaluate Wetland Media Flow Hydraulic Conductivity</u> – The systems flow can be assessed from the discharge chamber. This should be done during a rain event. By viewing into the discharge chamber the flow out of the system can be observed. If little to know flow is observed from the lower valve or orifice plate this is a sign of potential wetland media (biofiltration) maintenance needs.

<u>7. Wetland Media Replacement</u> – biofiltration is provided by an advance horizontal flow vegetated wetland. This natural filter contains a mix of sorptive media that supports abundant plant life. This biofilter targets the finest TSS, dissolved nutrients, dissolved metals, organics, pesticides, oxygen demanding substances and bacteria. This filter provides the final polishing step of treatment. If prior treatment stages are properly maintained, the life of this media can be up to 20 years. Replacement of the media is simple. Removal of spent media can be done with a shovel of a vacuum truck.

C. The MWS – Linear catch basin filter, separation chamber, cartridge filter media and wetland media are designed to allow for the use of vacuum removal of captured pollutants and spent filter media by centrifugal compressor vacuum units without causing damage to the filter or during normal cleaning and maintenance. Filter and chambers can be cleaned from finish surface through standard manhole or grate access.

Maintenance Procedures –

1. <u>Clean Bio Clean® Catch Basin Filter</u> – Modular Wetland Systems, Inc. recommends the **catch basin filter** be inspected and cleaned a minimum of once every six months and replacement of hydrocarbon booms once a year. The procedure is easily done with the use of any standard vacuum truck. *This procedure takes approximately 15 minutes.*

1. Remove grate or manhole to gain access to catch basin filter insert. Remove the deflector shield (grate type only) with the hydrocarbon boom attached. Where possible the maintenance should be performed from the ground surface. Note: entry into an underground stormwater vault such as an inlet vault requires certification in confined space training.
2. Remove all trash, debris, organics, and sediments collected by the inlet filter insert. Removal of the trash and debris can be done manually or with the use of a vacuum truck. The hose of the vacuum truck will not damage the screen of the filter.
3. Evaluation of the hydrocarbon boom shall be performed at each cleaning. If the boom is filled with hydrocarbons and oils it should be replaced. Attach new boom to basket with plastic ties through pre-drilled holes in basket. Place the deflector shield (grate type only) back into the filter.
4. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.
5. The hydrocarbon boom may be classified as hazardous material and will have to be picked up and disposed of as hazardous waste. Hazardous material can only be handled by a certified hazardous waste trained person (minimum 24-hour hazwoper).

2. <u>Clean Separation (sediment) Chamber</u> – Modular Wetland Systems, Inc. recommends the **separation chamber** be inspected and cleaned a minimum of once a year. The procedure is easily done with the use of any standard vacuum truck. *This procedure takes approximately 30 minutes.*

1. Remove grate or manhole to gain access to the catch basin filter.
2. Remove catch basin filter. Where possible the maintenance should be performed from the ground surface. Note: entry into an underground stormwater vault such as an inlet vault requires certification in confined space training.
3. With a pressure washer spray down pollutants accumulated on walls and cartridge filters.
4. Vacuum out separation chamber and remove all accumulated debris and sediments.
5. Replace catch basin filter, replace grate or manhole cover.
6. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.

3. <u>Replace Cartridge Filter Media (BioMediaGREEN™)</u> – Modular Wetland Systems, Inc. recommends the **cartridge filters** media be inspected and cleaned a minimum of once a year. The procedure will require prior maintenance of separation chamber. *Replacement of media takes approximately 45 minutes.*

1. Remove grate or manhole to gain access to the catch basin filter.
2. Remove catch basin filter. Where possible the maintenance should be performed from the ground surface. Note: entry into an underground stormwater vault such as an inlet vault requires certification in confined space training.
3. Enter separation chamber.
4. Unscrew the two ½" diameter bolts holding the lid on each cartridge filter and remove lid and place outside of unit.
5. Remove each of the 14 BioMediaGREEN filter blocks in each cartridge and remove from chamber for disposal.
6. Spray down the outside and inside of the cartridge filter to remove any accumulated sediments.
7. Replace with new BioMediaGREEN filter blocks insuring the blocks are properly lined up and seated in the bottom.
8. Replace the lid and tighten down bolts.
9. Replace catch basin filter, replace grate or manhole cover.
10. Transport all debris, trash, organics, spent media and sediments to approved facility for disposal in accordance with local and state requirements.

4. <u>Replace Drain Down Filter Media (BioMediaGREEN™)</u> – Modular Wetland Systems, Inc. recommends the **drain down filter** be inspected and maintained a minimum of once a year. *Replacement of media takes approximately 5 minutes.*

1. Open hatch of discharge chamber
2. Enter chamber, unlatch drain down filter cover.
3. Remove BioMediaGREEN filter block
4. Replace with new block, replace and latch cover.
5. Exit chamber, close and lock down the hatch.
6. Transport spent media to approved facility for disposal in accordance with local and state requirements.

5. <u>Trim Vegetations</u> – Modular Wetland Systems, Inc. recommends the plants/vegetation be inspected and maintained a minimum of once a year. It is also recommended that the plants receive the same care as other landscaped areas. **Note: No fertilizer is to be used on this area.** *Trimming of vegetation takes approximately 15 minutes.*

<u>6. Evaluate Wetland Media Flow Hydraulic Conductivity</u> – Modular Wetland Systems, Inc. recommends system flow be inspected and observed a minimum of once a year. This needs to be done during a rain event. *Inspection and Observation takes approximately 5 minutes.*

1. Open hatch of discharge chamber
2. Observe the level of flow from the bottom valve or orifice plate.
3. If flow is steady and high the system is operating normally.

4. If little or no flow is observed exiting the valve possible maintenance to the biofiltration wetland chamber may be needed. Contact Modular Wetlands for further assistance.
5. Exit chamber, close and lock down the hatch.

7. Wetland Media Replacement – Modular Wetland Systems, Inc. recommends the wetland media be replaced a minimum of one every 20 years. *Inspection takes approximately 15 minutes. Replacement of rock media takes approximately 6 hours and requires a vacuum truck.*

1. Remove plants from the wetland chamber.
2. Use a vacuum truck or shovel to remove all wetland media.
3. Spray down the walls and floor of the chamber and vacuum out any accumulated pollutants.
4. Spray down perforated piping and netting of flow matrix and the inflow and outflow end to remove any accumulated pollutants.
5. Vacuum out any standing water from the media removal and insure the chamber is cleaning.
6. Use a small backhoe to fill chamber with new media. Call Modular Wetland Systems, Inc. for media delivery information.
7. Install BioMediaGREEN filter blocks across over the entire filter bed. Fill with media until 9” from top. The install filter blocks which are 3” thick. Fill the top 6” inches with wetland media.
8. Plant new vegetation in the same configuration and quantity as old vegetation. Dig down until the BioMediaGREEN is exposed. Cut out a small circle of the BioMediaGREEN. Remove plant from container including soil ball and place in the whole cut out of the BioMediaGREEN. Cover up with wetland media.
9. Spray down the plants and media with water to saturate.
10. Continue supplemental irrigation (spray or drip) for at lest 90 days.

7. Other Maintenance Notes –

1. Following maintenance and/or inspection, the maintenance operator shall prepare a maintenance/inspection record. The record shall include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanism. .
2. The owner shall retain the maintenance/inspection record for a minimum of five years from the date of maintenance. These records shall be made available to the governing municipality for inspection upon request at any time.
3. Any person performing maintenance activities must have completed a minimum of OSHA 24-hour hazardous waste worker (hazwoper) training.
4. Remove access manhole lid or grate to gain access to filter screens and sediment chambers. Where possible the maintenance should be performed from the ground surface. Note: entry into an underground stormwater vault such as an inlet vault requires certification in confined space training.
5. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.
6. The hydrocarbon boom is classified as hazardous material and will have to be picked up and disposed of as hazardous waste. Hazardous material can only be handled by a certified hazardous waste trained person (minimum 24-hour hazwoper).

Maintenance Sequence –

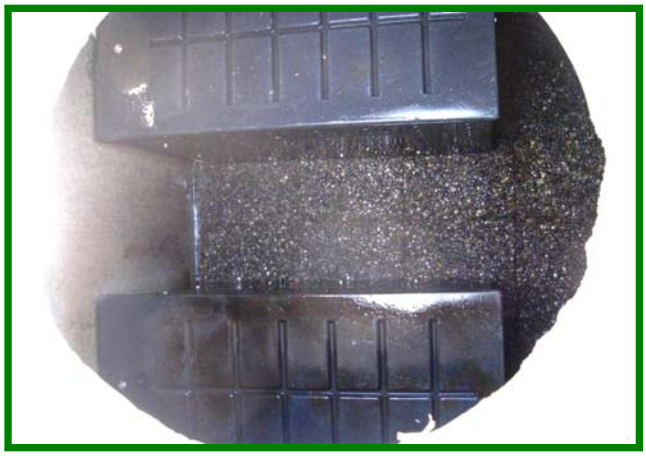
Access Pre-Treatment Chamber by Removing Manhole or Grate Cover

Assess Pollutant Loading in Catch Basin Filter and Sediment Chamber

Vacuum Catch Basin Filter

Remove Catch Basin Filter

Vacuum out the Sediment Chamber



Enter Chamber Remove Lids of Cartridge Filters

Remove Spent BioMediaGREEN Filter Blocks

Spray Down and Clean Cartridge Filter Housing

Replace with New BioMediaGREEN Filter Blocks and Replace Lid, then Catch Basin Filter and Replace Manhole or Grate

Open Discharge Chamber Lid to Asses Wetland Media Flow Rate and Replace Drain Down Filter Near Bottom

Evaluate Vegetation and Trim if Needed. Maintenance Complete.

Please Contact Modular Wetland Systems, Inc. for More Information:

760-433-7640

info@modularwetlands.com

ATTACHMENT H

WATER QUALITY
MONITORING DATA

Michael Baker
INTERNATIONAL

Water Quality Monitoring Data

There is no relevant water quality monitoring data available for the project site.

ATTACHMENT J

STORM WATER
APPLICABILITY CHECKLIST

Michael Baker
INTERNATIONAL

City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

Storm Water Requirements Applicability Checklist

FORM
DS-560
JANUARY 2011

Project Address:	Project Number *(for City Use Only):*
6501 Linda Vista Road	

SECTION 1. Permanent Storm Water BMP Requirements:

Additional information for determining the requirements is found in the Storm Water Standards Manual.

Part A: Determine if Exempt from Permanent Storm Water BMP Requirements.

Projects that are considered maintenance, or are otherwise not categorized as "development projects" or "redevelopment projects" according to the Storm Water Standards manual are not required to install permanent storm water BMPs. **If "Yes" is checked for any line in Part A, proceed to Part C and check the box labeled "Exempt Project." If "No" is checked for all of the lines, continue to Part B.**

1.	The project is not a Development Project as defined in the Storm Water Standards Manual: for example habitat restoration projects, and construction inside an existing building.	☐ Yes	☑ No
2.	The project is only the construction of underground or overhead linear utilities.	☐ Yes	☑ No
3.	The project qualifies as routine maintenance (replaces or renews existing surface materials because of failed or deteriorating condition). This includes roof replacement, pavement spot repairs and resurfacing treatments such as asphalt overlay or slurry seal, and replacement of damaged pavement.	☐ Yes	☑ No
4.	The project only installs sidewalks, bike lanes, or pedestrian ramps on an existing road, and does not change sheet flow condition to a concentrated flow condition.	☐ Yes	☑ No

Part B: Determine if Subject to Priority Development Project Requirements.

Projects that match one of the definitions below are subject to additional requirements including preparation of a Water Quality Technical Report.
If "Yes" is checked for any line in Part B, proceed to Part C and check the box labeled "Priority Development Project." If "No" is checked for all of the lines, continue to Part C and check the box labeled "Standard Development Project."

1.	**Residential development of 10 or more units.**	☐ Yes	☐ No
2.	**Commercial development and similar non-residential development greater than one acre.** Hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; and other light industrial facilities.	☑ Yes	☐ No
3.	**Heavy industrial development greater than one acre.** Manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas.	☐ Yes	☐ No
4.	**Automotive repair shop.** Facilities categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.	☐ Yes	☐ No
5.	**Restaurant.** Facilities that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), and where the land area for development is greater than 5,000 square feet.	☐ Yes	☐ No
6.	**Hillside development greater than 5,000 square feet.** Development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions and where the development will grade on any natural slope that is twenty-five percent or greater.	☐ Yes	☐ No
7.	**Water Quality Sensitive Area.** Development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" is defined as being situated within 200 feet of the Water Quality Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.	☐ Yes	☐ No
8.	**Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces** and potential exposure to urban runoff (unless it meets the exclusion for parking lot reconfiguration on line 11).	☑ Yes	☐ No

9.	**Street, road, highway, or freeway.** New paved surface in excess of 5,000 square feet used for the transportation of automobiles, trucks, motorcycles, and other vehicles (unless it meets the exclusion for road reconfiguration on line 11).	❑ Yes ❑ No
10.	**Retail Gasoline Outlet (RGO)** that is: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.	❑ Yes ❑ No
11.	**Significant Redevelopment**; project installs and/or replaces 5,000 square feet or more of impervious surface and the existing site meets at least one of the categories above. The project is not considered Significant Redevelopment if reconfiguring an existing road or parking lot without a change to the footprint of an existing developed road or parking lot. The existing footprint is defined as the outside curb or the outside edge of pavement when there is no curb.	☑ Yes ❑ No
12.	**Other Pollutant Generating Project.** Any other project not covered in the categories above, that disturbs one acre or more and is not excluded by the criteria below.	❑ Yes ❑ No

Projects creating less than 5,000 sf of impervious surface and where added landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include linear pathways that are for infrequent vehicle use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces or if they sheet flow to surrounding pervious surfaces.

Part C: Select the appropriate category based on the outcome of Parts A & B.

1.	If "Yes" is checked for any line in Part A, then check this box. Continue to Section 2.	❑ Exempt Project
2.	If "No" is checked for all lines in Part A, and Part B, then check this box. Continue to Section 2.	❑ Standard Development Project
3.	If "No" is checked for all lines in Part A, and "Yes" is checked for at least one of the lines in Part B, then check this box. Continue to Section 2. See the Storm Water Standards Manual for guidance on determining if Hydromodification Management Plan requirements apply.	☑ Priority Development Project

SECTION 2. Construction Storm Water BMP Requirements:
For all projects, complete Part D. If "Yes" is checked for any line in Part D, then continue to Part E.

Part D: Determine Construction Phase Storm Water Requirements.

1.	Is the project subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities? (See State Water Resources Control Board Order No. 2009-0009-DWQ for rules on enrollment)	☑ Yes ❑ No
2.	Does the project propose grading or soil disturbance?	☑ Yes ❑ No
3.	Would storm water or urban runoff have the potential to contact any portion of the construction area, including washing and staging areas?	☑ Yes ❑ No
4.	Would the project use any construction materials that could negatively affect water quality if discharged from the site (such as, paints, solvents, concrete, and stucco)?	☑ Yes ❑ No
5.	Check this box if "Yes" is checked for line 1. Continue to Part E.	☑ SWPPP Required
6.	Check this box if "No" is checked for line 1, and "Yes is checked for any line 2-4. Continue to Part E.	❑ WPCP Required
7.	Check this box if "No" is checked for all lines 1-4. Part E does not apply.	❑ No Document Required

Part E: Determine Construction Site Priority

This prioritization must be completed with this form, noted on the plans, and included in the SWPPP or WPCP. The City reserves the right to adjust the priority of the projects both before and during construction. [Note: The construction priority does NOT change construction BMP requirements that apply to projects; rather, it determines the frequency of inspections that will be conducted by City staff.]

❑ 1. **High Priority**
- a) Projects where the site is 50 acres or more and grading will occur during the wet season
- b) Projects 1 acre or more and tributary to an impaired water body for sediment (e.g., Peñasquitos watershed)
- c) Projects 1 acre or more within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within a Water Quality Sensitive Area.
- d) Projects subject to phased grading or advanced treatment requirements.

☑ **2 Medium Priority**. Projects 1 acre or more but not subject to a high priority designation.

❑ **3 Low Priority.** Projects requiring a Water Pollution Control Plan but not subject to a medium or high priority designation.

Name of Owner or Agent *(Please Print)*: Richard S. Tomlinson, Jr.	Title: Project Manager
Signature: Richard S Tomlinson Jr	Date: 02/26/2014

ATTACHMENT K

STORM WATER MAINTENANCE AND DISCHARGE CONTROL AGREEMENT

Michael Baker INTERNATIONAL

THE CITY OF SAN DIEGO

RECORDING REQUESTED BY:
THE CITY OF SAN DIEGO
AND WHEN RECORDED MAIL TO:

_____

_____

_____

(THIS SPACE IS FOR RECORDER'S USE ONLY)

STORM WATER MANAGEMENT AND DISCHARGE CONTROL MAINTENANCE AGREEMENT

APPROVAL NUMBER:	ASSESSORS PARCEL NUMBER:	PROJECT NUMBER:
_____	_____	_____

This agreement is made by and between the City of San Diego, a municipal corporation [City] and _____

_____,

the owner or duly authorized representative of the owner [Property Owner] of property located at

_____
(PROPERTY ADDRESS)

and more particularly described as: _____

_____
(LEGAL DESCRIPTION OF PROPERTY)

in the City of San Diego, County of San Diego, State of California.

Property Owner is required pursuant to the City of San Diego Municipal Code, Chapter 4, Article 3, Division 3, Chapter 14, Article 2, Division 2, and the Land Development Manual, Storm Water Standards to enter into a Storm Water Management and Discharge Control Maintenance Agreement [Maintenance Agreement] for the installation and maintenance of Permanent Storm Water Best Management Practices [Permanent Storm Water BMP's] prior to the issuance of construction permits. The Maintenance Agreement is intended to ensure the establishment and maintenance of Permanent Storm Water BMP's onsite, as described in the attached exhibit(s), the project's Water Quality Technical Report [WQTR] and Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s): _____.

Property Owner wishes to obtain a building or engineering permit according to the Grading and/or Improvement Plan Drawing No(s) or Building Plan Project No(s): _____.

Continued on Page 2

NOW, THEREFORE, the parties agree as follows:

1. Property Owner shall have prepared, or if qualified, shall prepare an Operation and Maintenance Procedure [OMP] for Permanent Storm Water BMP's, satisfactory to the City, according to the attached exhibit(s), consistent with the Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s): _____.

2. Property Owner shall install, maintain and repair or replace all Permanent Storm Water BMP's within their property, according to the OMP guidelines as described in the attached exhibit(s), the project's WQTR and Grading and/or Improvement Plan Drawing No(s), or Building Plan Project No(s) _____.

3. Property Owner shall maintain operation and maintenance records for at least five (5) years. These records shall be made available to the City for inspection upon request at any time.

This Maintenance Agreement shall commence upon execution of this document by all parties named hereon, and shall run with the land.

Executed by the City of San Diego and by Property Owner in San Diego, California.

See Attached Exhibit(s): _____

_____
(Owner Signature)

_____
(Print Name and Title)

_____
(Company/Organization Name)

_____
(Date)

THE CITY OF SAN DIEGO

APPROVED:

_____
(City Control Engineer Signature)

_____
(Print Name)

_____
(Date)

NOTE: ALL SIGNATURES MUST INCLUDE NOTARY ACKNOWLEDGMENTS PER CIVIL CODE SEC. 1180 ET.SEQ.

ATTACHMENT L

PERMANENT BMP
CONSTRUCTION FORM

Michael Baker
INTERNATIONAL

THE CITY OF SAN DIEGO
City of San Diego
Development Services
1222 First Ave., MS-501
San Diego, CA 92101
(619) 236-5500

Permanent BMP Construction

Self Certification Form

FORM DS-563
FEBRUARY 2013

Date Prepared:	Project No.:
Project Applicant:	Phone:
Project Address:	
Project Engineer:	Phone:

The purpose of this form is to verify that the site improvements for the project, identified above, have been constructed in conformance with the approved Standard Urban Storm Water Mitigation Plan (SUSMP) documents and drawings.

This form must be completed by the engineer and submitted prior to final inspection of the construction permit. Completion and submittal of this form is required for all new development and redevelopment projects in order to comply with the City's Storm Water ordinances and NDPES Permit Order No. R9-2007-0001. Final inspection for occupancy and/or release of grading or public improvement bonds may be delayed if this form is not submitted and approved by the City of San Diego.

CERTIFICATION:
As the professional in responsible charge for the design of the above project, I certify that I have inspected all constructed Low Impact Development (LID) site design, source control and treatment control BMP's required per the approved SUSMP and Construction Permit No. _____; and that said BMP's have been constructed in compliance with the approved plans and all applicable specifications, permits, ordinances and Order No. R9-2007-0001 of the San Diego Regional Water Quality Control Board.

I understand that this BMP certification statement does not constitute an operation and maintenance verification.

Signature: _____

Date of Signature: _____

Printed Name: _____

Title: _____

Phone No. _____

Engineer's Stamp

WASTE MANAGEMENT PLAN

FOR

Francis Parker School – Linda Vista Campus Master Plan Update

San Diego, California

Project No. 412987

Prepared for:

City of San Diego Environmental Services Department
9601 Ridgehaven Court, Suite 320
San Diego, California 92123-1636

Prepared by:

KLR PLANNING
P. O. Box 882676
San Diego, California 92168-2676
Telephone: 619-578-9505
Facsimile: 619-692-4243

June 2015

TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION 1

2.0 BACKGROUND 4
2.1 Exterior Refuse and Recyclable Material Storage Areas Requirements 6
2.2 Exterior Refuse and Recyclable Material Storage Areas for *Francis Parker School - Linda Vista Campus Master Plan Update Project* 6

3.0 EXISTING CONDITIONS 7

4.0 PROPOSED CONDITIONS 7

5.0 CONSTRUCTION WASTE 7
5.1 Recycled Construction Materials 8
5.2 Managing Construction Material 8

6.0 OCCUPANCY PHASE 12
6.1 Solid Waste Recycling 12
6.2 Landscaping and Green Waste Recycling 13

7.0 CONCLUSION 14

FIGURES

Figure 1 *Francis Parker School - Linda Vista Campus Master Plan Update Project* Location Map and Aerial 2
Figure 2 *Francis Parker School - Linda Vista Campus Master Plan Update Project* Site Plan 3

TABLES

Table 1 *C&D Debris Deposit Table* 6
Table 2 Minimum Exterior Refuse and Recyclable Material Storage Areas for Nonresidential Development 7
Table 3 *Francis Parker School - Linda Vista Campus Master Plan Update Project* Waste Generation – Demolition 9
Table 4 *Francis Parker School - Linda Vista Campus Master Plan Update Project* Waste Generation – Construction 11
Table 5 Minimum Exterior and Recyclable Material Storage Areas for the *Francis Parker School - Linda Vista Campus Master Plan Update Project* 12
Table 6 Estimated Solid Waste Generation from the *Francis Parker School - Linda Vista Campus Master Plan Update Project* 12

1.0 INTRODUCTION

The purpose of this Waste Management Plan (WMP) for the *Francis Parker School - Linda Vista Campus Master Plan Update Project* in the City of San Diego is to provide analysis of the solid waste impacts anticipated for the *Francis Parker School - Linda Vista Campus Master Plan Update Project* and how those impacts will be mitigated. The goal of this WMP is to identify sufficient mitigation to reduce the potential impacts of the *Francis Parker School - Linda Vista Campus Master Plan Update Project* on solid waste services. Two acceptable approaches to managing waste are to reduce the tons disposed to 60 tons or less, or to provide diversion of 75 percent or more, thus meeting the goal established by Assembly Bill 341.

The 22.04-net-acre (22.45-gross-acre) *Francis Parker School - Linda Vista Campus Master Plan Update Project* site is located at 6501 Linda Vista Road, San Diego, California 92111. The site is situated east of Via Las Cumbres, west of Northrim Court, north of River Glen Row, and south of Linda Vista Road and is within the Linda Vista Community Plan area. (See Figure 1, *Francis Parker School - Linda Vista Campus Master Plan Update Project Location Map and Aerial.*) The project site is developed with Francis Parker School – Linda Vista Campus, an independent middle and upper school serving Grades 6 to 12. Religious uses (Jehovah's Witness Kingdom Hall and Baha'i Faith San Diego Center) and educational use (Mark twain High School) are located north of the project site. San Diego County Office of Education is located west of the project site. Convenience commercial and multi-family residential is located east of the project. Multi-family residential is also located south of the project site. The site is zoned RM-1-1 within the area of development and OR-1-1 on perimeter slopes and is designated Institutional and Public and Semi-Public Facilities in the City of San Diego General Plan and School and Open Space (perimeter slopes) in the Linda Vista Community Plan.

The proposed project involves demolition of three existing buildings – Building 001, Building 002, and Building 003 – which total 41,307 square feet. These buildings currently house the field house, Middle School gymnasium and locker rooms, and the cafeteria. The remainder of the campus buildings would remain, totaling 133,753 square feet. Construction would include ten new buildings, a subterranean parking garage under Building Nos. 200 and 900, a new Gatehouse at the eastern Linda Vista entrance, outdoor aquatic center (pool and bleachers), reorienting the athletic field, and the addition of a regulation running track. Total new square footage would be 103,109 square feet, bringing the new total campus square footage to 236,862 square feet. New buildings to be constructed are:

- Building No. 106 – Upper School Student Center
- Building No. 200 – Gymnasium
- Building No. 201 – Lancer Lobby
- Building Nos. 201A and 201B – Athletic Complex and Offices
- Building No. 202 – Field Storage/Ticket Office
- Building No. 203 – Visitor Services
- Building No. 303 – Middle School Multi-Purpose
- Building No. 401 – Maker's Place
- Building No. 900 – Dining Hall

The proposed *Francis Parker School - Linda Vista Campus Master Plan Update Project* involves an amendment to Planned Development Permit (PDP) No. 84875/Site Development Permit (SDP) (for Environmentally Sensitive Lands) No. 215276. The project would develop under the existing zone and land use designation; therefore, a Rezone and Community Plan Amendment would not be required.

This WMP consists of two sections corresponding to the implementation of site development: the *Construction Phase* (to include demolition) and the *Occupancy Phase* (post-construction). The WMP addresses the projected amount of waste that could be generated by the project based on current City generation rates and estimates; waste reduction goals; and recommended techniques to achieve the waste reduction goals, such as recycling. Project construction includes four components that may be completed concurrently or individually. As a non-profit educational facility, construction of new facilities will occur dependent upon charitable fundraising. Construction of the project (including demolition) will vary, depending upon the facilities being constructed. Construction timelines for the four components are as follows:

- Parking structure and dining hall – 15 months
- Gymnasium and aquatic center – 16 months
- Athletic track – 8 months
- Academic buildings – 12 months

Figure 1
Francis Parker School – Linda Vista Campus - Project Location Map and Aerial

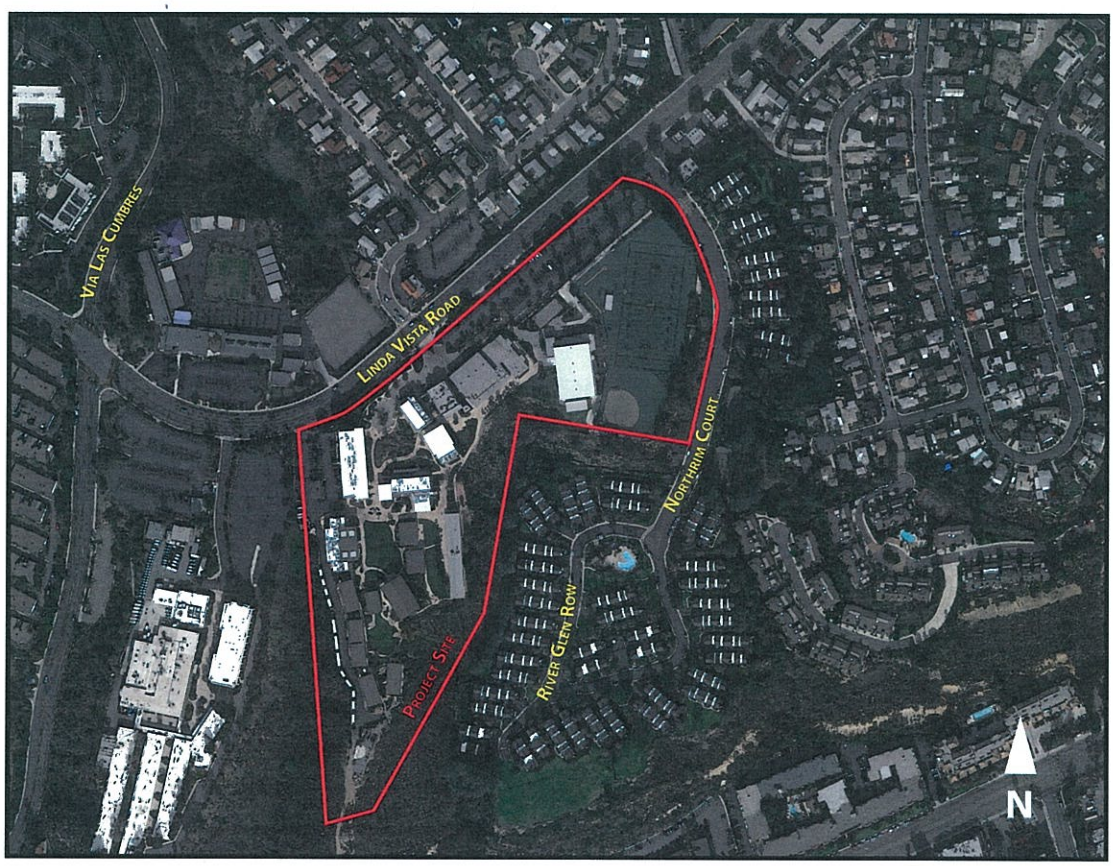
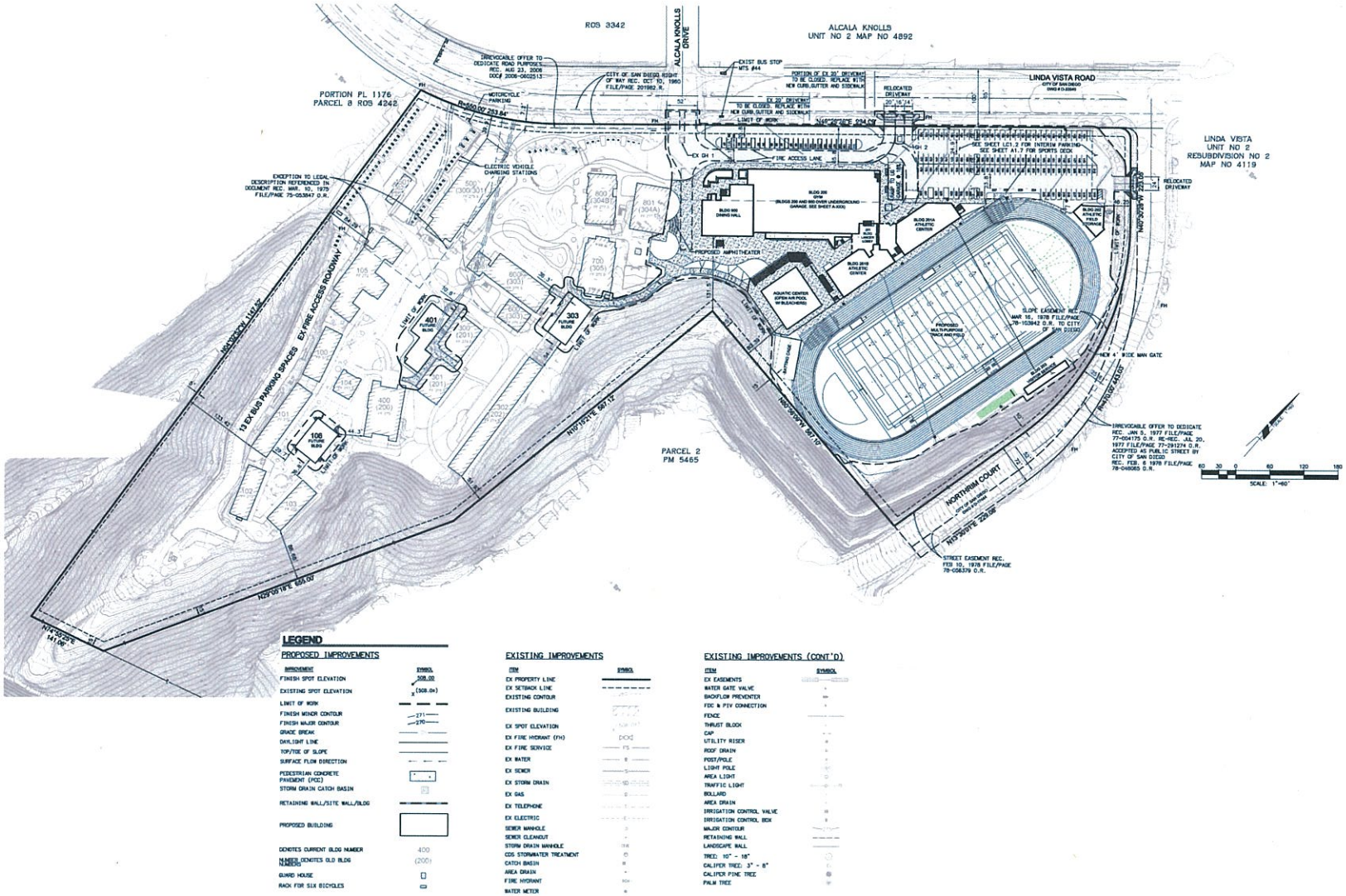


Figure 2
Francis Parker School - Linda Vista Campus Master Plan Update Project Site Plan



Waste disposal sites and recycling methods and opportunities may change from those available today; however, it is not expected that waste diversion and disposal sites listed in Table 3, *Francis Park School – Linda Vista Campus Master Plan Update Project Waste Generation – Construction,* would change by the time the project is anticipated to begin construction. This WMP includes the following general information known at the time the WMP was prepared:

- Projected waste generation calculations and identification of types of waste materials generated;
- Source separation techniques for waste generated;
- How materials will be re-used on-site;
- Name and location of current recycling, re-use, and landfill facilities where waste will be disposed of if not re-used on-site;
- A "buy recycled" program;
- Measures to be implemented directed at reducing construction debris;
- Method(s) for communicating waste reduction and recycling goals to subcontractors;
- A general time line for construction and development; and
- A list of required progress and inspections by City staff, based on current ordinances.

2.0 BACKGROUND

In 1989, the California Legislature passed Assembly Bill (AB) 939: Integrated Waste Management Act, which mandated that all cities reduce waste disposed in landfills from generators within their borders by 50 percent by the year 2000. AB 939 required all local governments to prepare a Source Reduction and Recycling Element, which incorporates waste management policies and programs to achieve the mandated waste reduction. Since 1990, the City has diverted more than 50 percent of its generated waste stream from disposal. This bill specified that solid waste should be considered by the equation GENERATED = DISPOSED + DIVERTED. "Diverted" materials are put into a *hierarchy* in the law, as follows:

- First *source reduction*, such as using a reusable bag, making double-sided copies, or other measure that stops waste at the source.
- Secondary measures include *recycling* and *composting*. Because these measures often have transportation and processing impacts, they are considered less preferable than source reduction.
- In the Public Resources Code, various methods of *transformation* for energy production are limited to ten percent of the total waste reduction target.

In 2008, SB 1016 was chaptered. Known as the Solid Waste Disposal Measurement Act, SB 1016 maintained the 50 percent diversion requirement, but changed to a disposal-based measurement system, expressed as the 50 percent Equivalent Per Capita Disposal Target. This built upon AB 939 by implementing a simplified and timelier indicator of jurisdiction performance that focuses on reported disposal at Board-permitted disposal facilities. This established a goal of not recycling more, but disposing of less. AB 341: Jobs and Recycling, chaptered in 2011, was intended to create green jobs by expanding recycling to every multi-family dwelling and business. It charged CalRecycle with responsibility for ensuring that the State is diverting at least 75 percent of solid waste that is

generated within the State by 2020. SB 1016 establishes that compliance with State law is measured by reducing the amount of waste material requiring disposal, and AB 341 increases the diversion target to 75 percent.

Additional local regulation pertaining to solid waste management includes the City of San Diego's Municipal Code Ch.14 Art. 2 Div. 8: §142.0810, §142.0820, Ch. 6 Art. 6 Div. 7; §66.0706, §66.0709, §66.0710; and Ch. 6 Art. 6 Div. 6; §66.0711, §66.0604, §66.0606. These statues designate refuse and recycling space allocation requirements for:

- on-site refuse and recyclable material storage requirements,
- diversion of construction and demolition debris regulations, and
- diversion of recyclable materials generated from residential facilities, businesses, commercial/institutional facilities, apartments, condominiums, and special events requiring a City permit.

The City of San Diego has established a threshold of 40,000 square feet of development as generating sufficient waste (60 tons) to have a potentially cumulatively significant impact on solid waste services. *Francis Parker School - Linda Vista Campus Master Plan Update Project* as proposed exceeds this threshold. The purpose of this WMP is to identify mitigation measures to reduce this potential impact to below a level of significance.

The City Recycling Ordinance is found in Municipal Code section 66.0701 et. seq. It requires the provision of recycling service for all single-family residences; and commercial facilities and multifamily residences with service for four cubic yards or more. In addition, the ordinance also requires development of educational materials to ensure occupants are informed about the City's ordinance and recycling services including information on types of recyclable materials accepted.

Construction and Demolition (C&D) Debris Diversion Deposit Program applies to all applicants for building, demolition, and removal permits. This ordinance requires that the applicant post a deposit (Table 1, *C&D Debris Deposit Table*). The deposit is not returned until the applicant demonstrates that a project-specific minimum amount of the material generated has been diverted from disposal in landfills. Mixed construction debris recycling facilities in San Diego are evaluated quarterly to determine how much of the throughput is recycled, and how much is a "residual" material requiring disposal. Facilities that accept mixed debris typically achieve a 68 percent or less diversion rate. Single materials recyclers, such as metal recyclers, often achieve a nearly 100 percent diversion rate. When comingled materials are sent to a mixed facility, the 75 percent diversion goal established by AB 341 will not be met. Depending on the project, to ensure that the overall diversion goal is attained, some materials must often be separated and trucked to facilities with higher diversion rates, such as aggregate and metal recyclers.

Table 1
C&D Debris Deposit Table

Building Category	Sq. Ft. Subject to Ordinance*	Deposit per Sq. Ft.	Range of Deposits
Residential New Construction	500-125,000 detached 500-100,000 attached	$0.40	$200-$50,000 $200-$40,000
Non-residential New Construction	1,000-25,000 commercial 1,000-75,000 industrial	$0.20	$200-$5,000 $200-$15,000
Non-residential Alterations	286 with no maximum	$0.70	$200 and up
Residential Demolition	286 with no maximum	$0.70	$200 and up
Non-residential Demolition	1,000 with no maximum	$0.20	$200 and up
Roof Tear-off	All projects	-	$200
Residential Alterations	500 and above	-	$1,000

* Projects under the minimum square footage subject to the ordinance are exempt from the C&D debris recycling deposit.

2.1 Exterior Refuse and Recyclable Material Storage Area Requirements

The *Francis Parker School - Linda Vista Campus Master Plan Update Project* will develop in four components, which may be completed concurrently or individually. As a non-profit educational facility, construction of new facilities will occur dependent upon charitable fundraising. Duration of construction of each component of the project (including demolition) will vary, depending upon the facilities being constructed, and would range between eight months and 16 months. Because the *Francis Parker School - Linda Vista Campus Master Plan Update Project* includes nonresidential development, exterior refuse and recyclable material storage areas will be provided in accordance with City regulations per Chapter 14, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, §142.0830.

2.2 Exterior Refuse and Recyclable Material Storage Areas for *Francis Parker School - Linda Vista Campus Master Plan Update Project*

Francis Parker School - Linda Vista Campus Master Plan Update Project would develop an institutional project with a total of 103,735 new square feet of building space. Table 2, *Minimum Exterior and Recyclable Material Storage Areas for Nonresidential Development*, shows the required amount of refuse and recyclable storage areas for the project, based on the amount of new building space. Because the project proposes over 100,000 square feet of new gross floor area, based on the requirements presented in in Table 2, the project would be required to provide 240 square feet each of exterior refuse and recyclable material storage area, for a total of 480 square feet of material storage area.

Table 2
Minimum Exterior Refuse and Recyclable Material Storage Areas for Commercial and Industrial Development

Gross Floor Area per Development (square feet)	Minimum Refuse Storage Area per Development (square feet)	Minimum Recyclable Material Storage Area per Development (square feet)	Total Minimum Storage Area per Development (square feet)
0 – 5,000	12	12	24
5,001 – 10,000	24	24	48
10,001 – 25,0000	48	48	96
25,001 – 50,000	96	96	192
50,001 – 75,000	144	144	288
75,001 – 100,000	192	192	384
100, 001+	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	192 plus 48 square feet for every 25,000 square feet of building area above 100,001	384 plus 96 square feet for every 25,000 square feet of building area above 100,001

Source: City of San Diego Municipal Code, Chapter 14, Article 2, Division 8: Refuse and Recyclable Material Storage Regulations, §142.0830, Table 142-08C, effective January 1, 2000.

3.0 EXISTING CONDITIONS

The *Francis Parker School - Linda Vista Campus Master Plan Update Project* site encompasses approximately 22.04 net (22.45 gross) acres. The project site is bordered by Linda Vista Road to the north, River Glen Row to the south, Northrim Court to the east, and the San Diego County Office of Education to the west. The project site is currently developed with 169,201 square feet of institutional uses.

4.0 PROPOSED CONDITIONS

The proposed project involves demolition of three existing structures (totaling 41,307 square feet) and construction of a ten new buildings and accessory uses/structures (totaling approximately 103,109 square feet). (See Figure 2, *Francis Parker School - Linda Vista Campus Master Plan Update Project Site Plan.*)

Construction is organized into four components, which may run concurrently or individually, requiring between eight and 16 months for each component. As a non-profit educational facility, construction is dependent upon charitable fundraising, and construction would begin as funding becomes available. Construction practices will comply with local, State, and Federal regulations regarding handling of building materials to ensure waste minimization requirements are met.

5.0 CONSTRUCTION WASTE (including demolition and construction)

Construction activities would generate packaging materials and unpainted wood, including wood pallets, and other miscellaneous debris. Construction debris would be separated on-site into material-specific containers to facilitate reuse and recycling and to increase the efficiency of waste reclamation and/or would be collected by a contracted waste hauler and separated at the facility. Source separation of materials at the construction site is essential to (1) ensure appropriate waste diversion rate, (2) minimize costs associated with transportation and disposal, and (3) facilitate compliance with the C&D ordinance. The types of construction waste anticipated to be generated include:

- Asphalt and Concrete
- Brick/Masonry/Tile
- Cardboard
- Carpet, Padding/Foam
- Drywall
- Landscape Debris
- Mixed C&D Debris
- Roofing Materials
- Scrap Metal
- Unpainted Wood and Pallets
- Garbage/Trash

Materials to be recycled would be redirected to appropriate recipients selected from ESD's directory of facilities that recycle construction materials, scrap metal, and yard waste.

5.1 Recycled Construction Materials

The *Francis Parker School - Linda Vista Campus Master Plan Update Project* will implement a target of 20 percent recycled material.

5.2 Managing Construction Material

Demolition and construction will occur over a period of approximately eight to 16 months, depending upon the component. Components may be constructed concurrently or individually. ESD staff would be present for an early pre-construction meeting to evaluate waste segregation, signage, and salvage.

The project site is the location of an existing institutional development (i.e., an independent school). The demolition phase will include the deconstruction/demolition and removal of the existing buildings, associated structures, asphalt parking and walkway areas, and interior landscaping. Approximately 3,203 tons of waste is expected to be generated during demolition. Approximately 3,197 tons of material would be recycled, to include landscaping, concrete, asphalt, foundations, building structure, masonry walls, curb and gutter, and switch gear and cable. Approximately 5.4 tons of debris would be disposed in a landfill, to include non-useable lumber, drywall, glass, miscellaneous trash, roofing paper, broken roof tiles, and floor tile. Table 3, *Francis Parker School - Linda Vista Campus Master Plan Update Project Waste Generation – Demolition*, summarizes the type and amount of demolition materials, as well as diversion/disposal. In addition to the materials included in Table 3, demolition of the existing gym will include salvaging stained and painted wood plank floors. It is the intent of the applicant to donate the wood floor planks so that they may be re-used. A donation source has not yet been determined.

Table 3
Francis Parker School - Linda Vista Campus Master Plan Update Project Waste Generation – Demolition

Material Type	Estimated Waste Quantity (tons)	Handling	Estimated Diversion (tons)	Estimated Disposal (tons)
DEMOLITION WASTE				
Asphalt and Concrete[1]	3,000	**Hanson Aggregates** 9229 Harris Plant Road San Diego, CA 92126 (100% diversion)	3,000	--
Foundations/ Building Structure	168	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	168	--
Brick/Masonry/ Tile	4.8	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	4.8	--
Cubs/Gutter	6	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	6	--
Switch Gear/Cable	1.2	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	1.2	--
Drywall	4.8	**EDCO Station Transfer and Buy Back Center** 8184 Commercial Street La Mesa, CA 91942 (70% diversion)	3.4	1.4
Landscape Materials	3.6	**Miramar Greenery** 5180 Convoy Street San Diego, CA 92111 (100% diversion)	3.6	--
Roofing Materials	5.4	**LEED Recycling** 8725 Miramar Place San Diego, CA 92121 (100% diversion)	5.4	--
Floor Tile	2.4	**Otay C&D/Inert Debris Processing Facility** 1700 Maxwell Road Chula Vista, CA 91913 (76% diversion)	1.8	0.6
Glass	0.4	**Otay C&D/Inert Debris Processing Facility** 1700 Maxwell Road Chula Vista, CA 91913 (76% diversion)	0.3	0.1
Non-Useable Lumber	3.6	**Otay C&D/Inert Debris Processing Facility** 1700 Maxwell Road	2.7	0.9

[1] Asphalt and concrete will be recycled and/or re-used on-site.

		Chula Vista, CA 91913 (76% diversion)		
Garbage/Trash	2.4	**Miramar Landfill** 5180 Convoy Street San Diego, CA 92111 (0% diversion)	--	2.4
TOTAL	3,202.6		3,197.2	5.4

Note: There is asbestos flooring in the kitchen area that will need to be disposed of at a hazardous materials facility and cannot be diverted/recycled.

In accordance with State diversion targets, a minimum of 75 percent of construction materials will be recycled. Materials to be recycled would be redirected to appropriate recipients selected from ESD's directory of facilities that recycle demolition materials, scrap metal, and yard waste.

To facilitate management of construction materials, the developer shall identify one person or agency connected with the proposed development to act as Solid Waste Management Coordinator, whose responsibility it becomes to work with all contractors and subcontractors to ensure material separation and coordinate proper disposal and diversion of waste generated. The Solid Waste Management Coordinator will help to ensure all diversion practices outlined in this Waste Management Plan are upheld and communicate goals to all contractors involved efficiently.

The responsibilities of the Solid Waste Management Coordinator, include, but are not limited to, the following:

- Review the Solid Waste Management Plan including responsibilities of Solid Waste Management Coordinator.
- Review and update procedures as needed for material separation and verify availability of containers and bins needed to avoid delays.
- Review and update procedures for periodic solid waste collection and transportation to recycling and disposing facilities.
- Issue stop work orders if proper procedures are not being allowed.

The contractors will perform daily inspections of the construction site to ensure compliance with the requirements of the Waste Management Plan and all other applicable laws and ordinances and will report directly to Solid Waste Management Coordinator. Daily inspections will include verifying the availability and number of dumpsters based on amount of debris being generated, correct labeling of dumpsters, proper sorting and segregation of materials, and salvaging of excess materials. Additionally, the following apply:

- Solid Waste Management Coordinator will be responsible for educating contractors and subcontractors regarding Waste Management Plan requirements and ensuring that contractors and subcontractors carry out the measures described in the WMP.
- Solid Waste Management Coordinator will ensure ESD attendance at a Precon and assure compliance with segregation requirements, and verification of recycled content in base materials.
- Recycling areas will be clearly identified with large signs and sufficient amounts of material-specific bins will be provided for necessary segregation.

- Recycling bins will be placed in areas that are readily accessible to contractors/ subcontractors and in areas that will minimize misuse or contamination by employees and the public.
- Solid Waste Management Coordinator will be responsible for ensuring that contamination rates in bins remain below 5 percent by weight of the bin.

Table 4, *Francis Parker School - Linda Vista Campus Master Plan Update Project Waste Generation – Construction*, is included below to summarize the types of waste generated, the approximate amount of each waste type diverted, and the approximate overall amount remaining to be disposed of in landfills. Construction waste processing facilities that may be used for any of the construction components include but are not limited to those facilities listed in Table 4. Because certified diversion rates and authorized facilities are updated quarterly and the decision on which facility will be contracted for waste hauling will be made at the time of construction based on market conditions and the facility's certified rate, Francis Parker School reserves the right to select any authorized facility as long as the facility is City-certified to meet minimum diversion requirements.

Table 4
Francis Parker School - Linda Vista Campus Master Plan Update Project Waste Generation – Construction

Material Type	Estimated Waste Quantity (tons)	Handling	Estimated Diversion (tons)	Estimated Disposal (tons)
CONSTRUCTION WASTE				
Asphalt and Concrete	12	**Hanson Aggregates** 9229 Harris Plant Road San Diego, CA 92126 (100% diversion)	12	--
Brick/Masonry/ Tile	9	**Vulcan Carroll Canyon Landfill and Recycle Site** 10051 Black Mountain Road San Diego, CA 92126 (100% diversion)	9	--
Carpet, Padding/Foam	6	**DFS Flooring** 10178 Willow Creek Road San Diego, CA 92131 (100% diversion)	6	--
Drywall	45	**EDCO Station Transfer and Buy Back Center** 8184 Commercial Street La Mesa, CA 91942 (70% diversion)	32	13
Landscape Debris	6	**Miramar Greenery** 5180 Convoy Street San Diego, CA 92111 (100% diversion)	6	--
Roofing Materials	0.6	**LEED Recycling** 8725 Miramar Place San Diego, CA 92121 (100% diversion)	0.6	--
Scrap Metal	3	**Allan Company** 6733 Consolidated Way San Diego, CA 92121 (100% diversion)	3	--
Unpainted Wood & Pallets	48	**Miramar Greenery** 5180 Convoy Street San Diego, CA 92111 (100% diversion)	48	--
Garbage/Trash	30	**Miramar Landfill** 5180 Convoy Street San Diego, CA 92111 (0% diversion)	--	30
TOTAL	**159.6**		**116.6**	**43**

Construction debris will be separated onsite into material-specific containers, corresponding to the materials types in Table 4, to facilitate reuse and recycling and to increase the efficiency of waste reclamation. The *Francis Parker School - Linda Vista Campus Master Plan Update Project* will implement a target of 20 percent recycled material and 75 percent for landfill diversion. As shown in Table 4, 73 percent of the construction materials generated by the project are expected to be diverted from landfills.

6.0 OCCUPANCY PHASE

While the construction phase for the *Francis Parker School - Linda Vista Campus Master Plan Update Project* occurs as a one-time waste generation event as construction of the project proceeds, tenant/owner occupancy requires an on-going plan to manage waste disposal to meet the waste reduction goals established by the City and State.

6.1 Solid Waste Recycling

The following table expresses the anticipated refuse and recyclable storage requirements based on 142.08C of the City of San Diego Municipal Code.

Table 5
Minimum Exterior and Recyclable Material Storage Areas for the Francis Parker School - Linda Vista Campus Master Plan Update Project

Land Use	Gross Floor Area	Minimum Refuse Storage Area (square feet)	Minimum Recyclable Material Storage Area (square feet)	Total Minimum Storage Area (square feet)
Nonresidential	103,109 sq ft	240	240	480

As shown in Table 6, *Estimated Solid Waste Generation from the Francis Parker School - Linda Vista Campus Master Plan Update Project*, during occupancy, the expected generated waste per year from the *Francis Parker School - Linda Vista Campus Master Plan Update Project* when fully occupied would be approximately 1.56 tons.

Table 6
Estimated Solid Waste Generation from the Francis Parker School - Linda Vista Campus Master Plan Update Project – Occupancy Phase

Use	Intensity	Waste Generation Rate	Estimated Waste Generated (tons/year)
Educational Institutions	13 employees	0.12 tons/year/employee	1.56

Francis Parker School - Linda Vista Campus Master Plan Update Project shall participate in a recycling program by separating recyclable materials from other solid waste and depositing the recyclable materials in the recycling container provided for the occupants. Recycling services are required by Section 66.0707 of the City of San Diego Land Development Code. Based on current requirements, these services shall include the following:

- Collection of recyclable materials as frequently as necessary to meet demand;
- Collection of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
- Collection of other recyclable materials for which markets exist, such as scrap metal, wood pallets;
- Collection of food waste for recycling by composting, where available;
- Use of recycling receptacles or containers which comply with the standards in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department;
- Designated recycling collection and storage areas; and
- Signage on all recycling receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the City of San Diego Environmental Services Department (ESD).

Additionally, Francis Parker School actively participates in a variety of recycling programs directed at reducing waste. These include:

- *Food Waste Program*: Average 120 pounds per week collected by San Diego Rescue Mission on Fridays for homeless.
- *Composting Program*: Eight 32-gallon composting containers emptied once per week to City of San Diego's program.
- *Green Waste Program*: Three four-cubic-yard green waste containers emptied once per week to Sycamore, future will be to Miramar Greenery.
- *E-waste Events*: In April of each academic year, Francis Park School holds an e-waste event with the USD Electronic Waste Recycling division.
- *Universal Waste 2x per year with HMBP*: light bulbs, batteries, oil and oil filters, old paint included in this stream.
- *Compacting On site*: Beginning in August 2015
    - Trash: One Marathon three-cubic-yard VIP compactor for trash, emptied 5x per week when school is in session (40/52 weeks per year); average is 4x per week over a calendar year.
    - Recycling: One Nedland two-cubic-yard Stationary Compactor with 40-cubic-yard capacity, emptied every other week.

6.2 Landscaping and Green Waste Recycling

Francis Parker School has an approved landscaping plan. New development would be in compliance with this approved plan. Plant material selection will be guided by the landscape plan, which encourages long-term sustainability without the excessive use of water pesticides and fertilizers. Irrigation of landscaped areas, where practical, will utilize reclaimed water applied via low precipitation rate spray heads, drip emitters, or other highly efficient systems. Landscape maintenance would include the collection of green waste and disposal of green waste at recycling centers that accept green waste. This will help further reduce the waste generated during the occupancy phases of the project.

7.0 CONCLUSION

The City of San Diego Development Services Department is requiring that this Preliminary WMP be prepared and submitted to the City of San Diego's ESD. Since the project is in the design phase, this is only a preliminary plan, which specifies the intent to meet the requirements of PRC 939 and City ordinances. Prior to the issuance of any permits for construction within each neighborhood of *Francis Parker School - Linda Vista Campus Master Plan Update Project.*

This Preliminary WMP will be implemented to the fullest degree of accuracy and efficiency. Additionally, the project will be required to adhere to City ordinances, including the *Construction and Demolition Debris Diversion Deposit Program*, the City's *Recycling Ordinance*, and the *Refuse and Recyclable Materials Storages Regulations.* The WMP plan for the *Francis Parker School - Linda Vista Campus Master Plan Update Project* is designed to implement and adhere to all city ordnance and regulations with regards to waste management. The measures in the WMP would ensure that impacts are mitigated to below a level of significance.

Prior to the issuance of any grading or construction permits, the Solid Waste Coordinator will ensure ESD's attendance at a precon. The Solid Waste Coordinator will ensure that 1) the proposed approach to contractor education is approved, 2) the written specifications for base materials, concrete pavers, decomposed granite, and mulch, is approved, and 3) that the ESD inspector approves the separate waste containers, signage, and hauling contract(s) for the following materials:

- Asphalt/concrete
- Brick/masonry/Tile
- Cardboard
- Carpet/padding/foam
- Drywall
- Landscape debris
- Mixed C&D debris
- Scrap metal
- UNTREATED woodwaste
- Refuse

The project will be designed to achieve 75 percent of construction waste to be source reduced and/or recycled. While diversion activities during occupancy will achieve only 40 percent diversion and will not achieve the State target of 75 percent, the project incorporates several measures above and beyond the requirements of local ordinance.

- First, the project exceeds ordinance requirements and even the State waste reduction target during construction.
- Second, the project includes landscaping that will reduce yardwaste, and will provide transportation to a composting facility for the yard waste that is produced.

The project will target 20 percent of solid waste to be recycled material and 75 percent for landfill diversion.

These measures ensure that the waste generated by the project will be properly managed and that solid waste services will not be impacted.

The following standard mitigation applies to the project to reduce cumulative impacts on solid waste to below a level of significance:

I. Prior to Permit Issuance or Bid opening/Bid award

A. LDR Plan check

1. Prior to the issuance of any construction permit, including but not limited to, demolition, grading, building or any other construction permit, the Assistant Deputy Director (ADD) Environmental Designee shall verify that the all the requirements of the Refuse & Recyclable Materials Storage Regulations and all of the requirements of the waste management plan are shown and noted on the appropriate construction documents. All requirements, notes and graphics shall be in substantial conformance with the conditions and exhibits of the associated discretionary approval.

The construction documents shall include a waste management plan.

Verification shall be sent to:

MMC Environmental Review Specialist
Development Service Department
9601 Ridgehaven Court
Ste. 220, MS 1102 B
San Diego, California 92123 1636
(619) 980 7122

Environmental Services Department (ESD)
9601 Ridgehaven Court
Ste. 210, MS 1102 A
San Diego, California 92123 1636
(858) 573-1236

II. Prior to Start of Construction

A. Grading and Building Permit - Prior to issuance of any grading or building permit, the permittee shall be responsible to arrange a preconstruction meeting to coordinate the implementation of the MMRP. The Precon Meeting shall include: the Construction Manager, Building/Grading Contractor; MMC; and ESD and the Building Inspector and/or the RE (whichever is applicable) to verify that implementation of the waste management plan shall be performed in compliance with the plan approved by LDR and the San Diego ESD, to ensure that impacts to solid waste facilities are mitigated to below a level of significance.

1. At the Precon Meeting, the Permittee shall submit reduced copies (11" x 17") of the approved waste management plan, to the RE, BI, MMC, and ESD.
2. Prior to the start of construction, the Permittee/Construction Manager shall submit a construction schedule to the RE, BI, MMC, and ESD.

III. During Construction

The Permittee/Construction Manager shall call for inspections by the RE/BI and both MMC and ESD, who will periodically visit the demolition/construction site to verify implementation

of the waste management plan. The Consultant Site Visit Record (CSVR) shall be used to document the Daily Waste Management Activity/progress.

IV. Post Construction

A. Within 30 days after the completion of the implementation of the Mitigation Monitoring Reporting Program (MMRP), for any demolition or construction permit, a final results report shall be submitted to both MMC and ESD for review and approval to the satisfaction of the City. MMC will coordinate the approval with ESD and issue the approval notification. ESD will review/approve City Recycling Ordinance-required educational materials prior to occupancy.