

City of San Diego

CONTRACTOR'S NAME: _____
ADDRESS: _____
TELEPHONE NO.: _____ FAX NO.: _____
CITY CONTACT: Damian Singleton - Contract Specialist, Email: DSingleton@saniego.gov
Phone No. (619) 533-3482, Fax No. (619) 533-3633
M Calleran / B Doringo / LJI

CONTRACT DOCUMENTS FOR



South Chollas Landfill Operations Yard Improvement Project

VOLUME 1 OF 2

BID NO.: _____ **K-15-6285-DBB-3**
SAP NO. (WBS/IO/CC): _____ **S-00684**
CLIENT DEPARTMENT: _____ **2115**
COUNCIL DISTRICT: _____ **4**
PROJECT TYPE: _____ **FA / BS / CB**

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:


- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.
- PREVAILING WAGE RATES: STATE ☒ FEDERAL ☐
- APPRENTICESHIP

BID DUE DATE:

**2:00 PM
NOVEMBER 13, 2014
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTS
1010 SECOND AVENUE, 14th FLOOR, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK


The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineer:


1) Registered Engineer

October 7, 2014
Date

Seal:




2) For City Engineer

10-7-14
Date

Seal



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CITY OF SAN DIEGO, CALIFORNIA

NOTICE INVITING BIDS

1. **RECEIPT AND OPENING OF BIDS:** Bids will be received at the Public Works Contracting Group at the location, time, and date shown on the cover of these specifications for performing work on **South Chollas Landfill Operations Yard Improvement Project** (Project).
2. **SUMMARY OF WORK:** The Work involves furnishing all labor, materials, equipment, services, and other incidental works and appurtenances for the construction of the Project as described in ATTACHMENT A.
3. **BIDS ARE PUBLIC RECORDS:** Upon receipt by the City, Bids shall become public records subject to public disclosure. It is the responsibility of the respondent to clearly identify any confidential, proprietary, trade secret or otherwise legally privileged information contained within the Bid. General references to sections of the California Public Records Act (PRA) will not suffice. If the Contractor does not provide applicable case law that clearly establishes that the requested information is exempt from the disclosure requirements of the PRA, the City shall be free to release the information when required in accordance with the PRA, pursuant to any other applicable law, or by order of any court or government agency, and the Contractor will hold the City harmless for release of this information.
4. **SUBCONTRACTING PARTICIPATION PERCENTAGES:**
 - 4.1. The City has incorporated **mandatory** SLBE-ELBE subcontractor participation percentages to enhance competition and maximize subcontracting opportunities. For the purpose of achieving the mandatory subcontractor participation percentages, a recommended breakdown of the SLBE and ELBE subcontractor participation percentages based upon certified SLBE and ELBE firms has also been provided to achieve the mandatory subcontractor participation percentages:

1. SLBE participation	4.3%
2. ELBE participation	9.0%
3. Total mandatory participation	13.3%
 - 4.2. The Bidders are **required** to attend the Pre-Bid Meeting to better understand the Good Faith Effort requirements of this contract. See the City's document titled "SLBE Program, Instructions For Bidders Completing The Good Faith Effort Submittal" available at: <http://www.sandiego.gov/eoc/>
 - 4.3. The Bid will be declared **non-responsive** if the Bidder fails the following mandatory conditions:
 - 4.3.1. Attending the Pre-Bid Meeting.
 - 4.3.2. Attending the Pre-Bid Site Visit

4.3.3. Bidder's inclusion of SLBE-ELBE certified subcontractors at the overall mandatory participation percentage identified in this document; OR.

4.3.4. Bidder's submission of Good Faith Effort documentation, saved in searchable Portable Document Format (PDF) and stored on Compact Disc (CD) or Digital Video Disc (DVD), demonstrating the Bidder made a good faith effort to outreach to and include SLBE-ELBE Subcontractors required in this document within **3 Working Days** of the Bid opening if the overall mandatory participation percentage is not met.

4.4. For additional Equal Opportunity Contracting Program requirements, see Attachment C.

5. **PRE-BID MEETING:**

5.1. There will be a Pre-Bid Meeting to discuss the scope of the Project, bidding requirements, pre-qualification process, and Equal Opportunity Contracting Program requirements and reporting procedures in the Public Works Contracts, Conference Room at 1010 Second Avenue, 14th Floor, San Diego, CA 92101 **at 10:00 A.M., on October 23, 2014.**

5.2. **The Pre-Bid Meeting has been designated as MANDATORY. All potential bidders are required to attend.** Bid will be declared **non-responsive** if the Bidder fails to attend the Pre-Bid Meeting when specified to be mandatory. Attendance at the Pre-Bid Meeting will be evidenced by the representative's signature on the attendance roster. It shall be the responsibility of the Bidder's representative to complete and sign the attendance roster. **No Bidder will be admitted after the specified start time of the mandatory Pre-Bid Meeting.**

5.3. To request a copy of the agenda on an alternative format, or to request a sign language or oral interpreter for this meeting, call the Public Works Contracts at (619) 533-3450 at least 5 Working Days prior to the Pre-Bid Meeting to ensure availability.

6. **CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:**

6.1. **Prior** to the Award of the Contract or each Task Order, you and your Subcontractors and Suppliers must register with the City's web-based contract compliance website, Prism®, located here:

<https://pro.prismcompliance.com/default.aspx>.

6.2. The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.

7. **PRE-BID SITE VISIT:** The prospective Bidders are **required** to visit the Work Site with the Engineer. The purpose of the Site visit is to acquaint Bidders with the Site conditions. To request a sign language or oral interpreter for this visit, call the Public Works Contracts at (619) 533-3450 at least 5 Working Days prior to the meeting to ensure availability. A mandatory Pre-Bid Site Visit is offered when the details are provided as follows:

Time: 1:00 PM
Date: 10/23/2014
Location: Chollas Operations Yard
2781 Caminito Chollas, San Diego CA 92105.

- 7.1.** Attendance at the Site visit will be evidenced by the representative's signature on the attendance roster. It shall be the responsibility of the Bidder's representative to complete and sign the attendance roster.
- 8. JOINT VENTURE CONTRACTORS:** Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receiving the Contract forms. See 2-1.1.2, "Joint Venture Contractors" in The WHITEBOOK for details.
- 9. PREVAILING WAGE RATES:** Pursuant to San Diego Municipal Code section 22.3019, construction, alteration, demolition, repair and maintenance work performed under this Contract is subject to State prevailing wage laws. For construction work performed under this Contract cumulatively exceeding \$25,000 and for alteration, demolition, repair and maintenance work performed under this Contract cumulatively exceeding \$15,000, the Contractor and its subcontractors shall comply with State prevailing wage laws including, but not limited to, the requirements listed below.
- 9.1. Compliance with Prevailing Wage Requirements.** Pursuant to sections 1720 through 1861 of the California Labor Code, the Contractor and its subcontractors shall ensure that all workers who perform work under this Contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.
- 9.2.** Copies of such prevailing rate of per diem wages are on file at the City and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Contractor and its subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.
- 9.3.** The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this Contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this Contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this Contract, each successive predetermined wage rate shall apply to this Contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this Contract, such wage rate shall apply to the balance of the Contract.

- 9.4. Penalties for Violations.** Contractor and its subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed.
- 9.5. Payroll Records.** Contractor and its subcontractors shall comply with California Labor Code section 1776, which generally requires keeping accurate payroll records, verifying and certifying payroll records, and making them available for inspection. Contractor shall require its subcontractors to also comply with section 1776. Contractor and its subcontractors shall submit weekly certified payroll records online via the City's web-based Labor Compliance Program. Contractor is responsible for ensuring its subcontractors submit certified payroll records to the City.
- 9.6. Apprentices.** Contractor and its subcontractors shall comply with California Labor Code sections 1777.5, 1777.6 and 1777.7 concerning the employment and wages of apprentices. Contractor shall be held responsible for the compliance of their subcontractors with sections 1777.5, 1777.6 and 1777.7.
- 9.7. Working Hours.** Contractor and subcontractors shall comply with California Labor Code sections 1810 through 1815, including but not limited to: (i) restrict working hours on public works contracts to eight hours a day and forty hours a week, unless all hours worked in excess of 8 hours per day are compensated at not less than 1½ times the basic rate of pay; and (ii) specify penalties to be imposed on design professionals and subcontractors of \$25 per worker per day for each day the worker works more than 8 hours per day and 40 hours per week in violation of California Labor Code sections 1810 through 1815.
- 9.8. Required Provisions for Subcontracts.** Contractor shall include at a minimum a copy of the following provisions in any contract they enter into with a subcontractor: California Labor Code sections 1771, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860 and 1861.
- 9.9. Labor Code Section 1861 Certification.** Contractor in accordance with California Labor Code section 3700 is required to secure the payment of compensation of its employees and by signing this Contract, Contractor certifies that "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."
- 9.10. Labor Compliance Program.** The City has its own Labor Compliance Program as authorized by the DIR. The City will withhold contract payments when payroll records are delinquent or deemed inadequate by the City or other governmental entity, or it has been established after an investigation by the City or other governmental entity that underpayment(s) have occurred.

10. INSURANCE REQUIREMENTS:

- 10.1.** All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City's Notice of Intent to Award letter.

- 10.2.** Refer to sections 7-3, “LIABILITY INSURANCE”, and 7-4, “WORKERS’ COMPENSATION INSURANCE” of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.

11. PREQUALIFICATION OF CONTRACTORS:

- 11.1.** Contractors submitting Bid must be pre-qualified for the total amount proposed, inclusive of all alternate items prior to the date of submittal. Bids from contractors who have not been pre-qualified as applicable and Bids that exceed the maximum dollar amount at which contractors are pre-qualified will be deemed **non-responsive** and ineligible for award. Complete information and prequalification questionnaires are available at:

<http://www.sandiego.gov/cip/bidopps/prequalification.shtml>

- 11.2.** The completed questionnaire, financial statement, and bond letter or a copy of the contractor’s SLBE-ELBE certification and bond letter, must be submitted no later than 2 weeks prior to the bid opening to the Public Works Contracts, Prequalification Program, 1010 Second Avenue, 14th Floor, San Diego, CA 92101. For additional information or the answer to questions about the prequalification program, contact David Stucky at 619-533-3474 or dstucky@sandiego.gov.

- 12. REFERENCE STANDARDS:** Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

Title	Edition	Document Number
Standard Specifications for Public Works Construction (“The GREENBOOK”)	2012	PITS070112-01
City of San Diego Standard Specifications for Public Works Construction (“The WHITEBOOK”)*	2012	PITS070112-02
City of San Diego Standard Drawings*	2012	PITS070112-03
Caltrans Standard Specifications	2010	PITS070112-04
Caltrans Standard Plans	2010	PITS070112-05
California MUTCD	2012	PITS070112-06
City Standard Drawings - Updates Approved For Use (when specified)*	Varies	Varies
Standard Federal Equal Employment Opportunity Construction Contract Specifications and the Equal Opportunity Clause Dated 09-11-84	1984	769023
NOTE: *Available online under Engineering Documents and References at: http://www.sandiego.gov/publicworks/edocref/index.shtml		

- 13. CITY'S RESPONSES AND ADDENDA:** The City at its option, may respond to any or all questions submitted in writing, via letter, or FAX in the form of an addendum. No oral comment shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addendum are made effective as though originally issued with the Bid. The Bidders shall acknowledge the receipt of Addenda on the form provided for this purpose in the Bid.
- 14. CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Notice Inviting Bids at any time, and further reserves the right to reject submitted Bids, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Bids under the Notice Inviting Bids shall be the sole responsibility of each bidder. The Notice Inviting Bids creates or imposes no obligation upon the City to enter a contract.
- 15. CONTRACT PRICING FORMAT:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth in the Bid Proposal Form(s), Volume 2.
- 16. SUBMITTAL OF "OR EQUAL" ITEMS:** See Section 4-1.6, "Trade Names or Equals" in The WHITEBOOK and as amended in the SSP.
- 17. AWARD PROCESS:**
- 17.1.** The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award.
- 17.2.** Upon acceptance of a Bid, the City will prepare contract documents for execution within approximately 21 days of the date of the Bid opening and award the Contract approximately within 7 days of receipt of properly executed Contract, bonds, and insurance documents.
- 17.3.** This contract will be deemed executed, and effective, only upon the signing of the Contract by the Mayor or designee of the City.
- 18. SUBCONTRACT LIMITATIONS:** The Bidder's attention is directed to Standard Specifications for Public Works Construction, Section 2-3, "SUBCONTRACTS" in The GREENBOOK and as amended in the SSP which requires the Contractor to self-perform not less than the specified amount. Failure to comply with this requirement shall render the bid **non-responsive** and ineligible for award.
- 19. AVAILABILITY OF PLANS AND SPECIFICATIONS:** Contract Documents may be obtained by visiting the City's website: <http://www.sandiego.gov/cip/>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Public Works Contracts.
- 20. SUBMISSION OF QUESTIONS:**
- 20.1.** The Director (or designee), of the Public Works Department is the officer responsible for opening, examining, and evaluating the competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. All questions related to this solicitation shall be submitted to:

Public Works Contracts
1010 Second Avenue, 14th Floor
San Diego, California, 92101
Attention: [Contract Specialist listed on the front cover hereof]

OR:

Email address of the Contract Specialist listed on the front cover hereof.

- 20.2.** Questions received less than 14 days prior to the date for opening of Bids may not be considered.
- 20.3.** Clarifications deemed by the City to be material shall be issued by Addenda and uploaded to the City's online bidding service.
- 20.4.** Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. It is the Bidder's responsibility to become informed of any Addenda that have been issued and to include all such information in its Bid.
- 21. ELIGIBLE BIDDERS:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than one (1) Bid for the same work unless alternate Bids are called for. A person, firm or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from submitting a Bid in its own behalf. Any Bidder who submits more than one bid will result in the rejection of all bids submitted.
- 22. SAN DIEGO BUSINESS TAX CERTIFICATE:** The Contractor and Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, first floor and submit to the Contract Specialist upon request or as specified in the Contract Documents. Tax Identification numbers for both the Bidder and the listed Subcontractors must be submitted on the City provided forms with the Notice Inviting Bids and Contract forms.
- 23. PROPOSAL FORMS:** Bid shall be made only upon the Bidding Documents i.e., Proposal form attached to and forming a part of the specifications. The signature of each person signing shall be in longhand.

 - 23.1.** Bidder shall complete and submit all pages in the "Bidding Document" Section (see Volume 2) as their Bid per the schedule given under "Required Documents Schedule," (see Volume 1). Bidder is requested to retain for their reference other portions of the Contract Documents that are not required to be submitted with the Bid. The entire specifications for the bid package do not need to be submitted with the bid.
 - 23.2.** The City may require any Bidder to furnish a statement of experience, financial responsibility, technical ability, equipment, and references.
 - 23.3.** Bids and certain other forms and documents as specified in the Volume 2 of 2 of the Contract Documents shall be enclosed in a sealed envelope and shall bear the title of the work and name of the Bidder and the appropriate State Contractors License designation which the Bidder holds.
 - 23.4.** Bids may be withdrawn by the Bidder prior to, but not after, the time fixed for opening of Bids.

24. BIDDER'S GUARANTEE OF GOOD FAITH (BID SECURITY):

- 24.1.** With the exception of the contracts valued \$5,000 or less, JOC and Design-Build contracts, and contracts subject to the Small and Local Business Program of \$250,000 or less e.g., ELBE contracts, each Bidder shall accompany its Bid with either a cashier's check upon some responsible bank, or a check upon such bank properly certified or an approved corporate surety bond payable to the City of San Diego, for an amount of not less than 10% of the aggregate sum of the Bid, which check or bond, and the monies represented thereby shall be held by the City as a guarantee that the Bidder, if awarded the contract, will in good faith enter into such contract and furnish the required final bonds.
- 24.2.** The Bidder agrees that in case of Bidder's refusal or failure to execute this contract and give required final bonds, the money represented by a cashier's or certified check shall remain the property of the City, and if the Bidder shall fail to execute this contract, the Surety agrees that it will pay to the City damages which the City may suffer by reason of such failure, not exceeding the sum of 10% of the amount of the Bid.
- 24.3.** A Bid received without the specified bid security will be rejected as being **non-responsive**.

25. AWARD OF CONTRACT OR REJECTION OF BIDS:

- 25.1.** This contract may be awarded to the lowest responsible and reliable Bidder.
- 25.2.** Bidders shall complete the entire Bid schedule (also referred to as "schedule of prices" or Proposal form). Incomplete price schedules will be rejected as being non-responsive.
- 25.3.** The City reserves the right to reject any or all Bids, and to waive any informality or technicality in Bids received and any requirements of these specifications as to bidding procedure.
- 25.4.** Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City from the Bidder within 3 Working Days, excluding Saturdays, Sundays, and state holidays, after the opening of Bids, of written notice which includes proof of honest, credible, clerical error of material nature, free from fraud or fraudulent intent, and of evidence that reasonable care was observed in the preparation of the Bid.
- 25.5.** A non-selected Bidder may protest award of the Contract to the selected Bidder by submitting a written "Notice of Intent to Protest" including supporting documentation which shall be received by Public Works Contracts no later than 10 days after the City's announcement of the selected Bidder or no later than 10 days from the date that the City issues notice of designation of a Bidder as non-responsive in accordance with San Diego Municipal Code Chapter 2, § 22.3029, "Protests of Contract Award."
- 25.6.** The City of San Diego will not discriminate with regard to race, religious creed, color, national origin, ancestry, physical handicap, marital status, sex or age, in the award of contracts.

- 25.7. Each Bid package properly executed as required by these specifications shall constitute a firm offer, which may be accepted by the City within the time specified in the Proposal.
- 25.8. The City reserves the right to evaluate all Bids and determine the lowest Bidder on the basis of any proposed alternates, additive items or options, at its discretion that will be disclosed in the Volume 2 of 2.

26. BID RESULTS:

- 26.1. The Bid opening by the City shall constitute the public announcement of the Apparent Low Bidder. In the event that the Apparent Low Bidder is subsequently deemed non-responsive or non-responsible, a public announcement will be posted in the City's web page <http://www.sandiego.gov/cip/index.shtml>, with the name of the newly designated Apparent Low Bidder.
- 26.2. To obtain Bid results, either attend Bid opening, review the results on the City's web site, or provide a self-addressed, stamped envelope, referencing Bid number, and Bid tabulation will be mailed to you upon verification of extensions. Bid results cannot be given over the telephone.

27. THE CONTRACT:

- 27.1. The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 14 days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.
- 27.2. If the Bidder takes longer than 14 days to fulfill these requirements, then the additional time taken shall be added to the Bid guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
- 27.3. If the Bidder to whom the award is made fails to enter into the contract as herein provided, the award may be annulled and the Bidder's Guarantee of Good Faith will be subject to forfeiture. An award may be made to the next lowest responsible and reliable Bidder who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.
- 27.4. Pursuant to the San Diego City Charter section 94, the City may only award a public works contract to the lowest responsible and reliable Bidder. The City will require the Apparent Low Bidder to (i) submit information to determine the Bidder's responsibility and reliability, (ii) execute the Contract in form provided by the City, and (iii) furnish good and approved bonds and insurance certificates specified by the City within 14 Days, unless otherwise approved by the City, in writing after the Bidder receives notification from the City, designating the Bidder as the Apparent Low Bidder and formally requesting the above mentioned items.

- 27.5. The award of the Contract is contingent upon the satisfactory completion of the above mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee. If the Apparent Low Bidder does not execute the Contract or submit required documents and information, the City may award the Contract to the next lowest responsible and reliable Bidder who shall fulfill every condition precedent to award. A corporation designated as the Apparent Low Bidder shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.
28. **EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Bidder shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 2-7, and the proposal forms (e.g., Bidding Documents). The submission of a Bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.
29. **CITY STANDARD PROVISIONS:** This contract is subject to the following standard provisions. See The WHITEBOOK for details.
- 29.1. The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.
- 29.2. The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.
- 29.3. The City of San Diego Municipal Code §22.3004 for Pledge of Compliance.
- 29.4. The City of San Diego's Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.
- 29.5. Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.
- 29.6. The City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).
- 29.7. The City's Information Security Policy (ISP) as defined in the City's Administrative Regulation 90.63.
30. **PRE-AWARD ACTIVITIES:**
- 30.1. The selected contractor by the City to execute a contract for this Work shall provide the information required within the time specified in "Required Documents," of this bid package. Failure to provide the information within the time specified may result in the Bid being rejected as **non-responsive**.
- 30.2. If the Bid is rejected as non-responsive, the selected contractor by the City to execute a contract for this Work shall forfeit the required Bid. The decision that the selected contractor by the City to execute a contract for this Work is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.

31. ADDITIVE/DEDUCTIVE ALTERNATES:

- 31.1.** The additive/deductive alternates have been established to allow the City to compare the cost of specific portions of the Work with the Project's budget and enable the City to make decision prior to award. The award will be established as described in the Bid. The City reserves the right to award the Contract for the Base Bid only or the Base Bid plus any combination of Additive and Deductive Alternate(s).
- 31.2.** For water pipeline projects, the Plans typically show all cut and plug and connection work to be performed by City Forces. However, Bidders shall refer to Bidding Documents to see if all or part of this work will be performed by the Contractor.

32. REQUIRED DOCUMENT SCHEDULE:

- 32.1.** The Bidder's attention is directed to the City's Municipal Code §22.0807(e), (3)-(5) for important information regarding grounds for debarment for failure to submit required documentation.
- 32.2.** The specified Equal Opportunity Contracting Program (EOCP) forms are available for download from the City's web site at:

<http://www.sandiego.gov/eoc/forms/index.shtml>

ITEM	WHEN DUE	FROM	DOCUMENT TO BE SUBMITTED
1.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Bid
2.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Bid Bond
3.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Non-collusion Affidavit to be Executed By Bidder and Submitted with Bid under 23 USC 112 and PCC 7106
4.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Contractors Certification of Pending Actions
5.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Equal Benefits Ordinance Certification of Compliance
6.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Form AA35 - List of Subcontractors
7.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Form AA40 - Named Equipment/Material Supplier List
8.	BID SUBMITTAL DATE/TIME	ALL BIDDERS	Form AA45 - Subcontractors Additive/Deductive Alternate
9.	WITHIN 3 WORKING DAYS OF BID OPENING	ALL BIDDERS	SLBE Good Faith Efforts Documentation

ITEM	WHEN DUE	FROM	DOCUMENT TO BE SUBMITTED
10.	WITHIN 3 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION	ALL BIDDERS	Form AA60 – List of Work Made Available
11.	WITHIN 3 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION	ALL BIDDERS	Proof of Valid DBE-MBE-WBE-DVBE Certification Status e.g., Certs.
12.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Names of the principal individual owners of the Apparent Low Bidder
13.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	If the Contractor is a Joint Venture: <ul style="list-style-type: none"> • Joint Venture Agreement • Joint Venture License
14.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Form BB05 - Work Force Report
15.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Agreement
16.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Payment and Performance Bond
17.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Certificates of Insurance and Endorsements
18.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - Drug-Free Workplace
19.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - American with Disabilities Act
20.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractors Standards - Pledge of Compliance

CONTRACT FORMS

AGREEMENT

CONTRACT FORMS

CONSTRUCTION CONTRACT

This contract is made and entered into between THE CITY OF SAN DIEGO, a municipal corporation, herein called "City", and **SRM Contracting and Paving**, herein called "Contractor" for construction of **South Chollas Landfill Operations Yard Improvement Project** Bid No. **K-15-6285-DBB-3** in the amount of **Eight Million Eight Hundred Thousand Five Hundred Seventy-Seven Dollars and 00/100 (\$8,800,577.00)**, which is comprised of the Base Bid plus Additive Alternates **A and B**.

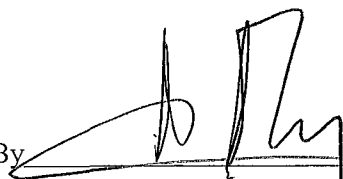
IN CONSIDERATION of the payments to be made hereunder and the mutual undertakings of the parties hereto, City and Contractor agree as follows:

1. The following are incorporated into this contract as though fully set forth herein:
 - (a) The attached Faithful Performance and Payment Bonds.
 - (b) The attached Proposal included in the Bid documents by the Contractor.
 - (c) Reference Standards listed in the Notice Inviting Bids and the Supplementary Special Provisions (SSP).
 - (d) That certain documents entitled **South Chollas Landfill Operations Yard Improvement Project**, on file in the office of the Public Works Department as Document No. **S-00684** as well as all matters referenced therein.
2. The Contractor shall perform and be bound by all the terms and conditions of this contract and in strict conformity therewith shall perform and complete in a good and workmanlike manner **South Chollas Landfill Operations Yard Improvement Project**, Bid Number **K-15-6285-DBB-3**, San Diego, California.
3. For such performances, the City shall pay to Contractor the amounts set forth at the times and in the manner and with such additions or deductions as are provided for in this contract, and the Contractor shall accept such payment in full satisfaction of all claims incident to such performances.
4. No claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
5. This contract is effective as of the date that the Mayor or designee signs the agreement.

CONTRACT FORMS (continued)

IN WITNESS WHEREOF, this Agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to or Municipal Code 22.3107 authorizing such execution.

THE CITY OF SAN DIEGO

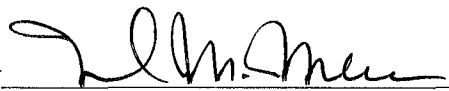
By 

Print Name: Albert P. Recharny, Deputy Director
Public Works - Contracts

Date: 3/11/2015

APPROVED AS TO FORM AND LEGALITY

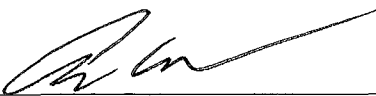
Jan I. Goldsmith, City Attorney

By 

Print Name: Mark M. Mercer
Deputy City Attorney

Date: 3/12/15

CONTRACTOR

By 

Print Name: Arnold Veldkamp

Title: Secretary

Date: 12-12-14

City of San Diego License No.: B1982002304

State Contractor's License No.: 626277

CONTRACT FORMS ATTACHMENTS
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

Superior Ready Mix Concrete L.P. dba
SRM Contracting and Paving, a corporation, as principal, and
Nationwide Mutual Insurance Company, a corporation authorized to do
business in the State of California, as Surety, hereby obligate themselves, their successors and
assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of
Eight Million Eight Hundred Thousand Five Hundred Seventy-Seven Dollars and 00/100
(\$8,800,577.00) for the faithful performance of the annexed contract, and in the sum of Eight Million
Eight Hundred Thousand Five Hundred Seventy-Seven Dollars and 00/100 (\$8,800,577.00) for
the benefit of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract South Chollas Landfill
Operations Yard Improvement Project, Bid Number K-15-6285-DBB-3, San Diego, California
then the obligation herein with respect to a faithful performance shall be void; otherwise it shall
remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials for
or performing labor in the execution of this contract, and shall pay all amounts due under the
California Unemployment Insurance Act then the obligation herein with respect to laborers and
materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit of all
persons, firms and corporations entitled to file claims under the provisions of Chapter 3 of Division 5
of Title I of the Government Code of the State of California or under the provisions of Section 3082
et seq. of the Civil Code of the State of California.

Changes in the terms of the annexed contract or specifications accompanying same or
referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby waives
notice of same.

CONTRACT FORMS ATTACHMENTS (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated December 2, 2014

Approved as to Form and Legality

Superior Ready Mix Concrete L.P. dba
SRM Contracting & Paving

Principal

By 

Arnold Veldkamp

Printed Name of Person Signing for Principal

Jan I. Goldsmith, City Attorney

By 

Deputy City Attorney

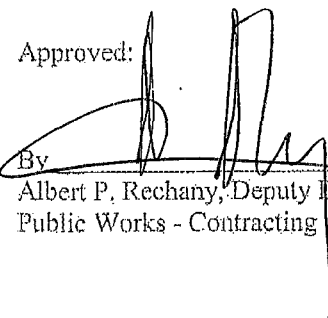
Nationwide Mutual Insurance Company

Surety

By 

Attorney-in-fact

Keith E. Clements, Attorney-in-Fact

Approved: 

By

Albert P. Rechany, Deputy Director of
Public Works - Contracting

7777 Alvarado Road, Suite 201

Local Address of Surety

La Mesa, CA 91942

Local Address (City, State) of Surety

Mailing: PO Box 1820, La Mesa, CA 91944-1820

800-822-3666

Local Telephone No. of Surety

Premium \$ 48,603.00

Bond No. Bd 740353

ACKNOWLEDGMENT

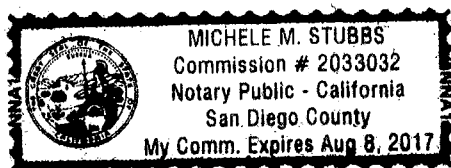
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of San Diego

On December 2, 2014 before me, Michele M. Stubbs, Notary Public, personally appeared Arnold Veldkamp, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



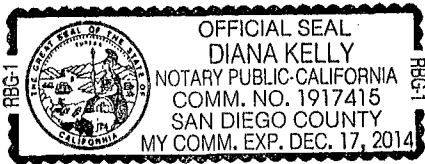
Michele M. Stubbs

ACKNOWLEDGMENT

State of California
County of San Diego

On December 2, 2014 before me, Diana Kelly, Notary Public, personally appeared Keith E. Clements who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



WITNESS my hand and official seal.

Diana Kelly

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation
Farmland Mutual Insurance Company, an Iowa corporation
Nationwide Agribusiness Insurance Company, an Iowa corporation

AMCO Insurance Company, an Iowa corporation
Allied Property and Casualty Insurance Company, an Iowa corporation
Depositors Insurance Company, an Iowa corporation

hereinafter referred to severally as the "Company" and collectively as the "Companies," each does hereby make, constitute and appoint:

Keith E. Clements, La Mesa, CA

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

Nine Million Dollars and NO/100

\$9,000,000.00

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the
13th day of February, 2014.



Terrance Williams, President and Chief Operating Officer of Nationwide Agribusiness Insurance Company and Farmland Mutual Insurance Company; and **Vice President** of Nationwide Mutual Insurance Company, AMCO Insurance Company, Allied Property and Casualty Insurance Company, and Depositors Insurance Company

ACKNOWLEDGMENT

STATE OF IOWA, COUNTY OF POLK: ss

On this 13th day of February, 2014, before me came the above-named officer for the Companies aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Companies aforesaid, that the seals affixed hereto are the corporate seals of said Companies, and the said corporate seals and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Companies.

Sandy Alitz
Notarial Seal - Iowa
Commission Number 152785
My Commission Expires March, 24, 2017

Notary Public
My Commission Expires
March 24, 2017

CERTIFICATE

I, Robert W Horner III, Secretary of the Companies, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Terrance Williams was on the date of the execution of the foregoing power of attorney the duly elected officer of the Companies, and the corporate seals and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Secretary, and affixed the corporate seals of said Companies this 2nd day
of December, 20 14.

Secretary

This Power of Attorney Expires March 24, 2017

BDJ 1(03-14) 00

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE

PROJECT TITLE: South Chollas Landfill Operations Yard Improvement Project

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in the WHITEBOOK, Section 7-13.3, "Drug-Free Workplace", of the project specifications, and that;

SRM Contracting : Paving

(Name under which business is conducted)

has in place a drug-free workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of subdivisions a) through c) of the policy as outlined.

Signed



Printed Name

Arnold Veldkamp

Title

Secretary

CONTRACTOR CERTIFICATION

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

PROJECT TITLE: South Chollas Landfill Operations Yard Improvement Project


I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the WHITEBOOK, Section 7-13.2, "American With Disabilities Act", of the project specifications, and that;

S&M Contracting, Inc.

(Name under which business is conducted)

has in place workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of the policy as outlined.

Signed



Printed Name

Arnold Veldkamp

Title

Secretary

CONTRACTOR CERTIFICATION

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

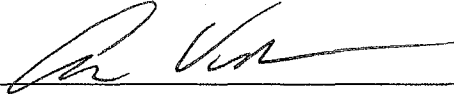
PROJECT TITLE: South Chollas Landfill Operations Yard Improvement Project

I declare under penalty of perjury that I am authorized to make this certification on behalf of SRM Contracting & Paving, as Contractor, that I am familiar with the requirements of City of San Diego Municipal Code § 22.3224 regarding Contractor Standards as outlined in the WHITEBOOK, Section 7-13.4, ("Contractor Standards"), of the project specifications, and that Contractor has complied with those requirements.

I further certify that each of the Contractor's subcontractors whose subcontracts are greater than \$50,000 in value has completed a Pledge of Compliance attesting under penalty of perjury of having complied with City of San Diego Municipal Code § 22.3224.

Dated this 12th Day of December, 2014.

Signed



Printed Name

Arnold Veldkamp

Title

Secretary

AFFIDAVIT OF DISPOSAL

WHEREAS, on the _____ DAY OF _____, 2____ the undersigned entered into and executed a contract with the City of San Diego, a municipal corporation, for:

South Chollas Landfill Operations Yard Improvement Project

(Name of Project)

as particularly described in said contract and identified as Bid No. **K-15-6285-DBB-3** SAP No. (WBS/IO/CC) **S-00684** and **WHEREAS**, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and **WHEREAS**, said contract has been completed and all surplus materials disposed of:

NOW, THEREFORE, in consideration of the final payment by the City of San Diego to said Contractor under the terms of said contract, the undersigned Contractor, does hereby affirm that all surplus materials as described in said contract have been disposed of at the following location(s)

and that they have been disposed of according to all applicable laws and regulations.

Dated this _____ DAY OF _____, _____.

_____, Contractor

by

ATTEST:

State of _____

County of _____

On this _____ DAY OF _____, 2____, before the undersigned, a Notary Public in and for said County and State, duly commissioned and sworn, personally appeared _____ known to me to be the _____ Contractor named in the foregoing Release, and whose name is subscribed thereto, and acknowledged to me that said Contractor executed the said Release.

Notary Public in and for said County and State

ATTACHMENTS

ATTACHMENT A

SCOPE OF WORK

SCOPE OF WORK

1. **SCOPE OF WORK:** This work is located over the closed South Chollas Landfill. The scope includes; repair and/or replacement of asphalt surfaces and drainage conveyance systems, removal and replacement of interior chain link fences, striping of parking areas, installation of landfill gas extraction wells and piping below grade, construction of material bunkers which include retaining walls and covers, and installation of light poles and lighting (optional) and all other incidental work and appurtenances in accordance with Plans numbered **38158-1-D** through **38158-41-D**, inclusive and these Specifications.

1.1. The Work shall be performed in accordance with:

1.1.1. The Notice Inviting Bids and Plans numbered **38158-1-D** through **38158-41-D**, inclusive.

2. **CONSTRUCTION COST:** The City's estimated construction cost for this contract is **\$11,000,000**.
3. **LOCATION OF WORK:** The site is at the City of San Diego, Chollas Operations Yard, located at 2781 Caminito Chollas, San Diego CA 92105. This site is utilized by many City Departments that provide a variety of the City operations, maintenance, and repair services.
4. **CONTRACT TIME:** The Contract Time for completion of the Work shall be **270 Calendar Days**.
5. **CONTRACTOR'S LICENSE CLASSIFICATION:** In accordance with the provisions of California Law, the Contractor shall possess valid appropriate license(s) at the time that the Bid is submitted. Failure to possess the specified license(s) shall render the Bid as **non-responsive** and shall act as a bar to award of the Contract to any Bidder not possessing required license(s) at the time of Bid.

5.1. The City has determined the following licensing classification(s) for this contract:

Option	Classification(s)
1	CLASS A
2	CLASS C8, C12, and C21

5.2. The Bidder shall satisfy the licensing requirement by meeting **at least** one of the listed options.

ATTACHMENT B
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ATTACHMENT C
EQUAL OPPORTUNITY CONTRACTING PROGRAM

EQUAL OPPORTUNITY CONTRACTING PROGRAM

1. To The WHITEBOOK, Chapter 10, Sections D and E, DELETE each in its entirety, and SUBSTITUTE with the following:

D. CITY'S EQUAL OPPORTUNITY COMMITMENT.

1. Nondiscrimination in Contracting Ordinance.

1. The Contractor, Subcontractors and Suppliers shall comply with requirements of the City's Nondiscrimination in Contracting Ordinance, San Diego Municipal Code §§22.3501 through 22.3517.

The Contractor shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors, or suppliers. The Contractor shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the contract and may result in contract termination, debarment, or other sanctions.

The Contractor shall include the foregoing clause in all contracts between the Contractor and Subcontractors and Suppliers.

2. Disclosure of Discrimination Complaints. As part of its Bid or Proposal, the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
3. Upon the City's request, the Contractor agrees to provide to the City, within 60 days, a truthful and complete list of the names of all Subcontractors and Suppliers that the Contractor has used in the past 5 years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by the Contractor for each subcontract or supply contract.
4. The Contractor further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance, Municipal Code §§22.3501 through 22.3517. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in remedies being ordered against the Contractor up to and including contract termination, debarment and other sanctions for violation of the provisions of the Nondiscrimination in Contracting Ordinance. The Contractor further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination in Contracting Ordinance apply only to violations of the Ordinance.

E. EQUAL EMPLOYMENT OPPORTUNITY OUTREACH PROGRAM.

1. The Contractor, Subcontractors and Suppliers shall comply with the City's Equal Employment Opportunity Outreach Program, San Diego Municipal Code §§22.2701 through 22.2707.

The Contractor shall not discriminate against any employee or applicant for employment on any basis prohibited by law. Contractor shall provide equal opportunity in all employment practices. Prime Contractor shall ensure their subcontractors comply with this program. Nothing in this section shall be interpreted to hold a prime contractor liable for any discriminatory practice of its subcontractors.

The Contractor shall include the foregoing clause in all contracts between the Contractor and Subcontractors and Suppliers.

2. If the Contract is competitively solicited, the selected Bidder shall submit a Work Force Report (Form BB05), within 10 Working Days after receipt by the Bidder of Contract forms to the City for approval as specified in the Notice of Intent to Award letter from the City.
3. If a Work Force Report is submitted, and the City determines there are under-representations when compared to County Labor Force Availability data, the selected Bidder shall submit an Equal Employment Opportunity Plan.
4. If the selected Bidder submits an Equal Employment Opportunity Plan, it shall include the following assurances:
 1. The Contractor shall maintain a working environment free of discrimination, harassment, intimidation and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work.
 2. The Contractor reviews its EEO Policy, at least annually, with all on-site supervisors involved in employment decisions.
 3. The Contractor disseminates and reviews its EEO Policy with all employees at least once a year, posts the policy statement and EEO posters on all company bulletin boards and job sites, and documents every dissemination, review and posting with a written record to identify the time, place, employees present, subject matter, and disposition of meetings.
 4. The Contractor reviews, at least annually, all supervisors' adherence to and performance under the EEO Policy and maintains written documentation of these reviews.
 5. The Contractor discusses its EEO Policy Statement with subcontractors with whom it anticipates doing business, includes the EEO Policy Statement in its subcontracts, and provides such documentation to the City upon request.

6. The Contractor documents and maintains a record of all bid solicitations and outreach efforts to and from subcontractors, contractor associations and other business associations.
7. The Contractor disseminates its EEO Policy externally through various media, including the media of people of color and women, in advertisements to recruit, maintains files documenting these efforts, and provides copies of these advertisements to the City upon request.
8. The Contractor disseminates its EEO Policy to union and community organizations.
9. The Contractor provides immediate written notification to the City when any union referral process has impeded the Contractor's efforts to maintain its EEO Policy.
10. The Contractor maintains a current list of recruitment sources, including those outreaching to people of color and women, and provides written notification of employment opportunities to these recruitment sources with a record of the organizations' responses.
11. The Contractor maintains a current file of names, addresses and phone numbers of each walk-in applicant, including people of color and women, and referrals from unions, recruitment sources, or community organizations with a description of the employment action taken.
12. The Contractor encourages all present employees, including people of color and women employees, to recruit others.
13. The Contractor maintains all employment selection process information with records of all tests and other selection criteria.
14. The Contractor develops and maintains documentation for on-the-job training opportunities, participates in training programs, or both for all of its employees, including people of color and women, and establishes apprenticeship, trainee, and upgrade programs relevant to the Contractor's employment needs.
15. The Contractor conducts, at least annually, an inventory and evaluation of all employees for promotional opportunities and encourages all employees to seek and prepare appropriately for such opportunities.
16. The Contractor ensures the company's working environment and activities are non-segregated except for providing separate or single-user toilets and necessary changing facilities to assure privacy between the sexes.

ATTACHMENT D
INTENTIONALLY LEFT BLANK

ATTACHMENT E
SUPPLEMENTARY SPECIAL PROVISIONS

SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

- 1) Standard Specifications for Public Works Construction (The GREENBOOK) currently in effect.
 - 2) The City of San Diego Standard Specifications for Public Works Construction (The WHITEBOOK).
-

SECTION 2 - SCOPE AND CONTROL OF WORK

2-3.2 Self Performance. DELETE in its entirety and SUBSTITUTE with the following:

1. You must perform, with your own organization, Contract work amounting to at least **50%** of the base bid alone or base bid and any additive or deductive alternate(s) that together when added or deducted form the basis of award.
2. The self performance percentage requirement will be waived for contracts when a “B” License is required or allowed.

2-5.3.1 General. To the City Supplement, ADD the following

7. For products for which an AML is available, products listed in the AML shall be used. A submittal review will be conducted for products not identified on an AML on a case-by-case basis when:
 - a) The product type or category is not in the AML.
 - b) The AML does not list at least two available manufacturers of the product.
 - c) The material or manufacturer listed in the AML is no longer available. Documentation to substantiate the product is no longer available or in production is required as part of the submittal.

In the case of conducting a submittal review when required by the Plans or Special Provisions, or when requested by the Engineer, all submittals shall be accompanied by the City’s submittal form.

The Product Submittal Form is available for download at:

<http://www.sandiego.gov/publicworks/edocref/index.shtml>

2-7 SUBSURFACE DATA. ADD the following:

4. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests of subsurface conditions at the Work Site:
5. PAVEMENT EVALUATION, Parking and Operations areas, South Chollas Landfill, dated October 2013, prepared by GeoLogic Associates. The report listed above is attached as Appendix E.

2-14.3 Coordination. To the City Supplement, ADD the following:

Another adjacent City project is scheduled for construction during the same time period in the Chollas Operations Yard, and is located just south of the limits of works for this project. Coordinate the Work with the adjacent project(s) as listed below:

- a) Chollas Operations Yard, Maintenance Facility Wash Rack, Chris Gascon, Transportation and Stormwater Department, (619) 527-7411.

SECTION 4 - CONTROL OF MATERIALS

4-1.3.6 Preapproved Materials. To the City Supplement, ADD the following:

3. You shall submit in writing a list of all products to be incorporated in the Work that are on the AML.

4-1.6 Trade Names or Equals. ADD the following:

You must submit your list of proposed substitutions for “an equal” (“or equal”) item(s) **no less than 10 Working Days prior to Bid due date** and on the City’s Product Submittal Form available at.

<http://www.sandiego.gov/publicworks/edocref/index.shtml>

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-7.1 General. To the City Supplement, ADD the following:

5. 30 Working days for full depth asphalt final mill and resurfacing work required per SDG-107.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-3 LIABILITY INSURANCE. DELETE in its entirety and SUBSTITUTE with the following:

The insurance provisions herein must not be construed to limit your indemnity obligations contained in the Contract.

7-3.1 Policies and Procedures.

1. You must procure the insurance described below, at its sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.
2. Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
3. You must maintain this insurance for the duration of this contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this contract. Your liabilities under the Contract, e.g., your indemnity obligations, is not deemed limited to the insurance coverage required by this contract.
4. Payment for insurance is included in the various items of Work as bid by you, and except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any work under this contract until you have provided and the City has approved all required insurance.
5. Policies of insurance must provide that the City is entitled to 30 days (10 days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

7-3.2 Types of Insurance.

7-3.2.1 Commercial General Liability Insurance.

1. Commercial General Liability Insurance must be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
2. The policy must cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There must be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You must maintain the same or equivalent insurance for at least 10 years following completion of the Work.
4. All costs of defense must be outside the policy limits. Policy coverage must be in liability limits of not less than the following:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
Other than Products/Completed Operations	\$2,000,000
Products/Completed Operations Aggregate Limit	\$2,000,000
Personal Injury Limit	\$1,000,000
Each Occurrence	\$1,000,000

7-3.2.2 Commercial Automobile Liability Insurance.

1. You must provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles (“Any Auto”).
2. All costs of defense must be outside the limits of the policy.

7-3.2.3 Contractors Pollution Liability Insurance.

1. You must procure and maintain at your expense or require Subcontractor, as described below to procure and maintain, the Contractors Pollution Liability Insurance including contractual liability coverage to cover liability arising out of cleanup, removal, storage, or handling of hazardous or toxic chemicals, materials, substances, or any other pollutants by you or any Subcontractor in an amount not less than \$2,000,000 limit for bodily injury and property damage.
2. All costs of defense must be outside the limits of the policy. Any such insurance provided by Subcontractor instead of you must be approved separately in writing by the City.
3. For approval of a substitution of Subcontractor’s insurance, you must certify that all activities for which the Contractors Pollution Liability Insurance will provide coverage will be performed exclusively by the Subcontractor providing the insurance. The deductible must not exceed \$25,000 per claim.
4. Contractual liability must include coverage of tort liability of another party to pay for bodily injury or property damage to a third person or organization. There must be no endorsement or modification of the coverage limiting the scope of coverage for either “insured vs. insured” claims or contractual liability.
5. Occurrence based policies must be procured before the Work commences and must be maintained for the Contract Time. Claims Made policies must be procured before the Work commences, must be maintained for the Contract Time, and must include a 12 month extended Claims Discovery Period applicable to this contract or the existing policy or policies must continue to be maintained for 12 months after the completion of the Work without advancing the retroactive date.

6. Except as provided for under California law, the policy or policies must provide that the City is entitled to 30 days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

7-3.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this contract as described herein must be carried only by responsible insurance companies with a rating of, or equivalent to, at least “A-, VI” by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

7-3.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, “surplus lines” carriers only if the carrier is authorized to do business in the State and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers must be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

7-3.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal documentation prior to expiration of this insurance. Each required document must be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

7-3.5 Policy Endorsements.

7-3.5.1 Commercial General Liability Insurance

7-3.5.1.1 Additional Insured.

- a) You must provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
- b) To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
- c) The additional insured coverage for projects for which the Engineer’s Estimate is \$1,000,000 or more must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, (c) your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you.
- d) The additional insured coverage for projects for which the Engineer’s Estimate is less than \$1,000,000 must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, or (c) premises owned, leased, controlled, or used by you.

7-3.5.1.2 Primary and Non-Contributory Coverage. The policy must be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it must provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of your insurance and must not contribute to it.

7-3.5.1.3 Project General Aggregate Limit.

The policy or policies must be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work must reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit must be in addition to the aggregate limit provided for the products-completed operations hazard.

7-3.5.2 Commercial Automobile Liability Insurance.

7-3.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form or equivalent form providing coverage at least as broad, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

7-3.5.3 Contractors Pollution Liability Insurance Endorsements.

7-3.5.3.1 Additional Insured.

- a) The policy or policies must be endorsed to include as an Insured the City and its respective elected officials, officers, employees, agents, and representatives, with respect to liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, (c) your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you; except that in connection with, collateral to, or affecting any construction contract to which the provisions of subdivision (b) of § 2782 of the California Civil Code apply, this endorsement must not provide any duty of indemnity coverage for the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives in any case where an agreement to indemnify the City and its respective elected officials, officers, employees, agents, and representatives would be invalid under subdivision (b) of §2782 of the California Civil Code.
- b) In any case where a claim or loss encompasses the negligence of the Insured and the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives that is not covered because of California Insurance Code §11580.04, the insurer's obligation to the City and its respective elected officials, officers, employees, agents, and representatives must be limited to obligations permitted by California Insurance Code §11580.04.

7-3.5.3.2 Primary and Non-Contributory Coverage. The policy or policies must be endorsed to provide that the insurance afforded by the Contractors Pollution Liability Insurance policy or policies is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives with respect to operations including the completed operations of the Named Insured. Any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of your insurance and must not contribute to it.

7-3.5.3.3 Severability of Interest. For Contractors Pollution Liability Insurance, the policy or policies must provide that your insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and must provide cross-liability coverage.

7-3.6 Deductibles and Self-Insured Retentions. You must pay for all deductibles and self-insured retentions. You must disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

7-3.7 Reservation of Rights. The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this contract.

7-3.8 Notice of Changes to Insurance. You must notify the City 30 days prior to any material change to the policies of insurance provided under this contract.

7-3.9 Excess Insurance. Policies providing excess coverage must follow the form of the primary policy or policies e.g., all endorsements.

7-4 WORKERS' COMPENSATION INSURANCE. DELETE in its entirety and SUBSTITUTE with the following:

7-4.1 Workers' Compensation Insurance and Employers Liability Insurance.

1. In accordance with the provisions of §3700 of the California Labor Code, you must provide at your expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.
2. Limits for this insurance must be not less than the following:

<u>Workers' Compensation</u>	<u>Statutory Employers Liability</u>
Bodily Injury by Accident	\$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 each employee
Bodily Injury by Disease	\$1,000,000 policy limit

3. By signing and returning the Contract you certify that you are aware of the provisions of §3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you must comply with such provisions before commencing the Work as required by §1861 of the California Labor Code.

7-4.1.1 Waiver of Subrogation.

1. The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy

7-10.5.3 Steel Plate Covers. Table 7-10.5.3(A), REVISE the plate thickness for 5'-3" trench width to read 1 3/4".

7-15 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT. To the City Supplement, fourth paragraph, last sentence, DELETE in its entirety and SUBSTITUTE with the following:

Your duty to indemnify and hold harmless does not include any claims or liability arising from the established active or sole negligence, or willful misconduct of the City, its officers, or employees.

7-16 COMMUNITY LIASON. To the City Supplement, DELETE in its entirety and SUSBTITUTE with the following:

ADD:

7-16 COMMUNITY OUTREACH.

7-16.1 General.

1. To ensure consistency with the City's community outreach plan for the project, the City will work with the Contractor to inform the public (which includes, but is not limited to, property owners, renters, homeowners, business owners, recreational users, and other community members and stakeholders) of construction impacts. Efforts by the Contractor to mitigate construction impacts by communicating with the public require close coordination and cooperation with the City.
2. The Contractor will perform the community outreach activities required throughout the Contract Time.
3. The Contractor shall closely coordinate the Work with the businesses, institutions, residents and property owners impacted by the Project. Example duties of the Contractor include notification to the businesses, institutions and residents of the commencement of construction activities not less than 5 days in advance, coordination of access for vehicular and pedestrian traffic to businesses, institutions and residences impacted by the Project, reporting of Contractor activities at all Project progress meetings scheduled by the

Engineer, attendance to the Project Pre-construction Meeting, attendance at 2 community meetings, response to community questions and complaints related to Contractor activities, and written documentation including logging in all inquiries and complaints received into the City's Public Contact Log located on the City's SDSShare site:

<http://sdshare/forums/ecp/PITS/picr/Lists/Public%20Contact%20Log/AllItems.aspx>

4. The Contractor shall execute the Information Security Policy Acknowledgement Form - For Non-City Employees within 15 days of the award of the Contract if:
 - a) The contact information for the Contractor is made available on any outreach materials or;
 - b) The Contractor will be the primary point of contact to resolve project related inquiries and complaints.
5. Electronic Communication.

All inquiries and complaints will be logged in to the City's SDSShare site within 24 hours of receipt of inquiries and complaints.

Any updates or a resolution of inquiries, and complaints shall be documented in the City's SDSShare site within 24 hours.

Copies of email communications shall be saved on to the City's SDSShare site as individually as an Outlook Message Format (*.msg).

All graphics, photos, and other electronic files associated with the inquiries and or complaints shall be saved into the individual record.
6. **When specified**, present your Exclusive Community Liaison to the Engineer, in writing, within 15 days of the award of the Contract.

7-16.2

Submittals.

1. The Contractor shall submit to the Resident Engineer, for review and approval, all drafts of letters, notices, postcards, door hangers, signs, mailing lists, proposed addresses for hand-delivery, and any other notices and letters that are to be mailed and or distributed to the public.
 - a. Prior to distributing or mailing, the Contractor shall submit final drafts of letters, notices, postcards, door hangers, signs, and any other notices and letters to the Resident Engineer for final review and approval.
 - b. After distributing or mailing, the Contractor shall submit verification of delivery and any copies of returned notices to the Resident Engineer.

2. The Contractor will use the City's SDSShare site to identify and summarize communications (via phone, in person, and email) with the public the within 24 hours of receipt, even if the Contractor's response to the individual is still incomplete. The Contractor will upload to the City's SDSShare site copies of all written, electronic, and verbal communications and conversations with the public.

7-16.3 Public Notice by Contractor.

1. Furnish and distribute public notices in the form of door hangers using the City's format to all occupants and/or property owners along streets where Work is to be performed at least 5 days before starting the Work as directed by the Resident Engineer.
2. For all Work on private property, contact each owner and occupant individually a minimum of 15 days prior to the Work. If the Work has been delayed, re-notify owners and occupants of the new Work schedule, as directed by the Resident Engineer.

7-16.4 Quality Assurance.

1. During the course of community outreach, the Contractor shall ensure the character of all persons that conduct community outreach (distributing door hangers, attending community meetings, interacting with the public, etc.), on behalf of the Contractor:
 - a. Have the ability to speak and comprehend English and/or Spanish, as appropriate for the community or public they are informing,
 - b. Possess and display easily verifiable and readable personal identification that identifies the person as an employee of the Contractor,
 - c. Have the interpersonal skills to effectively, professionally, and tactfully represent the project, Contractor, and City to the public.

7-16.5 Communications with the Public.

1. The Contractor shall provide updates on construction impacts to the Resident Engineer. The Contractor shall notify the Resident Engineer in advance about time-sensitive construction impacts and may be required to distribute construction impact notices to the public on short notice.
2. The Contractor shall incorporate community outreach activities related to construction impacts in the baseline schedule and update the Resident Engineer with each week's submittal of the Three-Week Look Ahead Schedule.
3. At the request of the Resident Engineer, the Contractor shall attend and participate in project briefings at community meetings.

4. The Contractor shall coordinate with the Resident Engineer on all responses and actions taken to address public inquiries and complaints within 24-hours that they are received.

7-16.6 Communications with Media.

1. The City may allow members of the media access to its construction site(s) on a case-by-case basis only.
2. Occasionally, members of the media may show up at construction sites, uninvited. Members of the media (including, but not limited to newspaper, magazine, radio, television, bloggers, and videographers) do not have the legal right to be in the construction site without the City's permission.
3. In the event media representatives arrive near or on the construction site(s), the Contractor shall keep them off the site(s), in a courteous and professional manner, until a Public Information Officer is available to meet them at an approved location.
4. The Contractor shall report all members of the media visits to the Resident Engineer as quickly as possible, so that the City's Public Information Officer can meet with the members of the media at the construction site(s).
5. If the City allows members of the media to access a construction site, the Contractor shall allow the City to escort the media representatives while they are on the construction site and shall ensure their safety.
6. The Contractor shall require media representatives to sign in and out of the Site Visitor Log and to use Personal Protective Equipment.
7. The Contractor has a right to speak to members of the media about its company and its role on the project. All other questions shall be referred to the City.

7-16.7 Exclusive Community Liaison Services.

If directed to conduct Exclusive Community Liaison Services, the Contractor shall retain an Exclusive Community Liaison for the Project whose sole responsibilities will be as follows:

1. Develop a contact list of community, tenants, property owners, and agencies with a stake in the project.
2. Notify businesses, institutions, property owners, and residents of the commencement of construction activities and utility service interruptions not less than 5 days in advance.
3. Coordinate access for vehicular and pedestrian traffic to businesses, institutions and residences impacted by the Project.

4. Prepare and present of materials in coordination with the Resident Engineer (the City's standards and guidelines for the communication materials are available for review by Bidders by sending a request to the Contract Specialist).
5. Respond to community questions and complaints related to Contractor activities.
6. Write, edit, update, or produce brochures, pamphlets and news releases.
7. Provide standard telephone inquiries and e-mail responses:
 - a) Respond to telephone calls and e-mails from the public.
 - b) Record calls and e-mails on the City's SDSShare site.
8. Report Exclusive Community Liaison activities at all progress meetings scheduled by the Resident Engineer.
9. Attendance at pre-construction, community and stakeholders meetings.

7-16.7.1 Exclusive Community Liaison Work Plan. The Work plan for the Exclusive Community Liaison shall address the items of Work specified in these specifications. Present your Exclusive Community Liaison and submit your exclusive community outreach plan (in writing) as **specified** within 15 days of the Award of the Contract.

7-16.8 Payment. The Payment for the community outreach and public notices is included in the various Bid items. The payment for exclusive community liaison is in the bid item for "Exclusive Community Liaison Services" when provided as a separate Bid item." If no Bid item has been provided the payment is included in the various Bid items.

7-20 ELECTRONIC COMMUNICATION. ADD the following:

Virtual Project Manager will be used on this contract.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-2 FIELD OFFICE FACILITIES. To the City Supplement, DELETE in its entirety.

SECTION 9 - MEASUREMENT AND PAYMENT

9-3.2.5 Withholding of Payment. To the City Supplement, item i), DELETE in its entirety and SUBSTITUTE with the following:

- i) Your failure to comply with 7-2.3, "PAYROLL RECORDS" and 2-16, "CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM."

**ADD:
9-3.7**

Compensation Adjustments for Price Index Fluctuations. This Contract is subject to the provisions of The WHITEBOOK for Compensation Adjustments for Price Index Fluctuations for the paving asphalt.

SECTION 203 – BITUMINOUS MATERIALS

203-15 RUBBER POLYMER MODIFIED SLURRY (RPMS). To the City Supplement, CORRECT section numbering as follows:

OLD SECTION NUMBER	TITLE	NEW SECTION NUMBER
203-15	RUBBER POLYMER MODIFIED SLURRY (RPMS)	203-16
203-15.1	General	203-16.1
203-15.2	Materials	203-16.2
203-15.3	Composition and Grading	203-16.3
203-15.4	Mix Design	203-16.4

ADD the following:

RPMS shall be used on this contract.

SECTION 207 – PIPE

207-17.2.3 Pipe Manufacturer. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

PVC products as manufactured or distributed by J-M Manufacturing Company shall not be used on the Contract for pressurized pipe **unless specified otherwise**.

SECTION 209 – STREET LIGHTING AND TRAFFIC SIGNAL MATERIALS

209-6.4 Induction Cobra Head Luminaire. To the City Supplement, CORRECT certain section numbering as follows:

OLD SECTION NUMBER	TITLE	NEW SECTION NUMBER
209-6.4.7	Luminaire Identification	209-6.4.8
209-6.4.8	Photometric Documentation	209-6.4.9
209-6.4.9	Quality Assurance	209-6.4.10

**ADD:
212-4**

BIORETENTION SOIL MEDIA (BSM).

212-4.1 General. Bioretention Soil Media (BSM) is a formulated planting soil which consists of 70% to 80% washed sand and 20% to 30% compost on a volume basis, and shall be mixed at the plant site prior to delivery.

212-4.1.1 Sand for Bioretention Soil Media. The sand shall conform to ASTM C33 and a sieve analysis shall be performed in accordance with ASTM C 136 to demonstrate compliance with the gradation limits shown in Table 212-4.1.1 (A). The sand shall be thoroughly washed to remove fines, dust, and deleterious materials prior to delivery.

Table 212-4.1.1 (A) Sand Gradation Limits

Sieve Size	Percent Passing
3/8 inch	100
No. 4	60 - 100
No.10	40 - 100
No. 40	15 - 50
No. 200	0 - 5

Note: Coefficient of Uniformity ($C_u = D_{60}/D_{10}$) equal to or greater than 4

212-4.1.2 Compost. Compost shall be certified by the U.S. Composting Council's Seal of Testing Assurance Program or an approved equal. Compost shall comply with the following requirements:

1. Organic Material Content shall be 35% to 75% by dry weight.
2. Physical contaminants (manmade inert materials) shall not exceed 1% by dry weight
3. pH shall be between 6.0 and 8.0
4. Soluble Salt Concentration less than 10 dS/m (Method TMECC 4.10-A, USDA and U.S. Composting Council)
5. Maturity (seed emergence and seedling vigor): greater than 80% relative to positive control (Method TMECC 5.05-A, USDA and U.S. Composting Council)
6. Stability (Carbon Dioxide evolution rate): less than 8 mg CO₂-C per g OM per day (Method TMECC 5.08-B, USDA and U.S. Composting Council)
7. Moisture: 40%-50% wet weight basis.

8. Select Pathogens: Pass US EPA Class A standard, 40 CFR Section 503.32(a).
9. Trace Metals: Pass US EPA Class A standard, 40 CFR Section 503.13, Tables 1 and 3.
10. Within gradation limits in Table 212-4.1.2 (ASTM D 422 sieve analysis or approved equivalent)

Table 212-4.1.2 (A) Compost Gradation Limits

Sieve Size	Percent Passing (by weight)
1 inch	99 to 100
½ inch	90 to 100
¼ inch	40 to 90
No. 200	2 to 10

212-4.2

Agricultural Suitability. The Contractor shall submit the source and location of BSM, a physical sample, and accompanying and current test results by a third party independent agronomic laboratory reflecting compliance with Contract Documents to the Engineer at least 30 Days prior to ordering materials.

No planting shall begin until test results confirm the agricultural suitability of the BSM. The Contractor shall submit a written request for approval which shall be accompanied by written analysis results from a written report of a testing agency registered by the State for agricultural soil evaluation which indicates compliance which states that the tested material proposed source complies with these specifications. Third party independent laboratory tests shall be paid for by the Contractor.

The BSM shall be suitable to sustain the growth of the plants specified and shall conform to the following requirements:

- a) pH range: 6.0-7.8
- b) Salinity less than 3.0 millimho/cm (electrical conductivity)
- c) Sodium adsorption ration (SAR) less than 3.0
- d) Chloride less than 150 ppm

The test results shall show the following information:

- a) Date of Testing
- b) Project Name

- c) The Contractor's Name
- d) Source of Materials and Supplier's Name
- e) Estimate of Quantity Needed
- f) pH
- g) EC
- h) Elements: phosphorus, potassium, iron, manganese, zinc, copper, boron, calcium, magnesium, sodium, sulfur, molybdenum, nickel, aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, mercury, selenium, silver, strontium, tin, and vanadium
- i) Soil adsorption ratio
- j) Carbon/nitrogen ratio
- k) Moisture content
- l) Organic Content
- m) An assessment of agricultural suitability based on test results
- n) Recommendations for adding amendments, chemical corrections, or both.

BSM which requires amending to comply with these specifications shall be uniformly blended prior to importation. Third party independent laboratory test results reflecting compliance with above requirements shall be provided to the Engineer prior to the delivery of the BSM.

212-4.3 Delivery, Storage and Handling. The Contractor shall not deliver or place soils in frozen, wet, or muddy conditions.

The Contractor shall protect soils and mixes from absorbing excess water and from erosion at all times. The Contractor shall not store materials unprotected from large rainfall events. The Contractor shall not allow excess water to enter site prior to compaction. If water is introduced into the material after grading, the Contractor shall allow material to drain or aerate to optimum compaction moisture content.

212-4.4 Quality Control and Acceptance. Close adherence to the material quality controls herein are necessary in order to assure sufficient permeability to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and to support healthy vegetation. Amendments may be included to adjust agronomic properties. Acceptance of the material will be based on test results conducted no more than 120 days prior to delivery of the blended BSM to the project site and certified to be representative. For projects installing more than 100 cubic yards of BSM, batch-specific tests of components and blended mix are required and locations of material batches shall be provided to the Engineer.

SECTION 300 – EARTHWORK

300-1.4 **Payment.** To the City Supplement, paragraph (2), DELETE in its entirety and SUBSTITUTE with the following:

2. Payment for existing pavement removal and disposal of up to 12” thick, within the excavation e.g., trench limits, shall be included in the Bid item for installation of the mains or the Work item that requires pavement removal.

SECTION 302 – ROADWAY SURFACING

302-3 **PREPARATORY REPAIR WORK.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

302-3 **PREPARATORY REPAIR WORK.**

1. Prior to roadway resurfacing or the application of slurry, the Contractor shall complete all necessary preparation and repair work to the road segment e.g., tree trimming, weed spray, weed abatement, crack sealing, asphalt repair, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc. and as specified in the Special Provisions.
2. Preparatory work shall include, but not be limited to, tree trimming, weed spray, weed abatement, crack sealing, asphalt repair i.e., mill and pave, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc.
3. The Contractor shall repair areas of distressed asphalt concrete pavement by milling or removing damaged areas of pavement to a minimum depth of 2” for Residential streets, and a minimum depth of 3” for all others to expose firm and unyielding pavement. The Contractor shall prepare subgrade as needed and install a minimum of 2” for residential streets, and a minimum of 3” for all others, of compacted asphalt concrete pavement over compacted native material as directed by the Engineer.
4. If, in order to achieve the minimum specified depth, the base material is exposed, the material shall be compacted to 95% relative compaction to a depth 10” below the finished grade (dig out). Compaction tests shall be made to ensure compliance with the specifications. The Engineer will determine when and where the test will occur. The City will pay for the soils testing required by the Engineer, which meets the required compaction. The Contractor shall reimburse the City for the cost of retesting failing compaction tests. If additional base material is required, the Contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, “Crushed Aggregate Base.”
5. Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, “Crushed Miscellaneous Aggregate Base.”

6. Prior to replacing asphalt, the area shall be cleaned by removing all loose and damaged material, moisture, dirt, and other foreign matter and shall be tack coated in accordance with 302-5.4 "Tack Coat."
7. The Contractor shall install new asphalt within the repair area or for patches in accordance with 302-5, "ASPHALT CONCRETE PAVEMENT." Asphalt concrete shall be C2-PG 64-10 in compliance with 400-4, "ASPHALT CONCRETE."
8. No preparatory asphalt work shall be done when the atmospheric temperature is below 50 °F or during unsuitable weather.
9. Following the asphalt placement, the Contractor shall roll the entire area of new asphalt in both directions at least twice. The finished patch shall be level and smooth in compliance with 302-5.6.2 "Density and Smoothness." After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.
10. The minimum dimension for each individual repair shall be 4' x 4' and shall be subject to the following conditions:
 - a) If the base material is exposed to achieve the required minimum removal thickness, the base material shall be prepared conforming to 301-1, "SUBGRADE PREPARATION."
 - b) When additional base material is required, then the contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base." Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Base."
 - c) The Contractor may use grinding as a method for removal of deteriorated pavement when the areas indicated for removal are large enough (a minimum of the machine drum width) and when approved by the Engineer.
 - d) For both scheduled and unscheduled base repairs, failed areas may be removed by milling or by excavation provided that the edges are cut cleanly with a saw. The areas shall be cleaned and tack coated in accordance with 302-5.4, "Tack Coat" before replacing the asphalt. The areas for scheduled repairs have been marked on the street.

SECTION 302 – ROADWAY SURFACING

302-3 PREPARATORY REPAIR WORK. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

302-3 PREPARATORY REPAIR WORK.

11. Prior to roadway resurfacing or the application of slurry, the Contractor shall complete all necessary preparation and repair work to the road segment e.g.,

tree trimming, weed spray, weed abatement, crack sealing, asphalt repair, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc. and as specified in the Special Provisions.

12. Preparatory work shall include, but not be limited to, tree trimming, weed spray, weed abatement, crack sealing, asphalt repair i.e., mill and pave, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc.
13. The Contractor shall repair areas of distressed asphalt concrete pavement by milling or removing damaged areas of pavement to a minimum depth of 2" for Residential streets, and a minimum depth of 3" for all others to expose firm and unyielding pavement. The Contractor shall prepare subgrade as needed and install a minimum of 2" for residential streets, and a minimum of 3" for all others, of compacted asphalt concrete pavement over compacted native material as directed by the Engineer.
14. If, in order to achieve the minimum specified depth, the base material is exposed, the material shall be compacted to 95% relative compaction to a depth 10" below the finished grade (dig out). Compaction tests shall be made to ensure compliance with the specifications. The Engineer will determine when and where the test will occur. The City will pay for the soils testing required by the Engineer, which meets the required compaction. The Contractor shall reimburse the City for the cost of retesting failing compaction tests. If additional base material is required, the Contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base."
15. Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Aggregate Base."
16. Prior to replacing asphalt, the area shall be cleaned by removing all loose and damaged material, moisture, dirt, and other foreign matter and shall be tack coated in accordance with 302-5.4 "Tack Coat."
17. The Contractor shall install new asphalt within the repair area or for patches in accordance with 302-5, "ASPHALT CONCRETE PAVEMENT." Asphalt concrete shall be C2-PG 64-10 in compliance with 400-4, "ASPHALT CONCRETE."
18. No preparatory asphalt work shall be done when the atmospheric temperature is below 50 °F or during unsuitable weather.
19. Following the asphalt placement, the Contractor shall roll the entire area of new asphalt in both directions at least twice. The finished patch shall be level and smooth in compliance with 302-5.6.2 "Density and Smoothness." After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.
20. The minimum dimension for each individual repair shall be 4' x 4' and shall be subject to the following conditions:

- e) If the base material is exposed to achieve the required minimum removal thickness, the base material shall be prepared conforming to 301-1, "SUBGRADE PREPARATION."
- f) When additional base material is required, then the contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base." Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Base."
- g) The Contractor may use grinding as a method for removal of deteriorated pavement when the areas indicated for removal are large enough (a minimum of the machine drum width) and when approved by the Engineer.
- h) For both scheduled and unscheduled base repairs, failed areas may be removed by milling or by excavation provided that the edges are cut cleanly with a saw. The areas shall be cleaned and tack coated in accordance with 302-5.4, "Tack Coat" before replacing the asphalt. The areas for scheduled repairs have been marked on the street.

302-3.1 Asphalt Patching.

1. Asphalt patching shall consist of patching potholes, gutter-line erosion, and other low spots in the pavement that are deeper than ½" per 302-5.6.2, "Density and Smoothness." These areas are generally smaller and more isolated than those areas in need of mill and pave.
2. The areas requiring patching have been identified in the Contract Documents, marked on the streets, or as directed by the Engineer. The Contractor shall identify any new areas that may require patching prior to slurry work to ensure the smoothness and quality of the finished product.
3. The Contractor shall identify and repair any areas that may require patching, prior to the placement of slurry seal for smooth finished product.
4. Asphalt overlay shall not be applied over deteriorated pavement. Preparatory asphalt work shall be completed and approved by the Engineer before proceeding with asphalt overlay.
5. The Contractor shall remove distressed asphalt pavement either by saw cutting or milling, to expose firm and unyielding pavement; prepare subgrade (as needed); and install compacted asphalt concrete pavement over compacted native material as directed by the Engineer.
6. Prior to replacing asphalt, the area shall be cleaned and tack coated per 302-5.4, "Tack Coat".
7. Following the asphalt placement, the Contractor shall roll the entire patch in both directions covering the patch at least twice.

8. After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.
9. Base repairs shall not exceed 20% RAP in content.

302-3.2 Payment.

1. Payment for replacement of existing pavement when required shall be included in the unit bid price for Asphalt Pavement repair for the total area replaced and no additional payment shall be made regardless of the number of replacements completed. No payment shall be made for areas of over excavation or outside trench areas in utility works unless previously approved by the Engineer. No payment for pavement replacement will be made when the damage is due to the Contractor's failure to protect existing improvements. The Contractor shall reimburse the City for the cost of retesting all failing compaction tests.
2. The areas and quantities shown on the road segments and in appendices are given only for the Contractor's aid in planning the Work and preparing Bids. The Engineer will designate the limits to be removed and these designated areas shall be considered to take precedent over the area shown in an Appendix to the Contract Documents. The quantities shown in the appendices are based on a street assessment survey and may vary.
3. At the end of each day, the Contractor shall submit to the Engineer an itemized list of the asphalt pavement repair work completed. The list shall include the location of the work and the exact square footage of the repair.
4. Preparatory repair work and tack coating will be paid at the Contract unit price per ton for Asphalt Pavement Repair. No payment shall be made for areas of over excavation unless previously approved by the Engineer.
5. Milling shall be included in the Bid item for Asphalt Pavement Repair unless separate Bid item has been provided.
6. Payment for miscellaneous asphalt patching shall be included in the Contract unit price for slurry and no additional payment shall be made therefore.

302-5.1.1 Damaged AC Pavement Replacement. To the City Supplement, DELETE in its entirety.

302-5.1.2 Measurement and Payment. To the City Supplement, DELETE in its entirety.

302-5.2.1 Measurement and Payment. To the City Supplement, item c), ADD the following:
Imported Subgrade material shall be paid per bid item "Imported Backfill".

SECTION 705 – WATER DISCHARGES

705-2.6.1 General. Paragraph (3), CORRECT reference to Section 803 to read "Section 703."

705-2.6.3 Community Health and Safety Plan. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

705-2.6.3 Community Health and Safety Plan. See 703-2, “Community Health and Safety Plan.”

SECTION 707 – RESOURCE DISCOVERIES

ADD:

707-1.1 Environmental Document. The City of San Diego Environmental Analysis Section (EAS) of the Development Services Department has prepared a **Notice of Exemption** for **South Chollas Landfill Operations Yard Improvement Project**, as referenced in the Contract Appendix.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

SUPPLEMENTARY SPECIAL PROVISIONS

APPENDICES

APPENDIX A
FIRE HYDRANT METER PROGRAM

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 1 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

1. **PURPOSE**

- 1.1 To establish a Departmental policy and procedure for issuance, proper usage and charges for fire hydrant meters.

2. **AUTHORITY**

- 2.1 All authorities and references shall be current versions and revisions.
- 2.2 San Diego Municipal Code (NC) Chapter VI, Article 7, Sections 67.14 and 67.15
- 2.3 Code of Federal Regulations, Safe Drinking Water Act of 1986
- 2.4 California Code of Regulations, Titles 17 and 22
- 2.5 California State Penal Code, Section 498B.0
- 2.6 State of California Water Code, Section 110, 500-6, and 520-23
- 2.7 Water Department Director

Reference

- 2.8 State of California Guidance Manual for Cross Connection Programs
- 2.9 American Water Works Association Manual M-14, Recommended Practice for Backflow Prevention
- 2.10 American Water Works Association Standards for Water Meters
- 2.11 U.S.C. Foundation for Cross Connection Control and Hydraulic Research Manual

3. **DEFINITIONS**

- 3.1 **Fire Hydrant Meter:** A portable water meter which is connected to a fire hydrant for the purpose of temporary use. (These meters are sometimes referred to as Construction Meters.)

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3.2 **Temporary Water Use:** Water provided to the customer for no longer than twelve (12) months.

3.3 **Backflow Preventor:** A Reduced Pressure Principal Assembly connected to the outlet side of a Fire Hydrant Meter.

4. **POLICY**

4.1 The Water Department shall collect a deposit from every customer requiring a fire hydrant meter and appurtenances prior to providing the meter and appurtenances (see Section 7.1 regarding the Fees and Deposit Schedule). The deposit is refundable upon the termination of use and return of equipment and appurtenances in good working condition.

4.2 Fire hydrant meters will have a 2 ½" swivel connection between the meter and fire hydrant. The meter shall not be connected to the 4" port on the hydrant. All Fire Hydrant Meters issued shall have a Reduced Pressure Principle Assembly (RP) as part of the installation. Spanner wrenches are the only tool allowed to turn on water at the fire hydrant.

4.3 The use of private hydrant meters on City hydrants is prohibited, with exceptions as noted below. All private fire hydrant meters are to be phased out of the City of San Diego. All customers who wish to continue to use their own fire hydrant meters must adhere to the following conditions:

a. Meters shall meet all City specifications and American Water Works Association (AWWA) standards.

b. Customers currently using private fire hydrant meters in the City of San Diego water system will be allowed to continue using the meter under the following conditions:

1. The customer must submit a current certificate of accuracy and calibration results for private meters and private backflows annually to the City of San Diego, Water Department, Meter Shop.

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2. The meter must be properly identifiable with a clearly labeled serial number on the body of the fire hydrant meter. The serial number shall be plainly stamped on the register lid and the main casing. Serial numbers shall be visible from the top of the meter casing and the numbers shall be stamped on the top of the inlet casing flange.
3. All meters shall be locked to the fire hydrant by the Water Department, Meter Section (see Section 4.7).
4. All meters shall be read by the Water Department, Meter Section (see Section 4.7).
5. All meters shall be relocated by the Water Department, Meter Section (see Section 4.7).
6. These meters shall be tested on the anniversary of the original test date and proof of testing will be submitted to the Water Department, Meter Shop, on a yearly basis. If not tested, the meter will not be allowed for use in the City of San Diego.
7. All private fire hydrant meters shall have backflow devices attached when installed.
8. The customer must maintain and repair their own private meters and private backflows.
9. The customer must provide current test and calibration results to the Water Department, Meter Shop after any repairs.
10. When private meters are damaged beyond repair, these private meters will be replaced by City owned fire hydrant meters.

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11. When a private meter malfunctions, the customer will be notified and the meter will be removed by the City and returned to the customer for repairs. Testing and calibration results shall be given to the City prior to any re-installation.
 12. The register shall be hermetically sealed straight reading and shall be readable from the inlet side. Registration shall be in hundred cubic feet.
 13. The outlet shall have a 2 ½ "National Standards Tested (NST) fire hydrant male coupling.
 14. Private fire hydrant meters shall not be transferable from one contracting company to another (i.e. if a company goes out of business or is bought out by another company).
- 4.4 All fire hydrant meters and appurtenances shall be installed, relocated and removed by the City of San Diego, Water Department. All City owned fire hydrant meters and appurtenances shall be maintained by the City of San Diego, Water Department, Meter Services.
- 4.5 If any fire hydrant meter is used in violation of this Department Instruction, the violation will be reported to the Code Compliance Section for investigation and appropriate action. Any customer using a fire hydrant meter in violation of the requirements set forth above is subject to fines or penalties pursuant to the Municipal Code, Section 67.15 and Section 67.37.
- 4.6 **Conditions and Processes for Issuance of a Fire Hydrant Meter**

Process for Issuance

- a. Fire hydrant meters shall only be used for the following purposes:
 1. Temporary irrigation purposes not to exceed one year.

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2. Construction and maintenance related activities (see Tab 2).

- b. No customer inside or outside the boundaries of the City of San Diego Water Department shall resell any portion of the water delivered through a fire hydrant by the City of San Diego Water Department.
- c. The City of San Diego allows for the issuance of a temporary fire hydrant meter for a period not to exceed 12 months (365 days). An extension can only be granted in writing from the Water Department Director for up to 90 additional days. A written request for an extension by the consumer must be submitted at least 30 days prior to the 12 month period ending. No extension shall be granted to any customer with a delinquent account with the Water Department. No further extensions shall be granted.
- d. Any customer requesting the issuance of a fire hydrant meter shall file an application with the Meter Section. The customer must complete a "Fire Hydrant Meter Application" (Tab 1) which includes the name of the company, the party responsible for payment, Social Security number and/or California ID, requested location of the meter (a detailed map signifying an exact location), local contact person, local phone number, a contractor's license (or a business license), description of specific water use, duration of use at the site and full name and address of the person responsible for payment.
- e. At the time of the application the customer will pay their fees according to the schedule set forth in the Rate Book of Fees and Charges, located in the City Clerk's Office. All fees must be paid by check, money order or cashiers check, made payable to the City Treasurer. Cash will not be accepted.
- f. No fire hydrant meters shall be furnished or relocated for any customer with a delinquent account with the Water Department.
- g. After the fees have been paid and an account has been created, the

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meter shall be installed within 48 hours (by the second business day). For an additional fee, at overtime rates, meters can be installed within 24 hours (within one business day).

4.7 Relocation of Existing Fire Hydrant Meters

- a. The customer shall call the Fire Hydrant Meter Hotline (herein referred to as "Hotline"), a minimum of 24 hours in advance, to request the relocation of a meter. A fee will be charged to the existing account, which must be current before a work order is generated for the meter's relocation.
- b. The customer will supply in writing the address where the meter is to be relocated (map page, cross street, etc). The customer must update the original Fire Hydrant Meter Application with any changes as it applies to the new location.
- c. Fire hydrant meters shall be read on a monthly basis. While fire hydrant meters and backflow devices are in service, commodity, base fee and damage charges, if applicable, will be billed to the customer on a monthly basis. If the account becomes delinquent, the meter will be removed.

4.8 Disconnection of Fire Hydrant Meter

- a. After ten (10) months a "Notice of Discontinuation of Service" (Tab 3) will be issued to the site and the address of record to notify the customer of the date of discontinuance of service. An extension can only be granted in writing from the Water Department Director for up to 90 additional days (as stated in Section 4.6C) and a copy of the extension shall be forwarded to the Meter Shop Supervisor. If an extension has not been approved, the meter will be removed after twelve (12) months of use.
- b. Upon completion of the project the customer will notify the Meter Services office via the Hotline to request the removal of the fire hydrant meter and appurtenances. A work order will be generated

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for removal of the meter.

- c. Meter Section staff will remove the meter and backflow prevention assembly and return it to the Meter Shop. Once returned to the Meter Shop the meter and backflow will be tested for accuracy and functionality.
- d. Meter Section Staff will contact and notify Customer Services of the final read and any charges resulting from damages to the meter and backflow or its appurtenance. These charges will be added on the customer's final bill and will be sent to the address of record. Any customer who has an outstanding balance will not receive additional meters.
- e. Outstanding balances due may be deducted from deposits and any balances refunded to the customer. Any outstanding balances will be turned over to the City Treasurer for collection. Outstanding balances may also be transferred to any other existing accounts.

5. **EXCEPTIONS**

- 5.1 Any request for exceptions to this policy shall be presented, in writing, to the Customer Support Deputy Director, or his/her designee for consideration.

6. **MOBILE METER**

- 6.1 Mobile meters will be allowed on a case by case basis. All mobile meters will be protected by an approved backflow assembly and the minimum requirement will be a Reduced Pressure Principal Assembly. The two types of Mobile Meters are vehicle mounted and floating meters. Each style of meters has separate guidelines that shall be followed for the customer to retain service and are described below:
 - a) **Vehicle Mounted Meters:** Customer applies for and receives a City owned Fire Hydrant Meter from the Meter Shop. The customer mounts the meter on the vehicle and brings it to the Meter Shop for

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inspection. After installation is approved by the Meter Shop the vehicle and meter shall be brought to the Meter Shop on a monthly basis for meter reading and on a quarterly basis for testing of the backflow assembly. Meters mounted at the owner's expense shall have the one year contract expiration waived and shall have meter or backflow changed if either fails.

- b) **Floating Meters:** Floating Meters are meters that are not mounted to a vehicle. **(Note: All floating meters shall have an approved backflow assembly attached.)** The customer shall submit an application and a letter explaining the need for a floating meter to the Meter Shop. The Fire Hydrant Meter Administrator, after a thorough review of the needs of the customer, (i.e. number of jobsites per day, City contract work, lack of mounting area on work vehicle, etc.), may issue a floating meter. At the time of issue, it will be necessary for the customer to complete and sign the "Floating Fire Hydrant Meter Agreement" which states the following:

- 1) The meter will be brought to the Meter Shop at 2797 Caminito Chollas, San Diego on the third week of each month for the monthly read by Meter Shop personnel.
- 2) Every other month the meter will be read and the backflow will be tested. This date will be determined by the start date of the agreement.

If any of the conditions stated above are not met the Meter Shop has the right to cancel the contract for floating meter use and close the account associated with the meter. The Meter Shop will also exercise the right to refuse the issuance of another floating meter to the company in question.

Any Fire Hydrant Meter using reclaimed water shall not be allowed use again with any potable water supply. The customer shall incur the cost of replacing the meter and backflow device in this instance.

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7. **FEE AND DEPOSIT SCHEDULES**

- 7.1 **Fees and Deposit Schedules:** The fees and deposits, as listed in the Rate Book of Fees and Charges, on file with the Office of the City Clerk, are based on actual reimbursement of costs of services performed, equipment and materials. These deposits and fees will be amended, as needed, based on actual costs. Deposits, will be refunded at the end of the use of the fire hydrant meter, upon return of equipment in good working condition and all outstanding balances on account are paid. Deposits can also be used to cover outstanding balances.

All fees for equipment, installation, testing, relocation and other costs related to this program are subject to change without prior notification. The Mayor and Council will be notified of any future changes.

8. **UNAUTHORIZED USE OF WATER FROM A HYDRANT**

- 8.1 Use of water from any fire hydrant without a properly issued and installed fire hydrant meter is theft of City property. Customers who use water for unauthorized purposes or without a City of San Diego issued meter will be prosecuted.
- 8.2 If any unauthorized connection, disconnection or relocation of a fire hydrant meter, or other connection device is made by anyone other than authorized Water Department personnel, the person making the connection will be prosecuted for a violation of San Diego Municipal Code, Section 67.15. In the case of a second offense, the customer's fire hydrant meter shall be confiscated and/or the deposit will be forfeited.
- 8.3 Unauthorized water use shall be billed to the responsible party. Water use charges shall be based on meter readings, or estimates when meter readings are not available.
- 8.4 In case of unauthorized water use, the customer shall be billed for all applicable charges as if proper authorization for the water use had been obtained, including but not limited to bi-monthly service charges, installation charges and removal charges.

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- 8.5 If damage occurs to Water Department property (i.e. fire hydrant meter, backflow, various appurtenances), the cost of repairs or replacements will be charged to the customer of record (applicant).

**Larry Gardner
Water Department Director**

- Tabs: 1. Fire Hydrant Meter Application
2. Construction & Maintenance Related Activities With No Return To Sewer
3. Notice of Discontinuation of Service

APPENDIX

Administering Division: Customer Support Division

Subject Index: Construction Meters
Fire Hydrant
Fire Hydrant Meter Program
Meters, Floating or Vehicle Mounted
Mobile Meter
Program, Fire Hydrant Meter

Distribution: DI Manual Holders



Application for Fire (EXHIBIT A) Hydrant Meter

(For Office Use Only)

NS REQ	FAC#
DATE	BY

METER SHOP (619) 527-7449

Meter Information

Application Date	Requested Install Date:
------------------	-------------------------

Fire Hydrant Location: (Attach Detailed Map//Thomas Bros. Map Location or Construction drawing.) <u>Zip:</u>	<u>T.B.</u>	<u>G.B. (CITY USE)</u>
Specific Use of Water:		
Any Return to Sewer or Storm Drain, If so, explain:		
Estimated Duration of Meter Use: <input type="text"/>	<input type="checkbox"/>	Check Box if Reclaimed Water

Company Information

Company Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ()
*Business license#		*Contractor license#	
A Copy of the Contractor's license OR Business License is required at the time of meter issuance.			
Name and Title of Billing Agent: (PERSON IN ACCOUNTS PAYABLE)			Phone: ()
Site Contact Name and Title:			Phone: ()
Responsible Party Name:			Title:
Cal ID#			Phone: ()
Signature:		Date:	
Guarantees Payment of all Charges Resulting from the use of this Meter. Insures that employees of this Organization understand the proper use of Fire Hydrant Meter			

Fire Hydrant Meter Removal Request		Requested Removal Date:
<input type="text"/>		
Provide Current Meter Location if Different from Above:		
Signature:		Title: Date:
Phone: ()		Pager: ()

<input type="checkbox"/> City Meter	<input type="checkbox"/> Private Meter	
Contract Acct #:	Deposit Amount: \$ 936.00	Fees Amount: \$ 62.00
Meter Serial #	Meter Size: 05	Meter Make and Style: 6-7
Backflow #	Backflow Size:	Backflow Make and Style:
Name:	Signature:	Date:

South Chollas Landfill Operations Yard Improvement Project

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WATER USES WITHOUT ANTICIPATED CHARGES FOR RETURN TO SEWER

Auto Detailing
Backfilling
Combination Cleaners (Vactors)
Compaction
Concrete Cutters
Construction Trailers
Cross Connection Testing
Dust Control
Flushing Water Mains
Hydro Blasting
Hydro Seeing
Irrigation (for establishing irrigation only; not continuing irrigation)
Mixing Concrete
Mobile Car Washing
Special Events
Street Sweeping
Water Tanks
Water Trucks
Window Washing

Note:

1. If there is any return to sewer or storm drain, then sewer and/or storm drain fees will be charges.

Date

Name of Responsible Party

Company Name and Address

Account Number: _____

Subject: Discontinuation of Fire Hydrant Meter Service

Dear Water Department Customer:

The authorization for use of Fire Hydrant Meter # _____, located at *(Meter Location Address)* ends in 60 days and will be removed on or after *(Date Authorization Expires)*. Extension requests for an additional 90 days must be submitted in writing for consideration 30 days prior to the discontinuation date. If you require an extension, please contact the Water Department, or mail your request for an extension to:

City of San Diego
Water Department
Attention: Meter Services
2797 Caminito Chollas
San Diego, CA 92105-5097

Should you have any questions regarding this matter, please call the Fire Hydrant Hotline at (619) _____ - _____.

Sincerely,

Water Department

APPENDIX B

MATERIALS TYPICALLY ACCEPTED BY CERTIFICATE OF COMPLIANCE

Materials Typically Accepted by Certificate of Compliance

1. Soil amendment
2. Fiber mulch
3. PVC or PE pipe up to 16 inch diameter
4. Stabilizing emulsion
5. Lime
6. Preformed elastomeric joint seal
7. Plain and fabric reinforced elastomeric bearing pads
8. Steel reinforced elastomeric bearing pads
9. Waterstops (Special Condition)
10. Epoxy coated bar reinforcement
11. Plain and reinforcing steel
12. Structural steel
13. Structural timber and lumber
14. Treated timber and lumber
15. Lumber and timber
16. Aluminum pipe and aluminum pipe arch
17. Corrugated steel pipe and corrugated steel pipe arch
18. Structural metal plate pipe arches and pipe arches
19. Perforated steel pipe
20. Aluminum underdrain pipe
21. Aluminum or steel entrance tapers, pipe downdrains, reducers, coupling bands and slip joints
22. Metal target plates
23. Paint (traffic striping)
24. Conductors
25. Painting of electrical equipment
26. Electrical components
27. Engineering fabric
28. Portland Cement
29. PCC admixtures
30. Minor concrete, asphalt
31. Asphalt (oil)
32. Liquid asphalt emulsion
33. Epoxy

APPENDIX C
SAMPLE CITY INVOICE

City of San Diego, Field Engineering Div., 9485 Aero Drive, SD CA 92123						Contractor's Name:					
Project Name:						Contractor's Address:					
SAP No. (WBS/IO/CC):											
City Purchase Order No. :						Contractor's Phone #:			Invoice No.		
Resident Engineer (RE):						Contractor's Fax #:			Invoice Date:		
RE Phone#:		RE Fax#:				Contact Name:			Billing Period:		
Item #	Item Description	Contract Authorization				Previous Estimate		This Estimate		Totals to Date	
		Unit	Qty	Price	Extension	%/QTY	Amount	% / QTY	Amount	% / QTY	Amount
1	2 Parallel 4" PVC C900	LF	1,380	\$34.00	\$46,920.00						
2	48" Primary Steel Casing	LF	500	\$1,000.00	\$500,000.00						
3	2 Parallel 12" Secondary Steel	LF	1,120	\$53.00	\$59,360.00						
4	Construction and Rehab of PS 49	LS	1	\$150,000.00	\$150,000.00						
5	Demo	LS	1	\$14,000.00	\$14,000.00						
6	Install 6' High Chain Link Fence	LS	1	\$5,600.00	\$5,600.00						
7	General Site Restoration	LS	1	\$3,700.00	\$3,700.00						
8	10" Gravity Sewer	LF	10	\$292.00	\$2,920.00						
9	4" Blow Off Valves	EA	2	\$9,800.00	\$19,600.00						
10	Bonds	LS	1	\$16,000.00	\$16,000.00						
11	Field Orders	AL	1	80,000	\$80,000.00						
11.1	Field Order 1	LS	5,500	\$1.00	\$5,500.00						
11.2	Field Order 2	LS	7,500	\$1.00	\$7,500.00						
11.3	Field Order 3	LS	10,000	\$1.00	\$10,000.00						
11.4	Field Order 4	LS	6,500	\$1.00	\$6,500.00						
12	Certified Payroll	LS	1	\$1,400.00	\$1,400.00						
CHANGE ORDERS											
Change Order 1			4,890								
Items 1-4					\$11,250.00						
Item 5-Deduct Bid Item 3		LF	120	-\$53.00	(\$6,360.00)						
Change Order 2			160,480								
Items 1-3					\$95,000.00						
Item 4 Deduct Bid Item 1		LF	380	-\$340.00	(\$12,920.00)						
Item 5-Encrease bid Item 9		LF	8	\$9,800.00	\$78,400.00						
Change Order 3 (Close Out)			-121,500								
Item 1 Deduct Bid Item 3			53	-500.00	(\$26,500.00)						
Item 2 Deduct Bid Item 4		LS	-1	45,000.00	(\$45,000.00)						
Items 3-9			1	-50,500.00	(\$50,500.00)						
SUMMARY								Total This	\$ -	Total Billed	\$0.00
A. Original Contract Amount						Retention and/or Escrow Payment Schedule					
B. Approved Change Order 1 Thru 3						Total Retention Required as of this billing					
C. Total Authorized Amount (A+B)						Previous Retention Withheld in PO or in Escrow					
D. Total Billed to Date						Add'l Amt to Withhold in PO/Transfer in Escrow:					
E. Less Total Retention (5% of D)						Amt to Release to Contractor from PO/Escrow:					
F. Less Total Previous Payments											
G. Payment Due Less Retention						Contractor Signature and Date:					
H. Remaining Authorized Amount											

APPENDIX D

PAVEMENT EVALUATION, PARKING AND OPERATIONS AREAS, SOUTH CHOLLAS LANDFILL, GEO-LOGIC ASSOCIATES INC, SEPTEMBER 2013

**PAVEMENT EVALUATION
PARKING AND OPERATIONS AREAS
SOUTH CHOLLAS LANDFILL
2781 CAMINITO CHOLLAS
SAN DIEGO, CA**



OCTOBER 2013

PREPARED FOR:

**SWT ENGINEERS
800-C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA**

PREPARED BY:



**Geo-Logic Associates
11415 West Bernardo Court, Suite 200
San Diego, California 92127
(858) 451-1136**

October 4, 2013
2013.0127

Mr. Michael Cullinane
SWT Engineers
800-C South Rochester Avenue
Ontario, California

**PAVEMENT EVALUATION
PARKING AND OPERATIONS AREAS
SOUTH CHOLLAS LANDFILL
2781 CAMINITO CHOLLAS
SAN DIEGO, CALIFORNIA**

In accordance with your request, **GeoLogic Associates (GLA)** has performed a pavement evaluation to provide existing pavement thickness to aid the contractor in the proposed drainage repairs to the parking and operations areas of the South Chollas Landfill located at 2781 Caminito Chollas, San Diego, CA (see Vicinity Map, Figure 1).

We understand that the City of San Diego, Environmental Services Department, Waste Reduction and Disposal Division wishes to correct the current drainage at the site to remove any potential ponding areas in the paved and unpaved areas of the existing parking and operation areas at the closed landfill (see Figures 1, 2, and 3 for site locations).

Scope of Work

The scope of services included the following:

- Review of available pertinent, published and unpublished geotechnical literature and maps.
- Field reconnaissance of the existing onsite geologic/geotechnical conditions.
- Preparation of a work plan for the drilling activities.
- Project kickoff meeting at the site with representatives of the City staff prior to drilling.

- Markout of the boring locations at the site and providing a map of boring locations to representatives of the City staff for review of conflicts with existing underground utilities.
- Coordination with Underground Service Alert of Southern California (USA) to locate underground utilities at the locations of our proposed borings.
- Contracting with an independent geophysical utility locating service (SouthWest Geophysics) to locate any known metallic underground utility in the vicinity of our proposed borings.
- Performance of 25 exploratory borings (Boring B -1 through B-25) and one backhoe pit (called B-26 in this report) across the site (in the parking and Operations areas) concentrating in areas of asphalt concrete removals (“cut” areas where the proposed grades will be lowered to allow drainage).
- Geotechnical laboratory testing of representative soil samples obtained.
- Analysis of the geotechnical data obtained from the investigation program and laboratory testing.
- Preparation of this report presenting our findings, conclusions, and recommendations with respect to the geotechnical aspects of the proposed site re-grading.

Previous Studies

Anderson Drilling advanced several gas wells across the site in 1992. In the western parking area, the landfill cap ranged from 4 to 12 feet thick and the total depth of the wells ranged from 11 to 31 feet below the existing ground surface. In the operations area, the landfill cover ranged from 3 to 8 feet thick and the total depth of the well ranged from 11 to 31 feet below the existing ground surface. No record of the thickness of the asphalt concrete pavement encountered during the drilling could be found on the Anderson drilling logs.

Previous exploratory borings were advanced at the site by Ninyo & Moore (2011). Two borings (B-5 and B-6) were advanced in the employee parking area and indicated an asphalt concrete thickness of 8 inches in both borings. Two borings (Borings B-3 and B-4) advanced in the Water Department section of the eastern Operations area indicated an asphalt concrete thickness ranging from 10 inches to 2.3 feet. The boring depths ranged from 5 to 16.5 feet below the existing ground surface.

Site Conditions and Proposed Grading

The site currently is occupied by various buildings owned and occupied by the City of San Diego. The major buildings are mostly founded on native soils with the surrounding area underlain by refuse covered with a soil cap. Areas without buildings are covered with asphalt concrete, cement pavement, soil, and/or gravel. Site elevations in the western parking area range from 430 feet mean sea level (MSL) adjacent to College Grove Drive to 410 feet MSL at the southwest corner of the parking area. Site elevations in the eastern Operations area range from 435 feet MSL adjacent to College Grove Drive to 405 feet MSL at the southwestern portion of the Operations yard (Google Earth, Photo-imagery, 11/2012). The site is mostly unvegetated.

A site grading plan was designed by SWT to provide positive drainage (and reduce site ponding). The grading plan included cuts of up to 3.3 feet and fills up to 3 feet for the western parking area and cuts up to 3.1 feet and fills up to 2.3 feet in the Operations area.

Subsurface Exploration

Representatives of GLA and the City of San Diego attended a pre-job meeting at the site on August 29, 2013. Safety issues were discussed as well as onsite contacts and protocol. The boring locations were selected and marked out on this date as well. Underground service alert (USA) was contacted on August 30, 2013 in accordance with State law. Representatives of the geophysical locating service (SouthWest Geophysics) reviewed each of the boring locations on September 5, 2013 for potential utility conflicts.

A representative of our firm was onsite on September 6 and 7, 2013 to perform site drilling and document site conditions. The drill rigs used were a Unimog Marl M5 and a Fraste Multi Drill TL-G owned and operated by Pacific Drilling of San Diego, CA. Subsurface exploration 8-inch diameter drill holes. The holes were generally advanced to a minimum of 5 feet below top of asphalt concrete pavement or to a minimum of 2 feet below the bottom of asphalt pavement.

Borings B-1 through B-10 were advanced on the western parking area of the site. Borings B-11 through B-25 were advanced on the eastern Operations area. B-26 was advanced outside of the Operations area beyond the eastern fence line by using a backhoe. All borings were backfilled with native soil/asphalt mixed with bentonite and capped with cold patch asphalt concrete when completed. In the two borings that encountered refuse, a bentonite plug was placed at the top of the refuse prior to backfilling of the borehole. The actual boring completion materials are presented on the boring logs in Appendix A. The locations of the borings are presented on Figures 2 and 3 and listed with approximate coordinates in Appendix A (Table A-1).

The excavation of exploratory borings was performed under the supervision of a GLA geologist who also logged the borings and obtained samples for subsequent examination and laboratory testing. Subsurface materials were visually classified in the field in accordance with standard engineering and geologic practices, see Unified Soil Classification System explained in Appendix A. The soil color is described in accordance with the Munsell Soil Color Chart, 1994 convention (i.e. 5YR 3/2, etc.) after the soil color description.

The soils obtained from the borings (below the asphalt layer) were monitored with a photo-ionization detector (PID) for the presence of volatile hydrocarbon compounds. Based on the results of the screening (see boring logs, Appendix A), no significant levels of volatile hydrocarbons were detected above background levels in the borings advanced at the site.

Geology and Subsurface Conditions

Based on review of previous and referenced data and information observed/collected as part of this scope of work, the site is underlain by asphalt concrete pavement over landfill cover soils. Refuse is anticipated below the cover soils with a bedrock composed of Quaternary Old Terrace Deposits/Tertiary Mission Valley Formation (Kennedy and Tan, 2005).

The asphalt concrete (AC) encountered in the western parking area ranged from 6 to 14 inches thick. No significant aggregate base was observed below the asphalt. The underlying subgrade soil was generally sandy to clayey silt in the northern half of the parking area with a more variable pavement subgrade consisting of clay, silt, and sand in the southern portion of the parking area.

The asphalt concrete (AC) encountered in the eastern Operations area ranged from 2.5 to 7 inches thick. No significant aggregate base was observed below the asphalt except in Borings B-11 and B-12. The underlying subgrade soil was generally sandy to clayey silt across the site with isolated area of clayey to silty sand and sandy clay.

No seepage or ground water was encountered to the total depth explored of 5 feet in the borings advanced at the site. Previous borings advanced on the site by Ninyo & Moore (2011) did not encounter groundwater to the maximum depth explored of 16.5 feet below top of pavement. The depth to groundwater ranges from 15 feet at the extreme northeast portion of the site to 150 feet at the southwestern portion of the site (GLA, 2012). The groundwater flows in a south-southwest direction across the site. The depth to ground water may vary seasonally at the site and localized seepage may result after periods of precipitation.

The conditions encountered in the borings advanced at the site follow:

Table 1				
Boring Summary				
Boring Number	Area	Total Asphalt Concrete Thickness (inches)	Depth of Cut to Proposed Top of Pavement Grade per SWT (2103) Plan (inches)	Remaining Asphalt Concrete after Proposed Grading (inches)
B-1	Western Parking Area	6	4	2
B-2		6.5	18	0
B-3		7	15	0
B-4		7	6	1
B-5		7	4	3
B-6		7	14	0
B-7		9	8	1
B-8		10	2	8
B-9		14	30	0
B-10		8	3	5
B-11	Eastern Operations Area	4	Area just to south has a cut of 72 inches	0
B-12		4	7	0
B-13		4	Area just to the west has a cut of 20 inches	
B-14		6.25	2	4
B-15		6	11	0
B-16		5.5	7	0
B-17		7	5	2
B-18		N/A*	6	No trash to depth of cut
B-19		5.5	5	0.5
B-20		N/A*	Area just to NE has cut of 7 inches	No trash to depth of cut
B-21		3.5	24	0
B-22		4	12	0
B-23		5	Area just to SE has a cut of 7 inches	0
B-24		2.5	5	0
B-25		4	4	0
B-26		N/A*	12	No trash to depth of cut

Notes:

N/A: Not applicable, gravel or soil present at the ground surface at this location.

Laboratory Testing and Results

Laboratory tests were performed on representative soil samples from the subsurface sampling to provide geotechnical parameters for engineering analyses. The testing program was designed to fit the specific needs of this project.

Laboratory testing indicates that the soils below the site range from sand to clay with the predominate soil type consisting of sandy silt. A sample of the soil collected from B-26 was tested for R-Value. A sample of the asphalt grinding with 10 to 20% soil was also tested for R-Value. The R-Value test results ranged from 40 to 46. The R-Value of clean asphalt grindings (as tested from other sources) produces an R-Value ranging from 77 to 82. A minimum R-Value for aggregate base is 78. The test results indicate a design R-Value for typical site subgrade of 30 (based on visual evaluation of subgrade soils encountered on the borings and to account for local soil variations).

The laboratory soil testing results are presented in Appendix B.

Conclusions

Based on the results of our geotechnical evaluation of the site, it is our opinion that the proposed development is feasible from a geotechnical standpoint, provided the following conclusions and recommendations are incorporated into the project plans and specifications. The following is a summary of the geotechnical factors that may affect development of the site.

- The proposed grading to provide adequate site drainage will likely remove most if not all of the pavement wearing surface (asphalt concrete) in both the parking area and the Operations area (see Table 2). In addition, in areas where no asphalt pavement was encountered at the existing ground surface (B-18, B-20, and B-26), the proposed cut should generally not expose refuse.
- No areas were encountered in the 26 borings/test pit across the site where there was shallow cover which may expose trash in the cut areas during the proposed grading for the site.
- The onsite fill soils appear to be capable of supporting the anticipated pavement loads in their present condition, however, pavement subgrade should be proof-rolled prior to placement of new pavement and aggregate base to evaluate subgrade conditions for soft, wet, or loose areas that need moisture-conditioning, drying back, additional soil stabilization, and/or recompaction.
- In general, the existing onsite soils appear to be suitable material for structural fill construction provided they are relatively free of organic material, debris, and rock fragments larger than 2 inches and properly recompacted.
- Groundwater was not encountered in any of the borings across site to a depth of 5 feet below top of pavement. Seepage conditions may be encountered in low areas or after precipitation events when compacting the pavement subgrade prior to pavement construction. Areas of wet or “pumping” subgrade may also be encountered requiring stabilization.

Recommendations

General Earthwork

Earthwork should be performed in accordance with the project specifications and the following recommendations.

Site Preparation

Prior to grading, the site should be cleared of existing surface and subsurface obstructions. Vegetation, oversize material, and debris should be disposed off site. Holes resulting from removal of buried obstructions that extend below finished site grades should be filled with properly compacted soil under the observation and testing of the geotechnical engineer.

Soil Removals

In areas where pavement removals encounter loose, wet, or pumping subgrade, we recommend that these soils be removed down to competent fill (but not within 2 feet of the existing top of trash), moisture-conditioned, and recompacted prior to the placement of structural fill or the proposed pavement. Depending on the time of the year, additional soil moisture or drying-back of the site materials may be necessary to achieve the minimum soil compaction. The subgrade should be proof-rolled with a loaded water truck (or equivalent) to evaluate the strength of the exposed subgrade. Significant removals below the pavement areas are not anticipated, however, localized removals to a depth of 12 to 18 inches may be necessary in areas of wet or pumping subgrade. Actual removals may be locally deeper depending on actual conditions encountered. At the base of the removals, the upper 6 inches of existing soil should be scarified, moisture-conditioned, and recompacted to a minimum relative compaction of 90 percent (based on ASTM D1557). Crushed gravel and/or a geotextile (Mirafi 600X or approved equivalent) may be necessary to stabilize selected areas of wet or “pumping” subgrade. All excavation/removal bottoms should expose firm and competent fill and be observed by a representative of the geotechnical engineer.

Structural Fills

The onsite soils are generally suitable for use as compacted fill provided they are free of organic material and debris. Material greater than 2 inches in maximum size should not be placed within 2 feet of the subgrade. Asphalt concrete and concrete should not be placed in structural fills. The area to receive fill should be scarified to a minimum depth of 6 inches, brought to near optimum moisture content, and recompacted to at least 90 percent relative compaction (based on Modified Proctor, ASTM D1557). Fill soils should be placed at a minimum of 90 percent relative compaction (based on Modified Proctor, ASTM D1557) near optimum moisture content. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in thickness.

The upper 6 inches of pavement subgrade should be compacted to a minimum relative compaction of 95% (based on ASTM D1557) prior to pavement construction. These soils should be tested by the geotechnical consultant for conformance to the above recommendations.

Pavement Design

Based on visual observations of the subgrade soils across the site and limited testing, the site fill soil appear to be clayey sand to clayey silt with scattered gravel. Typical design R-Values of these soils average near 30. Based on our visual observations of the pavement subgrade, we have assumed an R-Value of 30 for pavement design.

Utilizing the design procedures outlined in the current Caltrans Highway Design Manual and a design R-value of 30, we provide the following preliminary pavement sections for planning purposes. We have provided a traditional asphalt concrete (AC) section over Class 2 aggregate base as well as a full depth asphalt concrete pavement section over compacted native subgrade. The project civil engineer should determine the appropriate traffic index based on the anticipated vehicle loading (including trash and delivery truck loading) over the design life of the pavement. We present the preliminary pavement sections based on the traffic indices as follows:

Table 2				
Recommended Pavement Section vs. Traffic Index				
Design 20-Year Traffic Index (TI)	Design R-value	Flexible Pavement Section		
		Asphalt Concrete Thickness	Aggregate Base Thickness	Full Depth Asphalt Concrete
TI = 4.5	30	3.0 inches	5.0 inches	5.5 inches
TI = 5.0	30	3.0 inches	6.0 inches	6.0 inches
TI = 6.0	30	3.5 inches	8.0 inches	7.5 inches
TI = 7.0	30	4.0 inches	10.0 inches	9.5 inches
TI = 8.0	30	5.0 inches	11.0 inches	11.5 inches
TI = 9.0	30	5.5 inches	13.0 inches	13.0 inches

A traffic index of 4.5 is typically used for parking areas for passenger vehicles with an average daily traffic index of less than 200 vehicles. A traffic index of 5.0 to 5.5 is similar to a cul-de-sac or local street with an average daily traffic of less than 500 to 1,200 passenger vehicles, respectively, with minor truck traffic. A traffic index of 6.0 to 7.0 is similar to a local or industrial street with an average daily traffic of up to 2,500 vehicles per day with moderate small

truck traffic and minor heavy traffic. A traffic index of 8.0 to 9.0 is similar to a secondary arterial or prime arterial with an average daily traffic of 10,000 to 25,000 vehicles per day with heavy small truck traffic and moderate heavy traffic.

Conversations with the owner and the civil engineer indicate that the (western) employee parking area can use a TI of 5.0 with a corresponding full depth AC thickness of 6 inches. The City may increase this thickness to account for possible additional refuse settlement if the cost-benefit is acceptable. The Operations area may be designed with a TI of 6.0 to 7.0 with a corresponding full depth asphalt concrete thickness of 7.5 to 9.5 inches with a possible increase in AC thickness to account for possible refuse settlement if the cost-benefit is acceptable.

The use of grinding from the removal of the existing asphalt concrete is acceptable provided the asphalt grindings meet the four criteria (gradation, resistance, sand equivalent, and durability index) of Section 26-1.02A of the most recent Caltrans specifications for Class 2 aggregate base.

In areas where the existing pavement has performed relatively well, it may be prudent to add the new pavement section directly over existing pavement without removal of the pavement. The recommended pavement thickness in fill areas may be accomplished by the use of asphalt concrete pavement over aggregate base or just full depth asphalt. The use of aggregate base under asphalt will reduce the overall cost of the new pavement section while also using the onsite grindings from removal of asphalt as aggregate base material. We note that at other area landfills, the use of aggregate base under asphalt has trapped precipitation in these layers and noxious odors were noted during pavement removals. The use of aggregate base below asphalt should only be used in areas where the surface grades promote fast surface drainage and in areas where pavement will be well maintained and routinely slurry sealed at regular intervals to reduce the potential for accumulation of trapped water.

The effect of the pavement settlement from consolidation of the underlying refuse was evaluated as part of this scope of work. Re-grading of the site to create positive drainage is the most important method of reducing near-term refuse settlement. Since no indication of trapped water was encountered in the asphalt pavement or underlying soil in the borings across the site, it is not considered necessary to include pavement dewatering methods (subdrains, dry wells, etc.) as part of the site re-grading. This should be further evaluated during site grading. If it is desired, methods to reduce the amount of post-construction differential settlement include the use of a heavy geogrid (Tensar TX 160 or equivalent) placed at the base of the compacted fill or aggregate base. This geogrid should be overlain by a non-woven geotextile (such as Mirafi 140N or equivalent) to reduce the migration of fine particles in the soil. The geogrid will somewhat reduce the magnitude of the adjacent, differential settlements typically associated with

construction on refuse, but the geogrid will not reduce the magnitude of the total refuse settlement. The cracks in the asphalt concrete itself may be reduced by the use of a Petromat (or approved equivalent) within the layers of the asphalt concrete pavement.

For delivery and trash truck areas subjected to stopping/impact loading, we recommend a minimum section of 7 inches of Portland cement concrete (P.C.C.) over 2 inches of Class 2 aggregate base. The P.C.C. in the above pavement sections should be provided with appropriate steel reinforcement and crack-control joints as designed by the project structural engineer. If sawcuts are used, they should be a minimum depth of 1/3 the slab thickness and made within 8 hours of concrete placement. We recommend that sections be as nearly square as possible. A concrete mix with a minimum 28-day strength of 3,250 psi should be utilized.

Asphalt Concrete (AC), P.C.C., and Class 2 base materials should conform to and be placed in accordance with the latest revision of the California Department of Transportation Standard Specifications (Caltrans) and American Concrete Institute (ACI) codes. In accordance with the Standard Specifications for Public Works Construction "Greenbook", the upper 6 inches of subgrade soils should be moisture conditioned and compacted to at least 95 percent relative compaction based on ASTM Test Method D1557 prior to placement of aggregate base. The base layer should be compacted to at least 95 percent relative compaction as determined by ASTM Test Method D1557. Asphalt grindings or untreated Class 2 aggregate base (not processed miscellaneous base) should meet the four criteria of Section 26-1.02A of the most recent Caltrans specifications and the Greenbook standards. Asphalt concrete should be compacted to the minimum Greenbook standards of 95 percent of Hveem density (Section 302-5.6.2).

Limitations


The conclusions and recommendations in this report are based in part upon data that were obtained from widely-spaced borings across the site. The nature of many sites is such that differing geotechnical or geological conditions can occur within small distances especially in areas of fill soils with unknown compaction requirements. Accordingly, it is important that these conditions be verified by a representative of the geotechnical consultant during subgrade preparation and pavement placement to check that the geotechnical conditions assumed in this report are representative of the actual conditions encountered in the field. If conditions are substantially different than observed in the field, the geotechnical consultant should provide additional recommendations, as applicable.

This report has not been prepared for use by parties or projects other than those named or described above. It may not contain sufficient information for other parties or other purposes. This report has been prepared in accordance with generally accepted geotechnical practices and makes no other warranties, either express or implied, as to the professional advice or data contained herein.

Closing

Please do not hesitate to contact the undersigned if you have any questions regarding this report. We appreciate the opportunity to be of service.

GeoLogic Associates


Joseph G. Franzone, GE 2189
Supervising Geotechnical Engineer

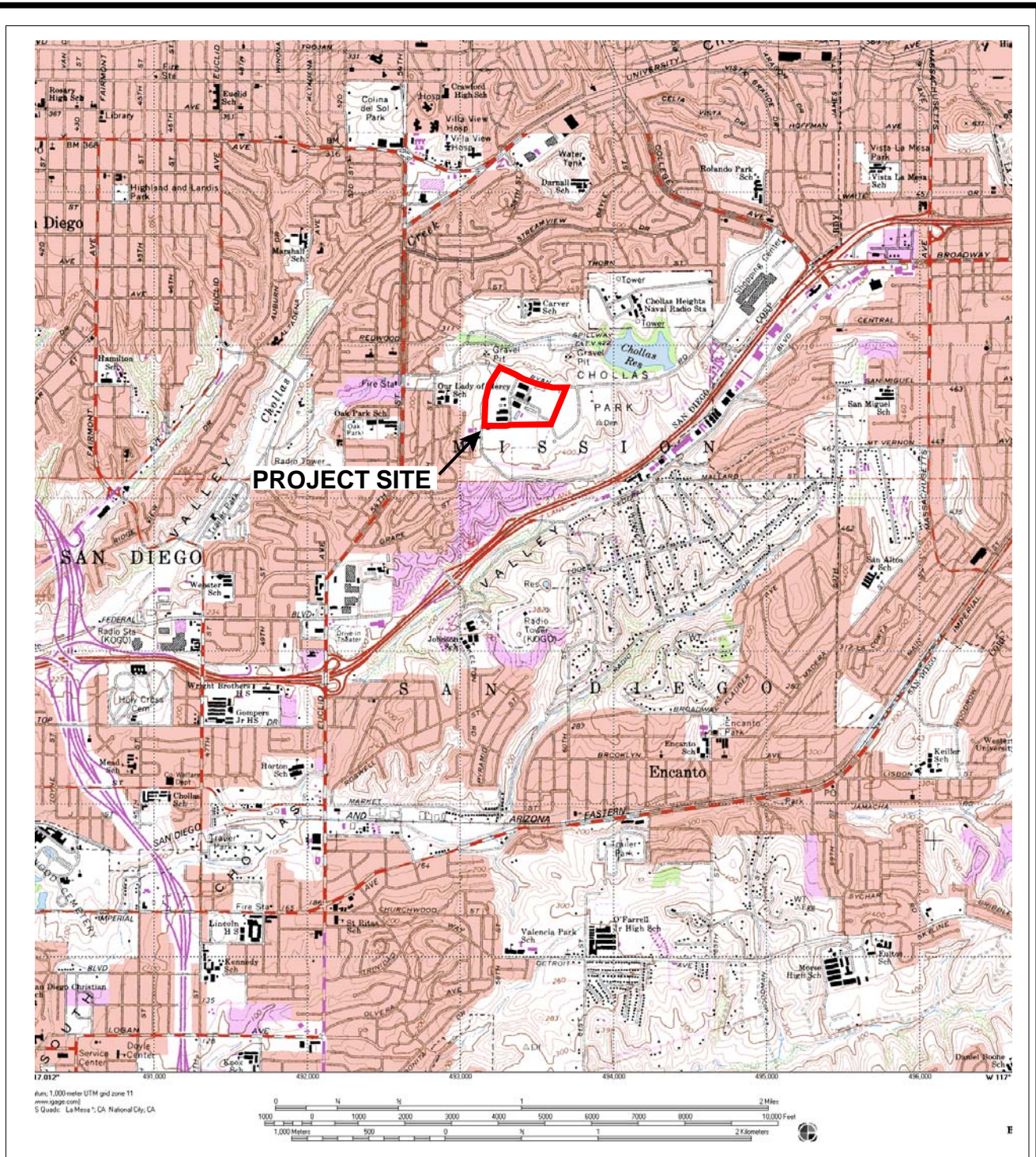


Distribution: (1) Addressee- electronic submittal

Attachments: References
Figure 1 – Vicinity Map
Figure 2 – Boring Location Map-Parking Area
Figure 3 – Boring Location Map-Operations Area
Appendix A –Boring Logs
Appendix B – Laboratory Testing Procedures and Results

REFERENCES

- BNi, 2012, Standard Specifications for Public Works Construction, “Greenbook”.
- California, State of, 2012, Caltrans Standard Specifications.
- Caltrans, 2012, Highway Design Manual, May 2012.
- Geo-Logic, 2012, City of San Diego Water Quality Monitoring Report, Annual (October 2011 through September 2012) Report, South Chollas Landfill, October 2012, PN.2011-110.
- Kennedy, M.P., 1975, Geology of the San Diego Metropolitan Area, California: CDMG Bulletin 200, 38p.
- Kennedy, Michael P. and Siang S. Tan, 2005, Geologic Map of The San Diego 30'x60' Quadrangle, California, Regional Geologic Map Series, 1:100,000 Scale, Digital Preparation by Kelly R. Bovard, A. G. Garcia and Diane Burns, Map No. 3 Sheet 2 of 2.
- Ninyo and Moore, 2011, Supplemental Geotechnical and Environmental Evaluation, 2797 Caminito Chollas, Chollas Water Operations, Facility Improvements, San Diego, CA, PN 106933003, dated November 11, 2011.



REFERENCE: U.S.G.S. , 1967, 7.5 Minute Topographic Series, National City, CA, revised 1975 .

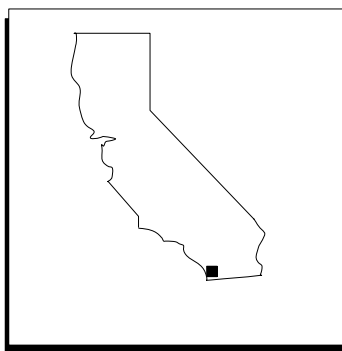


FIGURE 1

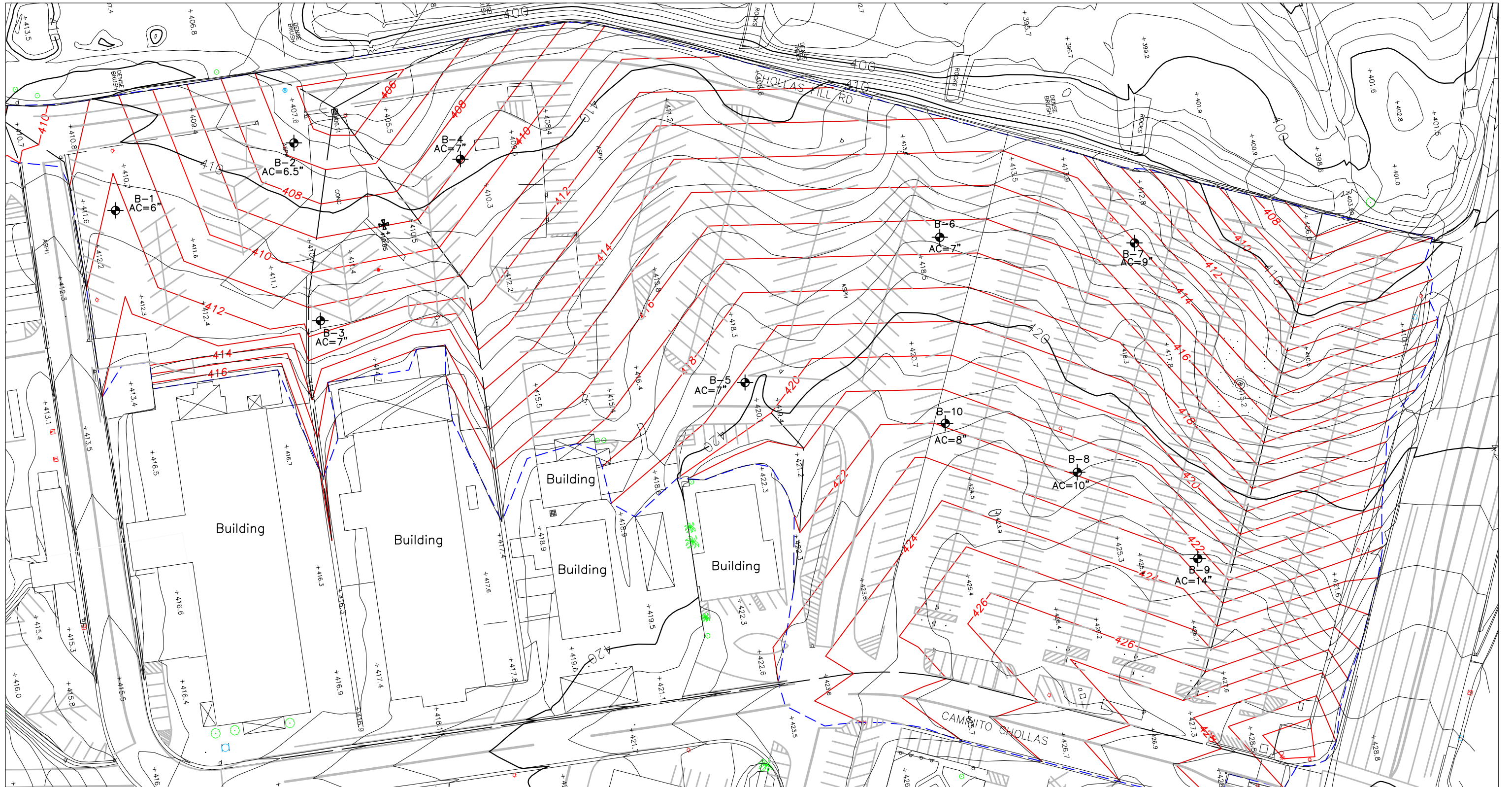
VICINITY MAP
 PAVEMENT EVALUATION
 SOUTH CHOLLAS LANDFILL
 SAN DIEGO, CALIFORNIA

Geo-Logic
 ASSOCIATES

Draft
 JGF

Date
 09/2013

Project No.
 2013-0130



BASE MAP FROM SWT, 2013.

LEGEND

B-10
AC=8"

APPROXIMATE LOCATION OF PROPOSED BORING
WITH TOTAL DEPTH OF ASPHALT CONCRETE (AC) IN INCHES

PROPOSED GRADING CONTOURS

APPROXIMATE LIMITS OF GRADING

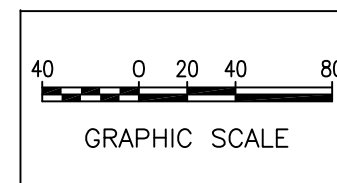


FIGURE 2

BORING LOCATION MAP – PARKING AREA PAVEMENT EVALUATION SOUTH CHOLLAS LANDFILL SAN DIEGO, CALIFORNIA		
DRAWN BY: JGF	DATE: SEPT 2013	JOB NO: 2013-0130



BASE MAP FROM SWT, 2013.

FIGURE 3

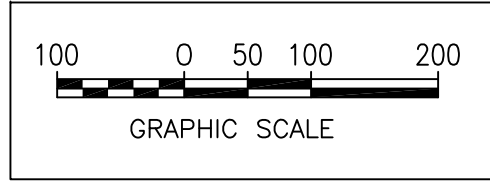
LEGEND

B-26
AC=8"

APPROXIMATE LOCATION OF PROPOSED BORING
WITH TOTAL DEPTH OF ASPHALT CONCRETE (AC) IN INCHES
NO ASPHALT CONCRETE ENCOUNTERED WHERE NOT REPORTED

PROPOSED GRADING CONTOURS

APPROXIMATE LIMITS OF GRADING



BORING LOCATION MAP — OPERATIONS AREA

**PAVEMENT EVALUATION
SOUTH CHOLLAS LANDFILL
SAN DIEGO, CALIFORNIA**

Geo-Logic
ASSOCIATES

DRAWN BY: JGF	DATE: SEPT 2013	JOB N092013010
---------------	-----------------	----------------

APPENDIX A

BORING LOGS

TABLE A-1
Approximate Boring Locations

Boring Number	Approximate Latitude, degrees	Approximate Longitude, degrees
B-1	32.733054	117.073674
B-2	32.733487	117.073780
B-3	32.733497	117.073309
B-4	32.733917	117.073651
B-5	32.734489	117.072970
B-6	32.734920	117.073216
B-7	32.735340	117.073058
B-8	32.735110	117.072447
B-9	32.735376	117.072237
B-10	32.734797	117.072515
B-11	32.733362	117.068793
B-12	32.734119	117.068568
B-13	32.734458	117.068449
B-14	32.734336	117.069156
B-15	32.734051	117.069466
B-16	32.733611	117.069584
B-17	32.732316	117.069499
B-18	32.731832	117.069550
B-19	32.732643	117.070611
B-20	32.732195	117.070575
B-21	32.733316	117.071050
B-22	32.733194	117.070346
B-23	32.733005	117.071684
B-24	32.732431	117.071512
B-25	32.731922	117.071564
B-26	32.733287	117.068657

UNIFIED SOIL CLASSIFICATION

Pt	OH	CH	MH	OL	CL	ML	SC	SM	SP	SW	GC	GM	GP	GW
Highly Organic Soils	Silts and Clays Liquid Limit >50%			Silts and Clays Liquid Limit <50%			Sands with Fines >12% Fines		Clean Sands <5% Fines		Gravels with Fines >12% Fines		Clean Gravels <5% Fines	
							Sands - more than 50% of coarse fraction is smaller than No. 4 sieve				Gravels - more than 50% of coarse fraction is larger than No. 4 sieve			
	Fine Grained Soils (more than 50% is smaller than No. 200 sieve)							Coarse Grained Soils (more than 50% is larger than No. 200 sieve)						

LABORATORY CLASSIFICATION CRITERIA

GW and SW: $C_u = D_{60}/D_{10}$ greater than 4 for GW, greater than 6 for SW
 $C_c = D_{30}^2/D_{60} \times D_{10}$ between 1 and 3

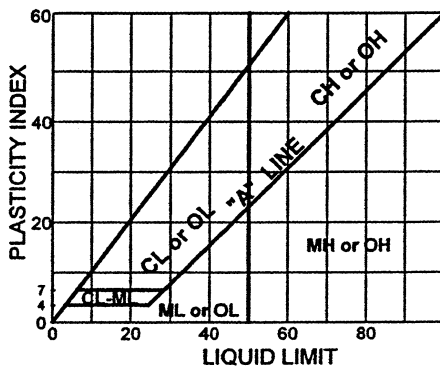
GP and SP: Clean gravel or sand not meeting requirements for GW and SW

GM and SM: Atterberg Limits below "A" LINE and PI less than 4

GC and SC: Atterberg Limits above "A" LINE and PI greater than 7

Silt or Clay	Fine Sand	Medium Sand	Coarse Sand	Fine Gravel	Coarse Gravel	Cobble	Boulder
Sieve 200 Size	40	10	4	3/4"	3"	12"	

Classification of earth materials is based on field inspection and should not be construed to imply laboratory analysis unless so stated
 Field soil color (i.e. 5YR 5/2) described in accordance with the Rock-Color Chart by the Geological Society of America, 1984.



MATERIAL SYMBOLS

	Asphalt		Calcaerous Sandstone
	Concrete		Marl
	Conglomerate		Limestone
	Sandstone		Dolostone
	Silty Sandstone		Breccia
	Clayey Sandstone		Volcanic Ash/Tuff
	Siltstone		Metamorphic Rock
	Sandy Siltstone		Quartzite
	Clayey Siltstone / Silty Claystone		Extrusive Igneous Rock
	Claystone/Shale		Intrusive Igneous Rock

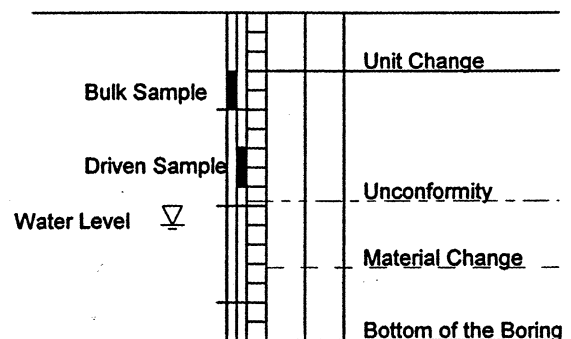
CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Blows / Foot*	Granular	Blows / Foot*	Cohesive
0 - 5	Very Loose	0 - 2	Very Soft
6 - 10	Loose	2 - 4	Soft
11 - 30	Medium Dense	4 - 8	Medium Stiff
31 - 50	Dense	8 - 15	Stiff
50	Very Dense	15 - 30	Very Stiff
		>30	Hard

* using 140-lb. hammer with 30" drop = 350 ft-lb/blow

LEGEND OF BORING



"NSR" indicates NO SAMPLE RECOVERY

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 411.5 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0				BULK	1	0	0			6 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: DARK YELLOWISH BROWN (10YR 4/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH TRACE OF GRAVEL TO 2 INCHES IN DIAMETER.
							2	0.6			
							3	1.0			
							4	1.2			
							5	1.6			
							6	1.8			
							7	2.2			
							8	2.4			
							9	2.8			
							10	3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 408.4 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			6.5 INCHES OF ASPHALT CONCRETE
							1	0.2		SC	FILL: DARK YELLOWISH BROWN (10YR 4/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND WITH TRACE OF GRAVEL TO 2 INCHES IN DIAMETER.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 412.8 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			7.0 INCHES OF ASPHALT CONCRETE
							1	0.2	SM		FILL: 5 INCHES OF BLACK (N1), MOIST, MEDIUM DENSE, FINE SILTY SAND OVER DARK YELLOWISH ORANGE (10YR 6/6), DENSE, FINE SILTY SAND WITH SCATTERED GRAVEL.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
								2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 409.5 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			7.0 INCHES OF ASPHALT CONCRETE
							1	0.2	CL		FILL: PALE BROWN (5YR 5/2) VERY MOIST, SOFT, SANDY CLAY.
							2	0.6			
							3	1.0			
							4	1.2			
							5	1.4			
							6	1.8			
							7	2.2			
							8	2.4			
							9	2.8			
							10	3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 419.6 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			7.0 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
								2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 417.7 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	11.0						0	0			7.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL.
							1	0.4			
							2	0.6			
							3	0.8			
							4	1.0			
							4	1.2			AT 4 FEET: NUMEROUS WOOD FRAGMENTS, POSSIBLE TOP OF TRASH
							4	1.2			
							5	1.4			NOTES:
							5	1.6			1. TOTAL DEPTH = 4.5 FEET.
							6	1.8			2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
							6	2.0			3. NO CAVING OBSERVED.
							7	2.2			4. BORING BACKFILLED ON 9/7/2013 WITH BENTONITE FROM 4.0 FEET TO 4.5 FEET, NATIVE SOIL/BENTONITE MIXTURE FROM 4.0 FEET TO 6 INCHES, AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.
							8	2.4			
							9	2.6			
							9	2.8			
							10	3.0			
							10	3.2			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 103 | Page

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 414.4 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			9.0 INCHES OF ASPHALT CONCRETE
							1	0.2		ML	FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
								2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 4.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 423.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			10.0 INCHES OF ASPHALT CONCRETE
							1	0.2			
							1	0.4	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL AND COBBLES TO 4 INCHES IN DIAMETER.
							2	0.6			
							3	0.8			
							4	1.0			
							4	1.2			AT 4 FEET: NUMEROUS WOOD FRAGMENTS, POSSIBLE TOP OF TRASH.
							5	1.4			NOTES:
							6	1.6			1. TOTAL DEPTH = 4.5 FEET.
							7	1.8			2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
							8	2.0			3. NO CAVING OBSERVED.
							9	2.2			4. BORING BACKFILLED ON 9/7/2013 WITH BENTONITE FROM 4 TO 4.5 FEET, NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.
							10	2.4			
								2.6			
								2.8			
								3.0			
								3.2			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 105 | Page

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 425.5 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.5						0	0			14.0 INCHES OF ASPHALT CONCRETE
							1	0.2			
							2	0.4	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL.
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
								2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 4.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 8" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/7/2013
DATE FINISHED: 9/7/2013
ELEVATION: 422.6 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 5.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			8.0 INCHES OF ASPHALT CONCRETE
							1	0.2			FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, CLAYEY SILT WITH SCATTERED GRAVEL.
							2	0.4	ML		
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 5.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/7/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 429.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 2.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	2.0						0	0			4.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2		GW	FILL: (AGGREGATE BASE) MEDIUM GRAY (N5), MEDIUM DENSE, GRAVEL, WELL-GRADED, MAXIMUM SIZE 3/4 INCHES.
							1	0.4			
							2	0.6			
							3	0.8			
							4	1.0			
							5	1.2			
							6	1.4			
							7	1.6			
							8	1.8			
							9	2.0			
							10	2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 2.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING AGGREGATE BASE.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 4 INCHES TO 2 FEET AND COLD PATCH ASPHALT FROM 4 INCHES TO THE EXISTING GROUND SURFACE.

GeoLogic Associates

Boring Log

BORING NO.: B-12

PAGE: 1 OF 1

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 431.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 1.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			4.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2	SM		FILL: DARK GREENISH GRAY (5G 4/1) GRAVELLY SAND.
							1	0.4			
							2	0.6			
							3	0.8			
							4	1.0			
							5	1.2			
							6	1.4			
							7	1.6			
							8	1.8			
							9	2.0			
							10	2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 1.5 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 4 INCHES TO 1.5 FEET AND COLD PATCH ASPHALT FROM 4 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 431.5 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 1.1 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			4.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2	ML		FILL: 8 INCHES OF ASPHALT GRINDINGS AND NATIVE SOIL MIXTURE.
							1	0.4	ML		GRAYISH BROWN (5YR 3/2) DRY, CLAYEY SILT WITH COBBLES TO 8 INCHES IN DIAMETER.
							1.1	0.4			REFUSAL AT 14 INCHES ON LARGE COBBLE.
							2	0.6			<p>NOTES:</p> <ol style="list-style-type: none"> 1. TOTAL DEPTH = 1.1 FEET; DRILLING REFUSAL ON LARGE COBBLE AT 14 INCHES. 2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL. 3. NO CAVING OBSERVED. 4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 4 INCHES TO 1.1 FEET AND COLD PATCH ASPHALT FROM 4 INCHES TO THE EXISTING GROUND SURFACE.
							3	0.8			
							4	1.0			
							5	1.2			
							6	1.4			
							7	1.6			
							8	1.8			
							9	2.0			
							10	2.2			
							11	2.4			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 110 | Page

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 431.2 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 2.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			6.25 INCHES OF ASPHALT CONCRETE
							1	0.2		SC	FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND WITH SCATTERED GRAVEL.
							2	0.6			
							3	1.0			
							4	1.2			
							5	1.6			
							6	1.8			
							7	2.2			
							8	2.4			
							9	2.8			
							10	3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 2.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 2 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 429.5 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 2.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			6.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2	CL		FILL: DARK REDDISH BROWN (10R 3/4) MOIST, SOFT, SILTY CLAY.
							1	0.4			
							2	0.6			
							3	0.8			
							4	1.0			
							5	1.2			
							6	1.4			
							7	1.6			
							8	1.8			
							9	2.0			
							10	2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 2.5 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 2.5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 427.7 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 1.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.2						0	0			5.5 INCHES OF ASPHALT CONCRETE
							1	0.2		SC	FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND.
							2	0.6			<p>NOTES:</p> <ol style="list-style-type: none"> TOTAL DEPTH = 1.5 FEET. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL. NO CAVING OBSERVED. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 5.5 INCHES TO 1.5 FEET AND COLD PATCH ASPHALT FROM 5.5 INCHES TO THE EXISTING GROUND SURFACE.
							3	0.8			
							4	1.2			
							5	1.6			
							6	1.8			
							7	2.2			
							8	2.4			
							9	2.8			
							10	3.0			
								3.2			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 113 | Page

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 425.2 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 3.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			1.0 INCH OF GRAVEL OVER 7.0 INCHES OF ASPHALT CONCRETE
							0.2	0.2			
							1	0.4	ML		FILL: MODERATE YELLOWISH BROWN (10YR 5/4) MOIST, MEDIUM STIFF, CLAYEY SILT WITH LENSES OF FINE CLAYEY SAND.
							2	0.6			
							3	0.8			
							4	1.0			
							4	1.2			NOTES: 1. TOTAL DEPTH = 3.5 FEET. 2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL. 3. NO CAVING OBSERVED. 4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 6 INCHES TO 3.5 FEET AND COLD PATCH ASPHALT FROM 6 INCHES TO THE EXISTING GROUND SURFACE.
							5	1.4			
							6	1.6			
							7	1.8			
							8	2.0			
							9	2.2			
							10	2.4			
								2.6			
								2.8			
								3.0			
								3.2			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 114 | Page

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 425.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 3.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0		SM	FILL: DARK YELLOWISH ORANGE (10YR 6/6) DRY, LOOSE FINE SILTY SAND WITH GRAVEL.
							1	0.2			
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			REFUSAL AT 3 FEET ON CONCRETE OR COBBLES.
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 3.0 FEET (PRACTICAL REFUSAL ON CONCRETE/COBBLES AT 3 FEET)
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 3 FEET TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 419.2 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			5.5 INCHES OF ASPHALT CONCRETE
							0.2	0.2	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM STIFF, CLAYEY SILT WITH SCATTERED GRAVEL.
							0.4	0.4			
							0.6	0.6	SC		PALE BROWN (5YR 5/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND.
							0.8	0.8			
							1.0	1.0			
							1.2	1.2			
							1.4	1.4			
							1.6	1.6			
							1.8	1.8			
							2.0	2.0			
							2.2	2.2			
							2.4	2.4			
							2.6	2.6			
							2.8	2.8			
							3.0	3.0			
							3.2	3.2			

NOTES:

1. TOTAL DEPTH = 4.5 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 5.5 INCHES TO 4.5 FEET AND COLD PATCH ASPHALT FROM 5.5 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 416.9 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 3.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0	SC	GW	3.0 INCHES OF 1/2-INCH TO 3/4-INCH CLEAN GRAVEL, FILL: GRAYISH BROWN (5YR 3/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND.
							1	0.2			
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 3.5 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 3.5 FEET TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 420.9 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			3.5 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: MODERATE BROWN (5YR 3/4) MOIST, MEDIUM DENSE, CLAYEY SILT.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 4.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 3.5 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 3.5 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 423.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			4.0 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: MODERATE BROWN (5YR 3/4) MOIST, MEDIUM DENSE, CLAYEY SILT.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
							11	2.2			
							12	2.4			
							13	2.6			
							14	2.8			
							15	3.0			
							16	3.2			

NOTES:

1. TOTAL DEPTH = 4.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 4.0 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 4.0 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 415.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 3.5 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			5.0 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: MODERATE YELLOWISH BROWN (10YR 5/4) MOIST, MEDIUM DENSE, CLAYEY SILT.
							2	0.4			
							3	0.6			
							4	0.8			
							5	1.0			
							6	1.2			
							7	1.4			
							8	1.6			
							9	1.8			
							10	2.0			
								2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

NOTES:

1. TOTAL DEPTH = 3.5 FEET (ENCOUNTERED AIR LINE, STOPPED DRILLING, AND REPORTED THIS TO ONSITE REPRESENTATIVES OF THE CITY OF SAN DIEGO. CITY TO REPAIR AND BACKFILL AT A LATER DATE. PUT CONES AND WOOD OVER HOLE).
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING TO BE BACKFILLED BY CITY AFTER WE LEFT THE SITE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 412.0 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 4.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			2.5 INCHES OF ASPHALT CONCRETE
							0.2	0.2		SC	FILL: PALE BROWN (5YR 5/2) MOIST, MEDIUM DENSE, FINE CLAYEY SAND.
							1	0.4			
							2	0.6			
							3	0.8			
							4	1.0			
							5	1.2			
							6	1.4			
							7	1.6			
							8	1.8			
							9	2.0			
							10	2.2			
							11	2.4			
							12	2.6			
							13	2.8			
							14	3.0			
							15	3.2			

NOTES:

1. TOTAL DEPTH = 4.0 FEET.
2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
3. NO CAVING OBSERVED.
4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 3.0 INCHES TO 4 FEET AND COLD PATCH ASPHALT FROM 3.0 INCHES TO THE EXISTING GROUND SURFACE.

JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: 6" Ø HOLLOW STEM AUGER
CONTRACTOR: PACIFIC DRILLING
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 407.7 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 2.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0						0	0			4.0 INCHES OF ASPHALT CONCRETE
							1	0.2	ML		FILL: GRAYISH BROWN (5YR 3/2) MOIST, SOFT, CLAYEY SILT.
							2	0.6			AT 2 FEET, PRACTICAL REFUSAL ON CONCRETE PIECES.
							3	0.8			NOTES:
							4	1.0			1. TOTAL DEPTH = 2.0 FEET (PRACTICAL REFUSAL ON CONCRETE PIECES).
							5	1.2			2. NO GROUNDWATER ENCOUNTERED AT TIME OF DRILLING IN THE ASPHALT OR UNDERLYING SOIL.
							6	1.4			3. NO CAVING OBSERVED.
							7	1.6			4. BORING BACKFILLED ON 9/6/2013 WITH NATIVE SOIL/BENTONITE MIXTURE FROM 4.0 INCHES TO 2 FEET AND COLD PATCH ASPHALT FROM 4.0 INCHES TO THE EXISTING GROUND SURFACE.
							8	1.8			
							9	2.0			
							10	2.2			
								2.4			
								2.6			
								2.8			
								3.0			
								3.2			

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 122 | Page

GeoLogic Associates

Test Pit/Boring Log

BORING NO.: B-26

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JOB NO.: 2013.0130
SITE LOCATION: SOUTH CHOLLAS LANDFILL
DRILLING METHOD: BACKHOE
CONTRACTOR: CITY OF SAN DIEGO
LOGGED BY: TMP

DATE STARTED: 9/6/2013
DATE FINISHED: 9/6/2013
ELEVATION: 431.4 FEET MSL (SWT, 2013)

GW DEPTH: N/A
CAVING DEPTH: N/A
TOTAL DEPTH: 3.0 FEET

NOTES	PID READING (PPM)	DRY DENSITY (LBS/CU. FT.)	MOISTURE (%)	BLOWS (COUNT/FT.)	SAMPLE SIZE (INCHES)	SAMPLE NO.	DEPTH IN FEET	DEPTH IN METERS	MATERIAL SYMBOL	USCS/GEOLOGIC FORMATION	DESCRIPTION
	0.0				BULK	1	0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2		SM		FILL: MODERATE YELLOWISH BROWN (10YR 5/4) DRY, LOOSE, FINE SILTY SAND WITH SCATTERED GRAVELS TO 4 INCHES IN DIAMETER.
<p>NOTES:</p> <ol style="list-style-type: none"> 1. TOTAL DEPTH = 3.0 FEET. 2. NO GROUNDWATER ENCOUNTERED AT TIME OF EXCAVATION. 3. NO CAVING OBSERVED. 4. BACKFILLED ON 9/6/2013 WITH NATIVE SOIL FROM 3.0 FEET TO THE EXISTING GROUND SURFACE. 											

The data presented on this log is a simplification of actual conditions encountered and applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change with the passage of time. 123 | Page

APPENDIX B

LABORATORY TESTING PROCEDURES AND RESULTS

APPENDIX B

LABORATORY TESTING PROCEDURES AND TEST RESULTS

R-Value: The resistance "R"-value was determined by the California Materials Method No. 301. The selected sample was prepared and exudation pressure and "R"-value determined. The graphically determined "R"-value at exudation pressure of 300 psi is reported.

Sample Location	R-Value
B-1, 0–0.5'	46
B-26, 1-2'	39

APPENDIX E
NOTICE OF EXEMPTION

NOTICE OF EXEMPTION

FILED
Ernest J. Dronenburg, Jr., Recorder County Clerk

(Check one or both)

TO: ☒ RECORDER/COUNTY CLERK
P.O. BOX 1750, MS A-33
1600 PACIFIC HWY, ROOM 260
SAN DIEGO, CA 92101-2422

FROM: CITY OF SAN DIEGO
DEVELOPMENT SERVICES DEPARTMENT
1222 1ST AVENUE, MS 501
SAN DIEGO, CA 92101

OCT 03 2014
BY C. Dueñas
DEPUTY

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET, ROOM 121
SACRAMENTO, CA 95814

PROJECT NO.: N/A

PROJECT TITLE: SOUTH CHOLLAS LANDFILL, OPERATIONS YARD IMPROVEMENT PROJECT

PROJECT LOCATION-SPECIFIC: 2781 Caminito Chollas, San Diego, CA 92105

PROJECT LOCATION-CITY/COUNTY: San Diego/San Diego

DESCRIPTION OF PROJECT: The project includes repair and/or replacement of; asphalt and concrete surfaces, drainage conveyance systems, fencing, lighting, material bunkers and landfill gas collection system components including landfill gas extraction wells and piping. These improvements are required to bring this portion of the landfill into regulatory compliance.

NAME OF PUBLIC AGENCY APPROVING PROJECT: City of San Diego

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT: Sylvia Castillo, Senior Civil Engineer,
Environmental Services Department
9601 Ridgeway Court, MS 1103A, San Diego, CA 92123
(858) 492-5032

EXEMPT STATUS: (CHECK ONE)

- ☐ MINISTERIAL ()
☐ DECLARED EMERGENCY [SEC. 15269 (A)]
☐ EMERGENCY PROJECT [SEC. 15269 (B) AND (C)]
☒ CATEGORICAL EXEMPTION: Section 15301(d) - Existing Facilities
☐ OTHER:

REASONS WHY PROJECT IS EXEMPT: The City of San Diego conducted an environmental review and determined the project meets the categorical exemption criteria set forth in the CEQA State Guidelines Section 15301 (Existing Facilities) which allows for the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing facilities (public or private) involving negligible or no expansion of use beyond that existing at the time of the determination; specifically, restoration or rehabilitation of deteriorated or damaged structures, facilities, or mechanical equipment to meet current standards of public health and safety. The repair and/or replacement of the existing South Chollas asphalt surfaces and drainage conveyance systems and landfill gas collection systems and other works mentioned above are not an expansion of use beyond that existing at the time of the determination. Additionally, none of the exceptions described in CEQA Guidelines Section 15300.2 apply.

CONTACT PERSON: Myra Herrmann

TELEPHONE: (619) 446-5372

IF FILED BY APPLICANT:

1. ATTACH CERTIFIED DOCUMENT OF EXEMPTION FINDING.
2. HAS A NOTICE OF EXEMPTION BEEN FILED BY THE PUBLIC AGENCY APPROVING THE PROJECT?

() YES () NO

Myra Herrmann
SIGNATURE/TITLE SENIOR PLANNER

JULY 31, 2014
DATE

CHECK ONE:

- ☒ SIGNED BY LEAD AGENCY
☐ SIGNED BY APPLICANT

DATE RECEIVED FOR FILING:

TECHNICALS

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SECTION 01010 - SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Owner and Contractor Responsibilities
- B. Contractor use of site and premises.
- C. Scope of Work

1.2 OWNER AND CONTRACTOR RESPONSIBILITIES

- A. City's Responsibilities:
 - 1. Identify staging area.
 - 2. Identify alternate parking so as not to encumber parking lot.
- B. Contractors Responsibilities:
 - 1. Furnish and Implement all work described in these documents.
 - 2. Coordination with RESIDENT ENGINEER 3. Protection of work areas, and any removals of subgrade material required for the work.
 - 4. Comply with Section 7 – Responsibilities of the Contractor, per the Greenbook, and the City of San Diego “WHITEBOOK”.

1.3 CONTRACTOR USE OF SITE

- A. Limit use of site to allow:
 - 1. Coordinate with City to limit access in work areas as necessary.
 - 2. Maintain construction site free of debris and stage materials in areas approved by City RESIDENT ENGINEER.
 - 3. Contractor access limited to main parking area denoted on plans.

1.4 SCOPE OF WORK

- A. Project Objective:

The Project Objective is to improve the South Chollas Landfill Operations Yard, including removal of low points in existing pavement areas, promoting drainage, and repair of parking lot facilities that service the Operations Yard. Landfill Gas (LFG) work shall include excavation of join points, cutting, capping and abandonment, trenching and installation of new headers, sub-headers, laterals, condensate lines, and drilling of LFG wells. Work shall be performed in Phases, with Area 1 first followed by Area 2. Phases 1A, 1B, and 1C, 2A, 2B, 2C, and 2D shall be completed in sequence and no work on a subsequent phase can begin until completion of the previous phase, with the exception of LFG well drilling pursuant to Section 02610 – Landfill Gas System. Work is over and within the existing South Chollas Landfill. Contractor's Health and Safety Plan shall include working around hazards that are inherent to a landfill site.

SECTION 01010 - SUMMARY OF WORK

B. Scope of Work:

1. Mobilization, Demolition and removal of Asphalt Concrete, Concrete, Protection Bollards, delineation reflectors and other appurtenances pursuant to the construction drawings.
2. Demolition and removal, capping and abandonment of existing Landfill Gas Improvements and other appurtenances pursuant to the construction drawings.
3. Removal of existing drainage inlet; removal and salvage of interior fence; remove and backfill of existing condensate trap with Class II Base; removal and salvage existing signs – re-install at location as directed by the City Construction Manager; removal and salvage of existing light poles.
4. Grading to correct drainage as indicated on construction drawings.
5. Landfill Gas System Improvements (headers, sub-headers, laterals, condensate lines, and drilling of LFG wells) as indicated on construction drawings.
6. Electrical and lighting improvements as indicated on Construction drawings.
7. Concrete improvements as indicated on construction drawings.
8. Asphalt concrete improvements as indicated on construction drawings.
9. Signage, Striping, fencing and Lighting improvements as indicated on construction drawings.
10. Contract close-out and De-mobilization.

A more detailed description of work scope elements is given in the specification sections that follow this section.

PART 2 -- PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01020 - ALLOWANCES

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain Items of Work are specified in the Contract Documents as allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order, consistent with Section 3-4 of the SSPWC.
- B. Types of allowances include the following:
 - 1. Oil/Diesel Fuel Price Increase (or Decrease).

1.2 Related Sections

- A. Work of other Sections of the Specifications not referenced below shall also apply to the extent required for proper performance of the Work.

1.3 Selection and Purchase

- A. At the earliest practical date after award of the Contract, advise CONSTRUCTION MANAGER of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At CONSTRUCTION MANAGER's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form prescribed by the City for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION

3.1 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related Work.

SECTION 01020 - ALLOWANCES

3.2 SCHEDULE OF ALLOWANCES

A. Allowance No. 1 – Oil/Diesel Fuel Price Adjustment

Oil Price Adjustment – Shall be in accordance with Section 9-1.07 of the State of California Department of Transportation Standard Specifications, as modified by the City of San Diego "WHITEBOOK" Section **9-3.7 Compensation Adjustments for Price Index Fluctuations**.

Diesel Fuel Price Adjustment - Recent volatility in the price of diesel fuel has made estimations of equipment rates more difficult. In order to allow the contractor (or the City) to recover extra expenses due to significant fluctuations in diesel fuel costs, the City will pay the contractor for significant increases in fuel consumption costs. Conversely, should diesel fuel prices fall significantly during the contract period, the contractor will provide the City with a credit. The method for determining the payment is as follows.

Payments (or credits) will be based on fluctuations from a baseline price. The baseline price will be the spot price for Ultra-Low Sulfur No. 2 Diesel Fuel in Los Angeles, CA, the day of the project bid opening, as reported on the US Department of Energy, Energy Information Administration (EIA) web site (Weekly Petroleum Status Report – DOE/EIA) currently shown on Table 12 of the Report:

<http://www.eia.gov/petroleum/supply/weekly/>

Should the monthly average diesel price as reported on the above website increase more than forty (40) cents from the baseline price, the contractor may submit a request for supplemental payment. The payment to the contractor for supplemental payment for the specific progress payment requested, or credit to the City of San Diego will be equal to the number of gallons of diesel consumed during the calendar month in question, based on fuel delivery receipts, multiplied by the per gallon increase or decrease in average monthly spot diesel price in excess of \$0.40 as obtained on the aforementioned web site. Should diesel prices fall to more than 40 cents less than the baseline price, the City will be credited, with the credit calculated in the same manner.

PART 4 MEASUREMENT AND PAYMENT

4.1 Oil/Diesel Fuel Price Adjustment Allowance - Item No. 2

The Oil Price Adjustment Calculation shall be calculated based on Section 3.2.A.1 above.

The Diesel Fuel Price Adjustment Calculation shall be calculated based on Section 3.2.A.2 above, and the payment to the Contractor, or credit to the City will be equal to the number of gallons of diesel consumed during the calendar month in question, based on fuel delivery receipts, multiplied by the per gallon increase or decrease in excess of \$0.40 from the baseline price.

END OF SECTION

SECTION 01029 - UTILITIES WITHIN WORK AREAS

PART 1 -- GENERAL

1.1 SECTION INCLUDES

- A. Utilities within work areas.
- B. Contractor's responsibilities.

1.2 UTILITIES WITHIN WORK AREAS

- A. The contractor shall be responsible for determining the location of any utilities in the project area.
- B. The contractor shall be responsible for working safely around any utilities that are located within the project area.

1.3 CONTRACTOR RESPONSIBILITIES

- A. Notification: The Contractor shall contact, Dig Alert 1-(800)-227-2800, prior to any excavation
 - 1. The nature of the work the Contractor will be performing.
 - 2. The time, date, and location the Contractor will be performing work that may conflict with the utility.
 - 3. The nature of work the utility will be required to perform such as moving a power pole, supporting a pole or underground cable, etc.
 - 4. Requests for field location and identification of utilities.
- B. Overhead Utilities: The Contractor shall use extreme caution to avoid a conflict, contact, or damage to overhead utilities such as power lines, telephone lines, television lines, poles, or other appurtenances during the course of construction of this project.
- C. Contractor shall conform to the requirements of the City of San Diego "White Book", Section 5 – Utilities.

PART 2 -- PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01200 - PROJECT MEETINGS

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall participate in project meetings including, but not limited to, the following:
 - 1. Preconstruction conferences.
 - 2. Progress meetings.
 - 3. Coordination meetings.
 - 4. Pre-and Final Job Walks.

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to the Work of this Section. Work of other Sections of the Specifications not referenced below shall also apply to the extent required for proper performance of the Work.
 - 1. Section 01310 - Construction Schedule

1.3 PRECONSTRUCTION CONFERENCE

- A. Prior to the commencement of the Work at the site, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by the CONTRACTOR'S Project Manager, its superintendent, and its subcontractors, as the CONTRACTOR deems appropriate. Other attendees will be:
 - a. CONSTRUCTION MANAGER.
 - b. OWNER'S Representatives.
 - c. Governmental representatives as appropriate.
 - d. Others as requested by CONTRACTOR, OWNER, or CONSTRUCTION MANAGER.
- B. Unless previously submitted to the RESIDENT ENGINEER, the CONTRACTOR shall bring to the conference one copy each of the following:
 - 1. Cost Loaded Construction Schedule per Section 01310.
 - 2. Procurement schedule of major equipment and materials, and items requiring long lead time.
 - 3. Shop Drawing/Sample/Substitute or "Or Equal" submittal schedule.
- C. The purpose of the Pre-Construction Conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will

SECTION 01200 - PROJECT MEETINGS

be discussed and procedures for handling such matters established. The complete agenda will be furnished by the RESIDENT ENGINEER to the CONTRACTOR prior to the meeting date. However, the CONTRACTOR should be prepared to discuss all of the items listed below.

- a. Status of CONTRACTOR's insurance and bonds.
 - b. CONTRACTOR's tentative schedules.
 - c. Transmittal, review, and distribution of CONTRACTOR's submittals.
 - d. Processing applications for payment.
 - e. Maintaining record documents.
 - f. Critical work sequencing.
 - g. Field decisions and Change Orders.
 - h. Use of project site, office and storage areas, security, housekeeping, and OWNER's needs.
 - i. Major equipment deliveries and priorities.
 - j. CONTRACTOR's assignments for safety and first aid.
- D. The RESIDENT ENGINEER will preside at the preconstruction conference and will arrange for keeping and distributing the minutes to all persons in attendance.

1.4 PROGRESS MEETINGS

- A. The RESIDENT ENGINEER will schedule and hold regular on-site progress meetings at least weekly and at other times as required by progress of the Work. The CONTRACTOR, RESIDENT ENGINEER, and all subcontractors active on the site shall attend each progress meeting. The RESIDENT ENGINEER may, at its discretion, request attendance by representatives of the CONTRACTOR's suppliers, manufacturers, and other subcontractors
- B. The RESIDENT ENGINEER shall preside at the meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings will be to review the progress of the WORK, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the CONTRACTOR is required to present any issues which may impact his work, with a plan to resolve these issues expeditiously.
- C. The RESIDENT ENGINEER will invite the Design Consultant, CIP Project Manager, CIP Safety Manager, and the CIP Public Information Officer, to send representatives to the weekly progress meetings. From time to time, the CONSTRUCTION MANAGER may invite others to attend as well, including the CIP Owner Controlled Insurance Program manager, specialty design subconsultants, utility companies, and community groups.

SECTION 01200 - PROJECT MEETINGS

D. The agenda will include but will not be limited to the following:

1. Transcript or minutes of previous meeting.
2. Safety and Traffic Control Issues.
3. Community and public relations issues.
4. Progress since the last meeting.
5. The CONTRACTOR's three-week look-ahead schedule and planned Work progress for the next Work period.
6. Shop Drawings, Requests for Information, Survey Requests, and Substitution Requests review.
7. Problems, conflicts, disputed issues, potential claims, and observations.
8. Field Orders and Change Orders.
9. Applications for payment.
10. Quality standards and control.
11. Schedules, including off-site fabrication and delivery schedules. Corrective measures required.
12. Coordination between parties.
13. Other issues and business as required.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

PART 4 -- MEASUREMENT AND PAYMENT

4.1 Project Meetings

All work associated with Project Meetings for this project shall be included the Lump Sum Price for Mobilization. No separate payment for this item shall be made.

END OF SECTION

SECTION 01300 -SUBMITTALS

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. Wherever submittals are required hereunder, all such submittals by the CONTRACTOR shall be submitted to the RESIDENT ENGINEER.
- B. Within 10 working days after the date of commencement as stated in the Notice to Proceed, the CONTRACTOR shall submit the following items to the RESIDENT ENGINEER for review:
 - 1. A Submittal Schedule of Shop Drawings, Samples, and proposed Substitutes (“Or-Equal”) submittals. Additional submittals will not be accepted for review prior to acceptance of the Submittal Schedule by the CONSTRUCTION MANAGER.
 - 2. A list of all permits and licenses the CONTRACTOR shall obtain. Indicate the agency required to grant the permit, the expected date of submittal for the permit, and the required date for receipt of the permit.

1.2 RELATED SECTIONS

- A. The Work of the following Section apply to Work of this Section. The Work of other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of the Work.
 - 1. Section 01200 - Project Meetings
 - 2. Section 01310 - Construction Schedules
 - 3. Section 01530 – Protection of the Work
 - 4. Section 01560 - Environmental Protection
 - 5. Section 02200 - Earthwork
 - 6. Section 02400 – Drainage
 - 7. Section 02510 – Asphalt Concrete and Base
 - 8. Section 02610 – Landfill Gas System
 - 9. Section 02831 – Fences and Gates
 - 10. Section 03300 – Cast in Place Site Concrete
 - 11. Section 05210 – Structural Steel
 - 12. Section 16010 – General Electrical Requirements
 - 13. Section 16050 – Basic Electrical Materials and Methods

SECTION 01300 -SUBMITTALS

14. Section 16530 – Exterior Lighting

15. Section 16500 Lighting

1.3 Preliminary Submittals List

The following is a preliminary list of submittals to be reviewed, updated and completed by the Contractor and submitted during the pre-construction meeting, the Contractor shall provide to the City for the Engineer's review a complete listing of all anticipated Contractor submittals and the proposed submittal dates for each, including but not limited to the following:

General Submittals:

- Project Schedule
- Survey Requests
- Injury & Illness Prevention Program
- Health and Safety Plan
- Demolition Schedule
- Record Drawings
- Earthwork Volumes Calculations

Earthwork Submittals:

- Project Sequencing Plan
- Post Construction Survey

Miscellaneous Civil Submittals:

- Concrete Mix Designs
- Rip Rap Certification of Compliance
- Corrugated HDPE Pipe and Fittings
- Flexible Post Delineators
- Hydroseed Certification
- Reinforcing Steel and Wire Mesh Certificate of Compliance
- Geotextile Manufacturer's Product Data
- Asphalt Concrete Design Mix

SECTION 01300 -SUBMITTALS

- Crushed Miscellaneous Base Certificate of Compliance
- Water Pollution Control Program – Storm Water Management Plan
- Portland Cement Concrete (PCC) mix designs.
- Certificates of Compliance for reinforcing steel.
- Certificates of Compliance for welded wire mesh.
- Certificates of Compliance for curing compound.
- Certificates of Compliance for geotextile.
- Asphalt Concrete (AC) mix designs.
- Gradation, Certificate of Compliance for crushed miscellaneous base material
- Certificates of Compliance for Corrugated Steel Pipe and inlet grate
- HDPE Pipe and Fittings
- Manufacturer’s catalog cuts and literature for LFG piping, and well components.
- Record Drawings for installed LFG System
- Manufacturer’s catalog cuts and literature for Light pole standard
- Manufacturer’s catalog cuts and literature for Mast Arm Mount LED Area Luminaire
- Manufacturer’s catalog cuts and literature for D-Series Size 3 LED Flood Luminaire
- Shop Drawings for Structural Steel Elements.

1.3 CONTRACTOR’S OPTIONS

- A. For products specified only by reference standard, select products by any manufacturer meeting that standard. To the maximum extent possible, provide products of the same generic kind from a single source.
- B. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named that complies with the Contract Documents.
- C. For products specified by naming one or more products or manufacturers and stating “or equal,” submit a Request for Substitution to the RESIDENT ENGINEER for any product or manufacturer that is not specifically named.
 - 1. Note that a limited time period is specified for the CONTRACTOR to submit Requests for Substitution. After that period has elapsed, the RESIDENT ENGINEER will no longer accept Requests for Substitution for review.

SECTION 01300 -SUBMITTALS

- D. For products specified by naming only one product or manufacturer and followed by words indicating that no substitution is permitted, there is no option and no substitution will be allowed.
- E. Where more than one choice is available as a CONTRACTOR'S option, select a product that is compatible with other products already selected or specified.

1.4 SHOP DRAWINGS

- A. Submit Shop Drawings to RESIDENT ENGINEER for review and acceptance in accordance with the accepted schedule of Shop Drawings and Sample submittals.
- B. Determine and verify before submitting each Shop Drawing or Sample:
 - 1. Field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto.
 - 2. Materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work.
 - 3. Information relative to CONTRACTOR'S sole responsibilities in respect of means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- C. CONTRACTOR shall review and coordinate each Shop Drawing or Sample with other Shop Drawings and Samples, and with the requirements of the Work and Contract Documents.
- D. All CONTRACTOR shop drawing submittals shall be carefully reviewed by an authorized representative of the CONTRACTOR, prior to submission to the RESIDENT ENGINEER. Each submittal shall be dated, signed, and certified by the CONTRACTOR, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the RESIDENT ENGINEER of any CONTRACTOR submittals will be made for any items which have not been so certified by the CONTRACTOR. All non-certified submittals will be returned to the CONTRACTOR without action taken by the RESIDENT ENGINEER, and any delays caused thereby shall be the sole responsibility of the CONTRACTOR.
- E. At the time of each submission, CONTRACTOR shall give RESIDENT ENGINEER specific written notice of variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract documents. The notice shall be by written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to RESIDENT ENGINEER for review and acceptance of each such variation.
- F. Review and acceptance of Shop Drawings and Samples will be only to determine if items covered by submittals will, after installation or incorporation in the Work, conform to information given in the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the

SECTION 01300 -SUBMITTALS

Contract Documents. Review and acceptance will not extend to means, methods, techniques, sequences, or procedures of construction, except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents. The review and acceptance of a separate item as such will not indicate acceptance of the assembly in which the item functions. The review of CONTRACTOR shop drawing submittals shall not relieve the CONTRACTOR of the entire responsibility for the correctness of details and dimensions. The CONTRACTOR shall assume all responsibility and risk for any misfits due to any errors in CONTRACTOR submittals. The CONTRACTOR shall be responsible for the dimensions and the design of adequate connections and details. CONTRACTOR shall make corrections required to submittals and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and acceptance. Contractor shall direct specific attention in writing to revisions other than corrections called for on previous submittals.

- G. Review and acceptance of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for variation from requirements of the Contract Documents, unless CONTRACTOR has in writing called attention to each such variation at the time of submission, and written acceptance has been given of each such variation by specific written notation thereof incorporated in, or accompanying, the Shop Drawing or Sample acceptance.
- H. Where a Shop Drawing or Sample is required by Contract Documents or schedule of Shop Drawings and Sample submissions accepted by RESIDENT ENGINEER, related Work performed prior to review and approval of pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

1.5 SUBMITTAL PROCEDURES

- A. Wherever called for in the Contract documents, or where required by the RESIDENT ENGINEER, the CONTRACTOR shall furnish to the RESIDENT ENGINEER for review, 4 copies, plus the number the CONTRACTOR wants returned, not to exceed 6 copies, plus one reproducible copy, of each shop drawing submittal. The term "Shop Drawings" as used herein shall be understood to include detail design calculations, shop drawings, fabrication, and installation drawings, erection drawings, lists, graphs, catalog sheets, data sheets, and similar items.
- B. Normally, a separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of a submittal of various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturers "package" or are so functionally related that expediency indicates review of the group or package as a whole. A multiple-page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the RESIDENT ENGINEER.
- C. A standard transmittal form approved by the RESIDENT ENGINEER shall be used for the project. Transmittal form shall identify CONTRACTOR, indicate date of submittal, and include information prescribed by the transmitted form and assign a sequential number to each submittal in a format approved by the RESIDENT ENGINEER. Process transmittal forms to record actions regarding sample panels and sample installations.

SECTION 01300 -SUBMITTALS

- D. In order to indicate that the submittals have been Reviewed and Approved by CONTRACTOR as to conformance to Contract Documents, CONTRACTOR shall have made and shall use labels and/or a rubber stamp which shall materially conform to the following sample:

Submittal No.:			
Contract No.:		Project No.:	
Contractor:			
REVIEWED AND APPROVED for Conformance with the Contract Documents By:		(Signature)	
References:			
Drawing Sheet No's.:			
Specification Section No's.:			

- E. Except as may otherwise be indicated herein, the RESIDENT ENGINEER will return prints of each submittal to the CONTRACTOR with its comments noted thereon, within 15 calendar days following their receipt by the RESIDENT ENGINEER. It is considered reasonable that the CONTRACTOR shall make a complete and acceptable submittal to the RESIDENT ENGINEER by the second submission of a submittal item. The OWNER reserves the right to withhold monies due the CONTRACTOR to cover additional costs of the review beyond the second submittal. The maximum review period for each submittal, including all resubmittals, will be 15 days per submittal.
- F. If copies of a submittal are returned to the CONTRACTOR marked "NO EXCEPTIONS TAKEN," formal revision and resubmission of said submittal will not be required.
- G. If copies of a submittal are returned to the CONTRACTOR marked "MAKE CORRECTIONS NOTED," formal revision and resubmission of said submittal will be required when requested for confirmation.
- H. If a submittal is returned to the CONTRACTOR marked "REVISE-RESUBMIT," the CONTRACTOR shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the RESIDENT ENGINEER.
- I. If a submittal is returned to the CONTRACTOR marked "REJECTED-RESUBMIT," the CONTRACTOR shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the RESIDENT ENGINEER.

SECTION 01300 -SUBMITTALS

- J. Fabrication of an item shall be commenced only after the RESIDENT ENGINEER has reviewed the pertinent submittals and returned copies to the CONTRACTOR marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED." Corrections noted on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis for changes to the contract requirements.
- K. Submittal Log
 - 1. CONTRACTOR shall maintain an accurate submittal log which lists all the submittals required by this Contract, showing current status of each submittal.
 - 2. Make the submittal log available for review upon request.

1.6 SUBMITTAL FORMAT AND COPIES

- A. Format for Shop Drawings:
 - 1. For shop drawings presented on sheets larger than 8 ½-inches by 17 inches, include on each drawing the drawing title, number, date, and revision numbers and dates.
 - 2. For shop drawings presented on sheets 8 ½-inches by 17 inches or less, conform to the format and quantity requirements for product data, and present as a part of the bound volume for the submittals required by the Section.
 - 3. Dimension drawings, except diagrams and schematic drawings; prepare dimensioned drawings to scale. Identify materials and products for work shown.
 - 4. Shop drawings shall be not less than 8 ½ by 11 inches nor more than 30 by 42 inches.
 - 5. Submit detailed drawings and descriptions of proposed deviations from details or component arrangement indicated on the drawings.
 - 6. Provide finished drawings for approval indicating proposed installation of the Work, and materials and equipment being furnished.
 - 7. Copies of plans will not be accepted for submission as drawings, nor will catalog numbers alone of materials or equipment.
 - 8. Data shown on working drawings shall be complete with respect to dimensions, design criteria, material of construction, and other detail to enable review.

SECTION 01300 -SUBMITTALS

B. Format for Product Data:

1. Present product data submittals for each Section of the Specifications as a complete, bound volume. Include a table of contents listing page and catalog item numbers for product data.
2. Indicate, by prominent notation, each product which is being submitted; indicate the Section and paragraph numbers to which it pertains.
3. Supplement product data with material prepared for the project to satisfy submittal requirements for which product data does not exist. Note that the material is developed specifically for the project.
4. Catalog data shall be explicit with regard to details of products being furnished and complete enough to enable the Design Consultant to determine that products submitted conform to requirements of specifications.
5. For submittals with more than one style, size, capacity, etc. of a product on a sheet, clearly indicate exactly which product type is being submitted for approval. Failure to do this is cause for rejection.
6. Catalog data shall bear name of manufacturer of product.

C. Samples

1. Label or tag each sample identifying the specification Section number, manufacturers name and address, brand name, product identification number, and intended use in the Work.

D. Format of Administrative and Closeout Submittals

1. Submit administrative and closeout submittals in the format and quantities required for shop drawings.
2. If the submittal includes a document which is to be used in the project or become a part of the project record, other than as a submittal, do not apply the CONTRACTOR'S approval stamp to the document, but to a separate sheet accompanying the document.

1.8 MANUFACTURER'S INSTRUCTIONS

- A. Submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for shop drawings when specified in individual Sections.
- B. Identify conflicts between manufacturers' instructions and Contract Documents.
- C. Resolve conflicts as directed by RESIDENT ENGINEER at no additional cost to OWNER.

SECTION 01300 -SUBMITTALS

1.9 MANUFACTURER'S CERTIFICATES

- A. When specified in individual Sections, submit manufacturers' certificate(s) to RESIDENT ENGINEER for review, in quantities specified for shop drawings.
- B. Indicate material and equipment conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be acceptable to RESIDENT ENGINEER.
- D. Where specified in Contract Documents that a certificate and/or affidavit shall be submitted to OWNER for approval of a particular product, or component of a product, such submittals shall be made in accordance with the following:
 - 1. A certificate submitted for a product, or component of a product, indicates test results proving that product, or component, meets the requirements of the standard specified in the Contract Documents.
 - 2. An affidavit consisting of a sworn statement by an official of the company manufacturing the product indicating that information on certificate is true and accurate shall accompany the certificate.
 - 3. A statement originating from CONTRACTOR, or his subcontractors, suppliers, or other agent which merely indicates that a particular item of equipment, product, or component of a product, meets the requirements of Contract Documents shall not be considered a certificate. A submittal made in this manner will not be accepted and corresponding equipment, product, or component, shall not be finally accepted.

PART 2. -- PRODUCTS (Not Used)

PART 3. -- EXECUTION (Not Used)

PART 4 --MEASUREMENT AND PAYMENT

4.1 Submittals

- A. All work associated with Submittals for this project shall be included the unit price for each item requiring a submittal. No separate payment for this item shall be made.

END OF SECTION

SECTION 01310 - CONSTRUCTION SCHEDULE

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR'S planning, scheduling and execution of the Work shall be presented to the RESIDENT ENGINEER by submission of the Construction Schedule information and data specified in this Section.

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to Work of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of the Work.
 - 1. Section 01300 - Submittals

1.3 SUBMITTALS

- A. Contractor submittals shall be consistent with Section 6 – Prosecution, Progress, and Acceptance of the Work of the SSPWC, and the City of San Diego "WHITEBOOK" Section 6 – Prosecution, Progress, and Acceptance of the Work.

1.4 CONSTRUCTION SCHEDULE – GENERAL

- A. Construction Scheduling activities by the Contractor shall be consistent with the requirements of Section 6 – Prosecution, Progress, and Acceptance of the Work of the SSPWC, and the City of San Diego "WHITEBOOK" Section 6 – Prosecution, Progress, and Acceptance of the Work.
- B. Phasing: Phasing of the project shall be as designated on the Contract Drawings. Area 1 shall be the first Phase, with Sub-Phases 1A, 1B, and 1C, performed and completed in sequential order. Work in a later Phase cannot commence until completion of the previous Phase, with the exception of Landfill Gas Well Construction work. Area 2 shall be the second Phase, with Sub-Phases 2A, 2B, 2C, and 2D performed and completed in sequential order after completion of all Phases in Area 1. Work in a later Phase cannot commence until completion of the previous Phase, with the exception of Landfill Gas Well Construction work.

PART 2 – PRODUCTS (Not Used).

PART 3 – EXECUTION (Not Used).

PART 4 – MEASUREMENT AND PAYMENT (Not Used).

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall provide facilities required for construction and temporary controls during the construction, including the following:
 - 1. Layout of temporary facilities
 - 2. Temporary utilities: Furnish utilities as required for own use. Coordinate with landfill operator and servicing utility agencies for use of existing facilities on site.
 - 3. Pay for utility service.
 - 4. Barriers
 - 5. Enclosures
 - 6. Protection of installed Work
 - 7. Temporary Controls
 - 8. Security
 - 9. Access roads and parking
 - 10. Provide offices and sanitary facilities as required for own use.
 - 11. Removal of utilities, facilities and controls
 - 12. Remove the above on completion of the work.

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to Work of this Section. Work of other Sections of the Specifications not referenced below shall also apply to the extent required for proper performance of the Work.
 - 1. Section 01010 Summary of Work.
 - 3. Section 01560 Environmental Protection.

1.3 LAYOUT OF TEMPORARY FACILITIES

- A. Submit drawings for approval showing proposed locations and sizes of offices, material and equipment staging area and similar facilities. Where onsite space for temporary facilities is limited, allocation of available space will be made by. RESIDENT ENGINEER. Should CONTRACTOR require space in addition to that allocated, CONTRACTOR shall make his own arrangements for storage of materials

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

and equipment in a location off the construction site. For allocated space, submit to RESIDENT ENGINEER for approval proposed plan and layout for temporary offices, sanitary facilities, temporary construction roads, and temporary power service and distribution. Said facilities shall be located so as not to impede or prevent the principal function of existing facilities.

1.4 TEMPORARY UTILITIES

A. General

1. Furnish utilities as required for own use. Coordinate with RESIDENT ENGINEER and servicing utility agencies for use of existing facilities on site.
2. Costs for all connections, meters, switch gear, phone board, construction water meter fees, costs for power, temporary power poles, phone service and equipment, construction water, drinking water, internet service, etc. for Contractor's field office shall be paid by Contractor. Include costs associated with these services in mobilization Lump Sum Price.
3. The CONTRACTOR shall pay all water permit fees and any fees for the water meter(s). All charges for water use shall be paid for by the CONTRACTOR, except as noted below.
4. Water Connections: The CONTRACTOR shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the CONTRACTOR shall first attach to the fire hydrant or pipeline a valve and a meter, if required by the said authority, of a size and type acceptable to said authority and agency.
5. The CONTRACTOR shall provide potable water service for field offices.

B. Sanitary Facilities:

1. Toilet Facilities: Fixed or portable chemical toilets shall be provided wherever needed for the use of CONTRACTOR's employees. Toilets at construction job sites shall conform to the requirements of Subpart d, Section 1926.51 of the OSHA Standards for Construction.
2. Sanitary and Other Organic Wastes: The CONTRACTOR shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the CONTRACTOR or organic material wastes from any other source related to the CONTRACTOR's operations shall be disposed of away from the site in a manner satisfactory to the RESIDENT ENGINEER and in accordance with all laws and regulations pertaining thereto.
3. Remove temporary facilities for the site at completion of Work.

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.5 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction and to protect existing facilities and adjacent properties from damage from demolition and construction operations.
- B. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

1.6 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.

1.7 TEMPORARY CONTROLS

- A. Drainage and Erosion Control:
 - 1. The CONTRACTOR shall comply with all applicable requirements for storm water discharge control contained in Section 01560, Environmental Protection.
 - 2. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
 - 3. Protect site from puddling or running water. Provide best management practices as required to minimize soil erosion and avoid downstream sedimentation.
 - 4. Plan and execute construction using methods to control surface drainage from cuts and fills, as well as from borrow and waste disposal areas.
 - 5. Minimize amount of bare soil exposed at any one time.
 - 6. Provide temporary measures such as berms, dikes, and drains to control water flow.
 - 7. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
 - 8. Periodically inspect earthwork to detect evidence of erosion and sedimentation and promptly apply corrective measures when warranted.
- B. Dust Control
 - 1. Execute Work using methods to minimize raising dust from construction operations and, to prevent air-borne dust from dispersing into atmosphere.

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

C. Construction Noise Control

1. The CONTRACTOR shall oversee or undertake all construction activities so as to comply with all City noise regulations. Use appropriate construction methods and equipment, and furnish and install acoustical barriers as necessary, to avoid exceeding legal noise levels.

D. Rodent and Pest Control

1. Keep work area, including storage areas, free from rodents, noxious pests, and other vermin.
2. The RESIDENT ENGINEER shall notify CONTRACTOR on any noncompliance with this requirement and of the corrective action required. This notice, when delivered to CONTRACTOR or CONTRACTOR's representative at site of Work, shall be deemed sufficient notice of noncompliance and corrective action shall be required. After receiving notice, immediately take corrective action. If CONTRACTOR fails or refuses to eliminate rodents, pests or vermin and causes thereof promptly, OWNER may have necessary extermination work performed and charge costs to CONTRACTOR.

E. Pollution Control:

1. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
5. During the progress of the Work:
 - a. Keep the Work and surrounding premises within Work limits free of accumulations of dirt, dust, waste materials, debris and rubbish.
 - b. Keep dust generating areas wetted-down.
 - c. Provide suitable containers for storage of waste materials, debris and rubbish until time of disposal.
 - d. Transport and Dispose of waste, debris and rubbish to the Miramar Landfill.
 - e. Transport and Dispose of LFG Well Drilling Tailings and Trench Refuse Debris off site at to the Miramar Landfill. There will be no tipping fee assessed for existing in-place refuse that is removed, and transported for disposal at the Miramar Landfill

SECTION 01500 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.8 SECURITY

A. Security Program:

1. Protect Work from theft, vandalism, and unauthorized entry.
2. Develop, and submit a written CONTRACTOR security plan to be approved by the Owner prior to job mobilization.
3. Maintain program throughout construction period until directed by RESIDENT ENGINEER.

1.9 ACCESS ROADS

A. Access Roads:

1. Construct and maintain temporary roads accessing public thoroughfares to serve construction area.
2. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
3. Provide and maintain access to fire hydrants, free of obstructions.
4. Provide means of removing mud from vehicle wheels before entering streets.

1.10. FIELD OFFICES

- #### **A. CONTRACTOR's field office:** Provide and maintain temporary offices on the job site. Post a sign identifying CONTRACTOR and listing emergency telephone number(s) at, and outside of, CONTRACTOR's field office.

PART 2. -- PRODUCTS (Not Used)

PART 3. -- EXECUTION (Not Used)

4.0 MEASUREMENT AND PAYMENT

4.1 Temporary Facilities for Own Use

1. All work associated with Temporary Facilities and Utilities for Contractor's Own Use for this project shall be included in the mobilization Lump Sum Price.

END OF SECTION

SECTION 01530 – PROTECTION OF WORK

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall be responsible for taking all precautions, providing all programs and taking all actions to protect the Work, property and all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with the requirements of the Contract Documents.
- B. In order to prevent damage, injury or loss, CONTRACTOR's actions shall include, but not be limited to, the following:
 - 1. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work, the Work of any other contractor, utility service company, or operation of the South Chollas Operations Yard.
 - 2. Provide suitable storage facilities for all materials which are subject to damage by exposure to weather, theft, breakage, or otherwise.
 - 3. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
 - 4. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the Work shall present a safe, orderly and workmanlike appearance.
 - 5. Provide barricades and guard rails around excavations, at phase paving joins and other hazardous areas.
- C. CONTRACTOR shall assume full responsibility for the preservation of all public and private property or facility on or adjacent to the site. If any direct or indirect damage is done by or on account of any act, omission, neglect or misconduct in the execution of the Work by the CONTRACTOR, it shall be restored by the CONTRACTOR, at his expense, to a condition equal to that existing before the damage was done.
- D. The CONTRACTOR shall verify the exact locations and depths of all utilities shown and the CONTRACTOR shall make exploratory excavations of all utilities that may interfere with the Work. All such exploratory excavations shall be performed as soon as practicable after award of the contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the CONTRACTOR's work. When such exploratory excavations show the utility location as shown to be in error, the CONTRACTOR shall so notify the RESIDENT ENGINEER.
- E. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

SECTION 01530 – PROTECTION OF WORK

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to Work of this Section. Work of other Sections of the Specification, not referenced below, shall also apply to the extent required for proper performance of the Work.
 - 2. Section 01500 Construction Facilities and Temporary Controls

1.3 RESTORATION OF PAVEMENT

- A. General: All paved areas including asphaltic concrete berms cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. All temporary and permanent pavement shall conform to the requirements of the affected pavement owner. All pavements which are subject to partial removal shall be neatly saw cut in straight lines.
- B. Temporary Resurfacing: Wherever required by the public authorities having jurisdiction, the CONTRACTOR shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said public authorities before proceeding with the final restoration of improvements.
- C. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, the CONTRACTOR shall saw-cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement. CONTRACTOR is responsible for the replacement of traffic detector loops damaged or removed during construction which are associated with existing traffic controls.

1.4 EXISTING UTILITIES AND APPURTENANCES

- A. General: The CONTRACTOR shall protect all Underground Utilities and appurtenances which could be subject to being impaired during construction operations. It shall be the CONTRACTOR's responsibility to ascertain the actual location of all existing utilities and appurtenances that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The CONTRACTOR shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.
- B. Underground Utilities Indicated: Existing utility lines that are indicated or the locations of which are made known to the CONTRACTOR prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the CONTRACTOR.

SECTION 01530 – PROTECTION OF WORK

- C. Underground Utilities Not Indicated: In the event that the CONTRACTOR damages any existing utility lines that are not indicated or the locations of which are not made known to the CONTRACTOR prior to excavation, a written report thereof shall be made immediately to the RESIDENT ENGINEER. If directed by the, RESIDENT ENGINEER repairs shall be made by the CONTRACTOR under the provisions for changes and extra work.
- D. All costs of locating, repairing damage not due to failure of the CONTRACTOR to exercise reasonable care, and removing or relocating such utility facilities not shown in the Contract Documents with reasonable accuracy, and for equipment on the project which was actually working on that portion of the work which was interrupted or idled by removal or relocation of such utility facilities, and which was necessarily idled during such work will be paid for as extra work in accordance with the contract provisions.

1.5 PROTECTION OF EXISTING STRUCTURES

- A. Underground Structures:
 - 1. Underground structures are defined to include, but are not limited to, all sewer, water, gas, landfill gas extraction wells, condensate traps, piping, manholes, chambers, electrical conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
- B. Surface Structures:
 - 1. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.
- C. Protection of Underground and Surface Structures:
 - 1. CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, CONTRACTOR shall satisfy the RESIDENT ENGINEER that the methods and procedures to be used have been approved by the party owning same.
 - 2. CONTRACTOR shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. CONTRACTOR shall be responsible for all damage and expense for direct or indirect injury caused by his Work to any structure. CONTRACTOR shall repair immediately all damage caused by his Work, to the satisfaction of the owner of the damaged structure.

SECTION 01530 – PROTECTION OF WORK

- A. All other existing surface facilities, including but not limited to, guard rails, Fencing and K-Railing, signs, poles, markers, and curbs, which are temporarily removed to facilitate installation of the Work, shall be replaced and restored to their original condition at CONTRACTOR's expense.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

PART 4 -- MEASUREMENT AND PAYMENT

4.1 Protection of Work

Protection of work shall be included in the various bid items and no separate payment for this item shall be made.

END OF SECTION

SECTION 01560 – ENVIRONMENTAL PROTECTION

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR and all of its employees and agents shall observe and comply with existing laws, ordinances, regulations and orders, in relationship to the protection of the total environment.
- B. The CONTRACTOR shall provide the following environmental controls:
 - 1. Health and Safety Plan - IIPP
 - 2. Noise Abatement
 - 3. Stormwater Pollution Control

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to Work of this Section. Other Sections of the Specifications not referenced below shall also apply to the extent required for acceptable performance of the Work.
 - 1. Section 01010 Summary of Work
 - 2. Section 01300 Submittals

1.3 LAYOUT, REMOVAL, AND CLEAN-UP OF TEMPORARY ENVIRONMENTAL CONTROLS

- A. Submit, for approval, working drawings showing proposed locations and details of environmental controls to be implemented in accordance with the requirements of [the California Environmental Quality Act, Mitigation, Monitoring and Reporting Program (MMRP)], permits, mandates, regulations and ordinances pertaining to this project and Section 01300, Submittals. Upon substantial completion of the Work, CONTRACTOR shall, in an acceptable manner, remove and dispose of all temporary structures, surplus environmental control material and rubbish from right of way, staging areas and any other areas utilized by Contractor.

1.4 NOISE ABATEMENT

- A. The Contractor shall comply with all City of San Diego Noise Abatement and Control Ordinances.

1.5 STORM WATER POLLUTION CONTROL COMPLIANCE –STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. This project is subject to the requirements of the General Permit for Storm Water Discharges associated with Construction and Land Disturbance Activities, under the California State Water Resources Control Board (SWCRB) Order No. 2009-0009-DWQ, CAS000002 (Construction General Permit (CGP)) and amendment 2010-0014-DWQ. All permit related documents can be located at the SWRCB website at

SECTION 01560 – ENVIRONMENTAL PROTECTION

www.waterboards.ca.gov. This project lies within the boundaries of the San Diego Regional Water Quality Control Board (RWQCB). Compliance manuals applicable to this project are the California Best Management Practices Handbooks found at www.cabmphandbooks.com (hereafter referred to as "the Manuals"). The General Construction Permit shall hereinafter be referred to as "the Permits."

- B. This project shall conform to the Permits and modifications thereto. The Contractor shall therefore understand and have necessary certifications and fully comply with the applicable provisions of the Permits and all modifications, thereto, the Manuals, and Federal, State and local regulations and requirements that govern the Contractor's operations and stormwater and non-stormwater discharges from both the project site and areas of disturbance outside of the project limits during all construction phases. Attention is directed to Section 7- "Responsibilities of the Contractor" of the Standard Specifications and Section 7-3-Liability Insurance and 7-4-Workers' Compensation Insurance, of the Special Provisions. The Contractor shall comply with the requirements of the Permits and Manuals for those areas and shall implement, inspect and maintain the required water pollution control practices. Installing, inspecting and maintaining water pollution control practices on areas outside the project area and City right of way, not specifically arranged and provided for by the City in the execution of this contract, will not be paid for without prior written approval.

- For projects subject to the CGP, the Contractor shall prepare, submit, and implement a SWPPP in accordance with the "WHITEBOOK", Section 701 "WATER POLLUTION CONTROL."
- The Contractor's SWPPP shall include a construction activity BMP plan (consistent with the latest CASQA Construction BMP Handbook and the Order) developed to work in conjunction with the site's SWPPP and as required to eliminate both non-storm water pollution and storm water run-off related pollution resulting from the construction activities.
- A detailed narrative with a general description of the contractor's Stormwater Management Protocol, implementation procedures, BMP's, pre-and post-storm inspection activities, and record keeping in sufficient detail to indicate to the RESIDENT ENGINEER that the contractor understands his responsibilities for providing BMP's consistent with the Order.
- Name and emergency contact information of Contractor's responsible site personnel.
- The Contractor is responsible for installing BMPs, and for providing BMP inspections, reporting to the RESIDENT ENGINEER for entering information on the SMARTS and repair of any damaged BMP before, during and after a storm event.
- Contractor shall not be entitled to any time extensions or compensation for any cost due to any action required as a result of Contractor's preparation, compliance or failure to comply with those provisions of the SWPPP within Contractor's control. Contractor will be responsible for ensuring that Contractor's subcontractor(s) comply with the provisions of this Section.

SECTION 01560 – ENVIRONMENTAL PROTECTION

Contractor shall be liable for any action or fine imposed by the regulatory agencies for any incidents of non-compliance.

- The Contractor shall at all times exercise reasonable precaution to protect channels, storm drains and bodies of water from pollution, including siltation arising from Contractor's operations, or erosion siltation from completed areas. Pollution control work shall consist of implementing Best Management Practices or constructing facilities in accordance with local, state, or federal regulations which may be required to provide for control of pollutants.

1.6 Health and Safety Plan Provisions

- A. Within seven days of the award of the Contract, the Contractor shall submit for review, to the RESIDENT ENGINEER, a copy of its Injury and Illness Prevention Program (IIPP). The IIPP shall be in sufficient detail to include all aspects of health and safety that may be anticipated by the scope of work.
- B. The Contractor is advised that decomposing refuse produces landfill gas which is approximately 50 percent methane (natural gas) by volume. Landfill gas is colorless, can be odorless, may contain hydrogen sulfide, is combustible, and contains no oxygen. Landfill gas can also migrate through soil near the landfill. The Contractor is, therefore, advised of the need for precautions against fire, explosion, and asphyxiation when working in or near construction areas which are in or near refuse areas. The Contractor's IIPP shall address this issue.
- C. The Contractor shall at all times be responsible for the safe protection of the Work and protection of its employees and the public. Review of the Contractor's IIPP by the CITY shall not relieve the Contractor of responsibility for any aspect of the work, or for compliance with all Federal, State, and local laws pertaining to health and safety. Strict Adherence to the Contractor's Health and Safety Plan will be required for all Contractor and subcontractor personnel.
- D. The contents of the Health and Safety Plan must meet all regulatory requirements for the specific work that is proposed. The following is a list of some of the elements for a Health and Safety Plan. Those plan elements which will not apply to the specific contract should be noted (such as "this construction does not involve any confined space work,").
- E. One or more of the following may be required to be included in an employer's (Contractor's) Health and Safety Plan (HSAP).

Mandatory

- 1. Site Background and Scope of Work: Site specific with an emphasis on the type(s) of service(s) performed, the hazards associated with such work, and the programs in effect to protect the employee against those recognized hazards.

SECTION 01560 – ENVIRONMENTAL PROTECTION

2. Injury and Illness Prevention Program (Title 8, California Code of Regulations, Section 3203): Required of all employers of 10 or more employees.
3. Code of Safe Practices (Cal. Code Regs., Title 8, §1509): All employers are required to have a Code of Safe Practices in writing and posted at the work place.
4. Emergency Medical Services (Cal. Code Regs., Title 8, §1512): All employers are required to have this program in writing.
5. Fire Protection Program (Cal. Code Regs., Title 8, §1920): All employers are required to have this program in writing.

Required by Scope of Work

6. Hazard Communication Program (Cal. Code Regs., Title 8, §5194): All employers are required to have this program in writing if there is a potential for their employees to come in contact with any products that may be hazardous.
7. Requirements for Excavation and Shoring (Cal. Code Regs., Title 8 §1541.1): All employers are required to have this program in writing.
8. Confined Space Procedures (Cal. Code Regs., Title 8, §5156): All employers are required to have this program in writing if confined spaces will be entered.
9. Hearing Conservation Program (Cal. Code Regs., Title 8 §5097): This program shall be written into the HASP if employee noise exposures meet or exceed the levels outlined in Cal. Code Regs., Title 8, §5097.
10. Personal Protective Equipment (Cal. Code Regs., Title 8, §§3380-3400): Requirements must be included in the HASP if personal protective equipment is required for the contracted work.
11. Storage, Handling, and Dispensing of Flammable/Combustible Liquids (Uniform Fire Code Article 79): Requirements must be included in the HASP if flammable/combustible liquids will be stored, handled, or dispensed.
12. Welding, Brazing, and Cutting (Cal. Code Regs., Title 8, §§1536, 1537): Requirements must be included in the HASP if performing these actions.
13. Compressed Gas Cylinders (Cal. Code Regs., Title 8, §§1740-1743): Requirements must be included in the HASP if storing or using compressed gas cylinders.

SECTION 01560 – ENVIRONMENTAL PROTECTION

- F. In addition to submittal of the IIPP, the Contractor shall provide safety checklists for each piece of operated equipment to be used on the site. The checklists shall be reflect that the equipment has been properly maintained, that all protection features are in good repair, and that the equipment is safe to operate. The following requirement for Safety Equipment (at a minimum) shall be required during any excavation, and work that includes any trenching or ground disturbance:
1. All personnel working on the South Chollas Landfill Operations Yard Improvement Project shall be familiar with the use of gas monitoring equipment for total organic compounds as methane (such as flame ionization detector) and for hydrogen sulfide. All personnel working directly with earthmoving, utility or pipe excavation and installation, Landfill Gas System pipe excavation, installation or abandonment shall be equipped with a Personal Four-Gas meter.
 2. Such equipment will be required for the duration of the installation and testing of the South Chollas Landfill Operations Yard Improvement Project.

1.7 Dust Control

- A. Dust control operations shall be performed by the Contractor at the time, location and in the amount required, and as often as necessary to prevent his excavation or fill work, demolition operation, or other activities from producing dust in amounts harmful to person or causing a nuisance to persons living nearby or occupying buildings in the vicinity of the work. The Contractor is responsible for compliance with Fugitive Dust Regulations issued by the Air Pollution Control District (APCD).
- B. Control of dust shall be by sprinkling of water, use of approved dust preventatives, modifications of operations or any other means acceptable to the RESIDENT ENGINEER, the Regional Water Quality Control Board (RWQCB), the APCD, and any Health or Environmental Control Agency having jurisdiction over the facility. The RESIDENT ENGINEER shall have the authority to suspend all construction operations if, in his opinion, the Contractor fails to adequately provide for dust control.

1.8 Nuisance Water

- A. It is anticipated that nuisance water, such as rainfall or surface runoff, may be encountered within the construction site during the period of construction under this contract. The Contractor, by submitting his bid, will be held to have investigated the risks arising from such waters and to have made his bid in accordance therewith.
- B. The Contractor shall at all times protect the work from damage by such waters and shall take all due measures to prevent delays in progress of the work caused by such waters. The cost for any repairs due to such damage shall be the responsibility of the Contractor. The Contractor shall dispose of nuisance water at his own expense and without adverse effects upon the work site or any other property.

SECTION 01560 – ENVIRONMENTAL PROTECTION

1.9 Drainage Precaution

- A. At the completion of each work day, the Contractor shall take all necessary preventive measures to avoid or minimize damage resulting in erosion or impounding caused by storm water runoff within the construction area. Erosion control measures shall consist of constructing gravel bag berms, desilting basins, drains, temporary storm water pumping facilities, and other such measures required to provide for the prevention, control and abatement of storm water discharges and damage resulting therefrom. The cost for any repairs due to such damage shall be the sole responsibility of the Contractor.

1.10 Construction Water

- A. The Contractor shall make arrangements for developing water sources at the project and supply of all labor and equipment to collect, load, transport, apply, and dispose of water as necessary for compaction of materials, testing, dust control and other construction use.
- B. The Contractor may develop sources of water supply or obtain water from private sources. Payment for all cost connected with developing a water source or obtaining water shall be made by the Contractor. Water shall be clean and free from objectionable amounts of acids, alkalis, salts or organic materials. The Contractor may be required to furnish the RESIDENT ENGINEER with a water analysis performed by a laboratory acceptable to the Engineer. The Contractor shall pay all costs of sampling, testing and reporting the test results.

PART 2 -- PRODUCTS [NOT USED]

PART 3 --EXECUTION [NOT USED]

PART 4 –MEASUREMENT AND PAYMENT

4.1 Health and Safety Provisions

All work associated with Health and Safety Provisions including Contractor preparation of Site Health and Safety Plan, including the Illness, and Injury Prevention Plan (IIPP), implementing of safety requirements, Four Gas Monitoring Meters, or other equipment as necessary for preparation and compliance with Health and Safety Provisions for this project shall be included in the various Bid items. No separate payment for this item shall be made.

4.2 Contractor Submittals, Dust Control, Nuisance Water, Drainage Precaution, and Construction Water

All work associated with Contractor Submittals, Dust Control, Nuisance Water, Drainage Precaution, and Construction Water or other site control as necessary for Environmental Protection for this project shall be included in the various Bid items. No separate payment for this item shall be made.

END OF SECTION

SECTION 02050 – DEMOLITION – CLEARING AND GRUBBING

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The Contractor shall thoroughly inspect the site before submitting a bid to assess the extent of the clearing, grubbing, demolition, and removals required in preparation for closure construction activities. No adjustment in contract price, or additional compensation will be warranted for clearing, grubbing, demolition, or removals that are consistent with the type of improvements indicated on the drawings, whether shown on the drawings or not. The CONTRACTOR shall furnish all materials, equipment and labor necessary to perform and complete demolition of:
- Removal and disposal of all vegetative material prior to earthwork operations;
 - Sawcut, remove, and crush (recycle as Crushed Miscellaneous Base) existing asphalt and concrete;
 - Disconnect, cap, and abandon portions of existing LFG System in-place pursuant to project phasing;
 - Remove existing condensation trap and backfilling with compacted clay bearing soil – compacted to 90-percent of ASTM D 1557;
 - Remove existing drainage inlet;
 - Remove, salvage and reinstall perimeter/interior fence, including fence mesh material tied to existing fence posts on existing K-rail; protect posts mounted on K-rails for re-use;
 - Relocate K-rail to location as directed by the RESIDENT ENGINEER ;
 - Remove and salvage existing signs – re-install at location per RESIDENT ENGINEER;
 - Remove existing Bollards; recycle steel and concrete; and remove existing delineation reflectors;
 - Remove and crush (recycle as Crushed Miscellaneous Base) existing asphalt or concrete curb;
 - Remove and salvage existing Lighting/Power pole;
 - Clearing and grubbing of all other existing improvements not designated for protection, adjustment to grade, or removal and salvage.
 - Disposal of all demolition materials not salvaged or recycled off-site at the Miramar landfill.

SECTION 02050 – DEMOLITION – CLEARING AND GRUBBING

1.2 RELATED SECTIONS

- A. The Work of the following Sections applies to the Work of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Section 02200 Earthwork

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. The WORK of this Section shall comply with the current edition of the Uniform Building Code as adopted by the City of San Diego.
- B. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC), together with the latest adopted edition of the Regional and City of San Diego Supplement Amendments.

1.4 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall submit a demolition schedule in compliance with Section 01300 - Submittals. The demolition schedule shall provide a complete coordination schedule for demolition work including shut-off and continuation of utility services before the start of the demolition. The schedule shall indicate proposed methods and operations of facility demolition, and provide a detailed sequence of demolition and removal work to ensure uninterrupted operation of occupied areas.
- B. Before completion of the Work, the CONTRACTOR shall submit an Affidavit of Legal Disposal attesting to the lawful disposal of all demolished materials.

PART 2 -- PRODUCTS (Not Used) GENERAL

PART 3 -- EXECUTION

3.1 GENERAL

- A. To minimize the potential for storm water runoff and erosion control related issues, the Contractor shall limit the area of clearing and grubbing to the sequence established in the phasing plan unless otherwise approved by the Engineer. Clearing and grubbing of successive areas may proceed sequentially as grading and improvement construction operations are completed.

As noted in the Supplemental Conditions, the Contractor's schedule shall include clearing, grubbing, and demolition sequencing requirements that comply with the project design intent. The schedule shall also reflect sequencing of temporary erosion control improvements as outlined in the Contractor's SWPPP, and the staged installation of final drainage and erosion control improvements and hydroseeding.

- B. The CITY's Environmental Services Department will obtain the Rule 59 mitigation measures approved in writing by the Air Pollution Control Officer to prevent public nuisance and to minimize the release of odors, toxic air contaminants, and reactive organic compounds into the atmosphere. The Contractor shall be responsible for implementation and monitoring of all mitigation measure requirements.

SECTION 02050 – DEMOLITION – CLEARING AND GRUBBING

3.2 POLLUTION CONTROL

- A. Water sprinkling, temporary enclosures, chutes, and other suitable methods shall be used for dust suppression in compliance with SSPWC Section 7.
- B. Water shall not be used when it creates hazardous or objectionable conditions such as flooding, erosion, sedimentation, or pollution.

3.3 PROTECTION

- A. Safe passage of persons around the area of demolition shall be provided. Operations shall be conducted to prevent injury to people and damage to adjacent buildings, structures, and other facilities in compliance with SSPWC Section 7.
- B. Existing landscaping materials, structures, and appurtenances which are not to be demolished shall be protected and maintained as necessary and in accordance with SSPWC Section 7.
- C. Unless otherwise indicated, the CONTRACTOR shall protect and maintain all utilities in the proximity of the facilities to be demolished.

3.4 CLEARING AND GRUBBING

- A. Clearing and grubbing shall be performed in accordance with Section 300-1 of the SSPWC. All material generated from clearing and grubbing operations (except those items to be crushed and recycled, salvaged) shall be transported to the Miramar Landfill.
- B. Asphalt concrete pavement, Portland cement concrete, and AC or Concrete Curb generated during the clearing and grubbing operations, and in demolition operations, shall be crushed and recycled as crushed miscellaneous base material conforming to Section 200-2.4 - Crushed Miscellaneous Base of the SSPWC.
- C. Existing chain link fencing, designated as such, shall be salvaged and transported to an onsite storage area designated by the RESIDENT ENGINEER, for use in the reinstallation operation.
- D. Demolition and removal of debris shall be conducted to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities which shall not be closed or obstructed without permission from the OWNER. Alternate routes shall be provided around closed or obstructed traffic ways.
- E. Site debris, rubbish, and other materials resulting from demolition operations shall be removed and disposed of in compliance with all laws and regulations. Burning of removed materials from demolished structures will not be permitted.

3.3 BELOW-GRADE DEMOLITION

- A. Structures designated on the plans to be removed shall be removed to the full depth of the structure, including its foundation.
- B. Below-grade areas and voids resulting from demolition of structures shall be completely filled to a minimum compaction of 95%.
- C. All fill and compaction shall be in accordance with Section 02200 - Earthwork.

SECTION 02050 – DEMOLITION – CLEARING AND GRUBBING

- D. After fill and compaction, surfaces shall be graded to meet adjacent contours and to provide flow to surface drainage structures, or as indicated.
- E. Areas identified in the field as wet or saturated will require additional removals per direction of the RESIDENT ENGINEER prior to sub-grade preparation and pavement replacement. Refuse removal and replacement with competent soil shall be paid under Item 7 – Refuse removal and disposal, and Item 8 – cut or fill to contours shown.

3.10 CLEANING

- A. During and upon completion of Work, the CONTRACTOR shall promptly remove unused tools and equipment, surplus materials, rubbish, debris, and dust and shall leave areas affected by the Work in a clean condition.
- B. The CONTRACTOR shall clean adjacent structures and facilities of dust, dirt, and debris caused by demolition and return adjacent areas to condition existing prior to start of Work.
- C. The CONTRACTOR shall clean and sweep the affected portions of roads, streets, sidewalks and passageways daily.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Demolition - Clearing and Grubbing

The Contract Unit Price for Clearing and Grubbing shall include full compensation for all labor, material, and equipment required to complete the clearing and grubbing operations to the limits indicated on the Drawings for the fill placement areas, and the limits of the miscellaneous improvements reflected on the Drawings. All clearing and grubbing, saw cutting, removal, and crushing (recycling) of AC pavement, concrete and curbing, removal and salvage of existing chain link fencing and litter fencing (salvage and recycle metal from posts; (protect posts mounted on K-rails for re-use) dispose of concrete from posts separately), removal or demolition of existing drainage improvements and landfill gas system components, transport and disposal, or other operations incidental to completing the work as represented by the Drawings and Specifications shall be considered as included in the Contractor's unit price.

To facilitate progress payments, the Contractor shall submit for the approval of the RESIDENT ENGINEER, a Schedule of Values which reflects a breakdown and distribution of costs between the various components of Demolition - Clearing and Grubbing.

The final pay quantities will be determined by computing the actual limits of area cleared as determined by comparing the pre-construction topographic survey of the area, and the final as-constructed survey and by field verification of removal and salvage operations. Interim progress payments will be based on the CM evaluation of the estimated percentage of work completed during the subject period.

Clearing and grubbing completed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the RESIDENT ENGINEER.

END OF SECTION

SECTION 02200 - EARTHWORK

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. This section sets forth the requirements for the subgrade preparation, processing, unclassified excavation, unclassified fill placement, and processing and placement of the earthwork elements for the improvements at the South Chollas Landfill Operations Yard. Work will be performed in accordance with the applicable provisions of Section 300 - Earthwork of the SSPWC as modified and supplemented herein.

1.2 Work Included

In general, earthwork operations include the following:

- ☐ Compliance with Rule 59 mitigation measures as approved by the Air Pollution Control Officer of the APCD. Compliance with Title V Site Permits.
- ☐ The Contractor shall be responsible for implementation and monitoring of all APCD mitigation measure requirements.
- ☐ Excavate waste material and transport to off-site disposal area.
- ☐ Unclassified Excavation.
- ☐ Unclassified fill - Excavate, transport, process, disk/drying and/or moisture condition, place and compact local borrow material.

1.2 Introduction/Special Conditions

1.2.1 Design Drawings

The Drawings were prepared based on aerial topographic maps of the landfill. The surface of the landfill at present and for the duration of this Contract is not necessarily that shown as existing contours on the grading plan due to differential settlement of the landfill mass and re-grading for maintenance purposes. It is anticipated that there may be additional movement during construction. The proposed grading and improvement project is a "line and Grade" project. Prior to Construction of any improvement, the Contractor shall verify actual field conditions, and shall make all adjustments in the subgrade for paving and hardscape installation as appropriate, to meet this design intent.

Field modifications of subgrade, and excavation and fill volumes for earthwork, may result in an adjustment of Contract Bid Quantities. Such modifications do not constitute a change in the "Character" of the work, as these adjustments are anticipated, and are typical of landfill surface improvement construction.

Adjustments in Contract quantities will be compensated under the applicable Bid Item, and in accordance with SSPWC, unless otherwise noted.

SECTION 02200 - EARTHWORK

1.4 Submittals Required

The Contractor shall thoroughly review the Specifications and identify all required project submittals. The submittals listed below are intended as a general summary of the submittal items contained in this section. This submittal list does not release the Contractor from the responsibility of identifying and providing all information requested.

- ☐ Submittals as required by the Supplementary General Conditions.

PART 2 - MATERIAL

2.1 Unclassified Fill Material

Fill material to be used for unclassified fills shall be generated from the unclassified excavations or stockpile(s) stockpiled in proximity to the work by the CITY.

Rocks or rock fragments greater than 6 inches in any dimension shall be removed from the fill and disposed of as directed by the Engineer. Rocks or rock fragments less than 6 inches shall be distributed evenly throughout the fill. "Nesting" of rock or rock fragments will not be permitted.

PART 3 - CONSTRUCTION METHODS

3.1 General

All earthwork shall conform to the following requirements, where applicable, unless otherwise noted in these Specifications:

- A. The Contractor shall be solely responsible for the satisfactory completion of all earthwork in accordance with the Drawings and Specifications.
- B. Equipment used in the excavation, transport, stockpiling, processing, drying, placement and compaction of all materials used in construction of the alternative final cover system will be standard-of-practice grading machinery of known specifications suitable for performing the required work in a timely and efficient manner.
- C. All material considered by the Engineer to be unsuitable for use in the construction of the final cover system components shall be removed. All materials incorporated as part of the compacted fill must be inspected and placement must be observed by the Engineer.
- D. All clearing, grubbing, stripping, and site preparation for the Project shall be accomplished to the satisfaction of the Engineer prior to placement of fill material.
- E. Material deemed unlikely to meet the performance specification and not disposed of during clearing and grubbing of demolition shall be removed from the stockpiles, borrow and/or fill as directed by the engineer.
- F. The intermediate cover surface to receive fill shall be prepared (cleared, grubbed, or stripped) to the satisfaction of the engineer and the fill shall be placed, spread, mixed, watered and compacted in accordance with the project specifications and as recommended by the engineer.

SECTION 02200 - EARTHWORK

- G. The intermediate cover surface prepared to receive fill shall be scarified, disked, or bladed until it is uniform and free from uneven features which may prevent uniform compaction. The scarified intermediate cover surface shall then be brought to ± 2 percent of optimum moisture content, mixed as required, and compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM D 1557. The prepared surface shall be firm and unyielding. If the scarified zone is greater than eight inches in depth, the excess material shall be removed and placed in lifts of six to eight inches in thickness. Prior to fill placement, the ground surface to receive fill shall be inspected by the Engineer.
- H. Irreducible rock or rock fragments in excess of three (3) inches in maximum dimension shall not be utilized for the upper 12-inches of subgrade surfaces.
- I. Suitable and sufficient processing and compaction equipment shall be on the job site to handle the amount of fill being stockpiled, processed, mixed and/or placed. If necessary, excavation or import equipment will be shut down temporarily in order to allow time for proper preparation and/or compaction of fills. Sufficient water apparatus will be provided with due consideration to the type of fill material, curing characteristics, rate of placement, and time of year.
- J. Fill material shall be placed in thin, horizontal lifts with a maximum uncompacted thickness not to exceed six to eight inches. Each layer shall be spread evenly and thoroughly mixed to obtain a near uniform condition in each layer. In areas of excess lift thickness, re-grading of the surface to the maximum lift thickness will be completed prior to construction of additional lifts.
- K. The minimum compaction for all fill materials placed shall be 90 percent of the maximum dry density as determined by ASTM D 1557 and the specified moisture content is ± 2 percent of optimum moisture content as determined by ASTM D1557 and D2216.
- L. Neither material import nor cover production shall exceed the capability of the processing operation to meet the project specifications.
- M. Representative samples of fill material will be tested in the laboratory in order to determine the physical characteristics of the material. During processing and/or grading operations, no soils, or soil types, other than those previously analyzed may be used unless the engineer documents the suitability of these soils with appropriate additional testing paid for by the Contractor.
- N. Where tests by the Engineer indicate that the moisture content or density of any layer of fill, or portion thereof, is below the Project requirements, the particular layer or portion thereof will be reworked until the required moisture/density has been attained. The moisture/density of the reworked fill will be verified by re-testing by the Engineer. No additional fill shall be placed over an area until the prior fill has been tested horizontally and vertically and meets the requirements of these Specifications to the satisfaction of the Engineer.
- O. Where work is interrupted by heavy rains, fill operations shall not be resumed until observations and field tests by the Engineer indicate the moisture content and density of the in-place fills and/or materials intended for placement are within the limits previously specified. This requirement does not preclude the Contractor from diskings or aerating excessively wet areas to enhance drying.

SECTION 02200 - EARTHWORK

- P. As determined by the Engineer, fill over cut slopes shall be properly keyed through top soils, colluvium, or creep material into firm material. Final cover soils placed over foundation layer soils shall be excluded from this requirement. All transitions shall be stripped of all loose soils prior to placing fill.
- Q. Throughout construction, all excavated and/or fill areas shall be graded to provide positive drainage to collection/transport features and to prevent ponding of water. No ponding of water will be allowed on the landfill surface. Surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site.
- R. The Contractor shall assume all responsibility for damage to completed portions of the final cover improvements arising from sequencing of work and location of haul routes.

3.2 Refuse Removal and Reconsolidation

The Contractor shall be responsible for implementation and monitoring of all requirements of the Rule 59 mitigation measures as required by APCD.

The contractor shall excavate/remove refuse where encountered on the Project. All excavated refuse shall be transported in covered vehicles to the Miramar Landfill. A 1-foot thick interim cover layer of soil shall be placed and compacted by the Contractor above the remaining waste within refuse excavation/removal areas, below the base and asphalt paving section. Measurement and payment shall be considered under the Unclassified Fill Bid Item. The contractor may encounter refuse during excavation operations adjacent to existing roadways or within pavement areas and at various designated areas of the project to establish revised slope gradients, and/or to accommodate construction of various improvements. At the conclusion of each day's operation, all exposed waste material, whether in the excavation area or reconsolidation area, shall be covered with a minimum of 6-inches of soil, or other material as approved by the RESIDENT ENGINEER.

3.3 Subgrade Preparation

Subgrade preparation shall consist of backfill and compaction of low points grading and placement of fill material to remove surface irregularities, and conditioning of the existing surface in preparation for receiving the project improvements.

The Contractor shall refer to Subsections 1.2 of this Section of the Specifications regarding design intent for development of subgrade for project improvements.

The subgrade shall be prepared to create the lines and grades to be reflected in the ultimate project improvement final grade. The Contractor's proposed sequencing and methods for achieving the design intent for development of the subgrade shall be outlined in the submitted Earthwork Operations Plan.

SECTION 02200 - EARTHWORK

PART 4 - MEASUREMENT AND PAYMENT

4.1 Refuse Excavation, Transport to Miramar Landfill, and Disposal

The Contract unit price per Ton for Refuse Removal and Transport to Miramar Landfill for Disposal shall include full compensation for all labor, material, and equipment required for excavation of waste material, including daily health and safety monitoring, and transport to the working face of the approved Off-site Disposal site (Miramar Landfill).

Final pay quantities will be based on the weight across the scales at the Miramar Landfill in Tons, and shall include all previously landfilled refuse removed and Disposed in accordance with these specifications to the limits indicated on the drawings. Work performed outside of these limits will not be compensated unless the work has been authorized by the Engineer.

Compensation for the placement of the final 12-inch thick interim cover layer over the reconsolidation area shall be per cubic yard of material placed to the dimensions indicated on the drawings for the completed surface area, and measured by field survey.

4.2 Subgrade Preparation

All costs for Subgrade Preparation shall include full compensation for all labor, material, and equipment required for scarifying, grading, processing, and compaction of Final cover Subgrade/AC Pavement subgrade or Concrete pavement subgrade. All costs for subgrade preparation shall be included in the specific elements of work and there shall be no separate payment made.

4.4 Unclassified Excavation to Unclassified Fill

Full compensation for all labor, material, and equipment required to perform Unclassified Excavation to Unclassified Fills including transport, placement, and compaction of the material in designated fills as indicated on the Drawings shall be included in the Contractor's unit price.

Final pay quantities shall be determined by comparing the volumetric difference between the pre-construction and post construction topographic surveys of the fill areas. Fill placed beyond the limits indicated on the drawings will not be compensated unless previously approved by the RESIDENT ENGINEER.

END OF SECTION

SECTION 02400 – DRAINAGE

PART 1 - GENERAL

This section sets forth the requirements for miscellaneous civil and drainage improvements indicated on the Plans.

1.1 WORK INCLUDED

The Contractor shall refer to Section 02200 Earthwork of the Specifications, Subsection 1.2.2, regarding design intent for development of final cover grades and gradients and the potential for modification of grades and alignment of civil and drainage improvements.

In general, miscellaneous drainage improvements shall include:

- Construction of Portland Cement Concrete (PCC).
- Construction of rock slope protection.
- Construction of drainage outlet.
- Install 36" Corrugated HDPE Pipe Drainage Pipe and Top Cage Inlet.
- Install stormwater separator.

1.2 RELATED SECTIONS

A. The Work of the following Sections apply to Work of this Section. Work of other Sections of the Specification, not referenced below, shall also apply to the extent required for proper performance of the Work.

- Section 01029 Utilities Within Work Area
- Section 01500 Temporary Facilities and Control
- Section 01530 Protection of Work
- Section 01560 Environmental Protection
- Section 02050 Demolition
- Section 02200 Earthwork
- Section 03310 Cast In Place Site Concrete

PART 2 - MATERIALS

2.1 Corrugated HDPE Pipe

HDPE pipe and fittings shall be furnished in accordance with the requirements of Section 207-18 of the SSPWC, and shall be exterior corrugated, interior smooth walled, and of the diameter shown on the Drawings. All pipe and fittings shall comply with the requirements

SECTION 02400 – DRAINAGE

for test methods, dimensions and markings found in AASHTO Designations M 252 and M 294. Pipes and fittings shall be made from virgin PE compounds which conform to Cell Class 324420C, as defined and described in ASTM D 3350.

All joints shall be watertight, with bell and spigot joints supplied as recommended by the Manufacturer. All elbows, fittings, and other appurtenances required for installation shall have bell and spigot joints with angles for proper fit determined by the Contractor and shall consist of HDPE.

2.2 Rip-Rap Slope Protection

Rock for Rip Rap Slope Protection shall conform to the requirements of Section 200-1.6 of the SSPWC, 500-Pound Class and as indicated on the Plans. Stone Quality requirements shall be pursuant to Table 200-1.6 of the SSPWC. The Contractor shall submit a Certificate of Compliance for the material intended for use.

Geotextile used in conjunction with the embankment protection improvements shall be furnished in accordance with the requirements of Paragraph 2.3 below.

2.3 Geotextile

Geotextile for placement below embankment protection shall be nonwoven 16-ounce per square yard material conform to the following minimum requirements. The Contractor shall submit a Certificate of Compliance for the material intended for use.

Physical Property	Test Method	Units	Minimum Requirements
Trapezoidal Tear	ASTM D 4533	lbs	145
Puncture Resistance	ASTM D 4833	lbs	200
Permittivity	ASTM D 4491	sec ⁻¹	0.7
Grab Tensile	ASTM D 4632	lbs	370
Grab Elongation	ASTM D 4632	%	50
AOS	ASTM D 4751	U.S. Standard Sieve	120-80
UV Resistance	ASTM D 4355	% strength retained	>75
Thickness	ASTM D 1777	mils	150*
Weight (mass/unit area)	ASTM D 3776	oz/yd ²	16

2.4 Stormwater Separator

The Stormwater Separator shall be a VortSentry Model Number HS-48 compact manhole hydrodynamic separator as manufactured by Contech or approved equivalent. Manhole adjusting rings shall be pre-cast concrete sections of the length required so that the frame and cover is either flush with pavement, or 6-inches above adjacent grade for soil installation (depending on location); frame and cover shall be per SPPWC Std. Plan No. 633.

SECTION 02400 – DRAINAGE

PART 3 - CONSTRUCTION METHODS

3.1 Corrugated HDPE Pipe

Corrugated HDPE pipe shall be installed in accordance with the requirements of Section 306 of the SSPWC. Pipe bedding shall conform to Section 306-1.2.13. Trench backfill shall conform to Section 306-1.3. Flooding, or jetting, of bedding material and/or backfill will not be permitted. Backfill above the pipe zone shall be compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM D 1557.

3.2 Geotextiles

Geotextiles for separations shall be placed as indicated on the Construction Plans and in accordance with the provisions of Sections 300-10 of the SSPWC.

3.3 Rip Rap Slope Protection

Embankment protection and Rock for Rip Rap Pads/Rip Rap Drainage Outlet shall be placed in accordance with the applicable requirements of Section 300-11 of the SSPWC. Stone shall be grouted in accordance with Section 300-11.3.1, and concrete shall be placed pursuant to Section 300-11.3.2 of the SSPWC.

3.4 Stormwater Separator

Install the Stormwater Separator in accordance with the manufacturer's recommendations.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Construct Drainage Inlet per Detail 2/15 - (Item No. 21)

All layout, excavation, grading, pipe, fittings, bedding, backfill, compaction and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price. All pipe and fittings shall be water tight.

Final pay quantities shall be determined by verification that the Drainage Inlet per Detail 2/15 has been installed. Quantities exceeding the limits indicated on the Drawings will not be compensated, unless the additional work was authorized by the Engineer prior to the work being performed.

4.2 Stormwater Separator - (Item No. 22)

All layout, excavation, grading, pipe, fittings, bedding, grout, backfill, compaction and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price. All pipe and fittings shall be water tight.

Final pay quantities shall be determined by verification that the Stormwater Separator has been installed.

SECTION 02400 – DRAINAGE

4.3 Embankment Protection (Detail 9/14) – Item No. 24

The contract price paid per square foot for embankment protection used with the northwest and southwest BMP shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in embankment protection including all excavation, grading, geotextile, rock, concrete, and other appurtenances as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the RESIDENT ENGINEER .

Final pay quantities shall be determined from field verification of the actual square footage installed in accordance with the Plans. Embankment protection placed beyond those limits will not be compensated unless previously authorized by the RESIDENT ENGINEER.

END OF SECTION

SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall provide asphalt concrete pavement, Class II base, Crushed Miscellaneous Base and associated materials in accordance with the Contract Documents.
- B. The CONTRACTOR shall install all pavement markings and Parking lot wheel stops in accordance with the Contract Documents.

1.2 RELATED SECTIONS

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Section 01300 Submittals
 - 2. Section 02200 Earthwork

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC) together with the latest adopted editions of the Regional and City of San Diego Supplement Amendments.

1.4 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall submit, in writing, materials testing reports, job-mix formulas, and other pertinent information satisfactory to the RESIDENT ENGINEER, demonstrating that materials and methods CONTRACTOR proposes to use will comply with the provisions of this Section. Submittals shall be in accordance with the requirements of Section 01300 - Submittals.
- B. Suitability Tests of Proposed Materials: For materials not produced by a supplier currently authorized by the City Materials and Testing Lab, tests for conformance with the Specifications shall be performed before start of the Work. The samples shall be identified to show the name of the material, aggregate source, name of the supplier, contract number, and the segment of the Work where the material represented by the sample is to be used. Results of all tests shall be submitted to the CONSTRUCTION MANAGER for approval. Materials to be tested shall include aggregate base, coarse and fine aggregate for paving mixtures, mineral filler, and asphalt binder.
- D. The CONTRACTOR shall submit certification and test records of all proposed materials showing that they meet the applicable requirements.
- E. Manufacturers product information sheet for reinforced concrete curb stops.

SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE

1.5 QUALITY ASSURANCE

- A. Quality assurance testing will be provided by the City Materials and Testing Lab.

PART 2 -- PRODUCTS

2.1 AGGREGATE BASE

- A. Materials for aggregate base shall be crushed rock and rock dust complying with SSPWC Subsection 200-2.

2.2 CRUSHED MISCELLANEOUS BASE

- A. Materials for Crushed Miscellaneous Base shall be crushed concrete and asphalt material recycled by the contractor from the demolition and salvage operation for concrete and asphalt materials complying with SSPWC Subsection 200-2.4.

2.3 PRIME COAT

- A. The prime coat shall be liquid asphalt complying with SSPWC Subsection 302-5.3

2.4 TACK COAT

- A. The tack coat material shall comply with SSPWC Subsection 302-5.4

2.5 ASPHALT CONCRETE

- A. Asphalt Concrete (AC) shall be furnished in accordance with the requirements of Section 203-6, Section 203-7 of the SSPWC, or SSPWC Section 400-4 (as appropriate) and shall be Type B PG 64-10 for the Base Course, and ½" Type III C2-PG 64-10-RAP for the finish course for roadway surfacing (if not placed in a single lift) and Type D2 PC 64-10 for dikes and curbing. See WHITEBOOK, section 400-4.3. Where indicated on the Plans, AC pavement shall be placed against a redwood header in conformance with Section 302.5.5 of the SSPWC.

AC mix designs shall be submitted for the RESIDENT ENGINEER review and approval.

2.6 PAVEMENT MARKING PAINT

- A. Pavement marking paint shall comply with SSPWC Subsection 210-1.6.

2.7 PARKING LOT WHEEL STOPS

- A. Parking lot wheel stops shall be commercially available reinforced concrete with the following specifications:
- 5000 psi air-entrained concrete.
 - Reinforced with two #4 bars.
 - Standard 6'-0" length.
 - Approximate weight: 250 lbs.

SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE

- Two 3/4" diameter thru-holes for anchoring.
- Tapered side design equalizes pressure down and forward from car wheels to relieve tension on setting pins and chocks.
- Slots on underside allow drainage and allow units to be lifted with forklift.

PART 3 -- EXECUTION

3.1 SUBGRADE PREPARATION

- A. The subgrade shall be prepared as specified in Section 02200 - Earthwork as applicable to roadways and embankments. Redwood headers measuring 2-inch by 4-inch shall be firmly staked in the proper positions along all edges other than those where the pavement is to be placed against existing concrete or paved surfaces.

3.2 AGGREGATE BASE

- A. Subgrade preparation and placement of Aggregate base shall be in accordance with SSPWC Subsection 301.

3.3 CRUSHED MISCELLANEOUS BASE

- A. Subgrade preparation and placement of Crushed Miscellaneous Base shall be in accordance with SSPWC Subsection 301.

3.4 PRIME COAT

- A. Before placing of pavement a prime coat of cutback asphalt shall be applied to the compacted base. Application of the prime coat shall comply with the requirements of SSPWC Subsection 302-5.3.

3.5 TACK COAT

- A. A tack coat shall be applied in accordance with the requirements of SSPWC Subsection 302-5.4.

3.6 ASPHALT CONCRETE

- A. Asphalt concrete paving shall be constructed in accordance with SSPWC Subsection 302-5.
- B. Existing asphalt pavement that has been gouged, marred or scarred during construction shall be repaired by the CONTRACTOR in accordance with Section 302-3 PREPARATORY REPAIR WORK in compliance with the City of San Diego Standard Specifications for Public Works Construction ("WHITEBOOK") 2012 edition. The repair shall consist of asphalt patching and/or seal and sand. Repairs of asphalt pavement shall be as determined at the sole discretion of the RESIDENT ENGINEER.

SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE

- C. Unless provisions are made in the Bid, payment for trench resurfacing, repairs and replacement of all surface improvements damaged, displaced or removed as a result of the CONTRACTOR's operation shall be included in the Bid and no separate payment will be made.

3.7 TRENCH RESURFACING

- A. Trench resurfacing for asphalt concrete surfaced streets shall conform to City of San Diego Standard Drawing SDG-107.
- B. Trench resurfacing for Portland cement concrete surfaced streets shall conform to City of San Diego Standard Drawing SDG-108.

3.8 TRAFFIC MARKING

- A. Application of paint shall comply with SSPWC Subsection 310-5.6.8.

3.9 PARKING LOT WHEEL STOPS

- A. Install reinforced concrete parking lot wheel stops with reinforcing steel of the diameter and length pursuant to manufacturers' recommendations, and at 2-feet from front of parking space.

PART 4 - MEASUREMENT AND PAYMENT

The contract unit price for each of the following civil improvements shall include full compensation for all labor, material and equipment required to construct the improvements in accordance with the Construction Drawings, Specifications, and manufacturer's recommendations. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.1 6" Crushed Miscellaneous Base (Per Detail 2/14)

The contract unit price per square foot for crushed miscellaneous base (CMB) material shall include supply of material from the recycling of existing asphalt, concrete and base material, all labor and equipment, spreading, moisture conditioning, finish grading, and compaction and other appurtenances as required. CMB for drainage swales (20 and 30-foot widths) shall be paid at the unit price under this bid item – no separate payment shall be made.

Final pay quantities shall be determined from field verification of the actual square footage of 6" CMB (and 6" CMB in Drainage Swales) completed in accordance with the limits indicated on the Construction Drawings.

4.2 8" Crushed Miscellaneous Base (Per Detail 3/14 and 4/14)

The contract unit price per square foot for crushed miscellaneous base (CMB) material shall include supply of material from the recycling of existing asphalt, concrete and base material, all labor and equipment, spreading, moisture conditioning, finish grading, and compaction and other appurtenances as required. CMB for drainage swales (20 and 30-foot widths) shall be paid at the unit price under this bid item – no separate payment shall be made.

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Final pay quantities shall be determined from field verification of the actual square footage of 8" CMB (and 8" CMB in Drainage Swales) completed in accordance with the limits indicated on the Construction Drawings.

4.3 4" AC Pavement (per Detail 2/14)

All Asphalt Concrete material, purchase and delivery, spreading, finish grading, compaction, labor, and equipment, and other appurtenances as required shall be considered as included in the Contractor's unit price per Ton of AC Pavement placed. Drainage Swales (20 and 30-foot widths for the specified thickness) shall be included at the unit price under this bid item – no separate payment shall be made.

Final pay quantities shall be determined from field verification of the total number of tons delivered to the site (verifications of weight tickets by Construction Manager/Resident Engineer) for the specified pavement thickness in accordance with the limits indicated on the Construction Drawings.

4.4 6" AC Pavement (per Detail 3/14)

All Asphalt Concrete material, purchase and delivery, spreading, finish grading, compaction, labor, and equipment, and other appurtenances as required shall be considered as included in the Contractor's unit price per Ton of AC Pavement placed. Drainage Swales (20 and 30-foot widths for the specified thickness) shall be included at the unit price under this bid item – no separate payment shall be made.

Final pay quantities shall be determined from field verification of the total number of tons delivered to the site (verifications of weight tickets by Construction Manager/Resident Engineer) for the specified pavement thickness in accordance with the limits indicated on the Construction Drawings.

4.5 1" AC Overlay (Per Detail 1/14)

All Asphalt Concrete material, purchase and delivery, spreading, finish grading, compaction, labor, and equipment, and other appurtenances as required shall be considered as included in the Contractor's unit price per Ton of 1" AC Overlay placed.

Final pay quantities shall be determined from field verification of the total number of tons delivered to the site (verifications of weight tickets by Construction Manager/Resident Engineer) for the specified pavement thickness in accordance with the limits indicated on the Construction Drawings.

4.6 Temporary Asphalt Concrete Pavement Fill (per Detail 8/14)

All Asphalt Concrete material, purchase and delivery, spreading, finish grading, compaction, labor, and equipment, and other appurtenances as required shall be considered as included in the Contractor's unit price per Ton of Temporary Asphalt Concrete Pavement Fill placed.

Final pay quantities shall be determined from field verification of the total number of tons delivered to the site (verifications of weight tickets by Construction Manager/Resident Engineer) for the specified pavement thickness in accordance with the limits indicated on the Construction Drawings.

SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE

4.7 AC Curb per SDRSD G-5 Type A 6

All grading, asphalt concrete, labor, and equipment, and other appurtenances as required, shall be considered as included in the Contractor's unit price.

Final pay quantities shall be determined from field verification of the linear footage of AC Curb per SDRSD G-5 Type A installed in accordance with the Construction Drawings. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.8 Parking Lot Wheel Stops

Purchase, transport, delivery, unloading, distribution labor, and equipment, and installation of Parking Lot Wheel Stops shall be considered as included in the Contractor's unit price.

Final pay quantities shall be determined from field verification of the number of Parking Lot Wheel Stops installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.9 Painted Pavement/Curb Markings

All lay-out, application of paint and other appurtenances labor, and equipment, as required to complete the project striping as indicated on the construction drawings shall be considered as included in the Contractor's Lump Sum Price for Painted Pavement/Curb Markings. Pavement markings shall include all 12" Solid Limit Line, No Parking and Motorcycle Pavement Markings Per Caltrans Std. Plan A24E; Painted Curb Markings; 4" Wide White Parking Stripe and Stall Per Caltrans Standard Plan A20B; Accessible Parking Stall and Sign Per SDM-117; Traffic Arrow per Caltrans Standard Plan A24A Type I 10' Arrow; Double 4" Wide Yellow Stripe per Caltrans Standard Plan A20A Detail 21; Stop Sign Pavement Marking, Solid Line and Sign Per Caltrans Standard Plan A24D; Striped Cross Walk per Caltrans Standard Plan A24E, and other pavement markings as indicated on the construction drawings.

Final payment shall be based on field verification that the pavement markings have been installed as indicated on the Construction Drawings.

END OF SECTION

SECTION 02610 –LANDFILL GAS SYSTEM

PART 1 - GENERAL

1.1 Summary of Work

The work under this section of the Project consists of cutting, capping, and abandonment of existing below grade landfill gas (LFG) piping system, removal of existing condensate traps and backfilling with compacted clay bearing soil material; installation of new 1 ½-inch air supply, 2-inch condensate line, 4-inch Lateral, 6-inch Sub-Header, and 8-inch HDPE Header, below grade landfill gas (LFG) piping systems, and reconnection to existing well-heads; constructing control vaults with protective Bollards; and installation of remote well head in LFG Control Vault. The work also includes the drilling and installation of new LFG Wells, connection of existing wellhead assemblies to the new piping, all in accordance with the plans (Sheets 17 through 23) and these project specifications for a fully functional LFG Collection System upon completion of the work, using new components.

1.2 Discarded Materials

The Contractor shall be responsible for transporting unsalvageable materials to an approved off-site disposal site. The Contractor shall include the cost of all these activities in the unit prices per linear foot of LFG piping component bid items.

1.3 Pre-Qualification for Construction of Landfill Gas Extraction System

The Contractor or his LFG system subcontractor(s) shall have the following minimum qualifications:

1. The Contractor shall have successfully completed of a minimum of five (5) LFG extraction systems similar in size and nature to this project, and within the jurisdiction of the Air Pollution Control District (APCD).
2. The Contractor shall provide a minimum of five (5) references on the attached form to be included as part of the bid and will be considered as part of the qualifications for a successful award of this project.
3. All personnel working on the LFG extraction system shall be familiar with the use of gas monitoring equipment for total organic compounds as methane (such as flame ionization detector) and for hydrogen sulfide. Such equipment will be required for the duration of the installation and testing on the LFG extraction system.
4. The Contractor's site supervisor shall have recently and successfully completed forty (40) hours of health and safety training in accordance with OSHA Hazardous Waste Operators and Emergency Response Standard 29 CFR 1910.120(e)(8), (q)(8), and 8CCR 5192 (e)(q). A valid certificate is required.

The Contractor or subcontractor shall substantiate the above performance on the attached forms and include it with the sealed bid.

1.4 Smoking Policy

Smoking is not allowed at the South Chollas Landfill Operations Yard Improvement Areas. The smoking prohibition will be strictly enforced due to the explosive nature of LFG.

SECTION 02610 –LANDFILL GAS SYSTEM

1.5 Project Requirements

The installation shall be in strict conformance with all applicable federal, state and local regulations.

All work, materials and methods of construction shall be subject to the inspection of the City Landfill Gas System Engineer, who shall be the judge of quality and suitability. If any item fails to meet City approval, the same must be replaced, corrected or otherwise made good, as the case may require, by the Contractor at its own expense.

Any deviations, exceptions, additions, deletions or recommendations to these Specifications and/or to the Construction Drawings must be submitted to the City in writing for approval.

The work shall conform to such other addenda, revisions, and supplementary drawings as may be furnished by the City, and to such drawings in explanation of details or minor modifications as may be furnished from time to time during construction, including such minor modifications as the City may consider necessary during the prosecution of the work

The written dimensions on the Drawings are presumed correct, but the Contractor shall be required to check all dimensions carefully before beginning the work. If any discrepancies between the plans and actual conditions are discovered by the Contractor, the Engineer shall be so advised in writing and shall make the proper corrections. After the completion of this project, the Contractor shall supply “As-Built” drawings as described in the Supplementary General Conditions.

1.6 Warranty of Work and Suitability of Materials

All equipment, materials, and articles incorporated in the work covered by this Contract shall be new and subject to review and acceptance by the City.

Where “or equivalent”, “equal to”, or “or approved equal”, is stated in the Drawings or Specifications, the City Landfill Gas System Engineer shall decide the question of equality.

The Contractor shall guarantee the work against defective materials and or workmanship for a minimum period of one (1) year from the date of its final acceptance under this Contract, except where longer warranty periods are specifically given by the manufacturers.

It is the Contractor’s ultimate responsibility to deliver, at the time of final acceptance, a complete project that complies with these Specifications and Construction Drawings.

1.7 Disposal of Waste

Refuse excavated during trenching and other waste materials shall be classified as non-hazardous waste for the purposes of handling and disposal. All waste materials shall be transported to an approved disposal location in accordance with other sections of the specifications. Measurement and payment for waste disposal under this section shall be considered incidental to the installation of the new LFG System and shall be paid under Item Number 7 – Refuse Removal and Reconsolidation.

SECTION 02610 –LANDFILL GAS SYSTEM

1.8 Product Handling and Protection

The Contractor shall transport, deliver, handle, and store materials and equipment at the job site in such manner as to prevent damage, including damage from dust, dirt, and other environmental factors.

The Contractor shall take any and all necessary precautions and measures necessary to protect existing facilities particularly, but not limited to, items shown on the Drawings as “Protect in Place”, gas extraction wells, horizontal collectors, and gas monitoring probes.

The Contractor must be aware they will encounter LFG containing substantial quantities of methane, which can be flammable or explosive when mixed with air. The Contractor shall take the necessary precautions to avoid creating flammable or explosive conditions including venting, purging, covering, or other means. The Contractor shall include these measures in his bid, and will not be compensated for delays due to methane related safety issues.

The Contractor shall replace, at no cost to the City, all gas system components damaged or lost, after final Asphalt Concrete is placed.

1.9 SCOPE

A. **Work Included:** This section covers the work necessary for procurement and installation of the landfill gas piping, field compressed air and pumped condensate piping, fittings, and valves as shown on the drawings and detailed in these specifications.

B. **General:** Like items of materials provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance, maintenance, and replacement.

See Part 1, GENERAL PROVISIONS, which contain information and requirements that apply to the work specified herein and are mandatory for this project.

C. **Submittals:** Submittals during construction shall be made in accordance with Section 01300 SUBMITTALS. In addition, the following specific information shall be provided:

Shop Drawings: Submit shop drawings and installation drawings for the Engineer's review prior to fabrication and delivery if installation of piping and equipment should vary from that shown. These drawings shall provide detailed information and specifications for all materials, finishes, dimensions, and erection instructions.

Provide Manufacturer's literature on all piping, fittings, valves and equipment specified and to be installed under this section. Manufacturer's literature shall include detailed information on materials of construction, strength of materials, pressure ratings, flow capacities, testing agency approvals, standards, dimensions, and finishes.

D. **Manufacturer's Directions:** In all cases where manufacturers of articles used in this contract furnish directions covering points not shown on the drawings or specified, such directions shall be followed.

SECTION 02610 –LANDFILL GAS SYSTEM

- E. **Code Compliance:** All work performed under this Division of the specifications must comply with the latest adopted regulation of all applicable codes, including but not limited to:
1. California Administrative Code-Title as applicable.
 2. Uniform Building Code.
 3. Uniform Mechanical Code.
 4. Uniform Plumbing Code.
 5. Uniform Fire Code.
- Minimum Requirements:** The requirements of the drawings and specifications are the minimum that will be allowed under this section.
- F. **Products:** The use of a manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired only. Products of other manufacturers will be considered in accordance with the General Conditions and Section 01300 SUBMITTALS.
- G. **Layout and Stationing:** The City will provide several control points on the construction site which will be identified by north and east coordinates and elevation. The Contractor shall use them to lay out the work. The Contractor shall be responsible for all measurements that may be required for execution of the work to the location and limit marks prescribed in the specifications or on the drawings, subject to such modifications as the Landfill Gas (LFG) Engineer may require to meet changed conditions or as a result of necessary modifications to the work. The routing of the pipes shown on the drawings may be changed by the LFG Engineer, based on field conditions. Any changes must be approved by the LFG Engineer.
- H. **Landfill Gas Piping:** Where reference is made to landfill gas piping in this section, such reference shall also apply to field-compressed air piping and field-pumped condensate piping.
- I. **LFG Well Abandonment:** Cutting of well risers two feet below grade and capping the riser (fusion welding of cap fittings). Then backfill over the capped riser with compacted clay bearing soil.
- J. **Condensate and Air Line Abandonment:** Cutting and capping of 2" condensate and 1 ½-inch air supply lines (fusion welding of cap fittings).
- K. **Condensate Sump Removal/Abandonment:** Removal and disposal of condensate sumps/backfilling with compacted clay bearing soil; or if the sump is too deep, as determined by the LFG Engineer, the alternate method of abandonment is to be cutting and capping the sump three feet below grade then backfilling over the capped sump with compacted clay bearing soil.

SECTION 02610 –LANDFILL GAS SYSTEM

CONTRACTOR REFERENCES

Listed below are the names, addresses and telephone numbers for five (5) public agencies for which the LFG Contractor/subcontractor has constructed gas extraction systems within the jurisdiction of the APCD.

1. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

2. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

3. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

4. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

SECTION 02610 –LANDFILL GAS SYSTEM

Date Completed: _____

5. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

SECTION 02610 –LANDFILL GAS SYSTEM

PART 2 - MATERIALS

2.1 General

Materials shall be as described on the LFG system drawings and these specifications. Where the required materials are not clear to the Contractor for any reason, he shall request the Engineer to provide the material specification.

2.2 High Density Polyethylene (HDPE) Pipe and Fittings

All new HDPE LFG pipe and fittings shall be made from a polyethylene resin Type 3408, manufactured with ultraviolet inhibitors. The standard dimension ratio (SDR) for the high density polyethylene (HDPE) pipe for gas system piping shall be as follows:

IPS Pipe Size (Inch)	Pipe SDR	Fitting SDR	
		Molded	Fabricated
0.75	11	11	9
1	11	11	9
1.5	11	11	9
2	11	9	9
4	17	15.5	11
6	17	15.5	11
8	17	15.5	11

The HDPE pipe fittings shall have the same specifications and pressure ratings as the pipe material on which they are used. HDPE pipe elbows and tees shall be molded type.

2.3 Wellhead/Lateral Flexible Connectors

Any small diameter LFG flex hose required to reconnect the existing wellhead to the lateral piping, shall be Kanaflex 101-PS flex hose or approved equal. The flex hose shall be secured using Kanaflex Powerlock clamps, or approved equal.

2.4 Hardware

All hardware shall be hot-dipped galvanized.

2.5 Valves

A. Butterfly Valves

SECTION 02610 –LANDFILL GAS SYSTEM

Butterfly valves shall conform to AWWA Standard C504 for rubber seated butterfly valves, except that seats shall be mounted securely for complete immobility under all operating conditions.

1. Valve seat shall be mounted on the body only. Mounting on the disk will not be acceptable.
2. Manufacturers: Muessco, Keystone, Flow-Seal, Asahi, Demco or acceptable equivalent.
3. Body of butterfly valve to be of lug design, cast iron, and bolt pattern compatible with 150 lb. ANSI flanges.
4. Disk shall be type 304 or 316 stainless steel.
5. Seats and seals shall be Viton.
6. Shaft shall be type 304 or 316 stainless steel. Either one-piece unit extending completely through the valve disk or stub shaft comprising two separate shafts inserted into valve disk hubs shall be utilized.

C. Manual Operators

1. All valves shall be provided with a manual operator unless otherwise noted on the Construction Drawings or Specifications. The direction of rotation of the wheel, wrench nut, or lever to open each valve shall be to the left (counterclockwise). Each valve body or operator shall have cast thereon the word OPEN and an arrow indicating the direction to open and shall be visible to the operator when the valve is in its final position. After installation, the Contractor shall check each valve's range of operation and the results forwarded to the Engineer.
2. Operator mounting arrangements and hand wheel positions shall be as shown on the Construction Drawings or as directed by the Engineer.
3. Unless otherwise shown on the Construction Drawings or specified herein, above grade 6-inch diameter and smaller butterfly valves shall have position locking lever. 8-inch and larger butterfly valves shall be provided with a weatherproof, enclosed worm gear operator. Gear operators shall be sized for the hydrostatic test pressure in the line or the pressure rating of the valve. All valves shall be equipped with a visual position indicator.
4. It is the Contractor's responsibility to assure proper operation of the valve. At all times the valve shall be capable of opening and closing 100% without any interference from the adjoining pipe and/or fittings. Should interference occur between a butterfly valve and the pipe due to the wall thickness of the pipe and/or fittings, the Contractor shall consult with the valve manufacturer and taper the ends of the adjoining pipe and/or fittings (spacers) to allow free movement without any interference.

SECTION 02610 –LANDFILL GAS SYSTEM

2.6 Polyvinyl Chloride (PVC) Pipe and Fittings

A. General

All PVC Schedule 40 and Schedule 80, (to match existing piping being replaced) unless noted or specified otherwise on the Drawings or Specifications, shall conform to ASTM D1785, PVC 1120.

PVC Schedule 40, 6-inch diameter and smaller, shall be UVR Schedule 40 Brown Solvent Weld pipe as manufactured by Pacific Plastics, Inc., Brea, California, or approved equal.

PVC Schedule 40, 8-inch diameter and larger, and all Schedule 80, shall be as manufactured by Harrington Plastics, Inc., San Diego, California, or approved equal.

B. Fittings

Schedule 40 fittings shall conform to the requirements of ASTM-D-2466 for socket type joints.

Schedule 80 fittings shall conform to the requirements of ASTM-D-2467 for socket type joints and ASTM D2464 for threaded type.

C. Flange Gaskets

Neoprene full-face gaskets are required for flanged joints.

D. Flange Bolting

Bolts, washers, and nuts for making up flanged joints on PVC pipe shall be cadmium-plate steel, Type A307.

E. Solvent Primer

Socket type connections shall be primed with primer furnished by the supplier of the PVC pipe and fittings, and shall conform to ASTM F656.

F. Solvent Cement

Socket type connections shall only be joined by heavy duty solvent cement furnished by the supplier of the PVC pipe and fittings, and shall conform to ASTM D 2564.

2.7 Paint

Eight (8)-inch diameter, and larger, PVC Schedule 40 piping, and Kanaflex flex hoses, installed above ground shall be protected against the effects of ultra violet (UV) light by the application of a heavily pigmented, two part, self-priming, epoxy paint formulated for exterior use, and shall be manufactured with UV inhibitors. Paint shall be Tnemec Series 66 Hi-Build Epoxoline, or approved equal. Preparation of surface and application shall be per manufacturer's recommendations. Paint coating shall have a minimum dry thickness of 4 microns (7 microns wet). Color shall be the same as that of the 6-inch, and smaller, PVC above ground pipe and fittings or similar, or as approved by the Owner.

SECTION 02610 –LANDFILL GAS SYSTEM

PART 3 - CONSTRUCTION METHODS

3.1 LFG System Operation

It is the responsibility of the Contractor to coordinate with the LFG System Operator whenever the Contractor modifies the existing system. Coordination shall, at a minimum, consist of 72 hours advance notification to the Operator prior to cutting, capping, diverting gas, or otherwise creating conditions which might affect the System.

The Contractor shall not adjust wells, change valve settings, or perform any other operation/maintenance functions. Operator contact names and numbers will be provided by the City

3.2 Extension of Landfill Gas Wells

Certain LFG wells shall be extended for the installation of the final cover system. Wells shall be surveyed prior to placement of final cover and extended during grading and final cover installation activities. The wells shall be completed per the Construction Drawings once the final cover system has been completed.

3.3 Access Roads and Drilling Pads

All proposed new extraction wells should be accessible by a drill rig from existing top deck or bench locations. However, the Contractor shall still be responsible for providing access to all extraction well locations. Any new extraction wells located on landfill slopes area shall require the construction of an access road to facilitate the extension of the existing well and a pad for the drill rig. Access roads to extraction well locations shall be constructed by placing clean soil fill on the landfill slope. The Contractor shall not cut into in-place waste or areas at final grade to create necessary access roads. All access roads and drilling pads shall be removed after the completion of the well installation and excavated areas re-compacted to their pre-existing condition. The cost of such temporary facilities shall be included in the Contractor's bid.

3.4 HDPE Pipe Joining

HDPE pipe and fittings shall be joined by the butt fusion method unless otherwise specified on the Drawings. Electro-Fusion couplings may be used for connections to existing piping with the approval of the Landfill Gas Engineer.

Mechanical joining to other piping materials, fittings, and valves shall be accomplished with flange adapter and ductile iron backup flanges or thread adaptors.

The bolts and nuts used for mechanical joining shall be A-307 cadmium-plated steel. The ductile iron backup flanges shall be compatible for joining with ANSI-B 16.5, 150-pound bolt circle flanges, and shall be epoxy coated.

Butt fusion and saddle fusion of HDPE pipe shall be performed by qualified personnel. All personnel used by the Contractor for pipe installation shall have a current HDPE welding certificate for the type of welding in which they are engaged. The Contractor shall submit copies of these certificates for verification by the Engineer. No pipe shall be installed prior to submittal of this verification.

SECTION 02610 –LANDFILL GAS SYSTEM

HDPE to PVC transitions for small diameter piping shall be performed with a HDPE to PVC transition fittings, or with HDPE to Stainless Steel transition fittings. A threaded PVC union shall be utilized when transitioning from the transition fitting to the non-HDPE pipe.

3.5 PVC Piping

PVC pipe fittings and appurtenances shall be provided with solvent joints, except where otherwise shown.

Solvent welded joints shall be made in accordance with ASTM D 2855. The ends of the plastic pipe shall be cut square and smooth, beveled and wiped clean. Primer shall first be applied to the outside of the pipe and the inside of the fitting socket with a paintbrush or other approved applicator.

After priming, solvent cement shall be applied to the outside of the pipe and the inside of the fitting socket with a paintbrush or roller applicator. Solvent shall be applied in such a manner that no material is deposited on the interior surface of the pipe or extruded into the interior of the pipe during joining. The coated surfaces shall be immediately pushed snugly together and pipe rotated approximately ¼ turn to ensure uniform distribution of cement. Excess cement on the exterior of the joint shall be wiped clean immediately after assembly.

Care shall be exercised in assembling a pipeline with solvent welded joints so that stress on previously made joints is avoided. Handling of the pipe following jointing, such as lowering the assembled pipeline into the trench, shall not occur prior to set times specified in ASTM D 2855.

PVC piping installed above ground shall be protected against the effects of ultra violet (UV) light by the application of a heavily pigmented, two part, self-priming, epoxy paint formulated for exterior use, and manufactured with UV inhibitors. Paint shall be Tnemec Series 66 Hi-build Epoxoline, or approved equal. Paint coating shall have a minimum dry thickness of 4 microns (7 microns wet).

3.6 Valves

Each valve shall be inspected before installation to ensure that all foreign substances have been removed from within the valve body; and they shall be opened and closed to see that all parts are in proper working condition. Geared valves shall be inspected to see that all gears are properly lubricated.

All valves of the same type shall be of the same make unless otherwise approved by the Engineer. Equals may be substituted for the manufacturers listed with the approval of the Engineer.

Valves shall be line size except as shown otherwise on the Construction Drawings. Ratings specified are minimum unless noted otherwise.

3.7 Pipe Installation and Handling

All PVC pipe shall be cut, fabricated, and installed in strict conformance with pipe manufacturer's recommendations.

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Joining, laying, and pulling of pipe shall be accomplished by personnel experienced in working with the specified pipe.

Fittings and pipe shall be clearly marked with manufacturer's name or trademark, material, ASTM number or alternate symbol indicating compliance with applicable standards, and further indicating compliance with the applicable ASTM Standard and manufacturer.

All PVC piping shall be anchored and/or supported as indicated on the Construction Drawings.

Prior to installation, protect salvaged and stored valves, pipes, hoses, and appurtenances from damage due to exposure to sunlight heat, dirt, debris, freezing and thawing, vandalism, etc.

Clean all debris, dirt, gravel, etc., from inside of piping before placing valves and hoses in place.

The handling of the joined pipeline shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. Ropes, fabric, or rubber-protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe. Pipe or fittings shall not be dropped on to rocky or unprepared ground. Slings for handling the pipeline shall not be positioned at joints.

Sections of the pipes with cuts and gouges exceeding 10 percent of the pipe wall thickness or kinked sections shall be removed and the ends of the pipeline rejoined.

All existing piping to be removed and salvaged shall be cut to 40-foot lengths and stockpiled as directed by the Engineer. The Contractor is also responsible for stockpiling all removed valves, fittings and hoses deemed reusable by the Engineer.

3.8 Pipe Pressure Testing

Contractor shall pressure test all newly installed LFG collection piping, including any of the existing piping that may have been removed and re-installed, per the following:

- A. Commence test procedures when the following conditions have been met.
 - 1. Pipe section to be tested is clean and free of dirt, sand or other foreign material.
 - 2. Plug pipe outlets with test plugs. Brace each plug securely to prevent blowouts. Use concrete if necessary.
 - 3. Add compressed air slowly.
 - 4. Pressurizing equipment shall include regulator set to avoid over-pressurizing and damaging an otherwise acceptable section of pipe.
- B. Provide necessary pipe connections between the section of line being tested and the compressed air supply, together with test pressure equipment, meters, pressure gauge, and other equipment, materials, and facilities necessary to perform the specified tests.

SECTION 02610 –LANDFILL GAS SYSTEM

- C. Furnish and install bulkheads, flanges, valves, bracing, blocking or other temporary sectionalizing devices that may be required.
- D. Remove temporary sectionalizing devices after tests have been completed.
- E. Contractor shall provide all equipment required for this testing procedure.
- F. Testing Equipment shall include, but may not be limited to:
 - 1. Polyethylene flange adapter with steel blind flange.
 - 2. Temperature gauge (0°C to 100°C) tapped and threaded into blind flange.
 - 3. Pressure gauge (0 to 15 psig) ASME Standard B40.1 Grade 2A (accuracy of $\pm 0.5\%$ of full scale) with minor graduation marks no greater than 0.1 psig.
 - 4. Inlet valve to facilitate compressed air hose.
 - 5. Ball valve to release pipe pressure at test completion.
 - 6. Polyethylene reducers to be used to adapt test flange to size of pipe being tested.
 - 7. Air compressor shall provide adequate air supply for testing.
 - 8. Pressurizing equipment shall include a regulator set to avoid over-pressurizing and damaging otherwise acceptable pipe.
- G. Provide verification and results of gauge calibration prior to (less than 60 days) and after Project completion.
- H. Owner and Engineer shall be given 24-hour notification prior to test.
- I. Appropriate safety precautions must be in-place.
- J. Pipe Test Segments:
 - 1. Butt-fusion weld pipe segments.
 - 2. Less than 2,000 ft in length.
 - 3. Blind flange with test apparatus on one end and fused cap or blind flange assembly on opposite end.
- K. Environment:
 - 1. Lay test segment on ground surface and allow it to reach ambient temperature before test.
 - 2. Perform test during period when pipe segment will be out of direct sunlight to minimize pressure changes as a result of temperature fluctuations.

SECTION 02610 –LANDFILL GAS SYSTEM

L. Test:

1. Apply test pressure of 5 psig to test segment.
2. Observe test pressure for 1-hour.
3. Mathematically correct pressure drop for temperature change.
4. Temperature corrected pressure drop over 1-hour period should not exceed 1%.
5. If retest is necessary, allow pressure to relax to 0 psig for a minimum of 8 hours prior to retest.

M. Test Failure

1. If retest is necessary, allow pressure to relax to 0 psig for at least 8 hours prior to retest.
2. Perform the following when pipe segment fails test.
 - a. Check entire length of pipe and fusion welds for cracks, pinholes, perforations or other possible leakage points.
 - b. Check blocked risers and capped ends for leakage and check gaskets at blind flanges or end caps.
 - c. Verify leaks by applying a soapy water solution and observe for bubble formation.
3. Repair pipe and fused joint leaks by cutting out leak areas and refusing suitable segments.
4. After the leaks are repaired, retest the pipe after the 8 hour relaxation period.

N. Each test shall be reported in writing.

O. Include following information if failure occurs:

1. Location of failure segment.
2. Nature of leaks.
3. Details of repairs performed.
4. Retest results.

3.9 Excavation, Cutting, Capping and Abandonment of Existing LFG Facilities

Contractor shall cut well risers two feet below grade and cap the riser (fusion weld of cap fittings). Backfill over the capped riser with compacted clay bearing soil.

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Contractor shall cut and cap 2" condensate and 1 ½-inch air supply lines (fusion welding of cap fittings)

Contractor shall remove and dispose of condensate sumps/backfilling with compacted clay bearing soil, or if the sump is too deep, the alternate method of abandonment of cutting and capping the sump three feet below grade then backfill over the capped sump with compacted clay bearing soil.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Excavation, Cutting, Capping and Abandonment of Existing LFG Facilities

All costs for the excavation, cutting, capping (fusion welding and fitting included) and abandonment of all existing LFG system components and installation of temporary/permanent gas system components as shown on the drawings 17 through 23 including, but not limited to:

- Excavation, removal, transport and disposal of refuse materials to the Miramar Landfill approved disposal site.
- Cutting of well risers two feet below grade and capping the riser (fusion welding of cap fittings). Then backfill over the capped riser with compacted clay bearing soil.
- Cutting and capping of 2" condensate and 1 ½-inch air supply lines (fusion welding of cap fittings)

4.2 HDPE Fittings

All costs for HDPE fittings shall be Included in the unit price for each diameter of LFG System Pipe. No separate payment shall be made.

4.3 Installation of LFG System

The Contractor will be paid based on the Bid Item unit prices identified below and presented on the bid schedule. All prices shall include full compensation for all labor, material, testing, and equipment, required to complete the installation in accordance with the drawings, these specifications, and the design intent of the project. All Trenching, HDPE pipe and fittings, fusion welding, metallic locator tape above pipe, backfill and compaction, HDPE Pipe fittings such as tees, saddle tees, transitions, reducing fittings elbows, bends, couplings, caps, potholing of LFG System piping at crossings, connections, and other locations as necessary to determine if an adjustment in the pipe grade, gradient or location, sump elevations, etc., as necessary for a complete installation shall be considered as included in the unit price for each pipe diameter and will not be paid for separately.

LFG Pipe Support across V-Ditch (per Detail 2/23) The contract unit price per each LFG Pipe Support across V-Ditch includes cost for installation of all new materials for the pipe support, including pipe clamp, and bolting hardware, concrete footings and in-fill, complete and in place. Final payment will be based on the number of LFG Pipe Support across V-Ditch.

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8-Inch HDPE LFG Header (per Detail 5/22) – Shall be paid based on Unit Price per Linear foot of pipe installed.

6-Inch HDPE LFG Sub-Header (per Detail 5/22) – Shall be paid based on Unit Price per Linear foot of pipe installed.

4-Inch HDPE LFG Lateral (per Detail 5/22) – Shall be paid based on Unit Price per Linear foot of pipe installed.

2-Inch HDPE LFG Condensate Line (per Detail 5/22) – Shall be paid based on Unit Price per Linear foot of pipe installed.

1-1/2-Inch HDPE Air Supply Line (per Detail 5/22) – Shall be paid based on Unit Price per Linear foot of pipe installed.

LFG Control Vault and Bollards (per Detail 3/23) The contract unit price per each LFG Control Vault and Bollards includes cost for installation of all new materials for completion of the LFG Control Vault in accordance with the Detail per contract drawings. Final payment will be based on the number of LFG Control Vaults installed.

On Grade LFG Pipe Support (per Detail 6/22) – The contract unit price per each LFG On-Grade Pipe Support includes cost for installation of all new materials for the LFG On-Grade Pipe Support, complete and in place. Final payment will be based on the number of LFG On-Grade Pipe Supports installed.

Adjust and Connect Existing Well Head to New Header, Sub-Header, or Lateral (per Detail 1/G3 and 3/23) – Shall be paid based on the Unit Price per each Well Head to New Header, Sub-Header, or Lateral installed.

LFG Piping Connection to Flare Station (per Detail 1/23) – Shall be paid per each LFG Piping Connection to Flare Station made.

END OF SECTION

SECTION 02670 LFG WELLS

PART 1 -GENERAL

- A. Work Included: This section covers the furnishing of all labor, drilling, materials and equipment necessary to install the landfill gas extraction wells, and the condensate traps as detailed on the drawings, and as described in these specifications. .
- B. General: Like items of materials provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance, maintenance, and replacement.

See PART 1, GENERAL PROVISIONS, which contains information and requirements that apply to the work specified herein and are mandatory for this project.

- C. Submittals During Construction: Submittals during construction shall be made in accordance with Section 01300 SUBMITTALS. In addition, the following specific information shall be provided:

Shop Drawings: Submit shop drawings and installation drawings for the Engineer's review prior to fabrication and delivery. These drawings shall provide detailed information and specifications for all materials, finishes, dimensions, and erection instructions.

Manufacturer's Literature: Provide manufacturers literature and specification sheets for well casings, piping & fittings, bentonite clays, crushed gravel, vault boxes, flexible hose and clamps, and all other materials furnished and installed for wells.

- D. Permits: The Contractor shall apply and pay for all permits required by work under this Section. Specific attention is called to those requirements of the San Diego County Department of Environmental and the San Diego County Air Pollution Control District.

Inspections: All work shall be regularly inspected and Certificates of Approval shall be delivered to the Engineer. Contractor shall arrange for all required inspections. No work shall be covered up before inspection and approval by the Engineer.

- E. Condensate Traps: A condensate trap shall be considered a type of well and where reference is made to "well(s)" in this section such reference shall also apply to condensate traps.

- F. Layout and Stationing: The City will provide several control points on the construction site which will be identified by north and east coordinates and elevation. The Contractor shall use them to lay out the work. The Contractor shall be responsible for all measurements that may be required for execution of the work to the location and limit marks prescribed in the specifications or on the drawings, subject to such modifications as the Engineer may require to meet changed conditions or as a result of necessary modifications to the work. The routing of the pipes shown on the drawings may be changed by the Engineer, based on field conditions. Any changes must be approved by the Engineer. The Contractor shall provide, in an electronic format, the coordinates and elevations of the top of casing of completed wells.

SECTION 02670 LFG WELLS

PART 2 - MATERIALS

2.1 LANDFILL GAS EXTRACTION WELLS

- A. **Extraction Wells (General):** The landfill gas extraction wells shall consist of furnishing and installing 4" Schedule 80 PVC pipe and fittings, bentonite plug and concrete plug, gravel, well bore seals, vaults, and perforated pipe sections, all in accordance with details indicated on the drawings and as specified herein.
- B. **Drilling:** The hole drilled for the extraction well shall be a minimum of 24" in diameter. The approximate depth of the refuse is indicated on the drawings in the Extraction Well Schedule as the "Proposed Depth" of the extraction well. It is the intent of these specifications that the extraction well be constructed to the depth of refuse, but NOT be drilled deeper than the refuse. If undisturbed native soil is encountered before reaching the depth for the well indicated on the drawings, the Contractor shall cease drilling and fill the lower portion of the well penetrating native soil with a cement-slurry mixture. If undisturbed native soil is NOT encountered at the depth for the well indicated on the drawings, the Contractor shall continue drilling until undisturbed native soil is encountered. Any portion of the well penetrating native soil shall be filled with a cement-slurry mixture. The well shall then be constructed to this depth, all events recorded in the boring log, and AS-BUILTS properly marked.
- C. **Pipe and Fittings:** The 4-inch PVC pipe and fittings used in the well shall conform to all applicable requirements for landfill gas piping as detailed in Section 2610 of these specifications. Joints shall be solvent-fused.
- The perforated portion/screened interval of the well shall be one half of the depth of refuse, exclusive of the cover depth. Adjustments to the screened interval may be necessary to suite field conditions. Adjustments shall be made at the discretion of the Engineer.
- The screened interval shall be perforated at 6 inches on center with 4 – 3/4" holes at 90 degrees with rows staggered by 45 degrees.
- D. **Bentonite:** The bentonite material shall be Volclay Bentonite with one hundred percent (100%) passing a No. 3 sieve and ten percent (10%) passing a No. 8 sieve as produced by the American Colloid Company or equal. The bentonite and soil mixture seal shall be placed at the designated locations along the well pipe and shall be prepared with five pounds of bentonite per cubic foot of soil. The soil material shall not contain rocks greater than one and one-half inch (1-1/2") in any dimension. The soil shall be approved by the Engineer. Immediately prior to placement, the mixture shall be wetted to a thick mud consistency.
- E. **Concrete:** The concrete for the concrete plugs shall have a minimum cement content of three and one-half (3½) sacks per cubic yard.
- F. **Gravel:** The gravel fill around the perforated pipe shall be clean, washed stone or crushed rock, minimum size one inch (1"), maximum size three inches (3").

SECTION 02670 LFG WELLS

- G. **Bore Hole and Pipe:** The bore for the well shall be straight and the well shall be installed in the center of the bore. The well pipe shall be maintained vertically plumbed during the backfill of the bore hole.
- H. **Well Heads:** The landfill gas well heads shall consist of furnishing and installing two inch (2") SCH 80 PVC pipe with valves, flanges, orifice plates, (1/4") quick disconnect fittings and accessories in accordance with details indicated on the drawings and specified herein. Landfill gas well heads shall be Landtec 2" ACCU Flow or equivalent.
- I. **Well Bore Seal:** A ten-foot by ten-foot (10' x 10') impermeable Well Bore Seal (WBS) membrane shall be installed on all gas extraction wells as indicated on the drawings and as specified herein. The WBS shall be sealed and mounted on the extraction well casing with a stainless steel worm mounting clamp. The mounting boot on the well bore seal shall be installed in a collapsed position to accommodate landfill settlement. Whenever scheduling permits, Contractor shall allow time for the newly constructed extraction wells to consolidate and settle before installing the well bore seal. The Well Bore Seal and mounting boot shall be a continuous membrane (greater than or equal to 30 mm in thickness). A minimum of 15" of compacted native soil shall be placed over the Well Bore Seal. The WBS shall be Shaw, LFG Specialties, LCC. Welgard Membrane Well Seal or equivalent.

2.2 CONDENSATE TRAPS

- A. **Condensate Traps (General):** The condensate traps shall consist of furnishing and installing PE pipe and fittings, valves, quick air connects, hoses, clamps, pumps, PE sump tank, sand cement slurry, gravel, and vaults all in accordance with details indicated on the drawings and as specified herein.
- B. **Casing and Pump:** The casing (sump tank) shall be 12" diameter PE pipe, 12' in length. The sump and vault shall be Real Environmental Products, Auto Sump Series 7000 or equivalent. The pump shall be QED Environmental Systems, Inc. short AP-4 pump or approved equivalent. The Contractor shall provide all fittings necessary to make connections at no additional expense to the City.
- C. **Casing Installation:** The hole drilled for the condensate trap shall be a minimum of 30 inches in diameter. The depth of the trap will vary depending on the depth of the connections to the condensate and compressed air lines and as indicated on the drawings.

The hole shall be straight and the twelve-inch (12") casing pipe shall be installed in the center of hole. The Contractor shall take all necessary precautions to maintain the pipe vertically plumbed during the backfill operation of the hole.

The gravel backfill around the condensate sump shall be clean, washed stone or rock, minimum size three-quarter inch (3/4"); maximum size one and one-half inches (1-1/2").
- D. **Condensate and Compressed Air Lines:** HPDE condensate lines and compressed air lines, reference Section 02610 Landfill Gas Piping for pipe specifications.

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- E. **HDPE Transition to 316 Stainless Steel:** Transition shall be item CPE3408TFF as supplied by Ferguson Enterprises, Inc. or approved equivalent.
- F. **Ball Valves:** Ball valves for compressed air and condensate lines shall be stainless steel with threaded ends and teflon seats. The body shall be one-piece stainless steel conforming to ASTM A 351 type CF8M. The ball and stem shall be 316 stainless steel. The handle nut and handle shall be 304 stainless steel.
- Ball valves shall be NIBCO (T-560-S6-R-66-LL) or equivalent.
- Hose barbs connecting to ball valves shall be 316 stainless steel.
- G. **Check Valves:** Check valves shall be ball check valves. The ball check valve shall have union connections for easy dis-assembly for cleaning and maintenance. The ball shall require less than a one-half (1/2) pound of line pressure to open it. The check valve shall be made from polypro material with EPDM seals. The check valve shall have 3/4" threaded fittings.
- Check valves shall be installed in the vault, inline (in the hose) between the condensate ball valve and the sump lid using 3/4" schedule 80 PVC hose barbs.
- Check valves shall be Hayward Flow Control, True Union Ball Check Valves, TC10075ST (E) or equivalent.
- H. **Sump Lid Connections:** Connection of the supply and discharge lines to the sump lid will consist of polypropylene cam and grove fittings and 316 stainless steel quick-connects on both sides of the sump lid as indicated in the drawings.
- Quick connects shall be Swagelok or approved equivalent
- I. **Hoses:** Hoses for air supply, air discharge and condensate return lines shall be premium quality, multi-purpose industrial hose with synthetic rubber tube and cover, RMA Class A, reinforced with braided synthetic yarn. Hose shall be rated at 500 psi maximum working pressure and be nonconductive.
- J. **Reinforced Plastic Mortar (RPM) Vaults for Condensate Trap Assemblies:** The vault lid for the condensate trap shall be permanently marked "Condensate Trap."
1. **Vault Materials:** Condensate trap assembly vaults shall be constructed of fiberglass reinforced plastic. The wall thickness of the vault shall be not less than one-quarter (1/4") inch. The vault lid shall be constructed of polymer concrete.

The vault shall be assembly part number A6001640TAPCX24 with solid bottom, as manufactured by Armorcast Products Co., North Hollywood, CA, or approved equivalent.

 2. **Vault Dimensions:** The inside clear dimensions for the vault shall be not less than

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17"W X 30"L X 22"D, and sufficient to house, maintain, and access the condensate trap components.

3. Vault Design: The vault and lid and floor assembly shall be designed to withstand 20,000 lb. wheel loading. Submit manufacturer's strength test reports and vault lid traffic loading calculations.
4. Vault Lid: The polymer concrete cover for the vault shall be in one (1) section. The vault lid for the condensate trap shall be permanently marked "Condensate Trap."

- K. **Vault Box Penetrations:** Vault box penetrations for air supply and condensate return lines shall be made with an appropriate size hole saw or drill bit. Penetrations shall be sealed with a rubber grommet.

Grommet shall be Western Rubber & Supply, Inc. - MR 200-0624 or approved equivalent.

PART 3 - CONSTRUCTION METHODS

- A. Drilling: Well bore-hole diameters depicted on the drawings are minimum diameters necessary to construct wells. It is the Contractor's responsibility to select drilling methods or oversize augers to facilitate the work. Additional well construction costs due to the oversize bore holes or selected drilling methods, are the Contractor's responsibility and shall be included in his bid price. Drilling methods used shall not introduce contaminants into the bore hole.

The Contractor shall stake the locations of LFG extraction wells in the field for the approval of the Engineer. LFG extraction well locations shall be within ± 1 foot horizontally and vertically. The elevation of the existing ground surface shall also be provided to the Engineer at each LFG extraction well location.

The hole drilled for each well shall be a minimum of 24 inches in diameter. The depth of the wells shall be as shown on the Construction Drawings, and shall not penetrate the bottom of the landfill. If undisturbed native soil is encountered before reaching the depth for the well indicated on the drawings, the Contractor shall cease drilling and fill the lower portion of the well penetrating native soil with a cement-slurry mixture. If undisturbed native soil is NOT encountered at the depth for the well indicated on the drawings, the Contractor shall continue drilling until undisturbed native soil is encountered. Any portion of the well penetrating native soil shall be filled with a cement-slurry mixture. The well shall then be constructed to this depth, all events recorded in the boring log, and AS-BUILTS properly marked.

The bore for the well shall be plumb, and the well pipes shall be centered in the bore. The Contractor shall take all necessary precautions to maintain the well pipes vertically plumbed during backfilling of the bore.

The excavation, backfill, and disposal of excavated material related to the construction of LFG extraction wells shall conform to all applicable requirements of these Specifications.

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If, during the drilling of a borehole, contact with an obstruction is made such that the extraction well cannot be completed to the full depth as called for on the Construction Drawings, the Landfill Gas Engineer shall be consulted as to whether the borehole has advanced to a sufficient depth. If, in the opinion of the Landfill Gas Engineer, the borehole has reached a sufficient depth, the Contractor shall be required to complete the extraction well, and he shall be compensated based on the depth actually reached.

If, during the drilling of a borehole, contact with an obstruction is made such that the extraction well cannot be completed to the full depth as called for on the Construction Drawings, the Landfill Gas Engineer shall be consulted as to whether the borehole has advanced to a sufficient depth. If, in the opinion of the Engineer, the borehole has not reached a sufficient depth to function as an effective extraction well as a result of an in-place obstruction in the landfill, the Contractor shall abandon this borehole by backfilling it with soil. The backfill material shall be placed in the borehole in three-foot lifts and tamped by the drill rig auger bucket. The Contractor is responsible for repairing the landfill soil cap per the Construction Drawings and Specifications. The Contractor shall be compensated for this work as listed in the bid schedule (drilling only).

If, during the drilling of a borehole, the extraction well cannot be completed to the full depth as called for on the Construction Drawings, the Landfill Gas Engineer shall be consulted as to whether the borehole has advanced to a sufficient depth. If, in the opinion of the Engineer, the borehole has not reached a sufficient depth to function as an effective collection well due to the fault of the driller, the Contractor shall abandon this borehole by backfilling it with soil. The backfill material shall be placed in the borehole in three-foot lifts and tamped by the drill rig auger bucket. The Contractor is responsible for repairing the landfill soil cap per the Construction Drawings and Specifications at no cost to the City. The Contractor shall not be compensated for this work as specified in the bid proposal.

Bentonite seals shall be placed at the designated location in the well bore and shall be prepared by placing the chips in the borehole dry, then hydrating the bentonite by placing water in the borehole to approximately one foot above the top of chips.

The completed well shall be extended above grade and temporarily capped until the lateral piping is installed.

The Contractor shall connect the gas extraction well to the gas header pipe according to the Construction Drawings and shall include all pipe, valves, and fittings.

The Contractor shall maintain as-built drawings during the well boring and installation and record any deviations from the Drawings or Specifications such as boring depth and length of well casing perforations. The Contractor shall be responsible for complying with all As-Built requirements as specified.

Contractor shall utilize an APCD-compliant drilling box for odor control during drilling.

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- B. Earthwork: Earthwork shall include all necessary surveying, grubbing, excavating, backfilling, compacting, and disposal of excess excavated material required for the complete installation of the wells. The Contractor shall furnish all services, labor, materials, and equipment in connection with all earthwork necessary for the construction of the described wells.

In environmentally sensitive areas, clearing, grubbing, excavating, and access roads are to be kept to a minimum in order to provide for the least amount of disturbance to the work areas. No drilling and construction work shall commence until the Engineer's approval of access roads, layout, and methods of work. Extra costs for work in environmentally sensitive areas shall be borne by the Contractor and shall be included in his bid.

- C. Well Locations: Wells shall be installed at the locations shown on the drawings. Well locations shall be staked in the field by a licensed land surveyor, and shall be approved by the Engineer.

The well locations shown on the drawings may be changed by the Engineer based on field conditions if the new location is within a 10-foot radius of the location specified in the plans. Any changes must be approved by the Engineer.

- D. Clearing and Grubbing: Areas where construction is to be performed shall be cleared of all trees, shrubs, rubbish, etc., which may interfere with the work at the review and approval of the Engineer. Material and brush, if any, shall be disposed of off-site in a legal manner. Clearing and grubbing shall be minimized in sensitive areas, and at the approval of the Engineer.

- E. Excavation: Excavation for well casings shall consist of boreholes drilled to the depth necessary for the proper installation of wells, as shown on the Drawings. Excavated material containing refuse shall be disposed of off-site at the Miramar Landfill. There will be no disposal fees charged for disposal of existing landfill waste generated from either Landfill Gas Well or Condensate Trap installation.

- F. Boring Logs: Contractor shall maintain a complete boring log of each well drilled. Such log shall include date and time of boring, materials encountered and at what depth, any unusual conditions encountered, total depth of well, names of those persons observing and recording this information. All well logs shall be turned over to the Engineer immediately after drilling for each well completed.

- G. Construction Quality: If the Contractor, due to inadequate methods of construction or equipment, installs a well that is not functional or is not in accordance with the specifications, the Engineer will reject the well and direct the Contractor to repair or replace it, at no additional cost to the City. Any well that has been rejected by the Engineer or abandoned by the Contractor shall be completely filled with grout by the Contractor, at no additional cost to the City.

- H. Vaults: Installation of vaults shall be as shown on the drawings and as detailed in these specifications-reference section 02220-EARTHWORK.

Vaults shall be clearly marked by traffic cones or warning flashers until installation of vault is complete.

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Vaults in vehicular traffic areas shall be set and completed in as short a time as is practical in order to minimize disruption to traffic and possible damage to vault.

Contractor shall protect the work. Vaults damaged before final acceptance of the work by City shall be repaired or replaced by Contractor at no extra cost to the City.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 Condensate Trap (per Detail No. 1/22)** – Shall be paid based on the Unit Price per each condensate trap installed.
- 4.2 Remote Well Head in LFG Control Vault – (per Detail 3/23) – Bid Item No. 38** - Shall be paid based on the Unit Price per each remote well head installed.
- 4.3 LFG Well Drilling, Installation, Well Head Assembly and Connection to Header or Sub-header or lateral (per Details 2/22 and 4/22)**

All drilling, pipe and fittings, waste haul, bentonite, concrete, gravel, borehole piping, well heads, well bore seals, earthwork, excavation, boring logs, vaults and lids as required for a complete installation of LFG Well, well head, and connection to header or sub-header, or lateral shall be considered as included in the Unit Price per vertical foot of drilling.

Final pay quantities shall be determined by total vertical depth drilled based on the boring logs.

END OF SECTION

SECTION 02831 - CHAIN LINK FENCES AND GATES

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall reinstall existing chain link fencing, or new fencing , gates and appurtenances, complete and operable, in accordance with the Contract Documents.

1.2 RELATED SECTIONS

- A. The Work of the following Section applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Section 03310 - Cast-in-Place Site Work Concrete

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. The Work of this Section shall comply with the current edition of the Uniform Building Code as adopted by the City of San Diego.
- B. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC) together with the latest adopted editions of the Regional and City of San Diego Supplement Amendments.
- C. Except as otherwise indicated, the current editions of the following apply to the Work of this Section:
 - 1. ASTM A 90 Test Method for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles
 - 2. ASTM A 392 Specification for Zinc-Coated Steel Chain-Link Fence Fabric

1.4 CONTRACTOR SUBMITTALS

- A. The following shall be submitted in compliance with Section 01300 - Submittals before fabrication and construction.
 - 1. Manufacturer's product information including catalog cuts indicating materials.
 - 2. The layout of the chain link fence and gates indicating fence height, post sizes, bracing configurations, corner construction, and accessories.

SECTION 02831 - CHAIN LINK FENCES AND GATES

PART 2 -- PRODUCTS

2.1 GENERAL

- A. General: Materials for chain link fencing, gates and appurtenances shall conform to the requirements of SSPWC Subsection 206-6 and as indicated herein.

2.2 POSTS, RAILS AND BRACES

- A. Materials for posts, rails and braces shall be Class 1 complying with SSPWC Subsection 206-6.2.

2.3 WIRE FABRIC

- A. Chain link fabric shall be galvanized fabric conforming to SSPWC Subsection 206-6.3.1.

Fabric wire shall be 9 gauge before coating. Wire fabric shall be factory tested for weight of zinc coating in accordance with method specified in ASTM A 90.

- B. Barbed wire shall conform to the requirements of SSPWC Subsection 206-6.7.

2.4 FOOTINGS

- A. Concrete for post footings shall conform to SSPWC Subsection 201-1, Class 520-C-2500 concrete.

2.5 REINSTALLATION OF CHAIN LINK FENCE ON TOP OF K-RAIL

- A. Position salvaged K-Rail at location per plan; install salvaged fence posts and Rails on K-Rail; Reinstall Chain Link Mesh on Posts, at location per plan.

PART 3 -- EXECUTION

3.1 INSTALLATION OF FENCING

- A. Installation of chain link fencing shall conform with SSPWC Subsection 304-3, and as indicated below.
- B. All earth, brush, or other obstructions which interfere with the proper alignment of construction of fences shall be removed.
- C. Line posts shall be spaced at not more than 10-foot intervals, measured from center to center of the posts and generally parallel to the ground slope. Posts shall be set plumb and shall be centered in concrete foundation.
- D. Gate post shall be provided with concrete foundation.
- E. Changes in the fence lines, where the horizontal angle is 15 degrees or more, shall be considered as corners and corner posts shall be installed.

SECTION 02831 - CHAIN LINK FENCES AND GATES

- F. Corner, end, and gate posts shall be braced to the nearest line post. Corner and end posts shall be diagonally braced. Bracing for gate posts shall be horizontal braces with truss rods. Line posts shall be braced horizontally and trussed in both directions with truss rods at 1000 feet maximum intervals.
- G. Top rails shall be in lengths not less than 10 feet and shall be fitted with couplings for connecting lengths into continuous runs. Couplings shall be not less than 6 inches long and allow for expansion and contraction of the rail.
- H. Chain link fabric shall be taut and shall be attached to posts, stretcher bars, rails, and wires with galvanized fabric bands or tie wires at a maximum spacing of 12 inches on posts and 18 inches on the rails and tension wires. The tension wires shall be stretched tight with turnbuckles at the end and corner posts. The bottom tension wire shall be installed on a straight grade between posts.
- I. The fabric shall be fastened to the end, corner, and gate posts with stretcher bars and stretcher bar bands spaced at approximately 12 inches.
- J. Paragraphs H and I above shall apply to use of salvaged chain link mesh. All posts, stretcher bars, and stretcher bar bands, rails, and tension wires shall be all new material for installation of the salvaged chain link mesh.

3.2 GATES

- A. Installation of gates shall conform with SSPWC Subsection 304-3.3 and as indicated below.
- B. Gate frames shall be fabricated with welded joints or rigid connectors. The fabric shall be the same as that used for the fence and shall be rigidly attached to the frames. Frames shall be suitably braced and trussed. Gates shall be equipped with suitable offset hinges to permit a 180 degree swing and a drop bar locking device with provision for padlocking. A stop to hold the gate open and a center rest with catch shall be provided.

3.3 CONCRETE FOOTINGS

- A. Encasement concrete for footings shall be placed in accordance with Section 03310 - Cast-in-Place Site Work Concrete. Concrete for footings may be placed without forms, providing the ground is firm enough to permit excavation to neat line dimensions. Before placing the concrete, the earth around the hole shall be thoroughly moistened. The concrete shall completely fill the hole and top surfaces of the concrete encasement shall be sloped outward to shed water and shall have a neat appearance. Fence fabric shall not be fastened to the post until a minimum period of 7 days has elapsed after the placement of concrete footing.

SECTION 02831 - CHAIN LINK FENCES AND GATES

PART 4 - MEASUREMENT AND PAYMENT

4.1 Re-install K-Rail, Fence Posts, and Fence

All transport and positioning of K-rail, reinstallation of fence posts, fence rails, fencing materials, existing mesh, posts, and other appurtenances as required shall be considered as included in the Contractor's unit price per linear foot of installed fence.

Final pay shall be determined from field verification of the total linear feet of Re-installed K-rail and Chain Link Fence installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.2 Chain Link Fence (New) (H=6') per SDRSD SDM-112

All clearing, excavation for fence posts, fencing materials, new mesh, posts, concrete footings, and other appurtenances as required shall be considered as included in the Contractor's unit price per linear foot of installed fence.

Final pay shall be determined from field verification of the total linear feet of Chain Link Fence (H=6') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.3 Chain Link Fence (New) (H=8') With Barbed Wire Top per SDRSD SDM-112

All clearing, excavation for fence posts, fencing materials, new mesh, barbed wire, posts, concrete footings, and other appurtenances as required shall be considered as included in the Contractor's unit price per linear foot of installed fence.

Final pay shall be determined from field verification of the total linear feet of Chain Link Fence (H=8') with Barbed Wire top installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.4 Chain Link Fence (Salvaged Mesh on New Posts) (H=6') per SDRSD SDM-112

All clearing, excavation for fence posts, fencing materials, salvaged mesh, posts, concrete footings, and other appurtenances as required shall be considered as included in the Contractor's unit price per linear foot of installed fence.

Final pay shall be determined from field verification of the total linear feet of Chain Link Fence (Salvaged Mesh on New Posts) (H=6') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

SECTION 02831 - CHAIN LINK FENCES AND GATES

4.5 Chain Link Gate (W=12', H=6') Per SDRSD SDM-112

All clearing, excavation for hinge posts, fencing materials, posts, hinges, and other appurtenances as required shall be considered as included in the Contractor's unit price for each gate installed.

Final pay shall be determined from field verification of the installation of Chain Link Gate (W=12', H=6') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.6 Chain Link Gate per SDRSD SDM-114 (W=20', H=6')

All clearing, excavation for hinge posts, fencing materials, posts, hinges, and other appurtenances as required shall be considered as included in the Contractor's unit price for each gate installed.

Final pay shall be determined from field verification of the installation of Chain Link Gate (W=20', H=6') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.7 Chain Link Gate per SDRSD SDM-114 (W=30', H=6')

All clearing, excavation for hinge posts, fencing materials, posts, hinges, and other appurtenances as required shall be considered as included in the Contractor's unit price for each gate installed.

Final pay shall be determined from field verification of the installation of Chain Link Gate (W=30', H=6') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.8 Chain Link Gate per SDRSD SDM-114 (W=20', H=8')

All clearing, excavation for hinge posts, fencing materials, posts, hinges, and other appurtenances as required shall be considered as included in the Contractor's unit price for each gate installed.

Final pay shall be determined from field verification of the installation of Chain Link Gate (W=20', H=8') installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

END OF SECTION

SECTION 03310 - CAST-IN-PLACE SITEWORK CONCRETE

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The Work of this Section includes providing finished cast-in-place concrete, sitework concrete, minor non-hydraulic concrete structures, air placed concrete, including formwork, steel reinforcement, mixing, placing curing, and repairing.
- B. Sitework concrete includes curbs, gutters, catch basins, sidewalks, pavements, fence and guard post embedment, underground duct bank encasement, and all concrete Work indicated to be sitework concrete.

1.2 RELATED SECTIONS

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Section 03280 Joints in Sitework Concrete

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC) together with the latest adopted editions of the Regional and City of San Diego Supplement Amendments.
- B. The Referenced Specifications, Codes and Standards as listed on Sheets S1 and S2, and pursuant to the Structural Steel Calculations.

1.4 CONTRACTOR SUBMITTALS

- A. Submittals shall be made in compliance with the requirements of Section 01300 - Submittals and in compliance with SSPWC Section 201.

1.5 TESTS

- A. Tests on component materials, for the compressive strength of concrete, and for construction tolerances shall be performed in accordance with the requirements of SSPWC Section 201.

PART 2 -- PRODUCTS

2.1 CONCRETE MATERIALS

- A. Concrete component materials, including curing materials and joint materials shall be in accordance with SSPWC Subsections 201-1, 201-4, and 201-5.

2.2 FORMWORK

- A. Concrete formwork shall comply with SSPWC Subsection 204-1.

SECTION 03310 - CAST-IN-PLACE SITEWORK CONCRETE

2.3 STEEL REINFORCEMENT

- A. Reinforcing steel shall conform to SSPWC Subsection 201-2.

PART 3 -- EXECUTION

3.1 GENERAL

- A. Proportioning and mixing, preparation of surfaces for concreting, handling, transporting and placing concrete, finishing and curing concrete surfaces and related procedures shall be performed in accordance with SSPWC Subsections 303-1 and 303-5.

3.2 AIR-PLACED CONCRETE

- A. Air-placed concrete construction (gunite and shotcrete) shall be in accordance with SSPWC Subsection 303-2 and the applicable provisions of Subsection 303-1.

PART 4 – MEASUREMENT AND PAYMENT

4.1 6-Inch Concrete Pavement (per Detail 4/14)

All layout, excavation, grading, concrete, curing compound, reinforcing steel, construction, control and expansion/contraction Joints and Joint sealant as required for installation of Concrete Pavement, and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's unit price per square foot of 6-Inch Concrete Pavement.

Final pay quantities shall be determined by the actual square footage of Reinforced Concrete installed. Quantities exceeding beyond the limits indicated on the Drawings will not be compensated, unless the additional work was authorized by the Engineer prior to the work being performed.

4.2 Longitudinal Concrete Gutter (Per Detail 6/14)

All layout, excavation, grading, concrete, reinforcing steel, and curing compound as required for installation of Longitudinal Concrete Gutter per Detail 6 on Sheet 14, and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's unit price per linear foot for Longitudinal Concrete Gutter.

Final pay quantities shall be determined by the actual linear footage of Longitudinal Concrete Gutter installed. Quantities exceeding beyond the limits indicated on the Drawings will not be compensated, unless the additional work was authorized by the Engineer prior to the work being performed.

4.3 Concrete Curb and Gutter per SDRSD SDG-151

All layout, excavation, grading, concrete, installation of concrete curb and gutter per SDRSD SDG-151, curing compound and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's unit price per linear foot of variable height concrete curb.

SECTION 03310 - CAST-IN-PLACE SITEWORK CONCRETE

Final pay quantities shall be determined by the actual linear footage of concrete curb and gutter per SDRSD SDG-151 installed. Quantities exceeding beyond the limits indicated on the Drawings will not be compensated, unless the additional work was authorized by the Engineer prior to the work being performed.

4.4 Northwest Concrete Drainage BMP per Detail 1/16

All layout, excavation, grading, concrete, reinforcing steel, curing compound, 18-inch deep cut-off wall, construction, control and expansion/contraction Joints and Joint sealant as required for installation of Concrete Pavement and/or all other operations, equipment, or materials incidental to completing the work for installation of the Northwest Concrete Drainage BMP represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price for installation of Concrete Drainage BMP. Final pay quantities shall be determined by verification that the item has been installed.

4.5 Southwest Concrete Drainage BMP per Detail 3/16

All layout, excavation, grading, concrete, reinforcing steel, headwall, filter medium, gravel pack, 1/4" mesh screen, 6-inch HDPE Pipe through headwall, 8-foot chain link fence with barbed wire per

SDRSD SDM-112, curing compound, construction, control and expansion/contraction Joints and Joint sealant as required for installation of Concrete Pavement and/or all other operations, equipment, or materials incidental to completing the work for installation of the Concrete Drainage BMP represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price for installation of Concrete Drainage BMP. Final pay quantities shall be determined by verification that the item has been installed.

4.6 Concrete Material Bins per Sheets S1, S2, AND S3

All layout, excavation, grading, concrete, reinforcing steel, forms and forming, installation of Reinforced Concrete, control and expansion/contraction Joints and Joint sealant as required for installation, and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's lump sum price for a complete installation of Concrete Material Bins.

Final pay quantities shall be determined by verification that the structure has been constructed in accordance to the construction drawings and these specifications.

4.7 Truck Exit Rumble Strip BMP per Detail 2/15

All layout, excavation, grading, concrete, reinforcing steel, installation of Reinforced Concrete Truck Exit Rumble Strip BMP, control and expansion/contraction Joints and Joint sealant as required for installation, and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price for Reinforced Concrete Truck Exit Rumble Strip BMP.

Final pay quantities shall be determined by verification that the Reinforced Concrete Truck Exit Rumble Strip BMP has been installed.

SECTION 03310 - CAST-IN-PLACE SITEWORK CONCRETE

4.8 Concrete Light Pole Base/Footing - Item No. 49

All layout, excavation, grading, concrete, reinforcing steel, installation of Reinforced Concrete Light Pole Base, and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's unit price per each Concrete Light Pole Base installed.

Final pay quantities shall be determined by the actual number of Concrete Light Pole Bases installed.

END OF SECTION

SECTION 05120 - STRUCTURAL STEEL

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall provide structural steel members (beams, columns, bracings, galvanizing, and appurtenances), complete, in accordance with the Contract Documents.

1.2 RELATED SECTIONS

- A. The Work of the following Sections apply to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of the Work. See Contract Drawings for structural steel requirements, materials, fabrication requirements, and inspection requirements as identified by the Design Professional (requirements in addition to standard specifications and City Supplement).
- B. Related Work Specified in Other Sections.
 - 1. Steel supports, hangers, brackets and other miscellaneous items accessory to the mechanical and electrical installations, and indicated or detailed on the Drawings and in Divisions 15 and 16.

1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. The current edition of the Uniform Building Code (UBC) of International Conference of Building Officials (ICBO) as adopted by the City of San Diego Municipal Code.
- B. Commercial Standards (Current Edition):
 - 1. AISC M011 Manual of Steel Construction for Shop and Field Welding
 - 2. AISC S326 Design, Fabrication and Erection of Structural Steel for Buildings
 - 3. AWS-B3.0 Welding Procedures and Performance Qualifications
 - 4. AWS-D1.1 Structural Welding Code - Steel
 - 5. AWS-W1 Welding Metallurgy
- C. ASTM Standards in Building Code (Current Edition):
 - 1. ASTM A6 General Requirements for Rolled Steel Plates, Shapes, Sheet Piling, and Bars for Structural Use
 - 2. ASTM A36 Structural Steel
 - 3. ASTM A53 Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless, Grade B

SECTION 05120 - STRUCTURAL STEEL

4. ASTM A123 Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
5. ASTM A283 Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars
6. ASTM A325 High Strength Bolts for Structural Steel Joints
7. ASTM A490 Heat-Treated Structural Steel Bolts
8. ASTM A500 Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes

1.4 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall furnish submittals to the RESIDENT ENGINEER for review in accordance with Section 01300 - Submittals.
- B. Shop Drawings and Erection Drawings: The shop drawings shall provide a materials and specification list, construction and fabrication details, layout and erection diagrams, and the method of anchorage to adjacent construction. The shop drawings shall give the location, type, size and extent of welding and bolted connections, and clearly distinguish between shop and field connections. Before submittal of the shop drawings, the CONTRACTOR shall coordinate the shop drawings and related trades to ensure proper mating of assemblies. All work shall conform to the approved shop drawings.
- C. Test Reports: The CONTRACTOR shall furnish certified physical and chemical mill test reports for material used for structural members. All tests shall be performed in accordance with applicable ASTM Standards.
- D. Shop Painting Data: In coordination with the requirements of Section 09800 - Protective Coating, the CONTRACTOR shall submit a product list with product data sheets of intended shop coats, which for reasons of compatibility, shall be the same products and manufacturer as those of deferred field-applied systems intended to be used in work of Section 09900 - Architectural Paint Finishes.

1.5 DELIVERY

- A. The Fabricator shall deliver the fabricated material to the job site in the sequence as approved by the RESIDENT ENGINEER.
- B. All shipped material to be piece-marked for erection with metal tags or other appropriate method approved by the RESIDENT ENGINEER.
- C. All material shipments shall include sufficient bolts for erection, plus at least the following extra bolts:
 1. Add a minimum of 2% for high strength bolts.
 2. Add a minimum of 5% for unfinished bolts.

SECTION 05120 - STRUCTURAL STEEL

- D. RESIDENT ENGINEER reserves the right to inspect fabricated material at Fabricator's shop. RESIDENT ENGINEER's expenses for shop expenses will be borne by the City. In the event the RESIDENT ENGINEER identifies faulty materials or workmanship in fabricated material at the Fabricator's shop, the costs of additional inspections shall be borne by the CONTRACTOR. The RESIDENT ENGINEER shall be notified at least 7 days before the shipment of material. Shipments of material shall not be deleted if the RESIDENT ENGINEER does not require inspection.
- E. Material damaged in shipment shall be replaced or repaired at the CONTRACTOR's expense at no additional cost to the CITY.

1.6 QUALITY ASSURANCE

- A. The CONTRACTOR shall fabricate and erect structural steel work in accordance with the latest edition of AISC "Specification for the Design, Fabrication and Erection of Steel for Buildings", and "Code of Standard Practice for Steel Buildings and Bridges", except whenever there is a discrepancy between the Drawings and this Section, the Drawings will govern.
- B. Continuous Inspections:
 - 1. The CONTRACTOR shall perform all welding and high strength bolting of structural steel assemblies under continuous inspection of an ICBO-certified Special Inspector selected by the CITY with the costs borne by the OWNER. Should such fabrication be performed in the shop of a licensed Fabricator approved by the governing Building Official and certified by ICBO, only the field welding and high strength bolting of structural steel assemblies will be required to be performed under continuous inspection of the ICBO-certified Special Inspector.
 - 2. The CONTRACTOR shall notify the RESIDENT ENGINEER at least 24 hours in advance of the needed inspection.
 - 3. The CONTRACTOR shall provide copies of inspection reports to the RESIDENT ENGINEER.

1.7 WARRANTY

- A. The Fabricator shall furnish a warranty to the RESIDENT ENGINEER to replace or repair all defective material and workmanship within 18 months of shipment, or 12 months of plant startup, whichever occurs first, excluding defects due to normal usage.

PART 2 -- PRODUCTS

2.1 MATERIALS

- A. General. All materials shall be new, sound and conform to the requirements herein. Unless otherwise indicated, structural steel shall be galvanized.

SECTION 05120 - STRUCTURAL STEEL

- B. Structural Steel: Rolled shapes, plates and bars shall conform to the latest edition of the AISC "Manual of Steel Construction", and shall also conform to current ASTM Designation A36.
- C. Pipe: Pipe shall conform to ASTM A53, Grade B seamless galvanized as required, Schedule 40, except as otherwise shown on the Drawings.
- D. Tubes: Tubes shall conform to ASTM A500 Grade B.
- E. High Strength Structural Bolts: Bolts, nuts and washers shall conform to ASTM A325, unless otherwise noted on the Drawings.
- F. Welding Electrodes: The CONTRACTOR shall use steel electrodes conforming with AWS D1.1, except that E7024 rods or electrodes shall not be used.
- G. Galvanizing
 - 1. Iron and Steel. ASTM A123, with an average weight of 2.0 ounces per square foot, and not less than 1.8 ounces per square foot.
 - 2. Ferrous Metal Hardware Items. ASTM A153 with average weight of 1.3 ounces per square foot.
 - 3. Touch-up Material for Galvanized Coatings. The CONTRACTOR shall repair galvanized coatings marred or damaged during erection or fabrication by use of Drygalv, as manufactured by the American Solder and Flux Company, Galvalloy, Galvion, Rust-Oleum 7085 Cold Galvanizing Compound, or equal, applied in accordance with the manufacturer's instructions.
- H. Patch Coat for Galvanized Surfaces. The CONTRACTOR shall patch all galvanized surfaces which are scratched, marred, or otherwise damaged with Kop-Coat's Carbo Zinc 11, Drygalv" by American Solder and Flux Co., Ruse-Oleum 2185 Cold Galvanizing Compound, Glidden's Glid Zinc organic 5526/5527/5528, Mobil 13F1180, Sherwin-William's Zinc Clad I (Low VOC) B69AW9, Tnemec 90-97, or equal.

2.2 FABRICATION

- A. Fabrication shall be in accordance with AISC S326 and indicated requirements. All structural steel welding in off-site fabrication shops shall be continuously inspected by a City of San Diego Certified Special Inspector with the inspection cost of the Special Inspector to be borne by the CONTRACTOR. The continuous inspection will be waived if the work is done in a shop certified by the Council of American Building Officials (CABO), or listed by the International Conference of Building Officials (ICBO) Evaluation Services, Inc.

SECTION 05120 - STRUCTURAL STEEL

PART 3 -- EXECUTION

3.1 INSTALLATION

A. General

1. Structural assemblies and shop and field welding shall meet the requirements of AISC M011 and AISC S326.
2. Measurements and dimensions shall be verified at the site.
3. Bolt holes shall be 1/16 inch larger than the nominal size of bolts. Where thick metals are indicated, holes shall be sub-punched and drilled, or reamed.
4. Dissimilar metals shall be protected from galvanic corrosion by means of pressure tapes, coatings or isolators.
5. Bolts shall not be permitted to drift, and holes shall not be enlarged to correct misalignment. In the event of mismatching of holes, new materials shall be provided.
6. Structural steel completely encased in concrete shall not be galvanized or painted, and shall have a clean surface for bonding to concrete.
7. Damaged structural steel shall be replaced. Use of salvaged, reprocessed, or scrap materials shall not be permitted.

B. Welding: Welding shall be performed by operators who have been qualified by tests as prescribed by AWS-W1 Section 7, to perform the type of welding indicated. Welding shall comply with AWS Code for Arc Welding in Building Construction, Section 4, Workmanship. Electrodes shall be matching per AWS.

C. Galvanizing: All structural steel plates shapes, bars and fabricated assemblies required to be galvanized shall, after the steel has been thoroughly cleaned of rust and scale, be galvanized in accordance with the requirements of ASTM A123. Any galvanized part that becomes warped during the galvanizing operation, shall be straightened. Bolts, anchor bolts, nuts and similar threaded fasteners, after being properly cleaned, shall be galvanized in accordance with the requirements of ASTM A153. Field repairs to galvanizing shall be made using "Galvinox", "Galvo-Weld, or equal.

D. Painting: The CONTRACTOR shall give one or more shop coats of paint on all structural steel, except galvanized metals. Before priming, the CONTRACTOR shall thoroughly clean surfaces. The CONTRACTOR shall allow shop coats to dry before materials are loaded for delivery to the job site. After erection, the CONTRACTOR shall paint all areas where the shop coats have been rubbed off or omitted, and all field bolting and welding as specified for shop priming. The CONTRACTOR shall perform surface preparation, prime coatings, finish painting and coatings in accordance with Section 09800 - Protective Coating.

SECTION 05120 - STRUCTURAL STEEL

3.2 INSPECTION

- A. The OWNER reserves the right to inspect all materials and workmanship covered in this Specification. However, such inspection shall not relieve the CONTRACTOR of his responsibility to furnish materials and workmanship in accordance with the Contract requirements. If inspection indicates a weld or part of the material is defective, the CONTRACTOR shall remove and replace it at the CONTRACTOR's expense.
- B. Shop inspection may include, but not be limited to, the following:
 - 1. Verification of conformance of materials with this Specification and the Drawings. The limits of acceptability and repair of surface imperfections for structural steel shall be in accordance with ASTM A-6.
 - 2. Visual and dimensional inspection of shop-fabricated structural steel members and assemblies shall be in conformance with this Specification and the Drawings.
 - 3. Inspection of high strength bolted connections shall be in accordance with AISC "Specification for Structural Joints Using ASTM A-325 or A-490 Bolts".
 - 4. Verification of welding procedures, welding operations, and welder and tacker certificates of qualification shall be in accordance with this Specification and AWS D1.1.

PART 4 MEASUREMENT AND PAYMENT

4.1 Concrete Material Bin Steel Covers per Sheets S1, S2, AND S3 - Item No. 23

All layout, steel, fabrication and welding, and installation and/or all other operations, equipment, or materials incidental to completing the work as represented by the Drawings and Specifications shall be included in the Contractor's Lump Sum price for Concrete Material Bin Steel Covers.

Payment authorization shall be determined by verification that the Concrete Material Bin Steel Covers have been installed.

END OF SECTION

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Division, complete, as shown on the drawings and/or specified herein. The work includes, but is not limited to:
 - 1. Examine all divisions for related work required to be included as work under this Division.
 - 2. General provisions and requirements for electrical work. Division 1 and the General Conditions apply to all work of this section; Division 16 supplements the applicable requirements of other Divisions.

1.2 REFERENCE

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this and the other sections of Division 16.
- B. In addition, the products covered in this Section, except as noted, shall be designed, manufactured, and tested in accordance with the latest revisions of the applicable standards of:
 - 1. ANSI American National Standards Institute
 - 2. ASTM American Society for Testing and Materials
 - 3. IEEE Institute of Electrical and Electronics Engineers
 - 4. NEC National Electrical Code (NFPA 70)
 - 5. NEMA National Electrical Manufacturers Association
 - 6. NFPA National Fire Protection Association
 - 7. UL Underwriters Laboratories, Inc.

1.3 QUALITY ASSURANCE

- A. As a minimum Specification requirement, all materials and methods shall comply with applicable governing codes and regulations.
 - 1. Electrical equipment and materials, including their installation, shall conform as a minimum to the following latest applicable codes and standards:
 - a. National Electrical Code (NEC)
 - b. California State Fire Marshal
 - c. Occupational Safety and Health Act (OSHA)
 - d. Requirements of Serving Utility Companies
 - e. Local Codes and Ordinances
 - f. Requirements of the California Division of the State Architect (DSA)
 - g. California Administrative Code, Title 8, Chapter 4, Industrial Safety Orders
 - h. California Administrative Code, Title 24
 - i. Variances: In instances where two or more codes are at variance, the most restrictive requirement shall apply.

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

- B. Contractor's Expense: Obtain and pay for all required bonds, insurance, and licenses required for the electrical work.

1.4 SUBMITTALS

- A. General: In addition to complying with requirements of the General Provisions and applicable sections of Division 1 (including Section 1340), comply with all Sections of this Division, and provide submittals. The Material List and Product Data shall be submitted within 35 days of award of Contract; Shop Drawings shall be submitted within 35 days of award of Contract.
 - 1. Review of submittals by Owner is for general conformance with the design concept of the Project, and general compliance with the information given in the Contract Documents. Any action indicated is subject to the requirements of the plans and specifications. Contractors' responsibility includes, but is not limited to: coordination of work with all trades, as well as satisfactory performance of their work; physical dimensions which shall be correlated and confirmed at the job site; quantities; and fabrication and construction methods.
- B. Materials List and Product Data: Submit a complete list of materials proposed for the Project. Provide product data for items as required. For each item proposed, the Material List shall identify: item description, manufacturer's name and model/catalog numbers, with reference to applicable specification paragraph(s). Product data shall include catalog cuts and other descriptive literature defining type, ratings, size, and capacity.
- C. Shop Drawings: Submit shop drawings, packaged as associated equipment groups (for example, all switchgear, or all lighting fixtures and controls). Prior to submitting the shop drawings for review, the Contractor shall verify that the proposed equipment will fit in the location(s) indicated, and that the equipment as installed will comply with all code required electrical working clearance requirements. Submittals which are intended to be substitution items shall be specifically noted as such or the requirements of the Contract Documents will prevail regardless of the suitability of the proposed substitution item. Shop drawings shall include the following:
 - 1. Catalog cut sheets for component items.
 - 2. Installation instructions/instruction manuals.
 - 3. Dimensioned plans, elevations, and details.
 - 4. Schematic and wiring diagrams, including description of required operating sequences and testing/commissioning procedures.
 - 5. For all equipment with an installed weight of over 400 pounds, submit structural calculations and mounting details demonstrating compliance with Title 24 of the California Code of Regulations.
 - 6. Certified equipment inspection/test records, and warranty certificates.
- D. Operating and Maintenance Manuals: Submit six (6) sets of operating and maintenance manuals. In addition to the requirements specified in Division 1 (also see technical specification sections following for additional requirements), include the following information for equipment items:

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

1. Description of function, normal operating characteristics and limitations, performance curves, engineering data and tests, and complete nomenclature and commercial numbers and replacement parts.
 2. Manufacturer's printed operating procedures to include start-up, break-in, and routine and normal operating instructions; regulation, control, stopping, shutdown, and emergency instructions; and, as required, summer and winter operating instructions.
 3. Maintenance procedures for routine preventative maintenance and troubleshooting; disassembly, repair, and reassembly; aligning and adjusting instructions.
 4. Servicing instructions and lubrication charts and schedules.
- E. Record (As-Built) Drawings: Maintain a set of full-size drawings at the job site, with all changes to the Contract clearly and neatly recorded on the document. At the end of the Project, the notations shall be transferred to one set of drawings and delivered to the Owner. As a minimum, the following shall be noted:
1. Alterations in raceway routing and sizes, wire type or size, circuit designations, installation details, single line and riser diagrams, control diagrams, schedules.
 2. The actual site location and elevation of all buried lines, boxes, stub-outs and other provisions for future use shall be dimensionally referenced to building lines or other clearly established bench marks.
- F. Substitution Related Conditions: The Contractor shall be responsible for all additional incidental, direct and indirect costs resulting from the substitution of specified construction methods or materials.
1. The Contractor shall pay, upon request by the Engineer, \$150.00 per hour for the Engineers' time involved in the review of substitution submittals and associated design changes resulting from the Contractor proposed substitutions.

1.5 PERMITS

- A. Permits: Contractor shall obtain and pay for all required permits, inspections, examinations, and utility charges.

1.6 OWNER'S INSTRUCTIONS

- A. Owner's Instructions: Prior to completion of the contract, and at the Owner's convenience, instruct verbally and demonstrate to the Owner's personnel, the operation of electrical systems.

1.7 SYSTEM STARTUP

- A. System Startup: Do not energize or place electrical equipment in service until all relevant parties have been duly notified and are present or have waived their rights to be present. Where equipment to be placed in service involves service or connection from another Contractor of the Owner, notify the Owner in writing when the equipment will be ready. Notify the Owner's Representative two weeks in advance of the date the various times of equipment will be complete.

PART 2 - PRODUCTS Not Used.

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site verification of conditions: Contractor shall survey the entire project site and become thoroughly familiar with actual existing conditions. The intent of the work is shown on the drawings and described hereinafter. By the act of participation in the pre-bid conference and site inspection tour, the Contractor shall be deemed to have made such a study and examination and to accept all conditions present at the site. No request for additional payment shall be considered as valid, due to failure to allow for conditions which may exist.
- B. Electrical work shown: Electrical drawings are generally diagrammatic. Verify equipment sizes with shop drawings and manufacturers' data and coordinate location layout with other trades. Report immediately to the Owner any conflicts in the drawings and specifications with any code or between the electrical work and the work of other trades. No work shall be commenced where a conflict exists prior to receiving proper instructions. Any work or materials shown on the drawings and not mentioned in this division, or vice-versa, shall be executed the same as if specifically mentioned by both. Notify the Owner of any changes of location requirements prior to installation.

3.2 SEISMIC REQUIREMENTS

- A. Contractor shall be responsible for anchors and connections of electrical work to building structure to prevent damage as a result of earthquake, including manufactured equipment, and shop fabricated and field fabricated materials and equipment. All building equipment and connections therefore shall be designed to resist seismic forces in conformance with Title 24 of the California Administrative Code. Equipment shall be designed, manufactured, and installed in accordance with the earthquake regulations of the California Code of Regulations, Title 24, Section 2312, and the Uniform Building Code (UBC).
- B. Provide anchorage and bracing details, coordinated with component mounting provisions, which are prepared (and signed/stamped with PE registration) by a structural or civil engineer currently licensed in the State of California.
 - 1. Manufacturer shall provide mounting recommendations based upon approved shake table tests used to verify the seismic design of that type of equipment.
- C. Provide manufacturer's data:
 - 1. The equipment manufacturer shall certify that equipment will function subsequent to experiencing a seismic event, based on the vertical and lateral response spectra as specified in Title 24 and the UBC. Seismic qualification shall be considered achieved when the capability of the equipment provided, as described by the test response criteria, meets or exceeds the required response criteria as specified in Title 24 and the UBC for all equipment natural frequencies up to 35 Hz.
 - a. Alternatively, the certification may be based on an approved detailed structural analysis of the equipment assembly, as specified in Title 24 and the UBC.
- D. The seismic requirements are typical for each equipment item exceeding 100 pounds, including but not limited to the following:

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

1. Overhead cabling systems
2. Lighting equipment.

3.3 PENETRATION SEALING

- A. Seal penetrations through exterior walls and fire rated walls, floors, and ceilings. Sealing methods used shall be in compliance with the requirements of the Authority Having Jurisdiction to maintain required fire ratings, and shall be in accordance with the applicable sections in Division 7 which prescribe applicable firestopping and weatherproofing of wall, floor, ceiling, and roof penetrations. Seal all conduit penetrations through roofs.

3.4 DEMOLITION, ALTERATION AND EXTENSION WORK

- A. Provide and perform demolition, alteration, extension, preparatory and miscellaneous work as indicated.
- B. Existing Conditions: Make a detailed survey of the existing conditions pertaining to the work. Check the locations of all existing structures equipment, wiring, etc., include all demolition, alteration and extension work in bid.

3.5 SERVICE INTERRUPTIONS AND UTILITY

- A. Coordinate with the Owner any interruption of services necessary to accomplish the work.
- B. Coordinate with the utility company all work associated with power and communications/signal distribution systems and service entrance equipment.

3.6 FIELD QUALITY CONTROL

- A. Site Tests:
 1. Perform all necessary tests required to ascertain that the electrical system has been properly installed, that the power supply to each item of equipment is correct, and that the system is free of grounds, ground faults, and open circuits, that all motors are rotating in the proper directions, and such other tests and adjustments as may be required for the proper completion and operation of the electrical system.

3.7 CLEANING

- A. Clean exterior surfaces of equipment and remove all dirt, cement, plaster and other debris. Protect interior of equipment from dirt during construction and clean thoroughly before energizing.
- B. Clean out cracks, corners and surfaces on equipment to be painted, remove grease and oil spots so that paint may be applied without further preparation.
- C. Locate underground conduit stubbed-out for future use, underground feeder conduits, and feeder pull box locations, using building lines by indicating on the Project Record Drawings.

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

PART 4 – MEASUREMENT AND PAYMENT

4.0 MEASUREMENT AND PAYMENT

A. Measurements and payment requirements are indicated under each of the following sections:

1. 16050 Basic Electrical Materials and Methods
2. 16530 Exterior Lighting

END OF SECTION

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 SUMMARY

- A. Work Included: All labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Division, complete, as shown on the drawings and/or specified herein. The work includes, but is not limited to:
 - 1. Examine all divisions for related work required to be included as work under this Division.
 - 2. General provisions and requirements for electrical work.

1.2 REFERENCES

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1, apply to this and the other sections of Division 16.
- B. In addition, the products covered in this Section, except as noted, shall be designed, manufactured, and tested in accordance with the latest revisions of the applicable standards of:
 - 1. ANSI American National Standards Institute
 - 2. ASTM American Society for Testing and Materials
 - 3. IEEE Institute of Electrical and Electronics Engineers
 - 4. NEC National Electrical Code (NFPA 70)
 - 5. NECA National Electrical Contractors Association: "Standard of Installation"
 - 6. NEMA National Electrical Manufacturers Association
 - 7. NFPA National Fire Protection Association
 - 8. UL Underwriters Laboratories, Inc.

1.3 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. General: Submit the following in accordance with the Conditions of the Contract and Division 1 Specification Sections, and Section 16010, "General Electrical Requirements."
- B. Product Data: Submit product data for each type of product specified.
- C. Shop Drawings: Submit shop drawings for the following:
 - 1. Lighting fixtures, supports, and controls.
 - 2. Lighting poles

1.4 QUALITY ASSURANCE

- A. Qualifications of Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years documented experience.
- B. Electrical Component Standard: Components and installation shall comply with NFPA 70, "National Electrical Code."

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- C. NEMA and UL Compliance: Products shall comply with applicable requirements of NEMA and UL standards. Provide products and components listed and labeled by UL.
- D. NECA Installation Standards: Perform work in accordance with NECA "Standard of Installation."
- E. Source Quality Control: Quality control testing shall meet applicable Underwriters' Laboratories Inc. Standards.

1.5 DELIVERY, STORAGE AND HANDLING

- A. General: Deliver, store, protect, and handle products to site in accordance with the General and Supplementary Conditions, Division 1 Specification Sections, and Section 16010, "General Electrical Requirements."
- B. Store and protect product in accordance with manufacturer's instructions, and in a manner to prevent damage from the elements, personnel, equipment, and moisture.

1.6 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Verify that field measurements are as shown prior to commencing the work.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Materials, equipment, and devices shall, as a minimum, meet requirements of UL, where UL standards are established for those items, and requirements of NFPA 70.

2.2 RACEWAYS

- A. Metal Conduit and Tubing:
 - 1. Rigid Metal Conduit: Steel, hot-dipped galvanized including the threads, with an outer coating of zinc bichromate, complete with one coupling and one end thread protector, manufactured in accordance with ANSI C80.1 and UL 6. Fittings: threaded, hot-dipped galvanized, manufactured in accordance with ANSI C80.4.
 - a. Where indicated, provide galvanized rigid steel conduit and fittings with polyvinyl chloride (PVC) coating of nominal .020 inch (20 mil) thickness conforming to NEMA RN-1, Type A, Robroy Industries, or equal.
 - 2. Intermediate Metal Conduit: Hot-dipped galvanized steel including the threads, manufactured in accordance with UL 1242.
 - 3. Electrical Metallic Tubing: Welded, electro-galvanized thin wall steel tubing, manufactured in accordance with ANSI C80.3 and UL 797. Maximum size: 2 inches. Fittings: compression type (indenter or setscrew type not allowed); gland compression type, zinc plated steel body, cadmium plated malleable iron nut, O-Z/Gedney.
 - 4. Liquidtight Flexible Conduit: Hot-dipped galvanized steel strip core with extruded liquid-tight polyvinyl jacket. Use O-Z/Gedney Type UAG, or equal. Liquid-tight

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fittings. ANSI/NEMA FB 1. Connectors: Cadmium plated malleable iron body and nut, cadmium plated steel ferrule, insulated throat, integral cast external ground lug, O-Z/Gedney.

B. Nonmetallic Conduit and Ducts:

1. Rigid Nonmetallic Conduit: NEMA TC 2 and UL 651, Schedule 40. Polyvinyl chloride (PVC) heavy-wall conduit, with tapered sleeve couplings, rated and labeled for use with 90°C rated conductors, manufactured in accordance with ANSI C33.91. Fittings: NEMA TC-3, cemented type, from the same manufacturer as the conduit.
2. PVC and ABS Plastic Utilities Duct Fittings: NEMA TC 9-1. Match to duct type and material.
3. Conduit, Tubing, and Duct Accessories: Types, sizes, and materials complying with manufacturer's published product information. Mate and match accessories with raceway.

C. Conduit Bodies: Provide types, shapes, and sizes as required to suit individual applications and NEC requirements. Provide matching gasketed covers secured with corrosion resistant screws. For metallic conduit and tubing, use metallic conduit bodies. Use bodies with threaded hubs for threaded raceways.

D. Wireways and Auxiliary Gutters: Provide electrical wireways shall be of types, sizes, and number of channels as indicated. Fittings and accessories including but not limited to couplings, offsets, elbows, expansion joints, adapters, hold-down straps, and end caps shall match and mate with wireway as required for complete system. Where features are not indicated, select for fulfill wiring requirements comply with applicable provisions of NEC. Use sheet steel wireways with screw-on covers and corrosion resistant hardware. For dry locations coat with rust inhibitor and finish with gray baked enamel. For wet locations use hot-dipped galvanized material finished with gray baked enamel, provide gaskets for covers.

2.3 WIRE AND CABLE

A. Provide wire and cable suitable for the temperature, conditions, and location where installed, except as otherwise indicated.

1. Conductor: Copper. Provide solid conductor for No. 10 AWG and smaller. Provide stranded conductors for sizes No. 8 and larger.
 - a. Use stranded conductors at motors and other applications where subject to vibration, and for control circuits.
2. Minimum Size Conductor: No. 12 AWG, except as otherwise indicated.
 - a. Control circuits: No. 14 AWG.
3. Insulation voltage rating: 600 volts.

B. Building wire and cable: Single conductor insulated wire. Insulation: ANSI/NFPA 70, Type THHN/THWN, rated 75°C or Type XHHW, rated 90°C.

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

- C. Connectors: Provide UL Listed factory fabricated, solderless metal connectors of sizes, ampacity ratings, materials, types and classes for applications and for services indicated. Use connectors with temperature ratings equal to or greater than those of the wires upon which used.
- D. Pull Cord: 1/8" polypropylene or nylon.

2.4 BOXES AND FITTINGS

- A. Provide indicated types, sizes, and NEMA enclosure classes. Where not indicated, provide units of types, sizes, and classes appropriate for the use and location. Provide all items complete with covers and accessories required for the intended use. Provide gaskets for units in damp or wet locations.
 - 1. Materials and Finishes:
 - a. Sheet steel: Flat rolled, code gauge, galvanized steel.
 - b. Fasteners for general use: Corrosion resistant screws and hardware, including cadmium and zinc plated items.
 - c. Fasteners for wet or damp locations: Stainless steel screws and hardware.
 - d. Cast metal for boxes, enclosures and covers: Copper-free aluminum except as otherwise indicated.
 - e. Exterior finish: Gray-baked enamel for items exposed in finished locations except as otherwise indicated.
 - f. Painted interior finish: Where indicated, white baked enamel.
 - g. Fittings for boxes, cabinets, and enclosures: Conform to UL 514B. Malleable iron or zinc-plated steel for conduit hubs, bushings and box connectors.
- B. Metal outlet, device, and small wiring boxes:
 - 1. General: Conform to UL 514A and UL 514B. Boxes shall be of type, shape, size, and depth to suit each location and application.
 - 2. Steel Boxes: NEMA OS 1. Boxes shall be sheet steel with stamped knockouts, threaded screw holes and accessories suitable for each location including mounting brackets and straps, cable clamps, exterior rings and fixture studs.
 - 3. Cast Aluminum Boxes: Copper-free aluminum with gasketed covers, threaded raceway entries, and features and accessories suitable for each location including mounting ears, threaded screw holes for devices and closure plugs.
- C. Pull and junction boxes:
 - 1. General: Conform to UL 50, for boxes over 100 cubic inches in volume. Boxes shall have bolted-on covers of material same as box, and shall be of the size and shape to suit the application.
 - 2. Steel Boxes: Sheet steel with welded seams. Where necessary to provide a rigid assembly, construct with internal structural steel bracing.
 - 3. Hot-Dip Galvanized Steel Boxes: Sheet steel with welded seams. Where necessary to provide a rigid assembly, construct with internal structural steel bracing. Hot-dip galvanize after fabrication. Cover shall be gasketed.

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2.5 GROUNDING AND BONDING

- A. Materials: All materials shall be copper. Provide types indicated and sizes and ratings required to comply with NEC. Where types, sizes, ratings, and quantities indicated are in excess of NEC requirements, the more stringent requirements and the greater size, rating, and quantity indications govern.
- B. Wire and cable conductors shall be as follows, except as otherwise indicated:
 - 1. Equipment grounding conductor: Green insulated copper.
 - 2. Grounding electrode conductor: Stranded copper cable.
 - 3. Bare copper conductors: Shall conform to the following:
 - a. Solid Conductors: ASTM B 3.
 - b. Assembly of Stranded Conductors: ASTM B 8.
 - c. Tinned Conductors: ASTM B 33.
- C. Connector products:
 - 1. General: Listed and labeled as grounding connectors for the materials used.
 - 2. Pressure Connectors: High-conductivity plated units.
 - 3. Bolted Clamps: Heavy-duty units listed for the application.
 - 4. Exothermic Welded Connections: Provided in kit form and selected for the specific types, sizes, and combinations of conductors and other items to be connected.
- D. Grounding electrodes:
 - 1. Ground Rods: Copper-clad steel with high-strength steel core and electrolytic-grade copper outer sheath, molten-welded to core. Size: 3/4 inch in diameter by 10 feet in length.
 - 2. Plate Electrodes: Copper plates, minimum 0.10 inch thick, size as indicated.
- E. Test (ground) wells: precast concrete, 12" round x 18" deep open bottom valve box, with cast iron grate cover plate marked "GROUND."

2.6 SUPPORTING DEVICES

- A. Supports: Individual conduits shall be rigidly supported and clamped with one hole malleable iron conduit clamps, conduit beam clamps, conduit hangers, or wall brackets, as necessary for the type of construction and as indicated. The use of perforated flat steel straps or wire for supporting conduits will not be permitted.
- B. Support Attachments: Kwik-bolt, sleeve anchors, wedge anchors, toggle bolts, and hollow all anchors, as manufactured by Hilti or Red Head.
- C. Light Steel Framing: Light steel framing members for conduit hangers and other supports shall be formed from 12 gauge (minimum) steel, unless otherwise indicated.

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1. Finish: Hot-dipped galvanized steel for light steel framing members and fittings and all hardware, such as hanger rods, couplings, bolts, nuts, etc., shall be electro-galvanized, unless otherwise indicated.
2. Acceptable Manufacturers: B-Line, Superstrut, Unistrut, or equal.

2.7 ELECTRICAL IDENTIFICATION

- A. Manufacturers: Brady, Ideal Industries, Markal, Panduit, Thomas & Betts.
- B. Electrical identification products:
 1. Adhesive Marking Labels for Raceway and Metal-clad Cable: Pre-printed, flexible, self-adhesive labels with legend indicating voltage and service (Emergency, Power, Lighting, Air Conditioning, Voice and Data Communications, Control, Fire Alarm and Detection, Public Address (Paging), Electronic Security).
 2. Label Size, as follows:
 - a. Raceways 1-Inch and Smaller: 1-1/8 inches high by 4 inches long.
 - b. Raceways Larger than 1-Inch: 1-1/8 inches high by 8 inches long.
 3. Color: Black legend on orange background.
 4. Colored Adhesive Marking Tape for Raceways, Wires, and Cables: Self-adhesive vinyl tape not less than 3 mils thick by 1 inch to 2 inches in width.
 5. Pretensioned Flexible Wraparound Colored Plastic Sleeves for Raceway and Cable Identification: Flexible acrylic bands sized to suit the raceway diameter and arranged to stay in place by pre-tensioned gripping action when coiled around the raceway or cable.
 6. Underground Line Marking Tape: Permanent, bright-colored, continuous printed, plastic tape compounded for direct burial service not less than 6 inches wide by 4 mils thick. Printed legend indicative of general type of underground line below.
 7. Wire/Cable Designation Tape Markers: Vinyl or vinyl-cloth, self-adhesive, wraparound, cable/conductor markers with preprinted numbers and letters.
 8. Aluminum, Wraparound, Cable Marker Bands: Bands cut from 0.014- inch thick, aluminum sheet, fitted with slots or ears for securing permanently around wire or cable jacket or around groups of conductors. Provide for legend application with stamped letters or numbers.
 9. Plasticized Card Stock Tags: Vinyl cloth with preprinted and field printed legends to suit the application. Orange background, except as otherwise indicated, with eyelet for fastener.
 10. Aluminum-Faced Card Stock Tags: Weather-resistant, 18-point minimum card stock faced on both sides with embossable aluminum sheet, 0.002 inches thick, and laminated with moisture-resistant acrylic adhesive. Pre-print legend to suit the application, and punch for tie fastener.
 11. Brass or Aluminum Tags: Metal tags with tamped legend, punched for fastener. Dimensions: 2 inches by 2 inches by 19 gauge.
 12. Engraved, plastic-laminated Labels, Signs, and Instruction Plates: Engraving stock melamine plastic laminate, 1/16-inch minimum thick for signs up to 20 square inches, or 8 inches in length; 1/8-inch thick for larger sizes. Engraved legend in white letter on black face and punched for mechanical fasteners.
 13. Warning and caution signs for indoor use: Shall be minimum 18 gauge steel, white porcelain enamel finish, with red lettering, punched for fasteners, with colors, legend,

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and size appropriate to the location. Lettering to read, "DANGER - HIGH VOLTAGE," unless otherwise indicated.

14. Exterior Metal-Backed Butyrate Warning and Caution Signs: Weather-resistant, nonfading, preprinted cellulose acetate butyrate signs with 20-gauge, galvanized steel backing, with colors, legend, and size appropriate to the location. Provide 1/4-inch grommets in corners for mounting.
15. Fasteners for Plastic-Laminated and Metal Signs: Self-tapping stainless steel screws or number 10/32 stainless steel machine screws with nuts and flat lock washers.
16. Cable Ties: Fungus-inert, self-extinguishing, one-piece, self-locking nylon cable ties, 0.18-inch minimum width, 50-lb minimum tensile strength, and suitable for a temperature range from minus 50°F to 350°F. Provide ties in specified colors when used for color coding.

2.8 DISCONNECT (SAFETY) SWITCHES

- A. Disconnect switches shall be rated 600 volts A.C., NEMA Type HD heavy duty, horsepower-rated, quick-make/quick-break, non-fusible or fusible, Class "R", with the number of poles and ampere rating as shown. Enclosure shall be NEMA Type 1, lockable. Maximum voltage, current and horsepower rating shall be clearly marked on the switch enclosure. Switches equipped with dual-element time-delay fuses shall be permanently labeled with fuse type and rating.
 1. For outdoor locations, or shown as "WP" (weatherproof), the enclosure shall be NEMA Type 3R, unless otherwise indicated.

2.9 OVERCURRENT PROTECTIVE DEVICES

- A. Manufacturers:
 1. Circuit Breakers:
 - a. General Electric
 - b. Square D / Schneider Electric
 - c. Eaton
 2. Fuses: Bussmann only.
- B. Materials and fabrication:
 1. Circuit Breakers: Molded case, quick-make, quick-break, thermal-magnetic, trip-free with individual inverse time tripping mechanism on each pole. Terminal lugs rated for copper and aluminum conductors. Minimum 10,000 amperes interrupting capacity, RMS symmetrical short circuit rating shall be as required. All breakers shall meet or exceed the maximum available fault current as indicated on single line diagram.
 - a. Use magnetic-only circuit breakers for motor applications.
 - b. Provide Class A (5ma sensitivity) breakers where GFI type breakers are required.
 - c. Provide "HACR" type circuit breakers for HVAC loads. Ratings shall be as indicated on the drawings.

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- d. No tie handle on multi-pole circuit breaker is accepted.
 - e. Provide ambient compensated type breaker where the breaker is installed in the ambient in excess of 40°C (104°F).
2. Fuses, as follows, unless otherwise indicated:
- a. Class RK1:
 - 1) 250V; LPN-RK, Lowpeak
 - 2) 600V; LPS-RK
 - b. Class L: KRP-C, Hi-Cap

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: The electrical installation shall conform to the requirements of NFPA 70, "National Electrical Code," and to the requirements specified herein.
- B. Wiring Method: The wiring method shall be as follows, except as otherwise noted.
 - 1. Exterior:
 - a. Exposed: Rigid steel conduit.
 - b. Connection to vibrating equipment, including transformers and hydraulic, pneumatic, or electric solenoid or motor-driven equipment: Liquidtight flexible metal conduit, maximum length 18 inches.
 - 2. Interior:
 - a. Exposed: Electrical metallic tubing.
 - 1) Areas where exposed conduit may be subject to physical damage: Rigid metal conduit.
 - 2) Damp or wet locations: Rigid metal conduit.
 - 3) Classified locations: Rigid metal conduit.
 - b. Connection to vibrating equipment, including transformers and hydraulic, pneumatic, or electric solenoid or motor-driven equipment: Liquidtight flexible metal conduit, maximum length 18 inches.
- C. Grounding and Bonding:
 - 1. General: Grounding shall be provided in accordance with all applicable codes and regulations of the State of California and the local authorities having jurisdiction.
 - 2. An equipment grounding conductor shall be provided in all raceway containing phase conductors.
 - 3. The maximum resistance to ground shall not exceed 5 ohms.

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D. Raceway Installation:

1. General Requirements: Install electrical raceways in accordance with manufacturer's written installation instructions, applicable requirements of NEC, and as follows.
 - a. Minimum size: 3/4 inch unless otherwise indicated.
 - b. Size conduits as indicated on the drawings and as required by the NEC for the number and sizes of wires to be installed into the conduit.
 - c. Make conduit field cuts square with saw and ream out to full size. Shoulder conduits in couplings. Remove burrs, and swab inside conduits before conductors are pulled in.
 - d. Make all conduit joints mechanically tight, electrically continuous, and watertight. Pitch conduits in a manner to avoid creating moisture traps.
 - e. Install minimum 1/8" polypropylene pull cords from end-to-end in all empty raceways, tagged with the identification of service intended and location of opposite end. Leave at least 24 inches of pull cord at each end.
 - f. Restore wall, ceiling, and floor penetrations to the requirements of the Authority Having Jurisdiction.
 - g. Provide code sized green grounding conductor in all conduit.
2. Perform excavating, trenching, backfilling, and compacting as shown, and as specified in the section in Division 2 which prescribes excavation, backfilling and compacting for utilities. Minimum cover for runs below finished grade outside buildings: 24 inches except where noted.
3. Complete installation of electrical raceways before starting installation of conductors within raceways.
 - a. Protect inside of conduit from dirt and rubbish during construction by capping all openings with plastic caps intended for the purpose. Cap or plug conduits with standard manufactured accessories as soon as the conduits have been permanently installed in place.
4. Install all conduits at elevations and locations to avoid interference with grading or other work, the structure, finished ceilings, walls. Avoid causing cutting of masonry structural members.
 - a. Do not place conduits in close proximity to equipment, systems, and service lines, such as hot water supply and return lines, which could be detrimental to the conduit and its contents. Maintain a minimum 3" separation, except in crossing, which shall be a minimum 1".
 - 1) Minimum separation from uninsulated hot water pipes, steam pipes, heater flues or vents: 6 inches. Avoid running conduit directly under water lines.
 - 2) Elevation of Raceway: Where possible, install horizontal raceway runs above water and steam piping.
5. Conceal conduit, unless indicated otherwise, within finished walls, ceilings, and floors. Keep raceways at least six (6) inches away from parallel runs of flues and steam or hot water pipes. Install raceway level and square and at proper evaluations.

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6. Install and neatly rack exposed conduits parallel with and perpendicular to building walls. Do not install exposed diagonal conduit runs.
 - a. Route and suspend conduits crossing expansion joints to permit expansion, contraction, and deflection utilizing approved fittings to prevent damage to the building, conduits, and supporting devices.
 - b. Install exposed raceways parallel and perpendicular to nearby surfaces of structural members and follow the surface contours as much as practical.
 - c. Provide conduit bodies for exposed conduit runs at junctions, bends or offsets where required. Do not use elbows or bends around outside corners of beams, walls or equipment. Make conduit body covers accessible.
7. Make bends and offsets so the inside diameter is not effectively reduced. Unless otherwise indicated, keep the legs of a bend in the same plane and the straight legs of offsets parallel.
 - a. Make no bends with a radius less than 12 times the diameter of the cable it contains nor more than 90°. Make field bends with tools designed for conduit bending. Heating of metallic conduit to facilitate bending is not permitted.
 - b. Bends and offsets in 1" and smaller conduits may be done with approved bending devices. Do not install conduits which have had their walls crushed and deformed and their surface finish damaged due to bending.
 - c. Run conduits parallel to and at right angles to building lines.
 - d. Where space conditions prohibit the use of standard ells, elbows, and conduits, use cast ferrous alloy fittings of such forms and dimensions as best required for application.

3.2 FIELD QUALITY CONTROL

- A. Examine surfaces to which conduits are to be secured for:
 1. Defects which will adversely affect the execution and quality of work.
 2. Deviations from allowable tolerances for the building material.
- B. Do not start work until defects and deviations are corrected.

3.3 CLEANING

- A. Upon completion of installations of raceways, inspect interiors of raceways; clear all blockages and remove burrs, dirt, and construction debris.

3.4 PROTECTION OF FINISHED WORK

- A. Protect inside of conduit from dirt and rubbish during construction by capping all openings with plastic caps intended for the purpose.
- B. Protect stub-ups from damage where conduits rise from floor slabs. Arrange so curved portion of bends is not visible above the finished slab.

3.5 GROUNDING

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

- A. Electrically ground metallic cabinets, boxes, and enclosures. Where wiring to item includes a grounding conductor, provide a grounding terminal in the interior of the cabinet, box, or enclosure.

3.6 CLEANING AND FINISH REPAIR

- A. Upon completion of installation, inspect components. Remove burrs, dirt, and construction debris and repair damaged finish including chips, scratches, abrasions and weld marks. Clean surfaces to be painted.
- B. Galvanized finish: Repair damage using a zinc-rich paint recommended by the manufacturer.
- C. Painted finish: Repair damage using matching corrosion-inhibiting touch-up coating.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Overhead Aerial Cabling For Existing Flare Station

- A. All basic electrical materials and methods associated with new power feeder for existing Flare Station shall be paid on a Lump Sum Basis.
- B. Final pay shall be determined from field verification of the total electrical work has been installed and is operational, in accordance with the Construction Drawings and these specifications.

4.2 Cabling, Conduit, Fitting, Controls For Lighting

- A. All basic electrical materials associated with new lighting systems shall be paid on a Lump Sum Basis.
- B. Final pay shall be determined from field verification of the total electrical work has been installed and is operational, in accordance with the Construction Drawings and these specifications.

END OF SECTION

SECTION 16530 - EXTERIOR LIGHTING

PART 1 -- GENERAL

1.1 WORK OF THIS SECTION

- A. The CONTRACTOR shall provide lighting fixtures, and accessories for all lighting systems, complete and operable, in accordance with the Contract Documents.
- B. This Section includes lighting fixtures for exterior application, including:
 - 1. Photocell switches.
 - 2. Time switches.
 - 3. Lighting contactors.

1.2 RELATED SECTIONS

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
 - 1. Excavation, backfilling and compaction: Applicable Section in Division 2.
 - 2. Cast in place concrete: Applicable Section in Division 3.
 - 3. Finishes: Applicable Section in Division 9.
 - 4. General electrical requirements: Section 16010.
 - 5. Basic Electrical Materials and Methods: Section 16050.

1.3 STANDARD SPECIFICATIONS

- A. Except as otherwise indicated, the CONTRACTOR shall comply with the latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC), including the latest adopted editions of the Regional and City of San Diego Supplement Amendments.

1.4 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Except as otherwise indicated, the current editions of the following apply to the Work of this Section:
 - 1. National Electric Code (NEC , NFPA 70)
 - 2. Uniform Building Code (UBC)
 - 3. Underwriters Laboratories (UL)
 - 4. American National Standards Institute
 - 5. ASTM American Society for Testing and Materials
 - 6. Institute of Electrical and Electronics Engineers (IEEE)
 - 7. National Electrical Contractors Association (NECA)"Standard of Installation"
 - 8. National Electrical Manufacturers Association (NEMA)
 - 9. NEMA WD 6 Wiring Devices - Dimensional Requirements
 - 10. NFPA National Fire Protection Association (NFPA)
 - 11. National Life Safety Code (NFPA 101)
 - 12. Underwriters Laboratories, Inc
 - 13. UL 57 Fixtures, Electric Lighting.

SECTION 16530 - EXTERIOR LIGHTING

1.5 CONTRACTOR SUBMITTALS

- A. Submit the following in accordance with the requirements of Section 01300 – Submittals and Section 16010, "General Electrical Requirements."
1. Product data, shop drawings, instructions for installation and calibration, operating and maintenance instruction, and reports, shall employ the terminology, classifications, and methods prescribed by the Illuminating Engineering Society (IESNA) - see IES Lighting Handbook, latest edition - except as otherwise indicated, for the lighting system specified.
 2. Catalog literature for each fixture. Each such submittal shall clearly describe materials, type of diffuser, hardware, gasketing, reflector and chassis, finish, and ballast.
 3. Pole-mounted fixtures, including complete data on the pole material, finish, handpoles, anchoring, and fixture attachment. Support method shall be submitted for interior fixtures weighing more than 50 pounds.
 4. Catalog data indicating LED modules / package and drivers input watts, sound rating, power factor, and type of driver. Data for outdoor drivers shall be include low temperature starting characteristics.
 5. Photocell data submittal shall indicate switching capacity, the means of adjusting the lighting pickup level, and enclosure.
- B. Shop Drawings:
1. Lighting Fixtures: Include dimensions, accessories, and installation and construction details; photometric data, including Zonal lumen data, average and minimum ratio, aiming diagram and [computerized] candlepower distribution data.
 2. Poles and Mounting Accessories: Include dimensions, wind load determined in accordance with AASHTO LTS-2, pole deflection, pole class, and other applicable information.
- C. Product Data: Submit for each type of product specified. When data that describes more than one type, size, model, or item is submitted, clearly mark the data to indicate which type, size, model, or item is being provided. Data shall be sufficient to show conformance to specified requirements. Include for:
1. Lighting fixtures
 2. Poles and mounting accessories.
 3. Exterior lighting system-associated control devices:
 - a. Photocell switches.
 - b. Time switches.
 - c. Lighting contactors.
- D. Operating, Maintenance, and Instructional Data: Manufacturers' written operating, maintenance, and installation instructions, including directions for storage and protection, handling, examination, and preparation.
1. In addition, include copies of this data in Operating and Maintenance Manuals submitted, see Section 16010.

SECTION 16530 - EXTERIOR LIGHTING

- E. Samples: One sample for each of the following:
 - 1. Lighting fixtures (one sample for each type), complete with LED modules / package and drivers.
- F. Certificates:
 - 1. Labels of UL listing, fixed to each item of material.
- G. Certified Test Reports:
 - 1. Lighting fixtures.
 - a. Computerized horizontal illumination levels in footcandles at ground level, taken every 20] feet. Include average maintained footcandle level and maximum / minimum ratio.
 - b. Distribution data according to "IES classification type" as defined in the IES Lighting Handbook.
- H. Field Test Reports: Submit test results of field tests herein specified.

1.6 QUALITY ASSURANCE

- A. Qualifications of Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years documented experience.
- B. Electrical Component Standard: Components and installation shall comply with NFPA 70, "National Electrical Code."
- C. NEMA and UL Compliance: Products shall comply with applicable requirements of NEMA and UL standards. Provide products and components listed and labeled by UL.
- D. NECA Installation Standards: Perform work in accordance with NECA "Standard of Installation."
- E. Source Quality Control: Quality control testing shall meet applicable Underwriters' Laboratories Inc. Standards.
- F. Exterior lighting system operation shall be demonstrated during the hours of darkness to indicate that fixtures are properly focused, photocell operation is correct, and that fixture switching functions as intended.
- G. Lighting demonstration shall occur within 2 weeks before Project acceptance.

1.7 DELIVERY, STORAGE AND HANDLING

SECTION 16530 - EXTERIOR LIGHTING

- A. General: Deliver, store, protect, and handle products to site in accordance with the General- and Supplementary Conditions, Division 1 Specification Sections, and Section 16010, "General Electrical Requirements."
- B. Lighting fixtures shall be stored in their original cartons from the manufacturers until the time of installation. Fixtures poles shall be stored on blocks above grade until the time of installation.
- C. Store and protect product in accordance with manufacturer's instructions, and in a manner to prevent damage from the elements, personnel, equipment, and moisture.

1.8 PROJECT CONDITIONS OR SITE CONDITIONS

- A. Verify that field measurements are as shown prior to commencing the work.

1.9 CLEANUP

- A. Fixture lenses, diffusers, and reflectors shall be cleaned just before the system demonstrations.
- B. Fixture trim, including poles and support brackets, where finish has been damaged, shall be refinished.

PART 2 -- PRODUCTS

2.1 FIXTURES - GENERAL

- A. General: U.L. 1572. Provide luminaires as indicated. Provide luminaires complete with lamps of the number, type, and wattage indicated. The details, shapes, and dimensions are indicative of the general type desired, but are not intended to restrict selection to luminaires of any particular manufacturer. Luminaires of similar designs and equipment [light distribution and brightness characteristics] and of equal finish and quality will be acceptable as approved.
- B. All fixtures shall be prewired with leads of 18-AWG, minimum, for connection to building circuits.
- C. Driver, LED, and fixture to be fully UL certified as a system; this should include any optional emergency battery packs and any special drivers (typically a specialty dimming driver). Discreetly listed components are not acceptable.
- D. Minimum requirement of LEDs shall be tested no less than 10,000 hours, TM21 calculated lumen maintenance results per LM80. Extrapolated L70 estimates will not be accepted.
- E. Color accuracy specifications shall utilize Standard Deviation of Color Matching (SDCM) on the MacAdam ellipse of less than 2 or 3.

2.2 EXTERIOR FIXTURES

SECTION 16530 - EXTERIOR LIGHTING

- A. Exterior fixtures in combination with their mounting pole and bracket shall be capable of withstanding 100-mph winds without damage. Exterior fixtures shall have corrosion-resistant hardware and hinged doors or lens retainer. Fixtures to be furnished with integral photoelectrical control shall be of the fixture manufacturer's standard design.

2.3 LIGHTING CONTACTOR

- A. General: NEMA ICS 2. Electrically operated, mechanically held contactor rated 277/480 volts, 20 amperes, 3-pole as indicated on plans. Provide in NEMA 1 enclosure conforming to NEMA ICS 6. Contactor shall have silver alloy double-break contacts and coil clearing contacts and shall require no arcing contacts. Provide contactor with hand-off-automatic selector switch.

2.4 TIME SWITCH

- A. Astronomic dial type arranged to turn "ON" at sunset, and turn "OFF" at predetermined time between 8:30 p.m. and 2:30 a.m. or sunrise, automatically changing the settings each day in accordance with seasonal changes of sunset and sunrise. Provide switch with automatically wound spring mechanism to maintain accurate time for a minimum of 15 hours following power failure. Provide time switch with a manual on-off bypass switch. Housing for the time switch shall be surface mounted, NEMA 3R enclosure conforming to NEMA ICS 6.

2.5 PHOTOELECTRIC CELLS

- A. General: U.L. 773 or U.L. 773A. The switch shall turn on below 3 footcandles and off at 3 to 10 footcandles. A time delay shall prevent accidental switching from transient light sources. Mount a directional lens in front of the cell to prevent fixed light sources from creating a turnoff condition. Aim switch according to manufacturer's recommendations.
- B. Photoelectric cells for control of multiple fixtures shall be self-contained, weatherproof type and shall be provided with time-delay features.

2.6 LIGHT FIXTURE CONTROL RELAYS

- A. Relays for light fixtures control shall be mechanically held. Such relays shall be base-mounted, single-purpose units, i.e., no attachments to a multi-purpose solenoid operator.
- B. If not indicated otherwise, coil voltage shall be 115 VAC with contacts rated at 20 A. Relays shall be ASCO Series 166, Zenith Series MSC, or equal.

2.7 POLES

- A. General: Provide poles designed for wind loading of 100 miles per hour determined in accordance with AASHTO LTS-2 while supporting luminaires having effective projected areas indicated. Poles shall be [embedded] [anchor]-base type designed for use with overhead supply conductors
- B. Steel Poles: AASHTO LTS-2. Provide steel poles having minimum 11-gage steel with minimum yield/strength of 48,000 psi and [hot-dipped galvanized per ASTM A 123 factory

SECTION 16530 - EXTERIOR LIGHTING

finish. Provide a pole grounding connection designed to prevent electrolysis when used with copper ground wire.

2.8 BRACKETS AND SUPPORTS

- A. General: ANSI C136.3, except ANSI C136.13 for brackets and supports for wood poles. Pole brackets shall be not less than 1-1/4-inch galvanized steel pipe secured to pole. Slip-fitter or pipe-threaded brackets may be used, but brackets shall be coordinated to the luminaires provided, and all brackets for use with one type of luminaire shall be identical. Brackets for pole-mounted street lights shall correctly position the luminaire no lower than the mounting height indicated. In no case shall the brackets be less than 24 feet above the street. Special mountings or brackets shall be as indicated and shall be of metal which will not promote galvanic reaction with the luminaire head

2.9 ANCHOR BASE ASSEMBLIES

- A. Anchor bolts shall be steel rod having a minimum yield strength of 50,000 psi; the top 12 inches of the rod shall be galvanized per ASTM A 153. Anchor bases for steel poles shall be structural quality hot-rolled carbon steel plate having a minimum yield strength of 36,000 psi.

PART 3 -- EXECUTION

3.1 LIGHTING FIXTURES

- A. Lighting fixtures shall be provided complete at each outlet in accordance with the Fixture Schedule.
- B. Steel Poles: Provide anchor bases with galvanized steel anchor bolts, threaded at the top end and bent 90 degrees at the bottom end. Provide galvanized nuts, washers, and ornamental covers for anchor bolts. Concrete for anchor bases, polyvinyl chloride (PVC) conduit ells, and ground rods shall be as specified in Section 16050, "Basic Electrical Materials and Methods." Thoroughly compact backfill with compacting arranged to prevent any pressure between conductor, jacket, or sheath and the end of conduit ell. Adjust poles as necessary to provide a permanent vertical position with the bracket arm in proper position for luminaire location. After installation, paint the exposed surfaces of steel poles with two finish coats of exterior oil paint of a color as indicated.

3.2 GROUNDING

- A. Ground noncurrent-carrying parts of equipment [including metal poles] as specified in Section 16050, "Basic Electrical Materials and Methods." Where the copper grounding conductor is connected to a metal other than copper, provide specially treated or lined connectors suitable for this purpose.

SECTION 16530 - EXTERIOR LIGHTING

3.1 EARTHWORK

- A. Provide all necessary trenching, backfilling and reconditioning of surfaces for all electrical work.

3.2 FIELD TESTS

- A. General: The Contractor shall provide electric power required for field tests.
- B. Operating Test: Upon completion of installation, conduct an operating test to show that the equipment operates in accordance with the requirements of this specification section.
- C. Insulation Resistance Test and Circuit Identification / Labeling: Perform as specified in Section 16050, "Basic Electrical Materials and Methods", both before and after connection of fixtures and equipment.

3.2 FIXTURE POLES

- A. Fixture poles shall be set on anchor bolts and secured with double nuts on each bolt. After fixture has been leveled and plumbed, the fixture base shall be dry-packed.

PART 4 – MEASUREMENT AND PAYMENT

4.0 New Lighting/Power Poles

All new lighting/power poles and other appurtenances as required shall be considered as included in the Contractor's unit price per each new pole.

Final pay shall be determined from field verification of the total quantity of new poles installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

4.1 New Lighting Fixtures on New Poles

All new lighting fixtures on new poles or to be mounted on existing poles and other appurtenances as required shall be considered as included in the Contractor's unit price per each lighting fixture type.

Final pay shall be determined from field verification of the total quantity of lighting fixtures installed in accordance with the Construction Drawings and these specifications. Quantities installed beyond the limits indicated on the drawings will not be compensated unless previously authorized by the Engineer.

END OF SECTION

ATTACHMENT F
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City of San Diego

CITY CONTACT: Clementina Giordano, Contract Specialist, Email: Cgiordano@saniego.gov
Phone No. (619) 533-3481, Fax No. (619) 533-3633

ADDENDUM "A"

FOR



South Chollas Landfill Operations Yard Improvement Project

BID NO.: K-15-6285-DBB-3
SAP NO. (WBS/IO/CC): S-00684
CLIENT DEPARTMENT: 2115
COUNCIL DISTRICT: 4
PROJECT TYPE: FA / BS / CB

BID DUE DATE:

**2:00PM
NOVEMBER 13, 2014
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTS
1010 SECOND AVENUE, 14th FLOOR, MS 614C
SAN DIEGO, CA 92101**

A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

B. VOLUME 1

1. To ATTACHMENT A, page 28, Item 1, SCOPE OF WORK, **DELETE** in its entirety and **SUBSTITUTE** with the following:
 1. **SCOPE OF WORK:** The scope includes repair and/or replacement of asphalt surfaces and drainage conveyance systems, removal and replacement of interior chain link fences, striping of parking areas, installation of landfill gas extraction wells and piping below grade, construction of material bunkers which include retaining walls and covers (additive alternate), and installation of light poles and lighting (additive alternate) and all other incidental work and appurtenances in accordance with the Plans and the Specifications.
 - 1.1. The Work shall be performed in accordance with:
 - 1.1.1. The Notice Inviting Bids and Plans numbered **38158-1-D** through **38158-41-D**, inclusive.
2. To ATTACHMENT E, SUPPLEMENTARY SPECIAL PROVISIONS, page 37, Section 2, Scope and Control of Work, Subsection 2-7, SUBSURFACE DATA, Item 5, **DELETE** in its entirety and **SUBSTITUTE** with the following:
 5. PAVEMENT EVALUATION, Parking and Operations areas, South Chollas Landfill, dated October 2013, prepared by GeoLogic Associates. The report listed above is attached as Appendix D.
3. To ATTACHMENT E, SUPPLEMENTARY SPECIAL PROVISIONS, Technicals, SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE, page 177, PART 2 – PRODUCTS, Subsection 2.2, CRUSHED MISCELLANEOUS BASE, Item A., **DELETE** in its entirety and **SUBSTITUTE** with the following:
 - A. Materials for Crushed Miscellaneous Base shall be crushed concrete and asphalt material recycled by the contractor from the demolition and salvage operation for concrete and asphalt materials complying with 2012 Green Book Specification 200-2.4: Crushed Miscellaneous Base or Specification 200-2.8: Pulverized Miscellaneous Base.
4. To ATTACHMENT E, SUPPLEMENTARY SPECIAL PROVISIONS, Technicals, SECTION 02510 - ASPHALT CONCRETE PAVEMENT AND BASE, page 177, PART 2 – PRODUCTS, Subsection 2.3, PRIME COAT, **DELETE** in its entirety.

City of San Diego

CITY CONTACT: Clementina Giordano, Contract Specialist, Email: Cgiordano@sandiego.gov
Phone No. (619) 533-3481, Fax No. (619) 533-3633

ADDENDUM “B”

FOR



South Chollas Landfill Operations Yard Improvement Project

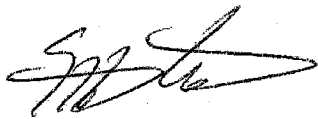
BID NO.: K-15-6285-DBB-3
SAP NO. (WBS/IO/CC): S-00684
CLIENT DEPARTMENT: 2115
COUNCIL DISTRICT: 4
PROJECT TYPE: FA / BS / CB

BID DUE DATE:

**2:00PM
NOVEMBER 13, 2014
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTS
1010 SECOND AVENUE, 14th FLOOR, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineer.



1) Registered Engineer

November 5, 2014

Date

Seal:



1) For City Engineer

11-5-14

Date

Seal:



A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

B. BIDDER's QUESTIONS

Q1. IN SECTION 02610 – LANDFILL GAS SYSTEM, THERE IS NO MENTION AS TO THE ABANDONMENT OF THE EXISTING LFG HEADER/SUB-HEADER/LATERALS. ARE WE TO DISCONNECT AND CAP ALL LOCATIONS SHOWN ON THE DRAWINGS?

A1. Yes, disconnect and cap all locations on the drawings – See Note 3 Sheet G1 and Specifications Section 2610 4.1 Payment.

Q2. ON PAGE 23 OF THE PLANS, CONSTRUCTION OF A LEVEL SURFACE FOR THE CONDENSATE TANK IS TO BE COMPLETED. WHAT IS THE PAD TO BE CONSTRUCTED OF?

A2. The pad is to be constructed of compacted crushed miscellaneous base material.

Q3. IS COMPACTION TESTING OF ALL TRENCHES TO BE PERFORMED BY THE CITY?

A3. Yes.

Q4. ON PAGE 22 OF THE PLANS-DETAIL 5/22, THE TRENCH REQUIRES A MINIMUM WIDTH OF 36-INCHES FOR 4" / 6" / 8" PIPELINES. CAN THE TRENCH WIDTH BE ADJUSTED FOR THE DIFFERENT LINE SIZES?

A4. Yes, the trench width can be adjusted for the different line sizes as long as proper compaction can be obtained below the pipe and in the trench

Q5. IN SECTION 02670 – LFG WELLS, THE MATERIALS SPECIFIED FOR BOTH THE WELL CASINGS AND WELLHEADS IS SCH. 80 PVC. ON PAGE 22 OF THE PLANS THE MATERIALS SPECIFIED FOR BOTH ITEMS IS HDPE. WHAT MATERIALS ARE WE TO USE FOR THE WELL CASINGS AND WELLHEADS?

A5. Well heads shall be 2 inch, SCH 80 PVC (Landtec 2" ACCUFLOW or Equivalent) as identified in Attachment E, Technical, Section 2610 – Landfill Gas systems, page 200, PART 2 – Materials, 2.1 Landfill Gas Extraction Wells (H). See sheet 22.

Q6. WHAT ARE THE BOUNDARY LINE FOR PHASES 1C & 2D ON THE SOUTHWEST CORNER OF THE PLANS?

A6. Phase 1 is broken into A, B and C. Phase I includes the area to the west of Caminito Chollas (the operations yard Entrance road). The southerly boundary of Phase 1C is Caminito Chollas West. Phase 2, including 2D includes the area to the east of Caminito Chollas. There is no work being performed on Caminito Chollas the entrance road, as part of this project.

Q7. The plan is to process the existing AC by grinding it the for reuse as base material. The Specifications calls for a specific gradation. Our experience is that the grinding of existing AC, while producing a quality base product, will not produce a specific gradation. It is impossible to guarantee exactly what you will get. The product is called Asphalt Grinds. Can the City accept the Asphalt Grinds as they are produced without penalty?

We suggest that this material be placed on the bottom of the base section with the remaining imported Spec. CMB base being placed on of it.

A7. No.

Q8. Since the existing AC, which is to be ground into an Asphalt Grinds base, is of inconsistent thickness, it is impossible to determine the quantity of Asphalt Grinds which will be produced. The amount produced will also be insufficient to construct the pavement sections. Additional imported Spec CMB base material will need to be purchased to make up the shortfall. Can you please make an additional bid item for "Additional CMB, as required"?

A8. Yes, we have added an additional bid line item for CMB which will be paid for per ton.

Q9. Could the CAD file and a high quality PDF be provided to the bidders. These files will aid in the quantity takeoff's.

A9. The CAD files are available for download at: ftp://ftp.sannet.gov/OUT/ECP/6285_South%20Chollas%20Landfill%20Operations%20Yard/

Q10. Section 02610 4.1 Excavation, Cutting, Capping & Abandonment of Existing Lines. Can the City create bid items for the existing LFG related work noted in this section?

A10. No, this work is identified as part of Bid Item 34 and in referencing Detail 1/19.

Q11. Section 02670 2.1A calls out PVC pipe, whereas detail 2 on Sheet 22 states HDPE. Please clarify which type of pipe is to be used for the gas extraction wells.

A11. Extraction Wells shall be constructed of 4 Inch HDPE.

Q12. It is unclear to us whether the City is requiring the Contactor to subcontract with a certified QC laboratory to perform on site compaction testing, AC & PCC materials testing etc., or if the City's lab will perform those functions. Can the City clarify this?

- A12. Compaction testing will be performed by City Engineering Lab.
- Q13. Specification Section 02610 Landfill Gas System Para 1.3.2 calls for the LFG Contractor reference sheet be attached to the bid documents. Should this form be attached to or referenced in the bidding documents?
- A13. Contractor reference sheet shall be attached to the bidding documents.
- Q14. Detail 1/C-15 shows the new drainage inlet/stormwater separator to be installed on this project. Demo is shown on sheet C-3 note 15, and installation is shown on C-6, note 15. Please show POC to the existing 30" storm drain line.
- A14. This is correct, the connection point to the existing drainage line is not shown as it is unknown, therefore the contractor is to field verify the point of connection.
- Q15. Sheet 22 Detail 6 shows the above ground pipe supports for the LFG system, please clarify how the air and condensate lines are to be supported/restrained.
- A15. Existing air and condensate lines are located adjacent to the 8" headers that are exposed as part of installing the 8" tee in detail 1/23. (the POC). This is the POC for the new air and condensate lines. The other header brought to the flare (Holy Spirit Loop) can tie the air and condensate lines to POC's on the flare skid. See sheet 22, Detail 6.
- Q16. Sheet G-5 notes 15 & 16 show the air and condensate lines coming into the gas flare area on sheet 23 detail 1. However these lines and their POC's are not shown on this detail. Please clarify how the air and condensate lines are to tie-in to the existing systems.
- A16. See Sheet 23.
- Q17. Can the City create a bid item for imported CMB by the ton in case the existing AC / Base is not sufficient for the specified new base section?
- A17. Yes, we have added an additional bid line item for CMB which will be paid for per ton.
- Q18. The contract requires that all existing refuse that is removed from the excavation be hauled and disposed of at the Miramar Landfill. Does the City have a dump fee established with Miramar Landfill for this project?
- A18. The City will have an account established for any buried refuse removed from the site. There will not be any disposal charges for this material. Contractor will be responsible for transportation and associated costs.

Disposal fees for trash disposed of at Miramar Landfill can be found on the City Website: <http://www.sandiego.gov/environmental-services/miramar/index.shtml>. However, the Contractor has the discretion to take the trash and/or construction debris to any appropriate facility.

- Q19. Due to the phasing of this project, there is a possibility that there may be a shortage or excess of earthen material and/or asphalt for processing into base material in the various phases.
- a. If there is a shortage of material in a phase, is the contractor to import material to compensate for said shortage?
 - b. If so, this could cause excess in the end of the project. Is the contractor to haul this material offsite or will an onsite waste area be provided?
 - c. If an onsite waste area will be provided, please depict where it will be so as we can calculate the haul distance for the excess material, if any;
 - d. If there is an excess of material in a phase, is the contractor to stockpile this material for future phases and then double handle the material? If so, will the contractor get paid twice to handle this material?
- A19. a. A new bid item has been added for CMB which is paid by the ton.
- b. City will allow the contractor to stockpile excess clean suitable material for landfill cover should there be excess at the end of the project. Material must be clean, free from debris and not contain rocks greater than 6 inches. Excess clean crushed asphalt and/or concrete with no greater than 6 inch in their greatest dimension will also be allowed to be stockpiled in an area of the landfill. Stockpiles of soils and asphalt/concrete must be kept separate. Materials not meeting these characteristics, can be stockpiled but must be removed at the end of the project by the contractor, at the contractors expense.
 - c. Stockpiles will be located in most southeasterly area outside the fenced operations yard and within 1000 feet of the contractors staging area identified on the Contract Plans.
 - d. Should there be excess material in a Phase, the contractor must stockpile the material for future phases. The contractor will be paid for materials as is identified on the Bid sheet, and will not get paid twice for handling material twice. Though it is not anticipated there will be large quantities of excess material, the City will make reasonable accommodations to designate a stockpile location as close to a future phase, without impacting any of the existing operations in the yard.
- Q20. Has the city performed testing on the existing pavement to ensure that the material, once processed will meet the quality specifications of Spec Section 200-2.4 and 200-2.8 (e.g. R-value, sand equivalent, % wear, etc.)?
- A20. No.

- Q21. Section 02510 2.5 (A) appears to allow RAP in the ½" surface course but does not specifically call it out for the base course (Type B). Will RAP be allowed in the base course?
- A21. Yes, Specification shall be clarified to allow PG 64-10-RAP for the Base course.
- Q22. The invitation to bid references the use of the 2012 Greenbook. Are we to use the original edition or the most current updates to the 2012 standards?
- A22. Use both the 2012 Green Book and the 2012 WhiteBook per item 12 'REFERENCE STANDARDS,' in the Notice Inviting Bids.
- Q23. Upon completion of a phase, how long will it take for the city to clear the subsequent phase for the contractor to resume work?
- A23. The City will have the subsequent phase cleared and ready, to allow the contractor to begin the subsequent phase once the prior phase is completed and able to receive equipment and vehicles.
- Q24. The project specifications, Section 02610, 1.3 Pre-Qualification for Construction of Landfill Gas Extraction System, item 1., states that "the Contractor shall have successfully completed a minimum of (5) LFG extraction systems . . ." Will the City accept successful completion of natural gas pipeline installations as evidence of qualification, or are landfill gas extraction system projects required?
- A24. The City will not accept successful completion of natural gas pipeline installations as evidence of qualification; landfill gas extraction system projects are required.
- Q25. Please confirm, if additive Alternate A is awarded then all (6) Alternate Items will be awarded.
- A25. Additive Alternate A should have included only Items 1 & 2 and if awarded will include both items.
- Additive Alternate B is added to include items 3-6.
- Q26. Please confirm if the Additive Alternate A is awarded, the electrical subcontractor can complete all portions of work in one move and not have to mobilize during each phase.
- A26. If Additive Alternate B is awarded, the phasing of the electrical subcontractor work is up to the prime contractor. Any conflicts resulting from their choice of means and method are their responsibility and the City will pay no additional costs.
- Q27. Please confirm for bidding purposes, we are to price the quantities that are provided on the bid form, if the drawings show different quantities than what is shown on bid form it will be a change order.

- A27. The project is to be constructed per plan and any differences in quantities between the plan and the bidding documents will be added or deducted per the unit cost in the bidding document.
- Q28. Please clarify: If contractors achieve the small business requirements for the project, do they still need to provide a good faith effort?
- A28. If mandatory goals are met, GFE not required.
- Q29. Line item number 3 on the bid form is an allowance for Field Orders Type II, Payment Reference 9-3.5. Please provide this payment reference for the \$800,000 Allowance.
- A29. 9-3.5 is on page 95 of the 2012 WhiteBook
- Q30. Please provide payment reference 9-3.4.1 for Mobilization.
- A30. 9-3.4.1 is on page 95 of the 2012 WhiteBook
- Q31. Please clarify if the general contractor is to spread all mark up, overhead in each bid item.
- A31. The bid items are what they are. No separate line items for mark up and overhead.
- Q32. Can all Base Material Pay Items (both Imported and On site) be changed to a Cubic Yard Measurement?
- A32. Not for onsite. A bid item has been added for Imported CMB which is paid by the ton.
- Q33. If there is grade subsidence, can the grade be brought back to spec with CMB / PMB to be paid by the Cubic Yard as noted above?
- A33. If CMB/PMB is needed for this purpose, it is to come from existing onsite stockpiled material at no charge.
- Q34. Will the City perform the topographic survey of the project prior to the start of construction?
- A34. The City performed the topographic survey of the project site as is shown on the plans. No further topographic surveys are anticipated. Grade certification will be performed by the City.
- Q35. Please confirm that the AC pavement removal (for CMB reuse) is paid under the bid item for Clearing and Grubbing and not under the bid item for excavate and fill.
- A35. Yes, paid under Section 02050 Clearing and Grubbing.

- Q36. Please provide the location onsite for the excess dirt and / or excess CMB to be placed.
- A36. Location is south of the proposed Contractor staging area.
- Q37. Plan sheet C-16 shows call out #13 for the 6" concrete at the Southwest BMP location. Under which bid item - #13 6" concrete, or #20 Drainage BMP detail 3/16 - does the 6" concrete get measured and paid under?
- A37. Construction note 13 calls out the materials for construction. The cost for the items should be included under the Lump sum cost for Bid Item 20 – Drainage BMP.
- Q38. Section 2.5 Asphalt Concrete – The 6" paving section must be paved in a minimum 2 lifts with type B as the base course and type C2 as the finish course per the specification. The 4" paving section can be in 1 lift or 2 per the specification. If paved in 1 lift (for the 4" AC section) can the Contractor use type B AC or is it the City's intend to use type C2 for all finished surface paving?
- A38. Type B AC can be used for the 4-inch section provided it is placed in one lift.
- Q39. The boring logs show AB under only 1 location. The existing AC is the only material available for reuse as CMB and according to the boring logs there are insufficient amounts of existing AC to produce all the CMB for this job. Will the City allow the Contractor to use crushed miscellaneous base imported to the site to make up the difference? Are there any restrictions on mixing the 2 materials in the same location?
- A39. See Addendum Bid schedule and addition under 02510 Asphalt Concrete Pavement and Base – Bid item added for import of CMB by the ton.
- Q40. Please confirm that only the refuse excavated under bid item 7 is to be hauled to Miramar landfill and that broken concrete, steel bollards, fence and fence posts can be taken to other recycle facilities.
- A40. Confirmed.
- Q41. Bid item 7 Refuse Excavation, Transportation, and Disposal at Miramar. Please clarify that the Contractor is to include the dump fees from Miramar in this bid item. Or are the fees exempt since this is a City landfill to landfill disposal.
- A41. The City will have an account established for any buried refuse removed from the site. There will not be any disposal charges for this material. Contractor will be responsible for transportation and associated costs.

Disposal fees for trash disposed of at Miramar Landfill can be found on the City Website:<http://www.sandiego.gov/environmental-services/miramar/index.shtml>. However, the Contractor has the discretion to take the trash and/or construction debris to any appropriate facility.

Q42. Our company has been invited to bid on the land survey component of this project. After reviewing the Specs, it does sound like the City is requesting the Contractor/Prime to do the survey work on this project. Normally, the City does its own survey work, so I wanted to confirm with you whether or not the City will require the Prime on this project to provide surveying services.

A42. The City will perform all surveying services for this project.

C. VOLUME 2

1. To BIDDING DOCUMENTS, pages 10 through 17, Proposal (BID), **DELETE** in their entirety and **SUBSTITUTE** with pages 11 through 18 of this Addendum.

D. PLANS

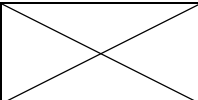
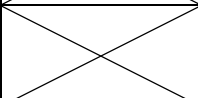
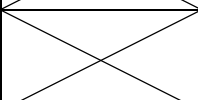
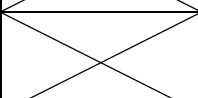
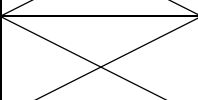
1. To Drawing Numbered **38158-4-D** and **38158-21-D** through **38158-23-D** **DELETE** in their entirety and **REPLACE** with pages 19 through 22 of this Addendum.

James Nagelvoort, Director
Public Works Department

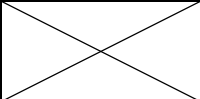
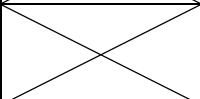
Dated: *November 5, 2014*
San Diego, California

JN/BD/lji

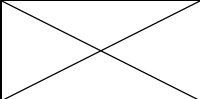
BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
BASE BID							
1	1	LS	524126	2-4.1	Bonds (Payment and Performance)		\$
2	1	AL		01020	Oil/Diesel Fuel Cost Increase (Or Decrease) Allocation - Type II		\$100,000.00
3	1	AL		9-3.5	Field Orders - Type II		\$800,000.00
4	1	LS	238910	9-3.4.1	Mobilization		\$
5	1	LS	238910	02050	Demolition - Clearing and Grubbing		\$
6	1515	LF	238910	02831	Remove and Salvage Existing Chain Link Mesh Fence (on K-rails), Posts, and K-rail For Reinstallation Per Plan	\$	\$
7	3000	TON	238910	02200	Refuse Excavation, Transport and Disposal at Miramar Landfill	\$	\$
8	36000	CY	238910	02200	Excavate and Fill (Unclassified)	\$	\$
9	449536	SF	238990	02510	6" Crushed Miscellaneous Base (Per Detail 2/14)	\$	\$
10	749557	SF	238990	02510	8" Crushed Miscellaneous Base (Per Detail 3/14 and 4/14)	\$	\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
11	11900	TON	237321	301-2.4	Imported Crushed Miscellaneous Base	\$	\$
12	11238	TON	238990	02510	4" Asphalt Concrete (Per Detail 2/14)	\$	\$
13	28108	TON	238990	02510	6" Asphalt Concrete (Per Detail 3/14)	\$	\$
14	4345	SF	238990	03310	6" Concrete (Per Detail 4/14)	\$	\$
15	157	TON	238990	02510	1-Inch AC Overlay (Per Detail 1/14)	\$	\$
16	157	TON	238990	02510	Temporary AC Pavement Fill/Join Between Phases (Per Detail 8/14)	\$	\$
17	858	LF	238990	02510	Type A - Asphalt Concrete Curb per SDRSD G-5	\$	\$
18	1207	LF	238990	03310	Longitudinal Gutter (Per Detail 6/14)	\$	\$
19	1821	LF	238990	03310	Curb and Gutter (SDRSD SDG-151)	\$	\$
20	1	LS	238990	03310	Drainage BMP (Per Detail 1/16)		\$
21	1	LS	238990	03310	Drainage BMP (Per Detail 3/16)		\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
22	1	EA	238990	03310	Drainage Inlet (Per Detail 1/15)	\$	\$
23	1	EA	238990	03310	Storm Water Separator (Per Detail 1/15)	\$	\$
24	1840	SF	238990	300-11.4	Embankment Protection (Per Detail 9/14)	\$	\$
25	42	EA	238990	02510	Wheel Stop 2 Feet from end of Parking Space	\$	\$
26	1	LS	238990	314-4.3.7	Painted Pavement/Curb Markings		\$
27	1	EA	238990	02610	Pipe Supports Across V-Ditch (per Detail 2/23)	\$	\$
28	5351	LF	238990	02610	8" HDPE LFG Header (per Detail 5/22)	\$	\$
29	3258	LF	238990	02610	6" HDPE LFG Sub-Header (per Detail 5/22)	\$	\$
30	2552	LF	238990	02610	4" HDPE LFG Lateral (per Detail 5/22)	\$	\$
31	1454	LF	238990	02610	2" HDPE LFG Air Supply (per Detail 5/22)	\$	\$
32	1454	LF	238990	02610	1-1/2" HDPE LFG Condensate Line (per Detail 5/22)	\$	\$

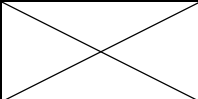
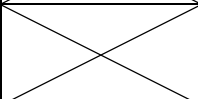
BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
33	37	EA	238990	02610	LFG Control Vault and Bollards (per Detail 3/23)	\$	\$
34	52	EA	238990	02610	On-Grade LFG Pipe Support (per Detail 6/22)	\$	\$
35	24	EA	238990	02610	Adjust and Connect Existing Well Head to New Header, Sub-Header, or Lateral (per Detail 1/19 and 3/23)	\$	\$
36	1	EA	238990	02610	LFG Piping Connection to Flare Station (per Detail 1/23)	\$	\$
37	3	EA	238990	02670	LFG Condensate Trap (per Detail 1/22)	\$	\$
38	3	EA	238990	02670	Remote Well Head in LFG Control Vault (per Detail 3/23)	\$	\$
39	479	VF	238990	02670	LFG Well - Drilling, Installation, Well Head and Connection (per Detail 2/22)	\$	\$
40	6681	LF	238990	02831	6-Foot High Chain Link Fence (new) per SDM -112	\$	\$
41	3535	LF	238990	02831	8-Foot High Chain Link Fence (new) with Barbwire Top per SDM -112	\$	\$
42	920	LF	238990	02831	6-Foot High Chain Link Fence (Salvaged mesh on new poles) per SDM -112	\$	\$
43	1	EA	238990	02831	12' Wide 6-Foot High Chain Link Gate per SDM-112	\$	\$
44	21	EA	238990	02831	20' Wide 6-Foot High Chain Link Gate per SDM -114	\$	\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
45	1	EA	238990	02831	30' Wide 6-Foot High Chain Link Gate per SDM -114	\$	\$
46	3	EA	238990	02831	20' Wide 8-Foot High Chain Link Gate per SDM -114	\$	\$
47	1	LS	238990	03310	Truck Exit Rumble Strip Bmp (Per Detail 3/15)		\$
48	32	EA	238210	03310	Light Pole Footing (Per Details 1/S1, 2/S1, and 3/S1)	\$	\$
49	1	LS	541330	701-13.8.4	Water Pollution Control Program Development		\$
50	1	LS	238990	701-13.8.4	Water Pollution Control Program Implementation		\$
51	1	AL		701-13.8.4	Permit Fee - Type I		\$15,000.00
ESTIMATED TOTAL BASE BID:							\$
ADDITIVE ALTERNATIVE 'A'							
1	1	LS		05120	Steel Covers for Concrete Material Bins (Per Sheets S1, S2 and S3)		\$0.00
2	1	LS		03310	Concrete Material Bins (Per Sheets S1, S2 and S3)		\$0.00
ESTIMATED ADDITIVE ALTERNATIVE 'A' BID:							\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
ADDITIVE ALTERNATIVE 'B'							
1	1	LS	238210	16050	Overhead Aerial Cabling For Existing Flare Station		\$
2	1	LS	238210	16050	Cabling, Conduit, Fittings, Controls For Lighting		\$
3	32	EA	238210	16530	New Lighting/Power Poles	\$2,838.00	\$
4	107	EA	238210	16530	New Lighting Fixtures on New Poles	\$2,265.00	\$
ESTIMATED ADDITIVE ALTERNATIVE 'B' BID:							\$
ESTIMATED TOTAL BASE BID PLUS ADDITIVE ALTERNATIVE 'A' BID PLUS ADDITIVE ALTERNATIVE 'B' BID:							\$

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 51, plus Additive Alternate A, items 1 through 2, plus Additive Alternate B, items 1 through 4 inclusive) amount written in words:

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: _____

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, state secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full.

Bidder: _____

Title: _____

Business Address: _____

Place of Business: _____

Place of Residence: _____

Signature: _____

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Additive Alternate: **A and B.**
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. Prices and notations shall be in ink or typewritten. All corrections (which have been initiated by the Bidder using erasures, strike out, line out, or "white-out") shall be typed or written in with ink adjacent thereto, and shall be initialed in ink by the person signing the bid proposal.
- D. Failure to initial all corrections made in the bidding documents may cause the Bid to be rejected as **non-responsive** and ineligible for further consideration.
- E. Blank spaces must be filled in, using figures. Bidder's failure to submit a price for any Bid item that requires the Bidder to submit a price shall render the Bid **non-responsive** and shall be cause for its rejection.
- F. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.
- G. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.
- H. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.
- I. Bids shall not contain any recapitulation of the Work. Conditional Bids will be rejected as being **non-responsive**. Alternative proposals will not be considered unless called for.
- J. Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

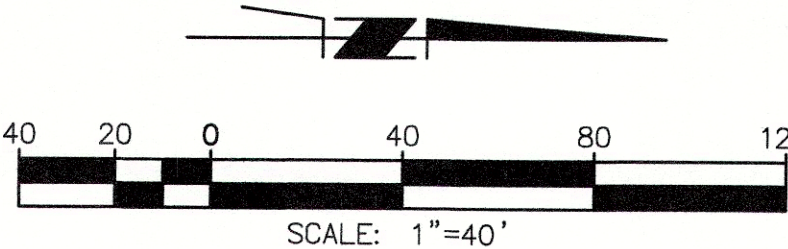


CONSTRUCTION NOTES

1. PROTECT IN PLACE
2. SAWCUT, REMOVE AND SALVAGE ASPHALT OR CONCRETE
3. DEMO AND REMOVE EXISTING DRAINAGE INLET
4. REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (6-FOOT) FOR REINSTALLATION; DEMO EXISTING FENCE POSTS AND CONCRETE BASE; RECYCLE STEEL POSTS
5. REMOVE AND RECYCLE CHAIN LINK GATE
6. DEMO AND REMOVE EXISTING CHAIN LINK FENCE, POSTS, AND BASE MATERIAL; RECYCLE CHAIN LINK FENCE AND STEEL POSTS
7. REMOVE AND SALVAGE EXISTING SIGNS; REPLACE PER CITY OF SAN DIEGO PROJECT MANAGER
9. REMOVE EXISTING ASPHALT OR CONCRETE CURB
41. REMOVE AND RECYCLE FENCE MATERIALS FROM K-RAIL
42. RELOCATED K-RAILS TO DESIGNATED AREA PER CITY OF SAN DIEGO RESIDENT ENGINEER
44. REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (ON K-RAILS), POSTS, AND K-RAIL FOR REINSTALLATION PER PLAN

NOTES:

1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.
5. EXISTING WASH RACK DEMOLITION IS TO INCLUDE ALL CONCRETE, CURBS, GUTTERS, DRAINAGE INLETS, FENCING, PIPING, AND STORAGE BOXES IN THE WAY OF FUTURE ASPHALT PAVING.



PREPARED BY:
SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.
DRAWN BY : C.G.G.
CHECKED BY : M.A.C.
APPROVED BY :

SCALE : AS SHOWN
DATE : 09-2014
DATE : 09-2014
DATE :

PREPARED UNDER THE SUPERVISION OF:

No. 41981
9/9/14
DATE

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**
2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

C-4
SUBMITTED BY:
MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER
APPROVAL:
FOR CITY ENGINEER
11-4-14
DATE
DESCRIPTION
BY
APPROVED
DATE
FILMED
CIVIL AND GAS PLANS
MAC
CONTRACTOR:
DATE STARTED:
INSPECTOR:
DATE COMPLETED:

**AREA 2 DEMOLITION
PLAN 1**
SHEET 4 OF 41 SHEETS
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NAD83 COORDINATE
38158- 4 -D

November 5, 2014 South Chollas Landfill Operations Yard Improvement Project

ADDENDUM "B"

Z:\PROJECTS\SAN DIEGO (CITY)\SOUTH CHOLLAS\ACAD\SET\04 - AREA 2 DEMOLITION PLAN 1

Page 19 of 22

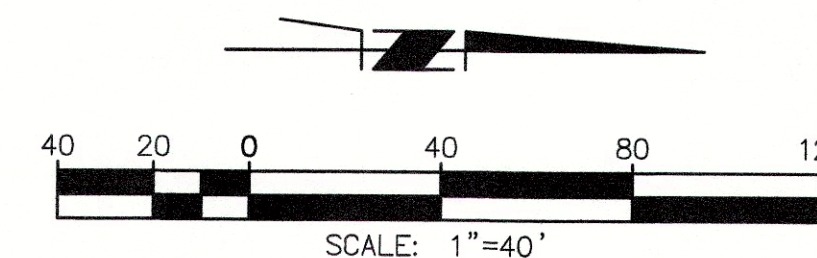
MATCHLINE - SEE SHEET 20

CONSTRUCTION NOTES

- 3 DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING LFG HEADER/SUB-HEADER/LATERAL
- 4 REMOVE EXISTING CONDENSATE TRAP AND BACKFILL OR ABANDON PER PROJECT SPECIFICATIONS
- 6 INSTALL REMOTE WELL HEAD IN LFG CONTROL VAULT PER 4 22
- 8 DISCONNECT AND INSTALL HDPE ENDCAP(S) ON EACH END OF CUT PIPES AS NEEDED (SIZE PER FIELD INVESTIGATION)
- 9 INSTALL 8" HDPE LFG HEADER PER 5 22
- 10 INSTALL 6" HDPE LFG SUB-HEADER PER 5 22
- 11 INSTALL 4" HDPE LFG LATERAL PER 5 22
- 12 INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
- 13 CONSTRUCT LFG CONTROL VAULT AND BOLLARDS PER 3 23
- 14 CONSTRUCT NEW LFG WELL PER 2 22 AND 3 23
- 15 CONSTRUCT 1 1/2" HDPE AIR SUPPLY 5 22
- 16 CONSTRUCT 2" HDPE CONDENSATE LINE 5 22
- 17 CONSTRUCT LFG PIPING CONNECTION TO FLARE STATION 1 23
- 19 POTHOLE TO DETERMINE DEPTH OF EXISTING HEADER; PROVIDE INFORMATION TO LFG ENGINEER FOR POSSIBLE LFG PIPE GRADIENT MODIFICATION
- 20 ADJUST AND CONNECT EXISTING LFG WELL TO NEW HEADER, SUB-HEADER, OR LATERAL PER 1 23
- 21 LOCATE AND CAP EXISTING 1 1/2" AIR AND 2" CONDENSATE PIPING AT SUMP

NOTES:

1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.
5. CONTRACTOR SHALL MINIMIZE DOWN TIME OF GAS COLLECTION AND CONTROL SYSTEM (GCCS) BY ISOLATING EACH PHASE OF WORK BY CAPPING HEADERS OR LATERALS WHERE REQUIRED PER PLAN.
6. LOCATE 1 1/2" AND 2" AIR AND CONDENSATE PIPING AT SUMP; REMOVE OR CAP TEES SERVICING SUMP; VERIFY INTEGRITY OF EXISTING LOOP IN VICINITY OF EXCAVATION.



PREPARED BY:

SWT Civil & Environmental
Engineering

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.	SCALE : AS SHOWN
DRAWN BY : C.G.G.	DATE : 09-2014
CHECKED BY : M.A.C.	DATE : 09-2014
APPROVED BY :	DATE :

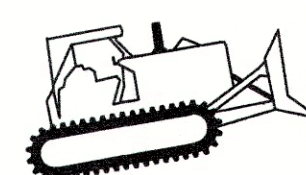
PREPARED UNDER THE
SUPERVISION OF:



9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

**AREA 2 LANDFILL GAS
IMPROVEMENT PLAN 3**

SHEET 21 of 41 SHEETS

DATE: 11-4-14

FOR CITY ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILED
CIVIL AND GAS PLANS	MAC			

CONTRACTOR: DATE STARTED: DATE COMPLETED:

INSPECTOR: DATE COMPLETED:

G-5

SUBMITTED BY:

MICHAEL CULLINANE

PROJECT MANAGER

CHECKED BY:

JEREMY BOTICA

PROJECT ENGINEER

SYLVIA CASTILLO

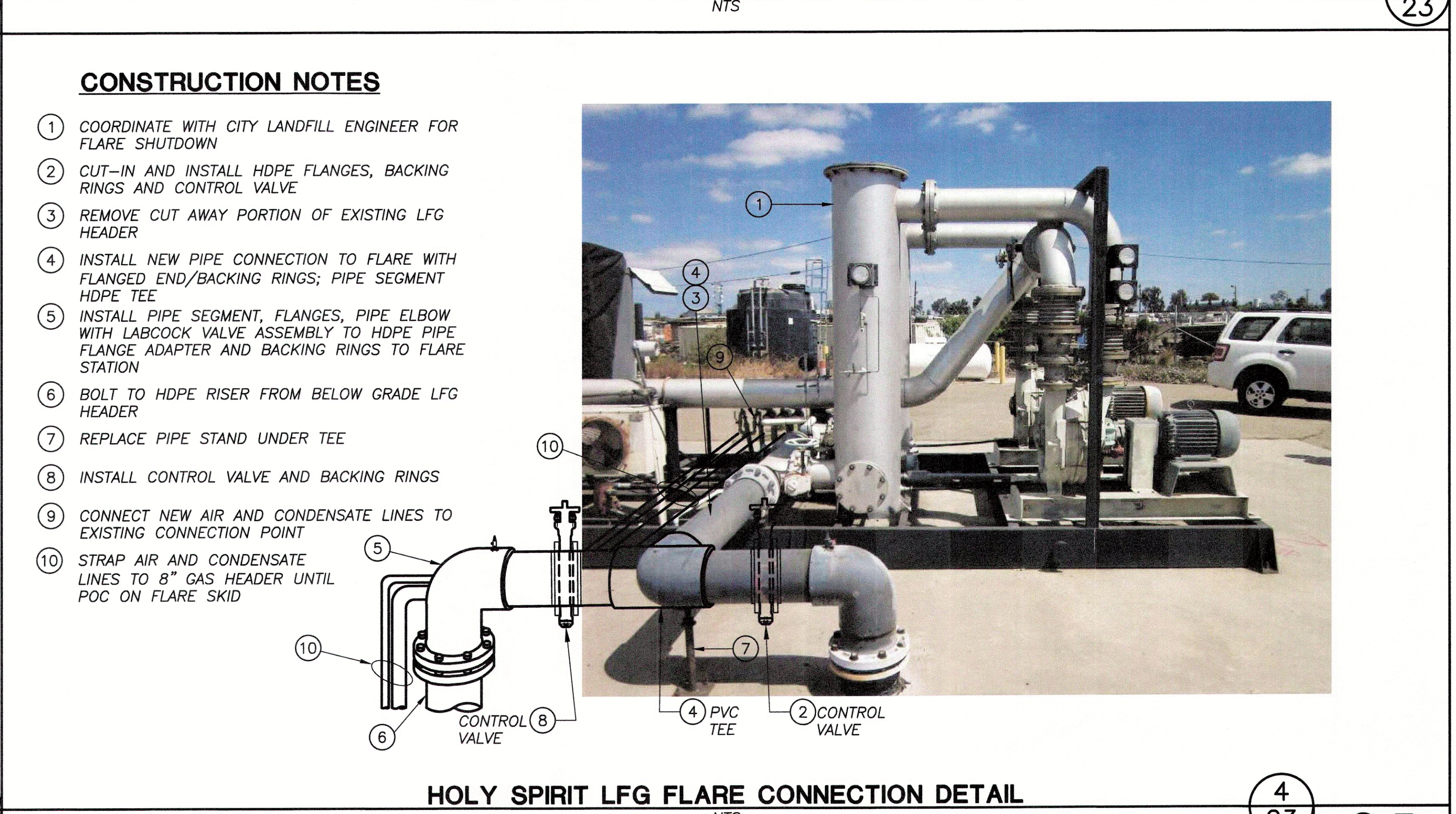
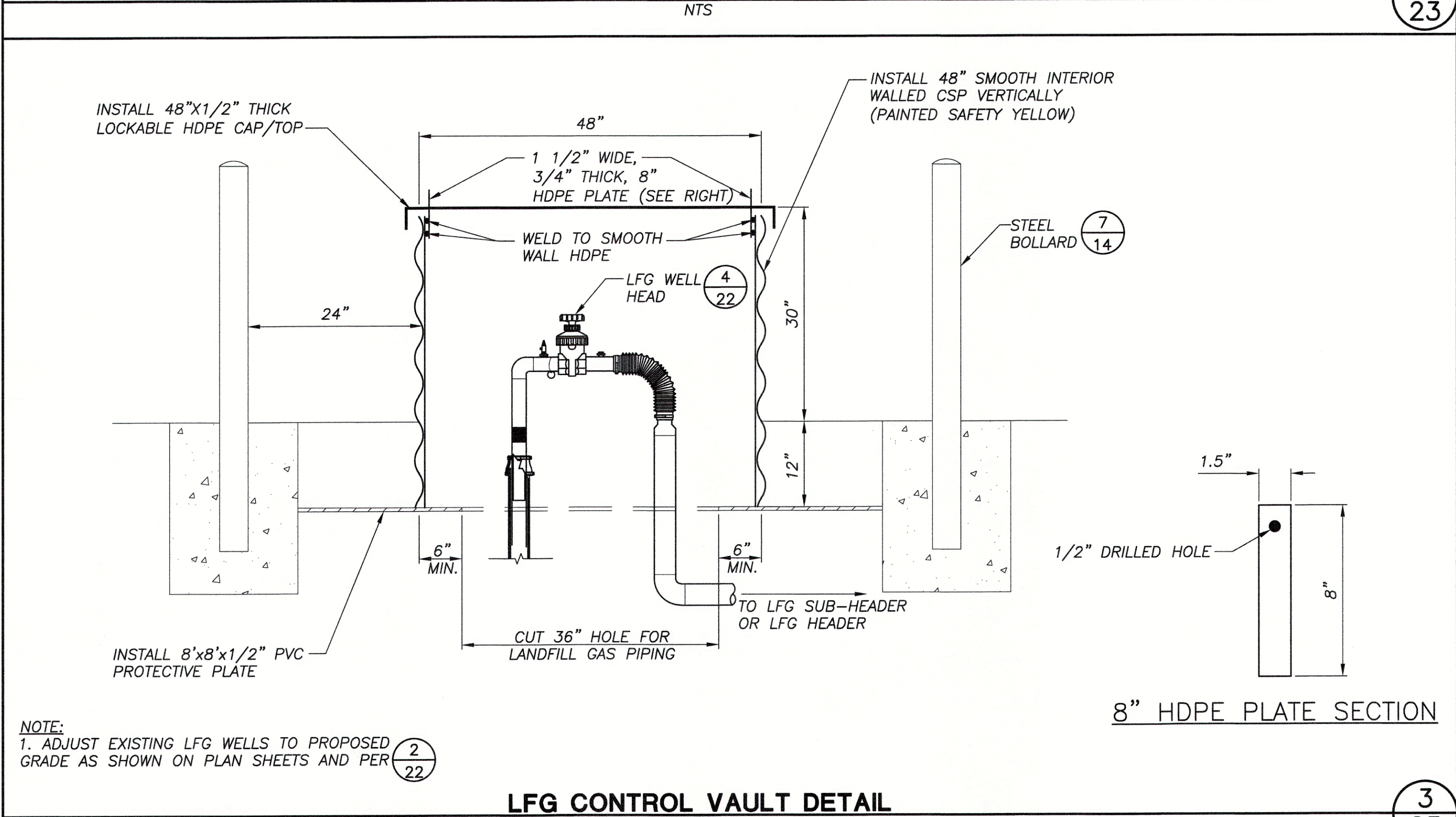
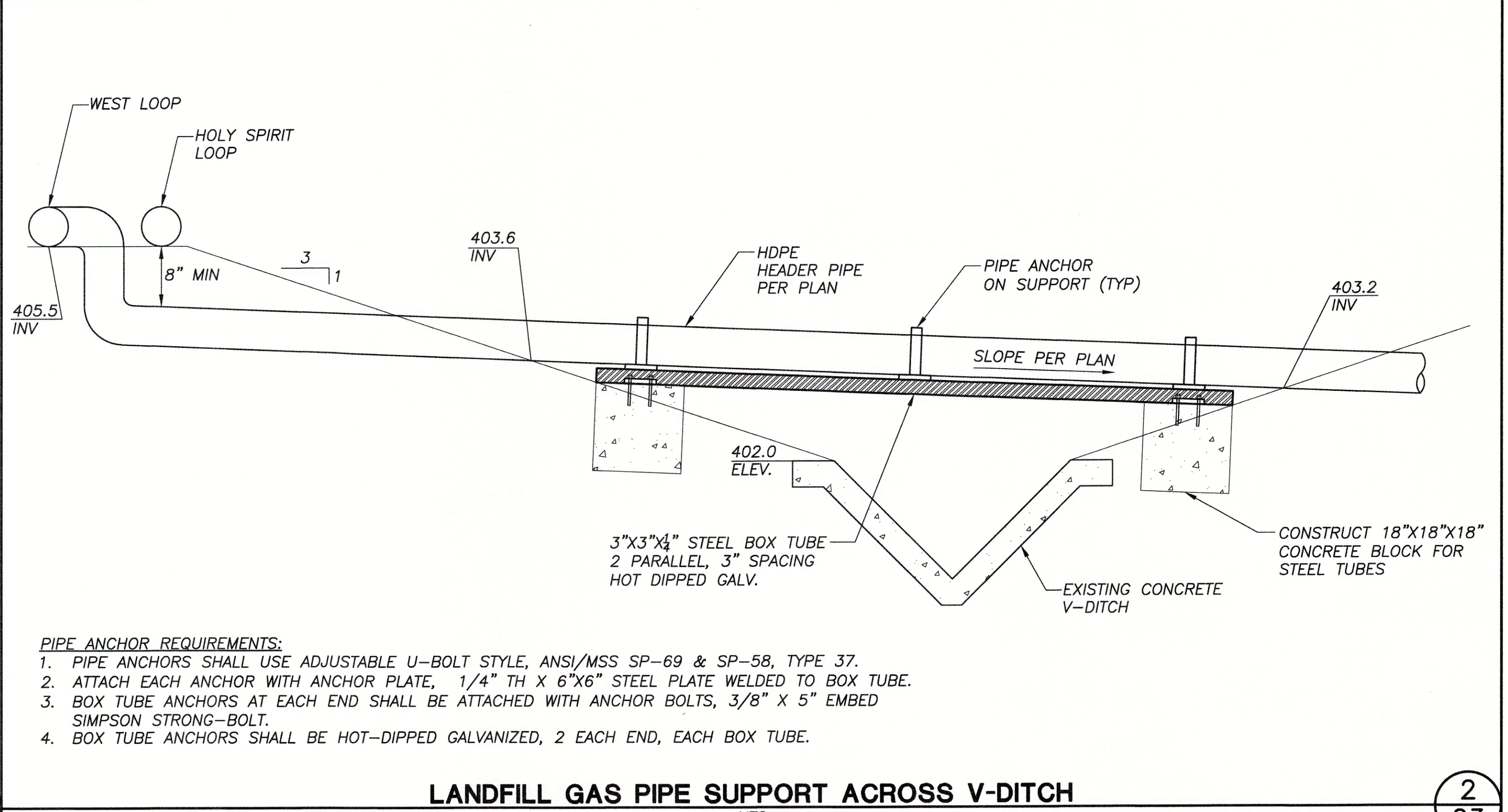
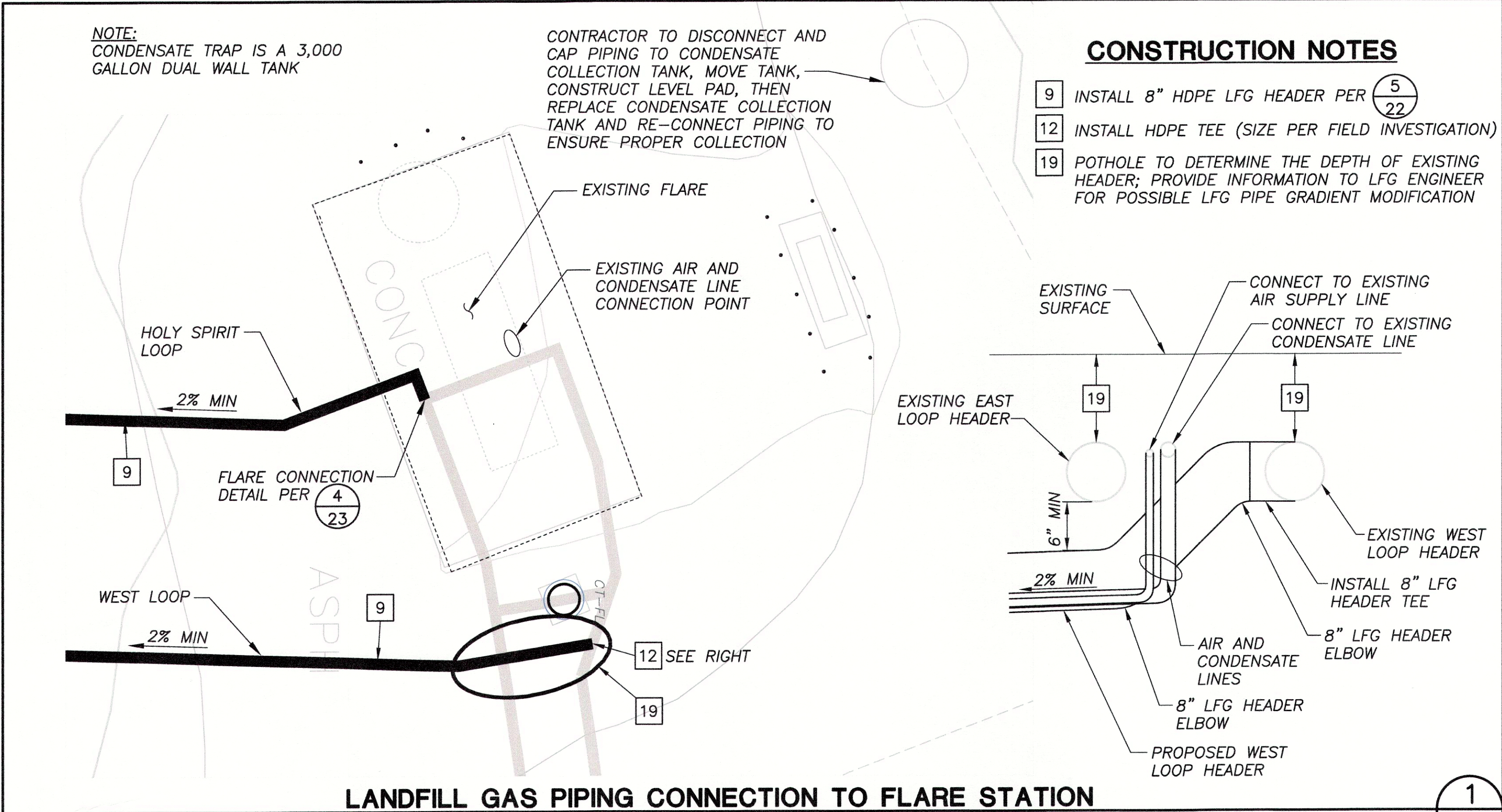
SENIOR CIVIL ENGINEER

WBS S-00684

1987-6281

WBS S-00684

38158-21-D



<p>PREPARED BY:</p> <p>SWT Civil & Environmental Engineering</p> <p>800 C SOUTH ROCHESTER AVENUE ONTARIO, CALIFORNIA 91761</p> <p>DESIGNED BY : J.A.B. SCALE : AS SHOWN</p> <p>DRAWN BY : C.G.G. DATE : 09-2014</p> <p>CHECKED BY : M.A.C. DATE : 09-2014</p> <p>APPROVED BY : DATE :</p>		<p>PREPARED UNDER THE SUPERVISION OF:</p> <p>MICHAEL A. CULLINANE</p> <p>No. 41981</p> <p>CIVIL</p> <p>STATE OF CALIFORNIA</p> <p>9/9/14 DATE</p>	<p>CITY OF SAN DIEGO STATE OF CALIFORNIA</p> <p>SEMPER VIGILANS</p> <p>City of San Diego, California</p> <p>Environmental Services Department</p> <p>Waste Reduction and Disposal Division</p>	<p>SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS</p> <p>2781 CAMINITO CHOLLAS SAN DIEGO, CA 92105</p>	<p>LANDFILL GAS DETAIL SHEET 2</p> <p>SHEET 23 OF 41 SHEETS</p> <p>APPROVALS</p> <table><tr><td>FOR CITY ENGINEER</td><td>DATE</td><td>FILED</td></tr><tr><td>DESCRIPTION</td><td>BY</td><td>APPROVED</td></tr><tr><td>CIVIL AND GAS PLANS</td><td>MAC</td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table> <p>CONTRACTOR: DATE STARTED: DATE COMPLETED:</p> <p>INSPECTOR: DATE COMPLETED:</p>	FOR CITY ENGINEER	DATE	FILED	DESCRIPTION	BY	APPROVED	CIVIL AND GAS PLANS	MAC											<p>SUBMITTED BY: MICHAEL CULLINANE PROJECT MANAGER</p> <p>CHECKED BY: JEREMY BOTICA PROJECT ENGINEER</p> <p>SYLVIA CASTILLO SENIOR CIVIL ENGINEER</p> <p>WBS S-00684</p> <p>1887-6281</p> <p>HAZUS COORDINATOR</p> <p>38158-23-D</p>
FOR CITY ENGINEER	DATE	FILED																						
DESCRIPTION	BY	APPROVED																						
CIVIL AND GAS PLANS	MAC																							

November 5, 2014 South Chollas Landfill Operations Yard Improvement Project

ADDENDUM "B"

Z:\PROJECTS\SAN DIEGO (CITY)\SOUTH CHOLLAS\ACAD\SHEET SET\23 - LANDFILL GAS DETAIL SHEET Page 22 of 22

City of San Diego

CITY CONTACT: Clementina Giordano, Contract Specialist, Email: Cgiordano@saniego.gov
Phone No. (619) 533-3481, Fax No. (619) 533-3633

ADDENDUM "C"

FOR



South Chollas Landfill Operations Yard Improvement Project

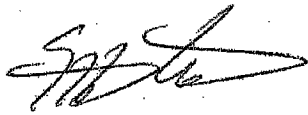
BID NO.: K-15-6285-DBB-3
SAP NO. (WBS/IO/CC): S-00684
CLIENT DEPARTMENT: 2115
COUNCIL DISTRICT: 4
PROJECT TYPE: FA / BS / CB

BID DUE DATE:

**2:00PM
NOVEMBER 13, 2014
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTS
1010 SECOND AVENUE, 14th FLOOR, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineer:



1) Registered Engineer

November 5, 2014

Date

Seal:



1) For City Engineer

11-5-14

Date

Seal:



A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

B. ADDENDUM B

1. To VOLUME 2, Item C, BIDDING DOCUMENTS, Proposal (BID), pages 10 through 18, **DELETE** in their entirety and **SUBSTITUTE** with pages 4 through 11 of this Addendum.

James Nagelvoort, Director
Public Works Department

Dated: *November 7, 2014*
San Diego, California

JN/RT/lji

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **South Chollas Landfill Operations Yard Improvement Project**, for the City of San Diego, in accordance with these contract documents for the prices listed below. The Bidder guarantees the Contract Price for a period of 120 days (90 days for federally funded contracts and contracts valued at \$500,000 or less) from the date of Bid opening to Award of the Contract. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent e.g., bond and insurance.

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
BASE BID							
1	1	LS	524126	2-4.1	Bonds (Payment and Performance)		
2	1	AL		01020	Oil/Diesel Fuel Cost Increase (Or Decrease) Allocation - Type II		\$100,000.00
3	1	AL		9-3.5	Field Orders - Type II		\$800,000.00
4	1	LS	238910	9-3.4.1	Mobilization		\$
5	1	LS	238910	02050	Demolition - Clearing and Grubbing		\$
6	1515	LF	238910	02831	Remove and Salvage Existing Chain Link Mesh Fence (on K-rails), Posts, and K-rail For Reinstallation Per Plan	\$	\$
7	3000	TON	238910	02200	Refuse Excavation, Transport and Disposal at Miramar Landfill	\$	\$
8	36000	CY	238910	02200	Excavate and Fill (Unclassified)	\$	\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
9	449536	SF	238990	02510	6-Inch Crushed Miscellaneous Base (Per Detail 2/14)	\$	\$
10	749557	SF	238990	02510	8-Inch Crushed Miscellaneous Base (Per Detail 3/14 and 4/14)	\$	\$
11	11900	TON	237321	301-2.4	Imported Crushed Miscellaneous Base	\$	\$
12	11238	TON	238990	02510	4-Inch Asphalt Concrete (Per Detail 2/14)	\$	\$
13	28108	TON	238990	02510	6-Inch Asphalt Concrete (Per Detail 3/14)	\$	\$
14	4345	SF	238990	03310	6-Inch Concrete (Per Detail 4/14)	\$	\$
15	157	TON	238990	02510	1-Inch AC Overlay (Per Detail 1/14)	\$	\$
16	157	TON	238990	02510	Temporary AC Pavement Fill/Join Between Phases (Per Detail 8/14)	\$	\$
17	858	LF	238990	02510	Type A - Asphalt Concrete Curb per SDRSD G-5	\$	\$
18	1207	LF	238990	03310	Longitudinal Gutter (Per Detail 6/14)	\$	\$
19	1821	LF	238990	03310	Curb and Gutter (SDRSD SDG-151)	\$	\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
20	1	LS	238990	03310	Drainage BMP (Per Detail 1/16)		\$
21	1	LS	238990	03310	Drainage BMP (Per Detail 3/16)		\$
22	1	EA	238990	03310	Drainage Inlet (Per Detail 1/15)	\$	\$
23	1	EA	238990	03310	Storm Water Separator (Per Detail 1/15)	\$	\$
24	1840	SF	238990	300-11.4	Embankment Protection (Per Detail 9/14)	\$	\$
25	42	EA	238990	02510	Wheel Stop 2 Feet from end of Parking Space	\$	\$
26	1	LS	238990	314-4.3.7	Painted Pavement/Curb Markings		\$
27	1	EA	238990	02610	Pipe Supports Across V-Ditch (per Detail 2/23)	\$	\$
28	5351	LF	238990	02610	8-Inch HDPE LFG Header (per Detail 5/22)	\$	\$
29	3258	LF	238990	02610	6-Inch HDPE LFG Sub-Header (per Detail 5/22)	\$	\$
30	2552	LF	238990	02610	4-Inch HDPE LFG Lateral (per Detail 5/22)	\$	\$

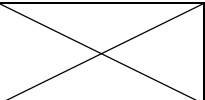
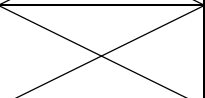
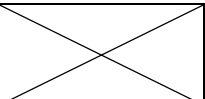
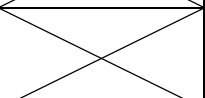
BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
31	1454	LF	238990	02610	2-Inch HDPE LFG Air Supply (per Detail 5/22)	\$	\$
32	1454	LF	238990	02610	1-1/2-Inch HDPE LFG Condensate Line (per Detail 5/22)	\$	\$
33	37	EA	238990	02610	LFG Control Vault and Bollards (per Detail 3/23)	\$	\$
34	52	EA	238990	02610	On-Grade LFG Pipe Support (per Detail 6/22)	\$	\$
35	24	EA	238990	02610	Adjust and Connect Existing Well Head to New Header, Sub-Header, or Lateral (per Detail 1/19 and 3/23)	\$	\$
36	1	EA	238990	02610	LFG Piping Connection to Flare Station (per Detail 1/23)	\$	\$
37	3	EA	238990	02670	LFG Condensate Trap (per Detail 1/22)	\$	\$
38	3	EA	238990	02670	Remote Well Head in LFG Control Vault (per Detail 3/23)	\$	\$
39	479	VF	238990	02670	LFG Well - Drilling, Installation, Well Head and Connection (per Detail 2/22)	\$	\$
40	6681	LF	238990	02831	6-Foot High Chain Link Fence (new) per SDM -112	\$	\$
41	3535	LF	238990	02831	8-Foot High Chain Link Fence (new) with Barbwire Top per SDM -112	\$	\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
42	920	LF	238990	02831	6-Foot High Chain Link Fence (Salvaged mesh on new poles) per SDM -112	\$	\$
43	1	EA	238990	02831	12-Foot Wide 6-Foot High Chain Link Gate per SDM-112	\$	\$
44	21	EA	238990	02831	20-Foot Wide 6-Foot High Chain Link Gate per SDM -114	\$	\$
45	1	EA	238990	02831	30-Foot Wide 6-Foot High Chain Link Gate per SDM -114	\$	\$
46	3	EA	238990	02831	20-Foot Wide 8-Foot High Chain Link Gate per SDM -114	\$	\$
47	1	LS	238990	03310	Truck Exit Rumble Strip Bmp (Per Detail 3/15)		\$
48	32	EA	238210	03310	Light Pole Footing (Per Details 1/S1, 2/S1, and 3/S1)	\$	\$
49	1	LS	541330	701-13.8.4	Water Pollution Control Program Development		\$
50	1	LS	238990	701-13.8.4	Water Pollution Control Program Implementation		\$
51	1	AL		701-13.8.4	Permit Fee - Type I		\$15,000.00
ESTIMATED TOTAL BASE BID:							\$

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
ADDITIVE ALTERNATE 'A'							
1	1	LS	238990	05120	Steel Covers for Concrete Material Bins (Per Sheets S1, S2 and S3)		\$
2	1	LS	238990	03310	Concrete Material Bins (Per Sheets S1, S2 and S3)		\$
ESTIMATED ADDITIVE ALTERNATE 'A' BID:							\$
ADDITIVE ALTERNATE 'B'							
1	1	LS	238210	16050	Overhead Aerial Cabling For Existing Flare Station		\$
2	1	LS	238210	16050	Cabling, Conduit, Fittings, Controls For Lighting		\$
3	32	EA	238210	16530	New Lighting/Power Poles	\$	\$
4	107	EA	238210	16530	New Lighting Fixtures on New Poles	\$	\$
ESTIMATED ADDITIVE ALTERNATE 'B' BID:							\$
ESTIMATED TOTAL BASE BID PLUS ADDITIVE ALTERNATE 'A' BID PLUS ADDITIVE ALTERNATE 'B' BID:							\$

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 51, plus Additive Alternate A, items 1 through 2, plus Additive Alternate B, items 1 through 4 inclusive) amount written in words:

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: _____

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, state secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full.

Bidder: _____

Title: _____

Business Address: _____

Place of Business: _____

Place of Residence: _____

Signature: _____

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Additive Alternate: **A and B**.
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. Prices and notations shall be in ink or typewritten. All corrections (which have been initiated by the Bidder using erasures, strike out, line out, or "white-out") shall be typed or written in with ink adjacent thereto, and shall be initialed in ink by the person signing the bid proposal.
- D. Failure to initial all corrections made in the bidding documents may cause the Bid to be rejected as **non-responsive** and ineligible for further consideration.
- E. Blank spaces must be filled in, using figures. Bidder's failure to submit a price for any Bid item that requires the Bidder to submit a price shall render the Bid **non-responsive** and shall be cause for its rejection.
- F. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.
- G. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.
- H. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.
- I. Bids shall not contain any recapitulation of the Work. Conditional Bids will be rejected as being **non-responsive**. Alternative proposals will not be considered unless called for.
- J. Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

12/17/14 CW
Valid

City of San Diego

CONTRACTOR'S NAME: SRM Contracting and Paving
ADDRESS: 7192 Mission Gorge Road, San Diego, CA 92120
TELEPHONE NO.: 619-265-0955 FAX NO.: 619-583-3147
CITY CONTACT: Damian Singleton, Contract Specialist, Email: Dsingleton@sandiego.gov
Phone No. (619) 533-3482, Fax No. (619) 533-3633
M Calleran / B Doringo / LJI

CONTRACT DOCUMENTS

FOR



South Chollas Landfill Operations Yard Improvement Project

VOLUME 2 OF 2

BID NO.: K-15-6285-DBB-3
SAP NO. (WBS/IO/CC): S-00684
CLIENT DEPARTMENT: 2115
COUNCIL DISTRICT: 4
PROJECT TYPE: FA / BS / CB

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.
- PREVAILING WAGE RATES: STATE ☒ FEDERAL ☐
- APPRENTICESHIP

THIS BIDDING DOCUMENT TO BE SUBMITTED IN ITS ENTIRETY
REFER TO VOLUME 1 COVER PAGE FOR TIME, DATE, AND LOCATION

DESCRIPTION	TABLE OF CONTENTS	PAGE NUMBER
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Volume 2 - Bidding Documents

The following forms must be completed in their entirety and submitted with the Bid. Include the form(s) even if the information does not apply. Where the information does not apply write in N/A. Failure to include any of the forms may cause the Bid to be deemed **non-responsive**. If you are uncertain or have any questions about any required information, contact the City no later than 14 days prior to Bid due date.

1. Bid/Proposal.....	3
2. Bid Bond	6
3. Non-Collusion Affidavit to be executed by Bidder and Submitted with Bid under 23 USC 112 and PCC 7106	7
4. Contractors Certification of Pending Actions	8
5. Equal Benefits Ordinance Certification of Compliance.....	9
6. Proposal (Bid)	10
7. Form AA35 - List of Subcontractors	18
8. Form AA40 - Named Equipment/Material Supplier List	19
9. Form AA45 - Subcontractors Additive/Deductive Alternate.....	20

BIDDING DOCUMENTS

PROPOSAL

Bidder's General Information

To the City of San Diego:

Pursuant to "Notice Inviting Bids", specifications, and requirements on file with the City Clerk, and subject to all provisions of the Charter and Ordinances of the City of San Diego and applicable laws and regulations of the United States and the State of California, the undersigned hereby proposes to furnish to the City of San Diego, complete at the prices stated herein, the items or services hereinafter mentioned. The undersigned further warrants that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

The undersigned bidder(s) further warrants that bidder(s) has thoroughly examined and understands the entire Contract Documents (plans and specifications) and the Bidding Documents therefore, and that by submitting said Bidding Documents as its bid proposal, bidder(s) acknowledges and is bound by the entire Contract Documents, including any addenda issued thereto, as such Contract Documents incorporated by reference in the Bidding Documents.

IF A SOLE OWNER OR SOLE CONTRACTOR SIGN HERE:

- (1) Name under which business is conducted _____
- (2) Signature (Given and surname) of proprietor _____
- (3) Place of Business (Street & Number) _____
- (4) City and State _____ Zip Code _____
- (5) Telephone No. _____ Facsimile No. _____
- (6) Email Address _____

IF A PARTNERSHIP, SIGN HERE:

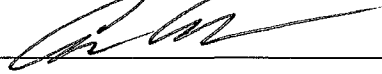
- (1) Name under which business is conducted Superior Ready Mix Concrete, LP, dba
SRM Contracting and Paving

BIDDING DOCUMENTS

- (2) Name of each member of partnership, indicate character of each partner, general or special (limited): *** see attachment**

J. Brouwer Investments, Inc. - General Partner
JBCHC Limited Partnership - Limited Partner

- (3) Signature (Note: Signature must be made by a general partner)



Full Name and Character of partner

Arnold Veldkamp
Secretary

- (4) Place of Business (Street & Number) 7192 Mission Gorge Road
(5) City and State San Diego, CA Zip Code 92120
(6) Telephone No. 619-265-0955 Facsimile No. 619-583-3147
(7) Email Address bbutler@srmap.com

IF A CORPORATION, SIGN HERE:

- (1) Name under which business is conducted _____
(2) Signature, with official title of officer authorized to sign for the corporation:

(Signature)

(Printed Name)

(Title of Officer)

(Impress Corporate Seal Here)

- (3) Incorporated under the laws of the State of _____
(4) Place of Business (Street & Number) _____
(5) City and State _____ Zip Code _____
(6) Telephone No. _____ Facsimile No. _____
(7) Email Address _____

BIDDING DOCUMENTS

THE FOLLOWING SECTIONS MUST BE FILLED IN BY ALL PROPOSERS:

In accordance with the "NOTICE INVITING BIDS", the bidder holds a California State Contractor's license for the following classification(s) to perform the work described in these specifications:

LICENSE CLASSIFICATION A

LICENSE NO. 626277 EXPIRES August 31, 2015

This license classification must also be shown on the front of the bid envelope. Failure to show license classification on the bid envelope may cause return of the bid unopened.

TAX IDENTIFICATION NUMBER (TIN): [REDACTED]

Email Address: bbutler@srncp.com

THIS PROPOSAL MUST BE NOTARIZED BELOW:

I certify, under penalty of perjury, that the representations made herein regarding my State Contractor's license number, classification and expiration date are true and correct.

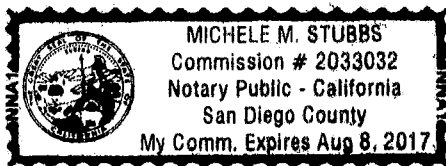
Signature [Signature] Title Secretary
Arnold Veldkamp

SUBSCRIBED AND SWORN TO BEFORE ME, THIS 10th DAY OF November, 2014.

Notary Public in and for the County of San Diego, State of California

[Signature]

(NOTARIAL SEAL)



BIDDING DOCUMENTS

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That Superior Ready Mix Concrete L.P. dba SRM Contracting & as Principal, and
Nationwide Mutual Insurance Company as Surety, are
held and firmly bound unto The City of San Diego hereinafter called "OWNER," in the sum of **10%
OF THE TOTAL BID AMOUNT** for the payment of which sum, well and truly to be made, we
bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally,
firmly by these presents.

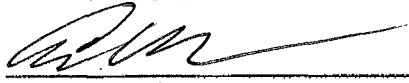
WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required
under the bidding schedule(s) of the OWNER's Contract Documents entitled

South Chollas Landfill Operations Yard Improvement Project

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time
and in the manner required in the "Notice Inviting Bids" enters into a written Agreement on the form
of agreement bound with said Contract Documents, furnishes the required certificates of insurance,
and furnishes the required Performance Bond and Payment Bond, then this obligation shall be null
and void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond
by said OWNER and OWNER prevails, said Surety shall pay all costs incurred by said OWNER in
such suit, including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this 24th day of October, 20 14


Superior Ready Mix Concrete L.P. dba SRM
Contracting & Paving (SEAL)
(Principal)

By: 
(Signature)

Arnold Veldkamp, Secretary

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

Nationwide Mutual Insurance Company (SEAL)
(Surety)

By: 
(Signature)

Keith E. Clements, Attorney-in-Fact

ACKNOWLEDGMENT

State of California
County of San Diego

On October 24, 2014 before me, Michele M. Stubbs, Notary Public, personally appeared Arnold Veldkamp, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Michele M. Stubbs

ACKNOWLEDGMENT

State of California
County of San Diego

On October 24, 2014 before me, Diana Kelly, Notary Public, personally appeared Keith E. Clements who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



WITNESS my hand and official seal.

Diana Kelly

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation
Farmland Mutual Insurance Company, an Iowa corporation
Nationwide Agribusiness Insurance Company, an Iowa corporation

AMCO Insurance Company, an Iowa corporation
Allied Property and Casualty Insurance Company, an Iowa corporation
Depositors Insurance Company, an Iowa corporation

hereinafter referred to severally as the "Company" and collectively as the "Companies," each does hereby make, constitute and appoint:

Keith E. Clements, La Mesa, CA

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

Four Million Dollars and NO/100

\$4,000,000.00

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the
13th day of February, 2014.



Terrance Williams, President and Chief Operating Officer of Nationwide Agribusiness Insurance Company and Farmland Mutual Insurance Company; and **Vice President** of Nationwide Mutual Insurance Company, AMCO Insurance Company, Allied Property and Casualty Insurance Company, and Depositors Insurance Company

ACKNOWLEDGMENT

STATE OF IOWA, COUNTY OF POLK: ss

On this 13th day of February, 2014, before me came the above-named officer for the Companies aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Companies aforesaid, that the seals affixed hereto are the corporate seals of said Companies, and the said corporate seals and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Companies.

Sandy Alitz
Notarial Seal - Iowa
Commission Number 152785
My Commission Expires March, 24, 2017

Notary Public
My Commission Expires
March 24, 2017

CERTIFICATE

I, Robert W Horner III, Secretary of the Companies, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Terrance Williams was on the date of the execution of the foregoing power of attorney the duly elected officer of the Companies, and the corporate seals and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Secretary, and affixed the corporate seals of said Companies this 24th day
of October, 2014.

Secretary

This Power of Attorney Expires March 24, 2017

BIDDING DOCUMENTS

**NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND
SUBMITTED WITH BID UNDER 23 UNITED STATES CODE 112 AND
PUBLIC CONTRACT CODE 7106**

State of California)
) ss.

County of San Diego)

Arnold Veldkamp, being first duly sworn, deposes and
says that he or she is Secretary of the party making the foregoing
bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership,
company, association, organization, or corporation; that the bid is genuine and not collusive or sham;
that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or
sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder
or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not
in any manner, directly or indirectly, sought by agreement, communication, or conference with
anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost
element of the bid price, or of that of any other bidder, or to secure any advantage against the public
body awarding the contract of anyone interested in the proposed contract; that all statements
contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his
or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data
relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company
association, organization, bid depository, or to any member or agent thereof to effectuate a collusive
or sham bid.

Signed: _____

Title: _____

Secretary

Subscribed and sworn to before me this 10th day of November, 2014

Michelle M. Stubbs

Notary Public

(SEAL)



BIDDING DOCUMENTS

CONTRACTORS CERTIFICATION OF PENDING ACTIONS

As part of its bid or proposal (Non-Price Proposal in the case of Design-Build contracts), the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

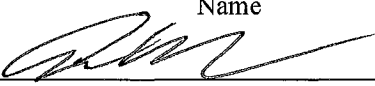
- ☒ The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.
- ☐ The undersigned certifies that within the past 10 years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/REMEDIAL ACTION TAKEN

Contractor Name: SRM Contracting and Paving

Certified By Arnold Veldkamp Title Secretary

Name



Signature

Date 11/10/14

USE ADDITIONAL FORMS AS NECESSARY

BIDDING DOCUMENTS

EQUAL BENEFITS ORDINANCE CERTIFICATION OF COMPLIANCE



For additional information, contact:

CITY OF SAN DIEGO

EQUAL BENEFITS PROGRAM

202 C Street, MS 9A, San Diego, CA 92101

Phone (619) 533-3948 Fax (619) 533-3220

COMPANY INFORMATION

Company Name: <u>SRM Contracting and Paving</u>	Contact Name: <u>Bill Butler</u>
Company Address: <u>7192 Mission Gorge Road</u>	Contact Phone: <u>619-265-0955</u>
<u>San Diego, CA 92120</u>	Contact Email: <u>bbutler@srmscp.com</u>

CONTRACT INFORMATION

Contract Title: <u>South Chollas Landfill Operations Yard Improvements</u>	Start Date:
Contract Number (if no number, state location): <u>K-15-6285-DBB-3</u>	End Date:

SUMMARY OF EQUAL BENEFITS ORDINANCE REQUIREMENTS

The Equal Benefits Ordinance [EBO] requires the City to enter into contracts only with contractors who certify they will provide and maintain equal benefits as defined in SDMC §22.4302 for the duration of the contract. To comply:

- Contractor shall offer equal benefits to employees with spouses and employees with domestic partners.
 - Benefits include health, dental, vision insurance; pension/401(k) plans; bereavement, family, parental leave; discounts, child care; travel/relocation expenses; employee assistance programs; credit union membership; or any other benefit.
 - Any benefit not offer an employee with a spouse, is not required to be offered to an employee with a domestic partner.
- Contractor shall post notice of firm's equal benefits policy in the workplace and notify employees at time of hire and during open enrollment periods.
- Contractor shall allow City access to records, when requested, to confirm compliance with EBO requirements.
- Contractor shall submit *EBO Certification of Compliance*, signed under penalty of perjury, prior to award of contract.

NOTE: This summary is provided for convenience. Full text of the EBO and Rules Implementing the EBO are available at www.sandiego.gov/administration.

CONTRACTOR EQUAL BENEFITS ORDINANCE CERTIFICATION

Please indicate your firm's compliance status with the EBO. The City may request supporting documentation.

- ☐ I affirm **compliance** with the EBO because my firm (*contractor must select one reason*):
- ☐ Provides equal benefits to spouses and domestic partners.
 - ☐ Provides no benefits to spouses or domestic partners.
 - ☐ Has no employees.
 - ☐ Has collective bargaining agreement(s) in place prior to January 1, 2011, that has not been renewed or expired.
- ☒ I request the City's approval to pay affected employees a cash equivalent in lieu of equal benefits and verify my firm made a reasonable effort but is not able to provide equal benefits upon contract award. I agree to notify employees of the availability of a cash equivalent for benefits available to spouses but not domestic partners and to continue to make every reasonable effort to extend all available benefits to domestic partners.

It is unlawful for any contractor to knowingly submit any false information to the City regarding equal benefits or cash equivalent associated with the execution, award, amendment, or administration of any contract. [San Diego Municipal Code §22.4307(a)]

Under penalty of perjury under laws of the State of California, I certify the above information is true and correct. I further certify that my firm understands the requirements of the Equal Benefits Ordinance and will provide and maintain equal benefits for the duration of the contract or pay a cash equivalent if authorized by the City.

Arnold Veldkamp, Secretary

Name/Title of Signatory

Signature

11/10/14

Date

FOR OFFICIAL CITY USE ONLY

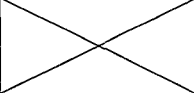
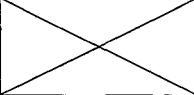
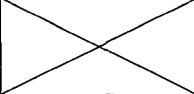
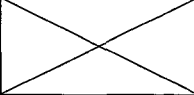

Receipt Date:	EBO Analyst:	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved – Reason:
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(Rev 02/15/2011)

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **South Chollas Landfill Operations Yard Improvement Project**, for the City of San Diego, in accordance with these contract documents for the prices listed below. The Bidder guarantees the Contract Price for a period of 120 days (90 days for federally funded contracts and contracts valued at \$500,000 or less) from the date of Bid opening to Award of the Contract. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent e.g., bond and insurance.

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
BASE BID							
1	1	LS	524126	2-4.1	Bonds (Payment and Performance)		73,000. ⁰⁰
2	1	AL		01020	Oil/Diesel Fuel Cost Increase (Or Decrease) Allocation - Type II		\$100,000.00
3	1	AL		9-3.5	Field Orders - Type II		\$800,000.00
4	1	LS	238910	9-3.4.1	Mobilization		\$272,972. ⁰⁰
5	1	LS	238910	02050	Demolition - Clearing and Grubbing		\$745,457. ⁰⁰
6	1515	LF	238910	02831	Remove and Salvage Existing Chain Link Mesh Fence (on K-rails), Posts, and K-rail For Reinstallation Per Plan	\$17. ⁰⁰	\$25,755. ⁰⁰
7	3000	TON	238910	02200	Refuse Excavation, Transport and Disposal at Miramar Landfill	\$32. ⁰⁰	\$96,000. ⁰⁰
8	36000	CY	238910	02200	Excavate and Fill (Unclassified)	\$13. ³⁰	\$478,800. ⁰⁰

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
9	449536	SF	238990	02510	6-Inch Crushed Miscellaneous Base (Per Detail 2/14)	\$ 0.36	\$ 161,832. ⁹⁶
10	749557	SF	238990	02510	8-Inch Crushed Miscellaneous Base (Per Detail 3/14 and 4/14)	\$ 0.40	\$ 299,822. ⁸⁰
11	11900	TON	237321	301-2.4	Imported Crushed Miscellaneous Base	\$ 10.90	\$ 129,710. ⁰⁰
12	11238	TON	238990	02510	4-Inch Asphalt Concrete (Per Detail 2/14)	\$ 57.10	\$ 641,689. ⁸⁰
13	28108	TON	238990	02510	6-Inch Asphalt Concrete (Per Detail 3/14)	\$ 58.70	\$ 1,649,939. ⁶⁰
14	4345	SF	238990	03310	6-Inch Concrete (Per Detail 4/14)	\$ 10.50	\$ 45,622. ⁵⁰
15	157	TON	238990	02510	1-Inch AC Overlay (Per Detail 1/14)	\$ 72.00	\$ 11,304. ⁰⁰
16	157	TON	238990	02510	Temporary AC Pavement Fill/Join Between Phases (Per Detail 8/14)	\$ 100.00	\$ 15,700. ⁰⁰
17	858	LF	238990	02510	Type A - Asphalt Concrete Curb per SDRSD G-5	\$ 8.70	\$ 7,464. ⁶⁰
18	1207	LF	238990	03310	Longitudinal Gutter (Per Detail 6/14)	\$ 18.80	\$ 22,691. ⁶⁰
19	1821	LF	238990	03310	Curb and Gutter (SDRSD SDG-151)	\$ 33.40	\$ 60,821. ⁴⁰

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
20	1	LS	238990	03310	Drainage BMP (Per Detail 1/16)		\$ 13,679. ⁰⁰
21	1	LS	238990	03310	Drainage BMP (Per Detail 3/16)		\$ 154,670. ⁰⁰
22	1	EA	238990	03310	Drainage Inlet (Per Detail 1/15)	\$ 4,703. ⁰⁰	\$ 4,703. ⁰⁰
23	1	EA	238990	03310	Storm Water Separator (Per Detail 1/15)	\$ 31,350. ⁰⁰	\$ 31,350. ⁰⁰
24	1840	SF	238990	300-11.4	Embankment Protection (Per Detail 9/14)	\$ 7. ¹⁰	\$ 13,064. ⁰⁰
25	42	EA	238990	02510	Wheel Stop 2 Feet from end of Parking Space	\$ 52.00	\$ 2,184. ⁰⁰
26	1	LS	238990	314-4.3.7	Painted Pavement/Curb Markings		\$ 40,917. ⁰⁰
27	1	EA	238990	02610	Pipe Supports Across V-Ditch (per Detail 2/23)	\$ 9,416. ⁰⁰	\$ 9,416. ⁰⁰
28	5351	LF	238990	02610	8-Inch HDPE LFG Header (per Detail 5/22)	\$ 41.00	\$ 219,391. ⁰⁰
29	3258	LF	238990	02610	6-Inch HDPE LFG Sub-Header (per Detail 5/22)	\$ 39.00	\$ 127,062. ⁰⁰
30	2552	LF	238990	02610	4-Inch HDPE LFG Lateral (per Detail 5/22)	\$ 36.00	\$ 91,872. ⁰⁰

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
31	1454	LF	238990	02610	2-Inch HDPE LFG Air Supply (per Detail 5/22)	\$ 3.30	\$ 4,798. ²⁰ _—
32	1454	LF	238990	02610	1-1/2-Inch HDPE LFG Condensate Line (per Detail 5/22)	\$ 3.20	\$ 4,652. ⁸⁰ _—
33	37	EA	238990	02610	LFG Control Vault and Bollards (per Detail 3/23)	\$ 6,959. ⁰⁰ _—	\$ 257,483. ⁰⁰ _—
34	52	EA	238990	02610	On-Grade LFG Pipe Support (per Detail 6/22)	\$ 109. ⁰⁰ _—	\$ 5,668. ⁰⁰ _—
35	24	EA	238990	02610	Adjust and Connect Existing Well Head to New Header, Sub-Header, or Lateral (per Detail 1/19 and 3/23)	\$ 5,668. ⁰⁰ _—	\$ 136,032. ⁰⁰ _—
36	1	EA	238990	02610	LFG Piping Connection to Flare Station (per Detail 1/23)	\$ 9,767. ⁰⁰ _—	\$ 9,767. ⁰⁰ _—
37	3	EA	238990	02670	LFG Condensate Trap (per Detail 1/22)	\$ 22,812. ⁰⁰ _—	\$ 68,436. ⁰⁰ _—
38	3	EA	238990	02670	Remote Well Head in LFG Control Vault (per Detail 3/23)	\$ 7,877. ⁰⁰ _—	\$ 23,631. ⁰⁰ _—
39	479	VF	238990	02670	LFG Well - Drilling, Installation, Well Head and Connection (per Detail 2/22)	\$ 188. ⁰⁰ _—	\$ 90,052. ⁰⁰ _—
40	6681	LF	238990	02831	6-Foot High Chain Link Fence (new) per SDM -112	\$ 23.90	\$ 159,675. ⁹⁰ _—
41	3535	LF	238990	02831	8-Foot High Chain Link Fence (new) with Barbwire Top per SDM -112	\$ 29.30	\$ 103,575. ⁵⁰ _—

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
42	920	LF	238990	02831	6-Foot High Chain Link Fence (Salvaged mesh on new poles) per SDM -112	\$ 19.30	\$ 17,756. ⁰⁰
43	1	EA	238990	02831	12-Foot Wide 6-Foot High Chain Link Gate per SDM-112	\$ 1,684. ³⁴	\$ 1,684. ³⁴
44	21	EA	238990	02831	20-Foot Wide 6-Foot High Chain Link Gate per SDM -114	\$ 1,747. ⁰⁰	\$ 36,687. ⁰⁰
45	1	EA	238990	02831	30-Foot Wide 6-Foot High Chain Link Gate per SDM -114	\$ 2,378. ⁰⁰	\$ 2,378. ⁰⁰
46	3	EA	238990	02831	20-Foot Wide 8-Foot High Chain Link Gate per SDM -114	\$ 2,024. ⁰⁰	\$ 6,072. ⁰⁰
47	1	LS	238990	03310	Truck Exit Rumble Strip Bmp (Per Detail 3/15)		\$ 23,042. ⁰⁰
48	32	EA	238210	03310	Light Pole Footing (Per Details 1/S1, 2/S1, and 3/S1)	\$ 2,236. ⁰⁰	\$ 71,552. ⁰⁰
49	1	LS	541330	701-13.8.4	Water Pollution Control Program Development		\$ 18,915. ⁰⁰
50	1	LS	238990	701-13.8.4	Water Pollution Control Program Implementation		\$ 67,641. ⁰⁰
51	1	AL		701-13.8.4	Permit Fee - Type I		\$15,000.00
ESTIMATED TOTAL BASE BID:							\$ 7,471,390. ⁰⁰

BIDDING DOCUMENTS

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
ADDITIVE ALTERNATE 'A'							
1	1	LS	238990	05120	Steel Covers for Concrete Material Bins (Per Sheets S1, S2 and S3)		\$ 373,494. ⁰⁰
2	1	LS	238990	03310	Concrete Material Bins (Per Sheets S1, S2 and S3)		\$ 605,676. ⁰⁰
ESTIMATED ADDITIVE ALTERNATE 'A' BID:							\$ 979,170. ⁰⁰
ADDITIVE ALTERNATE 'B'							
1	1	LS	238210	16050	Overhead Aerial Cabling For Existing Flare Station		\$ 15,793. ⁰⁰
2	1	LS	238210	16050	Cabling, Conduit, Fittings, Controls For Lighting		\$ 84,227. ⁰⁰
3	32	EA	238210	16530	New Lighting/Power Poles	\$ 1,369. ⁰⁰	\$ 43,808. ⁰⁰
4	107	EA	238210	16530	New Lighting Fixtures on New Poles	\$ 1,927. ⁰⁰	\$ 206,189. ⁰⁰
ESTIMATED ADDITIVE ALTERNATE 'B' BID:							\$ 350,017. ⁰⁰
ESTIMATED TOTAL BASE BID PLUS ADDITIVE ALTERNATE 'A' BID PLUS ADDITIVE ALTERNATE 'B' BID:							\$ 8,800,577. ⁰⁰

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 51, plus Additive Alternate A, items 1 through 2, plus Additive Alternate B, items 1 through 4 inclusive) amount written in words:

eight million, eight hundred thousand, five hundred and seventy seven dollars

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: A, B, C

The names of all persons interested in the foregoing proposal as principals are as follows:

J. Brower Investments, Inc.

JBCHC Limited Partnership

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, state secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full.

Bidder: Superior Ready Mix Concrete, LP, dba SRM Contracting and Paving

Title: Secretary

Business Address: 7192 Mission Gorge Rd., San Diego, CA 92120

Place of Business: 7192 Mission Gorge Rd., San Diego, CA 92120

Place of Residence: _____

Signature: 

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Additive Alternate: **A and B**.
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. Prices and notations shall be in ink or typewritten. All corrections (which have been initiated by the Bidder using erasures, strike out, line out, or "white-out") shall be typed or written in with ink adjacent thereto, and shall be initialed in ink by the person signing the bid proposal.
- D. Failure to initial all corrections made in the bidding documents may cause the Bid to be rejected as **non-responsive** and ineligible for further consideration.
- E. Blank spaces must be filled in, using figures. Bidder's failure to submit a price for any Bid item that requires the Bidder to submit a price shall render the Bid **non-responsive** and shall be cause for its rejection.
- F. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.
- G. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.
- H. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.
- I. Bids shall not contain any recapitulation of the Work. Conditional Bids will be rejected as being **non-responsive**. Alternative proposals will not be considered unless called for.
- J. Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Bidder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also list below the portion of the work which will be done by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED ②	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>McGrath Consulting</u> Address: <u>P.O. Box 2488</u> City: <u>El Cajon</u> State: <u>CA</u> Zip: <u>92021</u> Phone: <u>(619) 443-3811</u> Email: <u>www@mcswppp.com</u>	Designer	W/A	WPCP	\$18,100 ⁰⁰	SLBE #11m#0280	City of San Diego	
Name: <u>SCS Field Services Sub 110</u> Address: <u>3900 Kilroy Airportway</u> City: <u>Long Beach</u> State: <u>CA</u> Zip: <u>90806</u> Phone: <u>(562) 426-5944</u> Email: <u>KL.RANZ@SCSeng.com</u>	Constructor	#741670	LFS Systems	\$1,176,421 ⁴³	N/A	N/A	

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Subcontractor is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

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BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Bidder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also list below the portion of the work which will be done by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED ②	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>KCI Engineering & Excavation</u> Address: <u>419 West 9th Avenue</u> City: <u>Escondido</u> State: <u>CA</u> Zip: <u>92025</u> Phone: <u>(760) 294-1818</u> Email: <u>dstimings@realtekinc.net</u>	Constructor	793295	Site Concrete	\$142,648.00	SLBE 11RC0358	City of San Diego	
Name: <u>In-Line Fence & Railing</u> Address: <u>P.O. Box 2637</u> City: <u>Rancho</u> State: <u>CA</u> Zip: <u>92065</u> Phone: <u>(760) 789-0782</u> Email: <u>gary@inlinerail.com</u>	Constructor	769516	Fencing	\$339,013.00	SLBE	City of San Diego	

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Subcontractor is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Bidder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also list below the portion of the work which will be done by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>Statewide stripes Inc</u> Address: <u>P.O. 100710</u> City: <u>San Diego</u> State: <u>CA</u> Zip: <u>92160</u> Phone: <u>(619) 560-6881</u> Email: <u>matt@statewide.com</u>	Constructor	<u>788284</u>	<u>Striping & wheel stop</u>	<u>35,300⁰⁰</u>	<u>DBE</u>	<u>State</u>	
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Subcontractor is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

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BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Bidder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also list below the portion of the work which will be done by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED ②	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>ACE Electric Inc</u> Address: <u>P.O. Box 401071</u> City: <u>San Diego</u> State: <u>CA</u> Zip: <u>92160</u> Phone: <u>(619) 521-9740</u> Email: _____	Constructor	#835109	Electrical Demo Light footing	\$76,400 ⁰²	SBE	State	
Name: <u>Concrete Contractor Interstate</u> Address: <u>12591 Scollor Court</u> City: <u>Poway</u> State: <u>CA</u> Zip: <u>92014</u> Phone: <u>(619) 679-5550</u> Email: <u>NICK@SCCTCT.COM</u>	Constructor	#530842	Drainage structures	\$181,650 ⁰²	SBE	State	

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Subcontractor is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

BIDDING DOCUMENTS

NAMED EQUIPMENT/MATERIAL SUPPLIER LIST

The Bidder seeking the recognition of equipment, materials, or supplies obtained from Suppliers towards achieving any mandatory, voluntary, or both subcontracting participation percentages shall list the Supplier(s) on the Named Equipment/Material Supplier List. The Named Equipment/Material Supplier List, at a minimum, shall have the name, locations (City) and the **DOLLAR VALUE** of the Suppliers. The Bidder will be credited up to 60% of the amount to be paid to the Suppliers for such materials and supplies unless vendor manufactures or substantially alters materials and supplies in which case 100% will be credited. The Bidder is to indicate (Yes/No) whether listed firm is a supplier or manufacturer. In calculating the subcontractor participation percentages, vendors/suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed dollar value for purposes of calculating the Subcontractor Participation Percentage, Suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **DOLLAR VALUE** for purposes of calculating the subcontractor participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	DOLLAR VALUE OF MATERIAL OR SUPPLIES (MUST BE FILLED OUT)	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____						

① As appropriate, Bidder shall identify Vendor/Supplier as one of the following and shall include a valid proof of certification (except for OBE,SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

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City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

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BIDDING DOCUMENTS

SUBCONTRACTORS ADDITIVE/DEDUCTIVE ALTERNATE

Bidder shall list all Subcontractors described in the Bidder's *Base Bid* whose percentage of work will increase or decrease if alternates are selected for award. Bidder shall also list additional Subcontractors not described in the Bidder's *Base Bid* who, as a result of the alternates, will perform work or labor, or render services, or specially fabricate and install a portion [type] of work or improvements in an amount in excess of 0.5%.. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

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ADDITIVE/ DEDUCTIVE ALTERNATE	NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Additive	Name: Richardson Steel Inc Address: 9102 harness st. City: Spring Valley State: CA Zip: 91977 Phone: (619) 697-5892 Email: BobCerson@RichardsonSteelInc.com	Constructor	#756989	structural steel	\$354,750 ⁰⁰	SBE	state	
Additive	Name: Dae Electric Address: P.O. Box 601071 City: San Diego State: CA Zip: 92160 Phone: (619) 521-9740 Email:	Constructor	#835109	Electrical	\$332,410 ⁰⁰	SBE	state	

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Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
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Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

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City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

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BIDDING DOCUMENTS

SUBCONTRACTORS ADDITIVE/DEDUCTIVE ALTERNATE

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Subcontractors' License Number must be filled in. Failure to provide the information specified may deem the bidder **non-responsive**.

ADDITIVE/DEDUCTIVE ALTERNATE	NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	SUBCONTRACTOR LICENSE NUMBER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT (MUST BE FILLED OUT)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED?	CHECK IF JOINT VENTURE PARTNERSHIP
additive	Name: <u>Concrete Contractor Inc</u> Address: <u>12099 Soler court</u> City: <u>Poway</u> State: <u>CA</u> Zip: <u>92064</u> Phone: <u>(858) 579-5505</u> Email: _____		530842	materials Bins	568,100 ⁰⁰	SDB	State CA	
	Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____							

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

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State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

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SECTION 02610 –LANDFILL GAS SYSTEM

CONTRACTOR REFERENCES

Listed below are the names, addresses and telephone numbers for five (5) public agencies for which the LFG Contractor/subcontractor has constructed gas extraction systems within the jurisdiction of the APCD.

1. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

2. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

3. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

4. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

SECTION 02610 –LANDFILL GAS SYSTEM

Date Completed: _____

5. Project Name and Address: _____

Project Description: _____

Name of Project Manager: _____

Project Manager's Phone No. (____) _____

Contract Amount: _____

Date Completed: _____

LFG SYSTEM CONSTRUCTION Listed below are the names, addresses and telephone numbers for five (5) public agencies for which the LFG Contractor/subcontractor has constructed gas extraction systems similar in size and nature to this project. Three (3) of the referenced projects must be within the jurisdiction of the SCAQMD.

1. **Project Name and Address** Olinda Landfill - LFG System Expansion
Name of Project Manager: David Wong
Project Manager's Phone No. (714) 993-0608
Ongoing expansion project
Contract Amount \$7.5 M/yr **Date Completed** ongoing **SCAQMD Jurisdiction (Y/N)**

2. **Project Name and Address** San Bernardino County - LFG System Expansions
Name of Project Manager: Pete Ligorria
Project Manager's Phone No. (909) 381-2404
Ongoing LFG Services Contract including LFG system expansions
Contract Amount \$1.7M/hr **Date Completed** Ongoing **SCAQMD Jurisdiction (Y/N)**

3. **Project Name and Address** Waste Connections - LFG System Expansion, Chiquita Cyn LF
Name of Project Manager: Steve Casulo
Project Manager's Phone No. (661) 257-3655
Ongoing contract for LFG services including LFG system expansion
Contract Amount \$1.6M **Date Completed** Ongoing **SCAQMD Jurisdiction (Y/N)**

4. **Project Name and Address** Republic Services - LFG Systems Expansion, San Diego
Name of Project Manager: Tom Gardner
Project Manager's Phone No. (619) 449-9156
Ongoing contract for LFG services including LFG system expansion
Contract Amount **Date Completed** **SCAQMD Jurisdiction (Y/N)**

5. **Project Name and Address** City of San Diego - Well Drilling and Construction Contract
Name of Project Manager: Ray Purtee
Project Manager's Phone No. (858) 573-1208
Emergency contract for well drilling and construction services
Contract Amount \$1M **Date Completed** Ongoing **SCAQMD Jurisdiction (Y/N)**

**SUPERIOR READY MIX CONCRETE, L. P.
DBA ~ SRM CONTRACTING & PAVING
A California Limited Partnership
1508 W. Mission Road
Escondido, CA 92029**

General Partner:

J. BROUWER INVESTMENTS, INC., A California Corporation
Jacob Brouwer, President
Garret Brouwer, Vice President
Arnold Veldkamp, Secretary
Brent Cooper, V. P.
Address: 1508 W. Mission Road, Escondido, CA 92029

Limited Partner:

JBCHC LIMITED PARTNERSHIP, A California Limited Partnership
Jacob Brouwer, General Partner
Address: 1508 W. Mission Road, Escondido, CA 92029

SUPERIOR READY MIX CONCRETE, L. P.
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A California Limited Partnership
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Jacob Brouwer, President
Garret Brouwer, Vice President
Arnold Veldkamp, Secretary
Brent Cooper, V. P.
Address: 1508 W. Mission Road, Escondido, CA 92029

Limited Partner:

JBCHC LIMITED PARTNERSHIP, A California Limited Partnership
Jacob Brouwer, General Partner
Address: 1508 W. Mission Road, Escondido, CA 92029

SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A NOTICE TO PROCEED HAS BEEN ISSUED.
2. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-227-2600, TWO DAYS BEFORE YOU DIG.
3. CONTRACTOR SHALL IMPLEMENT A WATER POLLUTION CONTROL PLAN DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER REQUIREMENTS, IN THE GREEN BOOK 2012 CITY SUPPLEMENT SECTION 701-WATER POLLUTION CONTROL.
4. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE CITY OF SAN DIEGO ENVIRONMENTAL SERVICES DEPARTMENT.
5. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.
6. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF SAN DIEGO.
7. A CAL/OSHA PERMIT IS REQUIRED FOR EXCAVATIONS DEEPER THAN FIVE FEET AND FOR SHORING AND/OR UNDERPINNING. CONTRACTOR TO PROVIDE A COPY OF OSHA PERMIT TO THE CITY.
8. POSTING PARKING RESTRICTIONS: THE CONTRACTOR SHALL POST TOW-AWAY/NO PARKING SIGNS 24 HOURS IN ADVANCE OF PARKING REMOVAL. SIGNS SHALL INDICATE SPECIFIC DAYS, DATES AND TIMES OF RESTRICTIONS.

STRIPING AND SIGNING GENERAL NOTES

1. INSTALLATION OF ALL STRIPING, SIGNS AND PAVEMENT MARKERS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL STRIPING AND SIGNING SHALL CONFORM TO THE MOST RECENTLY ADOPTED EDITION OF THE FOLLOWING MANUALS:
CALTRANS TRAFFIC MANUAL
CALTRANS STANDARD SPECIFICATIONS
SAN DIEGO REGIONAL STANDARD DRAWINGS
3. ALL STRIPING AND SIGNING IS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER PRIOR TO INSTALLATION AND/OR REMOVAL.
4. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING STRIPING, PAVEMENT MARKINGS AND LEGENDS BY SANDBLASTING AND/OR GRINDING WITH THE SEAL. ANY DEBRIS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
5. SIGNS POSTS SHALL BE INSTALLED WITH SQUARE PERFORATED STEEL TUBING WITH A BREAKAWAY BASE PER SAN DIEGO REGIONAL STANDARD DRAWING, M-45.
6. STRIPPED CROSSWALKS SHALL HAVE AN INSIDE DIMENSION OF 10 FEET UNLESS INDICATED OTHERWISE.
7. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS (EXCEPT WITHIN BIKE LANES) SHALL BE THERMOPLASTIC.
8. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER A MINIMUM OF FIVE WORKING DAYS PRIOR TO AND UPON COMPLETION OF STRIPING AND SIGNING.

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE CIVIL ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM NAME AND ADDRESS:

SWT ENGINEERING

800 C. SOUTH ROCHESTER AVE.

ONTARIO, CA 91761

PHONE NO: (909) 390-1328

BY:

MICHAEL CULLINANE

DATE:

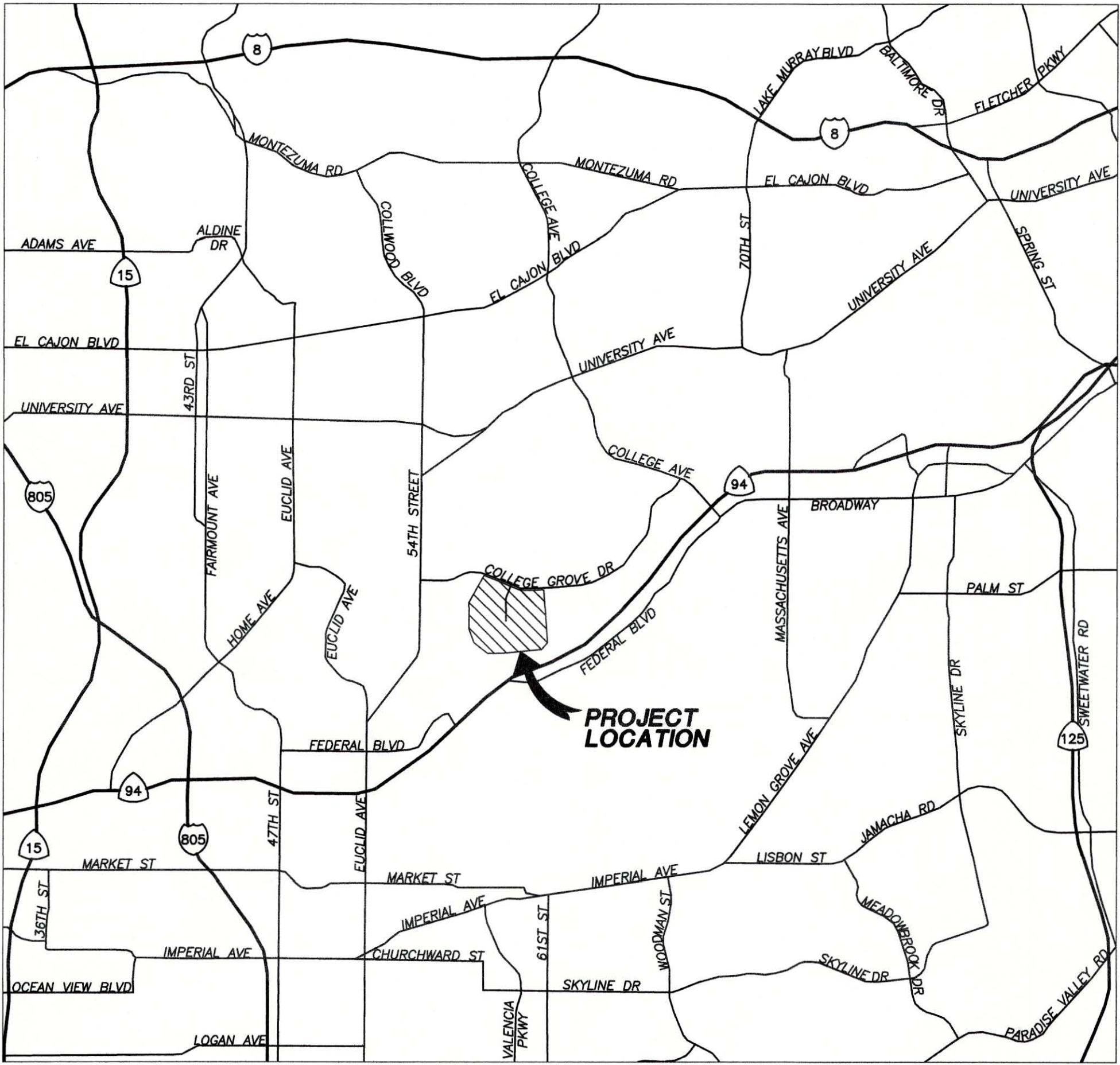
REGISTRATION NO:

41981

EXPIRATION DATE:

ABBREVIATIONS

AC	ASPHALT CONCRETE	HP	HIGH POINT	OZ/SY	OUNCES PER SQUARE YARD
CHDPE	CORRUGATED HDPE	ID	INSIDE DIAMETER	PVC	POLYVINYL CHLORIDE
CMB	CRUSHED MISC. BASE	INV	INVERT ELEVATION	SC	SOUTH CHOLLAS
CONC	CONCRETE	LFG	LANDFILL GAS	SCH	SCHEDULE
CT	CONDENSATE TRAP	MAX	MAXIMUM	SDRSD	SAN DIEGO REGIONAL STANDARD DRAWING
FL	FLOW LINE	MIN	MINIMUM	TSW	TOP OF SPILLWAY
FS	FINISHED SURFACE	NTS	NOT TO SCALE	TW	TOP OF WALL
GB	GRADE BREAK	OC	ON CENTER	TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE	OH	OVERHEAD	W	LANDFILL GAS WELL



VICINITY MAP

NOT TO SCALE

LEGEND

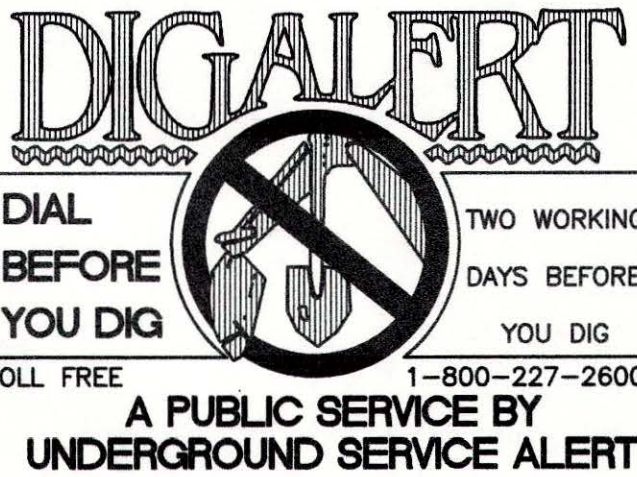
— — — — —	APPROXIMATE LIMIT OF REFUSE	— — — — —	PHASING LIMITS
— 400 —	EXISTING GRADE MAJOR CONTOUR	— OH — OH —	EXISTING OVERHEAD POWER LINE
— 400 —	EXISTING GRADE MINOR CONTOUR	— OH — OH —	PROPOSED OVERHEAD POWER LINE
— 400 —	FINISHED GRADE MAJOR CONTOUR	HV#2	HORIZONTAL/VERTICAL CONTROL (HVC)
— 402 —	FINISHED GRADE MINOR CONTOUR	443.15	EXISTING SIGN
— — — — —	FLOW LINE	— — — — —	HANDICAP PARKING STALL
— — — — —	DAYLIGHT LINE	— — — — —	EXISTING POWER POLE
— — — — —	RIDGE LINE	— — — — —	EXISTING POWER POLE WITH LIGHT
— — — — —	PARKING STRIPING	— — — — —	PROPOSED POWER POLE WITH LIGHT
— — — — —	DOUBLE YELLOW STRIPING	— — — — —	STOP SIGN PAVEMENT MARKING
— — — — —	DEMOLITION AREA	— — — — —	TRAFFIC ARROW
— — — — —	EXISTING LFG PIPE	— — — — —	GRADE/DIRECTION
— — — — —	PROPOSED LFG PIPE	— — — — —	COORDINATE GRID TICKS
— — — — —	CONCRETE WALL	— — — — —	LFG WELL HEAD LOCATION
— — — — —	EXISTING K-RAIL	— — — — —	GAS PROBE LOCATION
— — — — —	K-RAIL WITH FENCE ON TOP	— — — — —	CONDENSATE TRAP LOCATION
— — — — —	EXISTING CHAIN LINK FENCE	— — — — —	
— — — — —	CHAIN LINK FENCE	— — — — —	

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4	C-4	AREA 2 DEMOLITION PLAN 1
5	C-5	AREA 2 DEMOLITION PLAN 2
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DISCIPLINE CODES

C	CIVIL IMPROVEMENTS
G	LANDFILL GAS
E	ELECTRICAL
S	STRUCTURAL



WORK TO BE DONE

THE IMPROVEMENTS OF THESE PLANS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS AND THE STANDARD DRAWINGS OF THE CITY OF SAN DIEGO:

DEMOLITION, GRADING, ASPHALT PAVING, DRAINAGE COLLECTION, LANDFILL GAS PIPING, LANDFILL GAS WELL AND SUMPS, ELECTRICAL LIGHTING, AND STRUCTURAL MATERIAL BIN DESIGNS.

CONSTRUCTION CHANGE / ADDENDUM			
CHANGE	DATE	AFFECTED SHEETS	APPROVAL NO.

PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.

SCALE : AS SHOWN

DRAWN BY : C.G.G.

DATE : 09-2014

CHECKED BY : M.A.C.

DATE : 09-2014

APPROVED BY :

DATE :

PREPARED UNDER THE SUPERVISION OF:

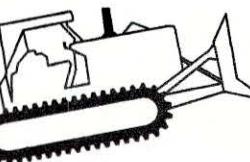
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA

9/9/14

DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

TITLE SHEET AND NOTES

APPROVAL:	SHEET 1 OF 41 SHEETS	DATE: 10-7-14
FOR CITY ENGINEER	BY: M.A.C.	APPROVED: DATE: FILMED:
CIVIL AND GAS PLANS	DATE: DATE: DATE:	DATE: DATE: DATE:
CONTRACTOR:	DATE STARTED:	DATE COMPLETED:
INSPECTOR:	DATE STARTED:	DATE COMPLETED:

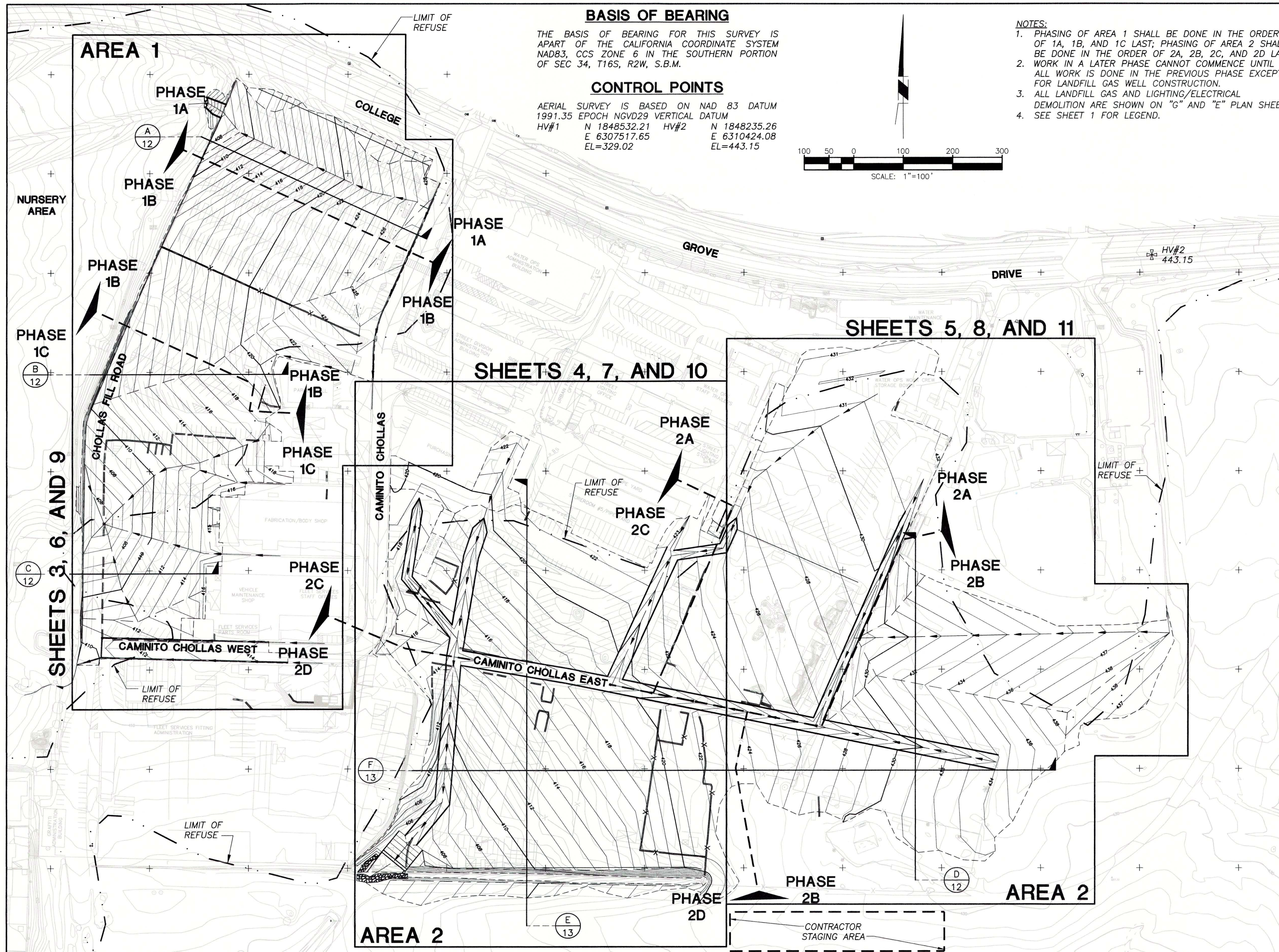
C-1

SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

1887-6281

NADES COORDINATE

38158-1 -D

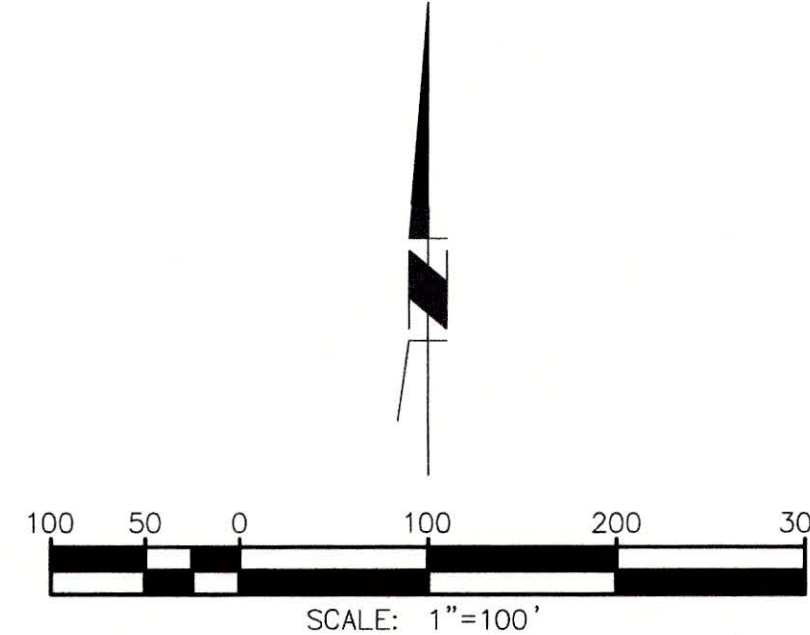


BASIS OF BEARING

THE BASIS OF BEARING FOR THIS SURVEY IS APART OF THE CALIFORNIA COORDINATE SYSTEM NAD83, CCS ZONE 6 IN THE SOUTHERN PORTION OF SEC 34, T16S, R2W, S.B.M.

CONTROL POINTS

AERIAL SURVEY IS BASED ON NAD 83 DATUM 1991.35 EPOCH NGVD29 VERTICAL DATUM
HV#1 N 1848532.21 HV#2 N 1848235.26
E 6307517.65 E 6310424.08
EL=329.02 EL=443.15



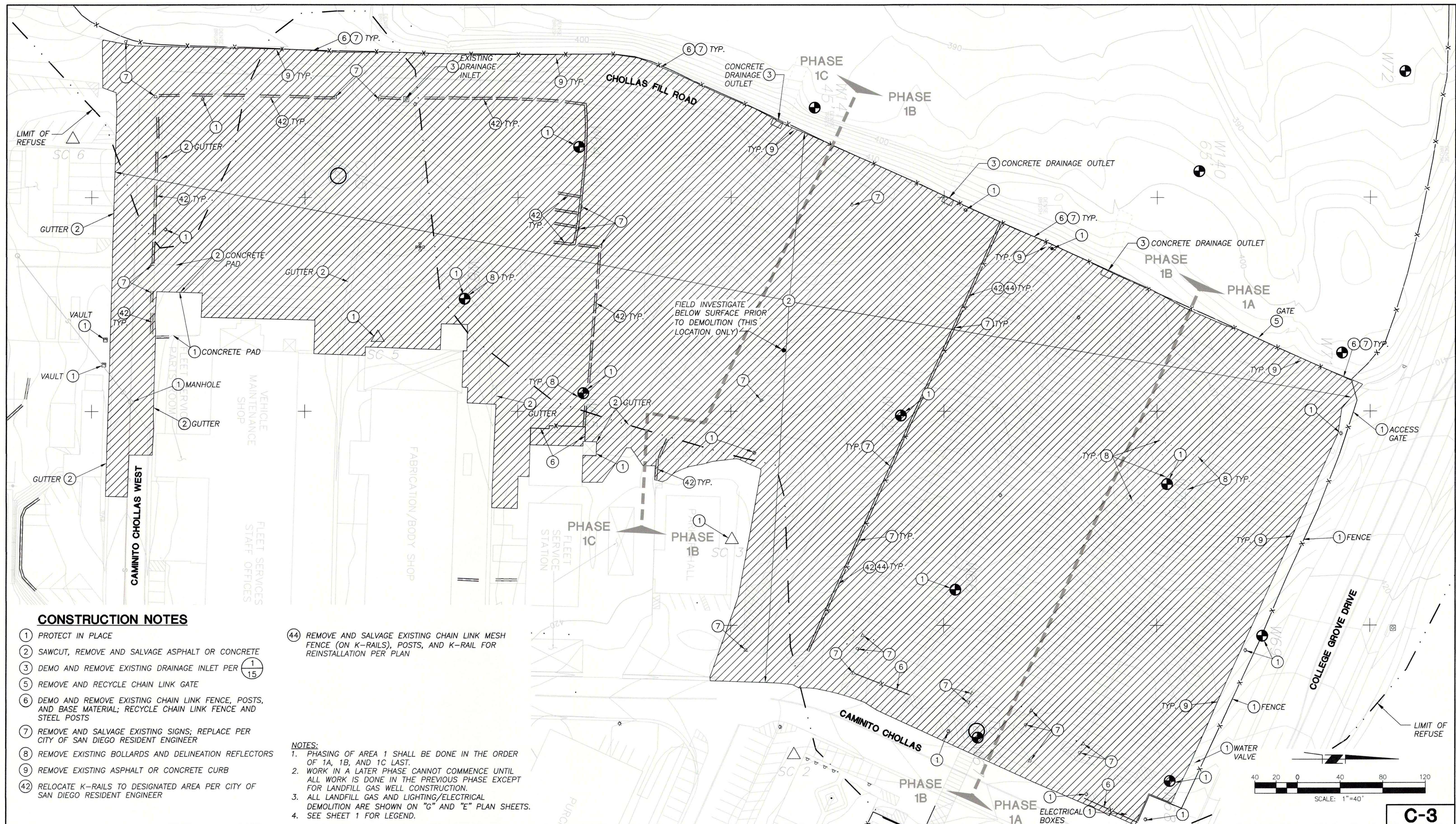
NOTES:

1. PHASING OF AREA 1 SHALL BE DONE IN THE ORDER OF 1A, 1B, AND 1C LAST; PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.

CONSTRUCTION NOTES

1. PROTECT IN PLACE
2. SAWCUT, REMOVE AND SALVAGE ASPHALT OR CONCRETE
3. DEMO AND REMOVE EXISTING DRAINAGE INLET PER (1/15)
4. REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (6-FOOT) FOR REINSTALLATION; DEMO EXISTING FENCE POSTS AND CONCRETE BASE; RECYCLE STEEL POSTS
5. REMOVE AND RECYCLE CHAIN LINK GATE
6. DEMO AND REMOVE EXISTING CHAIN LINK FENCE, POSTS, AND BASE MATERIAL; RECYCLE CHAIN LINK FENCE AND STEEL POSTS
7. REMOVE AND SALVAGE EXISTING SIGNS; REPLACE PER CITY OF SAN DIEGO RESIDENT ENGINEER
8. REMOVE EXISTING BOLLARDS AND DELINEATION REFLECTORS
9. REMOVE EXISTING ASPHALT OR CONCRETE CURB
10. CUT OR FILL TO CONTOURS SHOWN
11. CONSTRUCT 4" AC OVER 6" CMB PER (2/14)
12. CONSTRUCT 6" AC OVER 8" CMB PER (3/14)
13. CONSTRUCT 6" CONCRETE OVER 8" CMB PER (4/14)
14. CONSTRUCT LONGITUDINAL GUTTER PER (6/14)
15. INSTALL DRAINAGE INLET PER (1/15)
16. CONSTRUCT AC DIKE PER SDRSD G-5 TYPE A
17. CONSTRUCT CONCRETE CURB AND GUTTER PER SDRSD SDG-151 TYPE G
18. CONSTRUCT DRAINAGE BMP PER (1/16) OR (3/16) BASED ON LOCATION
19. CONSTRUCT 30-FOOT WIDE AC DRAINAGE SWALE PER (5/14)
20. CONSTRUCT 20-FOOT WIDE AC DRAINAGE SWALE PER (5/14)
21. CONSTRUCT TRUCK EXIT RUMBLE STRIP BMP PER (2/15)
22. CONSTRUCT CONCRETE MATERIAL BINS AND STEEL COVERS PER STRUCTURAL "S" PLAN SHEETS
23. CONSTRUCT 1" MIN AC OVERLAY PER (1/14)
24. CONSTRUCT TEMPORARY AC PAVEMENT FILL/JOIN BETWEEN PHASES PER (8/14)
25. CONSTRUCT EMBANKMENT PROTECTION PER (9/14)
26. INSTALL WHEEL STOP 2 FEET FROM END OF PARKING SPACE
27. CONSTRUCT 12" SOLID LIMIT LINE AND NO PARKING PAVEMENT MARKINGS PER CALTRANS STANDARD PLAN A24E; PAINT PAVEMENT MARKINGS AS NOTED ON DRAWINGS
28. PAINT CURB RED
29. CONSTRUCT 4" WIDE WHITE PARKING STRIPE AND STALL PER CALTRANS STANDARD PLAN A20B
30. CONSTRUCT ACCESSIBLE PARKING STALL AND SIGN PER SDRSD SDM-117
31. CONSTRUCT TRAFFIC ARROW PER STANDARD PLAN A24A TYPE I 10' ARROW
32. CONSTRUCT DOUBLE 4" WIDE YELLOW STRIPE PER CALTRANS STANDARD PLAN A20A DETAIL 21
33. CONSTRUCT STOP SIGN PAVEMENT MARKING, SOLID LINE, AND SIGN PER CALTRANS STANDARD PLAN A24D
34. CONSTRUCT STRIPED CROSS WALK PER CALTRANS STANDARD PLAN A24E
35. CONSTRUCT 6-FOOT HIGH CHAIN LINK FENCE PER SDRSD SDM-112
36. CONSTRUCT 8-FOOT HIGH CHAIN LINK FENCE WITH BARBED WIRE TOP PER SDRSD SDM-112
37. CONSTRUCT 12' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-112
38. CONSTRUCT 20' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
39. CONSTRUCT 30' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
40. CONSTRUCT 20' WIDE 8-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
41. REMOVE AND RECYCLE FENCE MATERIALS FROM K-RAIL
42. RELOCATE K-RAILS TO DESIGNATED AREA PER CITY OF SAN DIEGO RESIDENT ENGINEER
43. INSTALL SALVAGED 6-FOOT CHAIN LINK FENCE MESH ON NEW POSTS
44. REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (ON K-RAILS), POSTS, AND K-RAIL FOR REINSTALLATION PER PLAN

<p>PREPARED BY:</p> <p>SWT Civil & Environmental Engineering 800 C SOUTH ROCHESTER AVENUE ONTARIO, CALIFORNIA 91761</p> <p>DESIGNED BY : J.A.B. SCALE : AS SHOWN DRAWN BY : C.G.G. DATE : 09-2014 CHECKED BY : M.A.C. DATE : 09-2014 APPROVED BY : DATE :</p>		<p>PREPARED UNDER THE SUPERVISION OF:</p> <p> 9/9/14 DATE</p>	<p> City of San Diego, California Environmental Services Department Waste Reduction and Disposal Division</p>	<p> SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS 2781 CAMINITO CHOLLAS SAN DIEGO, CA 92105</p>	<p>C-2</p> <p>CIVIL IMPROVEMENTS SITE PLAN/SHEET INDEX</p> <p>SHEET 2 OF 41 SHEETS</p> <p>APPROVAL FOR CITY ENGINEER: 10-7-14 DATE</p> <table border="1"><thead><tr><th>DESCRIPTION</th><th>BY</th><th>APPROVED</th><th>DATE</th><th>FILED</th></tr></thead><tbody><tr><td>CIVIL AND GAS PLANS</td><td>MAC</td><td></td><td></td><td></td></tr></tbody></table> <p>CONTRACTOR: DATE STARTED: 38158-2-0 INSPECTOR: DATE COMPLETED:</p>	DESCRIPTION	BY	APPROVED	DATE	FILED	CIVIL AND GAS PLANS	MAC			
DESCRIPTION	BY	APPROVED	DATE	FILED											
CIVIL AND GAS PLANS	MAC														



CONSTRUCTION NOTES

- (1) PROTECT IN PLACE
- (2) SAWCUT, REMOVE AND SALVAGE ASPHALT OR CONCRETE
- (3) DEMO AND REMOVE EXISTING DRAINAGE INLET PER $\frac{1}{15}$
- (5) REMOVE AND RECYCLE CHAIN LINK GATE
- (6) DEMO AND REMOVE EXISTING CHAIN LINK FENCE, POSTS, AND BASE MATERIAL; RECYCLE CHAIN LINK FENCE AND STEEL POSTS
- (7) REMOVE AND SALVAGE EXISTING SIGNS; REPLACE PER CITY OF SAN DIEGO RESIDENT ENGINEER
- (8) REMOVE EXISTING BOLLARDS AND DELINEATION REFLECTORS
- (9) REMOVE EXISTING ASPHALT OR CONCRETE CURB
- (42) RELOCATE K-RAILS TO DESIGNATED AREA PER CITY OF SAN DIEGO RESIDENT ENGINEER

- (44) REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (ON K-RAILS), POSTS, AND K-RAIL FOR REINSTALLATION PER PLAN

NOTES:

1. PHASING OF AREA 1 SHALL BE DONE IN THE ORDER OF 1A, 1B, AND 1C LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.

PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.	SCALE : AS SHOWN
DRAWN BY : C.G.G.	DATE : 09-2014
CHECKED BY : M.A.C.	DATE : 09-2014
APPROVED BY :	DATE :

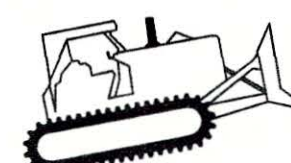
PREPARED UNDER THE SUPERVISION OF:



9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 1 DEMOLITION PLAN

SHEET 3 OF 41 SHEETS

APPROVAL:	FOR CITY ENGINEER	DATE	FILED
DESCRIPTION	BY	APPROVED	DATE
CIVIL AND GAS PLANS	MAC		
CONTRACTOR:	DATE STARTED:		
INSPECTOR:	DATE COMPLETED:		

C-3

SUBMITTED BY:
MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS 5-00684

1887-8281
NAD83 COORDINATE

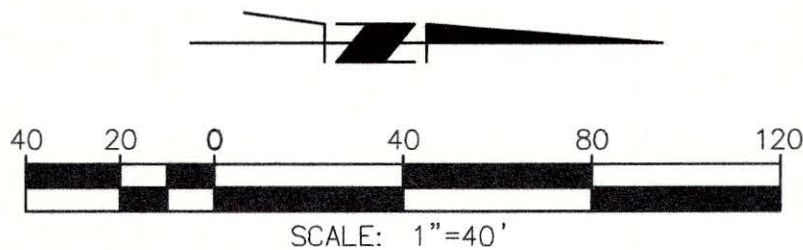
38158-3-D

MATCHLINE - SEE SHEET 4

CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
- 2 SAWCUT, REMOVE AND SALVAGE ASPHALT OR CONCRETE
- 4 REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (6-FOOT) FOR REINSTALLATION; DEMO EXISTING FENCE POSTS AND CONCRETE BASE; RECYCLE STEEP POSTS
- 5 REMOVE AND RECYCLE CHAIN LINK GATE
- 6 DEMO AND REMOVE EXISTING CHAIN LINK FENCE, POSTS, AND BASE MATERIAL; RECYCLE CHAIN LINK FENCE AND STEEL POSTS
- 7 REMOVE AND SALVAGE EXISTING SIGNS; REPLACE PER CITY OF SAN DIEGO RESIDENT ENGINEER
- 9 REMOVE EXISTING ASPHALT OR CONCRETE CURB
- 42 RELOCATE K-RAILS TO DESIGNATED AREA PER CITY OF SAN DIEGO RESIDENT ENGINEER

- NOTES:
1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
 2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
 3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
 4. SEE SHEET 1 FOR LEGEND.



C-5

AREA 2 DEMOLITION
PLAN 2

SHEET 5 OF 41 SHEETS

APPROVAL	DATE	10-7-14
FOR CITY ENGINEER	BY	
CIVIL AND GAS PLANS	BY	
	APPROVED	
	DATE	
	FILMED	
CONTRACTOR	DATE STARTED	
INSPECTOR	DATE COMPLETED	

SUBMITTED BY:	MICHAEL CULLIVANE
CHECKED BY:	JEREMY BOTICA
	SYLVIA CASTILLO
	WBS S-00684
	1887-6281
	MADE'S COORDINATE

38158- 5 -D

PREPARED BY:

SWT Engineering Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY :	J.A.B.	SCALE :	AS SHOWN
DRAWN BY :	C.G.G.	DATE :	09-2014
CHECKED BY :	M.A.C.	DATE :	09-2014
APPROVED BY :		DATE :	

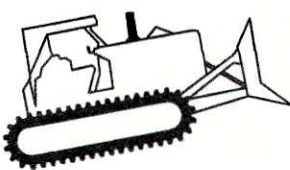
PREPARED UNDER THE
SUPERVISION OF:



9/9/14
DATE

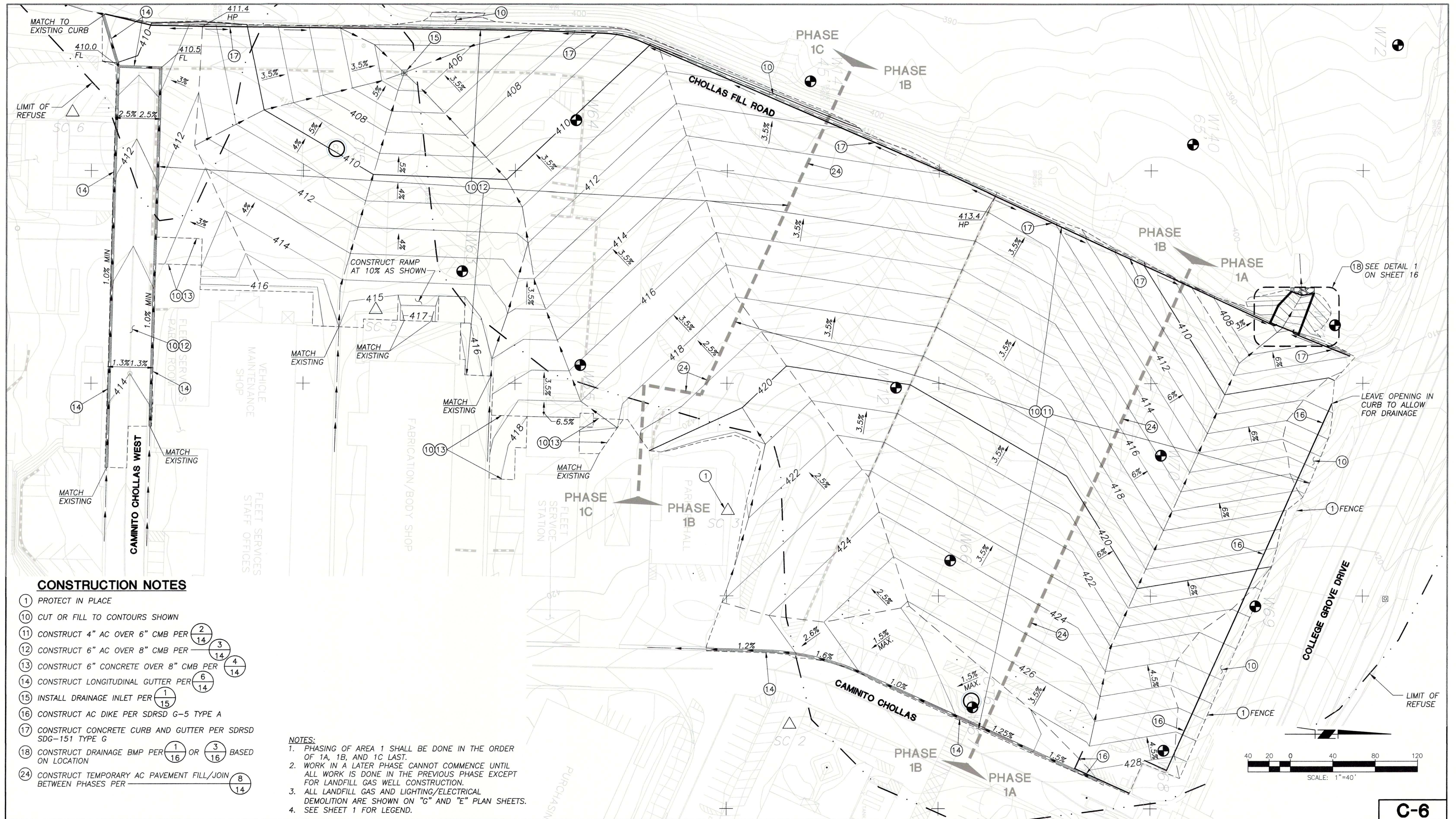


City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105



PREPARED BY:
SWT Engineering
 Civil & Environmental
 800 C SOUTH ROCHESTER AVENUE
 ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
 DRAWN BY : C.G.G. DATE : 09-2014
 CHECKED BY : M.A.C. DATE : 09-2014
 APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:
 REGISTERED PROFESSIONAL ENGINEER
 MICHAEL A. CULLINANE
 No. 41981
 CIVIL
 STATE OF CALIFORNIA
 9/9/14
 DATE



City of San Diego, California
 Environmental Services Department
 Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
 SAN DIEGO, CA 92105

AREA 1 FINAL GRADING

SHEET 6 OF 41 SHEETS

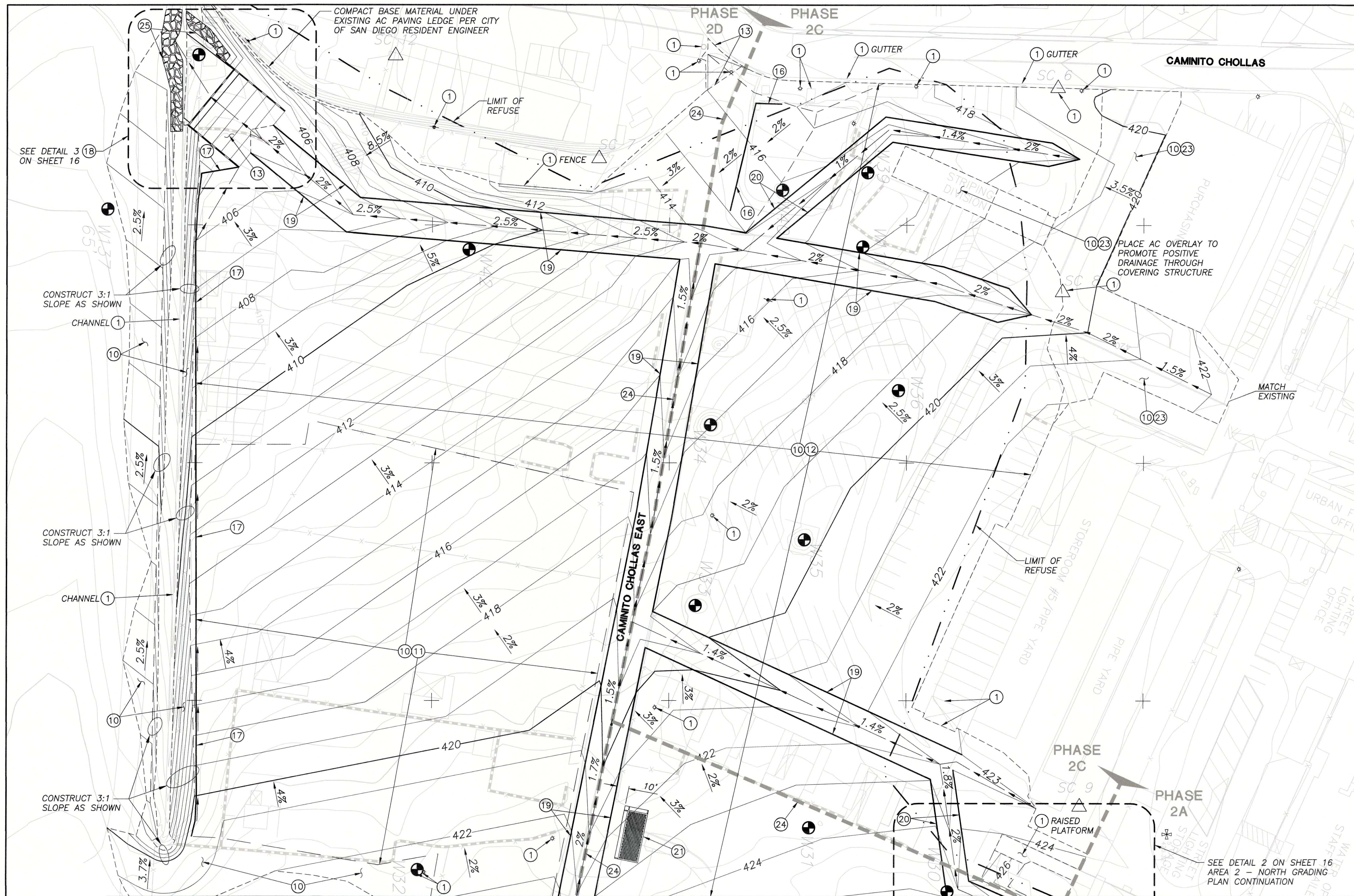
DESCRIPTION	BY	APPROVED	DATE	FILED
CIVIL AND GAS PLANS	MAC		10-7-14	

CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:

C-6

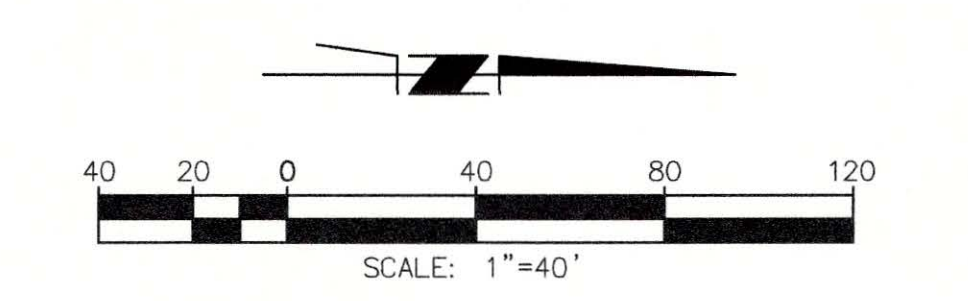
SUBMITTED BY:
 MICHAEL CULLINANE
 PROJECT MANAGER
 CHECKED BY:
 JEREMY BOTICA
 PROJECT ENGINEER
 SYLVIA CASTILLO
 SENIOR CIVIL ENGINEER
 WBS S-00684

1887-6281
 NAD83 COORDINATE
 38158-6-D



- CONSTRUCTION NOTES**
- 1 PROTECT IN PLACE
 - 10 CUT OR FILL TO CONTOURS SHOWN
 - 11 CONSTRUCT 4" AC OVER 6" CMB PER 14 2
 - 12 CONSTRUCT 6" AC OVER 8" CMB PER 14 3
 - 13 CONSTRUCT 6" CONCRETE OVER 8" CMB PER 14 4
 - 16 CONSTRUCT AC CURB PER SDRSD G-5 TYPE A
 - 17 CONSTRUCT CONCRETE CURB AND GUTTER PER SDRSD SDG-151 TYPE G
 - 18 CONSTRUCT DRAINAGE BMP PER 16 1 OR 16 3 BASED ON LOCATION
 - 19 CONSTRUCT 30-FOOT WIDE AC DRAINAGE SWALE PER 5 14
 - 20 CONSTRUCT 20-FOOT WIDE AC DRAINAGE SWALE PER 5 14
 - 21 CONSTRUCT TRUCK EXIT RUMBLE STRIP BMP PER 2 15
 - 23 CONSTRUCT 1" MIN AC OVERLAY PER 1 14
 - 24 CONSTRUCT TEMPORARY AC PAVEMENT FILL/JOIN BETWEEN PHASES PER 8 14
 - 25 CONSTRUCT EMBANKMENT PROTECTION PER 9 14

- NOTES:**
- 1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
 - 2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
 - 3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
 - 4. SEE SHEET 1 FOR LEGEND.



MATCHLINE - SEE SHEET 8

PREPARED BY:

SWT Civil & Environmental Engineering
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

C-7

AREA 2 FINAL GRADING 1

SHEET 7 OF 41 SHEETS

APPROVAL: *[Signature]* 10-7-19
FOR CITY ENGINEER BY DATE

DESCRIPTION	BY	APPROVED	DATE	FILED
CIVIL AND GAS PLANS	MAC			

CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:

1887-6281
NABES COORDINATE

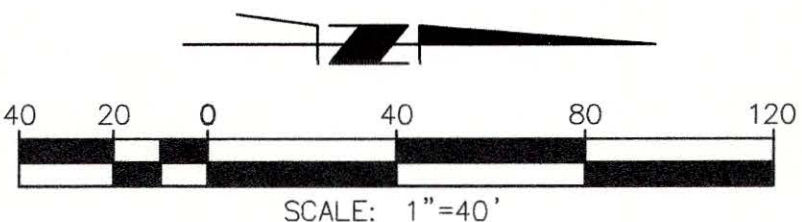
38158-7-D

MATCHLINE - SEE SHEET 7

CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
10 CUT OR FILL TO CONTOURS SHOWN
11 CONSTRUCT 4" AC OVER 6" CMB PER 2/14/3
12 CONSTRUCT 6" AC OVER 8" CMB PER 14/14
16 CONSTRUCT AC DIKE PER SDRSD G-5 TYPE A
19 CONSTRUCT 30-FOOT WIDE AC DRAINAGE SWALE PER 5/14
20 CONSTRUCT 20-FOOT WIDE AC DRAINAGE SWALE PER 5/14
22 CONSTRUCT CONCRETE MATERIAL BINS AND STEEL COVERS PER "S" STRUCTURAL PLAN SHEETS
23 CONSTRUCT 1" MIN AC OVERLAY PER 1/14
24 CONSTRUCT TEMPORARY AC PAVEMENT FILL/JOIN BETWEEN PHASES PER 8/14

- NOTES:
1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.



C-8

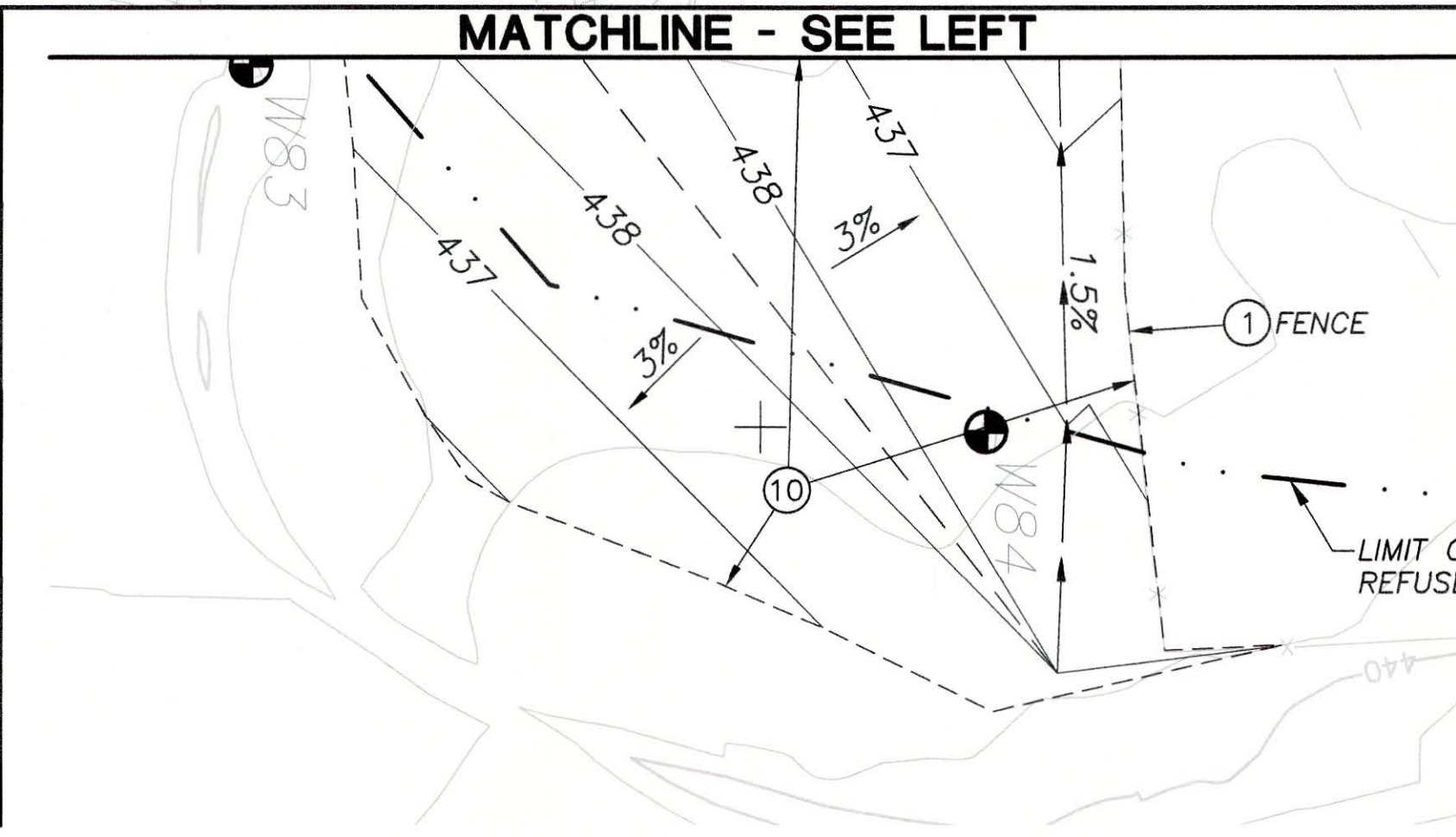
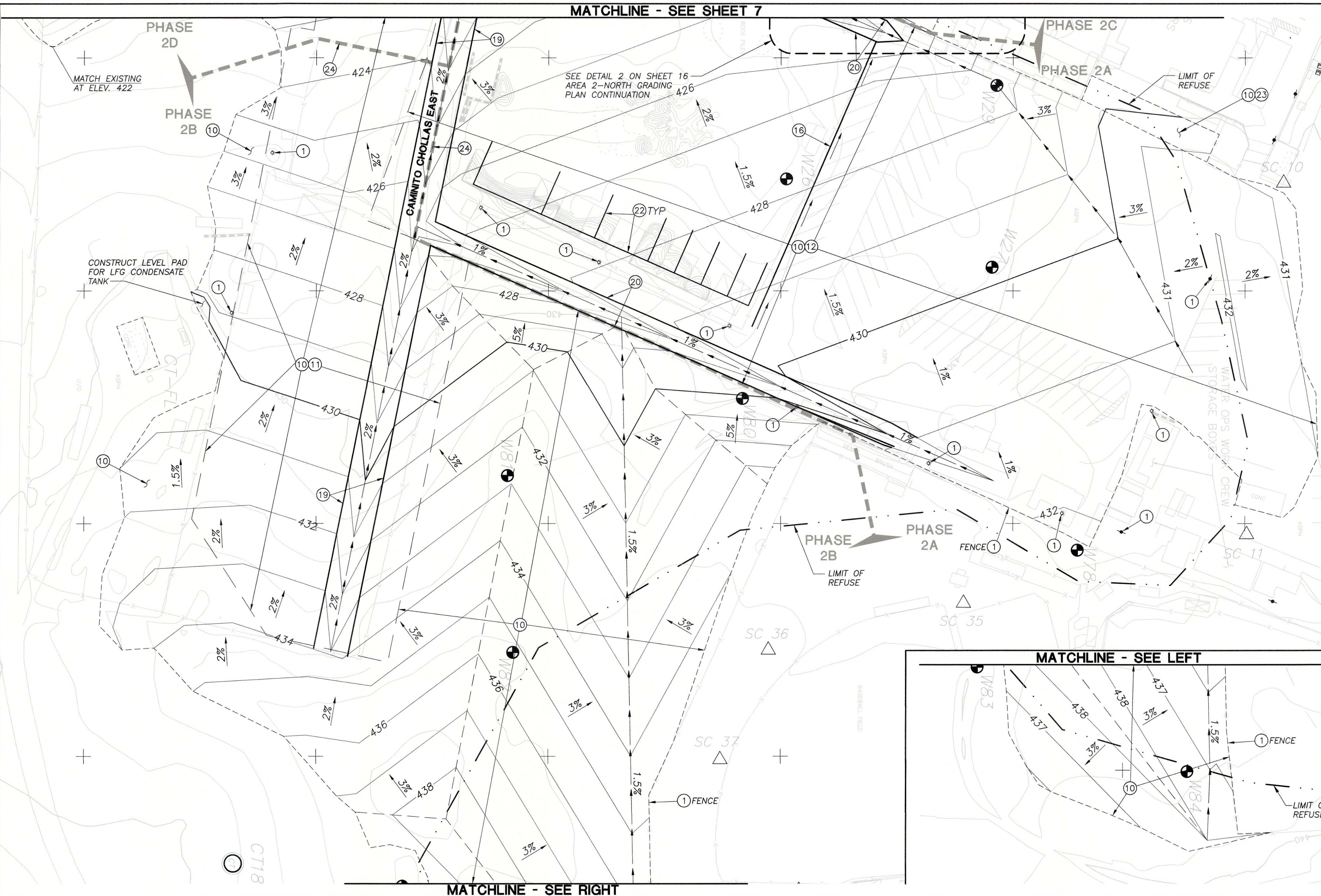
SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 2 FINAL GRADING 2

SHEET 8 OF 41 SHEETS			
APPROVAL:	BY:	DATE:	FILED:
FOR CITY ENGINEER	10-7-14		
DESCRIPTION	BY	APPROVED	DATE
CIVIL AND GAS PLANS	MAC		
CONTRACTOR:	DATE STARTED:		
INSPECTOR:	DATE COMPLETED:		

SUBMITTED BY:
MICHAEL CULLIVANE
PROJECT MANAGER
CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER
APPROVED:
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NAD83 COORDINATE
38158-8-D



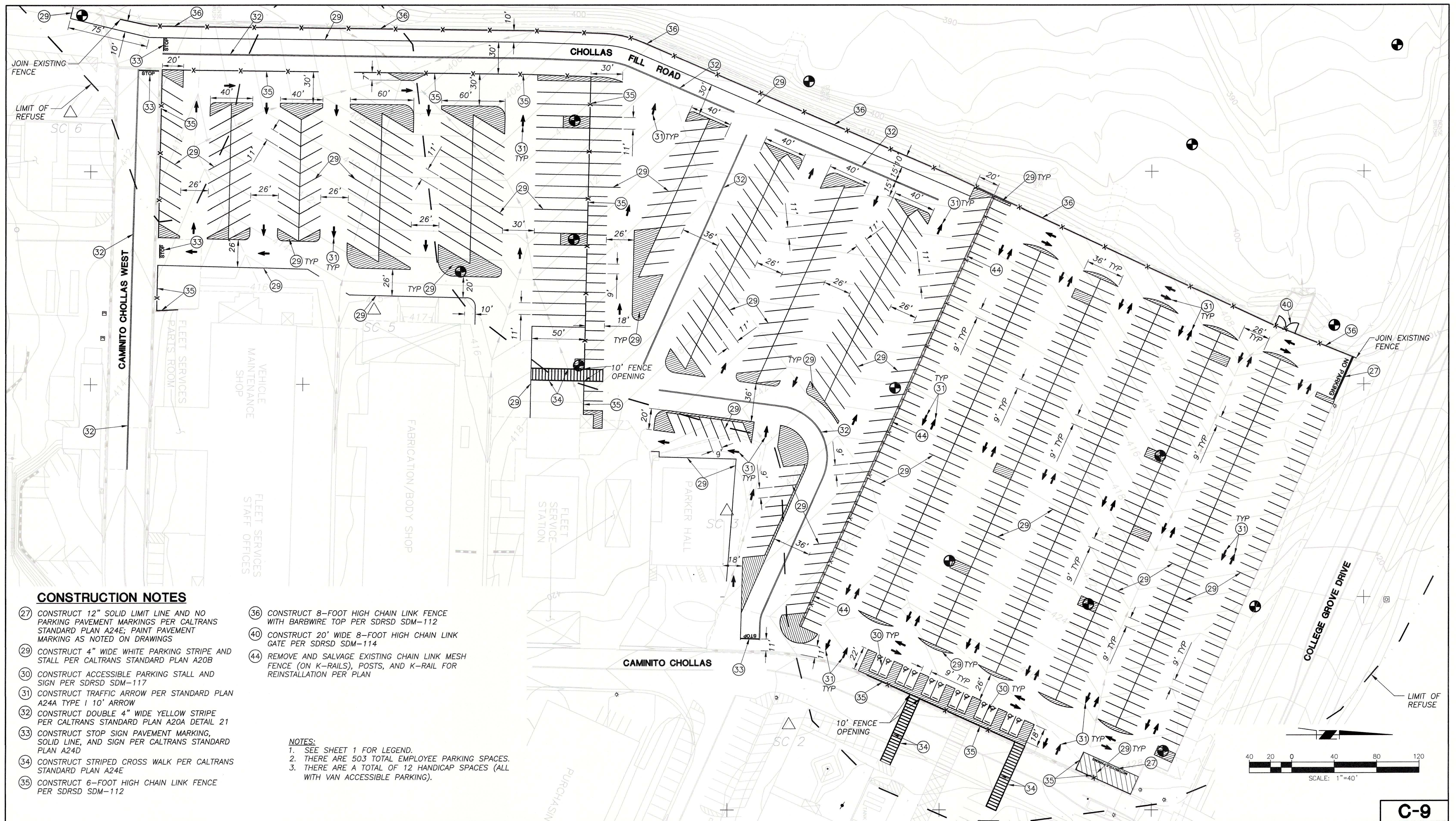
PREPARED BY:
SWT Engineering Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761
DESIGNED BY: J.A.B. SCALE: AS SHOWN
DRAWN BY: C.G.G. DATE: 09-2014
CHECKED BY: M.A.C. DATE: 09-2014
APPROVED BY: DATE:

PREPARED UNDER THE
SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLIVANE
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division





CONSTRUCTION NOTES

- (27) CONSTRUCT 12" SOLID LIMIT LINE AND NO PARKING PAVEMENT MARKINGS PER CALTRANS STANDARD PLAN A24E; PAINT PAVEMENT MARKING AS NOTED ON DRAWINGS
 - (29) CONSTRUCT 4" WIDE WHITE PARKING STRIPE AND STALL PER CALTRANS STANDARD PLAN A20B
 - (30) CONSTRUCT ACCESSIBLE PARKING STALL AND SIGN PER SDRSD SDM-117
 - (31) CONSTRUCT TRAFFIC ARROW PER STANDARD PLAN A24A TYPE I 10' ARROW
 - (32) CONSTRUCT DOUBLE 4" WIDE YELLOW STRIPE PER CALTRANS STANDARD PLAN A20A DETAIL 21
 - (33) CONSTRUCT STOP SIGN PAVEMENT MARKING, SOLID LINE, AND SIGN PER CALTRANS STANDARD PLAN A24D
 - (34) CONSTRUCT STRIPED CROSS WALK PER CALTRANS STANDARD PLAN A24E
 - (35) CONSTRUCT 6-FOOT HIGH CHAIN LINK FENCE PER SDRSD SDM-112
 - (36) CONSTRUCT 8-FOOT HIGH CHAIN LINK FENCE WITH BARBWIRE TOP PER SDRSD SDM-112
 - (40) CONSTRUCT 20' WIDE 8-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
 - (44) REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (ON K-RAILS), POSTS, AND K-RAIL FOR REINSTALLATION PER PLAN
- NOTES:**
1. SEE SHEET 1 FOR LEGEND.
2. THERE ARE 503 TOTAL EMPLOYEE PARKING SPACES.
3. THERE ARE A TOTAL OF 12 HANDICAP SPACES (ALL WITH VAN ACCESSIBLE PARKING).

PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.	SCALE : AS SHOWN
DRAWN BY : C.G.G.	DATE : 09-2014
CHECKED BY : M.A.C.	DATE : 09-2014
APPROVED BY :	DATE :

PREPARED UNDER THE SUPERVISION OF:

MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA

9/9/14
DATE

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

City of San Diego
SEMPER PARATUS
SEMPER VIGILANS

**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 1 STRIPING & FENCING PLAN
SHEET 9 OF 41 SHEETS

APPROVAL	FOR CITY ENGINEER	DATE	FILED
DESCRIPTION	BY	APPROVED	DATE
CIVIL AND GAS PLANS	MAC		

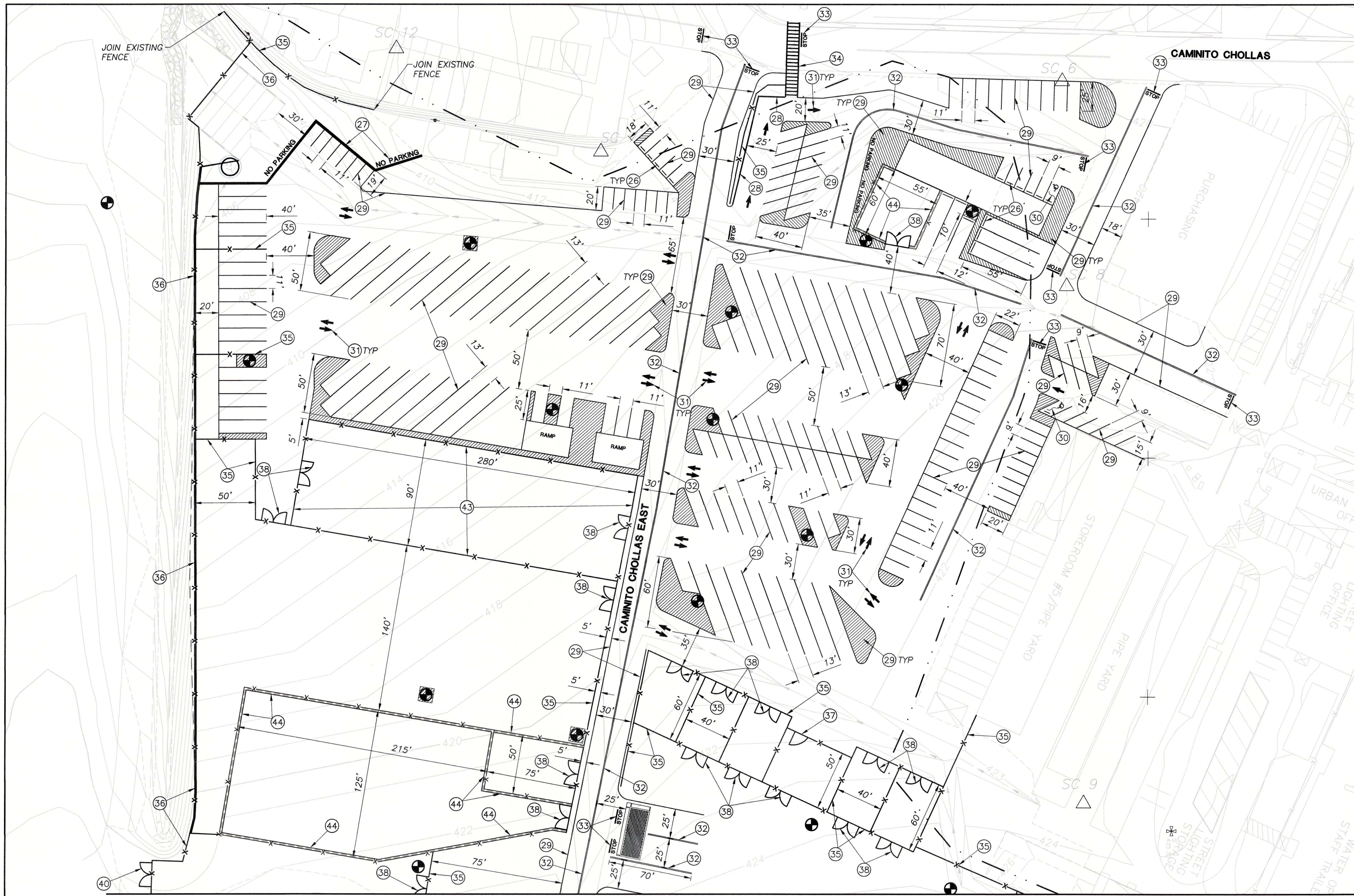
CONTRACTOR:	DATE STARTED:
INSPECTOR:	DATE COMPLETED:

C-9

SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

1887-6281
NAD83 COORDINATE

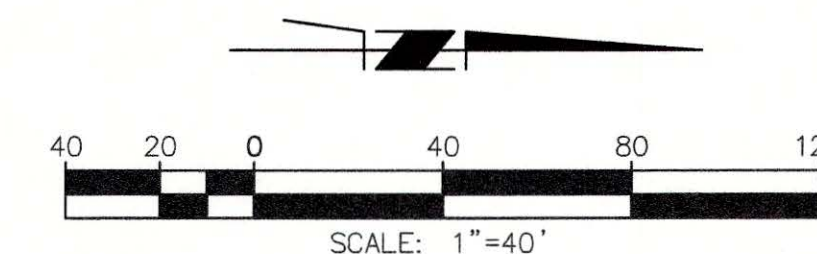
38158- 9 -D



CONSTRUCTION NOTES

- (26) INSTALL WHEEL STOP 2 FEET FROM END OF PARKING SPACE
- (27) CONSTRUCT 12" SOLID LIMIT LINE AND NO PARKING PAVEMENT MARKINGS PER CALTRANS STANDARD PLAN A24E; PAINT PAVEMENT MARKINGS AS NOTED ON DRAWINGS
- (28) PAINT CURB RED
- (29) CONSTRUCT 4" WIDE WHITE PARKING STRIPE AND STALL PER CALTRANS STANDARD PLAN A20B
- (30) CONSTRUCT ACCESSIBLE PARKING STALL AND SIGN PER SDRSD SDM-117
- (31) CONSTRUCT TRAFFIC ARROW PER STANDARD PLAN A24A TYPE I 10' ARROW
- (32) CONSTRUCT DOUBLE 4" WIDE YELLOW STRIPE PER CALTRANS STANDARD PLAN A20A DETAIL 21
- (33) CONSTRUCT STOP SIGN PAVEMENT MARKING, SOLID LINE, AND SIGN PER CALTRANS STANDARD PLAN A24D
- (34) CONSTRUCT STRIPED CROSS WALK PER CALTRANS STANDARD PLAN A24E
- (35) CONSTRUCT 6-FOOT HIGH CHAIN LINK FENCE PER SDRSD SDM-112
- (36) CONSTRUCT 8-FOOT HIGH CHAIN LINK FENCE WITH BARBWIRE TOP PER SDRSD SDM-112
- (37) CONSTRUCT 12' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-112
- (38) CONSTRUCT 20' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
- (40) CONSTRUCT 20' WIDE 8-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
- (43) INSTALL SALVAGED 6-FOOT CHAIN LINK FENCE MESH ON NEW POSTS
- (44) REMOVE AND SALVAGE EXISTING CHAIN LINK MESH FENCE (ON K-RAILS), POSTS, AND K-RAIL FOR REINSTALLATION PER PLAN

NOTE:
SEE SHEET 1 FOR LEGEND.



MATCHLINE - SEE SHEET 11

PREPARED BY:

SWT Civil & Environmental
Engineering

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.

SCALE : AS SHOWN

DRAWN BY : C.G.G.

DATE : 09-2014

CHECKED BY : M.A.C.

DATE : 09-2014

APPROVED BY :

DATE :

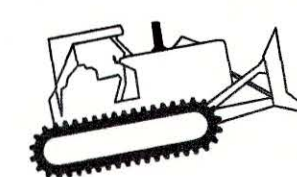
PREPARED UNDER THE
SUPERVISION OF:



9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 2 STRIPING & FENCING PLAN 1

SHEET 10 OF 41 SHEETS

APPROVED: *[Signature]* 10-7-14
FOR CITY ENGINEER
DESCRIPTION: CIVIL AND GAS PLANS BY: MAC APPROVED: DATE: FILMED:

CONTRACTOR: DATE STARTED: DATE COMPLETED:

C-10

SUBMITTED BY:

MICHAEL CULLINANE

PROJECT MANAGER

CHECKED BY:

JEREMY BOTICA

PROJECT ENGINEER

SYLVIA CASTILLO

SENIOR CIVIL ENGINEER

WBS S-00684

1887-6281

NAMES COORDINATE

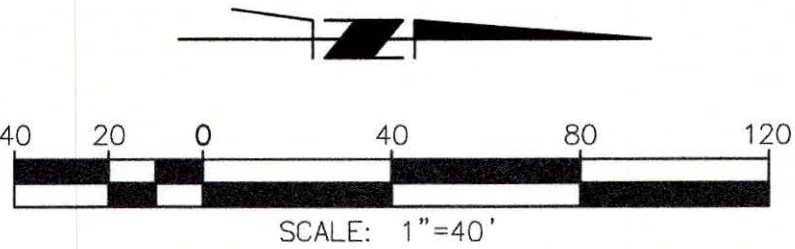
38158-10-D

MATCHLINE - SEE SHEET 10

CONSTRUCTION NOTES

- (26) INSTALL WHEEL STOP 2 FEET FROM END OF PARKING SPACE
- (27) CONSTRUCT 12" SOLID LIMIT LINE AND NO PARKING PAVEMENT MARKINGS PER CALTRANS STANDARD PLAN A24E; PAINT PAVEMENT MARKING AS NOTED ON DRAWINGS
- (29) CONSTRUCT 4" WIDE WHITE PARKING STRIPE AND STALL PER CALTRANS STANDARD PLAN A20B
- (31) CONSTRUCT TRAFFIC ARROW PER STANDARD PLAN A24A TYPE I 10' ARROW
- (32) CONSTRUCT DOUBLE 4" WIDE YELLOW STRIPE PER CALTRANS STANDARD PLAN A20A DETAIL 21
- (33) CONSTRUCT STOP SIGN PAVEMENT MARKING, SOLID LINE, AND SIGN PER CALTRANS STANDARD PLAN A24D
- (35) CONSTRUCT 6-FOOT HIGH CHAIN LINK FENCE PER SDRSD SDM-112
- (36) CONSTRUCT 8-FOOT HIGH CHAIN LINK FENCE WITH BARBWARE TOP PER SDRSD SDM-112
- (38) CONSTRUCT 20' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
- (39) CONSTRUCT 30' WIDE 6-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
- (40) CONSTRUCT 20' WIDE 8-FOOT HIGH CHAIN LINK GATE PER SDRSD SDM-114
- (43) INSTALL SALVAGED 6-FOOT CHAIN LINK FENCE MESH ON NEW POSTS

NOTE:
SEE SHEET 1 FOR LEGEND.



C-11

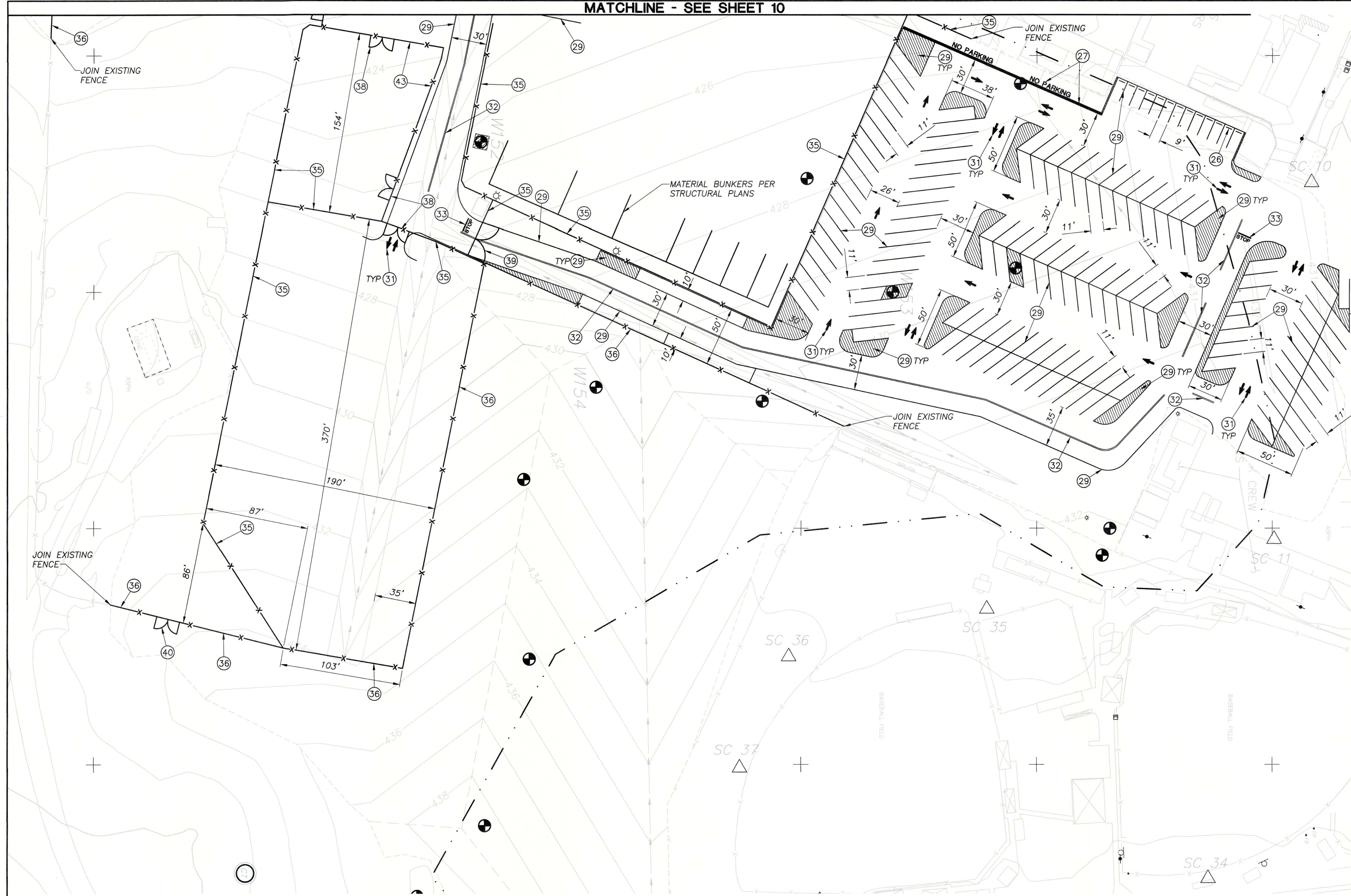
SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 2 STRIPING &
FENCING PLAN 2

SHEET 11 of 41 SHEETS			
APPROVAL:	DATE:	10-7-14	
FOR CITY ENGINEER	BY:	DATE:	
DESCRIPTION:	BY:	DATE:	
CIVIL AND GAS PLANS	MAC	DATE:	
CONTRACTOR:	DATE STARTED:	DATE COMPLETED:	
INSPECTOR:	DATE COMPLETED:		

SUBMITTED BY:	MICHAEL CULLINANE
PROJECT MANAGER	
CHECKED BY:	JEREMY BOTICA
PROJECT ENGINEER	
SYLVIA CASTILLO	
SENIOR CIVIL ENGINEER	
WBS S-00684	
1887-6281	
NADES COORDINATE	
38158-11-D	



PREPARED BY:

SWT Engineering Civil & Environmental

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.	SCALE : AS SHOWN
DRAWN BY : C.G.G.	DATE : 09-2014
CHECKED BY : M.A.C.	DATE : 09-2014
APPROVED BY :	DATE :

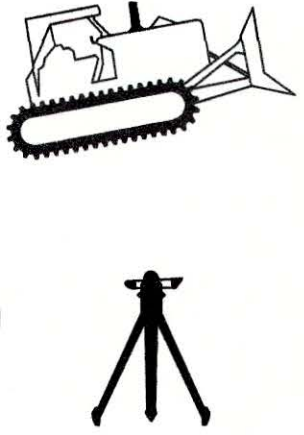
PREPARED UNDER THE
SUPERVISION OF:

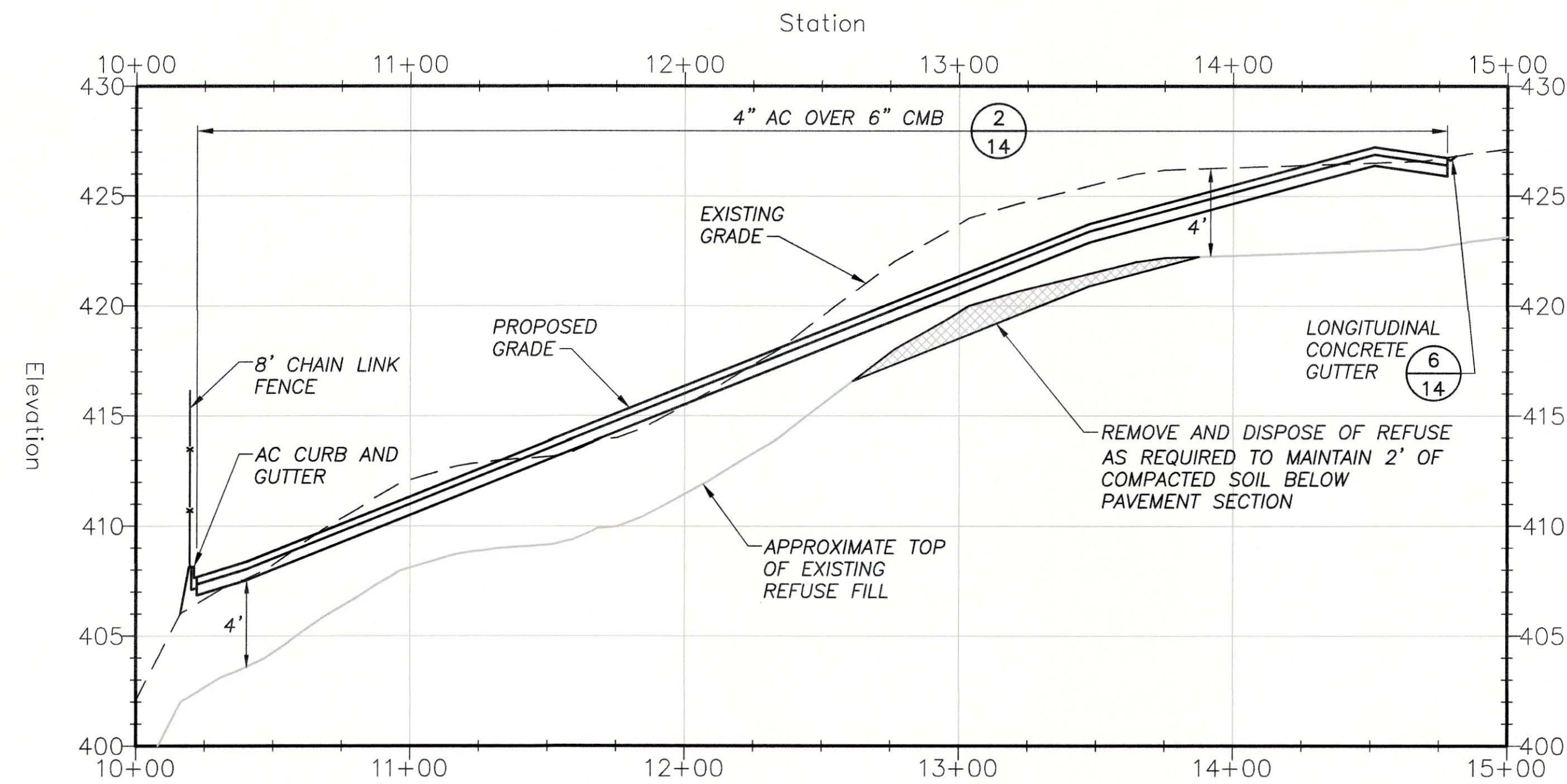
REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA

9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



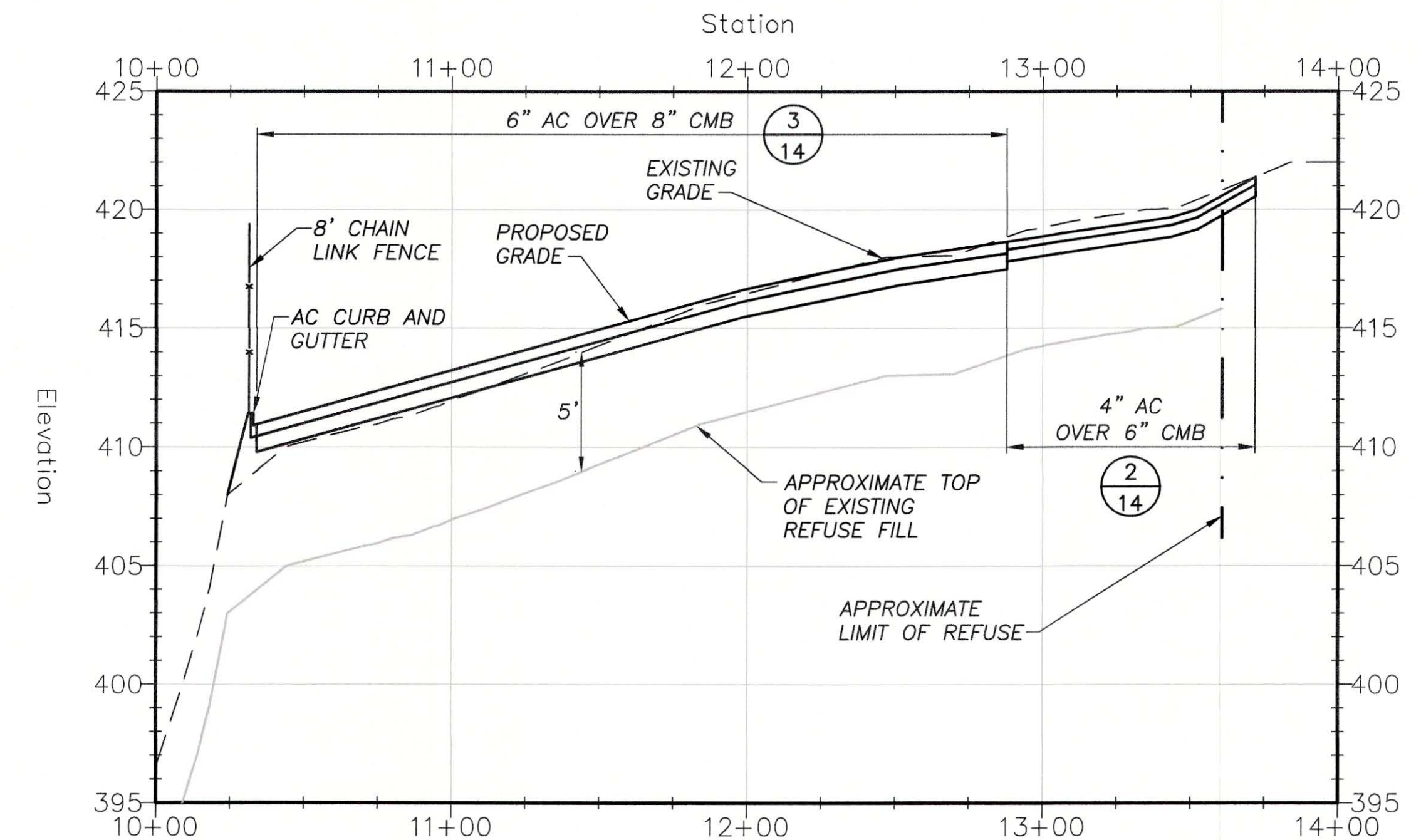


NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL
IMPROVEMENT SITE PLAN SHEET 2

AREA 1 - PHASE 1A SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

A
12

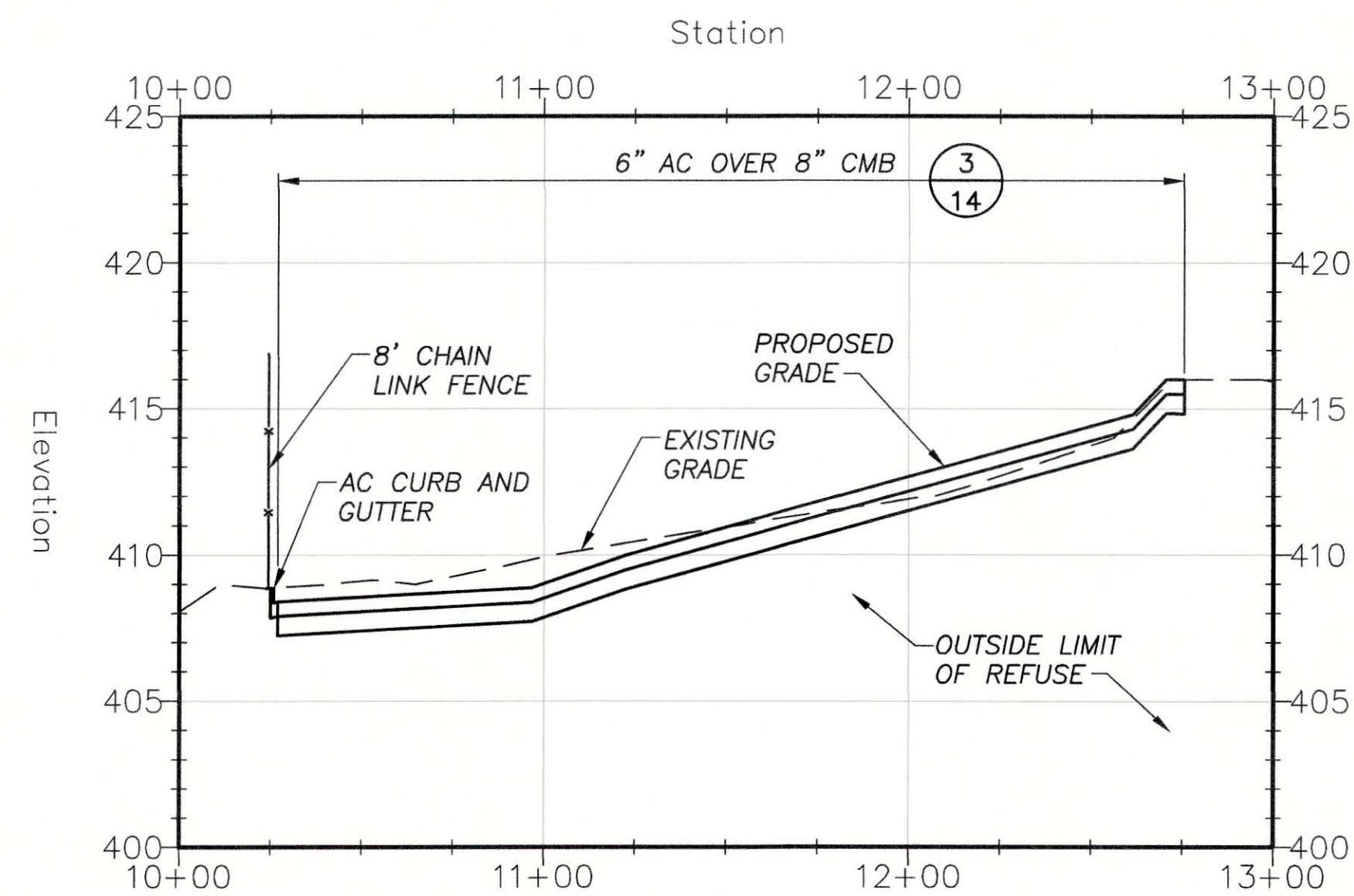


NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL
IMPROVEMENT SITE PLAN SHEET 2

AREA 1 - PHASE 1B AND 1C SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

B
12

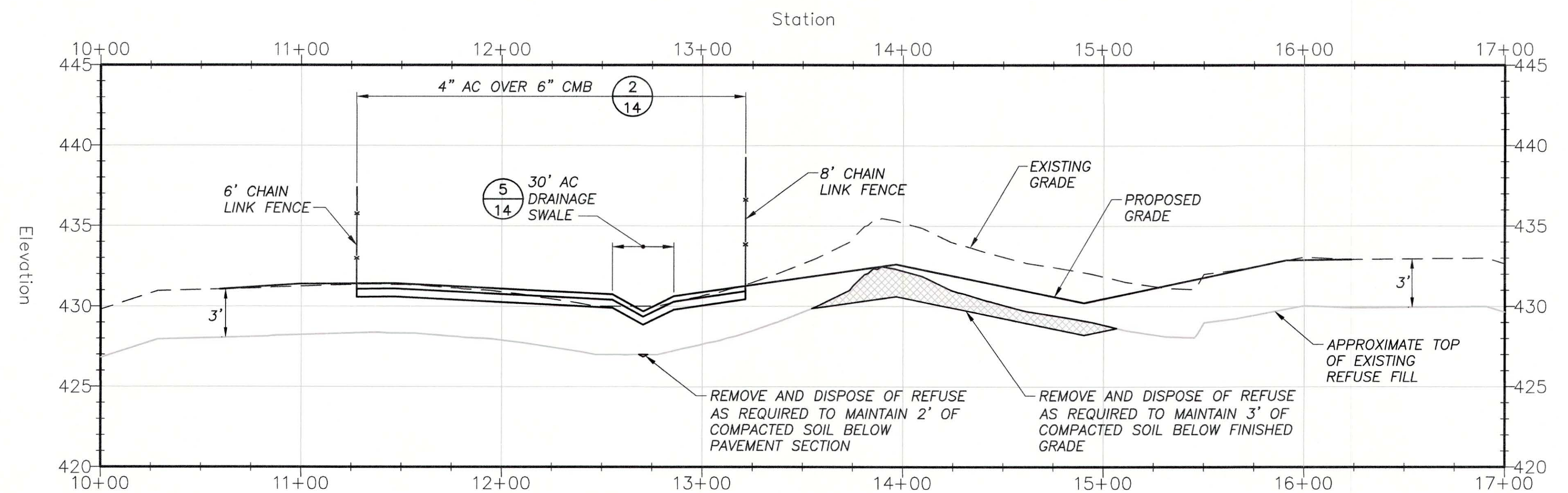


NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL
IMPROVEMENT SITE PLAN SHEET 2

AREA 1 - PHASE 1C SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

C
12



NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL
IMPROVEMENT SITE PLAN SHEET 2

AREA 2 - PHASE 2B SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

D
12

C-12

PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

PREPARED UNDER THE
SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



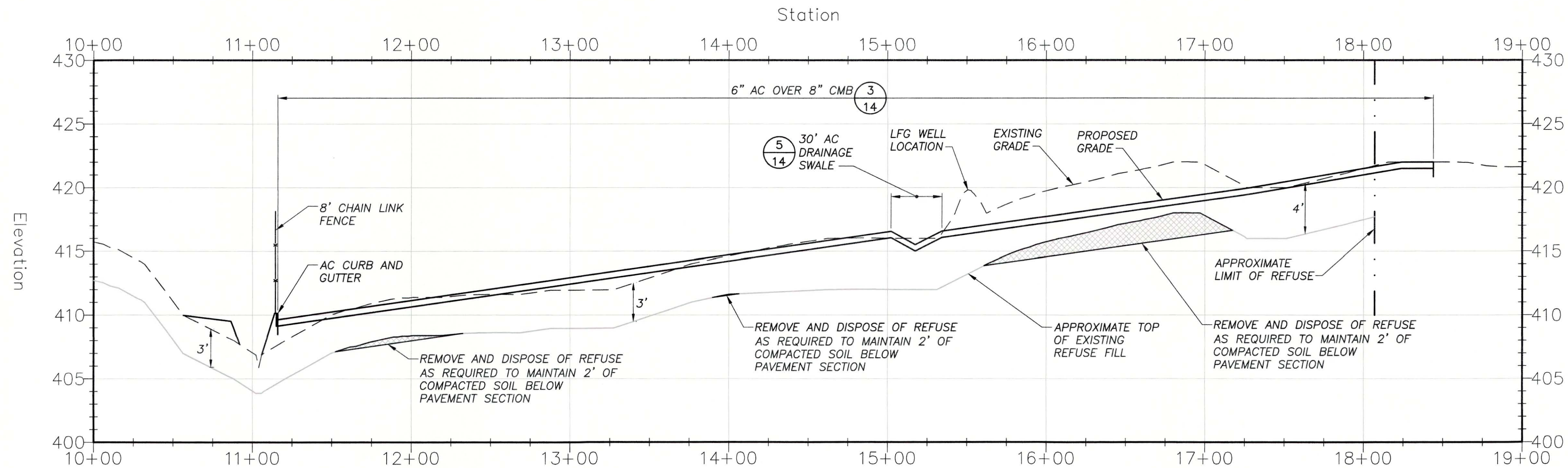
**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

CROSS SECTIONS 1

SHEET 12 OF 41 SHEETS				
APPROVAL:	DATE	APPROVED	DATE	FILMED
FOR CITY ENGINEER	10-7-14			
DESCRIPTION	BY	APPROVED	DATE	FILMED
CIVIL AND GAS PLANS	MRC			
CONTRACTOR:	DATE STARTED:			
INSPECTOR:	DATE COMPLETED:			

SUBMITTED BY:
MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NAD83 COORDINATE
38158-12-D

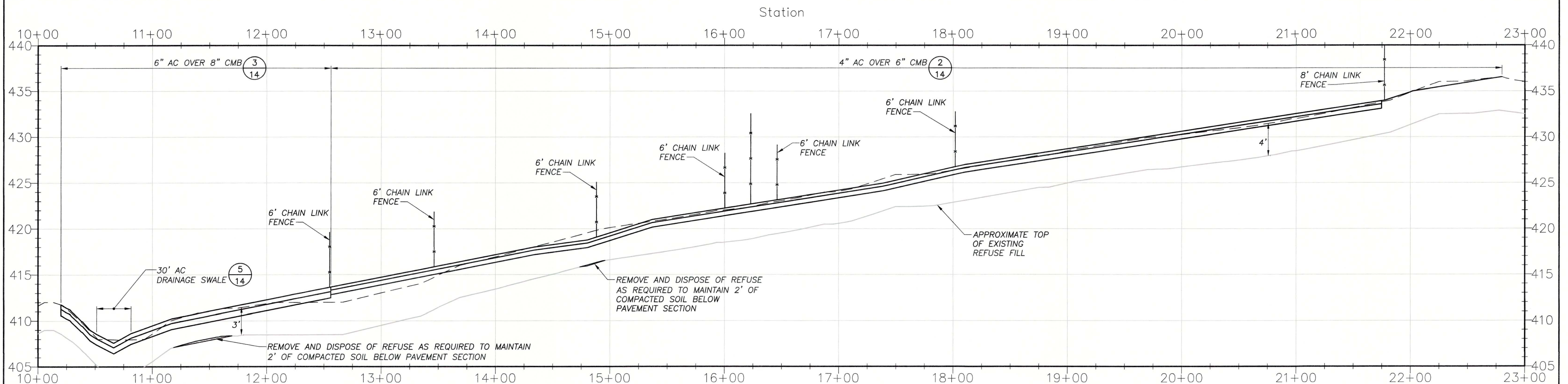


NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL IMPROVEMENT SITE PLAN SHEET 2

AREA 2 - PHASE 2C AND 2D SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

E
13



NOTE:
1. FOR CROSS SECTION SEE C-2 CIVIL IMPROVEMENT SITE PLAN SHEET 2

AREA 2 - PHASE 2B AND 2D SECTION

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'

F
13

C-13

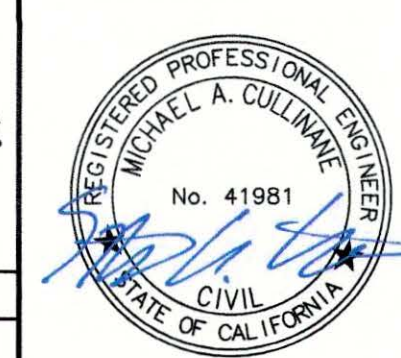
PREPARED BY:

SWT Civil & Environmental Engineering

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B.	SCALE : AS SHOWN
DRAWN BY : C.G.G.	DATE : 09-2014
CHECKED BY : M.A.C.	DATE : 09-2014
APPROVED BY :	DATE :

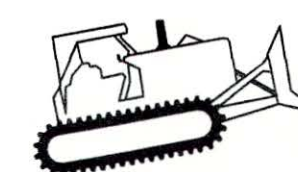
PREPARED UNDER THE
SUPERVISION OF:



9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

CROSS SECTIONS 2

SHEET 13 OF 41 SHEETS

APPROVAL: 10-7-14

FOR CITY ENGINEER

DESCRIPTION BY APPROVED DATE FILMED

CIVIL AND GAS PLANS MAC

CONTRACTOR: DATE STARTED:

INSPECTOR: DATE COMPLETED:

SUBMITTED BY:
MICHAEL CULLINANE
PROJECT MANAGER

CHECKED BY:

JEREMY BOTICA
PROJECT ENGINEER

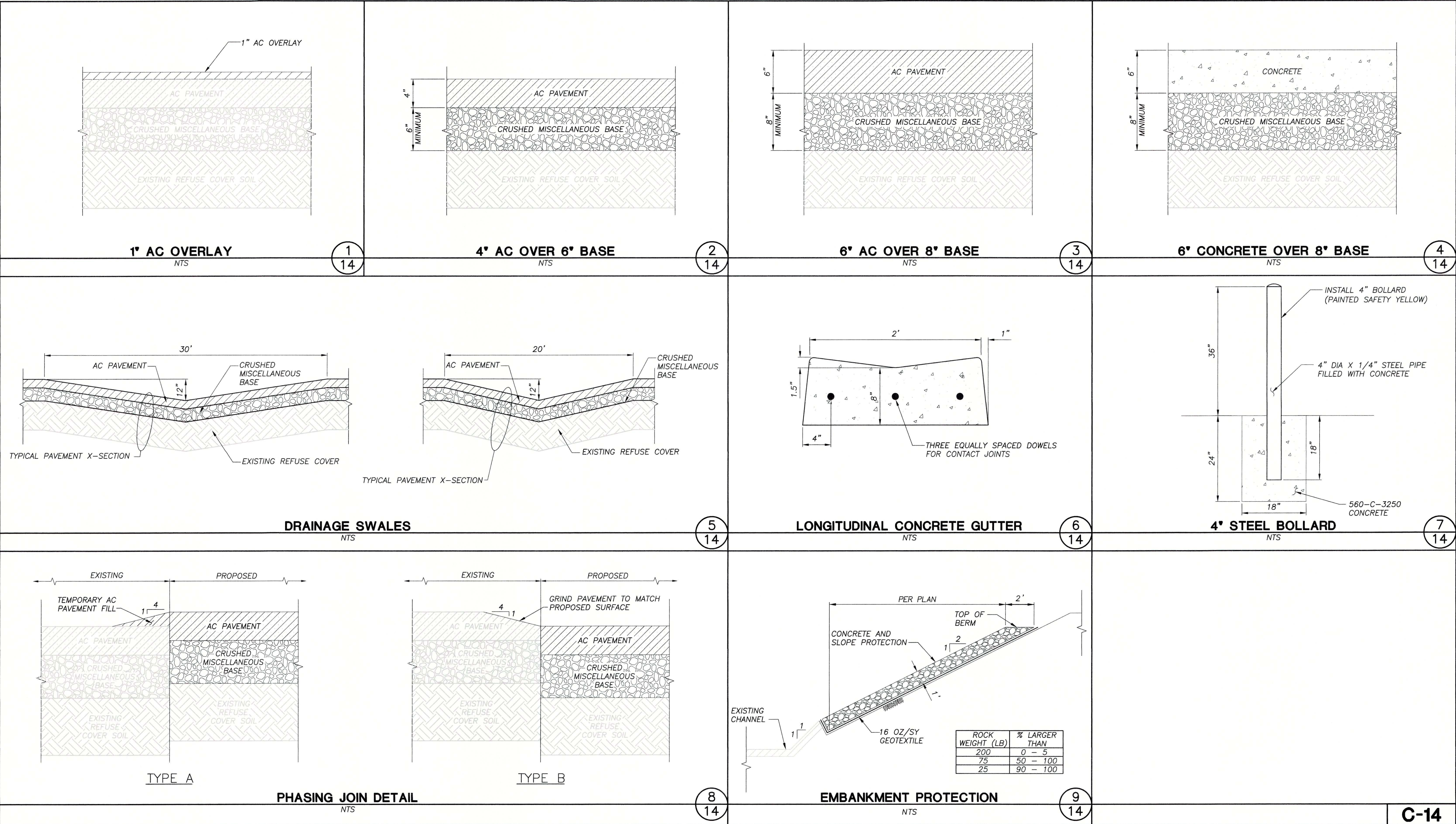
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER

WBS S-00684

1887-6281

NADES COORDINATE

38158-13-D



PREPARED BY:

SWT Engineering Civil & Environmental

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN

DRAWN BY : C.G.G. DATE : 09-2014

CHECKED BY : M.A.C. DATE : 09-2014

APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE

CITY OF SAN DIEGO STATE OF CALIFORNIA
SEMPER VIGILANS

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

DETAIL SHEET 1

SHEET 14 OF 41 SHEETS

APPROVAL: *[Signature]* 10-7-14
PER CITY ENGINEER
DESCRIPTION: CIVIL AND GAS PLANS BY: MAC APPROVED: DATE: FILMED: DATE:

CONTRACTOR: DATE STARTED: DATE COMPLETED: INSPECTOR: DATE COMPLETED:

C-14

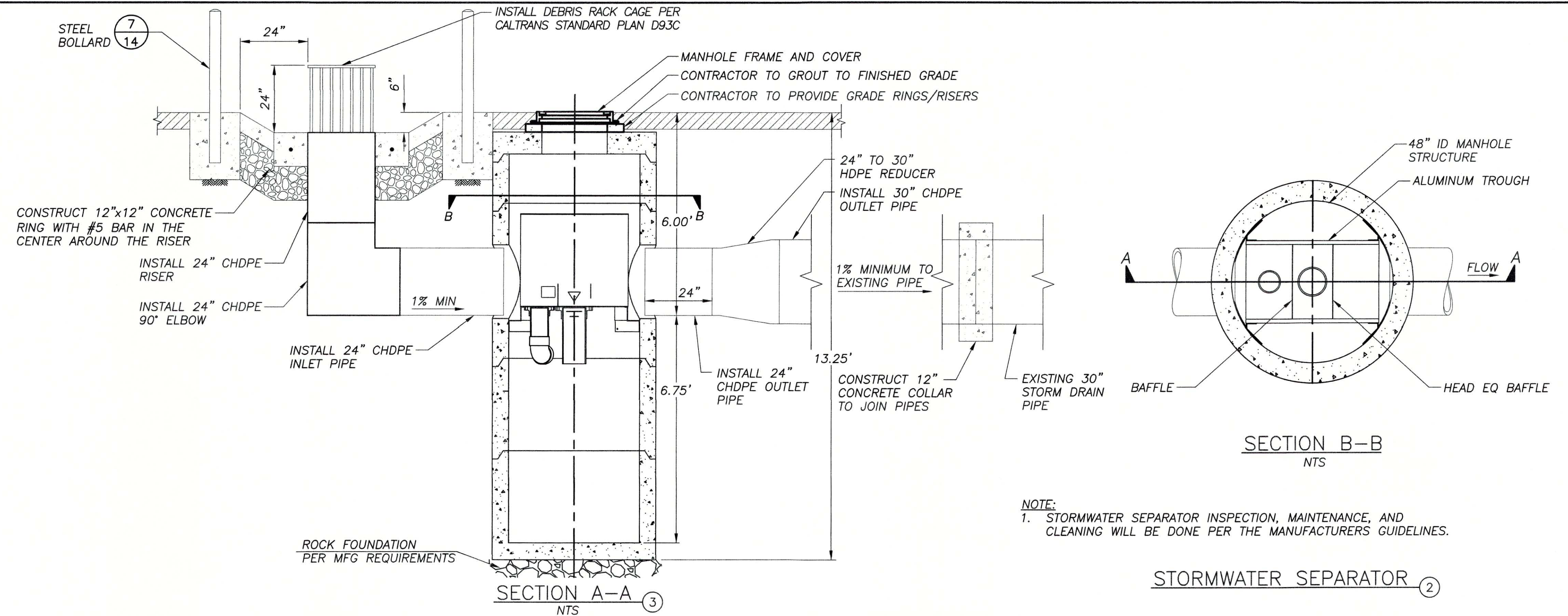
SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NAD83 COORDINATE
38158-14-D



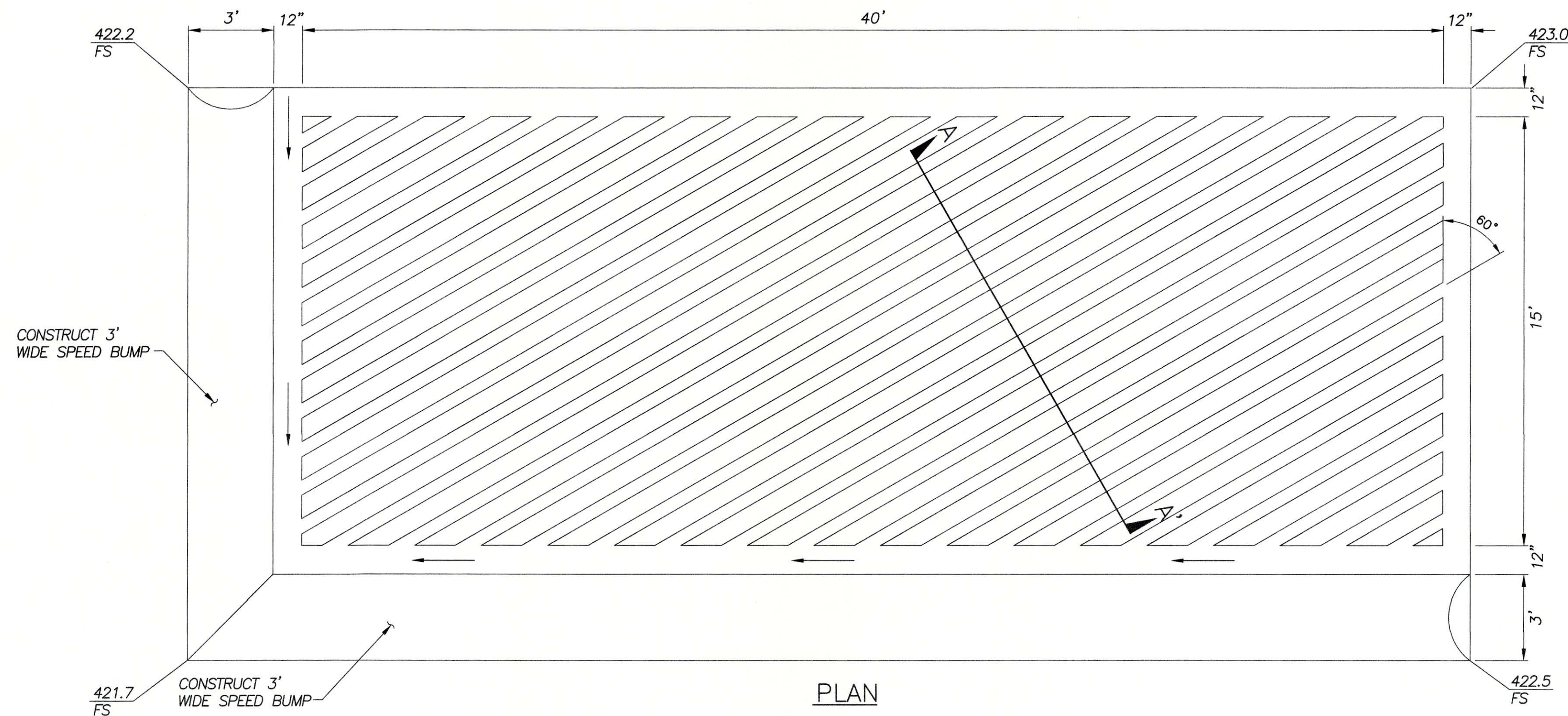
EXISTING DRAINAGE INLET

DRAINAGE INLET NOTES

- 1 DEMO AND REMOVE EXISTING INLET AND CONCRETE APPROACH
- 2 LOCATE STORMWATER SEPARATOR DOWNSTREAM OF NEW DRAINAGE INLET; CONNECT TO OUTLET PIPE
- 3 CONSTRUCT DRAINAGE INLET - CONNECT TO INLET SIDE OF STORMWATER SEPARATOR

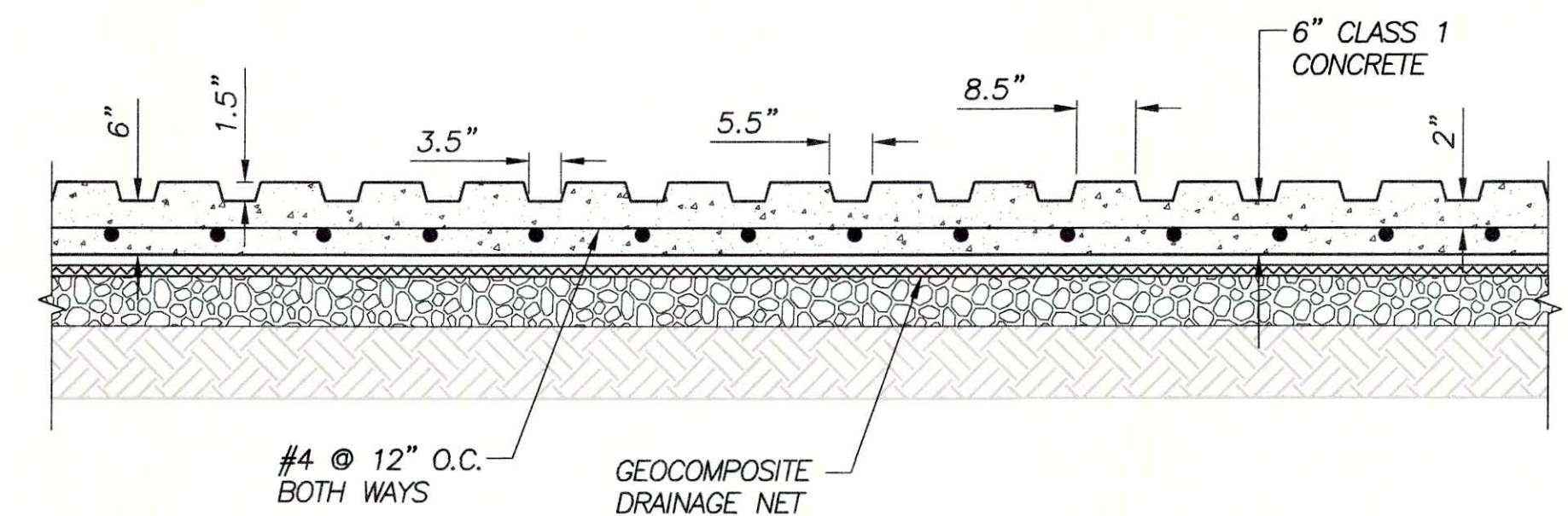


DRAINAGE INLET/REMOVAL/NEW INLET/VORTSENTRY HS-48 STORMWATER SEPARATOR



PLAN

MATERIAL YARD RUMBLE STRIP BMP DETAIL



SECTION A-A'

- NOTE:
1. RUMBLE STRIP MAINTENANCE IS ON AN AS NEEDED BASIS.

PREPARED BY:

SWT Civil & Environmental Engineering

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

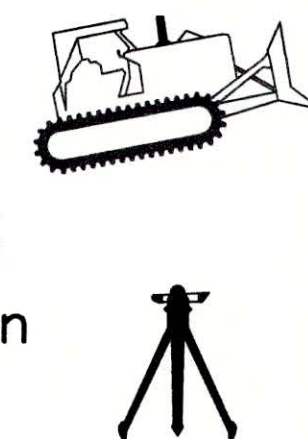
PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA

9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

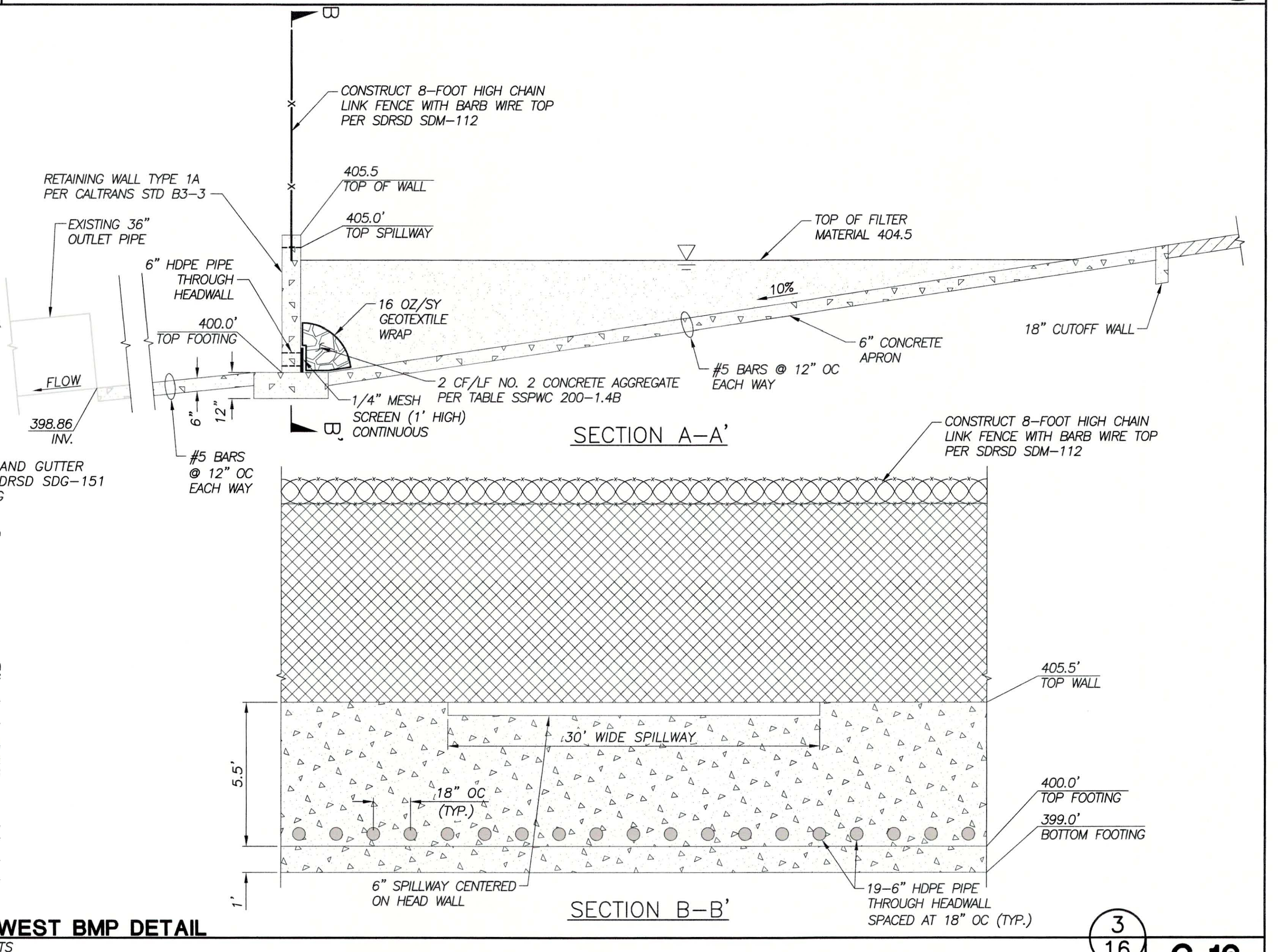
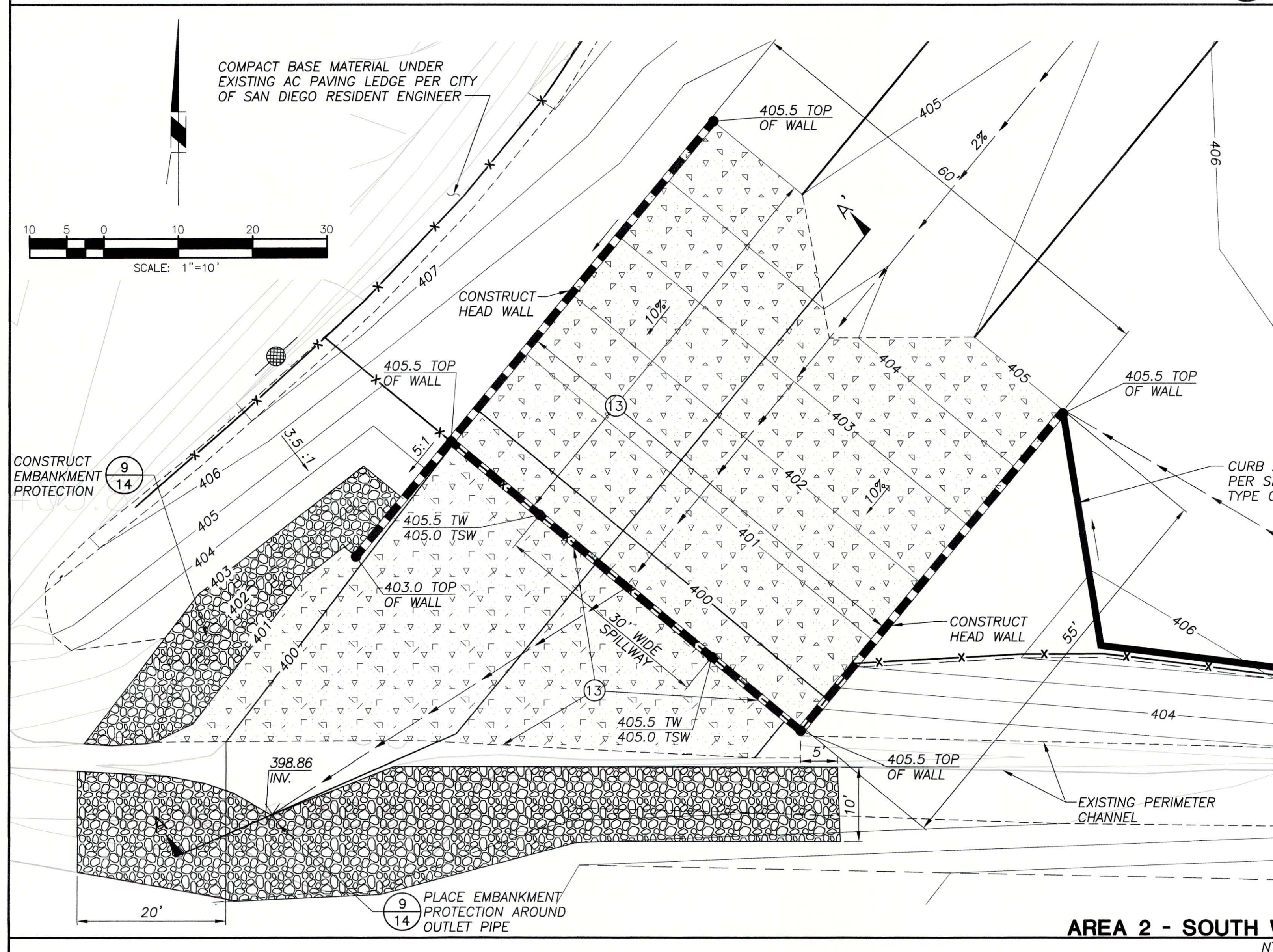
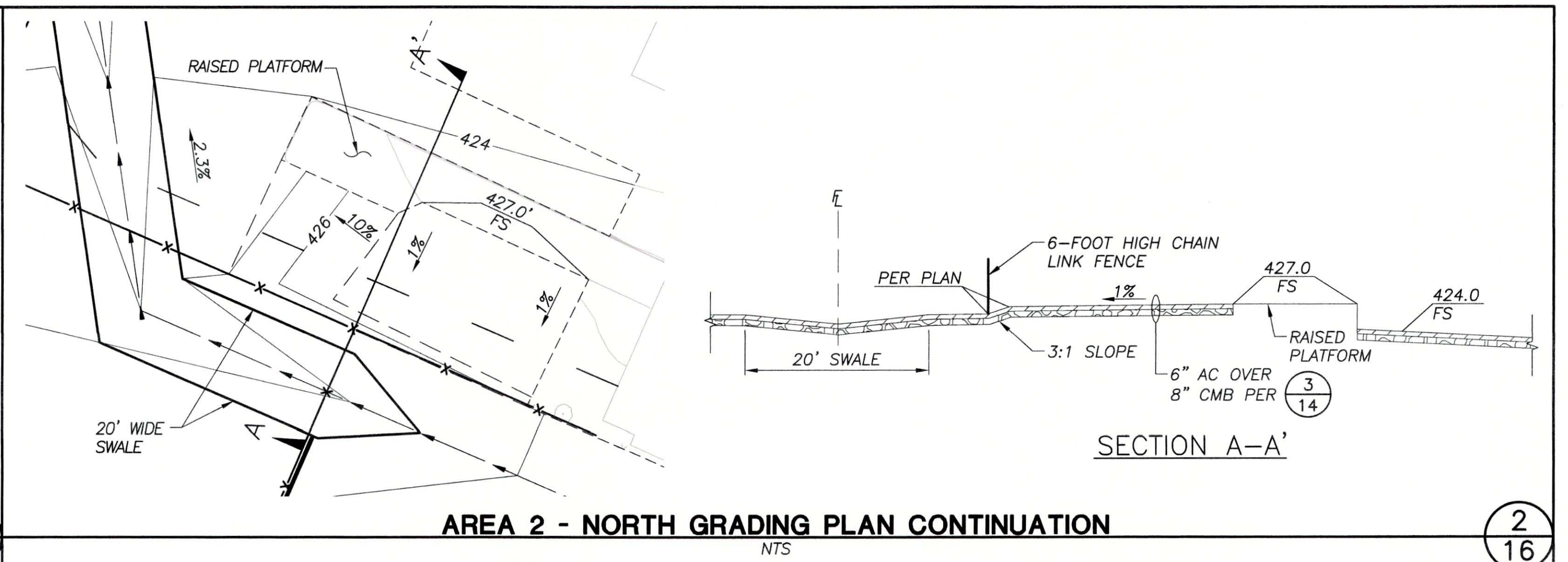
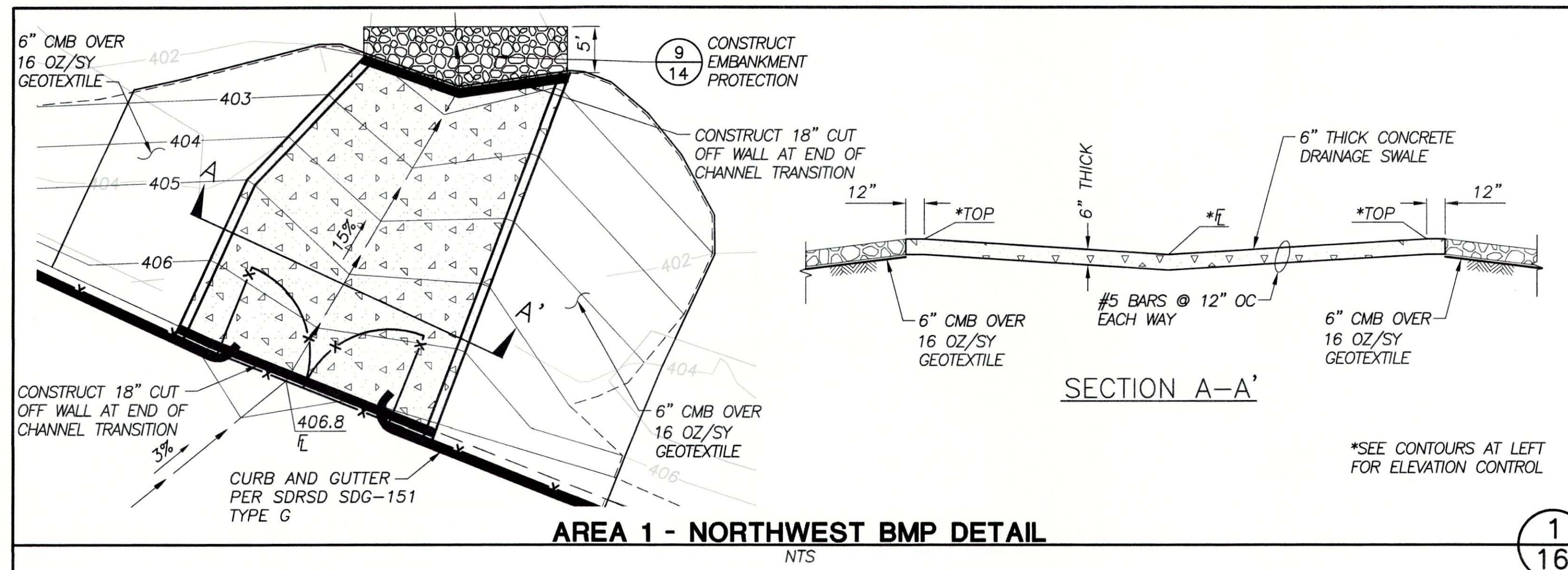
DETAIL SHEET 2

SHEET 15 OF 41 SHEETS

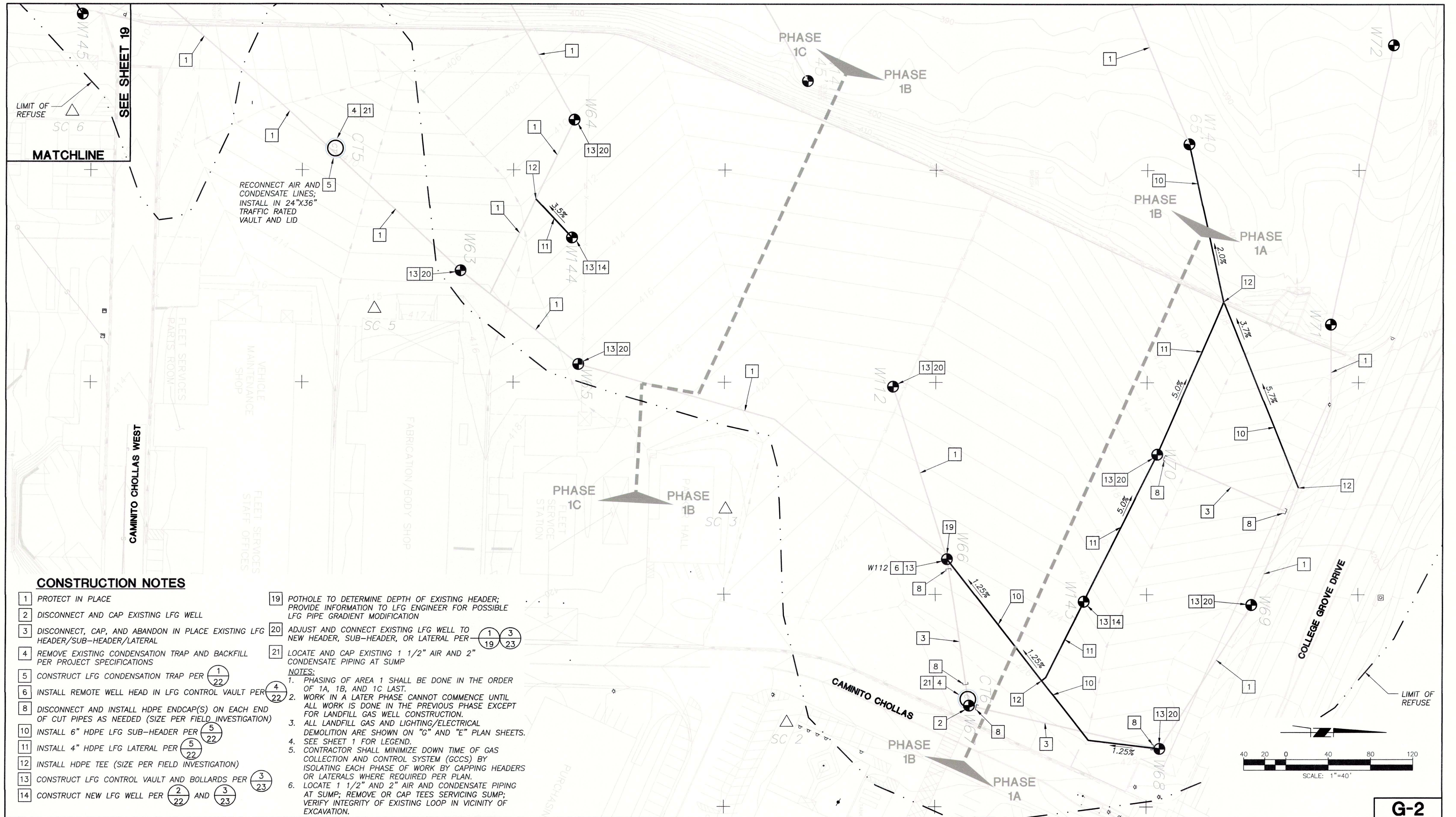
APPROVAL: *[Signature]* 10-7-14
FOR CITY ENGINEER
DESCRIPTION: CIVIL AND GAS PLANS BY: M.A.C. APPROVED: DATE: FILMED: DATE:

CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:

SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NADES COORDINATE
38158-15-D



SWT Engineering Civil & Environmental 800 C SOUTH ROCHESTER AVENUE ONTARIO, CALIFORNIA 91761 DESIGNED BY : J.A.B. SCALE : AS SHOWN DRAWN BY : C.G.G. DATE : 09-2014 CHECKED BY : M.A.C. DATE : 09-2014 APPROVED BY : DATE :		PREPARED UNDER THE SUPERVISION OF: 9/9/14 DATE	City of San Diego, California Environmental Services Department Waste Reduction and Disposal Division 	SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS 2781 CAMINITO CHOLLAS SAN DIEGO, CA 92105	DETAIL SHEET 3 SHEET 16 OF 41 SHEETS 10-7-14 DATE CIVIL AND GAS PLANS CONTRACTOR: DATE STARTED: DATE COMPLETED:	SUBMITTED BY: MICHAEL CULLINANE PROJECT MANAGER CHECKED BY: JEREMY BOTICA PROJECT ENGINEER SYLVIA CASTILLO SENIOR CIVIL ENGINEER WBS S-00684 1987-0281 NAUSE COORDINATE 38158-16
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CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
 - 2 DISCONNECT AND CAP EXISTING LFG WELL
 - 3 DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING LFG HEADER/SUB-HEADER/LATERAL
 - 4 REMOVE EXISTING CONDENSATION TRAP AND BACKFILL PER PROJECT SPECIFICATIONS
 - 5 CONSTRUCT LFG CONDENSATION TRAP PER (1/22)
 - 6 INSTALL REMOTE WELL HEAD IN LFG CONTROL VAULT PER (4/22)
 - 8 DISCONNECT AND INSTALL HDPE ENDCAP(S) ON EACH END OF CUT PIPES AS NEEDED (SIZE PER FIELD INVESTIGATION)
 - 10 INSTALL 6" HDPE LFG SUB-HEADER PER (5/22)
 - 11 INSTALL 4" HDPE LFG LATERAL PER (5/22)
 - 12 INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
 - 13 CONSTRUCT LFG CONTROL VAULT AND BOLLARDS PER (3/23)
 - 14 CONSTRUCT NEW LFG WELL PER (2/22) AND (3/23)
 - 19 POTHOLE TO DETERMINE DEPTH OF EXISTING HEADER; PROVIDE INFORMATION TO LFG ENGINEER FOR POSSIBLE LFG PIPE GRADIENT MODIFICATION
 - 20 ADJUST AND CONNECT EXISTING LFG WELL TO NEW HEADER, SUB-HEADER, OR LATERAL PER (1/19) (3/23)
 - 21 LOCATE AND CAP EXISTING 1 1/2" AIR AND 2" CONDENSATE PIPING AT SUMP
- NOTES:
1. PHASING OF AREA 1 SHALL BE DONE IN THE ORDER OF 1A, 1B, AND 1C LAST.
 2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
 3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
 4. SEE SHEET 1 FOR LEGEND.
 5. CONTRACTOR SHALL MINIMIZE DOWN TIME OF GAS COLLECTION AND CONTROL SYSTEM (GCCS) BY ISOLATING EACH PHASE OF WORK BY CAPPING HEADERS OR LATERALS WHERE REQUIRED PER PLAN.
 6. LOCATE 1 1/2" AND 2" AIR AND CONDENSATE PIPING AT SUMP; REMOVE OR CAP TEES SERVICING SUMP; VERIFY INTEGRITY OF EXISTING LOOP IN VICINITY OF EXCAVATION.

PREPARED BY:

SWT Civil & Environmental Engineering

800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY: J.A.B.

SCALE: AS SHOWN

DRAWN BY: C.G.G.

DATE: 09-2014

CHECKED BY: M.A.C.

DATE: 09-2014

APPROVED BY:

DATE:

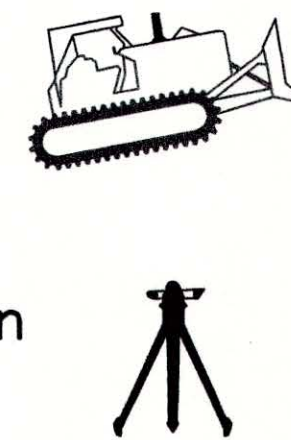
PREPARED UNDER THE
SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLINANE
No. 41981
CIVIL
STATE OF CALIFORNIA

9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 1 LANDFILL GAS IMPROVEMENT PLAN

SHEET 18 OF 41 SHEETS

DATE: 10-7-14

FOR CITY ENGINEER

DESCRIPTION BY APPROVED DATE FILMED

CIVIL AND GAS PLANS MAC

CONTRACTOR: DATE STARTED:

INSPECTOR: DATE COMPLETED:

G-2

SUBMITTED BY:

MICHAEL CULLINANE

PROJECT MANAGER

CHECKED BY:

JEREMY BOTICA

PROJECT ENGINEER

SYLVIA CASTILLO

SENIOR CIVIL ENGINEER

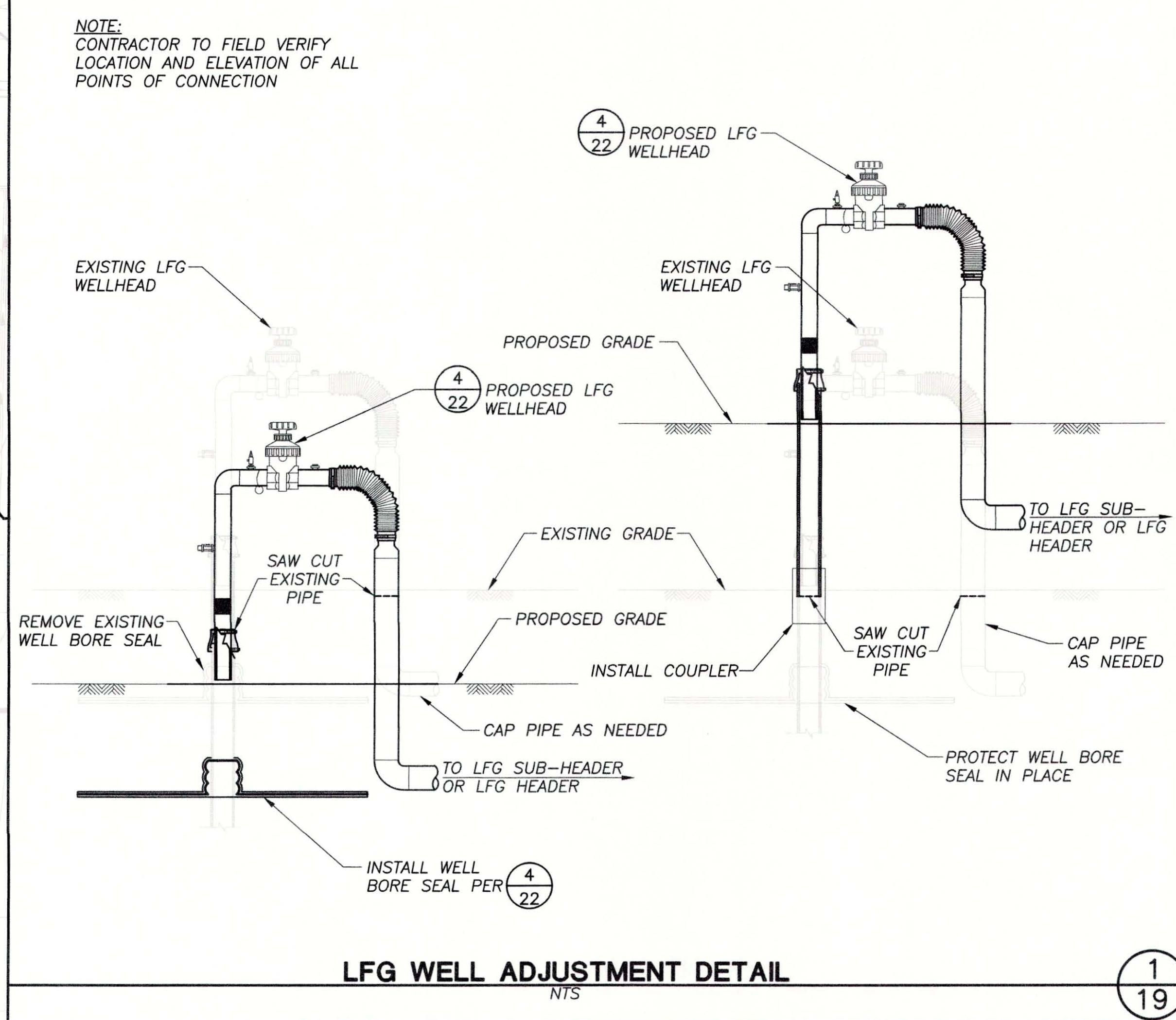
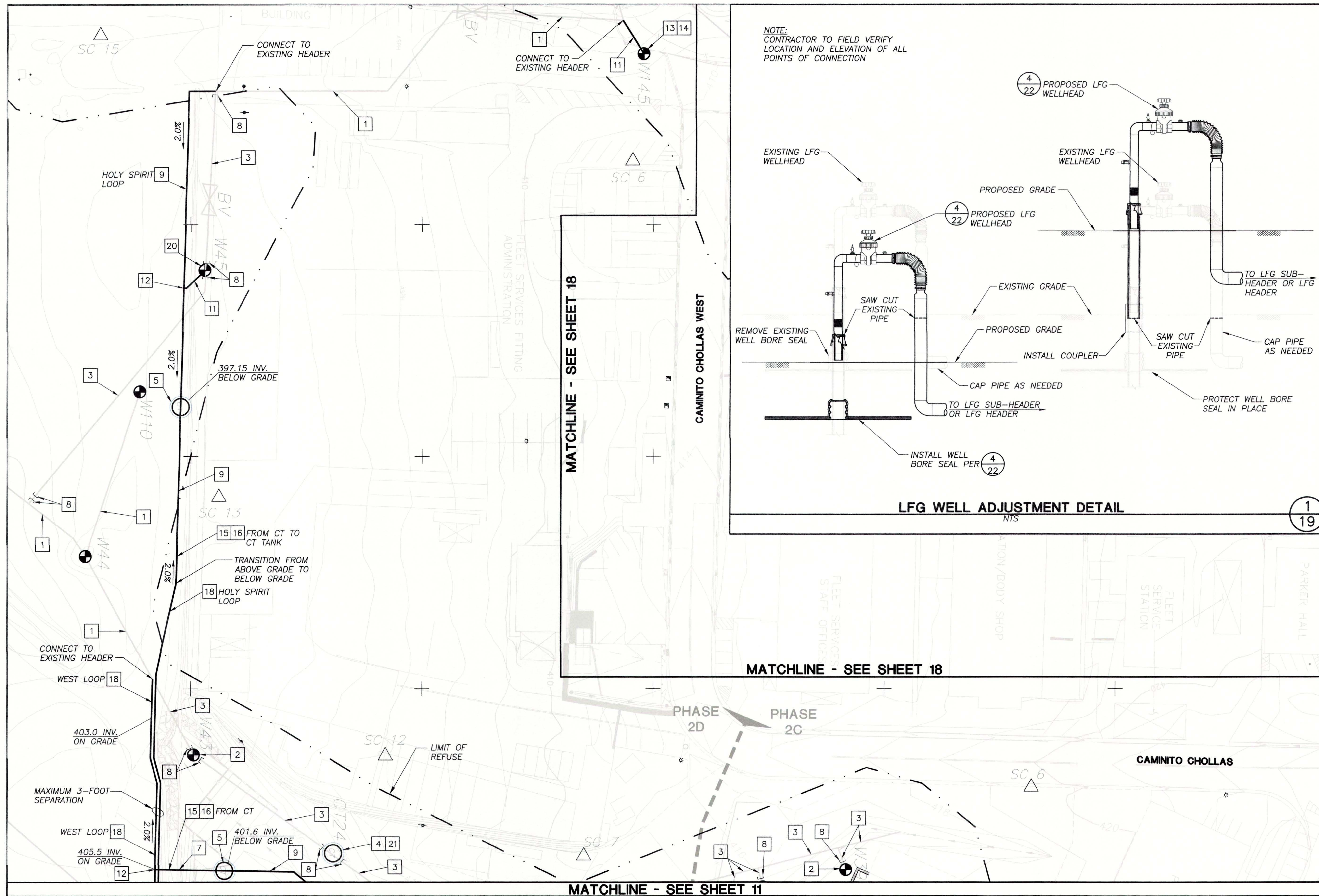
WBS S-00684

1887-6281

HADS COORDINATE

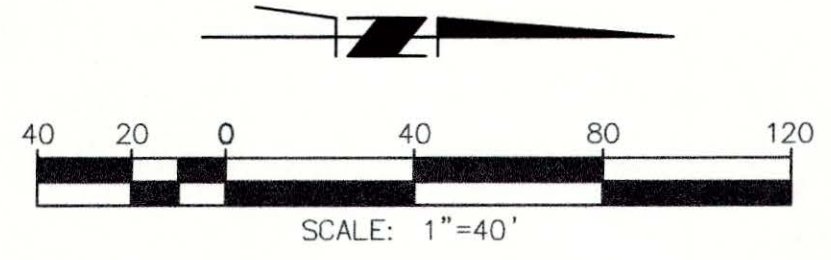
38158-18-D

Z:\PROJECTS\SAN DIEGO (CITY)\SOUTH CHOLLAS\ACAD\SET\18 - AREA 1 LANDFILL GAS IMPROVEMENT PLAN



- ### CONSTRUCTION NOTES
1. PROTECT IN PLACE
 2. DISCONNECT AND CAP EXISTING LFG WELL
 3. DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING LFG HEADER/SUB-HEADER/LATERAL
 4. REMOVE EXISTING CONDENSATION TRAP AND BACKFILL OR ABANDON PER PROJECT SPECIFICATIONS
 5. CONSTRUCT LFG CONDENSATE TRAP PER 1.22
 7. INSTALL PIPE SUPPORTS ACROSS V-DITCH PER 2.23
 8. DISCONNECT AND INSTALL HDPE ENDCAP(S) ON EACH END OF CUT PIPES AS NEEDED (SIZE PER FIELD INVESTIGATION)
 9. INSTALL 8" HDPE LFG HEADER PER 5.22
 11. INSTALL 4" HDPE LFG LATERAL PER 5.22
 12. INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
 13. CONSTRUCT LFG CONTROL VAULT AND BOLLARDS PER 2.23 AND 3.23
 14. CONSTRUCT NEW LFG WELL PER 2.22 AND 3.23
 15. CONSTRUCT 1 1/2" HDPE AIR SUPPLY 5.22
 16. CONSTRUCT 2" HDPE CONDENSATE LINE 5.22
 18. CONSTRUCT ON GRADE LFG PIPE SUPPORT 6.22
 20. ADJUST AND CONNECT EXISTING LFG WELL TO NEW HEADER, SUB-HEADER, OR LATERAL PER 1.19 AND 3.23
 21. LOCATE AND CAP EXISTING 1 1/2" AIR AND 2" CONDENSATE PIPING AT SUMP

- ### NOTES:
1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
 2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
 3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
 4. SEE SHEET 1 FOR LEGEND.
 5. CONTRACTOR SHALL MINIMIZE DOWN TIME OF GAS COLLECTION AND CONTROL SYSTEM (GCS) BY ISOLATING EACH PHASE OF WORK BY CAPPING HEADERS OR LATERALS WHERE REQUIRED PER PLAN.
 6. LOCATE 1 1/2" AND 2" AIR AND CONDENSATE PIPING AT SUMP; REMOVE OR CAP TEES SERVICING SUMP; VERIFY INTEGRITY OF EXISTING LOOP IN VICINITY OF EXCAVATION.



PREPARED BY:

SWT Engineering Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

MICHAEL A. CULLINANE
REGISTERED PROFESSIONAL ENGINEER
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

City of San Diego State of California
SEMPER PARATUS

SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

G-3

AREA 2 LANDFILL GAS IMPROVEMENT PLAN 1
SHEET 19 OF 41 SHEETS

APPROVAL: **FOR CITY ENGINEER** 10-7-14
DATE: 10-7-14

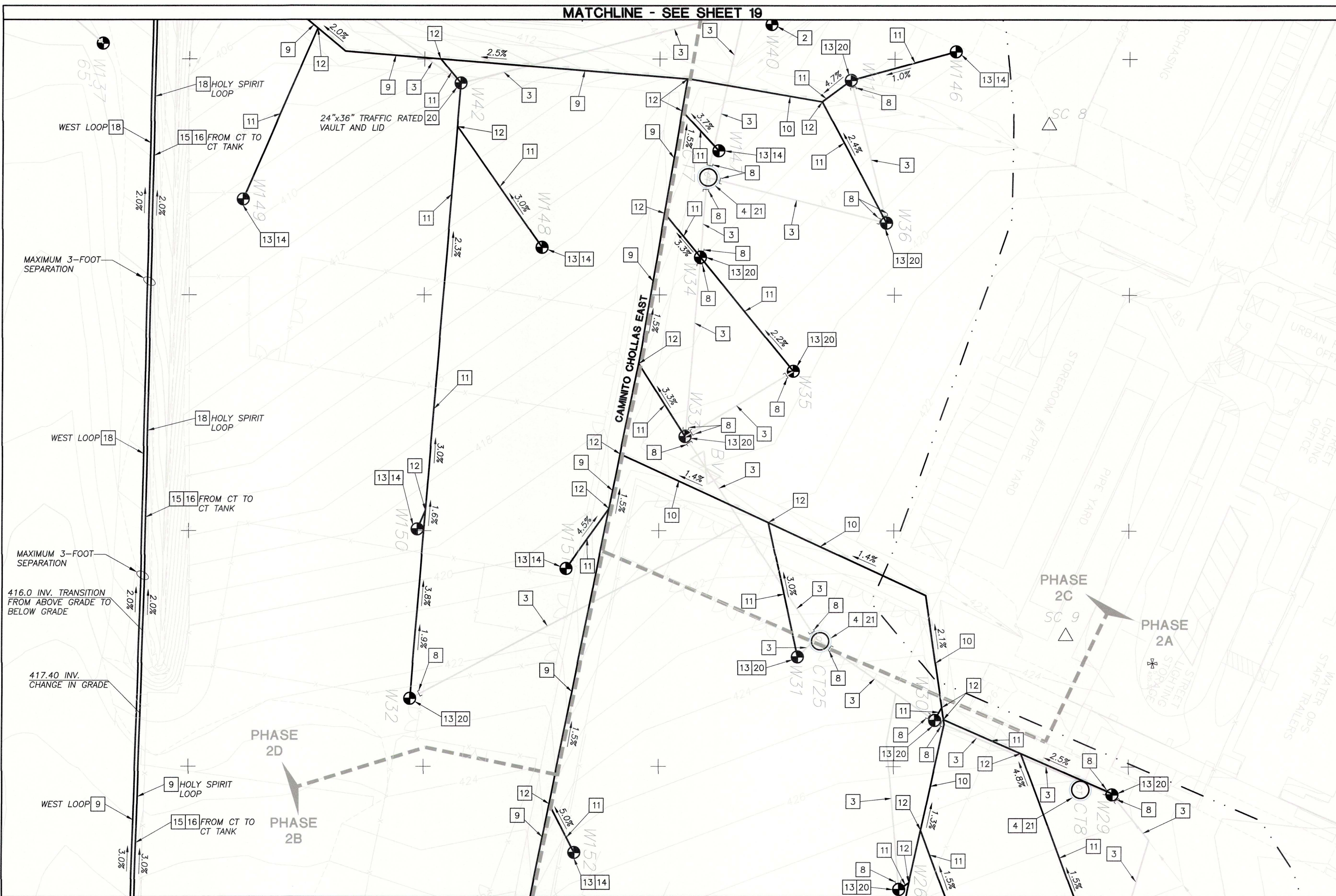
DESCRIPTION	BY	APPROVED	DATE	FILED
CIVIL AND GAS PLANS	M.A.C.			

CONTRACTOR: DATE STARTED: DATE COMPLETED:

INSPECTOR: DATE COMPLETED:

1887-6281
NAD83 COORDINATE

38158-19-D

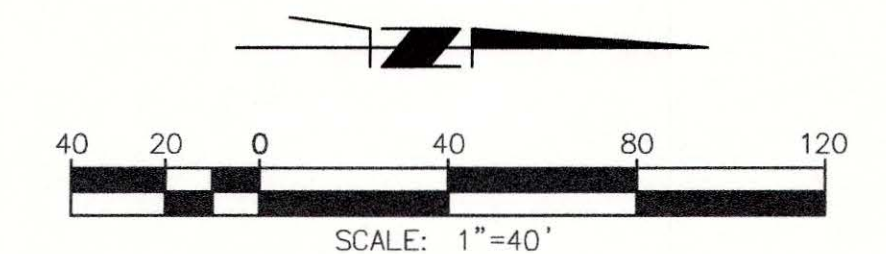


CONSTRUCTION NOTES

- 2 DISCONNECT AND CAP EXISTING LFG WELL
- 3 DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING LFG HEADER/SUB-HEADER/LATERAL
- 4 REMOVE EXISTING CONDENSATE TRAP AND BACKFILL OR ABANDON PER PROJECT SPECIFICATIONS
- 8 DISCONNECT AND INSTALL HDPE ENDCAP(S) ON EACH END OF CUT PIPES AS NEEDED (SIZE PER FIELD INVESTIGATION)
- 9 INSTALL 8" HDPE LFG HEADER PER $\frac{5}{22}$
- 10 INSTALL 6" HDPE LFG SUB-HEADER PER $\frac{5}{22}$
- 11 INSTALL 4" HDPE LFG LATERAL PER $\frac{5}{22}$
- 12 INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
- 13 CONSTRUCT LFG CONTROL VAULT AND BOLLARDS PER $\frac{3}{23}$ AND $\frac{3}{23}$
- 14 CONSTRUCT NEW LFG WELL PER $\frac{2}{22}$ AND $\frac{3}{23}$
- 15 CONSTRUCT 1 1/2" HDPE AIR SUPPLY PER $\frac{5}{22}$
- 16 CONSTRUCT 2" HDPE CONDENSATE LINE PER $\frac{5}{22}$
- 18 CONSTRUCT ON GRADE LFG PIPE SUPPORT PER $\frac{5}{22}$
- 20 ADJUST AND CONNECT EXISTING LFG WELL TO NEW HEADER, SUB-HEADER, OR LATERAL PER $\frac{1}{19}$ AND $\frac{3}{23}$
- 21 LOCATE AND CAP EXISTING 1 1/2" AIR AND 2" CONDENSATE PIPING AT SUMP

NOTES:

1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C AND 2D LAST.
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3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.
5. CONTRACTOR SHALL MINIMIZE DOWN TIME OF GAS COLLECTION AND CONTROL SYSTEM (GCCS) BY ISOLATING EACH PHASE OF WORK BY CAPPING HEADERS OR LATERALS WHERE REQUIRED PER PLAN.
6. LOCATE 1 1/2" AND 2" AIR AND CONDENSATE PIPING AT SUMP; REMOVE OR CAP TEES SERVICING SUMP; VERIFY INTEGRITY OF EXISTING LOOP IN VICINITY OF EXCAVATION.



MATCHLINE - SEE SHEET 21

PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

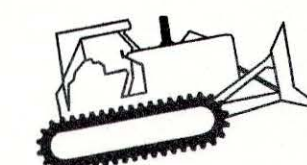
PREPARED UNDER THE SUPERVISION OF:



9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

AREA 2 LANDFILL GAS IMPROVEMENT PLAN 2

SHEET 20 OF 41 SHEETS

APPROVAL:	FOR CITY ENGINEER	DATE	FILED
DESCRIPTION	BY	DATE	FILED
CIVIL AND GAS PLANS	MAC		
CONTRACTOR:	DATE STARTED:	DATE COMPLETED:	
INSPECTOR:	DATE COMPLETED:		

G-4

SUBMITTED BY:
MICHAEL CULLINANE
PROJECT MANAGER

CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER

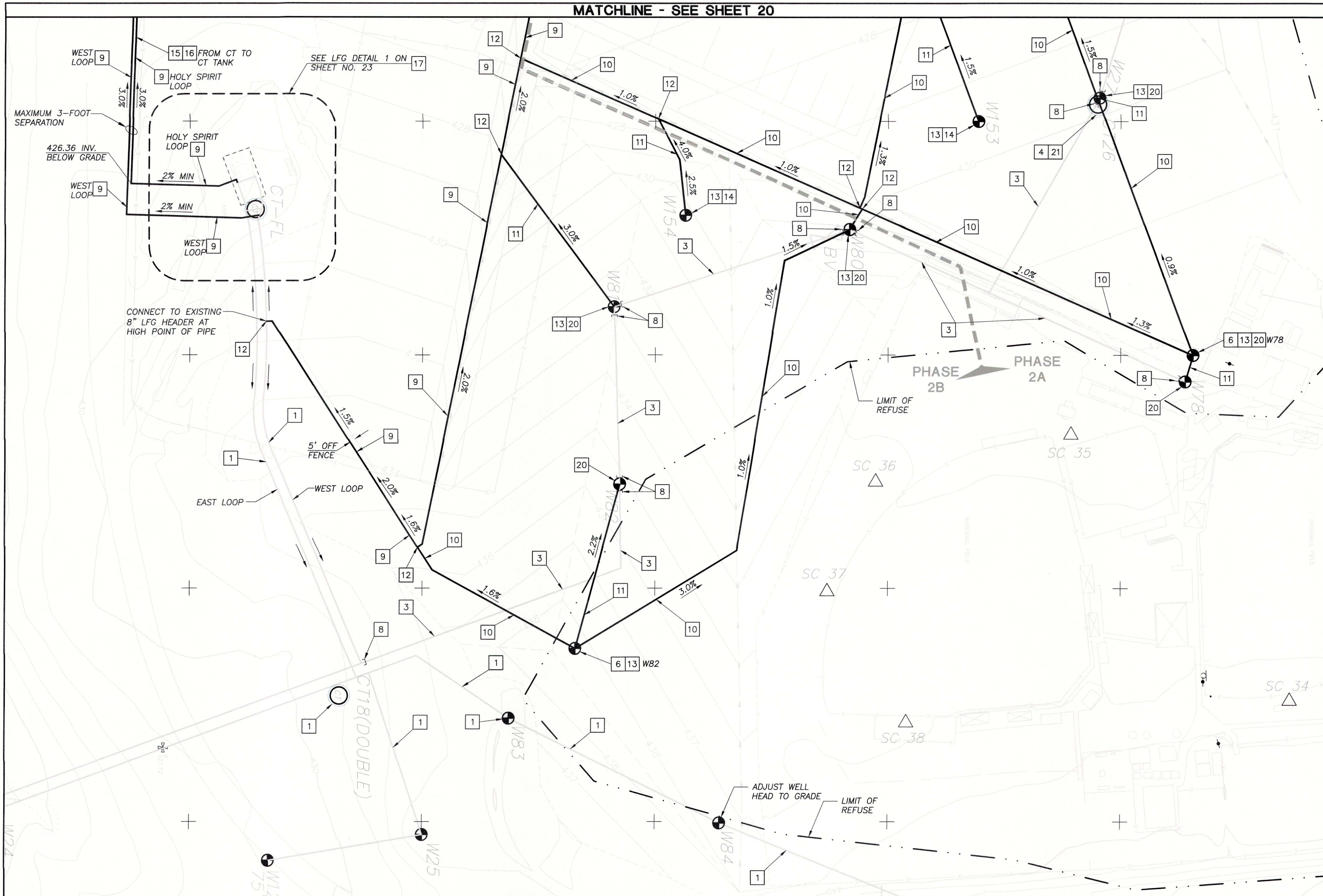
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER

WBS S-00684

1887-6281
NADES COORDINATE

38158-20-D

MATCHLINE - SEE SHEET 20

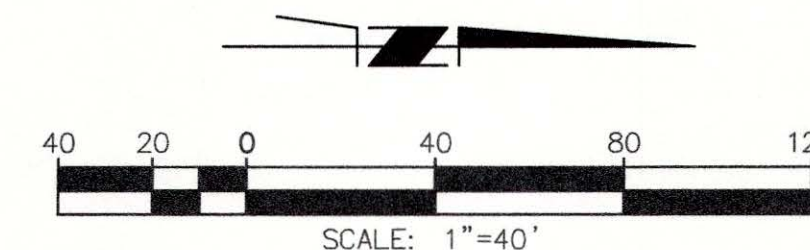


CONSTRUCTION NOTES

- 3 DISCONNECT, CAP, AND ABANDON IN PLACE EXISTING LFG HEADER/SUB-HEADER/LATERAL
- 4 REMOVE EXISTING CONDENSATE TRAP AND BACKFILL OR ABANDON PER PROJECT SPECIFICATIONS
- 6 INSTALL REMOTE WELL HEAD IN LFG CONTROL VAULT PER 4 22
- 8 DISCONNECT AND INSTALL HDPE ENDCAP(S) ON EACH END OF CUT PIPES AS NEEDED (SIZE PER FIELD INVESTIGATION)
- 9 INSTALL 8" HDPE LFG HEADER PER 5 22
- 10 INSTALL 6" HDPE LFG SUB-HEADER PER 5 22
- 11 INSTALL 4" HDPE LFG LATERAL PER 5 22
- 12 INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
- 13 CONSTRUCT LFG CONTROL VAULT AND BOLLARDS PER 3 23 AND 3 23
- 14 CONSTRUCT NEW LFG WELL PER 2 22
- 15 CONSTRUCT 1 1/2" HDPE AIR SUPPLY 5 22
- 16 CONSTRUCT 2" HDPE CONDENSATE LINE 5 22
- 17 CONSTRUCT LFG PIPING CONNECTION TO FLARE STATION 1 23
- 19 POTHOLE TO DETERMINE DEPTH OF EXISTING HEADER; PROVIDE INFORMATION TO LFG ENGINEER FOR POSSIBLE LFG PIPE GRADIENT MODIFICATION
- 20 ADJUST AND CONNECT EXISTING LFG WELL TO NEW HEADER, SUB-HEADER, OR LATERAL PER 1 23
- 21 LOCATE AND CAP EXISTING 1 1/2" AIR AND 2" CONDENSATE PIPING AT SUMP

NOTES:

1. PHASING OF AREA 2 SHALL BE DONE IN THE ORDER OF 2A, 2B, 2C, AND 2D LAST.
2. WORK IN A LATER PHASE CANNOT COMMENCE UNTIL ALL WORK IS DONE IN THE PREVIOUS PHASE EXCEPT FOR LANDFILL GAS WELL CONSTRUCTION.
3. ALL LANDFILL GAS AND LIGHTING/ELECTRICAL DEMOLITION ARE SHOWN ON "G" AND "E" PLAN SHEETS.
4. SEE SHEET 1 FOR LEGEND.
5. CONTRACTOR SHALL MINIMIZE DOWN TIME OF GAS COLLECTION AND CONTROL SYSTEM (GCCS) BY ISOLATING EACH PHASE OF WORK BY CAPPING HEADERS OR LATERALS WHERE REQUIRED PER PLAN.
6. LOCATE 1 1/2" AND 2" AIR AND CONDENSATE PIPING AT SUMP; REMOVE OR CAP TEES SERVICING SUMP; VERIFY INTEGRITY OF EXISTING LOOP IN VICINITY OF EXCAVATION.



G-5

AREA 2 LANDFILL GAS IMPROVEMENT PLAN 3

SHEET 21 OF 41 SHEETS

APPROVAL: 10-7-14
FOR CITY ENGINEER BY: DATE
DESCRIPTION: CIVIL AND GAS PLANS HWC APPROVED DATE FILMED

CONTRACTOR: DATE STARTED: DATE COMPLETED:
INSPECTOR: DATE COMPLETED:

SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NAD83 COORDINATE
38158-21-D

PREPARED BY:
SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761
DESIGNED BY: J.A.B. SCALE: AS SHOWN
DRAWN BY: C.G.G. DATE: 09-2014
CHECKED BY: M.A.C. DATE: 09-2014
APPROVED BY: DATE:

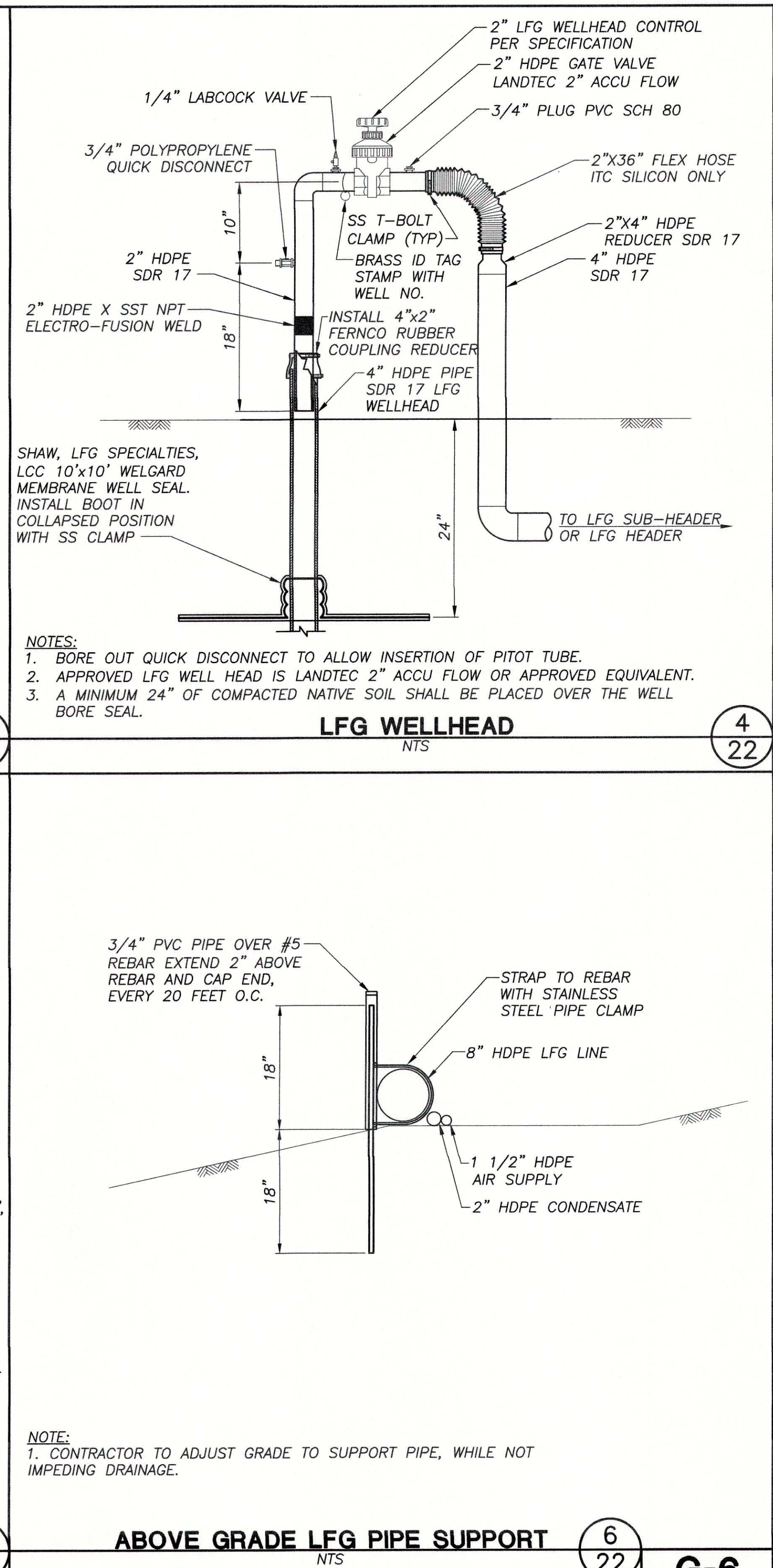
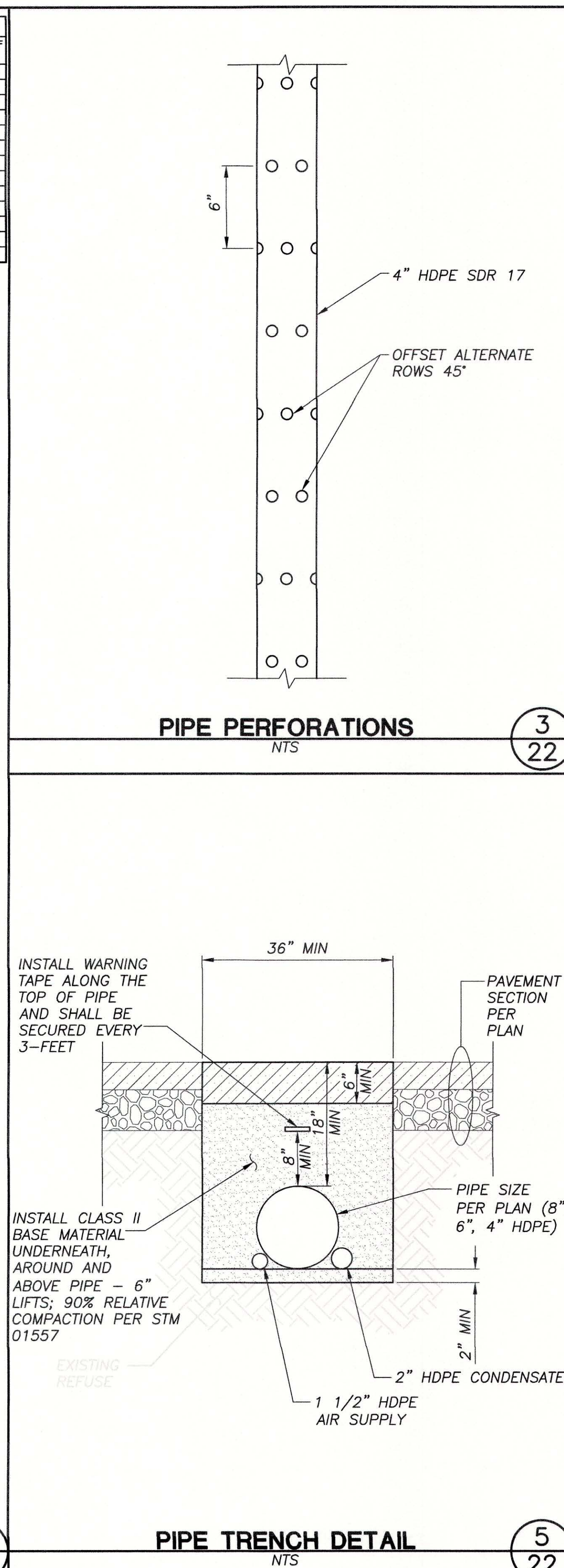
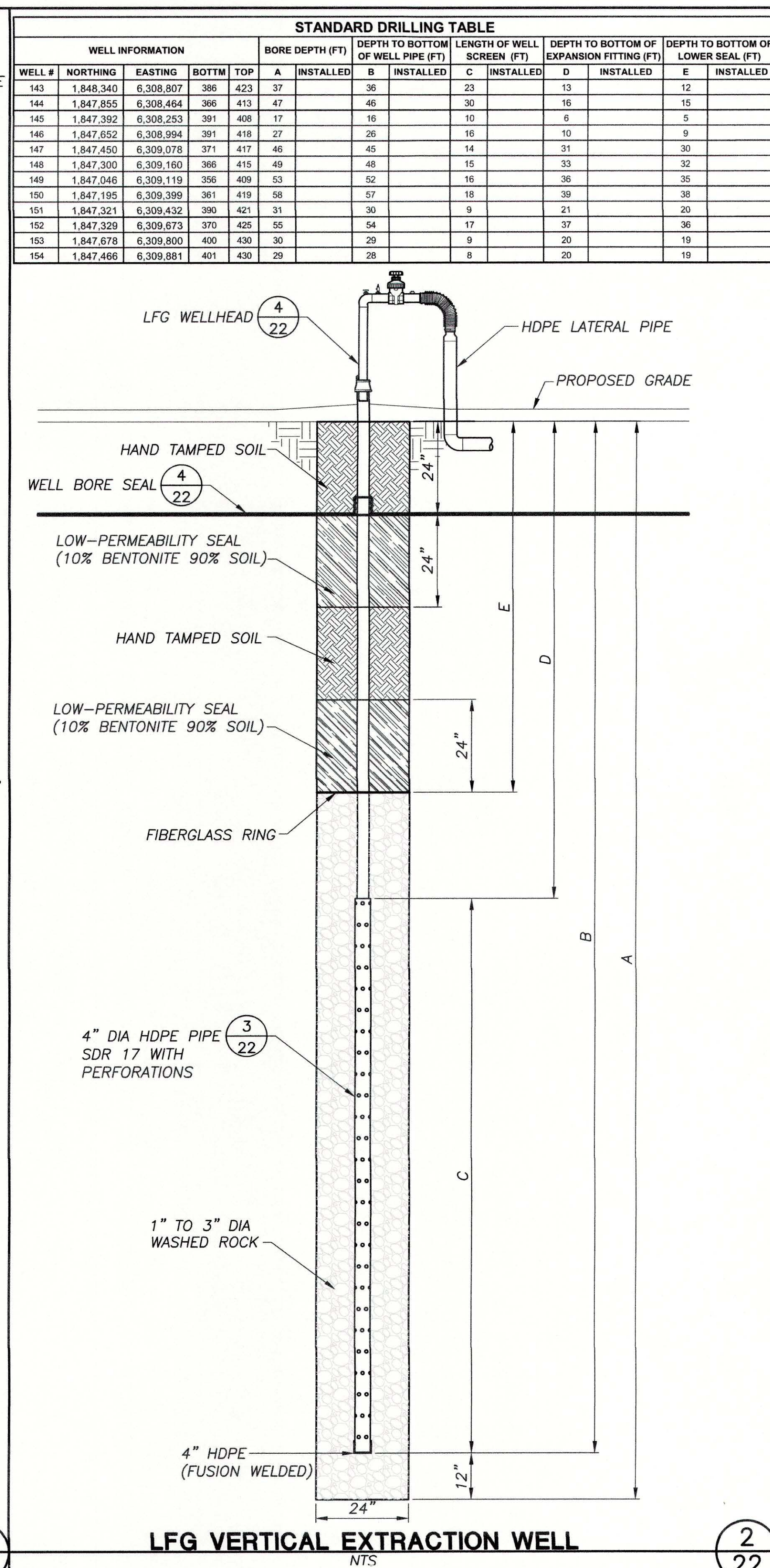
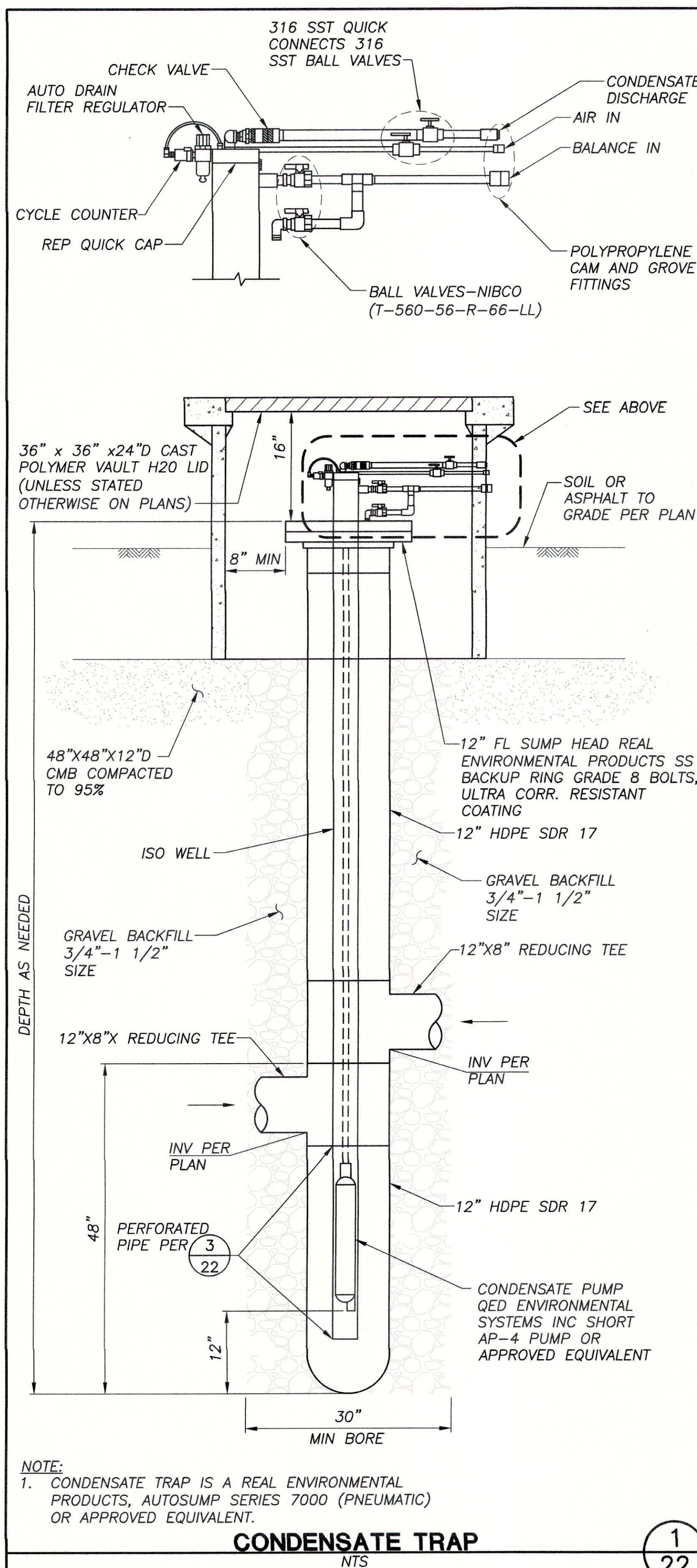
PREPARED UNDER THE SUPERVISION OF:
MICHAEL A. CULLINANE
REGISTERED PROFESSIONAL ENGINEER
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105



PREPARED BY:

SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761

DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

MICHAEL A. CULLINANE
REGISTERED PROFESSIONAL ENGINEER
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS

2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

LANDFILL GAS DETAIL SHEET 1

SHEET 22 OF 41 SHEETS

APPROVED: *[Signature]* 10-7-14
FOR CITY ENGINEER
DESCRIPTION: CIVIL AND GAS PLANS BY: MAC APPROVED: DATE: FILMED:

CONTRACTOR: DATE STARTED: DATE COMPLETED:

INSPECTOR:

SUBMITTED BY: MICHAEL CULLINANE
PROJECT MANAGER
CHECKED BY: JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00584

1887-6281
NADES COORDINATE

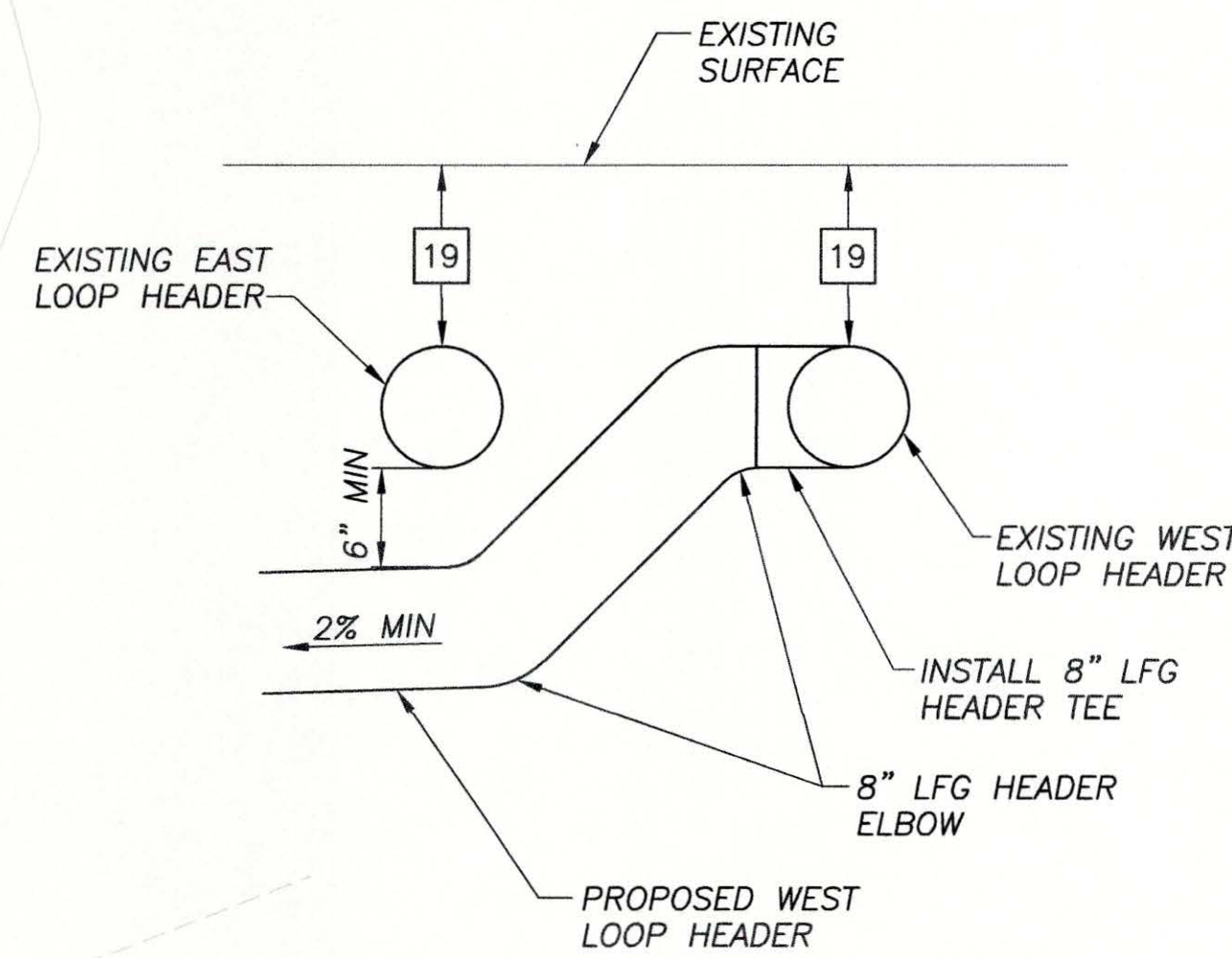
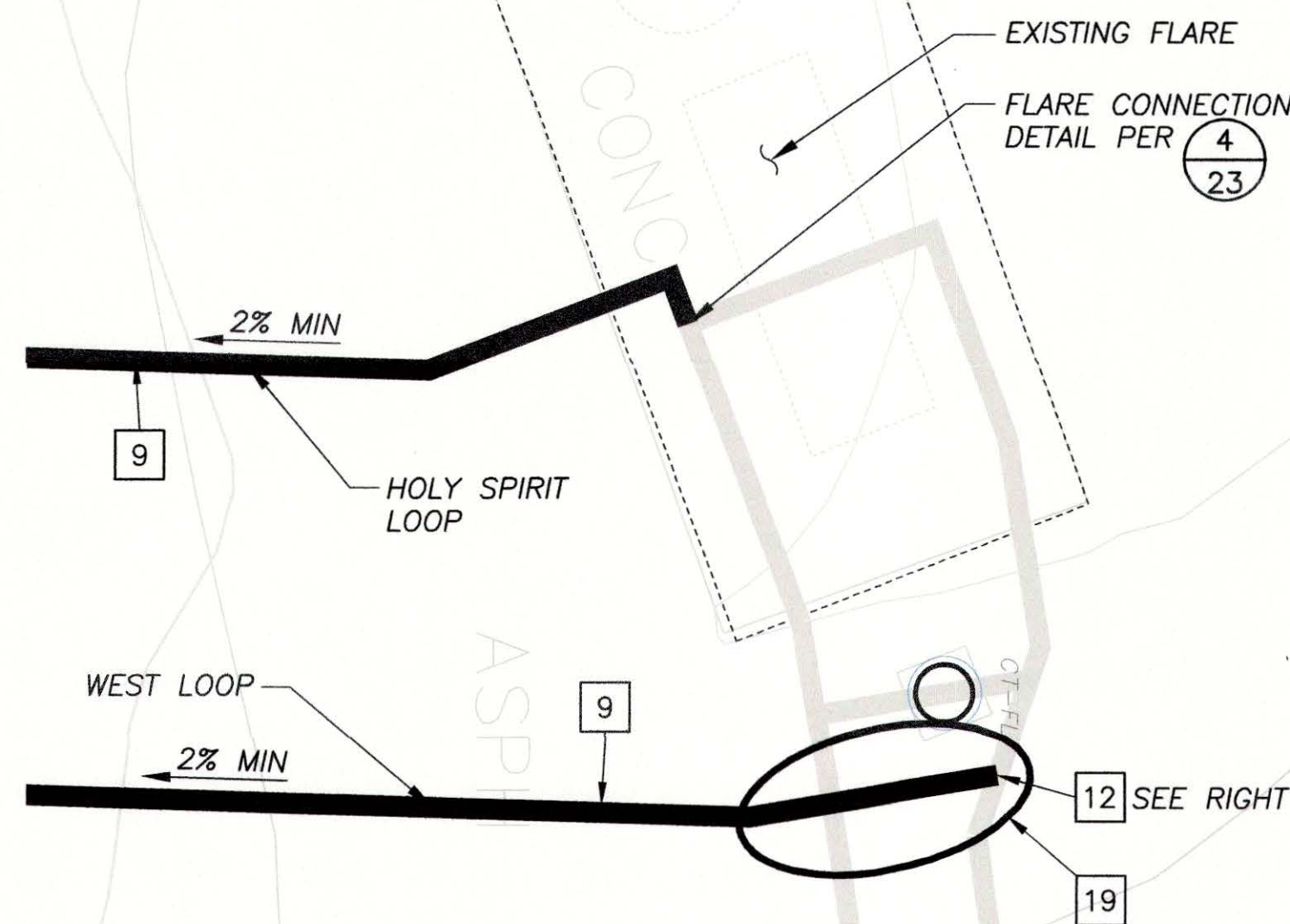
38158-22-D

NOTE:
CONDENSATE TRAP IS A 3,000
GALLON DUAL WALL TANK

CONTRACTOR TO DISCONNECT AND
CAP PIPING TO CONDENSATE
COLLECTION TANK, MOVE TANK,
CONSTRUCT LEVEL PAD, THEN
REPLACE CONDENSATE COLLECTION
TANK AND RE-CONNECT PIPING TO
ENSURE PROPER COLLECTION

CONSTRUCTION NOTES

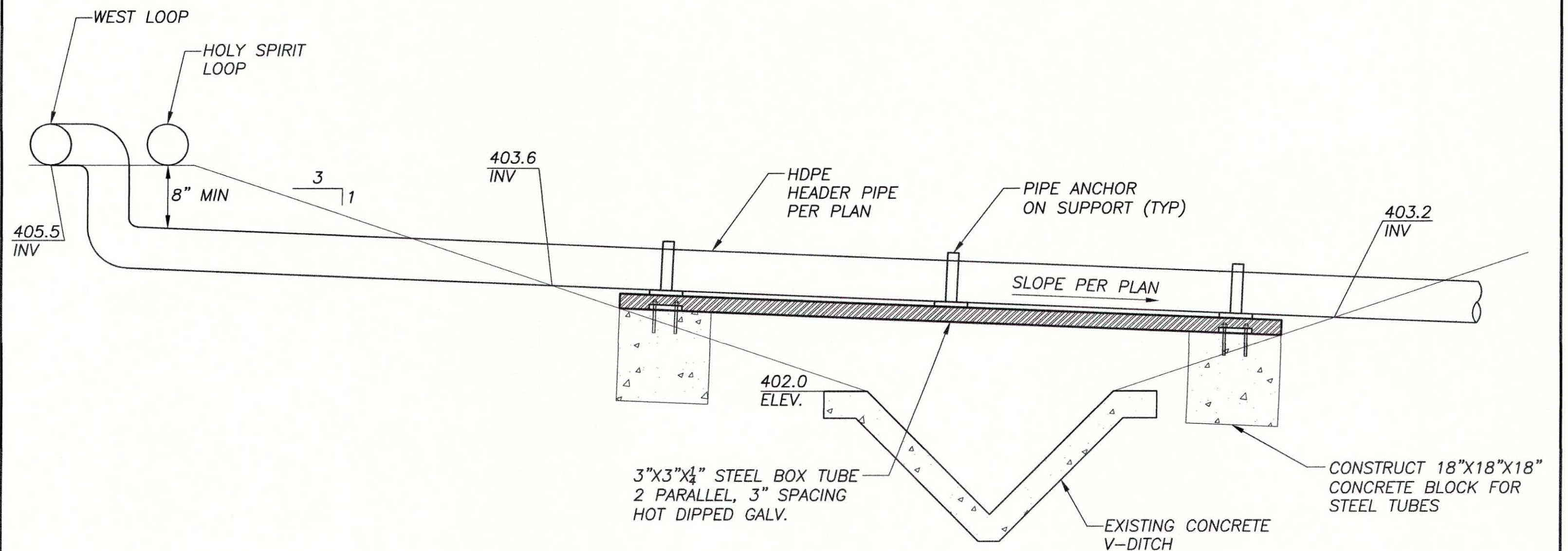
- 9 INSTALL 8" HDPE LFG HEADER PER (5/22)
- 12 INSTALL HDPE TEE (SIZE PER FIELD INVESTIGATION)
- 19 POTHOLE TO DETERMINE THE DEPTH OF EXISTING
HEADER; PROVIDE INFORMATION TO LFG ENGINEER
FOR POSSIBLE LFG PIPE GRADIENT MODIFICATION



LANDFILL GAS PIPING CONNECTION TO FLARE STATION

NTS

1
23



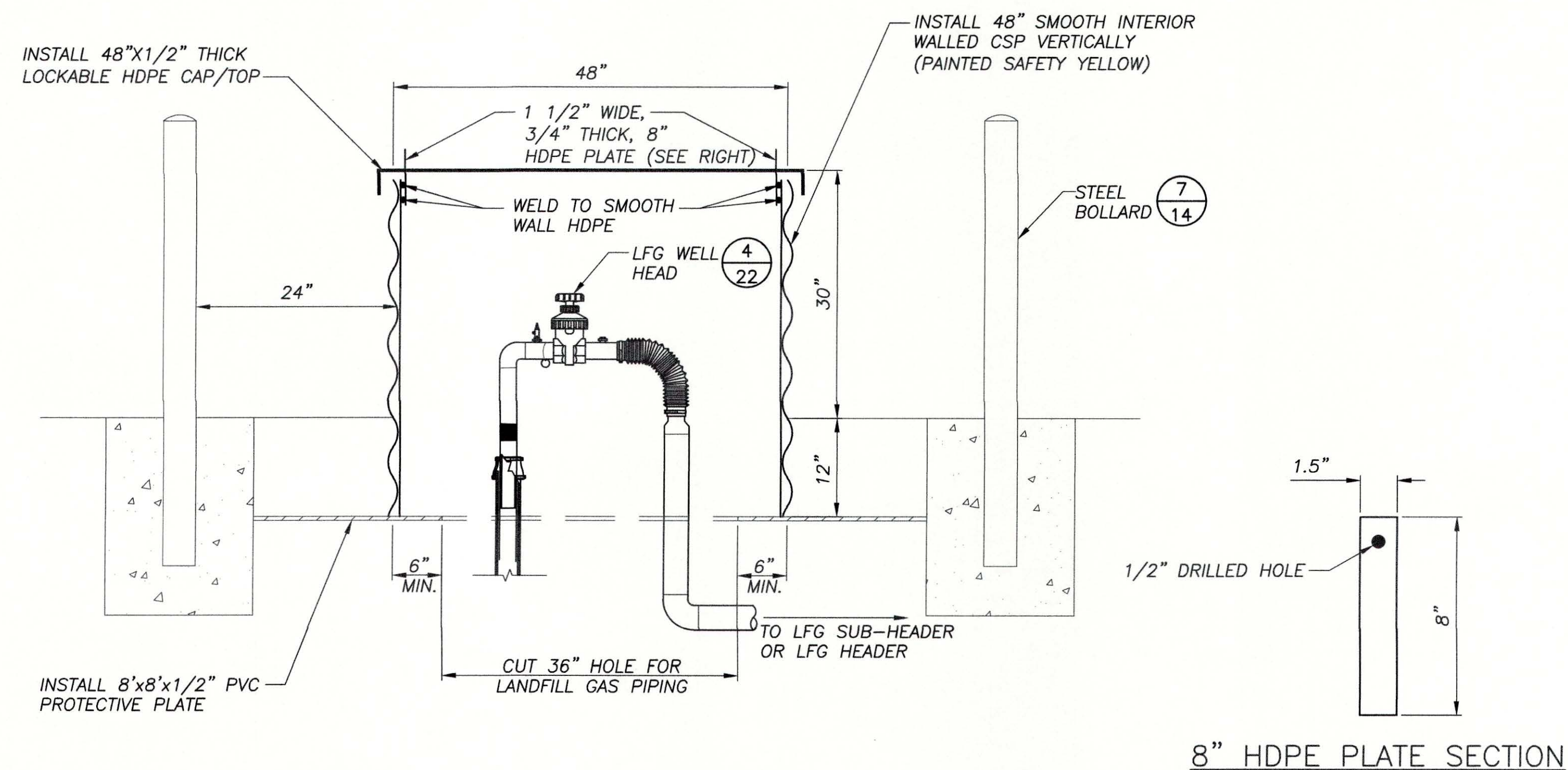
PIPE ANCHOR REQUIREMENTS:

1. PIPE ANCHORS SHALL USE ADJUSTABLE U-BOLT STYLE, ANSI/MSS SP-69 & SP-58, TYPE 37.
2. ATTACH EACH ANCHOR WITH ANCHOR PLATE, 1/4" TH X 6"x6" STEEL PLATE WELDED TO BOX TUBE.
3. BOX TUBE ANCHORS AT EACH END SHALL BE ATTACHED WITH ANCHOR BOLTS, 3/8" X 5" EMBED SIMPSON STRONG-BOLT.
4. BOX TUBE ANCHORS SHALL BE HOT-DIPPED GALVANIZED, 2 EACH END, EACH BOX TUBE.

LANDFILL GAS PIPE SUPPORT ACROSS V-DITCH

NTS

2
23



NOTE:
1. ADJUST EXISTING LFG WELLS TO PROPOSED
GRADE AS SHOWN ON PLAN SHEETS AND PER (2/22)

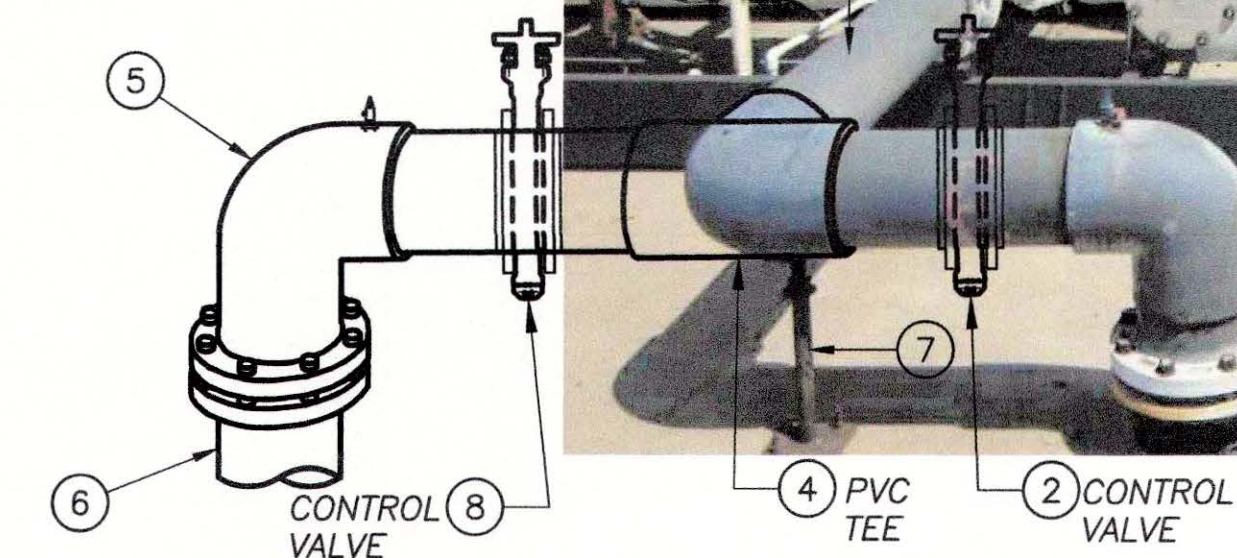
LFG CONTROL VAULT DETAIL

NTS

3
23

CONSTRUCTION NOTES

1. COORDINATE WITH CITY LANDFILL ENGINEER FOR
FLARE SHUTDOWN
2. CUT-IN AND INSTALL HDPE FLANGES, BACKING
RINGS AND CONTROL VALVE
3. REMOVE CUT AWAY PORTION OF EXISTING LFG
HEADER
4. INSTALL NEW PIPE CONNECTION TO FLARE WITH
FLANGED END/BACKING RINGS; PIPE SEGMENT
HDPE TEE
5. INSTALL PIPE SEGMENT, FLANGES, PIPE ELBOW
WITH LABCOCK VALVE ASSEMBLY TO HDPE PIPE
FLANGE ADAPTER AND BACKING RINGS TO FLARE
STATION
6. BOLT TO HDPE RISER FROM BELOW GRADE LFG
HEADER
7. REPLACE PIPE STAND UNDER TEE
8. INSTALL CONTROL VALVE AND BACKING RINGS



HOLY SPIRIT LFG FLARE CONNECTION DETAIL

NTS

4
23



PREPARED BY:
SWT Engineering
Civil & Environmental
800 C SOUTH ROCHESTER AVENUE
ONTARIO, CALIFORNIA 91761
DESIGNED BY : J.A.B. SCALE : AS SHOWN
DRAWN BY : C.G.G. DATE : 09-2014
CHECKED BY : M.A.C. DATE : 09-2014
APPROVED BY : DATE :

PREPARED UNDER THE
SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
MICHAEL A. CULLIVANE
No. 41981
CIVIL
STATE OF CALIFORNIA
9/9/14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS LANDFILL
OPERATIONS YARD IMPROVEMENT
PLANS**

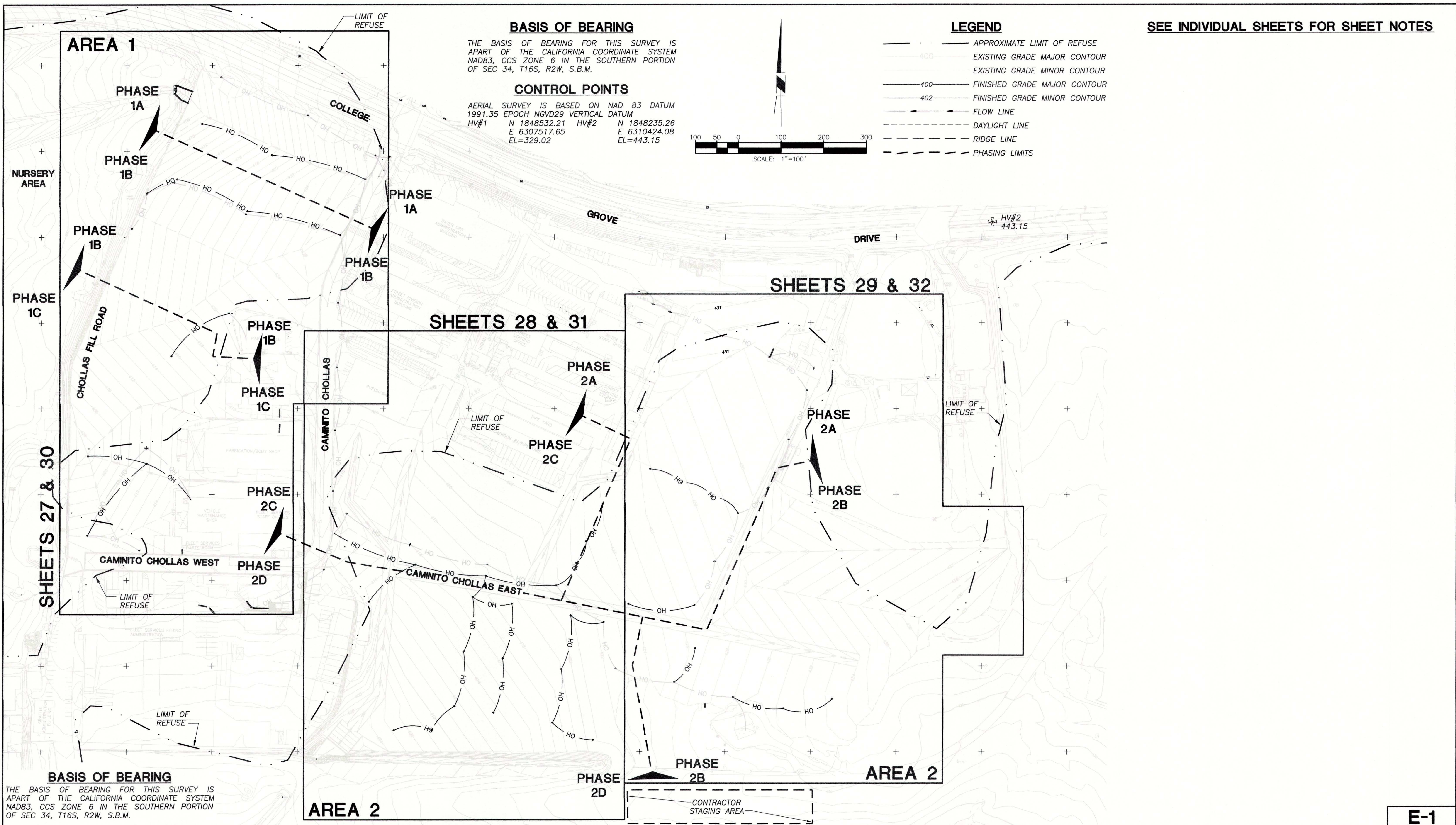
2781 CAMINITO CHOLLAS
SAN DIEGO, CA 92105

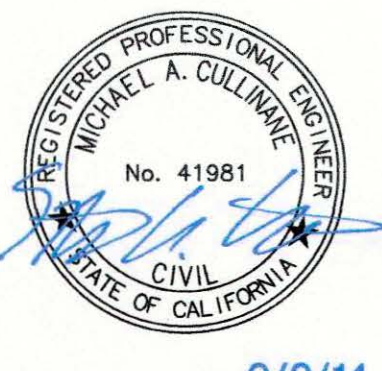
LANDFILL GAS DETAIL
SHEET 2

SHEET 23 OF 41 SHEETS

APPROVAL: *[Signature]* 10-7-14
FOR CITY ENGINEER
DESCRIPTION: CIVIL AND GAS PLANS BY: M.A.C. APPROVED: DATE: FILMED:
CONTRACTOR: DATE STARTED: DATE COMPLETED:
INSPECTOR: 38158-23-D

SUBMITTED BY:
MICHAEL CULLIVANE
PROJECT MANAGER
CHECKED BY:
JEREMY BOTICA
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281
NADES COORDINATE
38158-23-D



SWT Civil & Environmental Engineering 800 C SOUTH ROCHESTER AVENUE ONTARIO, CALIFORNIA 91761		PREPARED UNDER THE SUPERVISION OF:  9/9/14 DATE		City of San Diego, California Environmental Services Department Waste Reduction and Disposal Division		SOUTH CHOLLAS LANDFILL OPERATIONS YARD IMPROVEMENT PLANS 2781 CAMINITO CHOLLAS SAN DIEGO, CA 92105		E-1 SUBMITTED BY: MICHAEL CULLINANE PROJECT MANAGER CHECKED BY: JEREMY BOTICA PROJECT ENGINEER SYLVIA CASTILLO SENIOR CIVIL ENGINEER WBS S-00684 1887-6281 NAD83 COORDINATE 38158-24-D	
DESIGNED BY: J.A.B.	SCALE: AS SHOWN	APPROVED BY: _____		CONTRACTOR: _____		DATE STARTED: _____		DATE COMPLETED: _____	
DRAWN BY: C.G.G.	DATE: 09-2014	CHECKED BY: M.A.C.		DATE: 09-2014		DESCRIPTION: CIVIL AND GAS PLANS		BY: M.A.C.	
APPROVED BY: _____		DATE: _____		CONTRACTOR: _____		DATE STARTED: _____		DATE COMPLETED: _____	

LIGHTING FIXTURE SCHEDULE

Luminaire Schedule						
Symbol	Label	Catalog Number	Description	Lamp	Lumens per Lamp	Wattage
	A	LITHONIA DSX1 LED 60C 1000 50K T4M MVOLT MA	DSX1 MAST ARM LED WITH (2) 30 LED LIGHT ENGINES, TYPE T4M OPTIC, 5000K, @ 1000mA	LED	19624.4	209
	B	LITHONIA DSXF3 LED 8 A530/50K WFL MVOLT	D-SERIES FLOODSIZE 3 WITH 8 COB 5000K WITH WFL(8x6)/DISTRIBUTION	LED		157.8

GENERAL NOTES

- PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO ACHIEVE A COMPLETE AND OPERATIONAL SYSTEM.
- COORDINATE AND OBTAIN APPROVALS FROM ALL RESPECTIVE UTILITY COMPANIES AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
- INSTALL RACEWAY SYSTEMS AS FOLLOWS:
 - USE RIGID GALVANIZED STEEL IN ALL AREAS EXPOSED TO WEATHER OR PHYSICAL DAMAGE.
 - USE FLEXIBLE METALLIC CONDUIT ONLY IN AREAS AS PERMITTED BY AUTHORITY HAVING JURISDICTION.
 - USE SEAL-TITE IN AREAS EXPOSED TO WEATHER.
 - USE ELECTRICAL METALLIC TUBING WITH COMPRESSION TYPE FITTING.
 - USE P.V.C. CONDUIT UNDERGROUND WITH CODE SIZED GROUND. CONDUIT RISERS AND STUBS ABOVE GRADE SHALL BE I.M.C. WITH HALF-LAPPED TAPE COVERING OR P.V.C. COATING.
- ALL NEW WRINGS SHALL BE 600 VOLT RATED COPPER TYPE "THHN/THWN", U.O.N. ALL NEW PANELBOARDS, DISTRIBUTION BOARDS SHALL BE TIN PLATED COPPER BUS, U.O.N. ALL NEW DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE AND TO BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS, U.O.N. ALL NEW TRANSFORMERS SHALL BE COPPER CORE WINDINGS AND MINIMUM 105°C TEMPERATURE RISE, U.O.N.
- ALL FIXTURE, DEVICE, ETC.... LOCATIONS SHALL BE VERIFIED WITH OWNER AS WELL AS EQUIPMENT SUPPLIER REQUIREMENTS PRIOR TO ANY ROUGH-IN WORK.
- ALL LIGHTING FIXTURES SHALL BE MOUNTED AND SUPPORTED IN ACCORDANCE WITH OSHA STANDARDS AND 2013 CALIFORNIA ELECTRICAL CODE.
- ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTING FIXTURE MOUNTING KITS AS REQUIRED TO SUIT THE EXACT TYPE OF CEILING TO WHICH THEY ARE MOUNTED.
- THESE DRAWINGS ARE DIAGRAMMATIC AND REPRESENT THE INTENT OF EQUIPMENT, DEVICES, ETC... TO BE CONNECTED AND THE CIRCUITS TO WHICH THEY ARE TO BE CONNECTED TO. CONTRACTOR SHALL INSTALL ALL CONDUIT, J-BOXES, ETC... AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- ALL EXTERIOR EQUIPMENT SHALL BE WEATHERPROOF.
- ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL GOVERNING CODES.
- ALL EQUIPMENT SHALL BE NEW AND BEAR A "UL" LABEL - U.O.N..
- ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS.
- COMPLETE ELECTRICAL INSTALLATION SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF (1) YEAR - U.O.N..
- ELECTRICAL CONTRACTOR SHALL VISIT SITE PRIOR TO BID DATE, TO VERIFY ALL EXISTING CONDITIONS TO BE ENCOUNTERED IN THE INSTALLATION OF ALL NEW EQUIPMENT, FIXTURES, DEVICES, FEEDERS, ETC.. EXACT INSTALLATION METHOD AND REQUIREMENTS SHALL BE VERIFIED AND DETERMINED PRIOR TO BID DATE. CONTRACTORS SHALL IMMEDIATELY NOTIFY THIS ENGINEER OF ANY REQUIRED MODIFICATIONS WHICH ARE NOT SHOWN ON THESE DRAWINGS. SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED.
- ALL ELECTRICAL EQUIPMENT CHARACTERISTICS, LOCATIONS, AND CONNECTION REQUIREMENTS SHALL BE VERIFIED PRIOR TO ANY ROUGH-IN WORK.
- ELECTRICAL CONTRACTOR SHALL FURNISH THE FOLLOWING SHOP DRAWINGS FOR PRIOR APPROVAL:
 - ALL LIGHT FIXTURES.
 - ALL ELECTRICAL SERVICE EQUIPMENT.
 - OTHER ITEMS AS SPECIFICALLY INDICATED.THESE ITEMS SHALL BE APPROVED BY THIS OFFICE PRIOR TO ANY COMMENCEMENT OF PLACING ORDERS OR PERFORMING ANY ROUGH-IN WORK.
- COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH THE PRESENTLY ADOPTED EDITION OF THE C.E.C. ART. 250 AND C.E.C. 517-78.
- PENETRATIONS OF ALL FIRE RATED WALLS OR CEILINGS SHALL BE FIRE RATED IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES.
- PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT.
- PROVIDE THE OWNER AND THIS ENGINEER WITH ONE SET OF ELECTRICAL "AS-BUILTS" AT THE COMPLETION OF JOB.
- ALL PROPOSED ELECTRICAL WORK SHALL COMPLY WITH THE 2013 CALIFORNIA ELECTRICAL CODE.
- ALL DEVICE FACEPLATES FOR RECEPTACLES AND LIGHT SWITCHES SHALL BE ENGRAVED WITH PANEL AND CIRCUIT NUMBER.

REFERENCES & ABBREVIATIONS

	LIGHTING FIXTURE DESIGNATION	C	CONDUIT
	DETAIL REFERENCE	V	VOLTS
	KEYNOTE REFERENCE	A	AMPS
U.O.N.	UNLESS OTHERWISE NOTED	GND	GROUND
(E)	EXISTING TO REMAIN	(N)	NEW
I.M.C.	INTERMEDIATE METAL CONDUIT	LED	LIGHT EMITTING DIODE
P.V.C.	POLYVINYL CLORIDE	LPS	LOW PRESSURE SODIUM
P	POLE	(R)	REMOVE
W/	WITH	VAC	VOLTS ALTERNATING CURRENT
U/G	UNDER GROUND	AWG	AMERICAN WIRE GUAGE
GRS	GALVANIZED RIGID STEEL	DIA	DIAMETER
KVA	KILO VOLT AMPERES	H	HEIGHT
Ø	PHASE	L	LENGTH
SQ.	SQUARE	CLR	CLEARANCE
MCM	THOUSAND CIRCULAR MILLS	CKT	CIRCUIT
OH	OVERHEAD	BRKR	BREAKER
(TYP)	TYPICAL	OFC	OIL FUSED CUTOUT SWITCHES
W	WATTS		

ELECTRICAL SYMBOLS LIST

—OH— OVERHEAD CONDUCTORS BETWEEN POLES

CODE COMPLIANCE NOTE

ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES:

2013 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE PART 1, TITLE 24, C.C.R.

2013 CALIFORNIA BUILDING CODE (CBC), BASED ON 2012 INTERNATIONAL BUILDING CODE.

2013 CALIFORNIA ELECTRICAL CODE (CEC), BASED ON 2011 NATIONAL ELECTRICAL CODE.

2013 CALIFORNIA MECHANICAL CODE (CMC), BASED ON 2012 INTERNATIONAL MECHANICAL CODE.

2013 CALIFORNIA PLUMBING CODE (CPC), BASED ON 2012 INTERNATIONAL PLUMBING CODE.

2010 CALIFORNIA ENERGY CODE (CEC)

2013 CALIFORNIA FIRE CODE (CFC), BASED ON 2012 INTERNATIONAL FIRE CODE.

2010 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC), TITLE 24, PART II

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E-2	GENERAL NOTES, SYMBOLS LIST, LIGHTING FIXTURE SCHEDULE
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E-5	AREA 2 LIGHTING/ELECTRICAL PLAN
E-6	AREA 3 LIGHTING/ELECTRICAL PLAN
E-7	AREA 1 PHOTOMETRIC PLAN
E-8	AREA 2 PHOTOMETRIC PLAN
E-9	AREA 3 PHOTOMETRIC PLAN
E-10	ELECTRICAL DETAILS
E-11	ENLARGED PLANS AND DETAILS

PREPARED BY:

OMB ELECTRICAL ENGINEERS, INC.
8825 Research Drive
Irvine, CA 92618
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E-Mail: mail@ombengrs.com

DESIGNED BY : TEAM 1

SCALE : AS SHOWN

DRAWN BY : TEAM 1

DATE : 08-21-2014

CHECKED BY : RLL

DATE : 08-21-2014

APPROVED BY :

DATE :

PREPARED UNDER THE SUPERVISION OF:

8-21-14
DATE

CITY OF SAN DIEGO STATE OF CALIFORNIA
SEMPER VIGILANS

City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

GENERAL NOTES, SYMBOL LIST,
LIGHTING FIXTURE SCHEDULE

SHEET 25 of 41 SHEETS

DESCRIPTION	BY	APPROVED	DATE	FILMED
LIGHTING/ELECTRICAL			10-7-14	

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

1887-6281
NAD83 COORDINATES

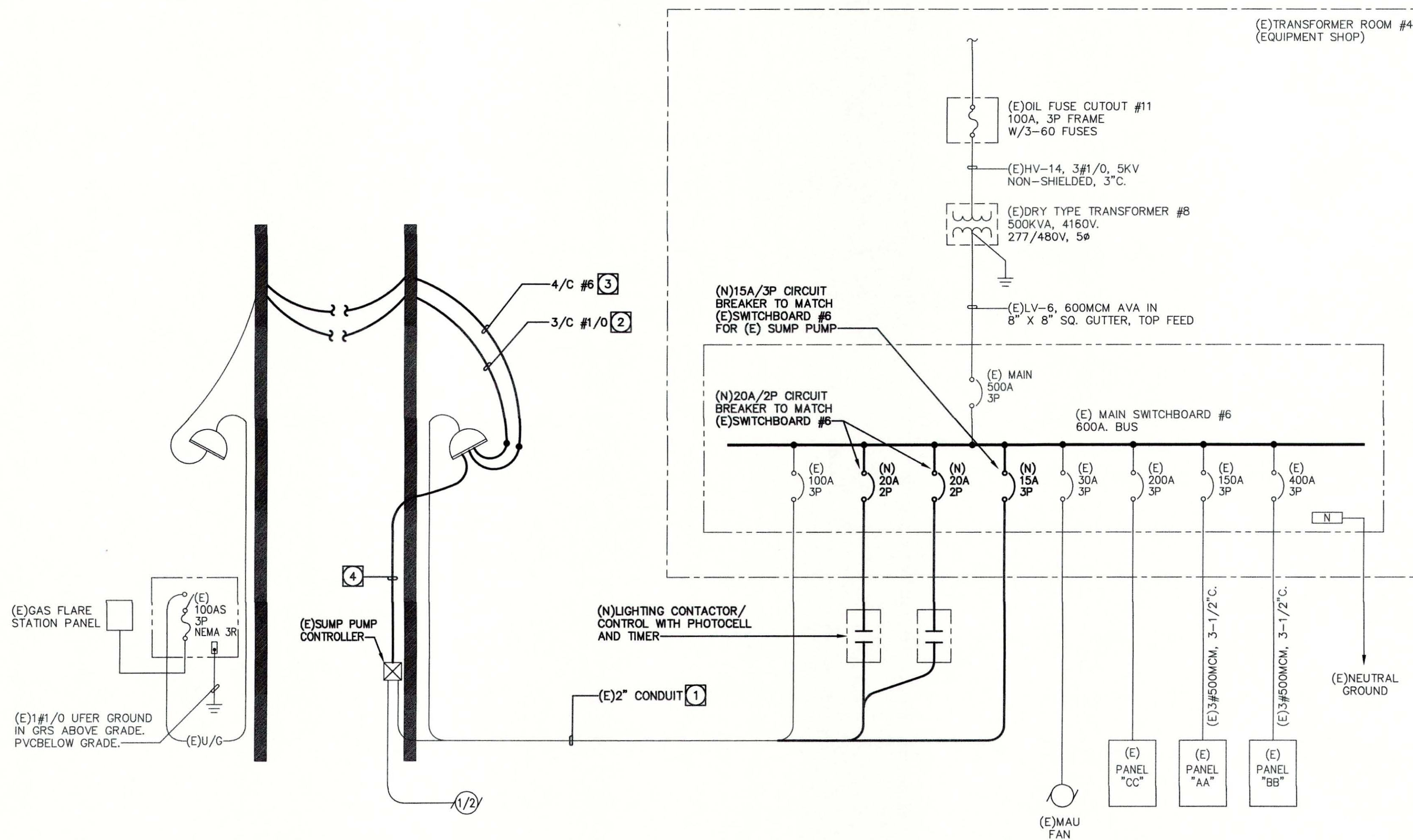
38158-25-D

E-2

SUBMITTED BY: ROY LOPEZ, EE
PROJECT MANAGER

CHECKED BY: ROY LOPEZ, EE
PROJECT ENGINEER

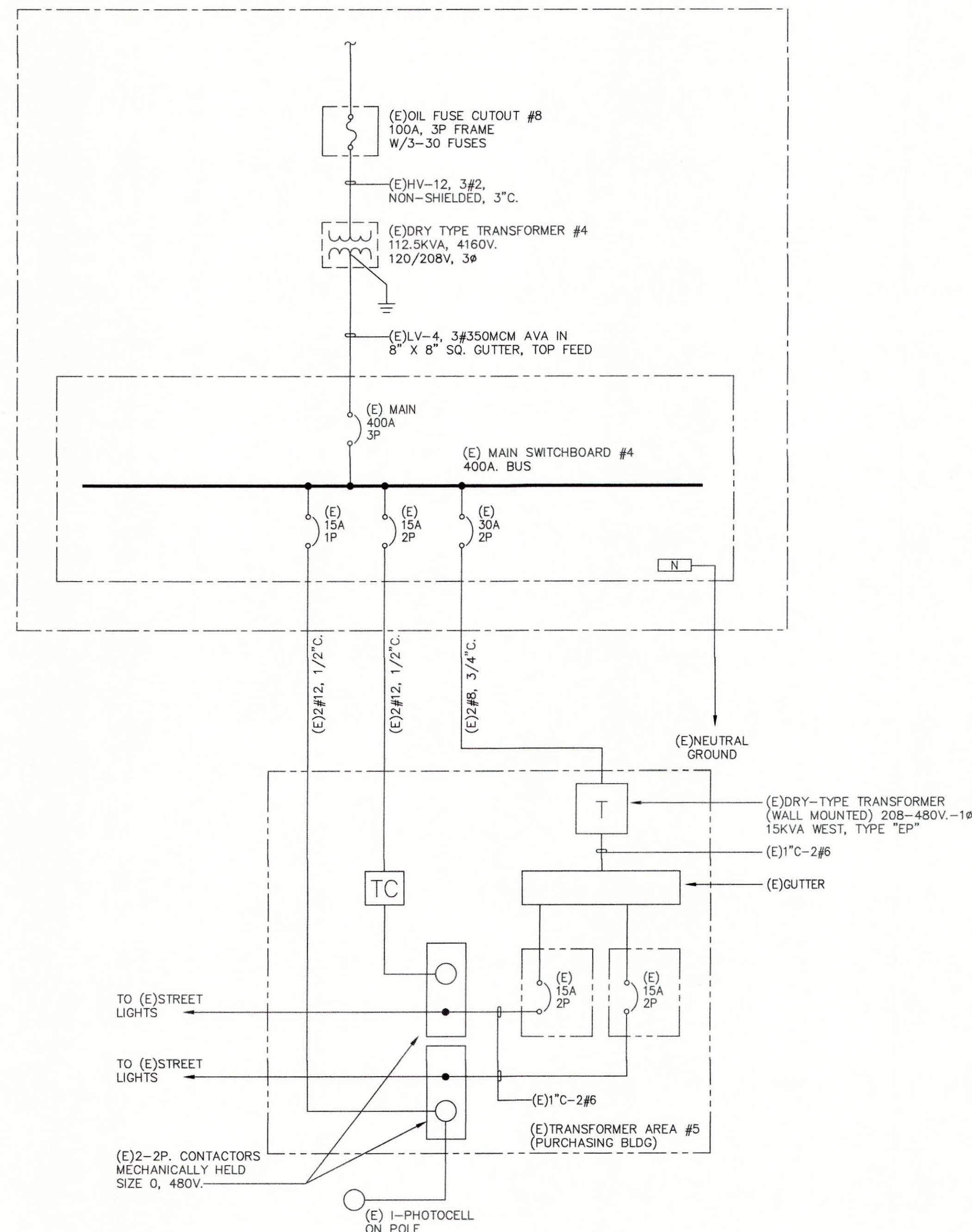
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684



SHEET NOTES:

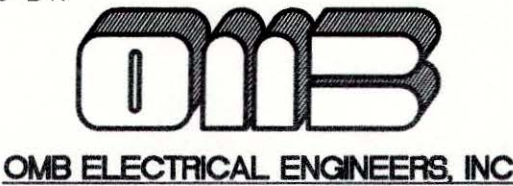
- 1 EXISTING 2" CONDUIT, REMOVE 3#1/0 AND RE-PULL NEW CONDUCTORS 3#1/0 FOR FLARE STACK, 4#6 FOR POLE TOP LIGHTING FIXTURES, 3#8 FOR EXISTING SUMP PUMP AND 1#6 GROUND.
- 2 3/C#1/0 MULT-CONDUCTOR AERIAL CABLE FOR EXISTING FLARE STACK. VOLTAGE DROP = 2.9%
- 3 4/C#6 MULT-CONDUCTOR AERIAL CABLE FOR NEW POLE MOUNTED FIXTURES.
- 4 3/4"C-3#8, 1#6GND. FOR EXISTING SUMP PUMP.

1 EXISTING SINGLE LINE DIAGRAM - MAIN SWITCHBOARD #6
SCALE: NONE



2 EXISTING SINGLE LINE DIAGRAM - MAIN SWITCHBOARD #4
SCALE: NONE

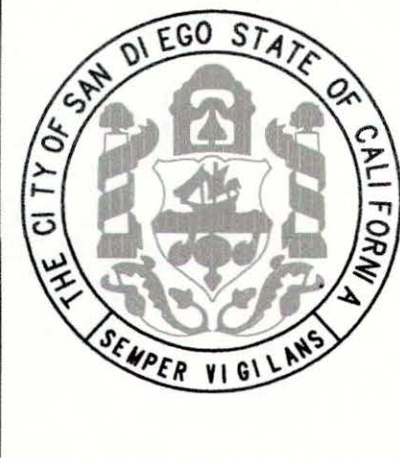
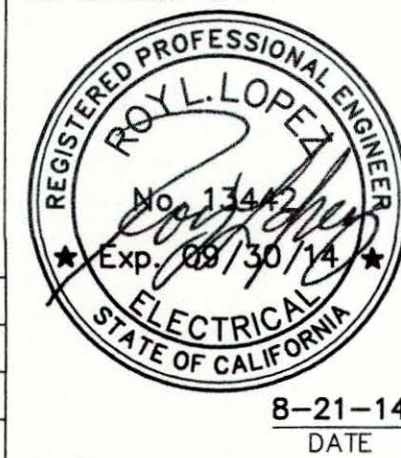
PREPARED BY:



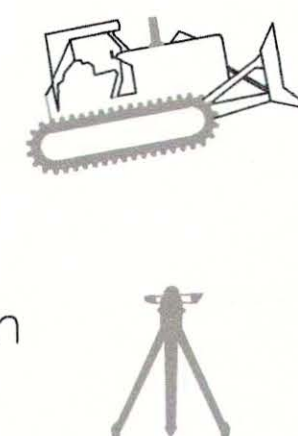
8825 Research Drive
Irvine, CA 92618
(949) 753-1553 Fax (949) 753-1992
E-Mail: mail@ombengr.com

DESIGNED BY: TEAM 1 SCALE: AS SHOWN
DRAWN BY: TEAM 1 DATE: 08-21-2014
CHECKED BY: RLL DATE: 08-21-2014
APPROVED BY: DATE:

PREPARED UNDER THE SUPERVISION OF:



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

SINGLE LINE DIAGRAMS

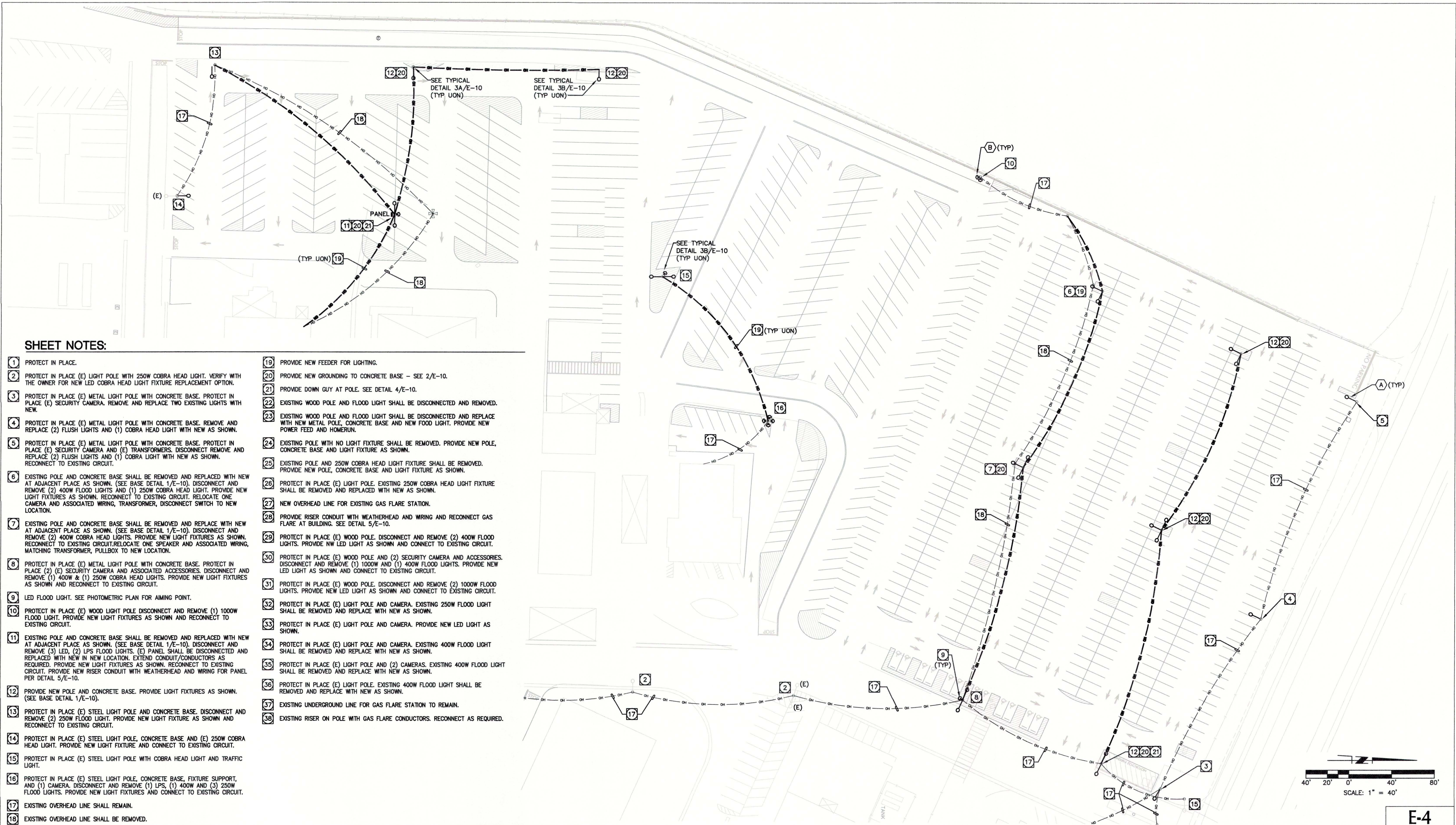
SHEET 26 OF 41 SHEETS				
APPROVAL:	FOR CITY ENGINEER	DATE	10-7-14	
DESCRIPTION	BY	APPROVED	DATE	FILMED
LIGHTING/ELECTRICAL	RLL			
CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:				

E-3

SUBMITTED BY:
ROY LOPEZ, EE
PROJECT MANAGER
CHECKED BY:
ROY LOPEZ, EE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

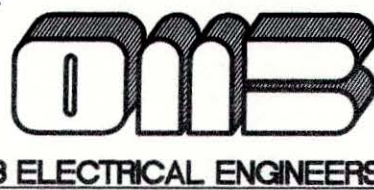
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NAD83 COORDINATES

38158-26-0



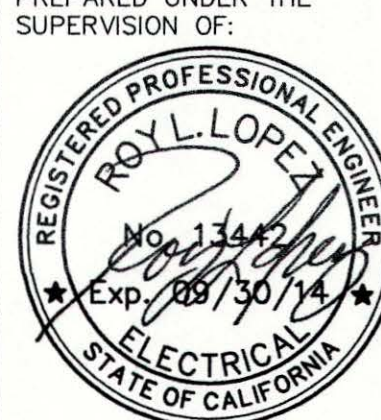
SHEET NOTES:

- 1 PROTECT IN PLACE.
- 2 PROTECT IN PLACE (E) LIGHT POLE WITH 250W COBRA HEAD LIGHT. VERIFY WITH THE OWNER FOR NEW LED COBRA HEAD LIGHT FIXTURE REPLACEMENT OPTION.
- 3 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA. REMOVE AND REPLACE TWO EXISTING LIGHTS WITH NEW.
- 4 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. REMOVE AND REPLACE (2) FLUSH LIGHTS AND (1) COBRA HEAD LIGHT WITH NEW AS SHOWN.
- 5 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA AND (E) TRANSFORMERS. DISCONNECT AND REMOVE (2) FLUSH LIGHTS AND (1) COBRA LIGHT WITH NEW AS SHOWN. RECONNECT TO EXISTING CIRCUIT.
- 6 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS AND (1) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE CAMERA AND ASSOCIATED WIRING, TRANSFORMER, DISCONNECT SWITCH TO NEW LOCATION.
- 7 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACE WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W COBRA HEAD LIGHTS. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE SPEAKER AND ASSOCIATED WIRING, MATCHING TRANSFORMER, PULLBOX TO NEW LOCATION.
- 8 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (2) (E) SECURITY CAMERA AND ASSOCIATED ACCESSORIES. DISCONNECT AND REMOVE (1) 400W & (1) 250W COBRA HEAD LIGHTS. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 9 LED FLOOD LIGHT. SEE PHOTOMETRIC PLAN FOR AIMING POINT.
- 10 PROTECT IN PLACE (E) WOOD LIGHT POLE DISCONNECT AND REMOVE (1) 1000W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 11 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (3) LED, (2) LPS FLOOD LIGHTS. (E) PANEL SHALL BE DISCONNECTED AND REPLACED WITH NEW IN NEW LOCATION. EXTEND CONDUIT/CONDUCTORS AS REQUIRED. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. PROVIDE NEW RISER CONDUIT WITH WEATHERHEAD AND WIRING FOR PANEL PER DETAIL 5/E-10.
- 12 PROVIDE NEW POLE AND CONCRETE BASE. PROVIDE LIGHT FIXTURES AS SHOWN. (SEE BASE DETAIL 1/E-10).
- 13 PROTECT IN PLACE (E) STEEL LIGHT POLE AND CONCRETE BASE. DISCONNECT AND REMOVE (2) 250W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURE AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 14 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE AND (E) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURE AND CONNECT TO EXISTING CIRCUIT.
- 15 PROTECT IN PLACE (E) STEEL LIGHT POLE WITH COBRA HEAD LIGHT AND TRAFFIC LIGHT.
- 16 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE, FIXTURE SUPPORT, AND (1) CAMERA. DISCONNECT AND REMOVE (1) LPS, (1) 400W AND (3) 250W FLOOD LIGHTS. PROVIDE NEW LIGHT FIXTURES AND CONNECT TO EXISTING CIRCUIT.
- 17 EXISTING OVERHEAD LINE SHALL REMAIN.
- 18 EXISTING OVERHEAD LINE SHALL BE REMOVED.
- 19 PROVIDE NEW FEEDER FOR LIGHTING.
- 20 PROVIDE NEW GROUNDING TO CONCRETE BASE - SEE 2/E-10.
- 21 PROVIDE DOWN GUY AT POLE. SEE DETAIL 4/E-10.
- 22 EXISTING WOOD POLE AND FLOOD LIGHT SHALL BE DISCONNECTED AND REMOVED.
- 23 EXISTING WOOD POLE AND FLOOD LIGHT SHALL BE DISCONNECTED AND REPLACE WITH NEW METAL POLE, CONCRETE BASE AND NEW FLOOD LIGHT. PROVIDE NEW POWER FEED AND HOMERUN.
- 24 EXISTING POLE WITH NO LIGHT FIXTURE SHALL BE REMOVED. PROVIDE NEW POLE, CONCRETE BASE AND LIGHT FIXTURE AS SHOWN.
- 25 EXISTING POLE AND 250W COBRA HEAD LIGHT FIXTURE SHALL BE REMOVED. PROVIDE NEW POLE, CONCRETE BASE AND LIGHT FIXTURE AS SHOWN.
- 26 PROTECT IN PLACE (E) LIGHT POLE. EXISTING 250W COBRA HEAD LIGHT FIXTURE SHALL BE REMOVED AND REPLACED WITH NEW AS SHOWN.
- 27 NEW OVERHEAD LINE FOR EXISTING GAS FLARE STATION.
- 28 PROVIDE RISER CONDUIT WITH WEATHERHEAD AND WIRING AND RECONNECT GAS FLARE AT BUILDING. SEE DETAIL 5/E-10.
- 29 PROTECT IN PLACE (E) WOOD POLE. DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS. PROVIDE NEW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 30 PROTECT IN PLACE (E) WOOD POLE AND (2) SECURITY CAMERA AND ACCESSORIES. DISCONNECT AND REMOVE (1) 1000W AND (1) 400W FLOOD LIGHTS. PROVIDE NEW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 31 PROTECT IN PLACE (E) WOOD POLE. DISCONNECT AND REMOVE (2) 1000W FLOOD LIGHTS. PROVIDE NEW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 32 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. EXISTING 250W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 33 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. PROVIDE NEW LED LIGHT AS SHOWN.
- 34 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 35 PROTECT IN PLACE (E) LIGHT POLE AND (2) CAMERAS. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 36 PROTECT IN PLACE (E) LIGHT POLE. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 37 EXISTING UNDERGROUND LINE FOR GAS FLARE STATION TO REMAIN.
- 38 EXISTING RISER ON POLE WITH GAS FLARE CONDUCTORS. RECONNECT AS REQUIRED.



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E-Mail: mail@ombengr.com

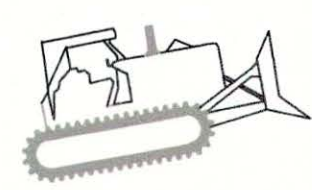
DESIGNED BY : TEAM 1 SCALE : AS SHOWN
DRAWN BY : TEAM 1 DATE : 08-21-2014
CHECKED BY : RLL DATE : 08-21-2014
APPROVED BY : DATE :



8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

AREA 1 LIGHTING/
ELECTRICAL PLAN

SHEET 27 OF 41 SHEETS

APPROVAL: *[Signature]* 10-7-14
FOR CITY ENGINEER BY DATE
DESCRIPTION BY APPROVED DATE FILMED
LIGHTING/ELECTRICAL *[Signature]*

CONTRACTOR: DATE STARTED: DATE COMPLETED:
INSPECTOR: DATE COMPLETED:

SUBMITTED BY: ROY LOPEZ, EE
PROJECT MANAGER
CHECKED BY: ROY LOPEZ, EE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

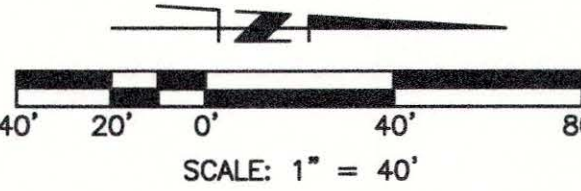
1887-6281
NAD83 COORDINATES

38158-27-D

E-4

SHEET NOTES:

- 1 PROTECT IN PLACE.
- 2 PROTECT IN PLACE (E) LIGHT POLE WITH 250W COBRA HEAD LIGHT. VERIFY WITH THE OWNER FOR NEW LED COBRA HEAD LIGHT FIXTURE REPLACEMENT OPTION.
- 3 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA. REMOVE AND REPLACE TWO EXISTING LIGHTS WITH NEW.
- 4 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. REMOVE AND REPLACE (2) FLUSH LIGHTS AND (1) COBRA HEAD LIGHT WITH NEW AS SHOWN.
- 5 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA AND (E) TRANSFORMERS. DISCONNECT REMOVE AND REPLACE (2) FLUSH LIGHTS AND (1) COBRA LIGHT WITH NEW AS SHOWN. RECONNECT TO EXISTING CIRCUIT.
- 6 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS AND (1) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE CAMERA AND ASSOCIATED WIRING, TRANSFORMER, DISCONNECT SWITCH TO NEW LOCATION.
- 7 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS AND (1) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE SPEAKER AND ASSOCIATED WIRING, MATCHING TRANSFORMER, PULLBOX TO NEW LOCATION.
- 8 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (2) (E) SECURITY CAMERA AND ASSOCIATED ACCESSORIES. DISCONNECT AND REMOVE (1) 400W & (1) 250W COBRA HEAD LIGHTS. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 9 LED FLOOD LIGHT. SEE PHOTOMETRIC PLAN FOR AIMING POINT.
- 10 PROTECT IN PLACE (E) WOOD LIGHT POLE DISCONNECT AND REMOVE (1) 1000W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 11 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (3) LED, (2) LPS FLOOD LIGHTS. (E) PANEL SHALL BE DISCONNECTED AND REPLACED WITH NEW IN NEW LOCATION. EXTEND CONDUIT/CONDUCTORS AS REQUIRED. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. PROVIDE NEW RISER CONDUIT WITH WEATHERHEAD AND WIRING FOR PANEL PER DETAIL 5/E-10.
- 12 PROVIDE NEW POLE AND CONCRETE BASE. PROVIDE LIGHT FIXTURES AS SHOWN. (SEE BASE DETAIL 1/E-10).
- 13 PROTECT IN PLACE (E) STEEL LIGHT POLE AND CONCRETE BASE. DISCONNECT AND REMOVE (2) 250W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURE AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 14 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE AND (E) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURE AND CONNECT TO EXISTING CIRCUIT.
- 15 PROTECT IN PLACE (E) STEEL LIGHT POLE WITH COBRA HEAD LIGHT AND TRAFFIC LIGHT.
- 16 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE, FIXTURE SUPPORT, AND (1) CAMERA. DISCONNECT AND REMOVE (1) LPS, (1) 400W AND (3) 250W FLOOD LIGHTS. PROVIDE NEW LIGHT FIXTURES AND CONNECT TO EXISTING CIRCUIT.
- 17 EXISTING OVERHEAD LINE SHALL REMAIN.
- 18 EXISTING OVERHEAD LINE SHALL BE REMOVED.
- 19 PROVIDE NEW FEEDER FOR LIGHTING.
- 20 PROVIDE NEW GROUNDING TO CONCRETE BASE - SEE 2/E-10.
- 21 PROVIDE DOWN GUY AT POLE. SEE DETAIL 4/E-10.
- 22 EXISTING WOOD POLE AND FLOOD LIGHT SHALL BE DISCONNECTED AND REMOVED.
- 23 EXISTING WOOD POLE AND FLOOD LIGHT SHALL BE DISCONNECTED AND REPLACE WITH NEW METAL POLE, CONCRETE BASE AND NEW FOOD LIGHT. PROVIDE NEW POWER FEED AND HOMERUN.
- 24 EXISTING POLE WITH NO LIGHT FIXTURE SHALL BE REMOVED. PROVIDE NEW POLE, CONCRETE BASE AND LIGHT FIXTURE AS SHOWN.
- 25 EXISTING POLE AND 250W COBRA HEAD LIGHT FIXTURE SHALL BE REMOVED. PROVIDE NEW POLE, CONCRETE BASE AND LIGHT FIXTURE AS SHOWN.
- 26 PROTECT IN PLACE (E) LIGHT POLE. EXISTING 250W COBRA HEAD LIGHT FIXTURE SHALL BE REMOVED AND REPLACED WITH NEW AS SHOWN.
- 27 NEW OVERHEAD LINE FOR EXISTING GAS FLARE STATION.
- 28 PROVIDE RISER CONDUIT WITH WEATHERHEAD AND WIRING AND RECONNECT GAS FLARE AT BUILDING. SEE DETAIL 5/E-10.
- 29 PROTECT IN PLACE (E) WOOD POLE. DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS. PROVIDE NW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 30 PROTECT IN PLACE (E) WOOD POLE AND (2) SECURITY CAMERA AND ACCESSORIES. DISCONNECT AND REMOVE (1) 1000W AND (1) 400W FLOOD LIGHTS. PROVIDE NEW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 31 PROTECT IN PLACE (E) WOOD POLE. DISCONNECT AND REMOVE (2) 1000W FLOOD LIGHTS. PROVIDE NEW LED LIGHT AS SHOWN AND CONNECT TO EXISTING CIRCUIT.
- 32 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. EXISTING 250W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 33 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. PROVIDE NEW LED LIGHT AS SHOWN.
- 34 PROTECT IN PLACE (E) LIGHT POLE AND CAMERA. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 35 PROTECT IN PLACE (E) LIGHT POLE AND (2) CAMERAS. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 36 PROTECT IN PLACE (E) LIGHT POLE. EXISTING 400W FLOOD LIGHT SHALL BE REMOVED AND REPLACE WITH NEW AS SHOWN.
- 37 EXISTING UNDERGROUND LINE FOR GAS FLARE STATION TO REMAIN.
- 38 EXISTING RISER ON POLE WITH GAS FLARE CONDUCTORS. RECONNECT AS REQUIRED.



PREPARED BY:

OMB
OMB ELECTRICAL ENGINEERS, INC.
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E-Mail: mail@ombengrs.com

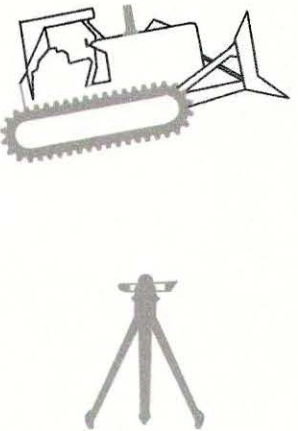
DESIGNED BY :	TEAM 1	SCALE :	AS SHOWN
DRAWN BY :	TEAM 1	DATE :	08-21-2014
CHECKED BY :	RLI	DATE :	08-21-2014
APPROVED BY :		DATE :	

PREPARED UNDER THE SUPERVISION OF:

ROY L. LOPEZ
REGISTERED PROFESSIONAL ENGINEER
No. 13442
EXP. 08/30/14
ELECTRICAL
STATE OF CALIFORNIA
8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

AREA 2 LIGHTING/ ELECTRICAL PLAN				
SHEET 28 OF 41 SHEETS				
APPROVAL:	DATE	DATE	DATE	DATE
FOR CITY ENGINEER	10-7-14			
DESCRIPTION	BY	APPROVED	DATE	FILED
LIGHTING/ELECTRICAL	RLI			
CONTRACTOR:	DATE STARTED:			
INSPECTOR:	DATE COMPLETED:			

E-5

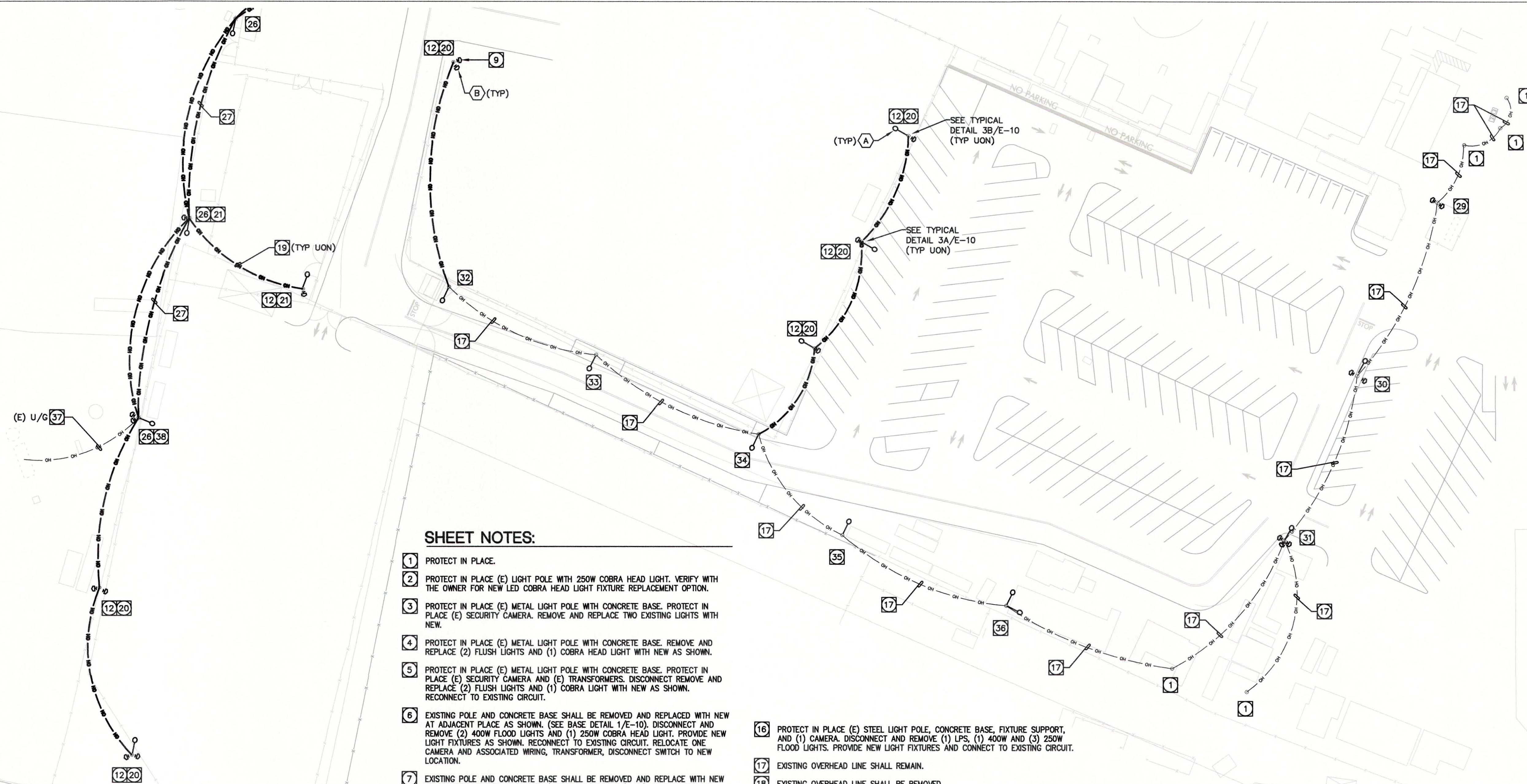
SUBMITTED BY:
ROY LOPEZ, EE
PROJECT MANAGER

CHECKED BY:
ROY LOPEZ, EE
PROJECT ENGINEER

APPROVED BY:
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

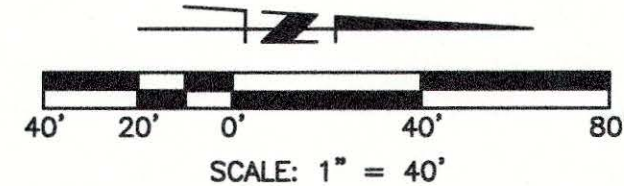
1887-6281
NAD83 COORDINATES

38158-28-D



SHEET NOTES:

- 1 PROTECT IN PLACE.
- 2 PROTECT IN PLACE (E) LIGHT POLE WITH 250W COBRA HEAD LIGHT. VERIFY WITH THE OWNER FOR NEW LED COBRA HEAD LIGHT FIXTURE REPLACEMENT OPTION.
- 3 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA. REMOVE AND REPLACE TWO EXISTING LIGHTS WITH NEW.
- 4 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. REMOVE AND REPLACE (2) FLUSH LIGHTS AND (1) COBRA HEAD LIGHT WITH NEW AS SHOWN.
- 5 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA AND (E) TRANSFORMERS. DISCONNECT REMOVE AND REPLACE (2) FLUSH LIGHTS AND (1) COBRA LIGHT WITH NEW AS SHOWN. RECONNECT TO EXISTING CIRCUIT.
- 6 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W FLOOD LIGHTS AND (1) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE CAMERA AND ASSOCIATED WIRING, TRANSFORMER, DISCONNECT SWITCH TO NEW LOCATION.
- 7 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACE WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (2) 400W COBRA HEAD LIGHTS. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. RELOCATE ONE SPEAKER AND ASSOCIATED WIRING, MATCHING TRANSFORMER, PULLBOX TO NEW LOCATION.
- 8 PROTECT IN PLACE (E) METAL LIGHT POLE WITH CONCRETE BASE. PROTECT IN PLACE (E) SECURITY CAMERA AND ASSOCIATED ACCESSORIES. DISCONNECT AND REMOVE (1) 400W & (1) 250W COBRA HEAD LIGHTS. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 9 LED FLOOD LIGHT. SEE PHOTOMETRIC PLAN FOR AIMING POINT.
- 10 PROTECT IN PLACE (E) WOOD LIGHT POLE DISCONNECT AND REMOVE (1) 1000W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURES AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 11 EXISTING POLE AND CONCRETE BASE SHALL BE REMOVED AND REPLACED WITH NEW AT ADJACENT PLACE AS SHOWN. (SEE BASE DETAIL 1/E-10). DISCONNECT AND REMOVE (3) LED, (2) LPS FLOOD LIGHTS. (E) PANEL SHALL BE DISCONNECTED AND REPLACED WITH NEW IN NEW LOCATION. EXTEND CONDUIT/CONDUCTORS AS REQUIRED. PROVIDE NEW LIGHT FIXTURES AS SHOWN. RECONNECT TO EXISTING CIRCUIT. PROVIDE NEW RISER CONDUIT WITH WEATHERHEAD AND WIRING FOR PANEL PER DETAIL 5/E-10.
- 12 PROVIDE NEW POLE AND CONCRETE BASE. PROVIDE LIGHT FIXTURES AS SHOWN. (SEE BASE DETAIL 1/E-10).
- 13 PROTECT IN PLACE (E) STEEL LIGHT POLE AND CONCRETE BASE. DISCONNECT AND REMOVE (2) 250W FLOOD LIGHT. PROVIDE NEW LIGHT FIXTURE AS SHOWN AND RECONNECT TO EXISTING CIRCUIT.
- 14 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE AND (E) 250W COBRA HEAD LIGHT. PROVIDE NEW LIGHT FIXTURE AND CONNECT TO EXISTING CIRCUIT.
- 15 PROTECT IN PLACE (E) STEEL LIGHT POLE WITH COBRA HEAD LIGHT AND TRAFFIC LIGHT.
- 16 PROTECT IN PLACE (E) STEEL LIGHT POLE, CONCRETE BASE, FIXTURE SUPPORT, AND (1) CAMERA. DISCONNECT AND REMOVE (1) LPS, (1) 400W AND (3) 250W FLOOD LIGHTS. PROVIDE NEW LIGHT FIXTURES AND CONNECT TO EXISTING CIRCUIT.
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- 37 EXISTING UNDERGROUND LINE FOR GAS FLARE STATION TO REMAIN.
- 38 EXISTING RISER ON POLE WITH GAS FLARE CONDUCTORS. RECONNECT AS REQUIRED.



PREPARED BY:

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OMB ELECTRICAL ENGINEERS, INC.
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DESIGNED BY : TEAM 1	SCALE : AS SHOWN
DRAWN BY : TEAM 1	DATE : 08-21-2014
CHECKED BY : RLL	DATE : 08-21-2014
APPROVED BY :	DATE :

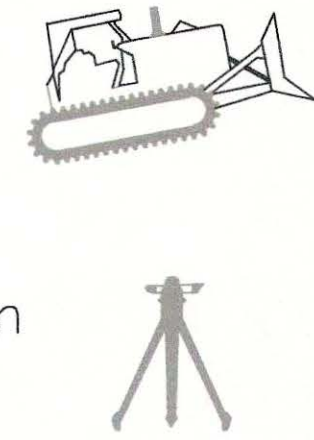
PREPARED UNDER THE SUPERVISION OF:

ROY L. LOPEZ, E.E.
REGISTERED PROFESSIONAL ENGINEER
No. 13472
Exp. 08/30/14
ELECTRICAL
STATE OF CALIFORNIA

8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS
SANITARY LANDFILL**
6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

AREA 2 LIGHTING/ ELECTRICAL PLAN				
SHEET 29 OF 41 SHEETS				
APPROVAL:	DATE	DATE	DATE	DATE
FOR CITY ENGINEER	10-7-14			
DESCRIPTION	BY	APPROVED	DATE	FILMED
LIGHTING/ELECTRICAL	RLL			
CONTRACTOR:	DATE STARTED:			
INSPECTOR:	DATE COMPLETED:			

E-6

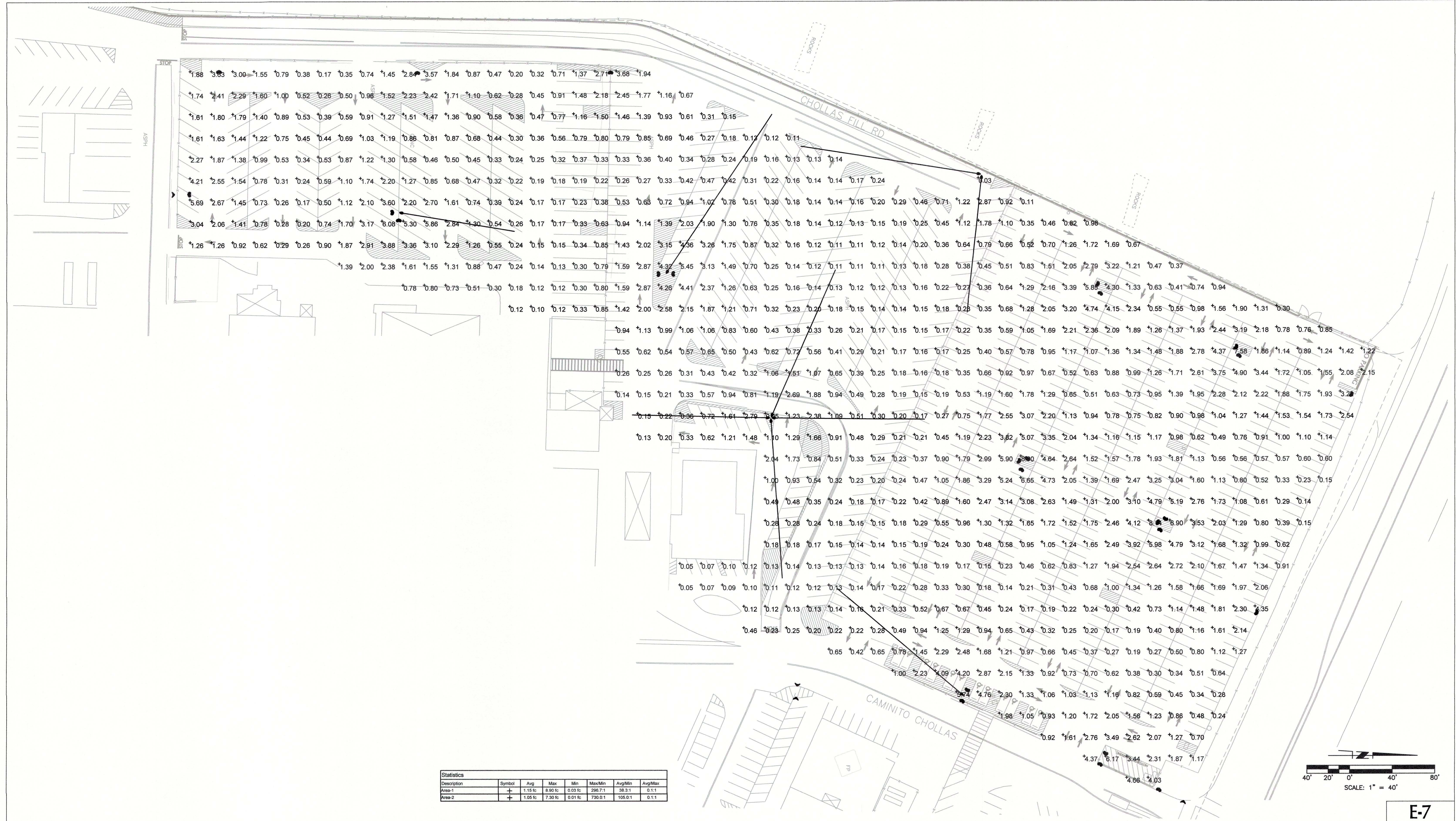
SUBMITTED BY:
ROY LOPEZ, E.E.
PROJECT MANAGER

CHECKED BY:
ROY LOPEZ, E.E.
PROJECT ENGINEER

SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

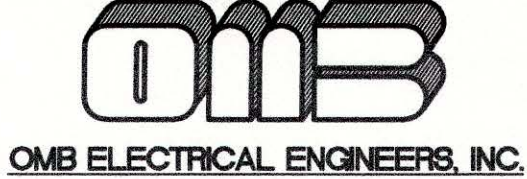
1887-6281
NAD83 COORDINATES

38158-29-D



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Area-2	+	1.05 ft	7.30 ft	0.01 ft	730.0:1	105.0:1	0.1:1

PREPARED BY:



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DESIGNED BY : TEAM 1

SCALE : AS SHOWN

DRAWN BY : TEAM 1

DATE : 08-21-2014

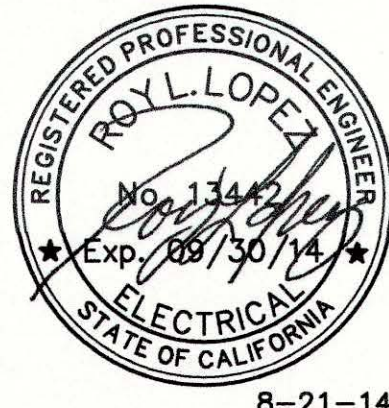
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DATE : 08-21-2014

APPROVED BY :

DATE :

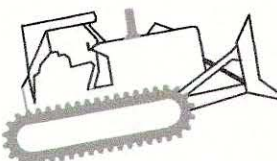
PREPARED UNDER THE
SUPERVISION OF:



8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

AREA 1 PHOTOMETRIC PLAN

SHEET 30 OF 41 SHEETS

DESCRIPTION	BY	APPROVED	DATE	FILMED
LIGHTING/ELECTRICAL	RLL		10-7-14	

CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:

E-7

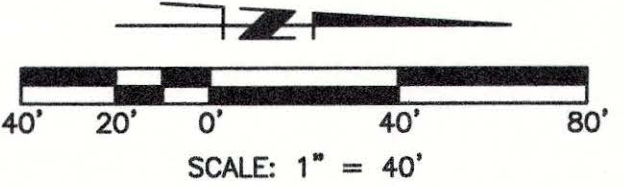
SUBMITTED BY:
ROY LOPEZ, EE
PROJECT MANAGER
CHECKED BY:
ROY LOPEZ, EE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

1887-6281
NAD83 COORDINATES


38158-30-D



Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
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Area-2	+	1.05 fc	7.30 fc	0.01 fc	730.0:1	105.0:1	0.1:1



PREPARED BY:


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DESIGNED BY :

TEAM 1

DRAWN BY :

TEAM 1

CHECKED BY :

RLL

APPROVED BY :

SCALE :

AS SHOWN

DATE :

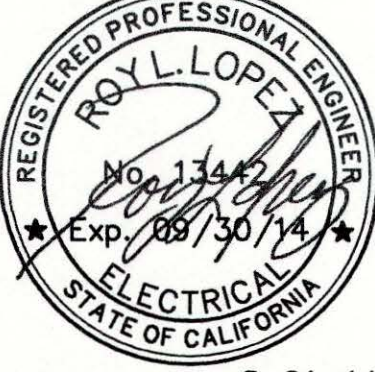
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DATE :

08-21-2014

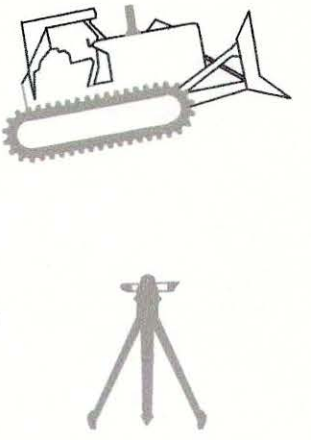
DATE :

PREPARED UNDER THE SUPERVISION OF:


ROY L. LOPEZ
REGISTERED PROFESSIONAL ENGINEER
ELECTRICAL
STATE OF CALIFORNIA
8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division

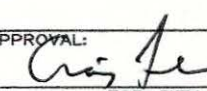


**SOUTH CHOLLAS
SANITARY LANDFILL**

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

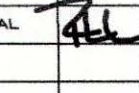
AREA 2
PHOTOMETRIC PLAN

SHEET 31 OF 41 SHEETS

APPROVAL:  FOR CITY ENGINEER

DATE: 10-7-14

DESCRIPTION: LIGHTING/ELECTRICAL

APPROVED: 

DATE:

FILMED:

CONTRACTOR:

DATE STARTED:

INSPECTOR:

DATE COMPLETED:

E-8

SUBMITTED BY:
ROY LOPEZ, EE
PROJECT MANAGER

CHECKED BY:
ROY LOPEZ, EE
PROJECT ENGINEER

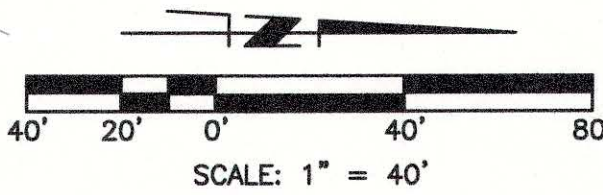
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

1887-6281
NAD83 COORDINATES

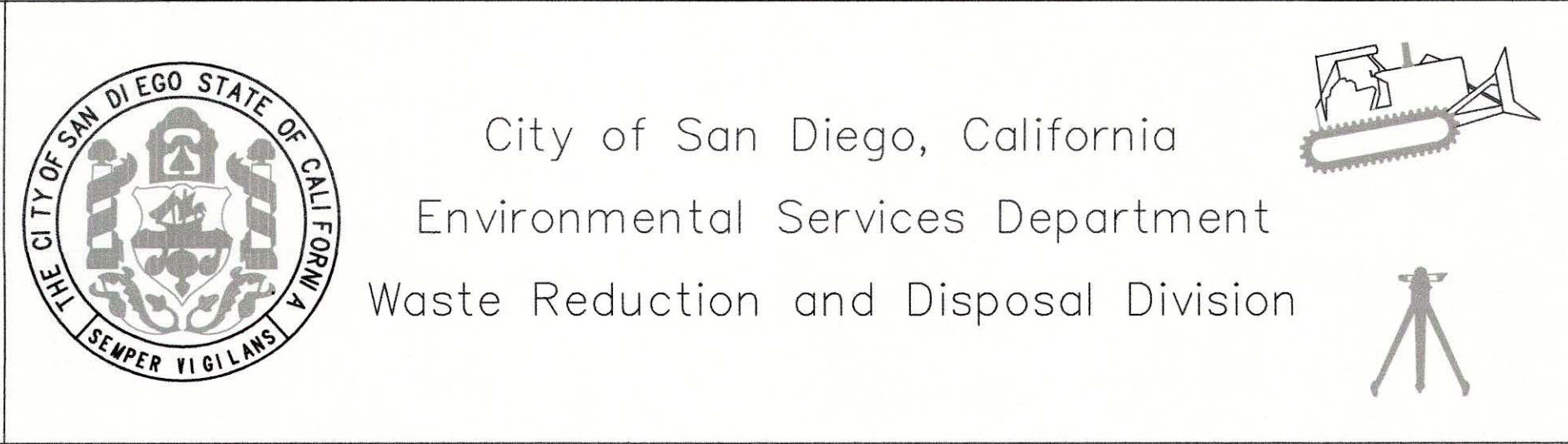
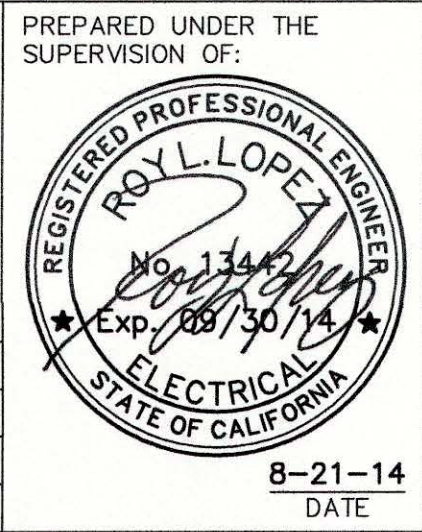
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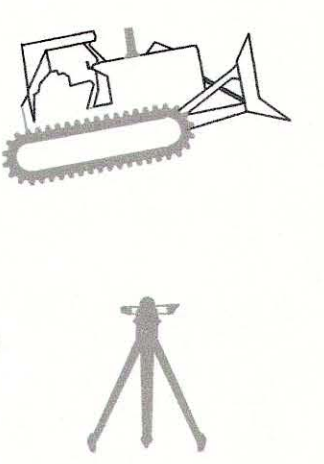
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Area-1	+	1.15 ft	8.80 ft	0.03 ft	288.71	38.51
Area-2	+	1.05 ft	7.30 ft	0.01 ft	730.01	105.01



PREPARED BY: OMB OMB ELECTRICAL ENGINEERS, INC. 8825 Research Drive Irvine, CA 92618 (949) 753-1553 Fax (949) 753-1992 E-Mail: mail@ombengr.com	
DESIGNED BY : TEAM 1	SCALE : AS SHOWN
DRAWN BY : TEAM 1	DATE : 08-21-2014
CHECKED BY : RLL	DATE : 08-21-2014
APPROVED BY :	DATE :

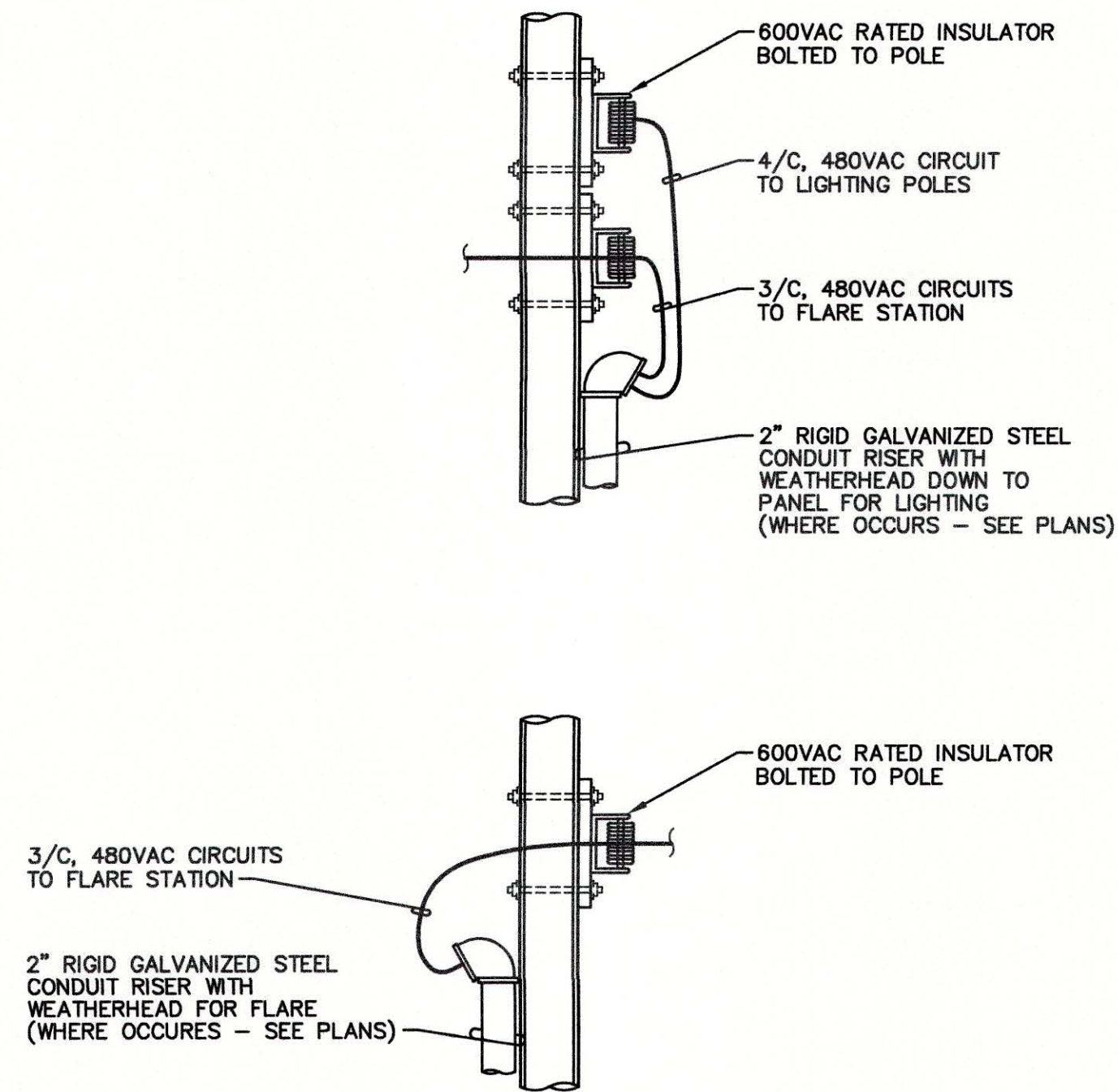


City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



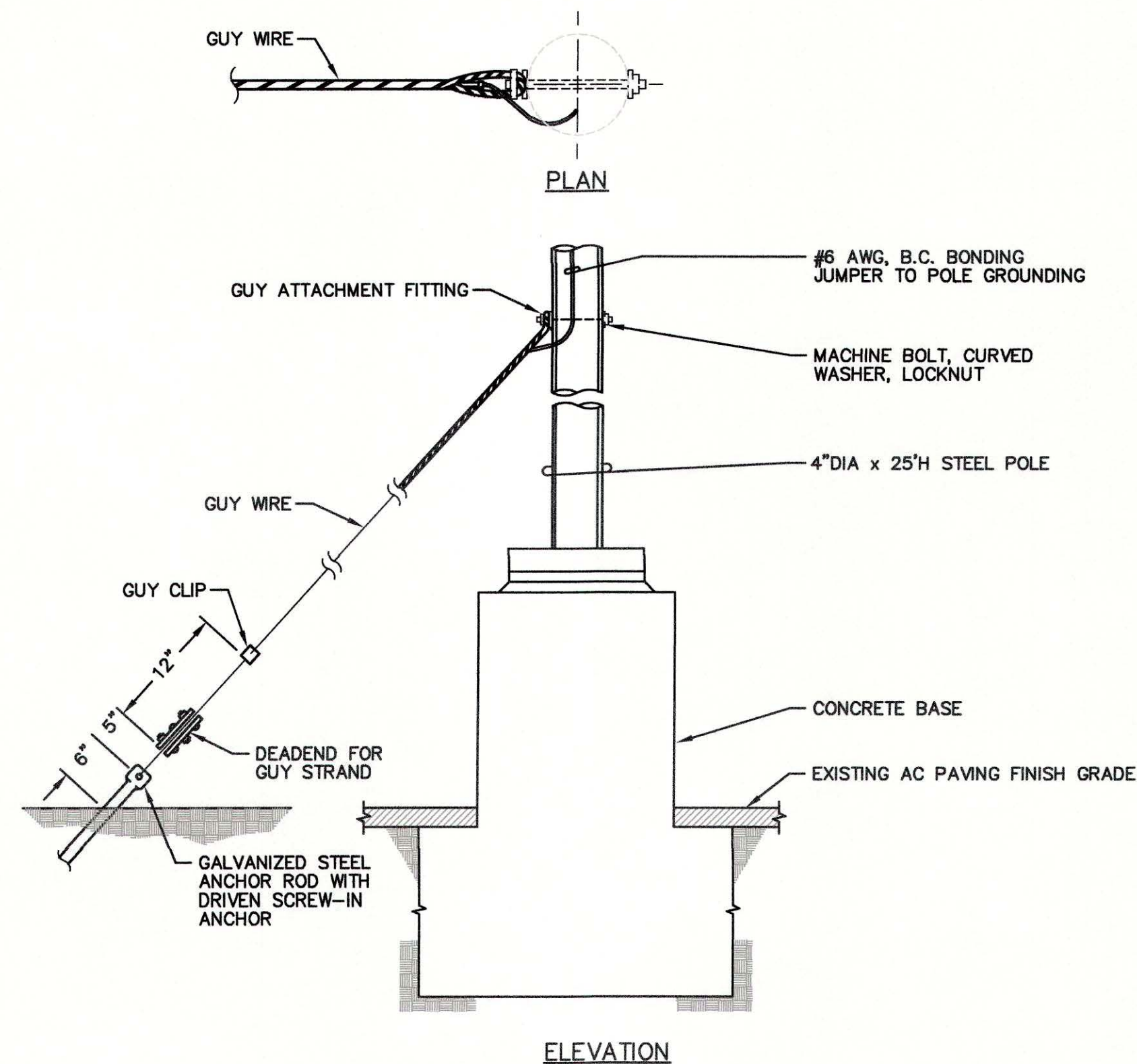
SOUTH CHOLLAS SANITARY LANDFILL 6000 Block Of College Grove Drive SAN DIEGO, CA 92105			
SUBMITTED BY: ROY LOPEZ, EE PROJECT MANAGER			
CHECKED BY: ROY LOPEZ, EE PROJECT ENGINEER			
SYLVIA CASTILLO SENIOR CIVIL ENGINEER WBS S-00684			
1887-6281 NAD83 COORDINATES			
38158-32-D			

APPROVAL:		10-7-14	
FOR CITY ENGINEER		DATE	
DESCRIPTION	BY	APPROVED	DATE
LIGHTING/ELECTRICAL	RLL		
CONTRACTOR:	DATE STARTED:		
INSPECTOR:	DATE COMPLETED:		



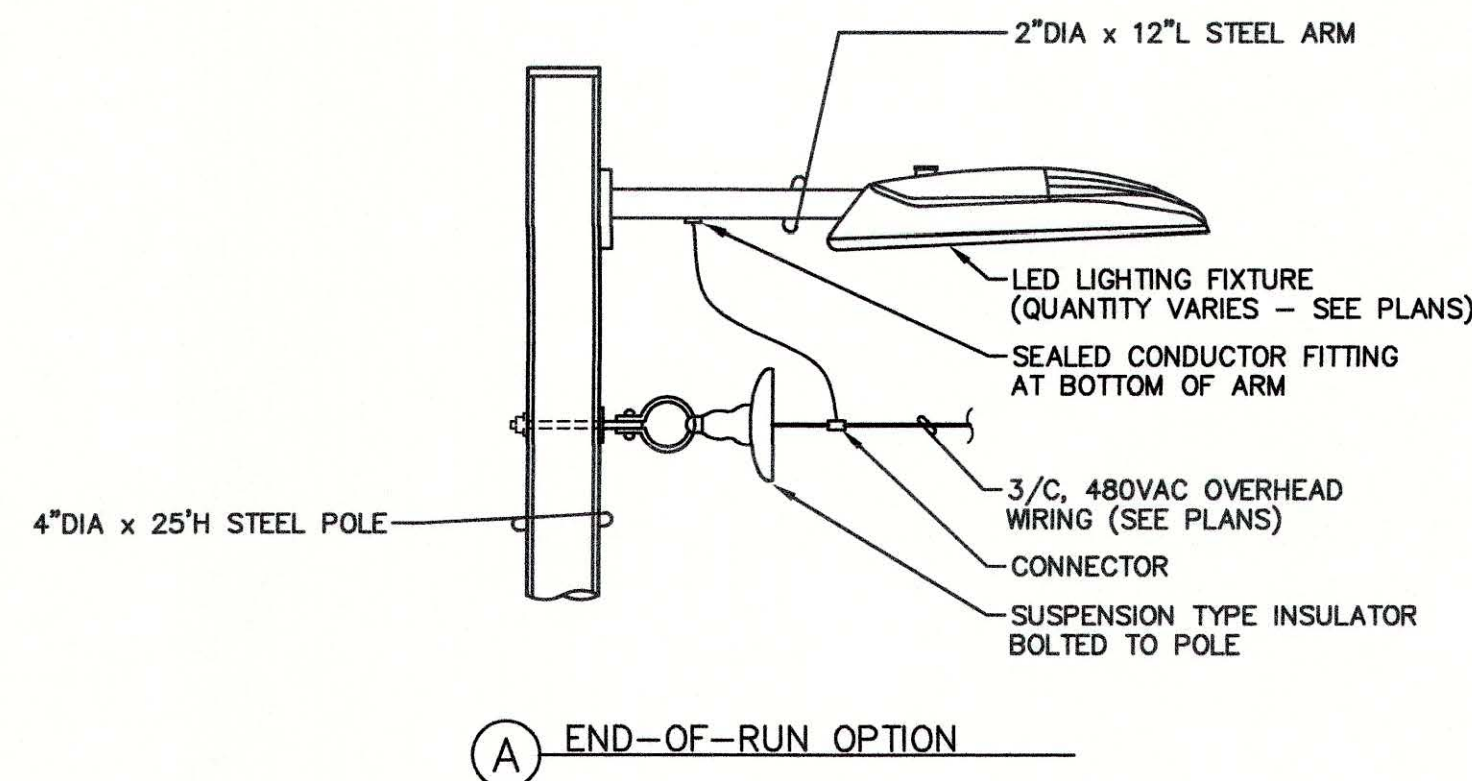
600VAC CONDUIT RISER AND WEATHERHEAD DETAIL

SCALE: NONE 5



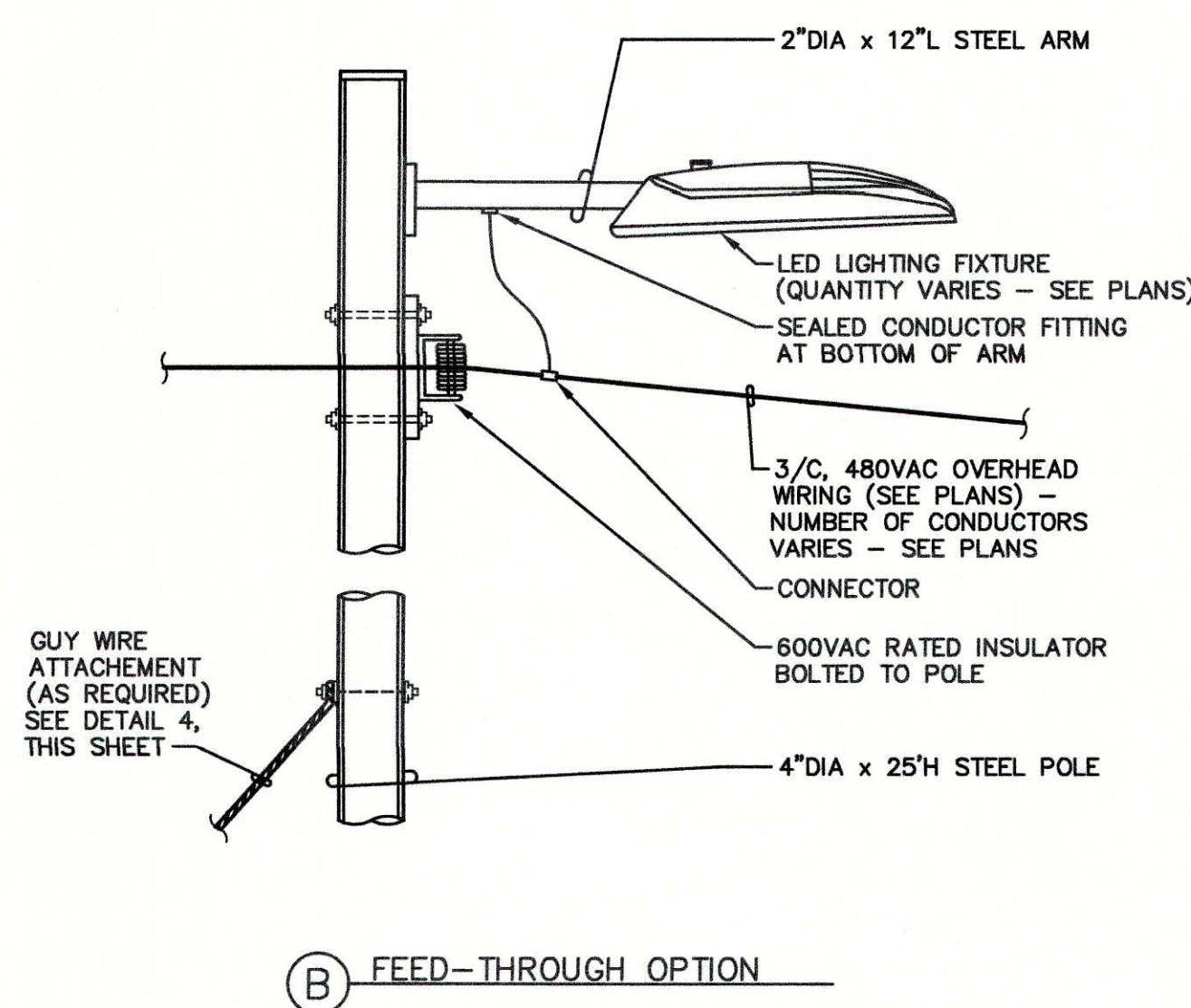
LIGHTING POLE GUY SUPPORT DETAIL

SCALE: NONE 4



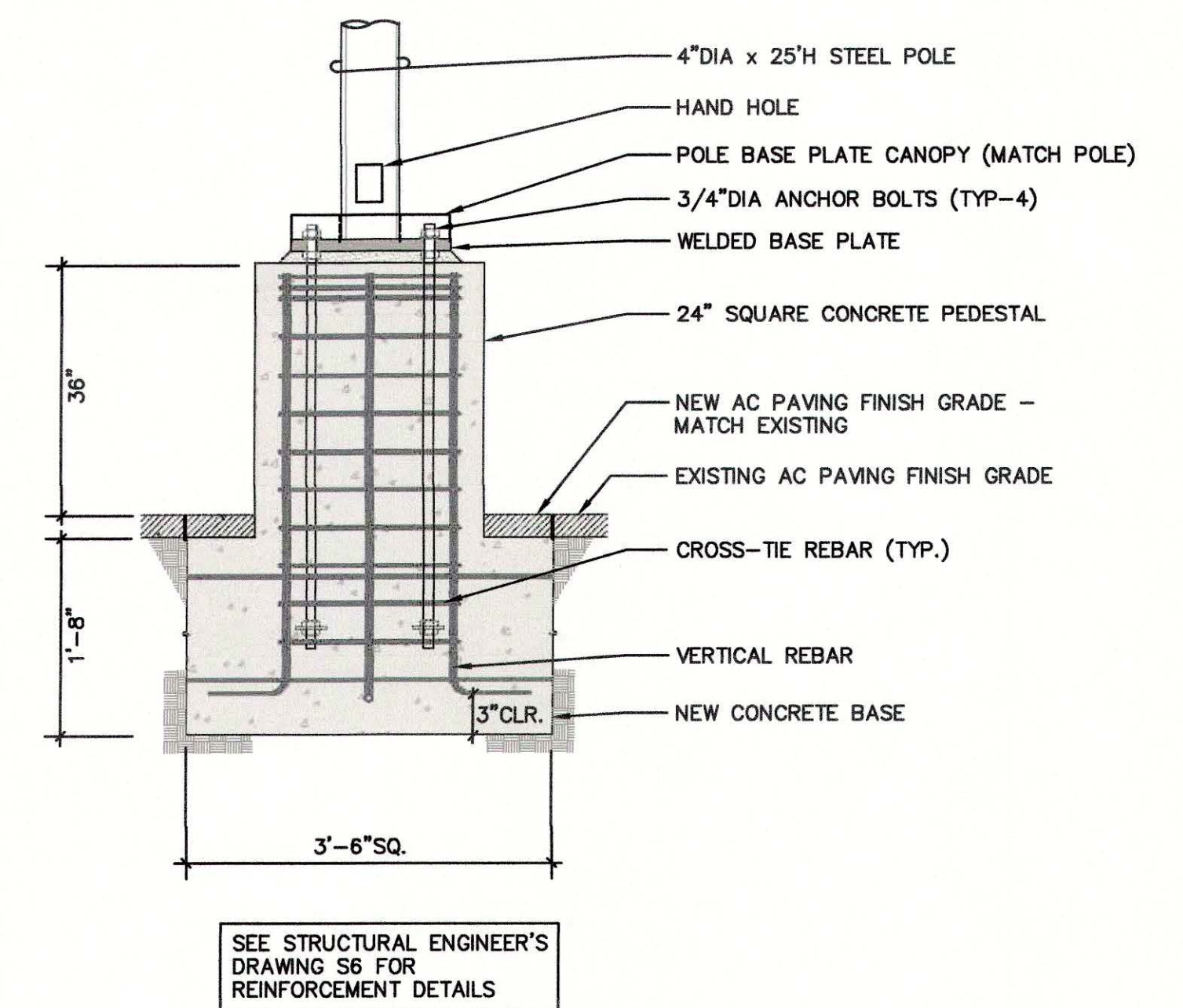
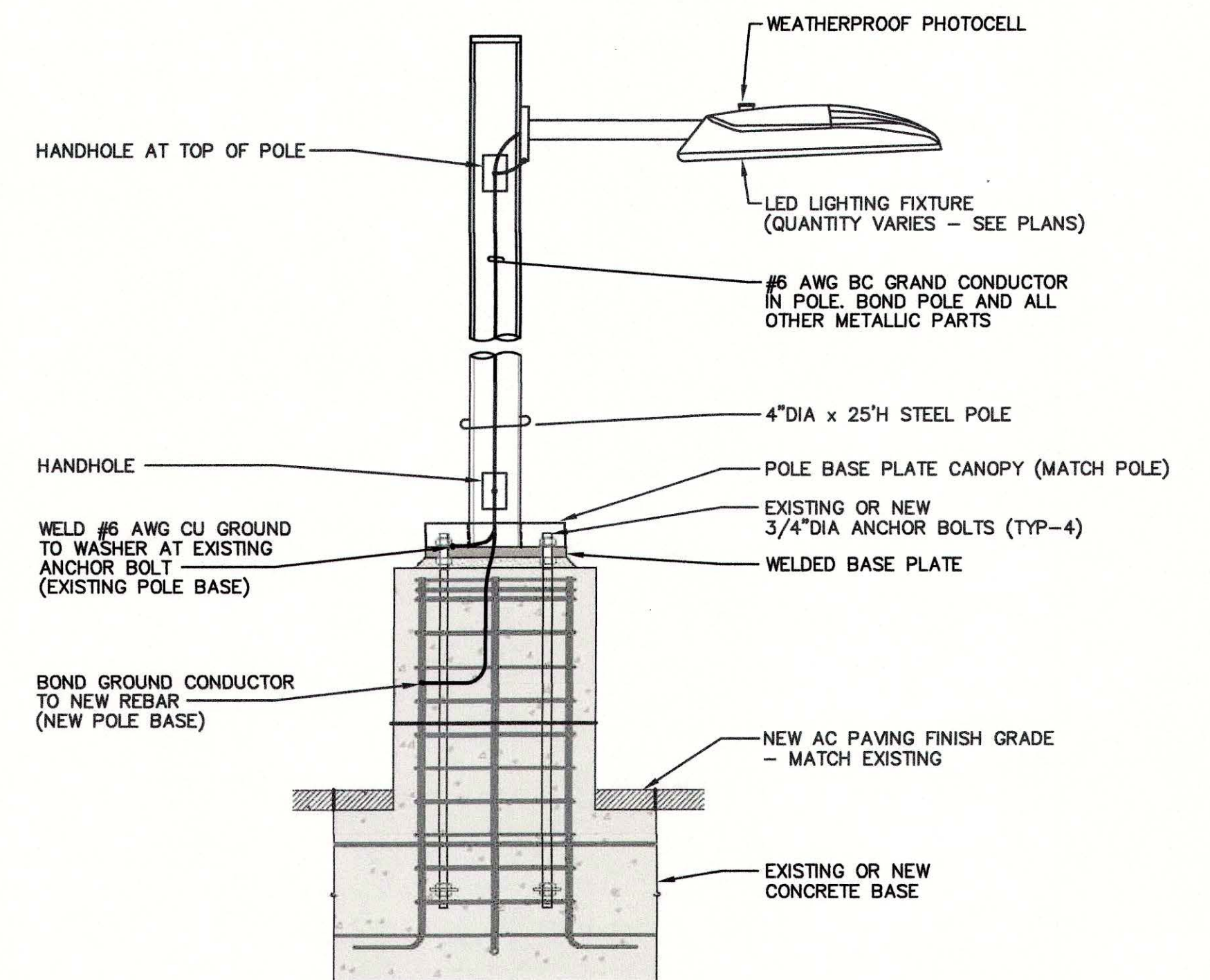
TYPICAL LIGHTING POLE WIRING DETAIL

SCALE: NONE 3



LIGHTING POLE GROUNDING DETAIL

SCALE: NONE 2



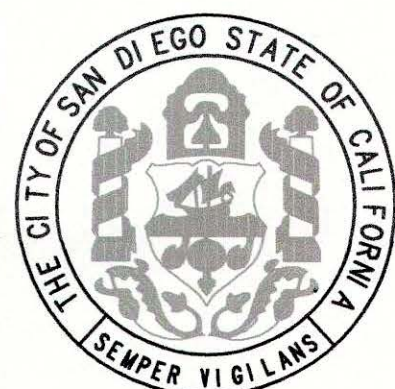
LIGHTING POLE BASE DETAIL

SCALE: NONE 1

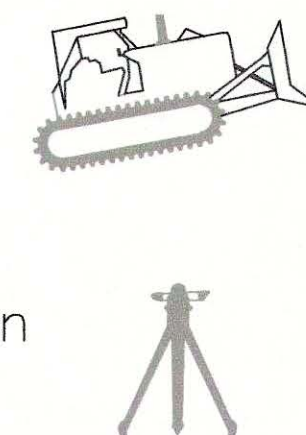
PREPARED BY:
OMB
OMB ELECTRICAL ENGINEERS, INC.
8825 Research Drive
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(949) 753-1553 Fax (949) 753-1992
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DESIGNED BY : TEAM 1 SCALE : AS SHOWN
DRAWN BY : TEAM 1 DATE : 08-21-2014
CHECKED BY : RLL DATE : 08-21-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:
REGISTERED PROFESSIONAL ENGINEER
ROY L. LOPEZ
No. 13442
Exp. 08/30/14
ELECTRICAL
STATE OF CALIFORNIA
8-21-14
DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS
SANITARY LANDFILL**

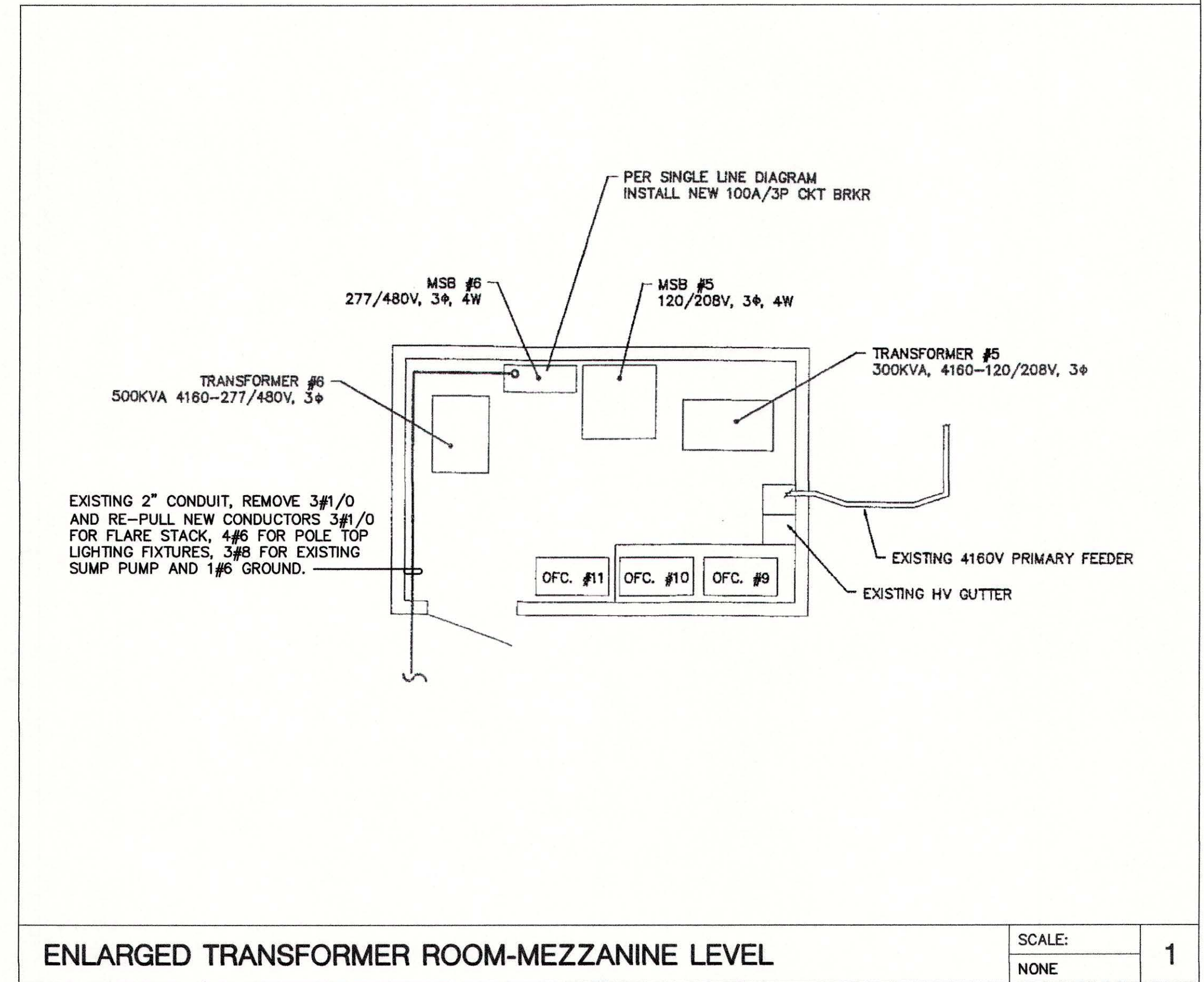
6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

ELECTRICAL DETAILS

SHEET 33 of 41 SHEETS
APPROVAL: FOR CITY ENGINEER 10-7-14
DESCRIPTION BY APPROVED DATE FILMED
LIGHTING/ELECTRICAL
CONTRACTOR: DATE STARTED: INSPECTOR: DATE COMPLETED:

E-10

SUBMITTED BY: ROY LOPEZ, EE PROJECT MANAGER
CHECKED BY: ROY LOPEZ, EE PROJECT ENGINEER
SYLVIA CASTILLO SENIOR CIVIL ENGINEER
WBS S-00684
1887-6281 NAD83 COORDINATES
38158-33-D



<p>PREPARED BY:</p> <p>OMB</p> <p>OMB ELECTRICAL ENGINEERS, INC.</p> <p>8825 Research Drive Irvine, CA 92618 (949) 753-1553 Fax (949) 753-1992 E-Mail: mail@ombengr.com</p> <table><tr><td>DESIGNED BY :</td><td>TEAM 1</td><td>SCALE :</td><td>AS SHOWN</td></tr><tr><td>DRAWN BY :</td><td>TEAM 1</td><td>DATE :</td><td>08-21-2014</td></tr><tr><td>CHECKED BY :</td><td>RLL</td><td>DATE :</td><td>08-21-2014</td></tr><tr><td>APPROVED BY :</td><td></td><td>DATE :</td><td></td></tr></table>	DESIGNED BY :	TEAM 1	SCALE :	AS SHOWN	DRAWN BY :	TEAM 1	DATE :	08-21-2014	CHECKED BY :	RLL	DATE :	08-21-2014	APPROVED BY :		DATE :		<p>PREPARED UNDER THE SUPERVISION OF:</p> <p>REGISTERED PROFESSIONAL ENGINEER ROY L. LOPEZ No. 13342 Exp. 08/30/14 ELECTRICAL STATE OF CALIFORNIA</p> <p>8-21-14 DATE</p>	<p>City of San Diego, California Environmental Services Department Waste Reduction and Disposal Division</p> <p>THE CITY OF SAN DIEGO STATE OF CALIFORNIA SEMPER VIGILANS</p>	<p>SOUTH CHOLLAS SANITARY LANDFILL</p> <p>6000 Block Of College Grove Drive SAN DIEGO, CA 92105</p>	<p>ENLARGED PLANS AND DETAILS</p> <p>SHEET 34 of 41 SHEETS</p> <p>APPROVAL: <i>[Signature]</i> 10-7-14 FOR CITY ENGINEER DATE</p> <table><tr><td>DESCRIPTION</td><td>BY</td><td>APPROVED</td><td>DATE</td><td>FILED</td></tr><tr><td>LIGHTING/ELECTRICAL</td><td>RLL</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> <p>CONTRACTOR: _____ DATE STARTED: _____ INSPECTOR: _____ DATE COMPLETED: _____</p>	DESCRIPTION	BY	APPROVED	DATE	FILED	LIGHTING/ELECTRICAL	RLL																			<p>Submitted By: ROY LOPEZ, EE Project Manager Checked By: ROY LOPEZ, EE Project Engineer SYLVIA CASTILLO Senior Civil Engineer WBS S-00684</p> <p>1887-6281 NAD83 COORDINATES</p> <p>38158-34-D</p>
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STRUCTURAL STEEL NOTES

1. FABRICATION & ERECTION: ALL FABRICATION & ERECTION SHALL CONFORM TO THE LATEST STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS.
2. ASTM SPECIFICATIONS: STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

TABLE 1 - STEEL MATERIAL SPECIFICATIONS	
STEEL SHAPE	ASTM SPECIFICATION
W	A992 OR A572 GRADE 50
M, S, HP	A36 OR A572 GRADE 50
C - CHANNEL	A572 GRADE 50
L - ANGLE	A36
PLATES & BAR	A36
STEEL PIPE	A53 GRADE B
ROUND HSS	A500 GRADE B OR C
SQ. & RECT. HSS	A500 GRADE B OR C
MACHINE BOLTS	A325, A490, F1852, F2280
NUTS	A563, A194
WASHERS	F436
ANCHOR RODS	F1554-A36
SHEAR STUDS	A108

3. STEEL EXPOSED TO WEATHER OR CORROSIVE ENVIRONMENT: ALL STEEL EXPOSED TO WEATHER OR CORROSIVE ENVIRONMENT SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A123. ALL FIELD WELDS ON GALVANIZED STEEL SHALL BE TREATED WITH ZINC-RICH PAINT IN COMPLIANCE WITH ASTM A780.
4. STEEL FABRICATOR: THE STRUCTURAL STEEL FABRICATOR SHALL PROVIDE A SET OF SHOP FABRICATION DRAWINGS FOR APPROVAL TO THE ENGINEER OF RECORD. THE FABRICATOR SHALL NOT FABRICATE THE STEEL UNTIL THE ENGINEER OF RECORD HAS APPROVED THE SHOP DRAWINGS.
5. WELDING: ALL WELDING SHALL BE IN CONFORMANCE WITH THE LATEST AISC & AMERICAN WELDING SOCIETY (AWS) STANDARDS. ALL WELDING SHALL BE PERFORMED USING A SHIELDED ARC PROCESS USING APPROVED ELECTRODES CONFORMING TO AWS SPECIFICATION E60XX (W/ HYDROGENS). WELD MATERIAL SHALL COMPLY WITH AWS CERTIFICATION AND POSSESS A CHARTY V-NOTCH TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F. WELDING SHALL BE PERFORMED BY ONLY AWS CERTIFIED WELDERS.
6. WELDING PROCEDURES: A WRITTEN WELDING PROCEDURE SPECIFICATIONS (WPS) PER AWS D1.1 SHALL BE DEVELOPED BY THE FABRICATOR/ERECTOR AND REVIEWED BY THE ENGINEER OF RECORD.
7. ERECTION AIDS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES AND OTHER AIDS. WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, SURFACE ROUGHNESS AND UNEQUAL PARTS.
8. FIELD WELDING: FIELD WELDING SHALL BE PERFORMED BY A BUILDING DEPARTMENT CERTIFIED WELDER. FIELD WELDING REQUIRES CONTINUOUS SPECIAL INSPECTION. PERIODIC FIELD SPECIAL INSPECTION IS ACCEPTABLE FOR FLOOR AND ROOF DECK WELDING. STUD WELDING & WELDING OF STAIR-HANDRAIL SYSTEMS.
9. BOLTING: BOLTING OF STRUCTURAL STEEL SHALL MEET THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) 2000 EDITION SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 & A490 BOLTS FOR TYPES X, N & SC.
10. CAMBER: ALL STEEL BEAMS SHALL HAVE STANDARD MILL CAMBER UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.

ABBREVIATIONS			
AB	ANCHOR BOLT	GT	= GIRDER TRUSS
ABV	ABOVE	HDR	= HEADER
ADDL	ADDITIONAL	HGR	= HANGER
ALT	ALTERNATE	IBC	= INTERNATIONAL BUILDING CODE
AWA	ALIGN WITH ABOVE	IN	= INCH
BEW	BOTTOM EACH WAY	INFO	= INFORMATION
BLK	BLOCK	INT	= INTERIOR
BLKG	BLOCKINGS	JST	= JOST
BLW	BELOW	LBL	= LAMINATED STRAND LUMBER
BM	BEAM	LVL	= LAMINATED VENEER LUMBER
BN	BOUNDARY NAILING	MAX	= MAXIMUM
BRG	BEARING	MFR	= MANUFACTURER
BTM	BOTTOM	MIN	= MINIMUM
BTWN	BETWEEN	MULT	= MULTIPLE
BTR	BETTER	N/A	= NOT APPLICABLE
CBC	CALIFORNIA BUILDING CODE	NP	= NOT PROVIDED
CLG	CEILING	O/C	= ON CENTER
CONC	CONCRETE	PI	= PLASTICITY INDEX
DBL	DOUBLE	PLT	= PLATE
DF	DOUGLAS FIR	PLYWD	= PLYWOOD
DIA	DIAMETER	PNL	= PANEL
DJ	DECK JOIST	PBL	= PARALLEL STRAND LUMBER
DR	DEEP	PT	= POST TENSION
DRP	DROP	REV	= REVISION
EA	EACH	RF	= ROOF
EI	EXPANSION INDEX	RR	= ROOF RAFTER
EMBED	EMBEDMENT	SHTG	= SHEATHING
EN	EDGE NAILING	SIM	= SIMILAR
EW	EACH WAY	SPN	= SOLE PLATE NAILING
EWB	= ENGINEERED WOOD BEAM	SQ	= SQUARE
EXT	= EXTERIOR	SQSH	= SQUASH
FA	= FROM ABOVE	STD	= STANDARD
FDN	= FOUNDATION	SW	= SHEAR WALL
FH	= FULL HEIGHT	TP	= TOP PLATE
FJ	= FLOOR JOIST	TBL	= TRIANGULAR STRAND LUMBER
FL	= FLUSH	TYP	= TYPICAL
FLR	= FLOOR	UBC	= UNIFORM BUILDING CODE
FNGR	= FINGER	UNO	= UNLESS NOTED OTHERWISE
FRMG	= FRAMING	WWM	= WELDED WIRE MESH
FT	= FEET	W/	= WITH
GA	= GAGE	W/O	= WITHOUT
GLB	= GLU-LAM		

EARTHWORK AND FOUNDATIONS

1. GEOTECHNICAL REPORT: NOT PROVIDED.
2. ALLOWABLE FOUNDATION DESIGN VALUES PER GEOTECHNICAL REPORT: VALUES BELOW MAY BE INCREASED 33 PERCENT FOR TRANSIENT LOADING.
- A. BEARING CAPACITY: SEE PROJECT DESIGN CRITERIA
- B. PASSIVE LATERAL BEARING PRESSURE: SEE PROJECT DESIGN CRITERIA
- C. COEFFICIENT OF FRICTION: SEE PROJECT DESIGN CRITERIA
3. GRADING, EXCAVATIONS, BACKFILL, AND COMPACTION OF BACKFILL: COMPLY WITH REQUIREMENTS OF GOVERNING CODE AUTHORITY AND PERFORMED ONLY UNDER CONTINUOUS SPECIAL INSPECTION OF GEOTECHNICAL ENGINEER.
4. BACKFILLING OF RETAINING WALLS: PLACE AFTER COMPLETION AND INSPECTION OF WATERPROOFING. ADEQUATELY SHORE RETAINING WALLS DURING BACKFILL OPERATION. UNLESS ADEQUATELY SHORED, DO NOT PLACE BACKFILL BEHIND BUILDING STRUCTURE RETAINING WALLS (EXCLUDING SITE RETAINING WALLS) UNTIL CONCRETE AT ELEVATED FLOOR LEVELS ADJACENT TO WALLS ARE COMPLETELY POURED (IN AREA) AND HAVE CURED FOR AT LEAST 7 DAYS.

REINFORCING STEEL

1. REINFORCING STEEL:
- A. ALL BARS, U.N.O.: ASTM A615, GRADE 60
- B. BARS TO BE WELDED: ASTM A706, GRADE 60
- C. ADDITIONAL REQUIREMENTS FOR BARS, EXCLUDING TIES, IN DUCTILE MOMENT RESISTING FRAMES AND BOUNDARY ELEMENTS IN SHEAR WALLS: NO ADDITIONAL REQUIREMENTS IF ASTM A706, GRADE 60 BARS USED. ASTM615, GRADE 60 BARS ARE PERMITTED PROVIDED ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI AND RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.
2. WIRE AND SPIRAL REINFORCING:
- A. SMOOTH WELDED WIRE FABRIC (W.W.F.): ASTM A185, FY=65 KSI, FLAT SHEETS ONLY. DO NOT USE ROLLED MESH. LAP SPACES (1 FOOT MINIMUM). OFFSET LAPS IN ADJACENT SHEETS TO AVOID CONTINUOUS LAPS.
- B. DEFORMED WIRE STIRRUPS (D4 AND LARGER ONLY): ASTM A497, FY=65 KSI.
- C. SPIRAL REINFORCING: ASTM A82, GRADE 60
3. SHOP DRAWINGS: ACI 315, PART B. SHOW REINFORCING STEEL PLACEMENT INCLUDING SIZES, QUANTITIES, SPACING, CLEARANCES, SPLICE LOCATIONS, LAP LENGTHS, AND CONCRETE COVERAGES AND SUBMIT TO STRUCTURAL ENGINEER. PROMPTLY NOTIFY STRUCTURAL ENGINEER PRIOR TO DEVELOPING SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL AND OTHER CONSTRUCTION IS ENCOUNTERED. NOTIFY SPECIAL INSPECTOR OF ADJUSTMENTS MADE FROM APPROVED CONTRACT DOCUMENTS WHICH ARE INDICATED ON ACCEPTED SHOP DRAWINGS THAT FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
4. SPLICE LOCATIONS: SPLICE #5 BARS AND LARGER ONLY AT LOCATIONS INDICATED. IF ADDITIONAL SPLICE LOCATIONS ARE PROPOSED, PROMPTLY NOTIFY STRUCTURAL ENGINEER PRIOR TO DEVELOPING SHOP DRAWINGS.
- A. SPLICES IN WALLS: LOCATE SPLICES IN HORIZONTAL BARS AT WELL-STAGGERED LOCATIONS. DO NOT SPLICE VERTICAL BARS EXCEPT AT HORIZONTAL SUPPORTS SUCH AS FLOOR AND ROOF DIAPHRAGMS.
5. MINIMUM CLEARANCES BETWEEN PARALLEL REINFORCING STEEL, INCLUDING DISTANCE BETWEEN SETS OF SPLICED BARS: 1" OR 1 db, WHICHEVER IS GREATER. 1 1/2" OR 1 1/2 db, WHICHEVER IS GREATER, AT COLUMNS, PIERS, AND PILASTERS ONLY. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
7. DOWELS AT CONSTRUCTION JOINTS: PROVIDE DOWELS MATCHING SIZE AND QUANTITY OF REINFORCING STEEL INTERRUPTED AT CONSTRUCTION JOINTS, UNLESS DETAILED OTHERWISE.
8. PLACEMENT OF BARS IN WALLS: PLACE VERTICAL BARS CLOSEST TO WALL SURFACES AT CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, PLACE LAYER WITH MOST STEEL AREA CLOSEST TO NEAR WALL SURFACE.
9. BARS TERMINATING AT WALLS, COLUMNS, BEAMS, AND FOUNDATIONS: EXTEND BARS TO WITHIN 2' (3' AT CONCRETE POURED AGAINST EARTH) OF FACE OF WALL, COLUMN, BEAM OR FOUNDATION AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
10. BARS INTERRUPTED BY STRUCTURAL STEEL: EXTEND BARS TO WITHIN 2' OF STEEL FACE AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
11. WELDING: AWS D1.4, EXCEPT AS MODIFIED BY APPLICABLE CODE STANDARD 19-1.
- A. ACCEPTABLE REINFORCING STEEL FOR WELDING ASTM A706: IF WELDING OF REINFORCING STEEL OTHER THAN A706 IS DESIRED, SUBMIT PROPOSED PROCEDURE, INDICATING CONFORMANCE TO APPLICABLE CODE TO STRUCTURAL ENGINEER FOR ACCEPTANCE.
- B. WELDER CERTIFICATION: GOVERNING CODE AUTHORITY.
12. BENDING: BEND COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). DO NOT FIELD-BEND REINFORCING STEEL BARS EMBEDDED IN CONCRETE UNLESS OTHERWISE ACCEPTED IN WRITING BY STRUCTURAL ENGINEER.
13. LAP SPLICES: PROVIDE CLASS B SPLICES UNLESS INDICATED OTHERWISE.

CONCRETE EXPOSURE REQUIREMENTS

ACI 318 TABLE 4.2.1 - EXPOSURE CATEGORIES AND CLASSES				
CATEGORY	SEVERITY	CLASS	CONDITION	
F FREEZING AND THAWING	NOT APPLICABLE	F0	CONCRETE NOT EXPOSED TO FREEZING AND THAWING	
	MODERATE	F1	CONCRETE EXPOSED TO FREEZING AND THAWING CYCLES AND OCCASIONAL EXPOSURE TO MOISTURE	
	SEVERE	F2	CONCRETE EXPOSED TO FREEZING AND THAWING CYCLES AND IN CONTINUOUS CONTACT W/ MOISTURE	
	VERY SEVERE	F3	CONCRETE EXPOSED TO FREEZING AND THAWING AND IN CONTINUOUS CONTACT W/ MOISTURE AND EXPOSED TO DEICING CHEMICALS	
S SULFATE	NOT APPLICABLE	S0	WATER SOLUBLE SULFATE (SO4) IN SOIL, PERCENT BY WEIGHT	
	MODERATE	S1	0.10 ≤ SO4 < 0.20	
	SEVERE	S2	0.20 ≤ SO4 ≤ 2.0	
	VERY SEVERE	S3	SO4 > 2.00	
P REQUIRED LOW PERMEABILITY	NOT APPLICABLE	P0	IN CONTACT W/ WATER WHERE LOW PERMEABILITY IS NOT REQUIRED	
	REQUIRED	P1	IN CONTACT W/ WATER WHERE LOW PERMEABILITY IS REQUIRED	
	NOT APPLICABLE	C0	CONCRETE DRY OR PROTECTED FROM MOISTURE	
C CORROSION PROTECTION OF REINFORCEMENT	MODERATE	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDE	
	SEVERE	C2	CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCE OF CHLORIDES FROM DEICING CHEMICALS, SALT, BRACKISH WATER, SEAWATER, OR SPRAY FROM THESE SOURCES	

ACI 318 TABLE 4.3.1 - REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS						
EXPOSURE CLASS	MAX W/C	MIN f _c	ADDITIONAL MINIMUM REQUIREMENTS			LIMITS OF CEMENTITIOUS MATERIALS
			AIR CONTENT			
F0	N/A	2500	N/A			N/A
F1	0.45	4500	PER TABLE 4.4.1 - ACI 318-08			N/A
F2	0.45	4500	PER TABLE 4.4.1 - ACI 318-08			N/A
F3	0.45	4500	PER TABLE 4.4.1 - ACI 318-08			PER TABLE 4.4.2 - ACI 318-08
CEMENTITIOUS MATERIALS - TYPES						CALCIUM CHLORIDE ADMIXTURE
			ASTM C150	ASTM C595	ASTM C1157	
S0	N/A	2500	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO TYPE RESTRICTION	
S1	0.50	4000	II 23	IP (MS) IS (<70) (MS)	MS	NO RESTRICTION
S2	0.45	4500	V 3	IP (HS) IS (<70) (HS)	HS	NOT PERMITTED
S3	0.45	4500	V PLUS POZZOLAN OR SLAG +	IP (HS) PLUS POZZOLAN OR SLAG + OR IS (<70) (HS) PLUS POZZOLAN OR SLAG +	HS PLUS POZZOLAN OR SLAG +	NOT PERMITTED
P0	N/A	2500	NONE			
P1	0.50	4000	NONE			
			MAXIMUM WATER SOLUBLE CHLORIDE ION (CL-) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT +		RELATED PROVISIONS	
			REINFORCED CONCRETE	PRESTRESSED CONCRETE		
C0	N/A	2500	1.00	0.06	NONE	
C1	N/A	2500	0.30	0.06		
C2	0.40	5000	0.15	0.06		
ACI 318, 7.7.6 & 18.16 +						
1. ALTERNATIVE COMBINATIONS OF CEMENTITIOUS MATERIALS OF THOSE LISTED IN TABLE 4.3.1 SHALL BE PERMITTED WHEN TESTED FOR SULFATE RESISTANCE AND MEETING THE CRITERIA IN 4.5.1.						
2. FOR SEAWATER EXPOSURE, OTHER TYPES OF PORTLAND CEMENTS WITH TRICALCIUM ALUMINATE (C3A) CONTENTS UP TO 10 PERCENT ARE PERMITTED IF THE W/CM DOES NOT EXCEED 0.40.						
3. OTHER AVAILABLE TYPES OF CEMENT SUCH AS TYPE III OR TYPE I ARE PERMITTED IN EXPOSURE CLASSES S1 OR S2 IF THE C3A CONTENTS ARE LESS THAN 8 OR 5 PERCENT, RESPECTIVELY.						
4. THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG TO BE USED SHALL NOT BE LESS THAN THE AMOUNT THAT HAS BEEN DETERMINED BY SERVICE RECORD TO IMPROVE SULFATE RESISTANCE WHEN USED IN CONCRETE CONTAINING TYPE V CEMENT. ALTERNATIVELY, THE AMOUNT OF THE SPECIFIC SOURCE OF THE POZZOLAN OR SLAG TO BE USED SHALL NOT BE LESS THAN THE AMOUNT TESTED IN ACCORDANCE WITH ASTM C1012 AND MEETING THE CRITERIA IN 4.5.1.						
5. WATER-SOLUBLE CHLORIDE ION CONTENT THAT IS CONTRIBUTED FROM THE INGREDIENTS INCLUDING WATER, AGGREGATES, CEMENTITIOUS MATERIALS, AND ADMIXTURES SHALL BE DETERMINED ON THE CONCRETE MIXTURE BY ASTM C1218 AT AGE BETWEEN 28 AND 42 DAYS.						
6. REQUIREMENTS OF 7.7.6 SHALL BE SATISFIED. SEE ACI 18.16 FOR UNBONDED TENDONS.						

CONCRETE

1. CONCRETE COMPRESSIVE STRENGTH: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AS SHOWN IN THE TABLE 2 BELOW AT 28 DAYS, U.N.O. ON PLANS. SEE ALSO CONCRETE EXPOSURE REQUIREMENTS SULFATE NOTES SECTION.
2. AGGREGATES IN CONCRETE: SHALL BE NATURAL SAND AND ROCK (150 LBCU FT) CONFORMING TO ASTM C33. AGGREGATE SHALL HAVE PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05% PER ASTM C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT WRITTEN CONSENT OF ENGINEER.
3. CEMENT: SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. CEMENT SHALL BE TYPE II OR AS REQUIRED TO SATISFY SITE SOIL CONDITIONS. REFER TO TABLE 2 FOR CONCRETE CEMENT REQUIREMENTS ON SOIL CONTAINING SULFATE. REFER TO TABLE 2 FOR MAXIMUM WATER TO CEMENT RATIO.

TABLE 2 - CONCRETE STRENGTH			
CONDITION	STRENGTH, f'c	WATER / CEMENT RATIO	MAX. SLUMP
SLAB ON GRADE	4,000 PSI	0.60	4' ± 1'
FOOTING & GRADE BM	4,000 PSI	0.60	6"
RETAINING WALL	4,000 PSI	0.60	4' ± 1'

4. REBAR CLEAR COVER IN CONCRETE: THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:
- | REBAR CLEAR COVER FOR CAST-IN-PLACE CONCRETE | |
|--|--------------------------|
| CONDITION | COVER |
| SLAB ON GRADE | CENTER OF SLAB OR 2" MIN |
| CONCRETE AGAINST & PERMANENTLY EXPOSED TO EARTH: | 3" |
| CONCRETE EXPOSED TO EARTH OR WEATHER: | 1 1/2" |
| WALL PANELS, SLABS, JOINTS: | 1" |
| OTHER MEMBERS: | 1 1/2" |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER: | 3/4" |
| BEAM, COLUMNS PRIMARY REINFORCEMENT: | 1 1/2" |
| BEAM, COLUMNS TIES, STIRRUPS, SPIRALS: | 1" |
5. VIBRATION: VIBRATION OF CONCRETE SHALL BE IN ACCORDANCE WITH GENERAL PROVISIONS OUTLINED IN PORTLAND CEMENT ASSOCIATION SPECIFICATION S726.
6. CURING: CONCRETE SHALL BE MAINTAINED AT IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER ITS PLACEMENT. FOR CONCRETE OTHER THAN SLAB ON GRADE, APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING. ONLY IF APPROVED BY THE ENGINEER.
7. INSPECTIONS, TESTING & QUALITY ASSURANCE: REFER TO SHEET S2 FOR DEPUTY SPECIAL INSPECTION, TESTING & STRUCTURAL OBSERVATION REQUIREMENTS. A MINIMUM OF ONE CONSTRUCTION TEST AT 7 DAYS AND 2 TESTS AT 28 DAYS FOR ALL CONCRETE SAMPLES. TAKE TEST AT A FREQUENCY OF ONCE EVERY 150 CU. YDS OR 5,000 SQ. FT. MINIMUM.
8. ANCHOR BOLTS, DOWELS, INSERTS: SHALL BE TIED IN PLACE PRIOR TO POURING CONCRETE.
9. CONSTRUCTION AND POUR JOINTS: LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO POURING CONCRETE.
10. FLY ASH: THE MAXIMUM CONTENT OF FLY ASH OR POZZOLANS CONFORMING TO ASTM C618 IN CONCRETE SHALL BE 25% AND SHALL BE GOVERNED BY ACI 318-08 TABLE 4.2.3.
11. FORMWORK: FORMWORK TOLERANCE SHALL IN ACCORDANCE WITH THE C.B.C. AND A.C.I. STANDARDS.
12. HOT AND COLD WEATHER CONCRETING:
- A. HOT WEATHER CONCRETING: WHEN AIR TEMPERATURE RISES ABOVE 80° F AND HUMIDITY FALLS BELOW 25, THE CONTRACTOR SHALL FOLLOW HOT WEATHER CONCRETING IN ACCORDANCE WITH ACI 305 5-77. CONTRACTOR SHALL BE PREPARED TO USE FOG SPRAY OR OTHER PRECAUTIONS WHEN RATE OF EVAPORATION EQUALS OR EXCEEDS 0.2 POUNDS PER SQUARE FOOT PER HOUR.
- B. COLD WEATHER CONCRETING: ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER. ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS FILLERS AND GROUND WITH WHICH THE CONCRETE IS TO CONTACT SHALL BE FREE FROM FROST, FROZEN MATERIAL OR MATERIALS CONTAINING ICE SHALL NOT BE USED. COLD WEATHER CONCRETING SHALL BE DONE IN ACCORDANCE WITH ACI 306 R-78. (LATEST EDITION)

13. PIPES IN CONCRETE: PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN THE STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
14. EXPOSED CORNERS: PROVIDE 3/4" CHAMFERS AT ALL EXPOSED CORNERS.
15. DRYPACK OR GROUT: SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AND BE COMPOSED OF ONE PART PORTLAND CEMENT TO NOT MORE THAN THREE PARTS SAND.

PROJECT DESIGN CRITERIA					
BUILDING CODE:		2013 CALIFORNIA BUILDING CODE			
LOCATION (LATITUDE / LONGITUDE):		32.732991°, -117.069165°			
OCCUPANCY CATEGORY:		II			
GEOTECHNICAL PARAMETERS:					
SOILS ENGINEER:		NOT PROVIDED			
ALLOWABLE SOIL BEARING PRESSURE:		2,000 PSF			
ALLOWABLE PASSIVE PRESSURE:		150 PSF			
GRAVITY DESIGN PARAMETERS: (PSF, SERVICE LOADS)					
	DEAD	ROOF LIVE	SNOW	LIVE	TOTAL
ROOF:	-	20	-	-	-

GENERAL NOTES

1. FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. PROMPTLY NOTIFY ARCHITECT (STRUCTURAL ENGINEER) IN CASE OF DISCREPANCIES.
2. DESIGN INTENT: CONTRACT DOCUMENTS INDICATE DESIGN INTENT FOR STRUCTURE IN ITS COMPLETED STATE. THEY DO NOT INDICATE METHOD OF CONSTRUCTION. PROMPTLY NOTIFY STRUCTURAL ENGINEER, PRIOR TO PROCEEDING WITH WORK. IF DESIGN INTENT REQUIRES FURTHER CLARIFICATION.
3. DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS TO APPROVED STRUCTURAL DRAWINGS: MUST BE ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER) AND APPROVED BY GOVERNING CODE AUTHORITY. NO DEVIATION, MODIFICATION OR SUBSTITUTION WILL BE ACCEPTED VIA SHOP DRAWING REVIEW.
4. PROCEDURES OF CONSTRUCTION: CONTRACTOR IS RESPONSIBLE FOR PROCEDURES OF CONSTRUCTION COMPLYING WITH NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. SITE VISITS INCLUDING STRUCTURAL OBSERVATION BY ARCHITECT (STRUCTURAL ENGINEER) DO NOT CONSTITUTE SUPERVISIONS OF METHODS OF CONSTRUCTION.
- A. PROTECTION OF UTILITIES: LOCATE EXISTING UTILITIES, INCLUDING THOSE NOT SHOWN ON CONTRACT DOCUMENTS, AND PROTECT THEM FROM DAMAGE. CONTRACTOR BEARS EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES IN CONJUNCTION WITH EXECUTION OF WORK.
- B. EXCAVATIONS: PROTECT STRUCTURE, ADJACENT STRUCTURES, ADJACENT PROPERTIES, STREETS, AND UTILITIES DURING EXCAVATION UTILIZING LAGGING, SHORING, UNDERPINNINGS AT SIDES AND RELATED PROCEDURES AS MAY BE REQUIRED. PROVIDE NECESSARY SUPPORTS FOR SOIL EXCAVATIONS.
- C. PROTECTION OF STRUCTURE: PROVIDE NECESSARY MEASURES TO PROTECT STRUCTURE DURING EXECUTION OF WORK.
- D. CONTRACTOR PROPOSED REVISIONS: WHERE A REVISION OF STRUCTURAL DESIGN OR CONNECTION IS PROPOSED BY CONTRACTOR TO ACCOMMODATE CONSTRUCTION TOLERANCES, CONSTRUCTION SEQUENCE AND/OR DIMENSION MODIFICATIONS, CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN STATE OF CALIFORNIA TO PERFORM DESIGN. SUBMIT STAMPED AND SIGNED DESIGN DRAWINGS AND CALCULATIONS TO THE STRUCTURAL ENGINEER FOR REVIEW AND THE GOVERNING CODE AUTHORITY FOR APPROVAL.
- E. ERECTION PLANS: DETERMINE PHASES OF WORK REQUIRING ERECTION PLANS ACCORDING TO APPLICABLE SAFETY REGULATIONS. MAINTAIN CERTIFIED COPIES OF ERECTION PLANS AT SITE DURING CONSTRUCTION.
- F. SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS: DESIGN AND ERECT SHORING, BRACING, AND OTHER TEMPORARY SUPPORTS WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH AND AS REQUIRED FOR SAFE ERECTION. ENSURE FLOOR, ROOF, AND WALL MEMBERS ARE SECURELY SHORED AND BRACED DURING CONSTRUCTION. PROVIDE SHORING AT ELEVATED BEAMS AND SLABS SUPPORTING CONCRETE OR MASONRY WALLS DURING AND AFTER WALL POUR UNTIL WALL ATTAINS DESIGN STRENGTH.
- G. TEMPORARY LOADING: ENSURE CONSTRUCTION LOADS DO NOT EXCEED INDICATED DESIGN LIVE LOAD VALUES. NOTIFY AFFECTED SUB-CONTRACTOR TRADES OF THESE DESIGN LOAD LIMITS.
- H. FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL: ENSURE STRESSES OCCURRING DURING FABRICATION, SHIPMENT, AND ERECTION OF STRUCTURAL STEEL ARE TEMPORARY AND ARE LESS THAN DESIGN AND ALLOWABLE STRESS CAPACITIES OF INDIVIDUAL MEMBERS. DO NOT IMPAIR PLANT DESIGN AND LOAD CARRYING CAPACITY OF MEMBERS DUE TO FABRICATION, SHIPMENT, OR ERECTION. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING ERECTION SEQUENCE, ERECTION PROCEDURE, TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE TO MINIMIZE RESIDUE STRESSES. PROVIDE ADDITIONAL MATERIALS FOR THE ERECTION OF STRUCTURAL STEEL, SUCH AS TEMPORARY BRACING AND GUY CABLES AS MAY BE NECESSARY AT NO ADDITIONAL COST. REMOVE THESE MATERIALS UNLESS APPROVED IN WRITING BY OWNER. DO NOT TIGHTEN BOLTS IN TYPICAL BEAM TO COLUMN CONNECTIONS FOR ERECTION PURPOSES.
- I. SECURING REINFORCING STEEL, DOWELS, ANCHOR BOLTS AND EMBERS: FIRMLY SUPPORT AND ACCURATELY PLACE CONFORMING WITH ACI STANDARDS PRIOR TO CASTING CONCRETE OR GROUT IN MASONRY WALLS. USE TIES AND SUPPORT BARS IN ADDITION TO REINFORCING STEEL SHOWN WHERE NECESSARY. NO WELDING OR REINFORCING STEEL, INCLUDING TACK WELDING, IS PERMITTED UNLESS OTHERWISE ACCEPTED IN WRITING BY STRUCTURAL ENGINEER. PROVIDE PLASTIC OR PLASTIC COATED CHAIRS AND SPACERS WHEN RESTING ON EXPOSED SURFACES.
5. SUBMITTALS: SUBMIT TO STRUCTURAL ENGINEER AS INDICATED ON STRUCTURAL DRAWINGS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL REVIEW SUBMITTAL FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS PRIOR TO SUBMISSION.
- A. REQUEST FOR INFORMATION (RFI) SUBMITTALS: ACCOMPANY RFIS WITH PARTIAL STRUCTURAL FOUNDATION OR FRAMING PLANS SHOWING LOCATION IN QUESTION AND AFFECTED STRUCTURAL MEMBERS. COPY PARTIAL PLAN FROM STRUCTURAL DRAWINGS AND INDICATE GRID LINE LOCATIONS AND FLOOR LEVEL. ALSO PROVIDE PROPERLY DRAWN ENGINEERING SKETCHES ILLUSTRATING ISSUES AND CONTRACTORS PROPOSED SOLUTIONS. PHOTOGRAPHS ARE NOT ACCEPTABLE SUBSTITUTES TO ENGINEERING SKETCHES.
7. CONTRACT DOCUMENTS USE: REVIEW CONTRACT DOCUMENTS IN THEIR ENTIRETY BEFORE PERFORMING STRUCTURAL RELATED WORK AND BEFORE DEVELOPING SHOP DRAWINGS. BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF STRUCTURAL ENGINEER BEFORE STARTING WORK.
- A. SCALING OF DRAWINGS: NOT PERMITTED.
- B. ADDITIONAL STRUCTURAL REQUIREMENTS: SEE SPECIFICATIONS.
- C. BUILDING GEOMETRY: SEE STRUCTURAL DRAWINGS FOR BUILDING GEOMETRY INCLUDING, BUT NOT LIMITED TO, TOP OF FLOOR AND ROOF ELEVATIONS, DEPRESSIONS, SLOPES, CURBS, DRAINS, TRENCHES, SLAB AND DECK EDGE LOCATIONS, WALL OVERALL DIMENSIONS, AND SIZE AND LOCATIONS OF OPENINGS IN FLOORS, ROOF AND WALLS.
8. PENETRATIONS, EMBEDMENTS, AND OPENINGS IN STRUCTURAL MEMBERS: NO PENETRATION, EMBEDMENT, OR OPENING SHALL OCCUR IN STRUCTURAL MEMBERS INCLUDING FOOTINGS, SLABS, WALLS, COLUMNS, AND BEAMS UNLESS SPECIFICALLY SHOWN OR INDICATED ON STRUCTURAL DRAWINGS.
9. TYPICAL DETAILS: DETAILS ON S5 SHEET ARE APPLICABLE THROUGHOUT PROJECT WHEREVER THE DESCRIBED CONDITION OCCURS AND MAY OR MAY NOT BE SPECIFICALLY REFERENCED ON STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THESE DETAILS AND UNDERSTANDING EXTENT OF THEIR APPLICATION PRIOR TO PERFORMING WORK.

PREPARED BY:

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DRAWN BY : SXL DATE : 07-2014

CHECKED BY : SXL DATE : 07-2014

APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

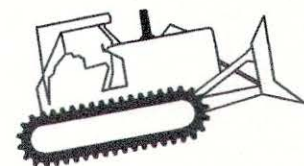
REGISTERED PROFESSIONAL ENGINEER
STRUCTURAL
STATE OF CALIFORNIA

NO. 50827
Exp. 03/01/16

DATE



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

DEPUTY SPECIAL INSPECTOR

1. DEPUTY SPECIAL INSPECTIONS SHALL BE PROVIDED BY:
- SOUTHWEST TESTING AND INSPECTION
JAY DRESNER
(602) 941-2690
2. SPECIAL INSPECTION SHALL BE HIRED BY THE OWNER TO PROVIDE SPECIAL INSPECTIONS AS REQUIRED PER THE PLANS.
3. SPECIAL INSPECTOR: A QUALIFIED PERSON, EMPLOYED BY THE OWNER, WHO HAS DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. DUTIES INCLUDE VISUAL INSPECTIONS AND FIELD MEASUREMENTS OF MATERIALS, OBTAINING SPECIMENS FOR TESTS AND RELATED ACTIONS INCLUDING PREPARATION OF REPORTS.
4. CONTINUOUS INSPECTION: ON SITE INSPECTION BY THE SPECIAL INSPECTOR ON A CONTINUOUS BASIS OBSERVING ALL WORK REQUIRING SPECIAL INSPECTION.
5. PERIODIC INSPECTION: INTERMITTENT INSPECTION AS PERMITTED BY THE PLAN, SPECIFIED AT PRE-DETERMINED INTERVALS OR MORE FREQUENTLY AS WORK PROGRESSES. NO SIGNIFICANT ELEMENTS OR AREAS SHALL BE COVERED BY ADDITIONAL WORK UNTIL APPROVED BY THE BUILDING OFFICIAL AND/OR SPECIAL INSPECTOR.
6. REPORTS SHALL BE SUBMITTED TO THE GOVERNING CODE AUTHORITY IN A TIMELY MANNER AS DETERMINED BY THE GOVERNING CODE AUTHORITY.

PROPRIETARY ANCHORAGES AND FASTENERS

1. ANCHORAGES:
- A. DRILL AND EPOXY ANCHORS: SIMPSON SET-XP EPOXY ADHESIVE SYSTEM USING THREADED STEEL RODS CONFORMING TO ASTM-F1554, GRADE 36, OR REINFORCING STEEL CONFORMING TO ASTM A615 OR A706, GRADE 60, COMPLYING WITH ICC ES ESR 2608. INSTALLERS TO BE CERTIFIED BY MANUFACTURER.
- B. MECHANICAL ANCHORS: HILTI KWIK BOLT-III CARBON STEEL EXPANSION ANCHORS COMPLYING WITH ICC ES REPORT NO. 1385.
- C. WELDED SHEAR STUDS: NELSON SSI FLUX FILLED, HEADED STUD ANCHORS, 60,000 PSI MINIMUM ULTIMATE TENSILE STRENGTH, AUTOMATICALLY END WELDED IN FIELD CONFIRMING TO ASTM A108 AND COMPLYING WITH ICC ES REPORT NO. 2614.
- D. WELDED DEFORMED ANCHORS: NELSON D2L, COLD ROLLED, DEFORMED STEEL REINFORCING BARS CONFORMING TO ASTM A496 AND COMPLYING WITH ICC ES REPORT NO. 5217.
2. FASTENERS:
- A. POWDER ACTUATED FASTENERS: HILTI XCP, COMPLYING WITH CURRENT ICC ES REPORT NO. 2379. PROVIDE APPROPRIATE WASHER BETWEEN FASTENER HEAD AND LIGHT GAUGE METAL OR WOOD SURFACE.
- B. SELF-DRILLING METAL SCREWS (INDICATED 'SCREWS' ON DRAWINGS): MINIMUM 0.292-INCH HEAD DIAMETER SELF-DRILLING/SELF-TAPPING STEEL SCREWS COMPLYING WITH ICC ES REPORT: MINIMUM YIELD STRESS, Fy=33 KSI.
3. INSTALLATION: SEE MANUFACTURERS WRITTEN INSTRUCTIONS AND REFERENCED ICC ES REPORT.
- A. MATERIALS NOT TO BE PENETRATED BY FASTENERS OR ANCHORAGES: POST-TENSIONED CONCRETE AND PRECAST, PRESTRESSED CONCRETE UNLESS SPECIFICALLY DETAILED HEREIN OR AS ACCEPTED IN WRITING BY ARCHITECT (STRUCTURAL ENGINEER). WHEN INSTALLATION IS PERMITTED, LOCATE PRESTRESSING AND POST-TENSIONED TENDONS ACCURATELY PRIOR TO INSTALLATION.
- B. DRILLING HOLES IN EXISTING CONCRETE OR MASONRY FOR ANCHORAGES: USE NON-PNEUMATIC, RATARY HAMMER TOOLS WITH ANSI COMPLIANT NON-REBAR CUTTING DRILL BITS TO DRILL HOLES OF PROPER TOLERANCES. LOCATE EXISTING REBAR INCLUDING PRESTRESSING AND POST-TENSIONING TENDONS USING NON-HAZARDOUS, NONDESTRUCTIVE 1 METHODS WITH ACCURATE LOCATION TOLERANCES (PLUS OR MINUS 1/8" PRIOR TO DRILLING 4 HOLES TO AVOID CUTTING OR DAMAGING. HOLES SHALL BE THOROUGHLY CLEANED PER MANUFACTURERS WRITTEN RECOMMENDATIONS PRIOR TO INSTALLATION OF ANCHORAGES.
- C. DELETERIOUS MATERIALS: KEEP ANCHORAGES, INCLUDING HOLES FOR DRILL AND EPOXY ANCHORS AND MECHANICAL ANCHORS, FREE OF DUST, GREASE, AND OTHER MATERIALS THAT IMPAIR BOND.
4. TESTING FOR DRILL AND EPOXY ANCHORS:
- A. SPECIAL INSPECTION: SPECIAL INSPECTOR WILL PERFORM CONTINUOUS SPECIAL INSPECTION DURING INSTALLATION.

ENGINEER OF RECORD STRUCTURAL OBSERVATION REQUIREMENTS	
STRUCTURAL OBSERVATIONS FOR SEISMIC RESISTANCE:	
STRUCTURAL OBSERVATIONS SHALL BE PROVIDED BY THE ENGINEER OF RECORD FOR STRUCTURES IN SEISMIC DESIGN CATEGORIES D, E, F WHEN THE FOLLOWING CONDITIONS EXIST:	
1. STRUCTURE IS CLASSIFIED AS OCCUPANCY CATEGORY III OR IV.	
2. THE HEIGHT OF THE STRUCTURE IS GREATER THAN 75 FT.	
3. THE STRUCTURE IS ASSIGNED TO SEISMIC DESIGN CATEGORY E, IS CLASSIFIED AS OCCUPANCY CATEGORY I OR II AND IS GREATER THAN TWO STORIES IN HEIGHT.	
4. WHEN DESIGNATED BY THE ENGINEER OF RECORD.	
5. WHEN REQUIRED BY THE BUILDING OFFICIAL.	
STRUCTURAL OBSERVATIONS FOR WIND RESISTANCE:	
STRUCTURAL OBSERVATIONS SHALL BE PROVIDED BY THE ENGINEER OF RECORD FOR STRUCTURES WHERE THE BASIC WIND SPEED EXCEEDS 110 WHERE ONE OR MORE OF THE FOLLOWING EXIST:	
1. STRUCTURE IS CLASSIFIED AS OCCUPANCY CATEGORY III OR IV.	
2. THE BUILDING HEIGHT IS GREATER THAN 75 FT.	
3. WHEN DESIGNATED BY THE ENGINEER OF RECORD.	
4. WHEN REQUIRED BY THE BUILDING OFFICIAL.	

QUALITY ASSURANCE (STRUCTURAL OBSERVATION, MATERIALS TESTING, AND SPECIAL INSPECTION).

1. STRUCTURAL OBSERVATION:
- A. COORDINATION RESPONSIBILITIES OF CONTRACTOR: NOTIFY STRUCTURAL ENGINEER 48 HOURS IN ADVANCE OF CRITICAL STAGES OF CONSTRUCTION INDICATED BELOW. SO VISITS MAY BE SCHEDULED BY STRUCTURAL OBSERVER. FAILURE BY CONTRACTOR TO MEET OBSERVATION SCHEDULE MAY REQUIRE REMOVAL OF SUBSEQUENT WORK FOR OBSERVATION. CONTRACTOR TO BEAR COSTS OF REMOVAL AND REPLACEMENT OF FINISHED WORK OR FRAMING DAMAGED BY REMOVAL. PROCESS OR AS REQUIRED FOR CORRECTIVE ACTION.
- B. PRE-CONSTRUCTION MEETING: OWNER MAY COORDINATE AND CALL FOR MEETING BETWEEN STRUCTURAL ENGINEER RESPONSIBLE FOR STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND SPECIAL INSPECTOR. STRUCTURAL OBSERVER WILL PRESIDE OVER THIS MEETING. PURPOSE OF MEETING IS TO IDENTIFY MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT VERTICAL AND LATERAL LOAD RESISTING SYSTEMS OF STRUCTURE AND TO REVIEW SCHEDULE OF STRUCTURAL OBSERVATION, MATERIALS TESTING, AND SPECIAL INSPECTION OF PROJECT.
- C. CRITICAL STAGES OF CONSTRUCTION REQUIRING STRUCTURAL OBSERVATION:
- i. CASTING OF FIRST CONCRETE FOOTING.
- ii. FRAMING & PRE-CONCRETE POUR REBAR OBSERVATIONS.
2. MILL TEST REPORTS CERTIFYING MATERIALS: CONTRACTOR TO SUBMIT MILL TEST REPORTS CERTIFYING REINFORCING STEEL, STRESSING TENDONS, AND STRUCTURAL STEEL ARE OF IDENTIFIABLE TESTED STOCK TO OWNER, SPECIAL INSPECTOR, ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. ENSURE MATERIALS ARE PROPERLY TAGGED FOR IDENTIFICATION. IF MILL TEST REPORTS CANNOT BE MADE AVAILABLE OR IF MATERIAL CANNOT BE IDENTIFIED, TESTING LABORATORY WILL PERFORM TESTS AS DIRECTED BY ARCHITECT (STRUCTURAL ENGINEER). CONTRACTOR SHALL PAY TESTING RELATED TO TESTS AND INSPECTIONS OF UNIDENTIFIABLE MATERIALS FURNISHED WITHOUT MILL. LABORATORY FOR COSTS TEST REPORTS, MATERIALS FOUND DEFICIENT AFTER INITIAL TESTS AND INSPECTIONS, OR MATERIALS REPLACING DEFICIENT MATERIALS.
- A. CERTIFICATE OF COMPLIANCE FOR OFFSITE FABRICATION: SUBMIT FOR STRUCTURAL STEEL IN COMPLIANCE WITH APPLICABLE CODE SECTION 1701.7. SUBMIT TO OWNER, TESTING LABORATORY, STRUCTURAL ENGINEER AND GOVERNING CODE AUTHORITY.
3. WELD TESTING AND INSPECTION: TESTING LABORATORY WILL SUBMIT WELD TEST RESULTS TO OWNER, CONTRACTOR, ARCHITECT (STRUCTURAL ENGINEER) AND, UPON REQUEST, TO GOVERNING CODE AUTHORITY. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS NOT INDICATED ON STRUCTURAL DRAWINGS.
- A. STRUCTURAL STEEL WELDING: APART FROM VISUAL INSPECTION AND REVIEW OF FABRICATION AND ERECTION REPORTS OF FABRICATOR/ERECTOR'S OWN QUALITY CONTROL, TESTING AND INSPECTION, OWNERS TESTING LABORATORY WILL PERFORM INDICATED SHOP AND FIELD INSPECTION AND TESTING. TESTING LABORATORY WILL BE AWS Q.C.-1 CERTIFIED AND WILL PROVIDE INSPECTORS FOR CONTINUOUS INSPECTION OF STEEL FABRICATION AND ERECTION AND STRUCTURAL WELDING. SHOP AND FIELD TESTING OF MATERIALS AND WELDING WILL BE AS FOLLOWS:
- i. WELDS SHALL BE VISUALLY INSPECTED AND PERIODICALLY MEASURED (15 PERCENT MINIMUM).
- ii. CHECK 10 PERCENT OF FILLET WELDS BY MAGNETIC PARTICLE (ASTM 109 METHOD). CHECK 25 PERCENT OF CONTINUITY PLATE FILLET WELDS AND BEAM FILLET WELDS (100 PERCENT IN MOMENT ZONES) BY MAGNETIC PARTICLE.
- iv. AMPERAGE, VOLTAGE, POLARITY AND ELECTRODE STOCK OUT WILL BE VERIFIED FOR COMPLIANCE WITH ELECTRODE MANUFACTURERS RECOMMENDATIONS.
5. CONTINUOUS SPECIAL INSPECTION: UNLESS OTHERWISE INDICATED, CONTINUOUS SPECIAL INSPECTION WILL BE PERFORMED BY SPECIAL INSPECTOR COMPLYING WITH APPLICABLE CODE SECTION 1701 AND SPECIFICALLY APPROVED BY GOVERNING CODE AUTHORITY FOR EACH INSPECTION CATEGORY BELOW. PERIODIC INSPECTION IS NOT PERMITTED UNLESS INDICATED IN THE PROGRAM OR OTHERWISE ACCEPTED BY STRUCTURAL ENGINEER. SEE SPECIFICATIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS. REFER TO THE YES/NO BOX BELOW IN THE PROGRAM FOR APPLICABILITY OF EACH ITEM TO THIS PROJECT.

SPECIAL INSPECTION PROGRAM PER SECTION 1704																													
REQUIRED VERIFICATIONS AND INSPECTIONS OF SEISMIC RESISTANCE - SECTION 1707					REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION - TABLE 1704.4					MASONRY LEVEL 2 INSPECTION REQUIREMENTS (CCC CATEGORY IV BUILDINGS) - TABLE 1704.5.3					REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION - TABLE 1704.3														
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION TASK		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION TASK		CONTINUOUS	PERIODIC	Yes	No						
1. SEISMIC FORCE RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F												1. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.									1. MATERIAL VERIFICATION OF H-STRENGTH BOLTS, NUTS AND WASHERS:								
2. DESIGNATED SEISMIC SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, F:												2. VERIFICATION OF Fm AND FAAC PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SQUARE FEET DURING CONSTRUCTION.									A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.								
A. STRUCTURAL STEEL: REQUIRED IN ACCORDANCE WITH QUALITY ASSURANCE PLAN OF AISC 341.												3. VERIFICATION OF PROPORTIONS OF MATERIALS ON PREMIXED OR PREBLENDED MORTAR AND GROUT AS DELIVERED TO THE SITE.									B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.								
EXCEPT AT:												4. VERIFICATION OF SLUMP, FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT.									2. INSPECTION OF HIGH-STRENGTH BOLTING:								
i.a. STEEL STRUCTURES IN CATEGORY C WITH R = 3 EXCLUDING CANTILEVERED COLUMN SYSTEMS												5. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:									A. SNUG-TIGHT JOINTS								
i.b. ORDINARY MOMENT FRAMES, ULTRASONIC AND MAGNETIC PARTICLE TESTING OF CIP WELDS ARE ONLY REQUIRED AT DEMAND CRITICAL WELDS.												A. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.									B. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH-MARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.								
B. STRUCTURAL WOOD:												B. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS.									C. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCH-MARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.								
I. GLUING OPERATIONS OF SEISMIC RESISTING SYSTEM												C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGE									3. MATERIAL VERIFICATION OF STRUCTURAL STEEL & COLD-FORM DECK								
II. NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS OF THE SEISMIC RESISTING SYSTEM INCLUDING: WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS.												D. GROUT SPACE PRIOR TO GROUTING									A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.								
EXCEPTION: NOT REQUIRED AT SHEAR WALLS, DIAPHRAGMS INCLUDING NAILING, BOLTING, ANCHORING TO OTHER MEMBERS OF THE SEISMIC SYSTEM WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4" O.C.												E. PLACEMENT OF GROUT									B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.								
C. COLD-FORMED STEEL FRAMING: INSPECTION OF WELDING OF SEISMIC RESISTING SYSTEM, SCREW ATTACHMENT, BOLTING, ANCHORING, AND FASTENING OF ITEMS IN SEISMIC RESISTING SYSTEM, INCLUDING STRUTS, BRACES, AND HOLD-DOWNS.												F. PLACEMENT OF PRESTRESSING GROUT.									C. MANUFACTURER'S CERTIFIED MILL TEST REPORTS.								
EXCEPT: IF SHEATHING IS GYPSUM OR FIBERBOARD, OR IF SHEATHING IS WOOD STRUCTURAL PANEL OR STEEL SHEETS ON ONE SIDE WITH FASTENERS MORE THAN 4" O.C.												G. SIZE AND LOCATION OF STRUCTURAL ELEMENTS									4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:								
E. STORAGE RACKS AND ACCESS FLOORS: REQUIRED DURING ANCHORAGE OF ACCESS FLOORS AND STORAGE RACKS 8 FEET OR HIGHER IN SEISMIC DESIGN CATEGORY D, E, F.												H. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTR.									A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS								
F. ARCHITECTURAL COMPONENTS: REQUIRED DURING ERECTION & FASTENING OF EXTERIOR CLADDING, INTERIOR & EXTERIOR NON-BEARING WALLS, VENEER IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, F.												I. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, PRESTRESSING TENDONS AND ANCHORAGES.									B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.								
EXCEPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR:												J. WELDING OF REINFORCING BARS.									5. INSPECTION OF WELDING:								
1. EXTERIOR CLADDING, NON-BEARING WALLS & VENEER 30FT OR LESS ABOVE GROUND												K. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)									A. STRUCTURAL STEEL:								
2. CLADDING & VENEER WEIGHING 5 PSF OR LESS.												L. APPLICATION AND MEASUREMENT OF PRESTRESS FORCE.									(1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS								
3. INTERIOR NON-BEARING WALLS WEIGHING 15 PSF OR LESS.												M. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.									(2) MULTIPASS FILLET WELDS.								
G. ELECTRICAL AND MECHANICAL COMPONENTS:												MASONRY INSPECTION EXCEPTIONS: (1704.5) SPECIAL INSPECTION IS NOT REQUIRED FOR:									(3) SINGLE-PASS FILLET WELDS > 5/16"								
I. ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F.												1. EMPIRICALLY DESIGNED MASONRY, GLASS UNIT MASONRY, OR MASONRY VENEER WHEN THEY ARE PART OF STRUCTURES CLASSIFIED AS OCCUPANCY CATEGORY I, II, III.									(4) PLUG AND SLOT WELDS								
II. INSTALLATION OF ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F.												2. MASONRY FOUNDATION WALLS CONSTRUCTED PER TABLES 1807.1.6.3(1), (2), (3) OR (4)									(5) SINGLE-PASS FILLET WELDS ≤ 5/16"								
III. INSTALLATION OF PIPING SYSTEMS INTENDED TO CARRY FLAMMABLE, COMBUSTIBLE OR HIGHLY TOXIC CONTENTS AND THEIR ASSOCIATED MECHANICAL UNITS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F.												3. MASONRY FIREPLACES, MASONRY HEATERS OR MASONRY CHIMNEYS.									B. FLOOR AND ROOF DECK WELDS								
IV. INSTALLATION OF HVAC DUCTWORK THAT WILL CONTAIN HAZARDOUS MATERIALS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F.												REQUIRED VERIFICATION AND INSPECTION OF MISCELLANEOUS ITEMS					CONTINUOUS	PERIODIC	Yes	No	B. REINFORCING STEEL:								
V. INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT.												1. INSPECTOR SHALL INSPECT WOOD HIGH LOAD DIAPHRAGMS PER TABLE 2306.3.2. CHECK PANEL GRADE, THICKNESS, MEMBERS SIZES AT ADJOINING PANEL EDGES & NAILS OR STAPLES.									(1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706								
I. SEISMIC ISOLATION SYSTEM: FABRICATION AND INSTALLATION OF ISOLATOR UNITS AND ENERGY DISSIPATION DEVICES THAT ARE PART OF THE SEISMIC ISOLATION SYSTEM.												2. SPRAYED FIRE RESISTANT MATERIALS PER 1704.10									(2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OR SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.								
REQUIRED VERIFICATION AND INSPECTION OF SOILS - TABLE 1704.7																													
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No	VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	Yes	No						
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.												1. INSPECTOR SHALL INSPECT WOOD HIGH LOAD DIAPHRAGMS PER TABLE 2306.3.2. CHECK PANEL GRADE, THICKNESS, MEMBERS SIZES AT ADJOINING PANEL EDGES & NAILS OR STAPLES.									6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:								
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.												2. SPRAYED FIRE RESISTANT MATERIALS PER 1704.10									A. DETAILS SUCH AS BRACING AND STIFFENING								
3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS												6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:									B. MEMBER LOCATIONS								
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.												7. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.									C. APPLICATION OF JOIST DETAILS AT EACH CONNECTION								
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.												SOILS INSPECTION EXCEPTIONS: (1704.7)									STRUCTURAL STEEL INSPECTION & EXCEPTIONS: (1704.2 & 1704.3)								
1. SPECIAL INSPECTION IS NOT REQUIRED DURING PLACEMENT OF CONTROLLED FILL HAVING A TOTAL DEPTH OF 12" OR LESS.												1. SPECIAL INSPECTIONS AS NOTED IN THE TABLE ABOVE ARE NOT REQUIRED WHERE THE WORK IS PERFORMED ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.									2. SPECIAL INSPECTION OF THE STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR DOES NOT PERFORM ANY WELDING, THERMAL CUTTING OR HEATING OPERATION OF ANY KIND AS PART OF THE FABRICATION PROCESS. IN SUCH CASES, THE FABRICATOR SHALL BE REQUIRED TO SUBMIT A DETAILED PROCEDURE FOR MATERIAL CONTROL THAT DEMONSTRATES THE FABRICATOR'S ABILITY TO MAINTAIN SUITABLE RECORDS AND PROCEDURES SUCH THAT AT ANY TIME DURING THE FABRICATION PROCESS, THE MATERIAL SPECIFICATION, GRADE AND MILL TEST REPORTS FOR THE MAIN STRESS-CARRYING ELEMENTS ARE CAPABLE OF BEING DETERMINED.								
2. SPECIAL INSPECTION OF THE STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR DOES NOT PERFORM ANY WELDING, THERMAL CUTTING OR HEATING OPERATION OF ANY KIND AS PART OF THE FABRICATION PROCESS. IN SUCH CASES, THE FABRICATOR SHALL BE REQUIRED TO SUBMIT A DETAILED PROCEDURE FOR MATERIAL CONTROL THAT DEMONSTRATES THE FABRICATOR'S ABILITY TO MAINTAIN SUITABLE RECORDS AND PROCEDURES SUCH THAT AT ANY TIME DURING THE FABRICATION PROCESS, THE MATERIAL SPECIFICATION, GRADE AND MILL TEST REPORTS FOR THE MAIN STRESS-CARRYING ELEMENTS ARE CAPABLE OF BEING DETERMINED.												3. THE SPECIAL INSPECTOR NEED NOT BE CONTINUOUSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE MATERIALS, WELDING PROCEDURES, AND QUALIFICATIONS OF WELDERS ARE VERIFIED PRIOR TO START OF THE WORK. PERIODIC INSPECTIONS ARE MADE OF THE WORK IN PROGRESS, AND A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO COMPLETION OR PRIOR TO SHIPMENT OF SHOP WELDING.									3.1 SINGLE PASS FILLET WELDS NOT EXCEEDING 1/4" IN SIZE.								
3. THE SPECIAL INSPECTOR NEED NOT BE CONTINUOUSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE MATERIALS, WELDING PROCEDURES, AND QUALIFICATIONS OF WELDERS ARE VERIFIED PRIOR TO START OF THE WORK. PERIODIC INSPECTIONS ARE MADE OF THE WORK IN PROGRESS, AND A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO COMPLETION OR PRIOR TO SHIPMENT OF SHOP WELDING.												4. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL WELDING DURING FABRICATION AND ERECTION OF BUILDINGS OVER 160 FEET IN HEIGHT WITH STRUCTURAL STEEL MOMENT RESISTING FRAMES.									3.2 FLOOR AND ROOF DECK WELDING								
4. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL WELDING DURING FABRICATION AND ERECTION OF BUILDINGS OVER 160 FEET IN HEIGHT WITH STRUCTURAL STEEL MOMENT RESISTING FRAMES.																					3.3 WELDED STUDS WHEN USED FOR STRUCTURAL DIAPHRAGM								
																					3.4 WELDED SHEET STEEL FOR COLD-FORMED STEEL FABRICATION MEMBERS SUCH AS STUDS OR JOISTS.								
																					3.5 WELDING OF STAIRS AND RAILING SYSTEMS.								

PREPARED BY:

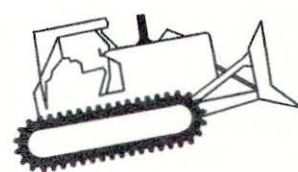


DESIGNED BY : SXL SCALE : AS SHOWN
DRAWN BY : SXL DATE : 07-2014
CHECKED BY : SXL DATE : 07-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



SOUTH CHOLLAS
SANITARY LANDFILL

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

SPECIAL INSPECTION
NOTES

APPROVAL: 10-7-14
FOR CITY ENGINEER DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
STRUCTURAL PLANS				

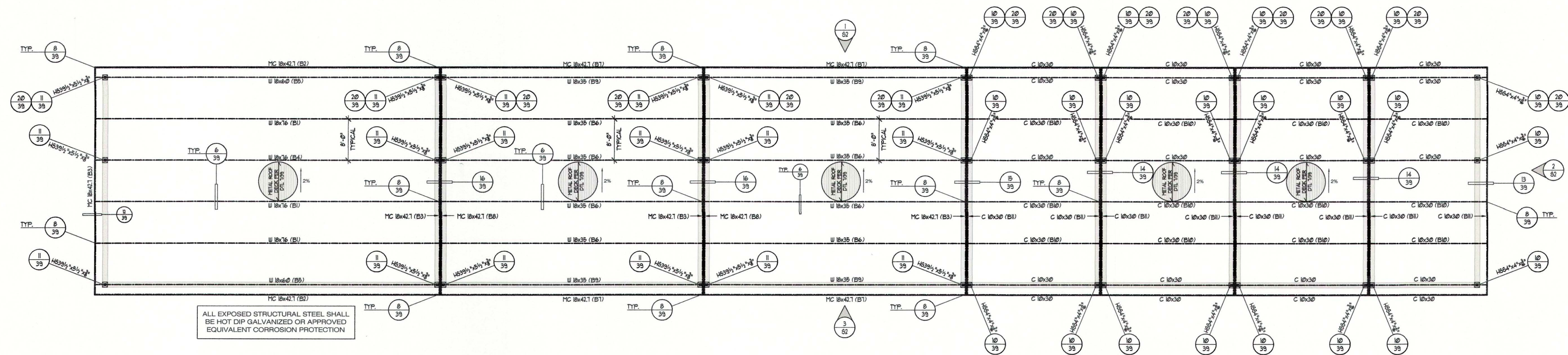
CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

S2

SUBMITTED BY: SHANE LOTHROP
PROJECT MANAGER
CHECKED BY: SHAWN LOTHROP, SE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

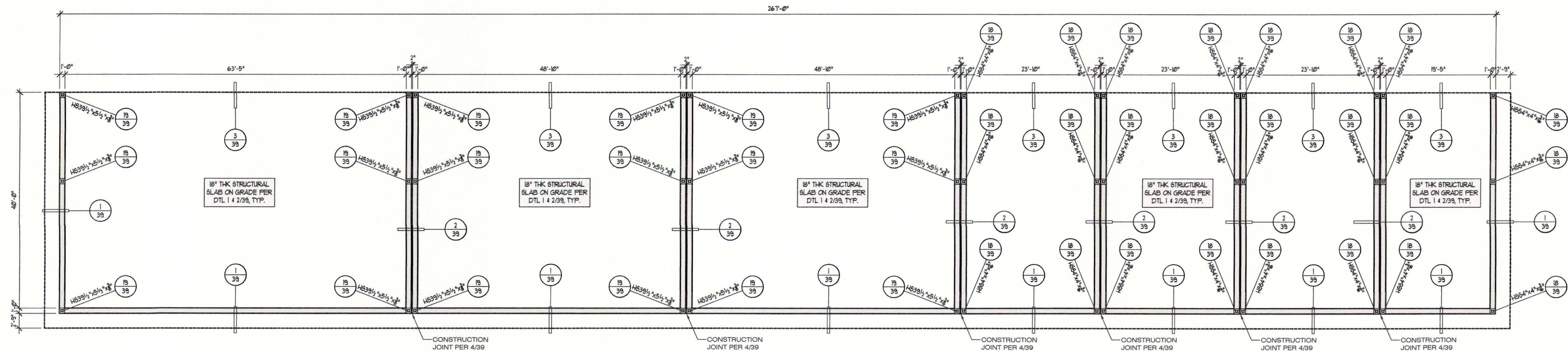
1807-0201
NAD83 COORDINATE

38158-36



ROOF FRAMING PLAN

SCALE: 3/32" = 1'-0". DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED.



FOUNDATION & RETAINING WALL PLAN

SCALE: 3/32" = 1'-0". DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS. ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED.

PREPARED BY:
ISE INNOVATIVE STRUCTURAL ENGINEERING
 29970 TECHNOLOGY DR
 SUITE 212
 MURRIETA, CA 92563
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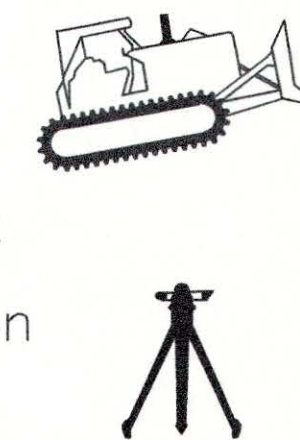
DESIGNED BY : SXL SCALE : AS SHOWN
 DRAWN BY : SXL DATE : 07-2014
 CHECKED BY : SXL DATE : 07-2014
 APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:

 DATE:



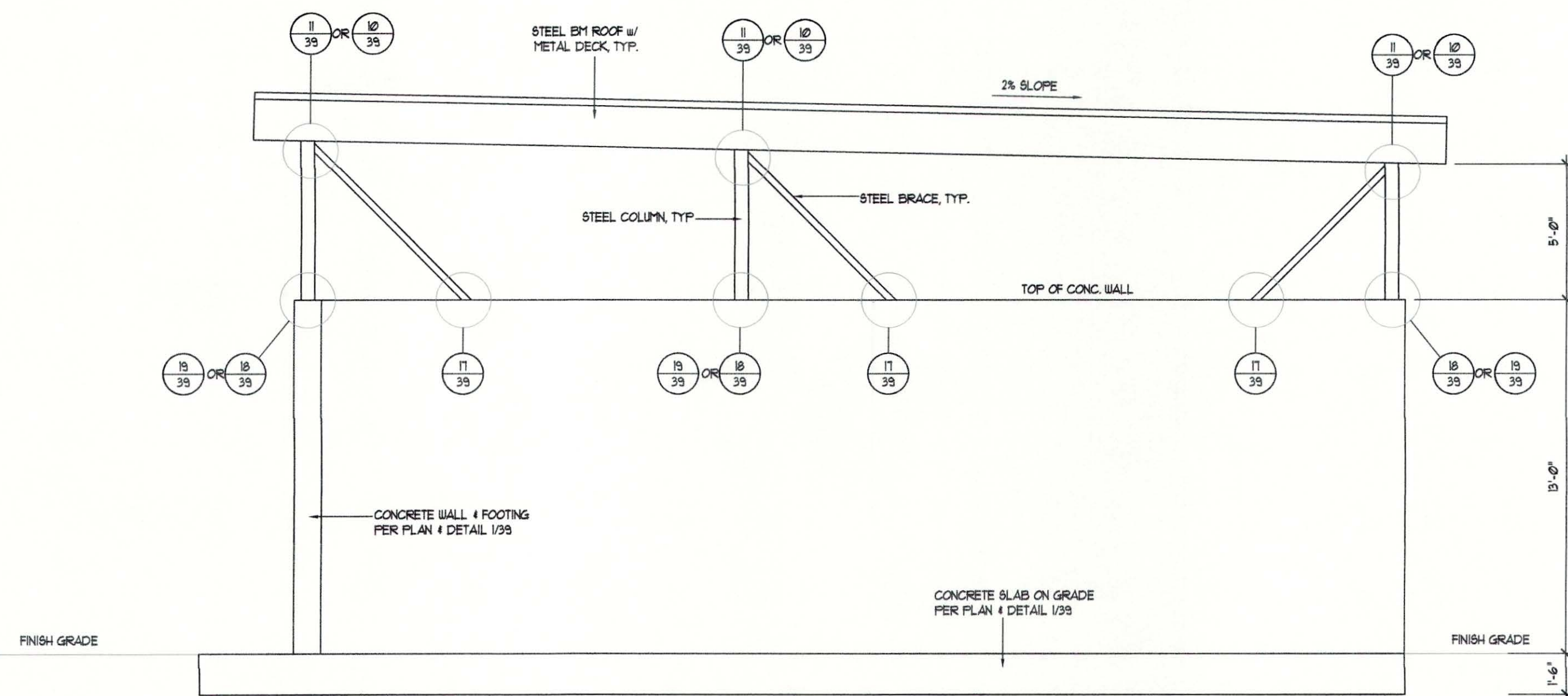
City of San Diego, California
 Environmental Services Department
 Waste Reduction and Disposal Division



**SOUTH CHOLLAS
 SANITARY LANDFILL**

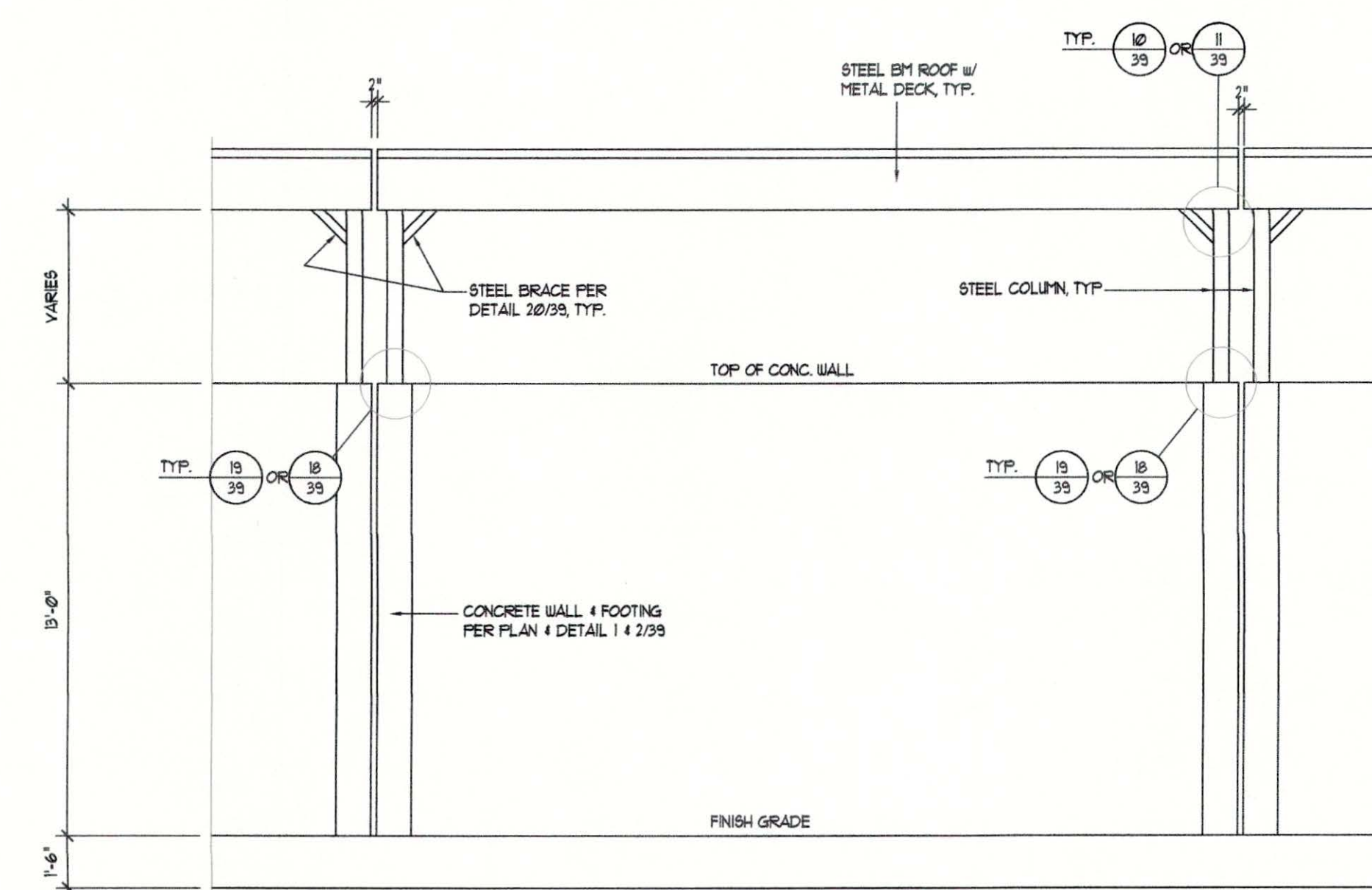
6000 Block Of College Grove Drive
 SAN DIEGO, CA 92105

FOUNDATION & FRAMING PLANS SHEET 37 OF 41 SHEETS					S3
SUBMITTED BY: SHAWN LOTHROP PROJECT MANAGER CHECKED BY: SHAWN LOTHROP, SE PROJECT ENGINEER SYLVIA CASTILLO SENIOR CIVIL ENGINEER WBS S-00684					1887-6281 NAD83 COORDINATE 38158-37-D
APPROVAL: FOR CITY ENGINEER DATE: 10-7-14					
DESCRIPTION	BY	APPROVED	DATE	FILMED	
STRUCTURAL PLANS	BY				
CONTRACTOR: DATE STARTED: DATE COMPLETED:					



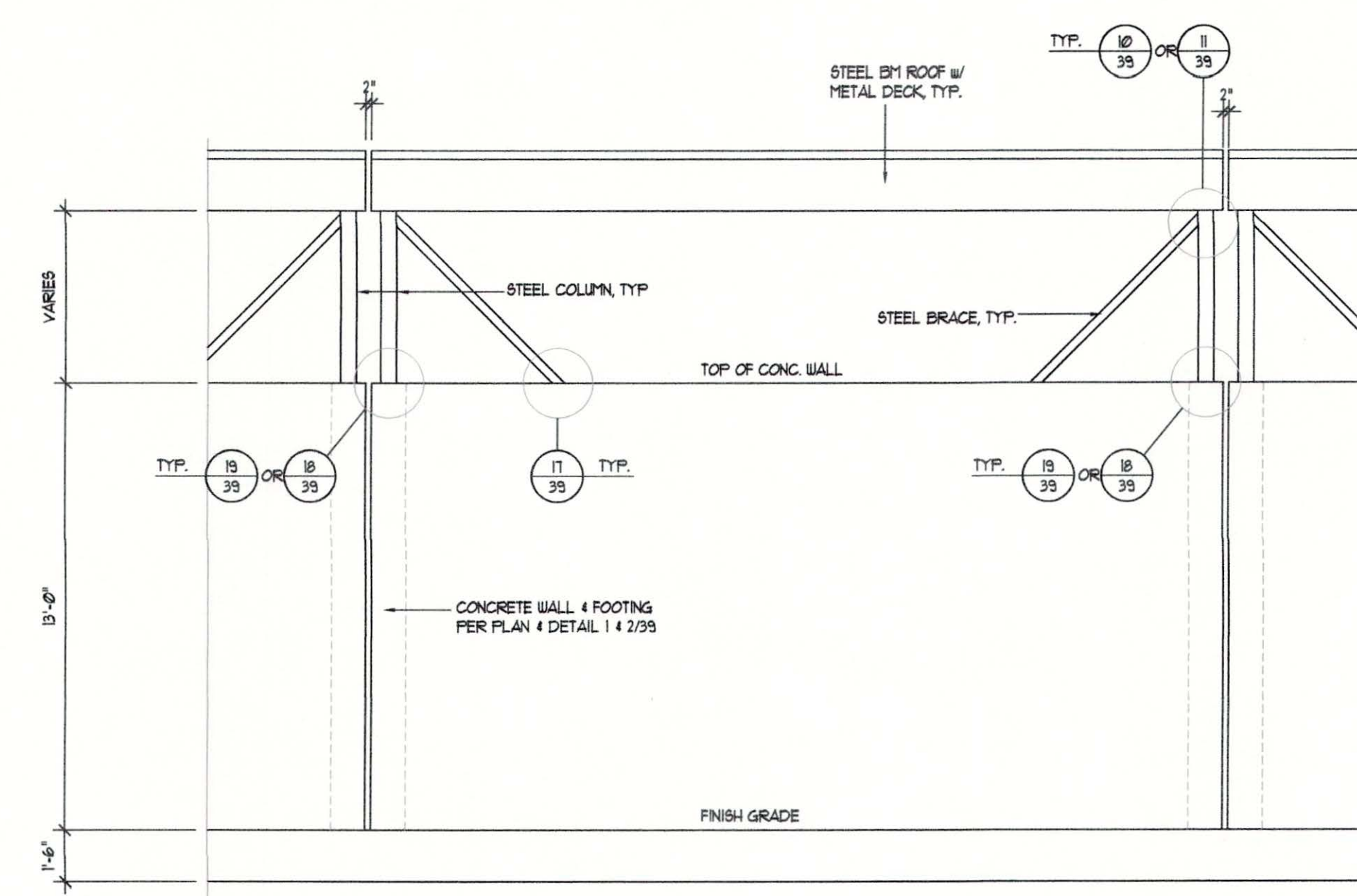
TYPICAL SIDE ELEVATION 2

SCALE: 1/4" = 1'-0". DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED.



TYPICAL PARTIAL FRONT ELEVATION 1

SCALE: 1/4" = 1'-0". DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED.



TYPICAL PARTIAL REAR ELEVATION 3

SCALE: 1/4" = 1'-0". DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
ALL CONSTRUCTION DIMENSIONS SHOULD BE VERIFIED.

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www.innovativestructuraleng.com

DESIGNED BY : SXL SCALE : AS SHOWN
DRAWN BY : SXL DATE : 07-2014
CHECKED BY : SXL DATE : 07-2014
APPROVED BY : DATE :

PREPARED UNDER THE SUPERVISION OF:
SHAWN LOTHROP, SE
REGISTERED PROFESSIONAL ENGINEER
No. S5827
Exp. 6/30/16
STRUCTURAL
STATE OF CALIFORNIA

DATE :



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS
SANITARY LANDFILL**
6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

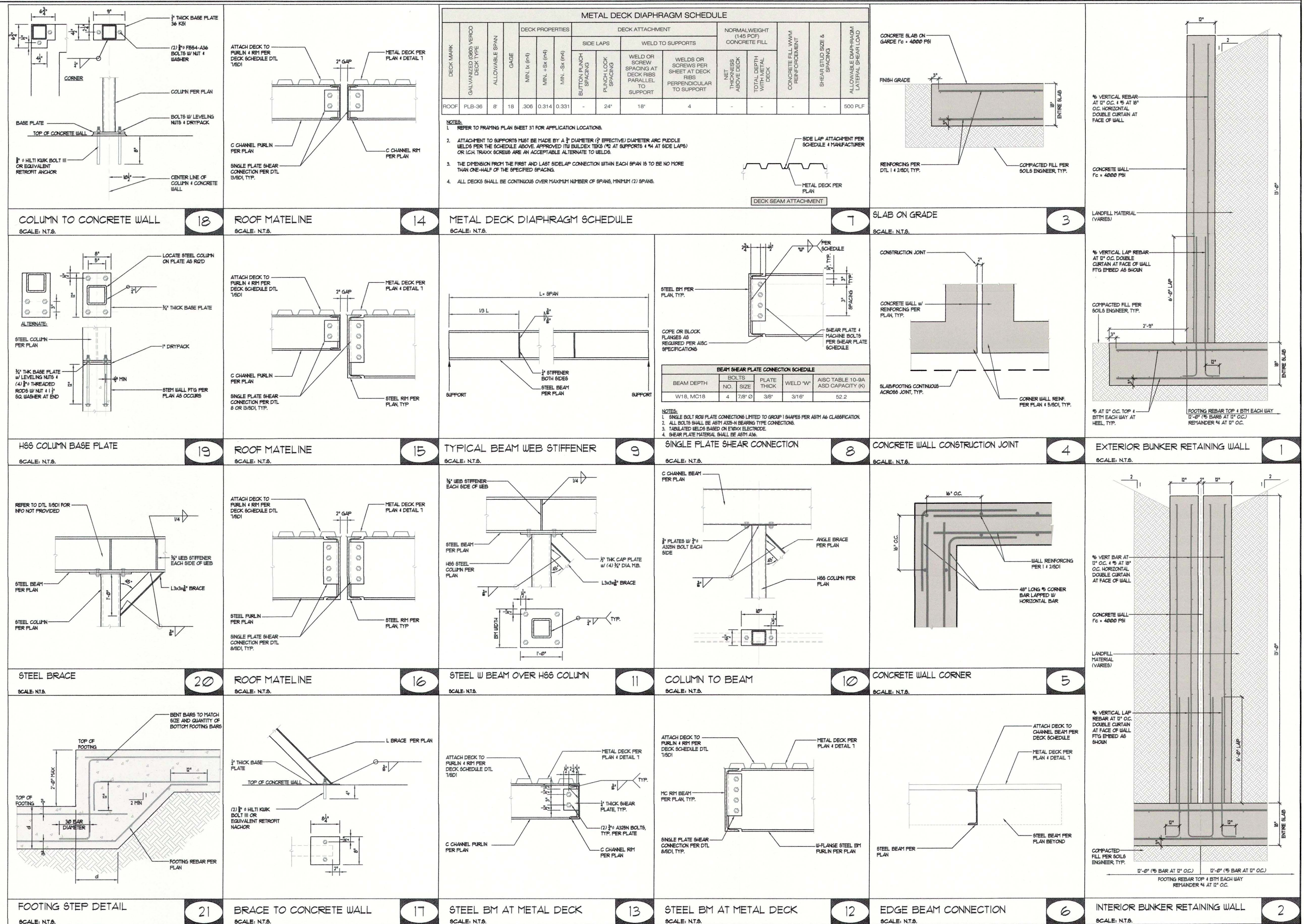
STRUCTURAL ELEVATIONS				
SHEET 38 of 41 SHEETS				
APPROVED:	FOR CITY ENGINEER	DATE	FILED	
DESCRIPTION	BY	APPROVED	DATE	FILED
STRUCTURAL PLANS	38			
CONTRACTOR:	DATE STARTED:			
INSPECTOR:	DATE COMPLETED:			

S4

SUBMITTED BY: SHANE LOTHROP
PROJECT MANAGER
CHECKED BY: SHAWN LOTHROP, SE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS 5-00684

1887-6281
NAD83 COORDINATE

38158-38-D



PREPARED BY:

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DESIGNED BY: SXL SCALE: AS SHOWN
DRAWN BY: SXL DATE: 07-2014
CHECKED BY: SXL DATE: 07-2014
APPROVED BY: DATE:

PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER

SHAWN D. LOTHROP
No. 93627
Exp. 6/30/16
STATE OF CALIFORNIA

DATE:



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS
SANITARY LANDFILL**

6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

STRUCTURAL DETAILS

SHEET 39 OF 41 SHEETS

APPROVED: *[Signature]* FOR CITY ENGINEER
DATE: 10-7-14

DESCRIPTION	BY	APPROVED	DATE	FILED
STRUCTURAL PLANS				

CONTRACTOR: DATE STARTED: DATE COMPLETED:

INSPECTOR: DATE COMPLETED:

S5

SUBMITTED BY: SHANE LOTHROP
PROJECT MANAGER
CHECKED BY: SHAWN LOTHROP, SE
PROJECT ENGINEER
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SENIOR CIVIL ENGINEER
WBS S-00864

1987-6281
NAD83 COORDINATE

38158-39-D

CONCRETE

1. CONCRETE COMPRESSIVE STRENGTH: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AS SHOWN IN THE TABLE 2 BELOW AT 28 DAYS, U.N.O. ON PLANS. SEE ALSO CONCRETE EXPOSURE REQUIREMENTS SULFATE NOTES ON SHEET 35.
2. AGGREGATES IN CONCRETE: SHALL BE NATURAL SAND AND ROCK (150 LB/CU. FT) CONFORMING TO ASTM C33. AGGREGATE SHALL HAVE PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.04% PER ASTM C-157. DO NOT CHANGE SOURCE OF AGGREGATE DURING COURSE OF WORK WITHOUT WRITTEN CONSENT OF ENGINEER.
3. CEMENT: SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150. CEMENT SHALL BE TYPE I OR AS REQUIRED TO SATISFY SITE SOIL CONDITIONS. REFER TO TABLE 4.2.1 ON SHEET 35 FOR CONCRETE CEMENT REQUIREMENTS ON SOIL CONTAINING SULFATE. REFER TO TABLE 2 BELOW FOR MAXIMUM WATER TO CEMENT RATIO.

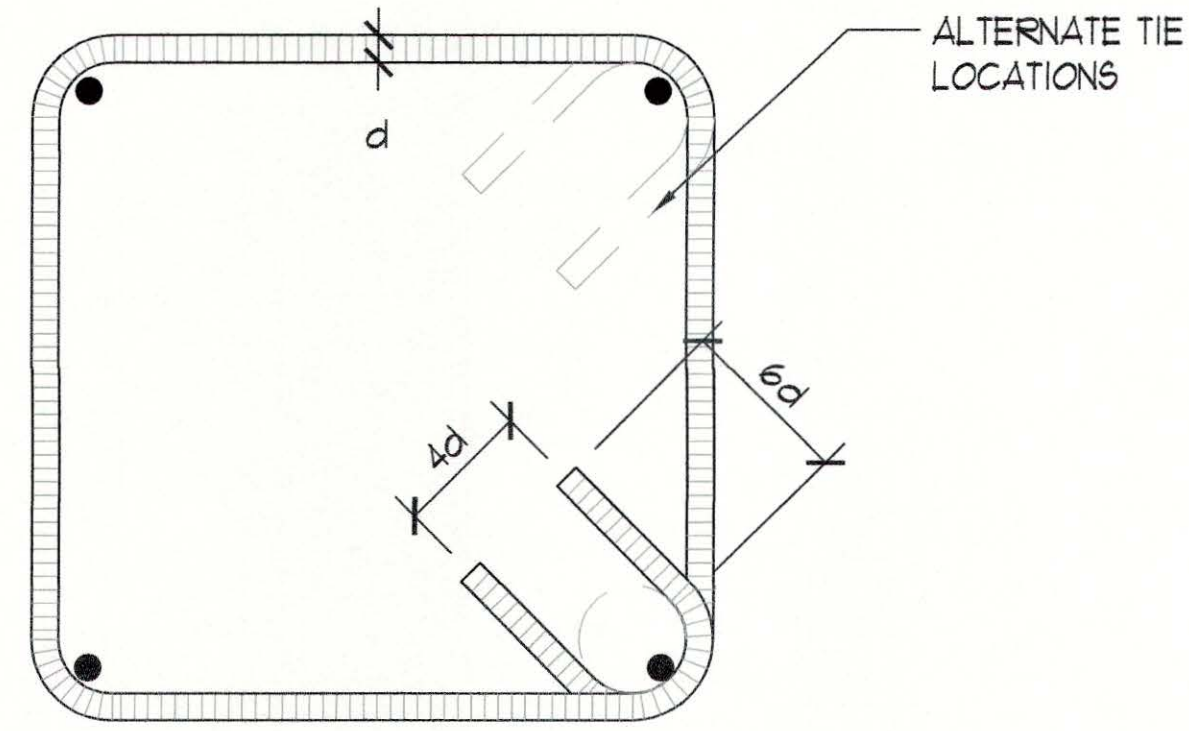
CONCRETE STRENGTH - TABLE 2			
CONDITION	STRENGTH, f _c	WATER / CEMENT RATIO	MAX. SLUMP
FOOTING & GRADE BM	2,500 PSI	0.65	6"

REBAR CLEAR COVER FOR CAST-IN-PLACE CONCRETE	
CONDITION	COVER
SLAB ON GRADE	CENTER OF SLAB OR 2" MIN
CONCRETE AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	1"
WALL PANELS, SLABS, JOINTS	1"
OTHER MEMBERS	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	3/4"
SLABS, WALLS, JOINTS	3/4"
BEAM, COLUMNS PRIMARY REINFORCEMENT	1 1/2"
BEAM, COLUMNS TIES, STIRRUPS, SPIRALS	1"

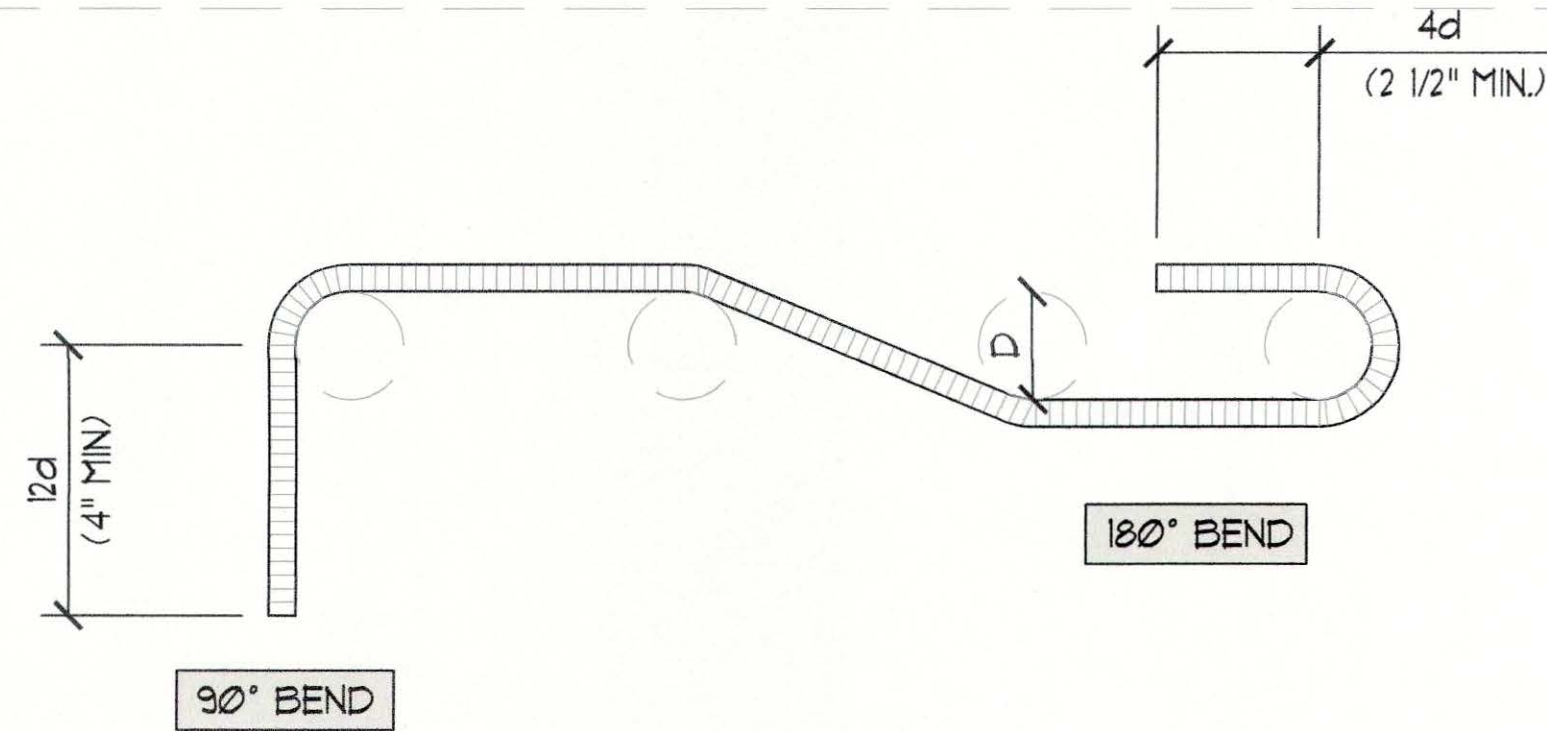
PROJECT DESIGN CRITERIA	
BUILDING CODE	2013 CALIFORNIA BUILDING CODE
LOCATION (LATITUDE / LONGITUDE)	32.7330/-117.0720
OCCUPANCY CATEGORY	II
GEOTECHNICAL PARAMETERS	
SOILS ENGINEER	NOT PROVIDED
REPORT NUMBER	--
DATE	--
ALLOWABLE SOIL BEARING PRESSURE	500 PSF
ALLOWABLE PASSIVE PRESSURE	100 PSF
EXPANSION INDEX	--
PLASTICITY INDEX	--
LIQUEFACTION POTENTIAL	--
LATERAL SPREADING POTENTIAL	--
DIFFERENTIAL SETTLEMENT POTENTIAL	TOLERABLE LIMITS
CORROSIVITY	--
SULFATE CONTENT	--
SITE CLASS	
SHORT PERIOD SPECTRAL ACCELERATION, S _s	0.953
1s PERIOD SPECTRAL ACCELERATION, S ₁	0.364
SEISMIC DESIGN CATEGORY	D
SEISMIC IMPORTANCE FACTOR, I _e	1.0
DESIGN SPEED (3s GUST)	
EXPOSURE CATEGORY	C

REINFORCING STEEL

1. REINFORCING STEEL:
A. ALL BARS, U.N.O., ASTM A615, GRADE 60
B. BARS TO BE WELDED: ASTM A706, GRADE 60
2. MINIMUM CLEARANCES BETWEEN PARALLEL REINFORCING STEEL INCLUDING DISTANCE BETWEEN SETS OF SPICED BARS: 1" OR 1 db, WHICHEVER IS GREATER. 1 1/2" OR 1 1/2 db, WHICHEVER IS GREATER, AT COLUMNS, PIERS, AND PILASTERS ONLY. FOR BUNDLED BARS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.
7. DOWELS AT CONSTRUCTION JOINTS: PROVIDE DOWELS MATCHING SIZE AND QUANTITY OF REINFORCING STEEL INTERRUPTED AT CONSTRUCTION JOINTS, UNLESS DETAILED OTHERWISE.
8. BARS TERMINATING AT WALLS, COLUMNS, BEAMS, AND FOUNDATIONS: EXTEND BARS TO WITHIN 2" (3" AT CONCRETE POURED AGAINST EARTH) OF FAR FACE OF WALL, COLUMN, BEAM OR FOUNDATION AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.
12. BENDING: BEND COLD UNLESS OTHERWISE ACCEPTED BY ARCHITECT (STRUCTURAL ENGINEER). DO NOT FIELD-BEND REINFORCING STEEL BARS EMBEDDED IN CONCRETE UNLESS OTHERWISE ACCEPTED IN WRITING BY STRUCTURAL ENGINEER.
13. LAP SPICES: PROVIDE CLASS B SPICES UNLESS INDICATED OTHERWISE.



STIRRUPS & TIES

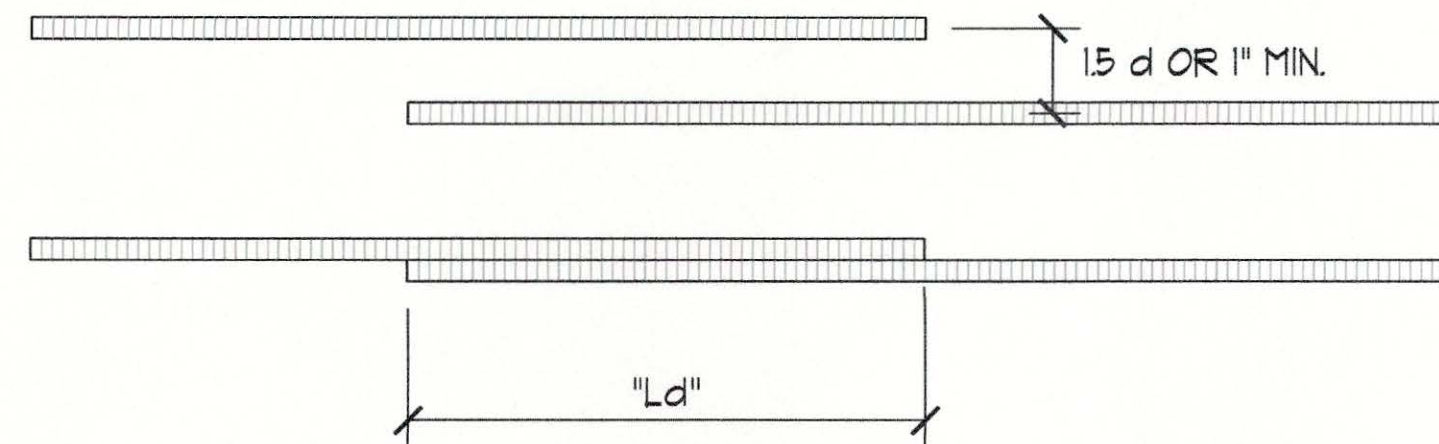


TENSION REBAR EMBEDMENT		
REBAR	CONC. "Ld"	MASRY. "Ld"
#3	30"	15"
#4	41"	25"
#5	51"	33"
#6	61"	44"
#7	89"	100"
#8	101"	151"

BEND DIAMETERS	
D = 6d FOR #3 - #8	
D = 8d FOR #9 - #11	
D = 9d FOR #12 - #18	
PER TABLE 19-B, 2010 CBC	

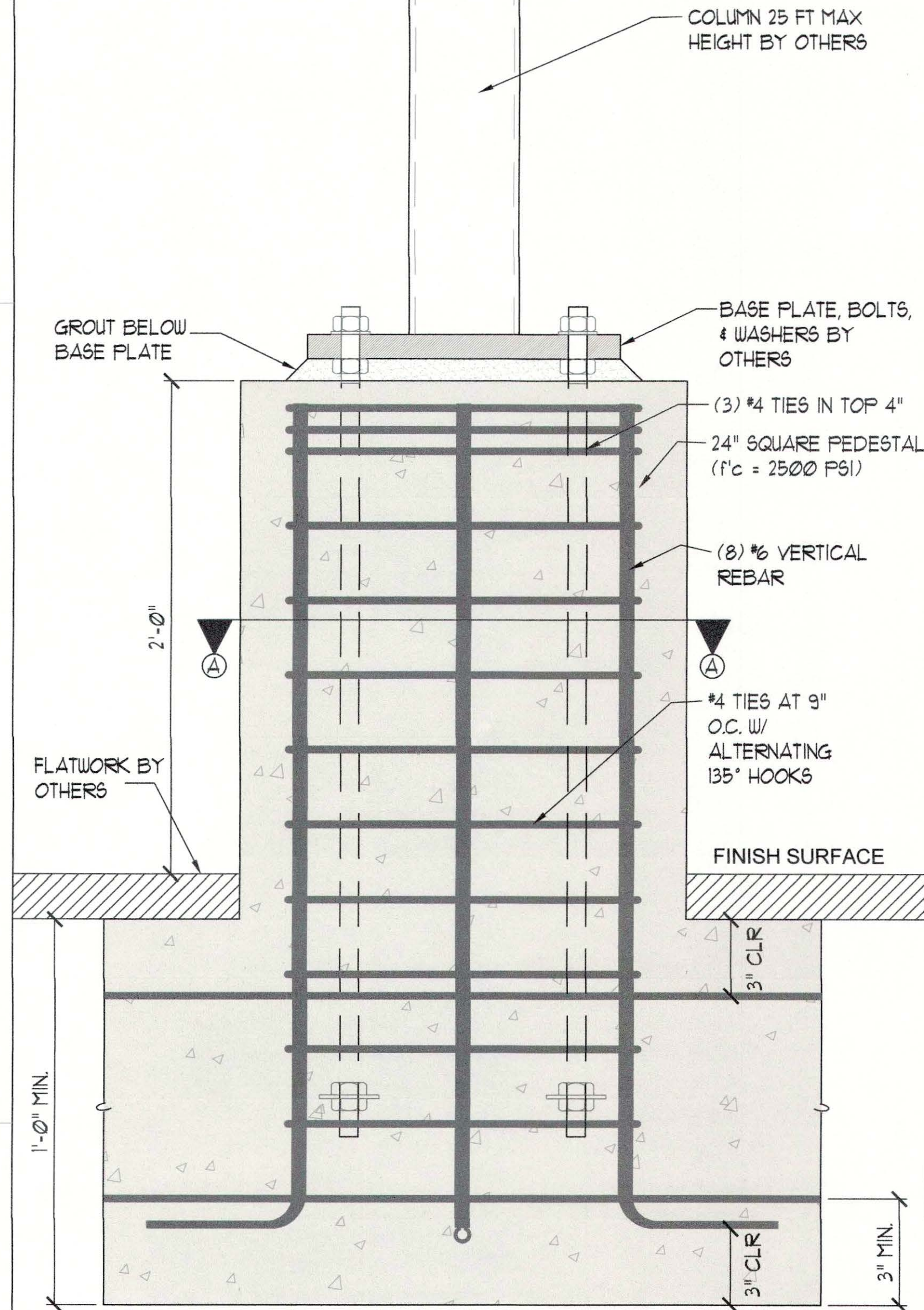
LAP SPICES IN MASONRY SHALL BE STAGGERED 24 BAR DIAMETERS

SPICE LENGTH "Ld" INCREASED BY 50% FOR EPOXY COATED BARS

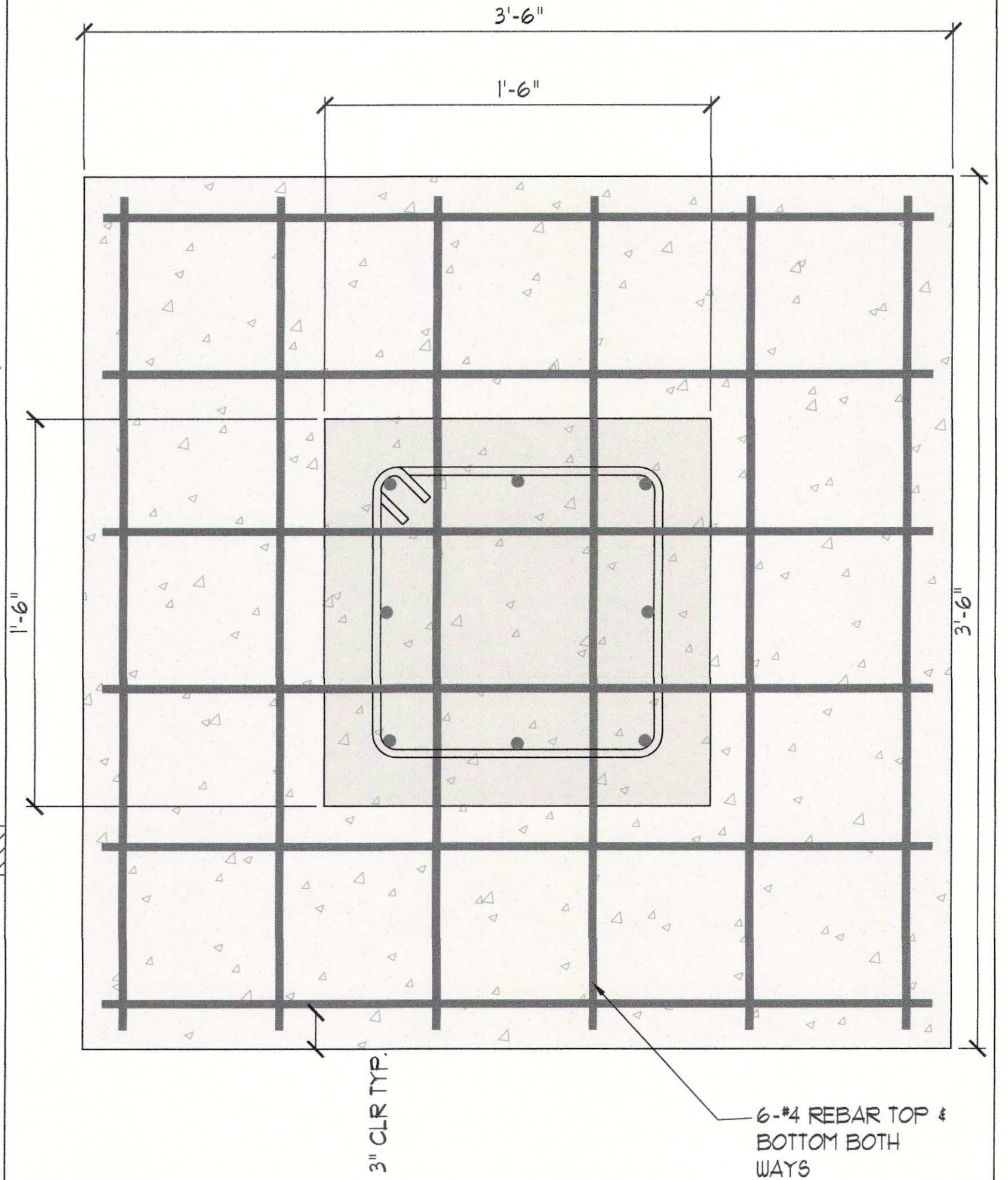


REINFORCING BAR DETAILS
SCALE: N.T.S.

FOUNDATION DESIGNED FOR 25 FT. MAX LIGHT POLE HEIGHT W/ 25 LBS LIGHT FIXTURE



TYP. CONCRETE FOOTING DETAILS
SCALE: N.T.S.



SECTION A-A

COLUMN & TOP OF CAISSON
SCALE: N.T.S.

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DESIGNED BY: SKL SCALE: AS SHOWN
DRAWN BY: SKL DATE: 07-2014
CHECKED BY: SKL DATE: 07-2014
APPROVED BY: DATE:

PREPARED UNDER THE SUPERVISION OF:
SHAWN D. LOTROP
No. 93827
Exp. 6/30/16
STRUCTURAL ENGINEER
STATE OF CALIFORNIA



City of San Diego, California
Environmental Services Department
Waste Reduction and Disposal Division



**SOUTH CHOLLAS
SANITARY LANDFILL**
6000 Block Of College Grove Drive
SAN DIEGO, CA 92105

**LIGHT POLE
FOUNDATION PLANS**
SHEET 40 OF 41 SHEETS

APPROVAL: **FOR CITY ENGINEER** **10-7-14** DATE
DESCRIPTION: **BY** **APPROVED** **DATE** **FILMED**
STRUCTURAL PLANS: **BY** **APPROVED** **DATE** **FILMED**
CONTRACTOR: **DATE STARTED:**
INSPECTOR: **DATE COMPLETED:**

SUBMITTED BY: **SHANE LOTROP**
PROJECT MANAGER
CHECKED BY: **SHAWN LOTROP, SE**
PROJECT ENGINEER
SYLVIA CASTELLO
SENIOR CIVIL ENGINEER
WBS 5-00684
1887-6281
NAD83 COORDINATE
38158-40-D

PG. 1/8

PG. 2/8

PG. 3/8

PG. 4/8

PG. 5/8

PG. 6/8

PG. 7/8

PG. 8/8

S7

SUBMITTED BY:
SHANE LOTHROP
PROJECT MANAGER

CHECKED BY:
SHAWN LOTHROP, SE
PROJECT ENGINEER
SYLVIA CASTILLO
SENIOR CIVIL ENGINEER
WBS S-00684

1887-6281
NAD83 COORDINATE

38158-41-D