THE CITY OF SAN DIEGO

DEVELOPMENT SERVICES DEPARTMENT
Date of Notice: August 18, 2014
NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT
SAP#: 24003955

PUBLIC NOTICE: The City of San Diego as the Lead Agency has determined that the project described below will require the preparation of an Environmental Impact Report (EIR) in compliance with the California Environmental Quality Act (CEQA). This Notice of Preparation of an EIR was publicly noticed and distributed on August 18, 2014 and was published in the SAN DAILY TRANSCRIPT and placed on the City of San Diego website at the following location:

http://www.sandiego.gov/city-clerk/officialdocs/notices/index.shtml.

SCOPING MEETING: A public scoping meeting will be held by the City of San Diego's Development Services Department on **Wednesday September 3, 2014, beginning at 6:00pm and running no later than 8:00pm** at the Mission Valley Resort (Mission room) located at 875 Hotel Circle South, San Diego, CA 92108. **Please note depending on the number of attendees, the meeting could end earlier than 8:00pm.** Verbal and written comments regarding the scope and alternatives of the proposed EIR will be accepted at the meeting.

Written/Mail-in comments may be sent to Natalie de Freitas, City of San Diego Development Services Department, 1222 First Avenue, MS 501, San Diego, CA 92101, or e-mailed to **DSDEAS@sandiego.gov** referencing the Project Name (Legacy International Center) and Project Number (332401) in the subject line within 30 days of the posting of this notice/date of the Public Notice above. Responsible agencies are requested to indicate their statutory responsibilities in connection with this project when responding. An EIR incorporating public input will then be prepared and distributed for public review and comment.

PROJECT NAME/PTS NO.: LEGACY INTERNATIONAL CENTER/332401

Community Area: Mission Valley

Council District: 7 (Council Member Sherman)

PROJECT DESCRIPTION: The Legacy International Center (LIC) project (hereafter "project") would redevelop the existing Mission Valley Resort Hotel property and would construct a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. The project is located south of Interstate 8 at 875 Hotel Circle South and consists of two parcels: APN 444-060-10 and 444-060-11 totaling approximately 18.1 acres. Commercial, lodging, and religious uses include an 105,104 square-foot (SF) pavilion (with training center, theater, TV studio and storage), a three-level 17,012 SF welcoming center rotunda, a 29,940 SF interfaith pavilion that has an entrance to the catacombs, 5,992 square feet of underground

catacombs passage and welcoming center to outreach pavilion passages and adjoining display rooms, an approximately 8,200 SF outdoor retail bazaar, and a 5-story 136,160 SF "tri-wing" tower containing 127 timeshare suites. Recreational components would include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas, and a wellness center with a workout room, sauna, Jacuzzis, steam room, restrooms, showers, and an Olympic sized 7-lane pool. Executive offices would be housed in a three-story, 23,028 SF administration building including a subterranean basement with private parking spaces.

There would be a total of 878 parking stalls, including 195 surface parking spaces and 683 spaces that would be either subterranean, or housed within the 5-story 75,152 SF "West Parking Structure". The western parking structure would have both a surface access and access to the subterranean parking. Thus, traffic circulating through the site would be able to enter at either the east or west access points along Hotel Circle South and be able to traverse the length of the site via either the aboveground circulation elements or belowground within the subterranean parking.

Applicant: Michael F. Harrah, Project Manager/Architect, Caribou Industries, 1103 N. Broadway, Santa Ana, CA 92701

Recommended Finding: Pursuant to Section 15060(d) of the CEQA Guidelines, it appears that the proposed project may result in significant environmental impacts in the following areas: **Land Use, Traffic/Circulation, Archaeological/Historical Resources, Air Quality, Biological Resources, Geologic Conditions, Greenhouse Gas Emissions, Hydrology, Landform Alteration/Visual Quality, Noise, Paleontological Resources, Public Health and Safety/Hazardous Materials, Public Facilities, Public Utilities, and Water Quality.**

Availability in Alternative Format: To request the City's letter to the applicant detailing the required scope of work (EIR Scoping Letter) in alternative format, call the Development Services Department at (619) 446-5460 immediately to ensure availability. This information is ALSO available in alternative formats for persons with disabilities; to request this notice in alternative format, call (619) 446-5446 or (800) 735-2929 (TEXT TELEPHONE).

Additional Information: For environmental review information, contact Jeffrey Szymanski at (619) 446-5324. The Scoping Letter and supporting documents may be reviewed, or purchased for the cost of reproduction, at the Fifth floor of the Development Services Department. For information regarding public meetings/hearings on this project, contact the Project Manager, Morris Dye, at (619) 446-5201.

Kerry Santoro
Deputy Director
Development Services Department

DISTRIBUTION: See Attached.

ATTACHMENTS:
Figure 1: Location Map
Figure 2: Site Plan
Scoping Letter

PUBLIC REVIEW DISTRIBUTION:

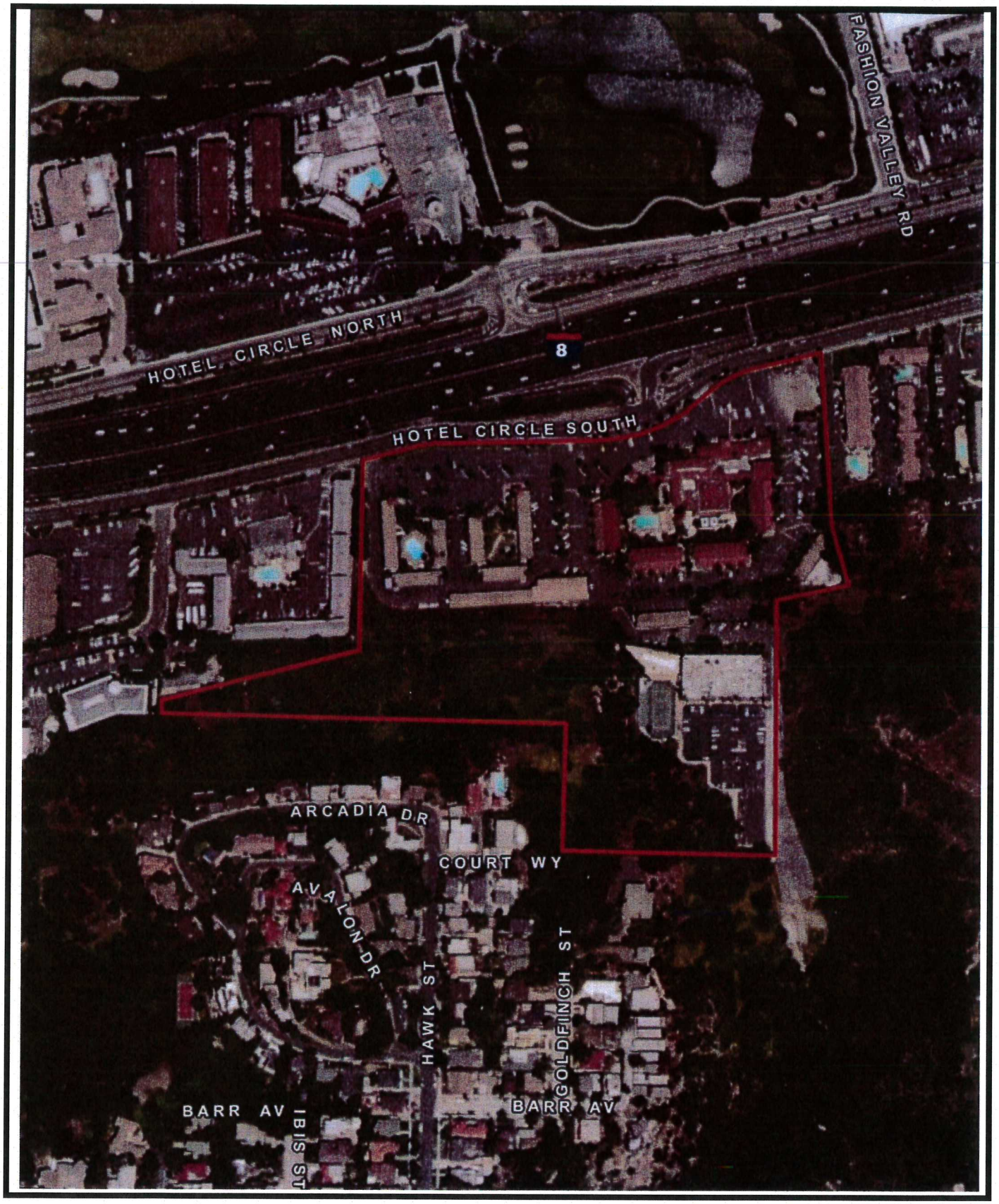
United States Government
- U.S. Fish and Wildlife Service (23)

State of California
- California Department of Fish and Wildlife (32A)
- State Clearinghouse (46a)
- Native American Heritage Commission (56)

City of San Diego
- Mayor's Office (91)
- Historical Resources Board (87)
- Council Member Lightner, District 1 (MS 10A)
- Council Member Harris District 2 (MS 10A)
- Council Member Gloria, District 3 (MS 10A)
- Council Member Cole, District 4 (MS 10A)
- Council Member Kersey, District 5 (MS 10A)
- Council Member Zapf, District 6 (MS 10A)
- Council Member Sherman, District 7 (MS 10A)
- Council Member Alvarez, District 8 (MS 10A)
- Council Member Emerald, District 9 (MS 10A)
- Development Services Department
  - EAS
  - Transportation
  - Planning
  - Fire Plan
  - Engineering
  - MSCP
  - Geology
  - Landscaping
  - Park and Recreation
  - Plan Facilities Financing
  - Plan Long Range Planning
  - PUD-Water and Sewer Development
  - Map-Check
  - Plan Historic
  - Structural
  - Project Manager
- Fire and Life Safety (79)
- San Diego Fire-Rescue Department Logistics (80)
- Library Dept.-Gov. Documents MS 17 (81)
- Central Library (81A)
- Mission Valley Branch Library (81R)
- Environmental Services Department (93A)
- City Attorney's Office (MS 59)

Others
- Metropolitan Transit System (112)
- San Diego Gas & Electric (114)
- SANDAG (108)
- The San Diego River Park Foundation (163)
- San Diego Natural History Museum (166)
- San Diego River Conservancy (330A)

Mission Valley Center Association (328)
Friars Village HOA (328A)
Mary Johnson (328B)
Mission Valley Community Council (328C)
Union Tribune News (329)
Friends of Mission Valley Preserve (330B)
Mission Valley Planning Group (331)
General Manager, Fashion Valley (332)
The San Diego River Coalition (334)
Sierra Club (165)
San Diego Audubon Society (167)
Jim Peugh (167A)
California Native Plant Society (170)
Endangered Habitat League (182 and 182A)



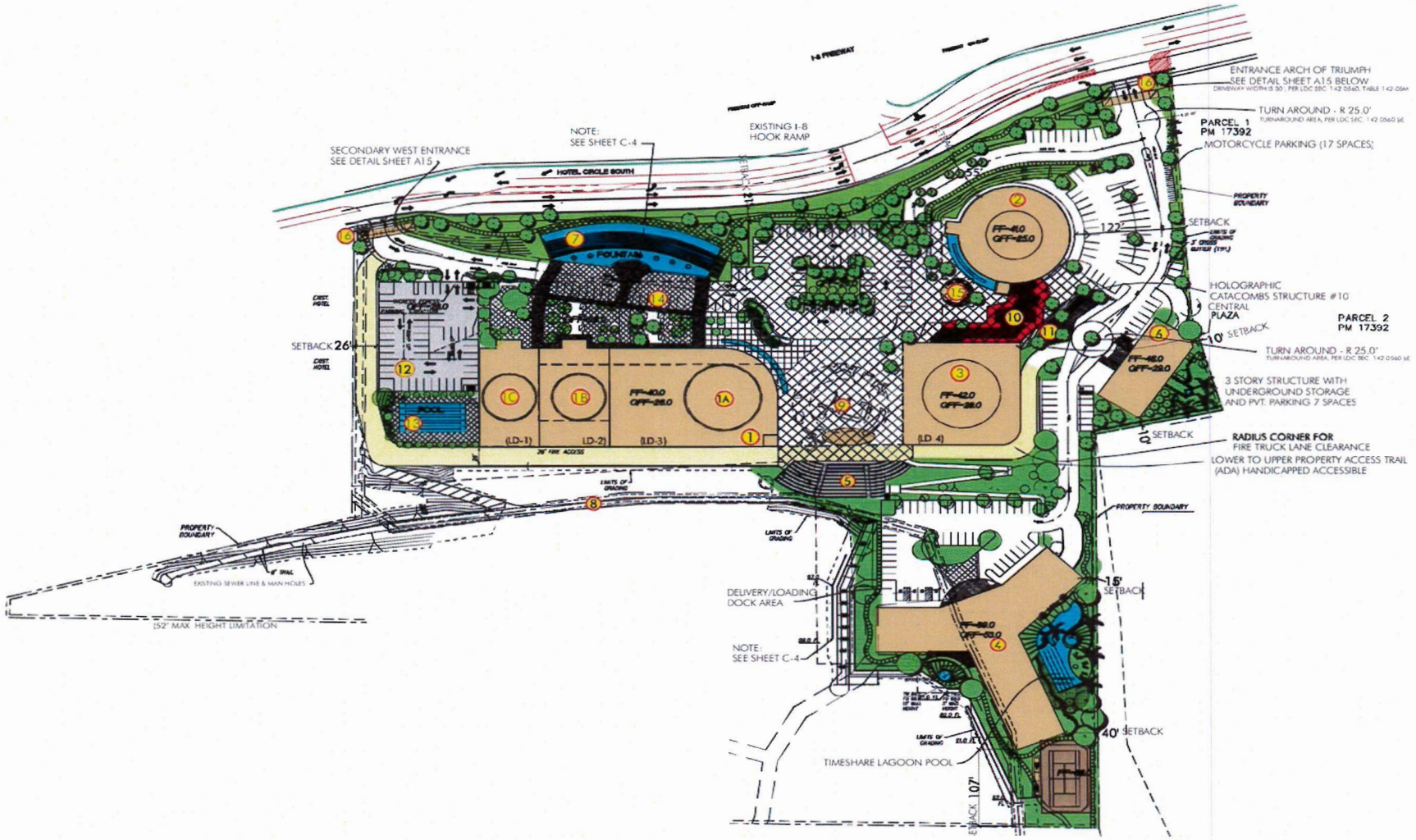
Location Map

Legacy International Center/Project No. 332401

City of San Diego – Development Services Department

FIGURE

No. 1



Site Plan

Legacy International Center/Project No. 332401

City of San Diego – Development Services Department

FIGURE

No. 2

THE CITY OF SAN DIEGO

August 18, 2014

Mr. Michael F. Harrah
Project Manager/Architect
Caribou Industries
1103 N. Broadway
Santa Ana, CA 92701

Subject: **Scope of Work for an Environmental Impact Report for the Legacy International Center Project (Project No. 332401)**

Dear Mr. Harrah:

Pursuant to Section 15060(d) of the California Environmental Quality Act (CEQA), the Environmental Analysis Section (EAS) of the City of San Diego Development Services Department has determined that the project may have significant effects on the environment, and the preparation of an Environmental Impact Report (EIR) is required. Staff has determined that a Project EIR is the appropriate environmental document for the Legacy International Center project.

The purpose of this letter is to identify the specific issues to be addressed in the EIR. The EIR shall be prepared in accordance with the attached "City of San Diego Technical Report and Environmental Impact Guidelines" (Updated May 2005). A Notice of Preparation will be distributed to the Responsible Agencies and others who may have an interest in the project. Changes or additions to the scope of work may be required as a result of input received in response to the Notice of Preparation. Scoping Meetings are required by CEQA Section 21083.9(a)(2) for projects that may have statewide, regional or area-wide environmental impacts. The City's EAS staff has determined this project meets this threshold. Prior to preparation of the EIR, a public scoping meeting will be held at the Mission Valley Resort, 875 Hotel Circle South, San Diego, CA 92108. The meeting will be held in the "Mission Room" on September 3, 2014 from 6 pm to 8 pm to gather input. Please note that depending upon the number of attendees the meeting could end earlier than 8 pm.

Additionally, changes or additions to the scope of work may be required as a result of input received in response to the Scoping Meeting and Notice of Preparation. In addition, the applicant may adjust the project over time and these changes would be disclosed in the EIR.

Each section and issue area of the EIR should provide a descriptive analysis of the project followed by a comprehensive evaluation. The EIR should also include sufficient graphics and tables to provide a complete description of all major project features.

The project that would be the subject of the EIR is briefly described as follows:

Project Description: The Legacy International Center (LIC) project (hereafter "project") would redevelop the existing Mission Valley Resort Hotel property and would construct a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. The project is located south of Interstate 8 at 875 Hotel Circle South and consists of two parcels: APN 444-060-10 and 444-060-11 totaling approximately 18.1 acres. Commercial, lodging, and religious uses include an 105,104 square-foot (SF) pavilion (with training center, theater, TV studio and storage), a three-level 17,012 SF welcoming center rotunda, a 29,940 SF interfaith pavilion that has an entrance to the catacombs, 5,992 square feet of underground catacombs passage and welcoming center to outreach pavilion passages and adjoining display rooms, an approximately 8,200 SF outdoor retail bazaar, and a 5-story 136,160 SF "tri-wing" tower containing 127 timeshare suites. Recreational components would include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas, and a wellness center with a workout room, sauna, Jacuzzis, steam room, restrooms, showers, and an Olympic sized 7-lane pool. Executive offices would be housed in a three-story, 23,028 SF administration building including a subterranean basement with private parking spaces.

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EIR FORMAT/CONTENT REQUIREMENTS

The EIR serves to inform governmental agencies and the public of a project's environmental impacts. Emphasis in the EIR must be on identifying feasible solutions to environmental problems. The objective is not to simply describe and document an impact, but to actively create and suggest mitigation measures or project alternatives to substantially reduce significant adverse environmental impacts. The adequacy of the EIR will depend greatly on the thoroughness of this effort.

The EIR must be written in an objective, clear, and concise manner, in plain language. Each section/issue area of the EIR should provide a descriptive analysis of the project followed by a comprehensive evaluation of the issue area. Use graphics and tables to replace extensive word descriptions and to assist in clarification. Conclusions must be supported with quantitative, as well as qualitative information, to the extent feasible.

Prior to public review, Conclusions to be attached at the front of the draft EIR will also need to be prepared. The Conclusions cannot be prepared until an approved draft has been submitted and accepted by the City. The DEIR shall include a title page including the Project Tracking System (PTS) number and the date of the publication. The entire DEIR must be left justified and shall include a table of contents and an executive summary of the following sections:

A. INTRODUCTION

Introduce the project with a brief discussion on the intended use and purpose of the EIR. Describe and/or incorporate by reference any previously certified environmental documents that address the project site. Briefly describe areas where the project is in compliance or non-compliance with assumptions and mitigation contained in these previously certified documents. Additionally, this section shall provide a brief description of any other local, state and federal agencies that may be involved in the project review and or any grant approvals.

B. ENVIRONMENTAL SETTING

The EIR shall describe the precise location of the project and present it on a detailed topographic map and regional map. Provide a local and regional description of the environmental setting of the project, as well as the zoning and land use designations of the site and its contiguous properties, area topography, drainage characteristics and vegetation. Include the existing and planned land uses in the vicinity, on-and off-site resources, the community plan area land use designations(s), MHPA, existing zoning, all utility easements and any required maintenance access, and any overlay zones within this section. Include any applicable jurisdictional boundaries, land use plans and overlay zones that affect the project site, such as the City of San Diego General Plan. This section shall also discuss the provision of emergency services.

C. PROJECT DESCRIPTION

Per CEQA Guidelines Section 15124, the EIR shall include a discussion of the goals and objectives. Project objectives will be critical in determining the appropriate alternatives for the project, which would avoid or substantially reduce potentially significant impacts. The description of the project shall include an overview of all major project features and phasing, including land use, grading quantities and locations, retaining walls (number of retaining walls and their individual heights and lengths), landscaping, drainage design, improvement plans, including any off-site components, vehicular access points, and parking areas associated with the project. The project description shall provide a discussion of all applicable discretionary actions required for the project (e.g. Site Development Permit), as well as a discussion of all permits and approvals required by federal, state, and other regulatory agencies.

D. HISTORY OF PROJECT CHANGES

This section of the EIR shall outline the history of the project and any physical changes that have been made to the project in response to environmental concerns identified during the City's review of the project.

E. ENVIRONMENTAL ANALYSIS

The potential for significant environmental impacts must be thoroughly analyzed and mitigation measures identified that would avoid or substantially lessen any such significant impacts. The EIR must represent the independent analysis of the City of San Diego as Lead Agency; therefore, all impact analysis must be based on the City's current "Guidelines for the Determination of Significance." Below are key environmental issue areas that have been identified for this project, within which the issue statements must be addressed individually. Discussion of each issue statement shall include an explanation of the existing project site conditions, impact analysis, significance determination, and appropriate mitigation. The impact analysis shall address potential direct and indirect impacts that could be created through implementation of the project. Impacts of both scenarios shall be addressed in this section of the EIR.

In each environmental issue section, mitigation measures to avoid or substantially lessen impacts must be clearly indentified and discussed. The ultimate outcome after mitigation should also be discussed (i.e., significant but mitigated, significant and unmitigated). If other potentially significant issue areas arise during detailed environmental investigation of the project, consultation with Development Services Department is required to determine if these areas need to be added to the EIR. As supplementary information is required, the EIR may also need to be expanded.

LAND USE

Issue 1: **Would the project be consistent with the adopted Mission Valley Community Plan, and Atlas Specific Plan or conflict with any applicable land use plan (City of San Diego General Plan), policy, or regulation of an agency with jurisdiction over the project?**

Issue 2: **Would the project result in a conflict with the purpose and intent of the Environmentally Sensitive Land (ESL) regulation of the City of San Diego Land Development Code (LDC)?**

Issue 3: **Would the project require a deviation or variance, which would in turn result in a physical impact on the environment?**

Issue 4: **Would the project result in a conflict with adopted environmental plans, including the City of San Diego's MSCP Subarea Plan and the MHPA adopted for the purpose of avoiding or mitigating an environmental effect for the area?**

Issue 5: **Would the proposal result in the exposure of people to noise levels which exceed the City's Noise Ordinance or are incompatible with the Noise Compatibility Guidelines (Table NE-3) in the Noise Element of the General Plan?**

This section shall provide a discussion of all applicable land use plans to establish a context in which the project is being proposed. Specifically, it shall discuss how the project implements or fails to implement the goals, objectives, and recommendations of the General Plan, Mission Valley Community Plan, and Atlas Specific Plan. The project also lies within the Mission Valley Planned District Multiple Use Zone as well as the Hillside Design Subdistrict. Ultimately, this section shall identify any inconsistencies between the project as proposed and any adopted land use plan, regulations, or the LDC; and whether the identified inconsistency would result in an environmental impact.

The section shall provide a listing of all requested deviation(s)/variance(s). For each requested deviation or variance, provide analysis on whether the requested action would then result in a physical impact on the environment.

The project site is located within the City of San Diego Multiple Species Conservation Program (MSCP). A small portion (0.06 acre) of the project is within the MSCP's Multi-Habitat Planning Area (MHPA) but a majority of the southern property boundary is adjacent to MHPA. The section shall include a discussion of the existing MHPA lands on-site (acreage, quality, etc.) and evaluate the projects' conformance with the final MSCP Plan (August 1998), with specific attention to the Land Use Adjacency Guidelines (Section 1.4.3) in terms of land use, drainage, toxic substances in runoff, lighting, noise, invasive plant species and brush management requirements for the portions of the proposed development that would lie adjacent to the MHPA. A description of measures proposed to reduce any identified MHPA edge effects should be included within this section as well.

TRANSPORTATION/CIRCULATION

Issue 1: **Would the project result in an increase in projected traffic that is substantial in relation to the capacity of the street system?**

Issue 2: **Would the project result in the addition of a substantial amount of traffic to a congested freeway segment, interchange or ramp?**

Issue 3: **Would the project increase traffic hazards for motor vehicles, bicyclists, or pedestrians due to a proposed non-standard design feature (e.g., poor sight distance or driveway onto an access-restricted roadway)?**

Issue 5: **Would the project result in traffic generation in excess specific community plan allocation?**

Issue 6: **Would the project result in an increase in projected traffic which is substantial in relation to the existing traffic load and capacity of the street system?**

Issue 7: **Would the project conflict with adopted policies, plans or programs supporting alternative transportation models (e.g., bus turnouts, bicycle racks)?**

The analysis in this section of the EIR shall identify potential impacts to the traffic and circulation system. A traffic study, consistent with the City's Traffic Impact Study Manual and approved by City staff, shall be prepared and included as an appendix to the EIR. A summary of the approved traffic study shall be included in the body of the EIR. It shall address the effect the project would have on Hotel Circle, Interstate 8, and other circulation elements within the study area. The analysis shall focus on segment and intersection conditions for existing, near-term, and future conditions, with or without the project. The cumulative analysis shall incorporate any past, present and reasonably foreseeable future developments in the community that may impact or contribute to local and regional street and circulation systems.

This section of the EIR shall also describe any required modifications and/or improvements to the existing circulation system, including City streets, intersections, freeways, and interchanges. If the project would result in the construction of a roadway which is inconsistent with the General Plan and/or community plan, the impact would be significant if the proposed roadway would not properly align with other existing or planned roadways. The section shall provide a discussion to the extent this may be triggered. If the project would result in a significant increase in trips, the study and EIR shall describe what measures would be required to mitigate significant traffic circulation impacts. The section shall describe the walkability, pedestrian, and bicycle connectivity within the project and off-site areas.

ARCHAEOLOGICAL/HISTORICAL RESOURCES

Issue 1: **Would the project result in the alteration and/or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, or object or site?**

Issue 2: **Would the project result in any impact to existing religious or sacred uses within the potential impact area?**

Issue 3: **Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries?**

Based on a review of historic aerial photographs, it has been determined that some of the eleven existing buildings on-site are older than 45 years. Therefore, a Historic Resources Research Report (HRRR) would be required in order to determine whether the site would

qualify under the San Diego Historic Resources Board Criterion A through F for listing. The EIR shall discuss the results of the HRRR for the project. The potential for project activities (e.g. demolition) to impact historical resources shall be determined and mitigation discussed, if applicable.

An archaeological survey is also required for the project. The report shall include the results of the initial archaeological site survey and literature review. Appropriate graphics, including a map of the Area of Potential Affect (APE), shall be provided. The EIR shall discuss the results of the archaeological survey that was prepared for the project. The potential for grading activities to impact archaeological resources shall be determined. The report shall be included as an appendix with the records search results under separate cover as a confidential appendix. The EIR shall summarize the results of the report and discuss the need for a research design and a data recovery program to mitigate impacts to sites that are determined to be significant and that would be directly impacted with project implementation. The EIR shall also discuss the project's potential to impact religious or sacred uses or human remains.

BIOLOGICAL RESOURCES

Issue 1: **Would the project result in substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Services (USFWS)?**

Issue 2: **Would the project result in a substantial impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development Code or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?**

Issue 3: **Would the project interfere with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nurseries?**

Issue 5: **Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Conservation Community Plan (NCCP) or other approved local, regional or state habitat conservation plan, either within the MSCP plan are or in the surrounding region and would introduce a land use within an area adjacent to the MHPA that would result in adverse edge effects?**

Issue 6: **Would the proposal result in a conflict with any local polices or ordinances protecting biological resources.**

Vegetation and sensitive wildlife directly or indirectly affected by the project shall be fully discussed in this section of the EIR. A biological resources report for the site shall be prepared in accordance with the City of San Diego's Biological Resources Guidelines (April 2012) and shall be included as an appendix to the EIR. The report must identify sensitive flora and fauna that exist or have a potential to exist in the area of the project site, and any impacts to sensitive habitats, as well as discuss proposed mitigation measures for any impacts.

Any wetland habitat types shall be graphically delineated, including an adequate buffer to sustain their functionality. If impacts to any wetlands or their buffers are identified, a discussion of the infeasibility of avoiding such impacts with the project shall be included. Any wildlife corridors within the vicinity shall be identified and potential impacts to linkages shall be discussed. Both the biological report and the biological resources section of the EIR shall provide a detailed discussion and mapping of the MHPA and shall address potential adjacency impacts from the project and any proposed mitigation measures.

AIR QUALITY

Issue 1: Would the project affect the ability of the Regional Air Quality Strategy (RAQS) or other regional plan to meet the federal and state clean air standards?

Issue 2: Would the project result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?

Issue 3: Would the project proposal exceed 100 pounds per day of Particulate Matter (PM) (dust)?

The EIR shall describe the region's climate and the San Diego Air Basin's current attainment levels for state and federal ambient air quality standards. An air quality analysis shall be prepared and included in the appendix to the EIR.

The air quality analysis shall focus on the project's potential air quality impacts and how this would hinder or help the San Diego Air Basin meet the regional air quality strategies. The discussion shall include potential impacts that would occur during the demolition and construction phases of the specific projects that are being proposed at this time, and the operational impacts of the project, assuming maximum build-out.

An analysis of potential stationary and non-stationary air emission sources related to the construction and operation associated with the project and vehicle emission sources should be provided.

The section shall also include a discussion of any short-term, long-term and cumulative impacts the project may have on regional air quality, including construction and transportation-related sources of air pollution. Potential impacts to sensitive receptors due to pollutants or odors shall also be discussed in the Air Quality section.

PALEONTOLOGICAL RESOURCES

Issue 1: Would the project require over 1,000 cubic yards of excavation in a high resource potential formation that would result in the loss of significant paleontological resources?

The Stadium Conglomerate geological formation underlying the project area is considered highly paleontologically sensitive and may contain well-preserved, rare, and significant paleontological fossil materials that could provide important information about the evolutionary history of our area. There is a potential for grading operations (i.e., parking structure excavation) to impact previously undisturbed portions of these formations and impact unknown fossil deposits. The EIR shall discuss the project site's geologic composition as it relates to fossiliferous potential and include paleontological monitoring as a mitigation measure.

LANDFORM ALTERATION/VISUAL QUALITY

Issue 1: Would the project result in a substantial change to natural topography or other ground surface relief features, or result in the loss, covering, or modification of any unique physical features such as a natural canyon or hillside slope in excess of 25 percent gradient?

Issue 2: Would the project obstruct any vistas or scenic views, particularly with respect to views from public viewing areas, vistas, or open spaces as identified in the Mission Valley Community Plan?

Issue 3: Would the project be compatible with surrounding development in terms of bulk, scale, materials, or style with the surrounding existing or planned development?

Issue 4: Would the project create a substantial amount of light or glare that would adversely affect daytime or nighttime views?

Issue 5: The creation of a negative aesthetic site or project.

The EIR shall include an evaluation of the impacts on the natural landforms within the project boundary due to the proposed grading. Grading quantities (cut and fill) as well as the height of proposed manufactured slopes shall be identified. In accordance with the City of San Diego's Significance Determination Thresholds, the project may potentially create significant visual impacts in relation to landform alterations. The guidelines include the following in determining landform visual impact: Alteration of more than

2,000 cubic-yards of earth per graded acre; creating manufactured slopes higher than ten feet of steeper than 2:1 (50 percent); or changing the elevation of steep natural slopes (25 percent gradient or steeper) from existing grade to a proposed grade of more than 5 feet by either excavation or fill.

Relevant graphics and photo simulations shall be included as appropriate. Identify designated views in proximity to the proposed site. This section shall analyze whether or not the project would impact any designated view corridors.

Overall, the analysis shall place an emphasis on how project development will appear to viewers from adjacent streets and from public viewing areas from various vantage points within and around the project site. Also, this section shall include a discussion of the location and size of any retaining walls. A visual impact may occur if retaining walls or noise walls greater than six feet in height and 50 feet in length with minimal landscaping screening or berming are proposed and where the walls would be visible to public are proposed. The section shall provide discussion and any relevant graphics that analyze the number, size and location of any proposed retaining walls.

A description of all proposed structures shall also be included within this section of the EIR in terms of their building mass, bulk, height and architectural style.

The visual quality discussion shall be closely tied to, and reference, discussions found within the Land Use section of the EIR and shall discuss project consistency with the General Plan and Mission Valley Community Plan.

This section shall also include an analysis with respect to lighting and glare. The analysis shall focus on the specific projects proposed at this time and shall focus on lighting that may be problematic to the MHPA and adjacent properties.

NOISE

Issue 1: Would the project result in or create a significant increase in the existing ambient noise level?

Issue 2: Would the proposal result in the exposure of people to future transportation noise levels which exceed standards established in the General Plan?

The analysis in this section of the EIR shall summarize the findings of the acoustical analysis and also provide a discussion on typical sources of noise, measurements of noise, etc., to provide context for the findings of the acoustical analysis. The EIR shall further discuss potential noise impacts as a result of the proposed land uses and estimated traffic volumes on adjacent streets.

This section shall also discuss any potential for the generation of noise that may affect sensitive biological resources or adjacent properties. If significant noise impacts are

identified, the report shall include mitigation measures that would mitigate the impacts to below a level of significance.

PUBLIC HEALTH AND SAFETY/HAZARDOUS MATERIALS

Issue 1: **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to government code section 65962.5 and, as a result, create a significant hazard to the public or environment?**

Issue 2: **Would the project result in hazardous emissions or include the handling, storage, and treatment of hazardous materials?**

Issue 3: **Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The EIR shall address the potential for hazardous materials on-site. A Phase I Environmental Site Assessment (ESA) is required and shall be discussed within this section of the EIR. The assessment shall consist of an evaluation of the potential presence of hazardous materials and the expected nature of these materials that may be on the site and within a one-mile radius of the subject site. The assessment shall also recommend appropriate mitigation if necessary. The EIR shall also include a discussion of any potential impacts associated with emergency evacuation and emergency vehicle access.

GREENHOUSE GAS EMISSIONS

Issue 1: **Would the project generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?**

Issue 2: **Would the project conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?**

This section shall present an overview of GHG including the most recent information regarding the current understanding of the mechanisms behind current conditions and trends, and the broad environmental issues related to global climate change. A discussion of current legislation, plans, policies, and programs pertinent to global climate change shall also be included. Per General Plan direction, the EIR shall provide details of the project's sustainable features such as pedestrian access and orientation, sustainable design and building features, and others that meet criteria outlined in the Conservation Element of the General Plan.

The EIR shall address the project's contribution to GHGs. A quantitative analysis addressing the project-generated GHG emissions, as applicable, shall be provided in a GHG emission study summarized in the EIR.

Based on the scope of the project, GHG emissions resulting from both construction activities related to the project and on-going operation of the project must be analyzed. The analysis should include, but is not limited to, the five primary sources of GHG emissions: vehicular traffic, generation of electricity, natural gas consumption/combustion, solid waste generation, and water usage. If the project would result in significant GHG emissions, project features, designs and measures shall be identified and incorporated into the project to reduce GHG emissions.

HYDROLOGY

Issue 1: **Would the project result in a substantial alteration to on and off-site drainage patterns due to changes in runoff flow rates or volumes?**

Issue 2: **Would the project develop wholly or partially within the 100-year floodplain identified in the FEMA maps or impose flood hazards on other properties.**

Issue 3: **Would the proposal result in an increase in impervious surfaces and associated increased runoff?**

The Hydrology section shall address changes in impervious surfaces and the resulting changes in drainage patterns. The northern portion of this project site located closest to Hotel Circle has been identified as being within Federal Emergency Management Agency (FEMA) zones AE and X. This section shall discuss whether project build-out would result in any increase to the base flood elevation. It shall provide a discussion and analysis focusing on the project's impact on the floodway and the floodplain.

WATER QUALITY

Issue 1: **Would the proposal result in an increase in pollutant discharge to receiving waters during or following construction? Would the proposal discharge identified pollutants to an already impaired water body?**

Issue 2: **What short-term and long-term effects would the project have on local and regional water quality? What types of pre and post-construction Best Management Practices (BMPs) would be incorporated into the project to preclude impacts to local and regional water quality?**

A Water Quality Technical Report (WQTR) is required for this project. The report, along with the EIR, shall discuss how the project could affect water quality within the project

area and downstream. This section shall also include examples of BMPs and outline programs that can be used during and post-construction and discuss the project's compliance with the City's Storm Water Standards.

GEOLOGIC CONDITIONS

Issue 1: **Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Issue 2: **Would the project expose people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?**

Issue 3: **Would the proposal result in a substantial increase in wind or water erosion of soils, either on or off the site?**

The project site is located in a seismically active region of California where the potential for geologic hazards, such as earthquakes and ground failures exist. According to the City of San Diego Seismic Safety Study, the southern portion of the project site is located within Geologic Hazard Category 53: Other terrain – level or sloping terrain; unfavorable geologic structure, low to moderate risk. The northern portion of the site lies within Geologic Hazard Category 31: Liquefaction – high potential, shallow groundwater, major drainages, hydraulic fills. A Geologic Investigation is required for the project and the EIR should include a discussion of the information, conclusions and any mitigation measures, if required.

The section shall describe the geologic and subsurface conditions on the project site. It shall describe the general setting in terms of existing topography, geology (surface and subsurface), tectonics and soil types. It shall assess possible impacts to the project from geologic hazards and unfavorable soil conditions. The discussion shall include issues such as the potential for liquefaction, slope instability, and other hazards. Any secondary impacts due to soils/geology mitigation (e.g., excavation of unsuitable soil) shall also be addressed. Additionally, the section shall provide mitigation, as appropriate, that would reduce the potential for future adverse impacts resulting from on-site soils and geologic hazards.

PUBLIC UTILITIES

Issue 1: **Would the project result in the need for new or expanded public facilities necessary for the provision of energy that would create physical impacts?**

Issue 2: **Would the proposal result in a need for new systems, or require substantial alterations to existing utilities, the construction of which**

would create physical impacts with regard to the following utilities: Water; Sewer; and Solid waste disposal?

Issue 3: **Does the proposal propose landscaping which is predominantly non-drought resistant vegetation?**

The project would increase the demand on essential public utilities (electrical, natural gas, solid waste generation/disposal, water and sewer) and may require new or expanded infrastructure. This section of the EIR shall analyze the demand and supply relationships of various public utilities and discuss how the project would comply with local, state and federal regulations for each public utility.

A Waste Management Plan must be approved by the City's Environmental Services Department that would address solid waste disposal impacts. The EIR shall discuss how this project would contribute cumulatively to the region's solid waste facility capacity and summarize the findings of the Waste Management Plan.

PUBLIC FACILITIES

Issue 1: **Would the project result in a need for new or altered governmental services in any of the following areas: police protection, fire/life safety protection, libraries, schools, and parks or other recreational facilities which would result is physical impacts?**

The EIR shall identify the number, location, and size of public facilities such as fire and police stations, parks, and other governmental services and facilities. The EIR shall discuss whether there would be a physical impact due to the need for new facilities.

ENERGY

Issue 1: **Would the proposal result in the use of excessive amounts of fuel or other forms of energy (including natural gas, oil, etc.)?**

Appendix F of the State CEQA Guidelines requires that potentially significant energy implications of a particular shall be considered in an EIR to the extent relevant and applicable to the project. Particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy use for the project and assess whether the project would generate a demand for energy (electricity and/or natural gas) that would exceed the planned capacity of the energy suppliers. A description of any energy and/or water saving project features should also be included in this section. (Cross-reference with GHG Emissions discussion section as appropriate.) Describe any proposed measures included as part of the project or required as mitigation measures directed at conserving energy and reducing energy consumption. Ensure this section addresses all issues described within Appendix F of the CEQA Guidelines.

F. SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

This section shall describe the significant unavoidable impacts of the projects, including those significant impacts that can be mitigated but not reduced to below a level of significance.

G. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

In conformance with CEQA Section 15126.2(b) and (c), the EIR shall discuss the significant environmental effects which cannot be avoided if the project is implemented; and the significant irreversible changes that would result from the implementation of the project. Address the use of nonrenewable resources during the construction and life of the project.

H. GROWTH INDUCEMENT

The EIR shall address the potential for growth inducement through implementation of the project. The EIR shall discuss the ways in which the project could foster economic or population growth either directly or indirectly. Accelerated growth could further strain existing community facilities or encourage activities that could significantly affect the environment. This section need not conclude that growth-inducing impacts, if any, are significant unless the project would induce substantial growth or concentration of population.

I. CUMULATIVE IMPACTS

When the project is considered with other past, present, and reasonably foreseeable projects in the project area, implementation could result in significant environmental changes which are individually limited but cumulatively considerable. In accordance with Section 15130 of the CEQA Guidelines, potential cumulative impacts shall be discussed in a separate section of the EIR.

J. EFFECTS FOUND NOT TO BE SIGNIFICANT

A separate section of the EIR should include a brief discussion of why certain areas were not considered to be potentially significant and were therefore not included in the EIR. It is anticipated that these issues would include: Agricultural Resources, Mineral Resources, and Population and Housing. However, if these or other potentially significant issue areas arise during the detailed environmental investigation of the project, consultation with EAS staff is required to determine if these or other issue areas need to be addressed within the EIR. Additionally, as supplementary information is submitted, the EIR may need to be expanded to include additional areas.

K. ALTERNATIVES

The EIR shall place major attention on reasonable alternatives which avoid or reduce the project's significant environmental impacts. These alternatives shall be identified and discussed in detail, and shall address all significant impacts. The alternatives analysis shall be conducted in sufficient graphic and narrative detail to clearly assess the relative level of impacts and feasibility. At a minimum, the following alternatives shall be considered:

No Project (No Development) Alternative: The No Project Alternative shall discuss the existing conditions of the site at the time of the Notice of Preparation is published. Therefore, this alternative shall consist of the maintenance of the site in its current condition and would be equivalent to the existing environmental setting.

Development Consistent with the Adopted Mission Valley Community Plan Alternative: This alternative shall examine what would be reasonably expected to occur in the foreseeable future if the project and corresponding Mission Valley Community Plan Amendment were not approved and future improvements to the site would proceed based on the adopted plan.

Reduced Intensity Alternative: The Reduced Intensity Alternative to the project shall consider the construction of the project at a lower number of lodging units and a lower total square footage of commercial uses. This alternative shall focus on the reduction in the number of units/square footage that would reduce or avoid anticipated significant impacts.

If, through the environmental analysis process, other alternatives become apparent which would mitigate potential impacts, these options should be discussed with EAS staff before including them in the EIR. It is important to emphasize that the alternatives section of the EIR should constitute a major part of the report. The timely processing of the environmental review will likely be dependent on the thoroughness of effort exhibited in the alternatives analysis.

L. MITIGATION, MONITORING, AND REPORTING PROGRAM (MMRP)

For each of the issue areas discussed above, mitigation measures should be clearly identified, discussed, and their effectiveness assessed in each issue section of the EIR. A Mitigation, Monitoring, and Reporting Program (MMRP) for each mitigation measure must be identified. At a minimum, the program should identify: 1) the City department or other entity responsible for the monitoring; 2) the monitoring and reporting schedule; and 3) the completion requirements. The separate MMRP should also be contained (verbatim) as a separate chapter within the EIR. When appropriate, EAS staff will provide the applicant with specific Mitigation Monitoring and Reporting Programs to be incorporated into the EIR.

M. OTHER

The EIR shall include the references, individuals and agencies consulted, and certification page.

Until an EIR screencheck is submitted which addresses all of the above issues, the environmental processing timeline for this project will be held in abeyance.

Conclusion:

If other potentially significant issue areas arise during detailed environmental investigation of the project, consultation with this division is required to determine if these other areas need to be addressed in the EIR. Should the project description be revised, an additional scope of work may be required. Furthermore, as the project design progresses and supplementary information becomes available, the EIR may need to be expanded to include additional issue areas.

Mitigation measures shall be clearly identified and discussed and their effectiveness assessed in each issue section of the EIR. In addition, a monitoring and reporting program for each mitigation measure must be included. At a minimum, this program shall identify: 1) the department responsible for monitoring; 2) the monitoring and reporting schedule; and 3) the completion requirements. Mitigation measures and the monitoring and reporting program for each impact shall also be contained (verbatim) in a separate, stand-alone document to be paper clipped to the back of the EIR. When appropriate, EAS staff will provide the applicant with specific Mitigation Monitoring and Reporting Programs to be incorporated into the Biological, Historical and Paleontological sections of the EIR.

It is important to note that timely processing of your project will be contingent in large part on your selection of a well-qualified consultant. Prior to starting work on the EIR, a meeting between the consultant and EAS is required to discuss and clarify the scope of work.

If a screencheck draft EIR is not submitted to EAS for review within 30 days of the date of this letter, the application processing timeline will be held in abeyance until the report has been provided.

If you have any questions or need clarification regarding any of the information contained in the scoping letter, please contact Natalie de Freitas by phone at (619) 466-5187 or Email ndeFreitas@sandiego.gov

Sincerely,

Kerry Santoro
Deputy Director
Development Services Department

cc: Natalie de Freitas, Development Services Department
Environmental Project File

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

October 2, 2014

Natalie de Freitas
City of San Diego
1222 First Avenue, MS-501
San Diego, CA 92101

Subject: Legacy International Center
SCH#: 2014081053

Dear Natalie de Freitas:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 1, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2014081053
Project Title Legacy International Center
Lead Agency San Diego, City of

Type EIR Draft EIR

Description Construct a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. The project is located south of I-8 at 875 Hotel Circle South and consists of two parcels: APN 444-060-10 and 444-060-11 totaling approximately 18.1 acres. Commercial, lodging, and religious uses include an 105,104 sf pavilion (with training center, theater, TV studio and storage), a three-level 17,012 sf welcoming center rotunda, a 29,940 sf interfaith pavilion that has an entrance to the catacombs, 5,992 sf of underground catacombs passage and welcoming center to outreach pavilion passages and adjoining display rooms, an approximately 8,200 sf outdoor retail bazaar, and a 5-story 136,160 sf "tri-wing" tower containing 127 timeshare suites. Recreational components would include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas, and a wellness center with a workout room, sauna, Jacuzzis, steam room, restrooms, showers, and an Olympic sized 7-lane pool. Executive offices would be housed in a three-story, 23,028 sf administration building including a subterranean basement with private parking spaces. There would be a total of 878 parking stalls, including 195 surface parking spaces and 683 spaces that would be either subterranean, or housed within the 5-story 75,152 sf "West Parking Structure".

Lead Agency Contact

Name Natalie de Freitas
Agency City of San Diego
Phone 619 446 5187 **Fax**
email
Address 1222 First Avenue, MS-501
City San Diego **State** CA **Zip** 92101

Project Location

County San Diego
City
Region
Lat / Long 32° 45' N / 117° 10' W
Cross Streets I-8 East bound and Hotel Circle Court
Parcel No. 444-060-10 and 444-060-11
Township 16S **Range** 3W **Section** **Base**

Proximity to:

Highways I-8, I-5, and State Hwy 163
Airports San Diego Int'l
Railways
Waterways San Diego River
Schools Francis Parker
Land Use Mission Valley Planned District MV-M/SP Zone

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Geologic/Seismic; Noise; Public Services; Toxic/Hazardous; Traffic/Circulation; Water Quality; Landuse

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 11; Air Resources Board; Regional Water Quality Control Board, Region 9; Native American Heritage Commission; San Diego River Conservancy

Document Details Report
State Clearinghouse Data Base

Date Received	08/18/2014	***Start of Review***	08/18/2014	***End of Review***	10/01/2014

DEPARTMENT OF TRANSPORTATION
DISTRICT 11, DIVISION OF PLANNING
4050 TAYLOR ST, M.S. 240
SAN DIEGO, CA 92110
PHONE (619) 688-6960
FAX (619) 688-4299
TTY 711
www.dot.ca.gov

Serious drought.
Help save water!

September 8, 2014

11-SD-8
PM 1.92
Legacy International Center
APN 444-060-10 & 444-060-11

Ms. Natalie de Freitas
City of San Diego
Development Services Department
1222 First Ave, MS 501
San Diego, CA 92101

Dear Ms. de Freitas:

The California Department of Transportation (Caltrans) has received the Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Legacy International Center project to be located at 875 Hotel Circle South, in Mission Valley, near Interstate 8 (I-8). Caltrans has the following comments:

Caltrans, in partnership with the San Diego Association of Governments (SANDAG), and the City of San Diego, is currently involved in the development of an I-8 Corridor Study to evaluate interchange and on/off-ramp modifications in the Hotel Circle area. The results of this study could affect mitigation and access to this planned development. Please coordinate with this effort while developing any proposed mitigation measures.

A traffic impact study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities – existing and proposed – and to propose appropriate mitigation measures. The study should use as a guideline the *Caltrans Guide for the Preparation of Traffic Impact Studies*. Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide.
www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tis**guide**.pdf

The Level of Service (LOS) for operating State highway facilities is based upon Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is "D". For undeveloped or not densely developed locations, the goal may be to achieve LOS "C".

All State-owned signalized intersections affected by this project should be analyzed using the intersecting lane vehicle (ILV) procedure from the Caltrans Highway Design Manual, Topic 406, page 400-21.

The geographic area examined in the traffic study should include as a minimum all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.

A focused analysis may be required for project trips assigned to a State highway facility that is experiencing significant delay, such as where traffic queues exceed ramp storage capacities. A focused analysis may also be necessary if there is an increased risk of a potential traffic accident.

All freeway entrance and exit ramps where a proposed project will add a significant number of peak-hour trips that may cause any traffic queues to exceed storage capacities should be analyzed. If ramp metering is to occur, a ramp queue analysis for all nearby Caltrans metered on-ramps is required to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing. The effects of ramp metering should be analyzed in the traffic study. For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

The data used in the TIS should not be more than 2 years old.

Caltrans endeavors for any direct and cumulative impacts to the State Highway System to be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

Mitigation measures to State facilities should be included in the TIS. Mitigation identified in the traffic study, subsequent environmental documents, and mitigation monitoring reports, should be coordinated with Caltrans to identify and implement the appropriate mitigation. This includes the actual implementation and collection of any "fair share" monies, as well as the appropriate timing of the mitigation. Mitigation improvements should be compatible with Caltrans concepts.

Mitigation measures for proposed intersection modifications are subject to the Caltrans Intersection Control Evaluation (ICE) policy (Traffic Operation Policy Directive 13-02). Alternative intersection design(s) will need to be considered in accordance with the ICE policy;

therefore, please refer to the policy for more information and requirements.
http://www.dot.ca.gov/hq/traffops/signtech/signdel/policy/13-02.pdf

The lead agency should monitor impacts to ensure that roadway segments and intersections remain at an acceptable LOS. Should the LOS reach unacceptable levels, the lead agency should delay the issuance of building permits for any project until the appropriate impact mitigation is implemented.

Mitigation conditioned as part of a local agency's development approval for improvements to State facilities can be implemented either through a Cooperative Agreement between Caltrans and the lead agency, or by the project proponent entering into an agreement directly with Caltrans for the mitigation. When that occurs, Caltrans will negotiate and execute a Traffic Mitigation Agreement.

If you have any questions, please contact Joshua Reese at (619) 688-6705.

Sincerely,

JACOB M. ARMSTRONG, Branch Chief
Development Review Branch

From: Strand, Sarah [mailto:Sarah.Strand@sandag.org]
Sent: Friday, September 19, 2014 10:28 AM
To: DSD EAS
Cc: Baldwin, Susan
Subject: Legacy International Center (Project 332401)

Good Morning,

SANDAG does not have substantial comments on this project at this time, however, the agency highly encourages the applicant to consider ways to minimize vehicle trips and traffic impacts. In considering mitigation for regional transportation impacts and to increase mobility choices around Legacy International Center, please consider incorporating programs that encourage alternatives to driving alone such as bikesharing, carsharing, carpooling, vanpooling, shuttles and transit. Additionally, a parking management plan can assist with reducing parking demand and encourage the use of transportation alternatives. The SANDAG TDM division can assist with Transportation Demand Management (TDM) and parking management strategies as a part of this project.

If the applicant interested, please contact us directly. Also, please reference available resources as appropriate on the SANDAG website at sandag.org.

Thank you for the opportunity to review this project.

Sarah A. Strand
Regional Planner
SANDAG
401 B Street, Suite 800
San Diego, CA 92101
Phone: (619)595- 5609
E-mail: sarah.strand@sandag.org

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

August 21, 2014

Natalie de Freitas
City of San Diego
1222 First Avenue MS 501
San Diego, CA 92101

RE: SCH# 2014081053 Legacy International Center Project, San Diego County.

Dear Ms. De Freitas:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5-minute quadrangle name, township, range, and section required**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) Guidelines §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered cultural items that are not burial associated, which are addressed in Public Resources Code (PRC) §5097.98, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, PRC §5097.98, and CEQA Guidelines §15064.5(e), address the process to be followed in the event of an accidental discovery of any human remains and associated grave goods in a location other than a dedicated cemetery.

Sincerely,

Gayle Totton
Associate Government Program Analyst

CC: State Clearinghouse

Native American Contacts
San Diego County, California
August 21, 2014

Sycuan Band of the Kumeyaay Nation
Daniel Tucker, Chairperson
5459 Sycuan Road — Diegueno/Kumeyaay
El Cajon , CA 92019
ssilva@sycuan-nsn.gov
(619) 445-2613
(619) 445-1927 Fax

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road — Diegueno/Kumeyaay
Lakeside , CA 92040
sbenegas50@gmail.com
(619) 742-5587
(619) 443-0681 Fax

Viejas Band of Kumeyaay Indians
Anthony R. Pico, Chairperson
P.O. Box 908 — Diegueno/Kumeyaay
Alpine , CA 91903
jhagen@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

Viejas Band of Kumeyaay Indians
ATTN: Julie Hagen, Cultural Resources
P.O. Box 908 — Diegueno/Kumeyaay
Alpine , CA 91903
jhagen@viejas-nsn.gov
(619) 445-3810
(619) 445-5337

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road — Diegueno/Kumeyaay
Alpine , CA 92001
(619) 445-0385

Sycuan Band of the Kumeyaay Nation
Sydney Morris, Environmental Coordinator
5459 Sycuan Road — Diegueno/Kumeyaay
El Cajon , CA 92019
smorris@sycuan-nsn.gov
(619) 445-2613
(619) 445-1927 Fax

Jamul Indian Village
Raymond Hunter, Chairperson
P.O. Box 612 — Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785

Kumeyaay Diegueno Land Conservancy
Mr. Kim Bactad, Executive Director
2 Kwaaypaay Court — Diegueno/Kumeyaay
El Cajon , CA 91919
kimbactad@gmail.com
(619) 659-1008 Office
(619) 445-0238 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed Legacy International Center Project; located in the city of San Diego, San Diego County, California.

Native American Contacts
San Diego County, California
August 21, 2014

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
frbrown@viejas-nsn.gov
(619) 884-6437

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
P.O. 937 Diegueno/Kumeyaay
Boulevard , CA 91905
bernicepaipa@gmail.com

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed Legacy International Center Project; located in the city of San Diego, San Diego County, California.

From: Don Varley [mailto:Don.Varley@sdmts.com]
Sent: Thursday, September 25, 2014 2:31 PM
To: DSD EAS
Cc: Denis Desmond; Eary, Christine (Christine.Eary@sandag.org)
Subject: Legacy Internation Center - 332401

Natalie de Freitas,

I am writing regarding the Legacy International Center proposed project at 875 Hotel Circle South, project number 332401. MTS currently operates Route 88, which travels between Old Town Transit Center and Fashion Valley along Hotel Circle North and Hotel Circle South. There is an existing MTS bus stop in front of the existing Mission Valley Resort at 875 Hotel Circle South. This is an important transit access point that will have to remain in the general vicinity of the proposed project. In addition, MTS would like to request that the proposed project include appropriate ADA upgrades to the bus stop as well as sidewalk along the frontage of the roadway to provide pedestrian access to/from the local area including the proposed project. It seems as these items do not appear on the proposed project's site plan.

If you have any questions regarding bus stop ADA requirements or requested pedestrian improvements to the area, please let me know.

Thank you,
Don

Don Varley, P.E. (NY) I Senior Transportation Planner
Metropolitan Transit System (619) 595-4916
1255 Imperial Ave. Suite 1000
San Diego, CA 92101

From: DeFreitas, Natalie [mailto:NDeFreitas@sandiego.gov]
Sent: Tuesday, September 16, 2014 4:06 PM
To: Lance Unverzagt
Subject: Request for Draft EIR - Legacy International Center

Lance,

I had a request for an electronic version of the draft EIR.
Jack Elsnor Jle@LD-group.net

Please forward a copy to him once it is completed.

Thanks

Natalie de Freitas
Associate Planner - Environmental Analysis Section
Development Services Department
City of San Diego
1222 First Avenue, MS 501
San Diego, CA 92101
619-446-5187

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT ANALYSIS

LEGACY INTERNATIONAL CENTER

San Diego, California
October 29, 2015

LLG Ref. 3-12-2194

Prepared by:

Shankar Ramakrishnan, P.E.
Senior Transportation Engineer
&
Renald Espiritu
Transportation Engineer I

Under the Supervision of:

John P. Keating, P.E.
Principal
&
Walter B. Musial, P.E.
Associate Principal

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www.llgengineers.com

EXECUTIVE SUMMARY

Linscott, Law & Greenspan, Engineers (LLG) has been retained to assess the traffic impacts of the proposed *Legacy International Center* (LIC) project located in the Mission Valley Community in the City of San Diego. The proposed project involves the redevelopment of the existing Mission Valley Resort Hotel located at 875 Hotel Circle South in the southwest quadrant of the Interstate 8 (I-8)/ State Route 163 (SR-163) interchange. The project proposes a mixed-use development with religious, lodging, administrative, recreational and commercial uses. A Community Plan Amendment (CPA) will be processed as a part of the project.

The project site is currently occupied by the Mission Valley Resort Hotel. The existing site includes a 202-room resort hotel, a 5,300 square foot (SF) (150 seats) Valley Kitchen restaurant and a 1,200 SF liquor store. In addition to these uses, an 8-pump gas station and a 28,000 SF health club (called Frog's Fitness Club) were also operating on the site; however, they have been closed since approximately Spring 2013 but remain entitled to open for business at any time.

The LIC project consists of commercial, recreational, timeshare, administrative and faith based uses including a three-level 17,000 square foot welcoming center rotunda, a 29,900 square foot pavilion that includes an entrance to the underground catacombs, an outdoor Western Wall Plaza, a Legacy International Center Pavilion building with learning center, presentation gallery, TV studio and storage, a five-story 136,200 square foot "tri-wing" world class mid-rise building containing 127 timeshare suites, and an 8,200 square foot outdoor retail bazaar. Recreational components include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas and a world class wellness center with workout rooms, sauna, jacuzzis, steam rooms, rainforest effects, meditation rooms, showers and an Olympic sized five-lane outdoor pool. Executive offices are housed in a three-story, 23,000 square foot administration building including a subterranean basement with private parking spaces and storage. The traffic analysis presented in this report encompasses the following key areas: Regional access to the site is provided by I-8 and SR-163 via Hotel Circle North and South. The project site will be served by two full-access driveways on Hotel Circle South. The driveways are located at the western and eastern limits of the site.

The proposed project is calculated generate a net total of 1,512 driveway ADT with 44 inbound / (31) outbound driveway trips during the AM peak hour and 177 inbound / 135 outbound driveway trips during the PM peak hour. ***The proposed project is calculated generate a net total of 1,805 cumulative ADT with 59 inbound / (16) outbound cumulative trips during the AM peak hour and 188 inbound / 146 outbound cumulative trips during the PM peak hour.***

Near-Term (Opening Day 2017) scenario was analyzed by manually adding near-term traffic from cumulative projects in the project vicinity to existing counts. Year 2035 (Horizon Year) scenarios were analyzed using the *SANDAG Series 12 Model*. Year 2035 (Horizon Year) without Project volumes were obtained by adding the LIC project trips onto the model. In an effort to accurately and conservatively estimate future conditions and volumes, the model was reviewed in cooperation with the City of San Diego, SANDAG and LLG Engineers. The volumes were considered and verified in

the forecast model. Forecast volumes were calibrated using baseline count data and future roadway network parameters were also verified.

The following six (6) scenarios were analyzed:

- Existing
- Existing + Project
- Near-Term (Opening Day 2017)
- Near-Term (Opening Day 2017) + Project
- Year 2035 (Horizon Year)
- Year 2035 (Horizon Year) + Project

Existing + Project Impacts

With the addition of the proposed project traffic to existing conditions, the following direct impacts are calculated:

TABLE A
EXISTING + PROJECT IMPACTS

Facility Type	Location
Intersections	• Hotel Circle S. / I-8 EB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

Near-Term (Opening Day 2017) Impacts

With the addition of the proposed project traffic to near-term conditions, the following direct impacts are calculated:

TABLE B
NEAR-TERM (OPENING DAY 2017) IMPACTS

Facility Type	Location
Intersections	• Hotel Circle S. / I-8 EB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

Year 2035 (Horizon Year) Impacts

With the addition of the proposed project traffic to long-term conditions, the following cumulative impacts are calculated:

TABLE C
YEAR 2035 (HORIZON YEAR) SIGNIFICANT IMPACTS

Facility Type	Location
Intersections	• Hotel Circle N. / I-8 WB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

Mitigation Measures

The *LIC Project* proposes a traffic impact mitigation program to mitigate the above significant impacts. *Sections 16.0 through 18.0* describes proposed mitigation that would reduce the project impacts to a level of 'not significant,' to the extent feasible. For the purposes of this report, a level of 'not significant' reflects allowable increases within City defined thresholds.

Existing + Project and Near-Term (Opening Day 2017)

Intersections:

Hotel Circle S. / I-8 EB Ramps: To mitigate the project's direct impact, LLG analyzed three (3) intersection control alternatives which include a traffic signal, roundabout and an enhanced all-

way stop control per recent statewide directive (Caltrans *Intersection Control Evaluation (ICE) and Design Guidance*).

Signalizing the intersection would mitigate the project's direct impact. However, based on a preliminary feasibility review, signalization of this intersection is not likely to be approved by Caltrans due to the lack of adequate off-ramp queue storage, which may pose safety and operational issues if queues backup onto the freeway mainline. Therefore, the traffic signal alternative is deemed ***infeasible*** and was not pursued as mitigation.

A preliminary roundabout evaluation was also conducted. Based on FHWA Guidelines, a 100 to 130 foot diameter roundabout is recommended based on the traffic volumes on Hotel Circle South. As shown in *Sections 16.0* and *17.0*, the intersection is calculated to operate at LOS F as a 1-lane roundabout alternative and this would not mitigate the project's impact. A 2-lane roundabout alternative was also reviewed at this location. The Horizon Year analysis reveals delays over 300 seconds in the PM peak hour at this intersection and calculated to operate at LOS F. Therefore, the roundabout is deemed ***infeasible*** from a design and operations perspective and was not pursued as mitigation.

LLG also analyzed an enhanced all-way stop alternative. To mitigate the project's direct impact at this intersection, the LIC project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions as shown on the drawing included in ***Appendix P***.

Street Segments:

- *Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road:* Widening this segment to 4-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to include two westbound lanes and two eastbound lanes. To implement this mitigation, approximately 35' of widening would be required on the existing Riverwalk Golf Course.

  The impact along this segment is considered temporary and unmitigated until the respective fronting property (Riverwalk Master Plan), implements their Community Plan and project access frontage improvements, which have not been fully determined at this time.

- *Hotel Circle N.: Fashion Valley Road to Camino De La Reina*: Widening this segment to 3-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to provide two westbound lanes and one eastbound lane plus a two-way left-turn lane. To implement this mitigation, approximately 12' of widening would be required on the existing Town & Country Resort property.

The impact along this segment is considered temporary and unmitigated until the respective fronting property (Town and Country Master Plan), which is currently processing entitlements with the City, implements their Community Plan frontage and project access improvements, which have not been fully determined at this time.

- *Hotel Circle S.: I-8 EB Ramps to Project Driveway (E)*: Widening the roadway to 4-lane Collector with a continuous left-turn lane would mitigate the project's significant impact. To mitigate the project's direct impact, the LIC project will provide full-width dedication (varying width up to 28 feet) and improvement to implement the ultimate classification of a 4-lane Collector on Hotel Circle South. Hotel Circle South is classified as a four-lane Collector but only built as a two-lane roadway. Existing conditions of a 2-lane Collector with two-way left-turn lane will be matched at the western and eastern limits of the site per drawing shown in *Appendix P*.

  While the segment of Hotel Circle South (west of the I-8 EB ramps) is not identified as a significant impact, the project will construct an additional WB and EB lane between the westerly driveway and I-8 EB ramps to mitigate the project's direct impact at I-8/Hotel Circle S. intersection and in conjunction with the improvements on the east side as shown on the drawing included in *Appendix P*.

- *Hotel Circle S.: Project Driveway (E) to Bachman Place*: Widening the roadway to a 3-lane Collector with a continuous left-turn lane would mitigate the project's significant impact.

  The widening would include two eastbound lanes and one westbound lane. There is an existing 30' irrevocable offer of dedication (IOD) on Hotel Circle South along this roadway segment. Based on a feasibility review, this widening is deemed ***technically infeasible*** due to building structures fronting Hotel Circle South (Vagabond Inn) that would allow only a 2 feet parkway, which is not sufficient to include a sidewalk per City standards. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

- *Hotel Circle S.: Bachman Place to Camino De La Reina*: Widening the roadway to a 3-lane Collector standards plus a continuous left-turn lane would mitigate the project's significant impact.

  The widening would include two eastbound lanes and one westbound lane. Based on a preliminary feasibility review, this widening is deemed ***technically infeasible*** due to the location of the support columns for the I-8 undercrossing on Hotel Circle South. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

Year 2035 (Horizon Year)

Intersections:

- *Hotel Circle N. / I-8 WB Ramps*: Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (12.2%) towards signalizing and restriping the intersection to mitigate the project's cumulative impact.
  - Remove the northbound right-turn channelization to provide a traditional configuration and provide a right-turn overlap phase.
  - Remove the eastbound right-turn channelization to provide a more traditional configuration.
  - Allow northbound thru movements to the Handlery Hotel driveway.
  - Install a traffic signal. Based on coordination with Caltrans, a traffic signal control was deemed as the appropriate control at this time. Should Caltrans decide to implement a different intersection control at this intersection, the fair-share contribution collected by the LIC project may be used towards the new intersection traffic control assuming it still mitigates the project's cumulative impact.

Street Segments:

- *Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road*: Widening this segment to 4-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to include two westbound lanes and two eastbound lanes. To implement this mitigation, approximately 35' of widening would be required on the existing Riverwalk Golf Course. Based on a preliminary review, this widening is deemed feasible from a technical (physical) standpoint. Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (5.7%) towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer.

- *Hotel Circle N.: Fashion Valley Road to Camino De La Reina*: Widening this segment to 3-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to provide two westbound lanes and one eastbound lane plus a two-way left-turn lane. To implement this mitigation, approximately 12' of widening would be required on the existing Town & Country Resort property. Based on a preliminary feasibility review, this widening is deemed feasible from a technical (physical) standpoint. Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (10.0%) towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer. It should be noted that the fronting Town and Country property on this segment is currently in the process of redeveloping.

- *Hotel Circle S.: Project Driveway (E) to Bachman Place*: Widening the roadway to 3-lane Collector with continuous left-turn lane would mitigate the project's significant impact.

  The widening would include two eastbound lanes and one westbound lane. There is an existing 30' irrevocable offer of dedication (IOD) on Hotel Circle South along this roadway segment. Based on a feasibility review, this widening is deemed ***technically infeasible*** due to building structures fronting Hotel Circle South (Vagabond Inn) that would allow only a 2' parkway, which is not sufficient to include a sidewalk per City standards. Therefore, given the physical infeasibility of the proposed mitigation, a fair-share contribution was not calculated.

  Hence, this impact is considered significant and unmitigated.

- *Hotel Circle S.: Bachman Place to Camino De La Reina*: Widening the roadway to 3-lane Collector standards plus a continuous left-turn lane would mitigate the project's significant impact. The widening would include two eastbound lanes and one westbound lane. Based on a preliminary feasibility review, this widening is deemed ***technically infeasible*** due to the location of the support columns for the I-8 undercrossing on Hotel Circle South. Therefore, given the physical infeasibility of the proposed mitigation, a fair-share contribution was not calculated.

  Hence, this impact is considered significant and unmitigated.

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TRAFFIC IMPACT ANALYSIS

LEGACY INTERNATIONAL CENTER

San Diego, California
October 30, 2015

1.0 INTRODUCTION

Linscott, Law & Greenspan, Engineers (LLG) has been retained to assess the traffic impacts of the proposed *Legacy International Center* (LIC) project located in the Mission Valley Community in the City of San Diego. The proposed project involves the redevelopment of the existing Mission Valley Resort Hotel located at 875 Hotel Circle South. The project proposes a mixed-use development with religious, lodging, administrative, recreational and commercial uses. A Community Plan Amendment (CPA) will be processed as a part of the project.

The 18.1-acre project site is located within the Mission Valley Community Plan Area on Hotel Circle South as shown in ***Figure 1–1***. ***Figure 1–2*** illustrates the project area map. The traffic analysis presented in this report encompasses the following key areas:

- Project Description
- Existing Conditions
- Significance Criteria
- Traffic Analysis Methodology
- Cumulative Projects
- Existing Analysis
- Project trip generation/ distribution/ assignment
- Existing + Project analysis
- Near-Term (Opening Day 2017) analysis
- Year 2035 (Horizon Year) analysis
- Congestion Management Program (CMP) compliance
- Site Access and On-Site Circulation
- Parking
- Pedestrian, bicycle, and transit access
- Significant impacts and mitigation measures
- Transportation Demand Management (TDM)
- Conclusions

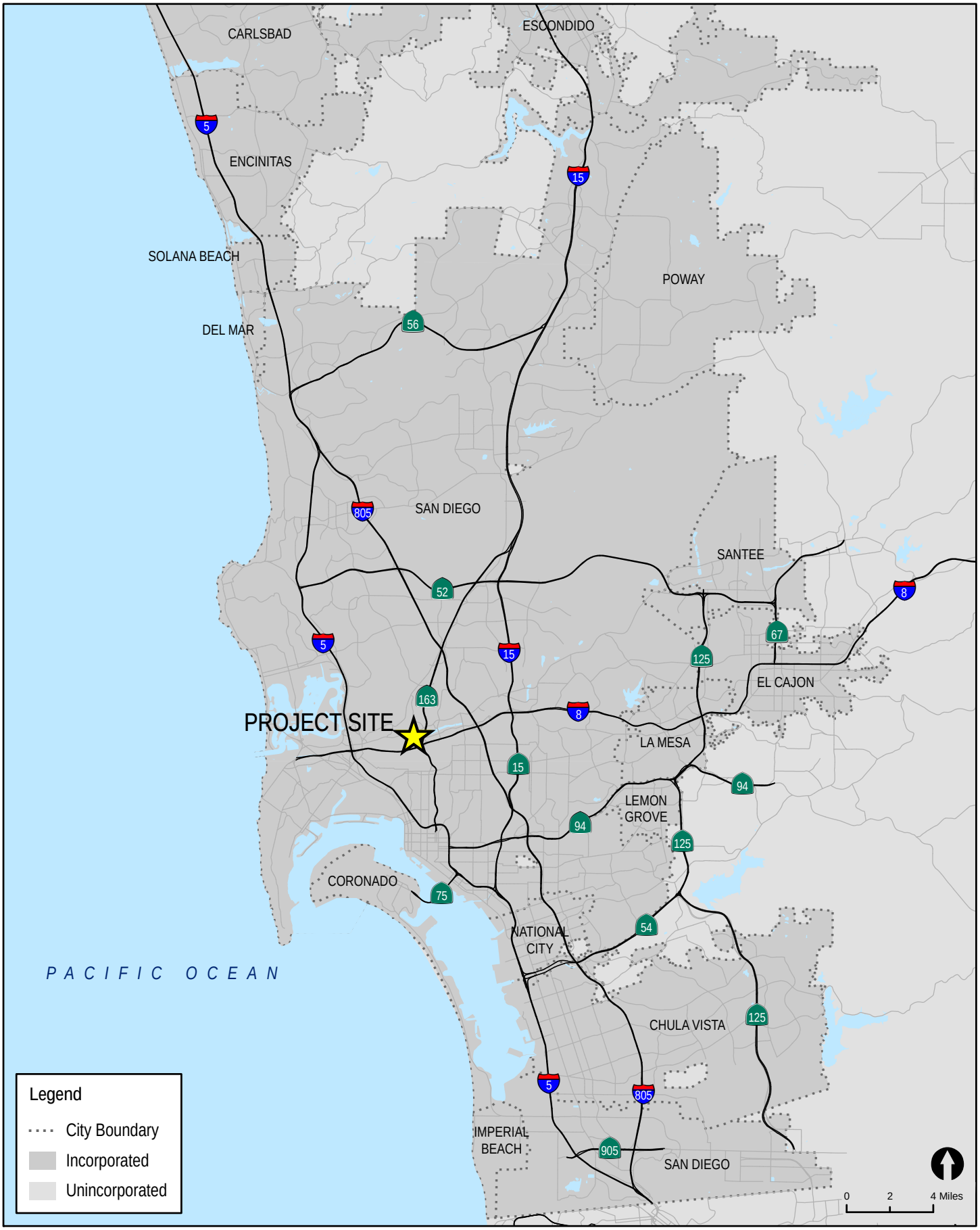

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Figure 1-1

Vicinity Map

LEGACY INTERNATIONAL CENTER

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Figure 1-2

Project Area Map

LEGACY INTERNATIONAL CENTER

2.0 PROJECT DESCRIPTION

The Legacy International Center project will extensively redevelop the existing Mission Valley Resort Hotel site; the property is located south of Interstate 8 at 875 Hotel Circle South. The project site consists of two parcels (APN 444-060-10 and 444-060-11) that total approximately 18.1 acres.

2.1 Project Access

Regional access to the site is provided by I-8 and SR-163 via Hotel Circle North and South. The project site will be served by two full-access driveways on Hotel Circle South. The driveways are located at the western and eastern limits of the site. Site access is discussed in more detail in ***Section 13.0***.

2.2 Existing Uses

The project site located at 875 Hotel Circle South is currently occupied by the Mission Valley Resort Hotel. The existing site currently includes a 202-room resort hotel, a 150-seat restaurant (called Valley Kitchen) and a 1,200 square feet (SF) liquor store. In addition to these uses, an 8-pump gas station and a 28,000 SF health club (called Frog's Fitness Club) were also operating on the site; however, they have been closed.

Figure 2–1 illustrates the existing site.

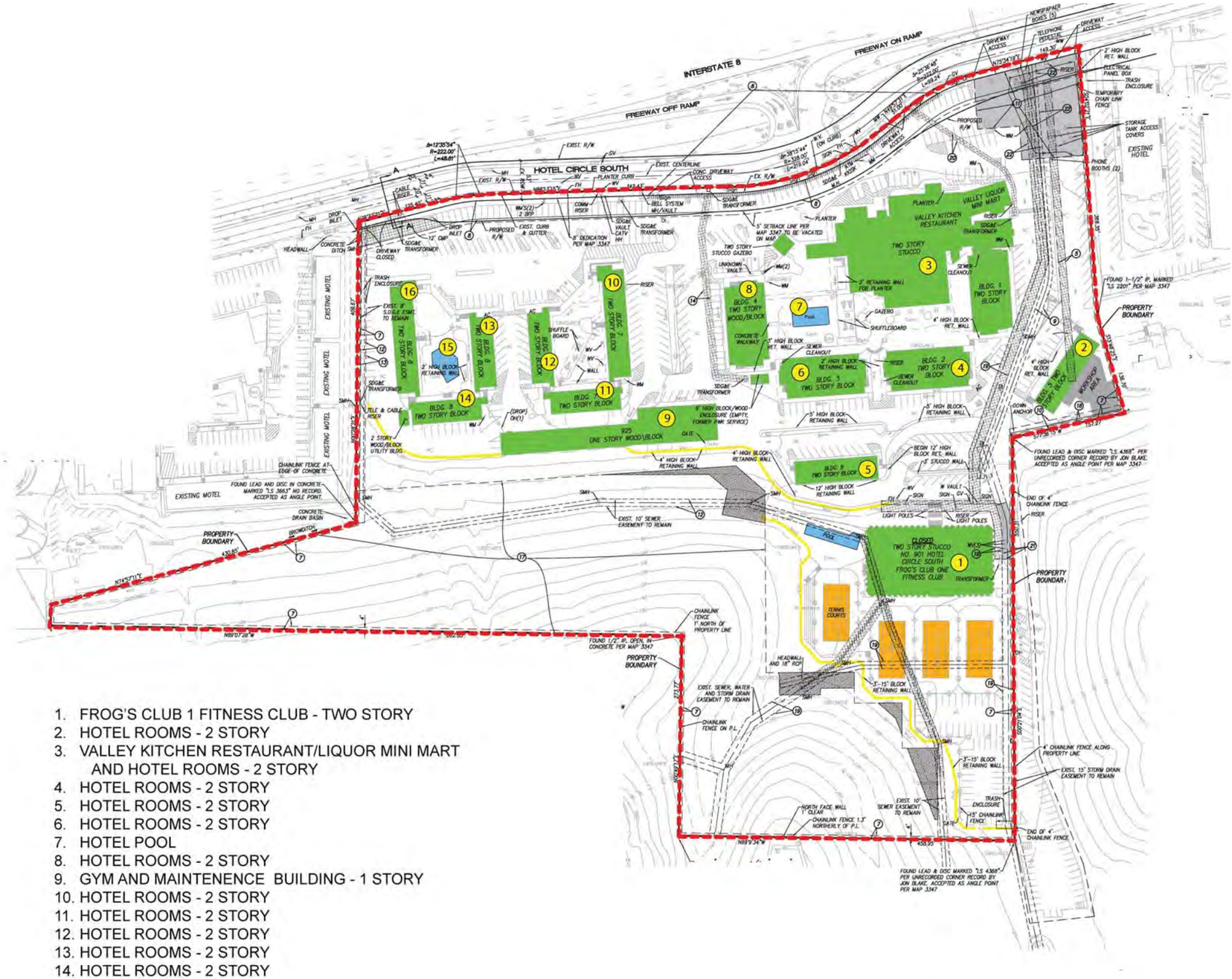
2.3 Development Program

The LIC project consists of commercial, recreational, timeshare, administrative and faith based uses including a three-level 17,000 square foot welcoming center rotunda, a 29,900 square foot pavilion that includes an entrance to the underground catacombs, an outdoor Western Wall Plaza, a Legacy International Center Pavilion building with learning center, presentation gallery, TV studio and storage, a five-story 136,200 square foot "tri-wing" world class mid-rise building containing 127 timeshare suites, and an 8,200 square foot outdoor retail bazaar. Recreational components include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas and a world class wellness center with workout rooms, sauna, jacuzzis, steam rooms, rainforest effects, meditation rooms, showers and an Olympic sized five-lane outdoor pool. Executive offices are housed in a three-story, 23,000 square foot administration building including a subterranean basement with private parking spaces and storage.

Figure 2–2 depicts the proposed project site plan.

2.4 Discretionary Actions Requested

The proposed mixed-use project requires a Process Five Community Plan Amendment, Atlas Specific Plan Amendment, Rezone, Site Development Permit, Planned Development Permit, Conditional Use Permit and Vesting Tentative Map.



1. FROG'S CLUB 1 FITNESS CLUB - TWO STORY
2. HOTEL ROOMS - 2 STORY
3. VALLEY KITCHEN RESTAURANT/LIQUOR MINI MART AND HOTEL ROOMS - 2 STORY
4. HOTEL ROOMS - 2 STORY
5. HOTEL ROOMS - 2 STORY
6. HOTEL ROOMS - 2 STORY
7. HOTEL POOL
8. HOTEL ROOMS - 2 STORY
9. GYM AND MAINTENENCE BUILDING - 1 STORY
10. HOTEL ROOMS - 2 STORY
11. HOTEL ROOMS - 2 STORY
12. HOTEL ROOMS - 2 STORY
13. HOTEL ROOMS - 2 STORY
14. HOTEL ROOMS - 2 STORY
15. HOTEL POOL
16. HOTEL ROOMS - 2 STORY

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Figure 2-1

Existing Land Uses

LEGACY INTERNATIONAL CENTER

Legacy International Center

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Figure 2-2

Proposed Site Plan

LEGACY INTERNATIONAL CENTER

3.0 EXISTING CONDITIONS

Evaluation of the traffic impacts associated with the proposed LIC project requires an understanding of the existing transportation system within the project study area.

Figure 3–1 shows an existing conditions diagram.

3.1 Project Study Area

The study area for this project encompasses areas of anticipated impact related to the project. The scope of the study area was developed under the City of San Diego staff in conjunction with the *City of San Diego Traffic Impact Study Manual* guidelines for intersections, street segments, and freeway segments based on the proposed project distribution and the "50 directional peak-hour trips" rule per the City's guidelines for all facilities except ramp meters which are based on 20-peak hour trips. The development of the study area all took into account the approved traffic studies in the project area, and a working knowledge of the local transportation system. The studied facilities include the following seven (7) intersections, ten (10) street segments and two (2) freeway segments:

Intersections:

- Hotel Circle N / I-8 WB Ramps
- Hotel Circle N / Fashion Valley Road
- Hotel Circle N / Camino De La Reina
- Hotel Circle S / Project Driveway (W)
- Hotel Circle S / I-8 EB Ramps
- Hotel Circle S / Project Driveway (E)
- Hotel Circle S / Bachman Place

Street Segments:

- Fashion Valley Road – north of Hotel Circle N
- Camino De La Reina – east of Hotel Circle
- Hotel Circle N – west of I-8 WB Ramps
- Hotel Circle N – I-8 WB Ramps to Fashion Valley Road
- Hotel Circle N – Fashion Valley Road to Camino De La Reina
- Hotel Circle S – west of Project Driveway (W)
- Hotel Circle S – Project Driveway (W) to I-8 EB Ramps
- Hotel Circle S – I-8 EB Ramps to Project Driveway (E)
- Hotel Circle S – Project Driveway (E) to Bachman Place
- Hotel Circle S – Bachman Place to Camino De La Reina

Freeway Segments:

- I-8 – west of Hotel Circle
- I-8 – Hotel Circle to SR-163

Ramp Meters

The project will add more than 20 peak hour trips to the Hotel Circle N/ I-8 WB on-ramp and Hotel Circle S/ I-8 EB on-ramp, however no ramp meter analysis was conducted as both these on-ramps are not metered.

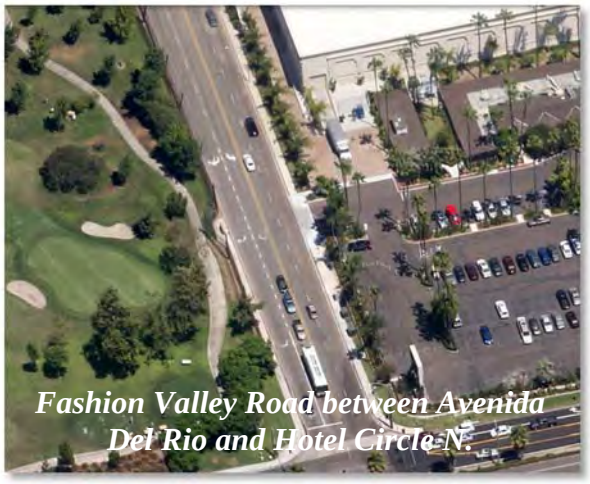
3.2 Existing Street Network

The following is a description of the existing street network in the study area.

Interstate 8 (I-8) is an east/west facility that extends as a freeway from the San Diego area eastward to the California-Arizona border and beyond. It provides four (4) lanes Eastbound and five (5) lanes westbound within the study area. The posted speed limit is 65 mph. Local interchanges are provided at Hotel Circle North and South in the project vicinity. In addition, there are freeway-to-freeway direct connectors between I-8 and SR-163 in the project vicinity.

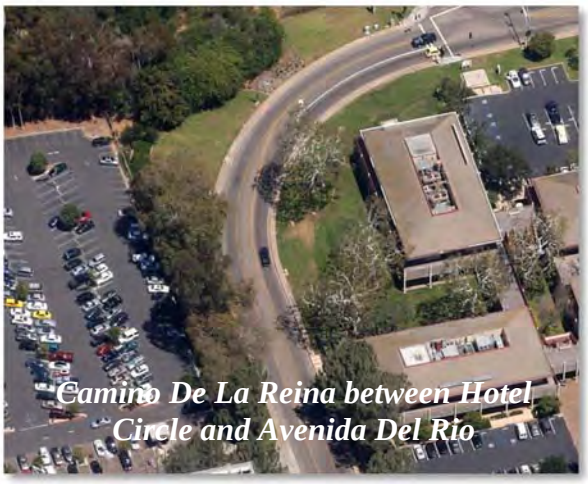
Interstate 8 (I-8)

Fashion Valley Road is classified as a four-lane Major Arterial in the *Mission Valley Community Plan*. Currently, Fashion Valley Road is a north-south four-lane undivided roadway between Avenida Del Rio and Hotel Circle N with no additional left-turn lanes. The curb-to-curb width is approximately 50 feet between Avenida Del Rio and Hotel Circle N. The posted speed limit on Fashion Valley Road is 35 mph. Curbside parking is not permitted. No bike lanes are provided, but bus stops are provided.



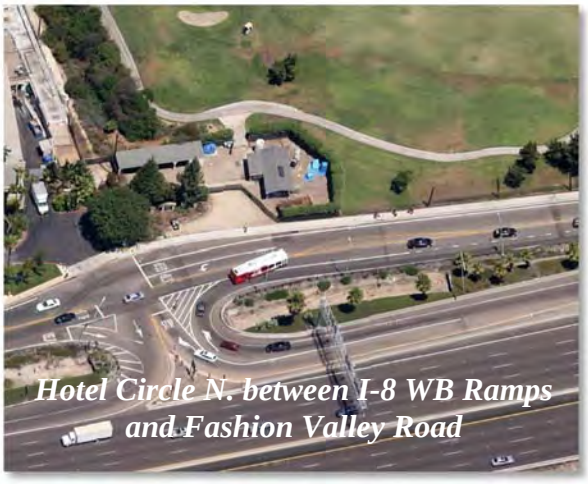
Fashion Valley Road between Avenida Del Rio and Hotel Circle N.

Camino De La Reina is classified as a four-lane Major Arterial in the *Mission Valley Community Plan*. It is currently constructed as a two-lane roadway with a two-way left-turn lane between Hotel Circle and Avenida Del Rio. The curb-to-curb width is approximately 38 feet between Hotel Circle and Avenida Del Rio. Curbside parking is not permitted. Bike lanes and bus stops are not provided.



Camino De La Reina between Hotel Circle and Avenida Del Rio

Hotel Circle North is classified as a four-lane Collector in the *Mission Valley Community Plan* within the study area. Currently, Hotel Circle North is primarily an east-west Collector except for its brief north-south orientation under the I-8 Freeway during its transition from Hotel Circle North to Hotel Circle South. Hotel Circle North is currently constructed as a two-lane roadway with a two-way left-turn lane west of the I-8 WB ramps; a three-lane roadway between the I-8 WB ramps (2 eastbound and 1 westbound) and Fashion Valley Road; and a two-lane roadway with a two-way left-turn lane between Fashion Valley Road and Camino De La Reina. The curb-to-curb width is generally 36 feet on Hotel Circle North. The posted speed limit is 35 mph. Curbside parking is not permitted. Narrow bike lanes are provided at the Hotel Circle N/ Camino De La Reina intersection.



Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road

Hotel Circle South is classified as a four-lane Collector in the *Mission Valley Community Plan* within the study area. The Hotel Circle name transitions underneath the I-8 Freeway. Currently, Hotel Circle South is primarily an east-west Collector except for its brief north-south orientation under the I-8 Freeway during its transition from Hotel Circle South to Hotel Circle North. The curb-to-curb width is approximately 42 feet between the I-8 EB ramps and Bachman Place; 37 feet east of Bachman Place and widens to 46 feet under I-8. Hotel Circle South is currently constructed as a two-

Hotel Circle S. between I-8 EB Ramps and Bachman Place

lane roadway with a two-way left-turn lane throughout the study area. The posted speed limit is 35 mph. Curbside parking is not permitted. Class II bike lanes are provided on Hotel Circle South.

3.3 Existing Traffic Volumes

Peak Hour Volumes– Existing weekday AM and PM peak hour (7:00-9:00 AM and 4:00-6:00 PM) traffic volume counts were commissioned at all the study area intersections on Thursday, September 20, 2012 and Tuesday, September 25, 2012, while schools in the area were in session and captures traffic from existing land uses on-site.

Daily Volumes– Existing street segment Average Daily Traffic (ADT) volume counts were commissioned on Thursday, September 20, 2012 and Tuesday, September 25, 2012. Supplemental counts were conducted on Wednesday, November 13, 2013.

Table 3–1 is a summary of the existing street segment average daily traffic within the project study area. ***Figure 3–2*** illustrates the existing AM and PM peak hour turning movement counts and average daily traffic volumes. ***Appendix A*** contains copies of the intersection and segment count sheets.

TABLE 3–1
EXISTING TRAFFIC VOLUMES

Street Segment	ADT[a]	Date	Source
Camino De La Reina			
Hotel Circle to Avenida Del Rio	11,680	September 2012	LLG
Hotel Circle N.			
West of I-8 WB Ramps	8,650	September 2012	LLG
I-8 WB Ramps to Fashion Valley Road	16,800	September 2012	LLG
Fashion Valley Road to Camino De La Reina	13,170	September 2012	LLG
Hotel Circle S.			
West of Project Driveway (West)	7,800	November 2013	LLG
Project Driveway (W) to I-8 EB Ramps	7,800	November 2013	LLG
I-8 EB Ramps to Project Driveway (East)	14,390	September 2012	LLG
Project Driveway (E) to Bachman Place	14,390	September 2012	LLG
Bachman Place to Camino De La Reina	14,350	September 2012	LLG
Fashion Valley Road			
Avenida Del Rio to Hotel Circle N.	13,700	September 2012	LLG
Bachman Place			
South of Hotel Circle S.	11,120	September 2012	LLG

Footnotes:

a. Average Daily Traffic volumes.

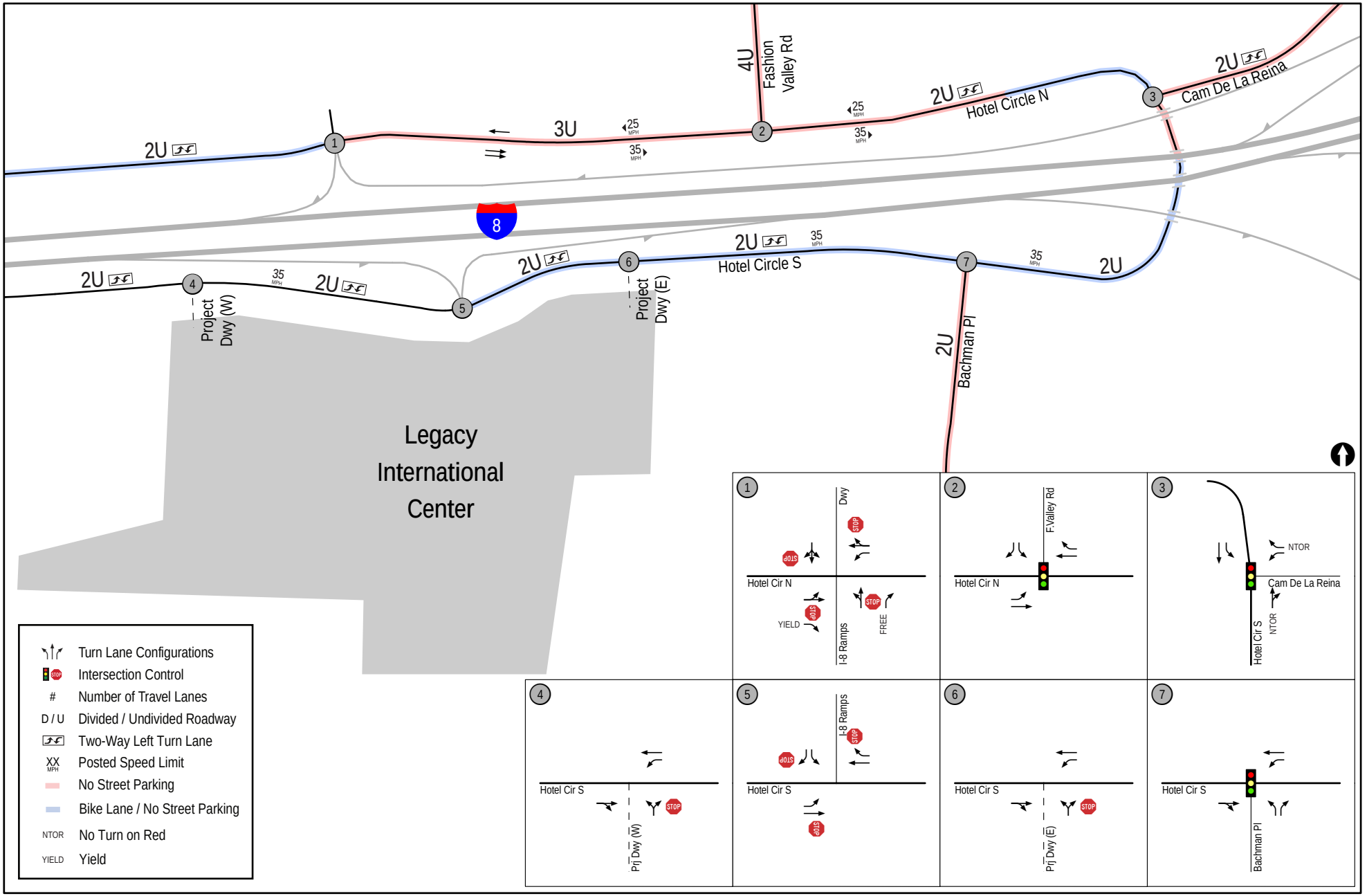


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Figure 3-1

Existing Conditions Diagram

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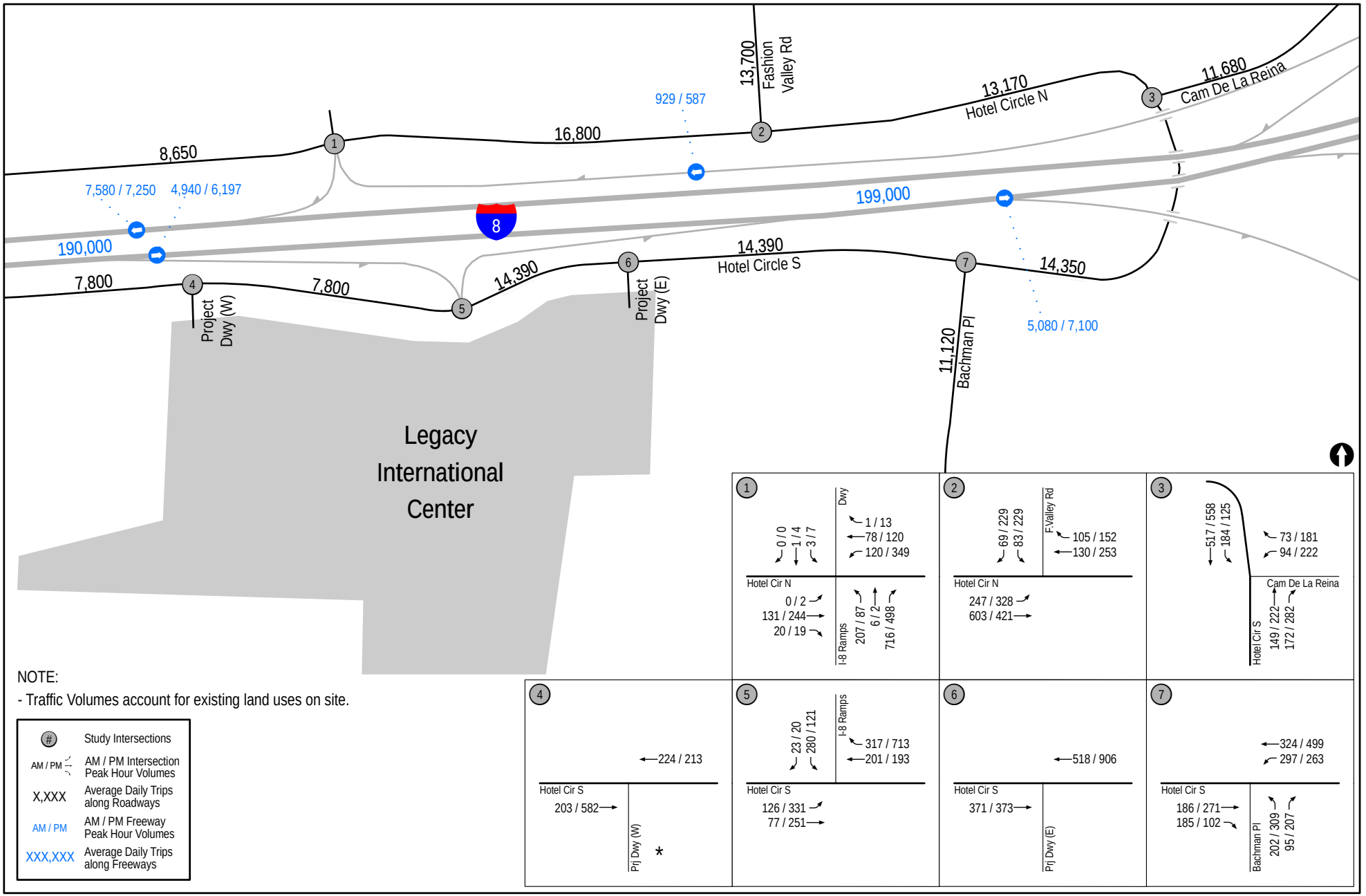

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Figure 3-2

Existing Traffic Volumes

LEGACY INTERNATIONAL CENTER

4.0 SIGNIFICANCE CRITERIA

According to the City of San Diego's *Significance Determination Thresholds* dated January 2011, a project is considered to have a significant impact if project traffic would decrease the operations of surrounding roadways by a defined threshold. ***Table 4–1*** shows the significance thresholds.

The impact is designated either a "direct" or "cumulative" impact. According to the City's *Significance Determination Thresholds*,

> "*Direct* traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near-term)."
>
> "*Cumulative* traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative)."
>
> It is possible that a project's near-term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact."
>
> For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions."

If the project exceeds the thresholds in *Table 4–1*, then the project is considered to have a significant "direct" or "cumulative" project impact. A significant impact can also occur if a project causes the Level of Service to degrade from D to E, even if the allowable increases in *Table 4–1* are not exceeded. A feasible mitigation measure will need to be identified to return the impact within the City thresholds, or the impact will be considered significant and unmitigated.

TABLE 4–1
CITY OF SAN DIEGO
TRAFFIC IMPACT SIGNIFICANT THRESHOLDS

Level of Service with Project[b]	Allowable Increase Due to Project Impacts[a]					
	Freeways		Roadway Segments		Intersections	Ramp Metering[c]
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E	0.010	1.0	0.02	1.0	2.0	2.0
F	0.005	0.5	0.01	0.5	1.0	1.0

Footnotes:

a. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note b), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and/or cumulatively considerable traffic impacts.

b. All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

c. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

General Notes:

1. Delay = Average control delay per vehicle measured in seconds for intersections or minutes for ramp meters
2. LOS = Level of Service
3. V/C = Volume to Capacity ratio
4. Speed = Arterial speed measured in miles per hour

5.0 TRAFFIC ANALYSIS METHODOLOGY

Level of Service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of Service provides an index to the operational qualities of a roadway segment or an intersection. Level of Service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of Service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

5.1 Intersections

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the *2000 Highway Capacity Manual (HCM),* with the assistance of the *Synchro* version 7 computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS). Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in ***Appendix B***.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapters 17 of the *2000 Highway Capacity Manual (HCM)* with the assistance of the *Synchro* 7 computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in *Appendix B.*

5.2 Street Segments

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of San Diego's *Roadway Classification, Level of Service, and ADT Table*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The City of San Diego's *Roadway Classification, Level of Service, ADT Table and the Mission Valley Circulation Element* is attached in ***Appendix C***.

6.0 CUMULATIVE PROJECTS

Cumulative projects represent reasonably foreseeable planned development that contributes to background traffic conditions for both the Near-Term (Opening Day 2017) and Year 2035 (Horizon Year) scenarios.

6.1 Cumulative Project Research

With assistance from the City, LLG identified ten (10) cumulative projects for consideration which included six (6) in the Near-Term (Opening Day 2017) and four (4) in the Year 2035 (Horizon Year). Each project was reviewed to determine its occupancy/ construction status and timing of construction relative to the date of existing traffic counts and the project's expected opening year of 2017. ***Table 6–1*** and ***Table 6–2*** contain cumulative projects to be considered in the Near-Term (Opening Day 2017) and Year 2035 (Horizon Year), respectively. ***Figure 6–1*** shows the location of each cumulative project.

6.2 Cumulative Project Forecast

LLG coordinated with City Staff regarding Near-Term cumulative project traffic. The Near-Term cumulative traffic was obtained and manually assigned for each project. ***Appendix D*** contains the cumulative project traffic assignments.

Long-Term cumulative traffic conditions were evaluated using the *SANDAG Series 12 Model* for the Year 2035 (Horizon Year) scenario. In an effort to accurately and conservatively estimate cumulative traffic conditions, the model was reviewed in cooperation with the City of San Diego, SANDAG, and LLG Engineers to verify four (4) community plan amendment projects listed in *Table 6–2* and roadway improvements shown in *Table 11–1* were included in the base 2035 model. The traffic volumes from the Near-Term cumulative projects were manually added to existing counts to develop the Near-Term volumes whereas the Long-Term cumulative projects were included in the traffic model. The cumulative projects were also reviewed and verified in the forecast model.

TABLE 6-1
CUMULATIVE PROJECTS – NEAR-TERM (OPENING DAY 2017)

Project Name	Type of Development	Project Size	ADT	Status and Notes
N-1. Quarry Falls (Civita) – *Phase I*[a]	Residential Community Commercial Neighborhood Commercial	2,477 dwelling units 50,000 SF 50,000 SF	17,450	Approved. During September 2012 (existing counts), approximately 214 units were occupied. However, the entire Phase I traffic was added for near-term (2017) conditions.
N-2. Carmel Pacific Ridge Apartments[b]	Residential	533 multi-dwelling units	3,198	Constructed. As construction was completed in May 2013, no units were occupied during September 2012 (existing counts).
N-3. Mission Valley Fire Station	Fire Station	16,000 SF	50	Constructed but not yet occupied. Trip generation based on 17 personnel (Mission Valley PFFP) and 5.5 calls per day (received from Fire Department).
N-4. USD Master Plan[c]	University	3,000 FTE	10,200	Under Process
N-5. Union Tribune Master Plan	Multi-Family Residential Specialty Retail	200 Units 3,000 SF	1,128	In Review
N-6. Camino Del Rio Mixed Use	Multi-Family Residential Multi-Tenant Office Retail	305 dwelling units 5,000 SF 4,000 SF	1,432	Approved by Planning Commission on 10/30/2014.

Footnotes:

a. As of February 2015, approximately 1,512 dwelling units and no commercial has been built at the Quarry Falls (Civita) development. This is lower than the assumed development of 2,477 dwelling units and 100,000 SF of commercial. Therefore, since higher density was included, the cumulative analysis is considered conservative,

b. The Carmel Pacific Ridge project was constructed and occupied in May 2013. Since the traffic counts were conducted prior to May 2013, it was included as a part of cumulative analysis.

c. As of February 2015, the USD Master Plan proposes an additional 2,710 FTE students. This is lower than the assumed density of 3,000 FTE. Therefore the cumulative analysis is conservative.

General Notes:

1. No development associated with the Hazard Center redevelopment was assumed, since the Hazard Center Drive extension was not considered as a near term roadway network change. This improvement is a condition of approval for the Hazard Center expansion/redevelopment project.
2. FTE – Full Time Equivalent.

TABLE 6-2
CUMULATIVE PROJECTS – YEAR 2035 (HORIZON YEAR)

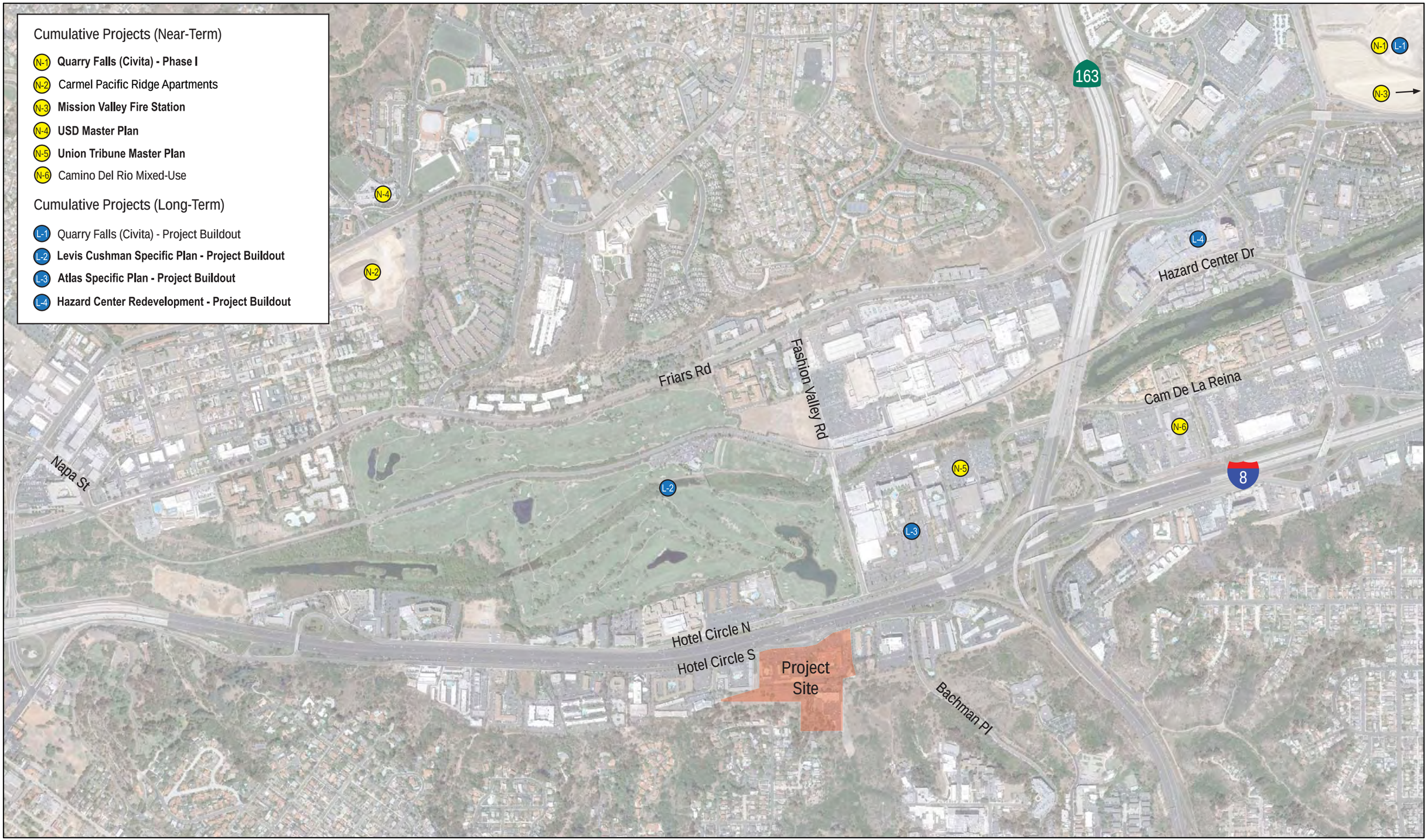
Project Name	Type of Development	Project Size	ADT	Status
L-1. Quarry Falls (Civita) – *Project Buildout*	Residential Retail Commercial Community Commercial Neighborhood Commercial Commercial Office Recreation Center	4,780 dwelling units 503,000 SF 50,000 SF 50,000 SF 620,000 SF 4,000 SF	52,330	Approved. Project Buildout expected to be complete by Year 2035.
L-2. Levi-Cushman Specific Plan (Riverwalk Master Plan) – *Project Buildout*[a]	Residential Hotel Office Retail	1,329 dwelling units 1,000 Hotel rooms 200,000 SF 2,582,000 SF	67,000	Initiation approved in October 2014.
L-3. Atlas Specific Plan – *Project Buildout*[b,c]	Office Hotel	157,500 SF 1,701 rooms	30,870	Approved. Not yet constructed
L-4. Hazard Center Redevelopment – *Project Buildout*	Residential Commercial / Retail	473 multi-dwelling units 4,205 SF Commercial / Retail (includes demolition of 1,540 seat theater)	950	Approved. Not yet constructed

Footnotes:

a. As of February 2015, the Riverwalk Master Plan (formerly Levi-Cushman Specific Plan) is proposing 4,000 dwelling units, 150,000 SF of commercial retail and office and 950,000 SF of office, 900 room hotel and 40-acre park, generating 51,980 ADT. This is lower than original Specific Plan trip generation of 67,000 ADT. However, the horizon year traffic analysis assumes 67,000 ADT to be conservative.

b. The Atlas Specific Plan includes a total buildout of 3,396 hotel rooms and 216,658 SF of office space generating 30,870 ADT. As of 2015, a total of 1695 hotel rooms and 59,158 SF of office uses have been built.

c. The Town and Country property (part of Atlas Specific Plan) is currently in the process of redeveloping, As of February 2015, the Town and Country Master Plan demolishes 254 rooms and 35,625 SF of convention space and backfill with 840 dwelling units generating 376 net ADT. This is lower than original Specific Plan trip generation for the Town and Country property of 13,400 ADT.



LINSCOTT LAW & GREENSPAN engineers

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Date: 09/23/14

Figure 6-1

Cumulative Projects Location Map

LEGACY INTERNATIONAL PROJECT

7.0 EXISTING ANALYSIS

The analysis of existing conditions includes the assessment of the study area intersections and street segments using the methodologies described in *Section 5.0*.

7.1 Existing Intersection Operations

Intersection capacity analyses were conducted for the study intersections under existing conditions. ***Table 7–1*** reports the intersection operations during the peak hour conditions. As shown in *Table 7–1*, all study area intersections were currently calculated to operate at LOS D or better with the exception of the following:

- Hotel Circle S. / I-8 EB Ramps (LOS F during the PM peak hour)

Appendix E contains the intersection analysis worksheets for the Existing scenario.

7.2 Existing Street Segment Operations

Existing street segment analyses were conducted for roadways in the study area. ***Table 7–2*** reports existing street segment operations on a daily basis. As shown in *Table 7–2*, 4 of the 10 study area street segments were currently calculated to operate at LOS D or better with the exception of the following:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS E)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS E)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS E)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

7.3 Existing Freeway Segment Operations

Freeway segments were analyzed under existing conditions. *Appendix E* contains the detailed calculation sheets for the existing scenario. As shown in ***Table 7–3***, all study area freeway segments were currently calculated to operate at LOS D or better.

TABLE 7–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
1. Hotel Circle N. / I-8 WB Ramps	AWSC[c]	AM PM	11.4 11.0	B B
2. Hotel Circle N. / Fashion Valley Road	Signal	AM PM	20.2 54.5	C D
3. Hotel Circle N. / Camino De La Reina	Signal	AM PM	11.6 17.4	B B
4. Hotel Circle S. / Project Driveway (W)	OWSC[d]	AM PM	*DNE* *DNE*	– –
5. Hotel Circle S. / I-8 EB Ramps	AWSC	AM PM	13.5 **54.2**	B **F**
6. Hotel Circle S. / Project Driveway (E)	OWSC	AM PM	*DNE* *DNE*	– –
7. Hotel Circle S. / Bachman Place	Signal	AM PM	26.8 21.6	C C

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. AWSC – All-Way Stop Controlled intersection.
d. OWSC – One-Way Stop Controlled intersection.

General Notes:
1. **Bold** typeface indicates intersections operating at LOS E or F.
2. DNE – Does not exist.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 7–2
EXISTING STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]	V/C [d]
Camino De La Reina					
Hotel Circle to Avenida Del Rio	2-Lane Collector *(continuous left-turn lane)*	15,000	11,680	D	0.779
Hotel Circle N.					
West of I-8 WB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	8,650	C	0.577
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**16,800**	**F**	**1.120**
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**13,170**	**E**	**0.878**
Hotel Circle S.					
West of Project Driveway (W)	2-Lane Collector *(continuous left-turn lane)*	15,000	7,800	C	0.520
Project Driveway (W) to I-8 EB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	7,800	C	0.520
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,350**	**E**	**0.957**
Fashion Valley Road					
Avenida Del Rio to Hotel Circle N.	4-Lane Collector	15,000	**13,700**	**E**	**0.913**

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.

b. Average Daily Traffic Volumes.

c. Level of Service.

d. Volume to Capacity.

General Notes:

1. **Bold** typeface indicates segments operating at LOS E or F.

TABLE 7–3
EXISTING FREEWAY SEGMENT OPERATIONS

Freeway and Segment	ADT[b]	AM Peak Hour						PM Peak Hour					
		Direction & Number of Lanes		Capacity[a]	Volume	V/C[c]	LOS[d]	Direction & Number of Lanes		Capacity[a]	Volume	V/C[c]	LOS[d]
I-8													
West of Hotel Circle Ramps	190,000	EB Mainlines	4M	8,000	4,940	0.618	B	EB Mainlines	4M	8,000	6,197	0.775	C
		WB Mainlines	4M+ 1A	9,200	7,580	0.824	D	WB Mainlines	4M+ 1A	9,200	7,250	0.788	C
Hotel Circle Ramps to SR-163	199,000	EB Mainlines	4M+ 1A	9,200	5,080	0.552	B	EB Mainlines	4M+ 1A	9,200	7,100	0.772	C
		WB Mainlines[e]	4M+ 1A	9,200	8,368	0.910	D	WB Mainlines	4M+ 1A	9,200	7,465	0.811	D

Footnotes:

a. Capacity calculated at 2,000 vehicles / hour per mainline lane, 2,000 vehicles / hour per collector distributor lane and 1,200 vehicles / hour per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Existing ADT Volumes from PeMS, September 2012.

c. Volume to Capacity

d. Level of Service

e. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix E* for calculation sheets.

8.0 PROJECT TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

The following is a discussion of the existing land uses, project trip generation and the project traffic distribution and assignment to the local and regional network.

8.1 Existing Land Uses

The project site located at 875 Hotel Circle South is currently occupied by the Mission Valley Resort Hotel. The existing site includes a 202-room resort hotel, a 150-seat restaurant (Valley Kitchen) and 1,200 SF liquor store. In addition to these uses, a gas station and a health club were also operating on the site; however, they have closed. Based on discussions with City staff, no existing trip credits were taken for the gas station and the health club given that they have not operated for over six (6) months. This is a somewhat conservative approach since the vacant lots have entitlements to open for business at any time. The total trips (cumulative) associated with the health club and gas station are estimated at 1,328 ADT. Based on City rates, if assumed in the Proposed Project trip generation, the net new traffic would reduce by this amount. However, to be conservative, the health club and gas station were not assumed.

Based on the City of San Diego trip generation rates, the existing site is also calculated to generate a total of ***2,965 driveway*** ADT with 111 inbound / 86 outbound trips during the AM peak hour and 138 inbound / 100 outbound trips during the PM peak hour. The existing site is calculated to generate a total of ***2,595 cumulative*** ADT with 96 inbound / 71 outbound trips during the AM peak hour and 123 inbound / 86 outbound trips during the PM peak hour, as shown in ***Table 8–1***.

8.2 Proposed Land Uses

The LIC project proposes to replace and redevelop the site with a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. The intent of the project is to attract and accommodate patrons to the LIC in the timeshare suites and experience the various religious (prayer center, training center, healing rooms and theaters), recreational (health club) and commercial (retail bazaar and restaurant) facilities on-site. Given the atypical nature of the proposed land use and, to conduct an effective trip generation evaluation, the land uses were categorized into primary, secondary and ancillary. The following is a description of the proposed primary, secondary and ancillary uses.

Primary Uses

Primary traffic generating uses were categorized as those that are anticipated to generate or attract 100% of trips externally. These uses reflect more traditional uses such as residential/ lodging and office.

The project includes the following primary uses:

- *5-Story Timeshare Lodging "Tri-Wing" Tower containing 127 timeshare suites.*
- *3-Story Commercial Executive Office (approximately 23,000 SF) to manage daily on-site administration operations.*

Secondary Uses

Secondary traffic generating uses were categorized as those that generate or attract only a portion of trips externally (20% to 70%). The balance of the trips will be served by the primary uses and not generate any traffic. These uses reflect the religious functions and programs, commercial retail and recreational uses. An example of the trip synergy between a primary and secondary use include a religious event /program that will attract a primary trip from a local resident, however the same land uses will be attended by patrons staying at the timeshares who have already driven to the site. Therefore, only a portion of the total secondary uses will attract external trips since the balance of the trips have already been accounted for in the primary uses. This example can be applied to the other secondary uses such as the commercial/retail and recreational uses as well.

The project includes the following secondary uses:

- *The Legacy International Center Pavilion* (approximately 105,000 SF) includes a wellness center, gift shops, a restaurant, a 500-seat theater and a training center.
- *The Legacy Welcome Center Rotunda* includes a grand foyer, welcoming, registration and surround theater/presentation gallery.
- *The Legacy International Center Outreach Pavilion* includes a 330-seat theater and an artifact museum.
- *The Legacy International Amphitheater* includes a 300-seat outdoor amphitheater.
- *Retail Bazaar and Catacombs*

The density of the above uses is shown in *Table 8–1*.

Ancillary Uses

Ancillary uses are those that do not generate any measurable trips (for e.g.: lobby of a hotel, storage closet in an office building) and solely serve to add aesthetic and functional value to the project site. The density and trips associated of these uses are generally accounted for in the primary or secondary generating uses.

The project ancillary uses includes the following:

- 4,846 SF warehouse storage facility.
- 6,000 SF grand foyer.
- 14,673 SF grand foyer, welcoming and registration.

8.3 Project Trip Generation

Given the trip synergy of the various uses, the project trip generation was categorized into primary, secondary and ancillary uses and developed by assigning an external trip attraction percentage. For e.g.: the primary timeshare suites include an external trip attraction of 100% meaning that all trips to/from this land uses are external trips (i.e. no internal capture). Similarly, secondary land uses (such as the training centers and theaters) have a lower percentage (between 20% and 70%) to

account for the synergy between the various on-site uses. The ancillary land uses have 0% as they do not generate any trips.

The external trip attraction percentage was developed based on the nature and type of land use, density and estimated attraction of trips.

Table 8–1 summarizes the trip generation for the proposed project. The project traffic is divided into driveway, cumulative or pass-by trips. Driveway trips account for the total number of trips generated by the site (cumulative plus pass-by trips). Driveway trips are assigned to the project driveways. Cumulative trips are new trips added to the surrounding community and are used for the determination of project impacts (driveway minus pass-by trips). Pass-by trips account for estimated vehicles attracted to the site already on the adjacent roadway system such as Hotel Circle South and Hotel Circle North.

The total project is calculated to generate a total of 4,477 driveway ADT with 155 inbound / 55 outbound driveway trips during the AM peak hour and 315 inbound / 235 outbound driveway trips during the PM peak hour. ***The total project is calculated to generate a total of 4,400 cumulative ADT with 155 inbound / 55 outbound cumulative trips during the AM peak hour and 311 inbound / 232 outbound cumulative trips during the PM peak hour.***

With the existing trip credits, the proposed project is calculated generate a net total of 1,512 driveway ADT with 44 inbound / (31) outbound driveway trips during the AM peak hour and 177 inbound / 135 outbound driveway trips during the PM peak hour. ***The proposed project is calculated generate a net total of 1,805 cumulative ADT with 59 inbound / (16) outbound cumulative trips during the AM peak hour and 188 inbound / 146 outbound cumulative trips during the PM peak hour.***

A detailed trip generation table is included in ***Appendix F***.

8.4 Project Traffic Distribution and Assignment

The project trip distribution and assignment was based on existing roadway network and travel patterns, a working knowledge of the local transportation system and a detailed review of the proposed land uses and expected programming/target audience.

Figure 8–1 shows the project trip distribution percentages. ***Figure 8–2*** shows the "net" project traffic volumes. Since the "net" AM outbound volumes (*21*) were calculated to be negative, existing traffic volumes were not reduced to be conservative; instead, no volumes were assigned.

TABLE 8–1
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
PROPOSED PROJECT							
Legacy International Center Pavilion							
Wellness Center[a] (Gym) Secondary Generator	*Total*: 20,686 SF *Attraction* [b]: 50% *Effective:* 10,343 SF	40/KSF	*Cumulative (100%):* 414 *Pass-By (0%):*0 *Driveway (100%):* 414	10 - 10	7 - 7	23 - 23	15 - 15
Gift Shops (Retail)[c] Secondary Generator	*Total*: 15,000 SF *Attraction*: 40% *Effective:* 6,000 SF	40/KSF	*Cumulative (90%):* 216 *Pass-By (10%):* 24 *Driveway (100%):* 240	4 - 4	3 - 3	10 1 11	10 1 11
Third Floor Restaurant[d] Secondary Generator	*Total*: 10,000 SF *Attraction*: 30% *Effective:* 3,000 SF	100/KSF	*Cumulative (90%):* 270 *Pass-By (10%):* 30 *Driveway (100%):* 300	2 - 2	1 - 1	15 2 17	6 1 7
Theater[e] Secondary Generator	*Total*: 500 seats *Attraction*: 20% *Effective:* 100 seats	1.8/seat	*Cumulative (100%):* 180 *Pass-By (0%):* 0 *Driveway (100%):* 180	4 - 4	3 - 3	10 - 10	4 - 4
Training Center[f] Secondary Generator	*Total*: 39,432 SF *Attraction*: 40% *Effective:* 15,773 SF	60/KSF	*Cumulative (100%):* 946 *Pass-By (0%):*0 *Driveway (100%):* 946	30 0 30	8 0 8	38 0 38	38 0 38
Warehouse Storage Ancillary Use	*Total*: 4,846 SF *Attraction*: 0% *Effective:* 4,846 SF	N/A	*Cumulative (0%):* 0 *Pass-By (0%):* 0 *Driveway (0%):* 0	- - -	- - -	- - -	- - -
Grand Foyer Ancillary Use	*Total*: 6,000 SF *Attraction*: 0% *Effective:* 6,000 SF	N/A	*Cumulative (0%):* 0 *Pass-By (0%):* 0 *Driveway (0%):* 0	- - -	- - -	- - -	- - -
Legacy Welcome Center Rotunda							
Grand Foyer, Welcoming & Registration Ancillary Use	*Total*: 10,717 SF *Attraction*: 0% *Effective:* 10,717SF	N/A	*Cumulative (0%):* 0 *Pass-By (0%):* 0 *Driveway (0%):* 0	- - -	- - -	- - -	- - -
Surround Theater / Presentation Gallery[e] Secondary Generator	*Total*: 6,295 SF *Attraction*: 20% *Effective:* 1,260 SF	80/KSF	*Cumulative (100%):* 101 *Pass-By (0%):* 0 *Driveway (100%):* 101	2 - 2	2 - 2	6 - 6	2 - 2
The Inter Faith World Legacy Outreach Pavilion							
Theater and Artifact Museum[e] Secondary Generator	*Total*: 330 seats *Attraction*: 20% *Effective:* 66 seats	1.8/seat	*Cumulative (100%):* 119 *Pass-By (0%):* 0 *Driveway (100%):* 119	4 - 4	1 - 1	5 - 5	5 - 5

TABLE 8–1
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
The Tri Wing "Legacy Village"							
Timeshare Rooms[g] Primary Generator	*Total*: 127 rooms	8/room	*Cumulative (100%):* 1,016	30	20	28	43
	Attraction: 0%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 127 rooms		*Driveway (100%):* 1,016	30	20	28	43
"Mount Horeb" Out Door Amphitheater							
Amphitheater[e] Secondary Generator	*Total*: 300 seats	1.8/seat	*Cumulative (100%):* 378	-	-	151	38
	Attraction: 70%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 210 seats		*Driveway (100%):* 378	-	-	151	38
Legacy International Executive Offices							
Executive Office[i] Primary Generator	*Total*: 23,028 SF	Ln formula	*Cumulative (100%):* 556	65	7	16	62
	Attraction: 100%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 23,028SF		*Driveway (100%):* 556	65	7	16	62
Retail Bazaar & Catacombs							
Retail Bazaar[c] Secondary Generator	*Total*: 8,200 SF	40/KSF	*Cumulative (90%):* 118	2	2	5	5
	Attraction: 40%		*Pass-By (10%):* 13	-	-	1	1
	Effective: 3,280 SF		*Driveway (100%):* 131	2	2	6	6
Retail[c] Secondary Generator	*Total*: 5,992 SF	40/KSF	*Cumulative (90%):* 86	2	1	4	4
	Attraction: 40%		*Pass-By (10%):* 10	-	-	-	-
	Effective: 2,397 SF		*Driveway (100%):* 96	2	1	4	4
TOTAL Proposed Project			***Cumulative: 4,400***	***155***	***55***	***311***	***232***
			Pass-By: 77	***0***	***0***	***4***	***3***
			Driveway: 4,477	***155***	***55***	***315***	***235***
EXISTING SITE							
Resort Hotel [j]	*Total*: 202 rooms	10/room	*Cumulative (100%):* 2,020	73	48	97	65
	Attraction: 100%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 202 rooms		*Driveway (100%):* 2,020	73	48	97	65
Valley Kitchen Restaurant [k]	*Total*: 5,300 SF	130/KSF	*Cumulative (80%):* 276	11	11	14	9
	Attraction: 50%[l]		*Pass-By (20%):* 69	3	3	3	2
	Effective: 2,650 SF		*Driveway (100%):* 345	14	14	17	11
Gas Station *(closed)*[m]	*Total*: 8 pumps	130/pump	*Cumulative (20%):* 0	-	-	-	-
	Attraction: 100%		*Pass-By (80%):* 0	-	-	-	-
	Effective: 8 pumps		*Driveway (100%):* 0	-	-	-	-
Frog's Health Club (*closed)*[m]	*Total*: 28,000 SF	40/KSF	*Cumulative (100%):* 0	-	-	-	-
	Attraction: 100%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 28,000 SF		*Driveway (100%):* 0	-	-	-	-

TABLE 8–1
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
Liquor Store [n]	*Total*: 1,200 SF *Attraction*: 100% *Effective:* 1,200 SF	500/KSF	*Cumulative (50%):* 300 *Pass-By (50%):* 300 *Driveway (100%):600*	12 12 24	12 12 24	12 12 24	12 12 24
TOTAL Existing			***Cumulative: 2,595*** ***Pass-By: 370*** ***Driveway: 2,965***	***96*** ***15*** ***111***	***71*** ***15*** ***86***	***123*** ***15*** ***138***	***86*** ***14*** ***100***
NET NEW PROJECT TRIPS [o]			***Cumulative: 1,805*** ***Pass-By: (293)*** ***Driveway: 1,512***	***59*** ***(15)*** ***44***	***(16)*** ***(15)*** ***(31)***	***188*** ***(11)*** ***177***	***146*** ***(11)*** ***135***

Footnotes:

a. City of San Diego trip rate for “health club” used.

b. External trip attraction (%) indicates external primary trips attracted to the project site. The balance of the land use SF is assumed to be captured internally.

c. Trip rate for "specialty retail" used.

d. City of San Diego trip rate for "quality restaurant" used.

e. City of San Diego trip rate for "theater" used. City of San Diego trip rates show 0% AM ADT. AM assumed as 4% to be conservative.

f. City of San Diego trip rate for "house of worship" used. To be conservative, the typical trip rate of 15 / KSF was quadrupled.

g. No City of San Diego trip rate for "timeshare". Hence, City of San Diego for "resort" hotel was used.

h. No City of San Diego trip rate for "amphitheater". A trip rate of 1.8 / seat was used based on City trip rates. No AM peak hour trips assumed and majority of PM peak hour trips assumed to arrive within the hour.

i. City of San Diego trip rate for "commercial office" used by applying the Ln formula: Ln(T) = 0.756 Ln (x) + 3.95.

j. Existing hotel includes 202 guest rooms and 7,000 SF convention space. Hence, City of San Diego trip rate of 10 trips per room was used.

k. City of San Diego trip rate for "high turnover restaurant (sit-down)" used.

l. 50% of trips generated by the restaurant assumed to be independent from trips attracted from the resort hotel.

m. Based on discussions with City staff, no existing trip credits are assumed for the gas station and health club, given that they have been closed for over 6 months.

n. Square-footage measured from aerial photos. City of San Diego trip rate for "convenience market chain" used.

o. Net new trips = Proposed Project — Existing.

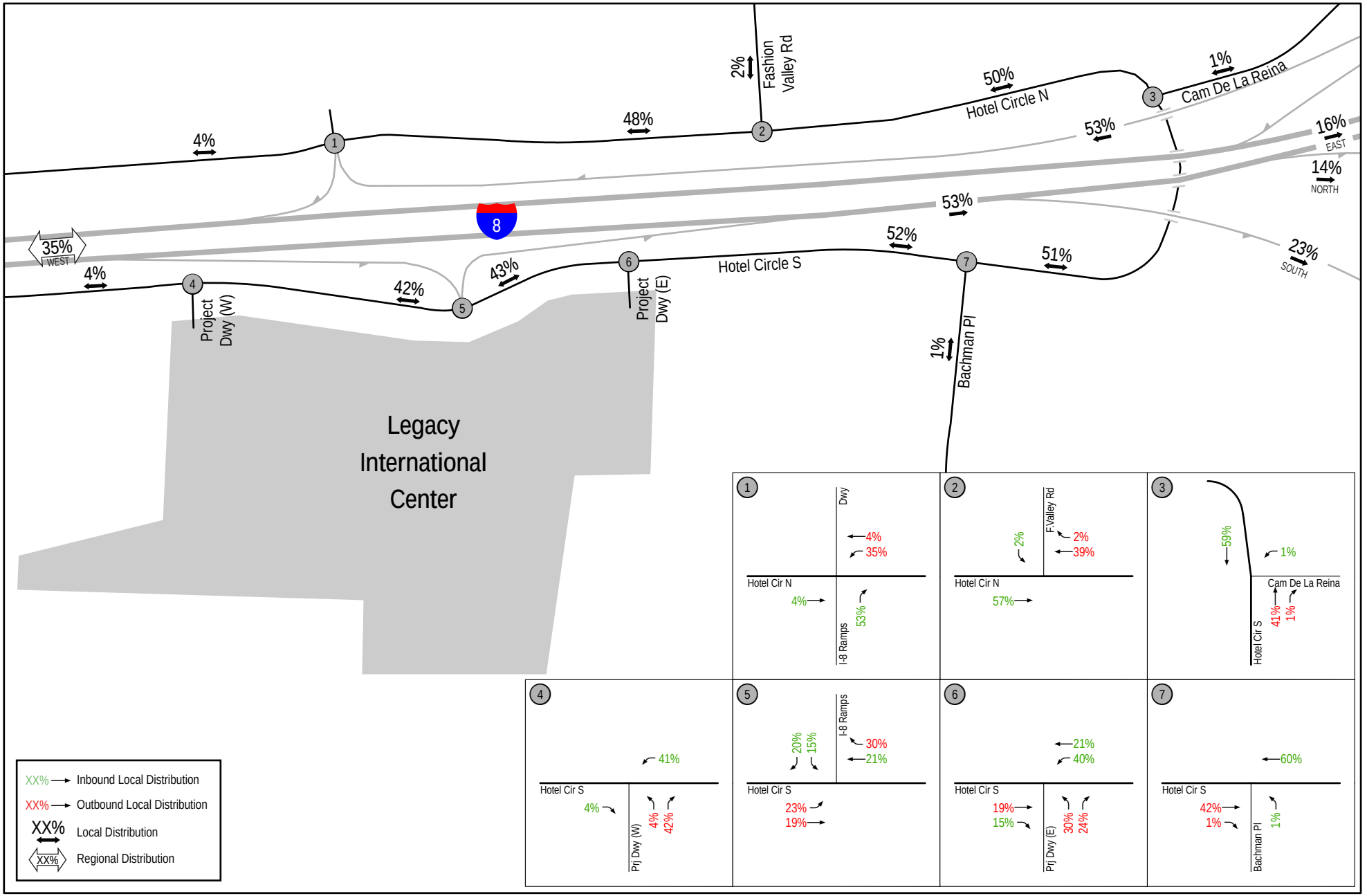

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Figure 8-1

Project Traffic Distribution

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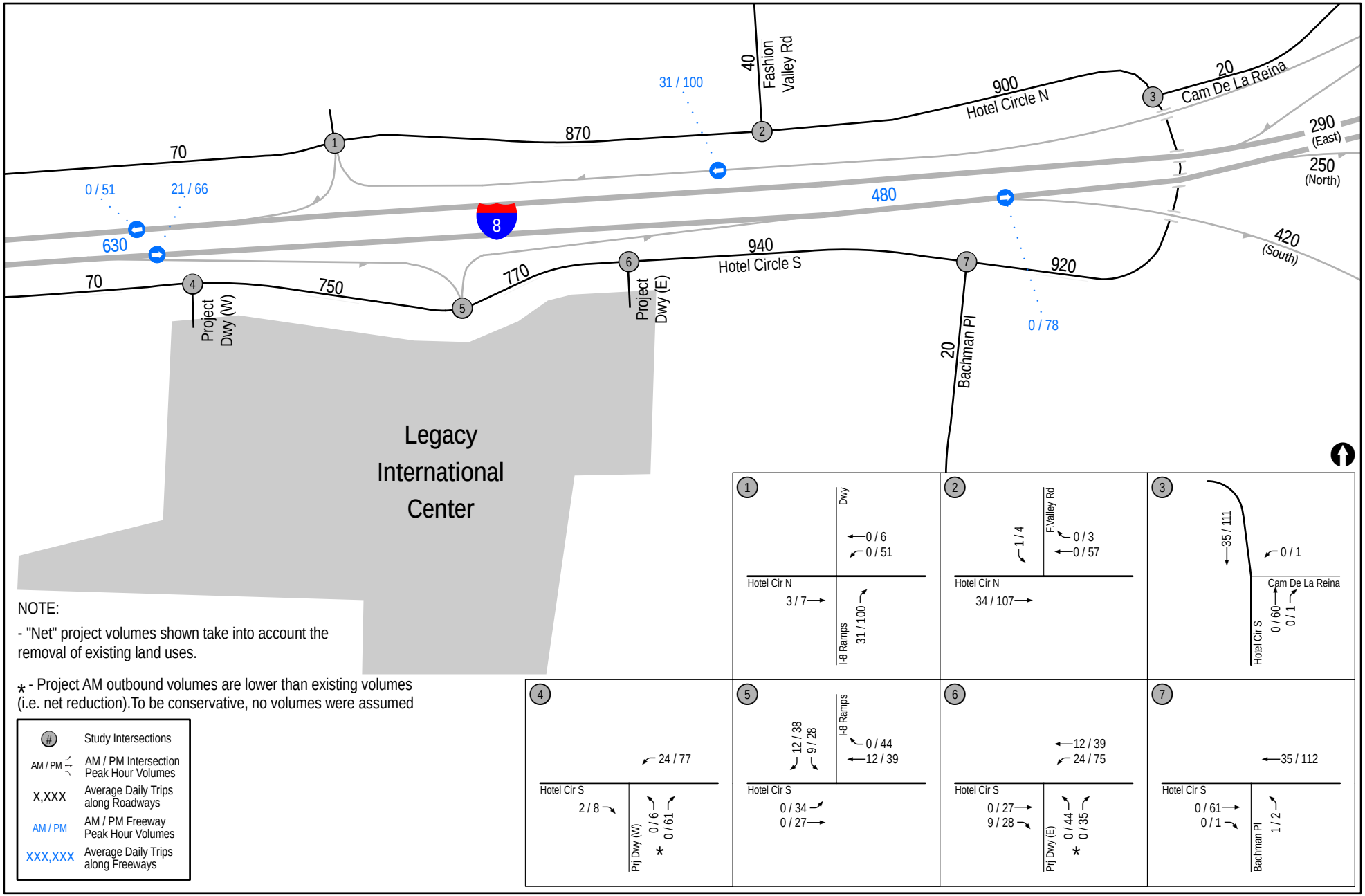

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Figure 8-2

"Net" Project Traffic Volumes

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9.0 EXISTING + PROJECT ANALYSIS

Existing + Project conditions assumes the proposed project under the existing environmental conditions (existing traffic volumes, existing roadway infrastructure, and existing surrounding land uses).

Figure 9–1 illustrates the Existing + Project AM and PM peak hour turning movement volumes and daily traffic volumes.

9.1 Existing + Project Intersection Operations

Intersection capacity analyses were conducted for the study intersections under Existing + Project conditions. ***Table 9–1*** reports the intersection operations during the peak hour conditions. As shown in *Table 9–1*, all study area intersections were calculated to continue to operate at LOS D or better under Existing + Project conditions with the exception of the following:

- Hotel Circle S./ I-8 EB Ramps (LOS F during the PM peak hour)

Based on the City's significance criteria, **significant direct impacts** were identified at the Hotel Circle S./ I-8 EB Ramps intersection. Mitigation measures for these impacts are discussed in detail in ***Section 17.0***. ***Appendix G*** contains the intersection analysis worksheets for the Existing + Project scenario.

TABLE 9–1
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ[c]	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle N. / I-8 WB Ramps	AWSC[d]	AM	11.4	B	12.0	B	0.6	No
		PM	11.0	B	12.5	B	1.5	No
2. Hotel Circle N. / Fashion Valley Road	Signal	AM	20.2	C	20.9	C	0.7	No
		PM	54.5	D	54.6	D	0.1	No
3. Hotel Circle N. / Camino De La Reina	Signal	AM	11.6	B	12.0	B	0.4	No
		PM	17.4	B	21.5	C	4.1	No
4. Hotel Circle S. / Project Driveway (W)	OWSC[e]	AM	DNE	DNE	13.3	B	13.3	No
		PM	DNE	DNE	25.4	D	25.4	No
5. Hotel Circle S. / I-8 EB Ramps	AWSC	AM	13.5	B	13.9	B	0.4	No
		PM	**54.2**	**F**	**181.3**	**F**	**127.1**	**Yes**
6. Hotel Circle S. / Project Driveway (E)	OWSC[f]	AM	*DNE*	–	14.3	B	–	No
		PM	*DNE*	–	**41.9**	**E**	–	No
7. Hotel Circle S. / Bachman Place	Signal	AM	26.8	C	27.6	C	0.8	No
		PM	21.6	C	24.0	C	2.4	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay.
d. AWSC – All-Way Stop Controlled intersection.
e. OWSC – One-Way Stop Controlled intersection. Minor street left turn delay is reported.
f. The minor street left-turn (NB left-turn) delay is reported. The major street left-turn (WB left-turn) delay was also reviewed and operates at LOS A in the AM and PM peak periods. Calculation sheets are contained in *Appendix G*. The delay and queuing (shown in *Appendix L*) are calculated to be on-site.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.
2. DNE – Does not exist.
3. WBL – westbound left-turn.
4. NBL – northbound left-turn.

9.2 Existing + Project Street Segment Operations

Existing + Project street segment analyses were conducted for roadways in the study area. ***Table 9–2*** reports the Existing + Project street segment operations on a daily basis. As shown in *Table 9–2*, 4 of the 10 study area street segments were calculated to continue operate at LOS D or better under Existing + Project conditions with the exception of the following:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

Based on the City of San Diego's significance criteria, **no significant direct impacts** were identified on the following street segment as the increase in V/C ratio is within the allowable threshold (see *Table 4–1*):

- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

However, **significant direct impacts** were identified on the following street segments:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)

Mitigation measures for these impacts are discussed in detail in *Section 16.0.*

TABLE 9–2
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Existing			Project Added ADT	Existing + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Camino De La Reina											
Hotel Circle to Avenida Del Rio	2-Lane Collector *(continuous left-turn lane)*	15,000	11,680	D	0.779	20	11,700	D	0.780	0.001	No
Hotel Circle N.											
West of I-8 WB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	8,650	C	0.577	70	8,720	C	0.581	0.004	No
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**16,800**	**F**	**1.120**	870	**17,670**	**F**	**1.178**	**0.058**	**Yes**
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**13,170**	**E**	**0.878**	900	**14,070**	**E**	**0.938**	**0.060**	**Yes**
Hotel Circle S.											
West of Project Driveway (W)	2-Lane Collector *(continuous left-turn lane)*	15,000	7,800	C	0.520	70	7,870	C	0.525	0.005	No
Project Driveway (W) to I-8 EB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	7,800	C	0.520	750	8,550	C	0.570	0.050	No
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**	770	15,160	**F**	**1.011**	**0.052**	**Yes**
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**	940	**15,330**	**F**	**1.022**	**0.063**	**Yes**
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,350**	**E**	**0.957**	920	**15,270**	**F**	**1.018**	**0.061**	**Yes**

TABLE 9–2
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Existing			Project Added ADT	Existing + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Fashion Valley Road											
Avenida Del Rio to Hotel Circle N.	4-Lane Collector	15,000	**13,700**	**E**	**0.913**	40	**13,740**	**E**	**0.916**	0.003	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.

b. Average Daily Traffic Volumes.

c. Level of Service.

d. Volume to Capacity.

e. "Δ" denotes the project-induced increase in V/C.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.

9.3 Existing + Project Freeway Segment Operations

Freeway segments were analyzed under Existing + Project conditions. *Appendix G* contains the detailed calculations sheets for the Existing + Project scenario. As shown in ***Table 9–3***, all study area freeway segments were calculated to continue to operate at LOS D or better.

Based on the City of San Diego's significance criteria, **no significant direct impacts** were identified on all study area freeway segments.

TABLE 9–3A
EXISTING + PROJECT FREEWAY SEGMENT OPERATIONS—AM PEAK HOUR

Freeway and Segment	Existing + Project ADT	Direction & Number of Lanes		Capacity[a]	Existing			Existing + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C	LOS		
I-8												
West of Hotel Circle Ramps	190,630	EB Mainlines	4M	8,000	4,940	0.618	B	4,961	0.620	C	0.002	No
		WB Mainlines	4M+ 1A	9,200	7,580	0.824	D	7,580	0.824	D	0.000	No
Hotel Circle Ramps to SR-163	199,480	EB Mainlines	4M+ 1A	9,200	5,080	0.552	B	5,080	0.552	B	0.000	No
		WB Mainlines[d]	4M+ 1A	9,200	8,368	0.910	D	8,368	0.910	D	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / hour per mainline lane, 2,000 vehicles / hour per collector distributor lane and 1,200 vehicles / hour per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Volume to Capacity

c. Level of Service

d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1.See *Appendix G* for calculation sheets

TABLE 9–3B
EXISTING + PROJECT FREEWAY SEGMENT OPERATIONS—PM PEAK HOUR

Freeway and Segment	Existing + Project ADT	Direction, &Number of Lanes		Capacity[a]	Existing			Existing + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C	LOS		
I-8												
West of Hotel Circle Ramps	190,630	EB Mainlines	4M	8,000	6,197	0.775	C	6,263	0.783	C	0.008	No
		WB Mainlines	4M+ 1A	9,200	7,250	0.788	C	7,301	0.794	C	0.006	No
Hotel Circle Ramps to SR-163	199,480	EB Mainlines	4M+ 1A	9,200	7,100	0.772	C	7,178	0.780	C	0.008	No
		WB Mainlines[d]	4M+ 1A	9,200	7,465	0.811	D	7,465	0.811	D	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / hour per mainline lane, 2,000 vehicles / hour per collector distributor lane and 1,200 vehicles / hour per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Volume to Capacity

c. Level of Service

d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix G* for calculation sheets

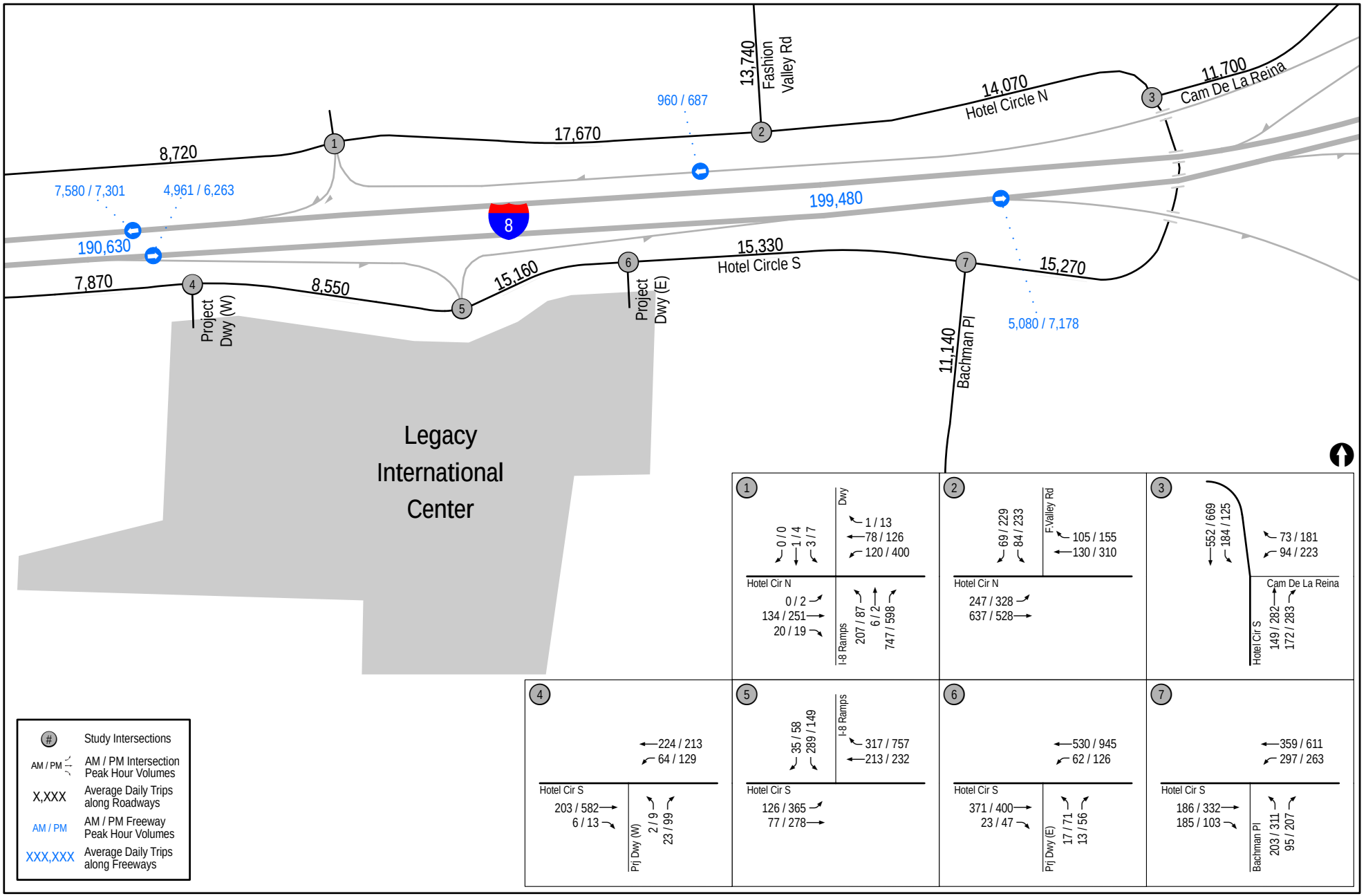

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Figure 9-1

Existing + Project Traffic Volumes

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10.0 NEAR-TERM (OPENING DAY 2017) ANALYSIS

The following section presents the analysis of study area intersections and street segments under Near-Term (Opening Day 2017) conditions with and without the proposed project.

10.1 Near-Term (Opening Day 2017) Improvements

Planned Local and Regional Improvements

In assessing the impacts of the proposed development, it was necessary to review planned, on-going and future roadway improvements in the study area.

For the purposes of this traffic study, the implementation of a number of local and regional roadway improvements were reviewed based on coordination with City staff and information provided in the *Mission Valley Public Financing Plan* (PFFP). However, based on the funding status, feasibility, and the likelihood of improvements being constructed in the Near-Term (Opening Day 2017), no imminent improvements were identified and none were assumed.

10.2 Near-Term (Opening Day 2017) Conditions

Near-Term (Opening Day 2017) Traffic Volumes

Near-Term (Opening Day 2017) conditions represent existing condition plus any Near-Term (Opening Day 2017) cumulative projects which could reasonably be expected to be built prior to the project's expected opening day in 2017. Near-Term (Opening Day 2017) traffic volumes were calculated for the study area by adding the projected cumulative volumes to the existing volumes. The traffic volumes represent LLG's and the City's best efforts of forecasting Near-Term (Opening Day 2017) conditions with the most recent information available at the time this report was prepared. Cumulative project information is provided in *Section 6.0*.

Figure 10–1 shows the Near-Term (Opening Day 2017) traffic volumes. ***Figure 10–2*** shows the Near-Term (Opening Day 2017) + Project traffic volumes.

10.3 Near-Term (Opening Day 2017) Intersection Operations

Intersection capacity analyses were conducted for the study intersections under Near-Term (Opening Day 2017) without Project conditions. ***Table 10–1*** reports the intersection operations during the peak hour conditions. As shown in *Table 10–1,* all study area intersections were calculated to operate at LOS D or better under Near-Term (Opening Day 2017) without Project conditions with the exception of the following:

- Hotel Circle S. / I-8 EB Ramps (LOS F during the PM peak hour)

Appendix H contains the intersection analysis worksheets for the Near-Term (Opening Day 2017) scenario.

Intersection capacity analyses were conducted for the study intersections under Near-Term (Opening Day 2017) + Project conditions. *Table 10–1* reports the intersection operations during the peak hour conditions. As shown in *Table 10–1,* all study area intersections were calculated to continue to

operate at LOS D or better under Near-Term (Opening Day 2017) + Project conditions with the exception of the following:

- Hotel Circle S. / I-8 EB Ramps (LOS E during the AM and LOS F during the PM peak hour)

Appendix I contains the intersection analysis worksheets for the Near-Term (Opening Day 2017) + Project scenario.

Based on the City of San Diego's significance criteria, **significant direct impacts** were identified at the Hotel Circle S./ I-8 EB Ramps intersection. Mitigation measures for these impacts are discussed in detail in ***Section 18.0***.

TABLE 10–1
NEAR-TERM (OPENING DAY 2017) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term (Opening Day 2017)		Near-Term (Opening Day 2017) + Project		Δ[c]	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle N. / I-8 WB Ramps	AWSC[d]	AM	11.6	B	12.2	B	0.6	No
		PM	11.2	B	12.9	B	1.7	No
2. Hotel Circle N. / Fashion Valley Road	Signal	AM	20.5	C	21.2	C	0.7	No
		PM	54.5	D	54.6	D	0.1	No
3. Hotel Circle N. / Camino De La Reina	Signal	AM	12.3	B	13.6	B	1.3	No
		PM	21.1	C	28.1	C	7.0	No
4. Hotel Circle S. / Project Driveway (W)	OWSC[e]	AM	DNE	DNE	13.3	B	13.3	No
		PM	DNE	DNE	25.6	D	25.6	No
5. Hotel Circle S. / I-8 EB Ramps	AWSC	AM	14.2	B	**35.4**	**E**	**21.2**	**Yes**
		PM	**62.5**	**F**	**194.4**	**F**	**131.9**	**Yes**
6. Hotel Circle S. / Project Driveway (E)	OWSC[f]	AM	*DNE*	–	14.8	B	–	No
		PM	*DNE*	–	44.8	E	–	No
7. Hotel Circle S. / Bachman Place	Signal	AM	27.1	C	27.9	C	0.8	No
		PM	22.3	C	25.3	C	3.0	No

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay
d. AWSC – All-Way Stop Controlled intersection.
e. OWSC – One-Way Stop Controlled intersection. Minor street left turn delay is reported.
f. The minor street left-turn (NB left-turn) is reported. The major street left-turn (WB left-turn) was also reviewed and operates at LOS A in the AM and PM peak periods. Calculation sheets are contained in *Appendix I.* The delay and queuing (shown in *Appendix L*) are calculated to be on-site.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

General Notes:
1. **Bold** typeface indicates intersections operating at LOS E or F.
2. DNE – Does not exist.

10.4 Near-Term (Opening Day 2017) Street Segment Operations

Street segment analyses were conducted for roadways in the study area under Near-Term (Opening Day 2017) without Project conditions. ***Table 10–2*** reports the street segment operations on a daily basis. As shown in *Table 10–2*, 3 of the 10 study area street segments were calculated to operate at LOS D or better under Near-Term (Opening Day 2017) without Project conditions with the exception of the following:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS E)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS E)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS E)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

Street segment analyses were conducted for roadways in the study area under Near-Term (Opening Day 2017) + Project conditions. *Table 10–2* reports the street segment operations on a daily basis. As shown in *Table 10–2*, 3 of the 10 study area street segments were calculated to continue to operate at LOS D or better under Opening Day + Project conditions with the exception of the following:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

Based on the City of San Diego's significance criteria, **no significant direct impacts** were identified on the following street segment as the increase in V/C ratio is within the allowable threshold (see *Table 4–1*):

- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

However, **significant direct impacts** were identified on the following street segments:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS E)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)

Mitigation measures for these impacts are discussed in detail in *Section 17.0.*

TABLE 10–2
NEAR-TERM (OPENING DAY 2017) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Near-Term (Opening Day 2017)			Project Added ADT	Near-Term (Opening Day 2017) + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Camino De La Reina											
Hotel Circle to Avenida Del Rio	2-Lane Collector *(continuous left-turn lane)*	15,000	12,630	D	0.842	20	12,650	D	0.843	0.001	No
Hotel Circle N.											
West of I-8 WB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	8,680	C	0.579	70	8,750	C	0.583	0.004	No
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**17,230**	**F**	**1.149**	870	**18,100**	**F**	**1.207**	**0.058**	**Yes**
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**13,640**	**E**	**0.909**	900	**14,540**	**E**	**0.969**	**0.060**	**Yes**
Hotel Circle S.											
West of Project Driveway (W)	2-Lane Collector *(continuous left-turn lane)*	15,000	7,840	C	0.523	70	7,910	C	0.527	0.004	No
Project Driveway (W) to I-8 EB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	7,840	C	0.523	750	8,590	C	0.573	0.050	No
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	770	**15,600**	**F**	**1.040**	**0.051**	**Yes**
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	940	**15,770**	**F**	**1.051**	**0.062**	**Yes**
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	920	**15,750**	**F**	**1.050**	**0.061**	**Yes**

TABLE 10–2
NEAR-TERM (OPENING DAY 2017) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Near-Term (Opening Day 2017)			Project Added ADT	Near-Term (Opening Day 2017) + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Fashion Valley Road											
Avenida Del Rio to Hotel Circle N.	4-Lane Collector	15,000	**13,740**	**E**	**0.916**	40	**13,780**	**E**	**0.919**	0.003	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.

b. Average Daily Traffic Volumes.

c. Level of Service.

d. Volume to Capacity.

e. "Δ" denotes the project-induced increase in V/C.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.

10.5 Near-Term (Opening Day 2017) Freeway Segment Operations

Freeway segments were analyzed under Near-Term (Opening Day 2017) without and with Project conditions. *Appendix H* contains the freeway analysis calculation sheets for the Opening Day (Year 2017) scenario. *Appendix I* contains the freeway analysis calculation sheets for the Opening Day (Year 2017) + Project scenario. As shown in ***Table 10–3***, all study area freeway segments were calculated to continue to operate at LOS D or better.

Based on the City of San Diego's significance criteria, **no significant direct impacts** were identified on the study area freeway segments.

TABLE 10–4A
NEAR-TERM (OPENING DAY 2017) FREEWAY SEGMENT OPERATIONS—AM PEAK HOUR

Freeway and Segment	Near-Term (Opening Day 2017) ADT	Direction & Number of Lanes		Capacity[a]	Near-Term			Near-Term (Opening Day 2017) + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C[b]	LOS[c]		
I-8												
West of Hotel Circle Ramps	190,300	EB Mainlines	4M	8,000	4,946	0.618	B	4,967	0.621	C	0.003	No
		WB Mainlines	4M+ 1A	9,200	7,599	0.826	D	7,599	0.826	D	0.000	No
Hotel Circle Ramps to SR-163	199,330	EB Mainlines	4M+ 1A	9,200	5,113	0.556	B	5,113	0.556	B	0.000	No
		WB Mainlines[d]	4M+ 1A	9,200	8,372	0.910	D	8,372	0.910	D	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / lane per mainline lane, 2,000 vehicles / lane per collector distributor lane and 1,200 vehicles / lane per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Volume to Capacity

c. Level of Service

d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix I* for calculation sheets and Near-Term (Opening Day 2017) + Project ADTs.

TABLE 10–4B
NEAR-TERM (OPENING DAY 2017) FREEWAY SEGMENT OPERATIONS—PM PEAK HOUR

Freeway and Segment	Near-Term (Opening Day 2017) ADT	Direction & Number of Lanes		Capacity[a]	Near-Term			Near-Term (Opening Day 2017) + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C[b]	LOS[c]		
I-8												
West of Hotel Circle Ramps	190,300	EB Mainlines	4M	8,000	6,217	0.777	C	6,283	0.785	C	0.008	No
		WB Mainlines	4M+ 1A	9,200	7,260	0.789	C	7,311	0.795	C	0.006	No
Hotel Circle Ramps to SR-163	199,330	EB Mainlines	4M+ 1A	9,200	7,119	0.774	C	7,197	0.782	C	0.008	No
		WB Mainlines[d]	4M+ 1A	9,200	7,467	0.812	D	7,467	0.812	D	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / lane per mainline lane, 2,000 vehicles / lane per collector distributor lane and 1,200 vehicles / lane per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)
b. Volume to Capacity.
c. Level of Service.
d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix I* for calculation sheets and Near-Term (Opening Day 2017) + Project ADTs.

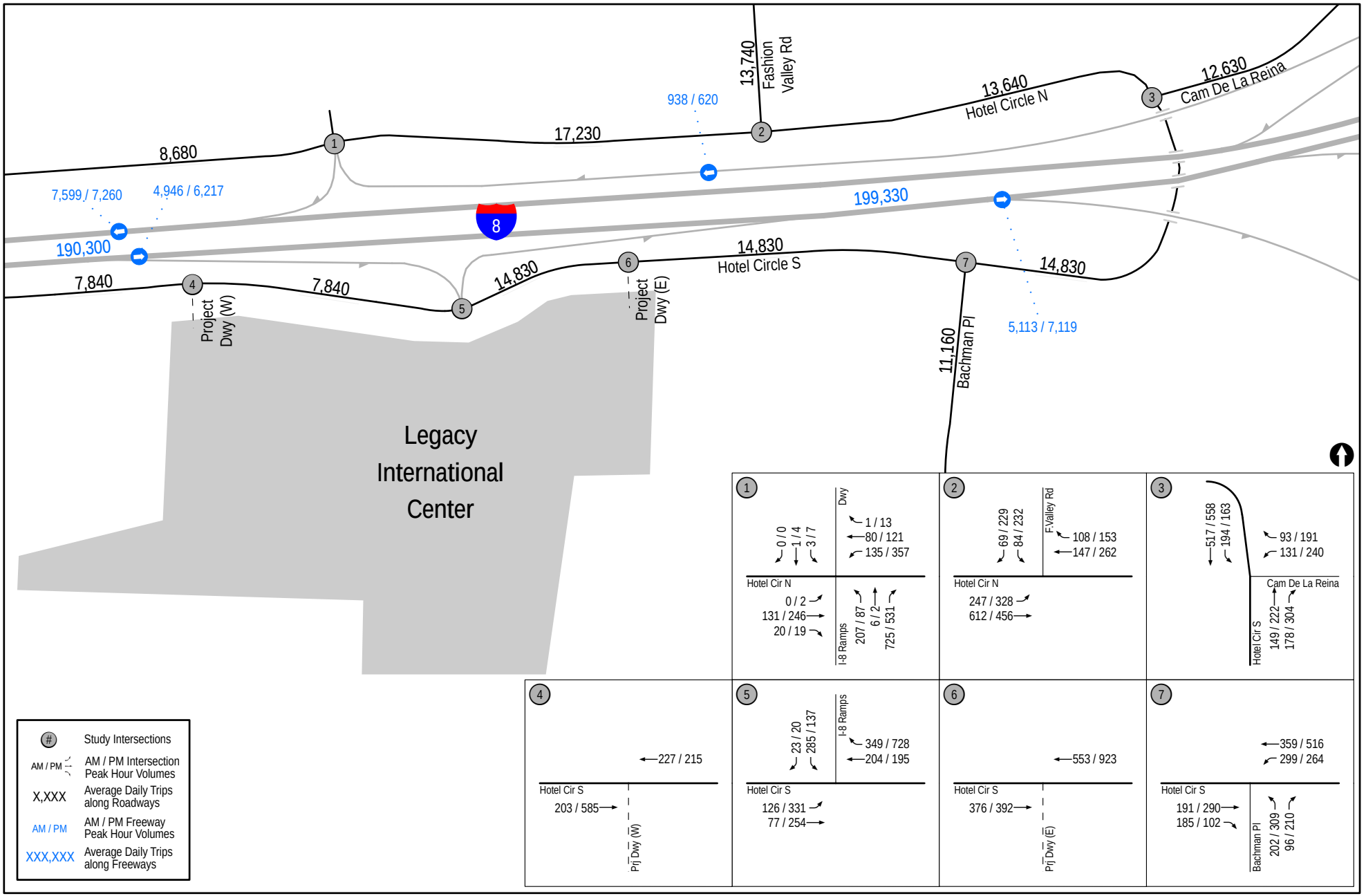

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Figure 10-1

Near-Term (Opening Day 2017) Traffic Volumes

LEGACY INTERNATIONAL CENTER

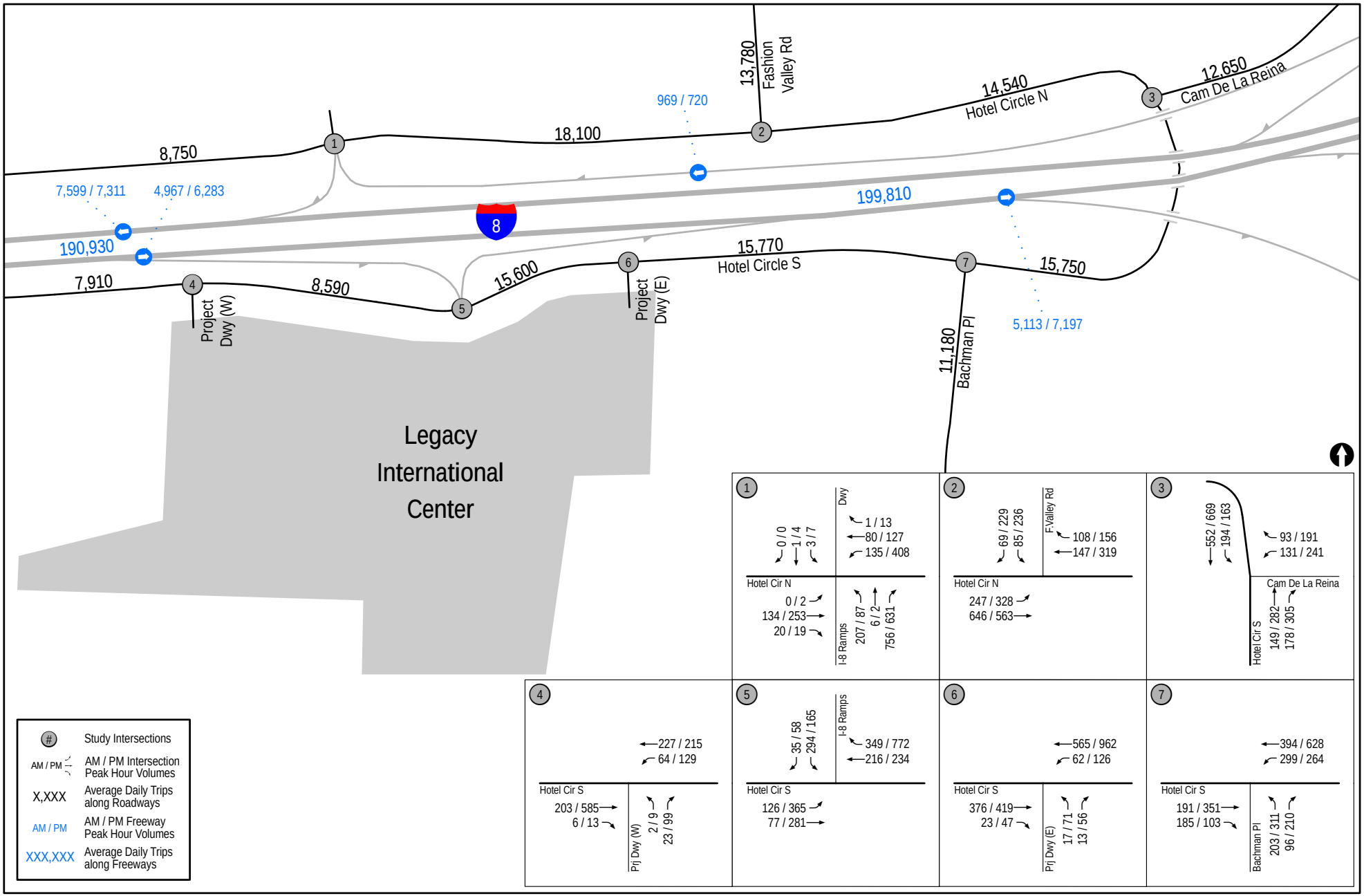

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Figure 10-2

Near-Term (Opening Day 2017) + Project Traffic Volumes

LEGACY INTERNATIONAL CENTER

11.0 YEAR 2035 (HORIZON YEAR) ANALYSIS

The following section presents the analysis of study area intersections and street segments under Year 2035 (Horizon Year) conditions with and without the proposed project.

11.1 Year 2035 (Horizon Year) Improvements

Planned Local and Regional Improvements

In assessing the impacts of the proposed development, it was necessary to review planned, on-going and future roadway improvements in the study area.

For the purposes of this traffic study, the implementation of a number of local and regional roadway improvements were reviewed based on coordination with City staff and information provided in *Mission Valley Public Financing Plan* (PFFP).

The Year 2035 (Horizon Year) scenario assumes the proposed extension of Camino de La Reina from Fashion Valley Road to Via Las Cumbres and the extension of Via Las Cumbres between Friars Road and Hotel Circle N. as proposed in the Levi-Cushman / Atlas Specific Plans, as well as associated intersection as shown in ***Table 11–1***. This is considered reasonable as well as conservative as the analysis for the Legacy International Center in the Year 2035 (Horizon Year) assumes approximately 66,500 ADT from the Levi-Cushman Specific Plan, yet assumes only two of many improvements (on the basis of providing access and basic circulation) required by this Specific Plan.

In addition, the extension of Hazard Center Drive (2 lanes) under SR-163 was also assumed. ***Table 11–1*** identifies the Year 2035 (Horizon Year) planned improvements within the study area.

TABLE 11-1
YEAR 2035 (HORIZON YEAR) PLANNED IMPROVEMENTS

Project Name (Community/Project No.)	Improvements	Schedule/ Funding
Camino De La Reina Extension – Fashion Valley Road to Via las Cumbres (Mission Valley / MV-7)	This project will provide for the construction of Camino De La Reina as a four lane major Street between Fashion Valley Road and Via las Cumbres. In association with this project, the intersection of Avenida Del Rio and Fashion Valley Road was assumed to be widened in the eastbound direction to include one dedicated left-turn lane, one thru lane and one dedicated right-turn lane with right-turn overlap phasing and restriped in the westbound direction to include one dedicated left-turn lane and one shared thru / right-turn lane.	Project expected to be completed by 2035. *100% subdivider funding (Levi-Cushman and Atlas)*
Via Las Cumbres Extension (Mission Valley / MV-13)	This project will construct Via Las Cumbres between Friars Road and Hotel Circle N.	Project expected to be completed by 2035. *100% subdivider funding (Levi-Cushman)*
Hazard Center Drive Extension (Mission Valley / MV-15)	This project will extend Hazard Center under SR 163. Only a 2-lane facility is proposed.	Project expected to be completed by 2035. *100% subdivider funded (Hazard Center Redevelopment Project, which cannot be implemented without the Hazard Center Drive extension)*

Project Improvements

The LIC project will provide full-width dedication (varying width up to 28 feet) and improvement to accommodate the ultimate classification of Hotel Circle South. Hotel Circle South is currently classified as a four-lane Collector but only built as a two-lane roadway. This dedication would allow the project to construct an additional eastbound and westbound travel lane, widening the roadway to its ultimate classification. Existing conditions will be matched at the western and eastern limits of the site.

The above frontage improvements are proposed as "direct impact" mitigation measures. For the Horizon Year analysis, these improvements were assumed as a part of the analysis.

11.2 Year 2035 (Horizon Year) Conditions

Year 2035 (Horizon Year) Traffic Volumes

Year 2035 (Horizon Year) traffic volumes for the study area were obtained using the SANDAG Series 12 Forecast Model. Extensive efforts between LLG and SANDAG were made to include detailed land use/roadway network information. The traffic volumes represent LLG's and the City's best efforts of forecasting Year 2035 (Horizon Year) conditions with the most recent modeling information available at the time the report was prepared. The forecast ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes. The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and were compared to existing volumes for

accuracy. ***Figure 11–1*** shows the Year 2035 (Horizon Year) traffic volumes. ***Figure 11–2*** shows the Year 2035 (Horizon Year) + Project traffic volumes.

11.3 Year 2035 (Horizon Year) Intersection Operations

Intersection capacity analyses were conducted for the study intersections under Year 2035 (Horizon Year) without Project conditions. ***Table 11–1*** reports the intersection operations during the peak hour conditions. As shown in *Table 11–1*, 2 of the 7 study area intersections were calculated to operate at LOS D or better under Year 2035 (Horizon Year) without Project conditions with the exception of the following:

- Hotel Circle N. / I-8 WB Ramps (LOS F during the AM and PM peak hours)
- Hotel Circle N. / Fashion Valley Road (LOS F during the AM and PM peak hours)
- Hotel Circle S. / I-8 EB Ramps (LOS F during the AM and PM peak hours)

Appendix J contains the intersection analysis worksheets for the Year 2035 (Horizon Year) scenario.

Intersection capacity analyses were conducted for the study intersections under Year 2035 (Horizon Year) + Project conditions. *Table 11–1* reports the intersection operations during the peak hour conditions. As shown in *Table 11–1*, 2 of the 7 study area intersections were calculated to continue to operate at LOS D or better under Year 2035 (Horizon Year) + Project conditions with the exception of the following:

- Hotel Circle N. / I-8 WB Ramps (LOS F during the AM and PM peak hours)
- Hotel Circle N. / Fashion Valley Road (LOS F during the AM and PM peak hours)
- Hotel Circle S. / I-8 EB Ramps (LOS F during the AM and PM peak hours)
- Hotel Circle S. / Project Driveway (E) (LOS F during the PM peak hour)

Appendix K contains the intersection analysis worksheets for the Year 2035 (Horizon Year) + Project scenario.

Based on the City of San Diego's significance criteria, **no significant cumulative impacts** were identified at the following intersections as the increase in delay is within the allowable threshold (see *Table 4–1*):

- Hotel Circle N. / Fashion Valley Road (LOS F during the AM and PM peak hours)
- Hotel Circle N. / Camino De La Reina (LOS E during the PM peak hour)
- Hotel Circle S. / I-8 EB Ramps (LOS F during the AM and PM peak hours)

With the proposed project improvements, the delay at the Hotel Circle S. / I-8 EB Ramps intersection is reduced. Hence, based on City's significance criteria, **no significant cumulative impact** was identified on Hotel Circle S. / I-8 EB Ramps intersection. The project driveway (E) is reported for the on-site left-turn movement. The local street westbound left-turn is calculated to operate at LOS D or better. Therefore, given that the delay would occur on-site and not on the City streets, no significant impact is calculated at the Hotel Circle S. / Project Driveway (E) intersection.

However, a **significant cumulative impact** was identified at the following intersection:

- Hotel Circle N. / I-8 WB Ramps (LOS F during the AM and PM peak hours)

Mitigation measures for these impacts are discussed in detail in ***Section 18.0***.

TABLE 11–1
YEAR 2035 (HORIZON YEAR) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Year 2035 (Horizon Year)		Year 2035 (Horizon Year) + Project		Δ[c]	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle N. / I-8 WB Ramps	AWSC[d]	AM	**57.6**	**F**	**63.8**	**F**	**6.2**	**Yes**
		PM	**49.2**	**E**	**62.1**	**F**	**12.9**	**Yes**
2. Hotel Circle N. / Fashion Valley Road	Signal	AM	**180.5**	**F**	**181.3**	**F**	0.8	No
		PM	**216.7**	**F**	**217.7**	**F**	1.0	No
3. Hotel Circle N. / Camino De La Reina	Signal	AM	20.8	C	21.1	C	0.3	No
		PM	52.3	D	54.5	D	2.2	No
4. Hotel Circle S. / Project Driveway (W)	OWSC[e]	AM	DNE	DNE	13.3	B	13.3	No
		PM	DNE	DNE	23.4	C	23.4	No
5. Hotel Circle S. / I-8 EB Ramps	AWSC	AM	**63.2**	**F**	**52.4**	**F**	(10.8)[f]	No
		PM	**317.9**	**F**	**55.2**	**F**	(262.7)[f]	No
6. Hotel Circle S. / Project Driveway (E)	OWSC[g]	AM	*DNE*	–	22.2	C	–	No
		PM	*DNE*	–	>100.0	F	–	No
7. Hotel Circle S. / Bachman Place	Signal	AM	38.8	D	41.3	D	2.5	No
		PM	36.6	D	40.1	D	3.5	No

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay
d. AWSC – All-Way Stop Controlled intersection.
e. OWSC – One-Way Stop Controlled intersection. Minor street left turn delay is reported.
f. The project proposes to add one westbound and one eastbound thru lane between the project driveways.
g. The minor street left-turn (NB left-turn) is reported. The major street left-turn (WB left-turn) was also reviewed and operates at LOS A and B in the AM and PM peak periods, respectively. Calculation sheets are contained in *Appendix K*. Therefore, no impact is calculated. The delay and queuing (shown in *Appendix L*) are calculated to be on-site.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

General Notes:
1. **Bold** typeface indicates intersections operating at LOS E or F.
2. DNE – Does not exist.

11.4 Year 2035 (Horizon Year) Street Segment Operations

Street segment analyses were conducted for roadways in the study area under Year 2035 (Horizon Year) without project conditions. ***Table 11–2*** reports the street segment operations on a daily basis. As shown in *Table 11–2*, the following street segments were calculated to operate at LOS E or F:

- Camino De La Reina: Hotel Circle to Avenida Del Rio (LOS F)
- Hotel Circle N.: West of I-8 WB Ramps (LOS F)
- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS F)
- Hotel Circle S.: West of Project Driveway (W) (LOS F)
- Hotel Circle S.: Project Driveway (W) to I-8 EB Ramps (LOS F)
- Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS F)

Street segment analyses were conducted for roadways in the study area under Year 2035 (Horizon Year) + Project conditions. *Table 11–2* reports the street segment operations on a daily basis. As shown in *Table 11–2*, the following street segments were calculated to operate at LOS E or F:

- Camino De La Reina: Hotel Circle to Avenida Del Rio (LOS F)
- Hotel Circle N.: West of I-8 WB Ramps (LOS F)
- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS F)
- Hotel Circle S.: West of Project Driveway (W) (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS F)

Based on the City of San Diego's significance criteria, **no significant cumulative impacts** were identified on the following street segments as the increase in V/C ratio is contained within the allowable threshold (see *Table 4–1*):

- Camino De La Reina: Hotel Circle to Avenida Del Rio (LOS F)
- Hotel Circle N.: West of I-8 WB Ramps (LOS F)
- Hotel Circle S.: West of Project Driveway (W) (LOS F)
- Fashion Valley Road: Avenida Del Rio to Hotel Circle N. (LOS E)

However, **significant cumulative impacts** were identified on the following street segments:

- Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road (LOS F)
- Hotel Circle N.: Fashion Valley Road to Camino De La Reina (LOS F)
- Hotel Circle S.: Project Driveway (E) to Bachman Place (LOS F)
- Hotel Circle S.: Bachman Place to Camino De La Reina (LOS F)

Mitigation measures for these impacts are discussed in detail in *Section 19.0.*

TABLE 11–2
YEAR 2035 (HORIZON YEAR) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Year 2035 (Horizon Year)			Project Added ADT	Year 2035 (Horizon Year) + Project			Δ V/C[e]	Sig Impact?
			ADT[a]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Camino De La Reina											
Hotel Circle to Avenida Del Rio	2-Lane Collector *(continuous left-turn lane)*	15,000	**16,440**	**F**	**1.096**	20	**16,460**	**F**	**1.097**	0.001	No
Hotel Circle N.											
West of I-8 WB Ramps	2-Lane Collector *(continuous left-turn lane)*	15,000	**21,330**	**F**	**1.422**	60	**21,400**	**F**	**1.427**	0.005	No
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**31,220**	**F**	**2.081**	770	**32,090**	**F**	**2.139**	**0.058**	**Yes**
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**21,260**	**F**	**1.417**	800	**22,160**	**F**	**1.477**	**0.060**	**Yes**
Hotel Circle S.											
West of Project Driveway (W)	2-Lane Collector *(continuous left-turn lane)*	15,000	**17,200**	**F**	**1.147**	60	**17,270**	**F**	**1.151**	0.004	No
Project Driveway (W) to I-8 EB Ramps	2-Lane Collector *(continuous left-turn lane)*/ 4-Lane Collector[f] *(continuous left-turn lane)*	15,000/ 30,000	**18,100**	**F**	**1.207**	660	18,850	C	0.628	(0.579)	No
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*/ 4-Lane Collector[f] *(continuous left-turn lane)*	15,000/ 30,000	**20,750**	**F**	**1.383**	680	21,520	D	0.717	(0.666)	No
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**20,750**	**F**	**1.383**	830	**21,690**	**F**	**1.446**	**0.063**	**Yes**
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**19,520**	**F**	**1.301**	820	**20,440**	**F**	**1.363**	**0.062**	**Yes**

TABLE 11–2
YEAR 2035 (HORIZON YEAR) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Year 2035 (Horizon Year)			Project Added ADT	Year 2035 (Horizon Year) + Project			Δ V/C[e]	Sig Impact?
			ADT[a]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Fashion Valley Road											
Avenida Del Rio to Hotel Circle N.	4-Lane Collector	15,000	**28,100**	**F**	**1.873**	30	**28,140**	**F**	**1.876**	0.003	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.

b. Average Daily Traffic Volumes.

c. Level of Service.

d. Volume to Capacity.

e. "Δ" denotes the project-induced increase in V/C.

f. The project proposes to add one westbound and one eastbound thru lane between the project driveways.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.

11.5 Year 2035 (Horizon Year) Freeway Segment Operations

Freeway segments were analyzed under Year 2035 (Horizon Year) without project conditions. *Appendix J* contains the detailed calculations sheets. As shown in ***Tables 11–4a and 11–4b*** the following freeway segments were calculated to operate at LOS E or F:

I-8

- West of Hotel Circle, *LOS F(0)–AM (WB) and LOS E–PM (EB/WB)*

Freeway segments were analyzed under Year 2035 (Horizon Year) + Project conditions. *Appendix K* contains the detailed calculations sheets. As shown in *Tables 11–4a and 11–4b*, the following freeway segments were calculated to operate at LOS E or F:

I-8

- West of Hotel Circle, *LOS F(0)–AM (WB) and LOS E–PM (EB/WB)*

Based on the City of San Diego's significance criteria, **no significant cumulative impacts** were identified on the study area freeway segments.

TABLE 11–4A
YEAR 2035 (HORIZON YEAR) FREEWAY SEGMENT OPERATIONS—AM PEAK HOUR

Freeway and Segment	2035 ADT	Direction & Number of Lanes		Capacity[a]	Year 2035 (Horizon Year)			Year 2035 (Horizon Year) + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C[b]	LOS[c]		
I-8												
West of Hotel Circle Ramps	233,980	EB Mainlines	4M	8,000	6,051	0.756	C	6,072	0.759	C	0.003	No
		WB Mainlines	4M+ 1A	9,200	**9,347**	**1.016**	**F(0)**	**9,347**	**1.016**	**F(0)**	0.000	No
Hotel Circle Ramps to SR-163	227,680	EB Mainlines	4M+ 1A	9,200	5,821	0.633	C	5,821	0.633	C	0.000	No
		WB Mainlines[d]	4M+ 1A	9,200	**9,584**	**1.042**	**F(0)**	**9,584**	**1.042**	**F(0)**	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / hour per mainline lane, 2,000 vehicles / hour per collector distributor lane and 1,200 vehicles / hour per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Volume to Capacity

c. Level of Service

d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix K* for calculation sheets and Year 2035 (Horizon Year) + Project ADTs.

TABLE 11–4B
YEAR 2035 (HORIZON YEAR) FREEWAY SEGMENT OPERATIONS—PM PEAK HOUR

Freeway and Segment	2035 ADT	Direction & Number of Lanes		Capacity[a]	Year 2035 (Horizon Year)			Year 2035 (Horizon Year) + Project			V/C Delta	Significant
					Volume	V/C[b]	LOS[c]	Volume	V/C[b]	LOS[c]		
I-8												
West of Hotel Circle Ramps	233,980	EB Mainlines	4M	8,000	**7,626**	**0.953**	**E**	**7,692**	**0.962**	**E**	0.009	No
		WB Mainlines	4M+ 1A	9,200	**8,912**	**0.969**	**E**	**8,963**	**0.974**	**E**	0.005	No
Hotel Circle Ramps to SR-163	227,680	EB Mainlines	4M+ 1A	9,200	8,074	0.878	D	8,152	0.886	D	0.008	No
		WB Mainlines[d]	4M+ 1A	9,200	**8,578**	**0.932**	**E**	**8,578**	**0.932**	**E**	0.000	No

Footnotes:

a. Capacity calculated at 2,000 vehicles / hour per mainline lane, 2,000 vehicles / hour per collector distributor lane and 1,200 vehicles / hour per aux lane (M: Mainline, CD: Collector Distributor, A: Auxiliary Lane). *Example:* 4M+2A=4 Mainlines + 2 Auxiliary Lanes)

b. Volume to Capacity

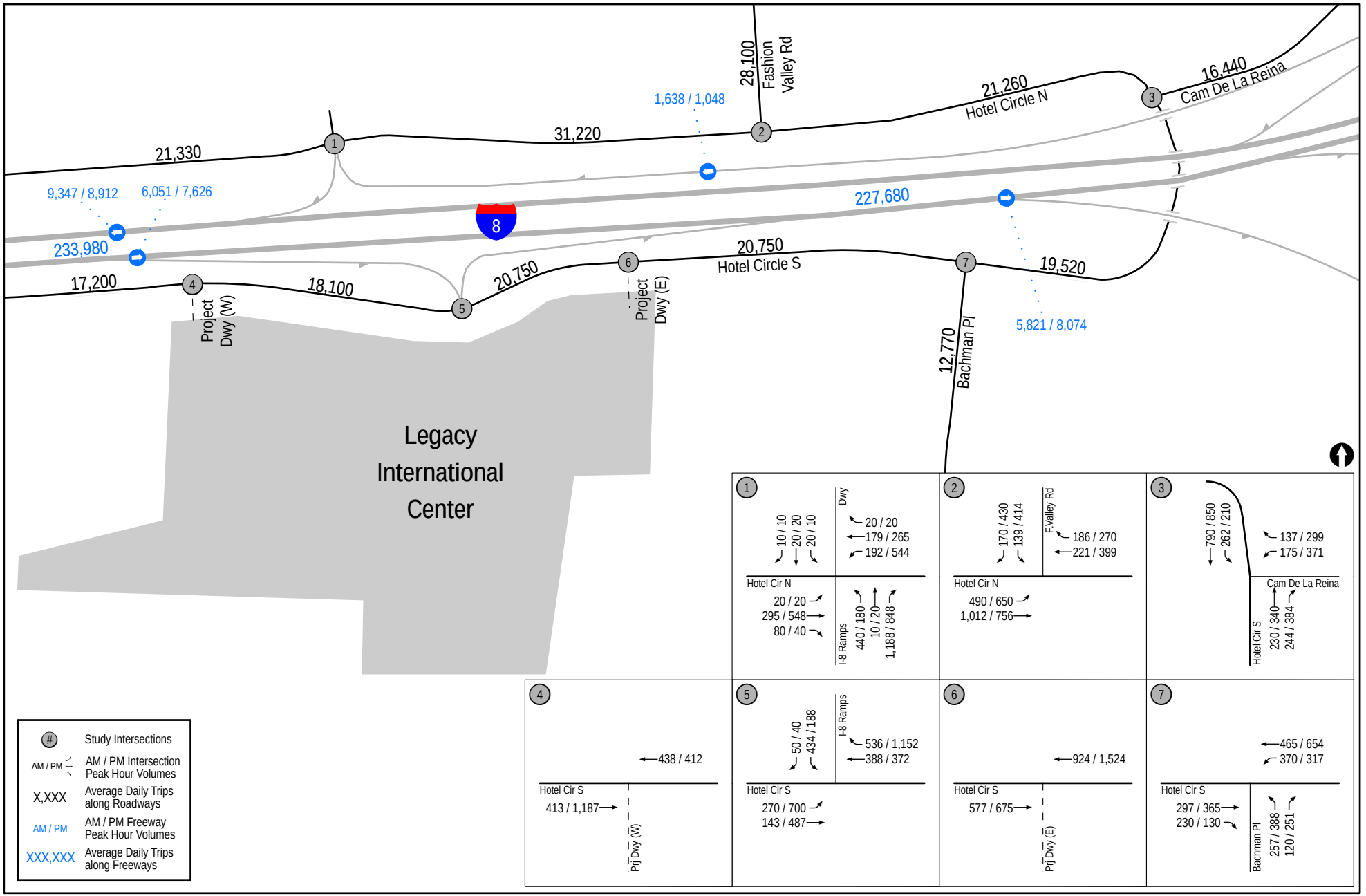
c. Level of Service

d. The LIC project does not add project traffic to I-8 WB mainlines.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

General Notes:

1. See *Appendix K* for calculation sheets and Year 2035 (Horizon Year) + Project ADTs.



LINSCOTT LAW & GREENSPAN engineers

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Date: 10/14/14

Figure 11-1

Year 2035 (Horizon Year) Traffic Volumes

LEGACY INTERNATIONAL CENTER

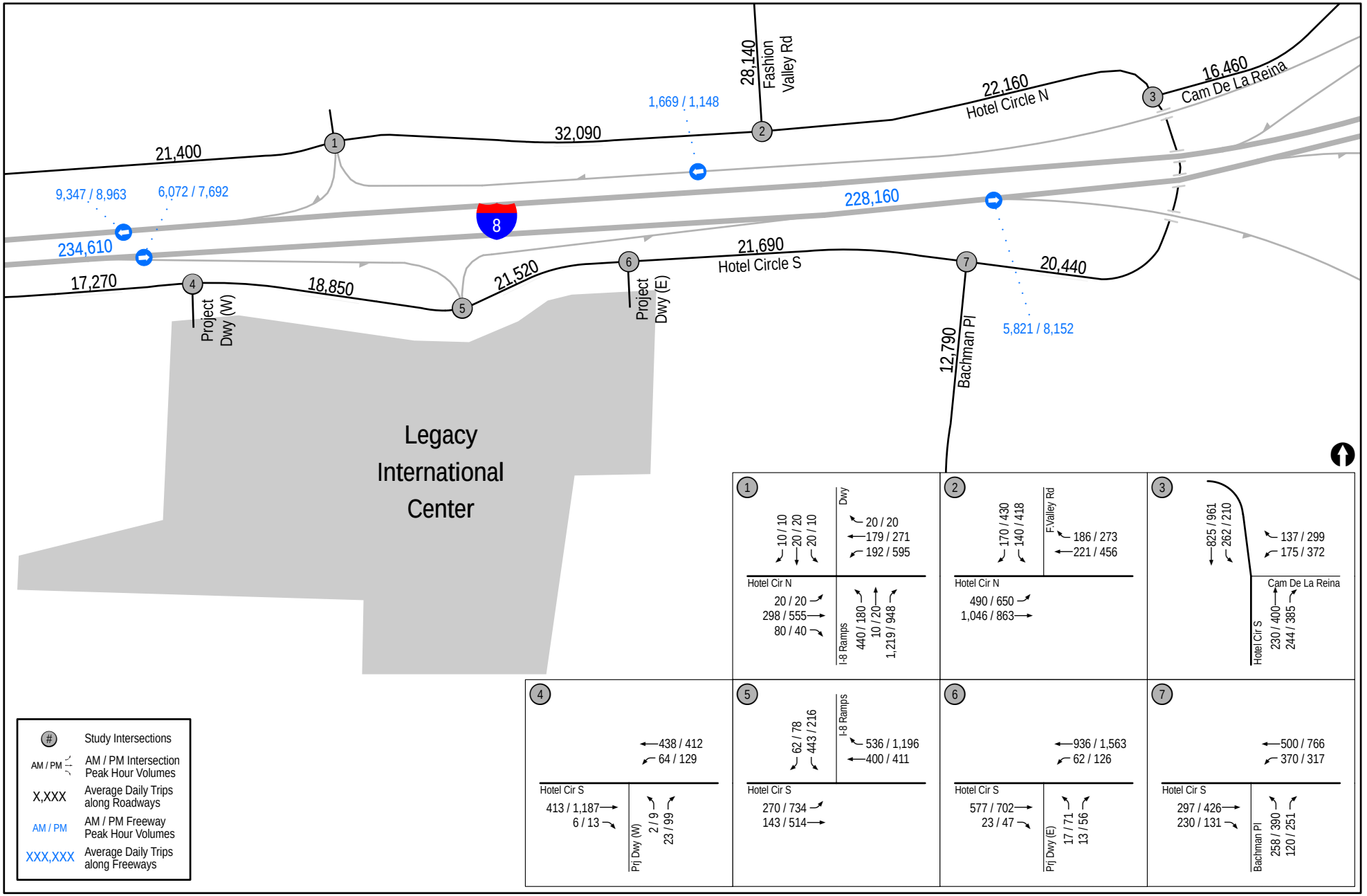

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Figure 11-2

Year 2035 (Horizon Year) + Project Traffic Volumes

LEGACY INTERNATIONAL CENTER

12.0 CONGESTION MANAGEMENT PROGRAM (CMP) COMPLIANCE

The *SANDAG Congestion Management Program, November 2008* report contains a list of "CMP Arterials" that are to be analyzed if the project exceeds the above mentioned trip generation thresholds. The study area for the project does *not* consist of any identified CMP Arterials. Therefore, no additional analyses have been conducted in this report.

13.0 SITE ACCESS AND ON-SITE CIRCULATION

The existing site includes a total of five (5) driveways (two of which are currently closed). The project proposes direct site access along Hotel Circle South via two (2) driveways. Both the driveways are proposed to be full access unsignalized, similar to existing conditions.

Site access operations were calculated for both the driveways. The Project Driveway East at Hotel Circle South is calculated at LOS E or worse for the critical northbound left-turns in the Near-Term (Opening Day 2017) and Year 2035 (Horizon Year) scenarios in the PM peak hour. This can be attributed to the limited left-turn gaps in the oncoming traffic. This may trigger an on-site queue for exiting vehicles, which is calculated to be approximately 90 feet (equivalent to approximately 4 vehicles) as shown in ***Appendix L***. In order to further investigate operations at this location, the westbound left-turn movement on Hotel Circle South was calculated. The results indicated LOS B or better operations in the Near-Term (Opening Day 2017) and Year 2035 (Horizon Year) scenarios in the PM peak hour, not causing any queuing or traffic operational issues on Hotel Circle South. Since the operations are not expected to impede flow on the local street, the potential of an on-site queue was not deemed a critical issue and concluded to be acceptable.

The Project Driveway West at Hotel Circle South is calculated at LOS D or better in the Near-Term (Opening Day 2017) and Year 2035 (Horizon Year) scenarios in the PM peak hour. Therefore, no significant impacts or traffic operational issues were identified at this driveway.

14.0 PARKING

The LIC proposes a mixed-use development consisting of religious, lodging, administrative, recreational, and commercial uses. To account for the mixed-use and synergy between the various land uses, a shared parking analysis was conducted. Shared parking ensures maximum utilization of on-site parking and promotes good urban planning.

14.1 Standards

A shared parking analysis was conducted in accordance with City of San Diego Municipal Code provisions (*Section 142.0545*). The parking rates and time of day distribution for the various land uses were based on the City of San Diego standards (*Table 142-05I – Parking rates for shared parking and Table 142-05J – Representative hourly accumulation of percentage by peak hour respectively).*

The City of San Diego does not have time of day parking distributions for certain land uses such as the wellness center and religious facilities. In these cases, nationally recognized parking publications such as the *Shared Parking Manual* by Urban Land Institute (2005) were used as a reference. ***Appendix M*** contains the ULI parking excerpt.

14.2 Analysis Methodology

The shared parking analysis was conducted similarly to the trip generation outlined in *Section 8.0*. The external trip attraction percentage used in the trip generation projections was used to estimate the total parking demand.

Primary traffic generating uses such as the timeshare suites and the commercial office generate 100% of trips externally and thereby require 100% of the individual use to be included in the calculating parking demand. Secondary uses on-site generate only a portion of trips externally, thereby requiring only a portion of parking to be included as the balance of the parking demand is accounted for the in the primary use. Ancillary uses (such as the warehouse storage, welcoming and registration) do not generate any measurable trips. Hence, no parking demand for the ancillary uses was calculated.

Based on the total density, external trip attraction percentage, City of San Diego trip rate and time of day distribution, hourly parking demand for each individual land use was developed. The sum of individual parking demand was calculated to show the total parking demand for the project. ***Table 14–1*** shows the shared parking analysis.

14.3 Analysis Results

As shown in *Table 14–1,* the maximum projected parking demand would be expected to occur at 12:00 PM and is calculated to be 858 spaces. Given the “convention” type nature of the project where patrons attend religious seminars, trainings and other functions during the day combined with other mid-day peak land uses such as restaurant and retail, common sense supports the results.

The project proposes a total of 878 parking stalls including 195 surface parking spaces and 683 spaces that will be either subterranean, or housed within a lighted, secured 5-story parking structure. The single-level subterranean parking will be located beneath most of the northern portion of the site and will have an access point at the northeastern corner, near the welcoming center rotunda. The western parking structure will have both surface access and access to the subterranean parking. Traffic circulating through the site will be able to enter at either the east or west access points from Hotel Circle South and able to traverse the length of the site via either the above ground circulation elements or below ground within the subterranean parking.

TABLE 14–1
SHARED PARKING ANALYSIS

Hour of Day	*Legacy International Center Pavilion*										**Legacy Welcome Center Rotunda**		**Legacy International Center Outreach Pavilion**		**Tri Wing "Legacy International Village"**		**"Mount Horeb" Outdoor Amphitheater**		**Legacy International Executive Offices**		**Retail Bazaar**		**Catacombs**		**Total Spaces Required**
	Wellness Center (Health Club)		Gift Shops (retail)		Restaurant		Theater (fixed seats)		Training Center		Theater (Public Assembly)		Theater (fixed seats)		Timeshare Rooms		Amphitheater (fixed seats)		Office		Gift Shops (retail)		Retatil		
	20,686 SF *Attraction @ 50%* **10.343 KSF**		15,000 SF *Attraction @ 40%* **6.0 KSF**		10,000 SF *Attraction @ 30%* **3 KSF**		500 seats *Attraction @ 20%* **100 Seats**		39,432 SF *Attraction @ 40%* **15.77 KSF**		6,295 SF *Attraction @ 20%* **1.26 KSF**		330 seats *Attraction @ 20%* **66 Seats**		127 rooms *Attraction @ 100%* **127 Rooms**		300 seats *Attraction @ 70%* **210 Seats**		23,028 SF *Attraction @ 100%* **23.028 KSF**		8,200 SF *Attraction @ 40%* **3.2 KSF**		5,992 SF *Attraction @ 40%* **2.4 KSF**		
	Rate = 5/KSF		**Rate = 5/KSF**		**Rate = 15/KSF**		**Rate = 0.33/seat**		**Rate = 30/KSF[a]**		**Rate = 30/KSF[a]**		**Rate = 0.33/seat**		**Rate = 1/room**		**Rate = 0.33/seat**		**Rate = 3.3/KSF**		**Rate = 5/KSF**		**Rate = 5/KSF**		
	52 spaces		*30 spaces*		*45 spaces*		*33 spaces*		*473 spaces*		*38 spaces*		*22 spaces*		*127 spaces*		*69 spaces*		*76 spaces*		*16 spaces*		*12 spaces*		
	Dist[b]	**Required Parking Spaces**	**Dist[c]**	**Required Parking Spaces**	**Dist[d]**	**Required Parking Spaces**	**Dist[e]**	**Required Parking Spaces**	**Dist[f]**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	**Dist[g]**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	**Dist**	**Required Parking Spaces**	
6:00 AM	70%	36	0%	0	15%	7	0%	0	0%	0	0%	0	0%	0	100%	127	0%	0	5%	4	0%	0	0%	0	174
7:00 AM	40%	21	10%	3	55%	25	0%	0	0%	0	0%	0	0%	0	95%	121	0%	0	15%	11	10%	2	10%	1	184
8:00 AM	40%	21	30%	9	80%	36	50%	17	50%	237	50%	19	50%	11	85%	108	0%	0	55%	42	30%	5	30%	4	509
9:00 AM	70%	36	50%	15	65%	29	100%	33	100%	473	100%	38	100%	22	85%	108	1%	1	90%	68	50%	8	50%	6	837
10:00 AM	70%	36	70%	21	25%	11	100%	33	100%	473	100%	38	100%	22	80%	102	1%	1	100%	76	70%	11	70%	8	832
11:00 AM	80%	41	80%	24	65%	29	100%	33	100%	473	100%	38	100%	22	75%	95	1%	1	100%	76	80%	13	80%	10	855
12:00 PM	60%	31	100%	30	100%	45	100%	33	100%	473	100%	38	100%	22	70%	89	1%	1	90%	68	100%	16	100%	12	858
1:00 PM	70%	36	95%	29	80%	36	100%	33	100%	473	100%	38	100%	22	70%	89	1%	1	85%	65	95%	15	95%	11	848
2:00 PM	70%	36	85%	26	55%	25	100%	33	100%	473	100%	38	100%	22	70%	89	1%	1	90%	68	85%	14	85%	10	835
3:00 PM	70%	36	80%	24	35%	16	100%	33	100%	473	100%	38	100%	22	60%	76	1%	1	90%	68	80%	13	80%	10	810
4:00 PM	80%	41	75%	23	30%	14	100%	33	100%	473	100%	38	100%	22	65%	83	1%	1	85%	65	75%	12	75%	9	814
5:00 PM	90%	47	80%	24	45%	20	100%	33	100%	473	100%	38	100%	22	60%	76	1%	1	55%	42	80%	13	80%	10	799
6:00 PM	100%	52	80%	24	65%	29	50%	17	50%	237	50%	19	50%	11	65%	83	10%	7	25%	19	80%	13	80%	10	521
7:00 PM	90%	47	75%	23	55%	25	30%	10	30%	142	30%	11	30%	7	75%	95	25%	17	15%	11	75%	12	75%	9	409
8:00 PM	80%	41	60%	18	55%	25	30%	10	30%	142	30%	11	30%	7	85%	108	100%	69	5%	4	60%	10	60%	7	452
9:00 PM	70%	36	45%	14	45%	20	10%	3	10%	47	10%	4	10%	2	90%	114	100%	69	5%	4	45%	7	45%	5	325
10:00 PM	35%	18	30%	9	35%	16	0%	0	0%	0	0%	0	0%	0	90%	114	85%	59	5%	4	30%	5	30%	4	229
11:00 PM	10%	5	15%	5	15%	7	0%	0	0%	0	0%	0	0%	0	100%	127	0%	0	0%	0	15%	2	15%	2	148
12:00 AM	0%	0	0%	0	5%	2	0%	0	0%	0	0%	0	0%	0	100%	127	0%	0	0%	0	0%	0	0%	0	129

Peak Parking Demand (12:00 PM)	***858***
Proposed Parking Supply	***878***
Surplus	***20***

Footnotes:

a. City of San Diego parking rate of 30 / KSF for “exhibit halls/ convention facilities” were used.
b. City of San Diego Land Development Code does not have time of day distribution for Wellness Center. Hence, time of day parking distribution from ULI Shared Parking (2005) was used.
c. Shared parking time of day distribution used for "Retail sales" per City of San Diego Municipal Code.
d. Shared parking time of day distribution used for "eating and drinking establishments" per City of San Diego Municipal Code.
e. City of San Diego Municipal Code does not have time of day distribution for "religious theaters". Hence, a corresponding "convention center" type of use from ULI was used.
f. City of San Diego Municipal Code does not have time of day distribution for "training centers". Hence, a corresponding "convention center" type of use from ULI was used.
g. City of San Diego Municipal Code does not have time of day distribution for "amphitheaters". Hence, a corresponding "arena" type of use from ULI was used.

General Notes:

1. All parking rates from City of San Diego Land Development Code.
2. KSF = 1000 Square foot.
3. Dist = Time-of-day distribution

15.0 PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS

The following section discusses the multi-modal access to the project site including pedestrian, bicycle and transit.

Pedestrian access is provided via sidewalks leading up to the site on Hotel Circle South on the south side. In addition, pedestrian access to the project site from the top of the canyon on the southern edge of the property will also be provided. To promote internal pedestrian circulation, a linear greenbelt with a meandering pathway is provided along the Hotel Circle South frontage and will connect to the recreational trail within the property. The public access trail will travel along the service road on the west side of the property and join the recreational trail located within already disturbed areas along the base of the southern hillside. The recreational trail will provide the ability to walk from Hotel Circle South to the south side of the property. The outdoor plazas will provide open pedestrian circulation. In addition, subterranean passageways will link to the various buildings within the complex.

An existing Class II bike lane is located along Hotel Circle South in both directions. The project proposes improvements along Hotel Circle South which will maintain the existing Class II bike lanes to promote bike mobility. Bicyclists may enter the project through the east or western vehicular driveways, which provides access either to the pedestrian plazas or the recreational trail.

The LIC project site is located within the vicinity of the Fashion Valley Transit Center (approximately ¾ mile of walking distance), one of the major transit hubs in the Mission Valley Community. An existing bus stop located on Hotel Circle South fronting the project (serviced by MTS route 88) will be relocated and upgraded by the project as required by MTS. Additional bus stops are located at Hotel Circle S / Bachman Place intersection (served by MTS route 20 and 120) which is approximately 700 feet away from the project site. These bus routes connect the LIC project site to Kearny Mesa, City College, Old Town, Downtown, and Del Lago.

LLG conducted further research on the MTS bus routes within the study area to determine approximate headways and days of operation. Generally, the bus routes within the project vicinity operate with headways of approximately 10-15 minutes and operate on both weekdays and weekends.

Appendix N contains the MTS transit schedules.

In addition, a shuttle service operated by the project is also proposed to transport visitors to and from major transportation hubs such as the airport and the train station to reduce vehicular trips.

16.0 EXISTING + PROJECT SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Per the City's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant impacts within the study area under Existing + Project conditions. The following section identifies the significance of impacts and recommended mitigation. These improvements would return operations to pre-project level of service, or at least to within allowable significance thresholds.

16.1 Existing + Project Significant Impacts

Under Existing + Project conditions, project related traffic is calculated to cause significant direct impacts within the study area, as summarized below in ***Table 16–1***.

Figure 16–1 shows graphically the significant direct impacts occurring under Existing + Project conditions.

TABLE 16-1
EXISTING + PROJECT SIGNIFICANT IMPACTS

Facility Type	Location
Intersections	• Hotel Circle S. / I-8 EB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

16.2 Existing + Project Mitigation Measures

Under Existing + Project conditions, the project is calculated to have significant direct impacts on one (1) intersection and five (5) street segments. The following summarizes the recommended mitigation measures.

Table 16–2 and ***Table 16–3*** reports the results of intersection and street segment mitigation analysis for the Existing + Project conditions. As shown in the table, the proposed mitigation would reduce the project impacts to a level of 'not significant'. For the purposes of this report, a level of 'not significant' reflects allowable delay and V/C increases within City defined thresholds.

Project mitigation diagrams, demonstrating the proposed mitigation for the impacted street segments, are contained in *Figure 16–1*.

16.2.1 *Intersection Mitigation*

The following intersection improvements are identified to mitigate the Existing + Project significant "direct" impact from the project. The intersection calculation sheets after mitigation are contained in ***Appendix O***.

Hotel Circle S. / I-8 EB Ramps

To mitigate the project's direct impact, LLG analyzed three (3) intersection control alternatives which include a traffic signal, roundabout and an enhanced all-way stop control per recent statewide directive (Caltrans *Intersection Control Evaluation (ICE) and Design Guidance*).

Signalizing the intersection would mitigate the project's direct impact. However, based on a preliminary feasibility review, signalization of this intersection is not likely to be approved by Caltrans due to the lack of adequate off-ramp queue storage, which may pose safety and operational issues if queues backup onto the freeway mainline. Therefore, the traffic signal alternative is deemed ***infeasible*** and was not pursued as mitigation.

A preliminary roundabout evaluation was also conducted. Based on FHWA Guidelines, a 100 to 130 foot diameter roundabout is recommended based on the traffic volumes on Hotel Circle South. As shown in *Table 16–2*, the intersection is calculated to operate at LOS F as a 1-lane roundabout alternative and this would not mitigate the project's impact. A 2-lane roundabout alternative was also reviewed at this location. The Horizon Year analysis reveals delays over 300 seconds in the PM peak hour at this intersection and calculated to operate at LOS F. Therefore, the roundabout is deemed ***infeasible*** from a design and operations perspective and was not pursued as mitigation.

LLG also analyzed an enhanced all-way stop alternative. To mitigate the project's direct impact at this intersection, the LIC project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions as shown on the drawing included in *Appendix P*.

16.2.2 *Street Segment Mitigation*

The following street segment improvements are identified to mitigate Existing + Project significant "direct" impacts from the project.

Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road

Widening this segment to 4-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to include two westbound lanes and two eastbound lanes. To implement this mitigation, approximately 35' of widening would be required on the existing Riverwalk Golf Course.

The impact along this segment is considered temporary and unmitigated until the respective fronting property (Riverwalk Master Plan) implement their Community Plan and project access frontage improvements, which have not been fully determined at this time.

Hotel Circle N.: Fashion Valley Road to Camino De La Reina
Widening this segment to 3-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to provide two westbound lanes and one eastbound lane plus a two-way left-turn lane. To implement this mitigation, approximately 12' of widening would be required on the existing Town & Country Resort property.

The impact along this segment is considered temporary and unmitigated until the respective fronting property (Town and Country Master Plan), which is currently processing entitlements with the City, implement their Community Plan and project access frontage improvements, which have not been fully determined at this time.

Hotel Circle S.: I-8 EB Ramps to Project Driveway (E)
Widening the roadway to 4-lane Collector with a continuous left-turn lane would mitigate the project's significant impact. To mitigate the project's direct impact, the LIC project will provide full-width dedication (varying width up to 28 feet) and improvement to implement the ultimate classification of a 4-lane Collector on Hotel Circle South. Hotel Circle South is classified as a four-lane Collector but only built as a two-lane roadway. Existing conditions of a 2-lane Collector with two-way left-turn lane will be matched at the western and eastern limits of the site per drawing shown in *Appendix P*.

While the segment of Hotel Circle South (west of the I-8 EB ramps) is not identified as a significant impact, the project will construct an additional WB and EB lane between the westerly driveway and I-8 EB ramps to mitigate the project's direct impact at I-8/Hotel Circle S. intersection and in conjunction with the improvements on the east side as shown on the drawing included in *Appendix P*.

Hotel Circle S.: Project Driveway (E) to Bachman Place
Widening the roadway to a 3-lane Collector with a continuous left-turn lane would mitigate the project's significant impact.

The widening would include two eastbound lanes and one westbound lane. There is an existing 30' irrevocable offer of dedication (IOD) on Hotel Circle South along this roadway segment. Based on a feasibility review, this widening is deemed ***technically infeasible*** due to building structures fronting Hotel Circle South (Vagabond Inn) that would allow only a 2 feet parkway, which is not sufficient to include a sidewalk per City standards. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

Hotel Circle S.: Bachman Place to Camino De La Reina
Widening the roadway to 3-lane Collector standards plus a continuous left-turn lane would mitigate the project's significant impact. The widening would include two eastbound lanes and one westbound lane. Based on a preliminary feasibility review, this widening is deemed ***technically infeasible*** due to the location of the support columns for the I-8 undercrossing on

Hotel Circle South. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

TABLE 16–2
EXISTING + PROJECT INTERSECTION MITIGATION ANALYSIS

Intersection	Control Type	Peak Hour	Existing		Existing With Project		Existing With Project and Mitigation			Mitigation
			Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
5. Hotel Circle S. / I-8 EB Ramps	Signal	AM	13.5	B	13.9	B	7.4	A	(6.1)	Signalize *(physically infeasible, therefore this mitigation cannot be implemented)*
		PM	**54.2**	**F**	**181.3**	**F**	43.9	D	(10.3)	
	1-lane Roundabout	AM	13.5	B	13.9	B	10.2	B	(3.3)	Construct a 1-lane roundabout *(physically infeasible therefore this mitigation cannot be implemented)*
		PM	**54.2**	**F**	**181.3**	**F**	**124.3**	**F**	**70.1**	
	Enhanced All-Way Stop	AM	13.5	B	13.9	B	18.7	C	5.2	Widen approximately (varying width up to 28 feet) to include an additional EB and WB through lane *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
		PM	**54.2**	**F**	**181.3**	**F**	**42.5**	**E**	(11.7)	

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 16–3
EXISTING + PROJECT STREET SEGMENT MITIGATION ANALYSIS

Roadway Segment	Classification	Capacity[a]	Existing			Existing With Project			Mitigation Classification	Mitigation Capacity	Existing With Project and Mitigation				Mitigation
			ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C			ADT	LOS	V/C	Δ[e]	
Hotel Circle N.															
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	16,800	F	1.120	17,670	F	1.178	4-Lane Collector *(continuous left-turn lane)*	30,000[f]	17,670	C	0.589	(0.531)	Widen to accommodate an additional WB lane *(temporary and unmitigated until the respective fronting property, which is currently processing entitlements with the City, implements their Community Plan and project access frontage improvements)*
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	13,170	E	0.878	14,070	E	0.938	3-Lane Collector *(continuous left-turn lane)*	22,500[g]	14,070	C	0.625	(0.253)	Widen to accommodate an additional WB lane *(temporary and unmitigated until the respective fronting property, which is currently processing entitlements with the City, implements their Community Plan and project access frontage improvements)*
Hotel Circle S.															
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	14,390	E	0.959	15,160	F	1.011	4-Lane Collector *(continuous left-turn lane)*	30,000	15,160	C	0.505	(0.454)	Widen to a 4-Lane Collector with a continuous left-turn lane *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	14,390	E	0.959	15,330	F	1.022	3-Lane Collector *(continuous left-turn lane)*	22,500	15,330	D	0.681	(0.278)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore this mitigation cannot be implemented)*

TABLE 16–3
EXISTING + PROJECT STREET SEGMENT MITIGATION ANALYSIS

Roadway Segment	Classification	Capacity[a]	Existing			Existing With Project			Mitigation Classification	Mitigation Capacity	Existing With Project and Mitigation				Mitigation
			ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C			ADT	LOS	V/C	Δ[e]	
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	14,350	E	0.957	15,270	F	1.018	3-Lane Collector *(continuous left-turn lane)*	22,500	15,270	D	0.679	(0.260)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore this mitigation cannot be implemented)*

Footnotes:

a. Capacity based on roadway classification operating at LOS E.
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity.
e. Δ denotes a project mitigation-induced increase or (decrease) in the Volume to Capacity ratio.
f. An upgraded capacity similar to 4-Lane Collector (with continuous left-turn lane) was assumed since this roadway does not have any driveways and this best represents its functional classification.
g. Capacity derived based on the interpolation between the capacities of a 4-Lane Collector with continuous left-turn lane and a 2-Lane Collector with continuous left-turn lane, from the City of San Diego Roadway Classification.

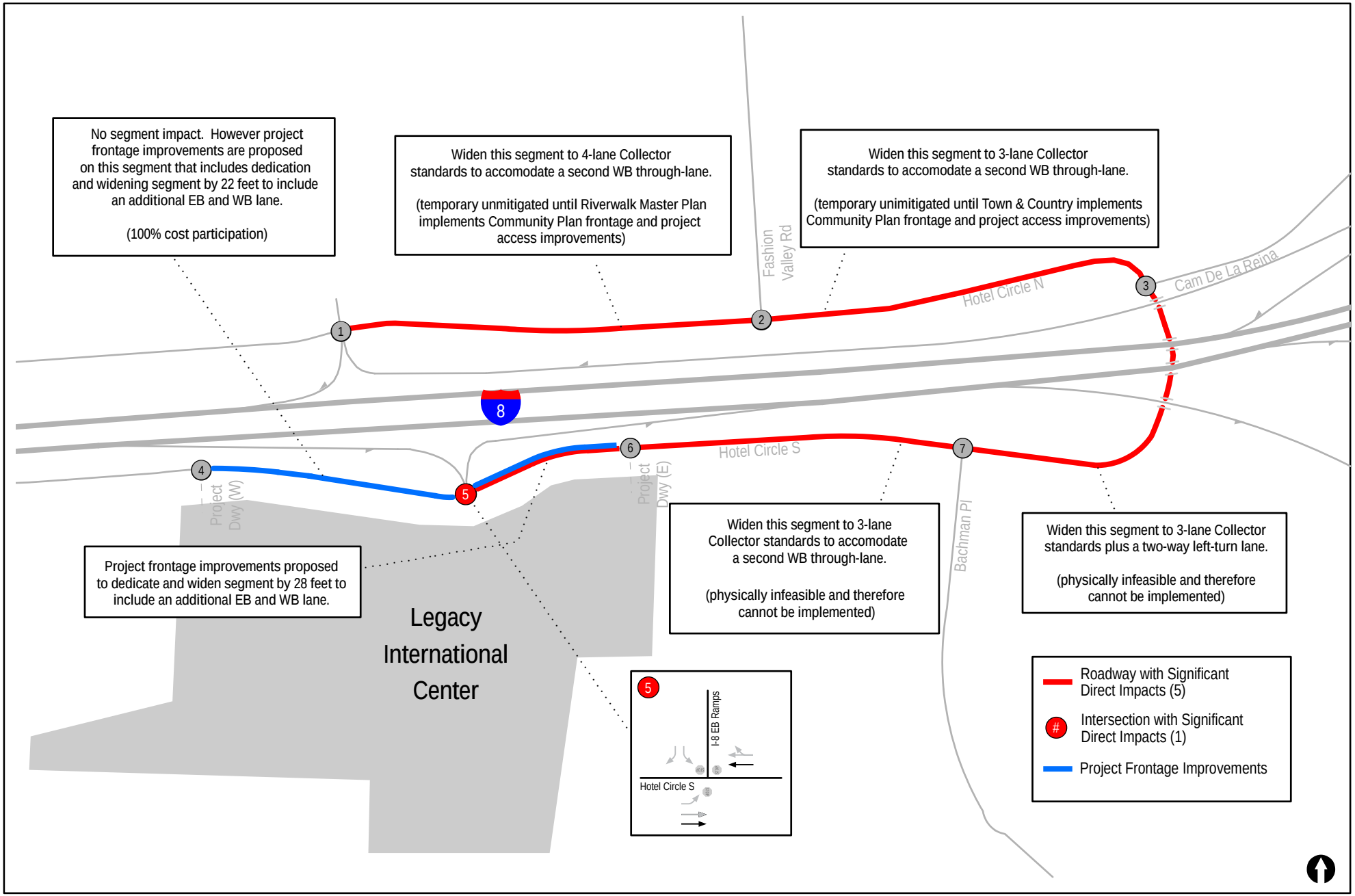

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Figure 16-1

Existing + Project Impacts & Mitigation

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17.0 NEAR TERM (OPENING DAY 2017) SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Per the City's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant impacts within the study area in the Near-Term (Opening Day 2017). The following section identifies the significance of impacts and recommended mitigation. These improvements would return operations to pre-project level of service, or at least to within allowable significance thresholds.

17.1 Near-Term (Opening Day 2017) Significant Impacts

In the Near-Term (Opening Day 2017), project related traffic is calculated to cause significant direct impacts within the study area, as summarized below in ***Table 17–1***.

Figure 17–1 shows graphically the significant direct impacts occurring under the Near-Term (Opening Day 2017) conditions.

TABLE 17-1
NEAR-TERM (OPENING DAY 2017) SIGNIFICANT IMPACTS

Facility Type	Location
Intersections	• Hotel Circle S. / I-8 EB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: I-8 EB Ramps to Project Driveway (E) • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

17.2 Near-Term (Opening Day 2017) Mitigation Measures

In the Near-Term (Opening Day 2017), the project is calculated to have significant direct impacts at one (1) intersection and five (5) street segments. The following summarizes the recommended mitigation measures.

Table 17–2 and ***Table 17–3*** reports the results of intersection and street segment mitigation analysis for the Near-Term (Opening Day 2017). As shown in the table, the proposed mitigation would reduce the project impacts to a level of 'not significant'. For the purposes of this report, a level of 'not significant' reflects allowable delay and V/C increases within City defined thresholds.

Project mitigation diagrams, demonstrating the proposed mitigation for the impacted street segments, are contained in *Figure 17–1*.

17.2.1 *Intersection Mitigation*

The following intersection improvements are identified to mitigate the Near-Term (Opening Day 2017) significant "direct" impact from the project. The intersection calculation sheets after mitigation are contained in *Appendix O*.

Hotel Circle S. / I-8 EB Ramps

To mitigate the project's direct impact, LLG analyzed three (3) intersection control alternatives which include a traffic signal, roundabout and an enhanced all-way stop control per recent statewide directive (Caltrans *Intersection Control Evaluation (ICE) and Design Guidance*).

Signalizing the intersection would mitigate the project's direct impact. However, based on a preliminary feasibility review, signalization of this intersection is not likely to be approved by Caltrans due to the lack of adequate off-ramp queue storage, which may pose safety and operational issues if queues backup onto the freeway mainline. Therefore, the traffic signal alternative is deemed ***infeasible*** and was not pursued as mitigation.

A preliminary roundabout evaluation was also conducted. Based on FHWA Guidelines, a 100 to 130 foot diameter roundabout is recommended based on the traffic volumes on Hotel Circle South. As shown in *Table 17–2*, the intersection is calculated to operate at LOS F as a 1-lane roundabout alternative and this would not mitigate the project's impact. A 2-lane roundabout alternative was also reviewed at this location. The Horizon Year analysis reveals delays over 300 seconds in the PM peak hour at this intersection and calculated to operate at LOS F. Therefore, the roundabout is deemed ***infeasible*** from a design and operations perspective and was not pursued as mitigation.

LLG also analyzed an enhanced all-way stop alternative. To mitigate the project's direct impact at this intersection, the LIC project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions as shown on the drawing included in *Appendix P*.

17.2.2 *Street Segment Mitigation*

The following street segment improvements are identified to mitigate Near-Term (Opening Day 2017) significant "direct" impacts from the project.

Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road

Widening this segment to 4-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to include two westbound lanes and two eastbound lanes. To implement this mitigation, approximately 35' of widening would be required on the existing Riverwalk Golf Course.

The impact along this segment is considered temporary and unmitigated until the respective fronting property (Riverwalk Master Plan) implement their Community Plan and project access frontage improvements, which have not been fully determined at this time.

Hotel Circle N.: Fashion Valley Road to Camino De La Reina
Widening this segment to 3-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to provide two westbound lanes and one eastbound lane plus a two-way left-turn lane. To implement this mitigation, approximately 12' of widening would be required on the existing Town & Country Resort property.

The impact along this segment is considered temporary and unmitigated until the respective fronting property (Town and Country Master Plan), which is currently processing entitlements with the City, implement their Community Plan and project access frontage improvements, which have not been fully determined at this time.

Hotel Circle S.: I-8 EB Ramps to Project Driveway (E)
Widening the roadway to 4-lane Collector with a continuous left-turn lane would mitigate the project's significant impact. To mitigate the project's direct impact, the LIC project will provide full-width dedication (varying width up to 28 feet) and improvement to implement the ultimate classification of a 4-lane Collector on Hotel Circle South. Hotel Circle South is classified as a four-lane Collector but only built as a two-lane roadway. Existing conditions of a 2-lane Collector with two-way left-turn lane will be matched at the western and eastern limits of the site per drawing shown in *Appendix P*.

While the segment of Hotel Circle South (west of I-8 EB ramps) is not identified as a significant impact, the project will construct an additional WB and EB lane between the westerly driveway and I-8 EB ramps to mitigate the project's direct impact at I-8/Hotel Circle S. intersection and in conjunction with the improvements on the east side as shown on the drawing included in *Appendix P*.

Hotel Circle S.: Project Driveway (E) to Bachman Place
Widening the roadway to a 3-lane Collector with a continuous left-turn lane would mitigate the project's significant impact.

The widening would include two eastbound lanes and one westbound lane. There is an existing 30' irrevocable offer of dedication (IOD) on Hotel Circle South along this roadway segment. Based on a feasibility review, this widening is deemed ***technically infeasible*** due to building structures fronting Hotel Circle South (Vagabond Inn) that would allow only a 2 feet parkway, which is not sufficient to include a sidewalk per City standards. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

Hotel Circle S.: Bachman Place to Camino De La Reina
Widening the roadway to a 3-lane Collector standards plus a continuous left-turn lane would mitigate the project's significant impact. The widening would include two eastbound lanes and one westbound lane. Based on a preliminary feasibility review, this widening is deemed ***technically infeasible*** due to the location of the support columns for the I-8 undercrossing on

Hotel Circle South. Therefore, this mitigation cannot be implemented. Hence, this impact is considered significant and unmitigated.

TABLE 17–2
NEAR-TERM (OPENING DAY 2017) INTERSECTION MITIGATION ANALYSIS

Intersection	Control Type	Peak Hour	Near-Term (Opening Day 2017)		Near-Term (Opening Day 2017) With Project		Near-Term (Opening Day 2017) With Project and Mitigation			Mitigation
			Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
5. Hotel Circle S. / I-8 EB Ramps	Signal	AM	14.2	B	**35.4**	**E**	7.5	A	(6.7)	Signalize *(physically infeasible therefore this mitigation cannot be implemented)*
		PM	**62.5**	**F**	**194.4**	**F**	48.5	D	(14.0)	
	1-lane Roundabout	AM	14.2	B	**35.4**	**E**	10.8	B	(3.4)	Construct a 1-lane roundabout *(physically infeasible therefore this mitigation cannot be implemented)*
		PM	**62.5**	**F**	**194.4**	**F**	**130.0**	**F**	**67.5**	
	Enhanced All-Way Stop	AM	14.2	B	**35.4**	**E**	21.0	C	6.8	Widen approximately 28 feet to include an additional EB and WB through lane. *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
		PM	**62.5**	**F**	**194.4**	**F**	**43.2**	**E**	(19.3)	

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

TABLE 17–3
NEAR-TERM (OPENING DAY 2017) STREET SEGMENT MITIGATION ANALYSIS

Roadway Segment	Classification	Capacity[a]	Near-Term (Opening Day 2017)			Near-Term (Opening Day 2017) With Project			Mitigation Classification	Mitigation Capacity	Near-Term (Opening Day 2017) With Project and Mitigation				Mitigation
			ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C			ADT	LOS	V/C	Δ[e]	
Hotel Circle N.															
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	17,230	F	1.149	18,100	F	1.207	4-Lane Collector *(continuous left-turn lane)*	30,000[f]	18,100	C	0.603	(0.546)	Widen to accommodate an additional WB lane *(temporary and unmitigated until the respective fronting property (Riverwalk), which is currently processing entitlements with the City, implements their Community Plan and project access frontage improvements)*
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	13,640	E	0.909	14,540	E	0.969	3-Lane Collector *(continuous left-turn lane)*	22,500[g]	14,540	C	0.646	(0.263)	Widen to accommodate an additional WB lane *(temporary and unmitigated until the respective fronting property (Town and Country), which is currently processing entitlements with the City, implements their Community Plan and project access frontage improvements)*
Hotel Circle S.															
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	14,830	E	0.989	15,600	F	1.040	4-Lane Collector *(continuous left-turn lane)*	30,000	15,600	C	0.520	(0.469)	Widen to a 4-Lane Collector with a continuous left-turn lane *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	14,830	E	0.989	15,770	F	1.051	3-Lane Collector *(continuous left-turn lane)*	22,500	15,770	D	0.701	(0.288)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore this mitigation cannot be implemented)*

TABLE 17–3
NEAR-TERM (OPENING DAY 2017) STREET SEGMENT MITIGATION ANALYSIS

Roadway Segment	Classification	Capacity[a]	Near-Term (Opening Day 2017)			Near-Term (Opening Day 2017) With Project			Mitigation Classification	Mitigation Capacity	Near-Term (Opening Day 2017) With Project and Mitigation				Mitigation
			ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C			ADT	LOS	V/C	Δ[e]	
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	14,830	E	0.989	15,750	F	1.050	3-Lane Collector *(continuous left-turn lane)*	22,500	15,750	D	0.700	(0.289)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore this mitigation cannot be implemented)*

Footnotes:

a. Capacity based on roadway classification operating at LOS E.
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity.
e. Δ denotes a project mitigation-induced increase or (decrease) in the Volume to Capacity ratio.
f. An upgraded capacity similar to 4-Lane Collector (with continuous left-turn lane) was assumed since this roadway does not have any driveways and this best represents its functional classification.
g. Capacity derived based on the interpolation between the capacities of a 4-Lane Collector with continuous left-turn lane and a 2-Lane Collector with continuous left-turn lane, from the City of San Diego Roadway Classification

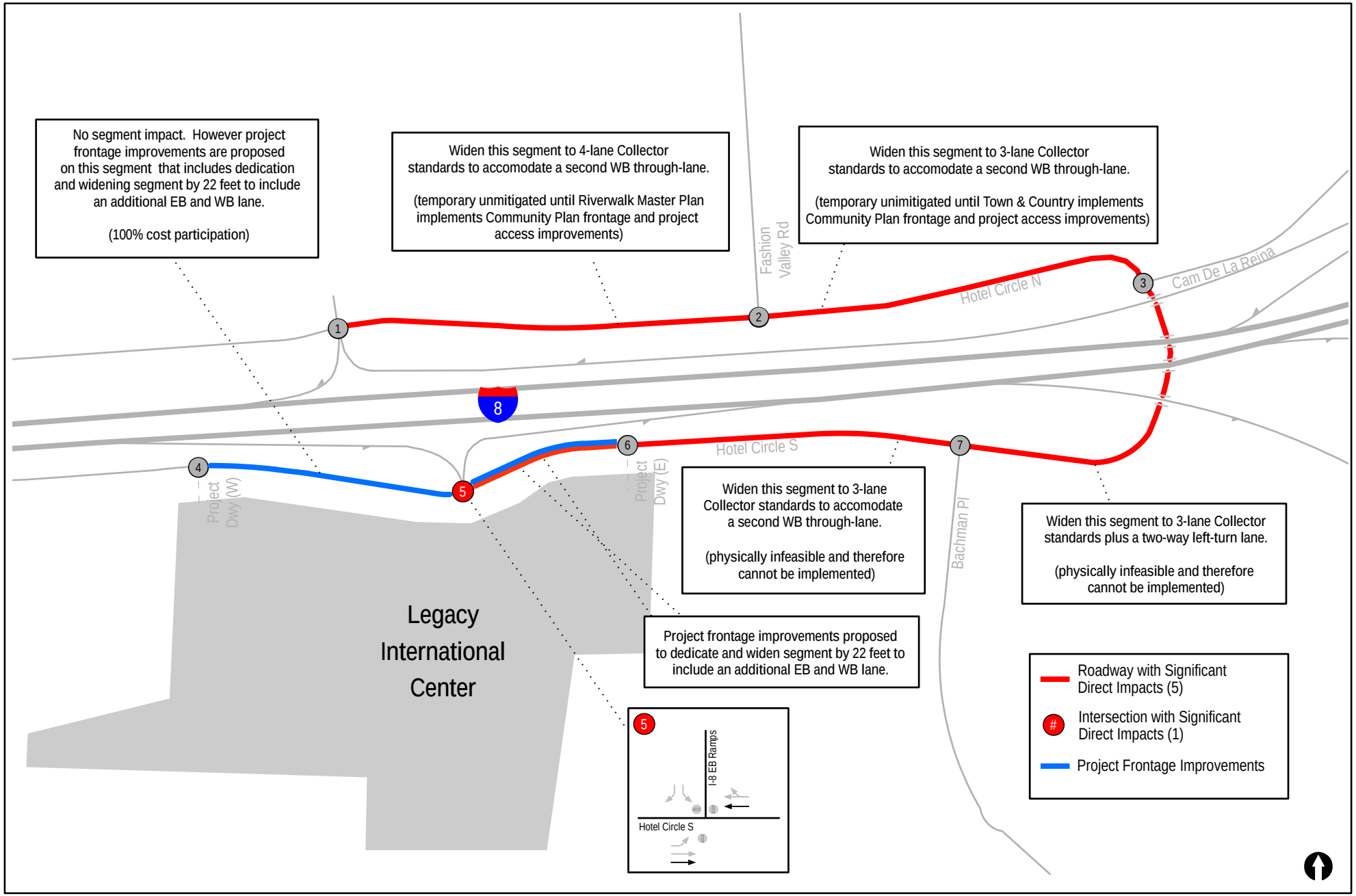

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Figure 17-1

Near-Term (Opening Day 2017) + Project Impacts & Mitigation

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18.0 YEAR 2035 (HORIZON YEAR) SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Per the City's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant impacts within the study area in the Year 2035 (Horizon Year) scenario. The following section identifies the significance of impacts and recommended mitigation to address operating deficiencies. These improvements, if implemented, would improve efficiency of traffic flow and return intersection operations to a level of "no significant" impact.

18.1 Year 2035 (Horizon Year) Significant Impacts

In the Year 2035 (Horizon Year), project related traffic is calculated to cause significant cumulative impacts within the study area, as summarized below in ***Table 18–1***.

Figure 18–1 shows graphically the significant cumulative impacts occurring under the Year 2035 (Horizon Year) conditions.

TABLE 18-1
YEAR 2035 (HORIZON YEAR) SIGNIFICANT IMPACTS

Facility Type	Location
Intersections	• Hotel Circle N. / I-8 WB Ramps
Street Segments	• Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road • Hotel Circle N.: Fashion Valley Road to Camino De La Reina • Hotel Circle S.: Project Driveway (E) to Bachman Place • Hotel Circle S.: Bachman Place to Camino De La Reina

18.2 Year 2035 (Horizon Year) Mitigation Measures

Under Year 2035 (Horizon Year) conditions, the project is calculated to have significant cumulative impacts at one (1) study intersection, and four (4) street segments. The following summarizes the recommended mitigation measures and the project cost participation.

Tables 18–2 and 18–3 report the results of intersection and street segment mitigation analysis for Year 2035 (Horizon Year). As shown in the tables, the proposed mitigation attempts to reduce the project impacts to a level of 'not significant'. For the purposes of this report, a level of 'not significant' reflects allowable delay and V/C increases within City defined thresholds.

Project mitigation diagrams, demonstrating the proposed mitigation for the impacted intersection and street segments, are contained in *Figure 18–1*.

18.2.1 *Intersection Mitigation*

The following intersection improvements and cost participation are identified to mitigate the Year 2035 (Horizon Year) significant "cumulative" impact from the project. The intersection calculation sheets are contained in *Appendix O*.

Hotel Circle N. / I-8 WB Ramps

Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (12.2%) towards signalizing and restriping the intersection to mitigate the project's cumulative impact.

- Remove the northbound right-turn channelization to provide a traditional configuration and provide a right-turn overlap phase.
- Remove the eastbound right-turn channelization to provide a traditional configuration.
- Allow northbound thru movements to the Handlery Hotel driveway.
- Install a traffic signal. Based on coordination with Caltrans, a traffic signal control was deemed as the appropriate control at this time. Should Caltrans decide to implement a different intersection control at this intersection, the fair-share contribution collected by the LIC project may be used towards the new intersection traffic control assuming it still mitigate the project's cumulative impact.

Appendix P contains the preliminary feasibility drawing for this intersection. ***Appendix R*** contains the fair-share calculations.

18.2.2 *Street Segment Mitigation*

The following street segment improvements and cost participation are identified to mitigate Year 2035 (Horizon Year) significant "cumulative" impacts from the project.

Hotel Circle N.: I-8 WB Ramps to Fashion Valley Road

Widening this segment to 4-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to include two westbound lanes and two eastbound lanes. To implement this mitigation, approximately 35' of widening would be required on the existing Riverwalk Golf Course. Based on a preliminary review, this widening is deemed feasible from a technical (physical) standpoint. Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (5.7%) towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer.

Hotel Circle N.: Fashion Valley Road to Camino De La Reina

Widening this segment to 3-lane Collector standards to accommodate a second WB through lane would mitigate the project's significant impact. The widening could occur on the north side of Hotel Circle North to provide two westbound lanes and one eastbound lane plus a two-way left-turn lane. To implement this mitigation, approximately 12' of widening would be required on the existing Town & Country Resort property. Based on a preliminary

feasibility review, this widening is deemed feasible from a technical (physical) standpoint. Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (10.0%) towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer. It should be noted that the fronting Town and Country property on this segment is currently in the process of redeveloping.

Hotel Circle S.: Project Driveway (E) to Bachman Place

Widening the roadway to 3-lane Collector with continuous left-turn lane would mitigate the project's significant impact.

The widening would include two eastbound lanes and one westbound lane. There is an existing 30' irrevocable offer of dedication (IOD) on Hotel Circle South along this roadway segment. Based on a feasibility review, this widening is deemed ***technically infeasible*** due to building structures fronting Hotel Circle South (Vagabond Inn) that would allow only a 2' parkway, which is not sufficient to include a sidewalk per City standards. Therefore, given the physical infeasibility of the proposed mitigation, a fair-share contribution was not calculated.

Hence, this impact is considered significant and unmitigated.

Hotel Circle S.: Bachman Place to Camino De La Reina

Widening the roadway to 3-lane Collector standards plus a continuous left-turn lane would mitigate the project's significant impact. The widening would include two eastbound lanes and one westbound lane. Based on a preliminary feasibility review, this widening is deemed ***technically infeasible*** due to the location of the support columns for the I-8 undercrossing on Hotel Circle South. Therefore, given the physical infeasibility of the proposed mitigation, a fair-share contribution cannot be proposed.

Hence, this impact is considered significant and unmitigated.

TABLE 18–2
YEAR 2035 (HORIZON YEAR) INTERSECTION MITIGATION ANALYSIS

Intersection	Peak Hour	Year 2035 (Horizon Year)		Year 2035 (Horizon Year) With Project		Year 2035 (Horizon Year) With Project and Mitigation			Mitigation (Fair-Share)
		Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
1. Hotel Circle N. / I-8 WB Ramps	AM	**57.6**	**F**	**63.8**	**F**	**57.3**	**E**	(0.3)	Fair-share (12.2%) contribution towards signalizing and restriping the intersection
	PM	**49.2**	**E**	**62.1**	**F**	46.2	D	(3.0)	

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 18-3
YEAR 2035 (HORIZON YEAR) STREET SEGMENT MITIGATION ANALYSIS

Roadway Segment	Classification	Capacity[a]	Year 2035 (Horizon Year)			Year 2035 (Horizon Year) With Project			Mitigation Classification	Mitigation Capacity	Year 2035 (Horizon Year) With Project and Mitigation				Mitigation (Fair-Share)
			ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C			ADT	LOS	V/C	Δ[e]	
Hotel Circle N.															
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	31,220	F	2.081	32,090	F	2.139	4-Lane Collector *(continuous left-turn lane)*	30,000[f]	32,090	F	1.070	(1.011)	Contribute a fair-share (5.7%) towards widening to accommodate an additional WB lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	21,260	F	1.417	22,160	F	1.477	3-Lane Collector *(continuous left-turn lane)*	22,500[g]	22,160	D	0.985	(0.432)	Contribute a fair-share (10.0%) towards widening to accommodate an additional WB lane on Hotel Circle N. between Fashion Valley Road and Camino De La Reina
Hotel Circle S.															
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	20,750	F	1.383	21,690	F	1.446	3-Lane Collector *(continuous left-turn lane)*	22,500	21,690	E	0.964	(0.419)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore no fair-share contribution is proposed)*
Bachman Place to Camino Del La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	19,520	F	1.301	20,440	F	1.363	3-Lane Collector *(continuous left-turn lane)*	22,500	20,440	E	0.908	(0.393)	Widen to a 3-Lane Collector with a continuous left-turn lane *(physically infeasible, therefore no fair-share contribution is proposed)*

Footnotes:

a. Capacity based on roadway classification operating at LOS E.
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity.
e. Δ denotes a project mitigation-induced increase or (decrease) in the Volume to Capacity ratio.
f. An upgraded capacity similar to 4-Lane Collector (with continuous left-turn lane) was assumed since this roadway does not have any driveways and this best represents its functional classification.
g. Capacity for 3-Lane Collector with continuous left-turn lane derived based on the capacities for a 4-Lane Collector with continuous left-turn lane and a 2-Lane Collector with continuous left-turn lane, from the City of San Diego Roadway Classification Table.

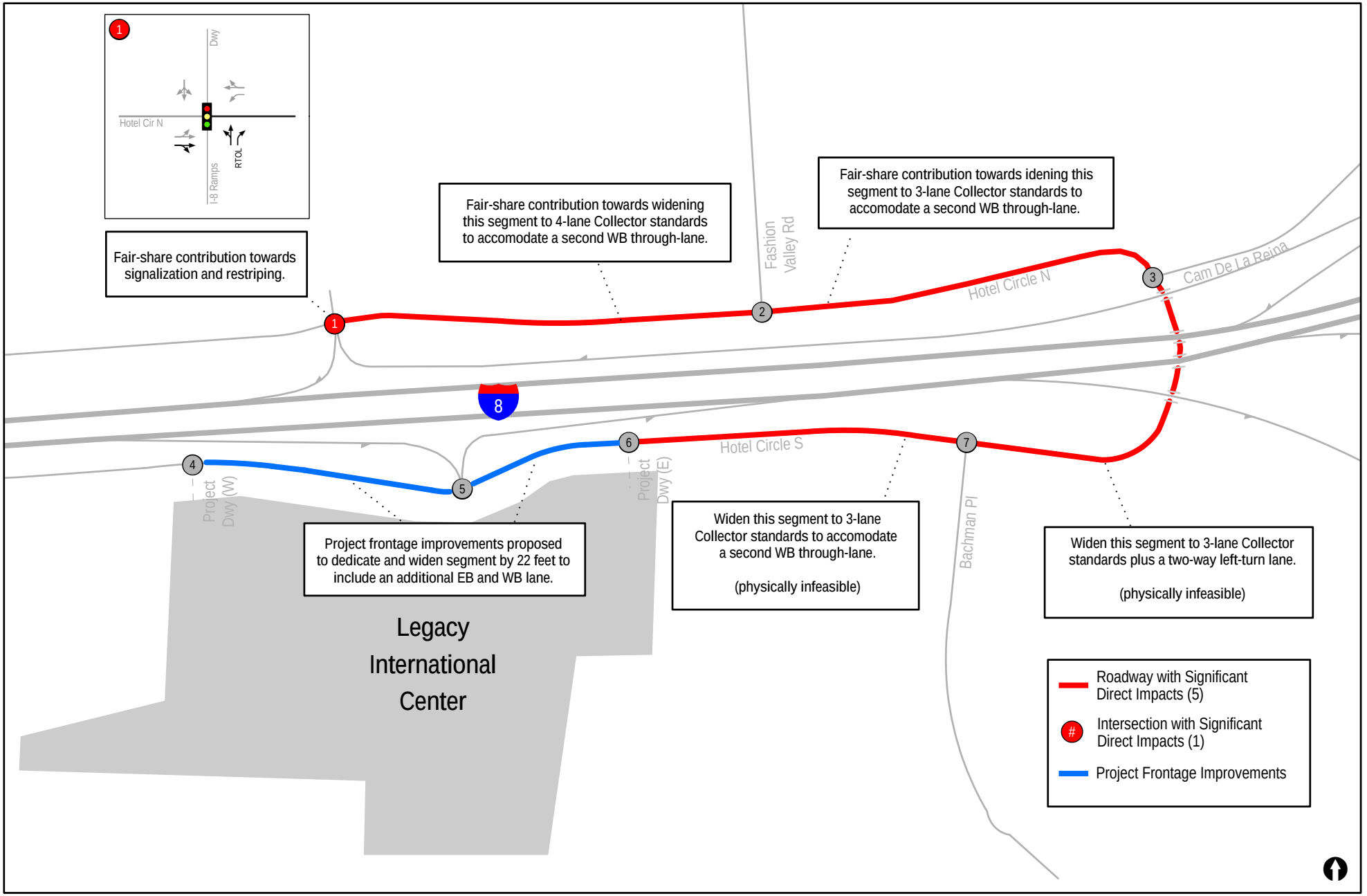

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Figure 18-1

Year 2035 (Horizon Year) Impacts & Mitigation

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19.0 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Given the synergy of on-site uses and its proximity to the Fashion Valley transit station (approximately ¾ mile of walking distance), the LIC project provides the appropriate setting for implementing transportation demand management strategies aimed at reducing single occupancy car travel within, as well as outside, the Mission Valley community. The intent of the TDM measures are to reduce peak period vehicle trips by creating a synergy of uses and promoting pedestrian, bicycle and transit modes of travel. Elements of these measures include the following:

Land Use Mix and Intensity—Most visitors to the LIC are expected to stay for multiple days experiencing the various project amenities and uses. Visitors to the site will primarily choose to stay on-site in the proposed timeshares, thereby reducing vehicular trips to secondary uses such as the learning center. The surrounding area also includes various hotels within walking distance that will facilitate reduction of vehicular trips.

Pedestrian and Bicycle Network—The LIC project proposes a comprehensive on-site network for travel by bike or on foot.

Pedestrian access is provided via sidewalks leading up to the site on Hotel Circle South on the south side. In addition, pedestrian access to the project site from the top of the canyon on the southern edge of the property will also be provided. To promote internal pedestrian circulation, a linear greenbelt with a meandering pathway is provided along the Hotel Circle South frontage and will connect to the recreational trail within the property. The public access trail will travel along the service road on the west side of the property and join the recreational trail located within already disturbed areas along the base of the southern hillside. The recreational trail will provide the ability to walk from Hotel Circle South to the south side of the property. The outdoor plazas will provide open pedestrian circulation. In addition, subterranean passageways will link the various buildings within the complex.

An existing Class II bike lane is located along Hotel Circle South in both directions. The project proposes improvements along Hotel Circle South which will maintain the existing Class II bike lanes to promote bike mobility. Bicyclists may enter the project through the east or western vehicular driveways, which provides access either to the pedestrian plazas or the recreational trail.

Transit Opportunities— The LIC project site is located in the vicinity of the Fashion Valley Transit Center, one of the major transit hubs in the Mission Valley Community. The project site is well connected to the transit center by MTS route 88. An existing bus stop located on Hotel Circle South fronting the project (serviced by MTS route 88) will be relocated and upgraded by the project as required by MTS. Additional bus stops are also located at Hotel Circle S / Bachman Place intersection (served by MTS route 20 and 120), which is within walking distance from the project site. MTS bus routes 20 and 120 connect the LIC project site to Kearny Mesa, City College, Old Town, Downtown, and Del Lago.

Generally, the MTS bus routes within the project vicinity operate with headways of approximately 10-15 minutes and operate on both weekdays and weekends.

Appendix N contains the MTS transit schedules.

Shuttle Service—The LIC project also proposes bus and shuttle service to transport visitors to and from major transportation hubs such as the airport, train station and other tourist attractions to reduce vehicular trips.

The TDM program includes measures aimed at reducing single occupancy car travel, within as well as outside, the community. These measures along with the project design provide many opportunities to reduce vehicle trips and encourage other modes of transportation. To be conservative, no TDM or transit credits were assumed in the traffic analysis.

20.0 CONCLUSIONS

The preceding Traffic Impact Analysis documents the traffic impacts associated with the proposed *Legacy International Center* project.

The proposed project involves the redevelopment of the existing Mission Valley Resort Hotel located at 875 Hotel Circle South. The existing site includes a 202-room resort hotel, a 5,300 square foot (150-seats) Valley Kitchen restaurant and a 1,200 SF liquor store. In addition to these uses, an 8-pump gas station and a health club were also operating on the site; however, they have closed since approximately Spring 2013 but remain entitled to open for business at any time. The LIC project consists of commercial, recreational, timeshare, administrative and faith based uses including a three-level 17,000 square foot welcoming center rotunda, a 29,900 square foot pavilion that includes an entrance to the underground catacombs, an outdoor Western Wall Plaza, a Legacy International Center Pavilion building with learning center, presentation gallery, TV studio and storage, a five-story 136,200 square foot "tri-wing" world class mid-rise building containing 127 timeshare suites, and an 8,200 square foot outdoor retail bazaar. Recreational components include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas and a world class wellness center with workout rooms, sauna, jacuzzis, steam rooms, rainforest effects, meditation rooms, showers and an Olympic sized five-lane outdoor pool. Executive offices are housed in a three-story, 23,000 square foot administration building including a subterranean basement with private parking spaces and storage. Regional access to the site is provided by I-8 and SR-163 via Hotel Circle North and South. The project site will be served by two driveways (full-access) on Hotel Circle South. The driveways are located at the western and eastern limits of the site.

The study area for this project encompasses areas of anticipated impact related to the project, which includes seven (7) intersections and ten (10) street segments along Hotel Circle North and South. The scope of the study area was developed under the City of San Diego staff in conjunction with the *City of San Diego Traffic Impact Study Manual* guidelines, project distribution and the "50 directional peak-hour trips" rule per the City's guidelines, a review of approved traffic studies in the project area, and a working knowledge of the local transportation system.

Given the atypical nature of the project land uses, a site specific trip generation was conducted by categorizing the project uses into primary, secondary and ancillary. *With the existing trip credits, the proposed project is calculated generate a net total of 1,805 cumulative ADT with 59 inbound / (16) outbound cumulative trips during the AM peak hour and 188 inbound / 146 outbound cumulative trips during the PM peak hour.*

Project related traffic is calculated to cause significant impacts within the study area under Near-Term (Opening Day 2017) and Horizon Year conditions. *Sections 16.0* through *18.0* describe the project impacts and proposed mitigation. The following is a summary of the project mitigation for the Near-Term and Horizon Year scenarios:

Near-Term (Opening Day 2017) Mitigation:

Intersections:

- *Hotel Circle South / I-8 EB ramps:* LLG analyzed an enhanced all-way stop alternative. To mitigate the project's direct impact at this intersection, the LIC project will provide full-width dedication (varying width up to 28 feet) and improvements and construct an additional eastbound and westbound travel lane. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions.

Street Segments:

- *Hotel Circle South – I-8 EB ramps to Project Driveway (E):* Widening the roadway to 4-lane Collector with a continuous left-turn lane would mitigate the project's significant impact. The LIC project will provide full-width dedication (varying width up to 28 feet) and improvements to implement the ultimate classification of Hotel Circle South. Hotel Circle South is currently as a four-lane Collector but only built as a two-lane roadway. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions.
- *Hotel Circle South –Project Driveway (W) to I-8 EB ramps:* While this segment of Hotel Circle South (west of the I-8 EB ramps) is not identified as a significant impact, the project will construct an additional WB and EB lane between the westerly driveway and I-8 EB ramps in conjunction with the improvements on the east side.

Year 2035 (Horizon Year) Mitigation:

Intersections:

- *Hotel Circle N. / I-8 WB Ramps:* Signalizing and reconfiguring the intersection as follows would mitigate the project's cumulative impact. The Owner/Permittee would be responsible for paying a fair-share (12.2%) towards the proposed improvements.
  - Remove the northbound right-turn channelization to provide a traditional configuration and provide a right-turn overlap phase.
  - Remove the eastbound right-turn channelization to provide a traditional configuration.
  - Allow northbound thru movements to the Handlery Hotel driveway.
  - Install a traffic signal.

Street Segments:

- *Hotel Circle N.– I-8 WB Ramps to Fashion Valley Road*: Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (5.7%) towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer.

- *Hotel Circle N.– Fashion Valley Road to Camino De La Reina*: Prior to the issuance of the first building permit, the Owner/Permittee shall contribute a fair-share (10.0%)

towards widening to accommodate a second WB through lane on Hotel Circle N. between I-8 WB Ramps and Fashion Valley Road, satisfactory to the City Engineer.

The following *direct* and *cumulative* impacts remain temporarily unmitigated or physically infeasible.

Direct Impacts:
Intersections: None

Street Segments:

- Hotel Circle N. – I-8 WB ramps to Fashion Valley Road (temporarily unmitigated until the Riverwalk Master Plan implements their frontage improvements)
- Hotel Circle N.– Fashion Valley Road to Camino De La Reina (temporarily unmitigated until the Town and Country Master Plan implements their frontage improvements)
- Hotel Circle S. – Project Driveway (E) to Bachman Place (physically infeasible)
- Hotel Circle S. – Bachman Place to Camino De La Reina (physically infeasible)

Cumulative Impacts:
Intersections: None

Street Segments:

- Hotel Circle S. – Project Driveway (E) to Bachman Place (physically infeasible)
- Hotel Circle S. – Bachman Place to Camino De La Reina (physically infeasible)

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November 21, 2016

Ms. Ann Gonsalves
City of San Diego
Development Services Department (DSD)

LLG Reference: 3-12-2194

Subject: **Legacy International Center REVISED Project – Traffic Addendum**
City of San Diego

Dear Ann:

Per our discussions at our recent meeting, Linscott, Law and Greenspan Engineers (LLG) has prepared this Traffic Executive Summary Letter for the Legacy International Center project located at 875 Hotel Circle South, San Diego, CA 92108. This letter provides a brief traffic comparison summary between the original project and the current project in terms of trip generation, traffic impacts (mitigated vs. unmitigated) and proposed mitigation measures. In addition, this letter report also provides updated parking analysis and fair-share calculations. This letter is an addendum to the approved Traffic Impact Analysis (October 29, 2015).

1.0 Project Description

The overall project square footage decreased from 532,178 SF to 306,879 SF resulting in a reduction of approximately 225,299 SF or 42%. The same project land uses are retained along with their associated synergy. ***Figure A*** shows the project vicinity map and ***Figure B*** shows a comparative site plan. As shown in the site plan, five (5) buildings have been consolidated into three (3) buildings.

2.0 Trip Generation

Given the reduction in the uses and densities, the trip generation for the current project is calculated to generate a total of 2,873 cumulative ADT. With the existing trip credits, the current project is calculated generate a net total of **277 cumulative ADT.**

Table A shows the revised trip generation table for the proposed project.

For ease of review, this report presents changes in strike-out underline comparing the original and current project.

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TABLE A
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
PROPOSED PROJECT							
Legacy International Center Pavilion							
Gift Shops Retail[a] Secondary Generator	*Total*: 1,052 SF	40/KSF	*Cumulative (90%):* 15	-	-	1	1
	Attraction[b]: 40%		*Pass-By (10%):* 2	-	-	-	-
	Effective: 421 SF		*Driveway (100%):* 17	-	-	1	1
Restaurant[c] Secondary Generator	*Total*: 8,569 SF	100/KSF	*Cumulative (90%):* 231	2	1	13	5
	Attraction: 30%		*Pass-By (10%):* 26	-	-	1	1
	Effective: 2,571 SF		*Driveway (100%):* 257	2	1	14	6
Theater[d] Secondary Generator	*Total*: 500 seats	1.8/seat	*Cumulative (100%):* 180	4	3	10	4
	Attraction: 20%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 100 seats		*Driveway (100%):* 180	4	3	10	4
Training Center[e] Secondary Generator	*Total*: 13,844 SF	60/KSF	*Cumulative (100%):* 332	11	3	13	13
	Attraction: 40%		*Pass-By (0%):*0	0	0	0	0
	Effective: 5,538 SF		*Driveway (100%):* 332	11	3	13	13
BOH/Public Facilities[f] Ancillary Use	*Total*: 4,323 SF	N/A	*Cumulative (0%):* 0	-	-	-	-
	Attraction: 0%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 0 SF		*Driveway (0%):* 0	-	-	-	-
Grand Foyer / Circulation Ancillary Use	*Total*: 7,480 SF	N/A	*Cumulative (0%):* 0	-	-	-	-
	Attraction: 0%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 0 SF		*Driveway (0%):* 0	-	-	-	-
Office[g] Primary Generator	*Total*: 16,801 SF	Ln formula	*Cumulative (0%): 438*	51	6	12	49
	Attraction: 100%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 16,801 SF		*Driveway (0%): 438*	51	6	12	49
Legacy Welcome Center Rotunda / HIStory Dome							
Grand Foyer, Welcoming & Registration Ancillary Use[f]	*Total*: 8,459 SF	N/A	*Cumulative (0%):* 0	-	-	-	-
	Attraction: 0%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 0 SF		*Driveway (0%):* 0	-	-	-	-
Surround Theater / Exhibit Gallery[d] Secondary Generator	*Total*: 16,185 SF	80/KSF	*Cumulative (100%):* 259	6	4	15	6
	Attraction: 20%		*Pass-By (0%):* 0	-	-	-	-
	Effective: 3,237 SF		*Driveway (100%):* 259	6	4	15	6
Retail Bazaar Secondary Generator	*Total*: 8,879 SF	40/KSF	*Cumulative (90%):* 128	3	2	6	6
	Attraction: 40%		*Pass-By (10%):* 14	-	-	-	-
	Effective: 3,552 SF		*Driveway (100%):* 142	3	2	6	6

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TABLE A
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
BOH/Public Facilities Ancillary Use	*Total*: 4,107 SF *Attraction*: 0% *Effective:* 0 SF	N/A	*Cumulative (0%):* 0 *Pass-By (0%):* 0 *Driveway (0%):* 0	- - -	- - -	- - -	- - -
Catacombs[a] Secondary Generator	*Total*: 3,390 SF *Attraction*: 40% *Effective:* 1,356 SF	40/KSF	*Cumulative (90%):* 49 *Pass-By (10%):* 5 *Driveway (100%):* 54	1 - 1	1 - 1	2 - 2	2 - 2
HIStory Dome Theater Secondary Generator	*Total*: 100 seats *Attraction*: 20% *Effective:* 20 seats	1.8/seat	*Cumulative (100%):* 36 *Pass-By (0%):* 0 *Driveway (100%):* 36	1 - 1	- - -	1 - 1	1 - 1
Circulation Ancillary Use	*Total*: 1,138 SF *Attraction*: 0% *Effective:* 0 SF	N/A	*Cumulative (0%):* 0 *Pass-By (0%):* 0 *Driveway (0%):* 0	- - -	- - -	- - -	- - -
Legacy Hotel							
Hotel Rooms[h]	*Total*: 127 rooms *Attraction*: 0% *Effective:* 127 rooms	8/room	*Cumulative (100%):* 1,016 *Pass-By (0%):* 0 *Driveway (100%):* 1,016	30 - 30	20 - 20	28 - 28	43 - 43
Wellness Center[i] Secondary Generator	*Total*: 2,517 SF *Attraction*: 50% *Effective:* 1,259 SF	40/KSF	*Cumulative (100%): 50* *Pass-By (0%):* 0 *Driveway (100%):* 50	1 - 1	1 - 1	3 - 3	2 - 2
Grand Plaza Steps Gathering Space[j] Secondary Generator	*Total*: 110 people *Attraction*: 70% *Effective:* 77 people	1.8/person	*Cumulative (100%):* 139 *Pass-By (0%):* 0 *Driveway (100%):* 139	- - -	- - -	55 - 55	14 - 14
TOTAL Proposed Project			***Cumulative: 2,873*** ***Pass-By: 47*** ***Driveway: 2,920***	***110*** ***0*** ***110***	***41*** ***0*** ***41***	***159*** ***1*** ***160***	***146*** ***1*** ***147***
EXISTING SITE							
Resort Hotel [k]	*Total*: 202 rooms *Attraction*: 100% *Effective:* 202 rooms	10/room	*Cumulative (100%):* 2,020 *Pass-By (0%):* 0 *Driveway (100%):* 2,020	73 - 73	48 - 48	97 - 97	65 - 65
Valley Kitchen Restaurant [l]	*Total*: 5,300 SF *Attraction*: 50%[m] *Effective:* 2,650 SF	130/KSF	*Cumulative (80%):* 276 *Pass-By (20%):* 69 *Driveway (100%):* 345	11 3 14	11 3 14	14 3 17	9 2 11
Gas Station *(closed)*[n]	*Total*: 8 pumps *Attraction*: 100% *Effective:* 8 pumps	130/pump	*Cumulative (20%):* 0 *Pass-By (80%):* 0 *Driveway (100%):* 0	- - -	- - -	- - -	- - -

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TABLE A
PROJECT TRIP GENERATION

Land Use/ Trip Generator	Total Size	Daily Trip End (ADTs)		AM Peak Hour		PM Peak Hour	
		Rate	Volume	In	Out	In	Out
Frog's Health Club (*closed)*[n]	*Total*: 28,000 SF *Attraction*: 100% *Effective:* 28,000 SF	40/KSF	*Cumulative (100%):* 0 *Pass-By (0%):* 0 *Driveway (100%):* 0	- - -	- - -	- - -	- - -
Liquor Store [o]	*Total*: 1,200 SF *Attraction*: 100% *Effective:* 1,200 SF	500/KSF	*Cumulative (50%):* 300 *Pass-By (50%):* 300 *Driveway (100%):600*	12 12 24	12 12 24	12 12 24	12 12 24
TOTAL Existing			***Cumulative: 2,596*** ***Pass-By: 369*** ***Driveway: 2,965***	***96*** ***15*** ***111***	***71*** ***15*** ***86***	***123*** ***15*** ***138***	***86*** ***14*** ***100***
NET NEW PROJECT TRIPS [p]			***Cumulative: 277*** ***Pass-By: (322)*** ***Driveway: (45)***	***14*** ***(15)*** ***(1)***	***(30)*** ***(15)*** ***(45)***	***36*** ***(14)*** ***22***	***60*** ***(13)*** ***47***

Footnotes:

a. Trip rate for "specialty retail" used.

b. External trip attraction (%) indicates external primary trips attracted to the project site. The balance of the land use SF is assumed to be captured internally.

c. City of San Diego trip rate for "quality restaurant" used.

d. City of San Diego trip rate for "theater" used. City of San Diego trip rates show 0% AM ADT. AM assumed as 4% to be conservative.

e. City of San Diego trip rate for "house of worship" used. To be conservative, the typical trip rate of 15 / KSF was quadrupled.

f. Back-of-house (BOH), circulation and lobby are ancillary uses that support other trip generating uses and do not generate independent trips. Therefore, no trips were assigned for these uses.

g. City of San Diego trip rate for "commercial office" used by applying the Ln formula: Ln(T) = 0.756 Ln (x) + 3.95.

h. City of San Diego trip rate for "resort hotel" used.

i. City of San Diego trip rate for "health club" used.

j. The Grand Plaza Steps is a "gathering space" that will be used as a venue for small intimate events. To be conservative, a rate of 1.8 trips/ person was used with majority of the trips generated in the PM peak hour.

k. Existing hotel includes 202 guest rooms and 7,000 SF convention space. Hence, City of San Diego trip rate of 10 trips per room was used.

l. City of San Diego trip rate for "high turnover restaurant (sit-down)" used.

m. 50% of trips generated by the restaurant assumed to be independent from trips attracted from the resort hotel.

n. Based on discussions with City staff, no existing trip credits are assumed for the gas station and health club, given that they have been closed for over 6 months.

o. Square-footage measured from aerial photos. City of San Diego trip rate for "convenience market chain" used.

p. Net new trips = Proposed Project — Existing.

2.1 TRIP GENERATION COMPARISON

Table B provides a trip generation summary between the original project and the current project. As seen in *Table B*, as compared to the original project, the current project reduces the project traffic by 1,527 ADT or approximately 85% (1,527/1,804).

TABLE B
TRIP GENERATION SUMMARY

Project	Trip Generation Comparison								
	ADT (cumulative)			Net New Peak Hour (cumulative)					
				AM			PM		
	Project	Existing	Net New	*Total*	*In*	*Out*	*Total*	*In*	*Out*
Original	4,400	2,596	1,804	43	59	(16)	334	188	146
Current	2,873		277	(16)	14	(30)	96	36	60
Δ	***(1,527)***	–	***(1,527)***	***(59)***	***(45)***	***(14)***	***(238)***	***(152)***	***(86)***

3.0 ANALYSIS APPROACH AND METHODOLOGY

Given the reduction in traffic from the original project, intersection and street segment analyses were updated to determine changes in project impacts. The analyses were conducted under Existing + Project, Near-Term (Opening Day) + Project and Year (Horizon Year) + Project scenarios for impacted facilities only. Since no freeway impacts were calculated with the original project, given the reduction in traffic, it is assumed that no impacts would be calculated for the current project. Therefore, no freeway analyses were conducted.

3.1 EXISTING + PROJECT ANALYSIS

Tables C and ***D*** show the Existing + Project intersection and street segment analyses. ***Attachment A*** contains the peak hour intersection analysis sheets.

3.2 NEAR-TERM (OPENING DAY 2018) + PROJECT ANALYSIS

Tables E and ***F*** show the Near-Term (Opening Day) + Project intersection and street segment analyses. ***Attachment B*** contains the peak hour intersection analysis sheets.

3.3 YEAR 2035 (HORIZON YEAR) + PROJECT ANALYSIS

Tables G and ***H*** show the Year 2035 (Horizon Year) + Project intersection and street segment analyses. ***Attachment C*** contains the peak hour intersection analysis sheets.

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TABLE C
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ^c	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle S. / I-8 EB Ramps	AWSC[d]	AM	13.5	B	13.6	B	0.1	No
		PM	**54.2**	**F**	**141.6**	**F**	**87.4**	**Yes**

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay.
d. AWSC – All-Way Stop Controlled intersection.

General Notes:
1. **Bold** typeface indicates intersections operating at LOS F.
2. Strike out shows changes from original project.

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

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TABLE D
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Existing			Project Added ADT	Existing + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Hotel Circle N.											
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**16,800**	**F**	**1.120**	130	**16,930**	**F**	**1.129**	0.009	No
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**13,170**	**E**	**0.878**	140	**13,310**	**E**	**0.887**	0.009	No
Hotel Circle S.											
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**	120	**14,510**	**E**	**0.967**	0.008	No
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,390**	**E**	**0.959**	140	**14,530**	**E**	**0.969**	0.010	No
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,350**	**E**	**0.957**	140	**14,490**	**E**	**0.966**	0.009	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Volume to Capacity.
e. "Δ" denotes the project-induced increase in V/C.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.
2. Strike out shows changes from original project.

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TABLE E
NEAR-TERM (OPENING DAY 2017) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term (Opening Day 2017)		Near-Term (Opening Day 2017) + Project		Δ^c	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle S. / I-8 EB Ramps	AWSC[d]	AM	14.2	B	32.3	D	18.1	No
		PM	**62.5**	**F**	**154.4**	**F**	**91.9**	**Yes**

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay
d. AWSC – All-Way Stop Controlled intersection.

General Notes:
1. **Bold** typeface indicates intersections operating at LOS E or F.
2. Strike out shows changes from original project.

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

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TABLE F
NEAR-TERM (OPENING DAY 2017) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Near-Term (Opening Day 2017)			Project Added ADT	Near-Term (Opening Day 2017) + Project			Δ V/C[e]	Sig Impact?
			ADT[b]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Hotel Circle N.											
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**17,230**	**F**	**1.149**	130	**17,360**	**F**	**1.157**	0.008	No
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**13,640**	**E**	**0.909**	140	**13,780**	**E**	**0.919**	0.010	No
Hotel Circle S.											
I-8 EB Ramps to Project Driveway (E)	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	120	**14,950**	**E**	**0.997**	0.008	No
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	140	**14,970**	**E**	**0.998**	0.009	No
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**14,830**	**E**	**0.989**	140	**14,970**	**E**	**0.998**	0.009	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Volume to Capacity.
e. "Δ" denotes the project-induced increase in V/C.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS E or F.
2. Strike out shows changes from original project.

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TABLE G
YEAR 2035 (HORIZON YEAR) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Year 2035 (Horizon Year)		Year 2035 (Horizon Year) + Project		Δ^c	Sig Impact?
			Delay[a]	LOS[b]	Delay	LOS		
1. Hotel Circle N. / I-8 WB Ramps	AWSC[d]	AM	**57.6**	**F**	**59.0**	**F**	**1.4**	**Yes**
		PM	**49.2**	**E**	**53.5**	**F**	**4.3**	**Yes**

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. "Δ" denotes the project-induced increase in delay
d. AWSC – All-Way Stop Controlled intersection.

General Notes:
1. **Bold** typeface indicates intersections operating at LOS E or F.
2. Strike out shows changes from original project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

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TABLE H
YEAR 2035 (HORIZON YEAR) STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E)[a]	Year 2035 (Horizon Year)			Project Added ADT	Year 2035 (Horizon Year) + Project			Δ V/C[e]	Sig Impact?
			ADT[a]	LOS[c]	V/C[d]		ADT	LOS	V/C		
Hotel Circle N.											
I-8 WB Ramps to Fashion Valley Road	3-Lane Collector *(no center lane)*	15,000	**31,220**	**F**	**2.081**	130	**31,350**	**F**	**2.090**	0.009	No
Fashion Valley Road to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**21,260**	**F**	**1.417**	140	**21,400**	**F**	**1.427**	0.010	No
Hotel Circle S.											
Project Driveway (E) to Bachman Place	2-Lane Collector *(continuous left-turn lane)*	15,000	**20,750**	**F**	**1.383**	140	**20,890**	**F**	**1.393**	0.010	No
Bachman Place to Camino De La Reina	2-Lane Collector *(continuous left-turn lane)*	15,000	**19,520**	**F**	**1.301**	140	**19,660**	**F**	**1.311**	0.010	No

Footnotes:

a. Capacities based on City of San Diego Roadway Classification Table.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Volume to Capacity.
e. "Δ" denotes the project-induced increase in V/C.

General Notes:

1. **Bold** typeface indicates intersections operating at LOS F.
2. Strike out shows changes from original project.

4.0 SIGNIFICANT IMPACTS AND MITIGATION

4.1 EXISTING + PROJECT NEAR-TERM IMPACTS (DIRECT IMPACTS) COMPARISON

Table I shows the Existing + Project and Near-Term (Opening Day 2018) + Project Impact summary table comparing the original and current project. As seen in *Table I*, the following are noted:

Intersections:

- One (1) intersection impact at the Hotel Circle South / I-8 EB ramps intersection is maintained with the current project. ***Table J*** and ***Table K*** shows the mitigation analysis for Existing + Project and Near-Term (Opening Day 2018) + Project, respectively.
- To mitigate this impact, consistent with the original project mitigation measure, the LIC project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane. Existing conditions will be matched at the western and eastern limits of the site with appropriate transitions. ***Attachment D*** shows the post mitigation analysis. ***Figure C–1*** and ***Figure C–2*** shows graphically the significant direct impact occurring under Existing + Project and Near-Term (Opening Day 2018) + Project conditions.

Street Segments:

- No segment impacts are calculated with the current project. However, consistent with the original project, frontage improvements described above are still proposed.

Unmitigated Impacts

- The original project was calculated with significant unmitigated direct impacts (4 segment impacts). **With the reduction in traffic, the current project is calculated with no unmitigated impacts.**

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TABLE I
EXISTING + PROJECT AND NEAR-TERM + PROJECT IMPACTS SUMMARY

Facilities	Direct Impacts			
	Original Project		Current Project	
	Impacted Location	*Mitigated / Unmitigated*	*Impacted Location*	*Mitigation*
Intersections	▪ Hotel Circle South / I-8 EB ramps *Total: 1*	▪ Mitigated Project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane.	▪ Hotel Circle South / I-8 EB ramps *Total: 1*	▪ Project will provide full-width dedication (varying width up to 28 feet) along the project frontage and will construct an additional eastbound and westbound travel lane.
Segments	▪ Hotel Circle N. – I-8 WB ramps to Fashion Valley Rd. ▪ Hotel Circle N. – Fashion Valley Rd. to Camino De La Reina ▪ Hotel Circle S. – I-8 EB ramps to Project Driveway (E) ▪ Hotel Circle S. – Project Driveway (E) to Bachman Pl. ▪ Hotel Circle S. – Bachman Place to Camino De La Reina *Total: 5*	▪ ***Unmitigated*** ▪ ***Unmitigated*** ▪ *Mitigated (frontage improvements)* ▪ ***Unmitigated*** ▪ ***Unmitigated***	*None*	*None*
Freeways	*None*		*None*	

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TABLE J
EXISTING + PROJECT INTERSECTION MITIGATION ANALYSIS

Intersection	Control Type	Peak Hour	Existing		Existing With Project		Existing With Project and Mitigation			Mitigation
			Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
Hotel Circle S. / I-8 EB Ramps	Enhanced All-Way Stop	AM	13.5	B	13.6	B	18.1	C	4.6	Widen approximately (varying width up to 28 feet) to include an additional EB and WB through lane *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
		PM	**54.2**	**F**	**141.6**	**F**	**40.1**	**E**	(14.1)	

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

General Notes:
1. Strike out shows changes from original project.

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

TABLE K
NEAR-TERM (OPENING DAY 2017) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term (Opening Day 2017)		Near-Term (Opening Day 2017) + Project		Near-Term (Opening Day 2017) With Project and Mitigation			Mitigation
			Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
Hotel Circle S. / I-8 EB Ramps	Enhanced All-Way Stop	AM	14.2	B	32.3	D	20.2	C	6.0	Widen approximately (varying width up to 28 feet) to include an additional EB and WB through lane *(project to provide full-width dedication along frontage and construct an additional EB and WB travel lane)*
		PM	**62.5**	**F**	**154.4**	**F**	**40.7**	**E**	(21.8)	

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

General Notes:
1. Strike out shows changes from original project.

4.2 YEAR 2035 (HORIZON YEAR) + PROJECT IMPACT COMPARISON

Table L shows a Long-Term Impact summary table comparing the original and current project. As seen in *Table L*, the following are noted:

Intersections:

- One (1) intersection cumulative impact at the Hotel Circle North / I-8 WB ramps intersection is maintained with the current project. ***Table M*** shows the mitigation analysis for Year 2035 (Horizon Year) + Project.
- Consistent with the original project mitigation measure, the LIC project will provide the fair-share contribution (3.5%) towards signalizing and restriping to mitigate the project's cumulative impact. ***Attachment E*** shows the post mitigation analysis and the fair-share calculations. ***Figure C–3*** shows graphically the significant cumulative impact occurring under Year 2035 (Horizon Year) + Project conditions.

Street Segments:

- No segment impacts are calculated with the current project. However, consistent with the original project, frontage improvements described above are still proposed.

Unmitigated:

- The original project was calculated with significant unmitigated cumulative impacts (2 segment impacts). **The two unmitigated cumulative segment impacts have been eliminated with the current project.**

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TABLE L
YEAR 2035 (HORIZON YEAR) + PROJECT IMPACTS SUMMARY

Facilities	Cumulative Impacts			
	Original Project		Current Project	
	Impacted Location	*Mitigated / Unmitigated*	*Impacted Location*	*Mitigation*
Intersections	▪ Hotel Circle North / I-8 WB ramps *Total: 1*	▪ Mitigated: *Fair-share*	▪ Hotel Circle North / I-8 WB ramps *Total: 1*	▪ Mitigated: *Fair-share contribution (3.5%) towards signal and restriping.*
Segments	▪ Hotel Circle N. – I-8 WB ramps to Fashion Valley Rd. ▪ Hotel Circle N. – Fashion Valley Rd. to Camino De La Reina ▪ Hotel Circle S. – Project Driveway (E) to Bachman Pl. ▪ Hotel Circle S. – Bachman Place to Camino De La Reina *Total: 4*	▪ Mitigated: *Fair-share* ▪ Mitigated: *Fair-share* ▪ ***Unmitigated*** ▪ ***Unmitigated***	*None*	*None*
Freeways	*None*		*None*	

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TABLE M
YEAR 2035 (HORIZON YEAR) INTERSECTION MITIGATION ANALYSIS

Intersection	Control Type	Peak Hour	Year 2035 (Horizon Year)		Year 2035 (Horizon Year) With Project		Year 2035 (Horizon Year) With Project and Mitigation			Mitigation
			Delay[a]	LOS[b]	Delay	LOS	Delay	LOS	Δ[c]	
Hotel Circle N. / I-8 WB Ramps	Enhanced All-Way Stop	AM	**57.6**	**F**	**59.0**	**F**	54.5	D	(3.1)	Fair-share (3.5%) contribution towards signalizing and restriping the intersection
		PM	**49.2**	**E**	**53.5**	**F**	39.5	D	(9.7)	

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes a decrease in delay due to project mitigation.

General Notes:
1. Strike out shows changes from original project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

5.0 SHARED PARKING ANALYSIS

The Shared Parking Analysis was revised for the current project. The parking rates and time of day distribution for the various land uses were based on the City of San Diego standards (*Table 142-05I – Parking rates for shared parking and Table 142-05J – Representative hourly accumulation of percentage by peak hour respectively)*. ***Table N*** shows the updated Shared Parking analysis. As shown in *Table N*, with the reduction in land uses and densities, the required project parking demand is calculated to reduce from 858 spaces to 524 spaces.

Correspondingly, the current project proposes a reduction in parking supply from 878 spaces to 665 spaces. The project will meet exceed the minimum parking requirement of 524 spaces with a target parking supply of 665 spaces. No parking issues are identified with the current project.

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TABLE N
SHARED PARKING ANALYSIS

Hour of Day	*Legacy Welcome Center Rotunda / HIStory Dome*								**Legacy International Center Pavilion**												**Legacy Hotel**				**Total Spaces Required**
	Surround Theater / Exhibit Gallery		Retail Bazaar		Catacombs		HIStory Dome Theater		Gift Shops (Retail)		Restaurant		Theater		Training Center		Office		Grand Plaza Steps (gathering space)		Hotel		Wellness Center		
	16,185 SF *Attraction @ 20%* **3.237 KSF**		8,879 SF *Attraction @ 40%* **3.5 KSF**		3,390 SF *Attraction @ 40%* **1.356 KSF**		100 seats *Attraction @ 20%* **20 Seats**		1,052 SF *Attraction @ 40%* **0.421 KSF**		8,569 SF *Attraction @ 30%* **3.552 KSF**		500 seats *Attraction @ 20%* **100 Seats**		13,844 SF *Attraction @ 40%* **5.538 KSF**		16,081 SF *Attraction @ 100%* **16.081 KSF**		110 people *Attraction @ 70%* **77 people**		127 rooms *Attraction @ 100%* **127 Rooms**		2,517 SF *Attraction @ 50%* **1.259 KSF**		
	Rate = 30/KSF		**Rate = 5/KSF**		**Rate = 5/KSF**		**Rate = 0.33/seat**		**Rate = 5/KSF**		**Rate = 15/KSF**		**Rate = 0.33/seat**		**Rate = 30/room**		**Rate = 3.3/KSF**		**Rate = 0.33/person**		**Rate = 1/room**		**Rate = 5/KSF**		
	97 spaces		*18 spaces*		*7 spaces*		*7 spaces*		*2 spaces*		*53 spaces*		*33 spaces*		*166 spaces*		*53 spaces*		*25 spaces*		*127 spaces*		*6 spaces*		
	Dist[a]	**Required Parking Spaces**	**Dist[b]**	**Required Parking Spaces**	**Dist[c]**	**Required Parking Spaces**	**Dist[d]**	**Required Parking Spaces**	**Dist[b]**	**Required Parking Spaces**	**Dist[e]**	**Required Parking Spaces**	**Dist[d]**	**Required Parking Spaces**	**Dist[a]**	**Required Parking Spaces**	**Dist[f]**	**Required Parking Spaces**	**Dist[g]**	**Required Parking Spaces**	**Dist[h]**	**Required Parking Spaces**	**Dist[i]**	**Required Parking Spaces**	
6:00 AM	0%	0	0%	0	0%	0	0%	0	0%	0	15	8	0%	0	0%	0	5%	3	0%	0	100%	127	70%	4	142
7:00 AM	0%	0	10%	2	10%	1	0%	0	10%	0	55%	29	0%	0	0%	0	15%	8	0%	0	95%	121	40%	3	164
8:00 AM	50%	49	30%	5	30%	2	50%	3	30%	1	80%	43	50%	17	50%	83	55%	29	0%	0	85%	108	40%	3	343
9:00 AM	100%	97	50%	9	50%	3	100%	7	50%	1	65%	35	100%	33	100%	166	90%	48	1%	0	85%	108	70%	4	511
10:00 AM	100%	97	70%	12	70%	5	100%	7	70%	1	25%	13	100%	33	100%	166	100%	53	1%	0	80%	102	70%	4	493
11:00 AM	100%	97	80%	14	80%	5	100%	7	80%	2	65%	35	100%	33	100%	166	100%	53	1%	0	75%	95	80%	5	512
12:00 PM	100%	97	100%	18	100%	7	100%	7	100%	2	100%	53	100%	33	100%	166	90%	48	1%	0	70%	89	60%	4	524
1:00 PM	100%	97	95%	17	95%	6	100%	7	95%	2	80%	43	100%	33	100%	166	85%	45	1%	0	70%	89	70%	4	509
2:00 PM	100%	97	85%	15	85%	6	100%	7	85%	2	55%	29	100%	33	100%	166	90%	48	1%	0	70%	89	70%	4	496
3:00 PM	100%	97	80%	14	80%	5	100%	7	80%	2	35%	19	100%	33	100%	166	90%	48	1%	0	60%	76	70%	4	471
4:00 PM	100%	97	75%	13	75%	5	100%	7	75%	2	30%	16	100%	33	100%	166	85%	45	1%	0	65%	83	80%	5	472
5:00 PM	100%	97	80%	14	80%	5	100%	7	80%	2	45%	24	100%	33	100%	166	55%	29	1%	0	60%	76	90%	6	459
6:00 PM	50%	49	80%	14	80%	5	50%	3	80%	2	65%	35	50%	17	50%	83	25%	13	10%	3	65%	83	100%	6	313
7:00 PM	30%	29	75%	13	75%	5	30%	2	75%	2	55%	29	30%	10	30%	50	15%	8	25%	6	75%	95	90%	6	255
8:00 PM	30%	29	60%	11	60%	4	30%	2	60%	1	55%	29	30%	10	30%	50	5%	3	100%	25	85%	108	80%	5	277
9:00 PM	10%	10	45%	8	45%	3	10%	1	45%	1	45%	24	10%	3	10%	17	5%	3	100%	25	90%	114	70%	4	213
10:00 PM	0%	0	30%	5	30%	2	0%	0	30%	1	35%	19	0%	0	0%	0	5%	3	85%	22	90%	114	35%	2	168
11:00 PM	0%	0	15%	3	15%	1	0%	0	15%	0	15%	8	0%	0	0%	0	0%	0	0%	0	100%	127	10%	1	140
12:00 AM	0%	0	0%	0	0%	0	0%	0	0%	0	5%	3	0%	0	0%	0	0%	0	0%	0	100%	127	0%	0	130

Peak Parking Demand (12:00 PM)	***524***
Proposed Parking Supply	***665***
Surplus	***141***

Footnotes:

a. City of San Diego Municipal Code does not have time of day distribution for "exhibit gallery". Hence, a corresponding "convention center" type of use from ULI was used.
b. Parking rate and shared parking time of day distribution used for "retail sales" per City of San Diego Municipal Code.
c. City of San Diego Municipal Code does not have time of day distribution for "catacombs". Hence, parking rate and shared parking time of day distribution used for "retail sales" per City of San Diego Municipal Code.
d. City of San Diego Municipal Code does not have time of day distribution for "religious theaters". Hence, a corresponding "convention center" type of use from ULI was used.
e. Parking rate and shared parking time of day distribution used for "eating and drinking establishments" per City of San Diego Municipal Code.
f. Parking rate and shared parking time of day distribution used for "office" per City of San Diego Municipal Code.
g. City of San Diego Municipal Code does not have time of day distribution for "gathering space". Hence, a corresponding "arena" type of use from ULI was used.
h. Parking rate and shared parking time of day distribution used for "hotel" per City of San Diego Municipal Code.
i. City of San Diego Municipal Code does not have time of day distribution for Wellness Center. Hence, time of day parking distribution from ULI Shared Parking (2005) was used.

General Notes:

1. All parking rates from City of San Diego Land Development Code.
2. KSF = 1000 Square foot.
3. Dist = Time-of-day distribution

6.0 CONCLUSIONS

The above traffic addendum letter analyzes a reduced project description for the Legacy International Center Project. The project density has decreased from 532,178 SF to 306,879 SF resulting in a reduction of approximately 225,299 SF or 42%. Given the reduction in uses and density, the traffic generation has also decreased to 277 net new ADT.

This reduced project mitigates all project impacts with no impacts left unmitigated. Meanwhile, the project maintains the following mitigation measures:

Existing and Near-Term (Opening Day 2017)

Hotel Circle South / I-8 EB ramps:

- Widen approximately (varying width up to 28 feet) to include an additional EB and WB through lane on Hotel Circle S. between the project driveways (project to provide full-width dedication along frontage).

Year 2035 (Horizon Year)

Hotel Circle North / I-8 WB ramps:

- Fair-share contribution (3.5%) towards the following:
  - Remove the northbound right-turn channelization to provide a traditional configuration and provide a right-turn overlap phase.
  - Remove the eastbound right-turn channelization to provide a traditional configuration.
  - Allow northbound thru movements to the Handlery Hotel driveway.
  - Install a traffic signal.

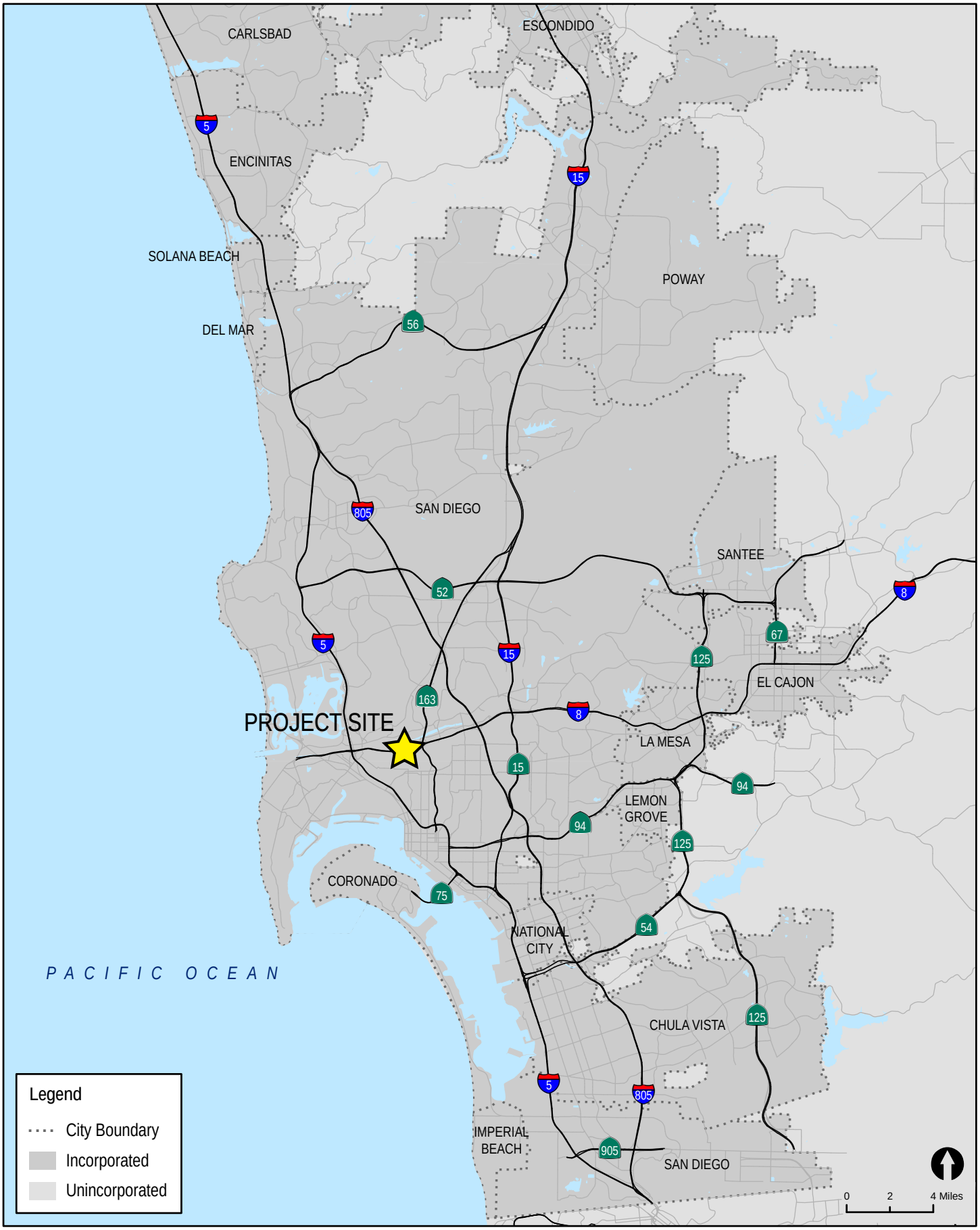

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Figure A

Vicinity Map

LEGACY INTERNATIONAL CENTER

Original Site Plan (June 2015)

Current Project

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Figure B

Proposed Site Plan

MORRIS CERULLO INTERNATIONAL PROJECT

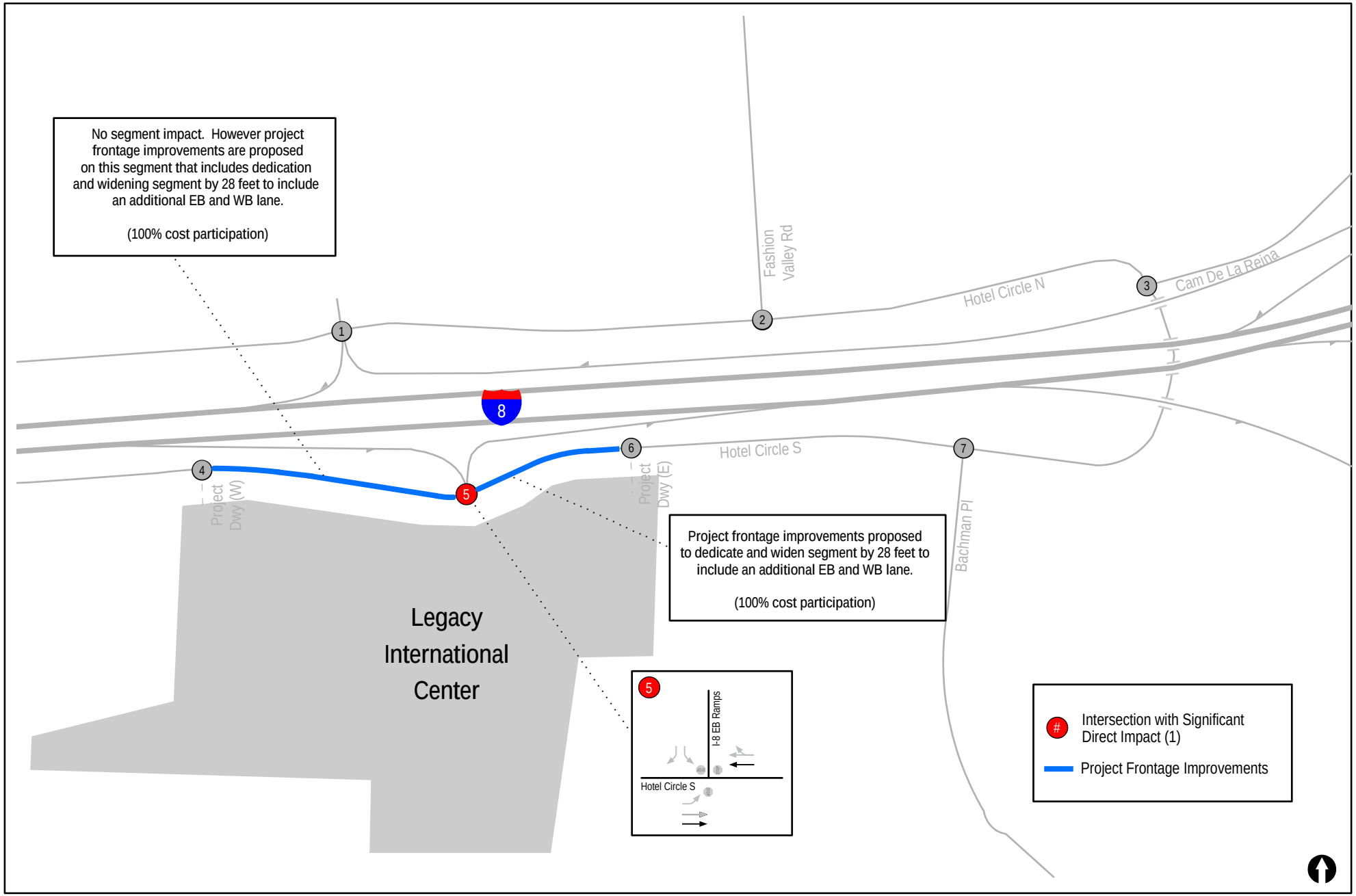

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Figure C-1

Existing + Project Impacts & Mitigation

LEGACY INTERNATIONAL CENTER

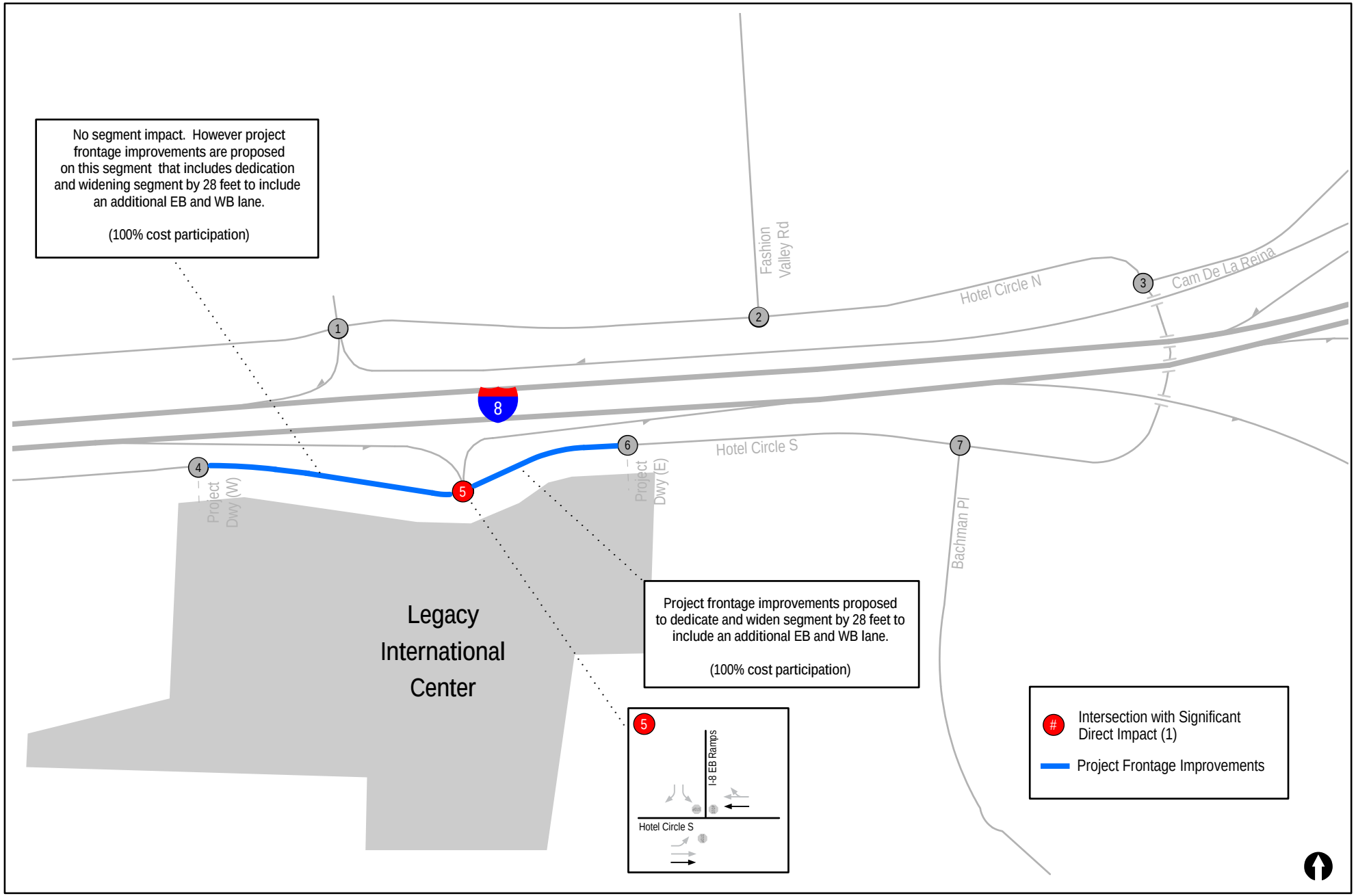

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Figure C-2

Near-Term (Opening Day 2017) + Project Impacts & Mitigation

LEGACY INTERNATIONAL CENTER

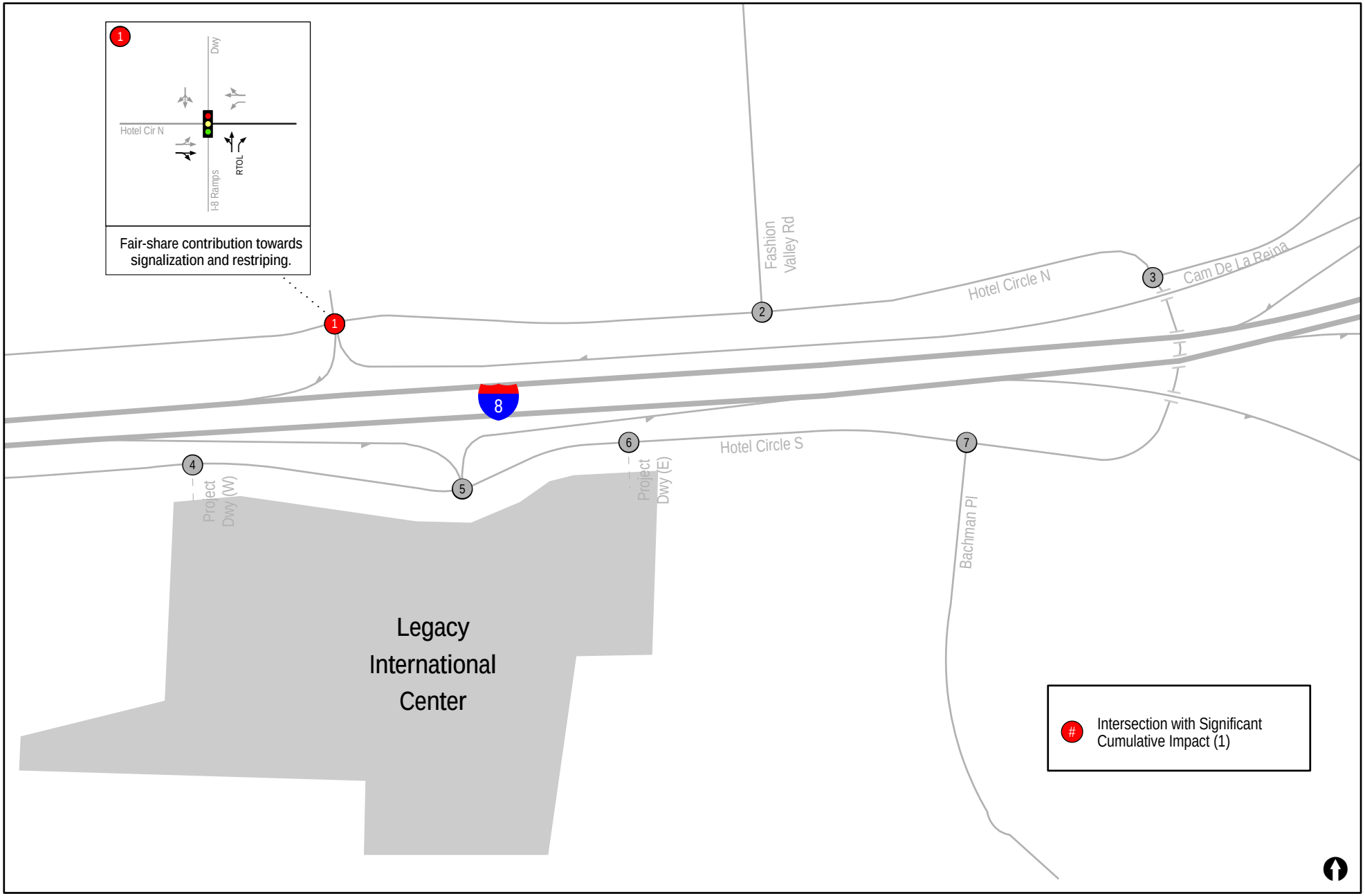

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Figure C-3

Year 2035 (Horizon Year) Impacts & Mitigation

LEGACY INTERNATIONAL CENTER

Attachments

ATTACHMENT A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	126	77	201	317	280	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	137	84	218	345	304	25

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	137	84	218	345	304	25
Volume Left (vph)	137	0	0	0	304	0
Volume Right (vph)	0	0	0	345	0	25
Hadj (s)	0.53	0.03	0.03	-0.67	0.53	-0.67
Departure Headway (s)	7.0	6.5	6.1	5.4	7.0	5.8
Degree Utilization, x	0.27	0.15	0.37	0.52	0.59	0.04
Capacity (veh/h)	486	522	568	647	493	585
Control Delay (s)	11.3	9.4	11.4	12.8	18.2	7.8
Approach Delay (s)	10.6		12.3		17.4	
Approach LOS	B		B		C	

Intersection Summary			
Delay	13.5		
HCM Level of Service	B		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	331	251	193	713	121	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	360	273	210	775	132	22

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	360	273	210	775	132	22
Volume Left (vph)	360	0	0	0	132	0
Volume Right (vph)	0	0	0	775	0	22
Hadj (s)	0.53	0.03	0.03	-0.67	0.53	-0.67
Departure Headway (s)	6.7	6.2	6.1	5.3	8.1	6.9
Degree Utilization, x	0.67	0.47	0.35	1.15	0.30	0.04
Capacity (veh/h)	531	575	576	675	427	494
Control Delay (s)	20.7	13.2	11.1	104.0	13.3	9.0
Approach Delay (s)	17.5		84.2		12.7	
Approach LOS	C		F		B	

Intersection Summary			
Delay	54.2		
HCM Level of Service	F		
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	126	77	204	317	282	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	137	84	222	345	307	28

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	137	84	222	345	307	28
Volume Left (vph)	137	0	0	0	307	0
Volume Right (vph)	0	0	0	345	0	28
Hadj (s)	0.53	0.03	0.03	-0.67	0.53	-0.67
Departure Headway (s)	7.0	6.5	6.1	5.4	7.0	5.8
Degree Utilization, x	0.27	0.15	0.38	0.52	0.59	0.05
Capacity (veh/h)	484	520	566	645	492	584
Control Delay (s)	11.4	9.5	11.6	12.9	18.4	7.8
Approach Delay (s)	10.7		12.4		17.5	
Approach LOS	B		B		C	

Intersection Summary			
Delay	13.6		
HCM Level of Service	B		
Intersection Capacity Utilization	43.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	345	262	201	731	126	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	375	285	218	795	137	29

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	375	285	1013	137	29
Volume Left (vph)	375	0	0	137	0
Volume Right (vph)	0	0	795	0	29
Hadj (s)	0.53	0.03	-0.44	0.53	-0.67
Departure Headway (s)	6.4	5.9	5.3	7.9	6.7
Degree Utilization, x	0.67	0.47	1.49	0.30	0.05
Capacity (veh/h)	553	602	682	440	513
Control Delay (s)	20.0	12.8	244.0	13.1	8.9
Approach Delay (s)	16.9		244.0	12.4	
Approach LOS	C		F	B	

Intersection Summary			
Delay	141.6		
HCM Level of Service	F		
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

ATTACHMENT B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	126	77	204	349	285	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	137	84	222	379	310	25

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	137	84	222	379	310	25
Volume Left (vph)	137	0	0	0	310	0
Volume Right (vph)	0	0	0	379	0	25
Hadj (s)	0.53	0.03	0.03	-0.67	0.53	-0.67
Departure Headway (s)	7.1	6.6	6.1	5.4	7.0	5.8
Degree Utilization, x	0.27	0.15	0.38	0.57	0.61	0.04
Capacity (veh/h)	480	514	565	645	488	577
Control Delay (s)	11.5	9.6	11.6	14.3	19.1	7.9
Approach Delay (s)	10.8		13.3		18.3	
Approach LOS	B		B		C	

Intersection Summary			
Delay	14.2		
HCM Level of Service	B		
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	331	254	195	728	137	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	360	276	212	791	149	22

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	360	276	212	791	149	22
Volume Left (vph)	360	0	0	0	149	0
Volume Right (vph)	0	0	0	791	0	22
Hadj (s)	0.53	0.03	0.03	-0.67	0.53	-0.67
Departure Headway (s)	6.8	6.3	6.2	5.5	8.1	6.9
Degree Utilization, x	0.67	0.48	0.36	1.20	0.34	0.04
Capacity (veh/h)	523	566	567	664	427	493
Control Delay (s)	21.4	13.7	11.4	122.5	14.0	9.1
Approach Delay (s)	18.1		99.0		13.4	
Approach LOS	C		F		B	

Intersection Summary			
Delay	62.5		
HCM Level of Service	F		
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	126	77	207	349	287	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	137	84	225	379	312	28

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	137	84	604	312	28
Volume Left (vph)	137	0	0	312	0
Volume Right (vph)	0	0	379	0	28
Hadj (s)	0.53	0.03	-0.34	0.53	-0.67
Departure Headway (s)	7.3	6.8	5.6	7.3	6.1
Degree Utilization, x	0.28	0.16	0.95	0.64	0.05
Capacity (veh/h)	481	517	634	476	569
Control Delay (s)	11.8	9.8	46.9	21.0	8.2
Approach Delay (s)	11.1		46.9	20.0	
Approach LOS	B		E	C	

Intersection Summary			
Delay	32.3		
HCM Level of Service	D		
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	345	265	203	746	142	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	375	288	221	811	154	29

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total (vph)	375	288	1032	154	29
Volume Left (vph)	375	0	0	154	0
Volume Right (vph)	0	0	811	0	29
Hadj (s)	0.53	0.03	-0.44	0.53	-0.67
Departure Headway (s)	6.5	6.0	5.4	7.9	6.8
Degree Utilization, x	0.68	0.48	1.54	0.34	0.06
Capacity (veh/h)	545	593	671	440	513
Control Delay (s)	20.8	13.2	267.6	13.8	8.9
Approach Delay (s)	17.5		267.6	13.0	
Approach LOS	C		F	B	

Intersection Summary			
Delay	154.4		
HCM Level of Service	F		
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

ATTACHMENT C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Yield	
Volume (vph)	20	295	80	192	179	20	440	10	1188	20	20	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	321	87	209	195	22	478	11	1291	22	22	11

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	342	87	209	216	489	1291	54
Volume Left (vph)	22	0	209	0	478	0	22
Volume Right (vph)	0	87	0	22	0	1291	11
Hadj (s)	0.05	-0.57	0.53	-0.04	0.23	-0.57	-0.01
Departure Headway (s)	6.9	3.2	7.8	7.2	6.6	3.2	7.8
Degree Utilization, x	0.66	0.08	0.45	0.43	0.90	1.15	0.12
Capacity (veh/h)	497	1121	434	464	531	1135	404
Control Delay (s)	22.1	6.5	15.9	14.4	43.0	92.0	11.9
Approach Delay (s)	18.9		15.1		78.5		11.9
Approach LOS	C		C		F		B

Intersection Summary				
Delay	57.6			
HCM Level of Service	F			
Intersection Capacity Utilization	103.5%	ICU Level of Service	G	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Yield	
Volume (vph)	20	548	40	544	265	20	180	20	848	10	20	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	596	43	591	288	22	196	22	922	11	22	11

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	617	43	591	310	217	922	43
Volume Left (vph)	22	0	591	0	196	0	11
Volume Right (vph)	0	43	0	22	0	922	11
Hadj (s)	0.04	-0.57	0.53	-0.02	0.21	-0.57	-0.07
Departure Headway (s)	6.1	3.2	6.9	6.4	7.4	3.2	8.1
Degree Utilization, x	1.05	0.04	1.14	0.55	0.45	0.82	0.10
Capacity (veh/h)	586	1121	525	561	478	1112	424
Control Delay (s)	73.7	6.3	106.6	15.6	16.3	18.8	11.9
Approach Delay (s)	69.3		75.3		18.3		11.9
Approach LOS	F		F		C		B

Intersection Summary			
Delay	49.2		
HCM Level of Service	E		
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Yield	
Volume (vph)	20	296	80	192	179	20	440	10	1195	20	20	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	322	87	209	195	22	478	11	1299	22	22	11

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	343	87	209	216	489	1299	54
Volume Left (vph)	22	0	209	0	478	0	22
Volume Right (vph)	0	87	0	22	0	1299	11
Hadj (s)	0.05	-0.57	0.53	-0.04	0.23	-0.57	-0.01
Departure Headway (s)	6.9	3.2	7.8	7.2	6.6	3.2	7.8
Degree Utilization, x	0.66	0.08	0.45	0.43	0.90	1.15	0.12
Capacity (veh/h)	497	1121	434	464	531	1136	403
Control Delay (s)	22.2	6.5	15.9	14.4	43.1	94.6	11.9
Approach Delay (s)	19.0		15.1		80.5		11.9
Approach LOS	C		C		F		B

Intersection Summary			
Delay	59.0		
HCM Level of Service	F		
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Yield	
Volume (vph)	20	549	40	565	267	20	180	20	867	10	20	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	597	43	614	290	22	196	22	942	11	22	11

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	618	43	614	312	217	942	43
Volume Left (vph)	22	0	614	0	196	0	11
Volume Right (vph)	0	43	0	22	0	942	11
Hadj (s)	0.04	-0.57	0.53	-0.01	0.21	-0.57	-0.07
Departure Headway (s)	6.1	3.2	6.9	6.4	7.4	3.2	8.1
Degree Utilization, x	1.05	0.04	1.18	0.55	0.45	0.84	0.10
Capacity (veh/h)	585	1121	526	561	478	1114	424
Control Delay (s)	74.2	6.3	122.4	15.7	16.3	20.1	11.9
Approach Delay (s)	69.8		86.5		19.4		11.9
Approach LOS	F		F		C		B

Intersection Summary			
Delay	53.5		
HCM Level of Service	F		
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

ATTACHMENT D

Intersection	
Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Lane Configurations									
Traffic Vol, veh/h	0	126	77	0	204	317	0	282	26
Future Vol, veh/h	0	126	77	0	204	317	0	282	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	137	84	0	222	345	0	307	28
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	12.2	18.8	20.9
HCM LOS	B	C	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	18%	0%	0%
Vol Right, %	0%	0%	0%	0%	82%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	39	39	136	385	282	26
LT Vol	126	0	0	0	0	282	0
Through Vol	0	39	39	136	68	0	0
RT Vol	0	0	0	0	317	0	26
Lane Flow Rate	137	42	42	148	418	307	28
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.297	0.085	0.063	0.269	0.693	0.629	0.048
Departure Headway (Hd)	7.815	7.304	5.431	6.546	5.959	7.384	6.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	463	493	652	545	603	487	575
Service Time	5.515	5.004	3.23	4.335	3.746	5.173	3.963
HCM Lane V/C Ratio	0.296	0.085	0.064	0.272	0.693	0.63	0.049
HCM Control Delay	13.8	10.7	8.6	11.8	21.3	22	9.3
HCM Lane LOS	B	B	A	B	C	C	A
HCM 95th-tile Q	1.2	0.3	0.2	1.1	5.5	4.3	0.2

Intersection	
Intersection Delay, s/veh	40.1
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Traffic Vol, veh/h	0	345	262	0	201	731	0	126	27
Future Vol, veh/h	0	345	262	0	201	731	0	126	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	375	285	0	218	795	0	137	29
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	23.1	55.3	15.1
HCM LOS	C	F	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	8%	0%	0%
Vol Right, %	0%	0%	0%	0%	92%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	345	131	131	134	798	126	27
LT Vol	345	0	0	0	0	126	0
Through Vol	0	131	131	134	67	0	0
RT Vol	0	0	0	0	731	0	27
Lane Flow Rate	375	142	142	146	867	137	29
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.783	0.278	0.209	0.282	1	0.337	0.062
Departure Headway (Hd)	7.518	7.018	5.285	6.965	6.314	8.848	7.653
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	484	514	681	516	581	407	469
Service Time	5.241	4.741	3.008	4.706	4.055	6.581	5.386
HCM Lane V/C Ratio	0.775	0.276	0.209	0.283	1.492	0.337	0.062
HCM Control Delay	32.4	12.4	9.4	12.4	62.5	16	10.9
HCM Lane LOS	D	B	A	B	F	C	B
HCM 95th-tile Q	7	1.1	0.8	1.1	14.6	1.5	0.2

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Lane Configurations									
Traffic Vol, veh/h	0	126	77	0	207	349	0	287	26
Future Vol, veh/h	0	126	77	0	207	349	0	287	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	137	84	0	225	379	0	312	28
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	12.5	22	22.1
HCM LOS	B	C	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	17%	0%	0%
Vol Right, %	0%	0%	0%	0%	83%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	39	39	138	418	287	26
LT Vol	126	0	0	0	0	287	0
Through Vol	0	39	39	138	69	0	0
RT Vol	0	0	0	0	349	0	26
Lane Flow Rate	137	42	42	150	454	312	28
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.302	0.086	0.066	0.275	0.757	0.649	0.049
Departure Headway (Hd)	7.95	7.438	5.662	6.593	5.997	7.495	6.285
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	485	637	540	595	480	564
Service Time	5.65	5.138	3.362	4.391	3.795	5.292	4.082
HCM Lane V/C Ratio	0.301	0.087	0.066	0.278	0.763	0.65	0.05
HCM Control Delay	14.1	10.8	8.8	11.9	25.3	23.3	9.4
HCM Lane LOS	B	B	A	B	D	C	A
HCM 95th-tile Q	1.3	0.3	0.2	1.1	6.8	4.6	0.2

Intersection	
Intersection Delay, s/veh	40.7
Intersection LOS	E

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Traffic Vol, veh/h	0	345	265	0	203	746	0	142	27
Future Vol, veh/h	0	345	265	0	203	746	0	142	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	375	288	0	221	811	0	154	29
Number of Lanes	0	1	2	0	2	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	3	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	3
HCM Control Delay	23.8	55.9	16
HCM LOS	C	F	C

Lane	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	100%	8%	0%	0%
Vol Right, %	0%	0%	0%	0%	92%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	345	133	133	135	814	142	27
LT Vol	345	0	0	0	0	142	0
Through Vol	0	133	133	135	68	0	0
RT Vol	0	0	0	0	746	0	27
Lane Flow Rate	375	144	144	147	884	154	29
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.792	0.284	0.215	0.289	1	0.381	0.063
Departure Headway (Hd)	7.607	7.107	5.374	7.077	6.424	8.875	7.681
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	476	507	668	507	566	406	467
Service Time	5.335	4.835	3.102	4.824	4.171	6.608	5.413
HCM Lane V/C Ratio	0.788	0.284	0.216	0.29	1.562	0.379	0.062
HCM Control Delay	33.6	12.6	9.6	12.7	63.1	17	10.9
HCM Lane LOS	D	B	A	B	F	C	B
HCM 95th-tile Q	7.2	1.2	0.8	1.2	14.4	1.7	0.2

ATTACHMENT E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	296	80	192	179	20	440	10	1195	20	20	10
Future Volume (vph)	20	296	80	192	179	20	440	10	1195	20	20	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	0.98			1.00	0.85		0.97	
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)		3528	1583	1770	1834			1776	1583		1777	
Flt Permitted		1.00	1.00	0.95	1.00			0.95	1.00		0.98	
Satd. Flow (perm)		3528	1583	1770	1834			1776	1583		1777	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	322	87	209	195	22	478	11	1299	22	22	11
RTOR Reduction (vph)	0	0	58	0	3	0	0	0	130	0	7	0
Lane Group Flow (vph)	0	344	29	209	214	0	0	489	1169	0	48	0
Turn Type	Split	NA	Perm	Split	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	4	4		8	8		2	2	8	6	6	
Permitted Phases			4						2			
Actuated Green, G (s)		15.9	15.9	60.0	60.0			41.0	101.0		9.2	
Effective Green, g (s)		15.9	15.9	60.0	60.0			41.0	101.0		9.2	
Actuated g/C Ratio		0.11	0.11	0.42	0.42			0.29	0.71		0.06	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		394	177	747	774			512	1169		115	
v/s Ratio Prot		c0.10		0.12	0.12			0.28	c0.42		c0.03	
v/s Ratio Perm			0.02						0.32			
v/c Ratio		0.87	0.17	0.28	0.28			0.96	1.00		0.42	
Uniform Delay, d1		62.1	57.1	26.9	26.9			49.6	20.5		63.9	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		18.7	0.4	0.2	0.2			28.5	26.4		2.5	
Delay (s)		80.8	57.5	27.1	27.0			78.2	47.0		66.4	
Level of Service		F	E	C	C			E	D		E	
Approach Delay (s)		76.1			27.1			55.5			66.4	
Approach LOS		E			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	54.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	142.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	549	40	565	267	20	180	20	867	10	20	10
Future Volume (vph)	20	549	40	565	267	20	180	20	867	10	20	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		0.95	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	0.99			1.00	0.85		0.97	
Flt Protected		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (prot)		3533	1583	1770	1843			1783	1583		1778	
Flt Permitted		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (perm)		3533	1583	1770	1843			1783	1583		1778	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	597	43	614	290	22	196	22	942	11	22	11
RTOR Reduction (vph)	0	0	34	0	3	0	0	0	252	0	10	0
Lane Group Flow (vph)	0	619	9	614	309	0	0	218	690	0	34	0
Turn Type	Split	NA	Perm	Split	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	4	4		8	8		2	2	8	6	6	
Permitted Phases			4						2			
Actuated Green, G (s)		16.0	16.0	26.1	26.1			13.8	39.9		7.1	
Effective Green, g (s)		16.0	16.0	26.1	26.1			13.8	39.9		7.1	
Actuated g/C Ratio		0.20	0.20	0.33	0.33			0.17	0.51		0.09	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		715	320	584	608			311	879		159	
v/s Ratio Prot		c0.18		c0.35	0.17			0.12	c0.26		c0.02	
v/s Ratio Perm			0.01						0.18			
v/c Ratio		0.87	0.03	1.05	0.51			0.70	0.78		0.21	
Uniform Delay, d1		30.5	25.3	26.4	21.3			30.7	16.0		33.4	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		10.7	0.0	51.5	0.7			7.0	4.6		0.7	
Delay (s)		41.2	25.3	77.9	22.0			37.6	20.7		34.0	
Level of Service		D	C	E	C			D	C		C	
Approach Delay (s)		40.1			59.1			23.9			34.0	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	39.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Legacy International Center
Year 2035 (Horizon Year) Fair-Share Contribution Calculations
September 20, 2016

Impacted Locations	Year 2035 (Horizon Year) Project Traffic	Year 2035 (Horizon Year) + Project Traffic	Existing Traffic	% Fair Share [b]
Intersections [a]				
Hotel Circle N. / I-8 WB Ramps *(PM peak hour)*	43	2,568	1,345	3.5%
Segments				
No impacts				N/A
Freeway				
No impacts				N/A

Footnotes:

a. Intersection fair share contributions based on AM or PM peak hour volumes (if both peak hours are impacted) that result in the highest fair-share percentage. If only one peak hour is impacted, then the corresponding peak hour volumes were used to calculate the fair-share percentages.

b. Fair share percentages calculated for facilities as

$$\frac{\text{Project Traffic}}{(\text{Year 2035} + \text{Project Traffic}) - (\text{Existing Traffic})}$$

Results of Archaeological Resources Survey of the Legacy International Center, City of San Diego

Prepared for

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RECON Number 6919
May 29, 2014

Carmen Zepeda-Herman, Principal Investigator

ARCHAEOLOGICAL RESOURCE REPORT FORM

I. PROJECT DESCRIPTION AND LOCATION

The Legacy International Center Project (proposed project) is located south of Interstate 8 along Hotel Circle South within the Mission Valley Community Planning Area in the city of San Diego (Figure 1). The project site is in the unsectioned Pueblo Lands of San Diego landgrant of the U.S. Geological Survey (USGS) 7.5-minute topographical map, La Jolla quadrangle (USGS 1975; Figure 2). The proposed project consists of two parcels: APN-444-060-10 and APN 444-060-11 (Figures 3 and 4).

The proposed project is a mixed-use redevelopment consisting of religious, lodging, administrative, recreational, and commercial uses. The project features a grand entrance area with a water feature, a pavilion (with training center, theater, TV studio and storage), a welcoming center rotunda, an interfaith pavilion, underground catacombs, outdoor retail bazaar, and a five-story tower containing 127 timeshare suites. Recreational components would include a trail system, an outdoor amphitheater, pedestrian plazas, and a wellness center with a workout room, sauna, hot tubs, steam room, restrooms, showers, and an Olympic-sized seven-lane pool (Figure 5).

II. SETTING

Natural Environment (Past and Present)

The proposed project is located on the floodplain south of the San Diego River and a steep slope portion of the mesa south of the river. The northern portion of the project area (APN-444-060-10) is predominately flat, with an elevation of 30 feet above mean sea level. The project area has been developed and landscaped and is where the Mission Valley Resort Hotel, Valley Liquor and Mini-Mart, and Valley Kitchen Family Restaurant are currently located. The southern parcel (APN-444-060-11) has not been extensively developed in the past and contains several sewer lines and manholes. It is steep, with an elevation ranging from 40 to 160 feet above mean sea level and covered with various types of grasses, shrubs, and trees.

The soil on the northern parcel is the Grangeville fine sandy loam (GoA) series that consists of nearly level soil on alluvial fans and plains. The A horizon ranges from grayish brown to gray in color and is 10 to 14 inches thick. The C horizon ranges from grayish brown to dark grayish brown in color of very fine sandy loam to sandy loam and extends about 60 more inches. The soil in the southern parcel is the Terrace Escarpments (TeF) soil series. These soils consist of steep to very steep escarpments, which occur on the nearly even fronts of terraces or alluvial fans. There are 4 to 10 inches of loamy or gravelly soil over soft marine sandstone, shale, or gravelly sediments (U.S. Department of Agriculture 1973).

Ethnography/History

The prehistoric cultural sequence in San Diego County is generally conceived as comprising three basic periods: the Paleoindian, dated between about 11,500 and 8,500 years ago and manifested by the artifacts of the San Dieguito Complex; the Archaic, lasting from about 8,500 to 1,500 years ago (A.D. 500) and manifested by the cobble and core technology of the La Jollan Complex; and the Late Prehistoric, lasting from about 1,500 years ago to historic contact (i.e., A.D. 500 to 1769) and represented by the Cuyamaca Complex. This latest complex is marked by the appearance of ceramics, small arrow points, and cremation burial practices.

The Paleoindian Period in San Diego County is most closely associated with the San Dieguito Complex, as identified by Rogers (1938, 1939, 1945). The San Dieguito assemblage consists of well-made scraper planes, choppers, scraping tools, crescentics, elongated bifacial knives, and

leaf-shaped points. The San Dieguito Complex is thought to represent an early emphasis on hunting (Warren et al. 1993:III-33).

The Archaic Period in coastal San Diego County is represented by the La Jolla Complex, a local manifestation of the widespread Millingstone Horizon. This period brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic Period are called the La Jollan Complex along the coast and the Pauma Complex inland. Pauma Complex sites lack the shell that dominates many La Jollan sites. Along with an economic focus on gathering plant resources, the settlement system appears to have been more sedentary. The La Jollan assemblage is dominated by rough, cobble-based choppers and scrapers, and slab and basin metates. Elko series projectile points appeared by about 3,500 years ago. Large deposits of marine shell at coastal sites argue for the importance of shellfish gathering to the coastal Archaic economy.

Near the coast and in the Peninsular Mountains beginning approximately 1,500 years ago, patterns began to emerge which suggest the ethnohistoric Kumeyaay. The Later Prehistoric Period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversify and intensify during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, but effective technological innovations. The late prehistoric archaeology of the San Diego coast and foothills is characterized by the Cuyamaca Complex. It is primarily known from the work of D. L. True at Cuyamaca Rancho State Park (True 1970). The Cuyamaca Complex is characterized by the presence of steatite arrowshaft straighteners, steatite pendants, steatite comales (heating stones), Tizon Brownware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic “Yuman bow pipes,” ceramic rattles, miniature pottery various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, mortars and pestles, and Desert Side-Notched (more common) and Cottonwood Series projectile points.

Ethnohistory

The Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño) occupied the southern two-thirds of San Diego County. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Settlement system typically consisted of two or more seasonal villages with temporary camps radiating away from these central places (Cline 1984a and 1984b). Their economic system consisted of hunting and gathering, with a focus on small game, acorns, grass seeds, and other plant resources. The most basic social and economic unit was the patrilocal extended family. A wide range of tools was made of locally available and imported materials. A simple shoulder-height bow was utilized for hunting. Numerous other flaked stone tools were made including scrapers, choppers, flake-based cutting tools, and biface knives. Preferred stone types were locally available metavolcanics, cherts, and quartz. Obsidian was imported from the deserts to the north and east. Ground stone objects include mortars, manos, metates, and pestles typically made of locally available, fine-grained granite. Both portable and bedrock types are known. The Kumeyaay made fine baskets using either coiled or twined construction. The Kumeyaay also made pottery, utilizing the paddle-and-anvil technique. Most were a plain brown utility ware called Tizon Brown ware, but some were decorated (Meighan 1954; May 1976, 1978).

Spanish/Mexican/American Periods

The Spanish Period (1769–1821) represents a time of European exploration and settlement. Military and naval forces along with a religious contingent founded the San Diego Presidio, the pueblo of San Diego, and the San Diego Mission in 1769 (Rolle 1998). The mission system used forced Native American labor and introduced horses, cattle, other agricultural goods, and implements. Native American culture in the coastal strip of California rapidly deteriorated despite repeated attempts to revolt against the Spanish invaders (Cook 1976). One of the hallmarks of the Spanish colonial scheme was the rancho system. In an attempt to encourage settlement and

development of the colonies, large land grants were made to meritorious or well-connected individuals.

In 1821, Mexico declared its independence from Spain. During the Mexican Period (1822–1848), the mission system was secularized by the Mexican government and these lands allowed for the dramatic expansion of the rancho system. The southern California economy became increasingly based on cattle ranching.

The Mexican period ended when Mexico signed the Treaty of Guadalupe Hidalgo on February 2, 1848, concluding the Mexican-American War (1846–1848; Rolle 1998). Just prior to the signing of the Treaty of Guadalupe Hidalgo, gold was discovered in the northern California Sierra-Nevada foothills, the news was published on March 15, 1848, and the California Gold Rush began. The great influx of Americans and Europeans eliminated many remaining vestiges of Native American culture. California became a state in 1850.

The American homestead system encouraged settlement beyond the coastal plain into areas where Indians had retreated to avoid the worst of Spanish and Mexican influences (Carrico 1987; Cook 1976). A rural community cultural pattern existed in San Diego County from approximately 1870 to 1930. These communities were composed of an aggregate of people who lived on scattered farmsteads tied together through a common school district, church, post office, and country store (Hector and Van Wormer 1986).

Mission Valley was used for agriculture and cattle ranches by the Spanish and Mexicans. The Mission San Diego de Alcala was moved inland to Nipaguay, a Native American village in the valley and upstream along the San Diego River, in 1774. The Mission Gorge Dam and Flume were completed in 1816 to bring San Diego River water to the mission for crops and vineyards. During the early American Period, sheep herding, dairy farms, horse ranches, bee-keeping, and sand and gravel operations were added activities in the valley. Wells tapped the water from the San Diego River that flooded periodically and resulted in destroying crops, impacting cattle, and stopping mail service (Papageorge 1971). Mission Valley maintained this rural setting up until the late 1950s, when it was rezoned for commercial development despite the high potential for flooding by the San Diego River. Mission Valley Center opened in 1961 and the San Diego Stadium (renamed Jack Murphy, then Qualcomm) in 1967, followed by Fashion Valley in 1969. Hotels, car dealerships, movie theaters, and condominiums were built. Sand and gravel operations continued (Showley 2000).

III. AREA OF POTENTIAL EFFECT (APE)

The APE encompasses approximately 18.94 acres within the two parcels.

IV. STUDY METHODS

The cultural resources survey included both an archival search and an on-site foot survey of the property. A records search with a one-mile radius buffer was requested from the South Coastal Information Center at San Diego State University in order to determine if previously recorded prehistoric or historic cultural resources occur on the property. Historic aerial photographs were also checked in order to see past development within and near the project area.

A letter was sent to the Native American Heritage Commission (NAHC) requesting they search their files to identify spiritually significant and/or sacred sites or traditional use areas in the proposed project vicinity. The NAHC was also asked to provide a list of local Native American tribes, bands, or individuals who may have concerns or interests in the cultural resources of the

proposed project. RECON sent contact letters to the individuals and groups on the list on January 30, 2013 (Attachment 1).

The field survey was conducted on February 7, 2013, by RECON archaeologist Carmen Zepeda-Herman accompanied by Clint Linton, a Native American representative from Red Tail Monitoring and Research. Because the northern parcel of the project area has been developed, the survey focused on the southern parcel. The spacing between the field personnel was 15 meter intervals. The survey area was inspected for evidence of archaeological materials such as flaked and ground stone tools, ceramics, milling features, and historic features. Photographs were taken to document the environmental setting and general conditions.

V. RESULTS OF STUDY

The record search indicated that there have been some archaeological investigations and 27 cultural resources within a one-mile radius of the proposed project (Confidential Appendix). Six prehistoric sites, four historic sites, three prehistoric isolated artifacts, 13 historic structures/objects, and one historic home have been recorded within the search radius. No previously recorded prehistoric or historic cultural resources are present within the proposed project area. The buildings on the developed area that was not surveyed (northern parcel) appear to be over 50 years old based on historic aerial photographs, and will be evaluated in a separate Historical Resource Research report. The 1953 historic aerial photograph shows fields and some dirt roads where the proposed project area is. The 1964 aerial photograph displays the majority of the existing buildings. The parking lot and tennis courts in the southeastern portion of the proposed project first are noted on the 1980 aerial photograph (National Environmental Title Research 2013).

The NAHC files indicated that there are Native American cultural sites within the unsectioned Pueblo Lands of San Diego landgrant. NAHC recommended that early consultation with Native American tribes was the best way to avoid unanticipated discoveries. Two comments were received regarding the project. Frank Brown with the Inter-Tribal Cultural Resource Protection Council called on January 30, 2013, and indicated that he was concerned because Native American human remains have been identified in Mission Valley, the Mission San Diego de Alcala being one of those places. Brown recommended archaeological and Native American monitoring and wanted to be contacted when work starts on the project. On February 7, 2013, during the survey, Clint Linton of the Ipay Nation of Santa Ysabel indicated that there were human remains found in close proximity to the project area and recommended monitoring.

The survey resulted in finding no cultural material. The survey area was very steep, and ground visibility ranged from 0 to 10 percent (Photograph 1). The slope was covered in low grasses and weeds with several areas of thick shrubs and trees that were impassable. Several sewer manholes were noted scattered on the slope. The majority of the proposed project was covered with moist, dark brown sandy loam with some exposed cobbles. Small amounts of concrete were scattered in the eastern and southern part of the proposed project area. The soil in this area differed from the majority of the proposed project; these soils were tan sandy loam with many cobbles and what looked like bits of plaster mixed in (Photograph 2). The 1953 historic aerial photograph shows this area with no vegetation and lighter colored soils different from the surrounding area, suggesting removal of the topsoil due to erosion (National Environmental Title Research 2013). The soils mixed with plaster may have washed down from the top of the slope.

VI. RECOMMENDATIONS

The cultural resource investigations summarized herein satisfy the study and documentation requirements identified by City of San Diego Development Services staff and are consistent with the goals and policies of the City of San Diego as published in the Land Development Manual. As such, the efforts to identify and document historical resources in the APE for the proposed project reveal the proposed project will have no impact on previously recorded prehistoric cultural resources.

The possibility of significant buried historical resources being present on the northern parcel is considered moderate based on the previously recorded cultural resources in the vicinity. Archaeological and Native American monitoring is recommended for this portion of the proposed project. The possibility of significant historic resources being present on the southern parcel is considered low. This area is too steep for the presence of potentially significant prehistoric cultural resources. Additionally, it has been disturbed during the installation of the various sewer manholes and lines. No further cultural resource work is recommended by RECON for the southern parcel of the proposed project.

VII. SOURCES CONSULTED — DATE

National Register of Historic Places ☑	Month and Year: February 2013
California Register of Historical Resources ☑	Month and Year: February 2013
City of San Diego Historical Resources Register ☑	Month and Year: February 2013
Archaeological/Historical Site Records:	
South Coastal Information Center ☑	Month and Year: February 2013

Other Sources Consulted:

VIII. CERTIFICATION

Preparer: Carmen Zepeda-Herman, M.A.	Title: Principal Investigator
Signature: 	Date: May 29, 2014

IX. ATTACHMENTS

Bibliography
Attached.

National Archaeological Data Base Information
Attached

Maps (include all of the following maps.)

Figure 1. Project Location
Figure 2. U.S.G.S. Quadrangle
Figure 3. City of San Diego 800' scale
Figure 4. Aerial Photograph of Project Site
Figure 5: Project Site Plan

Photographs
Photograph 1: View of the Southern Parcel of the Proposed Project, Looking East
Photograph 2: Eastern Portion of the Southern Parcel of the Proposed Project, Looking East

Personnel Qualifications (Include resumes if not already on file with the City.)
Resumes are already on file with the City.

Record Search Cover Letter

Native American Contact Letters

X. CONFIDENTIAL APPENDICES (Bound separately)

Record search results.
Maps from record search results from South Coastal Information Center (Under separate cover).

New or updated historical resource records
None.

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NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

Authors:	Carmen Zepeda-Herman, RPA
Consulting Firm:	RECON Environmental 1927 Fifth Avenue San Diego, CA 92101-2358
Report Date:	May 29, 2014
Report Title:	Results of Archaeological Resources Survey of the Legacy International Center Project, San Diego, California
Submitted to:	Christopher J. Morrow, AICP Project Design Consultants 701 B Street, Suite 800 San Diego, California 92101
Prepared for:	Mike Harrah Caribou Industries, LLC 1103 North Broadway Santa Ana, California 92701
Contract Number:	RECON 6919A
USGS Quadrangle Map:	La Jolla Quadrangle
Acreage:	18.94 acres
Keywords:	Negative survey, Mission Valley community

ABSTRACT

A cultural resources survey was conducted on the proposed Legacy International Center project, in the community of Mission Valley, city of San Diego, California. The survey included a record search at the South Coastal Information Center and a sacred lands search with Native American Heritage Commission. Several archaeological investigations and 27 cultural resources have been recorded within a one-mile radius. Comments from the Native American contacts indicated that human remains have been found in the vicinity of the proposed project. A RECON archaeologist completed the field investigation on February 7, 2013, accompanied by a Native American monitor. The files at the South Coastal Information Center showed no prehistoric or historic sites recorded in the project area. Because the northern parcel of the proposed project has been developed, the survey focused on the southern parcel. The southern parcel was steep

and covered in grasses and some shrubs and trees. Ground visibility was 0 to 10 percent. It has been impacted by the installation of sewer manholes and lines. No prehistoric or historic cultural resources were found during the field survey. The possibility of significant historical resources being present on the southern parcel of the proposed project is considered very low. Because the potential of significant buried historical resources being present on the northern parcel is considered moderate, archaeological and Native American monitoring is recommended.

Project Location

RECON

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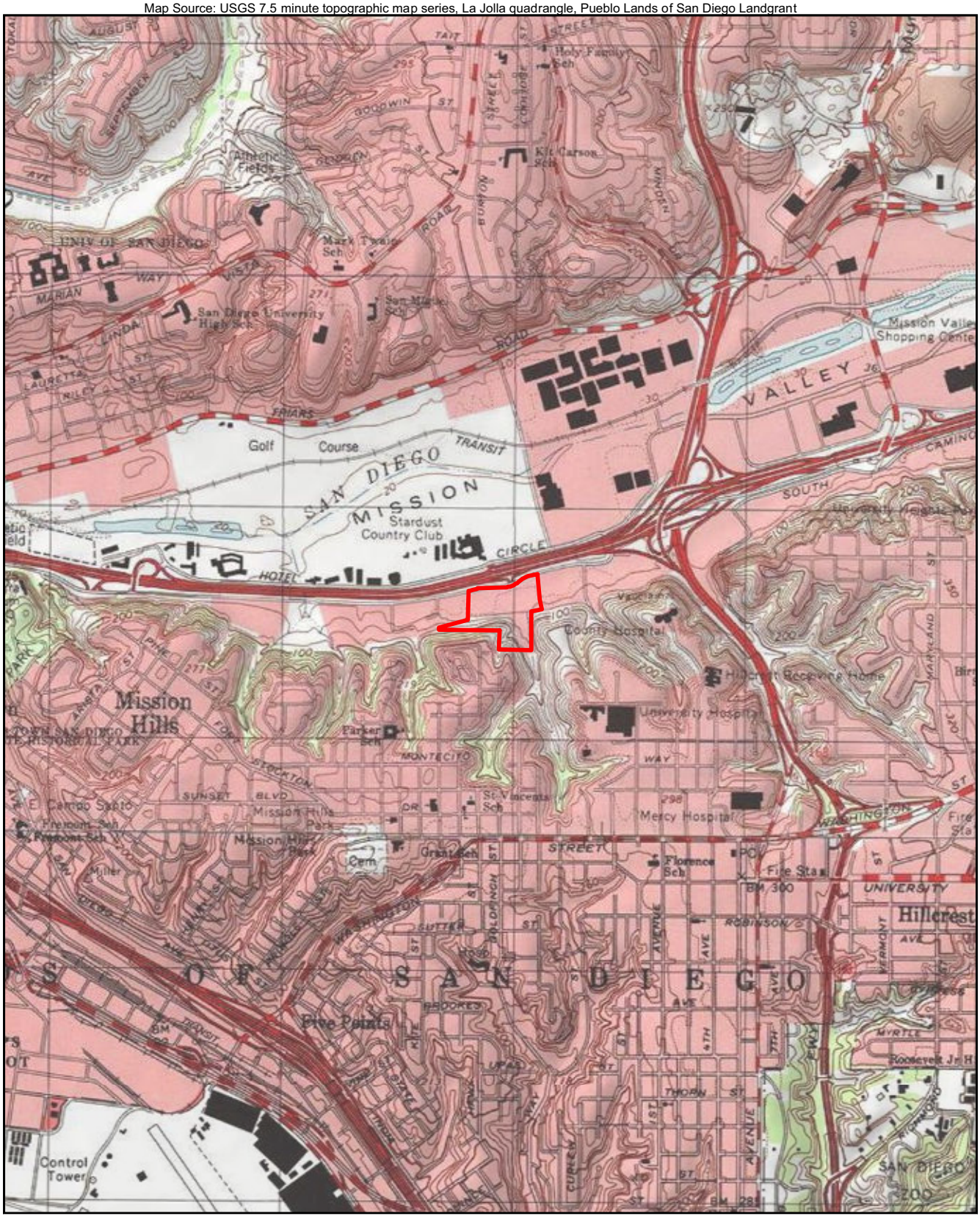
FIGURE 1

Regional Location

Map Source: USGS 7.5 minute topographic map series, La Jolla quadrangle, Pueblo Lands of San Diego Landgrant



Project Boundary

FIGURE 2

Project Location on USGS Map

RECON

M:\JOBS4\6919\common_gis\fig2.mxd 2/13/2013 fmm

Map Source: City of San Diego, Engineering and Development Department, City 800' Maps, Number 210-1713

FIGURE 3

Project Location on City 800' Map

RECON

M:\JOBS4\6919\common_gis\fig3.mxd 2/13/2013 fmm

0 Feet 300

Project Boundary

RECON

M:\JOBS4\6919\common_gis\fig4.mxd 2/13/2013 fmm

FIGURE 4

Project Location on Aerial Photograph

Map Source: Caribou Industries

0 Feet 150

FIGURE 5
Proposed Site Plan

RECON

M:\JOBS4\6919\arc\graphics\arcsur\fig5.ai 05/29/14

PHOTOGRAPH 1
View of the Southern Parcel of
Proposed Project, Looking East

PHOTOGRAPH 2
Eastern Portion of the Southern
Parcel of Proposed Project, Looking East

RECON

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CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

Company: RECON

Company Representative: Harry Price

Date Processed: 2/4/2013

Project Identification: Morris Cerullo World Outreach Legacy Pavilion Project #6919

Search Radius: 1/2 mile

Historical Resources: NJD

Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: NJD

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: NJD

A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: NJD

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Summary of SHRC Approved CHRIS IC Records Search Elements	
RSID:	541
RUSH:	no
Hours:	1
Spatial Features:	112
Address-Mapped Shapes:	yes
Digital Database Records:	54
Quads:	1
Aerial Photos:	0
PDFs:	Yes
PDF Pages:	271

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1927 Fifth Avenue
San Diego, CA 92101
P 619.308.9333
F 619.308.9334

2033 East Grant Road
Tucson, AZ 85719
P 520.325.9977
F 520.293.3051

2027 Preisker Lane, Ste. G
Santa Maria, CA 93454
P 619.308.9333
F 619.308.9334

www.reconenvironmental.com

RECON

An Employee-Owned Company

January 21, 2013

Mr. Dave Singleton
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Reference: Historical Resources Survey of the Morris Cerullo World Outreach Legacy Pavilion Project, USGS 7.5-minute Topographic Maps La Jolla and Point Loma (RECON Number 6919)

Dear Mr. Singleton:

RECON has been retained by Caribou Industries LLC, to perform a Cultural Resources Survey of the Morris Cerullo World Outreach Legacy Pavilion Project property in Mission Valley, City of San Diego. The project proposes to redevelop two parcels with a mixed use development consisting of religious, residential, and commercial uses. The property is currently occupied by commercial businesses. The total property acreage is approximately 17.7 acres.

The project site is in an unsectioned portion of the Pueblo lands of San Diego, in Township 16 South, Range 3 West, of the U.S. Geological Survey 7.5-minute topographic map, La Jolla, California Quadrangle (Attachment 1).

We request that you:

1. Please check Native American Heritage Commission files to identify spiritually significant and/or sacred sites or traditional use areas in the proposed project vicinity.

2. Please provide a list of local Native American tribes, bands, or individuals who may have concerns or interests in the heritage resources of the proposed project. We would like to solicit input from these tribal representatives about the project.

Thank you for your assistance. Please feel free to contact me if you have questions, comments, or concerns.

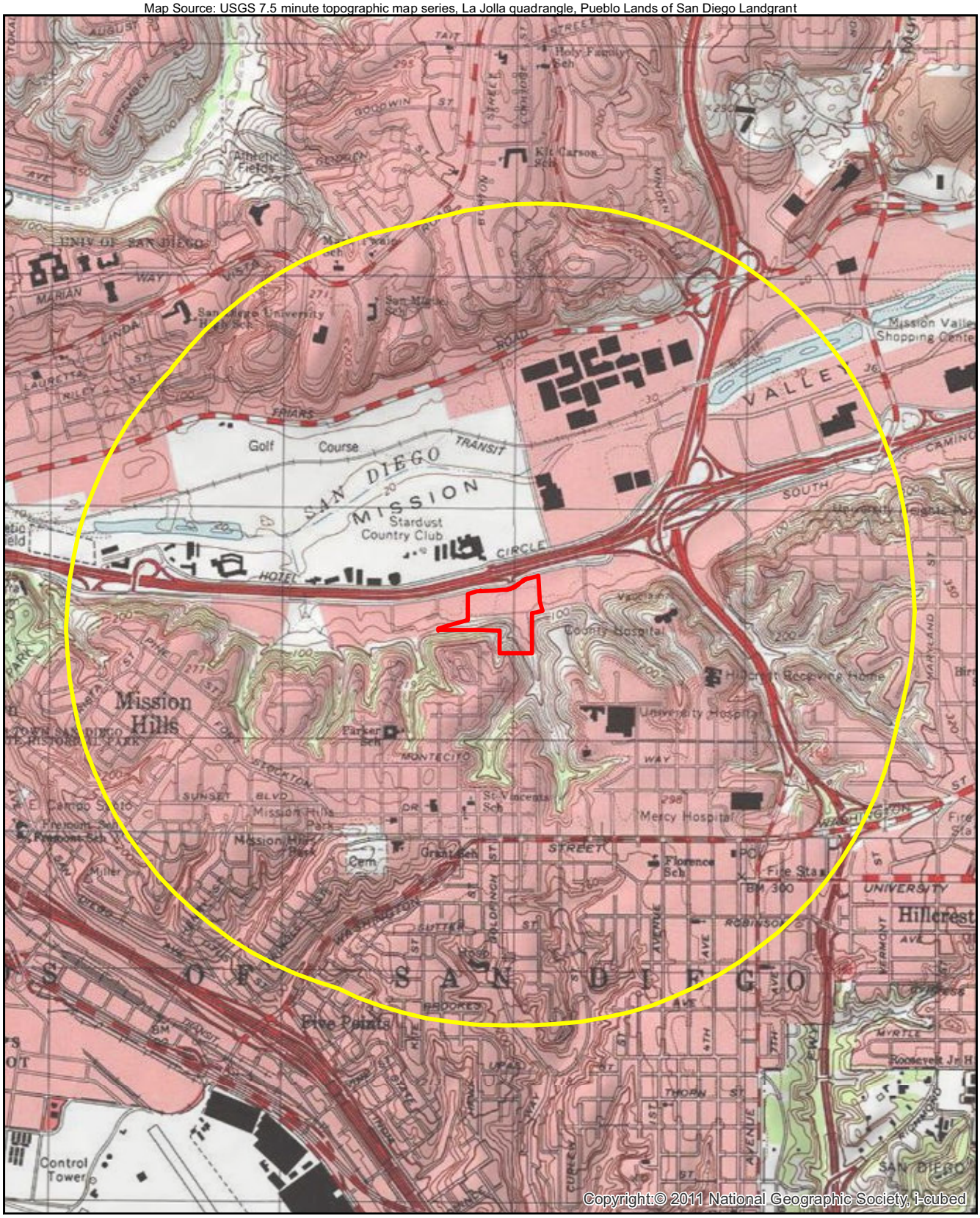
Sincerely,

Harry J. Price
Project Archaeologist

HJP:eab

Attachment

Map Source: USGS 7.5 minute topographic map series, La Jolla quadrangle, Pueblo Lands of San Diego Landgrant



0 Feet 2,000

Project Boundary

1 Mile Buffer

RECON

M:\JOBS4\6919\common_gis\fig2.mxd 1/21/2013 fmm

FIGURE 2

Project Location on USGS Map

1927 Fifth Avenue
San Diego, CA 92101
P 619.308.9333
F 619.308.9334

2033 East Grant Road
Tucson, AZ 85719
P 520.325.9977
F 520.293.3051

2027 Preisker Lane, Ste. G
Santa Maria, CA 93454
P 619.308.9333
F 619.308.9334

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RECON

An Employee-Owned Company

January 30, 2013

«Title» «First_Name» «Last_Name» «Position»
«Company_Name»
«Address_Line_1»
«City», «State» «ZIP_Code»

Reference: Historical Resources Survey of the Morris Cerullo World Outreach Legacy Pavilion Project (RECON Number 6919)

Dear «Title» «Last_Name»:

RECON has been retained by Caribou Industries LLC to perform a cultural resources survey of the Morris Cerullo World Outreach Legacy Pavilion Project property in Mission Valley, in the city of San Diego. The project proposes to redevelop two parcels with a mixed-use development consisting of religious, residential, and commercial uses. The property is currently occupied by commercial businesses. The total property acreage is approximately 18 acres. The project site is in an unsectioned portion of the Pueblo lands of San Diego, in Township 16 South, Range 3 West, of the U.S. Geological Survey 7.5-minute topographic map, La Jolla quadrangle (see attached map).

A letter requesting identification of spiritually significant and sacred sites or traditional use areas in the proposed project vicinity was sent to the Native American Heritage Commission (NAHC). The NAHC had record of Native American sacred sites within the project APE. As is the NAHC's procedure, no specific locational information was given about these sacred sites. Pursuant to the letter received in response from the NAHC, we are contacting you as a potentially interested party. We would like to know if you have any concerns regarding the proposed project as it relates to Native American issues or interests. Would you have any information on sacred sites in the vicinity of the proposed project that may help us advise the client to avoid impacts to these sites? We would like to obtain Native American input ensure adequate time to address any concerns you may have.

We would also appreciate any referrals to another tribe or person knowledgeable about the cultural resources within or adjacent to the proposed project area that may be of help in the planning process with regards to Native American concerns. Please feel free to contact me if you have questions, comments, or concerns. If we have not heard from you by March 4, 2013, we will assume that you have no comments. Thank you for your assistance.

Sincerely,

Harry J. Price
Project Archaeologist

HJP:sh

Attachment

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

January 22, 2012

Mr. Harry J. Price, Project Archaeologist
RECON ENVIRONMENTAL
1927 FIFTH AVENUE
SAN DIEGO, CA 92101

Sent by FAX to: 619-308-9334
No. Pages: 6

Re: Request of a Sacred Lands File Search and Native American Contacts List for the " **Morris Cerullo World Outreach Legacy Pavilion Project);**" located in Mission Valley, San Diego County, California

Dear Ms. Price:

:

The Native American Heritage Commission (NAHC) conducted a search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (Area of Potential Effect or APE) referenced above. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American traditional cultural places or cultural landscapes in any APE. While in this case, a search of the NATHC *Sacred Lands File* did indicate the presence of Native American cultural sites within the APE based on the location data you provided.

Also, a Native American tribe or individual may be the only source for the presence of traditional cultural places. For that reason, enclosed is a list of Native American individuals/organizations who may have knowledge of traditional cultural places in your project area. This list should provide a starting place in locating any areas of potential adverse impact.

California Public Resources Code §§5097.94 (a) and 5097.96 authorize the NAHC to establish a Sacred Land Inventory to record Native American sacred sites and burial sites. These records are exempt from the provisions of the California Public Records Act pursuant to. California Government Code §6254 (r). The purpose of this code is to protect such sites from vandalism, theft and destruction.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within

an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and California Public Resources Code Section 21083.2 (Archaeological Resources) that requires documentation, data recovery of cultural resources, construction to avoid sites and the possible use of covenant easements to protect sites.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list that the NAHC has provided in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "substantial," and Section 21083.2 which requires documentation, data recovery of cultural resources.

The NAHC makes no recommendation or preference of any single individual, or group over another. All of those on the list should be contacted, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 4(f), Section 110 and (k) of the federal NHPA (16 U.S.C. 470 *et seq*), Section 4(f) of the Department of Transportation Act of 1966 (23 CFR 774); 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq*. and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful,

supportive guides for Section 106 consultation. The NAHC remains concerned about the limitations and methods employed for NHPA Section 106 Consultation.

Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton

Attachment: Native American Contact List

Native American Contacts
San Diego County
January 22, 2013

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road
Lakeside , CA 92040
sue@barona-nsn.gov
(619) 443-6612
619-443-0681
Diegueno

Sycuan Band of the Kumeyaay Nation
Daniel Tucker, Chairperson
5459 Sycuan Road
El Cajon , CA 92019
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax
Diegueno/Kumeyaay

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120
Boulevard , CA 91905
gparada@lapostacasino.
(619) 478-2113
619-478-2125
Diegueno/Kumeyaay

Viejas Band of Kumeyaay Indians
Anthony R. Pico, Chairperson
PO Box 908
Alpine , CA 91903
jrothauff@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax
Diegueno/Kumeyaay

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365
Valley Center, CA 92082
allenl@sanpasqualband.com
(760) 749-3200
(760) 749-3876 Fax
Diegueno

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road
Alpine , CA 92001
(619) 445-0385
Diegueno/Kumeyaay

Iipay Nation of Santa Ysabel
Virgil Perez, Spokesman
PO Box 130
Santa Ysabel, CA 92070
brandietaylor@yahoo.com
(760) 765-0845
(760) 765-0320 Fax
Diegueno

Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax
Diegueno/Kumeyaay

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Morris Curullo World Outreach Legacy Pavilion Project; located in Mission Valley; City of San Diego; San Diego County, California for which a Sacred Lands File search and Native American Contacts were requested.

Native American Contacts
San Diego County
January 22, 2013

Jamul Indian Village
Raymond Hunter, Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
sbenegas50@gmail.com
(619) 742-5587
(619) 443-0681 FAX

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O Box 270 Diegueno
Santa Ysabel, CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

Ewiiaapaayp Tribal Office
Will Micklin, Executive Director
4054 Willows Road Diegueno/Kumeyaay
Alpine , CA 91901
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley , CA 91962
(619) 709-4207

Ipay Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507 Diegueno/Kumeyaay
Santa Ysabel, CA 92070
cjlinton73@aol.com
(760) 803-5694
cjlinton73@aol.com

Inaja Band of Mission Indians
Rebecca Osuna, Chairman
2005 S. Escondido Blvd. Diegueno
Escondido , CA 92025
(760) 737-7628
(760) 747-8568 Fax

Manzanita Band of the Kumeyaay Nation
Leroy J. Elliott, Chairperson
P.O. Box 1302 Diegueno/Kumeyaay
Boulevard , CA 91905
ljbirdsinger@aol.com
(619) 766-4930
(619) 766-4957 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Morris Cerullo World Outreach Legacy Pavilion Project; located in Mission Valley; City of San Diego; San Diego County, California for which a Sacred Lands File search and Native American Contacts were requested.

Native American Contacts
San Diego County
January 22, 2013

Kumeyaay Diegueno Land Conservancy
Mr. Kim Bactad, Executive Director
2 Kwaaypaay Court Diegueno/Kumeyaay
El Cajon , CA 91919
guassacl@onebox.com
(619) 445-0238 - FAX
(619) 659-1008 - Office
kimbactad@gmail.com

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
frankbrown6928@gmail.com
(619) 884-6437

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 478-2113
(KCRC is a Colation of 12
Kumeyaay Governments

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Morris Cerullo World Outreach Legacy Pavilion Project; located in Mission Valley; City of San Diego; San Diego County, California for which a Sacred Lands File search and Native American Contacts were requested.

HERITAGE
ARCHITECTURE & PLANNING

November 5, 2014

RECON ENVIRONMENTAL
1927 Fifth Avenue
San Diego, CA 92101

Attention: Mr. Lance Unverzagt, AICP CEP, Senior Project Manager

Subject: Mission Valley Inn Complex HAP #14059
Letter of Expert Opinion

Dear Lance:

Heritage Architecture & Planning has reviewed the Historical Resources Research Report (HRRR) as prepared by historian Steven Van Wormer and has conducted a field survey at the Mission Valley Inn Complex. The Mission Valley Inn Complex HRRR concludes that the property is significant under Criterion A, B, and C of the San Diego Historical Resources Board designation criteria.

The preparation of this Letter of Expert Opinion, fieldwork, and report analysis were completed by Eileen Magno and Carmen Pauli with oversight by David Marshall, AIA of Heritage Architecture & Planning (Heritage). All are qualified under the *Professional Qualification Standards of the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation.* Eileen Magno is a qualified Architectural Historian/Historian and both Carmen Pauli and David Marshall are qualified as Architects/Historic Architects. Sources consulted include the *City of San Diego Historical Resources Board Guidelines for the Application of Historical Resources Board Designation Criteria* (San Diego Guidelines), the *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*, the *San Diego Modernism Historic Context Statement*, and modernsandiego.com.

HRB CRITERION A: Exemplifies or reflects special elements of the City's, a community's, or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development.
Van Wormer Finding: *[T]he Mission Valley Inn Complex is significant under Criterion A of the San Diego Historic[al] Resources Board for its association with the pioneer phase of motel construction on Mission Valley's Hotel Circle. As one of the pioneer motels constructed on Mission Valley's Hotel Circle in the 1950s, the Mission Valley Inn Complex is associated with the very beginnings of the economic development that radically changed Mission Valley from rural landscape to a built up urban environment.*

According to the San Diego Guidelines, "Special elements of development refer to a resource that is distinct among others of its kind or that surpass the usual in significance. It is not enough for a resource to simply reflect an aspect of development….Economic Development shall exemplify or reflect development associated with local, regional, state, or national economy or economics, including manufacturing, labor and agriculture, maritime, and transportation industries."

The Mission Valley Inn Complex HRRR did not provide persuasive arguments supporting its role in the economic development of San Diego's Mission Valley. Although the Mission Valley Inn was one of the early hotels developed in Mission Valley, it was Charles H. Brown's Atlas Hotels that truly spearheaded the economic tourism industry with the development of the Town & Country Hotel in 1953, three years prior to the Mission Valley Inn. The Town & Country Hotel opened up avenues for other hotels to develop in Mission Valley via conditional use permits. The Town & Country Hotel would later expand and include other hotels under the Atlas Hotel umbrella such as the Hanalei Hotel and Kings Inn.

Possibly more significant than the hotel development that was a major economic and city planning turning point for Mission Valley is the establishment of the shopping center led by the May Company of Los Angeles in 1957. This development spurred rezoning of the agriculture and residential land to commercial use.

Therefore, in our professional opinion, the Mission Valley Inn Complex does not qualify under HRB Criterion A.

HRB CRITERION B: Identified with persons or event significant in local, state, or national history.

Van Wormer Finding: *It qualifies under Criterion B for association with pioneer Mission Valley developers Al Stadtmiller and Paul Borgerding. These two played a significant role in local history. The Mission Valley Inn was the physical manifestation of Stadtmiller's Garden Hotel concept and it was the pressure brought to city council by Stadtmiller, Borgerding, and other Hotel Circle developers that achieved the zoning changes that led to the urban development of Mission Valley.*

According to the San Diego Guidelines, "Eligibility under Criterion B for significant person(s) involves first determining the importance of the individual, second, ascertaining the length and nature of the individual's association with the resource under study and in comparison to other resources associated with the individual, and third determining if the resource is significant under HRB Criterion B as a resource that is best identified with a person(s) significant in local, state, or national history."

The Mission Valley Inn Complex HRRR did not provide adequate information to address the following:

- Did not establish the significance of Stadtmiller or Borgerding.

  A.A. Stadtmiller and Paul Borgerding were both realtors and land developers. They became associates in 1952 with Chuck Kerch. In 1955, Stadtmiller and Borgerding purchased 20 acres of the old Crabtree ranch in the Mission Valley with the intent to sell it to Harry Handler (owner of El Cortez Hotel) and Scott King (founder of TraveLodge), but when both turned down the offer, Stadtmiller and Borgerding decided to build the hotel themselves.

  Much of the argument established by the HRRR had grouped Stadtmiller and Borgerding's accomplishments with other motel developers during the 1950s in their attempts to rezone Mission Valley for hotel use. Arguably, the way was already paved by Charles Brown and his Town & Country Hotel for establishing the hotel industry in the area.

  According to Stadtmiller, "We told the City Council we could keep Mission Valley rural in character with 'garden hotels'….At that point, the city had already approved the Town & Country development and had, in realty accepted the fact that Mission Valley was going to change."[1] By 1960, with "the concept of low 2 story, 'Garden Hotels'…was no longer promoted or supported by Hotel Circle developers."[2]

  It was Charles Brown who envisioned ranch-type facilities with swimming pools and tennis courts in the undeveloped Mission Valley. After the Town & Country Hotel, he later expanded Hotel Circle with the Hanalei Hotel, and in 1966, Brown even purchased the Mission Valley Inn from Stadtmiller and Borgerding to broaden his hotel holdings. According to UCSD professor Steve Erie and Scott McKenzie in a 2008 academic paper, "Brown's Town & Country Hotel…[was] the pioneer commercial beachhead dating from 1953." In addition, per the *San Diego Union*, "…Charles Brown probably did more to make a hotelman's dream than any other."[3] According to the same article, "Brown said Mission Valley's development can be traced by noting various milestones. The first, he said, was Town & Country. Then there was the $25-million May Co., Westgate Park and the new stadium."[4]

1 Richard M. Daniels, "Mission Valley and How it Grew." *San Diego Union*. March 23, 1975.
2 Steven Van Wormer, Mission Valley Inn Complex Historical Resources Research Report.
3 Dick Bowman, "Mission Valley: City's Spectrum Yesterday's History and Progress to Tomorrow Go Hand in Hand." *San Diego Union*. October 22, 1966.
4 Ibid.

- The report did not address the length and nature of the individual's association with the resource under study in comparison to other resources associated with the individuals. Also, the report did not clarify if this was the best resource identified with the individuals.

  The Mission Valley Inn was associated with Stadtmiller and Borgerding from when they purchased the land in 1955 until 1966 when they sold the hotel to Charles Brown of Atlas Hotels for $2 million. It was the only collaborative development between the two. Therefore, it could be determined that the Mission Valley Inn is the best and only resource identified with their partnership. However, this short-term partnership makes it more difficult to conclude that it was a historically significant partnership, being that only one development was created.

Therefore, in our professional opinion, the Mission Valley Inn Complex does not qualify under HRB Criterion B.

CRITERION C: Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.
Van Wormer Finding: *It also qualifies under Criterion C, in that it embodies the distinctive characteristics of the Garden Hotel concept as well as Post World War II minimalist architecture utilized by many motels during this period. The period of significance is from 1956 to 1961, which spans the date from which the Mission Valley Inn was first built to the opening of the May Company Shopping Center and the conversion of the valley into an intensified commercial urban landscape.*

Arguably, the Mission Valley Inn does continue to embody some of the characteristics of the Modern architectural style and Garden Hotel concept, however, many of the character-defining features of the site and buildings have been altered throughout the years and the property no longer retains enough integrity to merit its qualification under Criterion C. Secondly, the period of significance established by the HRRR should be 1956, the date of construction, to 1966 when it was sold and no longer associated with original developers Stadtmiller and Borgerding. The May Company Shopping Center is unrelated to this specific resource.

Therefore, in our professional opinion, the Mission Valley Inn Complex does not qualify under HRB Criterion C.

CRITERION D: Is a representative of the notable work or a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman.
The Mission Valley Inn HRRR did not provide discussion on the significance of architect Richard Wheeler's association with the property. Richard George Wheeler has been identified in the *San*

Diego Modernism Historic Context Statement as a contributing designer of modern San Diego. Further study should include a comparison of resources designed by Wheeler to determine if the Mission Valley Inn is a significant representative of Wheeler's architectural work. It should be noted that the loss of integrity may reduce the likelihood of this criteria being met.

Figure 1: Google Earth view of the Mission Valley Inn Property showing building numbers referenced in this text.

INTEGRITY

Van Wormer Finding: *The buildings and grounds still retains a good degree of integrity of location, design, internal setting, materials, and workmanship, which combine to give a strong sense of feeling, and association for the original Mission Valley Inn from 1956 to 1961.*

According to the *National Register Bulletin* and the *City of San Diego Historical Resources Board Guidelines for the Application of Historical Resources Board Designation Criteria* (City Guidelines), integrity is defined as the ability of a property to convey its significance. To be listed on the local, state, or national register, a property must not only be shown to be significant under a designation criterion, but it

must also have integrity. To retain historic integrity, a property should possess several, and usually most, aspects of integrity. The retention of specific aspects of integrity is paramount for a property to convey its significance.

Seven Aspects of Integrity

- Location:
  Location is defined as the place where the historic property was constructed or the place where the historic event occurred. The Mission Valley Inn retains integrity of location because the complex has occupied the same site since its original construction.

- Design:
  Design is defined as the combination of elements that create the form, plan, space, structure, and style of a property. The Mission Valley Inn was originally designed as three clusters of buildings which were arranged around central courtyards. The overall site layout and landscape still retain integrity of design and the "Garden Hotel" concept envisioned by the original developers and architect remains. However, significant exterior alterations to Buildings 7, 8, and especially 9 have diminished the property's ability to convey the original Mid-Century Modern style. The addition of numerous contemporary Spanish-style features and finishes has further impacted the architectural character of the property, resulting in a loss of its design integrity.

- Setting:
  Setting is defined as the physical environment of a historic property. The physical features that constitute the setting of a property can be natural or manmade and may include topographic features, vegetation, pathways, and relationships between buildings and other features or open space. The buildings that comprise the Mission Valley Inn were carefully situated around landscaped courtyards. Their relationship to the courtyards was an integral component of the original design. Some modifications to the original courtyards, most notably the removal of an original pool and construction of a large building addition on the south side of Building 9, have altered aspects of the original setting. However, most of the original spatial relationships between the buildings and their respective courtyards remain intact. Therefore, the property retains integrity of setting.

- Materials:
  Materials are defined as the physical elements that were combined or deposited during a particular period of time in a particular pattern or configuration to form a historic property. The choice of materials reveals preferences of the designers and indicates availability of particular types of materials and construction technologies. A property must retain the key exterior materials dating from the period of historical significance. Key original exterior materials of the

Mission Valley Inn included wood siding, concrete block, gravel roofing, stone masonry, steel, and wood. Buildings 1-6 retain many of the original exterior materials. However, Buildings 7, 8, and 9 have been significantly altered to remove most of the character-defining exterior materials. Therefore, the property does not retain its integrity of materials.

- Workmanship:
  Workmanship is defined as the physical evidence of the crafts or a particular culture or people during any given period in history or prehistory. Workmanship is important because it helps to illustrate the aesthetic principles of a historic period. Buildings 1-6 retain much of the original workmanship which characterizes Modern architecture. However, Buildings 7, 8, and 9 have been altered significantly eliminating most of the original workmanship which characterized this property. Therefore, the property has lost its integrity of workmanship.

- Feeling:
  Feeling is defined as the property's expression of the aesthetic or historic sense of a particular period in time. It results from the presence of physical features that, taken together, convey the property's historic character. The overall feeling of the Mission Valley Inn has been altered by adding contemporary Spanish-style features along the primary (north) facades of the street-facing buildings. The removal of significant architectural features and the non-historic restaurant and commercial additions to Building 9 have significantly altered the feeling and association of the property. Buildings 1-6 retain many of their original feature and finishes, but these building are located behind Building 9. Therefore, they are secondary in projecting the overall historic feeling and association of the property from the primary public right-of-way.

- Association:
  Association is defined as the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features to convey the property's historic character. The Mission Valley Inn is significant for its association with the development of Mission Valley. While many of the original exterior features and materials have been removed or altered, the overall development is still recognizable as a "Garden Hotel."

The Mission Valley Inn retains only three of the seven aspects of integrity. Therefore, in our professional opinion, the property as a whole no longer conveys its significance.

The following is a detailed discussion of the property's current description of extant character defining features.

Building Description
The Mission Valley Inn is comprised of eleven buildings which are clustered into three groups and arranged around landscaped courtyards.

Buildings 1-6
Buildings 1-6 are situated behind Building 9. Buildings 1-4 define the west, south, and east sides of a large landscaped courtyard. The courtyard originally had two pools. One pool has been removed and the area has been partially filled-in with a non-historic building addition. Other alterations to buildings 1-6 include:

- The replacement of original gravel roofing with Spanish-style clay tile roofing on the one-story wings of Buildings 1, 2, 3, and 4.
- Replacement of original entry doors to all hotel rooms.

These changes are relatively minor and they have not significantly impacted the essential form and detailing of these buildings. Many of the original exterior finishes remain including decorative stone cladding, horizontal and vertical wood siding, and concrete block. For these reasons the historical integrity of Buildings 1-6 is good.

Buildings 7 and 8
Buildings 7 and 8 are located to the west of the main hotel complex (Building 1-6 and 9). Both buildings are comprised of three two-story wings that are arranged in a U-shape around a central courtyard with the open end facing north toward the street. The basic form and layout of the buildings remain as does the original pool in the courtyard of Building 8 and the original shuffle board court in the courtyard of Building 7. However, most of the original decorative features and details have been removed or altered, significantly impacting the original character of the buildings. Character-defining features that have been removed from the buildings include:

- Original "Mission Valley Inn" signage on the north façade of Building 7.
- Original vertical wood lattice detail on each end of all six wings as well as the central stairs.
- Horizontal louvered fascia on the courtyard-facing facades.
- Original balcony railings on the courtyard-facing facades.
- Original exterior doors.
- All decorative architectural features on the primary (north) facades.

In addition to the removal of these significant character-defining features, new contemporary Spanish-style tower features have been added on the primary (north) façade of both buildings.

The original spatial relationship of the buildings situated around central courtyards remains intact, but the loss of most of the original character-defining exterior features, finishes, and detailing has significantly altered the aesthetic of the original design. Integrity is poor.

Building 9

Building 9 is located along the north edge of the main hotel complex. Building 9 originally housed the hotel's main entrance and lobby in addition to a public restaurant. There was a large illuminated "Mission Valley Inn" sign on the rectangular concrete block wall adjacent to the post-and-beam porte-cochere. The simple architectural detailing, materials, and horizontal massing exemplified Mid-Century Modern road-side architecture. Unfortunately, numerous additions and alterations to Building 9 have significantly diminished its integrity. Building 9 alterations include:

- Removal of the original "Mission Valley Inn" signage.
- Replacement of horizontal wood siding with Spanish-style clay tile mansard roof.
- Significant alterations to the original porte-cochere including the addition of extra columns, covering the original steel posts with heavy plaster-clad columns, doubling the thickness of the roof, altering the traffic patterns to prevent cars from traveling under the porte-cochere, and installing clay tile paving.
- Alterations to the west façade to add windows in the original concrete block wall.
- Restaurant and patio addition on the primary (north) façade, obscuring most of the original building.
- Banquet room addition on the south façade in the original courtyard.
- Replacement of exterior doors.
- Replacement of windows and the addition of rustic wood shutters.
- The construction of a new Spanish-style tower feature in front of the lobby entrance.

Due to the location, prominence, and use of Building 9, it essentially functions as the primary façade for the entire property. Therefore, the significant alterations to Building 9 have had a profound impact on the overall integrity of the property, more so than if the same alterations had been made on one of the other buildings. In its present condition, Building 9 does not retain sufficient integrity to convey the original design, materials, workmanship, feeling, or association.

Building 10 and 11

Building 10 and 11 are not historic. They were added to the property after the 1956-1961 Period of Significance. They do not contribute the historic character of this property.

CONCLUSION

Upon review of the HRRR and site evaluation, it is Heritage's expert opinion that the Mission Valley Inn Complex does not appear to be eligible as a historical resource under any of the applicable local or state criteria. Under HRB Criterion A and B, the Town & Country Hotel under Charles Brown is a more significant example of the hotel development in the Mission Valley community. Also, due to the significant changes to the exterior of the buildings and site throughout the years, the resource's

integrity has been compromised, and therefore, cannot qualify as a historical resource under the HRB Criterion C.

If you have any additional questions or require clarification, please feel free to contact our office at 619.239.7888. Thank you.

Sincerely,

David Marshall, AIA
President
C24785

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Biological Resources Report for the Legacy International Center, San Diego, California

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December 8, 2016

Beth Procsal, Biologist

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ATTACHMENTS

Acronyms

ACOE	U.S. Army Corps of Engineers
ADD	Assistant Deputy Director
ASMD	Area Specific Management Directives
BCME	Biological Construction Mitigation/Monitoring Exhibit
CD	Construction Documents
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CSVR	Consultant Site Visit Record
DSD	Development Services Department
ESA	Endangered Species Act
ESL	Environmentally Sensitive Lands Ordinance
I-8	Interstate 8
LDR	Land Development Review
MBTA	Migratory Bird Treaty Act
MHPA	Multiple Habitat Planning Area
MMC	Mitigation Monitoring Coordination
MSCP	Multiple Species Conservation Plan
RWQCB	Regional Water Quality Control Board
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFWS	United States Fish and Wildlife Service

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1.0 Summary

The Legacy International Center project (project) is located within the Mission Valley area in the city of San Diego, California. The project proponent proposes to redevelop the existing Mission Valley Resort Hotel property, approximately 18 acres, to a mixed-use development with religious, lodging, administrative, recreational, and commercial uses.

The proposed project would have impacts to two sensitive vegetation communities: disturbed southern mixed chaparral and non-native grassland. Mitigation for impacts to these vegetation communities may be achieved by payment into the City of San Diego Habitat Acquisition Fund. No sensitive plant species were observed within the survey area.

No direct impacts to sensitive wildlife species are anticipated from the project, as the project would comply with the Migratory Bird Treaty Act of 1918 and California Department of Fish and Wildlife Code 3503. Potential direct and indirect impacts to bird species would be avoided through implementation of pre-construction surveys if work were to be conducted during the breeding season. If nesting birds are identified, then mitigation measures to avoid impacts to these breeding birds would be implemented.

A wetland delineation conducted on-site identified non-wetland waters within the southern half of the survey area. The non-wetland waters occur as upland vegetated ephemeral streambeds and impacts would occur to a portion of these ephemeral drainages. Mitigation for impacts to ephemeral waters would be achieved on-site through creation, restoration, and/or enhancement of drainage courses. Permits from the resource agencies would be required in order to authorize impacts to jurisdictional waters. No impacts to wetlands would occur.

2.0 Introduction

This report describes the results of the biological resource survey conducted within the survey area for the project. The project site is located in the city of San Diego, south of Interstate 8 (I-8) and west of Interstate 163 (Figure 1). The project site is found on the Pueblo Lands of San Diego Landgrant, of the U.S. Geological Survey (USGS) 7.5-minute topographic map, La Jolla quadrangle (Figure 2; USGS 1996) and is presented on the City of San Diego 800-scale maps (Figure 3). The project site is surrounded by commercial development to the north and west and partially to the east. Undeveloped land borders the site on the southeast and southwest corners. Approximately 0.06 acre of Multi-Habitat Planning Area (MHPA) preserve area occur within the southwest corner of the site. The project is adjacent to MHPA to the south and southeast (Figure 4).

Project Location

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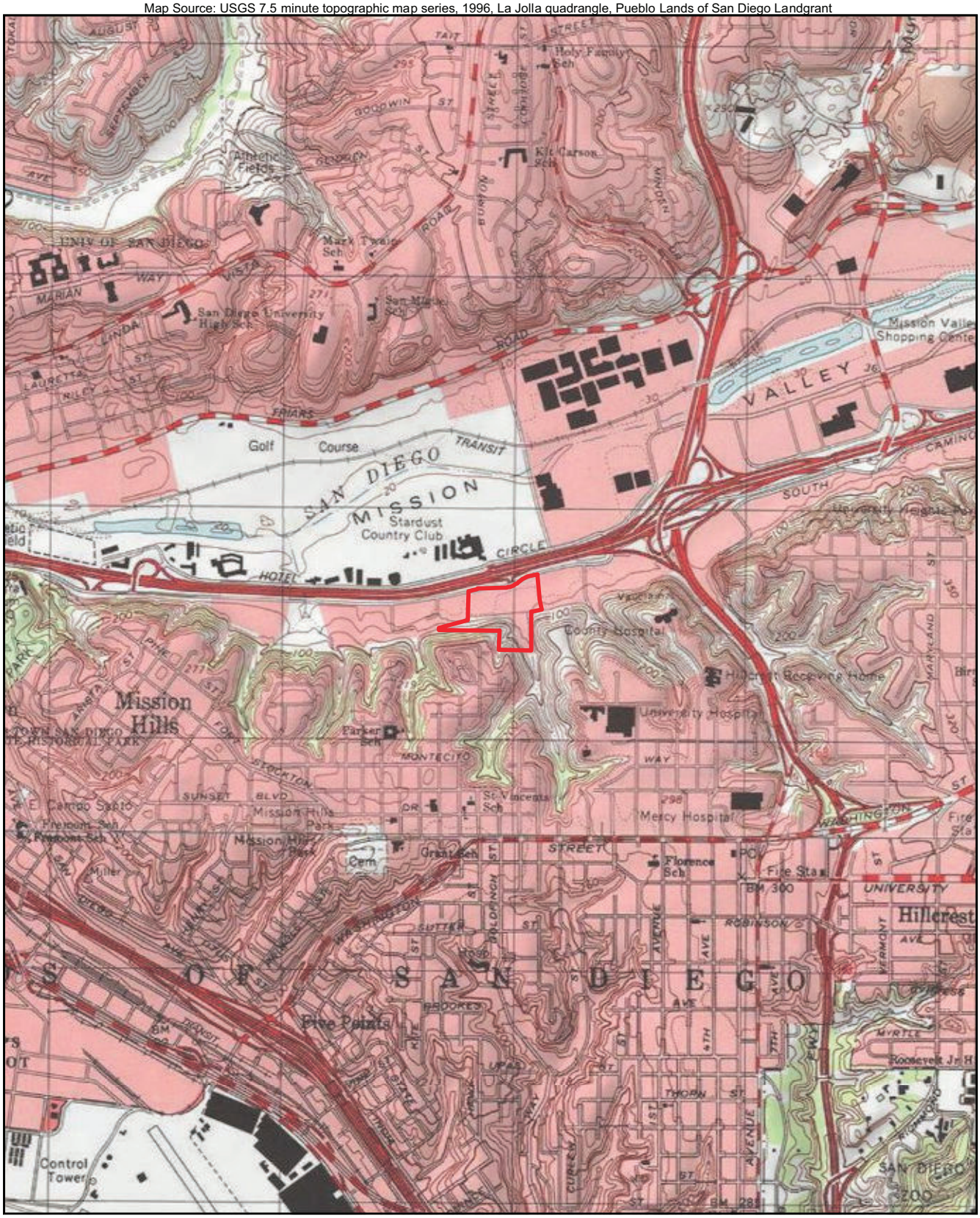
FIGURE 1

Regional Location

Map Source: USGS 7.5 minute topographic map series, 1996, La Jolla quadrangle, Pueblo Lands of San Diego Landgrant



Project Boundary

FIGURE 2

Project Location on USGS Map

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Map Source: City of San Diego, Engineering and Development Department, City 800' Maps, Number 210-1713

FIGURE 3

Project Location on City 800' Map

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Image Source: SanGIS (flown May 2012)

FIGURE 4

Project Location in Relation to City of San Diego MHPA

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The project would redevelop the existing Mission Valley Resort Hotel property located south of Interstate 8 at 875 Hotel Circle South. The project site consists of two parcels: APN 444-060-10 and 444-060-11, totaling approximately 18.1 acres.

In response to comments made during the public review distribution of the DEIR and during the Mission Valley Planning Group hearing, revisions to the Legacy International Center project have been made. Specifically, a decision was made by the applicant to refine the project and reduce the size of the project. This update to the biological resources report covers the refined project which now includes three main buildings: Legacy Vision Center (with grand lobby, reception, history dome theater, artifact museum, and catacombs); the pavilion (with learnig center, restaurant, executive offices, wellness center, and theater); and the Legacy Hotel with 127 hotel units. The following is a summary of the refinements to the project since the circulation of the DEIR for public review:

- Reduction of building square footage (including parking structures) from 532,178 square feet to 391,347 square feet (26.5 percent reduction).
- Reduction of the total number of buildings from five to three (excludes parking structures).
- Combination of the welcoming center and “history dome” theater building into “Legacy Vision Center” and combination of the executive offices into a new pavilion building.
- Change of the proposed timeshare units to hotel units.
- Reduction of the acreage of grading required such that findings for encroachment into Environmentally Sensitive Lands (ESL) steep slopes is no longer required.

This report provides the necessary biological data and background information required for an environmental analysis according to guidelines set forth in the City of San Diego Multiple Species Conservation Plan (MSCP) Subarea Plan (1997) and the City of San Diego Biological Resources Guidelines (City of San Diego 2012).

3.0 Survey Methods

3.1 Biological Resources Survey

RECON biologists Gerry Scheid and Beth Procsal conducted a general biological survey for the project on February 4, 2013. Vegetation communities were mapped on a one-inch-equals-150-feet aerial photograph flown in 2012. Vegetation community classifications follow Holland (1986) as modified by Oberbauer (1996). All plant species observed on-site were also noted, and plants that could not be identified in the field were identified later in the laboratory using taxonomic keys. The survey also included a directed search for sensitive plants that would have been apparent during the time of the survey. Limitations to the

compilation of a comprehensive floral checklist were imposed by seasonal factors, such as blooming period. Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted.

Floral nomenclature for common plants follows Hickman (1993), for ornamental plants Brenzel (2001), and for sensitive plants California Native Plant Society (CNPS; 2007). Vegetation community classifications follow Holland (1986) as modified by Oberbauer (1996). Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004); for mammals with Baker et al. (2003) and Hall (1981); for amphibians and reptiles with Crother (2001) and Crother et al. (2003); and for invertebrates with Mattoni (1990) and Opler and Wright (1999). Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; CNPS 2007; Reiser 2001), and species occurrence records from the California Natural Diversity Database (CNDDB; State of California 2012a, 2012b, 2011a, 2011b), and species occurrence records from other sites in the vicinity of the survey area.

3.2 Jurisdictional Waters/Wetland Delineation

A wetland delineation, following the guidelines set forth by U.S. Army Corps of Engineers (ACOE; 2008), was also performed on February 4, 2013 to gather field data at potential jurisdictional wetland sites within the survey area. Prior to conducting the delineation, a one-inch-equals-100-feet aerial photograph of the site and the La Jolla quadrangle were reviewed to identify potential jurisdictional resources. Once on-site, all potential jurisdictional resources were assessed for the presence of any of the three ACOE wetland parameters. A detailed description of the jurisdictional delineation can be found in the wetland delineation report prepared for the project (RECON 2014).

4.0 Existing Conditions

Elevations in the survey area range from 30 feet above mean sea level to 180 feet above mean sea level. Three soil types are mapped in the survey area, which include Grangeville fine sandy loam, 0 to 2 percent slopes; Reiff fine sandy loam, 5 to 9 percent slopes; and Terrace escarpments (U.S. Department of Agriculture [USDA] 1973).

The Grangeville fine sandy loam, 0 to 2 percent slopes consists of nearly level soil on alluvial fans and alluvial plains. The slope average is 2 percent with a high level of fertility and moderately rapid permeability. The available water holding capacity is 6 to 8.5 inches. Run-off is very slow and erosion hazard is slight. The rooting depth is more than 60 inches. A seasonal high water table occurs at a depth of 1 to 4 feet (USDA 1973). The Grangeville soils account for approximately 60 percent of the soils on-site.

The Reiff fine sandy loam, 5 to 9 percent slopes consists of well-drained, very deep fine sandy loams that formed in alluvium derived from granitic rock. These soils are on alluvial fans and alluvial plains and have slopes of 0 to 9 percent. Soft chess (*Bromus hordeaceus*), wild oats (*Avena* sp.), filaree (*Erodium* sp.), mustard (*Brassica* sp.), and chamise (*Adenostoma fasciculatum*) are the main plant species that occur in uncultivated areas of this soil type. Reiff fine sandy loam, 5 to 9 percent slopes is moderately sloping, runoff is slow to medium, and the erosion hazard is slight to moderate. This soil type occurs within a small portion on the eastern side of the site.

Terrace escarpments consist of steep to very steep escarpments and escarpment-like landscapes. The terrace escarpments occur on the nearly even fronts of terraces or alluvial fans. The escarpment-like landscapes occur between narrow floodplains and adjoining uplands and the very steep sides of drainage ways that are entrenching into fairly level uplands (USDA 1973). This soil type is found on the southern portion of the site within the undeveloped portion of the site.

All three of these soil types are alluvial soils often found in drainages and creek beds. Currently, the Grangeville and Reiff soil types consist of existing development, and the Terrace escarpments, which occurs on the undeveloped portion of the parcel, and supports several non-wetland water drainages.

4.1 Botany

Six vegetation/land cover types occur in the survey area: southern mixed chaparral, disturbed southern mixed chaparral, non-native grassland, eucalyptus woodland, ornamental plantings, and disturbed land (Figure 5). The acreages of vegetation communities and land cover types are listed in Table 1. A total of 38 plant species were identified on the site (Attachment 1). Of these 38 species, 19 are considered native to California and 19 are considered non-native species.

TABLE 1
EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES
IN SURVEY AREA

Vegetation Communities/ Land Cover Types	MSCP Tier	Acreage
Southern Mixed Chaparral	III-A	2.21
Disturbed Southern Mixed Chaparral	III-A	0.73
Non-native Grassland	III-B	2.09
Eucalyptus Woodland	IV	0.05
Ornamental Plantings	IV	0.62
Disturbed Land	N/A	12.44
TOTAL	**-**	**18.14**

Image source: SanGIS (flown May 2012)

Project Boundary

Vegetation Classification

- Southern Mixed Chaparral
- Disturbed Southern Mixed Chaparral
- Non-native Grassland
- Eucalyptus Woodland
- Ornamental Plantings
- Disturbed Land

0 Feet 150

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FIGURE 5

Existing Biological Resources within the Legacy International Center Survey Area

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4.1.1 Southern Mixed Chaparral (2.21 acres)

Southern mixed chaparral is a plant community typically dominated by broad-leaved sclerophyllous shrubs or small trees, which characteristically occupies protected north-facing and canyon slopes or ravines where more mesic conditions are present. Dominant shrubs in this community are typically 5 to 10 feet tall and may include manzanita (*Arcostaphylos* spp.), toyon (*Heteromeles arbutifolia*), ceanothus (*Ceanothus* spp.), mission manzanita (*Xylococcus bicolor*), and mountain mahogany (*Cercocarpus minutiflorus*). The vegetation is usually dense, with little or no understory cover, but may include patches of bare soil. This community typically is found in sites that are moister than those supporting chamise chaparral. Many species in this vegetation community are adapted to repeated fires by their ability to stump sprout. Southern mixed chaparral typically is found in coastal foothills of San Diego County and northern Baja California, usually at elevations below 3,000 feet (Holland 1986).

Southern mixed chaparral is of excellent quality and occurs on the southern portion of the survey area. Lemonadeberry (*Rhus integrifolia*) and toyon (*Heteromeles arbutifolia*) are the dominant shrubs. Several smaller shrub species also occur such as deerweed (*Lotus scoparius*), black sage (*Salvia mellifera*), and California sagebrush. The shrub canopy is dense and approximately 8–10 feet tall.

4.1.2 Disturbed Southern Mixed Chaparral (0.73 acre)

Disturbed southern mixed chaparral is of good quality and occurs in the southeast portion of the survey area. The shrub composition generally matches southern mixed chaparral as discussed above; however, the shrub canopy is less dense and continuous, and eucalyptus trees are scattered throughout and in some areas form a partial canopy. There is some herb and grass cover, typically non-native species such as ripgut grass (*Bromus diandrus*), but many areas have accumulations of eucalyptus leaf litter preventing herbaceous growth and inhibiting growth of existing shrubs.

4.1.3 Non-native Grassland (2.09 acres)

Non-native grassland is comprised of a dense to sparse cover of annual grasses and forbs (Holland 1986). These grasslands are often invaded by other non-native weed species such as radish and thistles.

Non-native grassland is of good quality and occurs within the survey area in the southwestern portion of the site. Annual grasses such as slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), and Italian ryegrass (*Lolium multiflorum*) dominate this area. Other non-native species that occur in the grasslands include wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*), and fennel (*Foeniculum vulgare*). Scattered individuals of native grass and shrub species also occur within and along the edges of the

grassland including blue-eyed-grass (*Sisyrinchium bellum*) and green everlasting (*Gnaphalium californicum*).

4.1.4 Eucalyptus Woodland (0.05 acre)

Eucalyptus trees are not native to the area and are considered invasive species because of their rapid growth rate, broad cover, and allelopathic chemicals contained in their leaf litter that prevents understory species from growing. Once established, eucalyptus groves often form dense canopies that displace native habitats over time.

Mature eucalyptus woodland, dominated by gum tree (*Eucalyptus* sp.) with other eucalyptus species intermixed, occurs in the southwestern tip of the survey area.

4.1.5 Ornamental Plantings (0.62 acre)

Ornamental vegetation is found on the southern perimeter of the existing hotel developments, consisting of landscaped turf lawns and non-native shrub and tree species. Dominant species within this land cover type include hottentot fig (*Carpobrotus edulis*) and ngaio (*Myoporum laetum*).

4.1.6 Disturbed Land (12.44 acres)

The parking lots and commercial developments within the project boundary are classified as disturbed land. These areas have some ornamental landscape plants and ruderal species, but do not contain any native habitat.

4.2 Zoology

A list of the wildlife species detected on-site is in Attachment 2. Sensitive species observed or potentially occurring on-site are discussed in the Sensitive Biological Resources section of this report.

4.2.1 Amphibians

Most amphibians require moisture for at least a portion of their lifecycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season. No amphibians were detected during field surveys.

4.2.2 Reptiles

The diversity and abundance of reptile species vary with habitat type. Many reptiles are restricted to certain plant communities and soil types, although some of these species will also forage in adjacent communities. Other species are more ubiquitous using a variety of vegetation types for foraging and shelter. One reptile species was observed within the survey area: western fence lizard (*Sceloporus occidentalis*). Reptiles may use the developed area for basking.

4.2.3 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. High-quality vegetation communities typically support a moderate to high variety of bird species. The scrub and woodland habitats provide foraging and shelter opportunities for a wide variety of bird species. Disturbed and developed lands are used by bird species adapted to urban settings.

The most commonly observed species within the survey area include mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus frontalis*), yellow-rumped warbler (*Dendroica coronata*), song sparrow (*Melospiza melodia*), and California towhee (*Pipilo crissalis*).

4.2.4 Mammals

Most mammal species are nocturnal; therefore, their presence during daytime surveys is detected by observing their sign, such as tracks, scat, and burrows. Common mammal species detected within the survey area include desert cottontail (*Sylvilagus audubonii*), northern raccoon (*Procyon lotor*), and California ground squirrel (*Spermophilus beecheyi*).

5.0 Sensitive Biological Resources

5.1 Sensitivity Criteria

For purposes of this report, species will be considered sensitive if they are: (1) covered species or narrow endemic species under the City of San Diego MSCP; (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on California Rare Plant Rank 1B (considered endangered throughout its range) or California Rare Plant Rank 2 (considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2007); or (4) considered rare, endangered, or threatened by the CNDDB (State of California 2012a), the City of San Diego's biology guidelines (City of San Diego 2012), or local conservation organizations or specialists. Noteworthy plant species are considered to be those that are on California Rare

Plant Rank 3 (more information about the plant's distribution and rarity needed) and California Rare Plant Rank 4 (plants of limited distribution) of the CNPS *Inventory*. Sensitive vegetation communities are those identified by the CNDDB (Holland 1986) or identified by the City of San Diego (2012).

Under Section 3503 of the California Department of Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.3 of the California Department of Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls), or of their nests and eggs (State of California 1991). The Migratory Bird Treaty Act of 1918 (MBTA) was established to provide protection to the breeding activities of migratory birds throughout the United States (U.S.) The MBTA protects migratory birds and their breeding activities from take and harassment.

All wetland areas and non-wetland waters of the U.S. are considered sensitive. Wetlands and non-wetland waters are under the jurisdiction of ACOE. Streambeds and associated vegetation are under the jurisdiction of California Department of Fish and Wildlife (CDFW). The City of San Diego defines wetlands as:

> Wetlands are areas which are characterized by any of the following conditions: (1) all areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation; (2) areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation; (3) areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands (City of San Diego 2012).

Assessments for the potential occurrence of sensitive species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the project site.

5.2 Sensitive Vegetation Communities

Three sensitive habitats under the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) occur within the survey area: southern mixed chaparral (Tier III-A habitat), disturbed southern mixed chaparral (Tier III-A habitat), and non-native grassland (Tier III-B habitat).

5.3 Sensitive Plants

No sensitive plants were detected during the survey. All plant species known to occur in the project vicinity (within two miles of the survey area) that are federally listed threatened or endangered, considered City of San Diego narrow endemic, or that have potential to occur based on species range are addressed in Attachment 3.

5.4 Sensitive Wildlife Species

One sensitive avian species, Cooper's hawk (*Accipiter cooperii*), was detected within the survey area in the eucalyptus woodland. Attachment 4 provides a list of sensitive species that were observed within the survey area or have a potential to occur based on the ranges and habitat requirements of these species, and includes an assessment of the likelihood of the on-site occurrence for these species.

5.4.1 Observed

Cooper's hawk. The Cooper's hawk is a CDFW watch list and is an MSCP covered species. The Cooper's hawk ranges year-round throughout most of the United States; its wintering range extends south to Central America and its breeding range extends north to southern Canada (Rosenfeld and Bielefeldt 1993). Breeding birds are widespread over San Diego County's coastal slope and most abundant in lowland and foothill canyons and in urban areas. It is common breeder in both oak and willow riparian woodlands and urban environments, with eucalyptus trees used nearly as often as oaks (Unitt 2004). Additionally, this species has been known to nest within planted trees including pine, redwood, and avocado (Unitt 2004). Breeding occurs from March to June and nests are typically located high in the tree, but under the canopy. This hawk forages primarily on medium-sized birds but is also known to eat small mammals such as chipmunks and other rodents (Rosenfeld and Bielefeldt 1993). Although urbanization and loss of habitat have contributed to the decline of this species, the Cooper's hawk adaptation to city living over the last 20 years have generously increased their numbers (Unitt 2004).

A Cooper's hawk was detected by vocalization within the eucalyptus woodland on the southwest end of the property.

5.4.2 Potential to Occur

Belding's orange-throated whiptail (*Aspidoscelis* [=*Cnemidophorus*] *hyperythra beldingi*). Belding's orange-throated whiptail is a CDFW species of special concern and MSCP-covered species. This species ranges from the coast to the Peninsular mountain ranges from Orange and southwestern San Bernardino counties to the tip of Baja California, Mexico (Stebbins 2003). It occurs in a variety of habitats and is most common in sandy

areas of low, open sage scrub or chaparral, particularly where there is California buckwheat, sage (*Salvia* spp.), or chamise (Lemm 2006). It is active during spring and summer, but is largely dormant during the fall and winter, when temperatures drop (Jennings and Hayes 1994). Breeding occurs from May through July. Belding's orange-throated whiptails feed primarily on insects such as termites (*Reticulitermes* sp.). The decline of this species is attributed to habitat loss and fragmentation (McGurty 1980).

This species was not detected on-site; however, there is moderate potential for the Belding's orange-throated whiptail to occur due to the presence of suitable southern mixed chaparral habitat.

5.5 Jurisdictional Waters/Wetlands

A jurisdictional delineation was conducted to identify any jurisdictional waters (e.g., non-wetland waters, wetlands) in the survey area. No ACOE, CDFW, or City of San Diego wetlands were detected on-site; however, three unnamed ephemeral drainages flow through the bottom of the survey area. These drainages qualify as non-wetland waters of the U.S. and CDFW/Regional Water Quality Control Board (RWCQB) streambed.

Results of the delineation are further summarized in the wetland delineation report prepared for the project (RECON 2014). Table 2 summarizes the jurisdictional waters present within the survey area (Figure 6).

TABLE 2
JURISDICTIONAL WATERS WITHIN THE SURVEY AREA

Jurisdictional Waters	Acres
ACOE	
Wetlands	0.00
Non-wetland waters of the U.S.	0.07
Total ACOE	0.07
CDFW[1]	
Wetland	0.00
Streambed	0.07
Total CDFW	0.07
Regional Water Quality Control Board	0.07
City of San Diego	0.00

[1]CDFW area of jurisdiction includes all ACOE jurisdictional waters

Image source: SanGIS (flown May 2012)

Project Boundary

ACOE Non-wetland Water - CDFW/RWQCB Streambed

Storm Drain Inlet

0 Feet 120

RECON

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FIGURE 6

Location of Jurisdictional Waters/Wetlands

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5.6 MHPA

MHPA lands are those that have been included within the City's MSCP Subarea Plan for habitat conservation. These lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. MHPA lands are considered by the City of San Diego to be a sensitive biological resource.

As shown in Figure 4, a small portion (0.06 acre) of the project along the southern perimeter is within the MHPA, and the project is adjacent to MHPA on the southeast corner.

5.7 Wildlife Movement Corridor

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important, because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife movement corridors are considered sensitive by resource and conservation agencies.

The survey area is located immediately south of the Interstate 8 and Hotel Circle South and north of residential development. Approximately half of the project site is part of an urban canyon which runs from the Presidio Park area east past Fairmount Avenue. Although it is reasonable to assume that wildlife may move locally through this survey area, the site is ultimately restricted by commercial and residential development to the north and south. While there may be some wildlife movement within the property, the site, as a whole, does not provide a major movement corridor for wildlife species.

6.0 Project Impacts

Impacts to biological resources in the project area due to the proposed redevelopment are discussed below. Direct and indirect impacts to vegetation/land cover types, sensitive biological resources, and to the MHPA are covered. Direct impacts would include vegetation removal due to grubbing and grading activities, and indirect impacts may result from excess noise, lighting, or dust from the proposed project site.

6.1 Direct Impacts

6.1.1 Vegetation Communities/Land Cover Type Impacts

The impacts to vegetation communities/land cover types from the proposed project are listed in and shown in Figure 7.

Impacts to disturbed southern mixed chaparral, a MSCP Tier III-A habitat, and non-native grassland, an MSCP Tier III-B vegetation type, are both considered significant and would require mitigation (City of San Diego 2012). Impacts to ornamental plantings and disturbed lands are not considered significant and do not require mitigation. An additional 0.074 acre of Tier IIIA habitat would be affected due to the implementation of Brush Management Zone 2 (BMZ 2). BMZ 2 impacts are considered impact neutral pursuant to the City's Land Development Code (City of San Diego 2015) and Biology Guidelines (City of San Diego 2012) and do not require mitigation.

Table 3 summarizes the impacts to each vegetation community/land cover type.

TABLE 3
IMPACTS TO VEGETATION COMMUNITIES/LAND COVER TYPES
(acres)

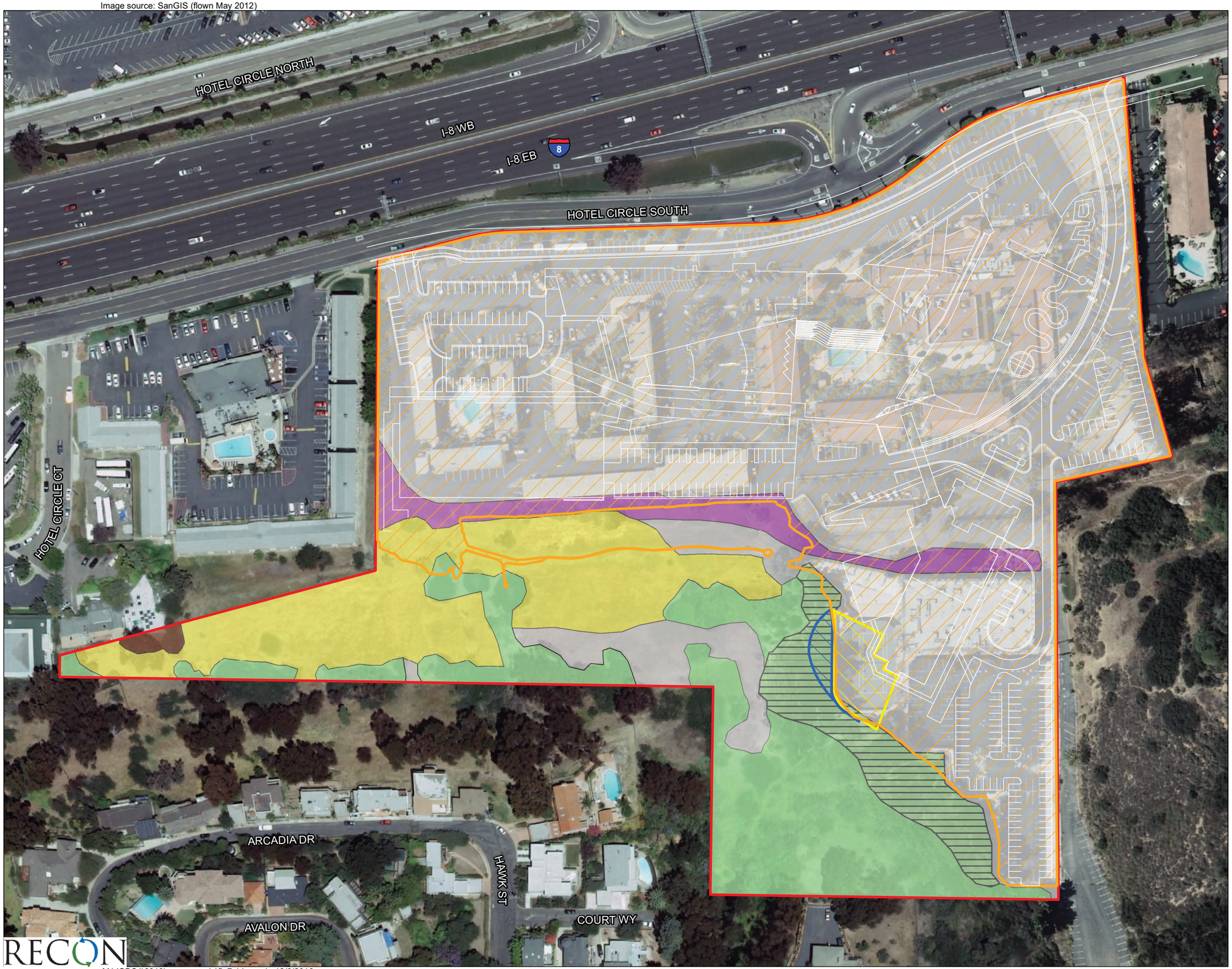
Vegetation Communities/ Land Cover Types	City of San Diego Tier	Existing	Total Impacts [1], [2]	BMZ 2
Southern Mixed Chaparral	III-A	2.21	0.02	0.00
Disturbed Southern Mixed Chaparral	III-A	0.73	0.05	0.07
Non-native Grassland	III-B	2.09	0.17	0.00
Eucalyptus Woodland	IV	0.05	0.00	0.00
Ornamental Plantings	IV	0.62	0.48	0.00
Disturbed Land	N/A	12.44	11.78	0.004
TOTAL	**-**	**18.14**	**12.50**	**0.074**

[1] Acreage does not include 0.07acre of Zone 2 brush management of disturbed southern mixed chaparral occurring outside of the development footprint. BMZ 2 activities are considered impact neutral and do not contribute towards project impacts.
[2] All impacts to vegetation are outside the MHPA.

6.1.2 Plants

No impacts will occur to sensitive plant species.

Image source: SanGIS (flown May 2012)



Project Boundary
Project Impacts
Brush Management Zone 1
Brush Management Zone 2

Vegetation Classification

Southern Mixed Chaparral
Disturbed Southern Mixed Chaparral
Non-native Grassland
Eucalyptus Woodland
Ornamental Plantings
Disturbed Land

0 Feet 125

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FIGURE 7

Impacts to Existing Biological Resources within the Legacy International Center Survey Area

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6.1.3 Wildlife

General wildlife. The proposed project may cause small mammals and reptiles with low mobility to be inadvertently killed during grading of the site. Most birds will be able to move out of the way during grading. These impacts to general wildlife are considered less than significant.

Sensitive Wildlife. There is a low potential for direct impacts to occur to the Belding's orange-throated whiptail, if present, during grading activities. Although suitable habitat is present, the site is not expected to support a significant population of Belding's orange-throated whiptail as the species was not observed during surveys of the site. Any potential impacts to the species are not expected to reduce this species' overall populations below self-sustaining levels; thus, project impacts would be considered less than significant. Additionally, the project will also comply with all area specific management directives (ASMDs) for this species required by the MSCP.

Nesting Birds. Section 3503 of the California Department of Fish and Game Code states, "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, including raptors, except as otherwise provided by this code or any regulation made pursuant thereto." Direct impacts to nesting birds using the site could occur if construction activities disrupt breeding activities or inadvertently kill birds and destroy nests. The MBTA provides more protection, on a federal level, against unlawful destruction of bird nests and from take and harassment of, specifically, migratory birds and their breeding activities.

CDFW species of special concern and MSCP-covered species, Cooper's hawk, may be directly impacted due to the removal of eucalyptus trees on-site. These impacts would be considered significant.

6.1.4 MHPA

No direct impacts will occur to the MHPA.

6.2 Indirect Impacts

Indirect impacts associated with project construction may include an increase in fugitive dust, an increase in noise due to an increase in heavy equipment traffic and human presence, and an increase in litter and pollutants. These impacts are not expected to reduce the common wildlife species' populations on adjacent lands below self-sustaining levels; therefore, these impacts are considered less than significant. However, indirect construction noise impacts may have an effect on listed and sensitive bird species within the southern portion of the project boundary and the adjacent habitats, which may be considered significant and would require mitigation.

6.2.1 Nesting Birds

Due to the presence of native habitats and mature eucalyptus trees, sensitive avian species, including raptors, have the potential to occur within the project boundary. Indirect noise impacts to sensitive birds may occur during the breeding season as a result of the project construction. Furthermore, successful nesting and rearing of young can also be contributed to avoidance of excessive noise. Excessive noise can be anything over 60 decibels, which can interfere with parent birds communicating with fledglings. Noise exceeding 60 decibels may also cause nest abandonment. In order to bring indirect noise impacts to nesting birds from project construction below significant, construction noise impacts would be mitigated with the measures listed in Section 7.2.1.

Regarding post-construction indirect noise impacts, the project's contribution to future traffic noise levels was calculated by comparing the existing plus project condition with the no project condition. Noise contours with the project were drawn, and the differences in noise levels between the project and no project conditions were calculated. As shown in this noise contour study, the project's contribution to vehicle traffic would increase noise levels in the project vicinity by 0 to 0.2 decibels. This is not an audible increase in noise and is considered less than significant. Thus, while sensitive avian species would be exposed to an increase in vehicle traffic noise, this increase would be due to growth in the region and the associated increase in traffic and not due to project implementation. It should also be noted that the proposed buildings would provide additional shielding of sensitive species located south of the development footprint from vehicle traffic noise generated on I-8.

6.3 MHPA

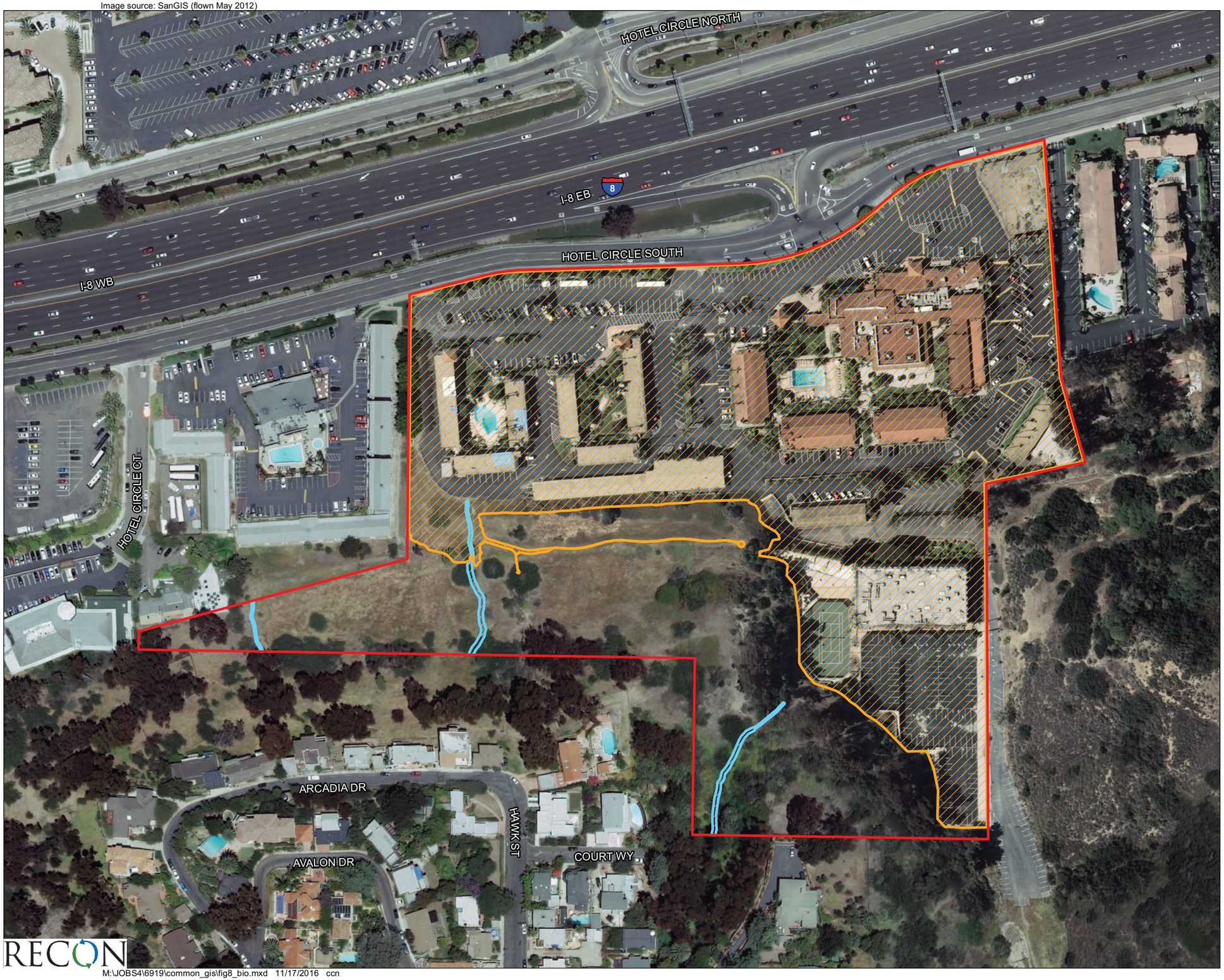
Due to the site's location in relation to the MHPA, indirect impacts to the adjacent MHPA could result from the development of this proposed project. Post-construction indirect impacts could result from noise, lighting, invasive plant species, drainage, and encroachment. These indirect impacts to the MHPA would be considered significant, although may be mitigated to less than significant by complying with the MHPA Adjacency Guidelines, discussed in Section 7.4.1.

6.4 Jurisdictional Waters/Wetland Impacts

ACOE, CDFW, and RWQCB jurisdictional waters are regulated by the federal, state, and local governments under a no-net-loss policy, and all impacts are considered significant and need to be avoided to the greatest extent possible.

Table 4 summarizes impacts to jurisdictional waters/wetlands. Impacts to jurisdictional waters/wetlands are shown in Figure 8. No impacts to wetlands would occur from the project.

Image source: SanGIS (flown May 2012)



Project Boundary

ACOE Non-wetland Water - CDFW/RWQCB Streambed

Project Impacts

0 Feet 150

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FIGURE 8

Impacts to CDFW/RWQCB Jurisdictional Waters within the Legacy International Center Survey Area

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TABLE 4
PROPOSED IMPACTS TO JURISDICTIONAL WATERS

Jurisdictional Waters	Existing Jurisdictional Waters (acres)	Impacts to Jurisdictional Waters (acres)
ACOE		
Wetlands	0.00	0.00
Non-wetland waters of the U.S.	0.07	0.01
Total ACOE	0.07	0.01
CDFW/RWQCB		
Wetland	0.00	0.00
Streambed	0.07	0.01
Total CDFW	0.07	0.01
City of San Diego		
Wetland	0.00	0.00
Total City of San Diego	0.00	0.00

7.0 Mitigation

Mitigation is required for project impacts that are considered significant under California Environmental Quality Act (CEQA), including impacts to sensitive or listed species and sensitive vegetation communities. All impacts to sensitive biological resources should be avoided to the maximum extent feasible and minimized when possible. Mitigation is intended to reduce the impacts to a level of less than significant.

7.1 Vegetation/Land Cover Types Impacts

Mitigation requirements for sensitive vegetation communities are based on the assumption that the mitigation would take place inside the MHPA (Table 5). The total mitigation acreage required for the project is 0.12 acre, which will be satisfied through payment to the City's Habitat Acquisition Fund.

TABLE 5
MITIGATION REQUIREMENTS FOR IMPACTS TO SENSITIVE VEGETATION COMMUNITIES WITH LOCATION OF PRESERVATION INSIDE MHPA
(acres)

Vegetation Community	MSCP Tier	Existing Acreage	Total Impact	Mitigation Ratio (where impact occurs)	**Mitigation Requirement**
Southern Mixed Chaparral	III-A	2.21	0.02	0.5:1	**0.01**
Disturbed Southern Mixed Chaparral	III-A	0.73	0.05	0.5:1	**0.025**
Non-native Grassland	III-B	2.09	0.17	0.5:1	**0.085**
TOTAL					**0.12**

NOTE: All impacts will occur outside the MHPA.

Although not considered mitigation, the preservation of the remaining native habitat within the project site, outside the limits of disturbance, will be placed in a covenant of easement (Figure 9), as required per the Municipal Code ESL regulation, Section 143.0140 (a). The easement will ensure the protection of the habitat from any future development proposals and will include 2.19 acres of southern mixed chaparral, 0.62 acre of disturbed southern mixed chaparral, and 1.91 acre of non-native grassland.

The areas proposed for on-site preservation are dominated by native habitats of moderate to high quality. Additionally, these habitats are of higher quality than the disturbed land being impacted, which is currently developed. The addition of these habitats would help connect two areas of the MHPA together and act as a "stepping stone" for wildlife movement between the portions of the MHPA located in urban canyons (see Figure 9). Currently, a majority of the urban canyon system south of Hotel Circle South is part of the MHPA and by adding this open space, it would thus bring long-term biological value to this area.

7.2 Wildlife

7.2.1 Nesting Birds

This project may directly and indirectly impact nesting birds (i.e., Cooper's hawk) on-site if construction occurs during the typical bird breeding season (i.e., February 1–September 15).

To avoid any direct impacts to raptors and/or any native/migratory birds, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The preconstruction (precon) survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the precon survey to City Development Services Department for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable state and federal Law (i.e., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City Development Services Department (DSD) for review and approval and implemented to the satisfaction of the City. The City's Mitigation Monitoring Coordination Section or Resident Engineer, and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction. If nesting birds are not detected during the precon survey, no further mitigation is required.

Image source: SanGIS (flown May 2012)

HOTEL CIRCLE NORTH
I-8 EB
I-8 WB
HOTEL CIRCLE SOUTH
HOTEL CIRCLE CT
ARCADIA DR
AVALON DR
HAWK ST
COURT WY
SUMMIT PL
GOLDFINCH ST
FALCON ST
EAGLE ST

- Project Boundary
- Covenant of Easement
- Development Footprint and Brush Management Zones
- City of San Diego MHPA

Vegetation Classification

- Southern Mixed Chaparral
- Disturbed Southern Mixed Chaparral
- Non-native Grassland
- Eucalyptus Woodland
- Ornamental Plantings
- Disturbed Land

0 Feet 140

RECON

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FIGURE 9

Covenent of Easement within the Legacy International Center Survey Area

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7.2.2 Biological Resource Protection during Construction

I. Prior to Construction

A. **Biologist Verification** – The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist), as defined in the City of San Diego's Biological Guidelines (2012), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Preconstruction Meeting** – The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. **Biological Documents** – The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.

D. **BCME** – The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City Assistant Deputy Director (ADD)/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. **Avian Protection Requirements** – To avoid any direct impacts to raptors and/or any native/migratory birds, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting

birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to City DSD for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable state and federal law (i.e., appropriate follow-up surveys, monitoring schedules, construction, and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

F. **Resource Delineation** – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

G. **Education** – Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. **Monitoring** – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. **Subsequent Resource Identification** – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on-site (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, state CEQA, and other applicable local, state, and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

7.3 Jurisdictional Waters/Wetland Mitigation

Mitigation requirements for the impacts to jurisdictional waters/wetlands are summarized in Table 6. All mitigation listed below for state and federal waters is subject to the approval by the regulatory agencies. To reduce impacts to jurisdictional waters to less than significant, a minimum mitigation of 0.01 acre for impacts to ACOE, CDFW, and RWQCB jurisdictional waters would be required.

Impacts to ACOE non-wetland waters of the U.S. and CDFW streambed can be mitigated on-site through creation of the areas outside of the grading limits within the northern section of the survey area at a 1:1 ratio.

In addition, notification to the ACOE Section 404 Nationwide Permit Program, a Streambed Alteration Agreement from CDFW, and a 401 Water Quality Certification from the RWQCB would be required.

TABLE 6
PROPOSED MITIGATION FOR IMPACTS TO JURISDICTIONAL WATERS
WITH DIRECT IMPACTS AT A 1:1 RATIO

Jurisdictional Waters/ Wetlands	Existing Jurisdictional Waters/ Wetlands (acres)	Impacts to Jurisdictional Waters/Wetlands (acres)	Mitigation Ratio	Total Mitigation (acres)
ACOE				
Wetland	0.00	0.00		0.00
Non-wetland waters of the U.S.	0.07	0.01	1:1	0.01
Total ACOE	0.07	0.01	-	0.01
CDFW/RWQCB				
Wetland	0.00	0.00		0.00
Streambed	0.07	0.01	1:1	0.01
Total CDFW	0.07	0.01	-	0.01
City of San Diego				
Wetland	0.00	0.00	2:1	0.00
Total City of San Diego	0.00	0.00	-	0.00

7.4 MHPA

There will be no direct impacts to the MHPA as the project design is completely outside of the MHPA.

7.4.1 MHPA Adjacency guidelines

The project has the potential for indirect impacts to the adjacent MHPA along the southern boundary and on the adjacent property to the east. As stated in the City of San Diego MSCP (1997), land uses within the MHPA are to be managed to ensure minimal impacts to the MHPA. The MSCP establishes adjacency guidelines to be addressed on a project-by-project basis to minimize direct impacts and maintain the function of the MHPA. These guidelines are outlined below.

Prior to issuance of any construction permit or notice to proceed, DSD/Land Development Review (LDR), and/or MSCP staff shall verify the applicant has accurately represented the project's design in or on the Construction Documents (CDs; CDs consist of Construction Plan Sets for Private Projects and Contract Specifications for Public Projects) are in conformance with the associated discretionary permit conditions and Exhibit "A", and also the City's MSCP MHPA Land Use Adjacency Guidelines. The applicant shall provide an implementing plan and include references on/in CDs of the following:

Grading/Land Development/MHPA Boundaries – MHPA boundaries on-site and adjacent properties shall be delineated on the CDs. DSD Planning and/or MSCP staff

shall ensure that all grading is included within the development footprint, specifically manufactured slopes, disturbance, and development within or adjacent to the MHPA. For projects within or adjacent to the MHPA, all manufactured slopes associated with site development shall be included within the development footprint.

The proposed manufactured slopes for the project are within the development footprint and do not encroach into the MHPA. Native plants shall be installed on manufactured slopes created by the proposed project and in brush management Zone 2 areas. A temporary above-grade irrigation system may be used to facilitate establishment; however, no permanent irrigation shall be allowed within the MHPA or Zone 2 brush management areas. The plants should be installed in late winter to early spring, as this is the optimal time for native plant growth and seed germination. A 120-day plant establishment period is necessary and ongoing maintenance of non-permanently irrigated areas for a period of no less than 25 months, or until success criteria is met, is required. Maintenance activities would involve control of non-native plant species, maintenance and removal of the temporary irrigation system, and replacement planting (if necessary).

Drainage – All new and proposed parking lots and developed areas in and adjacent to the MHPA shall be designed so they do not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials prior to release by incorporating the use of filtration devices, planted swales and/or planted detention/desiltation basins, or other approved permanent methods that are designed to minimize negative impacts, such as excessive water and toxins into the ecosystems of the MHPA.

The project has been designed to MHPA adjacency standards and does not drain directly into the MHPA. Although water from the hillsides flows onto the project site, no new water is being drained into the MHPA. All drainage will be routed to storm drains located in Hotel Circle South. The on-site private storm drain and best management practices will be maintained by the property owner. The public storm drain will remain the maintenance responsibility of the City.

Toxics/Project Staging Areas/Equipment Storage – Projects that use chemicals or generate by-products such as pesticides, herbicides, and animal waste, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. Where applicable, this requirement shall incorporated into leases on publicly owned property when applications for renewal occur. Provide a note in/on the CDs that states: *"All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the MHPA."*

The project has been designed so as to not drain directly into the MHPA. The project has been designed to MHPA adjacency standards.

Lighting – Lighting within or adjacent to the MHPA shall be directed away/shielded from the MHPA and be subject to City Outdoor Lighting Regulations per LDC Section 142.0740.

Lighting for the project will be responsive to the species in the area. Understanding that some species rely on darkness for shelter, feeding patterns, migrating, etc., lighting adjacent to the MHPA will be shielded.

Noise – Uses within or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife use of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

To avoid indirect noise impacts to sensitive avian species (i.e., Cooper's hawk), construction should to be limited to outside the typical bird breeding season (i.e., February 1–September 15). With the project's proximity to Interstate 8, ambient noise levels hourly average may already be higher than 60 A-weighted decibels. Additionally, once the project is complete, the new buildings will also help shield the MHPA from excessive noise.

Brush Management – New development adjacent to the MHPA shall be set back from the MHPA to provide required Brush Management Zone 1 area on the building pad outside the MHPA. Zone 2 may be located within the MHPA provided the Zone 2 management will be the responsibility of an Home Owners Association or other private entity except where narrow wildlife corridors require it to be located outside of the MHPA. Brush management zones will not be greater in size than currently required by the City's regulations, the amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done, and vegetation clearing shall be prohibited within native coastal sage scrub and chaparral habitats from March 1 to August 15 except where the City ADD/MMC has documented the thinning would be consistent with the City's MSCP Subarea Plan. Existing and approved projects are subject to current requirements of Municipal Code Section 142.0412.

Brush management consists of Zone 1 and Zone 2 which are shown on the Landscape Plans. Both zones are outside of the MHPA and farther than 100 feet from the MHPA boundary. Vegetation clearing will be done consistent with City standards and will avoid/minimize impacts to covered species to the maximum extent possible. Brush management is required within 100 feet of all habitable structures.

Invasives – No invasive non-native plant species shall be introduced into areas within or adjacent to the MHPA.

The planting palette for the project does not include any invasive plant species adjacent to the MHPA. Additionally, according to City of San Diego standards for brush management, new plantings within Zone 2 must be native.

Barriers/Access – New development within or adjacent to the MHPA shall be required to provide barriers (e.g., non-invasive vegetation; rocks/boulders; 6-foot-high vinyl-coated chain link or equivalent fences/walls; and/or signage) along the MHPA boundaries to direct public access to appropriate locations, reduce domestic animal predation, protect wildlife in the preserve, and provide adequate noise reduction where needed.

Signage will be installed that would discourage pedestrians from entering into the MHPA native areas. A vegetated slope adjacent to the MHPA will also function as a deterrent to pedestrian access into the MHPA.

7.4.2 Applicable Area Specific Management Directives

Special measures to protect the MHPA lands and sensitive species within the MHPA, called ASMDs, include specific guidelines for managing and monitoring covered species and their habitats, including following best management practices. Edge effects may include (but are not limited to) trampling, dumping, vehicular traffic, competition with invasive species, parasitism by cowbirds, predation by domestic animals, noise, collecting, recreational activities, and other human intrusion (City of San Diego 1997).

Species observed or that have a high-to-moderate potential to occur within the MHPA land located within the development area include Belding's orange-throated whiptail and Cooper's hawk. Those species that have designated ASMDs are discussed in more detail below.

The ASMDs for Belding's orange-throated whiptail must address edge effects.

- All of the development footprint is outside of the MHPA and not immediately adjacent to the MHPA; therefore , the proposed project should not increase edge effects in the MHPA.

The ASMDs for Cooper's hawk include a 300-foot impact avoidance area around active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

- Should an active Cooper's hawk, or raptor nest be detected within the MHPA during the pre-grading survey, discussed in Section 7.2.1, appropriate construction setback of 300 feet will be implemented until the fledglings are independent of the nest.

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ATTACHMENTS

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ATTACHMENT 1

Plant Species Observed on the Legacy International Center Survey Area

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ATTACHMENT 1
PLANT SPECIES OBSERVED ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA

Scientific Name	Common Name	Habitat	Origin
LYCOPODS			
ISOETACEAE	**QUILLWORT FAMILY**		
Selaginella bigelovii L. Underw.	Bigelow spike-moss	SMC	N
GYMNOSPERMS			
PINACEAE	**PINE FAMILY**		
Pinus sp.	pine	ORN	I
ANGIOSPERMS: DICOTS			
ADOXACEAE	**ADOXA FAMILY**		
Sambucus nigra [=*mexicana*] L. ssp. *caerulea* (Raf.) Bolli	blue elderberry	SMC	N
AIZOACEAE	**FIG-MARIGOLD FAMILY**		
Carpobrotus edulis (L.) N.E. Br.	hottentot fig	ORN	I
ANACARDIACEAE	**SUMAC OR CASHEW FAMILY**		
Rhus integrifolia (Nutt.) Benth. & Hook. f. ex Rothr.	lemonadeberry	SMC	N
Toxicodendron diversilobum (Torr. & A. Gray) Greene	western poison oak	SMC	N
APIACEAE (UMBELLIFERAE)	**CARROT FAMILY**		
Conium maculatum L.	poison hemlock	NNG	I
Foeniculum vulgare Mill.	fennel	DL, NNG	I
ASTERACEAE	**SUNFLOWER FAMILY**		
Artemisia californica Less.	California sagebrush	SMC	N
Baccharis pilularis DC.	coyote brush	DL, SMC	N
Baccharis salicifolia (Ruiz & Pav.) Pers.	mule fat, seep-willow	NNG	N
Brickellia californica (Torr. & A. Gray) A. Gray	California brickellbush	SMC	N
Gnaphalium californicum DC.	green everlasting	SMC	N
Helminthotheca [=*Picris*] *echioides* (L.) Holub	bristly ox-tongue	NNG	I
BRASSICACEAE (CRUCIFERAE)	**MUSTARD FAMILY**		
Brassica nigra (L.) W.D.J. Koch	black mustard	NNG	I
Raphanus sativus L.	radish	NNG	I
CACTACEAE	**CACTUS FAMILY**		
Opuntia littoralis (Engelm.) Cockerell.	shore cactus	SMC	N

ATTACHMENT 1
PLANT SPECIES OBSERVED ON THE LEGACY INTERNATIONAL CENTER PROJECT SITE
(continued)

Scientific Name	Common Name	Habitat	Origin
CRASSULACEAE	**STONECROP FAMILY**		
Crassula ovata (Mill.) Druce	jade plant	ORN	I
Dudleya pulverulenta (Nutt.) Britton & Rose	chalk lettuce, chalk dudleya	SMC	N
CUCURBITACEAE	**GOURD FAMILY**		
Marah macrocarpus (Greene) Greene	wild cucumber	SMC	N
FABACEAE (LEGUMINOSAE)	**LEGUME FAMILY**		
Lotus scoparius (Nutt.) Ottley var. *scoparius*	California broom	SMC	N
Vicia americana Willd. var. *americana*	American vetch	NNG	N
GROSSULARIACEAE	**GOOSEBERRY FAMILY**		
Ribes speciosum Pursh	fuchsia-flowered gooseberry	SMC	N
LAMIACEAE	**MINT FAMILY**		
Salvia mellifera Greene	black sage	SMC	N
MYOPORACEAE	**MYOPORUM FAMILY**		
Myoporum laetum G. Forst.	ngaio	ORN	I
MYRTACEAE	**MYRTLE FAMILY**		
Eucalyptus sp.	gum tree	EUC	I
OXALIDACEAE	**OXALIS FAMILY**		
Oxalis pes-caprae L.	Bermuda buttercup	SMC, NNG	I
POLYGONACEAE	**BUCKWHEAT FAMILY**		
Rumex crispus L.	curly dock	NNG	I
ROSACEAE	**ROSE FAMILY**		
Heteromeles arbutifolia (Lindl.) M. Roem.	toyon, Christmas berry	SMC	N
Pyracantha sp.	firethorn	ORN	I
RUBIACEAE	**MADDER OR COFFEE FAMILY**		
Galium aparine L.	goose grass, stickywilly	NNG	N
TROPAEOLACEAE	**NASTURTIUM FAMILY**		
Tropaeolum majus L.	garden nasturtium	ORN	I
URTICACEAE	**NETTLE FAMILY**		
Urtica urens L.	dwarf nettle	NNG	I

ATTACHMENT 1
PLANT SPECIES OBSERVED ON THE LEGACY INTERNATIONAL CENTER PROJECT SITE
(continued)

Scientific Name	Common Name	Habitat	Origin
ANGIOSPERMS: MONOCOTS			
ARECACEAE	**PALM FAMILY**		
Washingtonia robusta H. Wendl.	Washington fan palm	ORN	I
IRIDACEAE	**IRIS FAMILY**		
Sisyrinchium bellum S. Watson	blue-eyed-grass	NNG	N
POACEAE (GRAMINEAE)	**GRASS FAMILY**		
Avena barbata Link	slender wild oat	NNG	I
Bromus diandrus Roth	ripgut grass	NNG	I
Lolium multiflorum Lam.	Italian ryegrass	NNG	I

SOURCES: Jepson Online Interchange <http://ucjeps.berkeley.edu/interchange.html> (2009); K. N. Brenzel (editor), *Sunset Western Garden Book* (Sunset Publishing, Menlo Park, CA, 2001); John P. Rebman and Michael G. Simpson, *Checklist of the Vascular Plants of San Diego County,* 4th ed. (San Diego Natural History Museum, San Diego, CA, 2006); USDA Plants Database <http://plants.usda.gov/> (2008).

HABITATS
DL = Disturbed Land
EUC = Eucalyptus Woodland
NNG = Non-native grassland
ORN = Ornamental Plantings
SMC = Southern Mixed Chaparral

ORIGIN
N = Native to locality
I = Introduced species from outside locality

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ATTACHMENT 2

Wildlife Species Observed/Detected on the Legacy International Center Survey Area

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ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999; Milne and Milne 1980; Mattoni 1990; and Opler and Wright 1999)				
NYMPHALIDAE	**BRUSH-FOOTED BUTTERFLIES**			
Danaus plexippus	monarch	NNG		O
Nymphalis antiopa antiopa	mourning cloak	NNG		O
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)				
IGUANIDAE	**IGUANID LIZARDS**			
Sceloporus occidentalis	western fence lizard	NNG		O
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 2004)				
ACCIPITRIDAE	**HAWKS, KITES, & EAGLES**			
Accipiter cooperii	Cooper's hawk	EUC	F / Y	O, V
Buteo jamaicensis	red-tailed hawk	EUC	F / Y	O, V
COLUMBIDAE	**PIGEONS & DOVES**			
Zenaida macroura marginella	mourning dove	EUC, SMC	C / Y	O, V
TROCHILIDAE	**HUMMINGBIRDS**			
Calypte anna	Anna's hummingbird	EUC, SMC	C / Y	O, V
PICIDAE	**WOODPECKERS & SAPSUCKERS**			
Picoides nuttallii	Nuttall's woodpecker	EUC	F / Y	V
TYRANNIDAE	**TYRANT FLYCATCHERS**			
Sayornis nigricans semiatra	black phoebe	SMC	F / Y	O, V
CORVIDAE	**CROWS, JAYS, & MAGPIES**			
Aphelocoma californica	western scrub-jay	EUC, SMC	C / Y	O, V
TROGLODYTIDAE	**WRENS**			
Thryomanes bewickii	Bewick's wren	dSMC	C / Y	O, V
REGULIDAE	**KINGLETS**			
Regulus calendula calendula	ruby-crowned kinglet	dSMC	U / W	O
TURDIDAE	**THRUSHES**			
Catharus guttatus	hermit thrush	SMC	U / W	O

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
MIMIDAE	**MOCKINGBIRDS & THRASHERS**			
Toxostoma redivivum redivivum	California thrasher	SMC	C / Y	O, V
PARULIDAE	**WOOD WARBLERS**			
Dendroica coronata	yellow-rumped warbler	dSMC	C / W	O, V
EMBERIZIDAE	**EMBERIZIDS**			
Melospiza melodia	song sparrow	SMC	C / Y	V
Pipilo crissalis	California towhee	dSMC, SMC	C / Y	O, V
FRINGILLIDAE	**FINCHES**			
Carpodacus mexicanus frontalis	house finch	EUC, dSMC	C / Y	O, V
MAMMALS (Nomenclature from Baker et al. 2003)				
LEPORIDAE	**RABBITS & HARES**			
Sylvilagus audubonii	desert cottontail	NNG, SMC		O
SCIURIDAE	**SQUIRRELS & CHIPMUNKS**			
Spermophilus beecheyi	California ground squirrel	NNG		O, V
PROCYONIDAE	**PROCYONIDS**			
Procyon lotor	northern raccoon	dSMC		T

HABITATS
EUC = Eucalyptus woodland
NNG = Non-native grassland
ORN = Ornamental plantings
SMC = Southern mixed chaparral
dSMC = Disturbed southern mixed chaparral

ABUNDANCE (based on Garrett and Dunn 1981)
C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

SEASONALITY (birds only)
W = Winter visitor; does not breed locally
Y = Year-round resident; probable breeder on-site or in vicinity
O = Observed
T = Track
V = Vocalization

ATTACHMENT 3

Sensitive Plant Species Observed or with the Potential for Occurrence on the Legacy International Center Survey Area

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ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
BRYOPHYTES					
ANGIOSPERMS: DICOTS					
AMARANTHACEAE AMARANTH FAMILY					
Aphanisma blitoides aphanisma	–/–	1B	NE, MSCP	Annual herb; coastal bluff scrub, coastal sage scrub; sandy soils; blooms March–June; elevation less than 1,000 feet.	This species was not observed within the survey area and is not expected to occur due to the lack of sandy soils.
APIACEAE CARROT FAMILY					
Eryngium aristulatum var. *parishii* San Diego button-celery	CE/FE	1B	NE, MSCP	Annual/perennial herb; vernal pools, mesic areas of coastal sage scrub and grasslands, blooms April–June; elevation less than 2,000 feet.	This species was not observed and not expected to occur due to the lack of the suitable vernal pool habitat. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
ASTERACEAE SUNFLOWER FAMILY					
Ambrosia pumila San Diego ambrosia	–/FE	1B	NE, MSCP	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sept.; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.	This species was not observed within the survey area but has a low potential to occur due to the presence of southern mixed chaparral habitat.
Baccharis vanessae Encinitas baccharis	CE/FT	1B	NE, MSCP	Deciduous shrub; chaparral; maritime, sandstone; blooms Aug.–Nov.; elevation less than 2,500 feet. Known from fewer than 20 occurrences.	This species would have been apparent during surveys and was not observed within the survey areas, and is not expected to occur as it is out of its known range.

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
Deinandra [=*Hemizonia*] *conjugens* Otay tarplant	CE/FT	1B	NE, MSCP	Annual herb; coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.	This species was not observed and is not expected to occur as it is out of its known range.
Isocoma menziesii var. *menziesii* [=var. *decumbens*] decumbent goldenbush	–/–	1B	–	Shrub; chaparral, coastal sage scrub, sandy soils, often in disturbed areas; blooms April–Nov.; elevation less than 500 feet.	This species has a low potential to occur within the survey area due to the presence of the southern mixed chaparral habitat. However, decumbent goldenbush would have been apparent during the survey and was not observed. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	–/–	1B	–	Annual herb; coastal salt marsh, vernal pools, playas; blooms Feb.–June; elevation less than 4,000 feet.	This species was not observed within the survey area and not expected to occur due to the lack of suitable salt marsh and vernal pool habitats. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
Senecio aphanactis rayless ragwort	–/–	2	–	Annual herb; chaparral, cismontane woodland, coastal sage scrub; blooms Jan.–April; elevation less than 2,700 feet.	This species was not observed within the survey area and would have been apparent, if present, as this survey occurred during this species' blooming period. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
BORAGINACEAE BORAGE FAMILY					
Harpagonella palmeri Palmer's grapplinghook	–/–	4	–	Annual herb; chaparral, coastal sage scrub, valley and foothill grassland; clay soils; blooms March–May; elevation less than 2,800 feet. Inconspicuous and easily overlooked.	This species has a low potential to occur within the survey area due to the presence of southern mixed chaparral; however, the site lacks clay soils. No individuals were observed within the survey area. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
BRASSICACEAE MUSTARD FAMILY					
Lepidium virginicum var. *robinsonii* Robinson's peppergrass	–/–	1B	–	Annual herb; coastal sage scrub, chaparral; blooms Jan.–July; elevation less than 1,700 feet.	This species has a low potential to occur within the survey area due to the presence southern mixed chaparral. No individuals were observed within the survey area. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
CACTACEAE CACTUS FAMILY					
Cylindropuntia californica [=*Opuntia californica* var. *californica, O. parryi* var. *serpentina*] snake cholla	–/–	1B	NE, MSCP	Succulent shrub; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.	This species would have been apparent during the survey and was not observed within the survey area. However, due to the presence of southern mixed chaparral, this species has low potential to occur within the survey area.

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
Ferocactus viridescens San Diego barrel cactus	–/–	2	MSCP	Succulent; chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; blooms May–June; elevation less than 1,500 feet.	This species would have been apparent during the survey and was not observed. However, due to the presence of southern mixed chaparral, this species has low potential to occur within the survey area. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
CRASSULACEAE STONECROP FAMILY					
Dudleya brevifolia [=*D. blochmaniae* ssp. *brevifolia*] short-leaved dudleya	CE/–	1B	NE, MSCP	Perennial herb; southern maritime chaparral, coastal sage scrub on Torrey sandstone; blooms in April; elevation less than 1,000 feet. Known from fewer than five occurrences in the Del Mar and La Jolla areas of San Diego.	This species was not observed and not expected to occur within the survey area as it is out of its known range.
Dudleya variegata variegated dudleya	–/–	1B	NE, MSCP	Perennial herb; openings in chaparral, coastal sage scrub, grasslands, vernal pools; blooms May–June; elevation less than 2,000 feet.	This species was not observed within the survey area but has a low potential to occur due to the presence of southern mixed chaparral habitat. However, the chaparral habitat was dense and did not provide openings that this species prefers. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
FABACEAE **LEGUME FAMILY**					
Astragalus tener var. *titi* coastal dunes milk-vetch	CE/FE	1B	NE, MSCP	Annual herb; coastal bluff scrub, coastal dunes, sandy soils, mesic coastal prairie; blooms March–May; elevation less than 1,000 feet.	This species was not observed and not expected to occur within the survey area due to a lack of sandy soils and suitable habitats. No individuals were observed within the survey area.
FAGACEAE **OAK FAMILY**					
Quercus dumosa Nuttall's scrub oak	–/–	1B	–	Evergreen shrub; closed-cone coniferous forest, coastal chaparral, coastal sage scrub, sandy and clay loam soils; blooms Feb.–March; elevation less than 1,300 feet.	This species would have been apparent during the survey and was not observed. This species is not expected to occur within the survey area due to the lack of clay soils and suitable habitats. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
LAMIACEAE **MINT FAMILY**					
Acanthomintha ilicifolia San Diego thornmint	CE/FT	1B	NE, MSCP	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.	This species was not observed and is not expected to occur within the survey area due to the absence of clay soils. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
Pogogyne abramsii San Diego mesa mint	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms April–July; elevation 300–700 feet.	This species was not observed and is not expected to occur within the survey area due to the absence of suitable vernal pool habitat. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
Pogogyne nudiuscula Otay mesa mint	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms May–July; elevation 300–800 feet. Known from six occurrences in Otay Mesa.	This species was not observed and is not expected to occur within the survey area due to the absence of suitable vernal pool habitat. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
POLEMONIACEAE	**PHLOX FAMILY**				
Navarretia fossalis spreading navarretia	–/FT	1B	NE, MSCP	Annual herb; vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.	This species was not observed and is not expected to occur within the survey area due to the absence of suitable vernal pool habitat.

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
POLYGONACEAE BUCKWHEAT FAMILY					
Ceanothus verrucosus wart-stemmed ceanothus	–/–	2	MSCP	Evergreen shrub; chaparral; blooms Dec.–April; elevation less than 1,300 feet.	This species would have been apparent during the survey and was not observed within the survey area. However, due to the presence of southern mixed chaparral, this species has low potential to occur within the survey area. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
ANGIOSPERMS: MONOCOTS					
LILIACEAE LILY FAMILY					
Agave shawii Shaw's agave	–/–	2	NE, MSCP	Succulent shrub; coastal bluff scrub, coastal sage scrub, maritime succulent scrub; blooms Sept.–May; elevation less than 250 feet.	This species would have been apparent during the survey, if present, and was not observed within the survey area. This species is not expected to occur within the survey area due to the survey area being out of its known range.
POACEAE GRASS FAMILY					
Orcuttia californica California Orcutt grass	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms April–August; elevation 50–2,200 feet.	This species was not observed and not expected to occur within the survey area due to the absence of suitable vernal pool habitat.

ATTACHMENT 3
SENSITIVE PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
THEMIDACEAE					
Brodiaea orcuttii Orcutt's brodiaea	–/–	1B	MSCP	Perennial herb (bulbiferous); closed cone coniferous forest, chaparral, meadows and seeps, valley and foothill grassland, vernal pools, mesic, clay soil; blooms May–July; elevation less than 5,300 feet.	This species was not observed but has a low potential to occur within the survey area due to the presence of suitable chaparral habitat. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).
Muilla clevelandii San Diego goldenstar	–/–	1B	MSCP	Perennial herb (bulbiferous); chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, clay soils; blooms May; elevation 170–1,500 feet.	This species has a low potential to occur within the survey area due to the presence of grassland habitat; however, the site lacks clay soils. This species has been known to occur within a two-mile buffer of the survey area (State of California 2012b).

FEDERAL CANDIDATES AND LISTED PLANTS
FE = Federally listed endangered
FT = Federally listed threatened

STATE LISTED PLANTS
CE = State listed endangered

CALIFORNIA NATIVE PLANT SOCIETY LISTS
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

CITY OF SAN DIEGO
NE = Narrow endemic
MSCP = Multiple Species Conservation Program covered species

ATTACHMENT 4

Sensitive Wildlife Species Observed or with the Potential for Occurrence on the Legacy International Center Survey Area

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ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA

Species	Status	Habitat	Occurrence/Comments
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)			
TEIIDAE WHIPTAIL LIZARDS			
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	CSC, MSCP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). Although this species was not detected, there is moderate potential for Belding's orange-throated whiptail to occur on-site due to the presence of suitable habitats.
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)			
ACCIPITRIDAE HAWKS, KITES, & EAGLES			
Cooper's hawk (nesting) *Accipiter cooperii*	CSC, MSCP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	This species was **detected** by vocalizations within the within the survey area in the eucalyptus woodland.
FALCONIDAE FALCONS & CARACARAS			
Peregrine falcon *Falco peregrinus anatum*	SE, CFP, MSCP	Open coastal areas, mud flats. Rare inland. Rare fall and winter resident, casual in late spring and early summer. Local breeding populations extirpated.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). This species was not observed and is not expected to breed on site due to the absence of suitable cliff habitat.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	Status	Habitat	Occurrence/Comments
SYLVIIDAE GNATCATCHERS			
Coastal California gnatcatcher *Polioptila californica californica*	FT, CSC, MSCP	Coastal sage scrub, maritime succulent scrub. Resident.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). Although there is suitable habitat on-site to support the coastal California gnatcatcher, this sensitive species does not typically nest within slopes of a gradient greater than 40 percent, which are present on-site. Therefore, the potential for this species to nest on-site is low.
MAMMALS (Nomenclature from Jones et al. 1997 and Hall 1981)			
PHYLLOSTOMIDAE NEW WORLD LEAF-NOSED BATS			
Mexican long-tongued bat *Choeronycteris mexicana*	CSC	Sightings in San Diego County very rare. Migratory.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). This species was not observed and is not expected to occur on-site due to the absence of suitable habitat.
MOLOSSIDAE FREE-TAILED BATS			
Pocketed free-tailed bat *Nyctinomops femorosaccus*	CSC	Normally roost in crevice in rocks, slopes, cliffs. Lower elevations in San Diego and Imperial Counties. Colonial. Leave roosts well after dark.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). This species was not observed and is not expected to occur on-site due to the absence of suitable cliff habitat.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR ON THE LEGACY INTERNATIONAL CENTER SURVEY AREA
(continued)

Species	Status	Habitat	Occurrence/Comments
Big free-tailed bat *Nyctinomops macrotis*	CSC	Rugged, rocky terrain. Roost in crevices, buildings, caves, tree holes. Very rare in San Diego County. Colonial. Migratory.	The nearest recorded occurrence is within two miles from the project site (State of California 2011b). This species was not observed and is not expected to occur on-site due to the absence of rocky habitat.

(I) = Introduced species

STATUS CODES

Listed/Proposed
FT = Listed as threatened by the federal government
SE = Listed as endangered by the state of California

Other
CFP = California fully protected species
CSC = California Department of Fish and Game species of special concern
MSCP = Multiple Species Conservation Program covered species

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RECON

Jurisdictional Waters/ Wetland Delineation Report for the Legacy International Center San Diego, California

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RECON Number 6919

September 25, 2014

Gerry Scheid, Senior Biologist

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Acronyms

ACOE	U.S. Army Corps of Engineers
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CWA	Clean Water Act
EPA	Environmental Protection Agency
LIC	Legacy International Center
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
USGS	U.S. Geological Survey

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1.0 Introduction

This report describes the results of the jurisdictional waters delineation conducted within the Legacy International Center (LIC) project area. The LIC project site is located in the city of San Diego, south of Interstate 8 and west of Interstate 163 (Figure 1). The project site is found on the Pueblo Lands of San Diego Landgrant, of the U.S. Geological Survey (USGS) 7.5-minute topographic map, La Jolla quadrangle (Figure 2; USGS 1996). The project site is surrounded by commercial development to the north and west and partially to the east (Figure 3). Undeveloped land borders the site on the southeast and southwest corners. The proposed project would redevelop the existing Mission Valley Resort Hotel property located south of Interstate 8 at 875 Hotel Circle South.

The purpose of this study was to identify and map the location of jurisdictional waters to provide necessary background information for analysis by the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), and the City of San Diego. The results of the delineation are used to identify and map the extent of the federal jurisdictional waters of the U.S., waters of the state, and City of San Diego wetlands. A biological technical report for the project (RECON 2013) contains additional biological resource information for the survey area.

2.0 Methods and Jurisdictions

RECON biologists conducted the routine jurisdictional waters/wetland delineation within the LIC project site on February 4, 2013. Methods for delineating wetlands followed guidelines set forth by the ACOE, including the *Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008a) and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (ACOE 2008b). Jurisdictional waters of the state were also delineated in accordance with the CDFW and RWQCB, as described later in this report. City of San Diego wetlands were evaluated according the City's biology guidelines (City of San Diego 2012).

Prior to conducting the delineation, aerial photographs and USGS topographic maps of the site were examined to determine the approximate locations of potential jurisdictional features. These potential federal and state jurisdictional areas were examined in the field to determine the extent of specific indicators that delineate the limits of the OHWM and riparian habitat.

Project Location

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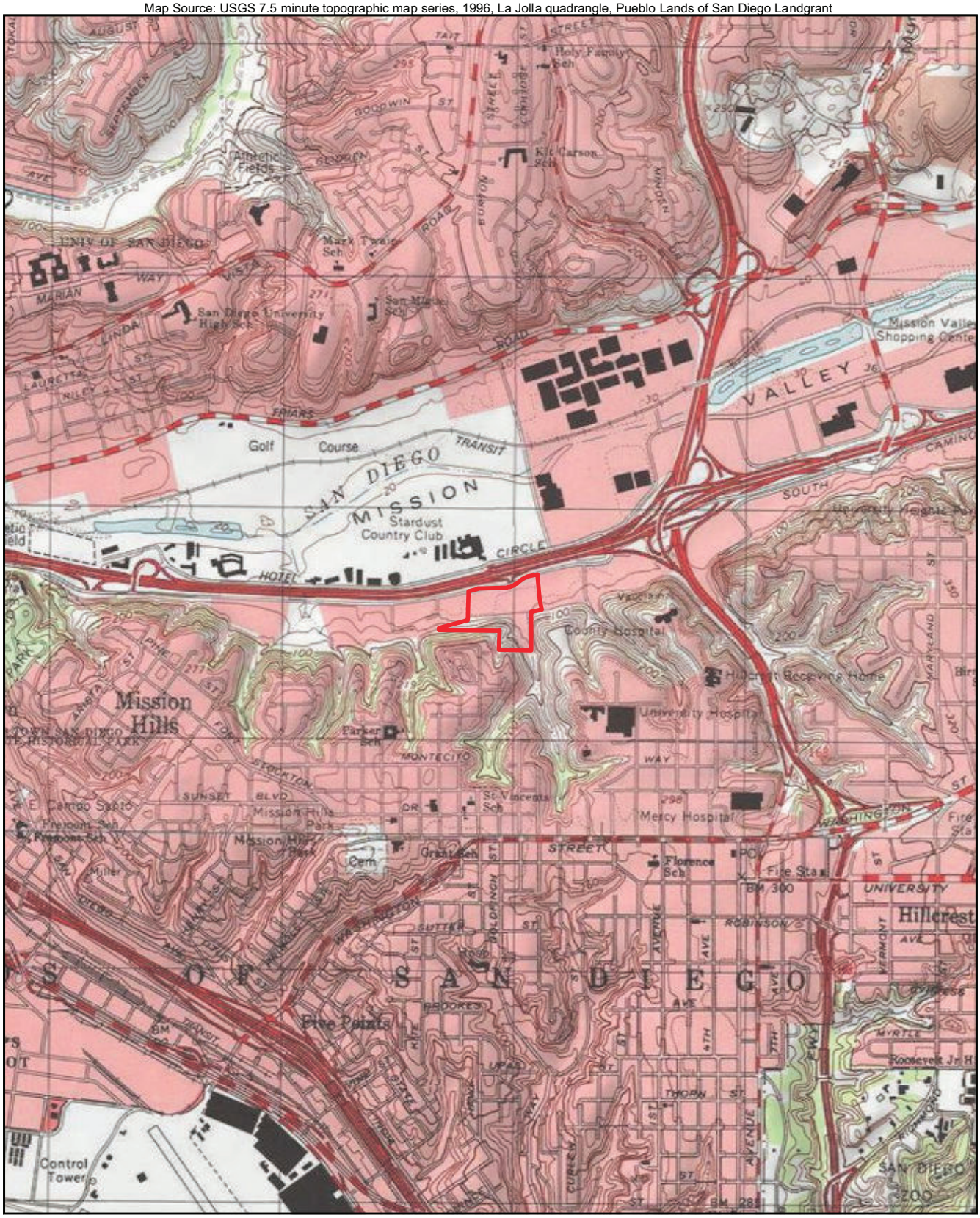
FIGURE 1

Regional Location

Map Source: USGS 7.5 minute topographic map series, 1996, La Jolla quadrangle, Pueblo Lands of San Diego Landgrant



Project Boundary

FIGURE 2

Project Location on USGS Map

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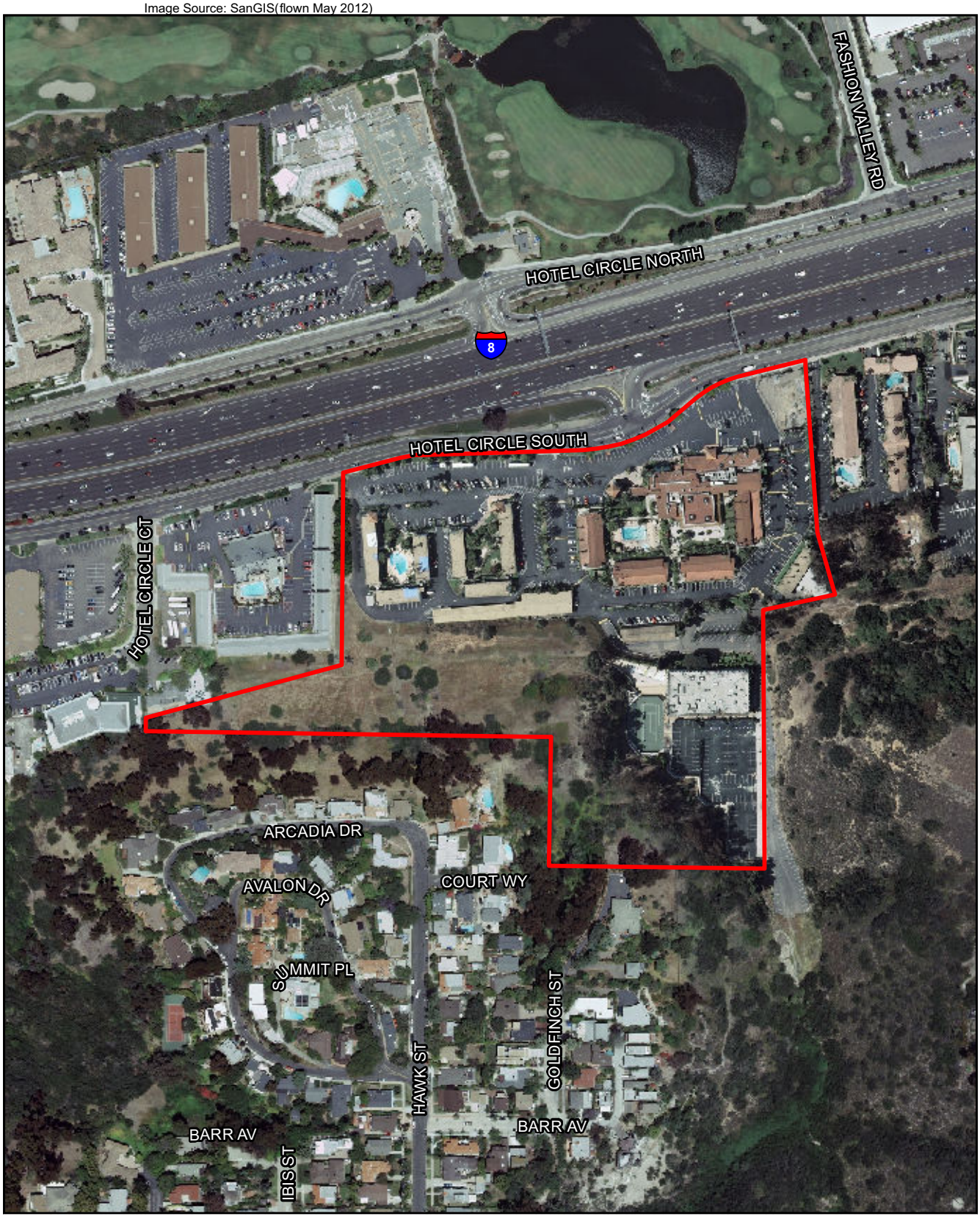
Image Source: SanGIS(flown May 2012)



0 Feet 300

Project Boundary

FIGURE 3

Project Location on Aerial Photograph

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2.1 Jurisdictional Waters of the U.S.

As stated in the federal regulations for the Clean Water Act (CWA), wetlands are defined as:

> . . . those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions (Environmental Protection Agency [EPA], 40 CFR 230.3 and CE, 33 Code of Federal Regulations [CFR] 328.3).

In accordance with Section 404 of the CWA, USACE regulates the discharge of dredged or fill material into waters of the U.S. The term "waters of the United States" is defined as:

- All waters currently used, or used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds; the use, degradation, or destruction of which could affect foreign commerce including any such waters: (1) which could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are, or could be taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industries in interstate commerce.
- All other impoundments of waters otherwise as defined as waters of the United States under the definition;
- Tributaries of waters identified above;
- The territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above [33 CFR Part 328.3(a)].

2.1.1 Wetlands

ACOE wetlands are delineated using three parameters, which include the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. According to ACOE, indicators for all three parameters must be present to qualify an area as a wetland. Observations on existing vegetation made during surveys for general biological resources within the project survey area revealed that there were no areas of hydrophytic vegetation present on the site.

Therefore, the field work for this delineation effort concentrated on the identification and delineation of non-wetland jurisdictional waters of the U.S. and state.

2.1.2 ACOE Non-wetland Jurisdictional Waters

Non-wetland jurisdictional waters typically have strong hydrology indicators such as the presence of seasonal flows and an OHWM. An OHWM is defined as:

> . . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas [33 CFR Part 328.3].

To supplement this definition and provide better guidance for the identification of the OHWM in arid west systems, the ACOE published a new manual (ACOE 2008b). Ephemeral channels in the arid west delineated as non-wetland jurisdictional waters usually lack wetland vegetation and hydric soil characteristics. These types of jurisdictional waters are delineated by the lateral and upstream/downstream extent of the OHWM of the particular drainage.

2.1.3 OHWM Indicators

The OHWM of ephemeral drainages typical of the arid west is most commonly determined using the following indicators: a clear natural scour line impressed on the bank, recent bank erosion, disturbances to native vegetation, and the presence of litter and debris. Refinements to these indicators now used to aid in the delineation of the OHWM in arid ephemeral systems include both geomorphic and vegetation indicators (ACOE 2008b). The delineation of the OHWM thus depends on the identification of multiple geomorphic indicators when present and the recognition of vegetative patterns, including the distribution of specific species.

2.1.4 Isolated Waters

Federal regulatory authority only extends to activities that affect interstate commerce pursuant to Article 1, Section 8 of the United States Constitution. Prior to 1985, in accordance with the interstate commerce requirement, ACOE restricted its jurisdiction on isolated (intrastate) waters such as ponds or vernal pools lacking connection to waters of the U.S. On September 12, 1985, the EPA issued a memorandum asserting ACOE's jurisdiction over isolated waters that are used or could be used by migratory birds or endangered species. This assertion became known as the "Migratory Bird Rule."

Consequently, the definition of "waters of the United States" in USACE regulations was modified to include isolated waters that qualified under the Migratory Bird Rule.

On January 9, 2001, the Supreme Court of the United States issued a decision on *Solid Waste Agency of Northern Cook County versus United States Army Corps of Engineers, et al.* with respect to whether the use of an isolated, intrastate pond by migratory birds is sufficient interstate commerce to warrant ACOE jurisdiction over that pond, pursuant to Section 404 of the CWA. The court held that the Migratory Bird Rule is not a fairly supported interpretation of the term "waters of the United States." By determining that Congress was not intended to regulate isolated wetlands under the CWA, the Supreme Court shifted the regulatory burden to states and local governments. However, the 2001 ruling did not refute the court's earlier decision in the *United States versus Riverside Bayview Homes, Inc.* that upheld ACOE jurisdiction over wetlands adjacent to navigable waters, nor did it express any opinion on the authority of ACOE to regulate wetlands that are not adjacent to bodies of open water above and beyond the Migratory Bird Rule.

2.2 Waters of the State

Under sections 1600–1607 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., desert wash scrub) associated with arid watercourses. Jurisdictional waters of the state are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider.

RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes all waters of the state and all waters of the U.S., as mandated by both the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act. State waters generally include all waters subject to the jurisdiction of ACOE and CDFW, and include waters that are excluded from ACOE jurisdiction, because they are determined to be isolated waters.

2.3 City of San Diego Wetlands

According to the City of San Diego's Biology Guidelines (City of San Diego 2012), wetlands are areas that are characterized by any of the following conditions:

1. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;

2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mud flats;

3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands;

4. Areas mapped as wetlands on Map No. C-713 and C-740 as shown in Chapter 13, Article2, Division 6 (Sensitive Coastal Overlay Zone).

   It is intended for this definition to differentiate for the purposes of delineating wetlands, between naturally occurring wetlands and wetlands intentionally created by human actions, from areas with wetland characteristics unintentionally resulting from human activities in historically non-wetland areas. With the exception of wetland created for the purpose of providing wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating wetland characteristics, which are artificially created are not considered wetlands by this definition. Taking into account regional precipitation cycles, all adopted scientific, regulator, and technological information available from the State and Federal resource agencies shall be used for guidance on the identification of hydrophytic vegetation, hydric soils, and wetland hydrology.

3.0 Results of Field Data

RECON biologists conducted the wetland delineation fieldwork on February 4, 2013. A general discussion of the type of ephemeral channel form encountered in the study area and the common OHWM indicators observed is presented. Copies of the field data forms summarizing information collected in the field observed at each sample site are provided in Attachment 1.

3.1 Ephemeral Channel Forms Encountered

One ephemeral channel form was encountered within the project survey area: single-thread channel. The single-thread channels encountered had discernible beds and banks. Three locations of this channel form were observed on the site.

3.2 OHWM Indicators Observed

Indicators of an OHWM in the single-thread channel forms within the survey area were typical of these types of channels. The most common observed indicators included exposed roots in banks, changes in vegetation cover/species, slumped banks, and a discernible bed and bank (Photograph 1).

4.0 Jurisdictional Delineation

Jurisdictional waters were delineated and mapped within the survey area according to ACOE, CDFW/RWQCB, and City of San Diego guidelines. Figure 4 shows the locations of the jurisdictional waters identified on-site by resource agency. A total of 0.065 acre of non-wetland waters/streambed occurs on the site.

4.1 ACOE Jurisdictional Waters

No ACOE wetland areas were identified within the survey area. All ACOE jurisdictional areas delineated are considered non-wetland waters made up of ephemeral drainages. Two of the ephemeral drainages that occur within the survey area may be isolated and considered exempt from ACOE jurisdiction, as discussed below.

4.1.1 Non-wetland Waters of the U.S.

Jurisdictional non-wetland waters within the project survey area include three distinct ephemeral drainages (see Figure 4). These drainage channels have a discernible bed and bank, but do not support any hydrophytic vegetation or hydric soils. The presence of an OHWM based on indicators observed in the field in conjunction with field measurements was used to determine the extent of the jurisdictional waters.

4.1.2 Potential Exemptions from ACOE Jurisdiction: Isolated Waters

Two of the on-site drainage features (e.g., the western drainage and central drainage) appear to be isolated from a connection to the traditional navigable water (i.e., Pacific Ocean). Flows from these relatively short on-site drainages discharge from the hillside into the existing parking lots of the resort hotel (Photograph 2). No outlet from the hotel parking lots for these flows was evident. Flows conveyed in the eastern most drainage enter a storm drain inlet. This storm drain inlet is assumed to connect via underground pipelines to the San Diego River which flows into the Pacific Ocean and therefore this drainage was not considered isolated.

PHOTOGRAPH 1
View of Single-thread Channel Form with OHWM Indicators Low-flow Channel with Distinct Bed and Bank and Slumping Banks

PHOTOGRAPH 2
View of Ephemeral Channel Discharge Point at Hotel Parking Lot

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Image source: SanGIS (flown May 2012)

Project Boundary

ACOE Non-wetland Water - CDFW/RWQCB Streambed

Storm Drain Inlet

0 Feet 120

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FIGURE 4

Location of Jurisdictional Waters/Wetlands

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4.2 CDFW/RWQCB Jurisdictional Waters

CDFW/RWQCB jurisdiction waters of the state include all the areas delineated as ACOE non-wetland jurisdictional waters (streambed) (see Figure 4). These streambeds have a discernible bed and bank, but do not support any hydrophytic vegetation or hydric soils.

4.3 City of San Diego Wetlands

No areas considered City of San Diego wetlands occur on the site. The ephemeral drainage courses on the site do not support any hydrophytic vegetation, hydric soils, or wetland hydrology.

5.0 Regulatory Issues

Due to a no-net-loss policy implemented by the resource agencies, the first consideration in project planning should be avoidance of jurisdictional waters. ACOE, CDFW, the RWQCB, and the City of San Diego jurisdictional waters are regulated by the federal, state, and local governments under a no-net-loss policy, and all impacts are considered significant and need to be avoided to the greatest extent possible.

Unavoidable impacts to jurisdictional waters/wetlands may be authorized by ACOE, CDFW, RWQCB, and City of San Diego and would require a permit authorization from ACOE (Section 404 permit program), a 1600 Streambed Alteration Agreement from CDFW, a 401 State Water Quality Certification from RWQCB, and a deviation from the City of San Diego's Environmentally Sensitive Lands Regulations. Approved impacts to ACOE, CDFW, RWQCB, and City of San Diego jurisdictional waters/wetlands require mitigation through habitat creation, enhancement, and/or preservation to achieve a no-net-loss of jurisdictional waters, as determined by a qualified restoration specialist in consultation with the regulatory agencies. In addition, regulatory agencies often require that a buffer be maintained between jurisdictional waters and any development.

6.0 References Cited

RECON Environmental
2013 Biological Technical Report for the Legacy International Center. June.

San Diego, City of
2012 Land Development Manual – Biology Guidelines. June.

U.S. Army Corps of Engineers (ACOE)
2008a *Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Prepared by U.S. Army Engineer Research and Development Center.

2008b *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual.* Prepared by U.S. Army Engineer Research and Development Center. August.

U.S. Geological Survey
1996 7.5-minute Topographic Map, La Jolla Quadrangle.

ATTACHMENT 1

Delineation Data Sheets

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Moriss Crerullo International Center City/County: San Diego / San Diego Sampling Date: 02/04/13

Applicant/Owner: State: CA Sampling Point: 1

Investigator(s): G. Scheid, B. Procsal Section, Township, Range:

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2-5%

Subregion (LRR): LRR-C Lat: Long: Datum:

Soil Map Unit Name: Terrace escarpment NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?**	**Yes** **No** X
Hydric Soil Present?	Yes	No X		
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *(None)*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Rhus integrifolia*	40	Y	UPL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size:)			
1. *Conium maculatum*	30	Y	FACW
2. *Oxalis pes-capre*	20	Y	UPL
3. *Tropaeolum majis*	10	N	UPL
4. *Foeniculum vulgare*	10	N	UPL
5.			
6.			
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	30	x 2 =	60
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	80	x 5 =	400
Column Totals:	110 (A)		460 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks: Location dominated by upland species.

SOIL Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hyrdology indicators observed. Sample location is an ephemeral drainage. Flows conveyed into storm drain inlet.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Moriss Crerullo International Center City/County: San Diego / San Diego Sampling Date: 02/04/13

Applicant/Owner: State: CA Sampling Point: 2

Investigator(s): G. Scheid, B. Procsal Section, Township, Range:

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2-5%

Subregion (LRR): LRR-C Lat: Long: Datum:

Soil Map Unit Name: Terrace escarpment NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?**	**Yes** **No** X
Hydric Soil Present?	Yes	No X		
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *(None)*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Rhus integrifolia*	10	Y	UPL
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size:)			
1. *Oxalis pes-capre*	80	Y	UPL
2. *Brassica nigra*	10	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks: Location dominated by upland species.

SOIL Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hyrdology indicators observed. Sample location is an ephemeral drainage. Flows conveyed into hotel parking lot, may be isolated from connection to TNW.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Moriss Crerullo International Center City/County: San Diego / San Diego Sampling Date: 02/04/13

Applicant/Owner: State: CA Sampling Point: 3

Investigator(s): G. Scheid, B. Procsal Section, Township, Range:

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2-5%

Subregion (LRR): LRR-C Lat: Long: Datum:

Soil Map Unit Name: Terrace escarpment NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?**	**Yes** **No** X
Hydric Soil Present?	Yes	No X		
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *(None)*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *none*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. *Oxalis pes-capre*	40	Y	UPL
2. *Brassica nigra*	20	Y	UPL
3. *Carpobrotus edulis*	10	N	UPL
4. *Foeniculum vulgare*	10	N	UPL
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	80	x 5 =	400
Column Totals:	80 (A)		400 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks: Location dominated by upland species.

SOIL Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No wetland hyrdology indicators observed. Sample location is an ephemeral drainage. Flows conveyed into hotel parking lot and may be isolated from a connection to a TNW.

Air Quality Analysis for the Legacy International Center, San Diego, California

Prepared for

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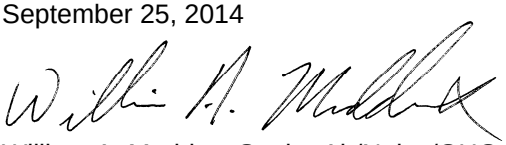
RECON Number 6919
September 25, 2014



William A. Maddux, Senior Air/Noise/GHG Analyst

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FIGURES

TABLES

ATTACHMENT

Acronyms

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AQIA	Air Quality Impact Analysis
CAA	Clean Air Act
CalEEMod	California Emissions Estimator model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	carbon monoxide
EPA	Environmental Protection Agency
LOS	Level of Service
NAAQS	national ambient air quality standards
NO_2	nitrogen dioxide
Pb	lead
PM	particulate matter
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROGS	reactive organic gases
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	state implementation plan
SO_2	sulfur dioxide
TACs	toxic air contaminants
TCMs	transportation control measures
USC	United States Code

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1.0 Summary

This report evaluates potential local and regional air quality impacts associated with the Legacy International Center project (project) in the City of San Diego (City). The project would redevelop the existing Mission Valley Resort Hotel property located south of Interstate 8 at 875 Hotel Circle South. The project includes requests for a process five Community Plan Amendment, Atlas Specific Plan Amendment, Site Development Permit, Planned Development Permit, and Conditional Use Permit in order to construct a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. Commercial, lodging, and religious uses include an 105,104-square-foot pavilion (with a training center, theater, TV studio, and storage), a two-level, 17,012-square-foot welcoming center rotunda, a 29,940-square-foot interfaith outreach pavilion that has an entrance to the catacombs, 5,992 square feet of underground catacombs passage and welcoming center to outreach pavilion passages and adjoining display rooms, an approximately 8,200-square-foot outdoor retail bazaar, and a five-story, 136,160-square-foot "tri-wing" tower containing 127 timeshare suites. Recreational components would include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas, and a wellness center with a workout room, sauna, hot tubs, steam room, restrooms, showers, and an Olympic sized seven-lane pool. Executive offices would be housed in a three-story, 23,028-square-foot administration building, including a subterranean basement with private parking spaces.

The primary goal of the 1991/1992 Regional Air Quality Strategy (RAQS) is to reduce ozone precursor emissions. Because the project would not result in more vehicle trips than what is accounted for in growth projections and the RAQS, and because the project would not result in an increased intensity in land use, it is concluded that the project would not result in an increase in emissions that are not already accounted for in the RAQS. Additionally, as discussed in Section 6.0, construction and operational emissions would be less than the thresholds for all criteria pollutants. Thus, the project would not interfere with implementation of the RAQS or other air quality plans. Impacts would be less than significant.

With regards to criteria pollutants, maximum daily construction emissions are projected to be less than the applicable thresholds for all criteria pollutants. Additionally, operation-related impacts, as well as impacts due to carbon monoxide (CO) hot spots, are projected to be less than significant.

Additionally, there would be no harmful concentrations of CO, and localized air quality emission would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

2.0 Introduction and Project Description

The purpose of this report is to assess potential short-term local and regional air quality impacts resulting from development of the project.

Air pollution affects all southern Californians. Effects can include the following:

- Increased respiratory infections
- Increased discomfort
- Missed days from work and school
- Increased mortality

The project is located within the San Diego Air Basin (SDAB), one of 15 air basins that geographically divide the state of California. The SDAB is currently classified as a federal non-attainment area for ozone, and a state non-attainment area for particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and ozone.

Air quality impacts can result from the construction and operation of the project. Construction impacts are short-term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot-spot effects stemming from sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts are primarily due to emissions to the basin from mobile sources associated with vehicular travel along the roadways within the project area.

The analysis of impacts is based on state and federal Ambient Air Quality Standards (AAQS) and is assessed in accordance with the guidelines, policies, and standards established by the City Land Use and the San Diego Air Pollution Control District (SDAPCD). Project compatibility with the adopted air quality plan for the area is also assessed. Measures are recommended, as required, to reduce potentially significant impacts.

2.1 Project Description

The project would redevelop the existing Mission Valley Resort Hotel property located south of Interstate 8 at 875 Hotel Circle South. The project site consists of two parcels: Assessor's Parcel Numbers 444-060-10 and 444-060-11, totaling approximately 18.1 acres.

The project includes requests for a process five Community Plan Amendment, Atlas Specific Plan Amendment, Site Development Permit, Planned Development Permit, and Conditional Use Permit in order to construct a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. Commercial, lodging, and religious uses include an 105,104-square-foot pavilion (with restaurant, gift shops, training learning center, theater, and TV studio and storage), a two-level, 17,012-square-foot welcoming center rotunda, a 29,940-square-foot interfaith outreach pavilion that has an entrance to the catacombs, 5,992-square feet of underground catacombs passage and welcoming center to outreach pavilion passages and adjoining display rooms, an approximately 8,200-square-foot outdoor retail bazaar, and a five-story ,136,160-square-foot "tri-wing" tower containing 127 timeshare suites. Recreational components would include a trail system, a 300-seat outdoor amphitheater, pedestrian plazas and fountain, and a wellness center with a workout room, sauna, hot tubs, steam room, restrooms, showers, and an Olympic sized seven-lane pool. Executive offices would be housed in a three-story, 23,028-square-foot administration building including a subterranean basement with private parking spaces.

There would be a total of 878 parking stalls, including 195 surface parking spaces and 683 spaces that would be either subterranean, or housed within the five-story "West Parking Structure." The single-level subterranean parking would be located beneath most of the northern portion of the site and would have an access point at the northeastern corner, near the welcoming center rotunda. The western parking structure would have both a surface access and access to the subterranean parking. Thus, traffic circulating through the site would be able to enter at either the east or west access points along Hotel Circle South and be able to traverse the length of the site via either the aboveground circulation elements or belowground within the subterranean parking.

Figure 1 shows the regional location of the project. Figure 2 shows an aerial photograph of the project and vicinity. Figure 3 shows the proposed site plan.

The project site is in an area of mixed residential and commercial uses. As shown in the aerial photograph, the project site is surrounded by commercial development to the north and west and partially to the east. Undeveloped land borders the site on the southeast and southwest corners.

Project Location

RECON

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FIGURE 1

Regional Location

Image Source: SanGIS (flown May 2012)

Project Boundary

RECON

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FIGURE 2

Aerial Photograph of Project Vicinity

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Image Source: SanGIS (flown May 2012)

Project Boundary

Proposed Site Plan

RECON

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FIGURE 3

Proposed Site Plan

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3.0 Regulatory Framework

Motor vehicles are San Diego County's leading source of air pollution and the largest contributor to greenhouse gases (County of San Diego 2008). In addition to these sources, other mobile sources include construction equipment, trains, and airplanes.

Emission standards for mobile sources are established by state and federal agencies such as the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA). Reducing mobile source emissions requires the technological improvement of existing mobile sources, such as those associated with new or modification projects. The State of California has developed statewide programs to encourage cleaner cars and cleaner fuels. Since 1996, smog-forming emissions from motor vehicles have been reduced by 15 percent, and the cancer risk from exposure to motor vehicle air toxics has been reduced by 40 percent (County of San Diego 2008). The regulatory framework described below details the federal and state agencies that are in charge of monitoring and controlling mobile source air pollutants and the measures currently being taken to achieve and maintain healthful air quality in the SDAB.

In addition to mobile sources, stationary sources also contribute to air pollution in the SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SDAPCD.

The state of California is divided geographically into 15 air basins for the purpose of managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme non-attainment area (there is also a marginal classification for federal non-attainment areas).

3.1 Federal Regulations

AAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed primary and secondary national ambient air quality standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (PM_{10} and $PM_{2.5}$). The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). California and national AAQS are presented in Table 1 (State of California 2013).

3.2 State Regulations

3.2.1 Criteria Pollutants

The U.S. EPA allows states the option to develop different (stricter) standards. The State of California generally has set more stringent limits on the seven criteria pollutants (see Table 1). In addition to the federal criteria pollutants, the California AAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 1). The SDAB is a non-attainment area for the state ozone standards, the state PM_{10} standard, and the state $PM_{2.5}$ standard. It is in attainment for the state's standards for all of the other criteria air pollutants.

The California Clean Air Act requires that districts assess their progress triennially and report to CARB as part of the triennial plan revisions. The California Clean Air Act additionally requires that Air Quality Management Districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures and:

- Demonstrate the overall effectiveness of the air quality program;
- Reduce nonattainment pollutants at a rate of 5 percent per year, or include all feasible measures and expeditious adoption schedule;
- Reduce population exposure to severe nonattainment pollutants according to a prescribed schedule; and
- Rank control measures by cost-effectiveness and implementation priority.

TABLE 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[8]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[10]	–	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

See footnotes on next page.

SOURCE: State of California 2013.

TABLE 1
AMBIENT AIR QUALITY STANDARDS
(continued)

ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter; – = not applicable.

[1]California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2]National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3]Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4]Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

[5]National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6]National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7]Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

[8]On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standards of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[9]To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[10]On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[11]The ARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[12]The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[13]In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

Through statewide programs to encourage cleaner cars and cleaner fuels, California has, since 1996, reduced smog-forming emissions from motor vehicles by 15 percent and the cancer risk from exposure to motor vehicle air toxics by 40 percent (County of San Diego 2008).

3.3 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII. Of particular concern statewide are diesel-exhaust particulate matter emissions. Diesel-exhaust particulate matter was established as a TAC in 1998, and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the

Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (State of California 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to diesel particulate matter 85 percent by 2020.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (State of California 2005a). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel-particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to diesel particulate matter will continue to decline.

The SDAPCD started sampling for TACs at the Chula Vista and El Cajon monitoring stations in the mid-1980s. Once every 12 days, 24-hour samples are performed. Excluding diesel particulates, Chula Vista has shown a 72 percent reduction in the ambient incremental cancer risk from TACs since 1989, while El Cajon has shown a 71 percent reduction during the same period. In 2009, the estimated ambient incremental cancer risk was 135 in one million for Chula Vista and 157 in one million for El Cajon, down from 481 and 545 in one million, respectively, in 1989 (County of San Diego 2011).

Additionally, the SDAPCD implements rules and regulations for the control of TACs through mandatory permitting of stationary and portable major emitters of air pollutants.

3.4 State Implementation Plan

The state implementation plan (SIP) is a collection of documents that set forth the state's strategies for achieving the air quality standards. The SDAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these objectives.

3.5 The California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

3.6 San Diego Air Pollution Control District

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the RAQS in response to the requirements set forth in the CAA AB 2595 (County of San Diego 1992). Attached, as part of the RAQS, are the Transportation Control Measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The RAQS and TCM set forth the steps needed to accomplish attainment of state AAQS. The required triennial updates of the RAQS and corresponding TCM were adopted in 1995, 1998, 2001, 2004, and 2009.

The SDAPCD has also established a set of rules and regulations initially adopted on January 1, 1969, and periodically reviewed and updated. These rules and regulations are available for review on the agency's website.

4.0 Environmental Setting

4.1 Geographic Setting

The project is located in the city of San Diego, about five miles east of the Pacific Ocean. The eastern portion of the SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow and concentrate pollutants in the valleys and low-lying areas below.

4.2 Climate

The project area, like the rest of San Diego County's inland valley areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the project area is 64 degrees Fahrenheit (°F). The average annual precipitation is 10 inches, falling primarily from November to April. Winter low temperatures in the project area average about 49°F, and summer high

temperatures average about 74°F. The average relative humidity is 69 percent and is based on the yearly average humidity at Lindbergh Field (Western Regional Climate Center 2014).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer pollutants become “trapped” as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

Throughout the year, the height of the temperature inversion in the afternoon varies between approximately 1,500 and 2,500 feet above mean sea level. In winter, the morning inversion layer is about 800 feet above mean sea level. In summer, the morning inversion layer is about 1,100 feet above mean sea level. Therefore, air quality generally tends to be better in the winter than in the summer.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported and locally produced contaminants produce the worst air quality measurements recorded in the basin.

4.3 Existing Air Quality

The project area is within the SDAB. Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB or federal standards set by the EPA. The SDAPCD maintains 11 air-quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels. Table 2 summarizes the number of days per year during which state and federal standards were exceeded in the SDAB overall during the years 2009 to 2013.

The San Diego—Beardsley monitoring station, located approximately four miles south of the project site, is the nearest station to the project area (see Figure 2). The San Diego—Beardsley monitoring station measures ozone, CO, NO_2, PM_{10}, and $PM_{2.5}$. Table 3 provides a summary of measurements of ozone, CO, NO_2, PM_{10}, and $PM_{2.5}$ collected at the San Diego—Beardsley monitoring station for the years 2009 through 2013.

4.3.1 Ozone

Nitrogen oxides and hydrocarbons (reactive organic gases [ROGs]) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution, or smog, is mainly a concern during the daytime in summer months. The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 20 years, San Diego had experienced a decline in the number of days with unhealthy levels of ozone despite the region’s growth in population and vehicle miles traveled (County of San Diego 2009).

About half of smog-forming emissions come from automobiles. Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants while operating on area roadways. In addition, the occasional transport of smog-filled air from the South Coast Air Basin only adds to the SDAB’s ozone problem. Stricter automobile emission controls, including more efficient automobile engines, have played a large role in why ozone levels have steadily decreased.

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TABLE 2
AMBIENT AIR QUALITY SUMMARY – SAN DIEGO AIR BASIN

Pollutant	Average Time	California Ambient Air Quality Standards[a]	Attainment Status	National Ambient Air Quality Standards[b]	Attainment Status[c]	Maximum Concentration					Number of Days Exceeding State Standard					Number of Days Exceeding National Standard				
						2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
O_3	1 hour	0.09 ppm	N	N/A	N/A	0.119	0.107	0.114	0.101	0.095	8	7	5	2	2	N/A	N/A	N/A	N/A	N/A
O_3	8 hours	0.07ppm	N	0.075 ppm	N	0.098	0.088	0.093	0.084	0.083	47	21	33	25	28	24	14	10	10	7
CO	8 hours	9 ppm	A	9 ppm	A	3.24	2.46	2.44	3.61	Na	0	0	0	0	Na	0	0	0	0	Na
NO_2	1 hour	0.18 ppm	A	0.100 ppm	A	0.091	0.091	0.100	0.077	0.091	0	0	0	0	0	0	0	0	0	0
NO_2	Annual	0.030 ppm	A	0.053 ppm	A	0.021	0.021	0.020	0.020	0.019	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX
PM_{10}	24 hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U	123.0	108.0	126.0	126.0	92.0	25/146.4*	22/136.0*	23/138.5*	6/6.1*	1/6.0*	0/0.0*	0/0.0*	0/0.0*	0/0.0*	0/0.0*
PM_{10}	Annual	20 $\mu g/m^3$	N	N/A	N/A	53.9	47.0	46.2	24.3	25.4	EX	EX	EX	EX	EX	--	--	--	--	--
$PM_{2.5}$	24 hours	N/A	N/A	35 $\mu g/m^3$	A	78.4	52.2	72.0	82.9	68.1	--	--	--	--	--	4/3.4*	2/2.0*	3/3.0*	2/1.0*	3/2.0*
$PM_{2.5}$	Annual	12 $\mu g/m^3$	N	15 $\mu g/m^3$	A	12.2	10.8	15.9	14.2	10.6	EX	NX	EX	EX	NX	NX	NX	EX	NX	NX

SOURCE: State of California 2014. California Air Quality Data Statistics. California Air Resources Board Internet Site. URL http://www.arb.ca.gov/adam/welcome.html.
NOTE: Data for SO_2 and 1-hour CO were not available.
*Measured Days/Calculated Days - Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.
[a]California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM_{10} are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.
[b]National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.
[c]A = attainment; N = non-attainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.
ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter.

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TABLE 3
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED AT THE SAN DIEGO–BEARDSLEY MONITORING STATION

Pollutant/Standard	2009	2010	2011	2012	2013
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0	0	0
Days State 8-hour Standard Exceeded (0.07 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.12 ppm)	0	0	0	0	0
Days 08' Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0	0	0
Max. 1-hr (ppm)	0.085	0.078	0.082	0.071	0.063
Max 8-hr (ppm)	0.063	0.066	0.061	0.065	0.053
Carbon Monoxide					
Days State 1-hour Standard Exceeded (20 ppm)					
Days State 8-hour Standard Exceeded (9 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (35 ppm)	0	0	0	0	0
Days Federal 8-hour Standard Exceeded (9 ppm)	0	0	0	0	0
Max. 1-hr (ppm)	4.0	2.8	2.8	2.6	3.0
Max. 8-hr (ppm)	2.77	2.17	2.44	2.44	1.81
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.078	0.077	0.067	0.065	0.072
Annual Average (ppm)	0.017	Na	0.014	0.013	0.013
SO_2					
Days State 24-hour Standard Exceeded (0.04 $\mu g/m^3$)	0	0	0	Na	Na
Max. Daily (ppm)	0.006	0.002	0.003	Na	Na
Annual Average (ppm)	0.001	0.000	Na	Na	Na
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	3	0	0	0	1
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	18.2	0.0	0.0	0.0	6.0
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0.0	0.0	0.0	0.0	0.0
Max. Daily ($\mu g/m^3$)	60.0	40.0	49.0	47.0	92.0
State Annual Average ($\mu g/m^3$)	29.4	23.4	24.0	22.2	25.4
Federal Annual Average ($\mu g/m^3$)	28.8	22.8	23.3	21.8	24.9
$PM_{2.5}$*					
Measured Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	3	0	0	1	1
Calculated Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	3.4	0.0	0.0	1.0	1.0
Max. Daily ($\mu g/m^3$)	52.1	31.0	35.5	43.4	39.3
State Annual Average ($\mu g/m^3$)	11.8	Na	10.9	13.5	10.4
Federal Annual Average ($\mu g/m^3$)	11.7	10.4	10.8	11.3	10.4

SOURCE: State of California 2014

Na = Not available.

*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a nonattainment area for the previous (1997) national 8-hour standard, and is recommended as a nonattainment area for the revised (2008) national 8-hour standard of 0.075 parts per million (ppm).

In the SDAB overall, during the five-year period of 2009 to 2013, the revised 2008 national 8-hour standard of 0.075 was exceeded 24 days in 2009, 14 days in 2010, 10 days in 2011, 10 days in 2012, and 7 days in 2013. The stricter state 8-hour ozone standard of 0.07 ppm was exceeded 47 days in 2009, 21 days in 2010, 33 days in 2011, 25 days in 2012, and 28 days in 2013.

Also during the five-year period of 2009 to 2013, the state 1-hour standard (0.09 ppm) was exceeded 8 days in 2009, 7 days in 2010, 5 days in 2011, 2 days in 2012, and 2 days in 2013.

At the San Diego-Beardsley monitoring station, national and state 1-hour and 8-hour ozone standards were not exceeded during the five-year period of 2009 to 2013.

Not all of the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from the Los Angeles Basin and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced ozone levels in the SDAB.

Actions that have been taken in the SDAB to reduce ozone concentrations include:

- **TCMs if vehicle travel and emissions exceed attainment demonstration levels.** TCMs are strategies that will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.

- **Enhanced motor vehicle inspection and maintenance program.** The smog check program is overseen by the Bureau of Automotive Repair. The program requires most vehicles to pass a smog test once every two years before registering in the state of California. The smog check program monitors the amount of pollutants automobiles produce. One focus of the program is identifying "gross polluters," or vehicles that exceed two times the allowable emissions for a particular model. Regular maintenance and tune-ups, changing the oil, and checking tire inflation can improve gas mileage and lower air pollutant

emissions. It can also reduce traffic congestion due to preventable breakdowns, further lowering emissions.

- **Air Quality Improvement Program.** This program, established by AB 118, is a voluntary incentive program administered by the CARB to fund clean vehicle and equipment projects, research on biofuels production and the air quality impacts of alternative fuels, and workforce training.

4.3.2 Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for CO (County of San Diego 1998). Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003. As shown in Tables 2 and 3, of the available data, the state and national standards have not been exceeded at the San Diego—Beardsley monitoring station or the SDAB during the five-year period from 2009 to 2013.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as “CO hot spots” and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

4.3.3 PM_{10}

PM_{10} is particulate matter with an aerodynamic diameter of 10 microns or less. Ten microns is about one-seventh of the diameter of a human hair. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Sources of PM_{10} emissions in the SDAB consist mainly of urban activities, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

Under typical conditions (i.e., no wildfires) particles classified under the PM_{10} category are mainly emitted directly from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include windblown dust, salts, brake dust, and tire wear (County of San Diego 1998). For several reasons hinging on the area’s dry climate and coastal location, the SDAB has special difficulty in developing adequate tactics to meet present state particulate standards.

The SDAB is designated as federal unclassified and state nonattainment for PM_{10}. The measured federal PM_{10} standard was exceeded once in 2007, and once in 2008 in the SDAB. The 2007 exceedance occurred on October 21, 2007, at times when major wildfires were raging throughout the county. Consequently, this exceedance was likely caused by the wildfires and would be beyond the control of the SDAPCD. As such, this event is covered under the EPA's Natural Events Policy that permits, under certain circumstances, the exclusion of air quality data attributable to uncontrollable natural events (e.g., volcanic activity, wild land fires, and high wind events). The 2008 exceedance did not occur during wildfires and are not covered under this policy. No exceedances of the federal standard have occurred since 2008. The stricter state standard was exceeded a calculated number of 146.4 days in 2009, 136.0 in 2010, 138.5 in 2011, 6.1 in 2012, and 6.0 in 2013. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. Particulate measurements are collected every six days.

At the San Diego—Beardsley monitoring station, the national 24-hour PM_{10} standard was not exceeded during the years 2009 through 2013. The stricter state 24-hour PM_{10} standard was exceeded three times in 2009 and once in 2013. These exceedances result in a calculated number of days that the state standard was exceeded of approximately 18.2 days in 2009 and 6.0 days in 2013.

4.3.4 $PM_{2.5}$

Airborne, inhalable particles with aerodynamic diameters of 2.5 microns or less have been recognized as an air quality concern requiring regular monitoring. Federal regulations required that $PM_{2.5}$ monitoring begin January 1, 1999 (County of San Diego 1999). The San Diego—Overland Avenue monitoring station is one of five stations in the SDAB that monitors $PM_{2.5}$. Federal $PM_{2.5}$ standards established in 1997 include an annual arithmetic mean of 15 $\mu g/m^3$ and a 24-hour concentration of 65 $\mu g/m^3$. As discussed above, the 24-hour $PM_{2.5}$ standard has been changed to 35 $\mu g/m^3$. However, this does not apply to the monitoring from 2004 to 2006. State $PM_{2.5}$ standards established in 2002 are an annual arithmetic mean of 12 $\mu g/m^3$.

The SDAB was classified as an attainment area for the previous federal 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$ and has also been classified as an attainment area for the revised federal 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ (U.S. EPA 2004, 2009). The SDAB is a non-attainment area for the state $PM_{2.5}$ standard (State of California 2005b). The calculated days the federal $PM_{2.5}$ standard was exceeded was 3.4 days in 2009, 2.0 days in 2010, 3.0 days in 2011, 1.0 days in 2012, and 2.0 days in 2013 in the SDAB.

Table 3 shows that the federal 24-hour standard of 35 $\mu g/m^3$ was exceeded 3 days in 2009, one day in 2012, and one day in 2013. These exceedances result in a calculated number of days that the federal standard was exceeded of approximately 3.4 days in 2009, 1.0 day in 2012, and 1.0 day in 2013.

4.3.5 Other Criteria Pollutants

The national and state standards for NO_2, SO_x, and the previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for vinyl chloride, hydrogen sulfides, sulfates, and visibility reducing particulates.

5.0 Thresholds of Significance

5.1 City of San Diego

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the CEQA Guidelines Appendix G, the SDAPCD regulations, and the City of San Diego's Significance Determination Thresholds (City of San Diego 2011) for assessing potential air quality impacts under CEQA. The project would have a significant air quality impact if it would:

1. Obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP.
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions which exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates.
5. Create objectionable odors affecting a substantial number of people.

Emissions resulting from implementation of the project would be due primarily to construction of the project. The SDAPCD does not provide specific numerics for determining the significance of construction and operational source-related impacts.

However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3). Although these trigger levels do not generally apply to construction or mobile sources, for comparative purposes these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the project were approved. The AQIA screening levels are shown in Table 4.

TABLE 4
AIR QUALITY IMPACT ANALYSIS TRIGGER LEVELS

Pollutant	Emission Rate (lb/day)	Emission Rate (tons/yr)
NOx	250	40
SOx	250	40
CO	550	100
PM_{10}	100	15
Lead	3.2	0.6
ROG[1]	137	15
$PM_{2.5}$[2]	55	10

SOURCE: SDAPCD, Rule 20.2 (12/17/1998).
[1]Threshold based on levels per SCAQMD and Monterey Bay APCD which have similar federal and state attainment status as San Diego.
[2]$PM_{2.5}$ threshold obtained from the SCAQMD *Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds* (SCAQMD 2006)

5.2 CO Hot Spots

In addition to a comparison with the thresholds, the project was evaluated to determine whether it has the potential to produce CO hot spots at intersections near the project site. A hot spot is a localized area, most often near a congested intersection, where the 1-hour or 8-hour CO standards are exceeded. Localized CO impacts can occur where projects contribute traffic to intersections in areas where the ambient CO concentrations are projected to be near or above state or federal standards. However, hot spots almost exclusively occur near intersections with level of service (LOS) E or worse. The following intersections would operate at LOS E or F:

- Hotel Circle North and Fashion Valley Road
- Hotel Circle North and I-8 Westbound Ramps
- Hotel Circle North and Camino del la Reina
- Hotel Circle South and I-8 Eastbound Ramps

5.3 Public Nuisance Law (Odors)

The State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, commonly referred to as the public nuisance law, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Odor complaints from a "considerable" number of persons or businesses in the area will be considered to be a significant, adverse odor impact.

Every use and operation shall be conducted so that no unreasonable heat, odor, vapor, glare, vibration (displacement), dust, smoke, or other forms of air pollution subject to SDAPCD standards shall be discernible at the property line of the parcel upon which the use or operation is located.

Therefore, any unreasonable odor discernible at the property line of the project site will be considered a significant odor impact.

The City's CEQA guidelines also address offensive odors. If sensitive receptors are proposed near an existing odor source, impacts are significant if the proposed sensitive use is located closer to the source than an existing sensitive receptor at which there has been more than one confirmed complaint about the odor. If there are no existing sensitive receptors, impacts should be based on the distance and frequency of complaints of sensitive receptors located near similar odor sources.

6.0 Air Quality Assessment

Air quality impacts can result from the construction and operation of the project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot-spot effects stemming from sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts are primarily due to emissions to the basin from mobile sources associated with the vehicular travel along the roadways within the project area.

Air emissions were calculated using the CalEEMod computer program (CAPCOA 2013). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects in the state of California. The model generates emissions from two basics sources: construction sources and operational sources (e.g., area, energy, mobile, waste, and water).

Inputs to CalEEMod include such items as the air basin containing the project, land uses, trip generation rates, trip lengths, vehicle fleet mix (percentage autos, medium truck, etc.), trip distribution (i.e., percent home to work, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The CalEEMod output files contained in Attachment 1 indicate the specific outputs for each model run. Emissions of NO_x, CO, SO_x, PM_{10}, $PM_{2.5}$, and ROGs, an ozone precursor, are calculated. Emission factors are not available for lead, and consequently, lead emissions are not calculated. The SDAB is currently in attainment of the state and federal lead standards. Furthermore, fuel used in construction equipment and most other vehicles is not leaded.

6.1 Construction-related Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

Construction-related pollutants result from dust raised during demolition and grading, emissions from construction vehicles, and chemicals used during construction. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Construction operations are subject to the requirements established in Regulation 4, Rules 52, 54, and 55, of the SDAPCD's rules and regulations.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more nitrogen oxides, sulfur oxides, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROGs than do gasoline-powered engines. Standard construction equipment includes dozers, rollers, scrapers, dewatering pumps, backhoes, loaders, paving equipment, delivery/haul trucks, jacking equipment, welding machines, pile drivers, and so on.

Emissions associated with construction of this project were calculated using the CalEEMod program assuming that construction would begin in June 2015 and last for a year and a half. Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters for the project are not available at this time. CalEEMod divides construction into six stages: demolition, site preparation, grading, building construction, paving, and architectural coatings. All CalEEMod construction defaults regarding phasing and equipment were assumed except for those associated with architectural coatings. It was assumed that the architectural coatings phase of construction would occur simultaneously with the building construction phase. A volatile organic compounds content of 150 grams per liter was assumed in accordance with SDAPCD Rule 67.0. Construction would include demolition of the existing on-site buildings and construction of the buildings detailed in Section 2.1. The existing on-site buildings total approximately 298,000 square feet. It was estimated by the project applicant that the project would require the export of 53,000 cubic yards during the grading construction phase. Table 5 summarizes the construction equipment parameters.

TABLE 5
CONSTRUCTION EQUIPMENT PARAMETERS

Phase	Length (Days)	Equipment	Horsepower	Load Factor
Demolition	20	1 Concrete / Industrial Saw	81	0.73
		3 Excavators	162	0.38
		2 Rubber Tired Dozer	255	0.40
Site Preparation	10	3 Rubber Tired Dozers	255	0.40
		4 Tractors/Loaders/Backhoes	97	0.37
Grading	30	2 Excavators	162	0.38
		1 Grader	174	0.41
		1 Rubber Tired Dozer	255	0.40
		2 Scrapers	361	0.48
		2 Tractors/Loaders/Backhoes	97	0.37
Building Construction	300	1 Crane	226	0.29
		3 Forklifts	89	0.20
		1 Generator Set	87	0.74
		3 Tractors/Loaders/Backhoes	97	0.37
		1 Welder	46	0.45
Paving	20	2 Pavers	125	0.42
		2 Paving Equipment	130	0.36
		2 Rollers	80	0.38
Architectural Coating	300	1 Air Compressor	78	0.48

The following standard fugitive dust control measures are required as part of the grading permit and are considered part of the project design. They were taken into account for calculating construction emissions:

1. All unpaved construction areas shall be sprinkled with water or other acceptable SDAPCD dust control agents at least three times daily and during dust-generating activities to reduce dust emissions. Additional watering or acceptable SDAPCD dust control agents shall be applied during dry weather or windy days until dust emissions are not visible.

2. A 15-mile-per-hour speed limit on unpaved surfaces shall be enforced.

3. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach access routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.

4. Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the City and/or SDAPCD to reduce dust generation.

Table 6 shows the total projected construction maximum daily emission levels for each criteria pollutant. The CalEEMod output files for construction emissions are contained in Attachment 1.

TABLE 6
SUMMARY OF WORST-CASE CONSTRUCTION EMISSIONS
(pounds per day)

Pollutant	Year 2015	Year 2016	Significance Thresholds[2]
ROG	30	30	137
NO_x	123	35	250
CO	87	42	550
SO_x[1]	0	0	250
PM_{10} Dust	7	3	–
PM_{10} Exhaust	2	1	–
PM_{10} Total	10	4	100
$PM_{2.5}$ Dust	4	1	–
$PM_{2.5}$ Exhaust	2	1	–
$PM_{2.5}$ Total	5	2	55

Note: Totals may vary due to independent rounding.
[1]Emissions calculated by CalEEMod 2013.2.2 are for SO_2.
[2]Threshold for $PM_{2.5}$ was obtained from the SCAQMD.

Note that the emissions summarized in Table 6 are the maximum emissions for each pollutant, and they are the daily amounts that may occur during different phases of construction. These are the estimated worst-case emissions.

For assessing the significance of the air quality emissions resulting during construction of the project, the construction emissions were compared to the SDAPCD AQIA trigger levels shown in Table 4. As seen in Table 6, maximum daily construction emissions are

projected to be less than the applicable thresholds for all criteria pollutants. Impacts would be less than significant.

6.2 Operation-related Emissions

6.2.1 Mobile and Area Source Emissions

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of natural gas, fireplaces, and consumer products. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions.

Operational emissions due to implementation of the project were calculated using CalEEMod. For the purposes of computing the emissions, it was assumed that build-out of the project would occur in 2017. CalEEMod estimates vehicle emissions by first calculating trip rate, trip length, trip purpose (e.g., home to work, home to shop, home to other), and trip type percentages for each land use type, based on the land use types and quantities entered by the user in the land use module. Trip generation rates were obtained from the traffic report prepared for the project (Linscott, Law, and Greenspan 2014). SANDAG's average regional trip length of 5.8 miles was assumed (SANDAG 2014). All other CalEEMod default trip characteristics were used.

CalEEMod estimates the emissions that would occur from the use of hearths, woodstoves, and landscaping equipment. It also estimates emissions due to use of consumer products and architectural coatings that have ROG content. The use of hearths (fireplaces) and woodstoves directly emits air pollutants from the combustion of natural gas, wood, or biomass. CalEEMod estimates emissions from hearths and woodstoves only for residential uses based on the type and size features of the residential land use inputs. By default, commercial land uses do not have any hearths or woodstoves in CalEEMod, but these can be added for those cases where they may occur, such as in restaurants or hotels if such information is known. The project would not include any hearths or woodstoves.

The use of landscape equipment emits air pollutants associated with the equipment's fuel combustion. CalEEMod estimates the number and types of equipment needed based on the number of summer days given the project's location as entered in the project characteristics module. The model defaults for landscaping equipment were used.

A summary of the operational (area, energy, and mobile) emissions emitted to the SDAB for the project is shown in Table 7. CalEEMod output files for project operation are contained in Attachment 1.

As seen in Table 7, project generated emissions are projected to be less than the SDAPCD AQIA trigger levels for all criteria pollutants. Operational emissions would be less than significant.

TABLE 7
PROJECT AVERAGE DAILY EMISSIONS TO THE SAN DIEGO AIR BASIN
(pounds/day)

Season	Pollutant	Area Emission	Mobile Emission	Total Emission	Significance Threshold[2]
Summer	ROG	14	12	26	137
	NOx	0	17	17	250
	CO	10	86	96	550
	SOx[1]	0	0	0	250
	PM_{10}	0	10	10	100
	$PM_{2.5}$	0	3	3	55
Winter	ROG	14	13	27	137
	NOx	0	18	18	250
	CO	11	100	111	550
	SOx[1]	0	0	0	250
	PM_{10}	0	10	10	100
	$PM_{2.5}$	0	3	3	55

[1]Emissions calculated by CalEEMod 2013.2.2 are for SO_2.
[2]Threholds for ROG and $PM_{2.5}$ were obtained from the SCAQMD.

6.2.2 Localized Carbon Monoxide Impacts

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and certain meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses. A CO hot spot occurs when localized CO concentrations exceed the NAAQS or California AAQS.

Following construction of the project, the project-related traffic would contribute vehicle trips on existing and future intersections. The addition of these trips could degrade the LOS of intersections to a level where a CO hot spot could occur. A procedure for evaluating CO hot spots is provided in the procedures and guidelines contained in the *Transportation Project-Level Carbon Monoxide Protocol* to determine whether a project poses the potential for a CO hot spot (U.C. Davis Institute of Transportation Studies 1997). The Protocol indicates that projects may worsen air quality if they worsen traffic flow, defined as increasing average delay at signalized intersections operating at LOS E or F, or cause an intersection that would operate at LOS D or better without the project to operate at LOS E or F. Unsignalized intersections are not evaluated, as they are

typically signalized as volumes and delays increase. The Protocol also provides guidance for preparing a detailed CO hot spot analysis.

As discussed in Section 5.2, there are five intersections that are projected to operate at LOS E or F in the future buildout condition. Of these intersections, the intersection of Hotel Circle North and Fashion Valley Road would experience the greatest peak hour traffic volumes and the greatest delay (182.3 seconds per vehicle in the AM peak hour, and 218.4 seconds per vehicle in the PM peak hour) in the year 2035 plus project condition. The CALINE4 model was used to model CO hot spots at this location.

Turning volumes were obtained from the traffic report prepared for the project (Linscott, Law & Greenspan 2014). An averaged emission factor for vehicles traveling 5 miles per hour was taken from the 2011 EMFAC database. Table 8 shows the PM volumes that were modeled in the hot spot analysis:

TABLE 8
MAXIMUM CARBON MONOXIDE CONCENTRATIONS AT
HOTEL CIRCLE NORTH AND FASHION VALLEY ROAD

Intersection	Peak Hour Volume P.M.	1-hour CO (ppm)	1-hour CO Standard CAAQS/ NAAQS	8-hour CO (ppm)	8-hour CO Standard CAAQS/ NAAQS
Hotel Circle North and Fashion Valley Road	3,124	4.9	20/35	2.9	9/9

CO = carbon dioxide
ppm = parts per million
CAAQS = California Ambient Air Quality Standard
NAAQS = National Ambient Air Quality Standard

The ambient concentration of CO (2.6 ppm) is included in the results of the CALINE4 modeling; therefore, the actual project increase is 2.3 ppm. In order to calculate the 8-hour concentration, the 1-hour value was multiplied by a conversion factor of 0.6, as recommended in the Protocol. This resulted in a value of 2.9 ppm, which is also below the 8-hour CO standard threshold. Therefore, there would be no impacts to CO at the intersection of Hotel Circle North and Fashion Valley Road.

All other intersections that are projected to operate at LOS E or F would carry less peak hour traffic and experience shorter delays than the intersection of Hotel Circle North and Fashion Valley Road. Thus, it can be concluded that CO concentrations at these intersections would be less than the CO concentrations shown in Table 8.

6.3 Impact Analysis

1. *Would the project obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP?*

The California Clean Air Act requires areas that are designated nonattainment of state ambient air quality standards for ozone, CO, SO_2, and NO_2 to prepare and implement plans to attain the standards by the earliest practicable date. The SDAB is designated nonattainment for ozone. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the state ozone standards, PM_{10}, and $PM_{2.5}$ (but as noted, the California Clean Air Act only requires, in this case, a plan for ozone). The two pollutants addressed in the RAQS are ROGs and NOx, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions to maintain and further improve air quality. The RAQS, in conjunction with the TCM, were most recently adopted in 2009 as the air quality plan for the region.

The RAQS control measures focus on emission sources under the SDAPCD's authority, specifically stationary emission sources and some area-wide sources. The stationary source control measures identified in the RAQS have been developed by the SDAPCD into regulations through a formal rulemaking process. Rules are developed to set limits on the amount of emissions from various types of sources and by requiring specific emission control technologies. Following rule adoption, a permit system is used to impose controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operating conditions or equipment on a source. The project does not propose stationary emissions sources; thus, the project would not interfere with the RAQS control measures for stationary sources.

The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed in general plans. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the general plan would be consistent with the RAQS. In the event that a project would propose development which is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area.

The project site is currently developed as a resort hotel with a restaurant, liquor store, closed gas station, and closed health club. The project would construct similar amenities, including lodging, retail, a training center, and restaurants, among other uses. As discussed in the traffic analysis, the project would generate 4,477 average daily trips

(ADT) while the existing uses currently generate 2,965 ADT. This represents a net increase of 1,512 trips. Because the gas station and health club are currently closed, trips generated by these land uses were not included in the calculation of existing trips. However, emissions due to these land uses are included in the growth projections used in developing the RAQS. Using the City's Trip Generation Rates (City of San Diego 2003), it was calculated that the eight-pump gas station would generate 1,040 ADT, and the 28,000-square-foot health club would generate 1,120 ADT. This results in a total of 2,160 additional ADT that is accounted for in the RAQS.

Because the project would not result in more vehicle trips than what is accounted for in growth projections and the RAQS, and because the project would result in a similar level of intensity in land use and emissions, it is concluded that the project would not result in an increase in emissions that are not already accounted for in the RAQS. Additionally, as discussed in Section 6.0, construction and operational emissions would be less than the thresholds for all criteria pollutants. Thus, the project would not interfere with implementation of the RAQS or other air quality plans.

2. *Would the project result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Stationary sources contribute to air pollution in the SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the SDAPCD. The project would allow residential, commercial, retail, institutional, and recreational uses. It is not anticipated that these uses would result in significant stationary sources of emissions. Impacts would be less than significant.

Impacts due to construction and operational emissions as well as impacts associated with CO hot spots and diesel particulate matter are discussed under Issues 3 and 4 below.

3. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?*

The region is classified as attainment for all criterion pollutants except ozone, PM_{10}, and $PM_{2.5}$. The SDAB is non-attainment for the 8-hour federal and state ozone standards. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. Nitrogen oxides and hydrocarbons (ROGs) are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone.

For assessing the significance of the air quality emissions resulting during construction of the project, the construction emissions were compared to the SDAPCD AQIA trigger levels shown in Table 4. As seen in Table 6, maximum daily construction emissions are

projected to be less than the applicable thresholds for all criteria pollutants. Impacts would be less than significant.

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of natural gas, fireplaces, and consumer products. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions. A summary of the operational (area, energy, and mobile) emissions emitted to the SDAB for the project is shown in Table 7. As shown, project generated emissions are projected to be less than the SDAPCD AQIA trigger levels for all criteria pollutants. Operational emissions would be less than significant.

4. *Would the project expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates?*

A sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large. Examples include residences, schools, playgrounds, child care centers, churches, athletic facilities, retirement homes, and long-term health care facilities.

As shown in Table 8, 1-hour and 8-hour concentrations of CO at the intersection of Hotel Circle North and Fashion Valley Road would be 4.9 ppm and 2.9 ppm, respectively. These concentrations are less than the CAAQS and NAAQS. All other intersections that are projected to operate at LOS E or F would carry less peak hour traffic and experience shorter delays than the intersection of Hotel Circle North and Fashion Valley Road. Thus, it can be concluded that CO concentrations at these intersections would be less than the CO concentrations shown in Table 8. There would be no harmful concentrations of CO and localized air quality emission would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

5. *Would the project create objectionable odors affecting a substantial number of people?*

The project includes residential, commercial, retail, institutional, and recreational uses. It is not anticipated to generate objectionable odors or to be located adjacent to a known odor generator. Therefore, odor impacts due to on-site sources are less than significant.

7.0 Conclusions and Recommendations

The primary goal of the RAQS is to reduce ozone precursor emissions. Because the project would not result in more vehicle trips than what is accounted for in growth

projections and the RAQS, and because the project would not result in an increased intensity in land use, it is concluded that the project would not result in an increase in emissions that are not already accounted for in the RAQS. Additionally, as discussed in Section 6.0, construction and operational emissions would be less than the thresholds for all criteria pollutants. Thus, the project would not interfere with implementation of the RAQS or other air quality plans. Impacts would be less than significant.

With regards to criteria pollutants, construction and operational emissions would be less than the SDAPCD AQIA trigger levels for all criteria pollutants. Impacts would be less than significant and no mitigation is required.

Additionally, there would be no harmful concentrations of CO, and localized air quality emission would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

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2009 Air Quality Designations for the 2006 24-Hour Fine Particle (PM2.5) National Ambient Air Quality Standards: Final Rule. Federal Register 74(218): 58717. November 13.

Western Regional Climate Center

2014 Western U.S. Climate Historical Summaries: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7740 and http://www.wrcc.dri.edu/cgi-bin/clilcd.pl?ca23188. Accessed June 3.

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ATTACHMENTS

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ATTACHMENT 1

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6919 Morris Cerullo - Project 2017

San Diego County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	23.03	1000sqft	0.86	23,028.00	0
Place of Worship	39.43	1000sqft	1.48	39,432.00	0
Place of Worship	6.29	1000sqft	0.14	6,295.00	0
Unrefrigerated Warehouse-No Rail	8.39	1000sqft	0.31	8,388.00	0
Enclosed Parking with Elevator	314.00	Space	2.83	125,600.00	0
Unenclosed Parking with Elevator	280.00	Space	2.52	93,940.00	0
Health Club	20.69	1000sqft	1.21	20,686.00	0
High Turnover (Sit Down Restaurant)	10.00	1000sqft	0.38	10,000.00	0
Movie Theater (No Matinee)	300.00	Seat	0.15	6,750.00	0
Movie Theater (No Matinee)	500.00	Seat	0.26	11,250.00	0
Movie Theater (No Matinee)	330.00	Seat	0.17	7,425.00	0
Apartments Mid Rise	127.00	Dwelling Unit	5.45	127,000.00	363
Strip Mall	15.00	1000sqft	0.55	15,000.00	0
Strip Mall	8.20	1000sqft	0.31	8,200.00	0
Strip Mall	5.99	1000sqft	0.23	5,992.00	0
User Defined Retail	16.72	User Defined Unit	0.00	16,717.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company	San Diego Gas & Electric				

CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - per LLG engineers (User defined retail is the combined Foyer area)

Construction Phase - Arch coatings phase assumed to occur simultaneously with building construction phase.

Trips and VMT - per client

Architectural Coating - per SDAPCD

Vehicle Trips - Traffic trip gen rates were back calculated to match with the traffic report's total "driveway" trip generation for each use. Where land uses were combined in the model, the aggregate trip generation was used.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - no fireplaces per client

Area Coating - per SDAPCD

Energy Use - User defined retail is the Foyer space, which is assumed to have similar energy use patterns as retail / strip mall space.

Water And Wastewater - User defined retail is assumed for the Foyer space, and assumed to have similar water use patterns as retail / strip mall.

Solid Waste - User defined retail assumed to have similar solid waste patterns as retail / strip mall.

Mobile Commute Mitigation - Average of 3 to 10 percent estimate from the client.

Area Mitigation - per SDAPCD

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	150
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	6.5

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	300.00
tblConstructionPhase	PhaseEndDate	12/8/2017	10/14/2016
tblConstructionPhase	PhaseStartDate	10/15/2016	8/22/2015
tblEnergyUse	LightingElect	0.00	6.99

tblEnergyUse	NT24E	0.00	3.16
tblEnergyUse	NT24NG	0.00	1.09
tblEnergyUse	T24E	0.00	3.89
tblEnergyUse	T24NG	0.00	1.20
tblFireplaces	NumberGas	69.85	0.00
tblFireplaces	NumberNoFireplace	12.70	127.00
tblFireplaces	NumberWood	44.45	0.00
tblGrading	MaterialExported	0.00	53,000.00
tblLandUse	LandUseSquareFeet	23,030.00	23,028.00
tblLandUse	LandUseSquareFeet	39,430.00	39,432.00
tblLandUse	LandUseSquareFeet	6,290.00	6,295.00
tblLandUse	LandUseSquareFeet	8,390.00	8,388.00
tblLandUse	LandUseSquareFeet	112,000.00	93,940.00
tblLandUse	LandUseSquareFeet	20,690.00	20,686.00
tblLandUse	LandUseSquareFeet	5,990.00	5,992.00
tblLandUse	LandUseSquareFeet	0.00	16,717.00
tblLandUse	LotAcreage	0.53	0.86
tblLandUse	LotAcreage	0.91	1.48
tblLandUse	LotAcreage	0.19	0.31
tblLandUse	LotAcreage	0.47	1.21
tblLandUse	LotAcreage	0.23	0.38
tblLandUse	LotAcreage	3.34	5.45
tblLandUse	LotAcreage	0.34	0.55
tblLandUse	LotAcreage	0.14	0.23
tblLandUse	LotAcreage	0.19	0.31
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	0.00	30.65
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80

tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	5.80
tblVehicleTrips	HS_TL	7.30	5.80
tblVehicleTrips	HW_TL	10.80	5.80
tblVehicleTrips	ST_TR	7.16	8.00
tblVehicleTrips	ST_TR	2.37	24.10
tblVehicleTrips	ST_TR	20.87	20.00
tblVehicleTrips	ST_TR	158.37	27.00
tblVehicleTrips	ST_TR	1.80	0.60
tblVehicleTrips	ST_TR	10.37	22.90

tblVehicleTrips	ST_TR	42.04	14.40
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	6.07	8.00
tblVehicleTrips	SU_TR	0.98	24.10
tblVehicleTrips	SU_TR	26.73	20.00
tblVehicleTrips	SU_TR	131.84	27.00
tblVehicleTrips	SU_TR	1.80	0.60
tblVehicleTrips	SU_TR	36.63	22.90
tblVehicleTrips	SU_TR	20.43	14.40
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.59	8.00
tblVehicleTrips	WD_TR	11.01	24.10
tblVehicleTrips	WD_TR	32.93	20.00
tblVehicleTrips	WD_TR	127.15	27.00
tblVehicleTrips	WD_TR	1.80	0.60
tblVehicleTrips	WD_TR	9.11	22.90
tblVehicleTrips	WD_TR	44.32	14.40
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	0.00	2,162,176.90
tblWater	OutdoorWaterUseRate	0.00	1,325,205.20
tblWoodstoves	NumberCatalytic	6.35	0.00
tblWoodstoves	NumberNoncatalytic	6.35	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	32.8034	153.6046	113.4149	0.2290	18.2141	4.9277	21.3036	9.9699	4.5332	12.8122	0.0000	23,459.7871	23,459.7871	2.0839	0.0000	23,503.5498
2016	32.2737	39.9371	45.3434	0.0780	3.0052	2.2970	5.3022	0.8076	2.1674	2.9750	0.0000	7,284.4599	7,284.4599	0.8416	0.0000	7,302.1327
Total	**65.0771**	**193.5416**	**158.7584**	**0.3070**	**21.2193**	**7.2247**	**26.6058**	**10.7775**	**6.7006**	**15.7872**	**0.0000**	**30,744.2469**	**30,744.2469**	**2.9255**	**0.0000**	**30,805.6825**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	30.4501	125.5044	100.5182	0.2290	7.4915	2.5037	9.9952	3.9122	2.4135	4.9279	0.0000	23,459.7871	23,459.7871	2.0839	0.0000	23,503.5498
2016	30.1474	34.9842	45.0737	0.0780	3.0052	1.1695	4.1747	0.8076	1.1588	1.9664	0.0000	7,284.4599	7,284.4599	0.8416	0.0000	7,302.1327
Total	**60.5975**	**160.4885**	**145.5918**	**0.3070**	**10.4967**	**3.6732**	**14.1699**	**4.7198**	**3.5723**	**6.8943**	**0.0000**	**30,744.2469**	**30,744.2469**	**2.9255**	**0.0000**	**30,805.6825**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.88**	**17.08**	**8.29**	**0.00**	**50.53**	**49.16**	**46.74**	**56.21**	**46.69**	**56.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	14.9654	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Energy	0.1225	1.1023	0.8531	6.6800e-003		0.0846	0.0846		0.0846	0.0846		1,336.2557	1,336.2557	0.0256	0.0245	1,344.3879
Mobile	14.1465	22.8563	117.3058	0.2051	14.1875	0.2729	14.4604	3.7874	0.2512	4.0386		17,306.8597	17,306.8597	0.7747		17,323.1273
Total	**29.2344**	**24.0839**	**128.9374**	**0.2124**	**14.1875**	**0.4157**	**14.6032**	**3.7874**	**0.3940**	**4.1814**	**0.0000**	**18,662.3924**	**18,662.3924**	**0.8203**	**0.0245**	**18,687.2139**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.7705	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Energy	0.1097	0.9877	0.7695	5.9800e-003		0.0758	0.0758		0.0758	0.0758		1,196.3239	1,196.3239	0.0229	0.0219	1,203.6046
Mobile	13.3132	17.9848	99.5648	0.1497	10.1354	0.2052	10.3405	2.7057	0.1889	2.8945		12,616.0947	12,616.0947	0.5929		12,628.5446
Total	**27.1933**	**19.0976**	**111.1128**	**0.1563**	**10.1354**	**0.3391**	**10.4745**	**2.7057**	**0.3228**	**3.0285**	**0.0000**	**13,831.6957**	**13,831.6957**	**0.6359**	**0.0219**	**13,851.8479**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.98**	**20.70**	**13.82**	**26.43**	**28.56**	**18.43**	**28.27**	**28.56**	**18.07**	**27.57**	**0.00**	**25.88**	**25.88**	**22.49**	**10.49**	**25.88**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2015	6/26/2015	5	20	
2	Site Preparation	Site Preparation	6/27/2015	7/10/2015	5	10	

3	Grading	Grading	7/11/2015	8/21/2015	5	30	
4	Building Construction	Building Construction	8/22/2015	10/14/2016	5	300	
5	Architectural Coating	Architectural Coating	8/22/2015	10/14/2016	5	300	
6	Paving	Paving	10/15/2016	11/11/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 257,175; Residential Outdoor: 85,725; Non-Residential Indoor: 598,055; Non-Residential Outdoor: 199,352

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,355.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	6,625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	252.00	79.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.8501	0.0000	14.8501	2.2488	0.0000	2.2488			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**14.8501**	**2.4508**	**17.3009**	**2.2488**	**2.2858**	**4.5346**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6965	22.8427	18.9016	0.0507	1.1805	0.3449	1.5254	0.3232	0.3172	0.6405		5,155.4906	5,155.4906	0.0424		5,156.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0761	0.7235	1.4700e-003	0.1232	9.7000e-004	0.1242	0.0327	8.9000e-004	0.0336		126.7906	126.7906	7.0800e-003		126.9392
Total	**1.7576**	**22.9188**	**19.6251**	**0.0522**	**1.3037**	**0.3459**	**1.6495**	**0.3559**	**0.3181**	**0.6740**		**5,282.2812**	**5,282.2812**	**0.0494**		**5,283.3194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7915	0.0000	5.7915	0.8770	0.0000	0.8770			0.0000			0.0000
Off-Road	1.2905	33.4676	25.2649	0.0399		0.9338	0.9338		0.9338	0.9338	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**1.2905**	**33.4676**	**25.2649**	**0.0399**	**5.7915**	**0.9338**	**6.7253**	**0.8770**	**0.9338**	**1.8108**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	1.6965	22.8427	18.9016	0.0507	1.1805	0.3449	1.5254	0.3232	0.3172	0.6405		5,155.4906	5,155.4906	0.0424		5,156.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0761	0.7235	1.4700e-003	0.1232	9.7000e-004	0.1242	0.0327	8.9000e-004	0.0336		126.7906	126.7906	7.0800e-003		126.9392
Total	**1.7576**	**22.9188**	**19.6251**	**0.0522**	**1.3037**	**0.3459**	**1.6495**	**0.3559**	**0.3181**	**0.6740**		**5,282.2812**	**5,282.2812**	**0.0494**		**5,283.3194**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0913	0.8682	1.7600e-003	0.1479	1.1600e-003	0.1490	0.0392	1.0600e-003	0.0403		152.1487	152.1487	8.4900e-003		152.3270

Total	**0.0734**	**0.0913**	**0.8682**	**1.7600e-003**	**0.1479**	**1.1600e-003**	**0.1490**	**0.0392**	**1.0600e-003**	**0.0403**		**152.1487**	**152.1487**	**8.4900e-003**		**152.3270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.2300	34.4240	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**1.2300**	**34.4240**	**23.4003**	**0.0391**	**7.0458**	**0.9611**	**8.0069**	**3.8730**	**0.9611**	**4.8340**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0913	0.8682	1.7600e-003	0.1479	1.1600e-003	0.1490	0.0392	1.0600e-003	0.0403		152.1487	152.1487	8.4900e-003		152.3270
Total	**0.0734**	**0.0913**	**0.8682**	**1.7600e-003**	**0.1479**	**1.1600e-003**	**0.1490**	**0.0392**	**1.0600e-003**	**0.0403**		**152.1487**	**152.1487**	**8.4900e-003**		**152.3270**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9216	0.0000	8.9216	3.6341	0.0000	3.6341			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.9216**	**3.8022**	**12.7238**	**3.6341**	**3.4980**	**7.1321**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5298	74.4564	61.6103	0.1653	3.8478	1.1242	4.9719	1.0536	1.0341	2.0876		16,804.4897	16,804.4897	0.1381		16,807.3896
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0815	0.1015	0.9647	1.9600e-003	0.1643	1.2900e-003	0.1656	0.0436	1.1800e-003	0.0448		169.0541	169.0541	9.4300e-003		169.2522
Total	**5.6113**	**74.5579**	**62.5750**	**0.1673**	**4.0121**	**1.1255**	**5.1375**	**1.0972**	**1.0352**	**2.1324**		**16,973.5438**	**16,973.5438**	**0.1475**		**16,976.6418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					3.4794	0.0000	3.4794	1.4173	0.0000	1.4173			0.0000			0.0000
Off-Road	1.8922	50.9465	37.9432	0.0618		1.3783	1.3783		1.3783	1.3783	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**1.8922**	**50.9465**	**37.9432**	**0.0618**	**3.4794**	**1.3783**	**4.8577**	**1.4173**	**1.3783**	**2.7956**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.5298	74.4564	61.6103	0.1653	3.8478	1.1242	4.9719	1.0536	1.0341	2.0876		16,804.4897	16,804.4897	0.1381		16,807.3896
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0815	0.1015	0.9647	1.9600e-003	0.1643	1.2900e-003	0.1656	0.0436	1.1800e-003	0.0448		169.0541	169.0541	9.4300e-003		169.2522
Total	**5.6113**	**74.5579**	**62.5750**	**0.1673**	**4.0121**	**1.1255**	**5.1375**	**1.0972**	**1.0352**	**2.1324**		**16,973.5438**	**16,973.5438**	**0.1475**		**16,976.6418**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0803	8.8307	12.7329	0.0188	0.5243	0.1429	0.6672	0.1496	0.1314	0.2810		1,892.7479	1,892.7479	0.0169		1,893.1028
Worker	1.0270	1.2785	12.1550	0.0246	2.0701	0.0163	2.0864	0.5491	0.0149	0.5640		2,130.0812	2,130.0812	0.1189		2,132.5777
Total	**2.1073**	**10.1092**	**24.8880**	**0.0434**	**2.5944**	**0.1591**	**2.7536**	**0.6987**	**0.1463**	**0.8450**		**4,022.8291**	**4,022.8291**	**0.1358**		**4,025.6804**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5984	23.6379	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**1.5984**	**23.6379**	**18.3494**	**0.0268**		**0.9563**	**0.9563**		**0.9563**	**0.9563**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.0803	8.8307	12.7329	0.0188	0.5243	0.1429	0.6672	0.1496	0.1314	0.2810		1,892.7479	1,892.7479	0.0169		1,893.1028
Worker	1.0270	1.2785	12.1550	0.0246	2.0701	0.0163	2.0864	0.5491	0.0149	0.5640		2,130.0812	2,130.0812	0.1189		2,132.5777
Total	**2.1073**	**10.1092**	**24.8880**	**0.0434**	**2.5944**	**0.1591**	**2.7536**	**0.6987**	**0.1463**	**0.8450**		**4,022.8291**	**4,022.8291**	**0.1358**		**4,025.6804**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.9534	7.6684	11.8272	0.0187	0.5244	0.1144	0.6388	0.1496	0.1052	0.2548		1,870.3978	1,870.3978	0.0149		1,870.7114
Worker	0.9338	1.1599	10.9525	0.0246	2.0701	0.0155	2.0857	0.5491	0.0143	0.5634		2,055.4920	2,055.4920	0.1097		2,057.7949
Total	**1.8871**	**8.8284**	**22.7798**	**0.0433**	**2.5945**	**0.1299**	**2.7244**	**0.6987**	**0.1195**	**0.8182**		**3,925.8897**	**3,925.8897**	**0.1246**		**3,928.5062**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5345	23.5733	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**1.5345**	**23.5733**	**18.2884**	**0.0268**		**0.9414**	**0.9414**		**0.9414**	**0.9414**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9534	7.6684	11.8272	0.0187	0.5244	0.1144	0.6388	0.1496	0.1052	0.2548		1,870.3978	1,870.3978	0.0149		1,870.7114
Worker	0.9338	1.1599	10.9525	0.0246	2.0701	0.0155	2.0857	0.5491	0.0143	0.5634		2,055.4920	2,055.4920	0.1097		2,057.7949
Total	**1.8871**	**8.8284**	**22.7798**	**0.0433**	**2.5945**	**0.1299**	**2.7244**	**0.6987**	**0.1195**	**0.8182**		**3,925.8897**	**3,925.8897**	**0.1246**		**3,928.5062**

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**26.8332**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2038	0.2537	2.4117	4.8900e-003	0.4107	3.2200e-003	0.4140	0.1090	2.9500e-003	0.1119		422.6352	422.6352	0.0236		423.1305
Total	**0.2038**	**0.2537**	**2.4117**	**4.8900e-003**	**0.4107**	**3.2200e-003**	**0.4140**	**0.1090**	**2.9500e-003**	**0.1119**		**422.6352**	**422.6352**	**0.0236**		**423.1305**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**26.5405**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2038	0.2537	2.4117	4.8900e-003	0.4107	3.2200e-003	0.4140	0.1090	2.9500e-003	0.1119		422.6352	422.6352	0.0236		423.1305
Total	**0.2038**	**0.2537**	**2.4117**	**4.8900e-003**	**0.4107**	**3.2200e-003**	**0.4140**	**0.1090**	**2.9500e-003**	**0.1119**		**422.6352**	**422.6352**	**0.0236**		**423.1305**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**26.7951**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1853	0.2302	2.1731	4.8900e-003	0.4107	3.0800e-003	0.4138	0.1090	2.8300e-003	0.1118		407.8357	407.8357	0.0218		408.2926
Total	**0.1853**	**0.2302**	**2.1731**	**4.8900e-003**	**0.4107**	**3.0800e-003**	**0.4138**	**0.1090**	**2.8300e-003**	**0.1118**		**407.8357**	**407.8357**	**0.0218**		**408.2926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**26.5405**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1853	0.2302	2.1731	4.8900e-003	0.4107	3.0800e-003	0.4138	0.1090	2.8300e-003	0.1118		407.8357	407.8357	0.0218		408.2926
Total	**0.1853**	**0.2302**	**2.1731**	**4.8900e-003**	**0.4107**	**3.0800e-003**	**0.4138**	**0.1090**	**2.8300e-003**	**0.1118**		**407.8357**	**407.8357**	**0.0218**		**408.2926**

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335		122.3507	122.3507	6.5300e-003		122.4878
Total	**0.0556**	**0.0690**	**0.6519**	**1.4700e-003**	**0.1232**	**9.2000e-004**	**0.1242**	**0.0327**	**8.5000e-004**	**0.0335**		**122.3507**	**122.3507**	**6.5300e-003**		**122.4878**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.6542	0.6542		0.6542	0.6542	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9122**	**19.6998**	**16.9276**	**0.0223**		**0.6542**	**0.6542**		**0.6542**	**0.6542**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335		122.3507	122.3507	6.5300e-003		122.4878
Total	**0.0556**	**0.0690**	**0.6519**	**1.4700e-003**	**0.1232**	**9.2000e-004**	**0.1242**	**0.0327**	**8.5000e-004**	**0.0335**		**122.3507**	**122.3507**	**6.5300e-003**		**122.4878**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	14.1465	22.8563	117.3058	0.2051	14.1875	0.2729	14.4604	3.7874	0.2512	4.0386		17,306.8597	17,306.8597	0.7747		17,323.1273
Mitigated	13.3132	17.9848	99.5648	0.1497	10.1354	0.2052	10.3405	2.7057	0.1889	2.8945		12,616.0947	12,616.0947	0.5929		12,628.5446

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,016.00	1,016.00	1016.00	1,904,779	1,380,001
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	555.02	555.02	555.02	958,726	682,453
Health Club	413.80	413.80	413.80	540,813	384,968
High Turnover (Sit Down Restaurant)	270.00	270.00	270.00	243,636	173,428

Movie Theater (No Matinee)	180.00	180.00	180.00	268,075	190,825
Movie Theater (No Matinee)	300.00	300.00	300.00	446,792	318,041
Movie Theater (No Matinee)	198.00	198.00	198.00	294,883	209,907
Place of Worship	902.95	902.95	902.95	1,342,792	949,803
Place of Worship	144.04	144.04	144.04	214,207	151,516
Strip Mall	216.00	216.00	216.00	251,990	179,375
Strip Mall	118.08	118.08	118.08	137,754	98,058
Strip Mall	86.26	86.26	86.26	100,628	71,630
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	4,400.15	4,400.15	4,400.15	6,705,074	4,790,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.80	5.80	5.80	41.60	18.80	39.60	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00	77	19	4
Health Club	5.80	5.80	5.80	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down Restaurant)	5.80	5.80	5.80	8.50	72.50	19.00	37	20	43
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Place of Worship	5.80	5.80	5.80	0.00	95.00	5.00	64	25	11
Place of Worship	5.80	5.80	5.80	0.00	95.00	5.00	64	25	11
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	59.00	0.00	41.00	92	5	3
User Defined Retail	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1097	0.9877	0.7695	5.9800e-003		0.0758	0.0758		0.0758	0.0758		1,196.3239	1,196.3239	0.0229	0.0219	1,203.6046
NaturalGas Unmitigated	0.1225	1.1023	0.8531	6.6800e-003		0.0846	0.0846		0.0846	0.0846		1,336.2557	1,336.2557	0.0256	0.0245	1,344.3879

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1326.79	0.0143	0.1301	0.1093	7.8000e-004		9.8900e-003	9.8900e-003		9.8900e-003	9.8900e-003		156.0931	156.0931	2.9900e-003	2.8600e-003	157.0431
Health Club	668.186	7.2100e-003	0.0655	0.0550	3.9000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003		78.6101	78.6101	1.5100e-003	1.4400e-003	79.0885
High Turnover (Sit Down Restaurant)	4829.04	0.0521	0.4734	0.3977	2.8400e-003		0.0360	0.0360		0.0360	0.0360		568.1225	568.1225	0.0109	0.0104	571.5800
Movie Theater (No Matinee)	218.034	2.3500e-003	0.0214	0.0180	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003		25.6511	25.6511	4.9000e-004	4.7000e-004	25.8072

Movie Theater (No Matinee)	239.838	2.5900e-003	0.0235	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.2162	28.2162	5.4000e-004	5.2000e-004	28.3879
Movie Theater (No Matinee)	363.39	3.9200e-003	0.0356	0.0299	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.7518	42.7518	8.2000e-004	7.8000e-004	43.0120
Place of Worship	1273.71	0.0137	0.1249	0.1049	7.5000e-004		9.4900e-003	9.4900e-003		9.4900e-003	9.4900e-003		149.8480	149.8480	2.8700e-003	2.7500e-003	150.7599
Place of Worship	203.337	2.1900e-003	0.0199	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003		23.9220	23.9220	4.6000e-004	4.4000e-004	24.0676
Strip Mall	37.5936	4.1000e-004	3.6900e-003	3.1000e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		4.4228	4.4228	8.0000e-005	8.0000e-005	4.4497
Strip Mall	51.4466	5.5000e-004	5.0400e-003	4.2400e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004		6.0525	6.0525	1.2000e-004	1.1000e-004	6.0894
Strip Mall	94.1096	1.0100e-003	9.2300e-003	7.7500e-003	6.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004		11.0717	11.0717	2.1000e-004	2.0000e-004	11.1391
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	40.2164	4.3000e-004	3.9400e-003	3.3100e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		4.7314	4.7314	9.0000e-005	9.0000e-005	4.7601
User Defined Retail	104.882	1.1300e-003	0.0103	8.6400e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.3391	12.3391	2.4000e-004	2.3000e-004	12.4142
Apartments Mid Rise	1907.6	0.0206	0.1758	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.4234	224.4234	4.3000e-003	4.1100e-003	225.7892
Total		**0.1225**	**1.1023**	**0.8531**	**6.6700e-003**		**0.0846**	**0.0846**		**0.0846**	**0.0846**		**1,336.2557**	**1,336.2557**	**0.0256**	**0.0245**	**1,344.3879**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.06134	0.0115	0.1041	0.0874	6.2000e-004		7.9100e-003	7.9100e-003		7.9100e-003	7.9100e-003		124.8634	124.8634	2.3900e-003	2.2900e-003	125.6232
Health Club	0.603861	6.5100e-003	0.0592	0.0497	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003		71.0425	71.0425	1.3600e-003	1.3000e-003	71.4748
High Turnover (Sit Down Restaurant)	4.57014	0.0493	0.4481	0.3764	2.6900e-003		0.0341	0.0341		0.0341	0.0341		537.6632	537.6632	0.0103	9.8600e-003	540.9353
Movie Theater (No Matinee)	0.197045	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003		23.1817	23.1817	4.4000e-004	4.2000e-004	23.3228

Movie Theater (No Matinee)	0.216749	2.3400e-003	0.0213	0.0179	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003		25.4999	25.4999	4.9000e-004	4.7000e-004	25.6551
Movie Theater (No Matinee)	0.328408	3.5400e-003	0.0322	0.0271	1.9000e-004		2.4500e-003	2.4500e-003		2.4500e-003	2.4500e-003		38.6362	38.6362	7.4000e-004	7.1000e-004	38.8713
Place of Worship	0.183762	1.9800e-003	0.0180	0.0151	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		21.6191	21.6191	4.1000e-004	4.0000e-004	21.7507
Place of Worship	1.15109	0.0124	0.1129	0.0948	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.4224	135.4224	2.6000e-003	2.4800e-003	136.2466
Strip Mall	0.0326687	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.8434	3.8434	7.0000e-005	7.0000e-005	3.8668
Strip Mall	0.0447068	4.8000e-004	4.3800e-003	3.6800e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.2596	5.2596	1.0000e-004	1.0000e-004	5.2916
Strip Mall	0.0817808	8.8000e-004	8.0200e-003	6.7300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.6213	9.6213	1.8000e-004	1.8000e-004	9.6798
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.0307943	3.3000e-004	3.0200e-003	2.5400e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.6229	3.6229	7.0000e-005	7.0000e-005	3.6449
User Defined Retail	0.091142	9.8000e-004	8.9400e-003	7.5100e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004		10.7226	10.7226	2.1000e-004	2.0000e-004	10.7878
Apartments Mid Rise	1.57527	0.0170	0.1452	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.3260	185.3260	3.5500e-003	3.4000e-003	186.4538
Total		**0.1097**	**0.9877**	**0.7695**	**6.0000e-003**		**0.0758**	**0.0758**		**0.0758**	**0.0758**		**1,196.3239**	**1,196.3239**	**0.0229**	**0.0220**	**1,203.6046**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Unmitigated	14.9654	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Mitigated	13.7705	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.3669					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3484	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582		19.2771	19.2771	0.0201		19.6988
Total	**14.9653**	**0.1252**	**10.7785**	**5.7000e-004**		**0.0582**	**0.0582**		**0.0582**	**0.0582**	**0.0000**	**19.2771**	**19.2771**	**0.0201**	**0.0000**	**19.6988**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.1721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3484	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582		19.2771	19.2771	0.0201		19.6988
Total	**13.7705**	**0.1252**	**10.7785**	**5.7000e-004**		**0.0582**	**0.0582**		**0.0582**	**0.0582**	**0.0000**	**19.2771**	**19.2771**	**0.0201**	**0.0000**	**19.6988**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

6919 Morris Cerullo - Project 2017

San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	23.03	1000sqft	0.86	23,028.00	0
Place of Worship	39.43	1000sqft	1.48	39,432.00	0
Place of Worship	6.29	1000sqft	0.14	6,295.00	0
Unrefrigerated Warehouse-No Rail	8.39	1000sqft	0.31	8,388.00	0
Enclosed Parking with Elevator	314.00	Space	2.83	125,600.00	0
Unenclosed Parking with Elevator	280.00	Space	2.52	93,940.00	0
Health Club	20.69	1000sqft	1.21	20,686.00	0
High Turnover (Sit Down Restaurant)	10.00	1000sqft	0.38	10,000.00	0
Movie Theater (No Matinee)	300.00	Seat	0.15	6,750.00	0
Movie Theater (No Matinee)	500.00	Seat	0.26	11,250.00	0
Movie Theater (No Matinee)	330.00	Seat	0.17	7,425.00	0
Apartments Mid Rise	127.00	Dwelling Unit	5.45	127,000.00	363
Strip Mall	15.00	1000sqft	0.55	15,000.00	0
Strip Mall	8.20	1000sqft	0.31	8,200.00	0
Strip Mall	5.99	1000sqft	0.23	5,992.00	0
User Defined Retail	16.72	User Defined Unit	0.00	16,717.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company	San Diego Gas & Electric				

CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - per LLG engineers (User defined retail is the combined Foyer area)

Construction Phase - Arch coatings phase assumed to occur simultaneously with building construction phase.

Trips and VMT - per client

Architectural Coating - per SDAPCD

Vehicle Trips - Traffic trip gen rates were back calculated to match with the traffic report's total "driveway" trip generation for each use. Where land uses were combined in the model, the aggregate trip generation was used.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Woodstoves - no fireplaces per client

Area Coating - per SDAPCD

Energy Use - User defined retail is the Foyer space, which is assumed to have similar energy use patterns as retail / strip mall space.

Water And Wastewater - User defined retail is assumed for the Foyer space, and assumed to have similar water use patterns as retail / strip mall.

Solid Waste - User defined retail assumed to have similar solid waste patterns as retail / strip mall.

Mobile Commute Mitigation - Average of 3 to 10 percent estimate from the client.

Area Mitigation - per SDAPCD

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	150
tblCommuteMitigation	EmployeeVanpoolPercentModeShare	2	6.5

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	300.00
tblConstructionPhase	PhaseEndDate	12/8/2017	10/14/2016
tblConstructionPhase	PhaseStartDate	10/15/2016	8/22/2015
tblEnergyUse	LightingElect	0.00	6.99

tblEnergyUse	NT24E	0.00	3.16
tblEnergyUse	NT24NG	0.00	1.09
tblEnergyUse	T24E	0.00	3.89
tblEnergyUse	T24NG	0.00	1.20
tblFireplaces	NumberGas	69.85	0.00
tblFireplaces	NumberNoFireplace	12.70	127.00
tblFireplaces	NumberWood	44.45	0.00
tblGrading	MaterialExported	0.00	53,000.00
tblLandUse	LandUseSquareFeet	23,030.00	23,028.00
tblLandUse	LandUseSquareFeet	39,430.00	39,432.00
tblLandUse	LandUseSquareFeet	6,290.00	6,295.00
tblLandUse	LandUseSquareFeet	8,390.00	8,388.00
tblLandUse	LandUseSquareFeet	112,000.00	93,940.00
tblLandUse	LandUseSquareFeet	20,690.00	20,686.00
tblLandUse	LandUseSquareFeet	5,990.00	5,992.00
tblLandUse	LandUseSquareFeet	0.00	16,717.00
tblLandUse	LotAcreage	0.53	0.86
tblLandUse	LotAcreage	0.91	1.48
tblLandUse	LotAcreage	0.19	0.31
tblLandUse	LotAcreage	0.47	1.21
tblLandUse	LotAcreage	0.23	0.38
tblLandUse	LotAcreage	3.34	5.45
tblLandUse	LotAcreage	0.34	0.55
tblLandUse	LotAcreage	0.14	0.23
tblLandUse	LotAcreage	0.19	0.31
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	0.00	30.65
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80

tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	5.80
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	5.80
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	5.80
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	5.80
tblVehicleTrips	HS_TL	7.30	5.80
tblVehicleTrips	HW_TL	10.80	5.80
tblVehicleTrips	ST_TR	7.16	8.00
tblVehicleTrips	ST_TR	2.37	24.10
tblVehicleTrips	ST_TR	20.87	20.00
tblVehicleTrips	ST_TR	158.37	27.00
tblVehicleTrips	ST_TR	1.80	0.60
tblVehicleTrips	ST_TR	10.37	22.90

tblVehicleTrips	ST_TR	42.04	14.40
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	6.07	8.00
tblVehicleTrips	SU_TR	0.98	24.10
tblVehicleTrips	SU_TR	26.73	20.00
tblVehicleTrips	SU_TR	131.84	27.00
tblVehicleTrips	SU_TR	1.80	0.60
tblVehicleTrips	SU_TR	36.63	22.90
tblVehicleTrips	SU_TR	20.43	14.40
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.59	8.00
tblVehicleTrips	WD_TR	11.01	24.10
tblVehicleTrips	WD_TR	32.93	20.00
tblVehicleTrips	WD_TR	127.15	27.00
tblVehicleTrips	WD_TR	1.80	0.60
tblVehicleTrips	WD_TR	9.11	22.90
tblVehicleTrips	WD_TR	44.32	14.40
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	0.00	2,162,176.90
tblWater	OutdoorWaterUseRate	0.00	1,325,205.20
tblWoodstoves	NumberCatalytic	6.35	0.00
tblWoodstoves	NumberNoncatalytic	6.35	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2015	32.5826	151.2650	100.2342	0.2293	18.2141	4.9233	21.3036	9.9699	4.5292	12.8122	0.0000	23,510.0869	23,510.0869	2.0823	0.0000	23,553.8153
2016	32.0811	39.6045	42.6895	0.0800	3.0052	2.2958	5.3011	0.8076	2.1663	2.9739	0.0000	7,458.5497	7,458.5497	0.8412	0.0000	7,476.2149
Total	**64.6636**	**190.8694**	**142.9237**	**0.3093**	**21.2193**	**7.2191**	**26.6046**	**10.7775**	**6.6955**	**15.7861**	**0.0000**	**30,968.6366**	**30,968.6366**	**2.9235**	**0.0000**	**31,030.0301**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	30.2293	123.1648	87.3374	0.2293	7.4915	2.4994	9.9908	3.9122	2.4095	4.9239	0.0000	23,510.0869	23,510.0869	2.0823	0.0000	23,553.8153
2016	29.9548	34.6516	42.4197	0.0800	3.0052	1.1683	4.1735	0.8076	1.1577	1.9653	0.0000	7,458.5497	7,458.5497	0.8412	0.0000	7,476.2149
Total	**60.1841**	**157.8163**	**129.7572**	**0.3093**	**10.4967**	**3.6677**	**14.1643**	**4.7198**	**3.5671**	**6.8892**	**0.0000**	**30,968.6366**	**30,968.6366**	**2.9235**	**0.0000**	**31,030.0301**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.93**	**17.32**	**9.21**	**0.00**	**50.53**	**49.20**	**46.76**	**56.21**	**46.72**	**56.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	14.9654	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Energy	0.1225	1.1023	0.8531	6.6800e-003		0.0846	0.0846		0.0846	0.0846		1,336.2557	1,336.2557	0.0256	0.0245	1,344.3879
Mobile	13.0927	21.5668	105.2776	0.2156	14.1875	0.2710	14.4585	3.7874	0.2494	4.0368		18,177.0050	18,177.0050	0.7738		18,193.2541
Total	**28.1806**	**22.7944**	**116.9092**	**0.2228**	**14.1875**	**0.4138**	**14.6013**	**3.7874**	**0.3922**	**4.1796**	**0.0000**	**19,532.5377**	**19,532.5377**	**0.8195**	**0.0245**	**19,557.3407**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.7705	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Energy	0.1097	0.9877	0.7695	5.9800e-003		0.0758	0.0758		0.0758	0.0758		1,196.3239	1,196.3239	0.0229	0.0219	1,203.6046
Mobile	12.2450	16.9997	86.1027	0.1572	10.1354	0.2033	10.3386	2.7057	0.1871	2.8927		13,246.1176	13,246.1176	0.5920		13,258.5490
Total	**26.1251**	**18.1126**	**97.6507**	**0.1637**	**10.1354**	**0.3372**	**10.4726**	**2.7057**	**0.3210**	**3.0267**	**0.0000**	**14,461.7186**	**14,461.7186**	**0.6350**	**0.0219**	**14,481.8523**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.29**	**20.54**	**16.47**	**26.53**	**28.56**	**18.51**	**28.28**	**28.56**	**18.15**	**27.58**	**0.00**	**25.96**	**25.96**	**22.51**	**10.49**	**25.95**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2015	6/26/2015	5	20	
2	Site Preparation	Site Preparation	6/27/2015	7/10/2015	5	10	

3	Grading	Grading	7/11/2015	8/21/2015	5	30	
4	Building Construction	Building Construction	8/22/2015	10/14/2016	5	300	
5	Architectural Coating	Architectural Coating	8/22/2015	10/14/2016	5	300	
6	Paving	Paving	10/15/2016	11/11/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 257,175; Residential Outdoor: 85,725; Non-Residential Indoor: 598,055; Non-Residential Outdoor: 199,352

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,355.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	6,625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	252.00	79.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.8501	0.0000	14.8501	2.2488	0.0000	2.2488			0.0000			0.0000
Off-Road	4.5083	48.3629	36.0738	0.0399		2.4508	2.4508		2.2858	2.2858		4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**4.5083**	**48.3629**	**36.0738**	**0.0399**	**14.8501**	**2.4508**	**17.3009**	**2.2488**	**2.2858**	**4.5346**		**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5235	22.1283	14.8504	0.0508	1.1805	0.3436	1.5240	0.3232	0.3160	0.6392		5,167.5636	5,167.5636	0.0419		5,168.4427
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0678	0.7416	1.5600e-003	0.1232	9.7000e-004	0.1242	0.0327	8.9000e-004	0.0336		135.0013	135.0013	7.0800e-003		135.1499
Total	**1.5810**	**22.1961**	**15.5920**	**0.0523**	**1.3037**	**0.3445**	**1.6482**	**0.3559**	**0.3169**	**0.6728**		**5,302.5648**	**5,302.5648**	**0.0489**		**5,303.5926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7915	0.0000	5.7915	0.8770	0.0000	0.8770			0.0000			0.0000
Off-Road	1.2905	33.4676	25.2649	0.0399		0.9338	0.9338		0.9338	0.9338	0.0000	4,127.1934	4,127.1934	1.1188		4,150.6886
Total	**1.2905**	**33.4676**	**25.2649**	**0.0399**	**5.7915**	**0.9338**	**6.7253**	**0.8770**	**0.9338**	**1.8108**	**0.0000**	**4,127.1934**	**4,127.1934**	**1.1188**		**4,150.6886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	1.5235	22.1283	14.8504	0.0508	1.1805	0.3436	1.5240	0.3232	0.3160	0.6392		5,167.5636	5,167.5636	0.0419		5,168.4427
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0575	0.0678	0.7416	1.5600e-003	0.1232	9.7000e-004	0.1242	0.0327	8.9000e-004	0.0336		135.0013	135.0013	7.0800e-003		135.1499
Total	**1.5810**	**22.1961**	**15.5920**	**0.0523**	**1.3037**	**0.3445**	**1.6482**	**0.3559**	**0.3169**	**0.6728**		**5,302.5648**	**5,302.5648**	**0.0489**		**5,303.5926**

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**		**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5225**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0814	0.8900	1.8700e-003	0.1479	1.1600e-003	0.1490	0.0392	1.0600e-003	0.0403		162.0015	162.0015	8.4900e-003		162.1798

Total	**0.0690**	**0.0814**	**0.8900**	**1.8700e-003**	**0.1479**	**1.1600e-003**	**0.1490**	**0.0392**	**1.0600e-003**	**0.0403**		**162.0015**	**162.0015**	**8.4900e-003**		**162.1798**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	1.2300	34.4240	23.4003	0.0391		0.9611	0.9611		0.9611	0.9611	0.0000	4,111.7444	4,111.7444	1.2275		4,137.5224
Total	**1.2300**	**34.4240**	**23.4003**	**0.0391**	**7.0458**	**0.9611**	**8.0069**	**3.8730**	**0.9611**	**4.8340**	**0.0000**	**4,111.7444**	**4,111.7444**	**1.2275**		**4,137.5224**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0690	0.0814	0.8900	1.8700e-003	0.1479	1.1600e-003	0.1490	0.0392	1.0600e-003	0.0403		162.0015	162.0015	8.4900e-003		162.1798
Total	**0.0690**	**0.0814**	**0.8900**	**1.8700e-003**	**0.1479**	**1.1600e-003**	**0.1490**	**0.0392**	**1.0600e-003**	**0.0403**		**162.0015**	**162.0015**	**8.4900e-003**		**162.1798**

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.9216	0.0000	8.9216	3.6341	0.0000	3.6341			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618		3.8022	3.8022		3.4980	3.4980		6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**6.7751**	**79.0467**	**50.8400**	**0.0618**	**8.9216**	**3.8022**	**12.7238**	**3.6341**	**3.4980**	**7.1321**		**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9658	72.1279	48.4054	0.1655	3.8478	1.1198	4.9676	1.0536	1.0300	2.0836		16,843.8419	16,843.8419	0.1365		16,846.7075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0904	0.9888	2.0800e-003	0.1643	1.2900e-003	0.1656	0.0436	1.1800e-003	0.0448		180.0017	180.0017	9.4300e-003		180.1998
Total	**5.0425**	**72.2183**	**49.3942**	**0.1676**	**4.0121**	**1.1211**	**5.1332**	**1.0972**	**1.0312**	**2.1284**		**17,023.8436**	**17,023.8436**	**0.1459**		**17,026.9073**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					3.4794	0.0000	3.4794	1.4173	0.0000	1.4173			0.0000			0.0000
Off-Road	1.8922	50.9465	37.9432	0.0618		1.3783	1.3783		1.3783	1.3783	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	**1.8922**	**50.9465**	**37.9432**	**0.0618**	**3.4794**	**1.3783**	**4.8577**	**1.4173**	**1.3783**	**2.7956**	**0.0000**	**6,486.2433**	**6,486.2433**	**1.9364**		**6,526.9080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.9658	72.1279	48.4054	0.1655	3.8478	1.1198	4.9676	1.0536	1.0300	2.0836		16,843.8419	16,843.8419	0.1365		16,846.7075
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0767	0.0904	0.9888	2.0800e-003	0.1643	1.2900e-003	0.1656	0.0436	1.1800e-003	0.0448		180.0017	180.0017	9.4300e-003		180.1998
Total	**5.0425**	**72.2183**	**49.3942**	**0.1676**	**4.0121**	**1.1211**	**5.1332**	**1.0972**	**1.0312**	**2.1284**		**17,023.8436**	**17,023.8436**	**0.1459**		**17,026.9073**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**		**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9326	8.6169	9.5976	0.0188	0.5243	0.1412	0.6655	0.1496	0.1298	0.2794		1,907.2932	1,907.2932	0.0165		1,907.6400
Worker	0.9660	1.1393	12.4594	0.0262	2.0701	0.0163	2.0864	0.5491	0.0149	0.5640		2,268.0212	2,268.0212	0.1189		2,270.5176
Total	**1.8986**	**9.7562**	**22.0569**	**0.0451**	**2.5944**	**0.1574**	**2.7519**	**0.6987**	**0.1447**	**0.8434**		**4,175.3144**	**4,175.3144**	**0.1354**		**4,178.1577**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5984	23.6379	18.3494	0.0268		0.9563	0.9563		0.9563	0.9563	0.0000	2,689.5771	2,689.5771	0.6748		2,703.7483
Total	**1.5984**	**23.6379**	**18.3494**	**0.0268**		**0.9563**	**0.9563**		**0.9563**	**0.9563**	**0.0000**	**2,689.5771**	**2,689.5771**	**0.6748**		**2,703.7483**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.9326	8.6169	9.5976	0.0188	0.5243	0.1412	0.6655	0.1496	0.1298	0.2794		1,907.2932	1,907.2932	0.0165		1,907.6400
Worker	0.9660	1.1393	12.4594	0.0262	2.0701	0.0163	2.0864	0.5491	0.0149	0.5640		2,268.0212	2,268.0212	0.1189		2,270.5176
Total	**1.8986**	**9.7562**	**22.0569**	**0.0451**	**2.5944**	**0.1574**	**2.7519**	**0.6987**	**0.1447**	**0.8434**		**4,175.3144**	**4,175.3144**	**0.1354**		**4,178.1577**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.8241	7.4870	8.7880	0.0188	0.5244	0.1132	0.6376	0.1496	0.1041	0.2537		1,884.8488	1,884.8488	0.0146		1,885.1547
Worker	0.8809	1.0337	11.2740	0.0262	2.0701	0.0155	2.0857	0.5491	0.0143	0.5634		2,188.7005	2,188.7005	0.1097		2,191.0034
Total	**1.7050**	**8.5208**	**20.0621**	**0.0450**	**2.5945**	**0.1288**	**2.7232**	**0.6987**	**0.1184**	**0.8171**		**4,073.5493**	**4,073.5493**	**0.1242**		**4,076.1581**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5345	23.5733	18.2884	0.0268		0.9414	0.9414		0.9414	0.9414	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**1.5345**	**23.5733**	**18.2884**	**0.0268**		**0.9414**	**0.9414**		**0.9414**	**0.9414**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8241	7.4870	8.7880	0.0188	0.5244	0.1132	0.6376	0.1496	0.1041	0.2537		1,884.8488	1,884.8488	0.0146		1,885.1547
Worker	0.8809	1.0337	11.2740	0.0262	2.0701	0.0155	2.0857	0.5491	0.0143	0.5634		2,188.7005	2,188.7005	0.1097		2,191.0034
Total	**1.7050**	**8.5208**	**20.0621**	**0.0450**	**2.5945**	**0.1288**	**2.7232**	**0.6987**	**0.1184**	**0.8171**		**4,073.5493**	**4,073.5493**	**0.1242**		**4,076.1581**

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**26.8332**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1917	0.2261	2.4721	5.2100e-003	0.4107	3.2200e-003	0.4140	0.1090	2.9500e-003	0.1119		450.0042	450.0042	0.0236		450.4995
Total	**0.1917**	**0.2261**	**2.4721**	**5.2100e-003**	**0.4107**	**3.2200e-003**	**0.4140**	**0.1090**	**2.9500e-003**	**0.1119**		**450.0042**	**450.0042**	**0.0236**		**450.4995**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**26.5405**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1917	0.2261	2.4721	5.2100e-003	0.4107	3.2200e-003	0.4140	0.1090	2.9500e-003	0.1119		450.0042	450.0042	0.0236		450.4995
Total	**0.1917**	**0.2261**	**2.4721**	**5.2100e-003**	**0.4107**	**3.2200e-003**	**0.4140**	**0.1090**	**2.9500e-003**	**0.1119**		**450.0042**	**450.0042**	**0.0236**		**450.4995**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**26.7951**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1748	0.2051	2.2369	5.2000e-003	0.4107	3.0800e-003	0.4138	0.1090	2.8300e-003	0.1118		434.2660	434.2660	0.0218		434.7229
Total	**0.1748**	**0.2051**	**2.2369**	**5.2000e-003**	**0.4107**	**3.0800e-003**	**0.4138**	**0.1090**	**2.8300e-003**	**0.1118**		**434.2660**	**434.2660**	**0.0218**		**434.7229**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	26.4266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**26.5405**	**2.3524**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1748	0.2051	2.2369	5.2000e-003	0.4107	3.0800e-003	0.4138	0.1090	2.8300e-003	0.1118		434.2660	434.2660	0.0218		434.7229
Total	**0.1748**	**0.2051**	**2.2369**	**5.2000e-003**	**0.4107**	**3.0800e-003**	**0.4138**	**0.1090**	**2.8300e-003**	**0.1118**		**434.2660**	**434.2660**	**0.0218**		**434.7229**

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0524	0.0615	0.6711	1.5600e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335		130.2798	130.2798	6.5300e-003		130.4169
Total	**0.0524**	**0.0615**	**0.6711**	**1.5600e-003**	**0.1232**	**9.2000e-004**	**0.1242**	**0.0327**	**8.5000e-004**	**0.0335**		**130.2798**	**130.2798**	**6.5300e-003**		**130.4169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9122	19.6998	16.9276	0.0223		0.6542	0.6542		0.6542	0.6542	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9122**	**19.6998**	**16.9276**	**0.0223**		**0.6542**	**0.6542**		**0.6542**	**0.6542**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Worker	0.0524	0.0615	0.6711	1.5600e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335		130.2798	130.2798	6.5300e-003		130.4169
Total	**0.0524**	**0.0615**	**0.6711**	**1.5600e-003**	**0.1232**	**9.2000e-004**	**0.1242**	**0.0327**	**8.5000e-004**	**0.0335**		**130.2798**	**130.2798**	**6.5300e-003**		**130.4169**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Employee Vanpool/Shuttle

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	13.0927	21.5668	105.2776	0.2156	14.1875	0.2710	14.4585	3.7874	0.2494	4.0368		18,177.0050	18,177.0050	0.7738		18,193.2541
Mitigated	12.2450	16.9997	86.1027	0.1572	10.1354	0.2033	10.3386	2.7057	0.1871	2.8927		13,246.1176	13,246.1176	0.5920		13,258.5490

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,016.00	1,016.00	1016.00	1,904,779	1,380,001
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	555.02	555.02	555.02	958,726	682,453
Health Club	413.80	413.80	413.80	540,813	384,968
High Turnover (Sit Down Restaurant)	270.00	270.00	270.00	243,636	173,428

Movie Theater (No Matinee)	180.00	180.00	180.00	268,075	190,825
Movie Theater (No Matinee)	300.00	300.00	300.00	446,792	318,041
Movie Theater (No Matinee)	198.00	198.00	198.00	294,883	209,907
Place of Worship	902.95	902.95	902.95	1,342,792	949,803
Place of Worship	144.04	144.04	144.04	214,207	151,516
Strip Mall	216.00	216.00	216.00	251,990	179,375
Strip Mall	118.08	118.08	118.08	137,754	98,058
Strip Mall	86.26	86.26	86.26	100,628	71,630
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
User Defined Retail	0.00	0.00	0.00		
Total	4,400.15	4,400.15	4,400.15	6,705,074	4,790,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	5.80	5.80	5.80	41.60	18.80	39.60	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	5.80	5.80	5.80	33.00	48.00	19.00	77	19	4
Health Club	5.80	5.80	5.80	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down Restaurant)	5.80	5.80	5.80	8.50	72.50	19.00	37	20	43
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Movie Theater (No Matinee)	5.80	5.80	5.80	1.80	79.20	19.00	66	17	17
Place of Worship	5.80	5.80	5.80	0.00	95.00	5.00	64	25	11
Place of Worship	5.80	5.80	5.80	0.00	95.00	5.00	64	25	11
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Strip Mall	5.80	5.80	5.80	16.60	64.40	19.00	45	40	15
Unenclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	59.00	0.00	41.00	92	5	3
User Defined Retail	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1097	0.9877	0.7695	5.9800e-003		0.0758	0.0758		0.0758	0.0758		1,196.3239	1,196.3239	0.0229	0.0219	1,203.6046
NaturalGas Unmitigated	0.1225	1.1023	0.8531	6.6800e-003		0.0846	0.0846		0.0846	0.0846		1,336.2557	1,336.2557	0.0256	0.0245	1,344.3879

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1326.79	0.0143	0.1301	0.1093	7.8000e-004		9.8900e-003	9.8900e-003		9.8900e-003	9.8900e-003		156.0931	156.0931	2.9900e-003	2.8600e-003	157.0431
Health Club	668.186	7.2100e-003	0.0655	0.0550	3.9000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003		78.6101	78.6101	1.5100e-003	1.4400e-003	79.0885
High Turnover (Sit Down Restaurant)	4829.04	0.0521	0.4734	0.3977	2.8400e-003		0.0360	0.0360		0.0360	0.0360		568.1225	568.1225	0.0109	0.0104	571.5800
Movie Theater (No Matinee)	218.034	2.3500e-003	0.0214	0.0180	1.3000e-004		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003		25.6511	25.6511	4.9000e-004	4.7000e-004	25.8072

Movie Theater (No Matinee)	239.838	2.5900e-003	0.0235	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.2162	28.2162	5.4000e-004	5.2000e-004	28.3879
Movie Theater (No Matinee)	363.39	3.9200e-003	0.0356	0.0299	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003		42.7518	42.7518	8.2000e-004	7.8000e-004	43.0120
Place of Worship	1273.71	0.0137	0.1249	0.1049	7.5000e-004		9.4900e-003	9.4900e-003		9.4900e-003	9.4900e-003		149.8480	149.8480	2.8700e-003	2.7500e-003	150.7599
Place of Worship	203.337	2.1900e-003	0.0199	0.0168	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003		23.9220	23.9220	4.6000e-004	4.4000e-004	24.0676
Strip Mall	37.5936	4.1000e-004	3.6900e-003	3.1000e-003	2.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004		4.4228	4.4228	8.0000e-005	8.0000e-005	4.4497
Strip Mall	51.4466	5.5000e-004	5.0400e-003	4.2400e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004		6.0525	6.0525	1.2000e-004	1.1000e-004	6.0894
Strip Mall	94.1096	1.0100e-003	9.2300e-003	7.7500e-003	6.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004		11.0717	11.0717	2.1000e-004	2.0000e-004	11.1391
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	40.2164	4.3000e-004	3.9400e-003	3.3100e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		4.7314	4.7314	9.0000e-005	9.0000e-005	4.7601
User Defined Retail	104.882	1.1300e-003	0.0103	8.6400e-003	6.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004		12.3391	12.3391	2.4000e-004	2.3000e-004	12.4142
Apartments Mid Rise	1907.6	0.0206	0.1758	0.0748	1.1200e-003		0.0142	0.0142		0.0142	0.0142		224.4234	224.4234	4.3000e-003	4.1100e-003	225.7892
Total		**0.1225**	**1.1023**	**0.8531**	**6.6700e-003**		**0.0846**	**0.0846**		**0.0846**	**0.0846**		**1,336.2557**	**1,336.2557**	**0.0256**	**0.0245**	**1,344.3879**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	1.06134	0.0115	0.1041	0.0874	6.2000e-004		7.9100e-003	7.9100e-003		7.9100e-003	7.9100e-003		124.8634	124.8634	2.3900e-003	2.2900e-003	125.6232
Health Club	0.603861	6.5100e-003	0.0592	0.0497	3.6000e-004		4.5000e-003	4.5000e-003		4.5000e-003	4.5000e-003		71.0425	71.0425	1.3600e-003	1.3000e-003	71.4748
High Turnover (Sit Down Restaurant)	4.57014	0.0493	0.4481	0.3764	2.6900e-003		0.0341	0.0341		0.0341	0.0341		537.6632	537.6632	0.0103	9.8600e-003	540.9353
Movie Theater (No Matinee)	0.197045	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003		23.1817	23.1817	4.4000e-004	4.2000e-004	23.3228
Movie Theater (No Matinee)	0.216749	2.3400e-003	0.0213	0.0179	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003		25.4999	25.4999	4.9000e-004	4.7000e-004	25.6551

Movie Theater (No Matinee)	0.328408	3.5400e-003	0.0322	0.0271	1.9000e-004		2.4500e-003	2.4500e-003		2.4500e-003	2.4500e-003		38.6362	38.6362	7.4000e-004	7.1000e-004	38.8713
Place of Worship	0.183762	1.9800e-003	0.0180	0.0151	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		21.6191	21.6191	4.1000e-004	4.0000e-004	21.7507
Place of Worship	1.15109	0.0124	0.1129	0.0948	6.8000e-004		8.5800e-003	8.5800e-003		8.5800e-003	8.5800e-003		135.4224	135.4224	2.6000e-003	2.4800e-003	136.2466
Strip Mall	0.0326687	3.5000e-004	3.2000e-003	2.6900e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.8434	3.8434	7.0000e-005	7.0000e-005	3.8668
Strip Mall	0.0447068	4.8000e-004	4.3800e-003	3.6800e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004		5.2596	5.2596	1.0000e-004	1.0000e-004	5.2916
Strip Mall	0.0817808	8.8000e-004	8.0200e-003	6.7300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.6213	9.6213	1.8000e-004	1.8000e-004	9.6798
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.0307943	3.3000e-004	3.0200e-003	2.5400e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		3.6229	3.6229	7.0000e-005	7.0000e-005	3.6449
User Defined Retail	0.091142	9.8000e-004	8.9400e-003	7.5100e-003	5.0000e-005		6.8000e-004	6.8000e-004		6.8000e-004	6.8000e-004		10.7226	10.7226	2.1000e-004	2.0000e-004	10.7878
Apartments Mid Rise	1.57527	0.0170	0.1452	0.0618	9.3000e-004		0.0117	0.0117		0.0117	0.0117		185.3260	185.3260	3.5500e-003	3.4000e-003	186.4538
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1097**	**0.9877**	**0.7695**	**6.0000e-003**		**0.0758**	**0.0758**		**0.0758**	**0.0758**		**1,196.3239**	**1,196.3239**	**0.0229**	**0.0220**	**1,203.6046**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Unmitigated	14.9654	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988
Mitigated	13.7705	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582	0.0000	19.2771	19.2771	0.0201	0.0000	19.6988

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.3669					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3484	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582		19.2771	19.2771	0.0201		19.6988
Total	**14.9653**	**0.1252**	**10.7785**	**5.7000e-004**		**0.0582**	**0.0582**		**0.0582**	**0.0582**	**0.0000**	**19.2771**	**19.2771**	**0.0201**	**0.0000**	**19.6988**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.1721					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.2500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3484	0.1252	10.7785	5.7000e-004		0.0582	0.0582		0.0582	0.0582		19.2771	19.2771	0.0201		19.6988
Total	**13.7705**	**0.1252**	**10.7785**	**5.7000e-004**		**0.0582**	**0.0582**		**0.0582**	**0.0582**	**0.0000**	**19.2771**	**19.2771**	**0.0201**	**0.0000**	**19.6988**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

RECON

An Employee-Owned Company

December 8, 2016

Mr. Jim Penner, Executive Director
Legacy Center Foundation
Morris Cerullo World Evangelism
3545 Aero Court
San Diego, CA 92123

Reference: Legacy International Center Project Revisions – Air Quality Analysis
(State Clearinghouse #2014081053; RECON Number 6919-2)

Dear Mr. Penner:

In light of recent revisions to the Legacy International Center Project (project), RECON Environmental, Inc. (RECON) has reviewed the air quality analysis that was dated September 25, 2015. At the time the Air Quality Analysis was prepared the project proposed to redevelop the existing Mission Valley Resort Hotel property located south of Interstate 8 at 875 Hotel Circle South with a mixed-use development with religious, lodging, administrative, recreational, and commercial uses. Consistent with the City of San Diego's Significance Determination Thresholds, the analysis assessed whether the project would (1) conflict with implementation of the San Diego Regional Air Quality Strategy (RAQS), (2) violate air quality standards or contribute to a violation, (3) result in a cumulative net increase in criteria pollutant emissions, (4) expose sensitive receptors to substantial pollutant concentrations, and (5) create objectionable odors affecting a substantial number of people. The analysis found that all air quality impacts associated with the project would be less than significant.

Project as Originally Proposed

The project as originally proposed, would have removed all existing uses in order to construct a two-level "Legacy Vision Center" building with a welcome center, a "history dome" theater, display rooms, and an entrance to the underground catacombs passage, a two-story pavilion building with restaurant, gift shops, training learning center, theater, and TV studio and storage), and a five-story "Legacy Village" building containing 127 timeshare suites, a trail system, an outdoor amphitheater, pedestrian plazas and a fountain, and a wellness center with a workout room, a sauna, hot tubs, steam room, restrooms, showers, and an Olympic-sized pool. Executive offices would be housed in a three-story administration building.

Revisions to the Project Description

The project has been revised to reduce the size of the welcome center, pavilion building, and Legacy Village building. Additionally, the administration building has been removed and executive offices have been incorporated into the pavilion building. Revisions in the proposed uses are summarized in Table 1. Overall, the project uses have been reduced by 225,299 square feet of building area (approximately 42.3 percent).

Table 1
Checklist Measures and Selected Project Design Features

Project Features	Floor Area (square feet)		
	Previous	Revised	Difference
Legacy Vision Center Building	52,944	41,071	*-11,873*
Welcome Center	*17,012*	*8,459*	*-8,553*
Dome Theater/Museum/Gallery/Retail	*29,940*	*23,487*	*-6,453*
Catacombs/Public Facilities	*5,992*	*9,125*	*3,133*
Pavilion Building	105,104	63,447	-41,657
Theater	*13,986*	*12,106*	*-1,880*
Lobby	*6,000*	*2,828*	*-3,172*
Learning Center	*39,432*	*13,844*	*-25,588*
Restaurant	*10,000*	*4,719*	*-5,281*
Executive Offices	-	*16,802*	*+16,802*
Retail	*15,000*	*1,052*	*-13,948*
Wellness Center	*20,686*	-	*-20,686*
B.O.H.		*12,097*	*+12,097*
Legacy Village Building	136,160	88,120	-48,040
Guest Suites/Restaurant/Amenities	*136,160*	*85,603*	*-50,557*
Wellness Center	-	*2,517*	*+2,517*
Administration Building	21,240	-	-21,240
Executive Offices	*21,240*	-	*-21,240*
Other Components	15,078	7,783	-7295
Amphitheater	*6,878*	-	*-6,878*
Hotel Pool	-	-	-
Water Feature	-	-	-
Wailing Wall	-	-	-
Central Plaza	*8,200*	*7,783*	*-417*
Parking	208,053	106,458	-101,595
Parking Structure	*208,053*	*106,458*	*-101,595*
Subsurface Parking	-	-	-
Total Reductions	**532,178**	**306,879**	**-225,299**

Effects on Air Quality Analysis

Revisions to the project reduced the overall size of the project and would thereby reduce emissions associated with construction sources (construction exhaust, fugitive dust from grading, worker commute), mobile sources (project trip generation), and area sources (natural gas use, fireplaces, consumer products) as compared to the previous project's air quality analysis. Therefore, as the air emissions associated with the project as originally proposed were not projected to conflict with implementation of the RAQS, violate air quality standards, or result in a cumulative net increase in criteria pollutant emissions, air emissions associated with the revised project are also anticipated to result in less than significant impacts related to the San Diego RAQS, air quality standards, and cumulative criteria pollutant emissions.

The revisions to the project would reorganize the site, but would not move construction or operation air emission sources substantially nearer to off-site sensitive receptors or move proposed sensitive receptors substantially nearer to off-site air emission sources. Therefore, impacts related to sensitive receptors are anticipated to remain less than significant.

The revised project does not incorporate any new potential sources of odors; thus impacts related to odors are anticipated to remain less than significant.

All impacts related to air quality would remain less than significant and no further analysis is warranted. If you have any questions please contact me at wmaddux@reconenvironmental.com, or at (619) 308-9333, extension 124.

Sincerely,

William A. Maddux
Senior Technical Specialist