CITY OF
CHULA VISTA

Otay Ranch University Villages Project

Final Environmental Impact Report

SCH No. 2013071077

November 2014

276 Fourth Ave. • Chula Vista • California • 91910

FINAL

Environmental Impact Report for the Otay Ranch University Villages Project

Lead Agency

City of Chula Vista
276 Fourth Avenue
Chula Vista, California 91910

NOVEMBER 2014

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
2050 RTP	2050 Regional Transportation Plan
AB	Assembly Bill
ADT	average daily trips; average daily traffic
af	acre-feet
af/yr	acre-feet per year
ALUCP	Airport Land Use Compatibility Plan
ALUP	Airport Land Use Plan
amsl	above mean sea level
APCDs	Air Pollution Control Districts
AQIP	Air Quality Improvement Plan
AQMDs	Air Quality Management Districts
ATCM	Airborne Toxics Control Measure
BACT	Best Available Control Technology
BMP	best management practice
BNSF	Burlington Northern Santa Fe
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalARP	California Accidental Release Prevention
CalGreen	California's Green Building Standards
CalOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CFC	California Fire Code
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geologic Survey
City	City of Chula Vista
CMP	Congestion Management Program
CNEL	community noise equivalent level
CPF	Community-Purpose Facility
CPUC	California Public Utilities Commission
CVMC	City of Chula Vista Municipal Code
CWA	Clean Water Act
dB	decibel

Acronym/Abbreviation	Definition
dBA	A-weighted decibel
DPM	diesel particulate matter
DSWM	Development Stormwater Manual
EC	Engineering Control
EDR	Environmental Data Resources Inc.
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPP	fire protection plan
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FUDS	Formerly Used Defense Site
GBS	Green Building Standards
GDP	General Development Plan
GDPA	General Development Plan Amendment
GHG	greenhouse gases
GMO	Growth Management Ordinance
GPA	General Plan Amendment
gpd	gallons per day
GWP	Global Warming Potential
HMP	Hydromodification Management Plan
HRA	Health Risk Assessment
HVAC	heating/ventilation and air conditioning equipment
I-	Interstate
IBC	International Building Code
IC	Institutional Control
ICC	International Code Council
ICLEI	International Council of Environmental Initiatives
IFC	International Fire Code
IMP	Integrated Management Practices
LCFS	Low Carbon Fuel Standard
LEA	local enforcement agency
Leq	equivalent level over a given time period
LFG	Landfill Gas
LID	Low Impact Development
LOA	Land Offer Agreement
LOS	level of service
LUST	Leaking Underground Storage Tank
MC	munitions constitutes
MEC	Munitions and Explosives of Concern

Acronym/Abbreviation	Definition
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
mph	miles per hour
MRZ	Mineral Resource Zone
MSCP	Multiple Species Conservation Program
MSCPBA	Multiple Species Conservation Plan Boundary Adjustment
MSW	Municipal Solid Waste
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NSPS	New Source Performance Standard
OCH	organochlorine herbicide
OCP	organochlorine pesticide
OPP	organophosphorous pesticide
OS	Open Space
OS/P	Open Space Preserve
OVRP	Otay Valley Regional Park
OWD	Otay Water District
P-1	Do not use alone (used rarely in Ch. 4)
P-2	Community Park
PEIR	Program EIR
PFFP	public facilities finance plan
PMI	point of maximum impact
POC	Point of Compliance
P-OS	Private Open Space
PRC	Public Resources Code
PRG	Preliminary Remediation Goals
PRMP	Parks and Recreation Master Plan
psi	pounds per square inch
QP	Qualified Paleontologist
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
RAQS	Regional Air Quality Strategy
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RFS	Renewable Fuel Standard
RMP	Resource Management Plan
RMPBA	Resource Management Plan Boundary Modification
RTP	Research Technology Park
RWQCB	Regional Water Quality Control Board

Acronym/Abbreviation	Definition
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCS	Sustainable Communities Strategy
SD&AE	San Diego and Arizona Eastern
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDIV	San Diego and Imperial Valley
SIP	State Implementation Plan
SPA	Sectional Planning Area
SR-	State Route
SRP	Subregional Plan
SWIS	Solid Waste Information System
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TAP	toxic air pollutant
TM	Tentative Map
TSDF	Treatment, Storage and Disposal Facilities
U.S.C.	United States Code
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VCP	Voluntary Cleanup Program
VOCs	volatile organic compounds
WSA	water supply assessment
WSA&V	Water Supply Assessment and Verification

FINAL EIR FOR UNIVERSITY VILLAGES SECTIONAL PLANNING AREA PLANS AND TENTATIVE MAPS

The City of Chula Vista, as the Lead Agency under the California Environmental Quality Act (CEQA), has prepared this Final Environmental Impact Report (Final EIR) for the proposed University Villages Sectional Planning Area (SPA) Plans and tentative maps (TMs). In accordance with Sections 15089 and 15132 of the CEQA Guidelines, the Lead Agency must prepare a Final EIR before approving the project. Pursuant to CEQA Guidelines Section 15132, a Final EIR shall consist of:

a) The draft EIR or a revision of the draft;

b) Comments and recommendations received on the draft EIR either verbatim or in summary;

c) A list of persons, organizations, and public agencies commenting on the draft EIR;

d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

e) Any other information added by the Lead Agency.

In accordance with these guidelines, this Final EIR (EIR 13-01; SCH No. 2013071077) includes the following:

1. A list of the persons, organizations, and public agencies commenting on the EIR;
2. Comments provided verbatim and responses;
3. Errata;
4. Draft EIR including revisions made to the document subsequent to public review; and
5. Mitigation Monitoring and Reporting Program (MMRP) that is bound separately but is a component of the Final EIR.

COMMENTS RECEIVED ON THE DRAFT EIR AND RESPONSES

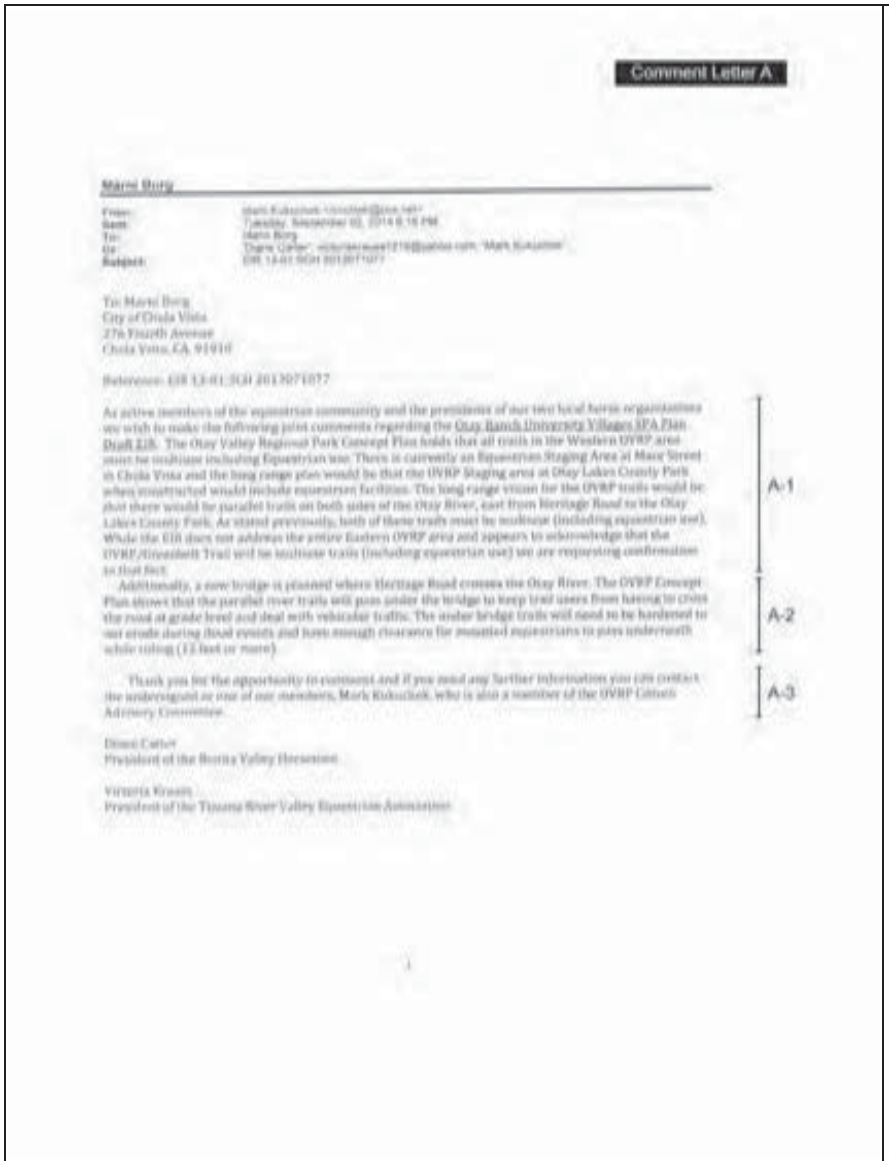
The Draft EIR was circulated for public review from August 5, 2014, through September 18, 2014, in accordance with the 45-day comment period required under Section 15105(a) of the CEQA Guidelines. A total of 15 comment letters were received on the Draft EIR from agencies, organizations, and individuals as shown in the list below. The Final EIR incorporates the Draft EIR, changes and additions to the Draft EIR based on comments received during the public review period, as well as minor revisions to further clarify information presented. Collectively, the revisions do not constitute significant changes in the project or environmental setting; no new

significant environmental effects have been identified for the project; and the severity of identified environmental impacts would not increase.

A list of the agencies, organizations, and individuals commenting on the Draft EIR is provided below:

- Comment Letter A: Bonita Valley Horsemen and Tijuana River Valley Equestrian Association
- Comment Letter B: San Diego County Archaeological Society Inc.
- Comment Letter C: U.S. Fish and Wildlife Service and California Department of Fish and Wildlife
- Comment Letter D: Vulcan Materials Company
- Comment Letter E: Hazard Construction
- Comment Letter F: West Coast Sand and Gravel
- Comment Letter G: Coast Aggregates
- Comment Letter H: Flatiron Construction Corporation
- Comment Letter I: TC Construction Company Inc.
- Comment Letter J: Caltrans, District 11
- Comment Letter K: Duane E. Bazzel
- Comment Letter L: County of San Diego, Planning and Development Services
- Comment Letter M: County of San Diego, Department of Environmental Health
- Comment Letter N: Allen Matkins Leck Gamble Mallory & Natsis LLP
- Comment Letter O: State of California, Governor's Office of Planning and Research (State Clearinghouse)

Copies of all letters received by the City of Chula Vista regarding the Draft EIR and the responses to comments follow.


Comment Letter A

Marni Borg

From:
Sent:
To:
Cc:
Subject:

To: Marni Borg
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Reference: EIR 13-01-SGI 2013071077

As active members of the equestrian community and the presidents of our two local horse organizations we wish to make the following joint comments regarding the Otay Ranch University Villages SPA Plan Draft EIR. The Otay Valley Regional Park Concept Plan holds that all trails in the Western OVRP area must be multiuse including Equestrian use. There is currently an Equestrian Staging Area at Main Street in Chula Vista and the long range plan would be that the OVRP Staging area at Otay Lakes County Park when constructed would include equestrian facilities. The long range vision for the OVRP trails would be that there would be parallel trails on both sides of the Otay River, east from Heritage Road to the Otay Lakes County Park. As stated previously, both of these trails must be multiuse (including equestrian use). While the EIR does not address the entire Eastern OVRP area and appears to acknowledge that the OVRP/Greenbelt Trail will be multiuse trails (including equestrian use) we are requesting confirmation in that fact.

Additionally, a new bridge is planned where Heritage Road crosses the Otay River. The OVRP Concept Plan shows that the parallel river trails will pass under the bridge to keep trail users from having to cross the road at grade level and deal with vehicular traffic. The under bridge trails will need to be hardened to our grade during flood events and have enough clearance for mounted equestrians to pass underneath while riding (12 feet or more).

Thank you for the opportunity to comment and if you need any further information you can contact the undersigned or one of our members, Mark Kukuchek, who is also a member of the OVRP Citizen Advisory Committee.

Diane Carter
President of the Bonita Valley Horsemen

Victoria Krauss
President of the Tijuana River Valley Equestrian Association

A-1

A-2

A-3

Response to Comment Letter A

Bonita Valley Horsemen and Tijuana River Valley Equestrian Association
Diane Carter, President of the Bonita Valley Horsemen and Victoria Krauss, President of the Tijuana River Valley Equestrian Association
September 2, 2014

A-1 Multi-use of the Greenbelt Trail is addressed in several places in both the University Villages EIR and SPA Plans, including EIR Section 5.8, Biological Resources, – page 5.8-102; Village Three North and a Portion of Village Four SPA – pages II-3, III-55, III-59, V-77, and V-92; Village Three North and a Portion of Village Four Village Design Plan – page 66; Village Eight East SPA – page I-5, III-62, III-69, V-87, V-103, IX-164; Village Eight East Village Design Plan – page 50; Village Ten SPA – pages I-5, III-59, V-83, V-97, IX-157; and Village Ten Village Design Plan – page 50. All Greenbelt Trail segments will be multi-use trails which provide a variety of uses including, hiking, biking, and equestrian use.

A-2 This comment is not applicable to the proposed University Villages project. Improvements to Heritage Road south of Main Street, including the Heritage Road bridge, is included in the Chula Vista adopted FY 2012-13 through FY 2016-17 Capital

		Improvement Program (CIP) (STM364-Heritage Road Bridge Replacement) and therefore is a separate project. No further response is required.
	A-3	No response to this comment is required.

Comment Letter B

San Diego County Archaeological Society, Inc.
Environmental Review Committee

11 September 2014

To: Ms. Marni Borg
Development Services Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 91910

Subject: Draft Environmental Impact Report
University Villages Sectional Planning Area Plan and Tentative Map
EIR 13-05

Dear Ms. Borg:

I have reviewed the cultural resources aspects of the subject DEIR on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DEIR and its Appendix F1, we have the following comments:

1. Along with the archaeological monitor, it is normal practice to include a Native American monitor. Mitigation Measure MM CUL-1 should be revised accordingly. B-1
2. Mitigation Measures MM CUL- both refer to curation of "significant artifacts" at a facility approved by the City. All prehistoric material other than human remains and associated burial material should be curated. Historic material is typically curated other than, for example, bulk construction material, of which a sample is curated. The decision on what to keep and what to discard should be made in consultation with the curation facility, as some historical material may be common at a particular site but uncommon elsewhere. B-2
3. Mitigation Measures MM CUL-5 says some recovered cultural material could go into a "temporary" exhibit. We suggest MM CUL-5 should specify that the exhibited material should be processed as a loan in accordance with the curation facility's procedures. This will avoid losing the connection between the exhibited material and the rest of the collection. B-3

Other than the above, we concur with the impact analysis and mitigation measures as defined in the DEIR.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

Response to Comment Letter B

San Diego County Archaeological Society, Inc.
James W. Royle, Jr., Chairperson
September 11, 2014

B-1 In accordance with CEQA, the City of Chula Vista has detailed mitigation measures to address the potential for significant archaeological resource impacts. Please see Mitigation Measures CUL-1, through CUL-6 in Section 5.6, Cultural Resources, of the Draft EIR. As detailed in measure CUL-1, all ground-disturbing activities in areas of undisturbed soil would be monitored by an archaeological monitor. The archaeological monitor must meet the Secretary of Interior criteria, which will ensure that such individual is qualified to identify Native American archaeological resources. MM CUL-1 has been revised to include that Native American monitoring will only be required in the event that human remains are discovered and identified as Native American. Mitigation Measures CUL-2 through CUL-6, as well as Cultural Resources Study for the University Villages Project at Otay Ranch (Appendix F), provide specific provisions for the identification and evaluation of any accidentally discovered resources, including treatment of human remains determined to be of Native American descent. The City of Chula Vista believes that these mitigation

cc: Brian F. Smith & Associates SDCAS President File	measures are adequate to minimize impacts to Native American resources, so it does not have a policy in place to have Native American monitors on a project site concurrent with the archaeological monitors. Additionally, this approach is consistent with Section 15064.5(f) of the CEQA Guidelines, which does not require or specifically recommend Native American monitoring for potential inadvertent discoveries of cultural resources. **B-2** As stated in Section 8, Mitigation Program, of Appendix F in the Draft EIR, all artifacts recovered from the University Villages site shall be curated, including artifacts found during the testing phase. In MM CUL-4, the following sentence has been modified to clarify the curation requirement: "All artifacts collected during the survey, test, data recovery, and monitoring programs for this project shall be permanently curated at a qualified facility approved by the City of Chula Vista. Artifacts shall be prepared for curation in accordance with the guidelines of the selected curation facility." See page 5.6-22. No further response is required. **B-3** MM CUL-5 has been revised to clarify that if any artifacts are used for temporary public displays, they shall be processed as a loan in accordance with the curation facilities procedures, as shown below:

	MM CUL-5 Following the completion of mass grading operations, the Applicant shall prepare a plan that addresses the temporary on-site presentation and interpretation of the results of the archaeological studies for the proposed project. This could be accomplished through exhibition within a future community center, civic building and/or multi-purpose building. Any artifacts used for public displays shall be selected from the curated collections originating from the project. This exhibition will only be for temporary display of artifacts for public interpretation and display purposes. Artifacts selected for the exhibit shall be withdrawn on loan from the curation facility and will subsequently be returned to that facility upon the close of the exhibition. The applicant will be responsible for the artifacts during the display period and for the return of the artifacts at the close of the exhibition. The consulting archaeologist shall act on the applicant's behalf to coordinate the curation of all collections and the subsequent use of selected artifacts for the public display. Also see EIR page 5.6-22. No new impacts would occur as a result of these modifications and no further revisions are necessary.

Comment Letter C

SEP 17 2014

Ms. Marni Berg
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 91910

Subject: Draft Environmental Impact Report for the Otay Ranch University Villages Project (Villages 3, 8 East, and 10, SCH # 2013071077), City of Chula Vista, California

Dear Ms. Berg:

This letter provides the U.S. Fish and Wildlife Service (Service) and California Department of Fish and Wildlife (Department) (collectively, the Wildlife Agencies) comments on the August 5, 2014, draft Environmental Impact Report (EIR) for the Otay Ranch University Villages Project (Villages 3, 8 East, and 10). The proposed project involves implementation of three Sectional Planning Area plans (Otay Ranch Village 3 North and a portion of Village 4, Otay Ranch Village 8 East, and Otay Ranch Village 10) for residential and commercial development on approximately 731 acres of land within Otay Ranch, located at the southern edge of the City of Chula Vista (City). As part of this response, the Wildlife Agencies are including general comments to assist the City in fulfilling the conservation obligations described in its Multiple Species Conservation Program (MSCP) Subarea Plan (SAP).

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and threatened and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), including habitat conservation plans (HCP) developed under section 10(a)(1)(B) of the Act. The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA; §§ 15386 and 15381, respectively) and is responsible for ensuring appropriate conservation of the State's biological resources, including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act (Fish and Game Code § 2050 *et seq.*) and other sections of the Fish and Game Code. The Department also administers the Natural Community Conservation Planning (NCCP) program.

On January 11, 2005, the Service issued a section 10(a)(1)(B) permit pursuant to the Act for the City of Chula Vista MSCP SAP. The Department also issued Natural Community Conservation Plan Approval and Take Authorization per Section 2800 *et seq.*, of the California Fish and Game Code. The MSCP is a comprehensive, long-term habitat conservation planning program that

C-1

C-2

Response to Comment Letter C

U.S. Fish and Wildlife Service and California Department of Fish and Wildlife
Karen A. Goebel, Assistant Field Supervisor
September 17, 2014

C-1 This comment does not address the adequacy of the environmental analysis in the EIR. No response is required.

C-2 This comment does not address the adequacy of the environmental analysis in the EIR. No response is required.

C-3 Chula Vista MSCP Staff met with Wildlife Agency Staff on October 7, 2014. The City provided the Agencies with a brief overview of the Otay Ranch RMP conveyance program which is triggered during the City's processing of a final map. City staff summarized the final map development acreages processed to date, the corresponding RMP conveyance obligations (i.e., 1.188 acres per 1 acre of development [minus RMP defined common use areas]), and the actual acreages conveyed to date. In addition, the City provided a forecast of remaining development areas, estimated conveyance obligations, and currently available preserve acreages within the Otay Ranch Preserve. Based on the

information presented by the City, the Wildlife Agencies acknowledged that the City is currently achieving its conservation goal for Otay Ranch. As this comment is not directly related to the proposed project, revisions to the EIR are not necessary.

With regard to providing a consistency analysis with the County's MSCP Subarea Plan and Baldwin Agreement/Letter, the proposed project is located entirely within the City's jurisdictional boundaries and therefore subject to compliance with the City's MSCP Subarea Plan and associated conditions for coverage for Otay Ranch. The conditions for coverage for Otay Ranch are described in Section 7.6 of the City's MSCP Subarea Plan and include implementation of, and compliance with, the Otay Ranch RMP. Sections 5.1 (Land Use) and 5.8 (Biological Resources) address the project's consistency with the Chula Vista MSCP Subarea Plan and Otay Ranch RMP.

As noted in the Wildlife Agency's comment, portions of Otay Ranch will be developed in the unincorporated County of San Diego. Otay Ranch development within the unincorporated County of San Diego is subject to the County of San Diego's MSCP Subarea Plan. Similar to the Chula Vista MSCP Subarea Plan, Otay Ranch development within the County of San Diego is also subject to implementation of, and compliance with, the Otay

Ranch RMP. To that end, a consistency analysis of the County's MSCP Subarea Plan would not change the findings of this EIR as both the City and County Subarea Plans rely on implementation of the same Otay Ranch RMP. As noted above, the Project's compliance with the Otay Ranch RMP is provided in Section 5.8 of the EIR. Implementation of the Otay Ranch RMP is assured through mitigation measures MM BIO-1 through MM BIO-18. For the reasons stated above, revisions to the EIR are not necessary as a result of this comment.

The Wildlife Agencies make reference to the Baldwin Agreement, which is an appendix to the County's MSCP Subarea Plan. Unlike the County's MSCP Subarea Plan, the Baldwin Agreement is not appended or incorporated by reference to the City's MSCP Subarea Plan or Implementing Agreement. However, for areas under its land use authority, the City has upheld the spirit and intent of the Baldwin Agreement through previously approved Otay Ranch General Development Plan Amendments dating back to 1998. Subsequent projects within Otay Ranch, including the proposed project, have all demonstrated consistency with the Otay Ranch General Development Plan (GDP) as amended from time to time. This comment does not address the accuracy or adequacy of the EIR and no further response is required.

C-7

C-8

C-9

C-4 Pursuant to the funding obligations specified in the City's MSCP Subarea Plan and Implementing Agreement, the City is committed to creating the PMEF, a non-wasting endowment program to fund enhanced management activities within the North City and Otay Ranch Preserve Management Areas (PMA). The PMEF will be established by the City through funding contributions associated with the following capital improvement program (CIP) projects: Salt Creek Sewer; Wolf Canyon Sewer; Main Street, and La Media Road. Contributions into the PMEF will be made upon commencement of each respective CIP project. Therefore, as the obligation to create and/or contribute to the PMEF is not the responsibility of individual development projects including the proposed project, changes to the EIR are not necessary. However, the City has and will continue to provide the Wildlife Agencies a status of the PMEF through its annual MSCP reporting process. This comment does not address the accuracy or adequacy of the EIR, and no further response is required.

C-5 Comment noted. No further response is required.

C-6 The following tentative map condition has been prepared and added as a condition of approval in order to ensure that the final design of the detention basins will retain the existing pre-development biological function of the area, to the maximum extent practicable:

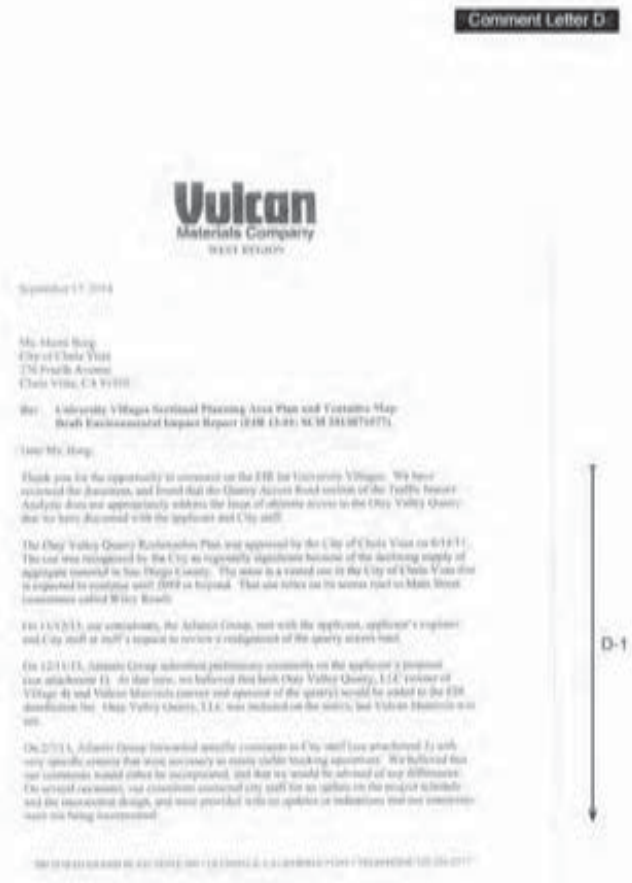
		"Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits for the water quality/detention basins located in the Preserve area south of the Village 10 SPA Plan development area, the Applicant shall prepare and submit a landscape plan and access control plan (e.g., fencing and signage) to ensure that the proposed facilities have been designed to retain the existing pre-development biological function of the area, to the maximum extent practicable. The existing pre-development condition provides foraging opportunities for raptors and an unimpeded wildlife corridor connecting Otay River Valley to Salt Creek Canyon. The landscape plan shall include native plant species to complement the surrounding Preserve areas and will incorporate a program for routine maintenance of the basins following construction. The maintenance program shall describe, at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasive species, and a maintenance/monitoring schedule. This condition shall be to the satisfaction of the Otay Ranch Preserve Steward/Biologist (or designated Chula Vista POM joint staff representative) and the Development Services Director (or their designee)."
	C-7	As identified in MM BIO-15 in Section 5.8.8 of the Draft EIR, prior to issuance of any land development

		permits (including clearing, grubbing, and grading permits), the Project Applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. The City will coordinate with the Wildlife Agencies as necessary following the results of the pre-construction surveys described in MM BIO-15. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation plan subject to the review and approval by the Wildlife agencies and City, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities. Therefore, coordination with the Wildlife Agencies has already been incorporated into mitigation for the proposed project and will be included in the MMRP for the proposed project. No revisions to the Draft EIR are necessary as a result of this comment.
	C-8	The Maritime Succulent Scrub Restoration Plan, Resource Salvage Plan, Revegetation Plan, Preserve Edge Plan, and the Area-Specific Management Directives are required as mitigation for the proposed project in Section 5.8.8 of the Draft EIR, Biological Resources. These plans are required in MM BIO-1 (Area Specific Management Directives), MM BIO-2

		(Maritime Succulent Scrub Restoration Plan), MM BIO-3 (Revegetation Plan), MM BIO-12 (Resource Salvage Plan), and MM BIO-16 (Preserve Edge Plans). The City will coordinate with the Wildlife Agencies to provide the above plans associated with the proposed project at the time of preparation. The Preserve Edge Plans are included in the Village Three and Portion of Village Four SPA Plan, Village Eight East SPA Plan, and Village Ten SPA Plan and have been made available for review. No revision to the Draft EIR is necessary as a result of this comment.
	C-9	As discussed in Draft EIR Section 5.8 page 5.8-58, recreational uses are a minimum of 100 feet from the Preserve boundary. The Preserve Edge Plans prepared for Village Eight East describe avoidance of indirect effects that could occur along the Preserve/ development interface. As stated on page 28 of the Preserve Edge Plan, pursuant to the requirements of the MSCP Subarea Plan and RMP, the land plan has been designed to provide access to the preserve areas at designated locations, directing pedestrians to developed public trails within the Otay River Valley via designated public trails and roadways. The SPA Plan and Village Design Plan provide Wall and Fence Plans for Village Eight East. View fencing/walls along the Preserve Edge will be provided outside the Preserve, within the Brush Management Zone/100-foot Preserve Edge.

	Additionally, as stated in the Preserve Edge Plan, the Village Eight East Design Plan includes criteria for the design of lighting for the village. Improvement plans for areas within the 100-foot Preserve Edge will include shielded lighting designs that avoid spillover light in the Preserve. Street lighting along the southern edge of Village Eight East and the Community Park Entry Drive will be located the greatest distance possible away from the Preserve, while meeting public safety lighting requirements. The Community Park Concept Plan incorporates active recreation uses such as lighted baseball fields, soccer fields, tennis courts, parking areas, and security lighting on restroom and maintenance buildings in more centralized portions of the park (i.e. further from the Preserve). MM BIO-17 requires a lighting study to also be conducted for the Community Park (P-2) in Village Eight East. As stated in the Preserve Edge Plan, Lighting Plans and accompanying photometric analyses must be prepared in conjunction with street improvement plans for streets adjacent to the Preserve and the community park planning process to illustrate the location of proposed lighting standards and type of light shielding measures. Lighting Plans must demonstrate that light spillage into the Preserve is avoided/minimized to the greatest extent possible. City of Chula Vista updated street lighting standards require installation of energy

	saving LED lamps on all City streets. Furthermore, the Village Eight East Community Park (P-2) has been designed to avoid siting potential noise-generating land uses in proximity to occupied habitat, and future park planning would meet Otay Ranch GDP, RMP, and MSCP siting criteria. As stated on page 5.8-67 of the Draft EIR, the park design will include specific measures to address noise issues with respect to the Preserve and the special-status species that are located within habitat adjacent to the Community Park (P-2), specifically MM BIO-17 and MM BIO-18. Details on the Community Park will be provided by the City when the park moves forward as a project. Currently, cursory analysis has been provided to reduce indirect effects and provide for compliance with MSPC adjacency guidelines. No revision to the Draft EIR is necessary.



Response to Comment Letter D

Vulcan Materials Company
Patrick Coughlin, Operations Manager
September 17, 2014

D-1 The City recognizes the Otay Valley Quarry as an important source of aggregate material and understands that mining operations are planned to continue for many years. The obligation of the City is to ensure that as conditions change, the access meets safety standards and allows for trucks to safely enter and exit the quarry. The proposed design meets these requirements and ensures that the Otay Valley Quarry can continue to operate safely.

This segment of Main Street has been identified in the City's General Plan as a six-lane prime arterial since 2005. The design shown in the Draft EIR proposes a safe ingress and egress that would result in no safety hazards, comparable to existing conditions. The existing ingress and egress is an uncontrolled intersection whereby trucks leaving the quarry are required to stop, but traffic from both the south and west is uncontrolled; thus, large trucks must merge with moving traffic. The proposed design analyzed in the DEIR improves on the current situation by providing for an all-way signalized intersection for the quarry entrance. During the interim period prior to the

D-1 Cont.

construction of Main Street over Wolf Canyon, safe ingress and egress would also be provided at a stop controlled intersection. Interim conditions are addressed on Page 292 in the TIA. Most of the design recommendations are aimed at optimizing ingress and egress efficiency. While the commenter may desire such improvements, they are not necessary to minimize safety hazards or otherwise address an environmental impact created by the project. For that reason, many of the comments do not address the adequacy of the environmental analysis in the EIR, but rather identify a preferred design for operational purposes. Such design and operational efficiency issues are beyond the scope of what CEQA requires that an EIR address. For detailed information regarding the specific comments contained later in this comment letter, please refer to the responses below.

D-2 This comment does not address the adequacy of the environmental analysis in the EIR. With respect to noticing the EIR, see response to comment D-1. No further response is required.

D-3 This comment does not address the adequacy of the environmental analysis in the EIR. No response is required.

D-4 The University Village TIA, Section 14, page 292 discusses traffic operations and safety at the quarry

D-2

access off of Main Street under conditions with (ultimate) and without (interim) the Main Street connection over Wolf Canyon.

The following operational assumptions were derived based upon input from the quarry manager:

- Typical operation hours are between 7:00 am and 3:00 pm – Quarry traffic would be very unlikely to occur during the PM peak hour and thus the traffic operations analysis was based on the AM peak hour;
- Approximately 600 daily truck trips are generated by quarry activities – Approximately 1,500 average daily trips (ADT) are generated by the quarry based on a 2.5 Passenger-Car Equivalent (PCE) factor per HCM 2010 (Exhibit 11-10); and
- One truckload every 30 seconds at the highest production – 120 trucks (300 PCE) would enter/exit the quarry during the AM peak hour, assuming a worst-case scenario.

The Project TIA analyzed higher volumes than the expected operations described in the 12/11/13 memo.

D-5 The current Village Three tentative map includes an 80-foot-wide Quarry Access Road.

D-6 City staff has determined that an acceleration lane on Main Street is not necessary, and does not recommend such a facility on a six-lane prime arterial (Main Street). An acceleration lane on Main Street is inconsistent with City design standards for a six-lane prime arterial. Because a signal is planned at the Quarry Access Road, the signal will be synchronized with the signal at Main Street and Heritage Road and right-on-red movements will not be permitted; therefore, trucks leaving the quarry will not encounter conflicts with either right or left turns exiting the quarry.

D-7 City staff believes that a deceleration/right-turn lane on Main Street is inconsistent with City design standards for a six-lane prime arterial. The signal planned at the Quarry Access Road will ensure that trucks entering the quarry will do so safely and not encounter conflicts (see Attachment A to this response).

D-8 The Village Three tentative map provides a traffic signal at the Quarry Access Road/Main Street intersection.

D-9 The revised Village Three North tentative map provides for a painted median on approximately 50 feet of the eastern portion of the median to accommodate left-turn movements from the Quarry Access Road to west-bound Main Street, as depicted in Attachment A.

Mr. Tom Adler
December 11, 2013
Page 3 of 3

We will be providing more detailed technical comments in the next few weeks.

Will the City's project be presented at a public hearing? If so, Otay Valley Quarry and Vulcan would like to be notified of any such hearing. Also, both would like to be added to the mailing list for the distribution of the Village 3 EIR.

Please feel free to call me if you have any questions about this response.

Sincerely,

Marcela Escobar-Eck
Principal

cc: Chuck Miller, Otay Valley Quarry, LLC
Pat Coughlin, Vulcan Materials
John Adams, Vulcan Materials

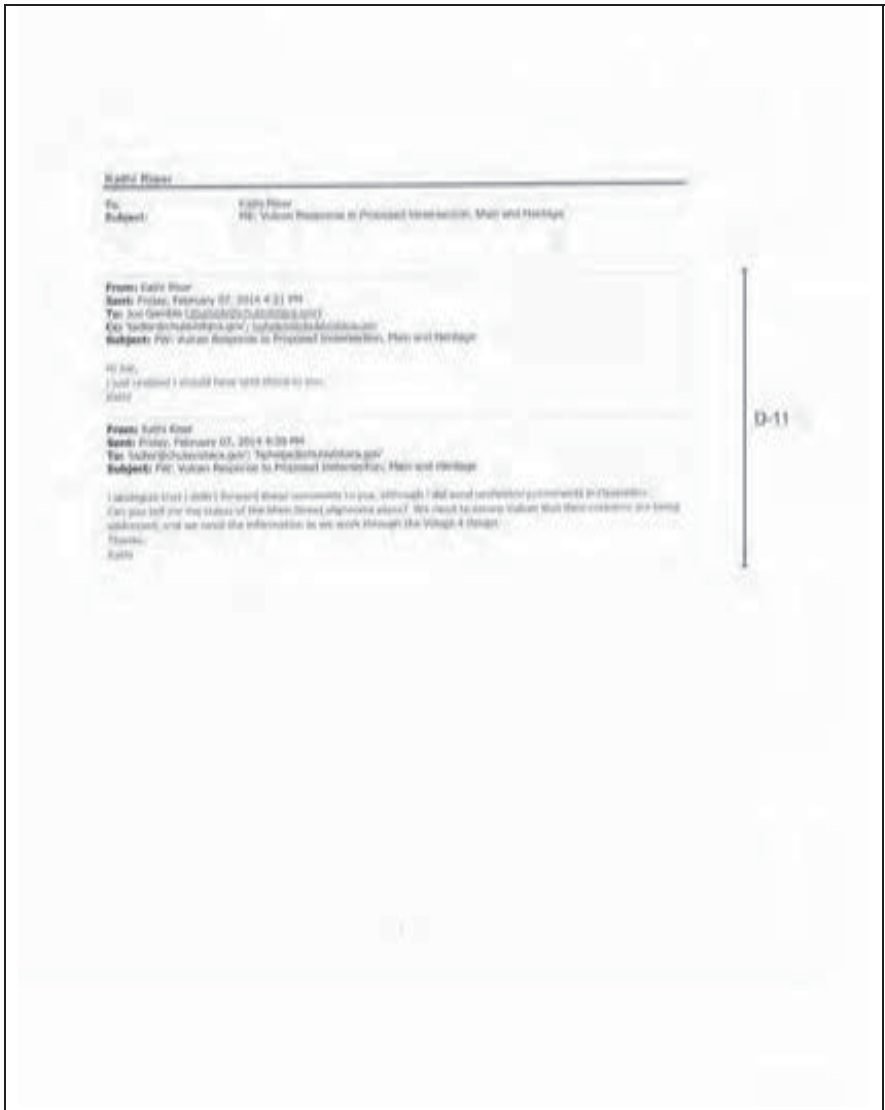
D-10

D-10 This comment does not address the adequacy of the environmental analysis in the EIR. The proposed project will require a public hearing. With respect to the Notice of Availability of the DEIR, please see response to comment D-1. No further response is required.

D-11 This comment does not address the adequacy of the environmental analysis in the EIR. No further response is required.

D-12 This comment does not address the adequacy of the environmental analysis in the EIR. No further response is required.

D-13 Per prior direction from Marcela Escobar (Atlantis Group), on behalf of the Quarry operator, Hunsaker & Associates (project engineer) utilized the WB-67 turning template to design the Quarry Access Road reflected on the Village Three North tentative map. The commenter notes that the recommended configuration would "optimize the usability" of the quarry entrance. However, the requirement of CEQA is not to identify the optimal or most efficient design, but rather to address whether there will be any safety hazards, traffic impacts, or other environmental impacts. The comment does not identify any such impacts in the proposed configuration.

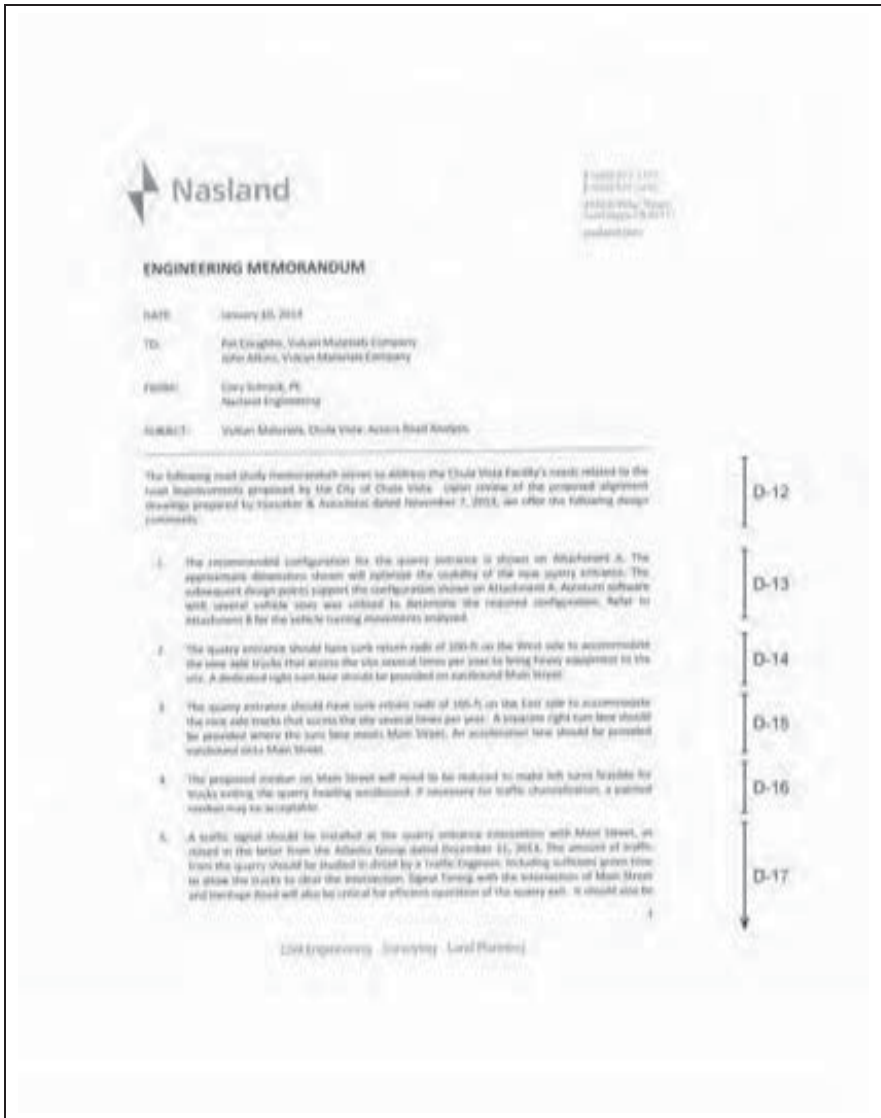


D-11

D-14 In response to this comment, the revised Village Three North tentative map provides a 100-foot curb radii on the west side of the Quarry Access Road/Main Street intersection to accommodate right-turn movements from east-bound Main Street to the Quarry Access Road (see Attachment A to this comment letter). This change did not result in additional grading impacts. The proposed dedicated right-turn lane is not needed to minimize or avoid any significant safety hazards or traffic impacts.

D-15 The revised Village Three North tentative map provides a 50-foot curb radii on the east side of the Quarry Access Road/Main Street to accommodate right-turn movements from the Quarry Access Road to east-bound Main Street (see Attachment A to this comment letter). This is the maximum curb radius that can be accommodated without resulting in additional grading impacts. See response to comment D-6 regarding the acceleration lane.

D-16 In response to this comment, the revised Village Three North tentative map provides for a painted median on approximately 50 feet at the eastern portion of the median to accommodate left-turn movements from the Quarry Access Road to west-bound Main Street, as depicted in Attachment A to this response.



D-17 The proposed project provides a signal at the Quarry Access Road/Main Street intersection. Signal synchronization is controlled by the City of Chula Vista and will be timed to provide sufficient time for trucks to clear the intersection and provide necessary access for trucks and other construction equipment.

D-18 The Quarry Access Road traverses land designated MSCP Preserve and therefore the final design is subject to the Chula Vista MSCP Subarea Plan Section 6.3.3.4 Facilities Siting Criteria. The suggested turnaround with a 100-foot radius is beyond the limits of required access and would result in extensive additional grading within the MSCP Preserve. A more feasible option is for the Otay Quarry operator to contract with street-legal water trucks and other construction equipment so these vehicles can turn around on adjacent public streets. If the commenter deems such a turnaround area is needed for efficient quarry operations, it may pursue such an improvement, but such an upgrade on private property is not the responsibility of the project.

D-19 Improvements at Main Street and Heritage Road are currently designed with the City standard 30-foot curb radius. However, the City has directed that the curb design remain as currently designed due to concerns that a larger curb radius would facilitate higher speed right-turn movements, creating the possibility for safety hazards.

Nasland

D-17 Cont.

D-18

D-19

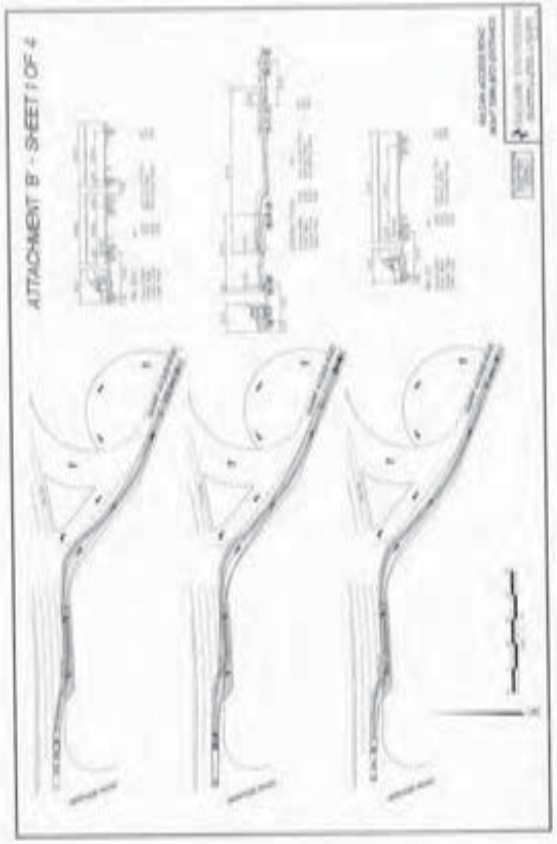
D-20

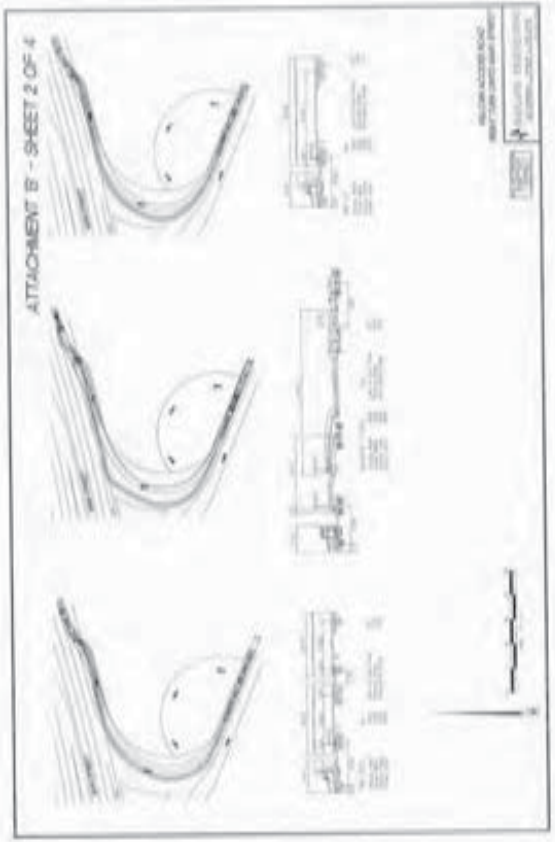
D-21

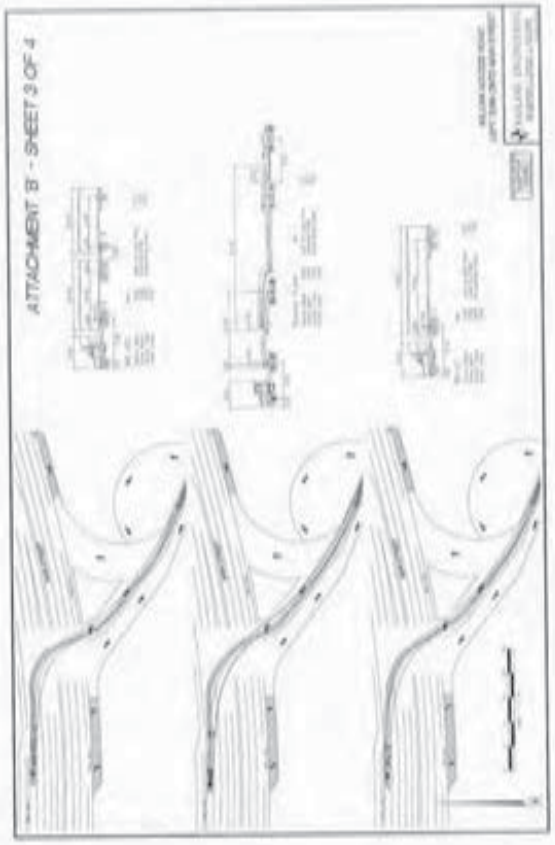
D-20 Comment noted. This issue will be resolved during final engineering.

D-21 This comment is not applicable to the proposed University Villages project. Improvements to Heritage Road south of Main Street, including the Heritage Road bridge, is included in the Chula Vista adopted FY 2012-13 through FY 2016-17 Capital Improvement Program (CIP) (STM364-Heritage Road Bridge Replacement) and therefore is a separate project. No further response is required.

ATTACHMENT A


ATTACHMENT B - SHEET 1 OF 4


ATTACHMENT 'B' - SHEET 2 OF 4


ATTACHMENT 'B' - SHEET 3 OF 4

ATTACHMENT B - SHEET 4 OF 4

OTAY RANCH V3
MAIN STREET
HERITAGE ROAD

14.0 Quarry Access

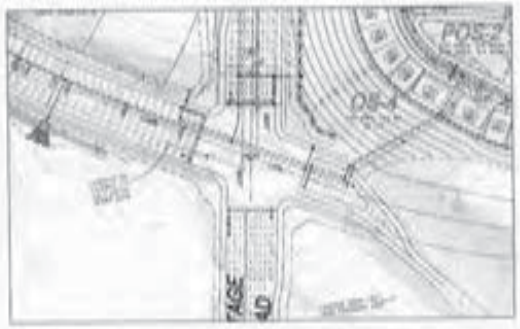
This chapter discusses traffic operations and safety at the quarry access off of Main Street under conditions with (ultimate) and without (interim) the Main Street connection over Wolf Canyon.

The following operational assumptions were derived based upon input from the quarry manager:

- Typical operation hours are between 7:00 am and 5:00 pm – Quarry traffic would be very unlikely to occur during the PM peak hour and thus the traffic operations analysis was based on the AM peak hour;
- Approximately 600 daily truck trips are generated by quarry activities – Approximately 1,500 ADT is generated by the quarry based on a 2.5 Passenger-Car Equivalent (PCE) factor per HCM 2010 (Exhibit 11-10); and
- One truckload every 30 seconds at the highest production – 120 trucks (300 PCE) would enter/exit the quarry during the AM peak hour, assuming a worst case scenario.

14.1 Interim Design

Main Street over Wolf Canyon is not likely to be constructed until Year 2035. The following drawing displays the proposed interim layout for quarry access in relation to the intersection of Heritage Road and Main Street. The access would be east of the intersection, to the southeast.



CHEN RYAN

As shown, Main Street would terminate at the quarry access road approximately 210' east of Heritage Road.

Traffic Operations and Safety

Since no traffic movements would be in conflict with the ingress/egress at the quarry access, no traffic operations or safety issues would be anticipated in the interim years. The traffic signal at the Heritage Road and Main Street intersection should be designed as a standard eight-phase actuated signal. The westbound green indication would only be triggered by the arrival of westbound traffic. Proper signage should be displayed indicating that the east leg (Main Street, east of Heritage Road) is for "Quarry Access Only".

14.2 Ultimate Design

The layout below represents the proposed ultimate design for the quarry access in relation to the intersection of Heritage Road and Main Street, when Main Street between Heritage Road and La Malla is constructed.

As shown, the quarry access road would be located approximately 350' east of Heritage Road.

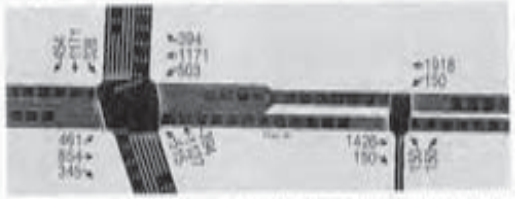
CHEN RYAN

Traffic Operation and Safety

A 50%/50% east/west directional split from/to the quarry was assumed and the following indicates the worst case quarry trip generation and ingress/egress volumes at the access point off of Main Street during the AM peak hour:

- 60 truck trips (150 PCE) making a right-turn (eastbound) to enter the quarry;
- 60 truck trips (150 PCE) making a left-turn (westbound) to enter the quarry; and
- 120 truck trips (300 PCE) exiting the quarry with 60 truck trips (150 PCE) each making left and right-turns onto Main Street.

The graphic below illustrates the AM peak hour turning movements at this intersection.



The quarry access is proposed to be signalized at Main Street. It is important to note that this proposed traffic signal must be coordinated with the traffic signal at the Heritage Road and Main Street intersection. **Table 14.1** displays intersection level of service and average vehicle delay results for both Heritage Road / Main Street and Quarry Access Road / Main Street intersections under the Year 2030 conditions. Level of service calculation worksheets are provided in **Appendix AE**.

TABLE 14.1
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
QUARRY ACCESS YEAR 2030 CONDITIONS

Intersection	AM Peak Hour	
	Avg. Delay (sec.)	LOS
14. Heritage Road / Main Street	46.1	D
15. Quarry Access Road / Main Street	8.5	A

Source: Chen Ryan Associates, February 2013

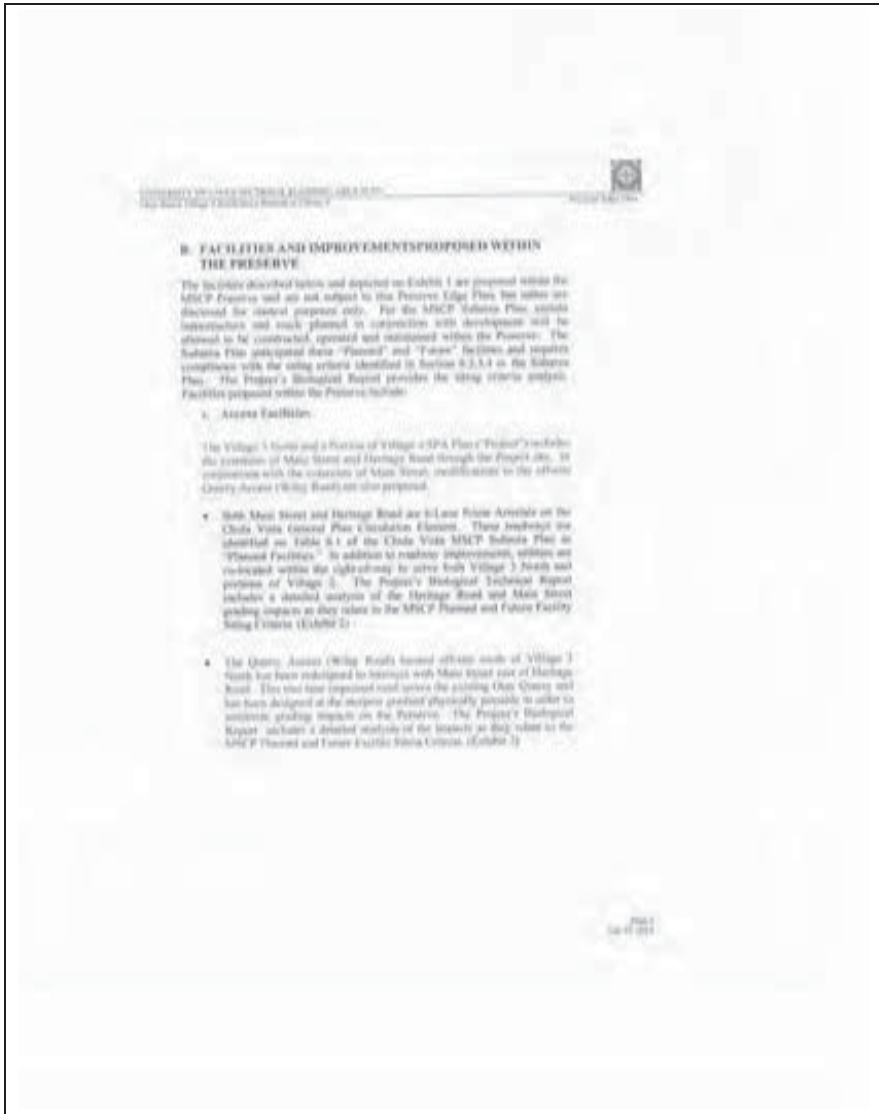
CHEN RYAN

University Villages Project Final Environmental Impact Report 7000
November 2014 RTC-33

As shown in the table, the quarry access at Main Street would operate at LOS A with minimal delay in Year 2010. The 50th (average) and 95th (maximum) queue length at the westbound (Main Street) left-turn into the quarry would be 57' and 177', respectively. Thus, it is recommended that the westbound left-turn pocket be designed at 200' to accommodate the maximum queue.

In addition to the 200' westbound left-turn pocket length, the following is also recommended to ensure safety and smooth operations at the intersection of Quarry Access Road and Main Street:

- "No Turn On Red" sign and/or signal indication to be placed at the northbound quarry access approach to prohibit trucks from making right turns onto Main Street on red;
- Proper signage and pavement marking to be installed indicating "Quarry Access Only";
- Adequate turning radii to be provided for trucks; and
- No pedestrian crossing at Main Street.



B. FACILITIES AND IMPROVEMENTS PROPOSED WITHIN THE PRESERVE

The facilities described below and depicted on Exhibit 1 are proposed within the MSCP Preserve and are not subject to this Preserve Edge Plan but rather are discussed for context purposes only. For the MSCP Subarea Plan, certain infrastructure and track planned in connection with development will be allowed to be constructed, operated and maintained within the Preserve. The Subarea Plan anticipated these "Planned" and "Future" facilities and requires compliance with the siting criteria identified in Section 6.3.3.4 in the Subarea Plan. The Project's Biological Report provides the siting criteria analysis. Facilities proposed within the Preserve include:

1. Access Facilities

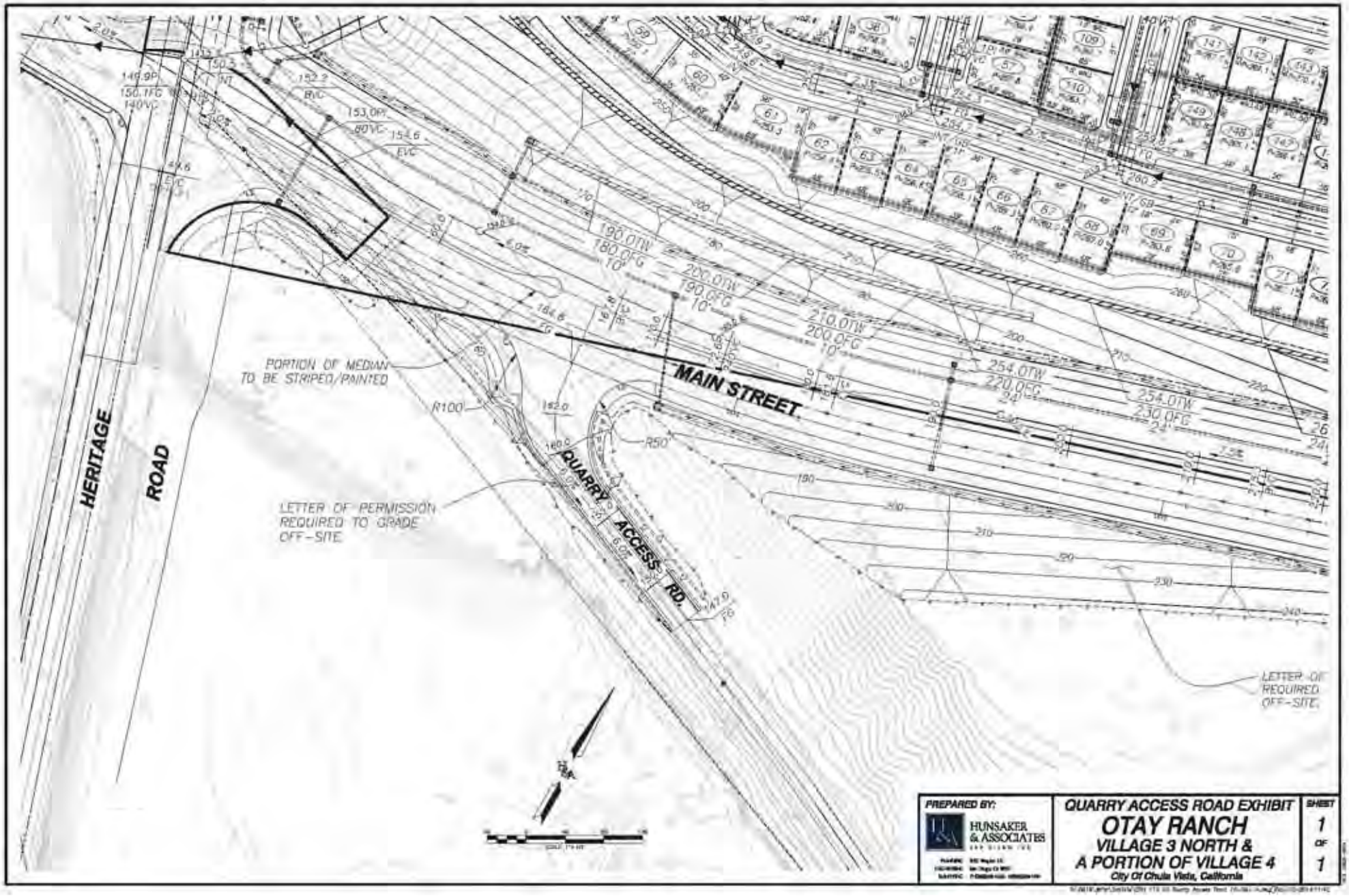
The Village 3 North and a Portion of Village 4 SPA Plan ("Project") includes the extension of Main Street and Heritage Road through the Project site. In conjunction with the extension of Main Street, modifications to the offsite Quarry Access (Wilig Road) are also proposed.

- Both Main Street and Heritage Road are in Lane Prism Arterials on the Clyde Vista General Plan Circulation Element. These roadways are identified on Table 6.1 of the Clyde Vista MSCP Subarea Plan as "Planned Facilities." In addition to roadway improvements, utilities are co-located within the right-of-way to serve both Village 3 North and portions of Village 3. The Project's Biological Technical Report includes a detailed analysis of the Heritage Road and Main Street grading impacts as they relate to the MSCP Planned and Future Facility Siting Criteria (Exhibit 2).

- The Quarry Access (Wilig Road) located offsite south of Village 3 North has been redesigned to intersect with Main Street east of Heritage Road. This tree lane improved road serves the existing Otay Quarry and has been designed at the surface grades physically possible in order to minimize grading impacts on the Preserve. The Project's Biological Report includes a detailed analysis of the impacts as they relate to the MSCP Planned and Future Facility Siting Criteria (Exhibit 2).

MSCP Boundary
SPA/Property Boundary
MSCP Boundary

ATTACHMENT A
TO COMMENT LETTER D
Quarry Access Road Exhibit


HERITAGE
ROAD
MAIN STREET
QUARRY ACCESS RD.
PORTION OF MEDIAN TO BE STRIPED/PAINTED
LETTER OF PERMISSION REQUIRED TO GRADE OFF-SITE
LETTER OF REQUIRED OFF-SITE
R100
R50
PREPARED BY:
HUNSAKER & ASSOCIATES
QUARRY ACCESS ROAD EXHIBIT
OTAY RANCH
VILLAGE 3 NORTH &
A PORTION OF VILLAGE 4
City Of Chula Vista, California
SHEET
1
OF
1

Comment Letter E

HAZARD

September 17, 2014

Mr. Martin Berg
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Re: University Villages Sectional Planning Area Plan and Tentative Map
Draft Environmental Impact Report (EIR 13-01; SCH 2013071077)

Dear Mr. Berg:

Thank you for the opportunity to comment on the EIR for University Villages. We are a customer of Vulcan Materials, the operator of the Otay Valley Quarry, with whom we purchase thousands of yards of material a year and generate thousands of truck trips in order to help retrofit the aging infrastructure in San Diego County. We have great concern with the ability of our trucks to safely enter and exit the quarry utilizing this proposed Quarry Access Road found in the Traffic Impact Analysis. The lack a property lined traffic signal to allow safe passage of trucks over four plus lanes of traffic is disastrous and the lack of proper deceleration and acceleration lanes into the quarry for trucks of this size will sandy cause havoc with the traffic volumes proposed in the future.

We understand that the Otay Valley Quarry has been approved to operate until 2049 or beyond. Aggregate is an increasingly scarce resource in Southern California, and this is one of the few remaining quarries in a region that has not approved a new quarry in many years. The quarry has always taken its access to and from Main Street via the graded road, sometimes called Wiley Road. A change to this access is necessary for future development of the area but planning now will help to eliminate headaches down the line (2025 and beyond).

We request that the intersection design be modified to meet the Otay Valley Quarry's operational requirements so that we can continue to obtain needed construction materials for the infrastructure needs of San Diego County. See attached Memorandum dated 1/10/14 from Nuclear Engineering.

If you have any questions or would like to discuss this matter further we would be happy to do so.

Sincerely,

Jason A. Mordhorst
President

Attachment: Memorandum dated 1/10/14 from Nuclear Engineering

E-1

Response to Comment Letter E

Hazard Construction
Jason A. Mordhorst, President
September 17, 2014

E-1 Please refer to responses D-1 through D-21 above for Comment Letter D.

Nasland

[illegible]
[illegible]
[illegible]
[illegible]

ENGINEERING MEMORANDUM

DATE: January 10, 2014

TO: Pat Coughlin, Vulcan Materials Company
John Atkins, Vulcan Materials Company

FROM: Gary Schrack, PE
Nasland Engineering

SUBJECT: Vulcan Materials, Chula Vista: Access Road Analysis

The following road study memorandum serves to address the Chula Vista Facility's needs related to the road improvements proposed by the City of Chula Vista. Upon review of the proposed alignment drawings prepared by Hunsaker & Associates dated November 7, 2013, we offer the following design comments:

1. The recommended configuration for the quarry entrance is shown on Attachment A. The approximate dimensions shown will optimize the usability of the new quarry entrance. The subsequent design points support the configuration shown on Attachment A. Autoturn software with several vehicle sizes was utilized to determine the required configuration. Refer to Attachment B for the vehicle turning movements analyzed.

2. The quarry entrance should have curb return radii of 100 ft on the West side to accommodate the nine axle trucks that access the site several times per year to bring heavy equipment to the site. A dedicated right turn lane should be provided on eastbound Main Street.

3. The quarry entrance should have curb return radii of 105 ft on the East side to accommodate the nine axle trucks that access the site several times per year. A separate right turn lane should be provided where the turn lane meets Main Street. An acceleration lane should be provided eastbound onto Main Street.

4. The proposed median on Main Street will need to be reduced to make left turns feasible for trucks exiting the quarry heading westbound. If necessary for traffic channelization, a painted median may be acceptable.

5. A traffic signal should be installed at the quarry entrance intersection with Main Street, as stated in the letter from the Atlantis Group dated December 11, 2013. The amount of traffic from the quarry should be studied in detail by a Traffic Engineer, including sufficient green time to allow the trucks to clear the intersection. Signal Timing with the intersection of Main Street and Heritage Road will also be critical for efficient operation of the quarry exit. It should also be

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Nasland

T (858) 292-7770
F (858) 571-2291
4760 Ruffner Street
San Diego, CA 92111
nasland.com

noted that the quarry has vested mining rights with no restrictions on volume or hours of operation, and therefore the proposed entrance limits the ability to allow the necessary access for trucks and other construction equipment.

6. A turnaround area should be included near the quarry entrance to accommodate the turning movements of water trucks, graders, trucks, and loaders used by the quarry to calm dust from the unpaved entrance road. This equipment is not permitted to operate on public roads and cannot utilize the intersection to turn around. We recommend the turnaround area to be paved. A 100-ft radius would be appropriate for this purpose.

7. At the intersection of Main Street and Heritage Road, design of the southeasterly curb return radius should take into account the size of trucks turning eastbound on Main Street from northbound Heritage Road. A 50-ft radius should be sufficient.

8. Phasing of construction for the main street improvements should also be incorporated in the construction documents for the road. Access to the quarry shall be maintained at all times. Consideration for a temporary access road from Heritage Road should be made.

9. If the improvements shown on the *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013* are to be implemented prior to construction of eastbound Main Street, the following considerations should be incorporated into the interim conditions:

   a. Provide for the turn around requirements of the quarry water truck (100-ft radius).
   b. Optimize traffic signal timing, taking into account the anticipated traffic volumes from the quarry.
   c. Design of the southeasterly curb return radius should take into account the size of trucks entering the quarry from northbound Heritage Road.

References:

A. *Letter to the City of Chula Vista from Atlantis Group, dated December 11, 2013*
B. *Quarry Access Road exhibit prepared by Hansuker & Associates, dated November 7, 2011*
C. *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013*

I hope the above information is helpful. Please contact me if I can be of further service or provide additional information regarding this project.

Sincerely,

Cory Schlack, P.E.

2

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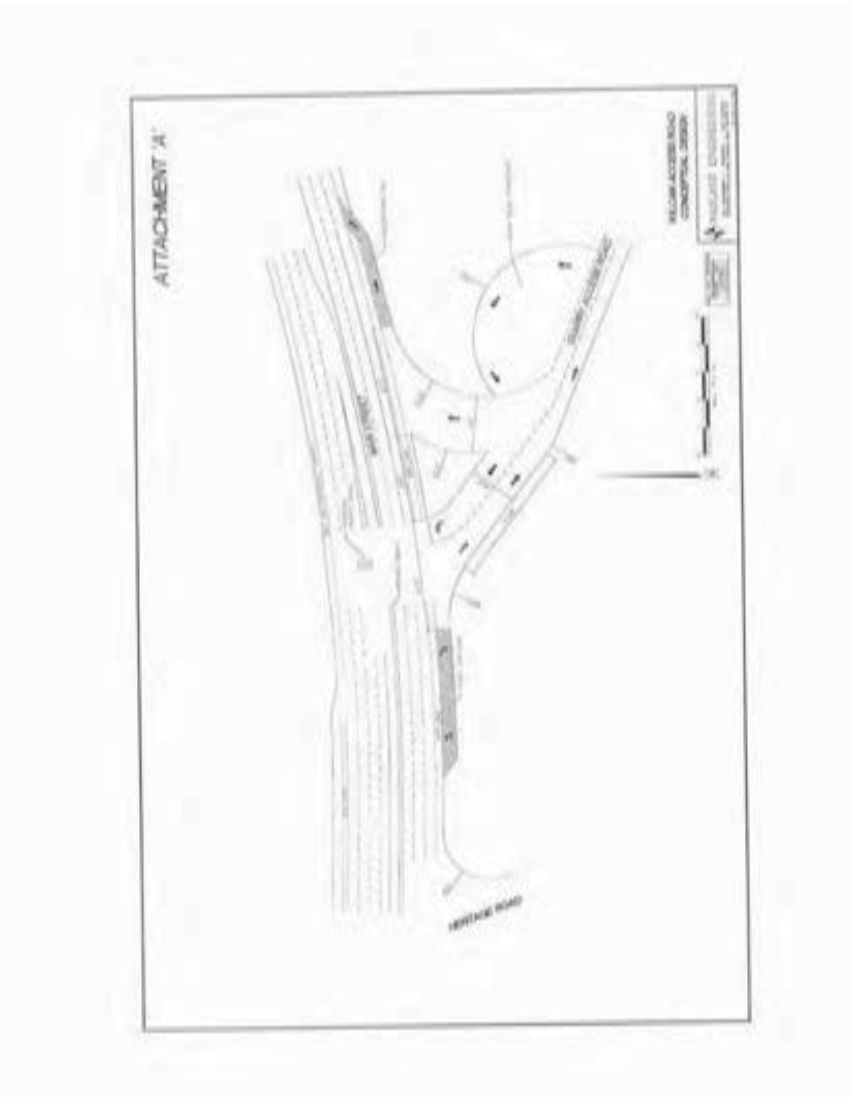
ATTACHMENT 'A'
WILLOW ACCESS ROAD
CONCEPTUAL DESIGN

Response to Comment Letter F

West Coast Sand and Gravel
Jeff Struiksma
September 17, 2014

F-1 Please refer to responses D-1 through D-21 above for Comment Letter D.

Nasland

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[illegible]
nasland.com

ENGINEERING MEMORANDUM

DATE: January 10, 2014

TO: Pat Coughlin, Vulcan Materials Company
John Atkins, Vulcan Materials Company

FROM: Cory Schrack, PE
Nasland Engineering

SUBJECT: Vulcan Materials, Chula Vista: Access Road Analysis

The following road study memorandum serves to address the Chula Vista Facility's needs related to the road improvements proposed by the City of Chula Vista. Upon review of the proposed alignment drawings prepared by Huntsker & Associates dated November 7, 2013, we offer the following design comments:

1. The recommended configuration for the quarry entrance is shown on Attachment A. The approximate dimensions shown will optimize the usability of the new quarry entrance. The subsequent design points support the configuration shown on Attachment A. Autoturn software with several vehicle sizes was utilized to determine the required configuration. Refer to Attachment B for the vehicle turning movements analyzed.

2. The quarry entrance should have curb return radii of 100-ft on the West side to accommodate the nine axle trucks that access the site several times per year to bring heavy equipment to the site. A dedicated right turn lane should be provided on eastbound Main Street.

3. The quarry entrance should have curb return radii of 105-ft on the East side to accommodate the nine axle trucks that access the site several times per year. A separate right turn lane should be provided where the turn lane meets Main Street. An acceleration lane should be provided eastbound onto Main Street.

4. The proposed median on Main Street will need to be reduced to make left turns feasible for trucks exiting the quarry heading westbound. If necessary for traffic channelization, a painted median may be acceptable.

5. A traffic signal should be installed at the quarry entrance intersection with Main Street, as stated in the letter from the Atlantis Group dated December 11, 2013. The amount of traffic from the quarry should be studied in detail by a Traffic Engineer, including sufficient green time to allow the trucks to clear the intersection. Signal Timing with the intersection of Main Street and Heritage Road will also be critical for efficient operation of the quarry exit. It should also be

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noted that the quarry has vested mining rights with no restrictions on volume or hours of operation, and therefore the proposed entrance limits the ability to allow the necessary access for trucks and other construction equipment.

6. A turnaround area should be included near the quarry entrance to accommodate the turning movements of water trucks, graders, trucks, and loaders used by the quarry to calm dust from the unpaved entrance road. This equipment is not permitted to operate on public roads and cannot utilize the intersection to turn around. We recommend the turnaround area to be paved. A 100-ft radius would be appropriate for this purpose.

7. At the intersection of Main Street and Heritage Road, design of the southeasterly curb return radius should take into account the size of trucks turning eastbound on Main Street from northbound Heritage Road. A 50-ft radius should be sufficient.

8. Phasing of construction for the main street improvements should also be incorporated in the construction documents for the road. Access to the quarry shall be maintained at all times. Consideration for a temporary access road from Heritage Road should be made.

9. If the improvements shown on the *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013* are to be implemented prior to construction of eastbound Main Street, the following considerations should be incorporated into the interim conditions.

   a. Provide for the turn around requirements of the quarry water truck (100-ft radius).
   b. Optimize traffic signal timing, taking into account the anticipated traffic volumes from the quarry.
   c. Design of the southeasterly curb return radius should take into account the size of trucks entering the quarry from northbound Heritage Road.

References:

A. *Letter to the City of Chula Vista from Atlantis Group, dated December 13, 2013*
B. *Quarry Access Road exhibit prepared by Hunsaker & Associates, dated November 7, 2013*
C. *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013*

I hope the above information is helpful. Please contact me if I can be of further service or provide additional information regarding this project.

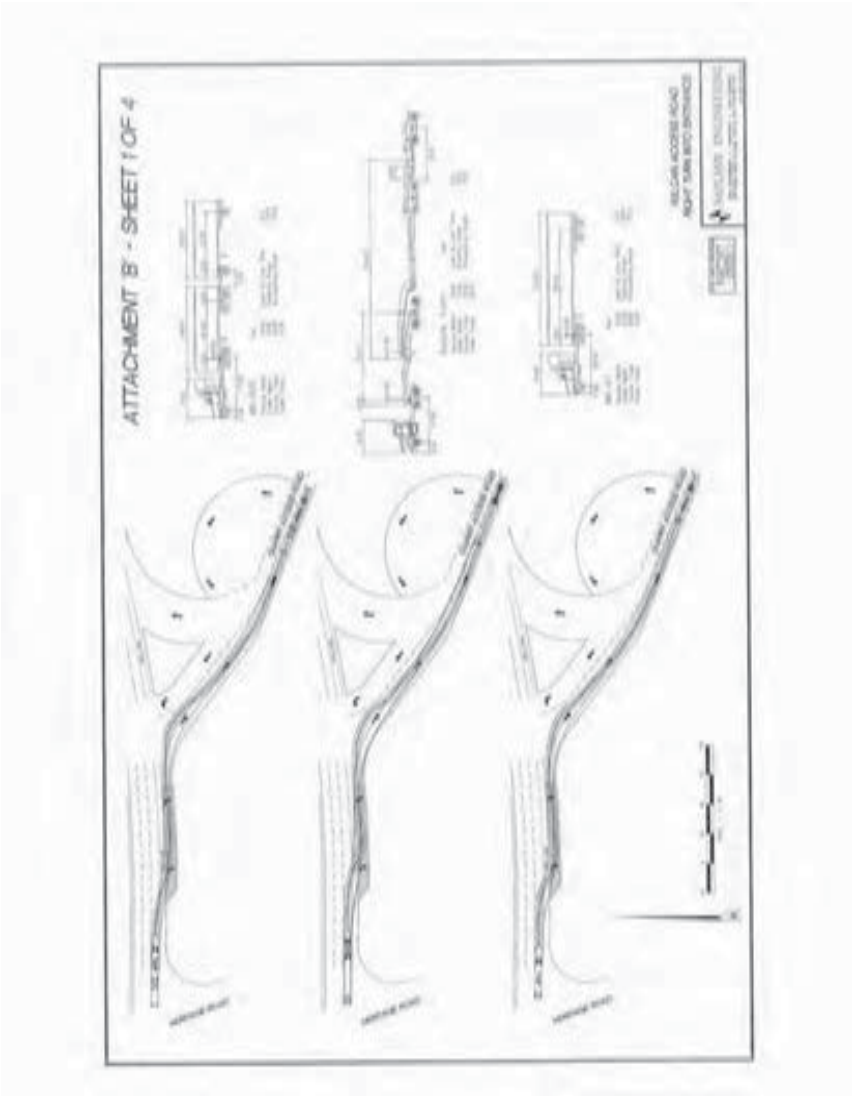
Sincerely,

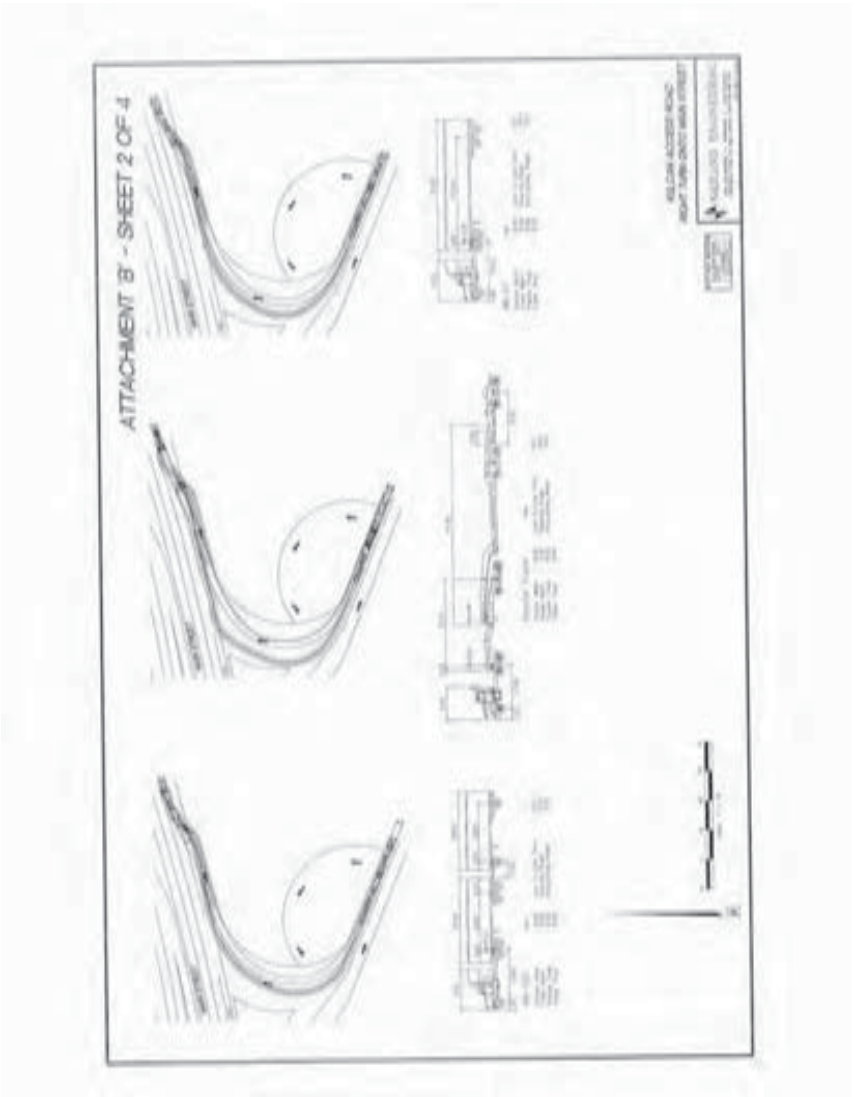
Gary Schenck, P.E.

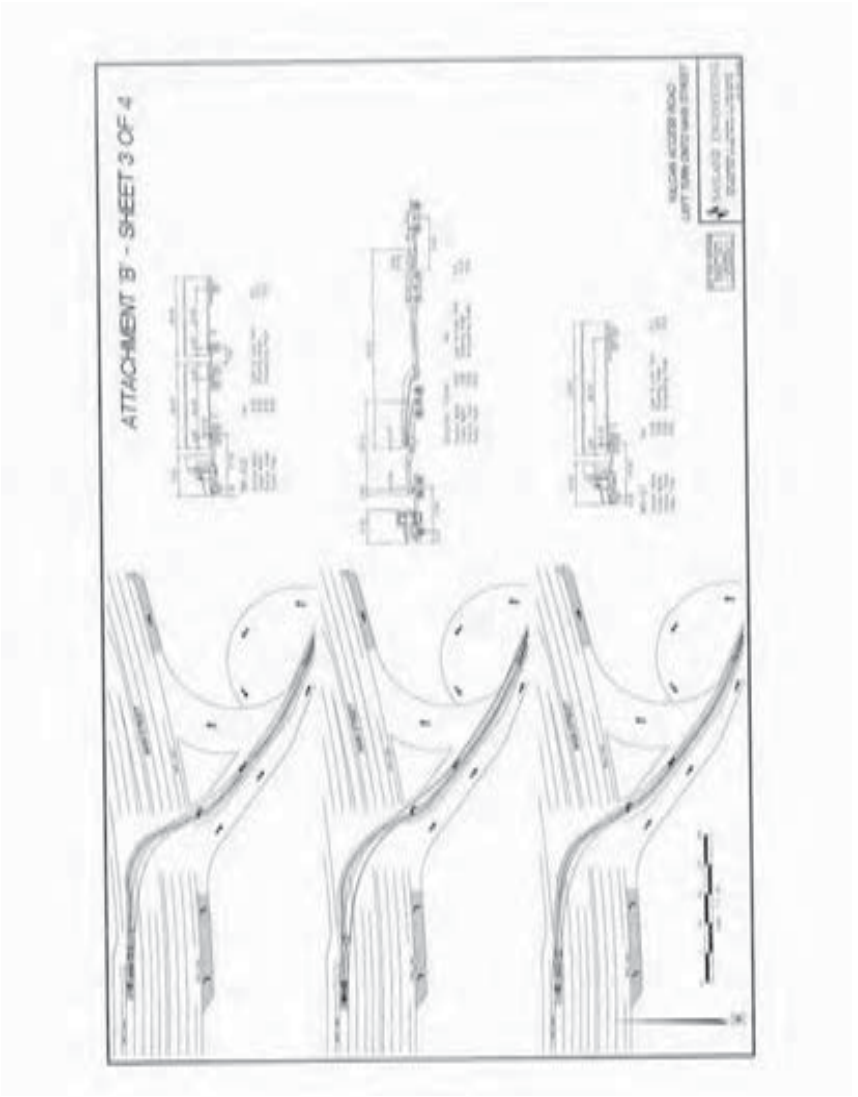
2

Civil Engineering Surveying Land Planning

ATTACHMENT 'A'
HERITAGE ROAD


ATTACHMENT 'B' - SHEET 1 OF 4


ATTACHMENT 'B' - SHEET 2 OF 4


ATTACHMENT 'B' - SHEET 3 OF 4

ATTACHMENT B - SHEET 4 OF 4

ATTACHMENT A

As shown, Main Street would terminate at the quarry access road approximately 210' east of Heritage Road.

Traffic Operation and Safety

Since no traffic movements would be in conflict with the ingress/egress at the quarry access, no traffic operations or safety issues would be anticipated in the interim years. The traffic signal at the Heritage Road and Main Street intersection should be designed as a standard eight-phase actuated signal. The westbound green indication would only be triggered by the arrival of westbound traffic. Proper signage should be displayed indicating that the east leg (Main Street, east of Heritage Road) is for "Quarry Access Only".

14.2 Ultimate Design

The layout below represents the proposed ultimate design for the quarry access in relation to the intersection of Heritage Road and Main Street, when Main Street between Heritage Road and La Media is constructed.

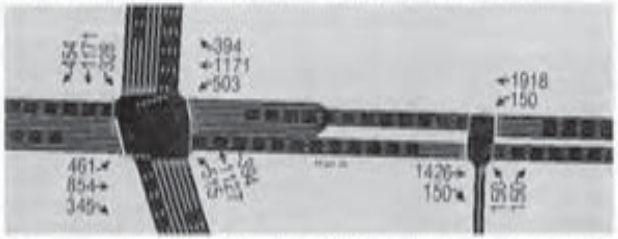
As shown, the quarry access road would be located approximately 350' east of Heritage Road.

Traffic Operation and Safety

A 50%/50% east/west directional split from/to the quarry was assumed and the following indicates the worst case quarry trip generation and ingress/egress volumes at the access point off of Main Street during the AM peak hour:

- 60 truck trips (150 PCE) making a right-turn (eastbound) to enter the quarry;
- 60 truck trips (150 PCE) making a left-turn (westbound) to enter the quarry; and
- 120 truck trips (300 PCE) exiting the quarry with 60 truck trips (150 PCE) each making left and right-turns onto Main Street.

The graphic below illustrates the AM peak hour turning movements at this intersection.



The quarry access is proposed to be signalized at Main Street. It is important to note that this proposed traffic signal must be coordinated with the traffic signal at the Heritage Road and Main Street intersection. **Table 14.1** displays intersection level of service and average vehicle delay results for both Heritage Road / Main Street and Quarry Access Road / Main Street intersections under the Year 2030 conditions. Level of service calculation worksheets are provided in **Appendix AC**.

TABLE 14.1
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
QUARRY ACCESS YEAR 2030 CONDITIONS

Intersection	AM Peak Hour	
	Avg. Delay (sec.)	LOS
35 Heritage Road / Main Street	46.1	D
66 Quarry Access Road / Main Street	1.0	A

Source: Chen Ryan Associates, February 2014

Page 248

CHEN RYAN

University Villages FIA,
Otay Ranch Villages 3 North, 8 East and 10

As shown in the table, the quarry access at Main Street would operate at LOS A with minimum delay in Year 2030. The 50th (average) and 95th (maximum) queue length at the westbound (Main Street) left-turn into the quarry would be 57' and 177', respectively. Thus, it is recommended that the westbound left-turn pocket be designed at 200' to accommodate the maximum queue.

In addition to the 200' westbound left-turn pocket length, the following is also recommended to ensure safety and smooth operations at the intersection of Quarry Access Road and Main Street:

- "No Turn On Red" sign and/or signal indication to be placed at the northbound quarry access approach to prohibit trucks from making right turns onto Main Street on red;
- Proper signage and pavement marking to be installed indicating "Quarry Access Only";
- Adequate turning radii to be provided for trucks; and
- No pedestrian crossing at Main Street.

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CHEN RYAN

University Villages FIA,
Gray Ranch Villages 8 North, 8 East and 10

Comment Letter G

September 17, 2014

Ms. Marni Borg
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Re: University Villages Sectional Planning Area Plan and Tentative Map
Draft Environmental Impact Report (EIR 13-01; SCH 2013071077)

Dear Ms. Borg:

Thank you for the opportunity to comment on the EIR for University Villages. We have reviewed the document and found that the design of the Quarry Access Road found in the Traffic Impact Analysis does not appropriately address the operational needs of the Otay Valley Quarry. It does not incorporate the design parameters submitted by the quarry operator or the City during the project review (see attached).

We understand that the Otay Valley Quarry has been approved to operate until 2080 or beyond. Aggregate is an increasingly scarce resource in Southern California, and this is one of the few remaining quarries in a region that has not approved a new quarry in many years. This quarry has always taken its access to and from Main Street via the graded road, sometimes called Wiley Road.

Remote use of the quarry requires realistic access that accommodates the quantity of truck trips, the horizontal and vertical requirements of the rock trucks, and minimal waiting times to turn onto Main Street. The design shown in the EIR and the SPA Plan could be a major safety hazard to the Otay Valley Quarry and its customers.

We request that the intersection design be modified to meet the Otay Valley Quarry's operational requirements so that we can continue to supply needed construction materials to the San Diego region.

Sincerely,

By: Daniel Brown
Re: Comm. Aggregates

Attachments: Memorandum dated 1/10/14 from Nacland Engineering
Traffic Impact Analysis – Chen Ryan

G-1

Response to Comment Letter G

Coast Aggregates
Daniel Brown
September 17, 2014

G-1 Please refer to responses D-1 through D-21 above for Comment Letter D.

Response to Comment Letter H

Flatiron West, Inc.
Dale A. Nelson, Vice President and District Manager
September 17, 2014

H-1 Please refer to responses D-1 through D-21 above for Comment Letter D.

14.0 Quarry Access

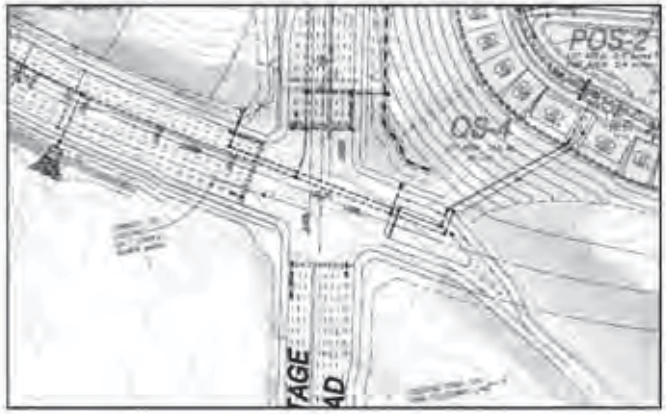
This chapter discusses traffic operations and safety at the quarry access off of Main Street under conditions with (ultimate) and without (interim) the Main Street connection over Wolf Canyon.

The following operational assumptions were derived based upon input from the quarry manager:

- Typical operation hours are between 7:00 am and 3:00 pm – Quarry traffic would be very unlikely to occur during the PM peak hour and thus the traffic operations analysis was based on the AM peak hour;
- Approximately 600 daily truck trips are generated by quarry activities – Approximately 1,500 ADT is generated by the quarry based on a 2.5 Passenger-Car Equivalent (PCE) factor per HCM 2010 (Exhibit 11-10); and
- One truckload every 30 seconds at the highest production – 120 trucks (300 PCE) would enter/exit the quarry during the AM peak hour, assuming a worst case scenario.

14.1 Interim Design

Main Street over Wolf Canyon is not likely to be constructed until Year 2025. The following drawing displays the proposed interim layout for quarry access in relation to the intersection of Heritage Road and Main Street. The access would be east of the intersection, to the southeast.



CHEN RYAN

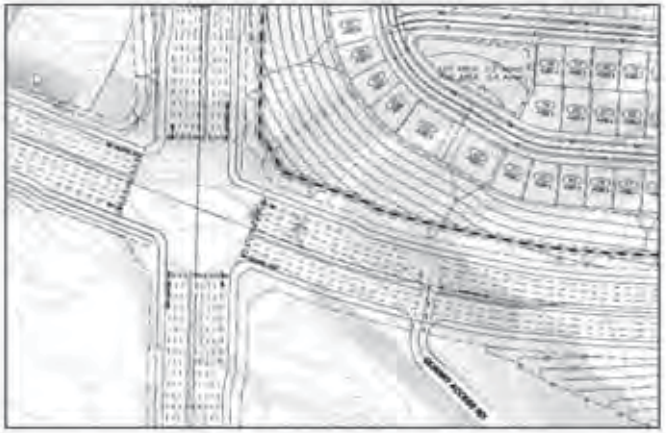
As shown, Main Street would terminate at the quarry access road approximately 210' east of Heritage Road.

Traffic Operation and Safety

Since no traffic movements would be in conflict with the ingress/egress at the quarry access, no traffic operations or safety issues would be anticipated in the interim years. The traffic signal at the Heritage Road and Main Street intersection should be designed as a standard eight-phase actuated signal. The westbound green indication would only be triggered by the arrival of westbound traffic. Proper signage should be displayed indicating that the east leg (Main Street: east of Heritage Road) is for "Quarry Access Only".

14.2 Ultimate Design

The layout below represents the proposed ultimate design for the quarry access in relation to the intersection of Heritage Road and Main Street, when Main Street between Heritage Road and La Media is constructed.



As shown, the quarry access road would be located approximately 350' east of Heritage Road.

CHEN RYAN

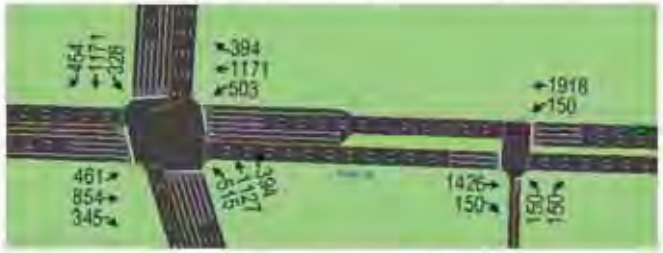
University Villages TIS
Otay Ranch Villages 3 North, 4 East and 10

Traffic Operation and Safety

A 50%/50% east/west directional split from/to the quarry was assumed and the following indicates the worst case quarry trip generation and ingress/egress volumes at the access point off of Main Street during the AM peak hour:

- 60 truck trips (150 PCE) making a right-turn (eastbound) to enter the quarry;
- 60 truck trips (150 PCE) making a left-turn (westbound) to enter the quarry; and
- 120 truck trips (300 PCE) exiting the quarry with 60 truck trips (150 PCE) each making left and right-turns onto Main Street.

The graphic below illustrates the AM peak hour turning movements at this intersection.



The quarry access is proposed to be signalized at Main Street. It is important to note that this proposed traffic signal must be coordinated with the traffic signal at the Heritage Road and Main Street intersection. **Table 14.1** displays intersection level of service and average vehicle delay results for both Heritage Road / Main Street and Quarry Access Road / Main Street intersections under the Year 2030 conditions. Level of service calculation worksheets are provided in **Appendix AC**.

TABLE 14.1
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
QUARRY ACCESS YEAR 2030 CONDITIONS

Intersection	AM Peak Hour	
	Avg. Delay (sec.)	LOS
38 Heritage Road / Main Street	40.1	D
65 Quarry Access Road / Main Street	9.6	A

Source: Chen Ryan Associates, February 2014

CHEN RYAN

As shown in the table, the quarry access at Main Street would operate at LOS A with minimum delay in Year 2030. The 50th (average) and 95th (maximum) queue length at the westbound (Main Street) left-turn into the quarry would be 57' and 177', respectively. Thus, it is recommended that the westbound left-turn pocket be designed at 200' to accommodate the maximum queue.

In addition to the 200' westbound left-turn pocket length, the following is also recommended to ensure safety and smooth operations at the intersection of Quarry Access Road and Main Street:

- "No-Turn On Red" sign and/or signal indication to be placed at the northbound quarry access approach to prohibit trucks from making right turns onto Main Street on red.
- Proper signage and pavement marking to be installed indicating "Quarry Access Only".
- Adequate turning radii to be provided for trucks; and
- No pedestrian crossing at Main Street.

CHEN RYAN

Nasland

ENGINEERING MEMORANDUM

DATE: January 10, 2014

TO: Pat Coughlin, Vulcan Materials Company
John Allows, Vulcan Materials Company

FROM: Cory Schrack, PE
Nasland Engineering

SUBJECT: Vulcan Materials, Chula Vista: Access Road Analysis

The following road study memorandum serves to address the Chula Vista Facility's needs related to the road improvements proposed by the City of Chula Vista. Upon review of the proposed alignment drawings prepared by Hunsaker & Associates dated November 7, 2013, we offer the following design comments:

1. The recommended configuration for the quarry entrance is shown on Attachment A. The approximate dimensions shown will optimize the usability of the new quarry entrance. The subsequent design points support the configuration shown on Attachment A. Autoturn software with several vehicle sizes was utilized to determine the required configuration. Refer to Attachment B for the vehicle turning movements analyzed.

2. The quarry entrance should have curb return radii of 100-ft on the West side to accommodate the nine axle trucks that access the site several times per year to bring heavy equipment to the site. A dedicated right turn lane should be provided on eastbound Main Street.

3. The quarry entrance should have curb return radii of 105-ft on the East side to accommodate the nine axle trucks that access the site several times per year. A separate right turn lane should be provided where the turn lane meets Main Street. An acceleration lane should be provided eastbound onto Main Street.

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Nasland

noted that the quarry has vested mining rights with no restrictions on volume or hours of operation, and therefore the proposed entrance limits the ability to allow the necessary access for trucks and other construction equipment.

6. A turnaround area should be included near the quarry entrance to accommodate the turning movements of water trucks, graders, trucks, and loaders used by the quarry to calm dust from the unpaved entrance road. This equipment is not permitted to operate on public roads and cannot utilize the intersection to turn around. We recommend the turnaround area to be paved. A 100-ft radius would be appropriate for this purpose.

7. At the intersection of Main Street and Heritage Road, design of the southeasterly curb return radius should take into account the size of trucks turning eastbound on Main Street from northbound Heritage Road. A 50-ft radius should be sufficient.

8. Phasing of construction for the main street improvements should also be incorporated in the construction documents for the road. Access to the quarry shall be maintained at all times. Consideration for a temporary access road from Heritage Road should be made.

9. If the improvements shown on the *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013* are to be implemented prior to construction of eastbound Main Street, the following considerations should be incorporated into the interim conditions.

   a. Provide for the turn around requirements of the quarry water truck (100-ft radius).
   b. Optimize traffic signal timing, taking into account the anticipated traffic volumes from the quarry.
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A. *Letter to the City of Chula Vista from Atlantis Group, dated December 11, 2013*
B. *Quarry Access Road exhibit prepared by Hunsaker & Associates, dated November 7, 2013*
C. *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013*

I hope the above information is helpful. Please contact me if I can be of further service or provide additional information regarding this project.

Sincerely,

Gary Stewart, P.E.

2

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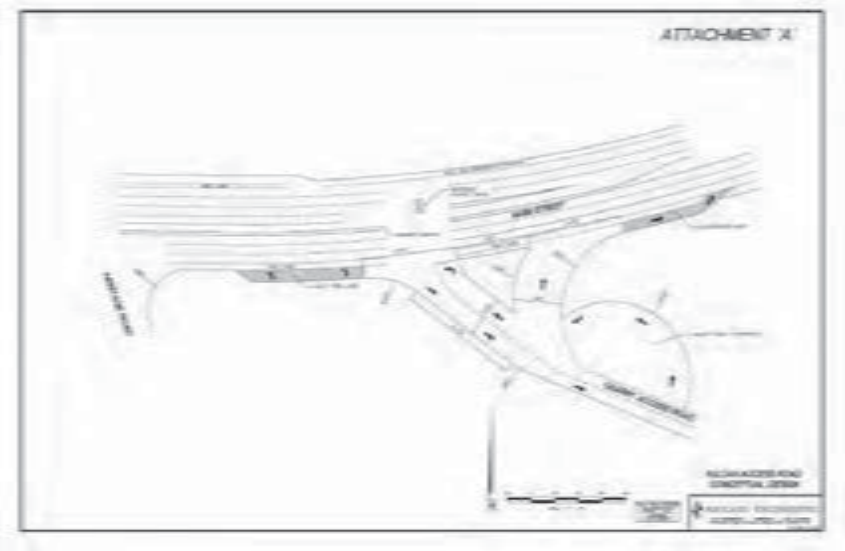
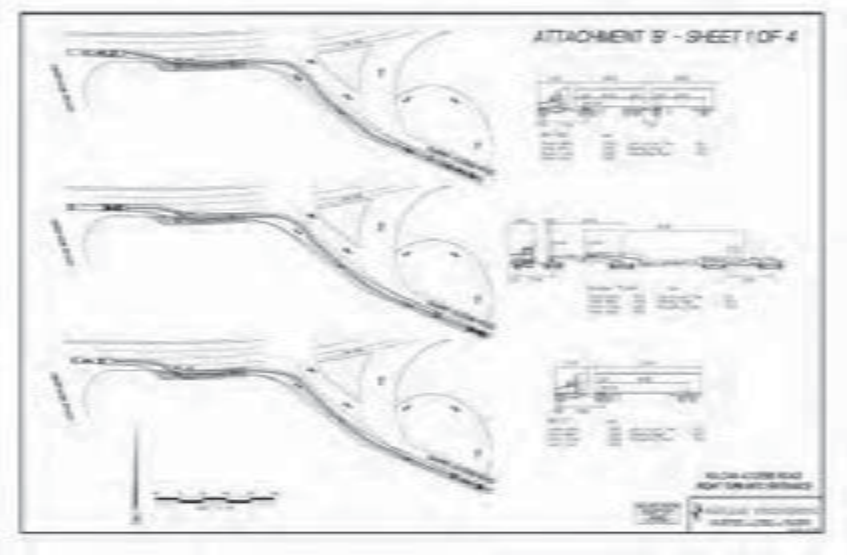

ATTACHMENT A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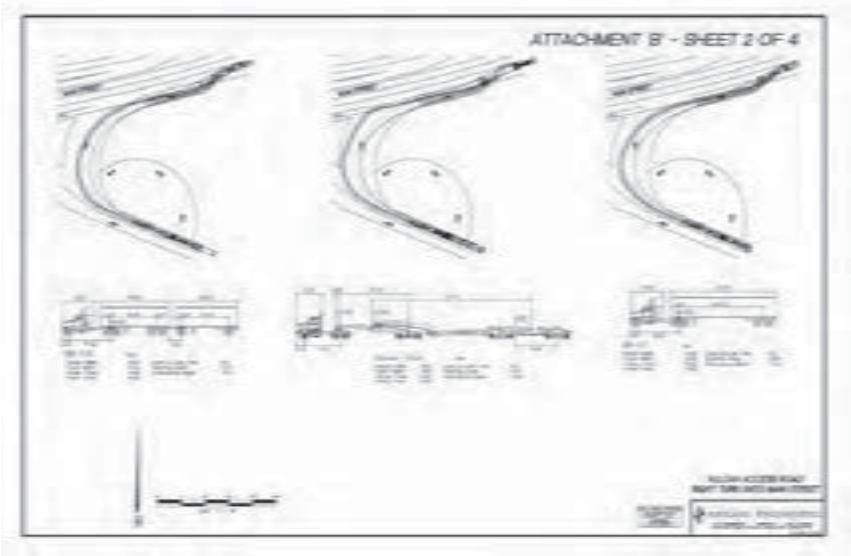
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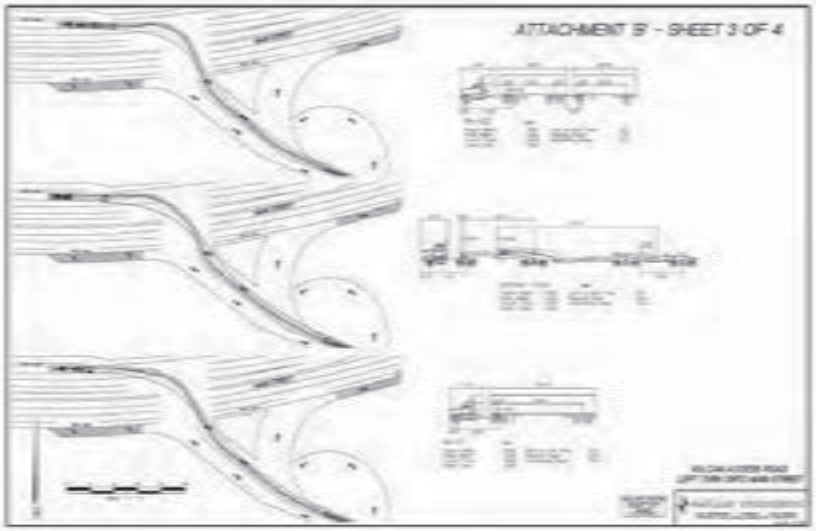
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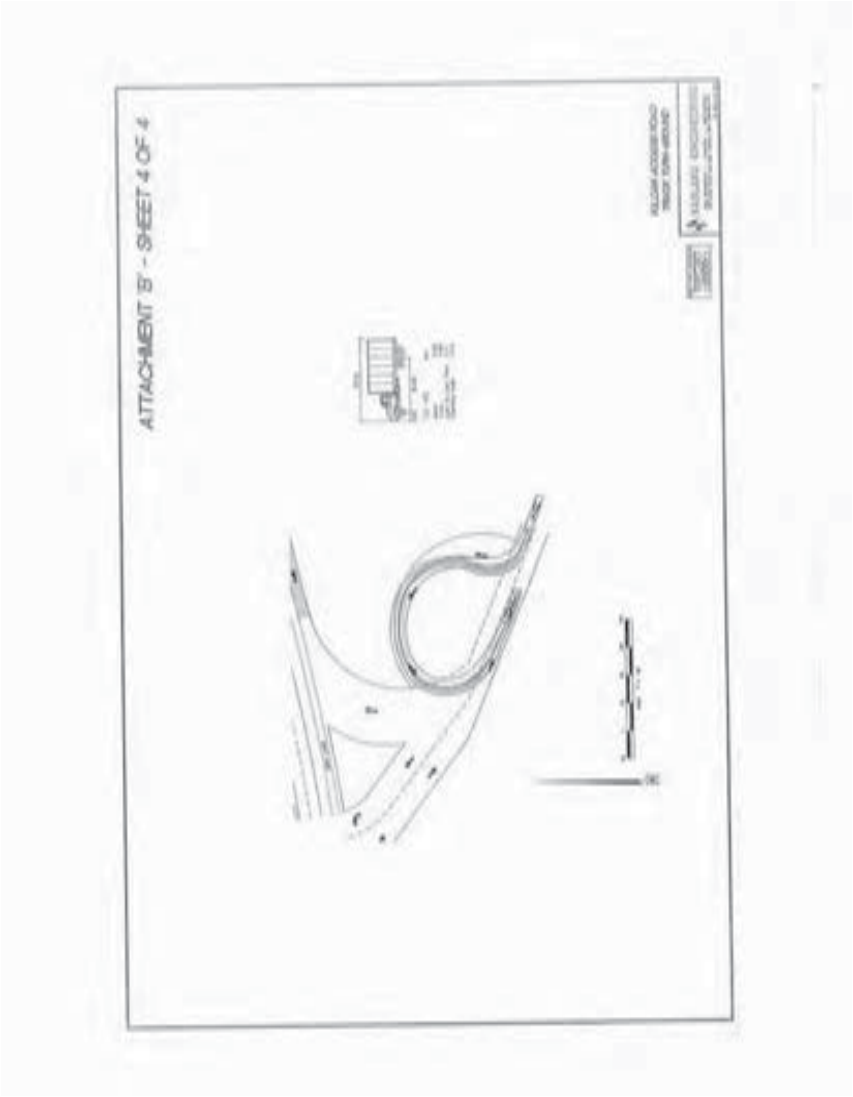
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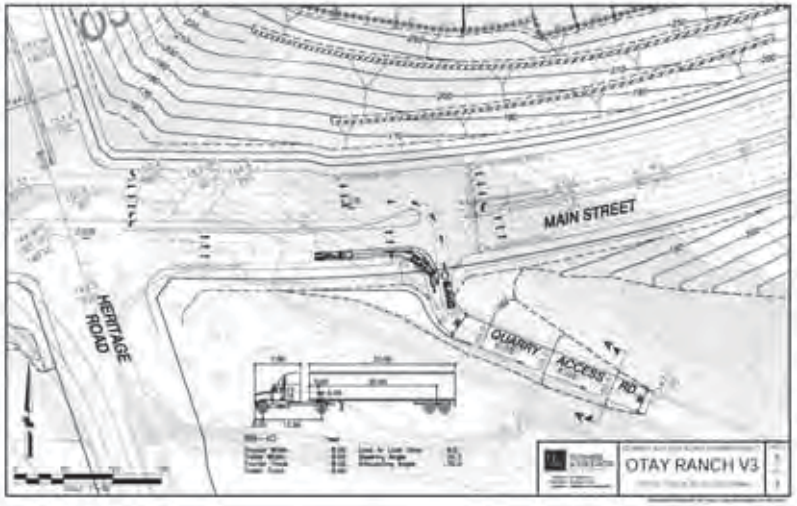

MAIN STREET
HERITAGE ROAD
QUARRY ACCESS RD
OTAY RANCH V3

Comment Letter I

Response to Comment Letter I

TC Construction Company, Inc.
Austin Cameron, President
September 17, 2014

I-1 Please refer to responses D-1 through D-21 above for Comment Letter D.

14.0 Quarry Access

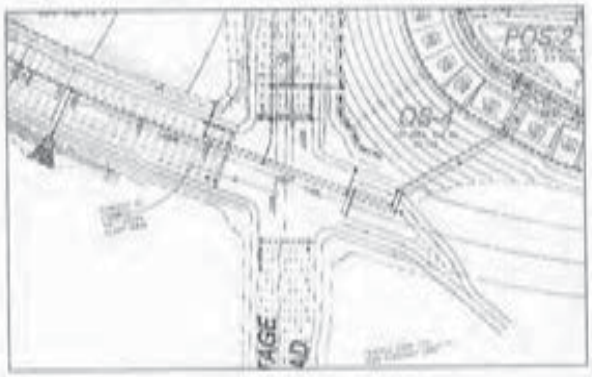
This chapter discusses traffic operations and safety at the quarry access off of Main Street under conditions with (ultimate) and without (interim) the Main Street connection over Wolf Canyon.

The following operational assumptions were derived based upon input from the quarry manager:

- Typical operation hours are between 7:00 am and 3:00 pm – Quarry traffic would be very unlikely to occur during the PM peak hour and thus the traffic operations analysis was based on the AM peak hour;
- Approximately 600 daily truck trips are generated by quarry activities – Approximately 1,500 ADT is generated by the quarry based on a 2.5 Passenger-Car Equivalent (PCE) factor per HCM 2010 (Exhibit 11-10); and
- One truckload every 30 seconds at the highest production – 120 trucks (300 PCE) would enter/exit the quarry during the AM peak hour, assuming a worst case scenario.

14.1 Interim Design

Main Street over Wolf Canyon is not likely to be constructed until Year 2025. The following drawing displays the proposed interim layout for quarry access in relation to the intersection of Heritage Road and Main Street. The access would be east of the intersection, to the southeast.



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CHEN #RYAN

University Villages FIR
Chap Ranch Villages 3 North, 8 Fact and 10

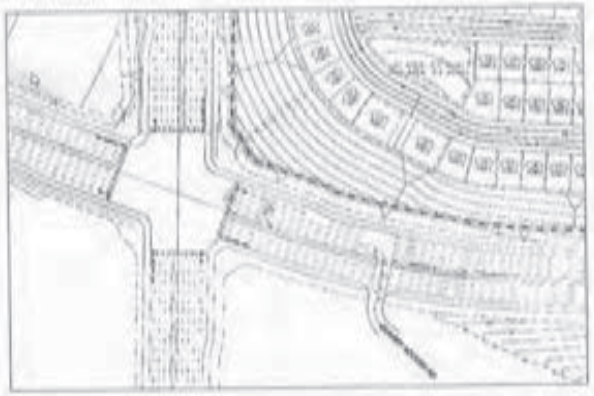
As shown, Main Street would terminate at the quarry access road approximately 330' east of Heritage Road.

Traffic Operation and Safety

Since no traffic movements would be in conflict with the ingress/egress at the quarry access, no traffic operations or safety issues would be anticipated in the interim years. The traffic signal at the Heritage Road and Main Street intersection should be designed as a standard eight-phase actuated signal. The westbound green indication would only be triggered by the arrival of westbound traffic. Proper signage should be displayed indicating that the east leg (Main Street, east of Heritage Road) is for "Quarry Access Only".

14.2 Ultimate Design

The layout below represents the proposed ultimate design for the quarry access in relation to the intersection of Heritage Road and Main Street, when Main Street between Heritage Road and La Media is constructed.



As shown, the quarry access road would be located approximately 350' east of Heritage Road.

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CHEN #RYAN

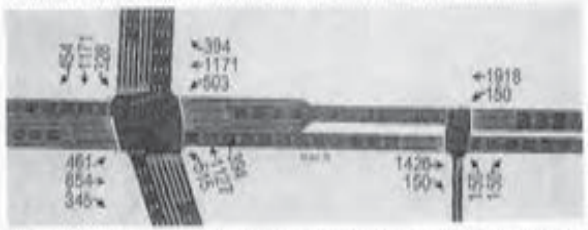
University Villages EIR
Cities Ranch Villages 2 North, 8 East and 10

Traffic Operations and Safety

A 50%/50% east/west directional split from/to the quarry was assumed and the following indicates the worst case quarry trip generation and ingress/egress volumes at the access point off of Main Street during the AM peak hour:

- 30 truck trips (150 PCE) making a right-turn (eastbound) to enter the quarry;
- 60 truck trips (150 PCE) making a left-turn (westbound) to enter the quarry; and
- 120 truck trips (300 PCE) exiting the quarry with 60 truck trips (150 PCE) each making left and right-turns onto Main Street.

The graphic below illustrates the AM peak hour turning movements at this intersection.



The quarry access is proposed to be signalized at Main Street. It is important to note that this proposed traffic signal must be coordinated with the traffic signal at the Heritage Road and Main Street intersection. **Table 14.1** displays intersection level of service and average vehicle delay results for both Heritage Road / Main Street and Quarry Access Road / Main Street intersections under the Year 2030 conditions. Level of service calculation worksheets are provided in **Appendix AC**.

TABLE 14.1
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
QUARRY ACCESS YEAR 2030 CONDITIONS

Intersection	AM Peak Hour	
	Avg. Delay (sec.)	LOS
39. Heritage Road / Main Street	46.1	D
40. Quarry Access Road / Main Street	8.9	A

Source: Chen Ryan Associates, February 2014

CHEN RYAN

As shown in the table, the quarry access at Main Street would operate at LOS A with minimum delay in Year 2030. The 50th (average) and 95th (maximum) queue length at the westbound (Main Street) left-turn into the quarry would be 57' and 177', respectively. Thus, it is recommended that the westbound left-turn pocket be designed at 200' to accommodate the maximum queue.

In addition to the 200' westbound left-turn pocket length, the following is also recommended to ensure safety and smooth operations at the intersection of Quarry Access Road and Main Street:

- "No-Turn On Red" sign and/or signal indication to be placed at the northbound quarry access approach to prohibit trucks from making right turns onto Main Street on red;
- Proper signage and pavement marking to be installed indicating "Quarry Access Only";
- Adequate turning radii to be provided for trucks; and
- No pedestrian crossing at Main Street.

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CHEN RYAN

University Villages EIR
Oak Ranch Villages 3 North, 8 East and 10

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ENGINEERING MEMORANDUM

DATE: January 10, 2014

TO: Pat Coughlin, Vulcan Materials Company
John Arkins, Vulcan Materials Company

FROM: Cory Schrack, PE
Nasland Engineering

SUBJECT: Vulcan Materials, Chula Vista: Access Road Analysis

The following road study memorandum serves to address the Chula Vista Facility's needs related to the road improvements proposed by the City of Chula Vista. Upon review of the proposed alignment drawings prepared by rbrasher & Associates dated November 7, 2013, we offer the following design comments:

1. The recommended configuration for the quarry entrance is shown on Attachment A. The approximate dimensions shown will optimize the usability of the new quarry entrance. The subsequent design points support the configuration shown on Attachment A. Autoturn software with several vehicle sizes was utilized to determine the required configuration. Refer to Attachment B for the vehicle turning movements analysed.

2. The quarry entrance should have curb return radii of 100-ft on the West side to accommodate the nine axle trucks that access the site several times per year to bring heavy equipment to the site. A dedicated right turn lane should be provided on eastbound Main Street.

3. The quarry entrance should have curb return radii of 105-ft on the East side to accommodate the nine axle trucks that access the site several times per year. A separate right turn lane should be provided where the turn lane meets Main Street. An acceleration lane should be provided eastbound onto Main Street.

4. The proposed median on Main Street will need to be reduced to make left turns feasible for trucks exiting the quarry heading westbound. If necessary for traffic channelization, a painted median may be acceptable.

5. A traffic signal should be installed at the quarry entrance intersection with Main Street, as stated in the letter from the Atlantis Group dated December 11, 2013. The amount of traffic from the quarry should be studied in detail by a Traffic Engineer, including sufficient green time to allow the trucks to clear the intersection. Signal Timing with the intersection of Main Street and Heritage Road will also be critical for efficient operation of the quarry exit. It should also be

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Civil Engineering Surveying Land Planning

Nasland

[illegible]

noted that the quarry has vested mining rights with no restrictions on volume or hours of operation, and therefore the proposed entrance lacks the ability to allow the necessary access for trucks and other construction equipment.

6. A turnaround area should be included near the quarry entrance to accommodate the turning movements of water trucks, graders, trucks, and loaders used by the quarry to calm dust from the unpaved entrance road. This equipment is not permitted to operate on public roads and cannot utilize the intersection to turn around. We recommend the turnaround area to be paved. A 100-ft radius would be appropriate for this purpose.

7. At the intersection of Main Street and Heritage Road, design of the southeasterly curb return radius should take into account the size of trucks turning eastbound on Main Street from northbound Heritage Road. A 50-ft radius should be sufficient.

8. Phasing of construction for the main street improvements should also be incorporated in the construction documents for the road. Access to the quarry shall be maintained at all times. Consideration for a temporary access road from Heritage Road should be made.

9. *If the improvements shown on the Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013 are to be implemented prior to construction of eastbound Main Street, the following considerations should be incorporated into the interim conditions.*

   a. Provide for the turn-around requirements of the quarry water truck (100-ft radius).
   b. Optimize traffic signal timing, taking into account the anticipated traffic volumes from the quarry.
   c. Design of the southeasterly curb return radius should take into account the size of trucks entering the quarry from northbound Heritage Road.

References:

A. *Letter to the City of Chula Vista from Atlante Group, dated December 11, 2013*
B. *Quarry Access Road exhibit prepared by Humphrey & Associates, dated November 1, 2013*
C. *Heritage Road Bridge Replacement Alternative 3 prepared by Moffat & Nichol and the City of Chula Vista, dated June 13, 2013*

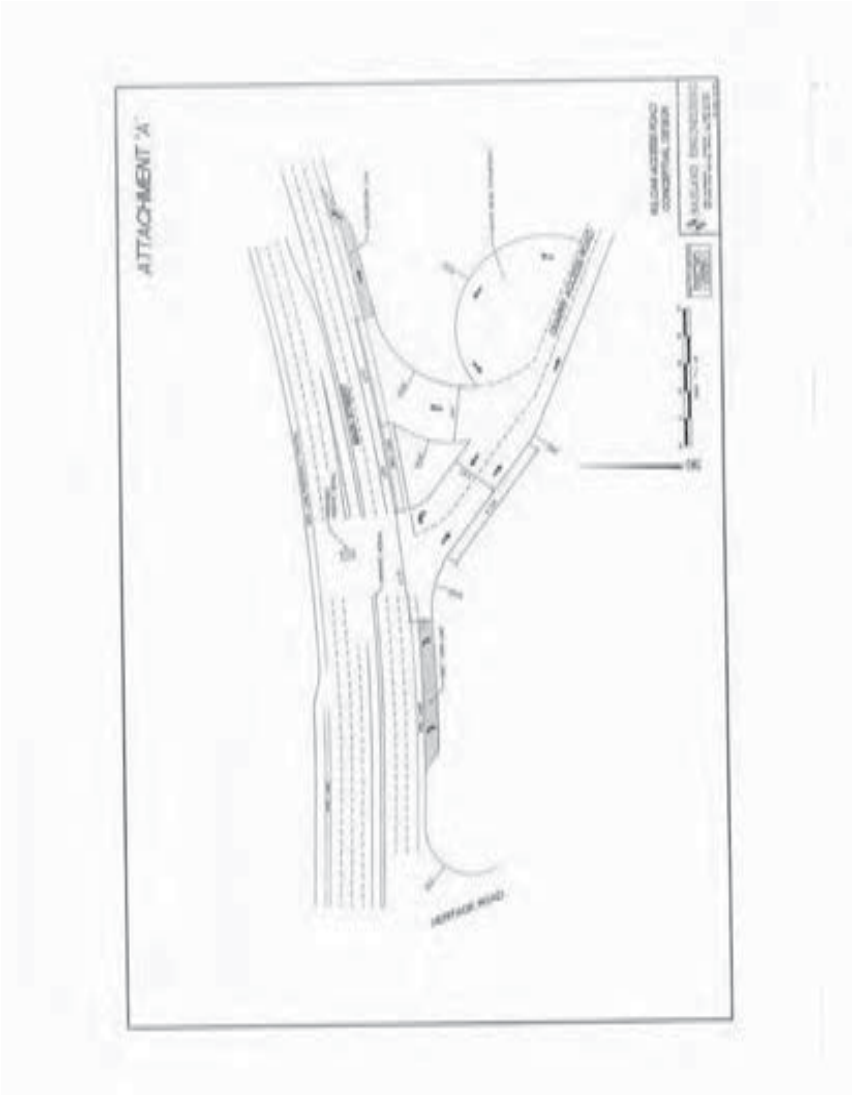
I hope the above information is helpful. Please contact me if I can be of further service or provide additional information regarding this project.

Sincerely,

Cory Schlack, P.E.

2

Civil Engineering Surveying Land Planning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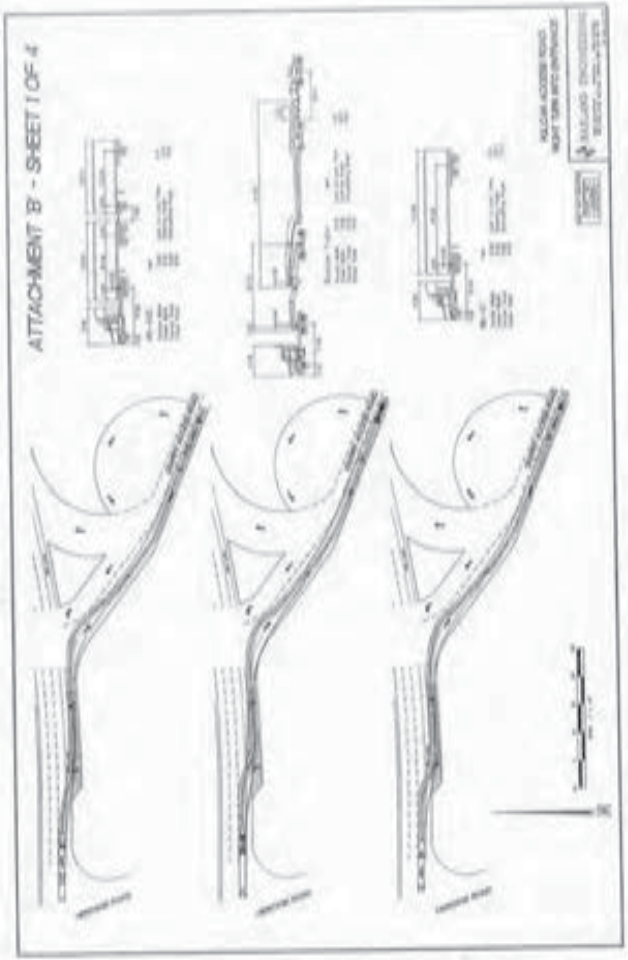
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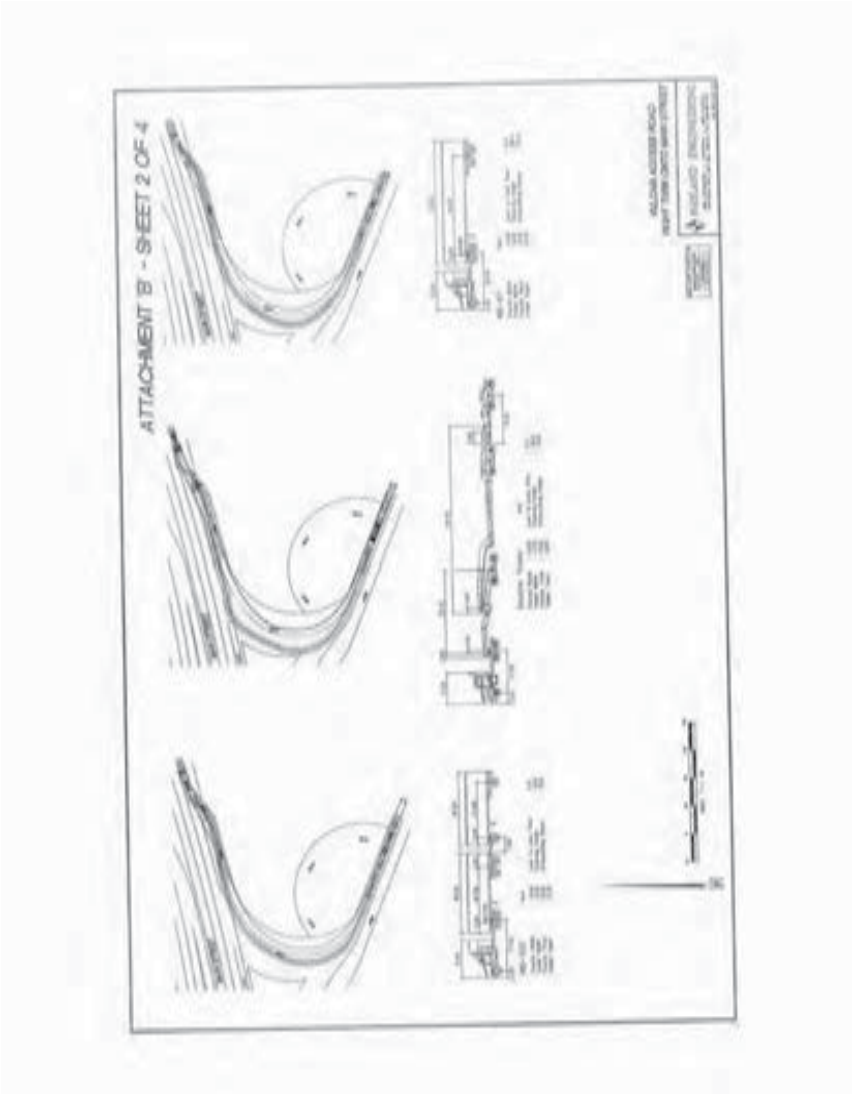
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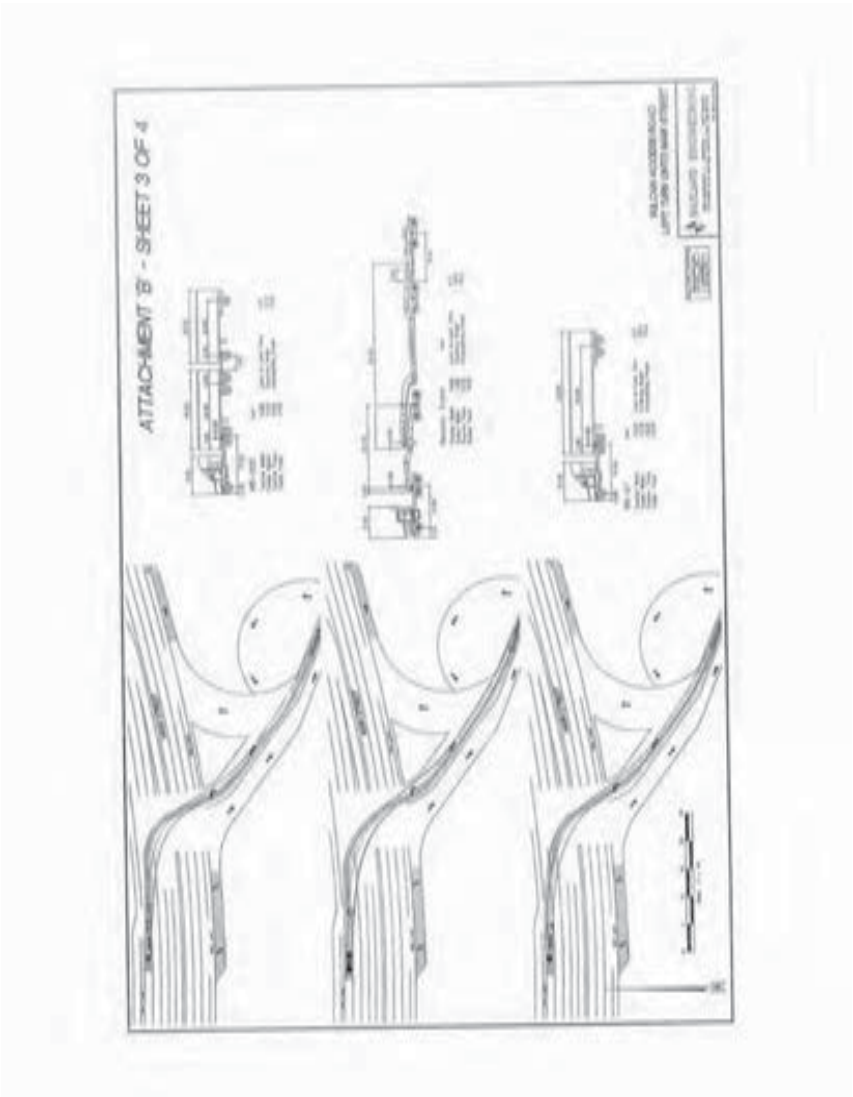
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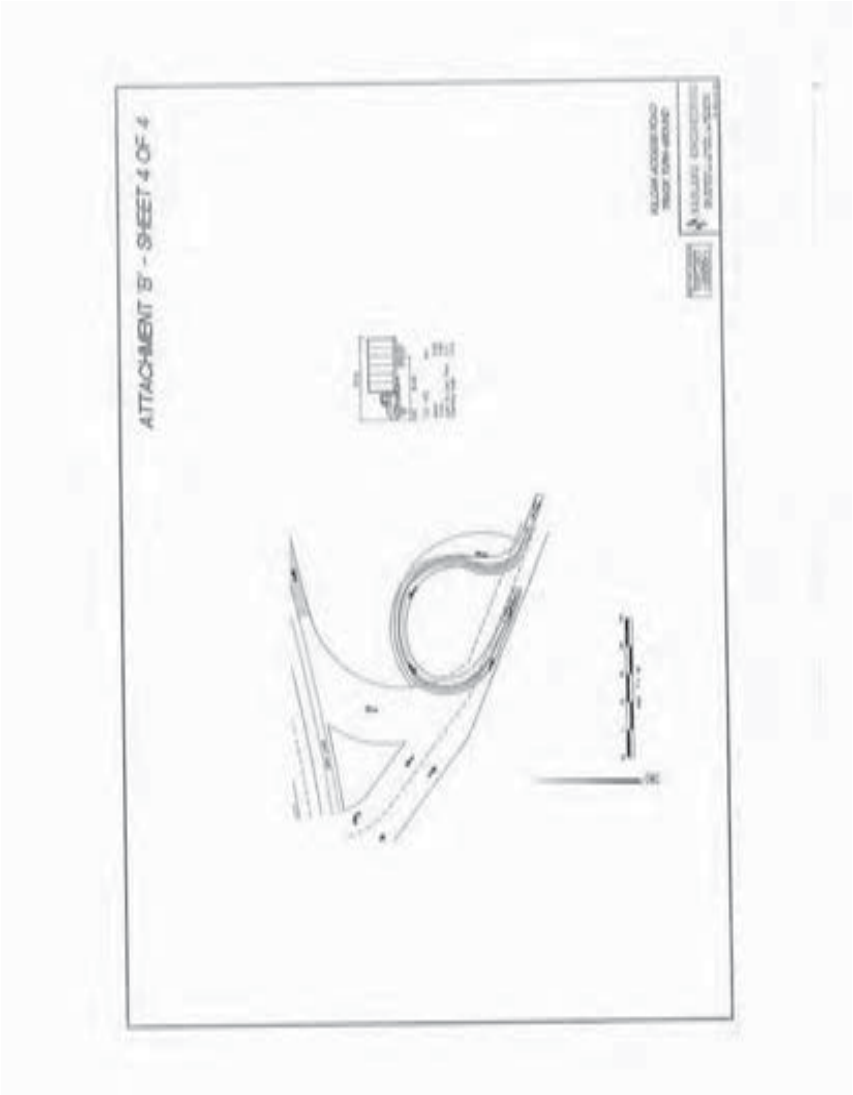
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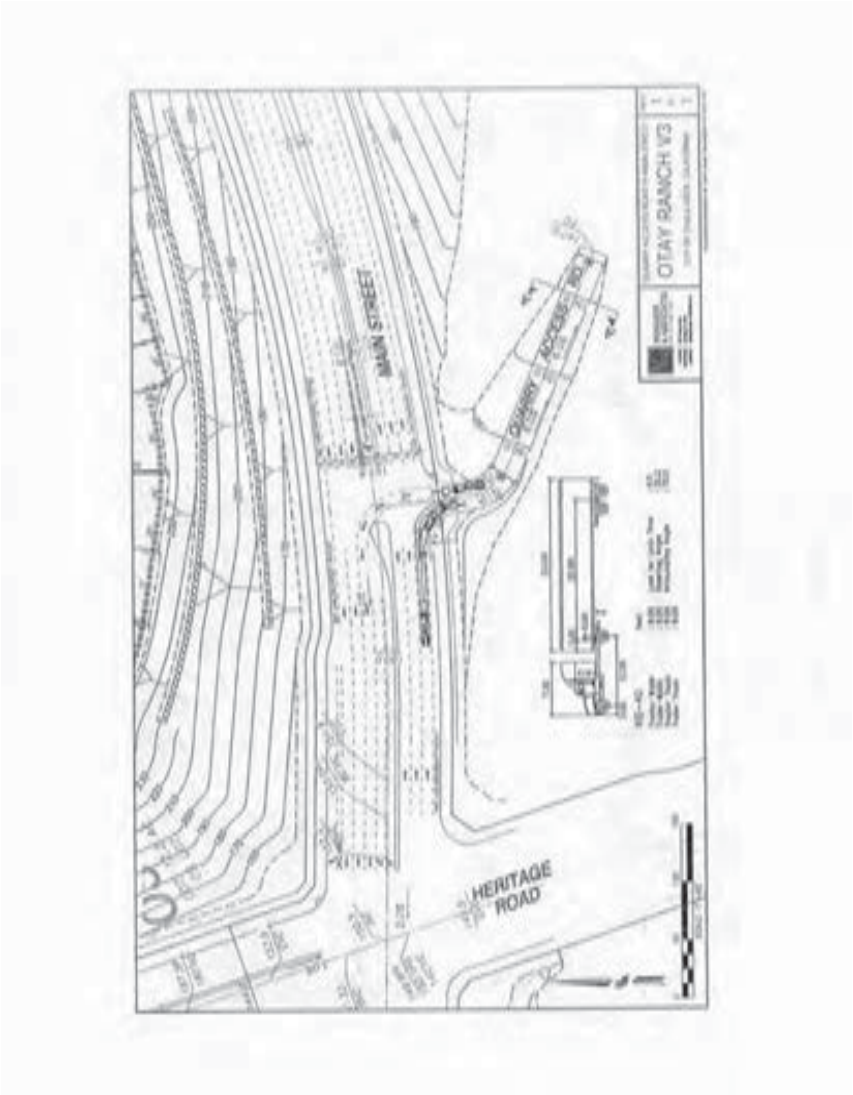
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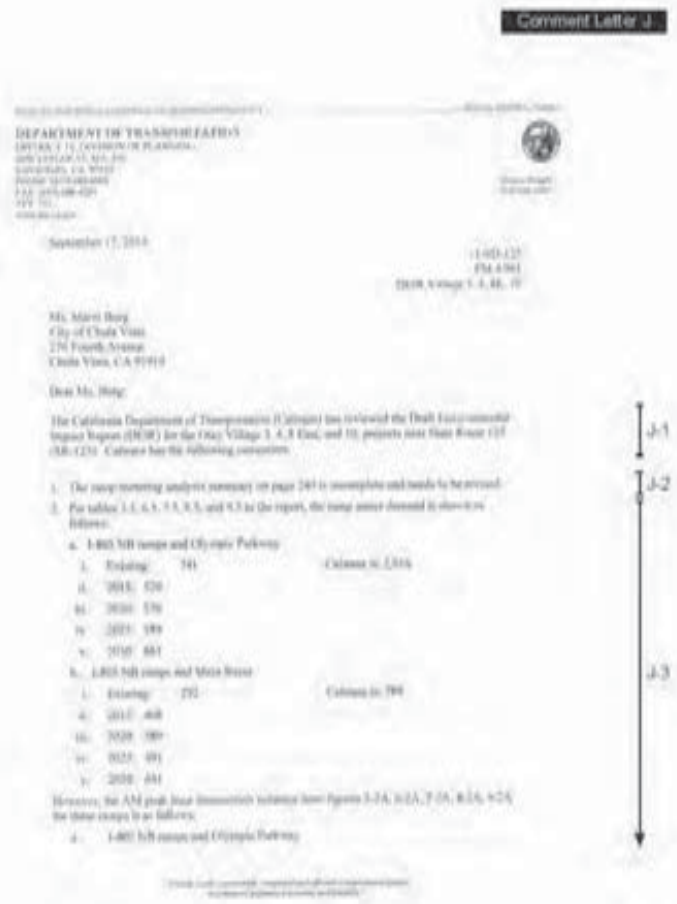
MAIN STREET
QUARRY ACCESS ROAD
HERITAGE ROAD



Response to Comment Letter J

Caltrans, District 11
Jacob Armstrong, Branch Chief
September 17, 2014

J-1 This comment does not address the adequacy or accuracy of the information provided in the Draft EIR. No further response is necessary.

J-2 This comment is general in nature and does not identify any specific ways in which analysis is unclear as to how the analysis is "incomplete." The City has, however, responded to the comment as best able.

The ramp metering analysis on page 203 of the University Villages Traffic Impact Analysis for Villages Three North, Eight East, and Ten (page 207 of the revised TIA) shows the ramp metering analysis for the two existing ramp meters at I-805. Table 10.5 reflects the conclusions of Chapters 5 – 9 of the TIA, and is accurate based on traffic counts (for the “Existing” scenario) and the Series 11 Year 2015 SANDAG Transportation Model, and the “Southbay 2, University Villages” model (for all other scenarios), and is complete based on the City of Chula Vista requirements establishing the project study area; therefore, no revisions are required.

J-3 Cont.

J-4

J-5

J-6

J-7

J-3

However, to provide further information and clarification, the ramp metering tables throughout the TIA (Chapter 5–9) have been revised to show the peak hour demand for each on-ramp (P_{vol}), as well as the peak hour demand per Single Occupancy Vehicle (SOV) lane (D_{vol}). This is a complete analysis of all ramp meters in the project study area as required by the City of Chula Vista. For additional information responsive to this comment, please see response to comments J-3 and J-4 below in regard to the ramp metering rate adjustment.

The ramp meter demands (D_{vol}) displayed in tables 3.5, 6.5, 7.5, 8.5, and 9.5 in the TIA represent peak hour demand per lane and were calculated using the following formula, which is a traffic engineering standard practice:

$$D_{vol} = \frac{(P_{vol} - H_{vol})}{N}$$

- D_{vol} (Demand Volume per hour per Lane): total peak hour demand expected to use the on-ramp (non-HOV lane only);
- P_{vol} (Peak Hour Ramp Volume): sum of all peak hour volumes using the on-ramp;
- H_{vol} (HOV lane volume): based on field observation, approximately 20% of the P_{vol} utilized the HOV lane; and

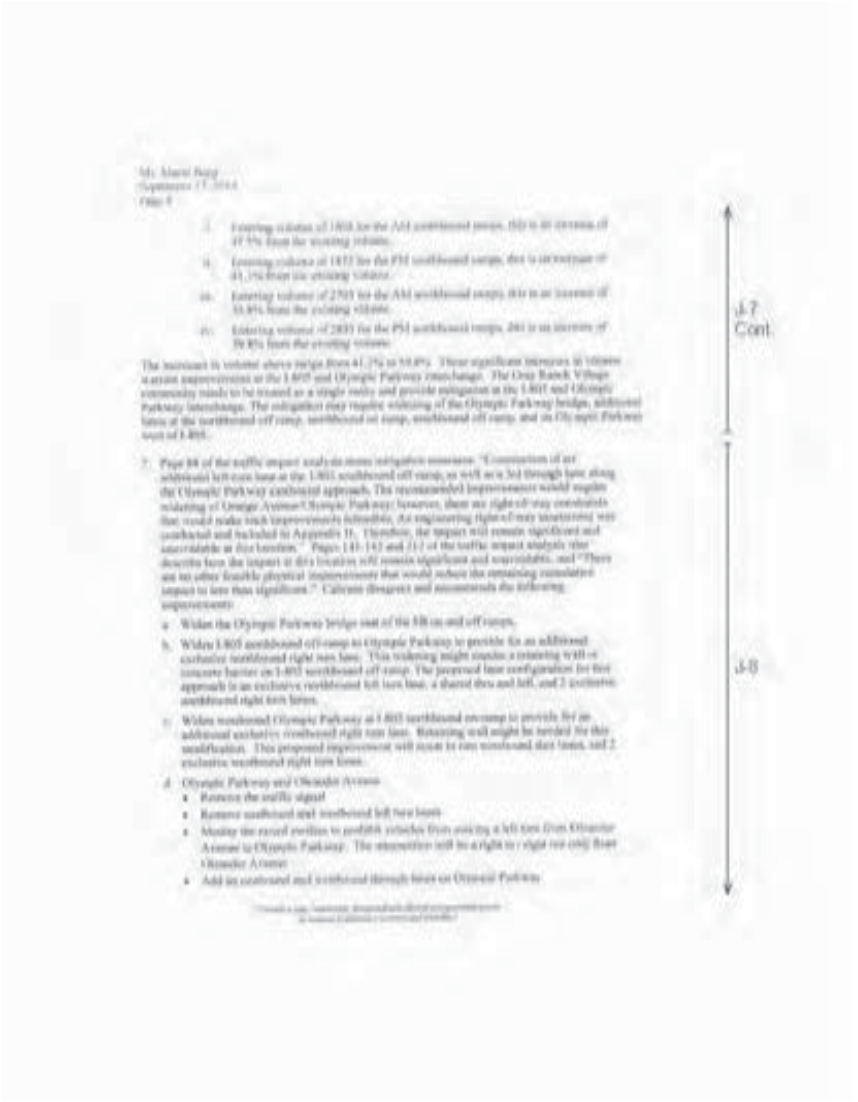
J-7 Cont.

- N: number of non-HOV lanes at the on-ramp.

In contrast to the tables, Figures 3-2A, 6-2A, 7-2A, 8-2A, and 9-2A represent the total peak hour volumes (i.e., the sum of all lanes) on the subject on-ramp, identified as P_{vol} in the above formula.

For clarity, these tables have been updated to include the total on-ramp volumes in addition to the current per-lane volumes for reference, such that the tables reflect the volumes in figures 3-2A, 6-2A, 7-2A, 8-2A, and 9-2A. These changes are only editorial and do not affect the results of the analysis. As shown in the expanded tables 3.5, 6.5, 7.5, 8.5, and 9.5, the information presented in both the tables and the figures is accurate based on the above equation, which as referenced, is a traffic engineering standard practice. Therefore, the ramp metering analysis is correct, as presented, and no further response is required.

Traffic volume forecasts for the years 2015, 2020, and 2025 scenarios were developed using the Series 11 Year 2015 SANDAG Transportation Model, “Southbay 2, University Villages” model. A copy of the model output is provided in Appendix A of the University Villages TIA. The Southbay 2 model was also used as the base model



J-7 Cont.

J-8

for the Village Eight West, Village Nine, and Village Two traffic reports.

As shown in Appendix A of the University Villages TIA (and replicated below), the year 2015, 2020, and 2025 conditions traffic volumes shifted away from Olympic Parkway to other area roadways, decreasing from 48,508 under the Existing Condition to 42,800 under the 2030 buildout condition. This result appeared counterintuitive (i.e., as development occurs and additional trips are generated and added to the circulation network it was expected that traffic would increase on local major arterials, not decrease), so prior to completing the TIA the City required the traffic engineer to perform a screenline analysis to confirm the validity of the model. The results of the screenline analysis is shown below:

Roadway	Existing	2015	2020	2025	2030
East H Street	72,700*	66,100	66,900	69,000	65,800
Telegraph Canyon Road	59,100*	61,500	63,200	64,500	61,000
E Palomar Street	7,200*	26,100	30,500	32,000	29,900
Olympic Parkway	48,508	42,600	44,200	47,600	42,800
Main Street	31,341	38,200	46,200	49,100	61,800
TOTAL	**218,849**	**234,500**	**251,000**	**262,200**	**261,300**

* 2010 ADT obtained from SANDAG

J-8 Cont

J-9

J-10

J-11

J-12

J-13

J-14

J-15

J-16

J-17

As shown in the table, total ADTs for the east–west traveling roadways show gradual increases over each of the analysis years into the future, beginning with approximately 219,000 ADT under the Existing Condition and increasing by roughly 42,500 ADT to a total of 261,300 under 2030 buildout. The decreased traffic volumes along Olympic Parkway were due to the forecasted travel pattern shift to other east–west roadways, in particular Main Street and E. Palomar, and shifts to SR-125, which also takes trips off the east–west roadways.

The existing traffic count for the University Villages TIA was conducted by NDS on May 18, 2011, utilizing standard traffic engineering practices.

For comparison purposes, and in response to the comment, the ADT for the I-805 NB On-Ramp at Olympic Parkway was obtained from the Caltrans Freeway Performance Measurement System (PeMS), provided as Attachment A. As shown in Attachment A, the ADT for the I-805 NB On-Ramp at Olympic Parkway as shown by Caltrans varied between 11,152 ADT to 12,596 ADT for May 2011, a fluctuation of approximately 1,500 ADT in day-to-day operations, or approximately 12%. In comparison, specific to the comment, the University Villages TIA reported an existing

J-17 Cont

J-18

J-19

volume of 1,851 ADT for the NB ramps at I-805 and Olympic Parkway during the AM peak hour, compared to Caltrans showing 2,016 ADT, a difference of 8.9%; and the University Villages TIA reported an existing volume of 729 ADT during the AM peak hour for the NB ramps at I-805 and Main Street, compared to Caltrans showing 789 ADT, a difference of 8.2%.

Thus, due to commonplace day-to-day fluctuations in traffic volumes, as exhibited by Caltrans own data, it is reasonable to expect that the volumes utilized in the University Villages TIA do not exactly match Caltrans traffic volumes. The traffic volumes utilized in the University Villages TIA accurately represent existing traffic volumes, and no additional analysis is required.

J-4 The City acknowledges that adjusting the ramp meter rate requires Caltrans approval. Accordingly, revised mitigation measure MM TCA-14 requires that prior to the buildout condition (2030), the applicant is to work with Caltrans to adjust (i.e., increase) the ramp meter rate at the I-805 northbound on-ramp at Main Street so that the ramp meter reflects the additional vehicle traffic attributable to the project. As explained below, adjustment of the ramp meter rate is a feasible, reasonable mitigation measure that is proportional

	to the impact, and can and should be adopted by Caltrans (CEQA Guidelines Section 15126.4; Public Resources Code, Section 21081(a)(2)). The TIA determined that in buildout year 2030, the proposed project would result in an increase in delay at the I-805 northbound on-ramp at Main Street. The increase in delay exceeded the applicable threshold, and therefore, the increase in delay was identified as a significant cumulative impact. (TIA, pp. 204– 205.) (Note that a significant impact at this ramp also was identified under 2020 conditions, although the construction of Heritage Road would mitigate the 2020 impact. (TIA, pp. 139, 147.)) Based on ramp meter rates provided by Caltrans, and as shown on the table below, the current meter rate at the I-805 NB Ramp at Main Street is 346-480 vehicles per lane per hour (v/l/h), which is approximately one-half of the rate at the adjacent interchanges of I-805/Telegraph Canyon Road (636-804 v/l/h) and I-805/Olympic Parkway (778–996 v/l/h).

Freeway Segment	2030 ADT	Intersection / On-Ramp	# of Lanes	Existing Ramp Metering Rate (min – max) / lane / hour
I-805 from East H Street to Telegraph Canyon Road	174,100	I-805 NB Ramps @ Telegraph Canyon Road	2 SOV + 1 HOV	636 – 804
I-805 from Telegraph Canyon Road to East Palomar Street	153,200			
I-805 from East Palomar Street to Olympic Parkway	153,200	I-805 NB Ramps @ Olympic Parkway	2 SOV + 1 HOV	778 – 996
I-805 from Olympic Parkway to Main Street	121,500			
I-805 from Main Street to Palm Avenue	116,300	I-805 NB Ramps @ Main Street	2 SOV + 1 HOV	346 – 480

As also shown in the table above, the forecast I-805 mainline volumes for the I-805 segments in the immediate vicinity of the I-805/Main Street ramp (116,300–121,500) are substantially lower than the forecast volumes for the other segments in the vicinity (153,200–174,100).

Based on the information presented in the table, the following factors indicate that the Main Street on-ramp meter rate is underutilized (likely due to low demand under the existing condition), and tha

	t the ramp meter rate can be adjusted to meet future demand as the demand increases: • The purpose of ramp metering is to regulate the flow of traffic on the main line (i.e., the freeway/highway) by reducing the disruption of traffic from too many vehicles entering the main line at the same time. • As shown on the table, the section of I-805, between Olympic Parkway and Palm Avenue (south of Main Street), is projected to have significantly lower traffic volumes when comparing the mainline flow at nearby interchanges, indicating that the main line volume near the Main Street on-ramp can accommodate additional volumes from the Main Street on-ramp (if needed). • The Main Street on-ramp current meter rate is set based on existing traffic volume, which is significantly lower than the demand at nearby on-ramp (Olympic Avenue and Telegraph Canyon Road) with similar number of lanes. Therefore, based on quantitative data, it is reasonable to conclude that the ramp meter rate at the Main Street on-ramp can be adjusted in a manner that would accommodate the forecast

	additional ramp volumes consistent with the available mainline capacity, i.e., without adversely affecting the flow of traffic on the mainline. Additionally, based on the Caltrans Ramp Meter Design Manual (Manual) (http://www.dot.ca.gov/hq/traffops/trafmgmt/ramp_meter/RMDM.pdf), the current three-lane configuration at the I-805 NB ramp is sufficient to accommodate the projected increase in traffic without the need for an additional ramp lane. According to the Manual, for volumes up to 900 vehicles per hour (vph), a single-lane ramp meter should be provided. When the volumes exceed 1,500 vph, the Manual recommends a two- or three-lane ramp segment with a 300-meter auxiliary lane (Manual, pp. 5-6). As to the project, the Year 2030 forecast AM peak hour cumulative traffic volume at the I-805 NB on-ramp @ Main Street is 1,603 vph (TIA, p. 208). Based on field review, and a comparison to the standard design in the Manual, the existing I-805 NB on-ramp @ Main Street is already constructed to standard design for on-ramps exceeding 1,500 vph. (See Manual, Figure 7.) Thus, the existing geometric configuration of this on-ramp is sufficient to accommodate the year 2030 cumulative volumes.

	Furthermore, the mitigation measure proposed by the comment (addition of a single occupancy vehicle (SOV) fourth ramp lane) is an unconventional design that does not adhere to any standard recommended in the Caltrans Manual. Moreover, the addition of another SOV ramp lane would be inconsistent with the Caltrans Ramp Metering Policies Procedures, which provide that ramp metering reduces congestion by "[p]roviding incentives for increased use of carpools, vanpools, and public transit by including preferential lanes which offer time savings to High Occupancy Vehicles (HOV) at ramp meters." (Manual, Appendix 2.) The construction of an additional SOV lane would reward drivers of SOVs, reducing the incentive for HOV users (by causing the difference in delay between HOV and SOV to seem less significant), and therefore violate the policy stated above. Finally, the measure proposed by the comment to mitigate a significant cumulative impact is not part of a plan or program into which the project applicant could pay a fair share towards such improvement and, therefore, the alternative mitigation measure is not feasible. For all the reasons presented above, it is reasonable, feasible, and the least environmentally impactful measure (compared to building

		additional ramp lanes) to increase meter rates at the Main Street on-ramp in response to the identified cumulative impact. As such, changes that could mitigate or avoid the identified significant impact (ramp meter adjustment) are within the responsibility and jurisdiction of another public agency (Caltrans) and such measure can and should be adopted by that agency. (Public Resources Code Section 21081(a)(2).)
	J-5	The City of Chula Vista worked closely with SANDAG in developing the South Bay Subarea model used in assessing future traffic volumes and trip distribution patterns in 5-year increments for the University Villages project. The distribution of the external project trips was based upon a computer generated "Select Zone" analysis utilizing the Series 11 Year 2015 SANDAG Transportation Model, "Southbay 2, University Villages." The select zone model run is included as Appendix A of the University Villages TIA. As shown in Appendix A of the University Villages TIA, under the Year 2020 conditions, 6% of the project trips travel to land uses along Main Street, between Brandywine Avenue and Heritage Road. These percentages were not shown in Figure 4-1C of the TIA; however, the University Villages TIA has been updated to provide the information.

	In addition, all project distribution figures (4-1A.1, 4-1A.2, 4-1A.3, 4-1A.4, 4-1B.1, 4-1C.1, 4-1C.2, 4-1C.3, 4-1D.1, 4-1D.2, 4-1D.3, 4-1D.4, 4-1E.1, 4-1E.2, 4-1E.3, and 4-1E.4) were updated to display project traffic depicted in other neighborhoods of Otay Ranch. These graphical changes are informational only for clarification purposes and do not affect the results of the analysis. As shown in Appendix A of the University Villages TIA, the Year 2025 and Year 2030 models included additional land uses from other projects within the Otay Ranch Development area, including the following: • Village Two (Residential, Light Industrial, & Commercial land uses), • Village Eight West (Residential & Commercial land uses), • Village Eight East (Residential & Mixed-use Commercial land uses), • Village Nine (Residential & Commercial land uses), • Village Ten (Residential & Mixed-use Commercial land uses) and • University & Regional Technology Center (Education & Light-Industrial land uses).

	• Other land uses assumed by City staff to be constructed by the Year 2025 and Year 2030 scenarios. These additional land uses predominately to the north and east of the University Villages project areas, along with the circulation network changes (in particular the connection of Main Street to the east from Heritage Road), resulted in additional trips traveling within the Otay Ranch area instead of getting on the freeways because many of these are new destinations within eastern Chula Vista and would replace trips otherwise required to use freeways. It is very important to note that the project trip distribution is based on the SANDAG's select zone assignments. As described above, the 2015 distribution is per the Southbay model results. The changes in the trip distribution pattern are due to new land uses and circulation network changes which occur after 2015 to the north and east of the University Villages project areas. It would be inaccurate to model these future years based on the 2015 distribution. Therefore, the Village Three North trip distribution for the various study time frames is not flawed, and the analysis is accurate as included in the TIA. No revisions to the TIA or EIR are warranted.

	J-6	Comment noted. The City of Chula Vista is currently updating its Transportation Development Impact Fee (TDIF) Program. As the comment notes, the SR-125 and Main Street and the SR-125 and Otay Valley Road interchanges are included in the City's updated TDIF program. Therefore, it is reasonable to expect these improvements to be implemented, and the mitigation is consistent with CEQA standards for enforceability. In addition, those portions of these improvements which are within the project boundaries are included within this EIR for certain "on the ground" impacts including impacts to biology, paleontological resources, and cultural resources.
	J-7	Each of the projects listed in the comment are separate projects under CEQA. Specific to the University Villages (Village Three North, Four, Eight East, and Ten as referenced in the comment) project, the 2030 analysis was a "cumulative" analysis in that it did include projected ADT from each of the other listed Otay Ranch projects (as well as buildout of other land uses in the City of Chula Vista). The University Villages EIR identifies a cumulative impact at the I-805 and Olympic Parkway interchange. Please see EIR Chapter 6 for the cumulative traffic analysis.

	The Existing Plus Project (University Villages) scenario was conducted and included in Chapter 5 of the EIR and the TIA. No scenario was modeled which considered Existing Plus Otay Ranch projects. This is not required by CEQA or the City of Chula Vista. However, as mentioned above, Chapter 9 of the TIA and Chapter 6 of the EIR consider buildout of the City of Chula Vista which includes the other Otay Ranch Projects. As concluded in Chapter 6 of the EIR and Chapter 9 of the TIA, the University Villages project has a cumulative impact at the I-805 and Olympic Parkway interchange. As documented on page 215 of the University Villages TIA and Section 5.3 and Chapter 6 of the EIR, there is currently no approved plan or program in place into which the project applicant could pay its fair share toward such improvement identified by Caltrans in this comment. Therefore, mitigation is infeasible, and the impact will remain cumulatively significant and unavoidable at the I-805/ Olympic Parkway interchange. Addtionally, it should be noted that the widening of Olympic Parkway bridge is not identified in the City of Chula Vista's CIP or supported by other

		funding sources; therefore, it is not reasonable to assume that this could be a feasible mitigation. Nevertheless, contribution to the City's Transportation Development Impact Fees (TDIF) program is required for the proposed project to address the project's potential cumulative impacts to transportation facilities serving project development. The TDIF program collects a project's fair share fee contributions based on the project's traffic impacts and utilizes those funds to mitigate impacts to City roadway facilities. There are a number of improvements in the surrounding areas that are within the TDIF program, such as the construction of Heritage Road from Main Street to Olympic Parkway, the extension of Main Street, and the Palomar Street Direct Access Ramp (DAR), which would reduce the traffic volumes through the Olympic Parkway/I-805 interchange. Additionally, the City of Chula Vista has historically used TDIF funding to contribute to numerous Caltrans interchange projects along the I-805 corridor. The TDIF program was used to construct the I-805/Olympic Parkway interchange, the I-805/Telegraph Canyon interchange, and the I-805/H 8th Street interchange. Over more than two decades, the City has contributed to interchange

		improvements along State facilities. As such, the TDIF fees collected for the proposed project may be used to make improvements to freeway interchanges, as recommended by the commenter. The EIR has clearly stated project impacts related to State facilities and has provided adequate mitigation measures within the City's or Applicant's control, or has identified significant unavoidable impacts where appropriate. No revision to the Draft EIR is necessary as a result of this comment.
	J-8	Of the potential improvements recommended by Caltrans, in comments 7a, 7b, and 7c, each are within the jurisdiction and control of Caltrans. Caltrans has no approved plan or funding program in place to implement these improvements and, therefore, the recommended improvements are infeasible mitigation. Please see Response to Comment No. 6 above regarding mitigation of extraterritorial impacts. With respect to improvement 7d, while these improvements are within the jurisdiction of the City of Chula Vista, the improvements are not identified in the City's CIP, nor are they supported by any other funding source, because the City has no present plans to modify the Olympic Parkway/Oleander Avenue intersection as recommended by Caltrans.

	With no plan or program in place to implement the improvements, the mitigation is infeasible. Oleander Avenue provides important connections north and south of Olympic Parkway. Converting this intersection to right-in/right-out only, which would be the resulting configuration with implementation of the suggested improvements, would prohibit vehicles from making left-turns and going through on Oleander, which, in turn, would force traffic to either make U-turns at adjacent intersections, or divert onto different routes, resulting in potential impacts at other locations. Additionally, the City of Chula Vista has no plan to close the Olympic Parkway median (at Oleander Avenue) or make any modification to this intersection. Please also see response to comment J-7 above regarding mitigation at the I-805/Olympic Parkway interchange for additional information responsive to this comment. The University Villages project is not proposing any intersection traffic control changes or other physical improvements at the ramp intersections of I-805/Olympic Parkway and I-805/Main Street; hence, Intersection Control Evaluation (ICE) was not conducted for this project.

	J-9	Comment noted. Table 5.3-20 is correct and identifies all ramps operating "over" capacity; however, the results were transposed incorrectly in the subsequent list. Both the TIA (page 107) and EIR (page 5.3-56) have been corrected to include this intersection. These changes are only editorial and do not affect the results of the analysis.
	J-10	Comment noted. Table 5.3-26 is correct and identifies all ramps operating "over" capacity; however, the results were transposed incorrectly in the subsequent list. This was a typographical error during the production process. The TIA (page 112) and EIR (page 5.3-76) have been corrected to reflect the correct "without project" demand. However, this error would not affect the results of the analysis.
	J-11	Comment noted. Table 5.3-20 is correct and identifies all intersections operating at "over" capacity; however the results were transposed incorrectly in the subsequent list. Both the TIA (page 133) and EIR (page 5.3-56) have been corrected to include this intersection. These changes are only editorial and do not affect the results of the analysis.
	J-12	Comment noted. This was a typographical error during the production process. The TIA (page

		140) and EIR (page 5.3-95) have been corrected to reflect the correct "without project" demand. However, this error would not affect the results of the analysis.
	J-13	Comment noted. Both the TIA (page 173) and EIR (page 5.3-109) have been corrected to include this intersection. These changes are only editorial and do not affect the results of the analysis.
	J-14	Comment noted. This was a typographical error during production process. The TIA (page 174) and EIR (page 5.3-114) have been corrected to reflect the correct "without project" demand. However, this error would not affect the results of the analysis.
	J-15	Comment noted. Table 5.3-41 is correct and identifies all ramps that are operating "over" capacity; however, the results were transposed incorrectly in the subsequent list. Both the TIA (page 204) and EIR (page 5.3-132) have been corrected to include this intersection. These changes are only editorial and do not affect the results of the analysis.
	J-16	As stated by the commenter, the Caltrans Project Study Report (PSR) for the Main Street, Rock Mountain and Otay Valley Road interchanges is

		currently being prepared and therefore was not available for incorporation into the Draft EIR traffic analysis. As of publication of the Final EIR, the PSR has not yet been received by the City of Chula Vista. No revision to the Draft EIR is required in response to this comment. This comment does not address the adequacy or accuracy of the information provided in the Draft EIR. No further response is necessary.
	J-17	Refer to response to comment J-16. This comment does not address the adequacy or accuracy of the information provided in the Draft EIR. No further response is necessary.
	J-18	This comment does not address the adequacy or accuracy of the information provided in the Draft EIR. No further response is necessary.
	J-19	This comment does not address the adequacy or accuracy of the information provided in the Draft EIR. No further response is necessary.

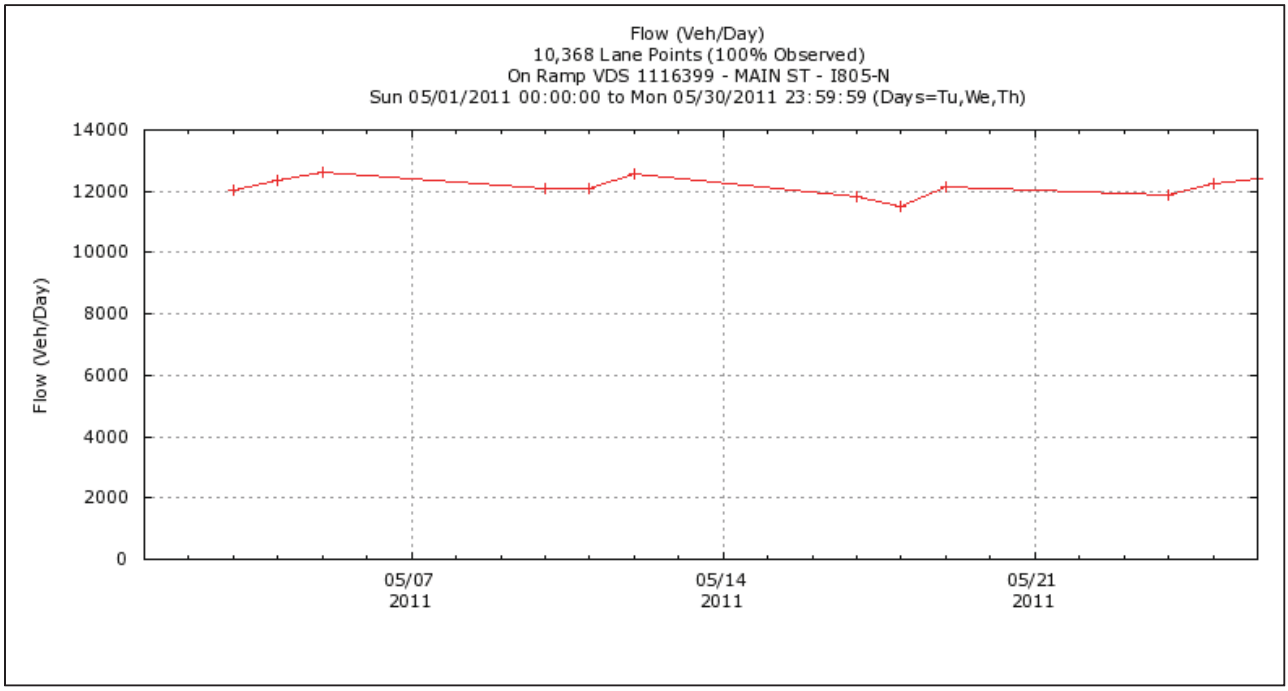
ATTACHMENT A
TO COMMENT LETTER J
Average Daily Traffic at I-805 NB On-Ramp

ATTACHMENT A

AVERAGE DAILY TRAFFIC @ I-805 NB ON-RAMP

MAY 2011 - per standard engineering practice, only data during regular weekday (T-TH, non-holiday) was collected.

SOURCE: CALTRANS FREEWAY PERFORMANCE MEASUREMENT SYSTEM (PEMS)


Flow (Veh/Day)
10,368 Lane Points (100% Observed)
On Ramp VDS 1116399 - MAIN ST - I805-N
Sun 05/01/2011 00:00:00 to Mon 05/30/2011 23:59:59 (Days=Tu,We,Th)
Flow (Veh/Day)
14000
12000
10000
8000
6000
4000
2000
0
05/07
2011
05/14
2011
05/21
2011

Day	Flow (Veh/Day)	# Lane Points	% Observed
05/03/2011	12,031	864	99
05/04/2011	12,353	864	100
05/05/2011	12,596	864	100
05/10/2011	12,094	864	99
05/11/2011	12,112	864	100
05/12/2011	12,545	864	100
05/17/2011	11,811	864	100
05/18/2011	11,531	864	100
05/19/2011	12,152	864	100
05/24/2011	11,857	864	100
05/25/2011	12,258	864	100
05/26/2011	12,403	864	100

PeMS Report Description

Report	Aggregates>Time Series
Report link	http://pems.dot.ca.gov/?report_form=1&dnode=VDS&content=loops&station_id=1116399&s_time_id=1304208000&s_mm=5&s_dd=1&s_yy=2011&s_hh=0&e_time_id=1306799999&e_mm=5&e_dd=30&e_yy=2011&e_hh=23&tod=all&tod_from=0&tod_to=0&dow_2=on&dow_3=on&dow_4=on&q=flow&q2=&gn=day
Report generated	10/14/2014 13:50
PeMS version	caltrans_pems-14.0.52

Report Parameters

Parameter	Value
Quantity	Flow
Data	10,368 Lane Points
Data Quality	99.8% Observed
Segment Type	VDS
Segment Name	On Ramp VDS 1116399 - MAIN ST
Start Date	05/01/2011 00:00
End Date	05/30/2011 23:59
Day of Week	Tu,We,Th
Granularity	day

Response to Comment Letter K

Duane E. Bazzel
September 18, 2014

K-1 The Village Design Plans for Village Three North, Eight East and Ten, address the OVRP Standards and Guidelines, Section 5, Private Development Guidelines on a village-by-village basis through grading design, retaining wall and fencing location, materials and design, landscape buffers, landscape palettes, and lighting placement and design.

Village Three North Design Plan, page 28 states: The OVRP Standards and Guidelines, Section 5, Private Development Guidelines include principles for private development adjacent to the OVRP. Consistent with these principles, manufactured perimeter slopes adjacent to the OVRP complement and do not negatively impact the park by utilizing the following techniques:

- Perimeter slopes follow the existing topography, blending the site into natural topography and preserving natural drainages between Village 10 and the Otay River Valley.
- Landscape buffers are planted with native plant materials, consistent with the Village Eight East Fire Protection Plan and Preserve Edge Plan.

	• Retaining walls are planted and irrigated to avoid large expanses of blank walls and blending the retaining walls into the natural setting, making them virtually undetectable with full landscape cover. Wherever possible plantable retaining walls are split into two sections, providing opportunities to screen the walls with native landscaping in front of the wall and reduce single wall heights. • Non-residential fencing at the perimeter is typically post and rail, permitting views to and from the park. • Residential fencing at the perimeter is typically, 2 feet of block with 4 feet of view fencing, permitting views to and from the park. • Lighting at the perimeter must be directed away from the Preserve/OVRP by placing light fixtures in appropriate locations and shielding lamps. Village Eight East Village Design Plan, page 16 states: The OVRP Standards and Guidelines, Section 5, Private Development Guidelines include principles for private development adjacent to the OVRP. Consistent with these principles, manufactured perimeter slopes adjacent to the OVRP complement and do not negatively impact the park by utilizing the following techniques: • Perimeter slopes follow the existing topography, blending the site into natural topography and

	preserving natural drainages between Village Eight East and the Otay River Valley. • Landscape buffers are planted with native plant materials, consistent with the Village Eight East Fire Protection Plan and Preserve Edge Plan. • Retaining walls are planted and irrigated to avoid large expanses of blank walls and blending the retaining walls into the natural setting, making them virtually undetectable with full landscape cover. Wherever possible, plantable retaining walls are split into two sections, providing opportunities to screen the walls with native landscaping in front of the wall and reduce single-wall heights. • Non-residential fencing at the perimeter is typically post and rail, permitting views to and from the park. • Residential fencing at the perimeter is typically, 2 feet of block with 4 feet of view fencing, permitting views to and from the park. • Lighting at the perimeter must be directed away from the Preserve/OVRP by placing light fixtures in appropriate locations and shielding lamps. The Village Ten Design Plan, page 17 states: The OVRP Standards and Guidelines, Section 5, Private

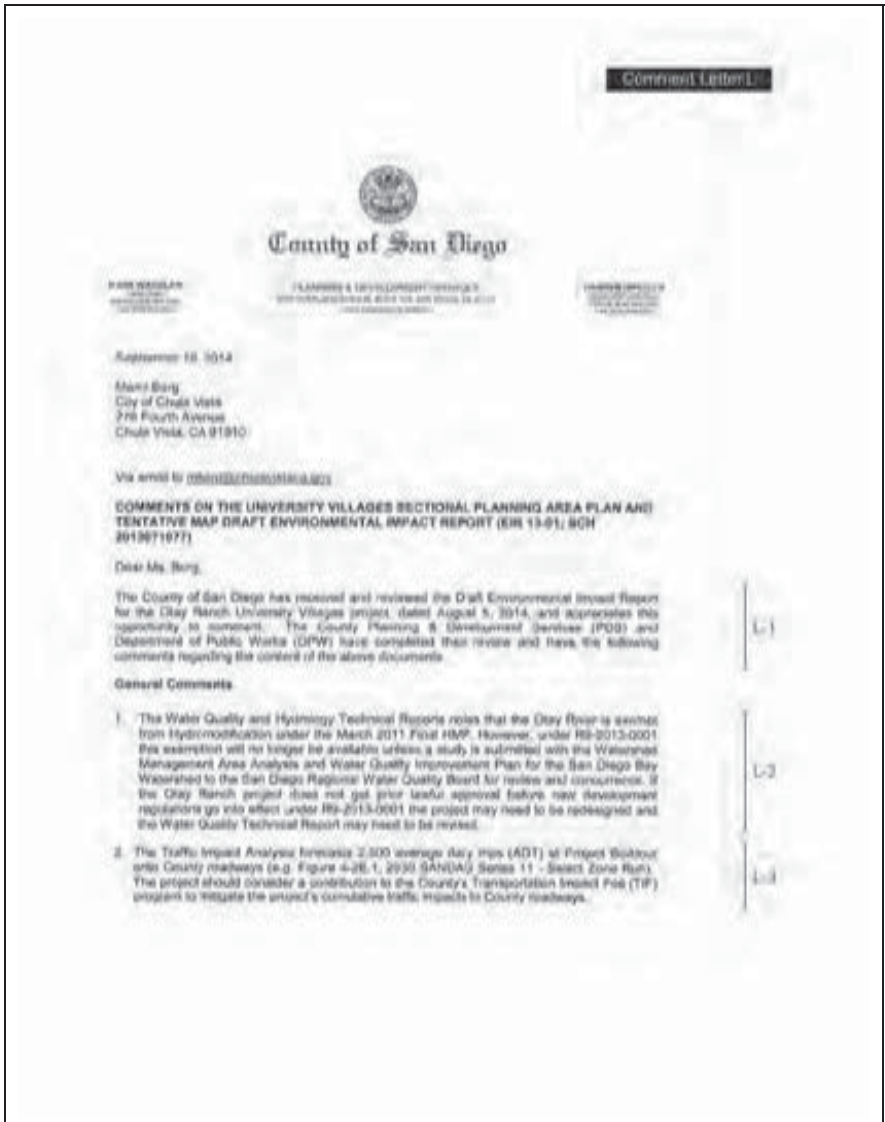
	Development Guidelines include principles for private development adjacent to the OVRP. Consistent with these principles, manufactured perimeter slopes adjacent to the OVRP complement and do not negatively impact the park by utilizing the following techniques: • Perimeter slopes follow the existing topography, blending the site into natural topography and preserving natural drainages between Village Ten and the Otay River Valley. • Landscape buffers are planted with native plant materials, consistent with the Village Eight East Fire Protection Plan and Preserve Edge Plan. • Retaining walls are planted and irrigated to avoid large expanses of blank walls and blending the retaining walls into the natural setting, making them virtually undetectable with full landscape cover. Wherever possible, plantable retaining walls are split into two sections, providing opportunities to screen the walls with native landscaping in front of the wall and reduce single wall heights. • Non-residential fencing at the perimeter is typically post and rail, permitting views to and from the park.

		• Residential fencing at the perimeter is typically, 2 feet of block with 4 feet of view fencing, permitting views to and from the park. • Lighting at the perimeter must be directed away from the Preserve/OVRP by placing light fixtures in appropriate locations and shielding lamps. These techniques are intended to soften the development edges adjacent to the Otay Valley Regional Park, provide vistas from development areas to the OVRP and buffer the regional park from development.
	K-2	As shown in Figure 4-8, trails from Village Three will be provided access to the east/west OVRP trail system (Wiley Road). There will be a Village Trail located in the southeastern portion of Village Three that will provide access to the Regional Trail along Main Street. Pedestrians will be able to access the future Greenbelt Trail via a connection in the southeast quadrant of future Heritage Road and Main Street. All trails within the Preserve must be designed to minimize and avoid impacts as required by the MSCP SAP. As such, alignments have been focused on existing disturbed roads, predominately the Salt Creek sewer maintenance road/Wiley Road. Improvements to Heritage Road south of Main Street, including the Heritage Road bridge, is included in the Chula Vista adopted FY 2012-13 through FY 2016-17

		Capital Improvement Program (CIP) (STM364-Heritage Road Bridge Replacement) and therefore is a separate project. No further response is required.
	K-3	As stated in Section 5.8, Biological Resources. page 5.8-99, the Village Eight East Community Park (P-2) is located on the site designated in the OVRP Concept Plan as Active Recreation 11 (AR-11). The Village Eight East SPA Plan, Community Park (P-2) Concept Plan, Exhibit 36, includes active and passive park uses, including a "Trail Staging Area for Chula Vista Greenbelt/OVRP Trail." The final design of the Community Park will be determined through the Chula Vista Park Master Plan process, with input from the OVRP Citizen's Advisory Committee and OVRP Policy Committee. The trail staging area and trail connections from the Community Park to the OVRP/Chula Vista Greenbelt Trail are intended to be part of the final Community Park design, consistent with the OVRP Concept Plan and Trail Guidelines; however, they must also meet MSCP SAP requirements to minimize impacts to the Preserve. Proposed connections from the Community Park to the Greenbelt Trail (OVRP) are depicted in Figure 5.12-11 of the EIR.
	K-4	As shown in Figure 4-18 of the EIR, and the Village Ten SPA Plan, Trails Plan, Exhibit 22, a network of trails provide pedestrian connections through Village Ten and include a connection to the Chula Vista

	Greenbelt. Specific trail dimensions and materials are presented in the Village Ten SPA Plan, Exhibits 23 through 28. The Regional Trail located along Hunte Parkway, north of Village Ten, connects to Village Ten via the 10-foot-wide Village Pathway along Discovery Falls Road. An additional north–south connection is provided along University Drive. The final design of this trail connection will be determined through the University SPA Planning effort. The Village Pathway continues through the Village Ten core area between Discovery Falls Road and Otay Valley Road. In keeping with the residential character of the single family neighborhoods, the trail transitions to the 6-foot-wide Promenade Trail. The Promenade Trail extends to a Private Recreation Facility (CPF-3) that includes the 20-foot-wide combined Village Trail/Maintenance Access Road (providing access to the City of San Diego waterline facilities) that connects along the Village Ten perimeter slope to the Rural Trail that traverses the adjacent Preserve areas to connect to the Chula Vista Greenbelt Trail. Due to topographic constraints and the MSCP requirement to minimize impacts and use existing dirt roads as trail connections, the rural trail will be an 8-foot-wide trail that will be improved consistent with

		the Greenbelt Master Plan Rural Trail Standards. The widths and materials planned for each discrete trail segment are compatible with the adjacent land uses.
	K-5	As stated in Section 5.8, Biological Resources, page 5.8-102, all Greenbelt Trail segments will be multi-use trails which provide a variety of uses including hiking, biking, and equestrian use, where identified. The trails and trail alignments have been developed to minimize impacts as required by the MSCP SAP. As stated in Section 5.8, Biological Resources, page 5.8-102, equestrian usage on the OVRP/Chula Vista Greenbelt Trail located within the existing Wiley Road/Salt Creek Sewer Easement, is not precluded. See response A-1 above regarding the multi-use Chula Vista Greenbelt/OVRP Trail. Improvements to Heritage Road south of Main Street, including the Heritage Road bridge, is included in the Chula Vista adopted FY 2012-13 through FY 2016-17 Capital Improvement Program (CIP) (STM364-Heritage Road Bridge Replacement) and therefore is a separate project. No further response is required.
	K-6	This comment does not address the adequacy or accuracy of information provided in the Draft EIR. No response is required.



Comment Letter L

County of San Diego

September 18, 2014

Marni Borg
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Via email to

COMMENTS ON THE UNIVERSITY VILLAGES SECTIONAL PLANNING AREA PLAN AND TENTATIVE MAP DRAFT ENVIRONMENTAL IMPACT REPORT (EIR 13-01; SCH 2013071077)

Dear Ms. Borg,

The County of San Diego has received and reviewed the Draft Environmental Impact Report for the Otay Ranch University Villages project, dated August 5, 2014, and appreciates this opportunity to comment. The County Planning & Development Services (PDS) and Department of Public Works (DPW) have completed their review and have the following comments regarding the content of the above documents. L-1

General Comments

1. The Water Quality and Hydrology Technical Reports notes that the Otay River is exempt from Hydromodification under the March 2011 Final HMP. However, under R9-2013-0001 this exemption will no longer be available unless a study is submitted with the Watershed Management Area Analysis and Water Quality Improvement Plan for the San Diego Bay Watershed to the San Diego Regional Water Quality Board for review and concurrence. If the Otay Ranch project does not get prior lawful approval before new development regulations go into effect under R9-2013-0001 the project may need to be redesigned and the Water Quality Technical Report may need to be revised. L-2

2. The Traffic Impact Analysis forecasts 2,300 average daily trips (ADT) at Project Buildout onto County roadways (e.g. Figure 4-26.1, 2030 SANDAG Series 11 - Select Zone Run). The project should consider a contribution to the County's Transportation Impact Fee (TIF) program to mitigate the project's cumulative traffic impacts to County roadways. L-3

Response to Comment Letter L

County of San Diego, Planning and Development Services
Darren Gretler, Assistant Director
September 18, 2014

L-1 This comment does not address the adequacy or accuracy of information provided in the Draft EIR. No response is required.

L-2 The analysis in Section 5.10 recognizes that the city will have to comply with water quality and hydromodification management plans as applicable. MM HYD-6 on page 5.10-65 requires that the proposed project comply with city hydromodification criteria (Municipal Permit Order R9-2007-0001 Section D.1.g) or the hydrograph modification management plan, as applicable. Recognizing that permit requirements get amended, the mitigation measure has been revised as follows:

- **MM HYD-6** *Hydromodification Criteria*. The Project Applicant shall comply, to the satisfaction of the City Engineer, with city hydromodification criteria (Municipal Permit Order R9-2007-001, <u>as may be amended</u>) or hydrograph modification management plan, as applicable, addressed regionally at the SPA

The County of San Diego appreciates the opportunity to participate in the environmental review process for this project. If you have any questions regarding these comments, please contact Sheri McPherson, Land Use/Environmental Planner at (858) 694-3064 or email sheri.mcpherson@sdcounty.ca.gov. L-4

Sincerely,

Darren Gretler, Assistant Director
Planning & Development Services

e-mail cc:
Michael De La Rosa, Policy Advisor, Board of Supervisors, District 1
Conor McGee, CAO Staff Officer, LUEG
Richard Chin, Associate Transportation Specialist, Department of Public Works
Rebecca LaFrenere, Chief, Department of Environmental Health
Sheri McPherson, Land Use/Environmental Planner, Planning & Development Services

Plan level concurrent with grading and improvement plans for each village.

L-3 Trips generated from the proposed project were modeled using the "Southbay 2 University Villages" traffic model. In accordance with the City's traffic impact analysis guidelines, the trip distribution extended onto some County roadways south of the project site. None of the County intersections were significantly impacted by project traffic. The project is not subject to the County's TIF program. No further response is required.

L-4 This comment does not address the adequacy or accuracy of information provided in the Draft EIR. No response is required.

Comment Letter M

County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH
SOLID WASTE LOCAL ENFORCEMENT AGENCY

September 18, 2014

City of Chula Vista
Attn: Ms. Marni Borg
276 Fourth Avenue
Chula Vista, CA 91910

COUNTY OF SAN DIEGO SOLID WASTE LOCAL ENFORCEMENT AGENCY COMMENTS ON UNIVERSITY VILLAGES SECTIONAL PLANNING AREA AND TENTATIVE MAP DRAFT ENVIRONMENTAL IMPACT REPORT – EIR 13-01

Dear Ms. Borg:

The County of San Diego Department of Environmental Health Solid Waste Local Enforcement Agency (LEA) appreciates the opportunity to review and comment on the draft Environmental Impact Report (DEIR) for the above project. M-1

The LEA would like to reiterate our long standing position that open space, commercial or industrial land uses are in alignment with nearby (less than 1,000 feet away) active landfill activities. While a health risk assessment conducted for the project determined that potential health impacts to residents would likely be less than significant, the development of residential land uses within 1,000 feet of an active landfill may, based on experience, result in nuisance impacts to those residents from odors, dust, noise, landfill gas and/or vectors. M-2

The LEA prefers the "Nuisance Easement" alternative described in the Draft EIR which will develop industrial land uses in the Village Three North area adjacent to the Otay landfill. Per the Draft EIR, this alternative is consistent with the City of Chula Vista's General Plan Policy E.6.4 which avoids placement of sensitive receptors (residential properties, schools, etc.) within 1,000 feet of a "toxic emitter" and the landfill is identified as a "major toxic emitter" in the Draft EIR. M-3

Should you have any questions, please do not hesitate to call either Karu Jin Mehta, LEA Supervisor at (858) 490-5799 or myself at (858) 694-2931.

Sincerely,

MELISSA PORTER, Environmental Health Specialist
Local Enforcement Agency

cc: Rodney Lorang, County Counsel
Neil Mohr, Republic Services
Megan Fischer, CalRecycle
LEA file

Response to Comment Letter M

County of San Diego, Department of Environmental Health
Melissa Porter, Environmental Health Specialist
September 18, 2014

M-1 This comment does not address the adequacy or accuracy of information provided in the Draft EIR. No response is required.

M-2 The City of Chula Vista entered into an agreement with the Otay Landfill operator that clearly identified the limits of the "active" portion of the landfill from which the 1,000 feet is measured. See EIR page 5.1-27 for a complete description of the Amended and Restated Otay Landfill Expansion Agreement (see Attachment A to this response). MM LU-4 restricts any residential uses unless, and until, the landfill moves further away from the proposed R-1 neighborhood such that no residential use (i.e. – new homes) is constructed within the 1,000-foot setback from the active portion of the landfill. Further, pursuant to Section 2.5 of the Amended Agreement, once new homes are constructed, Otay Landfill has agreed to keep the active area of the landfill at least 1,000 feet away from any such new units.

		A Nuisance Study was conducted for the proposed project and included as Appendix D Part II in the Draft EIR. This study reviewed the potential for nuisance odor, vectors, stormwater, and noise. Odor complaint data was included as an appendix to the Nuisance Study. The use of past odor complaints as a gauge of potential nuisance is standard practice in CEQA analyses. In fact, the nuisance study went beyond the typical qualitative analysis and quantified the future potential. The study was looking at any odor complaints that were verified as causing a nuisance by the air agency. The Nuisance Study did not identify any potentially significant nuisance impacts Additionally, as stated in Section 5.1, Land Use, page 5.1-23 of the Draft EIR, odor- control practices are in place at all landfills, and odor control is under the purview of the San Diego Air Pollution Control District (SDAPCD). Landfill odor control practices include application of odor absorbing materials or collecting and treating gases from the landfill before they are released into the surrounding community. No revisions to the Draft EIR are necessary as a result of this comment.
	M-3	Comment noted. This comment does not address the accuracy or adequacy of the EIR. No further response is necessary.

ATTACHMENT A
TO COMMENT LETTER M

Amended and Restated Otay Landfill Expansion Agreement

AMENDED AND RESTATED
OTAY LANDFILL EXPANSION AGREEMENT

This AMENDED AND RESTATED OTAY LANDFILL EXPANSION AGREEMENT ("Agreement") is entered into effective as of August 12, 2014 ("Effective Date"), by and between the CITY OF CHULA VISTA, a chartered municipal corporation of the State of California ("City") and OTAY LANDFILL, INC., a Delaware Corporation ("Otay"). Allied Waste North America, Inc., a Delaware corporation ("Allied"), and Allied Waste Systems, Inc. dba Republic Services of Chula Vista ("Republic"), Affiliates of Otay, are also parties to this Agreement to the extent that they guaranty the performance of Otay's obligations hereunder and as otherwise expressly provided herein. Allied, Republic and their Affiliates are sometimes collectively referred to herein as the "Otay Affiliates." Otay, the Otay Affiliates and City are, from time to time, referred to collectively herein as the "Parties."

This Agreement is entered into with reference to the following facts:

A. Otay, a wholly-owned subsidiary of Allied, and an Affiliate of Republic, owns and operates the Otay Landfill, located in San Diego County, California (the "Otay Landfill" or "Landfill").

B. Otay and the City entered into an agreement entitled "Otay Landfill Expansion Agreement" (the "Original Agreement") in July of 1999, dealing among other things with potential impacts of the Otay Landfill Expansion Project on the City of Chula Vista and with the City's use of the Otay Landfill as a disposal site.

C. The Parties now wish to amend and restate the Original Agreement to reflect the passage of time and the subsequent agreement of the Parties to amend some of the terms and conditions of the Original Agreement. This Agreement shall also supersede all prior agreements and understandings between Otay Affiliates and City regarding the Otay Landfill, except for the Collection Franchise Agreement entered into by City and Republic contemporaneously herewith.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, City, Otay and the Otay Affiliates hereby agree as follows:

1.0 Definitions. Whenever in this Agreement the words or phrases hereinafter in this section defined are used, either with initial caps or small case lettering, they shall have the respective meaning assigned to them in the following definitions (unless in the given instance, the context wherein they are used shall clearly indicate a different meaning):

1.1 "Affiliate" means any parent, subsidiary corporation, partnership or other entity controlling, controlled by or under common control with any entity, or any fellow member of an association, joint venture or similar arrangement for the provision of landfill, Solid Waste disposal or Recycling services in which Otay or Allied holds a direct or indirect interest.

1.2 "Alternative Daily Cover" or "ADC" means cover material other than earthen

material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.

1.3 "Applicable Law" means any federal, state or local rule, regulation, requirement, guideline, permit, action, determination or order of any Governmental Body having any jurisdiction applicable to the subject matter of this Agreement, as now in effect and as amended from time to time. Applicable Law shall include, without limitation, the City Charter, and Municipal Code.

1.4 "CEQA" means the California Environmental Quality Act, codified at Cal. Pub. Res. Code Section 21000 et seq., as amended or superseded, and the regulations promulgated thereunder.

1.5 "Change in Law" means any of the following events or conditions occurring on or after the date hereof:

(a) the enactment, adoption, promulgation, issuance, material modification or written change in Applicable Law or administrative or judicial interpretation of any Applicable Law; or

(b) the order or judgment of any Governmental Body with jurisdiction over the Landfill, to the extent such order or judgment is not the result of willful or negligent action, error or omission or lack of reasonable diligence of City, Otay, Allied or any Affiliate thereof, whichever is asserting the occurrence of a Change in Law; provided, however, that the contesting in good faith or the failure in good faith to contest any such order or judgment shall not constitute or be construed as such a willful or negligent action, error or omission or lack of reasonable diligence.

Notwithstanding the foregoing, a "Change in Law" shall not include a denial by a Governmental Body of a permit for the Landfill Expansion or any imposition of conditions in connection therewith.

1.6 "City" shall mean the City of Chula Vista, a municipal corporation of the State of California in its present incorporated form or in any later reorganized, consolidated, enlarged or reincorporated form.

1.7 "Collection Franchise Agreement" means the "Amended and Restated Solid Waste Collection and Recycling Franchise Agreement" entered into between the City and Allied Waste Systems, Inc., an affiliate of Otay, contemporaneously with this Agreement.

1.8 "Governmental Body" means any Federal, State, County, City or regional legislative, executive, judicial or other governmental board, agency, authority, commission, administration, court or other body, or any officer thereof acting within the scope of his or her authority.

1.9 "Green Waste" means the leaves, grass, weeds, shrubs, tree branches, tree trunk

and other wood materials from trees. Green Waste may also include pre-consumer food waste, incidental amounts of waxed or plastic coated corrugated cardboard, unpainted and untreated lumber. Green Waste does not include tree stumps in excess of 100 pounds, more than incidental dirt or rock, plastic, glass, metal, painted or treated lumber, plywood, particle board or other manufactured products that contain glue, formaldehyde, non-organic or non-biodegradable materials.

1.10 "Small Quantity Generators" means all Residential dwellings of four units or less (without restriction on the amount of waste generated by such dwellings) and all Commercial, Industrial and Institutional entities that generate an amount equal to or less than four (4) ninety-six (96) gallon Carts of waste per week excluding source separated Recyclables diverted from Disposal or transformation.

1.11 "Solid Waste" means all putrescible and non-putrescible solid waste, semi-solid and liquid wastes, such as refuse, garbage, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and includes liquid wastes disposed of in conjunction with Solid Wastes at Solid Waste transfer or processing stations or disposal sites, which are generated by residential, commercial or industrial sites. Solid Waste shall not include: hazardous and infectious waste, sewage collected and treated in a municipal or regional sewage system or materials or substances having commercial value or other importance which can be salvaged for reuse, Recycling, composting or resale.

1.12 "Uncontrollable Circumstances" means any of the following acts, events or conditions, if such act, event or condition is beyond the reasonable control and is not also the result of the willful or negligent act, error or omission or failure to exercise reasonable diligence on the part of the party relying thereon as a justification for not performing an obligation or complying with any condition required by such party under this Agreement:

(a) an act of God (but not including reasonably anticipated weather conditions for the geographic area of the City), hurricane, landslide, lightning, earthquake, fire, explosion, flood, sabotage or similar occurrence, acts of a public enemy, extortion, war, blockade or insurrection, riot or civil disturbance;

(b) strikes or work stoppages occurring with respect to any activity performed or to be performed under this Agreement; and

(c) pre-emption of materials or services by a Governmental Body in connection with a public emergency or any condemnation or other taking by eminent domain.

It is specifically understood that none of the following acts or conditions shall constitute Uncontrollable Circumstances: (a) general economic conditions, interest or inflation rates, currency fluctuations or changes in the cost or availability of commodities, supplies or equipment; (b) changes in the financial condition of City, Otay, Allied or its Affiliates or any subcontractor affecting their ability to perform their obligations; (c) the consequences of errors,

neglect or omissions by City, Otay, Allied or its Affiliates or any subcontractor; (d) any failure of any subcontractor to furnish labor, materials, service or equipment for any reason (other than an Uncontrollable Circumstance); (e) equipment failure; and (f) any impact of minimum wage law, prevailing wage law, customs or practices on the operating cost of Otay, Allied or its Affiliates or City.

2.0 Obligations.

2.1 Flow Control. For so long as Republic, or an Affiliate thereof, is City's franchised waste management provider, City agrees to direct disposal of Solid Waste generated in the City (excluding recyclables) to the Landfill.

2.2 Donated Parcel. Pursuant to the Original Agreement, Otay transferred to City the unimproved real property located west of the Landfill described on **Exhibit A** hereto, consisting of approximately fifty-four (54) acres ("Donated Parcel"). The Donated Parcel may be utilized in City's sole discretion. Otay represents and warrants that the Donated Parcel has not been committed to serve as mitigation property or for any other purpose that would prevent its development. City shall not develop any portion of this parcel for residential housing.

2.3 Community Facilities Improvement Payment. Pursuant to the Original Agreement, Allied made a payment of Four Million Dollars ($4,000,000) to City ("Community Facilities Improvement Payment"). The Community Facilities Improvement Payment may be utilized in City's sole discretion.

2.4 Annexation. The Otay Affiliates shall support any City proposal to annex into the City (a) the Donated Parcel, (b) that certain parcel adjacent thereto as more particularly described on **Exhibit B** hereto (the "Adjacent Parcel"), and (c) the Landfill; provided, however, that City shall be responsible for all fees, taxes, costs and expenses arising out of or resulting from such annexation, including, without limitation, annexation costs, environmental review costs, transfer taxes, recording fees, due diligence fees, escrow fees and attorneys' fees. City shall be further responsible for obtaining any necessary County approval for such annexations that may be required by law or pursuant to City/County agreement. Notwithstanding the forgoing, the Otay Affiliates shall have no obligation under this Section 2.4 with respect to the Adjacent Parcel or the Landfill, as the case may be, if annexation of either such property would result in a valuation or assessment for property tax purposes greater than the valuation or assessment that would have resulted if such property had not been annexed into the City. City agrees that the Otay Affiliates may condition their support for annexation on City's agreement to designate for land use purposes (i) the Landfill as the lowest assessed category for open space, and (ii) the Adjacent Parcel as the lowest assessed category for open space so long as Otay maintains its current use for such property. In connection with such annexation, City shall consider becoming certified as the Local Enforcement Agency for the Landfill. City will cooperate with the Otay Affiliates in establishing a connection between the Otay Landfill and existing or future City sanitary sewer lines and other utilities; Otay shall bear the cost of any such connection.

2.5 Residential Setback. To the maximum extent allowed by law, and consistent with City land use policies, City shall not allow the construction of residential units on properties

within 1,000 feet of the active area of the Otay Landfill, as illustrated on the attached drawing **Exhibit B**; however, the southern boundary edge for this area may shift over time in the direction indicated by arrows on **Exhibit B.** Similarly, Otay agrees that it shall keep the active area of the Landfill at least 1,000 feet away from any constructed residential units. The parties agree to meet and confer from time to time to coordinate, to the extent possible, their respective obligations hereunder. Notwithstanding the foregoing, it is understood that Otay may need to modify the slopes of the Landfill outside the active area of the Landfill from time to time to address settlement, landscaping and other drainage and maintenance requirements and install and operate environmental control systems.

2.6 Heritage Road Alignment. Otay shall grant an easement to City in connection with the Heritage Road alignment for no consideration except as otherwise specifically set forth herein. Such easement shall be at the location and configuration as set forth in the alignment map submitted by City to Otay and attached hereto as **Exhibit C**. City and Otay shall meet and confer to make any adjustments to the easement as may be recommended by the City Engineer. Adjustments recommended by the City Engineer which do not interfere with proposed Landfill Expansion or Applicable Law shall not be unreasonably withheld. City shall be solely responsible for any environmental review and costs associated with the creation, operation and maintenance of the easement. The easement agreement shall contain a provision in which City agrees to indemnify and defend Otay with respect to any damages they may incur arising out of the use or operation the easement, except those due to the negligence or willful misconduct of Otay. In the event that the grant of the easement results in a loss of mitigation property by Otay, City agrees to exercise best efforts to assist Otay in replacing any lost mitigation property through a no cost or low cost alternative; provided, however, that nothing contained herein shall obligate City to expend City funds or purchase new property.

2.7 Reasonable Access on Maxwell Road. Upon City's request, Otay shall grant an easement to City which allows for reasonable access to the Donated Parcel from Maxwell Road, for no consideration except as otherwise specifically set forth herein. City and Otay shall meet and confer to determine the exact location of the easement, with roadway construction specifications satisfactory to the City Fire Marshall and City Engineer, based on standards comparable to those for other roadways.

2.8 Litter Collection and Sweeping. Otay shall hand collect litter as needed but not less than weekly to keep the public streets listed below free of debris. The hand pick-up shall include the lesser of the following areas: (i) from the curb of the street to up to 20 feet of adjoining property from the curb or (ii) from the curb of the street to the closest fence line. Otay shall provide or contract for street sweeping with a broom or re-circulating air sweeper capable of providing service comparable to that used by City for street sweeping services. The service shall be provided as needed to remove material associated with the removal and disposal of waste but not less than weekly. The commitment to provide such service is in addition to that provided by City and its contractor or as arranged by City with other agencies to mitigate any impacts their operations may have on the area. Otay shall be responsible for providing the services described in this Section 2.8 in the following areas: (i) Otay Valley Road from the South entrance of the Sleep Train Amphitheater to Interstate 805, (ii) Maxwell Road from the Landfill to Otay Valley Road, (iii) Heritage Road from Otay Valley Road to Olympic Parkway (including

an easterly extension of Otay Valley Road when such extension is built and in public use).

2.9 Improper Disposal Reduction Measures. Otay shall establish a 24-hour hotline number which individuals may call to report suspected improper disposal of Solid Wastes in the City. Information obtained from such callers shall be communicated to City for appropriate City action on the following business day. Otay shall post a sign at least thirty (30) days prior to making any reduction in the hours or days of operation of the Landfill. The sign shall fully inform the public of such change. When an Uncontrollable Circumstance has caused the change in operation, Otay will make a good faith effort to post the sign by the end of the next business day. They will also make a good faith effort to notify the previous month's regular customers by telephone or fax within five (5) working days if the interruption in service is likely to last more than ten (10) working days.

2.10 Dust. Otay shall (i) pave on-site roads where practicable (e.g., frequently used roads with an anticipated life of at least 5 years in its current location), (ii) sweep on-site streets (at least weekly), (iii) apply water daily to all on-site roads (except those used infrequently, which shall be watered prior to use) and apply other dust control agents and (iv) re-vegetate disturbed areas that are not in the path of planned disturbance in the near future in a manner similar to the manner described in the Landscaping Plan (as hereinafter defined) for vegetation of stock slopes.

2.11 Berms. Otay shall construct Landfill screening berms designed to enclose Landfill operations; provided, however, that nothing contained herein shall be construed as an obligation by Otay to ensure that no collection vehicle traffic may ever be viewed above such berms. Whenever possible, ingress and egress pathways through the berms shall be located away from any surrounding residential areas.

2.12 Birds. Otay shall continue to implement bird control activities for birds that may be attracted to the Landfill, Such control activities may include the use of pyrotechnic or other means as may be necessary to control birds.

2.13 Vernal Pools. Otay shall provide chain link fencing at the boundaries of the watersheds to the vernal pools located along the northeastern portion of the Landfill.

2.14 Gate Check Procedure. Otay shall implement and maintain a gate check procedure at the Landfill for the purpose of accurately allocating Solid Waste not generated in the City to the jurisdiction of origin.

2.15 Collection Vehicle Traffic. None of the Otay Affiliates shall oppose any action by City to restrict collection vehicle traffic on Brandywine Avenue, north of Auto Parkway, except such collection vehicle traffic as is necessary to provide services to persons located within such area. The Otay Affiliates agrees to abide by City directives regarding traffic control before, during and after amphitheater or other special events in the Otay Valley Road area.

2.16 Landscaping Plan. Otay shall implement a phased landscaping plan which is in **Exhibit D** attached hereto ("Landscaping Plan"), with such modifications as may mutually be

agreed upon from time to time by the Parties specifically. Notwithstanding the timing for implementation described in the attached Landscaping Plan, Otay agrees to phase in landscaping as the Landfill expands and height increases. The Landscaping Plan will be implemented in a manner that respects and compliments existing vegetation adjacent to Wolf Canyon. The Landscaping Plan, and any approved modifications thereto, shall be subject to San Diego County approval. The Parties agree to cooperate in presenting and advocating the Landscaping Plan before all applicable County agencies with approval authority. At such time as will allow for the implementation of phased landscaping as described above, Otay also agrees to develop a final closure plan in accordance with state and federal regulations for the Landfill which includes a protective cap and vegetative layer. To the extent allowed by law, the final protective cap shall be designed to use monolithic soils capable of sustaining and promoting re-vegetation of finished slopes with native plant species. At a minimum, the final vegetative layer shall be two (2) feet thick and shall be designed with undulations to accommodate greater thicknesses' of up to six (6) feet where engineeringly feasible and allowed by law.

2.17 Contouring. Otay shall incorporate "landform" contouring into the Landscaping Plan, provided implementation of such contouring does not result in the generation of additional significant impacts that require additional studies or analysis, or recirculation of the EIR that would significantly delay the CEQA process. The parties agree to meet and confer to develop contouring plan specifics not addressed in the Landscaping Plan and to evaluate alternative contouring for the finished expanded Landfill. Such alternative contouring shall include possible undulation of the side slopes and potential regrading of upper contours to soften the slope angle more gradually where engineeringly feasible and allowed by law. City agrees to work with Otay to minimize any loss of airspace proposed in the Landfill Expansion as a result of contouring.

2.18 Soil Stockpiles. During construction for the expansion of the Landfill, should the need arise to stockpile soil, such stockpile(s) shall at no time exceed the final allowable height of the Landfill under the expansion permits of 725' msl. Otay shall vegetate stockpile slopes in accordance with the Landscaping Plan.

2.19 Gas Recovery. Otay shall exercise good faith efforts to increase its existing gas recovery system or develop a new gas recovery system with respect to methane production in an effort to reduce or eliminate the need for a flare system, subject to the requirements of the DEIR, the Landfill permits, current contracts (without extensions) and Applicable Law. Otay's obligations under this Section 2.19 shall include (i) meeting and conferring with City to take advantage of all state and federal credits and preferences and (ii) as deemed necessary by Otay, the solicitation and acceptance of bids which reduce or eliminate the need for a flare system provided the additional costs of such gas recovery system do not exceed one percent (1%) of the costs set forth in bid(s) received to provide such gas recovery without the reduction or elimination of a flare system.

2.20 Clean Fuel Source. Otay shall implement a program regarding the purchase of new clean fuel source (e.g., E-rated electricity, propane, natural gas, liquid natural gas, hydrogen fuel cell, CNG, etc.) support vehicles upon the replacement of such support vehicles whenever an appropriate clean fuel source vehicle is reasonably available. Otay shall exercise good faith

efforts to solicit bids for clean fuel source grinding equipment and services used in Green Waste with respect to the expiration of its existing contract therefor (excluding extensions).

2.21 Categorization of Waste Materials. In order to fully assist City in meeting its AB 939 obligations, to the extent City diverts inert materials, non-compostable Green Waste and similar waste materials, Otay will identify these materials as recyclables or alternative daily cover to the extent the same qualifies as such under Applicable Law.

2.22 General Operational Measures. Otay shall provide top quality Landfill operations by industry standards. The Parties agree to meet and confer to address City concerns relating to Landfill operational issues and to develop measures to address such concerns.

2.23 Limitation on Taxes Fees and Assessments. Except for the Donated Parcel and Community Facilities Improvement Payment provided herein, and any generally City imposed taxes, fees or charges assessed on all businesses for goods or services in the City, City shall not impose any other or further fees or assessments on the Otay Affiliates or any valid successor or assign in connection with the current operations of the Landfill (including the Landfill Expansion as contemplated by and described in the DEIR) except to the extent that Otay Affiliates may immediately pass-through such tax, fee, charge or assessment to City ratepayers (and for which such party shall cooperate with City in collecting). Further, in the event that such taxes, fees, charges or assessments are imposed on any of the Otay Affiliates related to the Landfill by any Governmental Body other than City, and the legislative action or actions imposing the same further requires that the same are diverted, earmarked or otherwise paid over to the benefit of City, in whole or in part, and such action or actions (i) are not offset by a related legislative action or actions which reduce City revenues under this Agreement, (ii) do not compensate City for additional regulatory duties, (iii) do not reimburse City for new, direct out-of-pocket costs or (iv) are related to hazardous materials collection or remediation at the Landfill by City due to the failure of the Otay Affiliates to comply with its obligations to City under Section 3.14 hereunder, such sums, if any, shall be promptly rebated to Otay's accounts or paid over to Otay.

2.24 City Benefits Contingent On City's Continued Acceptance Continuation of ADC Program. In consideration for City's continued acceptance of the Green Waste ADC program, throughout the term of the Collection Franchise Agreement, Otay agrees to provide the benefits set forth in this Section, below. These benefits shall continue, without abatement or adjustment, if the ADC Program is discontinued as a result of a Change in Law or action imposed by a non-City Governmental Body. These benefits may be discontinued by Otay at any time during the Term, if City requests, urges or petitions the State, the County, or other Governmental Body to discontinue or limit the use of ADC at the Otay Landfill, or adopts itself a local law prohibiting or limiting the use of ADC.

a. Tree Trimming Exemption. Otay will cause the acceptance at the Otay Landfill of Green Waste, including, without limitation, palm fronds and clean lumber, delivered by City crews and City contractors working on City projects, free of charge. This Green Waste will not be counted as part of the City's free disposal tonnage at the Otay Landfill under section 4.3 of Republic's Collection Franchise Agreement.

b. Clean Dirt/Fill Exemption. Otay will cause the acceptance at the Otay Landfill of clean dirt and fill delivered by City crews generated as a result of maintenance of City property or installation of City infrastructure, free of charge. This clean dirt and fill will not be counted as part of the City's free disposal tonnage at the Otay Landfill under section 4.3 of Republic's Collection Franchise Agreement. For purposes of this section "clean" dirt or fill shall be dirt or fill that is free of asphalt, concrete, trash, pipe, petroleum and chemicals that are typically not found in excavation of undisturbed ground; provided, however that processed rock products such as aggregate base, aggregate sub-base, decomposed granite, and similar materials, shall be allowed.

c. Free Compost Material For Chula Vista Residents. In the first calendar year of the Franchise, Otay will arrange for three (3) compost events per calendar year whereby Otay will deliver up to 150 cubic yards of compost per event as directed by the City, to be made available for free to Chula Vista resident and (non-landscaping) business Ratepayers. The parties shall meet and confer to discuss changes in this initial quantity of 150 cubic yards of compost per event due to lack of or increased demand, and shall reasonably agree on such adjustments. Thereafter, based upon factors such as consumer demand, event costs, materials availability, and other reasonable factors, the parties will meet and confer to determine appropriate adjustments to the program, for each calendar year of the Term thereafter. The first year's event will be the minimum requirement.

d. Cooperation with Green Waste ADC Program Alternatives. Otay agrees to meet and confer with the City from time to time, as the City may reasonably request, to explore alternatives to the Green Waste ADC program that would maximize Green Waste diversion during and beyond the operation of the Otay Landfill and would result in the creation of a value added product (e.g., compost).

e. Resource Recovery Park at Otay Landfill. Otay shall develop a Resource Recovery Park (the "RRP") at the Otay Landfill on the terms set forth in this Section. An RRP is a facility that, among other things co-locates reuse, recycling, compost processing, and related businesses in a central location. The purpose of an RRP is to provide a place for reducing the amount of waste that is disposed of through recovery of some materials for reuse, recycling and composting. The RRP shall be located on at least 20, and up to 30 acres, on an area of the Landfill property to be designated by Otay (the "RRP Property"). The Parties agree to work together in good faith to negotiate terms and condition for the development of the RRP on the RRP Property. In order to implement its obligations hereunder, Otay, at a minimum, agrees to (1) fully investigate, and exercise their best efforts to implement an RRP including the post-closure uses identified in Sections 4.1.1 through 4.1.5 of that certain report entitled "Otay Landfill Post-Closure Uses Evaluation," prepared by A-Mehr, Inc., dated April 2014, or such other similar uses as the City may reasonably approve; (2) meet and confer quarterly with the City regarding RRP design and implementation status; (3) by no later than June

30, 2020, develop and implement components of RRP operations as necessary to comply with Applicable Law, including, without limitation, pending laws expected to limit or ban the Disposal of organics at the Landfill; and (4) by no later than June 30, 2020, designate the RRP Property and develop and obtain City approval of a final plan for post-closure RRP operations thereon, which approval shall not be unreasonably withheld. Otay ultimately reserves the right to reasonably determine the practical feasibility and economic viability of each of the proposed components of the RRP. Otay Affiliates acknowledge and agree that Otay's good faith negotiation and/or agreement with the City on the terms and conditions for a future RRP, at the discretion of the City, may also be a consideration to any future extension of the Collection Franchise Agreement. If Otay fails to fulfill its obligations under this Section, in addition to any and all other remedies available to City at law or in equity, Otay agrees that it shall be obligated to make available to the City, in perpetuity, the RRP Property, at a location reasonably approved by City, for use as an RRP. The parties shall meet and confer to determine the specific nature of the City's interest in such property, the type of RRP operations to be allowed, and the RRP operator, all of which shall be subject to Otay's reasonable approval.

f. Green Waste Landfill Passes. Republic shall give Small Quantity Generators within the City two (2) free Green Waste disposal passes per calendar year for use at the Otay Landfill for a single vehicle no greater than one ton in capacity each. Each vehicle load of Green Waste brought to the Otay landfill by a Small Quantity Generator shall be used as part of the ADC, composting or other program eligible for diversion credit under then applicable Diversion Laws.

g. Construction and Demolition Recycling. Otay agrees to take any and all actions reasonably necessary to timely obtain all permits necessary to expand its existing Construction and demolition recycling operation at the Landfill to keep up with current and projected demand therefor, and to comply with Applicable Laws.

3.0 General Provisions.

3.1 Term; Covenants Running with the Land. This Agreement shall be effective for so long as the Landfill is being operated as a landfill, a transfer station, an RRP, or an equivalent operation, and the Otay Affiliates' obligations hereunder shall be covenants running with the land. City is deemed the beneficiary of such covenants for and in its own right and for the purposes of protecting the interest of the community and other parties public or private, in whose favor and for whose benefit of such covenants running with the land have been provided without regard to whether City has been, remained or are owners of any particular land or interest therein. In order to implement this Section, City reserves the right to prepare a memorandum of this agreement in recordable format and to record same with respect to the Landfill property. The Otay Affiliates agree to execute same in a form reasonably approved thereby. Notwithstanding the foregoing, the Otay Affiliates obligations under Section 3.14 hereof shall survive the termination of this Agreement.

3.2 Administrative Review of Disputes. Prior to commencing litigation, a party shall first give the other party written notice of any dispute with respect to this Agreement. Such notice shall specify a date and location for a meeting of the parties hereto at which such parties shall attempt to resolve such dispute, and the name of a mediator selected by such party to mediate the meeting. City shall keep a record of the proceedings conducted and information presented during such meeting. The cost of such resolution shall be divided and paid equally by the parties. In the event that such dispute cannot be resolved by the parties hereto within thirty (30) days, the matter may be referred by mutual agreement of the parties to non-binding arbitration, or by either party to legal proceedings. Neither party may act to terminate this Agreement for cause except at the conclusion of the meeting of the parties held pursuant to this Section 3.2, or in the event the parties have referred the dispute to arbitration, at the conclusion of the arbitration.

3.3 Authority. Each party represents that it has full right, power and authority to execute this Agreement and to perform its obligations hereunder, without the need for any further action under its governing instruments, and that the parties executing this Agreement on behalf of such party are duly authorized agents with authority to do so.

3.4 Assignment. Except as expressly provided herein, neither this Agreement, nor any rights or interest herein, shall be assigned by either party without the prior written consent of the other party, which consent shall not be unreasonably withheld, conditioned or delayed, except that City is deemed to have consented to any transfer this Agreement by Otay to any Affiliate, provided such Affiliate covenants and agrees in writing to perform and be bound by each and all of the terms and conditions hereunder. Any attempted assignment in violation of this section shall be void and shall constitute a material default entitling the other party to terminate this Agreement. In addition, both parties agree to comply with any and all provision contained in the Municipal Code governing the change of ownership of Otay or the transfer of this Agreement.

3.5 Counterparts. This Agreement may be executed in multiple copies, each of which shall be deemed an original, but all of which shall constitute one agreement after each party has signed such a counterpart.

3.6 Entire Agreement. This Agreement, together with all exhibits attached hereto and other agreements expressly referred to herein, constitutes the entire agreement between the parties with respect to the subject matter contained herein. All prior or contemporaneous agreements, understandings, representations, warranties and statements, oral or written, between the Parties are superseded, except for the Collection Franchise Agreement entered into by the City and Republic contemporaneously herewith.

3.7 Other Governmental Bodies. In the event any value paid to City under this Agreement is required by law to be shared with or otherwise paid over to any other Governmental Body, City shall be solely responsible for transferring such value to such Governmental Body, without any indemnification or any other reimbursement from the Otay, Affiliate under this Agreement. Notwithstanding the foregoing, any such requirement shall be considered a Change in Law pursuant to the terms of this Agreement and this Section shall not

relieve the Otay Affiliates of their obligations under Section 3.12 hereof.

3.8 Exhibits. All exhibits referred to herein are attached hereto and incorporated herein by this reference.

3.9 Governing Law. This Agreement shall be governed, interpreted, construed and enforced in accordance with the laws of the State of California.

3.10 Notice. Any notice that may be given to either party under or with respect to this Agreement shall be deemed to have been given when delivered personally or when sent by registered or certified mail, postage prepaid, addressed as follows:

Otay Affiliates:

Otay Landfill, Inc.
8364 Clairemont Mesa Boulevard
San Diego, CA 92111
Attn. Neil Mohr, General Manager

with a copy to:

General Counsel's Office
Attn. Tim Benter, Deputy General Counsel
Republic Services, Inc.
8500 North Allied Way
Phoenix, Arizona 85054

CITY:

City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910
Attn: City Manager

with a copy to:

City Attorney

3.11 Successors. Subject to the restrictions on assignment and change of ownership contained herein, all terms of this Agreement shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto and their respective heirs, legal representatives, successors, and assigns.

3.12 Uncontrollable Circumstances. Except as otherwise specifically provided in this Agreement, neither the Otay Affiliates, on the one hand, or City, on the other hand, shall be in breach of this Agreement for any temporary failure or delay in the performance of any

obligation under this Agreement (other than any payment at the time due and owing) to the extent such failure or delay is due to the occurrence of an Uncontrollable Circumstance; provided, however, the party experiencing an Uncontrollable Circumstance shall not be in breach only if such party complies with the requirements in this Section 3.12. The party experiencing an Uncontrollable Circumstance shall notify the other party by telecommunication or telephone and in writing ("Notice"), immediately after the party experiencing such Uncontrollable Circumstance first learns of the commencement thereof, followed within forty-eight hours by a written description of (1) the Uncontrollable Circumstance and the cause thereof (to the extent known) and (2) the date the Uncontrollable Circumstance began and the cause thereof, its estimated duration, the estimated time during which the performance of such party's obligations hereunder will be delayed. Each party shall provide prompt written notice of the cessation of such Uncontrollable Circumstance. A party's obligations hereunder shall be delayed commencing at the date of Notice time for only so long as the Uncontrollable Circumstance continues and prevents full compliance with the obligations under this Agreement. Whenever such act, event or condition shall occur, the party claiming to be adversely affected thereby (a) shall use its best efforts to eliminate the cause therefor, (b) minimize the adverse impacts caused thereby, and (c) shall take all necessary and appropriate actions, including, if necessary, bringing in labor and equipment from unaffected areas to resume full performance under this Agreement as quickly as possible.

3.13 Compliance with Laws and Directives. Each of the Otay Affiliates shall comply with all Applicable Law (or such higher standards as may be required under this Agreement) regarding the manner in which it conducts its trade and business. The Parties agree to cooperate with each other in reaching a modification to this Agreement to the extent required by law at any time it should be deemed necessary in the future. In the event of any Change in Law, or a successful third-party challenge to all or any material provision of this Agreement that in either case materially affects City's consideration or the Otay Affiliates' obligations hereunder, the parties agree to meet and confer in order to develop reasonable modifications to this Agreement, if any can be developed, which would allow this Agreement to continue in substantial conformance with its terms as they existed prior to such Change in Law.

3.14 Hold Harmless.

(a) In General. To the maximum extent allowed by law, the Otay Affiliates, shall indemnify, protect, save and hold harmless, City and any elected representatives, officers, employees, agents and volunteers thereof (each a "City Indemnified Part", and collectively, the "City Indemnified Parties") against and from all damages, including bodily injury and property damages, losses, liabilities, demands, claims, remediation or investigation obligations related to government regulated materials, judgments, decrees, costs (including court costs and reasonable attorneys' fees) and expenditures (collectively, "Losses") which such City Indemnified Party may suffer, or which may be sought or recovered from, or obtainable against such City Indemnified Party for, or by reason of, or growing out of or resulting from, directly or indirectly, City's grant or the exercising by the Otay Affiliates of any or all of the rights or privileges granted hereby, or by reason of any act(s) or omissions of the Otay Affiliates, or of any of their respective officers, employees, agents or contractors, in operating the Landfill, or exercising any or all of the rights or privileges granted hereby (collectively, the "Losses Causing Activities").

(b) Duty of Defense. Otay Affiliates obligations under this Section 13.14 shall include the duty of defense with counsel chosen by the Otay Affiliates and reasonably acceptable to City with respect to any suit or claim that may be instituted against any City Indemnified Party by reason of or growing out of or resulting from any Losses Causing Activity.

(c) Hazardous Materials. Without limiting the generality of the foregoing, the Otay Affiliates shall protect, defend, indemnify, save and hold harmless any City Indemnified Parties from and against all Losses which such City Indemnified Parties may suffer, including Losses which may be recovered from, or obtainable against such City Indemnified Parties, resulting from any investigation, repair, cleanup or detoxification, or preparation and implementation of any removal, remedial, response, closure or other plan or replacement or restoration of natural resources (regardless of whether undertaken due to governmental action) for, or by reason of, or growing out of or resulting from, directly or indirectly , the disposed of Solid Waste collected from City generators, or activities of the Otay Affiliates (including predecessors interest and successors in interest), or other activities thereof with respect to Landfill operations which result in a release or threatened release of hazardous materials into the environment in or around the City or at any landfill. The foregoing obligation is intended to be an agreement allowed by Section 107(e) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC, Section 9607(e), and California Health and Safety Code 25364 for the allocation of liability thereunder as between the City, Otay and its Affiliates ,

(d) Miscellaneous. The Otay Affiliates' obligations under this Section 13.14 shall not be restricted to insurance proceeds, if any, received by City Indemnified Parties. The Otay Affiliates' obligations under this Section 13.14 shall not be limited by any prior or subsequent declaration thereby. The Otay Affiliates further agree to pay any and all costs City incurs enforcing its rights under this Section 13.14. Nothing in this Section is intended to supersede any other of the parties obligations under this Agreement, including, without limitation, the obligation to meet and confer in the event of a Change in Law as provided in Section 3.13 hereof. In the event City seeks indemnification after an assignment of this Agreement by Otay Affiliates, City must first seek indemnification from Otay's successor-in-interest prior to seeking indemnification from the Otay Affiliates.

(e) Survival. The provisions of this Section 13.14 shall survive the end of the term or termination of this Agreement.

3.15 Guaranty of Performance. Allied and Republic unconditionally guaranty the performance of Otay's obligations under this Agreement.

3.16 Remedies Upon Default. Upon the occurrence of any event of default by any party, the non-defaulting party shall have any and all remedies available to such party at law or in equity. No provision herein made for the purpose of securing the enforcement of the terms and conditions of this Agreement shall be deemed an exclusive remedy or to afford the exclusive procedure for the enforcement of said terms and conditions, but the remedies and procedure outlined herein or provided, including forfeiture, shall be deemed to be cumulative.

3.17 No Waiver. The failure of either party at any time to require performance by the other of a provision hereof, shall in no way affect the right of such party entitled to performance to enforce the same thereafter. Nor shall the waiver of either party of any breach of any provisions hereof be construed to be a waiver of such provisions or of any succeeding breach thereof.

[Next Page Is Signature Page]

[SIGNATURE PAGE TO OTAY LANDFILL EXPANSION AGREEMENT BETWEEN CITY OF CHULA VISTA AND OTAY LANDFILL, INC.]

IN WITNESS WHEREOF, Otay and City have entered into this Otay Landfill Expansion Agreement effective as of the date first written above.

CITY:

City of Chula Vista,
a municipal corporation

By: _____
Cheryl Cox, Mayor

Attest: _____
Donna Norris, City Clerk

Approved as to form by

_____
Glen R. Googins,
City Attorney

OTAY:

Otay Landfill, Inc.,
a California Corporation

By: _____
Alberto Guardado Vice President
[Print Name and Title]

By: _____
Neil R. Mohr AUTHORIZED AGENT
[Print Name and Title]

REPUBLIC:

Allied Waste Systems, Inc.,
a Delaware corporation

By: _____
Alberto Guardado Vice President
[Print Name and Title]

By: _____
Neil R. Mohr
[Print Name and Title]

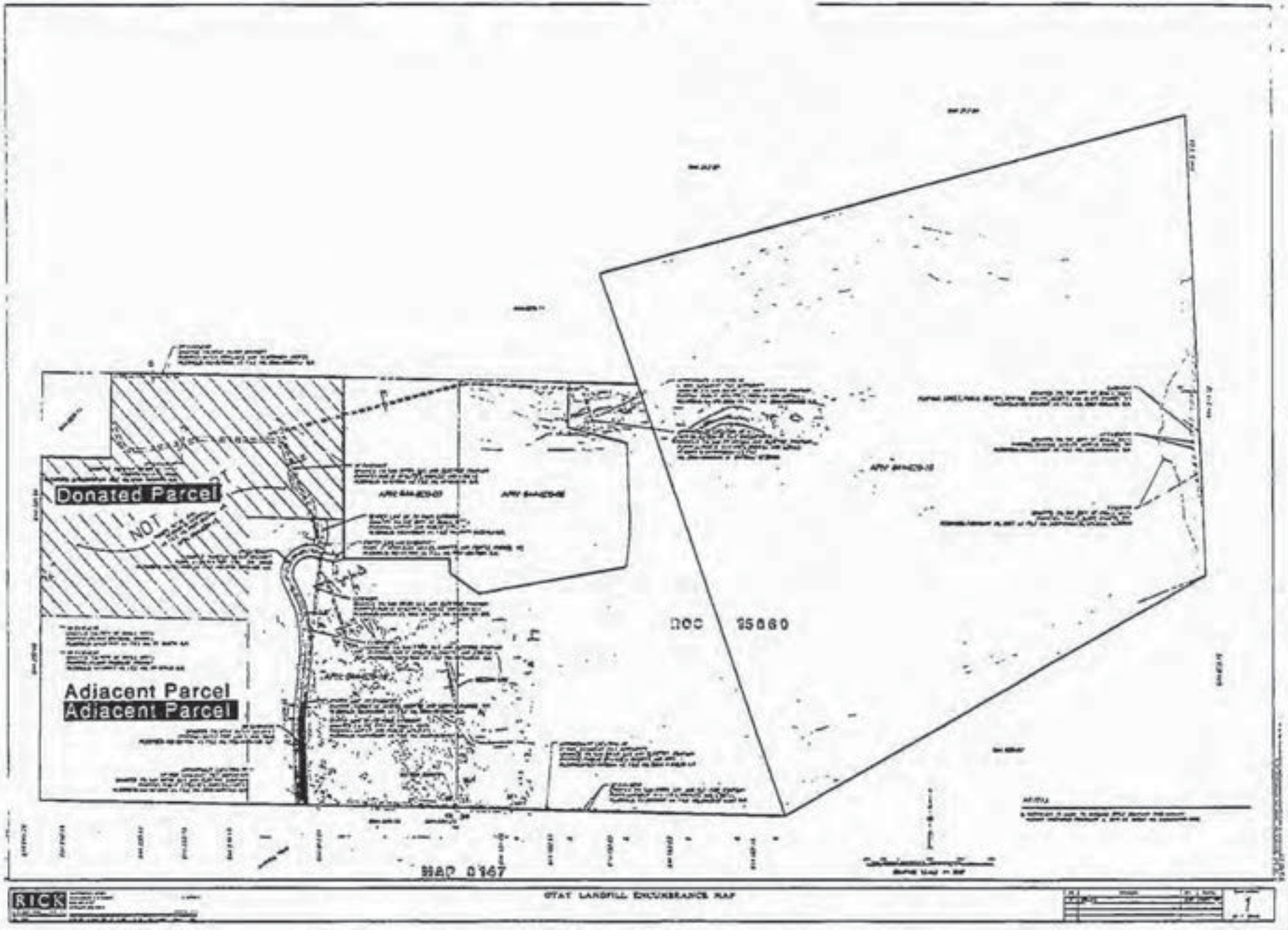
ALLIED:

Allied Waste North America, Inc.,
a Delaware corporation

By: _____
Alberto Guardado Vice President
[Print Name and Title]

By: _____
Neil R. Mohr, AUTHORIZED AGENT
[Print Name and Title]

EXHIBIT A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NOT
Adjacent Parcel
Adjacent Parcel
DOC 95660
MAP 0167
RICK
STAY LANDFILL ENCUMBRANCE MAP

Exhibit B

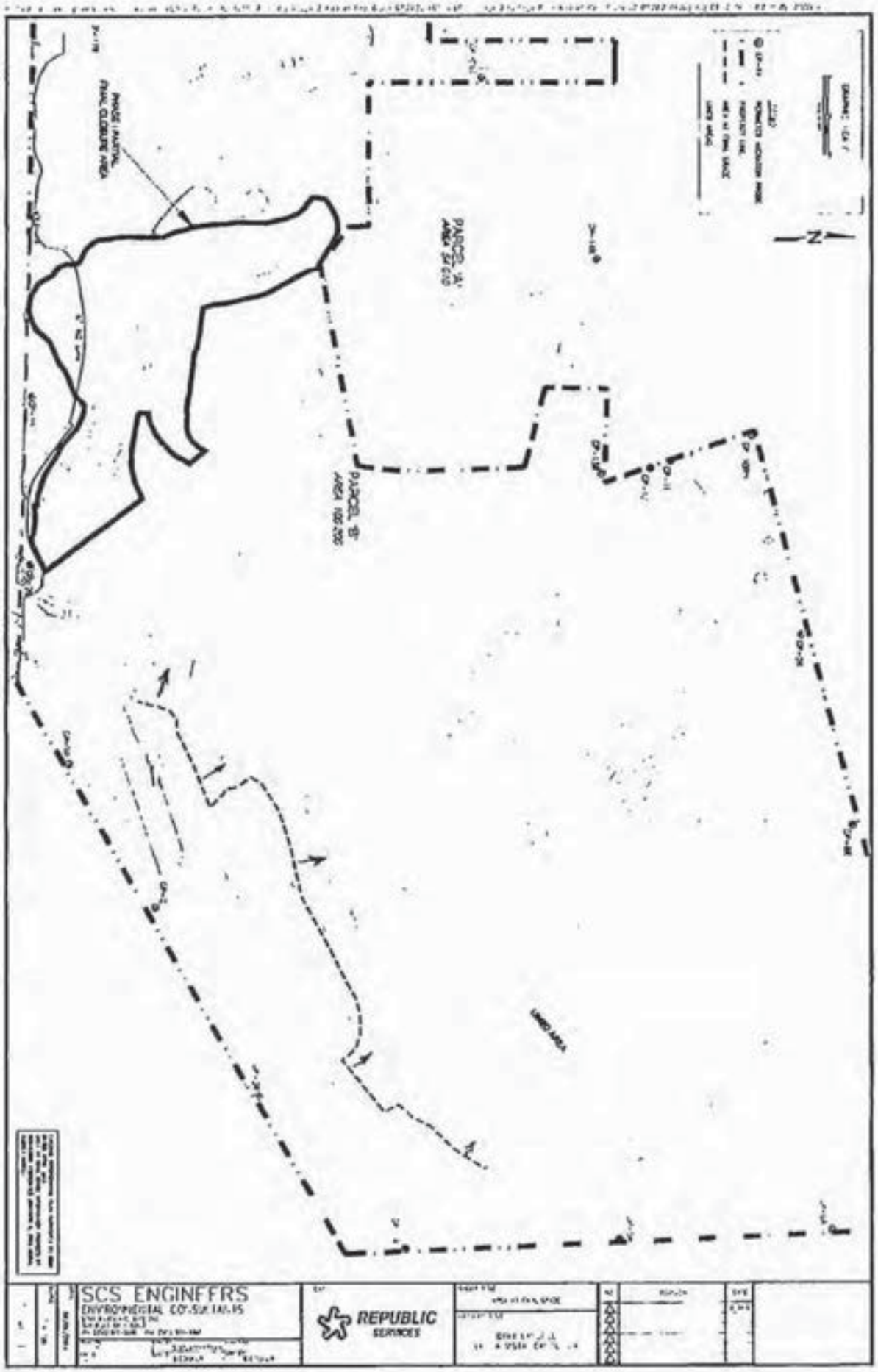
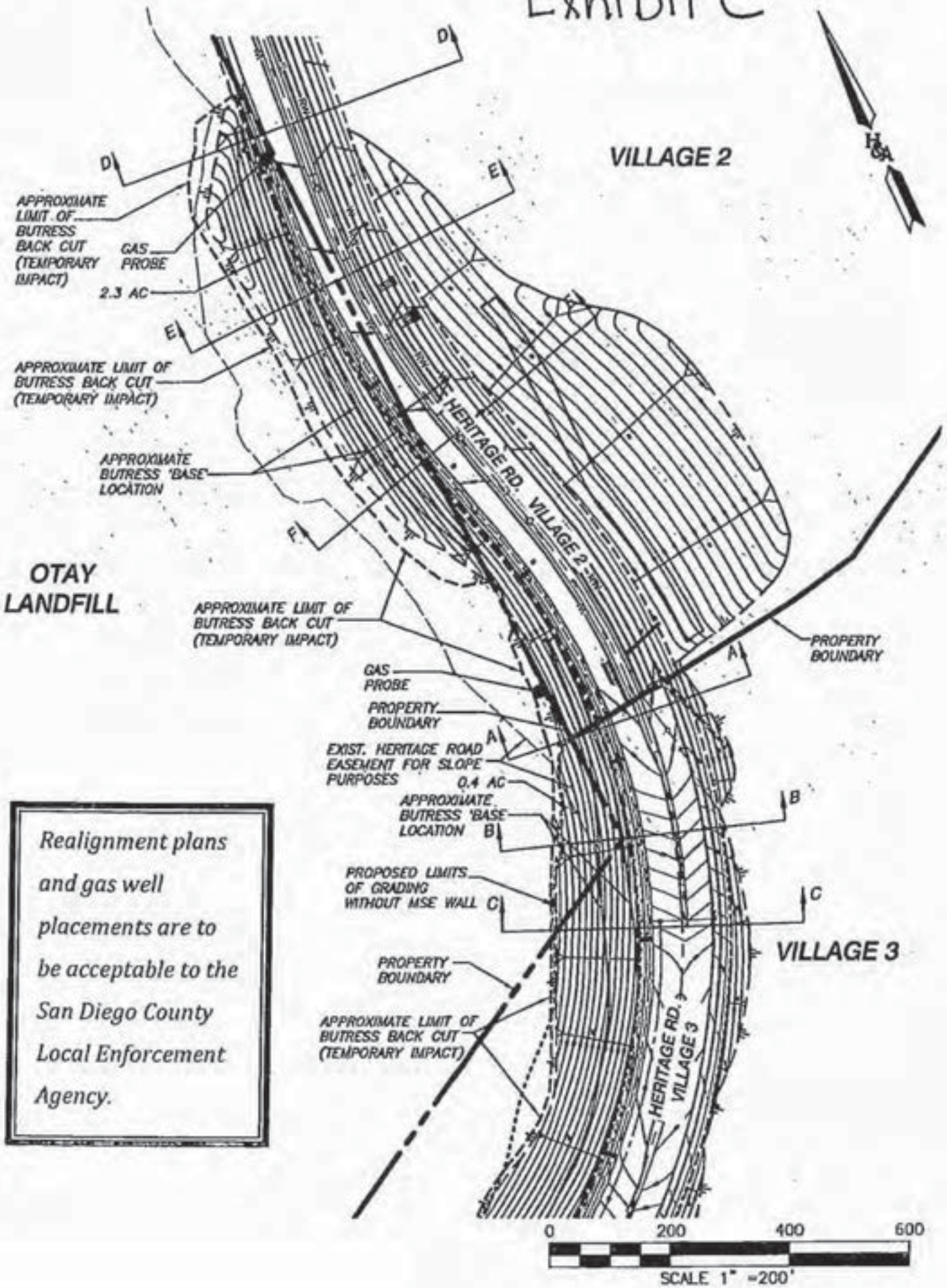
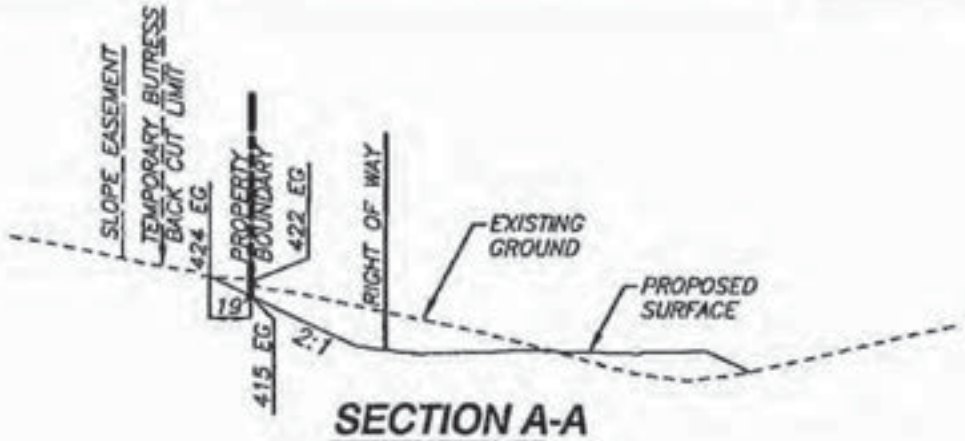

PARCEL 'A'
PARCEL 'B'
SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
REPUBLIC
SERVICES

Exhibit C



Realignment plans and gas well placements are to be acceptable to the San Diego County Local Enforcement Agency.

Exhibit C-1



SECTION A-A

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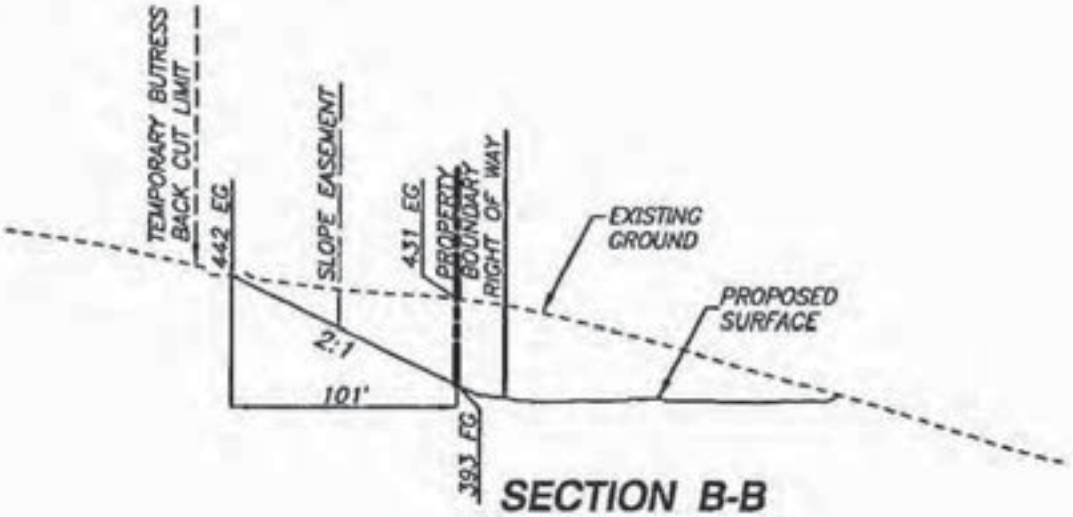

SECTION B-B

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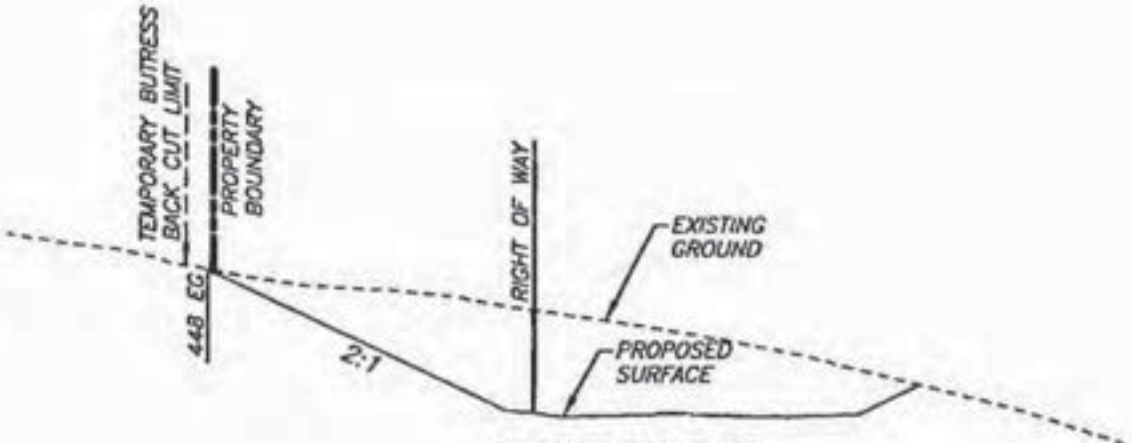
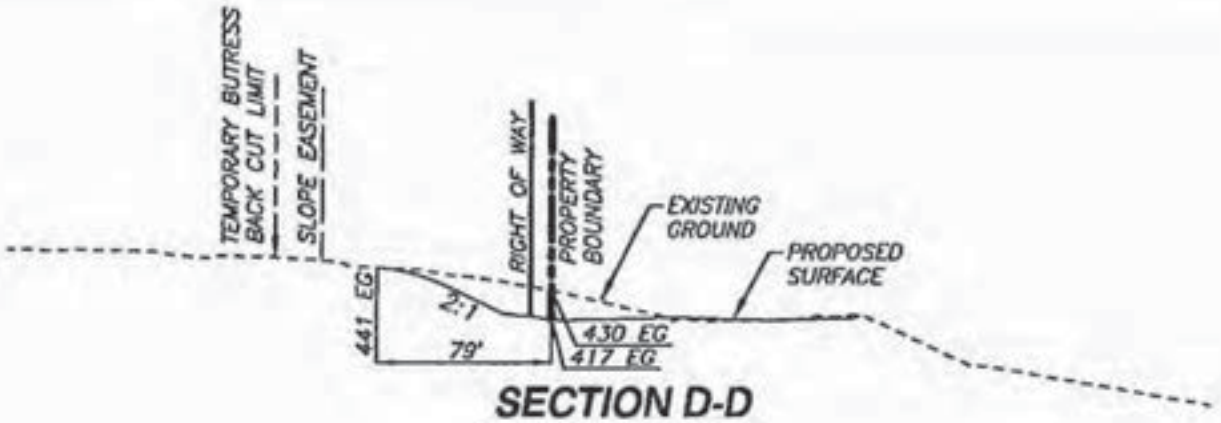


SECTION C-C

SCALE: 1"=80'

Exhibit C - 2



SECTION D-D

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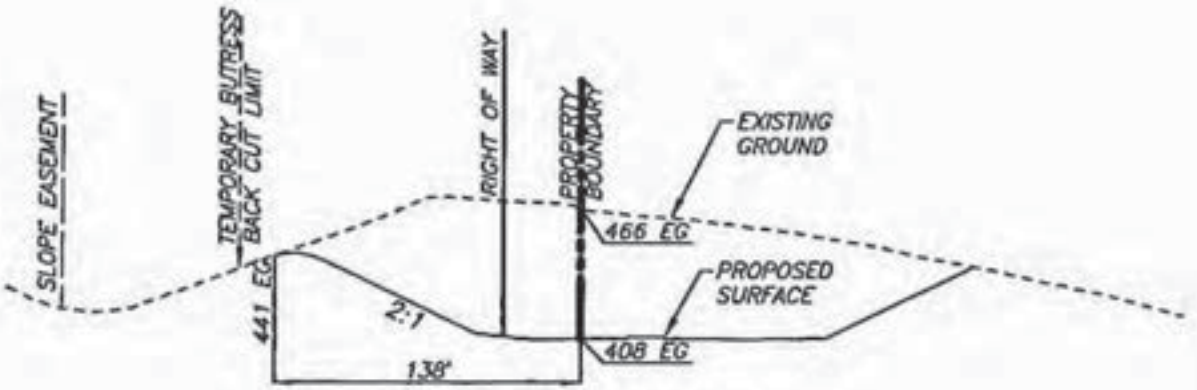

SECTION E-E

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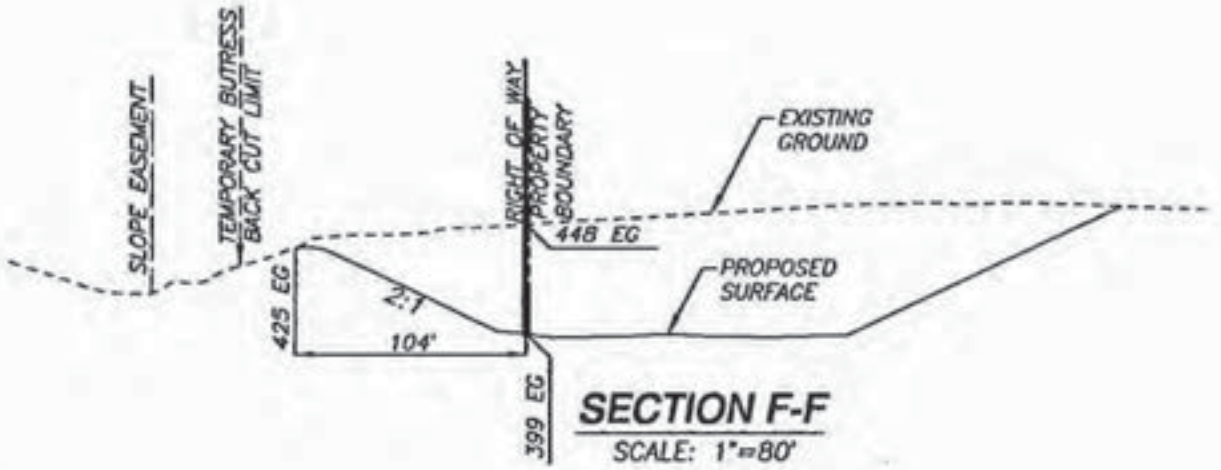

SECTION F-F

SCALE: 1"=80'

EXHIBIT D

RECON

Conceptual Revegetation Plan for Otay Landfill, Chula Vista, California

Prepared for

Mr. Tom Gardner
Republic Services
8514 Mast Blvd.
Santee, California 92071

Prepared by

RECON Environmental, Inc.
1927 Fifth Avenue
San Diego, CA 92101-2358
P. 619.308.9333 F 619.308.9334

RECON Number 4670.2

May 9, 2014

June 12, 2014 revised

Megan Olson

Meagan Olson
Restoration Biologist

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1.0 Introduction

This revegetation plan (Plan) describes the methods and materials in which approximately 209 acres of landfill cap will be vegetated with native plant species at the Republic Services Inc. Otay Landfill in Chula Vista, California. This Plan is being prepared to serve as the guiding document to establish a native vegetative cover on the landfill cap. This Plan provides project success criteria, an implementation strategy, and a five-year maintenance, monitoring, and reporting program.

RECON Environmental, Inc. (RECON) has successfully restored 19 acres of closed landfill slopes with native scrub plant species indigenous to the area. From 2008 through 2011, the 19 acres were planted in phases of 5 to 10 acres and maintained to achieve an overall native cover of 80 percent within two to four years, depending on when the areas where implemented. The 19 acres are located immediately west of the proposed closed slopes that are being revegetated as part of this Plan. The knowledge gained and lessons learned from the previous revegetation efforts have been incorporated into this Plan to guide future revegetation efforts (RECON 2013).

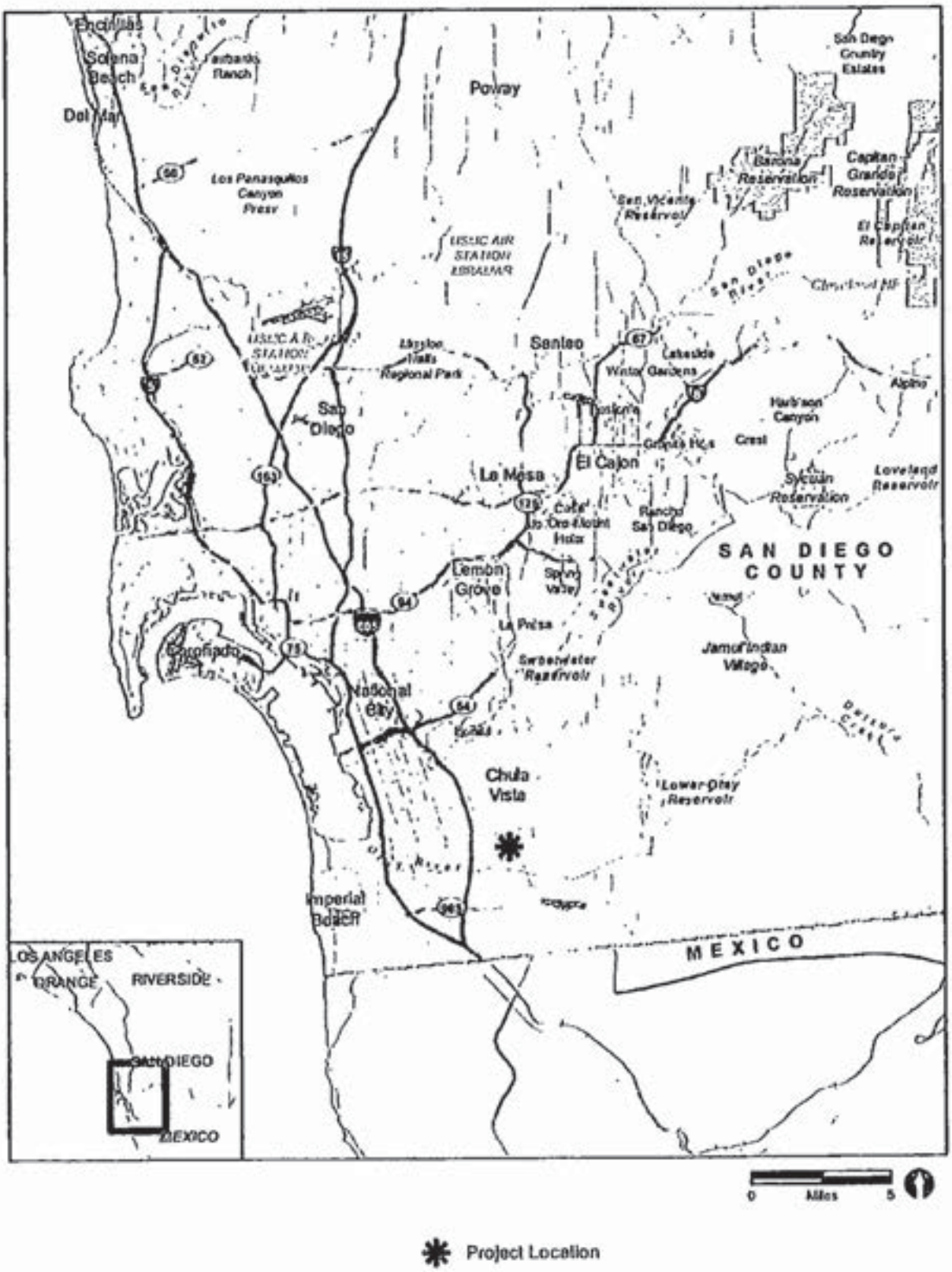
1.1 Project Location and Size

The Otay Landfill is located east of Maxwell Road and north of Main Street within the city of Chula Vista, California (Figures 1, 2, and 3). The address is 1700 Maxwell Road, Chula Vista, California 91911. The landfill is located within the County of San Diego; however, the City of Chula Vista is located in all surrounding directions. While the landfill is not adjacent to any designated City of Chula Vista Preserve lands, the City's Multiple Species Conservation Program Subarea Plan adjacency guidelines, specifically brush management, was considered in the preparation of this Plan (City of Chula Vista 2003).

The landfill property occupies a total of 516 acres, with 19 acres of closed slopes that have been successfully restored. An additional 209 acres of slopes are planned for closure, and their restoration is addressed in this Plan. Combined with the 19 acres of previously restored slopes, a total of 230 acres will be revegetated once the revegetation efforts are complete.

1.2 Landfill Cap Revegetation Goals

The goals for establishing vegetation on the Otay Landfill cap are unlike goals typically set forth for traditional habitat restoration projects. Habitat restoration projects typically create habitat for sensitive plants or wildlife. The primary functions of the vegetative cover on a landfill are to provide slope stability and moisture control, control surface



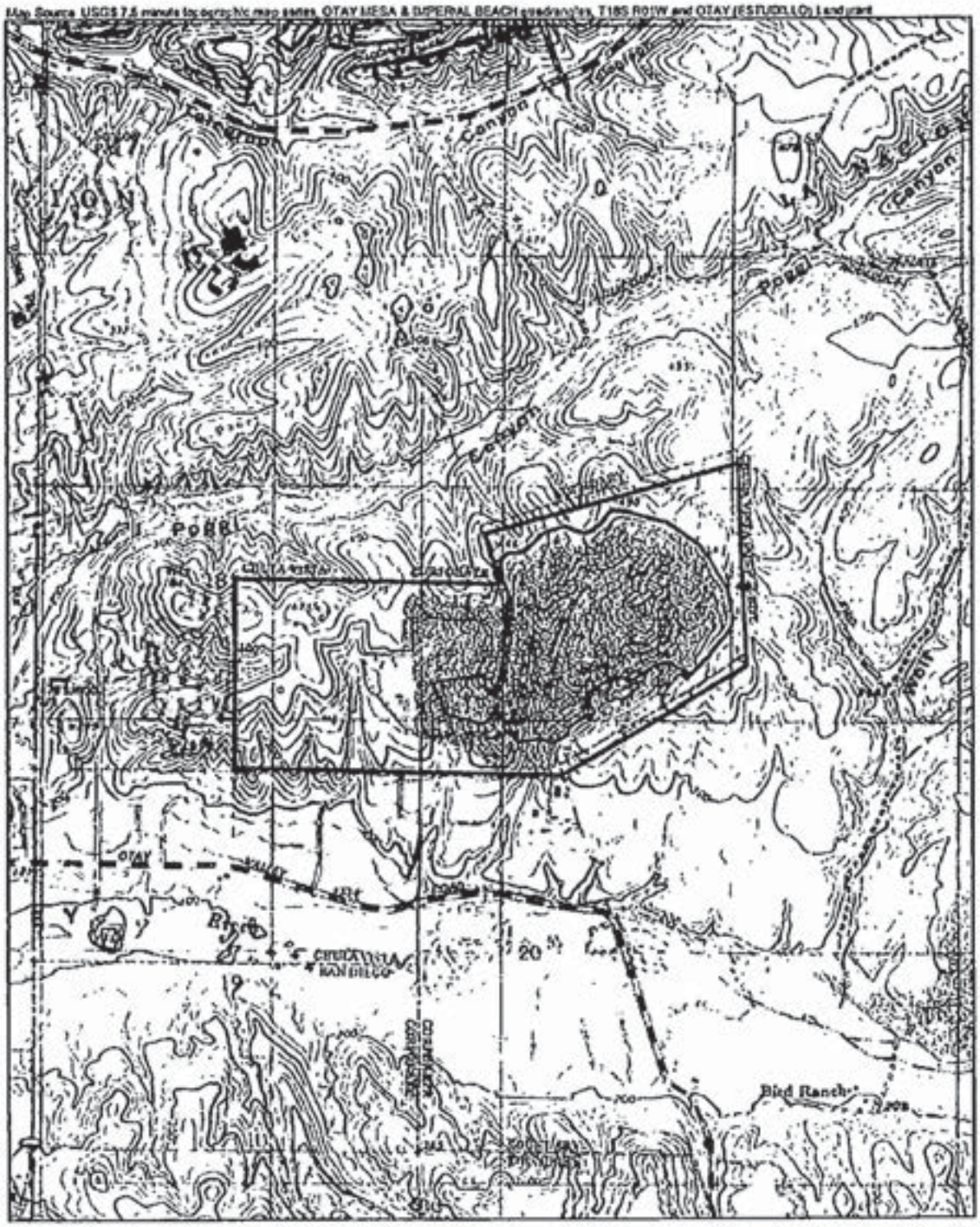
Project Location

FIGURE 1

Regional Location

RECON

M:\JOBS3 4570\common gis fig1 reveg.mxd 4 30 2014 cch



Otay Landfill Boundary

Closed Landfill Slopes to be Restored

RECON

FIGURE 2

Project Location on USGS Map

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Otay Landfill Boundary

Closed Landfill Slopes to be Restored

Previously Restored Closed Landfill Slopes

RECON

FIGURE 3

Project Location on Aerial Photograph

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runoff flows, enhance evapotranspiration, reduce moisture intrusion and leachate production, and reduce landfill gas production. In addition, the landfill cap should include the creation of a self-sustaining native vegetative layer that requires little maintenance and no additional irrigation once established and is free of invasive annual and perennial weed species.

The goals for the vegetation layer on the Otay Landfill cap are to meet the criteria for an erosion-resistant vegetative layer. Specifically, the cap must be capable of:

- supporting native vegetation;
- providing effective erosion resistance to foreseeable erosion effects by wind scour, raindrop impact, and runoff while not having a rooting depth to the top of the low-hydraulic-conductivity layer;
- harmonizing with the proposed post-closure land use;
- requiring minimal long-term maintenance (minimal need for irrigation and weed maintenance);
- ensuring rapid plant germination and growth, being persistent and self-propagating;
- maintaining a high percentage of surface coverage (sufficient to prevent surface erosion).

2.0 Implementation

Implementation of the revegetation activities will begin upon final closure of the landfill cap. Revegetation of the 209 acres of landfill cap will be implemented in phases, with a recommended average of 10 to 50 acres implemented each year until all 209 acres have been planted. Implementing the site in phases allows for adaptations to be made to the revegetation approach based on the previous year's successes and failures. Container plant palette and density can be adjusted and weed control methods can be refined based on observations made during the previous year. Areas not being actively revegetated with native container plantings will be controlled for weed species in preparation for future planting. All revegetation areas will undergo an implementation period followed by a maintenance program until the weeds are adequately controlled and the native plants can sustain themselves with little to no maintenance. It is expected that site preparation will begin in the summer/fall following landfill closure, and planting would occur in the fall. The 120-day Plant Establishment Period (PEP) would begin after all container plants have been installed. After completion of the PEP, maintenance and monitoring would be conducted for a five-year period, or until the final success criteria is

achieved. All implementation and maintenance activities will be overseen by a qualified restoration biologist.

2.1 Restoration Contractor Qualifications

Republic Services, Inc. shall retain a habitat restoration firm to implement and maintain the revegetation areas at the Otay Landfill project site. The restoration contractor shall have experience implementing successful revegetation projects at landfill closure sites within southern California. The restoration contractor will assign a qualified restoration biologist as Project Manager. The Project Manager shall have a minimum of five years of experience implementing and maintaining upland restoration projects in southern California. The Project Manager will coordinate and supervise all restoration implementation and maintenance activities as well as the qualitative and quantitative monitoring.

2.2 Site Preparation

Republic Services, Inc. will begin preparing the revegetation sites by clearing the areas of all vegetation and placing the final soil cover. The final soil cover will be composed of clean and uncontaminated fill soil. After the soil cover has been placed, mulch will be applied. The mulch will consist of processed green waste provided by the landfill operation. The processed mulch will serve several important functions, including surface erosion control, weed abatement, cycling nutrients and organic matter into the topsoil, retaining soil moisture while increasing the evapotranspiration rate of the landfill cap, and regulating soil temperatures for planted container plants. The thickness of mulch application will range from 2 to 6 inches deep and will be applied through the use of hand crews and traditional farm-type machinery.

2.3 Initial Weed Maintenance

After site preparation and prior to container plant installation, the site will be treated for non-native weeds. Weeds encountered within the landfill slopes with either be cut, bagged, and disposed of off-site or treated with herbicide. Removing weeds prior to the installation of container plants will help reduce the existing weed seed bank on-site, allow for easier container plant installation, and reduce the need for intensive weed control after container plants are installed.

2.4 Plant Installation

The plant species selected for introduction into the landfill cap all possess a combination of several of the following characteristics: (1) they germinate quickly and provide rapid native plant cover; (2) they require little to no maintenance once established; (3) they are self-sustaining and can reproduce readily; (4) they are native to the area and are compatible with surrounding land uses; (5) they have fibrous or branching root systems that will not penetrate the landfill cap (do not have a taproot); (6) they will provide robust plant cover once established; and (7) they are not included on the San Diego Fire Chief's Association Fuel Modification Zone Plant List of Undesirable Plants and Weeds (City of Chula Vista 2003). Several native shrub species that are seemingly appropriate for the area have been omitted from the planting palette because they have a rooting depth exceeding the depth to the top of the low-hydraulic-conductivity layer at the site. All plant species proposed for installation were successfully established within the 19 acres of closed landfill.

2.4.1 Seed Collection

Seed collection activities should begin immediately and should be conducted within the project vicinity. Native seed will be collected in the summer and fall months, depending on the flowering time for target species and when seed becomes available. Native seeds will be collected and used for container plant propagation. Seed collection will begin approximately one year before the landfill cap is prepared for revegetation. Seed used for plant propagation should be collected from within the native plant populations of the surrounding areas. However, if additional quantities of the recommended species are needed, additional seed and plant sources should be from within a 10-mile radius of the revegetation site and at a similar elevation and distance from the coast as the revegetation site. All collected seed will be used for container plant propagation. The mulch layer that will be applied to the closed slopes during site preparation will prevent seeds from contacting the soil surface and, therefore, hand seeding will not be conducted within the site.

2.4.2 Plant Propagation

Plant production will begin approximately 6 months before the landfill cap is prepared for revegetation. Container plants shall be propagated in one-gallon containers by a local nursery experienced with growing native plant species, preferably for restoration purposes. Depending on availability and timing of planting, variations can be made to the plant palette and size of the container plants. Smaller container plants may be used at the discretion of the restoration biologist. In addition, during the first few years of the phased revegetation, the plant palette may be adapted to account for species that

perform well or do not perform well within the landfill. Table 1 presents the recommended container plant palette.

TABLE 1
PROPOSED CONTAINER PLANTS FOR OTAY LANDFILL

Scientific Name	Common Name	Plants per Acre
Ambrosia chenopodiifolia	San Diego bur ragweed	40
Astragalus trichopodus var. *lonchus*	coast locoweed	30
*Atriplex canescens**	four-wing saltbush	50
Atriplex lentiformis	big saltbush	40
*Brickellia californica***	California brickellbush	85
*Encelia californica***	common encelia	85
*Grindelia camporum***	San Diego gumplant	60
Hazardia squarrosa	sawtooth goldenbush	40
*Isocoma menziesii***	coast goldenbush	85
*Mirabilis californica***	wishbone bush	40
*Peritoma arborea***	bladderpod	50
Salvia apiana	white sage	20
*Stipa pulchra***	purple needlegrass	85
	Total	710

NOTE: These recommendations are guidelines that may be changed due to a variety of circumstances, including reflection of neighboring habitats and seed and plant availability at the time of installation. Changes to the seed species shall be pre-approved by the restoration biologist.
*Species included on the Fuel Modification Zone Plant List as acceptable in all fuel modifications zones, except where adjacent to Preserve land (City of Chula Vista 2003).
**Species included on the Fuel Modification Zone Plant List as acceptable in all fuel modifications zones (City of Chula Vista 2003).

All plants will be inspected by the restoration biologist and approved as healthy, disease free, and of proper size prior to planting. In addition, the restoration biologist will approve the final layout of all plant materials in the field prior to planting.

2.4.3 Planting

Plant installation should begin immediately following the initial weed maintenance within the revegetation site, but shall be limited to approximately November 15 to February 1 to coincide with seasonal winter rainfall.

Plants will be laid out within the revegetation site to mimic the patterns found in surrounding habitats. The north-facing slopes located on the north side of the landfill will be planted with clusters of larger shrubs, such as four-wing saltbush (*Atriplex canescens*), big saltbush (*Atriplex lentiformis*), and common encelia (*Encelia californica*) expanding the small canyons that exist in the surrounding native vegetation into the landfill cap to visually blend with the landfill's surroundings. The south-facing slopes on

the south side of the landfill will be planted with a dominance of native grass species, such as purple needlegrass (*Stipa pulchra*), to provide a natural transition from the closed landfill slopes to the existing grassland ecosystem south of the site (Figure 4). The first 100 feet from the base of the slopes along the landfill perimeter will only be planted with species included in Table 1 as acceptable per the Fuel Modification Zone Plant List (City of Chula Vista 2003) to prevent the installation of plant material that is especially combustible, dry, or known to develop dry undergrowth to prevent the spread of fire into or out of the landfill.

A planting density of 710 plants per acre is recommended, especially for the first few years of revegetation when the most successful plant palette and planting distribution will be determined and used to guide future revegetation efforts. Depending on the successes and failures observed during the first phases, the container plant palette and density may be adjusted to aid in reaching final success criteria.

Container plants will be installed using standard horticultural practices, using a hole at least twice the diameter of the root ball. All plants will be thoroughly watered in their pots before planting, as will the soil in all planting holes. Each container plant will be installed with a small two- to three-inch berm or planting basin approximately 24 inches in diameter around the edge of the plant to hold irrigation water.

3.0 Maintenance

Maintenance activities will be conducted for five years following implementation, or until it has been determined that the landfill cap is resistant to foreseeable adverse environmental factors (e.g., climate, disease, and pests) and that its high percentage of vegetative cover is sufficient to prevent surface erosion, whichever happens sooner. Maintenance activities will include weeding, providing supplemental irrigation, trash removal, and replanting, as necessary. The maintenance period will begin following implementation planting.

3.1 Schedule

The purpose of the five-year maintenance and monitoring period is to ensure the success of the revegetation effort and to allow native plants to establish and become self-sustaining. Maintenance is needed to create and maintain conditions favorable to establishment and growth of native plants. The maintenance program ensures that native species are being allowed to recruit, container plants are becoming established, and weeds are not outcompeting native vegetation. Maintenance measures will be conducted throughout all revegetation areas and will be coordinated by the restoration biologist. Maintenance will consist of two phases: a 120-day PEP and five-year

maintenance period. The restoration biologist will oversee all aspects of the revegetation program in order to detect problems at the earliest stage.

Maintenance activities of the landfill cap include irrigation, weed management, and potential remedial planting. Maintenance of the revegetation site will continue until the objectives of the plan are met. Success of the plantings will be assessed annually after installation. Plantings within the revegetation area must achieve the specified goals of plant survival and coverage in order for the project to be deemed successful. Table 2 presents the proposed maintenance and monitoring schedule.

TABLE 2
MAINTENANCE AND MONITORING SCHEDULE

Type/Task	PEP	Year 1	Year 2	Year 3	Year 4	Year 5
Weed control	As-needed	As-needed	As-needed	Quarterly	Twice a year	Twice a year
Irrigation*	As-needed	As-needed	As-needed	Remove (if appropriate)	Remove (if appropriate)	Remove (if appropriate)
Qualitative monitoring	Bi-weekly	Monthly	Quarterly	Quarterly	Quarterly	Quarterly
Quantitative monitoring	**	**	Spring	Spring	Spring	Spring

* Irrigation will be discontinued once plants are becoming established.
** Quantitative monitoring will begin in Year 2.

3.2 Supplemental Irrigation

After installation, the container plants will be cared for until they are successfully established. Plant care generally involves providing supplemental irrigation when needed. The timing and duration of applying supplemental water will be under the direction of the project's restoration biologist. Supplemental irrigation water will only come from a potable water source.

All supplemental irrigation will be provided by a water truck and hose. This method of irrigation is recommended because the thick layer of mulch applied during implementation will trap water and create cool and moist soil conditions suitable for plant establishment, thereby negating the need for daily overhead irrigation.

Watering with a hose will be applied in a way that mimics natural rainfall such that the droplet impacts on the soil surface will not cause surface erosion. Side spraying from the water truck will not be allowed. Once an area has become saturated at the surface, watering will move onto another area to avoid surface runoff. When the water has had time to soak in, the area may be re-wetted for thorough soil saturation.

Otay Landfill Boundary
Final Grade of Benches After Landfill Closure
Previously Restored Closed Landfill Slopes
Closed Landfill Slopes to be Restored

RECON

FIGURE 4
Otay Landfill Final Closure Plan

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Water truck operations will cease when the plants are of sufficient size and they have become established. After the water truck operations have been concluded, the site will continue to be monitored to ensure that the plants are not adversely affected. If significant signs of stress are apparent, watering via a water truck and hose will continue as needed.

3.3 Weed Maintenance

Early and aggressive efforts in non-native weed abatement will be the first step towards restoring a favorable environment for desired native plant species. Weed maintenance will be a priority for the duration of the project to keep weed species from producing seeds and to control weed competition with native plants. Weed maintenance will consist primarily of crews using line trimmers and through the use of herbicide. Hand weeding or other weed control methods, including herbicide applications, will be performed by maintenance workers trained to distinguish weeds from native species. All herbicide applications will be completed under the supervision of a person holding a California Qualified Applicator's License.

Weed maintenance will continue throughout the maintenance period. Weeds will be killed or removed before they set seeds. A list of non-native weed species anticipated on-site is presented in Table 3. In the event that additional weed species are encountered, the restoration biologist will refine control measures to address the problem.

TABLE 3
ANTICIPATED WEED SPECIES

Scientific Name	Common Name
Avena spp.	wild oat
Brassica spp.	mustard
Bromus spp.	brome grass
Centaurea melitensis	tocolote
Chenopodium album	lamb's quarters
Cynara cardunculus	cardoon, artichoke thistle
Erodium spp.	filaree, storksbill
Hordeum spp.	barley
Medicago polymorpha	burclover
Ricinus communis	castor bean
Salsola tragus	Russian thistle
Sonchus spp.	sow thistle
Malva spp.	mallow
Nicotiana glauca	tree tobacco

3.4 Brush Management

The City of Chula Vista requires brush management in areas where urban development interfaces with open space (City of Chula Vista 2003). The closed landfill, as planned, does not qualify as requiring brush management; however, brush management and fuel modification has been considered in the development of this Plan to prioritize public safety while meeting the Project goals.

3.5 Trash Removal

Trash consists of all man-made materials within the Otay Landfill project site that do not serve a function related to the revegetation effort. Once closed, the Otay Landfill will be a closed landfill where all of the trash has been buried beneath a landfill cap. Therefore, any articles of trash (i.e., plastic grocery bags, polystyrene cups, etc.) that may occasionally appear within the revegetation site would have blown in from adjoining properties. Trash will be removed from the site by hand during routine maintenance visits.

3.6 Remedial Planting

In the spring of each monitoring year, the revegetation sites will be evaluated for native shrub cover to ensure the prevention of surface erosion. If an area is identified as lacking native cover, it will be replanted with container stock. Qualitative and quantitative monitoring results will indicate if and when remedial planting is required. Details of monitoring are discussed in Section 4.0, Monitoring. Any replanting effort will be timed to coincide with the rainy winter season, and the protocol for seed collection, plant production, and planting will follow the procedures described in Section 2.0, Implementation, of this Plan.

4.0 Monitoring

Evaluation of plant health and identifying and correcting problems as they arise are necessary for ensuring successful vegetation establishment. Qualitative monitoring will be conducted throughout the PEP and maintenance and monitoring periods as outlined in Table 2. Quantitative monitoring will begin in Year 2 and will consist of ocular estimates of native and non-native cover.

4.1 Qualitative Monitoring

Qualitative monitoring will consist of the restoration biologist visiting the revegetation site to ensure that the vegetative cover is becoming adequately established, weeds are controlled, and that there are no signs of surface erosion. Monitoring will consist of an assessment of native species germination, general health of native vegetation, weed presence, vandalism, and erosion. During each monitoring visit, the restoration biologist will document the findings and take remedial actions where necessary.

4.2 Quantitative Monitoring

Quantitative monitoring will be conducted annually in the spring, beginning in Year 2, to determine if the revegetation site is achieving the project goals set forth in Section 1.2, Landfill Cap Revegetation Goals. Quantitative monitoring will include ocular estimates of native and non-native vegetative cover that will be compared to the same estimates taken for the surrounding native vegetation. Estimates taken for the revegetation site and the surrounding vegetation will then be compared to determine if the site is achieving its success criteria. In addition, photo-points will be established to provide an overview of the site and assist in documenting the development of the revegetation site over the course of the five-year maintenance period, or until the goals of the project have been achieved, whichever happens sooner.

4.3 Success Criteria

Revegetation will be considered successful when the goals established in Section 1.2, Landfill Cap Revegetation Goals, have been met. To help determine if the site is on track to meet those goals, annual success criteria for native and non-native vegetative coverage have been established. Interim and final performance standards for achieving native vegetative coverage are shown in Table 4.

TABLE 4
FIVE-YEAR SUCCESS CRITERIA
(ABSOLUTE PERCENTAGES)

Year	Native Cover	Non-native Cover†*
1	—	—
2	20	<40
3	35	<30
4	50	<20
5	60	<15

†Annual herbaceous species.
*Perennial non-native species must be maintained at 0 percent.

5.0 Reporting

A 120-day PEP report will be prepared detailing the qualitative monitoring results that were recorded during the first 120-days of the project and will include details of implementation activities. The report will also summarize all maintenance activities conducted during that time period. The 120-day PEP report will make recommendations, if needed, to address any outstanding issues so that the project is successful, and will be submitted to Republic Services, Inc.

Annual reports will be prepared each year describing qualitative and quantitative monitoring results, and the results will be compared to those recorded during the previous year (starting in Year 2). The report will summarize maintenance activities, discuss general site conditions and trends, include photo documentation, compare monitoring results with the surrounding habitat, and make recommendations for remedial actions, if needed. The reports will be submitted to Republic Services, Inc. by September 1 of each monitoring year. At the completion of the restoration project, a final report will be prepared. The final report will summarize the entire restoration project from implementation through completion.

6.0 References Cited

City of Chula Vista

2003 City of Chula Vista Multiple Species Conservation Program Subarea Plan. February.

RECON Environmental, Inc. (RECON)

2013 Otay Landfill Closed Area Revegetation Site — Final Summary Report November 21.

OTAY LANDFILL EXPANSION AGREEMENT

This OTAY LANDFILL EXPANSION AGREEMENT ("Agreement") is entered into effective as of July 13, 1999 by and between the CITY OF CHULA VISTA, a chartered municipal corporation of the State of California ("City") and OTAY LANDFILL, INC., a California Corporation ("Otay"), with reference to the following facts:

A Otay, a wholly-owned subsidiary of Allied Waste North America, Inc., a Delaware corporation ("Allied"), owns and operates the Otay Landfill, located in San Diego County, California (the "Landfill").

B Otay is in the process of seeking the necessary approvals to expand the Landfill ("Landfill Expansion") as contemplated by and described in the draft Environmental Impact Report dated February 19, 1999 ("DEIR").

C City has expressed concerns regarding the potential impacts of the Landfill Expansion on the surrounding areas located within the City; at the same time, City has expressed an interest in utilizing the Landfill as a reliable disposal site for City Solid Waste.

D In consideration of City's cooperation with Otay's proposed Landfill Expansion, Otay is willing to address City concerns with mitigating measures, and to offer the Landfill as a responsible and reliable source of disposal capacity, all on the terms and conditions set forth herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, City and Otay hereby agree as follows:

1.0 Definitions. Whenever in this Agreement the words or phrases hereinafter in this section defined are used, either with initial caps or small case lettering, they shall have the respective meaning assigned to them in the following definitions (unless in the given instance, the context wherein they are used shall clearly indicate a different meaning):

1.1 "Affiliate" means any parent, subsidiary corporation, partnership or other entity controlling, controlled

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by or under common control with any entity, or any fellow member of an association, joint venture or similar arrangement for the provision of landfill, Solid Waste disposal or Recycling services in which Otay or Allied holds a direct or indirect interest.

1.2 "Applicable Law" means any federal, state or local rule, regulation, requirement, guideline, permit, action, determination or order of any Governmental Body having any jurisdiction applicable to the subject matter of this Agreement, as now in effect and as amended from time to time. Applicable Law shall include, without limitation, the City Charter, and Municipal Code.

1.3 "CEQA" means the California Environmental Quality Act, codified at Cal. Pub. Res. Code Section 21000 et seq., as amended or superseded, and the regulations promulgated thereunder.

1.4 "Change in Law" means any of the following events or conditions occurring on or after the date hereof:

(a) the enactment, adoption, promulgation, issuance, material modification or written change in Applicable Law or administrative or judicial interpretation of any Applicable Law; or

(b) the order or judgment of any Governmental Body with jurisdiction over the Landfill, to the extent such order or judgment is not the result of willful or negligent action, error or omission or lack of reasonable diligence of City, Otay, Allied or any Affiliate thereof, whichever is asserting the occurrence of a Change in Law; provided, however, that the contesting in good faith or the failure in good faith to contest any such order or judgment shall not constitute or be construed as such a willful or negligent action, error or omission or lack of reasonable diligence.

Notwithstanding the foregoing, a "Change in Law" shall not include a denial by a Governmental Body of a permit for the Landfill Expansion, or any imposition of conditions in connection therewith.

1.5 "City" shall mean the City of Chula Vista, a municipal corporation of the State of California in its present incorporated form or in any later reorganized, consolidated, enlarged or reincorporated form.

1.6 "Governmental Body" means any Federal, State, County, City or regional legislative, executive, judicial or other governmental board, agency, authority, commission, administration, court or other body, or any officer thereof acting within the scope of his or her authority.

1.7 "Green Waste" means the leaves, grass, weeds, shrubs, tree branches, tree trunk and other wood materials from trees. Green Waste may also include pre-consumer food waste, incidental amounts of waxed or plastic coated corrugated cardboard, unpainted and untreated lumber. Green Waste does not include tree stumps in excess of 100 pounds, more than incidental dirt or rock, plastic, glass, metal, painted or treated lumber, plywood, particle board or other manufactured products that contain glue, formaldehyde, non-organic or nonbiodegradable materials.

1.8 "Solid Waste" means all putrescible and non-putrescible solid waste, semi-solid and liquid wastes, such as refuse, garbage, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes, and includes liquid wastes disposed of in conjunction with Solid Wastes at Solid Waste transfer or processing stations or disposal sites, which are generated by residential, commercial or industrial sites within the City. Solid Waste shall not include: hazardous and infectious waste, sewage collected and treated in a municipal or regional sewage system or materials or substances having commercial value or other importance which can be salvaged for reuse, Recycling, composting or resale.

1.9 "Uncontrollable Circumstances" means any of the following acts, events or conditions, if such act, event or condition is beyond the reasonable control and is not also the result of the willful or negligent act, error or omission or failure to exercise reasonable diligence on the part of the party relying thereon as a justification for not performing an

obligation or complying with any condition required by such party under this Agreement:

(a) an act of God (but not including reasonably anticipated weather conditions for the geographic area of the City), hurricane, landslide, lightning, earthquake, fire, explosion, flood, sabotage or similar occurrence, acts of a public enemy, extortion, war, blockade or insurrection, riot or civil disturbance;

(b) strikes or work stoppages occurring with respect to any activity performed or to be performed under this Agreement; and

(c) pre-emption of materials or services by a Governmental Body in connection with a public emergency or any condemnation or other taking by eminent domain.

It is specifically understood that none of the following acts or conditions shall constitute Uncontrollable Circumstances: (a) general economic conditions, interest or inflation rates, currency fluctuations or changes in the cost or availability of commodities, supplies or equipment; (b) changes in the financial condition of City, Otay, Allied or its Affiliates or any subcontractor affecting their ability to perform their obligations; (c) the consequences of errors, neglect or omissions by City, Otay, Allied or its Affiliates or any subcontractor; (d) any failure of any subcontractor to furnish labor, materials, service or equipment for any reason (other than an Uncontrollable Circumstance); (e) equipment failure; and (f) any impact of minimum wage law, prevailing wage law, customs or practices on the operating cost of Otay, Allied or its Affiliates or City.

2.0 Obligations.

2.1 Directed Disposal. For so long as Allied, or an Affiliate thereof, is City's franchised waste management provider, City agrees to direct disposal of City Solid Waste (excluding recyclables) to the Landfill.

2.2 Donated Parcel. Upon local approval by San Diego County of the conditional use permit relating to an expansion of

the Landfill as contemplated by and described in the DEIR, in order to provide a buffer between the Landfill and adjacent properties, Otay shall transfer to City the unimproved real property located west of the Landfill described on Exhibit A hereto, consisting of approximately fifty-four (54) acres ("Donated Parcel"). The Donated Parcel may be utilized in City's sole discretion. Otay represents and warrants that the Donated Parcel has not been committed to serve as mitigation property or for any other purpose that would prevent its development. Approval of the conditional use permit for purposes of this Section 2.2 shall not include or otherwise require the successful resolution of any legal challenges to such permit or the expiration of any statutes of limitations applicable to the raising of legal challenges to such permit.

2.3 Community Facilities Improvement Payment. Upon receipt of the final permit ("Approval Date") approving an expansion and operation of the Landfill as contemplated by and described in the DEIR ("Final Permit"), in order to enhance the buffer between the Landfill and adjacent properties, Otay, Allied or its Affiliate shall make a payment of Four Million Dollars ($4,000,000) to City ("Community Facilities Improvement Payment"). The Community Facilities Improvement Payment may be utilized in City's sole discretion. Approval of the final permit for purposes of this Section 2.3 includes and shall require the successful resolution of any legal challenges to such permit and the expiration of any statutes of limitations applicable to the raising of legal challenges to such permit. In the event the Final Permit authorizes expansion of the Landfill, but such expansion is for a height of less than 725 feet, the Community Facilities Improvement Payment shall be reduced by an amount equal to (i) $10,000 for each one (1) foot reduction in the authorized height from 725 feet, down to 675 feet, and (ii) $20,000 for each one (1) foot reduction thereafter. The Community Facilities Improvement Payment shall be payable in four (4) equal installments, beginning one (1) year after the Approval Date and continuing on each one year anniversary thereof until paid in full.

2.4 Annexation. After transfer of the Donated Parcel to City, Otay, Allied and its Affiliates shall support any City proposal to annex into the City the Donated Parcel, that certain parcel adjacent thereto as more particularly described on Exhibit

B hereto (the "Adjacent Parcel") and, upon closure of the Landfill, the Landfill; provided, however, that City shall be responsible for all fees, taxes, costs and expenses arising out of or resulting from such annexation, including, without limitation, annexation costs, environmental review costs, transfer taxes, recording fees, due diligence fees, escrow fees and attorneys' fees. City shall be further responsible for obtaining any necessary County approval for such annexations that may be required by law or pursuant to City/County agreement. Notwithstanding the forgoing, Otay, Allied and its Affiliates shall have no obligation under this Section 2.4 with respect to the Adjacent Parcel or the Landfill, as the case may be, if annexation of either such property would result in a valuation or assessment for property tax purposes greater than the valuation or assessment that would have resulted if such property had not been annexed into the City. City agrees that Otay, Allied or its Affiliates may condition its support for annexation on City's agreement to designate for land use purposes (i) the Landfill as the lowest assessed category for open space and (ii) the Adjacent Parcel as the lowest assessed category for open space so long as Otay maintains its current use for such property.

2.5 Paseo Ranchero Alignment. Otay, Allied or its Affiliates shall grant an easement to City in connection with the Paseo Ranchero alignment, for no consideration except as otherwise specifically set forth herein. Such easement shall be at the location and configuration as set forth in the alignment map submitted by City to Otay and attached hereto as Exhibit C. City and Otay shall meet and confer to make any adjustments to the easement as may be recommended by the City Engineer. Adjustments recommended by the City Engineer which do not interfere with proposed Landfill Expansion or Applicable Law shall not be unreasonably withheld. City shall be solely responsible for any environmental review and costs associated with the creation, operation and maintenance of the easement. The easement agreement shall contain a provision in which City agrees to indemnify and defend Otay, Allied and its Affiliates with respect to any damages Otay, Allied or its Affiliates may incur arising out of the use or operation the easement, except those due to the negligence or willful misconduct of Otay, Allied or its Affiliates. In the event that the grant of the easement results in a loss of mitigation property by Otay, Allied or its Affiliates, City agrees to exercise best efforts to assist Otay

in replacing the lost mitigation property through a no cost or low cost alternative; provided, however, that nothing contained herein shall obligate City to purchase new property.

2.6 Emergency Access on Maxwell Road. Concurrently with the grant of the Donated Parcel, Otay, Allied or its Affiliates shall grant an easement to City which allows for emergency access to the Donated Parcel from Maxwell Road, for no consideration except as otherwise specifically set forth herein. City and Otay shall meet and confer to determine the exact location of the easement, with roadway construction specifications satisfactory to the City Fire Marshall and City Engineer, based on standards comparable to those for other roadways limited to emergency use only.

2.7 Litter Collection and Sweeping. Otay, Allied or its Affiliates shall hand collect litter as needed but not less than weekly to keep the public streets listed below free of debris. The hand pick-up shall include the lesser of the following areas: (i) from the curb of the street to up to 20 feet of adjoining property from the curb or (ii) from the curb of the street to the closest fence line. Otay shall provide or contract for street sweeping with a broom or re-circulating air sweeper capable of providing service comparable to that used by City for street sweeping services. The service shall be provided as needed to remove material associated with the removal and disposal of waste but not less than weekly. The commitment to provide such service is in addition to that provided by City and its contractor or as arranged by City with other agencies to mitigate any impacts their operations may have on the area. Otay shall be responsible for providing the services described in this Section 2.7 in the following areas: (i) Otay Valley Road from the South entrance of the Coors Amphitheater to Interstate 805, (ii) Maxwell Road from the Landfill to Otay Valley Road, (iii) Paseo Ranchero from Otay Valley Road to Orange/Olympic Avenue (including an easterly extension of Otay Valley Road when such extension is built and in public use).

2.8 Improper Disposal Reduction Measures. Otay, Allied or its Affiliates shall establish a 24-hour hotline number which individuals may call to report suspected improper disposal of Solid Wastes in the City. Information obtained from such callers shall be communicated to City for appropriate City action on the

following business day. Otay shall post a sign at least thirty (30) days prior to making any reduction in the hours or days of operation of the Landfill. The sign shall fully inform the public of such change. When an Uncontrollable Circumstance has caused the change in operation, Otay will make a good faith effort to post the sign by the end of the next business day. Otay will also make a good faith effort to notify the previous month's regular customers by telephone or fax within five (5) working days if the interruption in service is likely to last more than ten (10) working days.

2.9 Dust. Otay shall (i) pave on-site roads where practicable (e.g., frequently used roads with an anticipated life of at least 5 years in its current location), (ii) sweep on-site streets (at least weekly), (iii) apply water daily to all on-site roads (except those used infrequently, which shall be watered prior to use) and apply other dust control agents and (iv) revegetate disturbed areas that are not in the path of planned disturbance in the near future in a manner similar to the manner described in the Landscaping Plan (as hereinafter defined) for vegetation of stock slopes.

2.10 Berms. Otay shall construct Landfill screening berms designed to enclose Landfill operations; provided, however, that nothing contained herein shall be construed as an obligation by Otay to ensure that no collection vehicle traffic may ever be viewed above such berms. Whenever possible, ingress and egress pathways through the berms shall be located away from any surrounding residential areas.

2.11 Birds. Otay shall continue to implement bird control activities for birds that may be attracted to the Landfill, Such control activities may include the use of pyrotechnic or other means as may be necessary to control birds.

2.12 Vernal Pools. Otay shall provide chain link fencing at the boundaries of the watersheds to the vernal pools located along the northeastern portion of the Landfill.

2.13 Gate Check Procedure. Otay, Allied or its Affiliates shall implement and maintain a gate check procedure at the Landfill for the purpose of accurately allocating Solid Waste

not generated in the City to the jurisdiction of origin.

2.14 Collection Vehicle Traffic. Neither Otay, Allied or its Affiliates shall oppose any action by City to restrict collection vehicle traffic on Paseo Ranchero Road, south of Otay Valley Road, except such collection vehicle traffic as is necessary to provide services to persons located within such area. Otay agrees to abide by City directives regarding traffic control before, during and after amphitheater or other special events in the Otay Valley Road area.

2.15 Landscaping Plan. Otay, Allied or its Affiliate shall implement a phased landscaping plan which is described in draft form in Exhibit D attached hereto ("Landscaping Plan"), with such modifications as may mutually be agreed upon by City and Otay specifically, Otay agrees to meet and confer with City to consider, and use commercially reasonable efforts to incorporate, the Landscaping Plan modifications proposed by John Krizan in his memorandum to Otay transmitted on July 13, 1999. Notwithstanding the timing for implementation described in the attached Landscaping Plan, Otay agrees to phase in landscaping as the Landfill expands and height increases. The Landscaping Plan will be implemented in a manner that respects and compliments existing vegetation adjacent to Wolf Canyon. The Landscaping Plan, and any approved modifications thereto, shall be subject to San Diego County approval. The parties agree to cooperate in presenting and advocating the Landscaping Plan before all applicable County agencies with approval authority. At such time as will allow for the implementation of phased landscaping as described above, Otay also agrees to develop a final closure plan in accordance with state and federal regulations for the Landfill which includes a protective cap and vegetative layer. To the extent allowed by law, the final protective cap shall be designed to use monolithic soils capable of sustaining and promoting revegetation of finished slopes with native plant species. At a minimum, the final vegetative layer shall be two (2) feet thick and shall be designed with undulations to accommodate greater thicknesses' of up to six (6) feet where engineeringly feasible and allowed by law.

2.16 Contouring. Otay, Allied or its Affiliate shall incorporate " landform" contouring into the Landscaping Plan, provided implementation of such contouring does not result in the

generation of additional significant impacts that require additional studies or analysis, or recirculation of the EIR that would significantly delay the CEQA process. The parties agree to meet and confer to develop contouring plan specifics not addressed in the Landscaping Plan and to evaluate alternative contouring for the finished expanded Landfill. Such alternative contouring shall include possible undulation of the side slopes and potential regrading of upper contours to soften the slope angle more gradually where engineeringly feasible and allowed by law. City agrees to work with Otay to minimize any loss of airspace proposed in the Landfill Expansion as a result of contouring.

2.17 Soil Stockpiles. During construction for the expansion of the Landfill, should the need arise to stockpile soil, such stockpile(s) shall at no time exceed the final allowable height of the Landfill under the expansion permits. Otay shall vegetate stockpile slopes in accordance with the Landscaping Plan.

2.18 Gas Recovery. Otay shall exercise good faith efforts to increase its existing gas recovery system or develop a new gas recovery system with respect to methane production in an effort to reduce or eliminate the need for a flare system, subject to the requirements of the DEIR, the Landfill permits, current contracts (without extensions) and Applicable Law. Otay's obligations under this Section 2.18 shall include (i) meeting and conferring with City to take advantage of all state and federal credits and preferences and (ii) the solicitation and acceptance of bids which reduce or eliminate the need for a flare system provided the additional costs of such gas recovery system do not exceed one percent (1%) of the costs set forth in bid(s) received to provide such gas recovery without the reduction or elimination of a flare system.

2.19 Clean Fuel Source. Otay or its Affiliate will promptly implement a program regarding the purchase of new clean fuel source (e.g., E-rated electricity, propane, natural gas, liquid natural gas, hydrogen fuel cell, CNG, etc.) support vehicles upon the replacement of such support vehicles. Otay will immediately establish service with a California Green E Utility provider for its on-site electrical power source needs. Otay shall exercise good faith efforts to solicit bids for clean

fuel source grinding equipment and services used in Green Waste with respect to the expiration of its existing contract therefor (excluding extensions) , and Otay shall accept a clean fuel source bid provided the additional costs of installing and operating the grinding equipment do not exceed one percent (1%) of the installation and operating costs set forth in bid(s) received to provide such services without the use of clean fuel sources. City shall permit Otay, Allied and its Affiliates to purchase clean fuel sources from City at a price that does not include any profit for City.

2.20 Categorization of Waste Materials. In order to fully assist City in meeting its AB 939 obligations, to the extent City diverts inert materials, non-compostable Green Waste and similar waste materials, Otay will identify these materials as recyclables or alternative daily cover to the extent the same qualifies as such under Applicable Law.

2.21 General Operational Measures. Otay shall provide top quality Landfill operations by industry standards. Otay agrees to meet and confer with City to address concerns relating to Landfill operational issues and to develop measures to address such concerns.

2.22 Limitation on Taxes, Fees and Assessments. Except for the Donated Parcel and Community Facilities Improvement Payment provided herein, and any generally City imposed taxes, fees or charges assessed on all businesses for goods or services in the City, City shall not impose any other or further fees or assessments on Otay, Allied or any valid successor or assign in connection with the current operations of the Landfill (including the Landfill Expansion as contemplated by and described in the DEIR) except to the extent that Otay, Allied or its Affiliates may immediately pass-through such tax, fee, charge or assessment to City ratepayers (and for which such party shall cooperate with City in collecting). Further, in the event that such taxes, fees, charges or assessments are imposed on Otay related to the Landfill by any Governmental Body other than City, and the legislative action or actions imposing the same further requires that the same are diverted, earmarked or otherwise paid over to the benefit of City, in whole or in part, and such action or actions (i) are not offset by a related legislative action or actions which reduce City revenues under this Agreement, (ii) do

not compensate City for additional regulatory duties, (iii) do not reimburse City for new, direct out-of-pocket costs or (iv) are related to hazardous materials collection or remediation at the Landfill by City due to the failure of Otay, Allied or its Affiliates to comply with its obligations to City under Section 3.14 hereunder, such sums, if any, shall be promptly rebated to Otay's accounts or paid over to Otay.

3.0 General Provisions

3.1 Term. This Agreement shall be effective for so long as Otay, Allied or its Affiliate operates the Landfill, however, Sections 3.2, 3.7, 3.9, 3.10, 3.11, 3.14 and 3.15 shall survive the termination of this Agreement.

3.2 Administrative Review of Disputes. Prior to commencing litigation, a party shall first give the other party written notice of any dispute with respect to this Agreement. Such notice shall specify a date and location for a meeting of the parties hereto at which such parties shall attempt to resolve such dispute, and the name of a mediator selected by such party to mediate the meeting. City shall keep a record of the proceedings conducted and information presented during such meeting. The cost of such resolution shall be divided and paid equally by the parties. In the event that such dispute cannot be resolved by the parties hereto within thirty (30) days, the matter may be referred by mutual agreement of the parties to non-binding arbitration, or by either party to legal proceedings. Neither party may act to terminate this Agreement for cause except at the conclusion of the meeting of the parties held pursuant to this Section 3.1, or in the event the parties have referred the dispute to arbitration, at the conclusion of the arbitration.

3.3 Authority. Each party represents that it has full right, power and authority to execute this Agreement and to perform its obligations hereunder, without the need for any further action under its governing instruments, and that the parties executing this Agreement on behalf of such party are duly authorized agents with authority to do so.

3.4 Assignment. Except as expressly provided herein, neither this Agreement, nor any rights or interest herein, shall

be assigned by either party without the prior written consent of the other party, which consent shall not be unreasonably withheld, conditioned or delayed, except that City is deemed to have consented to any transfer this Agreement by Otay to any Affiliate, provided such Affiliate covenants and agrees in writing to perform and be bound by each and all of the terms and conditions hereunder. Any attempted assignment in violation of this section shall be void and shall constitute a material default entitling the other party to terminate this Agreement. In addition, both parties agree to comply with any and all provision contained in the Municipal Code governing the change of ownership of Otay or the transfer of this Agreement.

3.5 Counterparts. This Agreement may be executed in multiple copies, each of which shall be deemed an original, but all of which shall constitute one agreement after each party has signed such a counterpart.

3.6 Entire Agreement. This Agreement, together with all exhibits attached hereto and other agreements expressly referred to herein, constitutes the entire agreement between the parties with respect to the subject matter contained herein. All prior or contemporaneous agreements, understandings, representations, warranties and statements, oral or written, are superseded.

3.7 Other Governmental Bodies. In the event any value paid to City under this Agreement is required by law to be shared with or otherwise paid over to any other Governmental Body, City shall be solely responsible for transferring such value to such Governmental Body, without any indemnification or any other reimbursement from Otay, Allied or its Affiliate under this Agreement. Notwithstanding the foregoing, any such requirement shall be considered a Change in Law pursuant to the terms of this Agreement and this Section shall not relieve Otay, Allied or its Affiliates of its obligations under Section 3.12 hereof.

3.8 Exhibits. All exhibits referred to herein are attached hereto and incorporated herein by this reference.

3.9 Governing Law. This Agreement shall be governed, interpreted, construed and enforced in accordance with the laws of the State of California.

3.10 Notice. Any notice that may be given to either party under or with respect to this Agreement shall be deemed to have been given when delivered personally or when sent by registered or certified mail, postage prepaid, addressed as follows:

Otay:

Otay Landfill, Inc.
8364 Clairemont Mesa Boulevard
San Diego, CA 92111
Attn: James T. Ambroso, District Manager

with a copy to:

Patrick C. Shea, Esq.
Pillsbury Madison & Sutro LLP
101 West Broadway, Suite 1800
San Diego, CA 92101-3302

CITY:

City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910
Attn: City Manager

with a copy to:

City Attorney

3.11 Successors. Subject to the restrictions on assignment and change of ownership contained herein, all terms of this Agreement shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto and their respective heirs, legal representatives, successors, and assigns.

3.12 Uncontrollable Circumstances. Except as otherwise specifically provided in this Agreement, neither Otay, Allied or its Affiliates, on the one hand, or City, on the other hand, shall be in breach of this Agreement for any temporary failure or delay in the performance of any obligation under this Agreement

(other than any payment at the time due and owing) to the extent such failure or delay is due to the occurrence of an Uncontrollable Circumstance; provided, however, the party experiencing an Uncontrollable Circumstance shall not be in breach only if such party complies with the requirements in this Section 3.12. The party experiencing an Uncontrollable Circumstance shall notify the other party by telecommunication or telephone and in writing ("Notice"), immediately after the party experiencing such Uncontrollable Circumstance first learns of the commencement thereof, followed within forty-eight hours by a written description of (1) the Uncontrollable Circumstance and the cause thereof (to the extent known) and (2) the date the Uncontrollable Circumstance began and the cause thereof, its estimated duration, the estimated time during which the performance of such party's obligations hereunder will be delayed. Each party shall provide prompt written notice of the cessation of such Uncontrollable Circumstance. A party's obligations hereunder shall be delayed commencing at the date of Notice time for only so long as the Uncontrollable Circumstance continues and prevents full compliance with the obligations under this Agreement. Whenever such act, event or condition shall occur, the party claiming to be adversely affected thereby shall (a) use its best efforts to eliminate the cause therefor, (b) minimize the adverse impacts caused thereby, and (c) shall take all necessary and appropriate actions, including, if necessary, bringing in labor and equipment from unaffected areas to resume full performance under this Agreement as quickly as possible.

3.13 Compliance with Laws and Directives. Each of Otay, Allied and its Affiliates shall comply with all Applicable Law (or such higher standards as may be required under this Agreement) regarding the manner in which it conducts its trade and business. Otay and City agree to cooperate with each other in reaching a modification to this Agreement to the extent required by law at any time it should be deemed necessary in the future. In the event of any Change in Law, or a successful third-party challenge to all or any material provision of this Agreement that in either case materially affects City's consideration or Otay's obligations hereunder, the parties agree to meet and confer in order to develop reasonable modifications to this Agreement, if any can be developed, which would allow

this Agreement to continue in substantial conformance with its terms as they existed prior to such Change in Law.

3.14 Hold Harmless. Otay shall indemnify, save and hold harmless, City and any elected representatives, officers, employees, agents and volunteers thereof ("City Indemnified Parties") against and from all damages, including bodily injury and property damages, losses, liabilities, demands, claims, remediation obligations, judgments, decrees, costs (including court costs and reasonable attorneys' fees) and expenditures (collectively, "Losses") which such City Indemnified Party may suffer, or which may be recovered from, or obtainable against such City Indemnified Party for, or by reason of, or growing out of or resulting from City's grant or the exercising by Otay of any or all of the rights or privileges granted hereby, or by reason of any act(s) or omissions of Otay or its servants or agents in exercising any or all of the rights or privileges granted hereby, and Otay shall defend with counsel reasonably acceptable to City any suit that may be instituted against any City Indemnified Party by reason of or growing out of or resulting from City's grant or the exercise by Otay of any or all of the rights or privileges granted hereby, or by reason of any act or acts of Otay, or its servants or agents, in exercising any or all of the rights or privileges granted hereby. Without limiting the generality of the foregoing, Otay shall defend, indemnify, save and hold harmless any City Indemnified Parties from and against all Losses which such City Indemnified Parties may suffer, or which may be recovered from, or obtainable against such City Indemnified Parties, resulting from any repair, cleanup or detoxification, or preparation and implementation of any removal, remedial, response, closure or other plan or replacement or restoration of natural resources (regardless of whether undertaken due to governmental action) at any landfill at which Otay, Allied or any Affiliate thereof (including predecessors-in-interest and successors-in-interest) disposed of Solid Waste collected from City generators, or activities of Otay, Allied or any affiliate thereof which result in a release or threatened release of hazardous materials into the environment in or around the City or at any landfill. The foregoing indemnity is intended to operate as an agreement pursuant to Section 107(e) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC, Section 9607(e), and California Health and Safety Code 25364, to defend, protect, hold harmless and

indemnify the City Indemnified Parties from liability. In the event City seeks indemnification after an assignment of this Agreement by Otay, City must first seek indemnification from Otay's successor-in-interest prior to seeking indemnification from Otay or Allied. The provisions of this Section 13.14 shall survive the end of the term or termination of this Agreement. Nothing in this section is intended to supercede the parties agreement to meet and confer in the event of a Change in Law as provided in Section 3.13 hereof.

3.15 Remedies Upon Default. Upon the occurrence of any event of default by any party, the non-defaulting party shall have any and all remedies available to such party at law or in equity. No provision herein made for the purpose of securing the enforcement of the terms and conditions of this Agreement shall be deemed an exclusive remedy or to afford the exclusive procedure for the enforcement of said terms and conditions, but the remedies and procedure outlined herein or provided, including forfeiture, shall be deemed to be cumulative.

3.16 No Waiver. The failure of either party at any time to require performance by the other of a provision hereof, shall in no way affect the right of such party entitled to performance to enforce the same thereafter. Nor shall the waiver of either party of any breach of any provisions hereof be construed to be a waiver of such provisions or of any succeeding breach thereof.

[Next Page Is Signature Page]

[SIGNATURE PAGE TO OTAY LANDFILL EXPANSION AGREEMENT BETWEEN CITY OF CHULA VISTA AND OTAY LANDFILL, INC.]

IN WITNESS WHEREOF, Otay and City have entered into this Otay Landfill Expansion Agreement effective as of the date first written above.

CITY:

City of Chula Vista,
A municipal corporation

By: Shirley Horton
Shirley Horton, Mayor

Attest: Susan Bigelow
Susan Bigelow,
City Clerk

Approved as to form by

John Kaheny, City Attorney

OTAY:

Otay Landfill, Inc., a
California Corporation

By:
James T. Ambroso
Its: District Manager

By its signature below, Allied acknowledges and agrees that it is jointly and severally liable for the environmental indemnity obligations of Otay contained in Section 3.14 of this Agreement.

ALLIED:

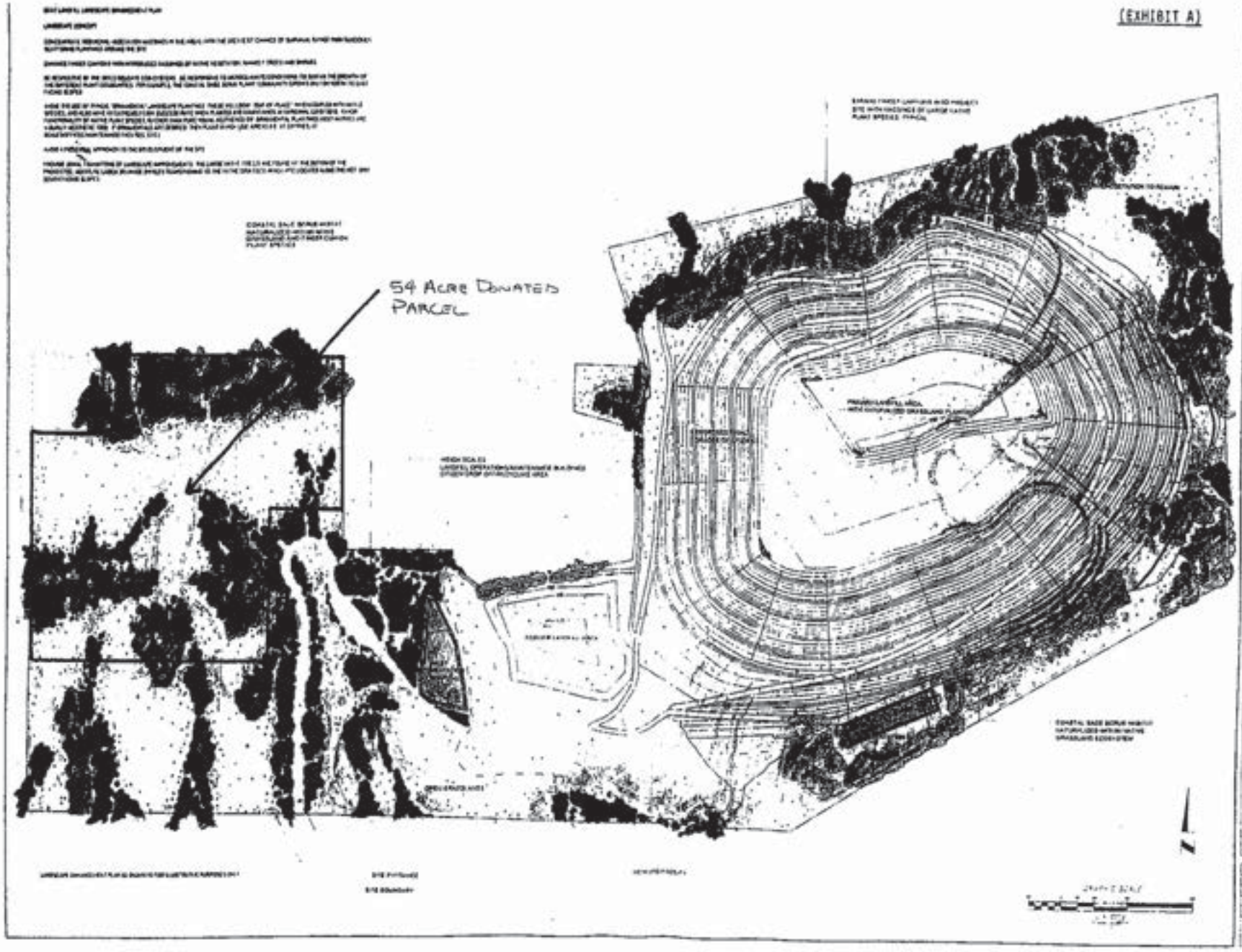
Allied Waste North America, Inc., a Delaware corporation

By:
James T. Ambroso

Its: District Manager

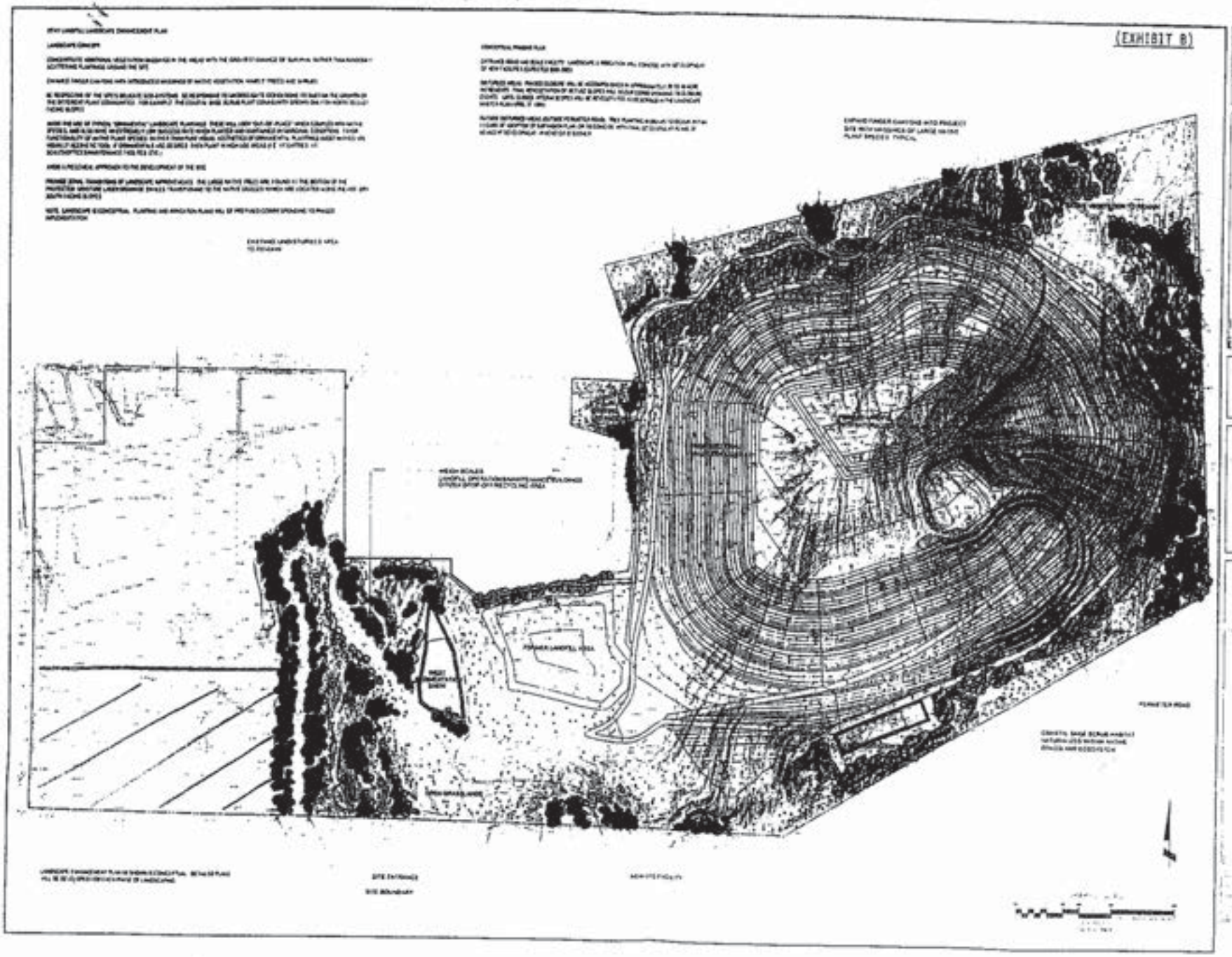
"DOCWRM"

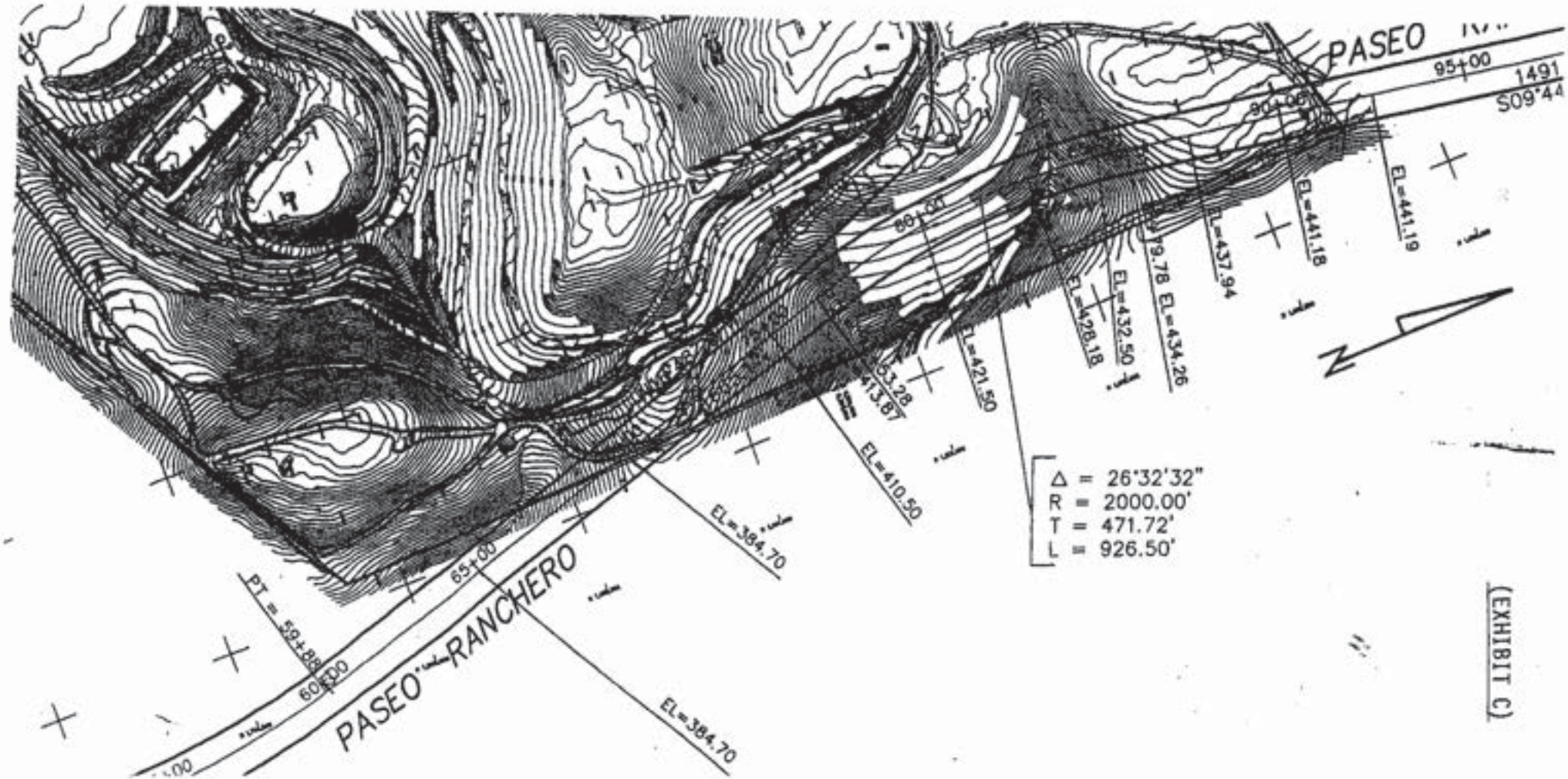
(EXHIBIT A)


54 ACRE DONATED PARCEL
LANDSCAPE ENHANCEMENT PLAN
CITAY LANDFILL
SAN DIEGO, CALIFORNIA

(EXHIBIT B)

LANDSCAPE REVEGETATION PLAN
OTAY LANDFILL
SAN DIEGO, CALIFORNIA

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Δ = 26°32'32"
R = 2000.00'
T = 471.72'
L = 926.50'
PASEO RANCHERO
PT = 59+88
60+00
65+00
N

(EXHIBIT C)

(Exhibit D)

Landscape Plan- phased landscaping

To be completed.

Otay Landfill
Landscape Master Plan
County of San Diego, California

Prepared by:

Craig Thomas Duncan
Landscape Architecture
Fullerton, California

In Association With:

Golder Associates, Inc.
Irvine, California

With contributions from
Wallace Roberts & Todd
Landscape Architecture
San Diego, California

Prepared for:

Otay Landfill, Incorporated
San Diego, California

DRAFT

July 9, 1999

Otay Landfill
Landscape Master Plan
County of San Diego, California

SECTION ONE
INTRODUCTION

This Landscape Master Plan (LMP) provides detailed erosion control and aesthetic enhancement direction for the Otay Landfill Facility (Otay Landfill), located in San Diego County, California and operated by Otay Landfill Landfill, Inc. (OLI). The LMP document will be utilized for staged implementation of landscape plantings providing interim and final erosion control and visual enhancement in fulfilling local, state, and federal guidelines and regulations for solid waste facilities.

The framework of the LMP reflects the revegetation goals of the OLI and meets the design criteria established by the California Code of Regulations, Title 27 (CCR Title 27). The intent of this LMP is to; 1) refine and finalize vegetation program elements based upon design issues typically associated with landfill facilities; 2) reflect specific the Otay Landfill site conditions; and 3) recommend an appropriate plant palette that meets agency requirements and approvals. Specifically, the LMP determines a preliminary and final landscape program fulfilling erosion control and site/regional aesthetic objectives. The erosion control objective is to provide interim and final soil stabilization using a combination of grass and coastal sage scrub (CSS) plant communities. The aesthetic objective is to visually integrate the site with surrounding open space areas using vegetation that compliments the surroundings and in patterns that reflect natural arrangements. The LMP sets forth a landscape design that provides positive visual enhancements during operation and documents the development of a final vegetative cover based upon technical site issues and visual aesthetics.

The following sections describe the Regional Context (Section 2), the Site Context (Section 3), Plant Selection Criteria (Section 4), Final and Interim Cover Aesthetics (Section 5), Species Selected and Phasing of Implementation (Section 6) and Post-Closure Monitoring & Maintenance (Section 7).

SECTION TWO
REGIONAL CONTEXT

The Otay Landfill is situated in an unincorporated area of San Diego County within the Otay Landfill Mesa River Valley. The area surrounding the site is comprised of a low hilly terrain that has been defined by drainage ways within the watershed area. The Otay Landfill Valley Road skirts the southern edge of the site, natural open space surrounds the east, north and portions of the west sides.

Much of the existing surrounding vegetation and vegetative patterning has been developed by natural and man-made factors. North and east facing slopes have evolved into a coastal sage scrub plant community. The establishment of CSS on these slopes reflects moisture availability. Moisture remains in the soil for longer periods, since the slopes are not oriented towards the sun. Likwise, swales or drainages within the site and in the surrounding Otay region, collect denser masses of vegetation, including small trees because of the available moisture. Grasses typically dominate slopes exposed to the sun. The hot and dry conditions of exposed south and west facing slopes make establishment of shrubs more difficult. Man-made factors influencing vegetative growth includes cattle grazing. Years of cattle grazing, and the land clearing associated with developing rangeland, have enhanced the contrast between CSS and grassland vegetative communities. In addition to the vegetative patterns, randomly occurring natural rock outcroppings dot the hillsides throughout the river valley.

Several existing industrial developments exist to the south and west of the site near Interstate 805. Residential developments exist adjacent to and further to the west of the site. Residential and industrial development is continuing to occur in surrounding areas of the site. The rangeland to the east and north of the site is anticipated to develop within the next decade, bringing suburban patterns of landscape into the surrounding areas. The Otay Landfill Mesa General Development Plan reflects residential, commercial, and industrial uses adjacent to the site. Figure 1 presents the site and surrounding areas.

SECTION THREE
SITE CONTEXT

The Otay Landfill encompasses approximately 464 acres. These 464 acres includes refuse fill areas, borrow areas, drainage improvements, access roads, operational facilities, and open space areas. The refuse fill area is comprised of four side slopes rising above the adjacent hilly topography. The slopes (3:1 and 4:1) will include access roads (benches) at every 40-50 feet of vertical elevation change. The benches provide access to slopes and allow for drainage elements. The top of the landfill will be graded at a 5% slope and will include two small decks with an elevation difference of approximately 40 feet. Figure 2 presents the final grading configuration.

The existing grades and proposed final slope configuration will achieve a greater slope ratio than the surrounding natural topography. The final landform, following vertical expansion, will be visible from all directions. When the encroaching residential and industrial development redefines the topography of the river valley, slopes and rangeland and alters the native vegetative patterns in the process, the appearance of the Otay Landfill will become an important element in linking remaining native open space areas together. Likewise, as development occurs adjacent to the landfill buffer, the planting palette presented in this Plan is intended to transition between the natural vegetation and the planted streetscapes and yards.

The site will remain operational for approximately 25-30 years, estimated to close in the year 2027. As the site nears closure a Final Closure/Post-Closure Monitoring and Maintenance Plan (FC/PCMP) will be prepared. CCR Title 27 requires the FC/PCMP. Article 21150 of CCR Title 27 (Drainage and Erosion Control) combines regulatory requirements from the California Integrated Waste Management Board and the State Water Quality Resources Control Board. The regulations define vegetative cover design criteria promoting erosion control, compatibility with environmental control systems and end-uses, low water use, and maintenance. The FC/PCMP for the Otay Landfill will include a landscape section covering the vegetative cover proposed at closure and described in this LMP.

Prior to the ultimate closure of the entire site, portions of the Otay Landfill may be partially closed. Landfill facilities implementing partial closures must adhere to existing regulatory requirements. Therefore, the vegetative cover implemented for partial closure will fulfill the same criteria as for final closure. The partial closure of certain areas of the landfill allows for phased implementation of closure elements such as the vegetative cover. This will enable Otay Landfill Inc. to initiate vegetation of slopes to final grades prior to final closure of the site. A more detailed description of scheduled implementation can be found in Section 6.

Each year the development of new slopes will occur in fill or non-fill areas. These slopes, whether they are exposed to views or not, require interim erosion control measures. Interim erosion control measures typically utilize plant material providing quick growth in non-irrigated conditions. In certain situations an interim cover may be visible to off-site areas, therefore the LMP will consider the aesthetic value of interim vegetation.

SECTION FOUR
PLANT SELECTION CRITERIA

The suitability and performance of vegetation within the cover system needs to consider key design criteria specific to this site and to state regulations. Design criteria typically associated with landfill facilities, and those issues specific to Otay Landfill include:

- Interim cover design
- Partial and Final Closure cover design
- Depth of vegetative layer/root depths
- Soil quality and soil compaction
- Erosion control ability of recommended plant materials (growth, self-propagation, and surface coverage)
- Aesthetic requirements
- Interface with surrounding future development for visual enhancement
- Maintenance requirements
- Tolerance to Landfill Gas
- Application methods
- Moisture requirements/temporary irrigation

This section describes site issues and parameters affecting the performance and selection of appropriate vegetative species. Although described separately, each issue affects the entire system. For example, a specific shrub species may provide acceptable erosion control, is low in maintenance, provides an appropriate evapo-transpiration rate, and yet may possess roots too deep for certain areas of the final cover. All plant species selected for the final vegetative cover will satisfy all criteria. Individual plant species will not be considered for use within the vegetative cover should one of the performance criteria not be met. A summary of the criteria utilized in selecting the appropriate plant species is presented in Table 1 Plant Selection Criteria. This table is widely used in vegetative cover design and has been modified for the LMP to reflect specific project conditions. A description of the most influential issues effecting the selection of the final vegetative cover plant species follows.

Soil Quality

The vegetative layer soils used for the final cover require agronomic soil analysis to determine their suitability for plant growth. To determine agronomic suitability at least one soil sample analyses is recommended for each Partial or Final Closure phase of work. The analyses provide sufficient information necessary for possible modification of suitable plant material and for development of soil amendments based upon the vegetative cover plant species. The recommended amendments should be applied prior to and during seeding operations. An initial application of a composted soil amendment would be applied prior to seeding and worked into the soil by tractor walking. This amendment should be applied at the rate of between 2,000 to 3,000 pounds per acre and can be fortified with additional nutrients as recommended by the soil analyses.

Borrow soils utilized as final cover soils typically contain elevated sodium, or salt levels. To remedy this situation, plants tolerating increased sodium levels should be selected. Most California native plants are tolerant to higher levels of soil sodium, however, salts have a tendency to slowly build up in final cover soils since soil leaching is not possible. The build-up of salts is a generic problem with most arid region landfills. Data regarding salt build-up has been gathered at various closed landfills over the past 10 years, however mitigation measures from this potential problem have not yet been necessary.

Root Depth

Documentation of root depths regarding individual California native plants has only recently begun. Rooting depths of individual plants and entire plant communities are generally assumed in the industry. A wide variety of conditions affect the development of roots. Certain soil characteristics have an impact on how roots develop. For example, soils with high compaction will limit the downward movement of both roots and water. Other factors effecting root growth include soil type, slope, water, fertility, and solar exposure. The root depth of the vegetative species presented in Table 1 has been based upon an assumed performance within soil conditions anticipated for the Otay Landfill final cover system.

In accordance with state regulations plant roots must not extend into, or beyond, the barrier layer of the final cover. The selected vegetative cover species for each plant community must possess shallow root characteristics to ensure protection of the barrier layer. Table 1 presents general rooting information of the recommended vegetative cover species.

The preliminary cover design for the Otay Landfill, detailed in the Preliminary Closure/Post-Closure Maintenance Plans, dated April 1998, is a prescriptive cover with additional soil added in areas of deep rooting shrubs. In prescriptive cover areas the vegetative layer will be a minimum of 12-inches deep. These areas will receive the grass vegetative plant community. The thickened cover areas will include a vegetative layer of approximately 36-inches. These areas will include the CSS plant community. The thickness of both vegetative layers should provide ample room for each of the proposed plant communities. A limited number of tree species will be planted outside the limits of the landfill to provide additional interface with surrounding properties. Although their root structure penetrates deeper than 36-inches, they will be planted in native soil outside the limits of fill.

Erosion Control

Slope protection from wind and rain is essential to the success of the soil cover. Plants provide surface protection from these elements by providing a canopy of foliage over the surface soil and by sending out shallow surface root network (feeder roots) that binds the upper soil together. The recommended vegetative cover will exhibit necessary erosion control characteristics within the vegetative layer, such as, fast growth, shallow roots, dense root systems, and deep, woody roots. The final vegetative cover will include a variety of root types and root densities to provide adequate surface soil erosion protection.

Soil Compaction

High soil compaction is an excellent feature for preventing water infiltration through the final cover and into the refuse prism. However, this issue is a detriment to the full establishment of many vegetative species. The degree of cover soil compaction will affect the growth performance of most vegetative species. All plants perform well in loose, well-draining soils. As soil compaction increases both plant performance and the availability of plants adaptable to heavy soils decreases. Additionally, high soil compaction on slope areas incrementally decreases growth performance since water infiltration occurs at a reduced rate. Grasses perform better than shrubs in highly compacted soils since the root mass is nearer to the surface. Plants with naturally deep roots, approximately 2 to 3 feet deep, generally remain shallow rooted and can typically display a stunted foliage mass, or canopy. The recommended plant species will exhibit "good" to "moderate" tolerance to the heavy soils proposed for the Otay Landfill final cover.

Moisture Requirements/Temporary Irrigation

Moisture Requirements

The final cover is designed primarily as a barrier layer, limiting water infiltration into the refuse prism. The final cover should also provide a suitable growth environment for vegetation. A suitable growing medium will in turn, provide a healthy vegetative cover that assists in maintaining a balance between soil moisture, water infiltration, and soil evaporation. The performance of the final cover relies upon vegetative evapo-transpiration (Eto) as one component of moisture protection. Low-permeability (compaction/soil type) is the second component.

By virtue of their natural growth characteristics a vegetative cover consisting of arid region plant material indirectly, and beneficially, works well with a cover design such as the Otay Landfill final cover. Plants native to the southern California region have adapted to seasonal moisture availability in several ways. Those include; 1) deep roots which tap water sources during extended dry periods; 2) dry period dormancy where a plant shuts down the growth system during the dry period; and 3) annual growth during the wet season with the production of seed for the following year. A non-irrigated California native vegetative cover requires specific seasonal moisture to maintain adequate performance.

By comparison, in arid southern California, a typical final cover receives moisture during the wet season (December through April) and tends to loose moisture during the dry season (May through November). Therefore, protection from water infiltration through the final cover is necessary during the wet season while moisture retention in the final cover is necessary during the dry season. This condition coincides with the growth cycle of the recommended vegetative cover plant species where growth (Eto) occurs during the wet season and summer dormancy (limited Eto) occurs in the dry season, when moisture should be maintained in the final cover. In addition, during extended dry periods an established vegetative cover helps retain soil moisture through surface cooling from the foliage canopy.

Temporary Irrigation

To assist in the germination and establishment of seeded plant material the final vegetative cover will receive supplemental water via an on-grade temporary irrigation system. The temporary system will provide supplemental water during the winter rainy season and during extended dry periods for the first three years. Water used for irrigation will be potable and non-potable as available.

The amount and frequency of irrigation should be determined through a program of soil monitoring during the initial irrigation period. The soil should be irrigated until it is moistened to below the root zone. The watering duration should include repeat applications over a short period of time to achieve the required watering depth while minimizing runoff. Irrigation should then be withheld until soils near the surface start to dry.

After the first watering, the soil moisture in the root zones should be monitored to determine the proper irrigation frequency. Twice a month, a probe or another acceptable tool should be used to check the rootball moisture of representative plants as well as the surrounding soil. At no time should the vegetated areas be watered excessively or more frequently than needed to sustain the plants in a natural condition. The following are general guidelines for irrigation frequency and duration. These guidelines may change depending on local weather conditions, and the vigor of the vegetative cover:

a. During the first fall, winter and spring after planting irrigate to supplement natural precipitation (approximately 0.5-inches per week)

b. In the absence of natural precipitation (more than a seven (7) day period), approximately one (1) hour of irrigation should be provided or as long as necessary to penetrate the soil and moisten the root zones of the containers and cuttings; and to four (4") inches deep for the seeded areas.

Tolerance of Landfill Gas

Substantive studies of plants tolerant to landfill gas do not exist. Discussions generally cover the toxic constituents found in landfill gas and not on their effect on growing plant species. In general landfill gas displaces oxygen in the soil thereby starving a plant of much needed oxygen. To protect against landfill gas from entering final cover soils an elaborate gas extraction system is operated at the Otay Landfill to remove gases from within the refuse prism. As part of the operation of this system a monitoring program is required. This program monitors potential emissions from the landfill. When landfill gas is detected from cover areas maintenance procedures are initiated to eliminate the source. The level of detection and detection limits are typically more stringent than the levels necessary for plant toxicity.

Application Methodology

Application methodology refers to the method of landscape installation. Landscape installations will occur at varying times throughout the life of the landfill and in different areas. Examples of areas requiring landscaping include:

- Interim cut slopes (short and long-term protection)
- Interim fill slopes (short and long-term protection)
- Partial Closure slopes
- Final cover slopes and decks
- Off-site and on-site landscape screening elements

For optimum effectiveness, the installation methodology must consider the type, availability, and growing season of the specified landscape. The Otay Landfill vegetative covers are comprised of plants available from seed. All seed will be hydraulically applied prior to the rainy season. This will allow full use of natural rainfall to germinate and establish the seed. The optimum window for seeding occurs between September 15 and December 15 of each calendar year.

The methods used for installation will vary depending upon the type of vegetation being installed. The LMP identifies four separate application methodologies and are described below:

Interim Erosion Control

The application of the interim cover should be performed via a one-step method. This application method would include the seed at the specified rate, fiber at approximately 2,000 pounds per acre, a triple-12 fertilizer at approximately 300 pounds per acre, and a tackifier at 120 pounds per acre. As with all non-irrigated vegetative covers the appropriate window for seeding is September 15 through December 15 of the same calendar year.

Final Vegetative Cover

The final vegetative cover application process is hydraulic seeding. This application process will occur in three steps. The first step is the application of a soil amendment formulated specifically for the cover soils. The soil analysis will provide the necessary information for amending the soil. The amendments will be mixed into the soil via tractor walking. The second application is hydro-mulching of the appropriate seed mix with a light fiber mulch, fertilizer, and water. This step will provide contact between the seed and the soil. The third application consists of two options. Option 1 is the installation of a fiber mulch and tackifier over the seed. The fiber provides a protective mulch cover over the seed and prevents erosion from wind and water. Option 2 includes an application of dry straw blown over the seed and then stabilized with either a hydro-mulched tackifier or by straw crimping. Both options are an integral component for a non-irrigated vegetative cover.

Off-site and On-site Container Planting

In the event trees and shrubs are planted from container in final cover soils or in native soil areas the material requires an excavated plant pit and backfill mix conducive for their proper growth and establishment. The plant pits should be excavated to a width four times the size of the container and no deeper than the container's depth. The backfill mix should include five-parts of the onsite soils, one-part nitrolized redwood shavings, and a 16-16-16 slow release fertilizer applied at one-half the recommended rate for ornamental plants.

Rock/Boulder Installation

The installation of boulders will occur prior to seed application and when complete will resemble the appearance of boulders in their natural state. A simple formula will guide the installation of each boulder and will determine the suitability of boulder placement within the final cover. Approximately one-third of a boulder's thickness shall be buried into the soil. For example, a 3-foot wide by 4-foot long by 2-foot thick boulder shall be buried to a depth of nearly 9-inches. The top of the boulder shall not be perpendicular with the surface, whether on flat or sloping surfaces. These formulas will assist in determining boulder suitability in final cover soils.

SECTION FIVE
FINAL AND INTERIM COVER AESTHETIC

The aesthetic goal for the vegetative cover at the Otay Landfill is to blend the site with adjacent natural open space areas similar to an inland San Diego County California native landscape. The implementation of this goal will occur at final and interim phases and will include plant species that fulfill erosion control and aesthetic objectives.

The objectives of the final vegetative cover design focuses on two key design elements. The first design objective focuses on the suitability and performance of vegetation in the final cover. The second design objective is the use of vegetative species providing a positive visual appearance to the exposed final slope areas of the site. The interim vegetative cover design objective is to simulate the appearance of the final vegetative cover thereby softening the transition between interim and final phases. The final conceptual landscape master plan for the Otay Landfill is presented in Figure 3.

Interim and final cover is also intended to be compatible with natural successional development of similar native plant communities to better interface with adjacent areas that remain undisturbed.

Final Vegetative Cover and Aesthetic Enhancement

The final landscape master plan consists of a combination of four landscape features located in a manner consistent with off-site natural visual resources. The landscape features include CSS, Grass, Rock outcrops, and enhanced ornamental plantings for screening. North and east facing slopes will receive a combination of CSS and Grassland plant communities. The location of CSS, which is coarse-textured and dark olive-green in color, occurs along the lower north and east slope areas of the Otay Landfill. These on-site areas respond to the proximity of the off-site CSS community, which is situated in the low north facing slopes. The south, west, and upper slope areas of the east and north facing slopes receive the Grassland community, which is fine-textured and light green to light brown in color. The Grassland community responds to the remainder of the native off-site areas, which is dominated by grasses. The utilization of two plant communities with contrasting appearances reduces the visible size and scale of the exposed slope area. Random rock outcroppings located at the edge of deck may be used in conjunction with the grasses to simulate nearby natural features and assist in breaking up the strong edge of the engineered landform. The location and placement of the rock outcrops is strongly influenced by site factors such as proposed final cover depth, visual scale (the relationship between natural features versus the scale of the site), and visual appropriateness. Occurring at the main entrance road and extending to the West Debris Basin is an enhanced landscape consisting of ornamental tree plantings. As the haul road transitions onto the fill area the landscape transitions into the native plant communities. Following the patterns of planting in surrounding canyons, such as Salt Creek and Poggi Canyons, native soil on the north and east facing slopes will be enhanced with native trees typically found in Southern California plant communities. This will aide in the interface with surrounding future development, which will use street and perimeter trees.

Interim Erosion Control and Aesthetic Enhancement

The interim landscape includes the development of a vegetative cover used prior to final vegetative cover installation. Interim erosion control measures are important in protecting exposed soils from winter rains. The interim protection remains in place until operations alter the area. Interim conditions typically include cut slopes in refuse and non-refuse areas, fill slopes in refuse and non-refuse areas, borrow areas, and stockpiles. Figures 3-6 Interim Development Phases present four interim phases of the vertical expansion. The LMP covers the vegetative component of interim erosion control.

The vegetative species used for interim protection must fulfill several design criteria. The criteria typically include quick germination, availability of seed, adaptability to poor soils, adaptability to the climatic region (native plants), cost, and non-irrigated conditions. The interim vegetative covers selected for the Otay Landfill are comprised of plants available from seed. All seeding will be performed prior to the rainy season. This will allow full use of natural rainfall to germinate and establish the seed. All interim vegetative covers at the Otay Landfill will be hydraulically applied.

The interim vegetative cover design recommends the use of plant species that are similar in appearance to the final vegetative cover plant communities. Following implementation and establishment, the interim vegetative cover should provide a similar appearance to the final vegetative cover. Slopes that will remain unchanged and exposed for more than three years should be protected with an interim vegetative cover similar to the final cover design. For example, a long-term interim exposed slope area in the general area of a final cover shrub vegetative cover should receive an interim cover that includes shrubs. At the Otay Landfill, the interim vegetative cover choices will resemble either an all grass mix or a shrub mix similar to CSS. This provides visual consistency between the interim and final landscapes and promotes a long-term visual benefit by softening the transition from interim to final closure.

Short-term and/or unexposed slopes will receive a non-irrigated interim all grass vegetative cover. During the phasing of operations the site engineer will need to determine the appropriateness of a specific interim vegetative cover.

SECTION SIX
DESCRIPTION OF INTERIM AND FINAL VEGETATIVE COVER PLANT SPECIES

The following section presents the interim and final vegetative cover plant materials for the Otay Landfill. A concise listing of individual plant species and their growth characteristics and performance is presented in Table 2 Plant Material Reference Matrices. Each mix would include a non-invasive "nurse crop" plant species. Nurse crop plants assist in the development of better soils through nitrogen fixation. Following is a description of each plant community and a list of individual plant species recommended for each plant community.

Coastal Sage Scrub Plant Community

The Coastal Sage Scrub Plant Community includes a dense assortment of low shrubs and grasses. When established the shrubs provide a pattern similar to native north and east facing slopes with a dense shrub cover. This community will occur in low lying north and east facing slopes and random stands near the edge of the deck.

Coastal Sage Scrub Plant Material

Grass	*Sub-Shrub*	*Tree/Shrub*
Elymus glaucus "Anderson"	*Artemisia californica*	
Melica californica	*Eriogonum fasciculatum*	
Hordeum californicum	*Atriplex semibaccata*	
Bromus carinatus	*Salvia mellifera*	
Nassella pulchra	*Lotus scoparius*	
Nassella cernua	*Penstemon spectabilis*	
Vulpia myuros	*Mimulus aurantiacus*	

Grassland Plant Community

The Grassland Plant Community is dominated by native annual and perennial grass species. This Community will occur on west and south facing slopes and mid-level elevations of the north and east facing slopes. Several of these grass species are included in the CSS community to provide a fast erosion control cover.

Plant Material

Grass	*Sub-Shrub*	*Tree/Shrub*
Elymus glaucus "Anderson"	*Atriplex semibaccata*	
Melica californica		
Hordeum californicum		
Bromus carinatus		
Nassella pulchra		
Nassella cernua		
Vulpia myuros		

Interface Plant Community

The intent of the Interface Plant Community is to provide a better interface with future development surrounding the landfill for visual mitigation purposes. This development may include street trees, ornamentals and perimeter planting of development sites. The Interface Plant Community will consist of native tree plantings outside of disturbed areas and off-site in cooperation with surrounding developers to increase the screening and provide buffers. When established, the trees and tall shrubs will provide a pattern similar to the native trees and shrubs now found in the swales and drainages. This community will occur in the low lying north and east facing slopes within the natural drainages. Their pattern is designed to meld the site with surrounding development rather than ring the site with an introduced vegetative pattern. The Interface Community will lie in native soils, outside the limits of the landfill area.

Interface Plant Material

Grass	*Sub-Shrub*	*Tree/Shrub*
		Aesculus californica
		Arbutus unedo
		Cercis occidentalis
		Platanus racemosa
		Populus fremontii
		Quercus agrifolia
		Quercus dumosa

Typical spacings for these species will be between 15 and 20 feet on center for the smaller or narrower material (*Arbutus unedo, Cercis occidentalis, and Populus fremontii)* and between 25 and 40 feet on center for the larger species. Final spacing of the plant materials will be determined as a detailed plan is developed based on topography. A conceptual layout of these proposed plantings is shown on Figure 7.

Rock Outcrops

The Rock Outcrops will provide continuity between natural rock features typical to the river valley, will add interest to the large expanses of vegetation, and will soften the edges of the top deck. The boulders should match the existing rocks and may be placed in a random and/or grouped manner that mimics natural features. To maintain visual appropriateness the rock outcrops will require burial of up to one-third the minimum thickness of each rock. For example, a 4-foot long by 3-foot wide by 2-foot thick rock should be buried approximately 9 to 10-inches for best appearances. Therefore, when placing large boulders in a prescriptive cover area the depth of cover must be verified. Placement of rock outcrops will be subject to details of the final cover design and agency approval.

Implementation Phasing

The phasing of final cover and landscape implementation will be dependent upon the development rate of the site and final closure requirements of state regulatory agencies. A preliminary schedule is envisioned as follows:

Entrance Road and Scale Facility: Landscape and irrigation will coincide with the design and construction of new facilities. Development of these facilities is expected within the 2000-2003 timeframe.

Disturbed Areas: Phased closure of the refuse areas will be accomplished in approximately 40 to 60 acre increments. Scheduling of the phased closure is dependent on the fill rate of the site and approvals of final closure plans by State regulatory agencies. Revegetation of the refuse slopes will occur corresponding to closure increments. As an area is closed and final grade is attained, revegetation will occur to meet the requirements of the approved final closure plan and this Plan.

Outside Disturbed Areas: A number of locations outside of the perimeter road and off the refuse slopes are proposed to be landscaped with trees to serve as a transition to surrounding properties. These "Interface" plantings occur in draws and swales at the property perimeter. Tree planting will occur within three (3) years of the adopted expansion plan, or to coincide with final development plans of adjacent development, whichever is sooner. Cut slopes outside of refuse areas will be landscaped as development occurs.

SECTION SEVEN
POST-CLOSURE
MONITORING AND MAINTENANCE ACTIVITIES

This section describes the required maintenance activities of landscape elements implemented at the Otay Landfill. Proper management of these tasks will sustain a positive landscape appearance for the site for many years. Specific areas of focus include weed/fire control, reseeding/replanting, irrigation maintenance, and soil management. These areas of focus should be concentrated on final cover areas.

Weed/Fire Control

Weed abatement is a critical component of final cover vegetation management. Weed abatement activities should concentrate on the harmful characteristics of weeds that limit the establishment and/or continued growth of the vegetative cover. These harmful weed characteristics include, fire hazard (fuel load), competitiveness, deep roots, and unsightliness. Weed abatement on closed landfills should concentrate on only harmful weeds and should be performed intensely during the first two years following final vegetative cover installation.

Weed species occurring within either the Coastal Sage Scrub or Grass vegetative cover and considered inconsistent with the vegetative goals should be removed before the problem becomes too large. Hand removal prior to seed set (flowering) is the most effective means of removal. The entire weed system - stem, flowers, and roots - should be removed. Herbicides should be used only when it is necessary to eliminate a severe weed infestation. The application area of herbicides should be carefully demarcated and adjacent established plantings protected. An agricultural dye mixed with the herbicide will aid in application efforts. The site engineer would monitor herbicide applications.

Reseeding/Replanting

During the Post-Closure period reseeding of the vegetative cover may be necessary to maintain aesthetic and erosion control objectives. All reseeding activities would be performed to the original design intent using equal materials and methods. Small areas can be seeded by hand broadcasting followed by lightly raking over the seeded area.

Soil Management

An important plant material selection criterion is the ability of plant species to adapt to soils of a poor quality. Although many of vegetative cover plant recommendations perform in soils of marginal quality, a soil-monitoring program can detect signs of failing vegetation and can treat the situation before the problem escalates. The soil amendments incorporated into the cover soils at closure will sustain growth during the establishment period. Following establishment, three to four years, the plants may require additional nutrients. Annual soil tests taken in late spring or summer from representative areas, such as one test per each slope exposure, can provide sufficient analysis to implement an annual

fertilizer application in the fall, just prior to plant growth cycles. Application methods include hand broadcasting and/or hydro mulching.

Irrigation System Maintenance

The irrigation system requires monitoring during all periods of operations. Monitoring of the system should concentrate on detection of cover saturation. Cover saturation can occur from equipment leaks, over-watering, improper coverage, and poor drainage. Maintenance of the system will repair or replace equipment creating over-watering conditions on an as-needed basis.

In addition to as needed repairs, annual servicing of major irrigation equipment and components is necessary to avoid future failure. Components such as pressure supply lines, remote control valves, air release valves, pressure regulators, pumps, and buried bench crossings require annual or semi-annual monitoring. Equipment that has worn or broken components shall be replaced with new equipment of equal design.

Comment Letter N

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP

Via Email/U.S. Mail

September 24, 2014

Martil Borg
City of Chula Vista
Development Services Department
276 Fourth Avenue
Chula Vista, CA 91910

Re: Comments on the University Villages Sectional Planning Area and Tentative Map Draft Environmental Impact Report (EIR 13-01; SCH 2013071077)

Dear Mr. Borg:

On behalf of our client, Otay Land Company, LLC ("OLC"), we appreciate the opportunity to submit these comments to the City of Chula Vista ("City") on the Draft Environmental Impact Report ("DEIR") for the University Villages Sectional Planning Area (SPA) Plan and conceptual Tentative Map (TM) (collectively, the "Project"). As you know, OLC has major land holdings within Otay Ranch immediately adjacent to the proposed Project.

OLC provides these comments in the spirit of promoting the seamless integration of the Project into the recently approved OLC Villages 8 West and 9, and the future University. OLC supports the merits of the Project, as well as the University as the heart and economic engine that will ensure the long-term success of Otay Ranch, and appreciates the importance of the Project to the realization of the University. As you know, the ultimate ownership of the Project site has become increasingly uncertain and there is a possibility that the Project may be broken up into several parcels held by different owners. Given these uncertainties, OLC submits these comments in the best interest of all concerned, including the City, OLC, and the future owner(s) of the Project. We believe that by addressing the issues outlined herein, the City will help ensure the cohesive future development of Otay Ranch and avoid planning, environmental, and practical difficulties inherent in the "checkerboard" ownership of land within the master planned community. Simply deferring the resolution of important concerns discussed in this comment letter ultimately delays the realization of our shared vision for the future development of Otay Ranch.

The Project proposes 6,897 residential dwelling units and 40,000 square feet of mixed-use commercial/retail square footage within Village Three North and a portion of Village Four, Village

N-1

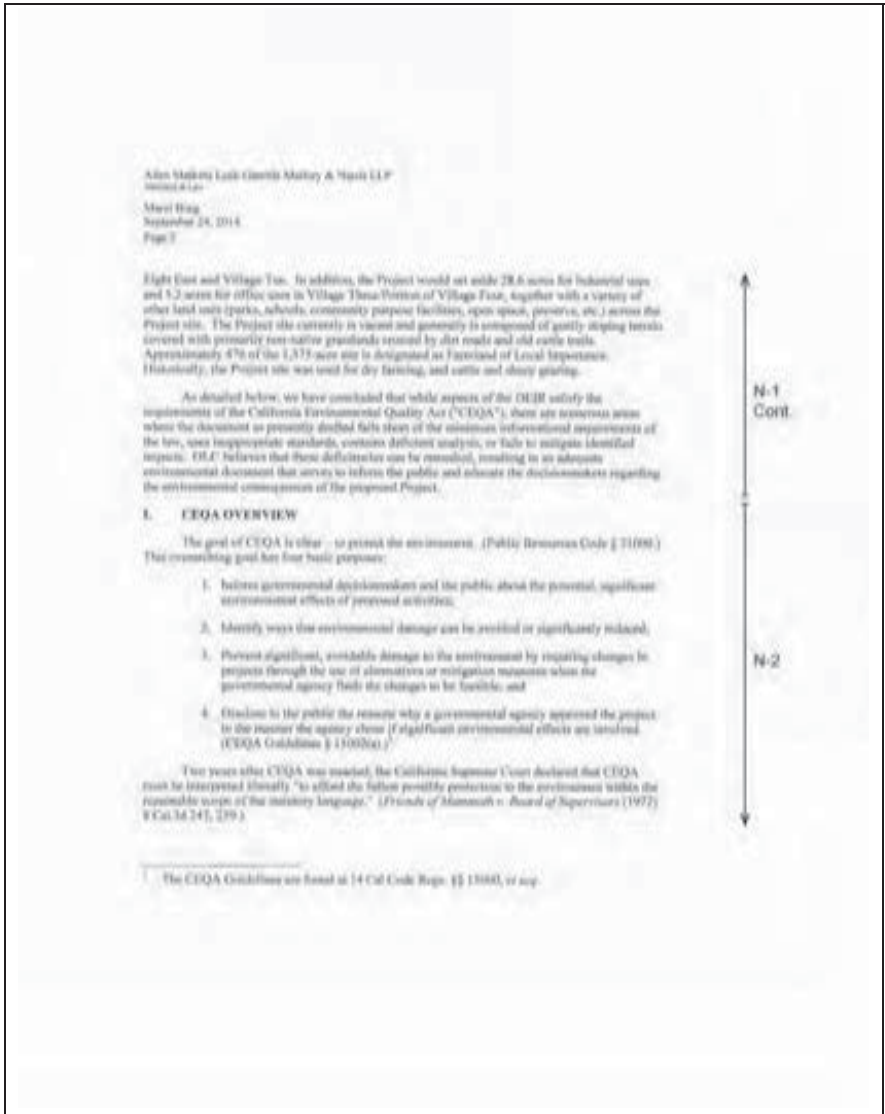
Response to Comment Letter N

Allen Matkins Leck Gamble Mallory &Natsis LLP
Jeffery A. Chine, Attorney at Law
September 24, 2014

N-1 The comment, first paragraph, provides background information, but does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue with respect to the Draft EIR, no further response is required.

In the second paragraph, the comment expresses intent and opinion concerning the submission of the comments. However, the comments do not raise an environmental issue over the adequacy of the Draft EIR within the meaning of CEQA; therefore, no further response is required.

The comment, third paragraph, summarizes aspects of the proposed project, which were fully discussed and evaluated in the Draft EIR. The comment does not address the adequacy of information provided in the Draft EIR; and, thus, no response is required pursuant to CEQA.



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September 24, 2014
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Eight East and Village Ten. In addition, the Project would set aside 28.6 acres for Industrial uses and 5.2 acres for office uses in Village Three/Portion of Village Four, together with a variety of other land uses (parks, schools, community purpose facilities, open space, preserve, etc.) across the Project site. The Project site currently is vacant and generally is composed of gently sloping terrain covered with primarily non-native grasslands crossed by dirt roads and old cattle trails. Approximately 470 of the 1,375-acre site is designated as Farmland of Local Importance. Historically, the Project site was used for dry farming, and cattle and sheep grazing.

As detailed below, we have concluded that while aspects of the DEIR satisfy the requirements of the California Environmental Quality Act ("CEQA"), there are numerous areas where the document as presently drafted falls short of the minimum informational requirements of the law, uses inappropriate standards, contains deficient analysis, or fails to mitigate identified impacts. OLC believes that these deficiencies can be remedied, resulting in an adequate environmental document that serves to inform the public and educate the decisionmakers regarding the environmental consequences of the proposed Project.

I. CEQA OVERVIEW

The goal of CEQA is clear – to protect the environment. (Public Resources Code § 21000.) This overarching goal has four basic purposes:

1. Inform governmental decisionmakers and the public about the potential, significant environmental effects of proposed activities;
2. Identify ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved. (CEQA Guidelines § 15002(a).)[1]

Two years after CEQA was enacted, the California Supreme Court declared that CEQA must be interpreted liberally "to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259.)

[1] The CEQA Guidelines are found at 14 Cal Code Regs. §§ 15000, et seq.

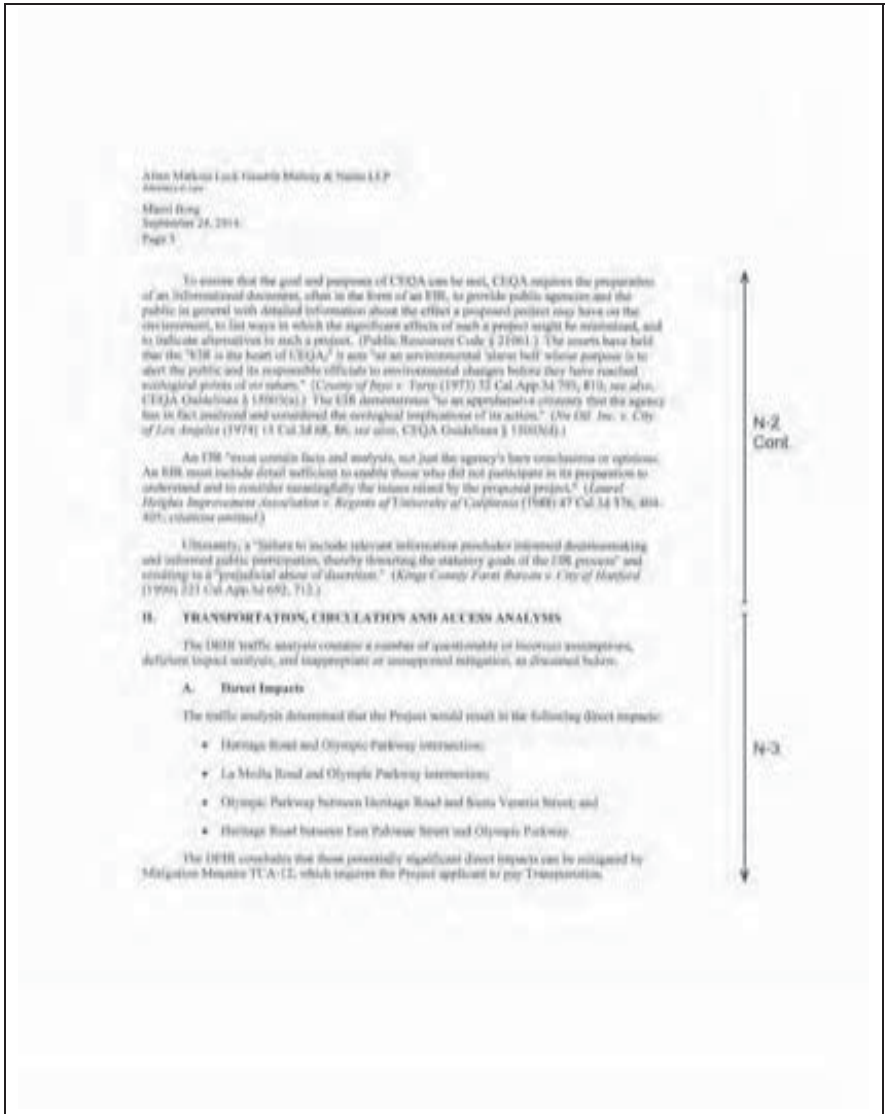
N-1 Cont.

N-2

The fourth paragraph of this comment is an introduction to comments that follow; and, for that reason, no further response is required at this time. Instead, the responses provided below address each comment summarized in this paragraph.

N-2 The comment provides partial information concerning the goals and intent of CEQA. The City recognizes the policies and intent of CEQA, notes that they are articulated in Public Resources Code Sections 21000–21006, and finds that the Draft and Final EIRs were completed in compliance with CEQA, the CEQA Guidelines, and the City's environmental review procedures. Pursuant to Public Resources Code Section 21067, the City is the lead agency under whose authority the EIR has been prepared. Accordingly, the analysis and findings in the Draft and Final EIRs reflect the independent judgment and analysis of the City as to the potential environmental consequences of the project.

N-3 The comment correctly notes that the Draft EIR and corresponding traffic technical report identified significant direct impacts under the Year 2025 scenario at two study area intersections and two road segments: the Heritage Road/Olympic Parkway and La Media Road/Olympic Parkway intersections, and the segments of Olympic Parkway between Heritage Road and Santa Venetia Street, and Heritage Road between East Palomar Street and Olympic Parkway.



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Attorneys at Law

Marci Rong
September 24, 2014
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To ensure that the goal and purpose of CEQA can be met, CEQA requires the preparation of an informational document, often in the form of an EIR, to provide public agencies and the public in general with detailed information about the effect a proposed project may have on the environment, to list ways in which the significant effects of such a project might be minimized, and to indicate alternatives to such a project. (Public Resources Code § 21061.) The courts have held that the "EIR is the heart of CEQA;" it acts "as an environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810; *see also*, CEQA Guidelines § 15001(a).) The EIR demonstrates "to an appropriate citizenry that the agency has in fact analyzed and considered the ecological implications of its action." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 564, 568; *see also*, CEQA Guidelines § 15002(a).)

An EIR "must contain facts and analysis, not just the agency's bare conclusions or opinions. An EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, 404-405; citations omitted.)

Ultimately, a "failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process" and resulting in a "prejudicial abuse of discretion." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712.)

II. TRANSPORTATION, CIRCULATION AND ACCESS ANALYSIS

The DEIR traffic analysis contains a number of questionable or incorrect assumptions, deficient impact analysis, and inappropriate or unsupported mitigation, as discussed below.

A. Direct Impacts

The traffic analysis determined that the Project would result in the following direct impacts:

- Heritage Road and Olympic Parkway intersection;
- La Media Road and Olympic Parkway intersection;
- Olympic Parkway between Heritage Road and Santa Venetia Street; and
- Heritage Road between East Palomar Street and Olympic Parkway.

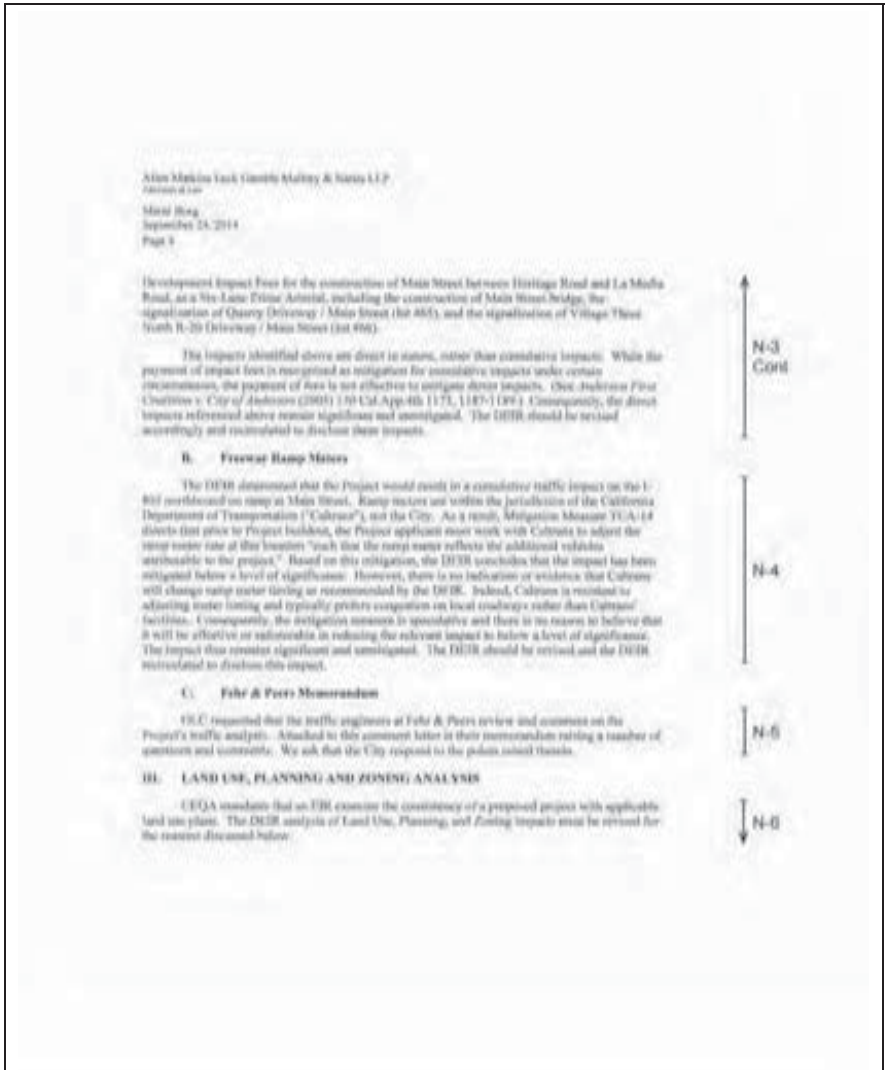
The DEIR concludes that these potentially significant direct impacts can be mitigated by Mitigation Measure TT-A-12, which requires the Project applicant to pay Transportation

N-2 Cont.

N-3

The recommended mitigation, MM-TCA-12, requires the project applicant to pay Transportation Development Impact Fees (TDIF) for the construction of Main Street between Heritage Road and La Media Road as a six-lane prime arterial, including construction of the Main Street bridge, signalization of Quarry Driveway/Main Street (Int No. 66), and signalization of Village Three North R-20 Driveway/Main Street (Int No. 66). Construction of the segment of Main Street between Heritage Road and La Media Road will provide an important direct east–west linkage and reduce traffic along Heritage Road–Olympic Parkway–La Media Road, thereby improving operations and reducing the impacts at the four identified intersections and segments to less than significant. (Draft EIR, pp. 5.3-166 to 5.3-167.)

The construction of Main Street from Heritage Road to La Media Road is included within the City of Chula Vista's TDIF program, and the first phase of construction, including preparation of environmental compliance documents, is included in the City's Capital Improvement Program (CIP) for 2013–2016 (STM357). According to the CIP, the estimated cost of the improvement is approximately $70 million. In recognition that no single project could feasibly fund construction of this improvement, the City included the Main Street crossing in both the Eastern TDIF Program,



Development Impact Fees for the construction of Main Street between Heritage Road and La Media Road, as a Six Lane Prime Arterial, including the construction of Main Street Bridge, the signalization of Quarry Driveway / Main Street (lot 805), and the signalization of Village Three North R-20 Driveway / Main Street (lot 406).

The impacts identified above are direct in nature, rather than cumulative impacts. While the payment of impact fees is recognized as mitigation for cumulative impacts under certain circumstances, the payment of fees is not effective to mitigate direct impacts. *One Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1187-1189.) Consequently, the direct impacts referenced above remain significant and unmitigated. The DEIR should be revised accordingly and recirculated to disclose these impacts.

B. **Freeway Ramp Meters**

The DEIR determined that the Project would result in a cumulative traffic impact on the I-805 northbound on ramp at Main Street. Ramp meters are within the jurisdiction of the California Department of Transportation ("Caltrans"), not the City. As a result, Mitigation Measure TCA-14 directs that prior to Project buildout, the Project applicant must work with Caltrans to adjust the ramp meter rate at this location "such that the ramp meter reflects the additional vehicles attributable to the project." Based on this mitigation, the DEIR concludes that the impact has been mitigated below a level of significance. However, there is no indication or evidence that Caltrans will change ramp meter timing as recommended by the DEIR. Indeed, Caltrans is resistant to adjusting meter timing and typically prefers congestion on local roadways rather than Caltrans' facilities. Consequently, the mitigation measure is speculative and there is no reason to believe that it will be effective or enforceable in reducing the relevant impact to below a level of significance. The impact thus remains significant and unmitigated. The DEIR should be revised and the DEIR recirculated to disclose this impact.

C. **Fehr & Peers Memorandum**

OLC requested that the traffic engineers at Fehr & Peers review and comment on the Project's traffic analysis. Attached to this comment letter is their memorandum raising a number of questions and comments. We ask that the City respond to the points raised therein.

III. **LAND USE, PLANNING AND ZONING ANALYSIS**

CEQA mandates that an EIR examine the consistency of a proposed project with applicable land use plans. The DEIR analysis of Land Use, Planning, and Zoning impacts must be revised for the reasons discussed below.

N-3 Cont

N-4

N-5

N-6

as well as the City's CIP, which ensures that all development projects benefiting from the improvement will contribute to construction of the improvement.

The comment states that while payment of impact fees is recognized as mitigation for cumulative impacts under certain circumstances, the payment of fees is not effective to mitigate direct impacts.

In support of its position, the comment cites *Anderson First Coalition v. City of Anderson*, 130 Cal.App.4th 1173, 1187–1189, 2005. However, the *Anderson* case addresses mitigation within the context of cumulative impacts only and does not address direct impact mitigation (i.e., the case does not address the adequacy of fee payments as mitigation for direct impacts). Rather, the *Anderson* case stands for the rule that in order to constitute sufficient or adequate mitigation, the mitigation measure must be based on a reasonable plan of actual mitigation that the relevant agency has committed itself to implementing. (130 Cal.App.4th at 1187–1188.)

In this case, as noted above, construction of the segment of Main Street between Heritage Road and La Media Road is included within the City's TDIF program, and the first phase of construction, including the preparation of environmental compliance documents, is included in the City's CIP

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September 25, 2014
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A. General Plan and General Development Plan

DEIR Appendix B includes numerous tables addressing the Project's consistency with the General Plan and the General Development Plan. For instance, Appendix B concludes that the proposed Project's land uses are compatible with existing and planned land uses. This conclusion is reached despite the proposed reduction of land designated as Limited Industrial by 136.7 acres and the increase of land designated as residential by 129.1 acres in Village Three North/Portion of Village Four, as well as the replacement of the University designation with residential and recreation uses in Village Ten. As a result, the Project surpasses the current General Plan and General Development Plan population and housing estimates. Contrary to the conclusion reached by the DEIR, by replacing job-creating land uses with additional housing, the Project is inconsistent with the General Plan's Economic Development Element, and more specifically, the important balance that is needed between jobs and housing, which the City vigorously has protected.

Figure 6-1 of the current General Plan clearly shows Village Three North/Portion of Village Four as Employment Land Areas, which areas are "essential to the City's job creation goals." Rather than acknowledging the inconsistency between the Project and the Economic Development Element as a significant land use impact, the DEIR dismisses the issue, citing an Employment Lands Analysis ("ELA") and Fiscal Impact Analysis. Neither of these documents is included in the DEIR nor its appendices. The DEIR should be recirculated together with both of these documents to allow the decision-makers and the public an opportunity to review the studies that form the basis of the DEIR's conclusions.

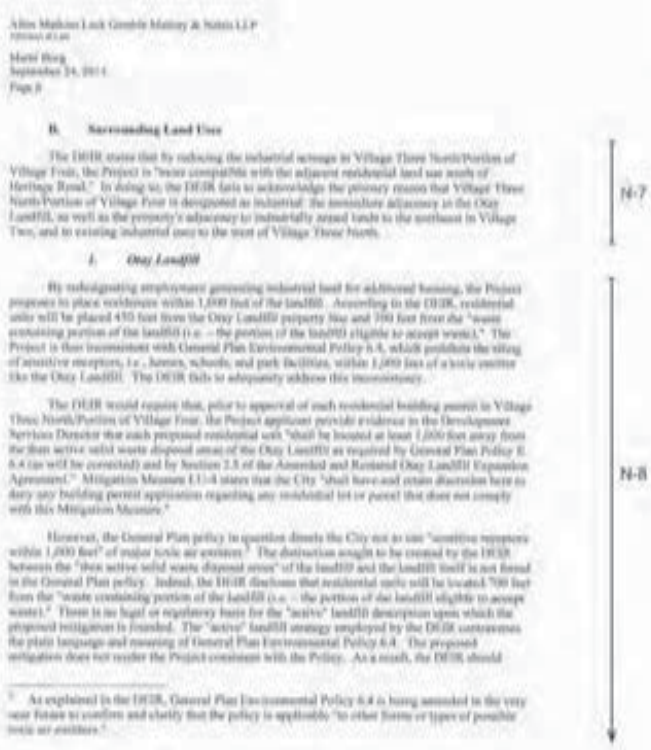
As currently drafted, the DEIR contains inadequate analysis of the Project's direct and cumulative Land Use, Planning, and Zoning and Housing and Population impacts. It includes the bare conclusion that the City will have sufficient lands for future industrial development despite the acreage reductions described above. Insofar as the General Plan already designates Village Three North/Portion of Village Four, the Regional Technology Park ("RTP") and the University all as Employment Land Areas, the assertion that approximately 2.25 million square feet of eliminated industrial capacity will be accommodated on the RTP or University sites is not supported, either by evidence or common sense. The DEIR likewise strains credulity by concluding that despite such a significant loss in industrial acreage, the proposed land uses in Village Three North/Portion of Village Four will create capacity for an estimated 400 additional jobs over previous employment estimates. Even if that were the case, the unsaturated retail and office jobs that will replace the industrial jobs planned for in the General Plan and General Development Plan would not be of the same caliber.

For these reasons, we believe that the DEIR should be revised and recirculated together with the documents upon which it relies to reach the conclusion that the significant loss of employment generating lands is consistent with the General Plan and the General Development Plan and that the Project will not be detrimental to the future economic vitality and quality of life for City residents.

N-6 Cont.

for 2013–2016 (STM357). (Draft EIR, 5.3-167.) Because construction of the identified Main Street segment would not be necessary until approval of the final map containing the 4,737th equivalent dwelling unit, or approximately year 2025, inclusion of the segment in the City's TDIF program, and inclusion of the first phase of the project in the City's current CIP, represents a reasonable plan of actual mitigation that the City has committed itself to implementing, consistent with the requirements of *Anderson*.

Nonetheless, in response to the comment, MM TCA-12 (on page 5.3-166 in the Draft EIR) has been revised in the Final EIR to ensure that the "direct impact" in question will not occur. The equivalent dwelling units (EDU) threshold up through which the project is required to pay TDIF prior to needing the Main Street Bridge crossing is 4,737 EDUs. The mitigation measure has been revised to state that no additional building permits will be issued past the 4,736th EDU unless the City has constructed the improvement. In addition, language has been added which allows for the applicant or designee to: (1) construct the improvement (Main Street crossing Wolf Canyon) and receive TDIF credit for same; (2) construct alternative improvements consistent with the performance standards set forth in the mitigation measure; or (3) perform a traffic study to demonstrate



Allen Matkins Luck Gamble Mallory & Natsis LLP

Martin Berg
September 24, 2014
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B. Surrounding Land Uses

The DEIR states that by reducing the industrial acreage in Village Three North/Portion of Village Four, the Project is "more compatible with the adjacent residential land use north of Heritage Road." In doing so, the DEIR fails to acknowledge the primary reason that Village Three North/Portion of Village Four is designated as industrial: the immediate adjacency to the Otay Landfill, as well as the property's adjacency to industrially zoned lands to the northeast in Village Two, and to existing industrial uses to the west of Village Three North.

N-7

1. Otay Landfill

By redesignating employment generating industrial land for additional housing, the Project proposes to place residences within 1,000 feet of the landfill. According to the DEIR, residential units will be placed 450 feet from the Otay Landfill property line and 700 feet from the "waste containing portion of the landfill (i.e. – the portion of the landfill eligible to accept waste)." The Project is thus inconsistent with General Plan Environmental Policy 6.4, which prohibits the siting of sensitive receptors, i.e., homes, schools, and park facilities, within 1,000 feet of a toxic emitter like the Otay Landfill. The DEIR fails to adequately address this inconsistency.

The DEIR would require that, prior to approval of each residential building permit in Village Three North/Portion of Village Four, the Project applicant provide evidence to the Development Services Director that each proposed residential unit "shall be located at least 1,000 feet away from the then active solid waste disposal areas of the Otay Landfill as required by General Plan Policy E 6.4 (as will be corrected) and by Section 2.5 of the Amended and Restated Otay Landfill Expansion Agreement." Mitigation Measure LU-4 states that the City "shall have and retain discretion here to deny any building permit application regarding any residential lot or parcel that does not comply with this Mitigation Measure."

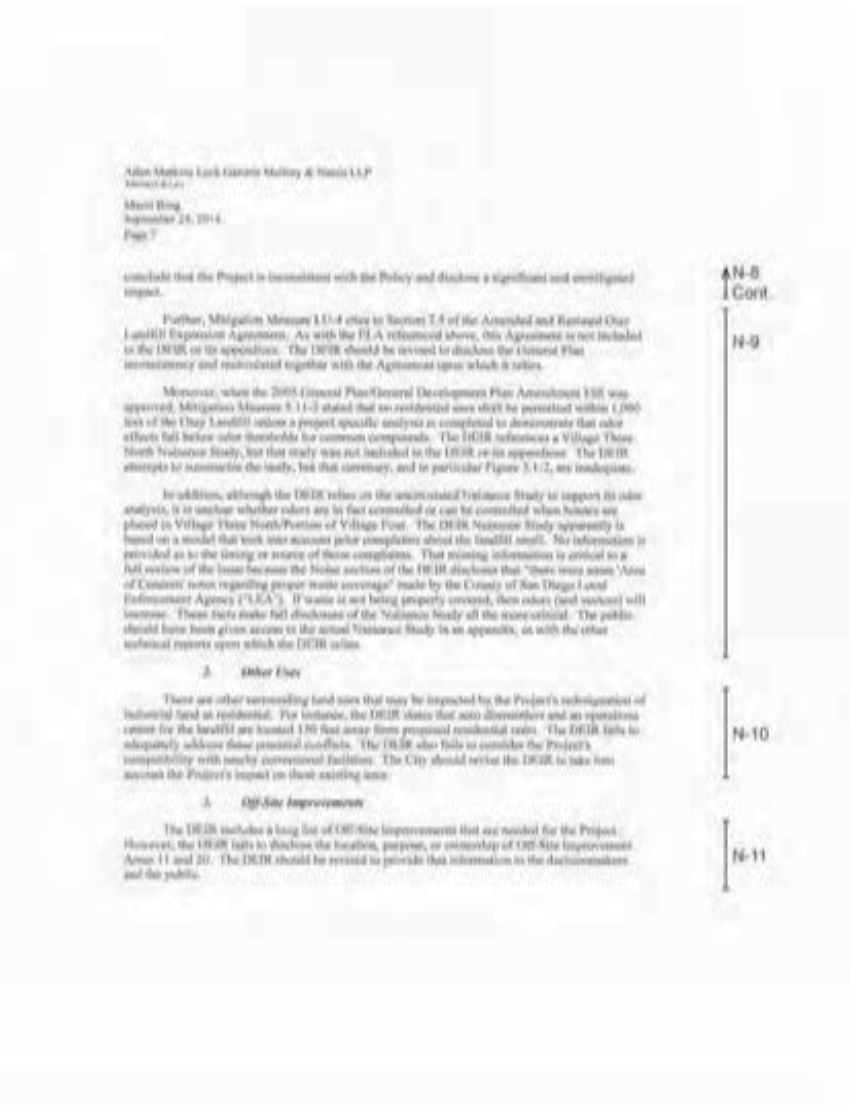
N-8

However, the General Plan policy in question directs the City not to use "sensitive receptors within 1,000 feet" of major toxic air emitters.[1] The distinction sought to be created by the DEIR between the "then active solid waste disposal areas" of the landfill and the landfill itself is not found in the General Plan policy. Indeed, the DEIR discloses that residential units will be located 700 feet from the "waste containing portion of the landfill (i.e. – the portion of the landfill eligible to accept waste)." There is no legal or regulatory basis for the "active" landfill description upon which the proposed mitigation is founded. The "active" landfill strategy employed by the DEIR contravenes the plain language and meaning of General Plan Environmental Policy 6.4. The proposed mitigation does not render the Project consistent with the Policy. As a result, the DEIR should

[1] As explained in the DEIR, General Plan Environmental Policy 6.4 is being amended in the very near future to confirm and clarify that the policy is applicable "to other forms or types of possible toxic air emitters."

the improvement is not yet needed, thereby resulting in the adjustment of the 4,737th threshold beyond the stated limit. Each scenario must be accompanied by a traffic study demonstrating that the City's traffic thresholds set forth in the Growth Management Ordinance are not exceeded (Chapter 19.09 of the Chula Vista Municipal Code). The revised MM TCA-12 is provided below:

- **MM TCA-12 Intersections**: Heritage Road / Olympic Parkway (CV) and La Media Road / Olympic Parkway (CV); **Roadways**: Olympic Parkway, between Heritage Road and Santa Venetia Street (CV); and Heritage Road, between East Palomar Street and Olympic Parkway (CV) –Prior to the issuance of each building permit, the Project Applicant shall pay the appropriate Transportation Development Impact Fees (TDIF) for the construction of Main Street, between Heritage Road and La Media Road, as a Six-Lane Prime Arterial, including the construction of Main Street bridge, the signalization of Quarry Driveway / Main Street (Int #65), and the signalization of Village Three North R-20 Driveway / Main Street (Int #66). The project will signalize the intersection of


Allen Matkins Leck Gamble Mallory & Natsis LLP
Marvin Bing
September 24, 2014
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conclude that the Project is inconsistent with the Policy and disclose a significant and unmitigated impact.

Further, Mitigation Measure LU-4 cites to Section 7.5 of the Amended and Restated Otay Landfill Expansion Agreement. As with the ELA referenced above, this Agreement is not included in the DEIR or its appendices. The DEIR should be revised to disclose the General Plan inconsistency and recirculated together with the Agreement upon which it relies.

Moreover, when the 2005 General Plan/General Development Plan Amendment EIR was approved, Mitigation Measure 5.11-2 stated that no residential uses shall be permitted within 1,000 feet of the Otay Landfill unless a project specific analysis is completed to demonstrate that odor effects fall below odor thresholds for common compounds. The DEIR references a Village Three North Nuisance Study, but that study was not included in the DEIR or its appendices. The DEIR attempts to summarize the study, but that summary, and in particular Figure 3.1-2, are inadequate.

In addition, although the DEIR relies on the unincorporated Nuisance Study to support its odor analysis, it is unclear whether odors are in fact controlled or can be controlled when houses are placed in Village Three North/Portion of Village Four. The DEIR Nuisance Study apparently is based on a model that took into account prior complaints about the landfill smell. No information is provided as to the timing or source of those complaints. That missing information is critical to a full review of the issue because the Noise section of the DEIR discloses that "there were some 'Area of Concern' notes regarding proper waste coverage" made by the County of San Diego Local Enforcement Agency ("LEA"). If waste is not being properly covered, then odors (and vectors) will increase. These facts make full disclosure of the Nuisance Study all the more critical. The public should have been given access to the actual Nuisance Study in an appendix, as with the other technical reports upon which the DEIR relies.

Other Uses

There are other surrounding land uses that may be impacted by the Project's redesignation of industrial land as residential. For instance, the DEIR states that auto dismantlers and an operations center for the landfill are located 150 feet away from proposed residential units. The DEIR fails to adequately address these potential conflicts. The DEIR also fails to consider the Project's compatibility with nearby correctional facilities. The City should revise the DEIR to take into account the Project's impact on these existing uses.

Off-Site Improvements

The DEIR includes a long list of Off-Site improvements that are needed for the Project. However, the DEIR fails to disclose the location, purpose, or ownership of Off-Site Improvement Areas 11 and 20. The DEIR should be revised to provide that information to the decisionmakers and the public.

N-8 Cont.

N-9

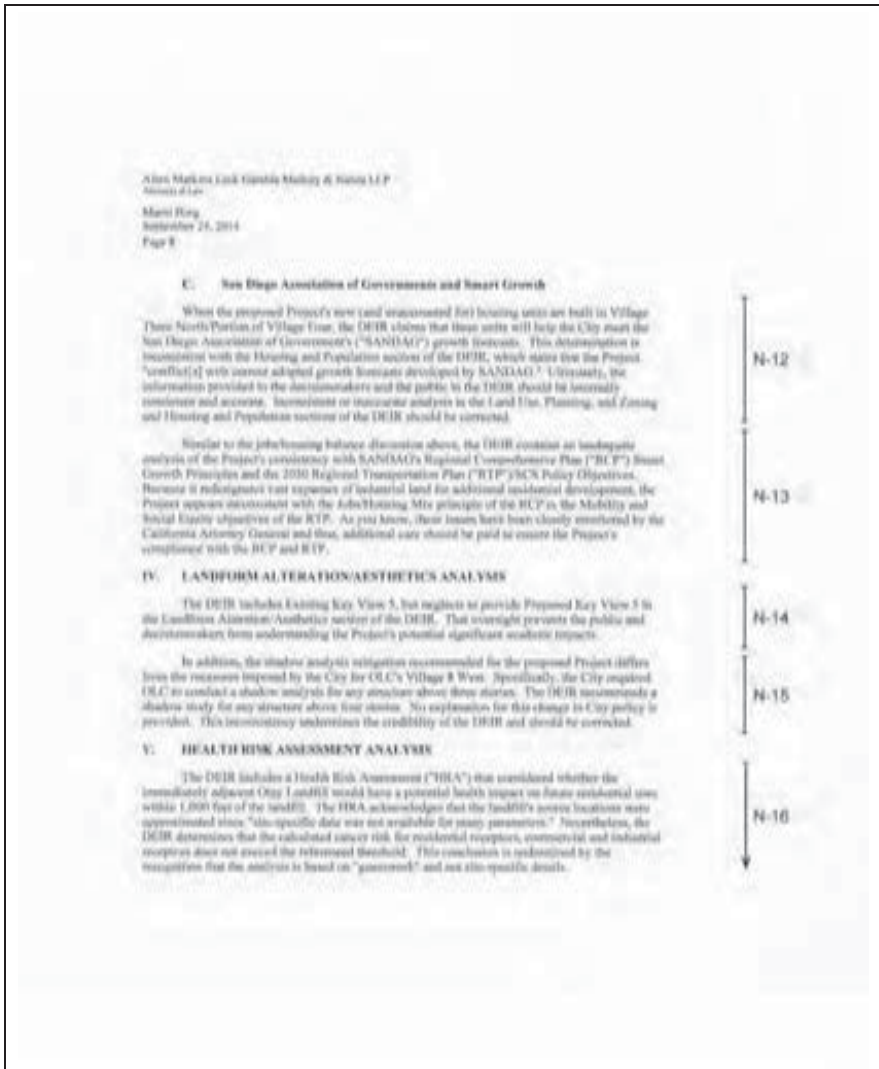
N-10

N-11

Village Three North R-20 Driveway / Main Street (Int #66) in conjunction with the construction of Main Street, while the TDIF program will signalize the intersection of Quarry Driveway / Main Street (Int #65). The analysis shows the need for Main Street from the Heritage Road to La Media Road is triggered by the 4,737th EDU. If the project equivalent dwelling unit limit of 4,736 EDU is reached prior to this roadway segment being constructed and open to traffic, then one of the following steps shall be taken as determined by the City Engineer:

i. Development in Villages Three, Eight East, and Ten shall stop until the future roadway is constructed by the City; or

ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in



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Attorneys at Law

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C. San Diego Association of Governments and Smart Growth

When the proposed Project's new (and unaccounted for) housing units are built in Village Three North/Portion of Village Four, the DEIR claims that these units will help the City meet the San Diego Association of Government's ("SANDAG") growth forecasts. This determination is inconsistent with the Housing and Population section of the DEIR, which states that the Project "conflict[s] with current adopted growth forecasts developed by SANDAG." Ultimately, the information provided to the decisionmakers and the public in the DEIR should be internally consistent and accurate. Inconsistent or inaccurate analysis in the Land Use, Planning, and Zoning and Housing and Population sections of the DEIR should be corrected. N-12

Similar to the jobs/housing balance discussion above, the DEIR contains an inadequate analysis of the Project's consistency with SANDAG's Regional Comprehensive Plan ("RCP") Smart Growth Principles and the 2030 Regional Transportation Plan ("RTP")/SCS Policy Objectives. Because it redesignates vast expanses of industrial land for additional residential development, the Project appears inconsistent with the Jobs/Housing Mix principle of the RCP in the Mobility and Social Equity objectives of the RTP. As you know, these issues have been closely monitored by the California Attorney General and thus, additional care should be paid to ensure the Project's compliance with the RCP and RTP. N-13

IV. LANDFORM ALTERATION/AESTHETICS ANALYSIS

The DEIR includes Existing Key View 5, but neglects to provide Proposed Key View 5 in the Landform Alteration/Aesthetics section of the DEIR. That oversight prevents the public and decisionmakers from understanding the Project's potential significant aesthetic impacts. N-14

In addition, the shadow analysis mitigation recommended for the proposed Project differs from the measures imposed by the City for OLC's Village 8 West. Specifically, the City required OLC to conduct a shadow analysis for any structure above three stories. The DEIR recommends a shadow study for any structure above four stories. No explanation for this change in City policy is provided. This inconsistency undermines the credibility of the DEIR and should be corrected. N-15

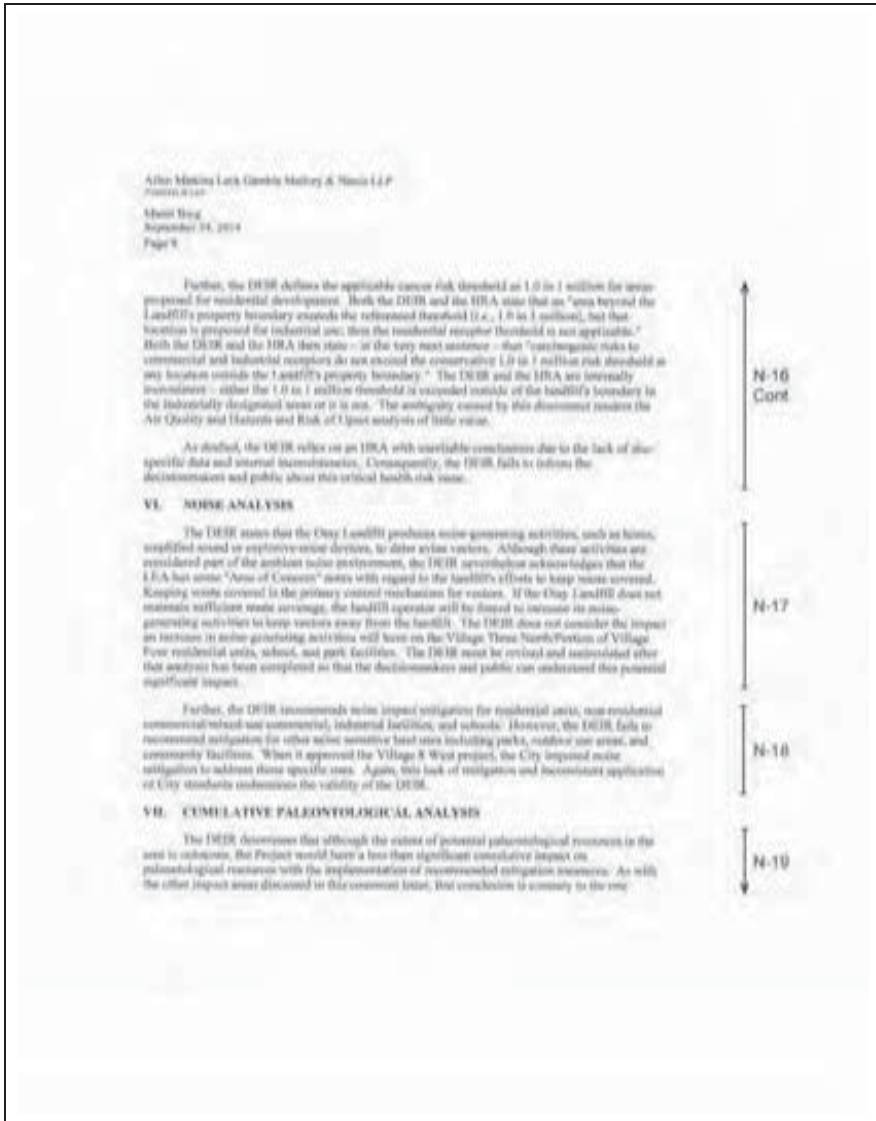
V. HEALTH RISK ASSESSMENT ANALYSIS

The DEIR includes a Health Risk Assessment ("HRA") that considered whether the immediately adjacent Otay Landfill would have a potential health impact on future residential uses within 1,000 feet of the landfill. The HRA acknowledges that the landfill's source locations were approximated since "site-specific data was not available for many parameters." Nevertheless, the DEIR determines that the calculated cancer risk for residential receptors, commercial and industrial receptors does not exceed the referenced threshold. This conclusion is undermined by the recognition that the analysis is based on "guesswork" and not site-specific details. N-16

fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or

iii. Applicant shall construct the missing roadway link and receive a transportation development impact fee credit for the improvements as applicable; or

iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic.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Further, the DEIR defines the applicable cancer risk threshold as 1.0 in 1 million for areas proposed for residential development. Both the DEIR and the HRA state that an "area beyond the Landfill's property boundary exceeds the referenced threshold (i.e., 1.0 in 1 million), but that location is proposed for industrial use; then the residential receptor threshold is not applicable." Both the DEIR and the HRA then state – in the very next sentence – that "carcinogenic risks to commercial and industrial receptors do not exceed the conservative 1.0 in 1 million risk threshold at any location outside the Landfill's property boundary." The DEIR and the HRA are internally inconsistent – either the 1.0 in 1 million threshold is exceeded outside of the landfill's boundary in the industrially designated areas or it is not. The ambiguity caused by this disconnect renders the Air Quality and Hazards and Risk of Upset analysis of little value.

As drafted, the DEIR relies on an HRA with unreliable conclusions due to the lack of site-specific data and internal inconsistencies. Consequently, the DEIR fails to inform the decisionmakers and public about this critical health risk issue.

N-16 Cont

VI. NOISE ANALYSIS

The DEIR states that the Otay Landfill produces noise-generating activities, such as horns, amplified sound or explosive-noise devices, to drive avian vectors. Although these activities are considered part of the ambient noise environment, the DEIR nevertheless acknowledges that the LEA has some "Area of Concern" notes with regard to the landfill's efforts to keep waste covered. Keeping waste covered is the primary control mechanism for vectors. If the Otay Landfill does not maintain sufficient waste coverage, the landfill operator will be forced to increase its noise-generating activities to keep vectors away from the landfill. The DEIR does not consider the impact an increase in noise-generating activities will have on the Village Three North/Portion of Village Four residential units, school, and park facilities. The DEIR must be revised and uninsulated after that analysis has been completed so that the decisionmakers and public can understand this potential significant impact.

N-17

Further, the DEIR recommends noise impact mitigation for residential units, non-residential commercial/mixed-use commercial, industrial facilities, and schools. However, the DEIR fails to recommend mitigation for other noise sensitive land uses including parks, outdoor use areas, and community facilities. When it approved the Village 8 West project, the City imposed noise mitigation to address these specific uses. Again, this lack of mitigation and inconsistent application of City standards undermines the validity of the DEIR.

N-18

VII. CUMULATIVE PALEONTOLOGICAL ANALYSIS

The DEIR determines that although the extent of potential paleontological resources in the area is unknown, the Project would have a less than significant cumulative impact on paleontological resources with the implementation of recommended mitigation measures. As with the other impact areas discussed in this comment letter, that conclusion is contrary to the one

N-19

The revisions made to MM TCA-12 do not result in new or additional impacts. No further response is required.

N-4 Please see response to comment J-4.

N-5 The City has reviewed the Fehr & Peers memorandum and responses to those comments are provided below (N-25 through N-40).

N-6 The project includes a General Plan Amendment (GPA) which proposes to amend the City's General Plan to allow for the reduction in Industrial lands in Village Three North and the corresponding increase in residential density. The proposed GPA is supported by several documents including the General Plan Amendment Report, General Plan Consistency Analysis, General Plan Amended pages, an Employment Lands Analysis (ELA), and Fiscal Impact Analysis (FIA).

The ELA was prepared at the direction of the City and funded by both the project applicant and Otay Land Company, on whose behalf this comment letter is written. The ELA incorporates the anticipated land uses within Villages Three North, Eight West, Eight East, Nine, and Ten in an effort to provide a complete view of the future availability of employment lands in Chula Vista. This was specifically directed by the City because it was recognized that while the project included

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reached in the Village 8 West EIR. It is not clear from the information provided to the decision-maker and the public how or why a different conclusion was reached months after the City approved Village 8 West. Again, the credibility of the DEIR is undermined by this inconsistency.

N-19 Cont.

VIII. WATER SUPPLY ANALYSIS

The DEIR states that "there are sufficient existing and planned water supplies to meet projected water demands of the proposed project and other existing and planned development projects within the [Otay Water District ("OWD")] service area over the next 20-year planning horizon in normal and in single and multiple dry years." In addition, the DEIR indicates that "adequate long-term water supply will be available to the proposed project and other existing and reasonably foreseeable planned development in the OWD service area." Therefore, the DEIR concludes that the Project will have a less than significant impact on both short- and long-term water supplies, and that the Project will not result in a cumulatively considerable water supply impact. When the City recently approved Villages 8 West and 9, the EIRs concluded that these projects would result in significant water supply impacts.

N-20

Similarly, the City previously required OLC to mitigate the Villages 8 West and 9 potential impacts on recycled water facilities. In contrast, the DEIR concludes that the proposed Project will not result in a significant impact on recycled water facilities, and as a result, no mitigation is proposed. The conflicting water supply and recycled water positions taken with regard to the projects within Otay Ranch should be explained and reconciled.

N-21

IX. SIGNIFICANT AND UNAVOIDABLE IMPACTS SUMMARY

The DEIR summary in Chapter 8, Significant and Unavoidable Impacts, omits the cumulative Cultural Resources impact, the cumulative Agricultural Resources impact, and the direct Global Climate Change impact caused by the Project. The summary should be revised accordingly.

N-22

X. CITY OF SAN DIEGO LAND OWNERSHIP

The City of San Diego ("San Diego") owns the title to land in Villages Eight East and Ten Year is included in the proposed Project. The land has been used in connection with San Diego's potable water storage and transmission. To our knowledge, San Diego has not consented to the Project, nor signed any of the pending Project applications. This raises a variety of concerns.

Both the California Subdivision Map Act ("SMA") and the City's regulations require that all owners of land must sign applications for the subdivision of such land. This is a condition precedent for the processing of subdivision applications. Aside from the subdivision applications, it is inappropriate for the City to process any private land use or development applications without the consent of affected landowners. The DEIR acknowledges that San Diego owns land within the Project. The DEIR acknowledges that the Project design is incompatible with San Diego's

N-23

increases in residential densities, it was the adjacent land uses that were planned for higher density employment opportunities. These employment opportunities include the Village Eight West and Nine town centers which are anticipated to accommodate up to 1.8 million square feet of office/commercial/retail uses.

As stated further in the comment but dismissed, the ELA demonstrates that even with the proposed GPA and the loss of industrial lands, the City will maintain sufficient Employment Lands based on current and planned uses, including the above referenced Village Eight West and Village Nine Town Centers, and the Eastern Urban Center, as well as other industrial land uses currently under-developed due to lack of market demand. In fact, even with the slowdown caused by the recent recession and the resulting stoppage of any new additional industrial acreage, the ELA concludes there are still several years of inventory within the Chula Vista submarket.

The FIA and ELA are primarily finance-based documents that were not distributed as part of the public review record, which is standard City practice, because they are not environmental documents; however, as they were "City-prepared" documents, they are considered public and are available upon request (see Attachment A to this response).

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ownership in that extensive grading and private improvements are proposed within San Diego's property. However, the DEIR mistakenly treats San Diego's fee ownership as a utility easement and proposes mitigation requiring the relocation of the utility easements. This mitigation is inadequate and inappropriate to address the fundamental problem outlined above. Absent the written consent of San Diego, no further processing of the Project applications, including the DEIR, should occur. Further, no public hearings regarding land owned by San Diego may be held. To do so would violate the SMA, City regulations, and the due process rights of San Diego.

N-23 Cont.

XI. OTAY LAND COMPANY LAND OWNERSHIP

The Project proposes to revise the boundaries between Villages 9 and Ten to incorporate a portion of existing Village 9 into Village Ten. The DEIR fails to disclose that the redesignated portion of Village 9 is owned by OLC and that OLC recently obtained entitlements for that property. The DEIR contains no analysis of this proposed change, or the potential effects of that change, on the remainder of Village 9.

N-24

XII. CONCLUSION

Thank you for the opportunity to comment on the DEIR. We are available to discuss these comments with you or to answer any questions about the concerns raised herein.

Very truly yours,

Jeffrey A. Chine

cc: Paul Borden

In regard to the project's consistency with the Economic Development Element policies, while the project specifically proposes a reduction in industrial lands, the overall intent of maintaining the jobs/housing balance is achieved. The provision of housing by the proposed project in close proximity to the planned town centers and Regional Transportation Plan (RTP) only increase the feasibility and demand for these employment uses.

Regarding the assertion that the commercial/retail and office jobs would not be of the same caliber as the industrial jobs, the only policy in the Economic Development Element that addresses this issue is ED 2.6. However, ED 2.6 is a policy regarding leveraging incentives to create high quality jobs. This project is not inconsistent with this policy because it is not interfering with the City's ability to leverage any incentive programs. The comment points to no specific evidence regarding the relative quality of industrial and commercial/retail jobs. Moreover, to the extent the comment can be read to assert that the project will lead to economic or social changes in the project vicinity, such changes do not constitute significant effects on the environment for purposes of CEQA. (See CEQA Guidelines Section 15131(a), 15382.)

N-7 The DEIR clearly shows the landfill as an adjacent land use, calls out this fact in the Environmental

FEHR PEERS

To: Jeff O'Connor, Otay Land Company
Jeff Orme, Allen Matkins
From: Dawn Wilson, PE, TE
Date: September 24, 2014
Subject: Peer Review of University Villages TIA (prepared by Chris Ryan Associates, July 31, 2014)

For your request, Fehr & Peers has conducted a peer review of the traffic impact analysis report for the University Villages project, which includes Village 3, Village 4, Village 8E and Village 10. Please consider the following comments:

Roadway Network Assumptions

The following key roadway network issues were identified as part of this analysis.

- Village 10 extends a new roadway south of Main Street and east of Eastlake at Discovery Falls. This new road wraps through the University and ties into Village 9 and Eastlake Parkway. In addition, Eastlake Parkway is proposed to be renamed between Discovery Falls and Otay Valley Road as "University Drive" 8. The road classifications shown on Figure 3.6 of the TIA illustrate the choppy street designations through Village 10. **Explain how roadway classifications will transition through the Village and demonstrate that there will be no queuing or operational impacts where road classifications change. Demonstrate that the capacity reduction on Eastlake Parkway will not negatively impact traffic on Street 8 in Village 9.**

- Methodology for assuming new roadways: In Village 8W and Village 9, Otay Land Company was required to show a need for new roadways before they were included in the roadway network. For example, an intersection or a roadway segment would need to fail in a study scenario (2014, 2020, 2025) before a new road could be integrated into the roadway network for the next study year scenario (if it failed in 2015, then new roadway would be added to the network that would offset the impact in 2020). This methodology was followed in the University Villages TIA through year 2015. However, as described below, the 2030 analysis includes new roadways not justified by the results of the 2025 analysis. **The TIA should demonstrate the need for the new roads "constructed by others" prior to including them in the TIA. Analysis of 2030 conditions should be conducted without these improvements to demonstrate they are necessary prior to inclusion in the analysis.**

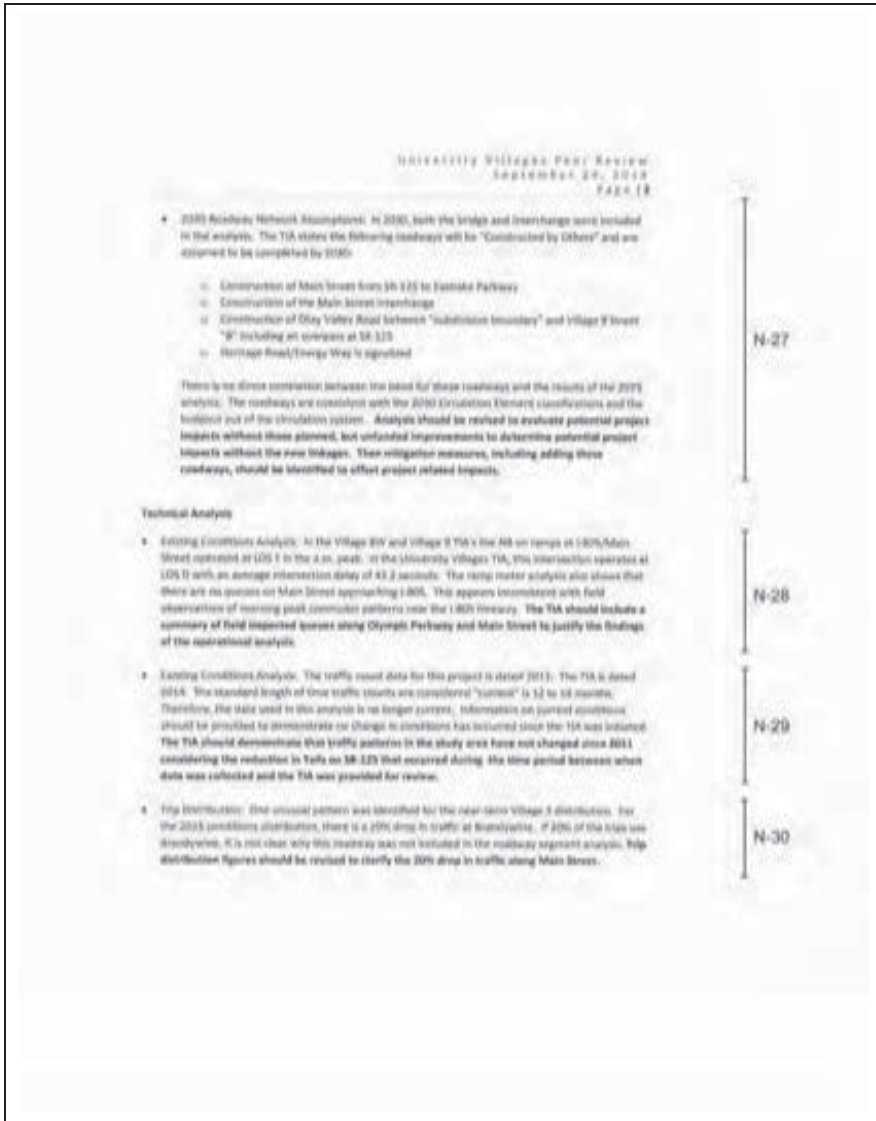
N-25

N-26

Setting, states that the current General Plan Land Use is for Industrial, and discloses the General Plan Policy E 6.4 regarding land uses adjacent to what the City defines as a "toxic emitter." The DEIR also analyzes how the proposed GPA would allow for residential uses by converting industrial land to Mixed Use Residential, Medium, and Low Medium density residential. The General Plan Consistency Analysis concludes this is consistent with the General Plan, including Policy E 6.4 (as further discussed in response N-8). The DEIR also analyzes the proximity to the landfill in the Land Use, Hazards, and Air Quality sections.

Additional surrounding land uses that could conflict with the project site were analyzed in the DEIR, specifically, in the Land Use section, page 5.1-28. These industrial uses are buffered from the project by Heritage Road and landscaped slopes. Noise from the current operations was included in the noise measurements taken in Village Three North and analyzed in Section 5.5, Noise of this EIR. The correctional uses were even further away from the project site, on the south side of the Otay River Valley over 0.5 mile away.

N-8 The General Plan does preclude residential development within 1,000 feet of a major toxic emitter, including the Otay Landfill; however, the landfill



recently entered an agreement with the City that clearly identified the limits of the active portion of the landfill from which the 1,000 feet is measured. This is consistent with the City's policy regarding setbacks from other emitters such as Electrical Generating Facilities, which clearly measures from the source of the emissions, not the property line. The City and landfill acknowledged this exact practice when drawing the landfill buffer as it is not 1,000 feet from the property line in the northeastern edge of the landfill. See EIR page 5.1-27 for a complete description of the Amended and Restated Otay Landfill Expansion Agreement (see Attachment A to response to comment M-2). MM LU-4 restricts any residential uses unless, and until, the landfill moves further away from the proposed R-1 neighborhood such that no residential use (i.e., new homes) is constructed within the 1,000-foot setback from the active portion of the landfill. Further, under the amended agreement, once a house is built, the landfill will not move the active portion closer than 1,000 feet to the residential use. The landfill expansion agreement is a public document approved by the City Council on August 12, 2014.

The EIR does conclude that there is a potential inconsistency with General Plan Policy E 6.4, which is the reason for imposing mitigation measure MM LU-4. This mitigation will ensure that no residential land uses

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Additional analysis of Broadywine Road may be necessary should the trip threshold for inclusion in the TIA be reached or exceeded.

- Year 2015 Analysis: The project will construct Heritage Road by 2015 for access to the project site. According to the analysis, Heritage Road will be constructed as a 6-lane prime to Main Street. This results in a STOP controlled intersection at Main Street/Heritage. It is unreasonable to assume that a 6-lane by 4-lane road would be All-Way STOP controlled. More reasonable intersection geometry or traffic control should have been assumed in this analysis. The AWS is assumed through 2020. **The project should either reduce the number of lanes through the intersection and revise the analysis accordingly or analyze as a signalized intersection. The proposed geometry and traffic control is not reasonable.** N-31
- 2010 Analysis: The TIA states the project will construct Main Street from Heritage Road to SR-125 to provide access to Village 8E. There is no mention in the text that Main Street will be constructed as a 4-lane coupler. However, the intersection analysis does consider the intersection configuration illustrated in Village 8W & Village 8 TIA's. **The TIA should be revised such that the PFFP and descriptions of Main Street through Village 8W should clearly indicate the construction of the four-lane couplet at La Media Road.** N-32
- 2010 Analysis: 36% of trips use Magdalena from Village 8E. Magdalena is not a circulation element road. The remaining trips from Village 8E pass through the La Media/Main Street Couplet. The TIA assumes that the couplet is All-Way STOP (AWS) control for all four intersections in 2020. The project identifies the AWS as failing and the mitigation is to install traffic signals. **When fully constructed, the couplet at La Media Road/Main Street will be signalized. Interim All-Way Stop condition evaluated in the TIA is infeasible. The TIA should be revised to reflect the buildout of the couplet as discussed in the Village 8W TIA.** N-33

I-805/SR-125 Discussion

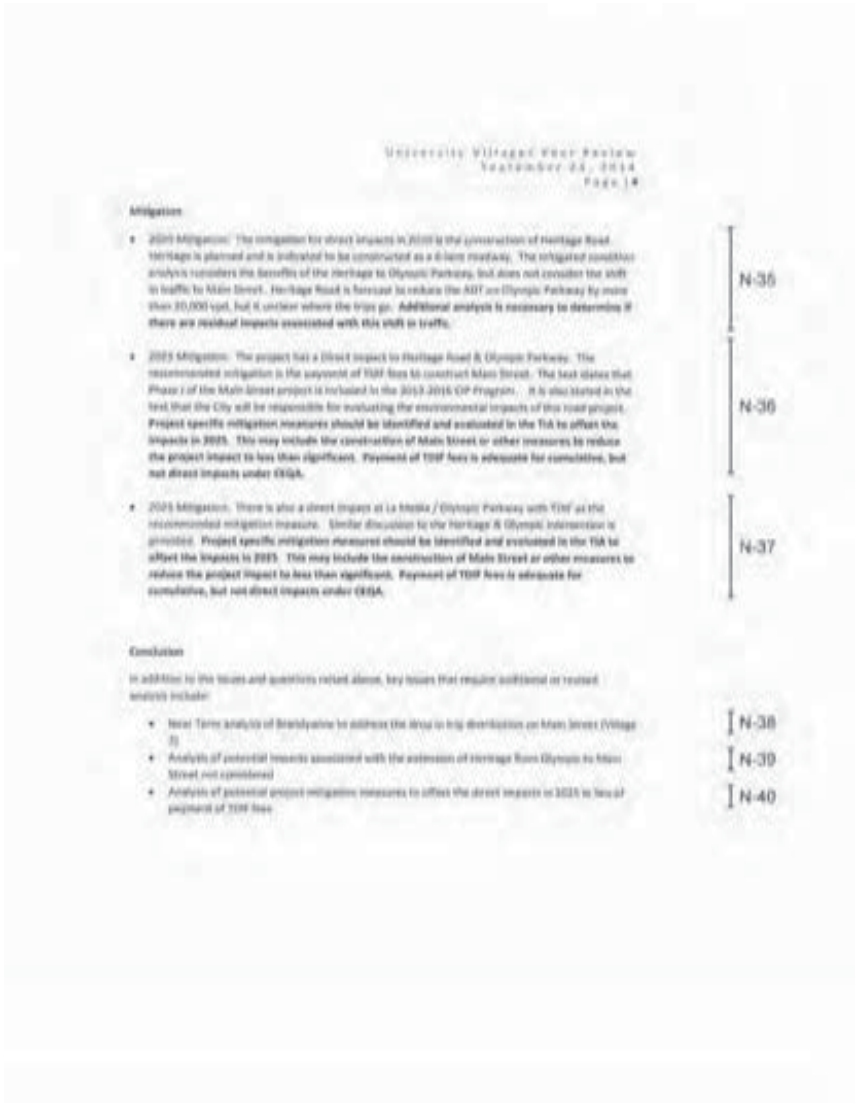
- I-805/SR-125 discussion: The TIA includes a statement regarding the assumptions in the traffic model used and the change in funding for the I-805 Phase 2 project. The TIA states that the model included assumptions consistent with the analysis conducted in Village 8W and Village 9 (I-805 improved to include Phase 2 widening and additional toll lanes and SR-125 is a toll facility). However, the technical analysis throughout the study includes only the Phase I improvements (currently under construction – 2 HOV lanes and Palomar DAR) and assumes SR-125 is a toll facility. The project therefore results in significant/unavoidable impacts through year 2030 on I-805. The University Villages then cite the SANDAG study that concludes that if SR-125 tolls are reduced, both freeways will operate at acceptable LOS. The impacts on I-805 are therefore unmitigated (based on the analysis) and no mitigation measures are identified. N-34

are developed within 1,000 feet of the active landfill. The Amended and Restated Landfill Expansion Agreement ensures that the active portion of the landfill will not move closer to the project site. Thus, the project is consistent with General Plan Policy E 6.4, and no revisions to the DEIR are necessary.

N-9 The comment is incorrect in stating that the DEIR relies on an "uncirculated" Nuisance Study. The Village Three North Nuisance Study was included in Appendix D of the Draft EIR as Part II, and the odor complaint data was included as an appendix to the Nuisance Study.

The use of historical odor complaints is standard practice in CEQA analyses. The date and complaint number of each complaint is included in Appendix B of the Nuisance Study. Those dates and numbers are:

- APCD2006-CMP-0181 – complaint received 10/23/06
- APCD2004-CMP-0202 – complaint received 11/05/04
- APCD2002-CMP-0336 – complaint received 11/27/02
- APCD2002-CMP-0321 – complaint received 11/21/02



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Mitigation

- 2020 Mitigation: The mitigation for direct impacts in 2020 is the construction of Heritage Road. Heritage is planned and is indicated to be constructed as a 4-lane roadway. The mitigated condition analysis considers the benefits of the Heritage to Olympic Parkway, but does not consider the shift in traffic to Main Street. Heritage Road is forecast to reduce the ADT on Olympic Parkway by more than 10,000 vpd, but it unclear where the trips go. **Additional analysis is necessary to determine if there are residual impacts associated with this shift in traffic.** N-35
- 2025 Mitigation: The project has a Direct impact to Heritage Road & Olympic Parkway. The recommended mitigation is the payment of TIDIF fees to construct Main Street. The text states that Phase I of the Main Street project is included in the 2013-2016 CIP Program. It is also stated in the text that the City will be responsible for evaluating the environmental impacts of this road project. **Project specific mitigation measures should be identified and evaluated in the TIA to offset the impacts in 2025. This may include the construction of Main Street or other measures to reduce the project impact to less than significant. Payment of TIDIF fees is adequate for cumulative, but not direct impacts under CEQA.** N-36
- 2025 Mitigation: There is also a direct impact at La Media / Olympic Parkway with TIDIF as the recommended mitigation measure. Similar discussion to the Heritage & Olympic intersection is provided. **Project specific mitigation measures should be identified and evaluated in the TIA to offset the impacts in 2025. This may include the construction of Main Street or other measures to reduce the project impact to less than significant. Payment of TIDIF fees is adequate for cumulative, but not direct impacts under CEQA.** N-37

Conclusion

In addition to the issues and questions noted above, key issues that require additional or revised analysis include:

- Near Term analysis of Brandywine to address the drop in trip distribution on Main Street (Village 3) N-38
- Analysis of potential impacts associated with the extension of Heritage from Olympic to Main Street not considered N-39
- Analysis of potential project mitigation measures to offset the direct impacts in 2025 in lieu of payment of TIDIF fees N-40

- APCD2002-CMP-0320 – complaint received 11/20/02

The exact location is not available from the San Diego Air Pollution Control District (SDAPCD) for each complaint due to privacy concerns, but the approximate location of each complaint is shown in Figure 3 of the Nuisance Study. Furthermore, the use of modeling to address potential odor issues goes well beyond the typical level of odor evaluation required by CEQA. Odor is typically addressed through a qualitative evaluation for CEQA purposes; however, the Nuisance Study includes quantitative evaluation of odor emissions and impacts from the Otay Landfill.

Issues related to the local enforcement agency (LEA) “Areas of Concern” have been fully disclosed in Appendix D of the Nuisance Study, which includes the monthly LEA site inspection reports for the Otay Landfill from October 2012 through February 2014, 17 reports in all. Furthermore, each of these reports is publicly available on the CalRecycle website.

During a site visit on August 8, 2013, the LEA observed that alternative daily cover (ADC) was not being covered within 21 days of placement, as required by the Solid Waste Facility (SWF) permit for the Otay Landfill. In the August 8, 2013, site visit report, the LEA required the site operator to

		develop a protocol where the date of the placement of the ADC would be recorded and tracked to ensure that it was not left exposed for more than 21 days. The six subsequent site inspection reports included in Appendix D of the Nuisance Report do not indicate that ADC is an area of concern. Additional LEA site visits since February 2014 have not noted that ADC is an "Area of Concern." These subsequent reports indicate that Otay Landfill has implemented the procedures required by the LEA and that the "Area of Concern" has been addressed. The landfill operator, not the project applicant, remains responsible for compliance with legal requirements and permit conditions. See also response N-17 regarding the speculative nature of noise impacts relating to the landfill. No revisions to the DEIR are necessary.
	N-10	These uses were analyzed in the EIR, specifically in the Land Use Section, page 5.1-28. They are buffered from the project by Heritage Road and landscaped slopes. Noise from the current operations was included in the noise measurements taken in Village Three North and analyzed in Section 5.5, Noise, of this EIR. The correctional uses were even further away from the project site, on the south side of the Otay River Valley over 0.5 mile away. It should be noted that neither the Village Eight West nor Village Nine EIRs considered potential compatibility with these facilities despite

		comparable proximity from Village Eight East and Village Ten. No further response is required; however, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.
	N-11	The footnote on page 4-55 of the EIR states that although Off-Site Improvement Areas 11 and 20 are located on site (i.e., within the SPA Plan boundaries), they are under a different ownership and therefore not included on the list of off-site improvements. The footnote has been revised to clarify why they were excluded and that impacts from these areas have been included as part of the analysis of the EIR. No potential impacts were missed by not including these areas. No further response is required; however, the comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.
	N-12	SANDAG's projections acknowledge they are not controlling; rather, they are predictive in nature. The EIR acknowledges that the project is not consistent with the current SANDAG projections (see page 5.16-9); however, in general, it is true that the City of Chula Vista and greater San Diego region are growing and will require additional housing units to accommodate anticipated population growth, and this project will help meet those projections. In recognition of this

		point, SANDAG is in the process of updating regional growth forecasts (see Attachment B, SANDAG 2050 Growth Forecast) and has included the proposed project within its estimates, which are anticipated to be adopted in 2015. The proposed project would pay its fair share for impacts caused by the additional increase in population, including payment of the public facilities development impact fee and the transportation development impact fees. The project will provide for housing to support the planned town centers/urban centers in Villages Eight East, Nine, and the Eastern Urban Center. With adoption of the proposed GPA and General Development Plan Amendment, the project would be consistent with the City's General Plan and the Otay Ranch General Development Plan. Therefore, the issue raised in this comment already has been incorporated into the Draft EIR. Moreover, the comment does not identify any specific environmental effects that may result from the alleged inconsistency, and no revisions to the Draft EIR are necessary as a result of this comment. Nonetheless, to ensure consideration of these issues by the public and the decision makers, this comment will be included as part of the record and made available for review prior to a final decision on the proposed project.
	N-13	Although SANDAG's planning documents are non-binding, the EIR includes a consistency analysis for the

	Regional Comprehensive Plan (RCP) Jobs/Housing Mix principles in the Land Use section (page 5.1-37) and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Policy Objectives (page 5.1-39). The proposed project is consistent with RCP Jobs/Housing Mix principle because it provides a variety of housing choices within proximity of existing and planned employment centers, including the Eastern Urban Center, the Otay Ranch Town Center, the Village Eight West and Village Nine Town Centers, and the Village Three North Business Park. In addition, the proposed project results in job-producing land uses (Industrial, and Mixed Use Retail/Office) in proximity to residential land uses. The proposed project is consistent with the RTP/SCS Mobility and Social Equity objectives because the project is designed to facilitate connections between people and jobs and other activities, by providing both residential and job-producing land uses, including industrial and office uses. Additionally, the proposed project would include transit stops that will ultimately connect with the future University/Research Technology Park site which will provide employment opportunities. The proposed project is also designed to encourage alternative transportation modes such as walking and biking. Although transit is not currently

		running through the project area, the villages are designed to accommodate transit in the future. Transit stops will also be provided within 0.25 mile of residential areas. Therefore, the issue raised in this comment has already been incorporated into the Draft EIR. Moreover, the comment does not identify any specific environmental effects that may result from the alleged inconsistency, and no revisions to the Draft EIR are necessary as a result of this comment.
	N-14	Page 5.2-33 of the Draft EIR explains why no simulation was done for KVP5. The KVP5 view is of the area proposed for a park, and since the plans for the park are not available, it would be speculative to create a photosimulation at this time. CEQA does not require photosimulations for every key view point. The text on page 5.2-33 explains what would likely be visible from this location in the future. This represents a good-faith effort to disclose and evaluate impacts in light of what is reasonably feasible. (CEQA Guidelines Section 15151). No further response is required.
	N-15	Village Eight West had a lower standard (three stories instead of four) because of the more dense character of the Town Center compared to the traditional multi-family housing proposed by the project. To be consistent, the proposed mitigation measure has been revised to match the Village Eight West EIR, as follows:

		MM AES-4 Prior to design review approval for any structure three ~~four~~ stories and above, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a shadow analysis demonstrating that adjacent shadow-sensitive uses are not permanently shadowed, and/or any other approved city-standard in place at the time the shadow analysis is performed. This revision does not change the substantive analysis or constitute significant new information that would warrant recirculation of the DEIR.
	N-16	Site-specific data were used where available (e.g., historical waste placement data); however, not all data are available (e.g., speciated chemical concentrations). When site-specific data are not available, default parameters from regulatory and technical documents are used. These defaults are conservative in nature while being representative of landfills in general. The sources used to obtain default parameters (e.g., Waste Industry Air Coalition [WIAC] Comparison of Recent Landfill Gas Analyses with Historic AP-42 Values) have been used in landfill permitting, health risk assessments (HRAs), and CEQA analyses and accepted by state and local regulatory agencies. The default values have undergone considerable review and evaluation both in their development and use; consequently, they should not be characterized as

	"guesswork" but as the "best available data." The defaults provide reasonable estimated values for use when site-specific values are not available. Under CEQA, it is appropriate to use such reasonable estimates where it is not feasible to obtain precise data. (See, e.g., CEQA Guidelines Section 15151; *Laurel Heights Improvement Ass'n. v. Regents of Univ. of Cal.*, 47 Cal.3d 376, 1988). Finally, the methodologies used to develop the defaults are conservative in nature will tend to overestimate health risk. Consistent with U.S. Environmental Protection Agency (EPA) and California guidance, the HRA Report uses separate exposure parameters for residential and commercial/industrial receptors, and risks for each receptor type are calculated independently using the Hotspots Analysis and Reporting Program (HARP) software. Two different cancer risk values were calculated, one for each type of receptor (i.e., residential risk and commercial/ industrial worker risk). As noted in the HRA Report, residential receptors have the highest level of exposure and represent the most conservative receptor scenario. The HRA Report is unambiguous that the cancer risk threshold of one (1) in a million (1x10-6) is not exceeded for either residential or commercial/ industrial receptors at a location where that specific type of receptor would be located. The DEIR correctly

		notes that the cancer risk isopleths for residential receptors extends outside the Otay Landfill property line, but that residential cancer risk isopleth does not extend to residential areas of the proposed project; therefore, the cancer risk for residential receptors does not exceed 1x10-6. The risk to a residential receptor is irrelevant to commercial/industrial receptors because those receptors would occupy the receptor location for much less time than a residential receptor, and only the cancer risk calculated for a commercial/industrial receptor should be used to evaluate the cancer risk at locations designated for commercial/industrial use. That cancer risk to a commercial/industrial receptor does not exceed 1x10-6 at any location outside the Otay Landfill property. Therefore, it can be reliably stated the cancer risk threshold is not exceeded for either residential or commercial/industrial receptors.
	N-17	The noise measurements that were taken in Village Three North would have included any noise generated by the Otay Landfill. While the LEA has noted areas of concern in the past, the landfill operator has remedied those concerns. The request would require the project to anticipate future potential changes that may or may not occur on the landfill site, how the landfill operator would choose to respond to such changes, and whether impacts would occur to land

		uses in place at the time such measures are implemented. CEQA does not require consideration of such speculative impacts (see CEQA Guidelines Section 15145). Additionally, if the landfill was required in the future to perform any of the referenced noise-generating activities, the landfill would have to analyze how those activities may impact surrounding land uses. No further response is required.
	N-18	The comment is incorrect in stating that the DEIR does not recommend mitigation for land uses such as parks, outdoor use areas, and community facilities. The Draft EIR determined that there were no significant impacts to the listed uses; however, there are mitigation measures to limit noise from parks to the hours of 7:00 a.m. to 10:00 p.m. to conform with the City's noise standards (MM NOI-6), to minimize noise at exterior use areas at elementary schools (MM NOI-7), and to minimize noise impacts adjacent to the Preserve (MM BIO-17). (See also MM NOI-1 through NOI-9, prescribing site-specific acoustical analyses and construction-related noise mitigation measures to minimize noise impacts to sensitive land uses.) Therefore, the issue raised in this comment has already been incorporated into the Draft EIR, and no revisions to the Draft EIR are necessary as a result of this comment.
	N-19	This comment is incorrect in stating that the DEIR is inconsistent with the Village Eight West EIR

		regarding cumulative impacts to paleontological resources. Both the Village Eight West EIR (page 6-13) and the University Village DEIR (page 6-25 to 6-26) indicate the same conclusion: cumulative impacts to paleontological resources would be less than significant with implementation of specified mitigation measures. No revisions to the Draft EIR are necessary as a result of this comment.
	N-20	The comment does not identify any flaw or inadequacy in the EIR's water supply analysis (see Final EIR section 5.13.1). Instead, the comment notes that Otay Land Company's Village Eight West and Village Nine EIRs concluded that water supply-related impacts associated with those projects would result in significant and unavoidable water supply impacts. In contrast, this EIR finds that "there are sufficient existing and planned water supplies to meet projected water demands of the proposed project and other existing and planned development projects within the [Otay Water District] service area over the next 20-year planning horizon in normal and in single and multiple dry years," and, therefore, this project's impacts on water supplies, both short-and long-term, are considered less than significant. (EIR, Section 5.13.1, page 5.13-22.) The City acknowledges the different significance findings between this EIR and Otay Land Company's EIRs, but that difference is not grounds to invalidate this EIR.

	First, this EIR's less-than-significant finding — as it relates to this project's impacts on water supplies — is supported by substantial evidence. Under the substantial evidence standard, courts cannot set aside an agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable. (*Citizens of Goleta Valley v. Bd. of Supervisors*, 52 Cal.3d 553, 564, 1990.) Here, the EIR's less-than-significant water supply impact finding is based upon: (a) Dexter Wilson Engineering's Overview of Water Service (see EIR, October 2014 Addendum to Appendix N); (b) Otay Water District's Water Supply Assessment and Verification Report (WSAV) (EIR, Appendix N); and (c) the Urban Water Management Plans (UWMPs) of two wholesale water agencies and one retail water district (Metropolitan Water District (wholesale), San Diego County Water Authority (wholesale), and Otay Water District (the project's retail water service provider). The information in these technical reports substantiates that the project's impacts on water supplies will be less than significant. Second, while Otay Land Company's EIRs also identified adequate water supplies for its projects (Village Eight West and Village Nine), those EIRs, relying upon their own WSAVs, conservatively concluded that "because a long-term water supply is not

	assured, increases in water demand would result in a significant impact." Upon further review, however, that finding in those EIRs is not consistent with the standard articulated by the California Supreme Court in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Ranch Cordova*, 40 Cal.4th 412, 432–434, 2007. The court in *Vineyard Area Citizens* articulated four standards that EIRs are required to meet in evaluating the sufficiency of a large-scale project's long-term water supplies. (*Vineyard*, *supra*, 40 Cal.4th at pages 428–432.) However, the court was careful to note that none of the appellate court decisions it cited and relied upon either held or suggested that an EIR for a large-scale long-term project is "inadequate" unless it demonstrates that the project is "*definitively assured* water through signed, enforceable agreements with a provider and already built or approved treatment and delivery facilities." (*Vineyard*, *supra*, 40 Cal.4th at page 432.) To the contrary, the court observed, CEQA does not require an EIR to show a project is *certain* to have sufficient future water supplies, because "[r]equiring certainty when a long-term, large-scale development project is initially approved would likely be unworkable, as it would require water planning to far outpace land use planning." (*Vineyard*, *supra*, 40 Cal.4th at page 432.) The court's conclusion was supported by state statutes

	specifically requiring the coordination of land use and water planning. Those statutes generally are referred to as: (a) Senate Bill (SB) 610, now enacted in Water Code Sections 10910–10912, and requiring preparation of a "water supply assessment," and (b) SB 221, now enacted in Government Code Section 66473.7, and requiring preparation of a "water verification." Water Code Sections 10910–10912 apply broadly to any large land use project and to approval of any such project subject to CEQA. (*Cherry Valley Pass Acres and Neighbors v. City of Beaumont*, 190 Cal.App.4th 316, 332, 2011.) These statutes require a city or county considering a project to obtain, at the outset of the CEQA process, a "water supply assessment" from the applicable public water system. The "water supply assessment" is then included in the EIR the city prepares for the project. CEQA, in turn, requires compliance with these Water Code provisions. (Public Resources Code Section 21151.9.) Government Code Section 66473.7 generally requires a city or county, before approving a subdivision map for a residential development of more than 500 units, to obtain from the applicable public water system, a "water verification" that adequate water supplies will be available for that project and other existing and planned future uses for a projected 20-year planning horizon. Here, the EIR for this project relied upon the Otay

	Water District's WSAV, which is a combined "water supply assessment" and "water verification." The WSAV (EIR, Appendix N) summarized the project's water demands and available water supplies in conjunction with other existing and projected development within the District's service area and was independently prepared and approved by Otay Water District. The WSAV's purpose, findings, and water supply and demand evaluation supports Otay Water District's final determination: > "This WSA&V Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be acquired, as well as the actions necessary and status to develop these supplies, to meet projected water demands of the University Villages project as well as existing and other reasonably foreseeable planned development projects within the Otay [Water District] for a 20-year planning horizon, in normal and in single-dry and multiple-dry years." (EIR, Appendix N, WSAV, page 59.) The WSAV was completed in September 2013. Thereafter, in February 2014, the City requested Dexter Wilson Engineering to respond to whether the current statewide drought conditions affect Otay

	Water District's WSAV. After evaluating water agency responses to the drought, including the response from Otay Water District, and after analyzing the WSAV, Dexter Wilson, a professional engineer on water-related matters, made the following findings: "The current drought conditions are significant and MWD, SDCWA, and OWD have responded by urging increased voluntary water conservation efforts. The current drought conditions are not impacting the Southern California region as much as the central and northern portions of the state. This is because the Southern California region has invested heavily in storage and diversification projects over the last few decades. The Diamond Valley Reservoir project approximately doubled storage in the region and the raising of the San Vicente Dam increased storage in San Diego. Diversification projects completed and in progress include the Colorado River Quantification Settlement Agreement, lining of the All American Canal, and Carlsbad Desalination project. Based on the information contained in this

	memorandum, the findings for the University Villages WSAV report remain valid. Specifically, the WSAV Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be acquired, as well as the actions necessary and status to develop these supplies, to meet projected water demands of the University Villages project as well as existing and other responsibly foreseeable planned development within the OWD for a 20-year planning horizon, in normal, single-dry, and multiple-dry years." (See Dexter Wilson Engineering memorandum, dated February 27, 2014.) The record, therefore, supports the EIR's water supply analysis and significance determination. Third, Otay Land Company's EIRs tiered from General Plan-level EIRs certified by the City. Those General Plan-level EIRs made a "significant and unavoidable" water supply impact finding because those EIRs necessarily relied on existing and projected development at the broader, General Plan-level. Those General Plan-level EIRs did not have the benefit of project-specific water supply assessments or verifications. As explained above,

		project-specific water planning documents are only required at later project stages of development. The Otay Land Company's EIRs were project-level, and included the required water supply assessments and verifications. However, those EIRs did not take advantage of the more detailed water supply assessments and verifications, in order to substantiate that its projects would not result in "significant and unavoidable" water supply impacts. In contrast, this EIR took advantage of the project-specific water supply assessment and verification process. The project's WSAV and Overview of Water Service support the EIR's significance findings, and CEQA does not mandate that each and every EIR have the same significance findings.
	N-21	Refer to response to comment N-20. Furthermore, as indicated in Section 5.13 of the EIR, the proposed project includes construction of potable and recycled water facilities, as recommended in the Overview of Water Service for Otay Ranch University Villages. The EIR's analysis of its recycled water facilities is supported by the Overview of Water Service and the record.
	N-22	The summary list in Chapter 8, page 8-3, has been revised to include these impacts, which were clearly disclosed in Chapter 5 of the EIR. No further response is required; however, to ensure full consideration by

		the public and decision makers, this comment will be included as part of the record prior to a final decision on the proposed project.
	N-23	Both Village Eight West and Village Nine included the same situation where the City of San Diego owned fee title over their waterlines. Similar to those projects, the project includes mitigation measures to ensure the water lines would be moved prior to any impact/conflict occurring (MM LU-1 through MM LU-3). This would ensure that while the project is planning development over the waterlines, no actual development could occur until such time as the City of San Diego consented. This is a reasonable exercise of the City of Chula Vista's land use authority. The City of San Diego is processing a Waterline Participation Agreement (see Attachment C1), which includes the Applicant and Otay Land Company, to relocate the water lines as shown on the tentative maps. As of the date of the Final EIR, the parties have agreed upon all terms of the Participation Agreement, and the Applicant and Otay Land Company have executed the document. Formal City approval must come from the City Council, which is expected before [the end of the year]. The Participation Agreement plainly demonstrates that the City does not object to the project or the relocation of the waterline. The

	Participation Agreement states that the waterline relocation benefits the City, and that the Applicant intends to enter into separate purchase and sale agreements with the City to facilitate the relocation of the pipeline. In turn, the City is agreeing to expeditiously process easement vacations, as necessary. The Participation Agreement provides an anticipated phasing schedule for the different ownership areas, including Villages Eight East and Ten. The City of San Diego is fully aware of the proposed project and how the waterline and the City's ownership is being portrayed on the project tentative maps. The City of San Diego stated that it has no objection to the processing of the Villages Eight East and Ten tentative maps, provided those maps include specific notations that (1) a separate City of San Diego Public Improvement Permit shall be required for construction of the City of San Diego water pipelines, and (2) purchase of City of San Diego property would be required prior to filing and final or parcel map or construction on City of San Diego owned property (see attachment C2). Moreover, the Subdivision Map Act requires all parties having a record title interest in the property to consent to filing a *final map*; it does not require such consent to process a *tentative map*. (See Government Code section 66465). Thus, the project

		does not treat the ownership as an easement; rather, the project is complying with the City of San Diego's request. Therefore, this comment already has been incorporated into the Draft EIR, and no revisions to the Draft EIR are necessary as a result of this comment.
	N-24	Chapter 3, Project Description, does include reference to amending the Village Nine SPA Plan in several locations (pages 4-2, 4-151, and 4-154). The EIR also includes General Plan and Otay Ranch GDP consistency analyses, as well as GPA and General Development Plan Amendment showing the proposed change from Mixed Use (MU) to Median Residential (M). Therefore, the issue raised in this comment has already been incorporated into the Draft EIR. Moreover, the comment does not identify any environmental effects that are alleged to result from this boundary change. No revisions to the Draft EIR are necessary as a result of this comment. Furthermore, the boundary between Villages Nine, Ten, and the University site were negotiated at great length between the Applicant, the City, and Otay Land Company. The ultimate configuration was based on a proposal made by, and agreed to by, Otay Land Company. This configuration allowed the Village Ten SPA Plan Area to overlap Village Nine and was subject to a future land exchange agreement swap

	whereby Otay Land Company would benefit by receiving a corresponding acreage for development further to the north, at the intersection of Hunte Parkway and Eastlake Parkway. The attorney who signed the comment letter drafted the first iteration of the land swap agreement. After submitting this comment letter, the adjacent property owner stopped processing the land exchange agreement. Accordingly, the project Applicant has developed a plan for Village Ten which does not rely on the need for the land exchange agreement. This revised land plan is generally referred to as the "Village Ten Deferral Plan." The Village Ten Deferral Plan involves the following components compared to the proposed Village Ten Tentative Map and SPA Plan: • The 9.3 acre Deferral Area is comprised of 6.4 acres of residential land uses, 0.7 acres of land designated for CPF land uses, 0.2 acres of internal circulation, and 2.0 acres of manufactured open space. • The single family neighborhoods south of Otay Valley Road identified on the proposed Village Ten land plan as a portion of neighborhoods R-8, R-13 and R-14 would be deferred. This would decrease the overall

	Village Ten residential units by 67 single family units. • The Deferral Plan includes a reconfigured R-13 residential neighborhood comprised of 19 single family lots. • The 0.7 acre CPF-4 site designated on the Village Ten land plan would be deferred. This would decrease the overall Village Ten CPF acreage from 4.0 acres to 3.3 acres. The Village Ten Deferral Plan is evaluated at the Project level to provide an actionable item for the decision makers, should this become the preferred plan. Technical memoranda have been prepared to demonstrate that the Village Ten Deferral Plan would not result in any new significant environmental impacts, nor any more severe significant environmental impacts than were previously reported in the Draft EIR. The technical memoranda are attached for review. The Deferral Plan and the environmental analysis of the Plan is included in Attachment N to this letter. **Responses to Fehr & Peers Memorandum** **N-25** The University Villages project proposes a General Plan Amendment (GPA) that includes an efficient and comprehensive roadway network to provide

	connectivity among the various land uses near Villages Nine and Ten, including connections to the planned University Campus and the Research Technology Park (RTP) site. Cross-sections for Discovery Falls Drive and University Drive were developed with Chula Vista Planning, Public Works, and Land Development staff. The intention is to provide an efficient and sustainable roadway network that can accommodate the forecasted traffic volumes and at the same time provide a friendly environment for pedestrians and bicyclists. In addition to the cross-sections, the proposed roadway classifications were developed in coordination with City staff based on a potential layout for the University and RTP site. It should be noted that the proposed circulation network was the result of extensive discussions between the applicant, the City, and Otay Land Company, on whose behalf the subject comment letter was submitted. Because the University and RTP site are still in the beginning planning stages, the final configuration of those uses was not available for analysis; however, the City provided direction on how certain land uses and vehicle trips would “load” on to the future circulation network. The City based its assumptions on the best available information at the time and reasonable projections for the University and RTP site. Please see

	Attachment D which shows the assumptions provided by the City to perform the traffic impact analysis, including the cross-section/classification development process, and the project Average Daily Traffic (ADT). This was an iterative process with the City whereby the applicant demonstrated that based on the direction from Chula Vista staff, the proposed classifications and sections would adequately accommodate the planned traffic volumes. Only once the City reviewed the analysis and agreed with the conclusions did the traffic study move forward. As it relates to how roadway classifications will transition through the Village, Attachment D shows that both Discovery Falls and University Drive/EastLake Parkway are required to be four lanes south of Hunte Parkway until each reaches the first intersection. South of these points, both Discovery Falls and University Drive/EastLake Parkway can transition from four-lane roads to two-lane collectors. This is because many of the trips on these roads are heading to the University and RTP as final trip destinations, not through these land uses to other destinations. Thus, the proposed project would transition University Drive and Discovery Falls to be two lanes south of the first intersection south of Hunte Parkway. However, the exact locations of these intersections are not known at this time.

	While Eastlake Parkway/University Drive is proposed to be reduced from a four-lane road to a two-lane road, an additional parallel road (Discovery Falls) is proposed to be added to the Circulation Network; thus, overall capacity is not compromised. As shown in Attachment D, all roadway segments along Discovery Falls Drive and University Drive are projected to operate at acceptable LOS A. Additionally, as shown on page 190 of the University Villages TIA, the following four (4) intersections are projected to operate at acceptable LOS C or better during peak hours under the Year 2030 condition, including the intersection of Village Nine Street "B" / Discovery Falls Drive, which is the primary connection between Village Ten and Village Nine. 75. Village Nine Street "B" / Discovery Falls Drive – LOS A during both the AM and PM peak hours; 76. Santa Julliard / Discovery Falls Drive – LOS A during both the AM and PM peak hours; 77. University Drive / Discovery Falls Drive – LOS C during both the AM and PM peak hours; and 78. Santa Davis / Discovery Falls Drive – LOS A during both the AM and PM peak hours. As discussed above, all roadway segments along Discovery Falls Drive and University Drive are projected to operate at LOS A with their respective

roadway cross sections, and all associated intersections (Nos. 75 – 78) are projected to operate at LOS C or better. Therefore, the proposed roadway cross sections are sufficient to accommodate the projected traffic, not overly constructed, and would not negatively impact Street B in Village Nine.

It should be noted that the University Villages project is currently in the tentative map stage; therefore, intersection design, including pocket length, signing, and striping for the four intersections listed above are not yet available. Turning pocket length will be designed based on the projected 95th percentile queue length shown below. Queuing analysis worksheets are provided in Attachment E.

Intersection	Turning Movement	AM	PM
75. Village 9 Street "B" / Discovery Falls Drive	WBL	69	88
	SBL	65	123
76. Santa Julliard / Discovery Falls Drive	WBL	41	37
77. University Drive / Discovery Falls Drive	EBL	91	74
	WBL	57	123
78. Santa Davis / Discovery Falls Drive	WBL	45	99

Source: Chen Ryan Associates, October 2014

N-26 Village Eight West and Village Nine assumed a variety of roadway and intersection improvements would be constructed by others as expressed by the

	caveats shown in both Village Eight West and Village Nine TIA's (pages 50–51 of the Village Eight West TIA and pages 38–39 of the Village Nine TIA, as shown in Attachment F). The caveat stated that if roadway improvements assumed to be constructed in the Village Eight West and Village Nine TIA were not constructed when scheduled, then either development in Village Eight West/Village Nine would stop, or the City and the Applicant would meet to determine the need for that incomplete roadway infrastructure or the Applicant would construct the missing roadway infrastructure. The University Villages TIA implemented the same caveat approach. As shown on page 217 of the University Villages TIA, the same caveat statements are provided for assumed circulatory roadway infrastructure and require the University Villages applicant to follow substantially the same stipulations as those required for Village Eight West and Village Nine. Regarding the 2030 analysis, standard industry practice is to include buildout of the Circulation Element for the horizon year scenario, which in this case is 2030. This is a reasonable and prudent approach because one purpose of the General Plan Circulation Element is to identify not only existing roadways, but also roadway improvements that are expected to be completed during the life of the

		General Plan. For those reasons, all Circulation Element roadways were included in the analysis to provide the reader with an understanding of how the circulation system functioned at buildout of the City. Moreover, the University Villages TIA identifies "triggers" by which time these improvements are required to be constructed in order to avoid potential impacts and includes the standard caveat language for the Circulation Element roadways, including the 2030 improvements (as shown on page 217 of the University Villages TIA). The caveats provide that if these facilities are not constructed prior to the specific triggers, the applicant would be required to halt construction, construct the subject improvement, construct an alternative improvement that would have a similar effect on level of service, or conduct an additional traffic study demonstrating sufficient capacity exists and designating a new trigger. This approach ensures that traffic conditions will not exceed those disclosed in the TIA, either because the improvements are not actually necessary at that time, construction halts, or the applicant performs the improvement or an alternative improvement.
	N-27	See response to comment N-26 above regarding treatment of Circulation Element roadways in the 2030 analysis.

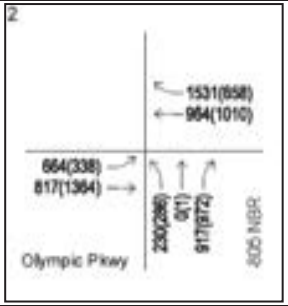
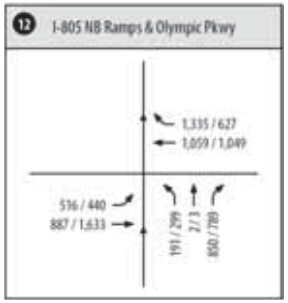
	Additionally, the first three improvements listed in the comment will be funded through the updated City of Chula Vista TDIF Program (scheduled for consideration and approval on November 18, 2014; see Attachment G for Draft Eastern Chula Vista Transportation Development Impact Fee update); therefore, it is reasonable to assume that these facilities will be constructed by the horizon year: • Construction of Main Street from SR-125 to Eastlake Parkway; • Construction of the Main Street interchange; and • Construction of Otay Valley Road between "subdivision boundary" and Village Nine Street "B" including an overpass at SR-125. With respect to the Heritage Road/Energy Way signalization, the TIA has been revised from the descriptor "constructed by others" to "constructed by the project" as it will be a design feature of the project. In addition, mitigation measure TCA-16 has been revised as follows to delete reference to the Heritage Road/Energy Way signalization being an assumption (page 5.3-176):

	MM TCA-16 The year 2030 scenario assumes the following intersection and roadway improvements are in place: • Main Street between SR-125 right-of-way (western boundary) and Eastlake Parkway/ University Drive is constructed as a 6-lane Gateway Street (6,432nd EDU) • SR-125 / Main Street interchange constructed (6,432 EDU) • Otay Valley Road constructed between SR-125 right-of-way (western boundary) and Village Nine Street "B" (Int #74), including an overpass at SR-125 (7,767th EDU). If the project equivalent dwelling unit limit of EDUs identified above is submitted for approval prior to the respective improvements being constructed and open to traffic, then one of the following steps shall be taken each to the satisfaction of the City Engineer: i. Development in Village Three and Portion of Village Four, Village Eight East, and Village Ten shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete

	roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service assessment may be necessary at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or

	iii. Applicant shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic. This change will not affect the results of the findings in the TIA; therefore, no additional analysis is required nor is recirculation triggered.
	N-28 Although the comment refers to the I-805/Main Street interchange that is operating at LOS F in the other projects' TIA, it is the I-805 NB Ramps/Olympic Parkway intersection that is operating at LOS F and not the I-805 NB Ramps/Main Street, which is shown as operating at LOS C or better during the peak hours. (See Village Eight West TIA, p. 13.) As to the Olympic Parkway intersection, based upon a comparison between the Village Eight West/Village Nine TIA and the University Villages TIA, the AM peak hour LOS for the I-805 NB Ramps/Olympic Parkway intersection differs for the following reasons: • The Village Eight West and Village Nine TIA peak hour intersection count collected by RBF

for this intersection (as shown in Exhibit 6 of both the Village Eight West and Village Nine TIAs) is different than those collected for the University Villages TIA. The figure below provides a comparison between the Village Eight West/Village Nine traffic count versus the University Villages TIA Traffic Count.

Village Eight West / Village Nine	University Villages
	
Count Date: 5/4/2010	Count Date: 5/19/2011

As shown, data collected for the University Villages TIA is a newer and more accurate count. Because the counts were taken over a year apart, and because traffic is never the same on any two days, it makes sense that the I-805 NB Ramps at Olympic Parkway would have different LOS between the different TIAs.

- The Village Eight West and Village Nine TIA was conducted using Traffix (intersection analysis software) and the Highway Capacity Manual (HCM) 2000 methodology (an older

	methodology). The University Villages TIA uses the Synchro analysis software and the HCM 2010 methodology (the most up-to-date methodology). • The Village Eight West and Village Nine TIA used the Traffix software standard peak hour factor (PHF) of .92 for all turning movements, whereas the University Villages TIA uses actual PHF from the existing counts. Peak Hour Factor is the peak 15-minute flow rate, which plays a significant role in determining an intersection impact. Since the University Villages TIA uses the actual PHF instead of the default PHF, it can be concluded that the University Villages TIA reflects the existing condition more accurately than the Village Eight West/Village Nine TIA. Per the commenter's request, a field review using a video recording device was conducted on October 2, 2014, to determine the AM peak hour operating conditions for both the I-805/Olympic Parkway and I-805/Main Street interchanges. The field review results indicate that the peak hour intersection LOS, as well as the ramp metering analysis for both interchanges, are accurate and reflect the existing field conditions. Please see Attachment H for screen shots of the existing AM peak hour operation condition for both the I-805/Olympic Parkway and I-805/Main Street interchanges.

	N-29	Although dated July 2014, preparation of the University Villages TIA was initiated in 2011 and the necessary traffic counts were conducted in May 2011. The traffic counts were conducted by NDS engineering services consistent with standard traffic engineering practices. Neither CEQA, the CEQA Guidelines, nor the City of Chula Vista Traffic Impact Study Guidelines limit the "standard" length of time traffic counts are considered "current" to 12 to 18 months. Additionally, the May traffic 2011 counts utilized in the TIA remain valid for establishing the baseline conditions because there is no evidence that the City experienced growth between May 2011 and July 2014 that resulted in substantial increases in traffic volumes. Due to the ongoing effects of the recession, Chula Vista generally, and the project vicinity specifically, saw very little new construction since May 2011. As shown in Attachment I, between 2010 and 2014, the average annual number of building permits in Chula Vista decreased by 66.7% compared to the period from 2000–2009, dropping from 2,094 to 697. Without growth that would result in substantial increases in traffic volumes, there is no reason to discard or update the traffic counts. This determination is consistent with the approach taken in the Village Eight West and Village Nine TIAs. For those TIAs, the counts were conducted between 2006 and 2011,

	and the subject projects were approved in late 2013 and 2014, respectively, without discarding or updating the 2006–2011 traffic counts. (The Village Eight West and Village Nine TIAs are available upon request to the City and are incorporated by reference.) As to the reduction in tolls on SR-125 and its effect on the traffic analysis, in 2011 the San Diego Association of Governments (SANDAG) acquired the SR-125 toll road and began a process to lower tolls on the road. SANDAG reported that the reduced tolls are expected to attract more traffic to SR-125, relieving congestion on I-805 and, thereby, reducing the need for certain planned improvements on I-805. Specifically, the acquisition of SR-125 makes it unnecessary to proceed with Phase 2 of the I-805 South Project, which would have resulted in two Express lanes in each direction on that road. Phase 1 of the I-805 South Project includes one high occupancy vehicle (HOV) lane in each direction; the two HOV lanes constructed under Phase 1 would have been built out to four Express Lanes under Phase 2. To address the changes resulting from SANDAG's actions, the TIA analyzed the impacts of the proposed project on I-805 with one HOV lane in each direction (Phase 1 of the I-805 South Project), rather than two in each direction as originally approved and included in the SANDAG traffic model. That is, the TIA analysis

	utilized the SANDAG traffic model volumes with a reduced capacity of two HOV lanes. (TIA, pp. 93–94.) Under this condition, impacts to the I-805 were assessed and significant impacts identified. (TIA, pp. 196-201.) As to SR-125, in support of its action to acquire the road, SANDAG prepared an Addendum pursuant to CEQA that found while the reduction in tolls on SR-125 would result in a shift of traffic from I-805 to SR-125, freeway operations on both facilities would remain acceptable. (TIA, p. 94; Appendix K [SANDAG Addendum].) Additionally, based on data provided by SANDAG, the reduction in tolls on SR-125 has resulted in ADT increases ranging from 164 to 2,732 ADT dependent upon the particular segment of SR-125. (See Attachment J to these responses to comments.) This limited increase in the number of additional vehicles utilizing the SR-125 necessarily indicates a corresponding limited change in traffic patterns in the study area attributable to the reduction in tolls on SR-125 because a limited number of vehicles altered their traffic patterns to utilize SR-125 in place of previously used roadways. Any analysis of current traffic patterns beyond that already conducted as part of the TIA would have been speculative because there was no accurate, reliable traffic model available at the time of the project's Notice of Preparation (July 2013) that would account

		for the reduced tolls on SR-125 and, consequently, there was no model approved by SANDAG or acceptable to the City. As such, no further analysis associated with the reduction of tolls on SR-125 is required. (*Chaparral Greens v. City of Chula Vista*, 50 Cal.App.4th 1134, 1145-46, 1997 [no CEQA requirement to rely on a "draft" plan].)
	N-30	The distribution of the external project trips was based upon a computer generated "Select Zone" analysis utilizing the Series 11 Year 2015 SANDAG Transportation Model, "Southbay 2, University Villages." The select zone model run is included as Appendix A of the University Villages TIA. As shown in Appendix A of the TIA, under the Year 2015 condition, 7% of the project trips would travel to land uses along Main Street between Brandywine Avenue and Heritage Road. The remaining 13% of the project trips would utilize Brandywine. Consistent with the City study guidelines, all intersections and roadways where the proposed project would add 800 or more daily trips were included in the analysis study area. Under the Year 2015 scenario, the project would generate 6,110 external ADT (as shown in Table 4.3 of the University Villages TIA), resulting in 794 ADT (13% x 6,110) on Brandywine, which is <u>less than</u> the 800 daily trips threshold. Thus, per the

		City of Chula Vista Traffic Impact Study Guidelines (see Attachment K), Brandywine is not included within the project study area. All Circulation Element roadways where the project contributes 800 or more ADT were included as a part of the project study area.
	N-31	This comment is incorrect that the analysis assumed that the Heritage Road/Main Street intersection would operate as a stop controlled six-lane by four-lane road. While the proposed project will construct Heritage Road to its full Circulation Element classification width as a six-lane prime arterial, the project would only stripe Heritage Road as a four-lane roadway until a six-lane roadway is needed, similar to the current treatment of Heritage Road south of Olympic Parkway. The intersection of Heritage Road/Main Street was analyzed as an all-way STOP-controlled intersection to show the need for a signalized intersection. Additionally, as shown in Figure 6-1A and Figure 7-1A of the University Villages TIA, the intersection of Heritage Road/Main Street was analyzed as a four-lane by four-lane all-way stop controlled intersection (with 1 exclusive SB right-turn lane). This intersection geometry and traffic control is reasonable and feasible. The comment suggests that either the lanes should be reduced and the analysis revised, or the intersection should be analyzed as a signalized intersection. Consistent with the comment, the intersection was

		analyzed with reduced lanes. Additionally, as documented in Chapter 13 of the University Villages TIA, an analysis was conducted to determine the appropriate trigger for the signalization of the Heritage Road/Main Street intersection, including a signal warrant analysis. Please see Chapter 13 of the University Villages TIA for more detail.
	N-32	The University Villages TIA assumed the couplet configuration based on the available information from the General Plan Circulation Element Map. This is consistent with the City's preference to assume full construction of a facility rather than partial improvements. However, this assumption was overly conservative as the University Villages project does not need the entire couplet system to provide access or adequate circulation under the Year 2020 scenario. In response to this comment, an analysis of the La Media Road and Main Street area using the same geometric configuration for the subject segment of Main Street as the Village Eight West TIA was prepared. The analysis, which is provided as Attachment L to these responses, illustrates the level of service based on the revised configuration. As shown in Attachment L, the full couplet is not required to accommodate the University Villages project traffic and, as such, the City of Chula Vista does not require an

		off-site property owner to "overbuild" such a facility. For these reasons, the Public Facilities Finance Plan does not need to be revised, and the analysis contained in the TIA and EIR are accurate.
	N-33	The distribution of the external project trips was based upon a computer generated "Select Zone" analysis utilizing the Series 11 Year 2020 SANDAG Transportation Model, "Southbay 2, University Villages." Even though Magdalena is not a Circulation Element road, it was studied in this TIA to capture any potential traffic impact. As shown on page 129 of the TIA, Magdalena would operate at acceptable LOS A with the addition of project traffic. Please see response to comment N-32 above for more information regarding the La Media Road/Main Street couplet. As mentioned in the responses to comment N-26 above, the project is required to demonstrate the need for a facility (including intersection control), before it is included in the interim years roadway network. Therefore, the intersections in the Village Eight West couplet were analyzed as all-way stop controlled intersections to show the need for a signalized intersection.
	N-34	As discussed in the response to comment N-29, in light of SANDAG's determination, following acquisition of the SR-125 toll road, that it would no

		longer be necessary to proceed with Phase 2 of the I-805 South Project, the analysis of project impacts relative to I-805 was conducted in a manner that incorporated only the Phase 1 improvements. This scenario accurately reflected the action taken on the part of SANDAG relative to I-805. Please see response to comment N-29 for additional information responsive to this comment.
	N-35	A Year 2020 scenario with the Heritage Road connection was conducted using the Series 11 Year 2020 SANDAG Transportation Model, provided in Appendix A of the University Villages TIA. Please see Attachment M for a screen shot of the Series 11 Year 2020 SANDAG Transportation Model, which shows the effect of the completion of the Heritage Road connection (including manual adjustments due to traffic generated by the additional approximately 1,600 units from the Village Two SPA). As shown in Attachment M, the highest projected volume with the Heritage Road connection is 48,600 ADT, which results in Main Street operating at LOS C under the Year 2020 with Heritage Road connection scenario. In addition, Heritage Road south of Main Street is projected to operate at LOS A under the Year 2020 scenario (as shown in Table 7.2 of the University Villages TIA). Therefore, potential impacts were assessed and no additional analysis is required.

	N-36 See response to comment N-3. No new impacts occur as a result of this comment and no further response is necessary. **N-37** See response to comment N-3. No new impacts occur as a result of this comment and no further response is necessary. **N-38** Please see response to comment N-30 above. As documented in the response to comment above, this roadway segment does not meet the City's threshold to be included as a part of the project study area. Thus, no additional analysis is required. **N-39** Please see response to comment N-35 above. As shown, the TIA addressed this scenario and determined that the opening of the Heritage Road connection would not result in any additional impacts. **N-40** The Main Street bridge is a CIP project. Please see response to comment N-3. No additional analysis is required.

ATTACHMENT A
TO COMMENT LETTER N

Employment Lands Analysis
and Fiscal Impact Analysis

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Memorandum

To	Tony Letteri	Page	1 of 17
CC			
Subject	Updated Cumulative Employment Lands Analysis and Fiscal Impact Analysis		
From	AECOM		
Date	October 23, 2013		

Summary

Introduction

AECOM prepared an employment land analysis (ELA) and fiscal impact analysis (FIA) in 2012 for the City of Chula Vista (City) that evaluated the cumulative impacts of the General Plan amendment proposed by the Otay Land Company (OLC) and the land offer agreement proposed by JJ&K Investments Two, LLC and OV Three Two, LLC (JPB), collectively referred to herein as the 2012 Cumulative ELA/FIA Analysis. JPB's 2010 land offer agreement (JPB 2010 LOA) includes an additional land use scenario, primarily in Village 3 that proposes to decrease the industrial acreage and increase the residential and office land (Scenario 2), which was not evaluated in the 2012 ELA/FIA Cumulative Analysis. The purpose of this memorandum is to provide an update to the 2012 ELA/FIA Cumulative Analysis based on Scenario 2 of the JPB 2010 LOA.

Findings

The updated 2012 ELA/FIA Cumulative Analysis with Scenario 2 yielded the following results:

- Positive fiscal impact given the proposed land use mix.
- AECOM believes there is sufficient employment land capacity given the General Plan horizon even with the proposed loss of industrial land. The City's supply of higher value employment land appears ample given changes in SANDAG's long-term employment projections and higher employment density development given the proposed mix of office and light industrial uses during the General Plan horizon. However, careful consideration should be given if the City believes that there are unique attributes for industrial development in Village 3 that could not be accommodated in other areas near the Otay Valley employment land area or in other areas of the City.

Office Demand Summary

AECOM's 2012 Cumulative Analysis projected future office demand between 2012 and 2030 to be 1.2 million to 2.2 million square feet under the moderate and high demand scenarios, respectively. Compared to the analysis conducted in 2005 in connection with the General Plan update, which projected future cumulative demand by year 2030 to range from 2.3 million to 3.8 million, the 2012 estimate was lower. The reasons behind the forecasts adjustment include the high County office vacancy rates and revisions to the San Diego Association of Governments (SANDAG) employment forecast due to lingering effects of the Great Recession. Based on these factors, AECOM forecasted that there would be less demand by 2030 than previous estimated with City office build-out spanning beyond the evaluated 20-year timeline. As of 2010, the City estimates that there were approximately 91 net acres available for office development until buildout under the General Plan.

Industrial Demand Summary

AECOM's 2012 analysis estimated that between 2012 to 2030 demand for new industrial space in the City ranged from 2.8 to 4.1 million square feet under the moderate and high demand scenario, respectively. In comparison, our 2005 analysis estimated that cumulative demand for new industrial space in the City between 2010 and 2030 under the moderate and high demand scenarios was estimated to range from 6.6 to 10.6 million square feet. These estimates are incremental of the City's existing capacity within existing industrial parks that still have room for new building development. As previously noted, SANDAG's regional employment forecast was revised. SANDAG significantly decreased their forecast for those industries most likely to utilize industrial space between AECOM's 2005 and 2012 analysis.

One important issue that was not discussed nor considered in the 2012 ELA/FIA Cumulative Analysis is that the JPB 2010 LOA reflects a decrease of industrial land. Like the JPB 2010 LOA previously analyzed, Scenario 2 requests an additional change in industrial land use from 68 net acres to 23 net acres. In total, the loss of industrial land is roughly equal to 129 net acres or 2.25 million square feet of industrial capacity in the City assuming a future industrial development FAR of 0.4 (typical suburban light industrial). As of 2010 the City estimates that there were approximately 664 net acres available for industrial development until buildout under the General Plan. The impact of this of industrial land loss will be discussed in our ELA findings section.

Economic Development Element

Before we discuss the impact on employment lands in the City, it is helpful to review the goals of the City's Economic Development Element that relate directly to the future provision of office and industrial lands.

There are a number of key goals of the Economic Development Element, relative to this analysis, which include:

- *Provide a Diverse Economic Base with a Variety of Job Opportunities to Improve Chula Vista's Jobs/Housing Balance*

- *Become a Center for Applied-Technology Innovation by Attracting and Supporting Technology-Based R&D, Manufacturing, and Services*

- *Promote Cross-Border and International Trade*

- *Generate Fiscal Resources Sufficient to Provide Exemplary Public Facilities and Services*

Previous analysis conducted by AECOM explains that in order to achieve these goals, there are a number of objectives and action items that would include possible development of future business parks as well as improvements to existing industrial areas in the City.

As it relates specifically to industrial development, there are three sub-areas within the City identified to accommodate a majority of the future industrial growth – the Bayside district, Southwestern Chula Vista, and Eastern Chula Vista. The following summarizes recommendations from our previous analysis:

- The Bayside district should focus on the highest value-added research, light industrial and related office uses as allowed under the Tideland restrictions, including defense, marine, and environmental technology firms.

- Southwestern Chula Vista, which includes the City's older industrial concentrations, is envisioned as a location for smaller general industrial firms, start-up businesses and related services.

- Eastern Chula Vista is divided into three areas – 1) Eastern Urban Center (EUC) which will mostly include office uses; 2) the RTP adjacent to the potential University location focusing on research and development, applied technology functions and related start-up initiatives; and 3) the remaining new industrial development will be accommodated in the balance of eastern Chula Vista. The balance of eastern Chula Vista includes industrial lands in the vicinity of the Otay landfill, an area envisioned to be positioned for high quality industrial and business park space.

ELA Findings

The applicant has proposed to add 11 net acres of office serving land in Scenario 2. This will increase the future office land supply in the City. As noted in the 2012 ELA/FIA Cumulative Analysis, we issued some caution regarding the total amount of proposed office space or square footage. However, based on the existing undeveloped land available until General Plan buildout and flexibility in office FAR, there appears to be sufficient office serving land in the City during the General Plan horizon. Adding to this supply will positively impact the capacity for office serving land in the City.

Under Scenario 2 the applicant has proposed to decrease approximately 45 net acres of industrial serving land. This will decrease the future industrial land supply in the City. Based on our 2012 ELA/FIA Cumulative Analysis, future demand by 2030 for industrial land ranges between approximately 170 to 250 net acres in the moderate to high capture scenario, respectively. Given the estimate that as of 2010 the City may currently accommodate approximately 664 net acres of demand for new general industrial and research/limited industrial space by 2030, the industrial land supply appears adequate to accommodate potential demand during the General Plan horizon, with additional capacity remaining after 2030.

While there does appear to be sufficient capacity for industrial land within the City in the near and long term, some consideration should be given to determine if the Village 3 site has unique qualities that, if lost, could not be accommodated in alternative locations in the City where additional capacity is located. We previously noted that industrial lands within the Otay Valley employment land area, possibly including the Village 3 site, "offer substantial views and could be amenity to attract technology-oriented firms and headquarter functions of firms with Mexican operations."

It should also be reiterated that a portion of the industrial land, which is not proposed for residential or retail serving land uses, has been proposed for office serving land uses. While the proposed office will not be developed at a density as high as proposed EUC, Village 8 West, and Village 9 by OLC, traditional office space typically has higher employment density (e.g. more jobs per square foot) than industrial space.

From the cumulative perspective, the combination of the anticipated high density office development and higher density industrial development at the Regional Technology Park combined with a decrease in projected employment demand by 2030 suggest sufficient capacity for employment serving land under the General Plan horizon. Scenario 2's combination of uses also appears to meet the goal of creating an environment for higher value jobs based on mix of office and light industrial uses as envisioned for the Village 3 site. The proposed land use with Scenario 2 creates capacity for an estimated 460 additional jobs over the previous higher-value employment estimates for the 2012 ELA/FIA Cumulative Analysis, not including additional capacity for an estimated 100 retail jobs.

Fiscal Impact Analysis

Assumptions

AECOM used the same methodology to determine the cumulative FIA as documented in the previous analysis. The market values of proposed real estate products were adjusted and based on contemporary rent and capitalization rates.

Findings

Based on the above key assumptions the fiscal analysis shows that total fiscal expenditures related the projects at buildout is approximately $13.0 million annually. The total revenue generated by the projects at buildout is approximately $13.3 million annually, resulting in fiscal revenues of approximately $238,000 to the City annually (post buildout). Supporting tables are presented in the Appendix of this memorandum. Similar to our previous analysis, there are a number of variables that could impact the FIA including the timing of development absorption and future levels of service provided by the City.

Table 1: Cumulative Net Fiscal Impacts

	Buildout
Total Expenditures	$ 13,015,000
Total Revenues	$ 13,253,000
Net Fiscal Impacts	$ 238,000

Source: AECOM

Appendix

Table 2: Build Out Scenario Cumulative

		Total
Non Residential Uses		
Retail (acres)		26.10
Office (acres)		22.30
General Industrial (acres)		23.10
Research/Limited Industrial (acres)		85.00
Parks (acres) [1]		130.40
Public/Quasi Public (acres)		125.80
Open Space/ROWs/Other (acres)		237.70
Residential Uses		
Units		
Single Family		3,543
Multi Family		9,404
Total Units		12,947
Population		
Single Family Persons/DU@	3.27	11,586
Multi Family Persons/DU@	3.12	29,340
Cumulative Population		40,926
Employment		
Retail Emp/Acre @	40.93	1,068
Office Emp/Acre @	230.80	5,147
Industrial Emp/Acre @	16.17	374
Research/Limited Ind. Emp/Acre @	25.56	2,172
Cumulative Employment		8,761

[1] Park acres maintained by the City

[2] Includes mixed use multi family in OLC

Source: City of Chula Vista and AECOM

Table 3: Expenditure Inflation Adjustment

	2005	2006	2007	2008	2009	5 Year Average
Population	216,961	223,604	227,850	231,157	234,011	
Households	70,916	73,365	74,527	75,259	75,752	
City Staff	1,169	1,227	1,264	1,249	1,110	
Revenues (Actuals)	$ 137,763,583	$ 157,809,965	$ 161,564,721	$ 153,938,093	$ 140,502,938	
Expenditures (Actuals)	$ 142,195,531	$ 160,826,968	$ 166,056,406	$ 155,021,736	$ 140,365,277	
CPI (San Diego Area)	220.6	228.1	233.3	242.3	242.3	
Expenditure/Capita	$ 655	$ 719	$ 729	$ 671	$ 600	
Revenues /Capita	$ 635	$ 706	$ 709	$ 666	$ 600	
2009 CPI Adjustment Factor	1.10	1.06	1.04	1.00	1.00	
Exp./Cap in 2009 Dollars	$ 720	$ 764	$ 757	$ 671	$ 600	
Rev./Cap in 2009 Dollars	$ 697	$ 750	$ 736	$ 666	$ 600	
Expenditure Adjustment Factor	120%	127%	126%	112%	100%	117%
Revenue Adjustment Factor (Relative to 2009 Levels)	116%	125%	123%	111%	100%	115%

Source: AECOM, City of Chula Vista, California Department of Finance, and Bureau of Labor Statistics

Table 4: Public Safety Costs Attributed to Residential Land Uses

		Buildout
Residential Uses		
Units		
Single Family		3,543
Multi Family		9,404
Cumulative Units		12,947
City Service Costs		
Current Police Service Costs (2009 $)	$	343.81
City Service Costs		
Current Fire Service Costs (2009 $)	$	115.15
Annual Public Safety Costs (Allocated to DUs)		
Police ($000s)	$	4,451
Fire ($000s)	$	1,491

Source: City of Chula Vista and AECOM

Table 5: City Cost Factors by Function and Department

		Land Uses									
	Population (Per person)	Retail (Per Acre)	Office (Per Acre)	Hotel (Per Acre)	Industrial (Per Acre)	Parks (per acre) Private	Parks (per acre) Public	Public Use (Per Acre)	Open Space (Per Acre)	Other (Per Acre)	Residential (Per DU)
LEGISLATIVE AND ADMINISTRATION											
City Council	$1.94										
Boards and Commissions											
City Clerk	$1.33										
City Attorney		$75.67	$81.72	$48.37	$19.96						$ 12.19
Administration	$0.28										$ 0.35
Management and Information Services	$4.46										
Human Resources											
Finance											
DEVELOPMENT AND MAINTENANCE SERVICES											
Economic Development Function	$0.00	$301.43	$325.55	$192.68	$79.51					$0.00	$ -
Planning and Building Services	$0.00	$192.51	$207.76	$123.71	$52.11					$29.98	$ 30.95
Engineering		$274.44	$145.29	$64.57	$27.44		$15.53			$16.85	$ 3.07
Public Works		$5,914.17	$3,131	$1,391.57	$591.42		$69.58	$347.89		$347.89	$ 68.43
General Services	$0.00										
PUBLIC SAFETY											
Police (Excluding Residential)	$10.67	$6,836.27	$6,836.27	$6,836.27	$1,006.09		$2,202.49	$2,202.49		$2,202.49	
Fire (Excluding Residential)	$1.02	$2,917.22	$2,917.22	$2,917.22	$396.88	$160.46	$160.46	$160.46	$160.46	$160.46	
CULTURE AND LEISURE											
Parks and Recreation	$18.84										
Library	$37.26										
Nature Center											$ 4.77
Sub-Total Unit Cost	**$ 75.78**	**$16,511.70**	**$ 13,644.84**	**$ 11,574.38**	**$2,173.42**	**$ 160.46**	**$2,448.06**	**$ 2,710.85**	**$ 160.46**	**$ 2,757.68**	**$ 119.75**

Source: City of Chula Vista and AECOM

Table 6: Expenditure Summary

Expense Drivers	Unit Cost (2009)	Buildout
Expense Adjustment Factor		*117%*
Constant 2009 to 2010 Inflation Factor		*1.01*
Dwelling Units		12,947
Population		40,926
		(Thousands 2010 $)
Retail (acres)	$16,511.70	$ 507
Office (acres)	$13,644.84	358
Industrial/RTP (acres)	$2,173.42	277
Parks (acres)	$2,448.06	376
Dwelling Units	$119.75	1,825
Population (Persons)	$75.78	3,651
Open Space (acres)	$160.46	45
Other (acres)	2,757.68	-
Public Safety Costs Allocated to DUs		5,976
Total Expenditures in 2010 Dollars		**$ 13,015**

Source: AECOM

Table 7: Estimated Assessed Valuation by Land Use Type

Land Uses	Density Factor	Units/Acre	Value per Unit	Rent /s.f./mo.	Building Efficiency	Occupancy Rate	Net Income/acre	Capitalization Rate	Assessed Value per Acre
Non-Residential Uses									
Retail[2]	0.5 FAR[1]	23,258 s.f.		$ 1.85	90%	93%	$ 432,175	6.50%	$ 6,649,000
Office[3]	1.7 FAR[1]	72,854 s.f.		$ 2.15	90%	93%	$ 1,337,264	6.30%	$ 21,226,000
General Industrial[4]	0.4 FAR[1]	16,335 s.f.		$ 0.80	90%	93%	$ 131,255	6.25%	$ 2,100,000
Research/Limited Industrial[5]	0.5 FAR[1]	21,780 s.f.		$ 1.25	80%	93%	$ 218,758	6.25%	$ 3,500,000
Residential Uses				Rent/s.f./mo.	Avg. Unit size	Occupancy	Net Income/Unit	Cap. Rate	AV per DU
Single Family[6]									$ 363,000
Multi Family (owner occupied)[6]									$ 363,000
Multi Family (renter occupied)[7]				$ 1.90	900	95%	$ 12,671	4.75%	$ 267,000

Note: The above estimates are for future development and includes land and improvement values.

[1]FAR is Floor Area Ratio defined as the ratio of land area to building floor area (this is a measure of building density)

[2]Retail rents are based on CoStar data for 3rd Q 2013 in Chula Vista; 2013 Cap rates are provided at a regional level by CBRE and have been adjusted to reflect proposed development.

[3]Office rents (Class A/B) are based on CoStar data for 3rd Q 2013 in Chula Vista; 2013 Cap rates are provided at a regional level by CBRE and have been adjusted to reflect proposed development.

[4] Industrial rents are based on Warehouse rents as provided by CoStar for 3rd Q 2013 in the Chula Vista Market; adjusted by 120% to account for light industrial premium based on County average as reported by CBRE; 2013 Cap rates are provided for industrial development at a regional level by CBRE.

[5]Research/Limited Industrial rents are based on Flex rents as provided by CoStar data for 3rd Q 2013; 2013 Cap rates are provided for industrial development at a regional level by CBRE.

[6]Based on 2012 year end (median) sales in the Otay Ranch area as reported by Dataquick (New - All Combined); Revised 2013

[7]Rents based on survey of market comparables in Otay Ranch area and market trends provided by REIS.

Source: City of Chula Vista and AECOM

Table 8: Estimated Sales Taxes from Offsite Spending

Average HH Incomes	
Single Family[1]	$ 89,000
Multi Family	
Ownership[1]	$ 89,000
Rental	$ 68,000

	Buildout	
Single Family	3,543	
Multi Family		
Ownership	5,461	
Rental	3,943	
Mobile Homes		
Total Units	12,947	
Total Employees	8,761	
Aggregate Resident Incomes ($ Millions)	$ 1,069	$ -
Average Annual Income/HH	$ 82,605	
Countywide Income /HH	$ 76,975	
Countywide Retail Exp/HH	$ 31,616	
Taxable		
Non-Taxable		
Retail Expenditure/HH Adj. Factor	107.3%	$ 33,928

Gross Retail Sales from Residents ($000s)		
Neighborhood Center	33%	$ 147,065
Community Center	20%	$ 86,227
Regional Center	4%	$ 15,698
Super Regional Center	7%	$ 32,236
Other Centers	36%	$ 158,042

Chula Vista Offsite Capture ($000s)		
Neighborhood Center	10%	$ 14,707
Community Center	20%	17,245
Regional Center	20%	3,140
Super Regional Center	20%	6,447
Other Centers	5%	7,902

Gross Retail Sales from Area Employees ($000s)

Annual Expenditure / Employee $ 1,175

Neighborhood Center	15%	$ 1,544
Community Center	5%	$ 515
Regional Center	0%	$ -
Super Regional Center	0%	$ -
Other Centers	10%	$ 1,029

Taxable Retail Sales ($000s)

	% Taxable	
Neighborhood Center	64%	$ 10,327
Community Center	77%	13,660
Regional Center	97%	3,056
Super Regional Center	100%	6,447
Other Centers	97%	8,650
Total Taxable Retail Sales ($000s)		$ 42,140
Annual Sales Taxes to the City @	**1%**	**$ 421,404**

Source: AECOM

Table 9: Estimated Sales Taxes from Onsite Retail Sales

			Buildout
Retail SF			608,300
Retail by Type[1]			
Neighborhood Center			90,300
Community Center			200,000
Regional Center			318,000
Super Regional Center			
Other Centers			
On-Site Sales ($000s)			
Neighborhood Center	$375	$	33,863
Community Center	$325		65,000
Regional/ Life Style Center	$350		111,300
Super Regional Center	$300		-
Other Centers	$300		-
On-site Sales Adjusted for Transfers ($000s)	Transfer Adj.		
Neighborhood Center	90%	$	30,476
Community Center	75%		48,750
Regional/ Life Style Center	70%		77,910
Super Regional Center	75%		-
Other Centers	75%		-
Taxable Retail Sales ($000s)			
	% Taxable		
Neighborhood Center	64%	$	19,367
Community Center	77%		37,497
Regional Center	97%		75,835
Super Regional Center	100%		-
Other Centers	97%		-
Total Taxable Retail Sales ($000s)		$	132,699
Annual Sales Taxes to the City @	**1%**	**$**	**1,326,990**

[1]based on AECOM assumptions

Source: AECOM

Table 10: Estimated Property Taxes

	Buildout	AV/Unit		AV at Buildout ($000s)	1% Property Tax	Chula Vista's Share (10.64%)
Non Residential Uses						
Retail (acres)	26.10	6,649,000	/acre	173,539	1,735,389	184,582
Office (acres)	22.30	21,226,000	/acre	473,340	4,733,398	503,459
General Industrial (acres)	23.10	2,100,000	/acre	48,510	485,100	51,597
Research/Limited Industrial (acres)	85.00	3,500,000	/acre	297,500	2,975,000	316,431
Residential Uses						
Units						
Single Family	3,543	363,000	/unit	1,286,109	12,861,090	1,367,947
Multi Family						
Ownership (58%)	5,461	363,000	/unit	1,982,463	19,824,632	2,108,611
Rental (42%)	3,943	267,000	/unit	1,052,693	10,526,926	1,119,678
Total				$ 5,314,153	$ 53,141,535	**$ 5,652,304**
Less Current Property Taxes						$ 6,772
Net Incremental Property Taxes at Buildout						**$ 5,645,532**

Source: City of Chula Vista and AECOM

Table 11: Estimate of Motor Vehicle License Fee

Motor Vehicle In Lieu Fees (MVLF) Adjustment		
Base Year (2004) Assessed Valuation of the City ($000) =		$ 15,596,196
Base Year (2004) Motor Vehicle In Lieu Fees Adjustment (MVLF) ($000) =		$ 11,832
	2010	Project Buildout
Cumulative AV of New Developments ($000s)		$ 5,314,153
AV Adjustment for Base Value ($000)		$ (6,367)
Adjusted AV of Development($000)	$ -	$ 5,307,786
Cumulative Citywide AV Growth ($000s)	$ 15,596,196	$ 20,903,982
Percent Increase in AV		34.033%
Cumulative Citywide MVLF[1] ($000s)	$ 11,832	$ 15,859
Annual MVLF Adjustment Attributed	**$ -**	**$ 4,026,773**
TOTAL ANNUAL VLF REVENUES	**$ -**	**$ 4,026,773**

Source: County of San Diego Property Tax Services, California State Controller's Office, and AECOM

Table 12: Estimate of Other Discretionary Revenue Allocation Factors

Current Citywide Conditions

Population	234,011
Dwelling Units [1]	78,615
Employees [2]	71,153

Land Uses	Developed Acres	Employees (estimated)	AV Share (Estimates)
Commercial	2,048	46,842	28%
Industrial	917	21,162	7%
Residential	9,565		65%
Subtotal Taxable	12,530	68,004	
Other (Parks, Public/Quasi-public, Open S	7,171	3,149	
Total	19,702	71,153	

Incremental Revenue Factors by Development Unit

Revenue Category	Current Revenues	Allocation Method	Share	Allocation	Units
Property Taxes					
Current Taxes - Secured	$ 28,363,165	Calculated Separately		-	
State Secured - Unitary	300,000	Commercial AV	28%	$41.21	Acre
		Industrial AV	7%	$21.72	Acre
		Residential AV	65%	$20.46	Acre
Current Taxes - Unsecured	979,200	Commercial AV	28%	$134.50	Acre
		Industrial AV	7%	$70.90	Acre
		Residential AV	65%	$66.77	Acre
Delinquent Taxes	590,000	Commercial AV	28%	$81.04	Acre
		Industrial AV	7%	$42.72	Acre
		Residential AV	65%	$40.23	Acre
Other Local Taxes					
Sales and Use Taxes	29,677,977	Calculated Separately			
Franchise Fees[2]	8,732,093	Commercial Land	7%	$298.40	Acre
		Industrial Land	3%	$285.66	Acre
		Residential Land	90%	$821.64	Acre
Utility Taxes[2]	7,122,095	Commercial Land	9%	$143.94	Acre
		Industrial Land	4%	$142.90	Acre
		Residential Land	87%	$297.99	Acre
Business License Tax	1,322,847	Employees (Non-Public)		$19.45	Employee
Transient Occupancy Taxes	2,752,514	Not Included		-	
Real Property Transfer Tax	841,402	Calculated Separately		-	
Revenues from other Agencies					
Sales Tax: Public Safety Augment	875,347	People		$3.74	Person
State Homeowners Property Tax Relief	282,800	Dwelling Units		$3.60	DU
State Motor Vehicle Licenses	20,215,866	Calculated Separately		-	
TOTAL DISCRETIONARY REVENUES	$ 102,055,306				

[1] City of Chula Vista (July 2010)

[2] AECOM estimate based on 2008 data; User Utility Tax Adjusted to reflect 46% of tax is being allocated for budget purposes.

[3] Allocation shares by land use based on FIND model estimates

Source: City of Chula Vista and AECOM

Table 13: Incremental Revenue Summary

Revenue Drivers	Unit Cost (2009)	Buildout
Population (Persons)		40,926
Private Employment (Employees)		8,761
Dwelling Units		12,947
Commercial Land (Acres)		48.4
Industrial Land (Acres)		108.1
Residential Land (Acres) [1]		729.2
Revenue Adjustment Factor		*115%*
Constant 2009 to 2010 Inflation Factor		*1.01*
		(Thousands 2010 $)
Population (Persons)	$ 3.76	$ 178
Private Employment (Employees)	$ 19.56	198
Dwelling Units	$ 3.62	54
Commercial Land (Acres)	$ 703.08	39
Industrial Land (Acres)	$ 567.12	71
Residential Land (Acres)	$ 1,254.23	1,057
Property Taxes		5,646
Real Property Transfer Tax		235
MVLF		4,027
Sales and Use Taxes		1,748
Total Revenues in 2010 Dollars		**$ 13,253**

[1] Excludes office and commercial land uses included within the mixed-use land designations

Source: City of Chula Vista and AECOM

General & Limiting Conditions

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This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

AECOM

To	Joe Gamble	Page	1 of 6
CC			
Subject	Response to City's Questions RE: Updated 2012 Cumulative Employment Lands Analysis and Fiscal Impact Analysis		
From	AECOM		
Date	December 27, 2013		

Introduction

Please find responses to questions presented by the City of Chula Vista (City).

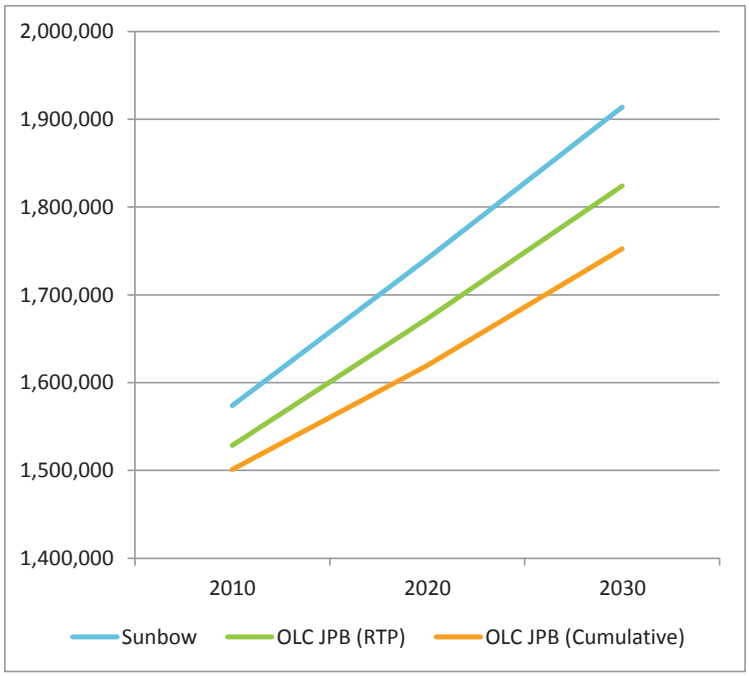
Questions 1, 2, and 5:

The following is intended to provide a better explanation as to why the long-term absorption of industrial lands has decreased when looking at the period between 2010 and 2030. For clarity sake, AECOM has summarized some key pieces of information provided in previous analysis. We will focus on changes to long-term employment by SANDAG and historic absorption of industrial space to guide this analysis. Since there have been references to the Viability and Marketability of Potential Light Industrial Uses at the Sunbow Industrial Park Site study in 2008 (Sunbow), the projections used in that report have been also provided for comparison to help demonstrate the change in SANDAG projections between the time of the various studies.

As shown below in Figure 1 and Figure 2, there was a significant decrease in the employment and associated industrial job projections at year 2030. Between the 2006 estimates and the revised 2012 estimates, SANDAG decreased their overall employment estimates by approximately 161,000 jobs in year 2030. Within employment sectors that are anticipated to occur on industrial lands, SANDAG decreased their forecast by approximately 64,000 jobs. As noted in Figure 3, even with the revised forecasts SANDAG has still projected more total jobs (all industries) in 2010 than provided by the California Employment Development Department (EDD). The projections reflect the ongoing issues of estimating job recovery as a result of the Great Recession.

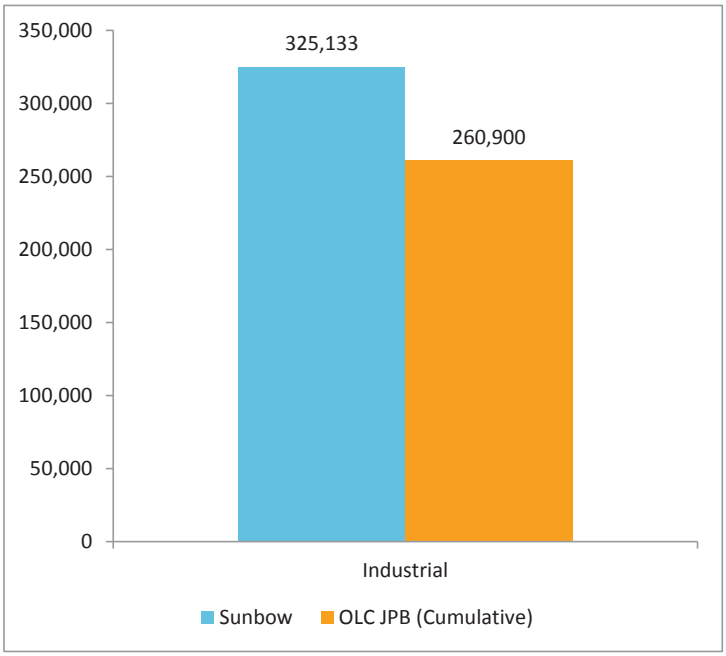
Long-term projections are a significant component of projected demand. The other factor considered is historic absorption (capture) of industrial land. Reviewing CoStar data between 1999 and 2013, the City absorbed approximately 78,000 square feet (SF) of industrial space per year. As shown in Figure 4, the majority of space developed over that time period occurred between 1999 and 2006. Since then, CoStar estimates a loss of industrial space in the City and little new development.

Figure 1: SANDAG Employment (Total Jobs) Forecast by Study for San Diego County



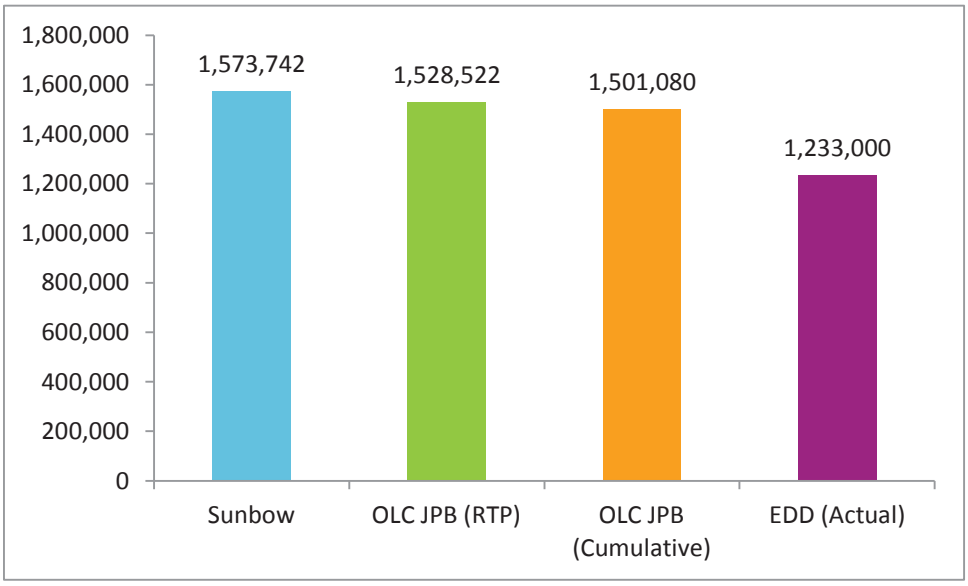
Source: SANDAG

Figure 2: SANDAG Industrial Forecast by Study for San Diego County



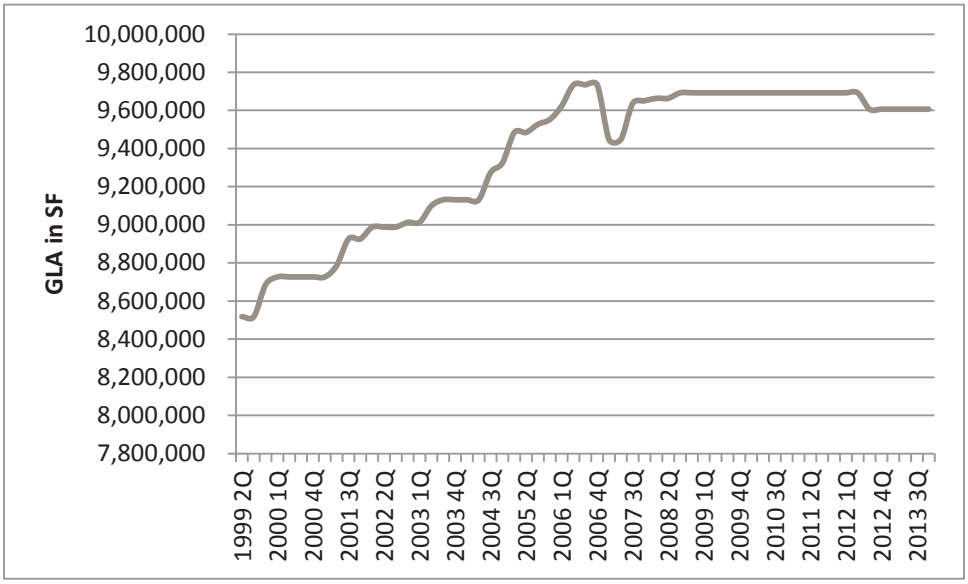
Source: SANDAG and AECOM

Figure 3: 2010 SANDAG Forecast by Study and EDD 2010 Estimate for San Diego County



Source: SANDAG and EDD

Figure 4: Industrial Deliveries (Gross Leasable Space) in Square Feet (1999 – 2013)

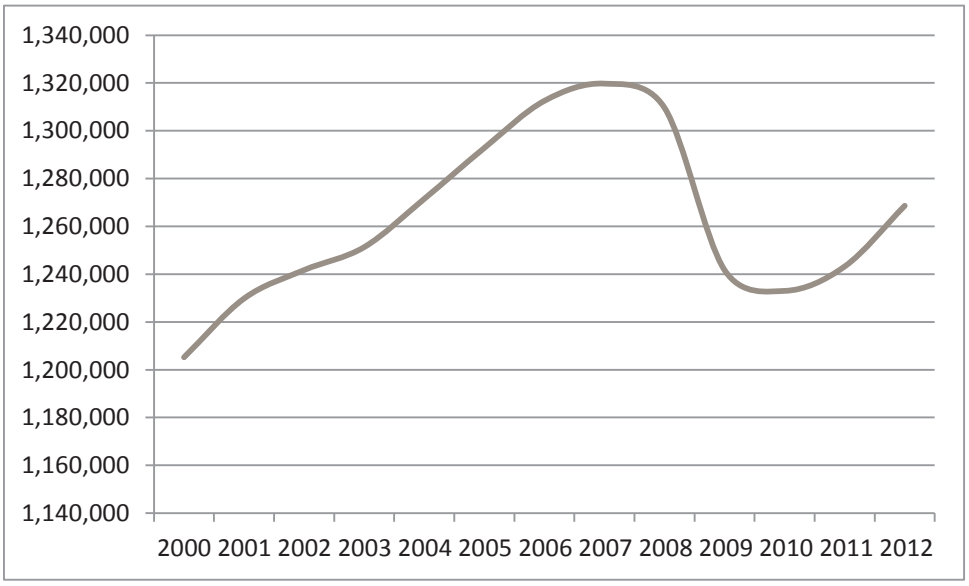


Source: CoStar

Using a previous AECOM assumption that the FAR for future industrial deliveries is 0.375, this historic 78,000 SF would suggest an annual absorption of 5 acres per year. Projecting forward, the historic absorption would suggest that 80 acres of industrial land would be developed over the next 16 years (until 2030). This would represent 15 percent of the remaining 535 net acres. AECOM has provided a high estimate of 95 acres in our previous analysis between 2012 and 2030. Even if this number was doubled it would still only represent 36 percent of the total remaining 535 net acres of supply in 2030.

The following Figure 5 helps demonstrate the issues with the timing of the two pieces of analysis. While the Sunbow study acknowledges the beginning impacts of the recession, it relied on employment projections that were near peaks and market information that was in a rapid state of absorption. While future economic recovery will likely increase industrial absorption since recorded over recent years, AECOM believes that downward projections were needed to account for the Great Recession.

Figure 5: Total Employment in San Diego County (2000 – 2012)



Source: EDD

For these reasons, AECOM noted that there appears to be sufficient industrial employment land capacity given the General Plan horizon (2030). We did note that careful consideration should be given if the City believes that there are unique attributes for industrial development in Village 3 that could not be accommodated in other areas near the Otay Valley employment land area or in other areas of the City. Once again, AECOM has approached the analysis from the perspective of the

adopted General Plan in year 2030. Looking at a longer-term may impact the conclusions provided herein.

Questions 3 and 4:
The fiscal impact of the General Plan land uses in comparison to the land use plan evaluated was not examined in this analysis. We would need guidance to provide this estimate (e.g. the net acres and use as designated in the General Plan).

The “positive fiscal impact given the proposed land use mix” refers specifically to the cumulative analysis that includes Scenario 2.

General & Limiting Conditions

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AECOM

To	Joe Gamble	Page	1 of 4
CC			
Subject	Response to City's Questions RE: Updated 2012 Cumulative Employment Lands Analysis and Fiscal Impact Analysis		
From	Lance Harris		
Date	January 22, 2014		

AECOM was retained by the City of Chula Vista (City) to assist the Chula Vista Planning Division in conducting an economic evaluation of a proposed General Plan Amendment (GPA) for land offer agreements by JPB and OLC. One component of this work focused on conducting an employment land analysis for a 165-acre site with a General Plan land use designation of Limited Industrial. The owner has filed an application for a GPA to change the land use designation of the site from Limited Industrial to a mix of uses that include industrial, office, retail, and residential. The proposed land use change would remove approximately 140-acres of industrial land from the City's long-term employment serving land use inventory.

AECOM was not asked by the City to embark on a full-fledged market or site-specific analysis with respect to this site. Instead, the City directed us to review the existing studies, investigate any significant changes in regional market conditions since that time, and comment on whether those findings still have reasonable relevance in informing the current land use policies.

As a result of the "Great Recession" and the subsequent effects of economic recovery, SANDAG revised their regional (County) long-term employment projections. Major changes in their forecast include a downward revision in total jobs and a downward revision to industrial land use serving jobs in 2030. Using market share capture assumptions for the City consistent with previous analysis (e.g. a range of low to high capture based on assumed competitive position of the City to attract industrial development in the future) we revised our projections to account for the anticipated mid-term (next 10 – 15 years) decrease in the total industrial employment, which is consistent with SANDAG's revised projections, along with existing vacant industrial inventory at the time of the report.

AECOM found that the City has a sufficient supply of industrial land to consider accommodating the proposed land use change based on existing supply and projected demand through year 2030. As noted, it was outside AECOM's scope to evaluate site specific attributes that might make the site more attractive for development than other pieces of industrial land in the City (e.g. contiguous developable land, location, etc.). It was also outside AECOM's scope to evaluate the City's anticipated industrial absorption beyond the 2030 planning horizon.

In regard to site specific issues that could be considered when evaluating the proposed land use change, we previously stated in our Sunbow analysis that industrial properties around the Otay landfill:

> *Some of these lands offer substantial views and could be designed as high-amenity locations that are attractive to technology-oriented firms, and headquarter functions of firms with Mexican operations, similar to several businesses at EastLake Business Center.*

We also suggested that:

> *Some of these lands could also provide higher quality space for smaller general industrial and service firms found along the Main Street corridor. Therefore, these lands should be positioned as high quality industrial and business park space, similar in quality to EastLake Business Park, but with a general orientation. This general orientation will eventually evolve as the market evolves and could remain general or could transition to technology clusters over time.*

In regard to future planning for industrial capacity in the City we have noted the importance of recognizing that that inventory will be absorbed beyond 2030. As a result, we have recommended that it is prudent for the City to use a “high” absorption planning scenario that provides “additional upside economic development potential.”

The City’s General Plan Update (GPU) acknowledges the importance of expanding higher value employment opportunities within the City. Prior to the GPU process, the Chula Vista City Council adopted an Industrial Lands policy/resolution outlining the City’s concerns regarding the loss of industrial zoned lands via land use changes, and the need to address jobs/housing balance and ensure the ability to provide higher-value jobs for existing and future residents of the City. Policies addressing these issues were crafted and included in the Economic Development Strategy and in the Economic Development Element as part of the GPU.

In summary, there are a number of key points to consider with respect to the proposed GPA as it relates to the loss of industrial land:

- While the projections have been reduced to year 2030, the City’s aforementioned competitive advantages to attract future industrial users have not changed (e.g. There is evidence of increased regional industrial land scarcity pushing industrial users from locations in the North County to the South Bay).
- Neither site specific attributes for the165-acre parcel nor the anticipated future absorption of industrial land beyond 2030 has been considered within the scope of this analysis.
- There appears to be excess supply of industrial land at the citywide level given the 2030 General Plan horizon.
- The City should consider if the proposed GPA warrants the loss of industrial land in an area previously identified to attract “higher value-added” industrial jobs.
- This analysis does not suggest changing recommendations in the GPU. Given changes to industrial market conditions the City, the City should be conscious that industrial land absorption will go well beyond the previously identified 2030 planning horizon.

The following table presents a comparison of the estimated demand for industrial space and associated gross acres in the City between 2012 and 2030. The GPU absorption estimate has been adjusted to match the Cumulative analysis timeframe.

Table 1: Cumulative Industrial Space Demand Comparison (2012 – 2030)

	Square Feet	Gross Acres
GPU		
Moderate Scenario	5,586,000	342.0
High Scenario	9,124,000	558.6
Cumulative		
Moderate Scenario	2,795,000	171.1
High Scenario	4,138,000	253.3

Note: General Plan Update estimates were made in 2004. Cumulative estimates were made in 2012. Gross acres based on a 0.375 floor area ratio.

Source: AECOM and City of Chula Vista General Plan Update

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ATTACHMENT B
TO COMMENT LETTER N
SANDAG 2050 Regional Growth Forecast

2050 REGIONAL GROWTH FORECAST
San Diego Region

POPULATION AND HOUSING

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Total Population	**3,131,552**	**3,535,000**	**3,870,000**	***4,163,688***	***4,384,867***	**1,253,315**	**40%**
Household Population	3,033,985	3,405,068	3,725,900	*4,001,990*	*4,210,591*	1,176,606	39%
Group Quarters Population	97,567	129,932	144,100	*161,698*	*174,276*	76,709	79%
Civilian	58,533	76,336	90,504	*108,102*	*120,680*	62,147	106%
Military	39,034	53,596	53,596	*53,596*	*53,596*	14,562	37%
Total Housing Units	**1,140,654**	**1,262,488**	**1,369,807**	***1,457,545***	***1,529,090***	**388,436**	**34%**
Single Family	692,382	728,566	750,022	*758,510*	*761,699*	69,317	10%
Multiple Family	405,023	493,243	581,143	*662,428*	*732,832*	327,809	81%
Mobile Homes	43,249	40,679	38,642	*36,607*	*34,559*	-8,690	-20%
Occupied Housing Units	**1,074,896**	**1,200,966**	**1,309,474**	***1,396,517***	***1,467,026***	**392,130**	**36%**
Single Family	654,629	695,483	719,623	*729,550*	*733,697*	79,068	12%
Multiple Family	380,072	467,321	553,415	*632,368*	*700,607*	320,535	84%
Mobile Homes	40,195	38,162	36,436	*34,599*	*32,722*	-7,473	-19%
Vacancy Rate	**5.8%**	**4.9%**	**4.4%**	***4.2%***	***4.1%***	**-1.7**	**-29%**
Single Family	5.5%	4.5%	4.1%	*3.8%*	*3.7%*	-1.8	-33%
Multiple Family	6.2%	5.3%	4.8%	*4.5%*	*4.4%*	-1.8	-29%
Mobile Homes	7.1%	6.2%	5.7%	*5.5%*	*5.3%*	-7.1	-100%
Persons per Household	**2.82**	**2.84**	**2.85**	***2.87***	***2.87***	**0.05**	**2%**

HOUSEHOLD INCOME (real 1999 dollars, adjusted for inflation)

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Households by Income Category							
Less than $15,000	116,585	103,767	91,717	*82,310*	*75,909*	-40,676	-35%
$15,000-$29,999	173,655	163,374	151,086	*140,217*	*132,713*	-40,942	-24%
$30,000-$44,999	177,526	180,630	176,901	*171,371*	*167,365*	-10,161	-6%
$45,000-$59,999	151,047	166,723	172,552	*174,172*	*175,025*	23,978	16%
$60,000-$74,999	125,663	139,922	152,471	*159,984*	*165,050*	39,387	31%
$75,000-$99,999	134,123	170,193	197,006	*216,496*	*230,432*	96,309	72%
$100,000-$124,999	78,818	106,747	132,175	*152,984*	*168,589*	89,771	114%
$125,000-$149,999	41,169	64,548	84,608	*102,343*	*116,146*	74,977	182%
$150,000-$199,999	37,262	62,057	86,398	*109,675*	*128,651*	91,389	245%
$200,000 or more	39,048	43,005	64,560	*86,965*	*107,146*	68,098	174%
Total Households	1,074,896	1,200,966	1,309,474	*1,396,517*	*1,467,026*	392,130	36%
Median Household Income							
Adjusted for inflation ($1999)	$51,920	$58,739	$66,147	*$72,206*	*$76,893*	$24,973	48%

*IMPORTANT INFORMATION ABOUT THIS FORECAST:

This forecast was accepted by the SANDAG Board of Directors in February 2010 for distribution and use in planning and other studies. This forecast represents one possibility for future growth in the San Diego region. It is intended to represent a likely prediction of future growth, but it is not intended to be a prescription for growth. The 2050 Regional Growth Forecast represents a combination of economic and demographic projections, existing land use plans and policies, as well as potential land use plan changes that may occur in the region between 2030 and 2050. In general, growth between 2008 and 2030 is based on adopted land use plans and policies, and growth between 2030 and 2050 includes alternatives that may, in some cases, reach beyond existing adopted plans.

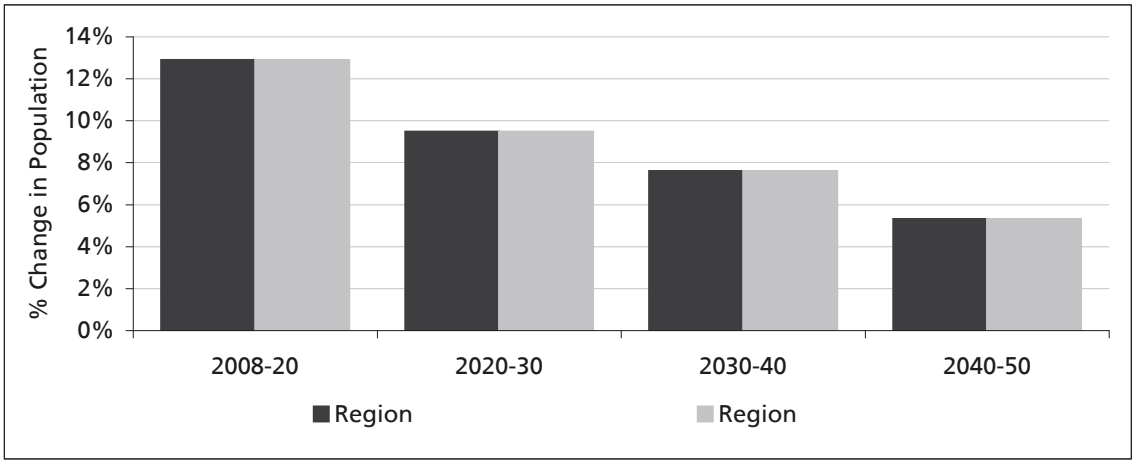
POPULATION BY AGE

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Total Population	**3,131,552**	**3,535,000**	**3,870,000**	***4,163,688***	***4,384,867***	**1,253,315**	**40%**
Under 5	234,345	248,703	264,326	*275,310*	*280,660*	46,315	20%
5 to 9	204,748	232,656	243,413	*258,361*	*263,529*	58,781	29%
10 to 14	203,202	235,216	239,253	*253,626*	*264,305*	61,103	30%
15 to 17	133,519	136,585	142,296	*149,688*	*157,859*	24,340	18%
18 to 19	104,277	101,579	109,349	*113,476*	*119,411*	15,134	15%
20 to 24	240,859	251,033	294,792	*299,836*	*313,143*	72,284	30%
25 to 29	218,100	261,783	272,991	*287,881*	*298,139*	80,039	37%
30 to 34	229,473	247,134	242,209	*287,340*	*291,201*	61,728	27%
35 to 39	234,259	213,830	260,012	*272,529*	*286,307*	52,048	22%
40 to 44	225,928	217,106	241,370	*237,457*	*281,138*	55,210	24%
45 to 49	230,926	219,625	204,274	*250,280*	*262,174*	31,248	14%
50 to 54	208,309	213,930	210,835	*235,337*	*231,254*	22,945	11%
55 to 59	173,720	224,882	215,114	*200,822*	*245,563*	71,843	41%
60 to 61	62,890	87,250	85,706	*81,540*	*99,299*	36,409	58%
62 to 64	71,725	122,061	121,515	*123,274*	*129,311*	57,586	80%
65 to 69	95,111	173,463	211,232	*202,716*	*189,678*	94,567	99%
70 to 74	76,626	135,281	186,458	*185,097*	*183,077*	106,451	139%
75 to 79	67,615	85,484	142,715	*174,159*	*167,516*	99,901	148%
80 to 84	56,782	57,034	98,167	*135,938*	*135,604*	78,822	139%
85 and over	59,138	70,365	83,973	*139,021*	*185,699*	126,561	214%
Median Age	34.9	36.2	37.4	*37.9*	*38.6*	3.7	11%

POPULATION BY RACE AND ETHNICITY

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Total Population	**3,131,552**	**3,535,000**	**3,870,000**	***4,163,688***	***4,384,867***	**1,253,315**	**40%**
Hispanic	934,521	1,198,032	1,430,829	*1,669,265*	*1,881,719*	947,198	101%
Non-Hispanic	2,197,031	2,336,968	2,439,171	*2,494,423*	*2,503,148*	306,117	14%
White	1,576,085	1,606,817	1,622,176	*1,600,571*	*1,549,069*	-27,016	-2%
Black	164,931	191,395	208,693	*221,376*	*229,860*	64,929	39%
American Indian	16,218	17,464	17,438	*16,866*	*15,906*	-312	-2%
Asian	315,037	375,986	422,596	*466,100*	*502,492*	187,455	60%
Hawaiian / Pacific Islander	14,615	18,245	20,658	*22,908*	*24,517*	9,902	68%
Other	7,780	9,459	10,992	*12,301*	*13,293*	5,513	71%
Two or More Races	102,365	117,602	136,618	*154,301*	*168,011*	65,646	64%

GROWTH TRENDS IN TOTAL POPULATION



Source: 2050 Regional Growth Forecast
SANDAG
www.sandag.org

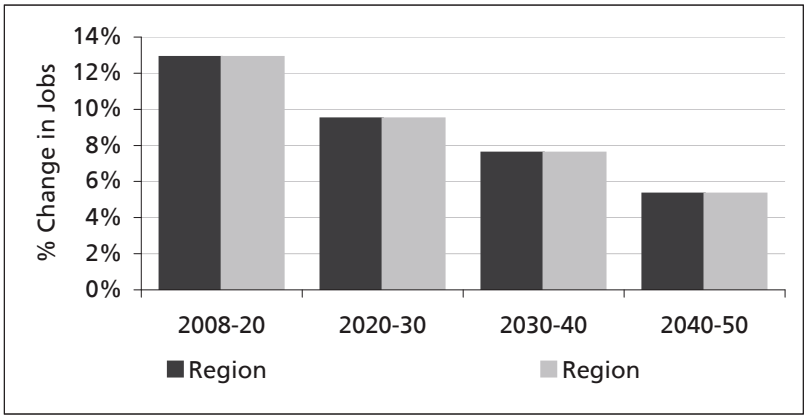
EMPLOYMENT

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Jobs	**1,501,080**	**1,619,615**	**1,752,630**	***1,877,668***	***2,003,038***	**501,958**	**33%**
Civilian Jobs	1,411,811	1,515,346	1,648,361	*1,773,399*	*1,898,769*	486,958	34%
Military Jobs	89,269	104,269	104,269	*104,269*	*104,269*	15,000	17%

LAND USE[1]

	2008	2020	2030	*2040*	*2050*	2008 to 2050 Change* Numeric	Percent
Total Acres	**2,727,197**	**2,727,197**	**2,727,197**	***2,727,197***	***2,727,197***	**0**	**0%**
Developed Acres	**1,873,133**	**1,931,538**	**2,004,029**	***2,075,197***	***2,120,657***	**247,523**	**13%**
Low Density Single Family	173,263	228,678	309,989	*391,696*	*444,896*	271,632	157%
Single Family	136,909	146,174	151,350	*152,435*	*152,975*	16,066	12%
Multiple Family	16,474	18,518	20,000	*21,252*	*22,115*	5,641	34%
Mobile Homes	6,131	5,925	5,724	*5,590*	*5,405*	-726	-12%
Other Residential	3,166	3,157	3,150	*3,136*	*3,125*	-42	-1%
Mixed Use	0	1,825	3,583	*4,759*	*5,472*	5,472	--
Industrial	27,574	28,715	30,182	*31,523*	*33,238*	5,665	21%
Commercial/Services	44,476	44,739	45,128	*45,294*	*45,982*	1,506	3%
Office	3,722	3,911	4,034	*4,209*	*4,374*	652	18%
Schools	12,391	12,829	13,213	*13,538*	*13,882*	1,492	12%
Roads and Freeways	91,850	91,908	91,906	*91,906*	*91,906*	56	0%
Agricultural and Extractive[2]	124,016	111,540	91,473	*75,388*	*62,529*	-61,486	-50%
Parks and Military Use	1,233,162	1,233,618	1,234,296	*1,234,473*	*1,234,758*	1,596	0%
Vacant Developable Acres	**385,917**	**327,515**	**255,024**	***183,856***	***138,396***	**-247,521**	**-64%**
Low Density Single Family	348,603	302,464	239,743	*173,155*	*131,669*	-216,933	-62%
Single Family	17,179	9,664	4,493	*3,132*	*2,205*	-14,975	-87%
Multiple Family	2,587	1,433	778	*170*	*27*	-2,560	-99%
Mixed Use	1,171	584	117	*66*	*19*	-1,152	-98%
Industrial	7,058	5,865	4,448	*3,176*	*1,905*	-5,153	-73%
Commercial/Services	4,524	3,752	2,788	*2,041*	*1,108*	-3,416	-76%
Office	628	421	322	*173*	*66*	-562	-90%
Schools	1,443	1,102	761	*485*	*155*	-1,287	-89%
Parks and Other	1,662	1,166	510	*394*	*179*	-1,483	-89%
Future Roads and Freeways	1,063	1,063	1,063	*1,063*	*1,063*	0	0%
Constrained Acres	**468,145**	**468,145**	**468,145**	***468,145***	***468,145***	**0**	**0%**
Employment Density[3]	**16.0**	**16.6**	**17.5**	***18.3***	***18.9***	**2.9**	**18%**
Residential Density[4]	**3.4**	**3.1**	**2.8**	***2.5***	***2.4***	**-1.0**	**-29%**

GROWTH TRENDS IN JOBS



Notes:

1 - Figures may not add to total due to independent rounding.

2 - This is not a forecast of agricultural land, because the 2050 Regional Growth Forecast does not account for land that may become agricultural in the future. Also, some types of development that occur on agricultural land, such as low density single family residential, may allow for the continuation of existing agricultural use.

3 - Civilian jobs per developed employment acre (industrial, retail, office, schools, and half of mixed use acres).

4 - Total housing units per developed residential acre (single family, multiple family, mobile home, other, and half of mixed use acres).

ATTACHMENT C1
TO COMMENT LETTER N

City of San Diego Pipeline Relocation Participation Agreement

PARTICIPATION AGREEMENT
FOR THE DESIGN AND CONSTRUCTION OF
THE OTAY 2ND PIPELINE RELOCATION AND RELATED FACILITIES

This Participation Agreement for the design, construction, and funding of the Otay 2nd Pipeline Relocation from Olympic Parkway to the Otay Water Treatment Plant and the design, construction, and funding of the relocation of the Otay 3rd Pipeline from the South San Diego Reservoir to the eastern boundary of Village 11, the design, construction, and reimbursement of relocating South San Diego Pipelines 1 and 2 within Village 8 West "Agreement" is made by the City of San Diego, a municipal corporation, herein called "City", and Baldwin & Sons, LLC, a California limited liability company; Otay Land Company, LLC, a Delaware limited liability company; and SSBT LCRE V, LLC, a Delaware limited liability company, herein called "Developers" with reference to the recitals set forth below. Developers and City may be individually referred to as "Party" and collectively the "Parties."

RECITALS

A. Developers are owners and developers of certain real property located in the City of Chula Vista, County of San Diego, State of California, within a portion of an area commonly known as Otay Ranch. The term "Developer" is used for convenience. SSBT LCRE V, LLC acquired the property following a default by the borrower under a loan secured by the property and is entering into this agreement as the owner to protect the value of its property.

B. The City has an existing water transmission pipeline known as the Otay 2nd Pipeline which transverses all the Developers properties; the Otay 3rd Pipeline which transverses Village 8 West, Village 8 East, Village 9, and Village 10, and the South San Diego Pipelines which traverse Village 8 West. The location of Developers' properties, the existing Otay 2nd Pipeline, the Otay 3rd Pipeline, and the South San Diego Pipelines are shown on Exhibit A.

C. As a condition of their respective developments, Developers will relocate, as required, the Otay 2nd Pipeline, the Otay 3rd Pipeline, and the South San Diego Pipelines in accordance with the accepted Otay 2nd Pipeline Relocation Study dated February 2013. However, this Agreement does not require any Developer to construct all or any portion of the Work within the term of this Agreement. Construction will occur in multiple phases as shown on Exhibit B. The existing water facility will not be abandoned until the new facility is operationally accepted.

D. This Agreement establishes Developers' fair share of the costs for relocating the Otay 2nd Pipeline, the Otay 3rd Pipeline, and the South San Diego Pipelines. In addition, City agrees to contribute funds for relocating the Otay 2nd Pipeline, the Otay 3rd Pipeline, and the South San Diego Pipelines in accordance with the terms of this Agreement.

E. The Otay 2nd Pipeline Relocation, the Otay 3rd Pipeline Relocation, and the South San Diego Pipelines Relocation benefit both the Developers and the City.

F. The Developers have and intend to enter into separate purchase and sale agreements with the City to facilitate the relocation of the pipeline.

NOW, THEREFORE, in consideration of the recitals and mutual obligations of the Parties as herein expressed, City and Developers agree as follows:

AGREEMENT

1. Description of Improvements:

1.1 City's Responsibilities:

1.1.1 Otay 2nd Pipeline Sizing. The City has established the sizing of the Otay 2nd Pipeline from previous studies which have been incorporated into the accepted Otay 2nd Pipeline Relocation Study dated February 2013. City will pay for all costs solely associated with facility upsizing in accordance with the accepted Otay 2nd Pipeline Relocation Study.

1.1.2 Easement Vacations. The City has existing easements over portions of the Developers properties for existing water transmission pipelines. Upon the City's issuance of a permit to Developers for any phase of Work requiring an easement vacation, and prior to commencement of construction, the City shall expeditiously process an easement vacation for City Council approval for the phase of work being permitted. Developer will not begin construction until City Council approval. The City shall record and finalize the City Council approved easement vacation with the County Recorder upon operational acceptance for the phase of work being permitted. With the recordation of the easement vacation with the County Recorder, the easement vacation is complete.

1.1.3 Joint Use Agreement. The City and the City of Chula Vista will execute a Joint Use Agreement prior to the commencement of construction in existing or to be dedicated right-of-way in the City of Chula Vista. Any delay in approval of the Joint Use Agreement will extend the anticipated completion of the Work in accordance with Exhibit "B".

1.2. Developers' Responsibilities:

1.2.1 Each Developer shall be responsible for the design and construction of their respective phase(s) of the Otay 2nd Pipeline, Otay 3rd Pipeline, and the South San Diego Pipelines (the "Work"). Developer responsibilities include securing all necessary agency approvals and environmental clearances necessary to complete the Work, including but not limited to those required by the City of Chula Vista.

City shall not be obligated to issue permits for any phase of Work until certification of all approvals and clearances are obtained.

1.2.2 Design. Each Developer shall retain a consultant to prepare the design, engineering, easement vacation documents, if applicable, and public improvement drawings for the Work. Construction documents shall (1) be based on sound engineering judgment, (2) adhere to all applicable engineering standards, the City of San Diego Water Guidelines and Standards, and (3) obtain approval of the Development Services Department. Each Developer and/or its consultant shall work with the City's representative to comply with the City's requirements and standards. Each Developer's consultant shall submit construction documents for their respective phase(s) of the Work at 60% design, 90% design, 100% design, and Final design for review and approval in both hard copy and electronic format. A minimum of five (5) sets of hard copies shall be included for each submittal unless instructed otherwise by the City's representative.

1.2.3 Construction. A separate written contract to complete the Work shall be entered into by each Developer and a contractor selected in accordance with Section 3.1, (a "Construction Contract"). Through the execution of one or more Construction Contracts, each Developer shall cause the construction, supervision, and completion of its phase(s) of the Work per the approved construction documents. Construction may occur in multiple phases over time in accordance with Exhibit "B". Each phase of Work shall be independent of the remainder of Work and in no event shall this Agreement create a cross obligation to a Developer not a party to a specific phase of Work (i.e. no Developer shall be responsible for any phase(s) of the Work on another Developer's property and no default by any Developer under this Agreement will affect the rights or obligations of the other Developers). The Work shall meet the approval of the City and all applicable standards and codes.

2. Construction of Improvements:

2.1 Term. The term of this Agreement shall be 10 (ten) years and may be extended for two 5 (five) year terms upon mutual agreement of the Parties.

2.2 Time for Completion. The Parties anticipate the completion of the Work in accordance with Exhibit "B." This Agreement shall not obligate any Developer to construct all or any portion of the Work within the term of this Agreement.

2.3 License Requirements. Developers shall select and retain duly licensed and qualified professionals to perform the Work. Contractor(s) and design consultant(s) must be licensed in the State of California.

2.4 Standard of Performance. The Work shall be done in a good and workmanlike manner to the satisfaction of the City, lien free and in compliance with the approved plans and specifications, the City of San Diego Water Guidelines and Standards, and the *Standard Specifications for Public Works Construction*.

current edition (the "Greenbook"), including regional and City supplements thereto. In the event of conflict between the approved plans and the Greenbook, the former will govern. To the extent it is feasible and prudent to do so Developers shall use reasonable efforts to schedule the delivery of materials to the project site to coincide with their installation. Developers shall comply with all laws including, but not limited to: all local, City, county, state, and federal laws, codes and regulations, ordinances, and policies, including but not limited to, Development Services Department permits, hazardous material permits, site safety, etc. In addition, Developers shall comply immediately with all lawful directives issued by the City or its authorized representatives under authority of such laws, statutes, ordinances, rules or regulations.

2.5 Notice of Project Requirements. City shall provide full information regarding its requirements for the Work. If any Party obtains actual knowledge of any fault or defect in the Work or nonconformance with the plans and specifications, that Party (ies) shall give prompt written notice thereof to the other Parties. The services and information required by the above shall be furnished with reasonable promptness. The City shall have no contractual obligation with Developers designers, contractor or subcontractors.

2.6 Records. Developers shall keep accurate and legible records on a set of as-builts and document all changes of the Work which occur during construction. All information necessary to maintain and/or service any Work shall be noted on the as-built drawings. Records shall be kept up to date with all entries checked by the City's Resident Engineer before any part of the Work is buried or covered up. Prior to acceptance, Developers shall deliver this redline "as-built" information to its design firm, who shall prepare records drawings for submittal and approval by the City. Developers agree that City or its authorized agent's review of documents, plans, and specifications not prepared by the City does not constitute an approval or establish a basis for liability on the part of the City.

2.7 <u>Acceptance of the Work</u>. When Developers consider a phase of the Work ready for its intended use Developers shall notify the City in writing that such phase of the Work is substantially complete. Developers shall attach to this notice a list of all Work items that remain to be completed. Within twenty (20) working days thereafter, the City shall inspect the Work to determine the status of completion. If the City does not consider the Work complete, City will notify Developers within twenty (20) working days.

2.7.1 If the City considers the Work substantially complete, City will prepare and issue a Notice of Substantial Completion formally accepting the Work or a portion of the Work completed. The Notice of Substantial Completion shall fix the date of substantial completion. Attached to the Notice of Substantial Completion will be a tentative list of items to be completed or corrected before final payment can be processed to Developers, if any such items exist.

2.7.2 Neither the acceptance nor any prior inspections or failure to inspect shall constitute a waiver by the City of any defects in the Work. From and after acceptance, the Work shall be owned and operated by the City.

2.7.3 Abandonment of existing water facilities shall only occur upon the operational acceptance of each phase of Work replacing the said existing water facility.

3. Bid Opening. Prior to commencing construction, Developers shall solicit bids and award one or more contracts for the construction of the Work in accordance with all public works laws, rules, and regulations set forth in the San Diego Municipal Code and applicable State law. The sealed bids shall be opened by Developers in the presence of the City, not less than ten (10) days after advertising for one day in the official newspaper of the City for sealed proposals for the Work.

3.1 A contract for the construction of the Work shall be awarded to the lowest responsible and reliable bidder ("Contractor") paying Prevailing Wage, as mutually agreed to by City and Developers.

3.2 Developers shall provide the City with a copy of the bids and the Construction Contract(s).

4. Advance of Costs. Developers shall pay all costs for the design and construction of the Work, subject to reimbursement by the City in accordance with this Agreement.

5. Maximum Cost. City will reimburse Developers for the City's share of the actual cost of the design and construction of the Work in accordance with Section 7.1 below. The total Project cost to the City shall not exceed $28,093,224.00 [Maximum Cost], without written amendment to this Agreement.

6. Credits and Fees. Developers will pay all applicable costs and City fees associated with the Work. Developers shall receive a pro-rata credit for all applicable costs, fees and betterment and full credit for upsizing of the Work in accordance with the "Cost Loaded Schedule" attached hereto as Exhibit "C". City will reimburse Developers its pro-rata share of the Work in accordance with Section 7.

7. Reimbursement:

7.1 Reimbursement Amount. City will reimburse Developers for the Work completed in accordance with Exhibit "C."

7.1.1 The City's actual cost of the Work will be based on the lowest responsible bid submitted, the actual design, bidding and construction management costs, any change orders, the cost for preparation of the fair share cost analysis and this Agreement, and a markup of 8% for Developers project management and overhead. The Parties understand and agree that the cost estimate attached as Exhibit "C" reflects an engineer's cost estimate for performance of the Work contemplated in this Agreement and that the actual

cost of the Work may be greater or less than set forth on Exhibit "C". Any adjustments to the Party's shares shall be made as described in Section 6.

7.2 Reimbursement Requests. Developers may submit monthly reimbursement requests with respect to all Work performed for which Developers were not previously paid, not to exceed the Maximum Cost. Developers shall supply paid invoices, paid receipts or canceled checks, and an updated spreadsheet and other similar support documentation and conditional mechanics' lien releases (if applicable) in connection with each payment request. The City may cause its inspector to verify whether or not the Work for which payment is being requested has been installed and performed as represented in the payment request.

7.3 Reimbursement Payments. Within forty five (45) days after Developer submits a reimbursement request, City shall reimburse Developers the amount requested under Section 7.2 of this Agreement, provided that City's representative has verified that the Work for which reimbursement is being requested has been performed as represented in the reimbursement request, and subject to the retention provided for in Section 8 of this Agreement.

7.4 City Engineering and Field Inspection. The costs for City staff time including engineering review and field inspections by the Resident Engineer shall be included in the total cost of the Work.

8. Retention. Payments by the City applicable to construction will be subject to a ten percent (10%) retention, which may be reduced to five percent (5%) in the City's discretion, after successful completion of half of the construction portion of the Work. The retention shall be released to Developer within 60 days after the completion of the Work, in accordance with Public Contract Code section 7107. Retention shall not be released for outstanding liens recorded against the Work. Retention will not be withheld from payments for design activities.

9. Prevailing Wages. City has determined prevailing wages shall apply to this project. Pursuant to Labor Code sections 1720 et seq., and 1770 et seq., Developer shall provide in its Construction Contract that the Contractor and all Subcontractors shall pay not less than the Prevailing Wage Rate to all persons employed by them in the execution of the Work.

9.1. Contractor and Subcontractors must comply with Labor Code section 1776 by keeping accurate payroll records that show the name, address, social security number, work classification, straight time, and overtime hours worked each day and week by each worker, and the actual per diem wages paid to each worker employed by Contractor or Subcontractor in connection with the public works project. Each payroll record shall contain or be verified by a written declaration signed by Contractor or Subcontractors under penalty of perjury that states that: 1) the information contained in the payroll record is true and correct; and 2) Contractor or Subcontractors have complied with the requirements of Labor Code Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project. The payroll records must be certified,

Contractor and Subcontractor(s), if required, shall submit weekly certified payrolls online via the City's web-based labor compliance program. Developers shall be responsible for the compliance with these provisions by its Contractor and Subcontractors. City will withhold contract payments when payroll records are delinquent or deemed inadequate by City or another governmental entity, or when it is established after investigation by City or another governmental entity that underpayment has occurred.

9.2. Living Wage Ordinance requirements, as described in San Diego Municipal Code sections 22.4201 et. seq., also apply to this Agreement. Contractor must determine which per diem rate is highest for each classification of work (i.e., Prevailing Wage Rates or Living Wage rates), and pay their employees the highest of the two rates. Living Wages apply to workers who are not subject to Prevailing Wage Rates.

10. Changed Conditions. Developer may rely on maps, engineering reports, diagrams, drawings and similar reference data ("Reports") provided by the City or its representatives. However, non-technical data, interpretations, and opinions contained in such Reports are not to be relied on by Developers, and shall not be the basis of changed conditions. If Developers discover any unknown subsurface or latent physical conditions materially different from what is represented in the Reports that adversely impact the progress of the Work, then Developers shall notify the City in writing upon their discovery and before they are disturbed. If conditions warrant an adjustment in compensation or time, a change order will be processed in accordance with Section 11 of this Agreement.

11. Additional Work. If a change order or change to the scope of work for design services ("Additional Work") is desired by either party, Developers shall submit to the City's representative a proposal setting forth the desired change, any necessary extension of time for the Work and any adjustment to the cost of the Work. Developers may proceed with any change requested in the Project scope upon receipt of written approval by the City's representative, provided that the total estimated cost for the Work does not exceed the Maximum Cost. If any change in the Work, as described in any proposal, will result in exceeding the Maximum Cost, then such request for Additional Work will require approval of the San Diego City Council prior to performing the Additional Work. Developers shall not be reimbursed for any cost or time resulting from the negligence of Developers or Developers' agents, including but not limited to the Developers Contractor for the Work, its subcontractors, and Developers' design professionals for the Work.

12. Force Majeure. In the event the Work is delayed due to causes which are outside the control of the Parties and their agents, and could not be avoided by the exercise of due care, which may include, but is not limited to, war, terrorist attack, act of God, government regulations, labor disputes, strikes, fires, floods, adverse weather or elements necessitating cessation of the Work, inability to obtain materials, labor or equipment, required extra Work, or other specific events as may be further described in the specifications, the Parties will be entitled to an extension in time equivalent to the length of delay.

13. Bonds. Developers shall provide, or cause the Contractor to provide, a Performance Bond and a Payment Bond in accordance with Government Code sections 66499.1 and 66499.2, respectively, for each phase of Work prior to commencement of such phase. Each bond shall be in the amount of 100% of the cost of construction of that phase of the Work, to guarantee faithful performance and payment of all Work, in a manner satisfactory to the City, and that all materials and workmanship will be free from original or developed defects. The bonds may be combined into a single document, if desired. If provided by the Contractor, a dual rider type bond shall be provided that names the City as an additional Obligee. The Performance and Payment Bonds shall be released in accordance with Government Code sections 66499.7. The City of Chula Vista shall be named as a third party beneficiary on all Performance Bonds for the Work.

14. Guarantees. All materials and equipment shall be new and of industrial quality. Developers shall guarantee, or cause Contractor to guarantee, all Work for a period of one (1) year after the date of substantial completion and shall repair and replace any and all Work, together with any other Work which may be displaced in so doing, that may prove defective in workmanship and/or materials within the one (1) year period, without expense whatsoever to the City, ordinary wear and tear and usual abuse or neglect excepted. In the event of failure to comply or making reasonable progress towards complying with the abovementioned conditions within one (1) week after being notified in writing, the City may repair any defects or take other corrective action at the expense of Developer or Contractor who hereby agrees to pay the costs and charge therefore immediately upon demand. Developer or Contractor shall transfer to the City any and all manufacture warranties and provide operating manuals prior to the City's acceptance of the Work.

15. Notice. Any notice to be given or other document to be delivered by any Party to the other hereunder, may be delivered in person, or may be deposited in the United States mail in the State of California, duly certified or registered, return receipt requested, with postage prepaid, or by Federal Express or other similar overnight delivery service or by e-mail and addressed to the party for whom intended, as follows:

If to City, to:

Public Utilities Director
9192 Topaz Way
San Diego, CA 92123

If to Developers, to:

Stephen M. Faase
Baldwin and Sons, LLC
655 West Ash Street, Suite 1500
San Diego, CA 92101

Jeff O'Connor
Otay Land Company, LLC
1903 Wright Place, Suite 220
Carlsbad, CA 92008

Q. Sophie Yang
SSBT LCRE V, LLC
1 Lincoln Street, SFC9
Boston, MA 02111

16. Examination of Records. Developers shall preserve and maintain the following records, and allow the City to inspect and copy such records upon reasonable notice.

16.1 Plans and Specifications. Developers shall keep accurate and legible records on a set of Project blue-line prints of all changes to the Work which may have occurred during Project construction. All information necessary to maintain and/or service any concealed Work shall be noted on the record drawings. Prior to final payment, Developers shall deliver the "as-built" information to the City for each phase of the Work.

16.2 Costs. Developers shall keep an accurate record of the actual cost of the Work in accordance with generally accepted accounting procedures, including without limitation, all negotiated offers, proposals and invoices. Cost records and backup documentation shall be kept by Developers for five (5) years after the completion of the entirety of the Work.

17. Hold Harmless and Indemnify. Except as otherwise provided in Section 1.2 of this Agreement, each Developer agrees to defend, indemnify, protect and hold City and its agents, officers and employees harmless from and against any and all claims asserted or liability for personal injury or property damage arising from or connected with or are caused or claimed to be caused by the acts or omissions of that Developer, its agents, officers, or employees in performing the Work herein, and all expenses of investigating and defending against same, but only to the extent occurring prior to the completion of the Work. Each Developer's duty to indemnify and hold harmless shall not include any claims or liability arising from the established negligence or willful misconduct of the City, its agents, officers or employees. Each Developer, in its sole discretion, will select defense counsel to defend the City and its agents, officers, and employees. The City may select its own defense counsel, but must do so at its own expense.

17.1 Indemnity for Design Professional Services. With respect to any design professional services provided under this Agreement, except as otherwise provided by Civil Code section 2782.8, each Developer shall indemnify and hold harmless the City, its officers and employees, from all claims, demands or liability that arise out of, pertain to or relate to the negligence, recklessness, or willful misconduct of that Developer's design professional, its officers or employees.

18. Attorney's Fees and Costs. Each Party shall be responsible for its own attorney's fees and costs. Attorney's fees and costs incurred pursuant to mediation under this Agreement are not recoverable.

19. Liability Insurance. At all times during the term of this Agreement, Developers shall maintain insurance coverage as required by Exhibit "D" hereby incorporated by reference, at Developers' sole cost and expense. Developers shall require the contractors to maintain the same insurance coverage. Before performing any work, Developers shall provide the City with copies of all Certificates of Insurance accompanied by all endorsements. Developers shall be responsible for the payment of all deductibles and self-insured retentions. Developers shall notify the City thirty (30) days prior to any material change to the policies of insurance.

20. Mediation:

20.1 Mandatory Mediation. If a dispute arises out of, or relates to this Agreement, or the breach thereof, and if said dispute cannot be settled through normal contract negotiations, the Parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory non-binding mediation under the Construction Industry Mediation Rules of the American Arbitration Association or any other neutral organization agreed upon before having recourse in a court of law.

20.2 Expenses. The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the Parties, unless they agree otherwise.

20.3 Mediation Results. Any resultant agreements from mediation shall be documented in writing. All mediation results and documentation, by themselves, shall be "non-binding" and inadmissible for any purpose in any legal proceeding, unless such admission is otherwise agreed upon, in writing, by all parties. Mediators shall not be subject to any subpoena or liability and their actions shall not be subject to discovery.

20.4 Judicial Reference. Should mediation described above not be successful in resolving any dispute, such dispute shall be resolved by general judicial reference pursuant to Code of Civil Procedure Sections 638 and 641 through 645.1, or any successor statutes thereto, and as modified or as otherwise provided in this Section. The referee shall have the authority to try all issues, whether of fact or law, and to report a statement of decision to the court. The referee shall be the only trier of fact or law in the reference proceeding, and shall have no authority to further refer any issues of fact or law to any other party, without the consent of all parties. The referee shall be a retired judge with experience in relevant real estate matters. The parties to the dispute shall meet to select the referee within 10 days after service of the initial complaint on all defendants. Any dispute regarding the selection of the referee shall be promptly resolved by the judge to whom the matter is assigned, or if none, to the presiding judge of the Superior Court of San Diego County who shall select the referee. The referee shall have the power to hear

and dispose of motions in the same manner as a trial court judge, provided that if, prior to the selection of the referee, any provisional remedies are sought by the parties, such relief may be sought in the Superior Court of San Diego County.

21. Equal Employment Opportunities and Equal Opportunity Contracting. Developers Contractors shall comply with sections 21.1 through 21.5 below, if applicable under Government Code sections 65864 *et. seq.* and the Subdivision Map Act's vesting tentative map regulations.

21.1 Drug-Free Workplace. The Contractor agrees to comply with the City's Drug-Free Workplace requirements set forth in Council Policy 100-17, adopted by San Diego Resolution R-277952 and incorporated into this Agreement by this reference.

21.2 ADA Certification. The Contractor hereby certifies that it agrees to comply with the City's Americans With Disabilities Act Compliance/City Contracts requirements set forth in Council Policy 100-04, adopted by San Diego Resolution R-282153 and incorporated into this Agreement by this reference.

21.3 Compliance with the City's Equal Opportunity Contracting Program. The Contractor shall comply with the City's Equal Opportunity Contracting Program Contractor Requirements. The Contractor shall not discriminate against any employee or applicant for employment on any basis prohibited by law. The Contractor shall provide equal opportunity in all employment practices. The Contractor shall ensure that its Subcontractors comply with the City's Equal Opportunity Contracting Program Contractor Requirements. Nothing in this Section shall be interpreted to hold the Contractor liable for any discriminatory practice of its Subcontractors.

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

21.5 Compliance Investigations. Upon the City's request, the Contractor agrees to provide to the City, within sixty calendar days, a truthful and complete list of the names of all Subcontractors, vendors, and suppliers that the Contractor has used in the past five years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by the Contractor for each subcontract or supply contract. The Contractor further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance [San Diego Municipal Code sections 22.3501-22.3517]. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the contract and may result in remedies being ordered against the Contractor up to and including contract

termination, debarment, and other sanctions. The Contractor further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination Ordinance apply only to violations of said Nondiscrimination Ordinance.

22. Assignment. Developers may transfer or assign the Work, in whole or in part, to any person, partnership, joint venture, firm or corporation at any time during the term of this Agreement with the prior written consent of the City and if the transfer or assignment of the rights under this Agreement includes in writing the assumption of Developers' duties, obligations, and liabilities arising under or from this Agreement. Upon assumption by such an assignee, the assigning Developer shall be released from all liability arising out of events after the assumption. City will not withhold consent to the assignment of this Agreement.

23. Successors-In-Interest. This Agreement and all rights and obligations contained herein shall be in effect whether or not any or all parties to this Agreement have been succeeded by another entity, and all rights and obligations of the Parties signatory to this Agreement shall be vested and binding on their successors-in-interest.

24. Effective Date of Agreement. This Agreement shall become effective upon execution by all Parties.

25. Governing Law. This Agreement is entered into and shall be construed and interpreted in accordance with the laws of the State of California. Venue from actions arising out of the Agreement shall be in the County and City of San Diego, California.

26. Entire Agreement. This Agreement contains the entire understanding between all the Parties relating to the transaction contemplated hereby, and all prior or contemporaneous agreements, understandings, representations and statements, oral or written, are merged herein and shall be of no further force or effect. No provision of this Agreement may be amended, waived, or added except by an instrument in writing signed by the Parties hereto.

27. Incorporation of Exhibits and Recitals. All exhibits referenced in this Agreement and all recitals are incorporated herein by reference.

28. Counterparts. This Agreement may be executed in counterparts, which when taken together, shall constitute a single signed original as though all parties had executed the same page.

[remainder of page intentionally blank]

IN WITNESS WHEREOF, the Agreement is executed by the City of San Diego, acting by and through its Mayor or his designee, pursuant to Resolution R-_____ authorizing such execution, and by Developers through its authorized officer.

DEVELOPERS

By: _____
Stephen M. Haase
Baldwin & Sons LLC

Date: August 21, 2014

By: _____
Erin Ruhe
Otay Land Company, LLC

Date: AUGUST 18, 2014

By: _____
Q. Sophie Yang
SSBT UCRE V, LLC

Date: September 17, 2014

CITY OF SAN DIEGO

By: _____
Halla Razak
Public Utilities Director

Date: _____

I HEREBY APPROVE the form and legality of the foregoing Agreement this _____ day of _____, 2014.

JAN GOLDSMITH, City Attorney

By: _____
Raymond Palmucci
Deputy City Attorney

EXHIBIT 'A'

Map Depicting the Work

EXHIBIT 'B'

Schedule for Completion of the Work

EXHIBIT 'C'

Cost Loaded Schedule

EXHIBIT 'D'

Insurance Requirements

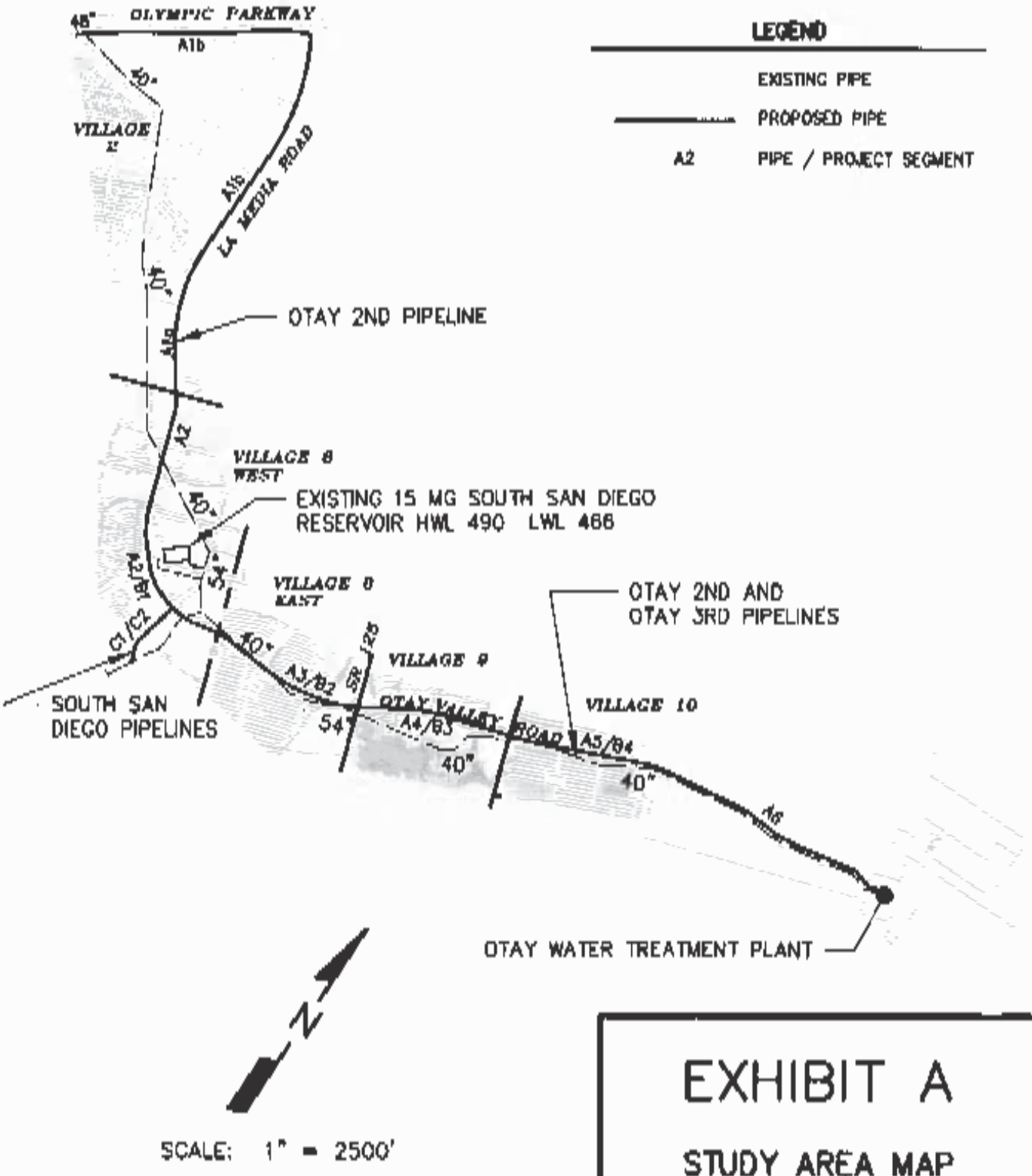


EXHIBIT A

STUDY AREA MAP

\\PACSIC\DWG\646373\AGREEMENT\EXHIBIT A.DWG 04-26-'4 08:47:4: LAYOUT: AREA

EXHIBIT 5
SOUTH CITY RANCH PIPELINE RELOCATIONS
PHASING SUMMARY

PHASE	DEVELOPER	SEGMENT	DESCRIPTION	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
1	CITY LAND COMPANY	A2	Village Bluffs - Dry Line Pipeline										
		B1	Village Bluffs - Dry Bed Pipeline										
		C1	Village Bluffs - [illegible] Pipeline No. 1										
		C2	Village Bluffs - [illegible] Pipeline No. 2										
	BALDWIN AND SONS	A1a	Village 1 - Dry Line Pipeline Pt 1										
2	BALDWIN AND SONS	A1b	Village 1 - Dry Line Pipeline Pt 2										
3	STATE STREET BANK AND TRUST	A3	Village 8 East - Dry Line Pipeline										
		B2	Village 8 East - Dry Bed Pipeline										
4	CITY LAND COMPANY	A4	Village 9 - Dry Line Pipeline										
		B3	Village 9 - Dry Bed Pipeline										
5	STATE STREET BANK AND TRUST	A5	Village 11 - Dry Line Pipeline										
		B4	Village 11 - Dry Bed Pipeline										
	CITY LAND COMPANY	A6	Open Space - Dry Line Pipeline										

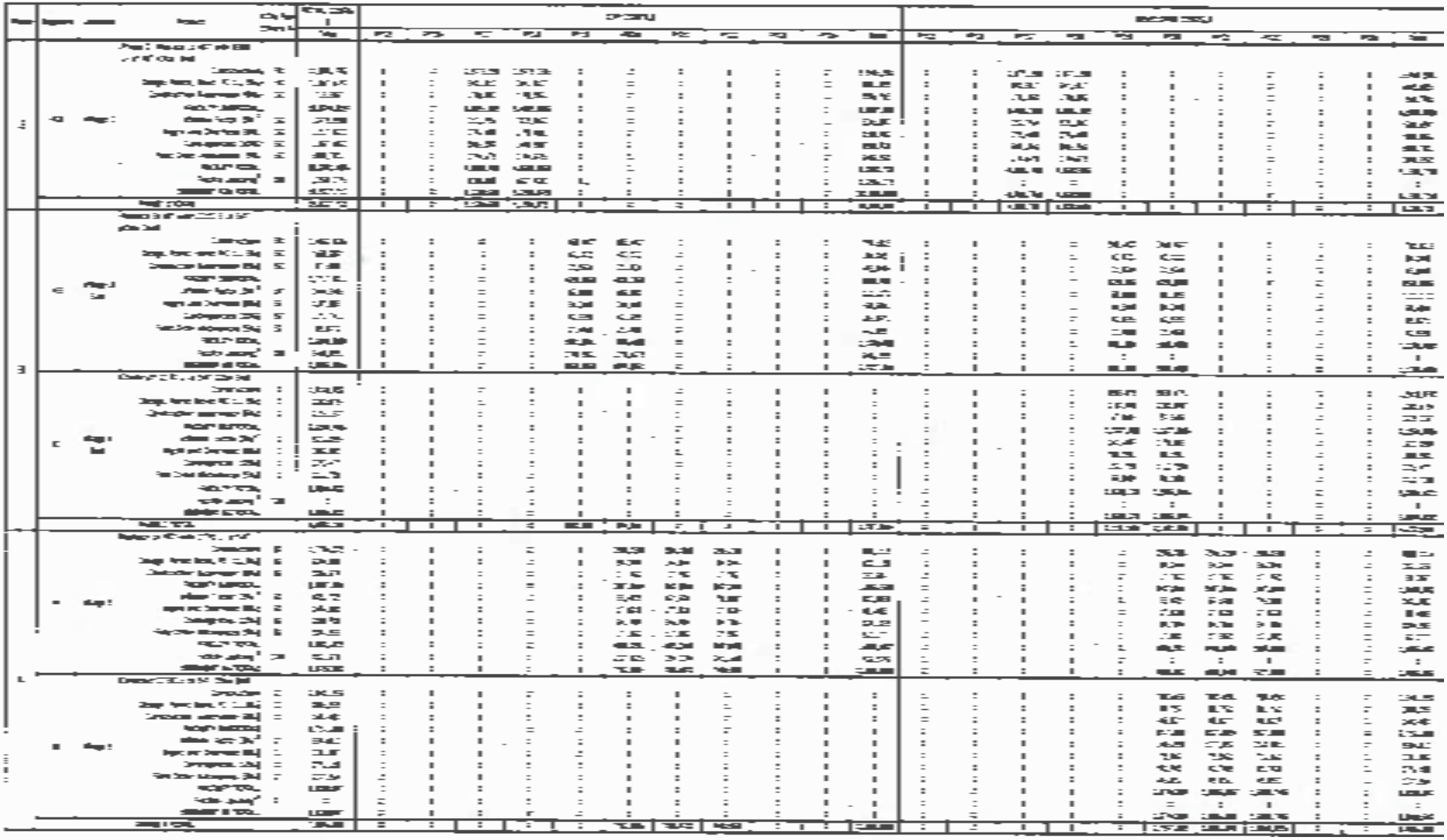


Exhibit D
Insurance Requirements

D-1 Required Insurance: Developers shall obtain, and maintain in full force throughout the duration of the Work, insurance as called for below, with insurance carriers acceptable to the City and shall furnish certificate(s) of insurance to the City prior to commencing the Work. As a minimum requirement of acceptability, the insurance carrier shall be duly authorized by the California Insurance Commissioner to transact the business of insurance in the State of California. Except for the State Compensation Insurance Fund, insurance coverage must be from an insurance carrier licensed in the State of California and rated "A-" and "VI" or better by the A.M. Best Key Rating Guide. The required insurance policies and the certificate(s) of insurance shall contain the endorsements listed in Paragraph D-2 below.

D-1.1 Workers' Compensation and Employer's Liability Insurance.

D-1.1.1 Workers' Compensation in compliance with the applicable state and federal laws.

D-1.1.2 Employer's Liability:

Bodily Injury by Accident	$1,000,000 each accident
Bodily Injury by Disease	$1,000,000 each employee
Bodily Injury by Disease	$1,000,000 policy limit

Developers will provide a Worker's Compensation certificate of insurance that states: "Workers' Compensation applies to enrolled parties of Developers Wrap-Up Insurance Program and does extend to employees of Developers."

D-1.2 Commercial General Liability Insurance written on ISO Occurrence form CG 00 01 07 98, or an equivalent form providing coverage at least as broad, which shall cover liability arising from premises and operations, XCU (explosion, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract). There shall be no endorsement or modification of the CGL Insurance limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. All policy coverage shall be on an occurrence basis and in amounts not less than the following limits of liability:

General Annual Aggregate Limit

(Other than Products/Completed Operations)	$2,000,000
Products/Completed Operations Aggregate Limit	$2,000,000
Personal Injury Limit	$1,000,000
Each Occurrence	$1,000,000

D-1.3 Contractor shall provide at its expense a policy or policies of Commercial Automobile Liability Insurance written on an ISO form CA 00 01 12 90, or a later version of this form or equivalent form, providing coverage at least as broad in the amount of $1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned and hired automobiles.

D-2 Required Endorsements: The following endorsements shall be included in the insurance policies and certificates of insurance called for in Paragraph D-1 above, as indicated below.

D-2.1 Workers' Compensation and Employer's Liability insurance endorsements:

D-2.1.1 Cancellation. Except as provided for under California law, the policy or policies must be endorsed to provide that the City is entitled to thirty (30) days prior written notice ten (10) days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

D-2.1.2 Waiver of Subrogation. The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of this policy or these policies which arise from work performed by the Named Insured.

D-2.2 Commercial General Liability Insurance Endorsements:

D-2.2.1 Additional Insureds. The policy or policies must be endorsed to include as an Insured the City of San Diego and its respective elected officials, officers, employees, agents, and representatives with respect to liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) Your products, (c) Your work, including but not limited to your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you.

D-2.2.2 Primary and Non-Contributory Coverage. The policy or policies must be endorsed to provide that the insurance afforded by the Commercial General Liability policy or policies is primary to any insurance or self-insurance of the City of San Diego and its elected officials, officers, employees, agents and representatives as respects operations of the Named Insured. Any insurance maintained by the City of San Diego and its elected officials, officers, employees, agents and representatives shall be in excess of Developers' insurance and shall not contribute to it.

D-2.2.3 Cancellation. Except as provided for under California law, the policy or policies must be endorsed to provide that the City is entitled to thirty (30) days prior written notice ten (10) days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

D-2.2.4 Severability of Interest. The policy or policies must be endorsed to provide that Developers' insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and shall provide cross-liability coverage.

D-2.3 Automobile Liability Insurance Endorsements:

D-2.3.1 Additional Insureds. The policy or policies must be endorsed to include as an Insured the City of San Diego and its respective elected officials, officers, employees, agents, and representatives with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of Developers.

D-2.3.2 Cancellation. Except as provided for under California law, the policy or policies must be endorsed to provide that the City is entitled to thirty (30) days prior written notice ten (10) days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

D-2.3.3 Severability of Interest. The policy or policies must be endorsed to provide that Developers' insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and shall provide cross-liability coverage.

D-3 Surplus Lines. A policy by a Surplus Lines insurer is presumptively invalid unless the insurer is on the List of Eligible Surplus Line Insurers [LESLI List] maintained by the California Department of Insurance. The LESLI List may be found at:

http://www.insurance.ca.gov/FAD/Surplusl.htm

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

ATTACHMENT C2
TO COMMENT LETTER N

City of San Diego E-mail Requesting Removal from Signature Block

From: Hopkins, Gregory [mailto:GHopkins@sandiego.gov]
Sent: Friday, October 17, 2014 11:26 AM
To: Tom Adler
Cc: Wilson, Leonard; Carlson, Mary
Subject: Chula Vista/Otay Ranch Tentative Map

Hi Tom,

This email is to let you know that the City of San Diego is aware of the abovementioned Tentative Map. As agreed, certain notation will be placed on the tentative map addressing the City's concerns, which notes are:

- A separate City of San Diego Public Improvement Permit shall be required for construction of the City of San Diego water pipelines.
- Purchase of City of San Diego property would be required prior to filing any final or parcel map or construction on City of San Diego owned property.

As such, the City of San Diego has no objection in the processing of the abovementioned tentative map.

Respectfully,

Gregory P. Hopkins, PLS
Deputy Director | City Land Surveyor | Deputy City Engineer
City of San Diego | Development Services Department
Office Downtown: (619) 446-5291
Office Field Surveys: (858) 627-3220

Correspondents should assume that all communication to or from this address is recorded and may be reviewed by third parties

Please consider the environment before printing this e-mail

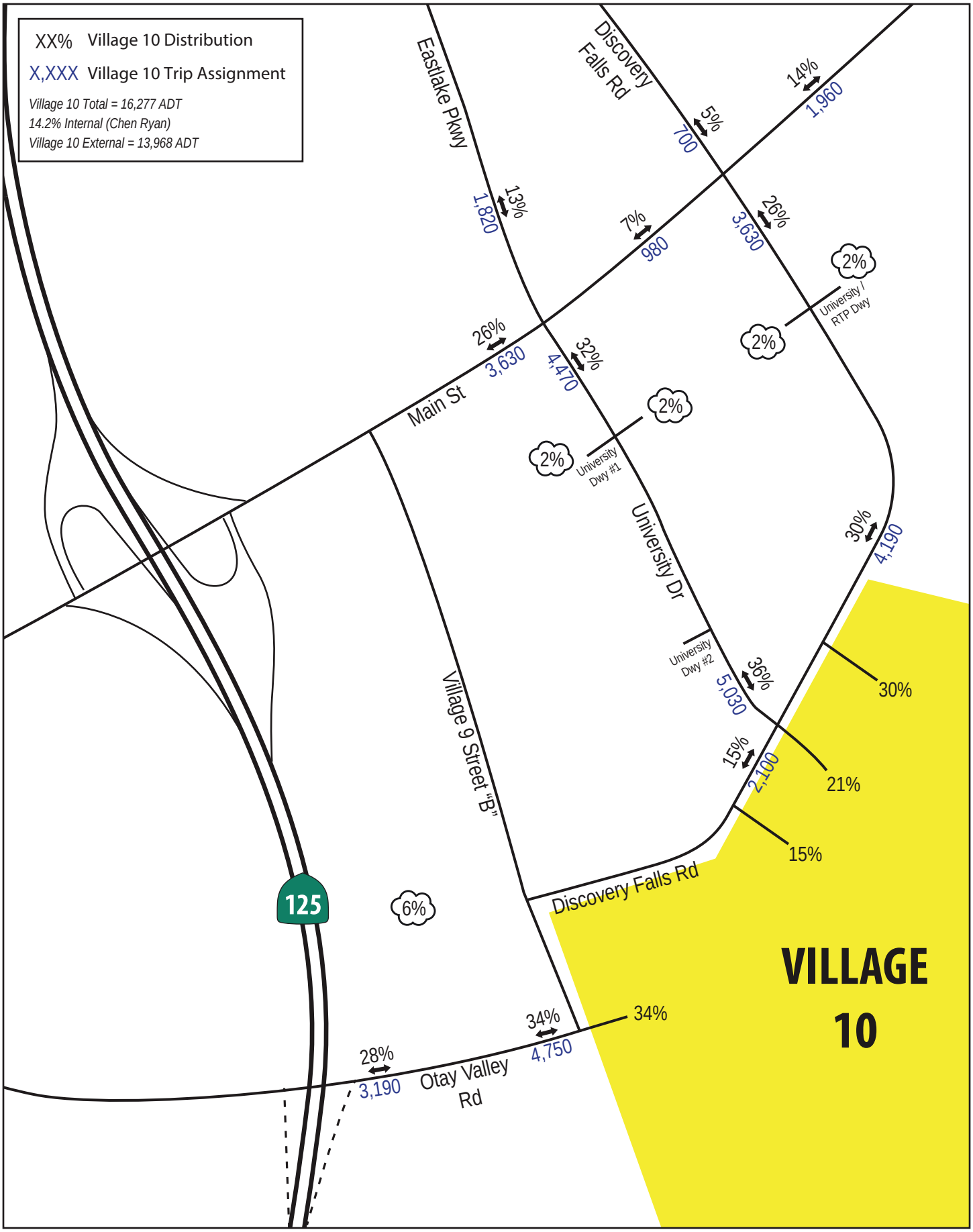
ATTACHMENT D
TO COMMENT LETTER N

Discovery Falls Drive and University Drive Cross Section Development

ATTACHMENT D

DISCOVERY FALLS DRIVE AND UNIVERSITY DRIVE CROSS SECTION DEVELOPMENT

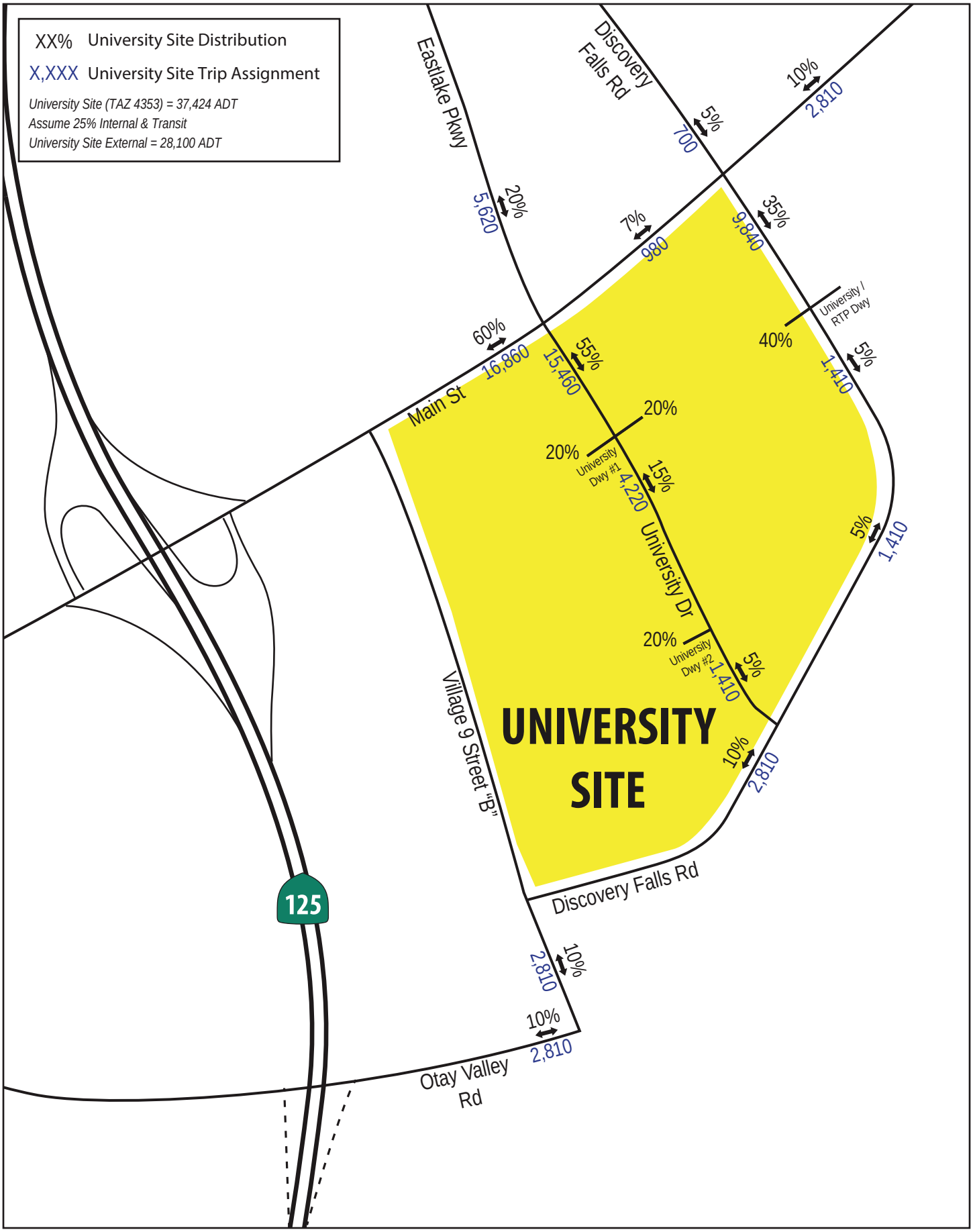
The following attachment document the trip distribution that was used to develop the cross section for both the University Drive and Discovery Falls Drive (East Lake Parkway).



Discovery Falls Drive & University Drive
Cross-Section Development

CHEN RYAN

Figure 1
Village 10 Distribution and Volumes

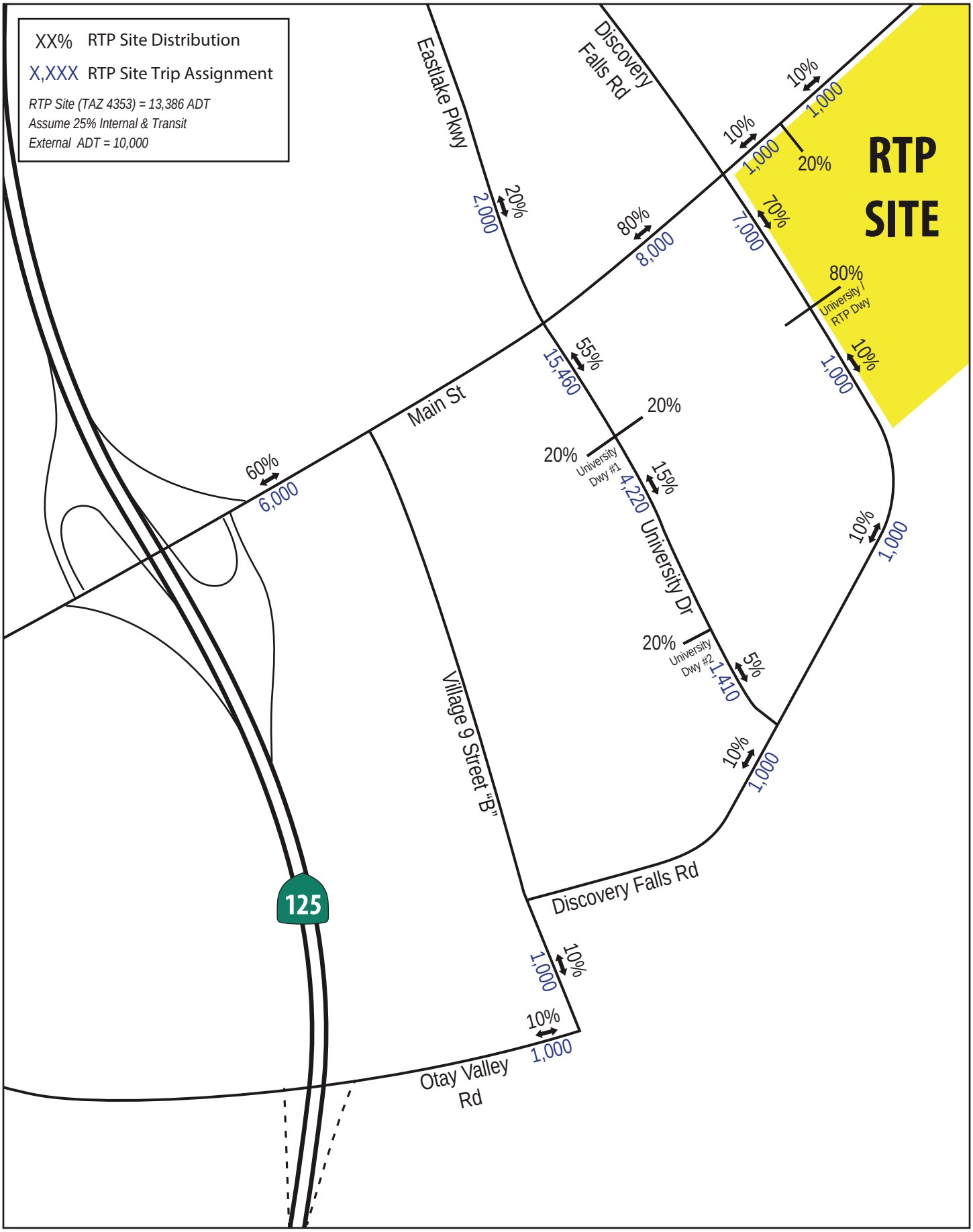


Discovery Falls Drive & University Drive Cross-Section Development

CHEN RYAN

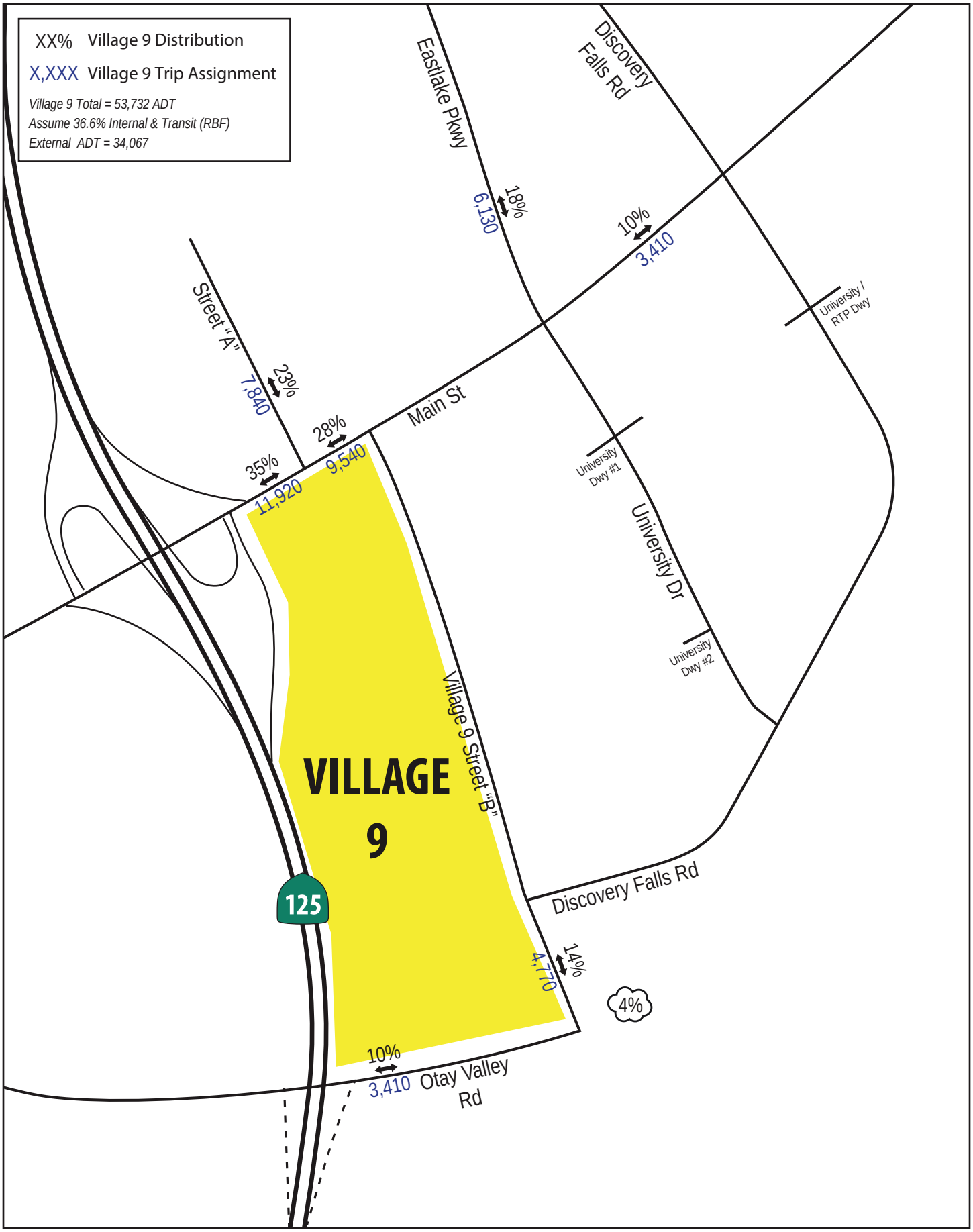
Figure 2

University Site Distribution and Volumes



Discovery Falls Drive & University Drive
Cross-Section Development
CHEN RYAN

Figure 3
RTP Site Distribution and Volumes

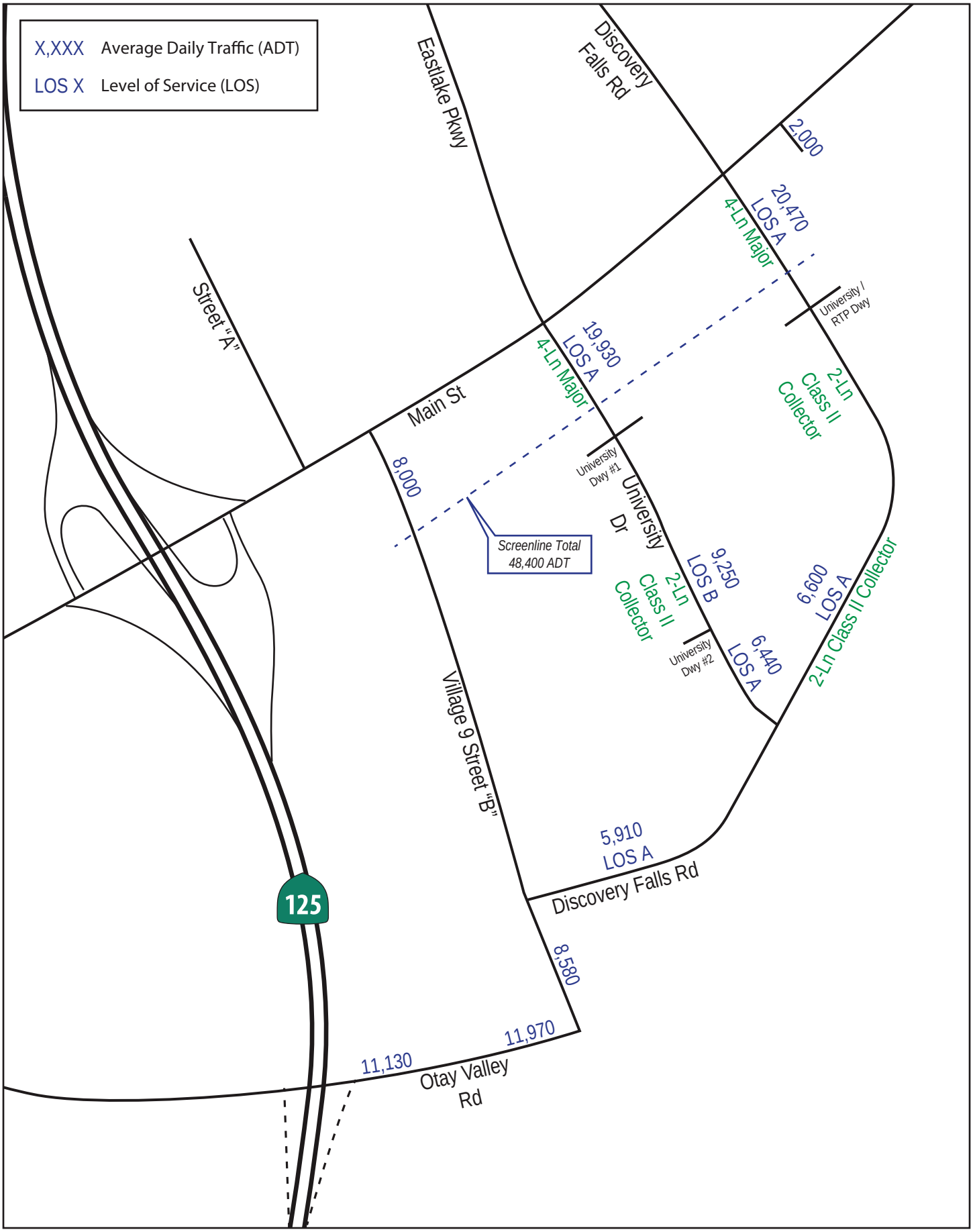


Discovery Falls Drive & University Drive Cross-Section Development

CHEN RYAN

Figure 4

Village 9 Distribution and Volumes



Discovery Falls Drive & University Drive Cross-Section Development

CHEN RYAN

Figure 5

Total ADT (Village 9, Village 10, University & RTP)

ATTACHMENT E
TO COMMENT LETTER N

Intersection Queuing Analysis – Year 2030Base Plus Project Scenario

ATTACHMENT E

INTERSECTION QUEUING ANALYSIS – YEAR 2030 BASE PLUS PROJECT SCENARIO

The following attachment show the queuing analysis results for all major intersections near Village 9.

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	100	158	21	247	79	231
v/c Ratio	0.34	0.34	0.41	0.15	0.30	0.37	0.24
Control Delay	21.4	24.1	9.5	28.4	15.8	29.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	24.1	9.5	28.4	15.8	29.5	11.6
Queue Length 50th (ft)	24	29	5	7	57	24	36
Queue Length 95th (ft)	63	69	47	26	130	65	115
Internal Link Dist (ft)	770		1455		192		542
Turn Bay Length (ft)							
Base Capacity (vph)	588	578	622	144	816	216	955
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.25	0.15	0.30	0.37	0.24

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	174	53	242	142
v/c Ratio	0.32	0.30	0.36	0.17
Control Delay	16.4	25.7	13.7	2.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.4	25.7	13.7	2.8
Queue Length 50th (ft)	30	15	50	2
Queue Length 95th (ft)	88	41	96	23
Internal Link Dist (ft)	1455		399	200
Turn Bay Length (ft)				
Base Capacity (vph)	537	177	670	847
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.32	0.30	0.36	0.17

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	179	42	211	26	326	35	137
v/c Ratio	0.41	0.18	0.35	0.24	0.27	0.77	0.37	0.29
Control Delay	40.0	11.2	47.9	16.7	47.8	35.5	51.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	11.2	47.9	16.7	47.8	35.5	51.9	13.2
Queue Length 50th (ft)	45	44	22	66	14	130	18	20
Queue Length 95th (ft)	91	92	57	138	41	223	#57	68
Internal Link Dist (ft)		399		337		373		1423
Turn Bay Length (ft)								
Base Capacity (vph)	382	1008	119	874	95	599	95	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.18	0.35	0.24	0.27	0.54	0.37	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	350	44	226	142
v/c Ratio	0.27	0.23	0.15	0.51
Control Delay	7.0	31.0	2.5	15.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.0	31.0	2.5	15.4
Queue Length 50th (ft)	59	18	15	11
Queue Length 95th (ft)	133	45	43	55
Internal Link Dist (ft)	337		108	324
Turn Bay Length (ft)				
Base Capacity (vph)	1304	189	1519	1207
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.23	0.15	0.12

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	131	89	143	42	363	132	274
v/c Ratio	0.51	0.41	0.48	0.30	0.45	0.53	0.28
Control Delay	33.6	38.0	16.6	41.8	18.2	40.1	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	38.0	16.6	41.8	18.2	40.1	13.6
Queue Length 50th (ft)	49	40	14	20	107	60	75
Queue Length 95th (ft)	105	88	67	55	227	123	156
Internal Link Dist (ft)	927		383		361		1020
Turn Bay Length (ft)							
Base Capacity (vph)	399	388	447	145	813	315	983
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.23	0.32	0.29	0.45	0.42	0.28

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	331	151	221	85
v/c Ratio	0.30	0.48	0.14	0.33
Control Delay	9.9	24.6	2.3	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.9	24.6	2.3	11.4
Queue Length 50th (ft)	58	45	14	3
Queue Length 95th (ft)	138	84	37	34
Internal Link Dist (ft)	364		432	186
Turn Bay Length (ft)				
Base Capacity (vph)	1109	353	1551	527
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.30	0.43	0.14	0.16

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	84	279	171	242	16	126	84	273
v/c Ratio	0.35	0.44	0.51	0.30	0.12	0.36	0.35	0.53
Control Delay	30.2	20.2	28.6	15.1	31.5	16.4	30.2	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	20.2	28.6	15.1	31.5	16.4	30.2	16.7
Queue Length 50th (ft)	28	77	56	61	6	21	28	50
Queue Length 95th (ft)	74	172	123	134	24	63	74	132
Internal Link Dist (ft)		432		246		494		1525
Turn Bay Length (ft)								
Base Capacity (vph)	274	641	446	846	137	577	274	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.44	0.38	0.29	0.12	0.22	0.31	0.38

Intersection Summary

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	362	145	379	116
v/c Ratio	0.33	0.49	0.26	0.42
Control Delay	9.7	28.6	3.0	15.6
Queue Delay	0.3	0.0	0.0	0.0
Total Delay	10.0	28.6	3.0	15.6
Queue Length 50th (ft)	64	47	29	11
Queue Length 95th (ft)	143	99	66	52
Internal Link Dist (ft)	246		244	197
Turn Bay Length (ft)				
Base Capacity (vph)	1092	399	1519	356
Starvation Cap Reductn	274	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.36	0.25	0.33

Intersection Summary

ATTACHMENT F
TO COMMENT LETTER N

Caveat Statements from
Village 8 West and Village 9 TIA's

ATTACHMENT F

Except of caveat statements from:

- Otay Ranch Village 8 West Traffic Impact Analysis; and
- Otay Ranch Village 9 Traffic Impact Analysis.

PAGES 50 – 51 OF THE OTAY RANCH VILLAGE 8 WEST TIA

2030 CONDITIONS

In addition to the developments assumed through 2025, this scenario assumes buildout of Village 8 West to include the construction of a middle school, an additional 60,000 square feet of commercial retail, and 9.4 acres of park space. This scenario assumes the 2025 mitigated street network. **Table 23** summarizes the forecasted Village 8 West 2030 project trip generation.

Table 23
2030 Project Trip Generation

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	Inbound	Outbound	Total	Inbound	Outbound
Park (Active Recreation)	17.4 acres	870	35	17	17	70	35	35
Urban & Neighborhood Park	10.6 acres	53	2	1	1	4	2	2
Single Family Residential	621 DU	6,210	497	149	348	621	435	186
Multi-Family Residential	1,429 DU	11,432	915	183	732	1,143	800	343
Elementary School	11.4 acres	1,140	365	219	146	103	41	62
Jr. High/Middle School	21.0 acres	2,205	706	423	282	198	79	119
Office (<100 KSF)	50 KSF	1,000	140	129	14	130	26	104
Commercial Retail	250 KSF	20,000	800	480	320	2,000	1,000	1,000
SUBTOTAL		**43,084**	**3,467**	**1,604**	**1,864**	**4,283**	**2,425**	**1,858**
Internal Capture[1]		*-14,826*	*-632*	*-316*	*-316*	*-1,300*	*-650*	*-650*
Transit Reduction[2]		*-2,154*	*-173*	*-80*	*-93*	*-214*	*-121*	*-93*
TOTAL		**26,104**	**2,662**	**1,208**	**1,455**	**2,769**	**1,654**	**1,115**
Total EDU's		**2,610**						

Note: based on *SANDAG, Not So Brief Guide, April 2002*
[1] Internal Capture Rates provided from *ITE Trip Generation Handbook.* Internal capture rates vary by each combination of land uses.
[2] Transit Reduction Rates provided from SANDAG; a transit reduction of 5% is assumed by project buildout.

The 2030 scenario includes analysis of the forecasted traffic volumes from the SANDAG model run for year 2030, including anticipated land uses and traffic associated with projects expected to be constructed by 2030.

The traffic analysis assumes the 2025 mitigated network plus the following:

- Street "A" will be constructed from Main Street to Otay Valley Road as a two-lane Collector
- Construction of Main Street from Heritage Road to La Media Road (constructed by others)

The 2025 mitigated roadway network is required to be constructed prior to the construction of the first EDU following the 2025 development phase (2,234 EDUs). Any additional development cannot occur until the 2025 mitigated roadway network is in place. If the project equivalent dwelling unit exceeds the 2025 development phase (2,234 EDUs) prior to the completion of all of the above-listed assumed and planned off-site and on-site improvements being constructed and open to traffic, then one of the following steps shall be taken as determined by the City Engineer:

1. Development in Village 8 West will stop until those assumed future roadways are constructed by others; or

2. City and OLC shall meet to determine the need for the incomplete roadway segments. A number of factors, including changes to the tolling structure at SR-125, may affect the traffic patterns in the Otay Ranch. Additional traffic analysis of the roadway network and levels of service assessment may be necessary to determine if such improvements are necessary and the scope and timing of additional circulation improvements; or

3. Developer shall construct the missing roadway links and receive TDIF credit for those improvements as applicable; or

4. An alternative measure is selected by the city in accordance with the city of Chula Vista Growth Management Ordinance.

5. All to the satisfaction of the City Engineer.

The roadway network used in evaluating the 2030 conditions is illustrated in **Exhibit 35**. The 2030 roadway network does not represent the City's ultimate Circulation Element network. The 2030 roadway network lacks a few components of the ultimate infrastructure that is planned in the study area, and it has been determined that these remaining components of the ultimate roadway network are not necessary to mitigate the project's impacts.

Access to Village 8 West will be provided along Main Street, La Media Road, Otay Valley Road, Street "A" and Magdalena Avenue. Street "A" is not included in the roadway segment analysis as it is a local street not subject to LOS requirements. Operating conditions of Street "A" and the associated internal intersections are discussed in the On-Site Street Improvements Phase and Operational Analysis section provided later in this report.

PAGES 38-39 OF THE OTAY RANCH VILLAGE 9 TIA

2030 CONDITIONS

In addition to the developments assumed through 2025, this scenario assumes buildout of Village 9 to include the construction of an elementary school, 21 additional single family dwelling units, 223 additional high density multi family dwelling units, an additional 625,000 square feet of office, and 5 acres of community purpose facilities. This scenario assumes the 2025 mitigated street network. **Table 19** summarizes the forecasted Village 9 2030 project trip generation.

Table 19
2030 Project Trip Generation Table

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	Inbound	Outbound	Total	Inbound	Outbound
Urban & Neighborhood Park	27.5 acres	138	6	3	3	11	6	5
Single Family Residential	266 DU	2,660	213	64	149	266	186	80
High Density Multi-Family Residential	3,734 DU	22,404	1,792	358	1,434	2,016	1,411	605
Elementary School	19.8 acres	1,980	633	379	254	178	71	107
Office (>400 KSF)	1,200 KSF	14,400	1,872	1,685	187	1,872	374	1,498
Commercial Retail	300 KSF	12,000	480	288	192	1,200	600	600
Community Purpose Facility	5 acres	150	8	5	3	12	6	6
SUBTOTAL		**53,732**	**5,003**	**2,781**	**2,222**	**5,555**	**2,654**	**2,901**
Internal Capture[1]		-11,606	-469	-234	-234	-1,214	-607	-607
Transit Reduction[2]		-8,059	-750	-417	-333	-833	-398	-435
TOTAL		**34,067**	**3,784**	**2,130**	**1,655**	**3,509**	**1,649**	**1,859**
TOTAL EDU		**3,407**						

Note: based on *SANDAG, Not So Brief Guide, April 2002*
[1] Internal Capture Rates provided from *ITE Trip Generation Handbook.* Internal capture rates vary by each combination of land uses.
[2] Transit Reduction Rates provided from SANDAG; a transit reduction of 15% is assumed by project buildout.

The 2030 scenario includes analysis of the forecasted traffic volumes from the SANDAG model run for year 2030, including anticipated land uses and traffic associated with projects expected to be constructed by 2030.

The traffic analysis assumes the 2025 mitigated network plus the following off-site roadway improvement:

- Construction of Main Street from Heritage Road to La Media Road (constructed by others)
- Construction of “Village Path” pedestrian/bicycle bridge over SR-125 to provide non-motorized access between Village 9 and Village 8 East (constructed by others)

The 2030 analysis includes the 2025 on-site roadway network plus the following on-site roadway improvements that will be constructed by the project by 2030, as stated in the PFFP analysis presented later in the report:

- Construction of Street “A” from Village 9 northern boundary to Main Street
- Construction of Street “B” from Village 9 northern boundary to Campus Boulevard
- Installation of traffic signal at Main Street / Street “B”

The 2025 mitigated roadway network is required to be constructed prior to the construction of the first EDU following the 2025 development phase (3,074 EDUs). Any additional development cannot occur until the 2025 mitigated roadway network is in place. If the project equivalent dwelling unit limit for 2025 (3,074 EDU as shown in Tables 15 and 18) is reached prior to all of the above-listed off-site and roadway improvements are constructed and open to traffic, then one of the following steps shall be taken as determined by the City Engineer:

1. Development in Village 9 will stop until those assumed future roadways are constructed by others; or

2. City and OLC shall meet to determine the need for the incomplete roadway segments. A number of factors, including changes to the tolling structure at SR-125, may affect the traffic patterns in the Otay Ranch. Additional traffic analysis of the roadway network and levels of service assessment may be necessary to determine if such improvements are necessary and the scope and timing of additional circulation improvements; or

3. Developer shall construct the missing roadway links and receive TDIF credit for those improvements as applicable; or

4. An alternative measure is selected by the City in accordance with the City of Chula Vista Growth Management Ordinance; or

5. All to the satisfaction of the City Engineer.

All on-site improvements will be constructed in accordance with the PFFP. The roadway network used in evaluating the 2030 conditions is illustrated in **Exhibit 29**. The 2030 roadway network does not include all future roadways included in the City's Circulation Element. The analysis conducted in this report demonstrates that the remaining future planned roadways (Eastlake Parkway from Main Street to Otay Valley Road and the Otay Valley Road/SR-125 interchange) are not necessary to mitigate the project's impacts.

ATTACHMENT G
TO COMMENT LETTER N
Eastern Transportation Development Impact Fee

CITY OF
CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

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EXECUTIVE SUMMARY

This report represents the 2014 update of the Chula Vista Eastern Area Development Impact Fees for Streets, also known as the Transportation DIF, and herein referred to as simply the "TDIF".

The report includes a discussion of the rationale behind development impact fees, a brief history of the local TDIF Program, an analysis of the proposed fee program including updates to the development forecast, the average daily trip (ADT) rate assignments for each land use and associated EDUs, the street projects included in the program and some changes in fee calculation methodology.

The focus of this report is fivefold:

- To refine the current fee program to include changes to land uses and facilities within the benefit area;
- To update costs and scope of work for the facilities currently within the TDIF program, as well as provide cost estimates for newly added facilities.
- To add Discovery Falls Drive adjacent to Village 10, Millenia Avenue in the Eastern Urban Center and Street "B" in Village 9 and additional ramps at SR-125 to the TDIF program.
- To refine the cost calculation for Main Street from Heritage Road to La Media Road including a bridge over Wolf Canyon and to document that this road is now part of the Regional Arterial System (RAS)

This update represents an increase in the cost of the remaining transportation facilities to be built to $294,011,801 in 2014 and a corresponding decrease in equivalent dwelling units (EDU's) from 20,543 in 2005 to 19,545 in 2014. The resulting recommended fee increases from the current $12,494 per EDU to $13,035 per EDU, an increase of $541 (4.3%).

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 1

Introduction

A DEVELOPMENT IMPACT FEES

Development impact fees are imposed upon development in an area of benefit, often containing a number of different properties, property owners, and land use types. Such fees are governed by the regulations and requirements of Government Code Section 66000 et seq. of the State of California.

The Chula Vista Transportation Development Impact Fee (TDIF) has two main purposes: (1) To fund the construction of facilities needed to mitigate potential direct and cumulative impacts and (2) To spread the costs associated with construction of the facilities equitably among the developing properties.

In the environmental review process, such as in the California Environmental Quality Act process (CEQA), a project's potential impacts are identified and, where possible, a method of mitigating those impacts (reducing the actual impact to an insignificant level) is identified. In the case of larger projects, the Environmental Impact Report (EIR) usually identifies cumulative impacts resulting from the project, as well as direct impacts. Cumulative impacts are impacts created by overall development, of which individual projects do not create a significant impact directly, but contribute to an impact through additive effect. Since the individual development projects are not completely responsible for the entire impact on any single segment of roadway, for instance, they are required to contribute a portion of the mitigation based on each project's fair share of the overall impact to the roadway system. Each project's fair share of the impact is based on the amount of traffic as measured by Average Daily Trips (ADTs) that the project places on the overall street system.

A development impact fee is an ideal mechanism for identifying and ultimately funding the fair share contribution to the overall mitigation program.

B TRANSPORTATION DEVELOPMENT IMPACT FEES (TDIF)

A transportation development impact fee is a typical impact fee designed to mitigate cumulative impacts on the local transportation network as a result of development. Generally, development of property produces impacts on the local road network resulting in decreased traffic capacity on the street system. To measure the effects of traffic, cities establish capacity or level of service standards that they each consider appropriate for their jurisdictions. Where potential impacts resulting from development are projected to reduce the capacity on streets to the point where the identified level of service will not be maintained, the impacts are deemed to be significant, and should be mitigated. Typical mitigation for cumulative impacts to the system is designed to restore capacity and maintain the desirable level of service. Examples of capacity-increasing improvements include adding new roads to the circulation network, widening or improving existing roads, installing new traffic signals or improving existing signalization, freeway interchange improvements, and improving signal coordination (Management of traffic operations).

In the case of transportation development impact fee programs, the accepted method of distributing costs in an equitable manner is to compare traffic generated by each project that will potentially affect the overall system. This can be done by establishing a uniform list of trip generation factors typical for the types of uses contemplated for the developments. Usually such an analysis is performed when information on the proposed developments is general in nature.

The actual number of trips generated by the final development of individual parcels may vary from the projections.

C HISTORICAL BACKGROUND

In February 1986, the Chula Vista City Council adopted a schedule of development impact fees (DIF) for the Eastlake I development. Eastlake was the first major planned development that added significant traffic to the street system. Fees were established to ensure that Eastlake contributed to the cost of certain street improvements, including a four-lane interim facility in the State Route 125 (SR-125) corridor. Also included in the development impact fee was the cost of constructing a fire station and a community park in Eastlake I. While the fees were imposed as a condition of development on Eastlake, City staff recommended to the Council that a development impact fee ordinance be prepared to provide for the financing of transportation improvements by all of the developments that would benefit from the improvements.

In January 1987, the Council authorized the preparation of a development impact fee program for the financing of street improvements in the area east of Interstate 805.

In December 1987, a report entitled *"The Interim Eastern Area Development Impact Fees for Streets"* was completed. The "Area of Benefit" included all of the undeveloped lands that benefited from the proposed transportation improvements, within the City of Chula Vista and County of San Diego, east of Interstate 805. The Council adopted an Eastern Area Development Impact Fee in January 1988 by Ordinance Number 2251 (TDIF). The fee was established at $2,101 per equivalent dwelling unit (EDU).

On August 8, 1991, the City Council authorized the preparation of an "Interim SR-125 Facility Feasibility Study." The purpose of this study was to identify an interim SR-125 facility that would meet the transportation needs of the region until a permanent facility could be constructed. The interim SR-125 Facility Feasibility Study report recommended the establishment of a new fee (separate from the existing TDIF) to specifically finance the construction of interim facilities that would temporarily postpone the need for a permanent freeway/toll road facility. Consequently, projects dealing with the SR-125 construction were excluded from the TDIF program and were included in the Interim SR-125 DIF program.

In October 1993, the City Council approved the General Plan Amendment for the Otay Ranch. As a result, the TDIF program was updated in December 1993, including the first phase of the Otay Ranch. For the first time since the adoption of the original TDIF in 1988, a comprehensive general plan of land uses and circulation system requirements was in place on the Otay Valley parcel.

The TDIF program was subsequently updated twice in 1999 and 2002 to reflect changes to the circulation element of the General Plan, land use changes and to adjust the construction cost estimates.

The purpose of the 2005 update to the TDIF was fourfold: 1. Comply with the 2005 General Plan changes including the revised Circulation Element and related Land Uses in Eastern Chula Vista. 2. Review all previous projects and update the costs and land uses which affect the adequacy of the current fee to construct the facilities. 3. Evaluate costs and credits as several TDIF projects had been completed. 4. Re-evaluate the average daily trip (ADT) rates for commercial land uses by

considering only trips generated outside the benefit area and to introduce office and mixed-use residential as separate designations.

Since its inception, the amount of the TDIF fee has been revised several times, as follows:

Date of Action	Ordinance Number	Fee/EDU
January 9, 1990	2349	$ 2,850
December 11, 1990	2431	$ 3,060
January 4, 1994	2580	$ 3,998
November 30, 1999	2802	$ 5,920
September 10, 2002	2866	$ 8,180
October 1, 2004	ENR Index	$ 8,825
October 1, 2005	3029	$10,050
October 1, 2006	ENR Index	$10,455
October 1, 2007	ENR Index	$10,777
October 1, 2008	ENR Index	$11,317
October 1, 2009	ENR Index	$11,836
January 26, 2010	Resolution 2010-017	$11,317
October 1, 2010	Resolution 2010-017	$11,317
October 1, 2011	ENR Index	$12,198
October 1, 2012	ENR Index	$12,480
October 1, 2013	ENR Index	$12,494

This report recommends changing the fee to $13,035 per EDU.

This report represents the 2014 update of the TDIF and, where appropriate, makes adjustments to the development impact fee based upon completed street construction, revised development projections and new unit costs. The report adds several new arterial projects and updates the scope of work for other projects. New to the program are the addition of Millenia Avenue in the Eastern Urban Center, Discovery Falls Drive in Village 10, Street “B” in Village 9 and Otay Valley Road east of State Route 125.

In addition, the scope of work has been revised on three projects: 1. East H Street from Buena Vista Way to Southwestern College will have a revised cross-section plus an east-to-south right turn lane into the college. 2. The Main Street/Hunte Parkway Overcrossing project at SR-125 will include costs for the on-ramps and off-ramps, and; 3. The Otay Valley Road Overcrossing project at State Route 125 will also include costs for the on-ramps and off-ramps. Lastly, the inclusion of Main Street into the Regional Arterial System is recommended.

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 2

Fee Development

A REVISED DEVELOPMENT FORECAST

A fundamental principle in the formulation of a development impact fee is that the need for additional public facilities is generated by new development, and thus the cost of the facilities should be paid by that new development. Generally, existing facilities have adequate capacity to support the existing state of development, and any capacity that is added to the street network is in response to the demand created by that subsequent development. It is, therefore, incumbent upon new development to fully mitigate these impacts.

The street projects proposed in this Update ("Proposed Street Projects") ensure that the remaining streets in the city's General Plan are fully funded for construction. The proposed boundary identifying the "Area of Benefit" for this Update is illustrated in **Figure I**.

As shown in the figure, the northerly boundary of the Area of Benefit generally begins in the vicinity of Bonita Road east of I-805. The northern boundary of the Area of Benefit continues in an easterly direction to encompass the developments of Bonita Long Canyon, San Miguel Ranch, and Rolling Hills Ranch.

The easterly boundary of the Area of Benefit generally encompasses the eastern portions of Rolling Hills Ranch, Eastlake, and Otay Ranch. The southerly boundary follows the easterly city limits to Otay Valley excluding the Otay Landfill owned by the County of San Diego, and those properties within Assessment District 90-2. The westerly boundary is generally I-805.

The proposed Area of Benefit is the area served by the proposed street projects that are determined to be necessary to maintain an acceptable level of service on the City's circulation system as well as completing the city's General Plan Circulation Element east of I-805. The need for improvements is related to development through changing traffic patterns on the overall system. Once constructed, the proposed street projects will serve the area by providing a system of roads for residents, employees, or customers. Proposed new development in the City is generally described in the adopted General Plan. Further refinements are conducted through the enhanced CEQA review process and the Sectional Planning Area (SPA) plans.

Table A identifies the "Remaining" development within the Area of Benefit as of October 1st, 2013. Future development is categorized by land use type and further characterized by the following; residential low density (0-6 du/acre), residential medium density (>6-18 du/acre), residential high density (> 18 du/acre), senior housing units, mixed-use residential, general commercial acres, regional commercial acres, commercial high-rise acres, office acres and industrial acres. In the columns labeled "Proposed", the table lists the most recent submittals for the number and type of development proposed in each development area, based on a General Plan designation, submitted Sectional Plan Area (SPA) plans, or Tentative Maps. The columns labeled "Built" identify the units and acres that have been issued building permits as of October 1st, 2013. Those figures are subtracted from the "Proposed" columns, resulting in the "Remaining" units and acres to be constructed.

The "Summary" columns convert the individual units to EDUs for direct comparison of the impact on the roadway system. "Remaining EDUs" are found by subtracting "Built EDUs" from "Proposed EDUs". Some EDUs are within an assessment district, etc., that has built, and received credit for a proposed street project eligible under previous versions of this Ordinance. These "Less Credit EDUs" are subtracted from the "Remaining EDUs" to give the "Total Aggregate EDUs" that will be

required to pay the fee. Finally, the percentage of total EDUs is calculated for each development project.

With this 2014 Update, the proposed Area of Benefit will contain an “Aggregate Total of Remaining EDUs” of 19,545.

The TDIF program includes transportation facilities required to serve the proposed University Park and innovation District (UPID) site in Otay Ranch. It is anticipated that the University, once approved, would be responsible for constructing suitable on-site transportation facilities required to mitigate the university’s on site traffic impacts (i.e. access and frontage impacts). The EDU’s for the 85-acre Innovation District portion of the UPID will pay TDIF fees and are in the new TDIF fee calculations. However, the new TDIF fee calculations exclude the EDU’s contained within the proposed University portion of the UPID and no TDIF fees will be paid by the University. The proposed TDIF update does include one facility that passes through the UPID, Discovery Falls Drive between Hunte Parkway and Street “B” in Village 9. This is a new road added to the Eastern TDIF program, and while it will be constructed on UPID property, construction of the facility is required in order to provide primary access for Village 10.

Figure I **Chula Vista Transportation Development Impact Fee Benefit Area**

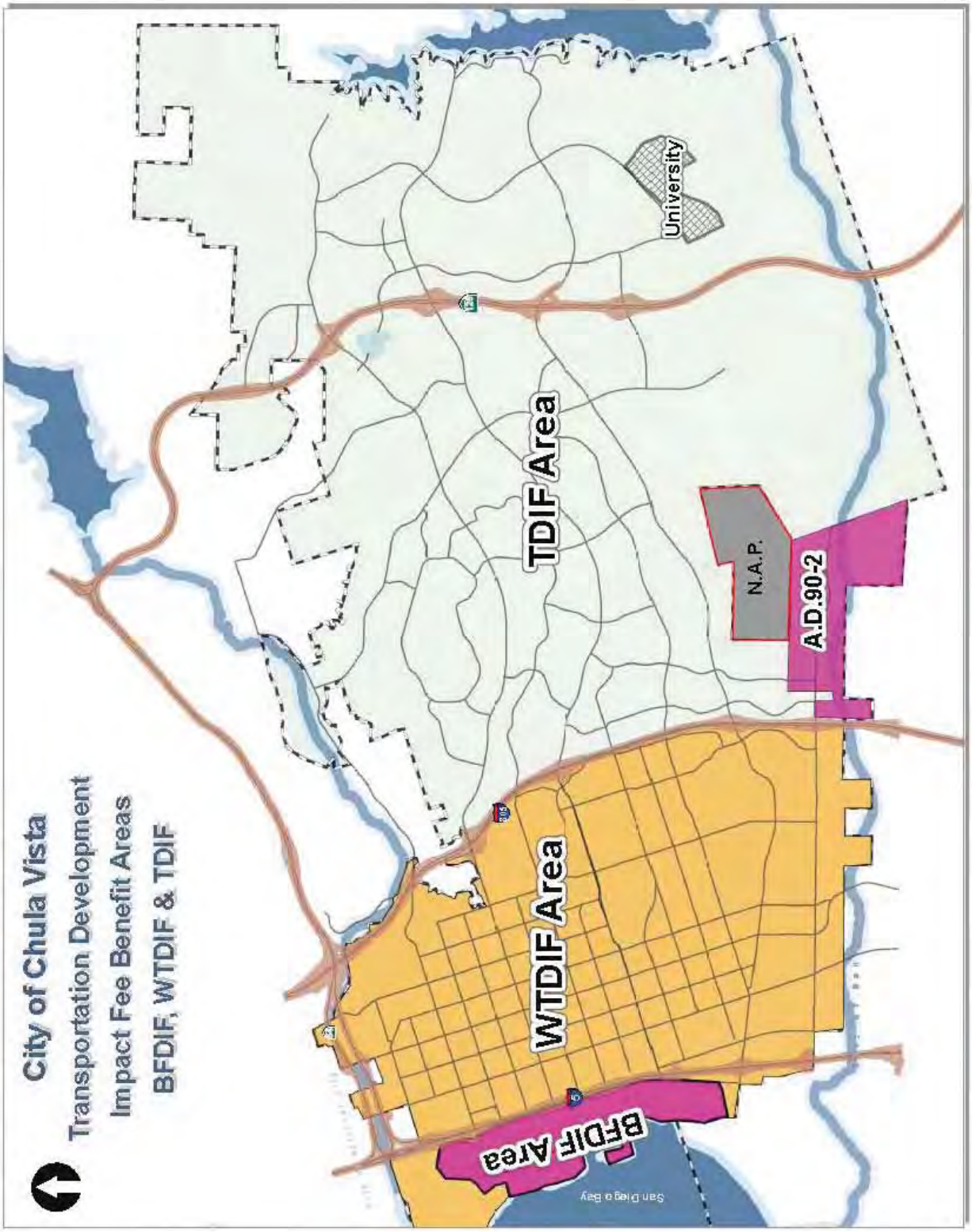


Table A. Land Use Summary

TABLE A

2014 TDIF UPDATE DEVELOPMENT FORECAST AND EDU CONVERSION

AS OF 10/01/2013

(Based on Revised Non-Residential ADT Rates and Residential Land Uses Categorized by Density)

Development Name	Remaining										Summary
	Res. (LOW) 0-6 du/Acre	Res. (MED) 6.1-18 du/Acre	Res. (HIGH) >18.1 du/Acre	Res. Mixed Use >18 du/Acres	Commercial General Acres	Commercial General KSF	Commercial High Rise Acres	Office Low Rise Acres	Industrial Acres	RTP Acres	TOTAL Remaining EDUs
Otay Ranch											
Village 2	604	2,280	878			130.0			82.5		4,737.3
Village 3 (JPB)*		1,002	515	80		20.0		11.3	28.6		1,517.7
Village 3 (OLC)									11.3		101.7
Village 4	453										453.0
Village 6		108			0.23						90.1
Village 7	48	33									74.4
Village 8 West	331	290	530	899	14.5						1,472.6
Village 8 East*		943	2,617			20.0					2,340.6
Village 9	105	161		3,734	17.8						2,012.2
Village 10*		695	1,045								1,183.0
Village 11		89									71.2
Birch Foundation	128										128.0
Eastern Urban Center (PA12)			2,993		26.6		20.3	21.7			2,985.1
Freeway Commercial (PA12) (B&S)					34.5						552.0
RTP (University)										85.0	680.0
Subtotal:	**1,669**	**5,601**	**8,578**	**4,713**	**93.6**	**170.0**	**20.3**	**33.0**	**122.4**	**85.0**	**18,398.9**
Eastlake											
Greens		6									4.8
Vista		221	9		0.97						197.7
Woods	15										15.0
Business Center 2									28.9		260.1
Subtotal:	**15**	**227**	**9**		**0.97**				**28.9**		**477.6**
Sunbow II Industrial Park									54.7		492.3
Rolling Hills Ranch	31										31.0
El Dorado Ridge		104									83.2
RDR SPA I, II, III	9										9.0
Bella Lago	53										53.0
Total:	**1,777**	**5,932**	**8,587**	**4,713**	**94.6**	**170.0**	**20.3**	**33.0**	**206.0**	**170.0**	**19,545.0**

Equivalent Dwelling Units	EDU's
Residential - LOW (0-6 du/ac)	1.0
Residential - MED (6.1-18 du/ac)	0.8
Residential - HIGH (>18.1 du/ac)	0.6
Residential - SENIOR	0.4
Residential Mixed Use (>18 du/ac)	0.4
Commercial General (acre)	16.0
Commercial Regional (acre)	11.0
Commercial High Rise (acre)	28.0
Office (< 5 stories) (acre)	9.0
Industrial (acre)	9.0
Regional Technology Park (RTP) (acre)	8.0

Remaining to be Approved by City Council

Development Name	Res. (MED) 6.1-18 du/Acre	Res. (HIGH) >18.1 du/Acre	Commercial General Acres	Commercial General KSF	Office Low Rise Acres	Industrial RTP Acres	TOTAL Remaining EDUs	RTP Acres	DELTA Remaining EDUs
PA 12 (FC) (B&S)		650	17.1				663.6		111.6
Total:		**650**					**663.6**		**111.6**

Note:

* Villages 3 (JPB), 8 East and 10 shown as Mixed Uses in SPA Plan but calculated as Residential High (0.4/EDU or 0.6/EDU)

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Fee Methodology

A AVERAGE DAILY TRIPS (ADT's)

One of the most common tools used to distribute the cost of traffic related improvements among different land uses involves the use and assignment of vehicular trips. Vehicle trips are further equated to the equivalent dwelling unit or EDU as described in the following Subsection B. In the report dated April 2002 entitled "NOT SO BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES FOR THE SAN DIEGO REGION" ("SANDAG Report"), published by San Diego Association of Governments, traffic trips generated by various classifications of land use are detailed. For example, the SANDAG Report identifies several categories of residential land use generating average daily trips (ADTs) ranging from 4 to 12 ADT's. The City historically has refined the SANDAG approach and has identified four residential categories. Similarly, this report also aggregates residential land uses to utilize four residential land use categories and recommends the following: 10 ADTs generated from a residential unit with densities ranging on average from 3 to 6 dwelling units per gross acre, the Single Family Dwelling Unit; 8 ADTs from a residential unit with densities ranging from 6 to 20 dwelling units per gross acre; 6 ADTs from a residential unit with densities greater than 20 dwelling units per gross acre; and 4 trips from a unit in a retirement complex.

For commercial development, as in previous updates, the "pass-by" trip phenomenon was included in setting the generation rate. Pass-by trips (also called undiverted linked trips) are trips in which a stop at a retail commercial facility is one part of a linked trip to or from home or work. Past analysis found that approximately 72 percent of the commercial trips are generated from within the City of Chula Vista TDIF area and 28 percent are from outside the TDIF area. To preclude double counting of residential trips to and from commercial land uses, the commercial trip rate was reduced by 72 percent. The traffic analysis concluded that the commercial trip generation rate varies depending on the type and size of the commercial land use. The analysis was supported by SANDAG studies and verified by an independent Select Zone(s) Analysis forecast for a representative Traffic Analysis Zone (TAZ) that had a commercial trip rate of 575 trips per acre for general commercial and 400 trips per acres for regional commercial. Therefore, the recommended TDIF commercial trip rates were established at 28 percent of the given 575 trips per acre for general commercial use which led to a rate of 161 trips per acre or 16 EDU. For Regional Commercial, the trip rate remains at 28 percent of 400 trips per acre or 112 per acre (11 EDU's/ACRE). Regional commercial use is defined as large shopping center larger than 60 acres and containing more than 800,000 square feet of commercial space.

The same process was applied to High Rise Commercial and High Rise Office based on the high-rise office commercial uses proposed for the Eastern Urban Center, Millenia, in Otay Ranch. The initial trip generation rate of 1000 trips per acre was multiplied by 28 percent to reach a reduced high-rise rate of 280 trips per acre or 28 EDU.

The previous 2005 TDIF update included three new land use designations based on the 2005 General Plan. These rates remain in the updated TDIF program. The standard Office (less than 5 stories) is based on SANDAG's trip generation rates of 90 trips per acre or 9 EDU. Since similar offices are constructed within both Industrial and Commercial zones, this rate applies to the standard office use regardless of the underlying zoning. The mixed-use residential rate is based on SANDAG's trip generation rates of 4 trips per unit or 0.4 EDU. Mixed-use residential is defined as residential units constructed above commercial space. The general commercial rate of 16 EDU per acre shall apply to the commercial portion of such mixed use by the following formula: 20,000 square feet of commercial use underlying a residential use equals 1 acre of general commercial or

16 EDU. This rate is selected to account for the internal capture of trips and to the corresponding reduction of pass-by trips for such use.

Table B identifies the ADTs assigned to the various land uses.

TABLE B

ASSIGNMENT OF ADTs

(Average Daily Trips)

Land Use Classification		ADT's	
Residential (LOW)	0-6 dwelling units per acre*	10	ADT/DU
Residential (MED)	6.1-18 dwelling units per acre*	8	ADT/DU
Residential (HIGH)	>18.1 dwelling units per acre*	6	ADT/DU
Senior Housing		4	ADT/DU
Residential Mixed Use**	>18 dwelling units per acre*	4	ADT/DU
Commercial Mixed Use**		161	ADT/20,000 Sq ft
General Commercial (Acre)	< five (5) stories in height	161	ADT/Acre
Regional Commercial (Acre)	>800,000 sq ft	112	ADT/Acre
High Rise Commercial (Acre)	> five (5) stories in height	280	ADT/Acre
Office (Acre)	< five (5) stories in height	90	ADT/Acre
Industrial (Acre)		90	ADT/Acre
Regional Technology Park (Acre)		80	ADT/Acre
18-Hole Golf Course		700	ADT/Course
Medical Center		650	ADT/Acre

**Based on gross acreage*

***Project is considered commercial mixed use only if qualifying residential mixed use is located on second floor, or higher, above commercial project.*

B Equivalent Dwelling Units (EDUs)

A common method used to compare ADT trips among different land uses involves the conversion of ADTs to "Equivalent Dwelling Units" or EDUs. Residential dwelling units are assigned a value of 1.0 EDU and become the base for assigning EDU factors to other land uses by comparing vehicle trips generated by those land uses to the ADTs generated by the single family residential category. The basis and methodology used in calculating the fee in this update is consistent with the basis and methodology used in the previous TDIF reports and TDIF ordinances as amended.

Table C identifies the EDUs assigned to the various land uses.

TABLE C
CONVERSION OF ADTs TO EDUs

Land Use Classification		EDU's	
Residential (LOW)	0-6 dwelling units per acre*	1.0	EDU/DU
Residential (MED)	6.1-18 dwelling units per acre*	0.8	EDU/DU
Residential (HIGH)	>18.1 dwelling units per acre*	0.6	EDU/DU
Senior Housing		0.4	EDU/DU
Residential Mixed Use**	>18 dwelling units per acre*	0.4	EDU/DU
Commercial Mixed Use**		16.0	EDU/20,000 Sq ft
General Commercial (Acre)	< five (5) stories in height	16.0	EDU/Acre
Regional Commercial (Acre)	> 800,000 sq ft	11.0	EDU/Acre
High Rise Commercial (Acre)	> five (5) stories in height	28.0	EDU/Acre
Office (Acre)	< five (5) stories in height	9.0	EDU/Acre
Industrial (Acre)		9.0	EDU/Acre
Regional Technology Park (Acre)		8.0	EDU/Acre
18-Hole Golf Course		70.0	EDU/Course
Medical Center		65.0	EDU/Acre

**Based on gross acreage*

***Project is considered commercial mixed use only if qualifying residential mixed use is located on second floor, or higher, above commercial project.*

C Program Costs

1. Proposed Projects

The next step in developing the fee was to determine which of the Proposed Street Projects are required to be constructed in order to maintain an acceptable level of service on the City's circulation system east of I-805.

After reviewing the circulation element of the approved General Plan and a variety of subsequent SPA plan traffic studies and CEQA documents, the remaining as yet unconstructed roads, were

selected as the Proposed Street Projects, shown in **Table D** and **Figure III**. The Proposed Street Projects are based on an analysis of the circulation system for the Year 2030 build out within the entire Area of Benefit. All of the Proposed Projects are consistent with the General Plan and SPA plans that have been adopted by the City Council, and are required by the City's Growth Management Ordinance as a condition to all development within the Area of Benefit.

The recommended fee is based on an equitable distribution of the estimated cost of the proposed program funding requirements, divided by the number of future EDUs to be developed in the Area of Benefit.

2. ADDITIONAL COSTS

In addition to the sum of project costs, an overall TDIF program-monitoring factor of 3% has been added. This factor represents the estimated cost of monitoring and evaluating the overall fee program, including traffic monitoring and growth management studies, as well as costs associated with periodic updates to the TDIF program. The proposed 2014 Update monitoring program cost is $6,441,274 or 3% of the program's direct construction costs of $214,709,133.

Table D Facility Cost Estimate Summary Proposed Street Projects

TABLE D
FACILITY COST ESTIMATE SUMMARY

PN	Street Segment	TDIF Portion	Village # / CIP #	From	To	Description	Update Action	Class	Length	2014 Update Construction Cost Estimate	2014 Update Soft Cost Estimate	2014 Update Program Cost
28b	Otay Lakes Rd		ELV	Lake Crest	Wueste Rd	Widened arterial		6P	1,082	$2,285,172	$916,558	$3,201,730
43	Birch Rd		EUC	SR-125	Eastlake Pkwy	South curb area only		6P	1,750	$388,157	$147,110	$535,267
46	Eastlake Pkwy		EUC	Birch Rd	Hunte Parkway/Main Street	West curb area only		6M	4,714	$1,045,580	$396,271	$1,441,851
47a	San Miguel Ranch Rd		CY-105	Proctor Valley Rd (N)	SR-125	Proctor Valley Rd Int.		4C	500	$560,342	$221,606	$781,948
52b	La Media Rd		V7	Santa Luna Street	Main Street Couplet	New arterial		6P	1,629	$5,036,568	$1,850,939	$6,887,507
53a	Couplet Road		V8W	La Media Rd	Otay Valley Rd	New roadway		4Cp	4,000	$4,483,350	$1,695,067	$6,178,417
53b	Couplet Road		V8W	Main Street		New roadway		4Cp	5,500	$6,088,500	$2,301,943	$8,390,443
56c	Otay Valley Rd		V8W	La Media Rd	SR-125/RW	New roadway		4M	4,900	$5,424,300	$2,145,159	$7,569,459
56e	Main St		STM-364	Nirvana Avenue	Heritage/Main Street	Widened roadway		6M	3,695	$947,579	$341,116	$1,288,695
57	Heritage Rd		V2 + V3	Olympic Pkwy	Main St	New arterial		6P	9,438	$18,720,000	$6,879,600	$25,599,600
58a	Heritage Rd		STM-364	Entertainment Circle North	City Boundary	Widened arterial		6P	3,000	$2,844,000	$1,136,820	$3,980,820
58b	Heritage Road Bridge	14.9%	STM-364	Otay River Bridge		New bridge		6P	1,320	$20,800,000	$7,800,000	$28,600,000
59c	Proctor Valley Rd		RHR	Agua Vista Drive/Northwoods Drive	Easterly City Boundary	New roadway		4M	1,750	$3,868,258	$1,541,424	$5,409,682
60a	Main St		STM-357	Heritage Rd	Wolf Canyon Bridge	New arterial	Split	6P	4,330	$9,246,187	$3,397,974	$12,644,161
60b	Main St		V4	Wolf Canyon Bridge	La Media Road	New arterial	Split	6P	4,880	$9,698,795	$3,564,307	$13,263,102
60c	Main St		V3 + V4	Wolf Canyon Bridge		New bridge	Split	6P	1,225	$32,302,000	$11,870,985	$44,172,985
60d	Main St		V7 & V8	La Media Rd	SR-125	New arterial	Split	6P	1,900	$5,247,060	$1,928,295	$7,175,355
61	Willow Street Bridge	14.4%	STL-261	Bonita Rd	Sweetwater Rd	Reconstructed bridge		4M	1,000	$15,015,850	$6,554,546	$21,570,396
62	East H St		STM-382	Buena Vista Way (500 ft West of)	Southwestern College Entrance Road	Widened arterial + RT Ln		6P/7P	2,100	$1,659,538	$626,331	$2,285,869
63	Traffic Signalization		TDIF	System-wide		Signalization	Expanded			$773,046	$284,094	$1,057,140
64	Hunte Pkwy		V9	SR-125	Eastlake Pkwy	New roadway		6P	2,700	$3,933,900	$1,572,379	$5,506,279
65	Traffic Demand Management	0.6	TDIF	TDM/TSM		New facility				$2,854,450	$485,256	$3,339,706
67	Main St		STM-359	SR-125 Overcrossing	NB and SB Interchange Ramps	New bridge (450 LF)		6P	1,000	$23,277,160	$8,147,006	$31,424,166
68	Otay Valley Rd		STM-359	SR-125 Overcrossing	Within State R/W area	New bridge (450 LF)		4M	600	$19,040,221	$6,664,077	$25,704,298
69	Millenia Avenue		EUC & V9	Birch Rd	Hunte Parkway	New roadway		4M	4,290	$5,423,195	$1,961,315	$7,384,510
70	Discovery Falls		V10 / Univ	Hunte Parkway	Village 9 / Street "B"	New roadway		4L/2L	5,340	$7,029,549	$2,583,359	$9,612,908
71	Street B		V9	Hunte Parkway	Otay Valley Raod	New roadway		2C	3,770	$3,854,376	$1,157,104	$5,011,480
72	Otay Valley Rd		V9	East of SR-125 Right-of-Way	Easterly Subdivision Boundary	New roadway		4M	2,700	$2,862,000	$1,132,029	$3,994,029
								SUBTOTALS:		**$214,709,133**	**$79,302,668**	**$294,011,801**
58b	Heritage Road Bridge		STM-364		Highway Bridge Progam Funds (HPB)					($17,351,880)	($5,300,000)	
					SAFETEA-LU Funds (DEMO)						($2,519,629)	($2,519,629)
61	Willow Street Bridge		STL-261		Highway Bridge Progam Funds (HPB)					($15,575,976)	($3,665,593)	($19,241,569)
								TOTALS:		**$181,781,277**	**$67,817,446**	**$272,250,603**

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 4

Program Facilities

A REVISED PROGRAM FACILITIES

A comprehensive listing of all deleted, completed, current, and modified (split) projects is provided in **Table E**. This listing also includes all new facilities to be added to the program via this update.

TABLE E
TDIF PROGRAM FACILITY LIST

PN	Street Segment	From	To	Description	Status
~~1~~	~~State Route 125 North~~	~~San Miguel Road~~	~~Telegraph Canyon Road~~		~~Deleted~~
~~2~~	~~State Route 125 South~~	~~Telegraph Canyon Road~~	~~East Orange Avenue~~		~~Deleted~~
3	Telegraph Canyon Road	Paseo Del Rey	East of Paseo Ladera		Completed
3a	Telegraph Canyon Road	I-805 Interchange, Phase II			Completed
3b	Telegraph Canyon Road	I-805 Interchange	200' east of TC Shopping Center		Completed
4	Telegraph Canyon Road	Rutgers Road	Eastlake Boundary		Completed
5	Telegraph Canyon Road	Paseo Ladera	Apache Drive		Completed
6	Telegraph Canyon Road	Apache Drive	Rutgers Avenue		Completed
7a	East H Street	Through Rancho Del Rey			Completed
7b	East H Street	I-805 Interchange, Phase I			Completed
7c	East H Street	I-805 Interchange, Phase II			Completed
8	East H Street	Eastlake Drive	SR-125		Completed
9a	Otay Lakes Road	Intersection with East H Street	Intersection with East H Street		Completed
9b	Otay Lakes Road	Camino del Cerro Grande	Ridgeback Road		Completed
~~10~~	~~Central Avenue~~	~~Bonita Road~~	~~Corral Canyon~~		~~Deleted~~
10a	La Media Road	Telegraph Canyon Road	East Palomar Street		Completed
10b	La Media Road	East Palomar Street	Olympic Parkway		Completed
11	Bonita Road	Otay Lakes Road	Eastern Chula Vista City Limits		Completed
~~12~~	~~Sweetwater Road~~	~~Bonita Road~~	~~SR 54~~		~~Deleted~~
~~12~~	~~Bonita Road~~	~~Central Avenue~~	~~San Miguel Road~~		~~Deleted~~
~~13~~	~~Existing Facility Reconstruction~~	~~Fee Boundary Area~~	~~Fee Boundary Area~~		~~Deleted~~
14	East H Street	SR-125	Mount Miguel Road		Completed
15	Proctor Valley Road	Mount Miguel Road	Hunte Parkway		Completed
16	Olympic Parkway	Brandywine Avenue	Heritage Road		Completed
17a	East Palomar Street	Medical Center Dr./Brandywine Ave	Paseo Ladera		Completed
17b	East Palomar Street	Paseo Ladera	Sunbow II East Subdivision Bndry		Completed
18	Telegraph Canyon Road, Phase IV	Eastlake I Eastern Boundary	Hunte Parkway		Completed
19	Eastlake Parkway	Otay Lakes Road	Eastlake High School So. Bndry/CWA		Completed
20	Hunte Parkway	Proctor Valley Road	Otay Lakes Road		Completed
21	Hunte Parkway	Otay Lakes Road	Clubhouse Drive		Completed
21a	Hunte Parkway	Clubhouse Drive	Olympic Parkway		Completed
22a	Olympic Parkway	SDG & E Easement	Hunte Parkway		Completed
22b	Olympic Parkway	SR-125	SDG & E Easement		Completed
23a	Heritage Road	Telegraph Canyon Road	East Palomar Street		Completed
23b	Heritage Road	East Palomar Street	Olympic Parkway		Completed
24	Olympic Parkway	Heritage Road	SR-125		Split
24a	Olympic Parkway	Paseo Ranchero	La Media Road		Completed
24b	Olympic Parkway	La Media Road	East Palomar Street		Completed

TABLE E
TDIF PROGRAM FACILITY LIST

PN	Street Segment	From	To	Description	Status
24c	Olympic Parkway	East Palomar Street	SR-125		Completed
~~24d~~	~~Olympic Parkway~~	~~SR-125~~	~~Eastlake Parkway~~		~~Deleted~~
24e	Olympic Parkway	Heritage Road	SR-125		Split
25a	Olympic Parkway	I-805 Interchange	Oleander Avenue		Completed
25b	Olympic Parkway	Oleander Avenue	Brandywine Avenue		Completed
26	East Palomar Street (Village 5)	Heritage Road	Otay Ranch Subdivision Boundary		Completed
~~27~~	~~East Palomar Street~~	~~I-805 Interchange~~			~~Deleted~~
28	Otay Lakes Road	Hunte Parkway	Wueste Road		Split
28a	Otay Lakes Road	Hunte Parkway	Lake Crest Drive		Completed
28b	Otay Lakes Road (ELV)	Lake Crest Drive	Wueste Road	Arterial Transition/Widened Art.	Current
29	Olympic Parkway	Hunte Parkway	Wueste Road		Completed
30	Otay Lakes Road	SR-125	Eastlake Parkway		Completed
31	Eastlake Parkway	Otay Lakes Road	Fenton Street		Completed
32a	East H Street (westbound)	I-805	400' East of Hidden Vista		Completed
32b	East H Street (eastbound)	I-805	Terra Nova Shopping Center		Completed
~~33a~~	~~Bonita Road~~	~~At Otay Lakes Road Intersection~~			~~Deleted~~
33b	Telegraph Canyon Road	I-805 Interchange / Phase I			Completed
~~34~~	~~Otay Lakes Road~~	~~At Elmhurst Drive Intersection~~			~~Deleted~~
35	East H Street	At Otay Lakes Road Intersection			Completed
~~36~~	~~Traffic Operations~~	~~System wide Improvements~~			~~Deleted~~
37	Eastlake Parkway	CWA Easement	Olympic Parkway		Completed
38	East H Street	Paseo del Rey	Tierra del Rey		Completed
39	Bonita Road	I-805	Plaza Bonita Road		Completed
~~40~~	~~Alta Road~~	~~SR-125~~	~~Eastlake Parkway~~		~~Deleted~~
41	Brandywine / Medical Center Road	Medical Center Drive	Olympic Parkway		Completed
42	Birch Road	La Media Road	SR-125		Completed
43	Birch Road (EUC)	SR-125	Eastlake Parkway	Widened Arterial need SCL	Current
~~44~~	~~Birch Road~~	~~Eastlake Parkway~~	~~Hunte Parkway~~		~~Deleted~~
45	Eastlake Parkway	Olympic Parkway	Birch Road		Completed
46	Eastlake Parkway (EUC)	Birch Road	Hunte Pkwy/Main Street	Widened Arterial need WCL	Current
47a	San Miguel Ranch Road (CY-105)	Proctor Valley Road (N)	SR-125	Proctor Valley Rd Intersection	Current
47b	Mount Miguel Road	SR-125	Proctor Valley Road (S)		Completed
48	Hunte Parkway	Olympic Parkway	Eastlake Parkway		Completed
~~50~~	~~La Media Road~~	~~Bridge Crossing Otay Valley~~			~~Deleted~~
51	La Media Road	Olympic Parkway	Birch Road		Completed
51a	La Media Road	Olympic Parkway	Santa Venetia		Completed
51b	La Media Road	Santa Venetia	Birch Road		Completed
52	La Media Road	Birch Road	Main Street	New Arterial	Split

TABLE E
TDIF PROGRAM FACILITY LIST

PN	Street Segment	From	To	Description	Status
52a	La Media Road	Birch Road/State Street	Santa Luna Street	New Arterial	Completed
52b	La Media Road (V7)	Santa Luna Street	Main Street Couplet Intersection	New Arterial	Current
53a	La Media Road - Couplet Road (V8W	Begin couplet so. of Santa Luna St.	End couplet no. of Otay Valley Road	New Roadway	Current
53b	Main Street - Couplet Road (V8W)	Begin couplet west of SB La Media	End couplet east of NB La Media	New Roadway	Current
~~54~~	~~La Media Road~~	~~Main Street~~	~~City Boundary~~		~~Deleted~~
55	Otay Lakes Road	East H Street	Telegraph Canyon Road	Widened Arterial	Re-named
55a	Otay Lakes Road (STM-355)	East H Street	Telegraph Canyon Road	Widened Arterial	Completed
55b	Otay Lakes Road	Canyon Drive/Ridgeback Road	East H Street	Widened Arterial	Completed
~~56a~~	~~Main Street~~	~~Nirvana Avenue~~	~~1600' West of Heritage/Main Street~~	~~Widened, New Roadway~~	~~With - 56e~~
~~56b~~	~~Main Street~~	~~Rock Mountain Road~~	~~La Media Road~~		~~Deleted~~
56c	Otay Valley Road (Village 8W)	La Media Road	SR-125/RW	New Roadway	Current
56d	Main Street (STM-351)	I-805 Underpass		Widened Roadway	Completed
56e	Main Street (STM-364)	Nirvana Avenue	Heritage Road/Main Street	New Roadway	Expanded
57	Heritage Road (V2 & V3)	Olympic Parkway	Main Street	New Arterial	Current
58a	Heritage Road (STM-364)	Entertainment Circle North	City Boundary	Widened Arterial	Current
58b	Heritage Road (STM-364)	Main Street	Entertainment Circle North	New Bridge	Current
59a	Proctor Valley Road	Hunte Parkway	RNR Neigh 9 West Entrance		Completed
59b	Proctor Valley Road	RNR Neigh 9 West Entrance	RNR Neigh 9 East Entrance	New Roadway	Completed
59c	Proctor Valley Road (RHR)	Aqua Vista Dr/Northwoods Dr	Easterly City Boundary	New Arterial	Current
60a	Main Street (STM-357)	Main Street/Heritage Road	Wolf Canyone Bridge	New Arterial	Split
60b	Main Street (V4)	Wolf Canyon Bridge	La Media Road	New Arterial	Split
60c	Main Street (V3 & V4)	Wolf Canyon Bridge		New Bridge	Split
60d	Main Street (V7 & V8)	La Media Road	SR-125	New Arterial	Split
61	Willow Street Bridge (STL-261)	Bonita Road	Sweetwater Road	Reconstructed Bridge	Current
62	East H Street (STM-382)	Buena Vista Way (500 lf west of)	Southwestern College Entrance Rd	Widened Arterial & EB-SB RTL	Current
63	Traffic Signalization (TDIF)	System Wide		Signalization	Expanded
64	Hunte Parkway (V9)	SR-125	Eastlake Parkway	New Arterial	Current
65	Traffic Management Center (TDIF)	System Wide		New Facility	Current
66	Transportation Demand Mgmt	System Wide		New Program	Completed
67	Main Street (STM-359)	SR-125 Overcrossing	NB to SB Interchange Ramps	New Bridge and Ramps	Current
68	Otay Valley Road (STM-359)	SR-125 Overcrossing	Within State R/W Area	New Bridge and Ramps	Current
69	Millenia Avenue (EUC & V9)	Birch Road	Hunte Parkway	New Roadway	Added
70	Discovery Falls (V10/University)	Hunte Parkway	Village 9/Street "B"	New Roadway	Added
71	Village 9, Street "B"	Hunte Parkway	Otay Valley Road	New Roadway	Added
72	Otay Valley Road (V9)	East of SR 125 Right-of-Way	Easterly Subdivision Boundary	New Roadway	Added

TABLE E
TDIF PROGRAM FACILITY LIST

Strikethrough Text	Deleted Project
Underlined Text	Modified Project (split, expanded, etc.
SCL	South Curb Line
WCL	West Curb Line

Notes:

(1) Project number 49 was omitted on purpose.
(2) Project number 60a was split into three projects (i.e. 60a, 60b, and 60c). Project number 60b was changed to project number 60d.
(3) Project number 56a was combined with project number 56e.

B

PROJECT COST ESTIMATES

1. DIRECT CONSTRUCTION COSTS

Construction costs for individual projects were calculated in a number of ways. Typically, if no new engineering information was available for the roadway in question, a growth factor was applied to the original cost based on the ENR report as described more fully below. For these roads, the costs of grading, drainage facilities, and landscaping are all estimated according to project length and complexity. These costs differ according to the scope of the facility. However, for roadways that were in the design stage and consequently had more detailed information, the developer's engineers were tasked with providing more accurate cost estimates. All projects and their associated costs are shown in **Appendix "A"**.

For those roads prepared without benefit of detailed construction drawings a 15% contingency factor is applied to the estimated construction costs, to cover anticipated minor engineering issues that are not quantifiable at this level of study.

2. SOFT COSTS

In addition to direct construction costs, the following "soft costs" associated with construction of the projects are included:

Civil Engineering: Reimbursement will not exceed 7.5 percent of the TDIF eligible improvement cost or actual cost, whichever is less. Civil engineering includes the cost of preparatory planning, survey, and design of a project.

Soils Engineering: Reimbursement will not exceed 15 percent of the cost or actual cost, whichever is less, of eligible grading as defined in the directive.

Landscape Architecture: Reimbursement will not exceed 10 percent of the cost or actual cost, whichever is less, of eligible landscape and irrigation within the TDIF improvement.

Surveying: Reimbursement will not exceed 2 percent of the cost or actual cost, whichever is less, of the TDIF eligible improvement.

Utility Engineering/Coordination: Reimbursement will not exceed 3 percent of the cost or actual cost, whichever is less, of eligible dry utilities within the TDIF improvement.

Environmental Consulting: Reimbursement will be for the actual work required to conduct, obtain and monitor all necessary environmental clearances required to construct the TDIF facility.

In addition to the above-identified "soft costs" associated with construction of the projects, the City imposes two other costs of the TDIF program as follows:

TDIF Program Monitoring: Three (3%) percent of the program's direct construction costs to fund activities related to general administration of the TDIF including the following:

- Strategic planning & funding advocacy;

- Staff time spent in administering the fee program and the various credits of each developer;
- Growth Management Activities;
- Geographic Information System (GIS);
- TDIF program updates;
- Supplies and equipment used to administer the program; and
- Feasibility studies.

TDIF Project Administration: Two (2%) percent of each improvement project cost to fund activities related to the City's administration of each TDIF project including the following:

- City supervision of developers' contract administration;
- Performing an audit of the project to determine the eligibility for TDIF credits; and
- Any other task related to the administration and coordination of a TDIF project by City staff.

3. PROJECT ESTIMATE METHODOLOGY

The cost estimates were reviewed and updated with current cost estimates, based on recent local experience. **Table D** presents the projects and costs being funded by the fee. A complete description, cost breakdown, and location map are included in Appendix "A".

With many of the new projects, topography from the GIS database was used to provide conceptual-level grading estimates. In other situations, grading was approximated by comparison with similar projects. Landscaping costs were included in the cost estimates where appropriate; since review of similar projects indicated that this was a very significant component of the overall costs.

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 5

Program Administration

A FEE UPDATES

The fee shall be collected as a condition of building permit issuance. The fee is subject to an automatic annual adjustment based on the Engineering News Record (ENR) Construction Index each fiscal year during the month of October. Fees may also be adjusted based on updated information regarding land use or the type, size, location, or cost of proposed facilities pursuant to City ordinances and policies. All fees collected shall be deposited in an interest-accruing fund, and shall be expended only with the approval of the City Council for the Proposed Projects listed in this Update.

1. ANNUAL FEE ADJUSTMENTS

Starting with the 1999 TDIF Update and Ordinance, an automatic annual adjustment to the fees was included to reflect any changes in the Engineering News Record (ENR) Construction Cost Index. The amount of the fee has been adjusted each October 1, based on the one-year change, if any, from July to July in the ENR 20-City Los Angeles Construction Cost Index. These automatic adjustments do not require further action by the City Council. The CCI increase from July 2013 to July 2014 supports an October 1, 2014 automatic TDIF increase to $12,864; an increase of $370, or 3%, over the current fee of $12,494 per EDU. Instead of implementing this automatic increase, staff recommends adopting the proposed comprehensive fee update; increasing the fee to $13,035 per EDU, an increase of $541 or 4.3%. If the 2014 proposed comprehensive update to the TDIF is approved, the next index based adjustment would go into effect October 1, 2015. There is no index based adjustment required on October 1, 2014 if the $13,035 rate is approved.

CITY OF CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 6

Proposed Fee Summary

A PROPOSED FEE CALCULATION

1. DEVELOPER CREDITS

As specified in Section 4(c) of Ordinance 2289, which amended Ordinance 2251, a developer may request authorization from the City to construct TDIF facilities. If the total construction cost amounts to more than the total TDIF fees which will be required for the developer's development project, the developer is entitled to receive TDIF credits in the amount of the excess of the Proposed Street Project costs over the required TDIF fees. The same builder can use this TDIF credit to satisfy the fee obligations for a future development, or the developer will receive cash reimbursement when funds are available, as determined by the City Manager. **Table F** lists remaining estimated credits for facilities constructed by developers. The amount of these accumulated credits totals **$ 15,304,432.08**. This amount has been added to the proposed overall program cost to obtain the total project cost to be collected through this Update.

TABLE F
REMAINING CASH CREDITS - ESTIMATED

Sunbow	$	148,053.97
Brookfield-Shea Otay	$	625,967.37
Eastlake	$	8,633,623.58
McMillin	$	405,024.31
Otay Ranch	$	4,692,471.11
Rancho Del Rey	$	70,986.54
Rolling Hills Ranch	$	728,305.20
Total Credits	**$**	**15,304,432.08**

2. PROGRAM FUNDING SUMMARY

A summary of the program funding components is given in **Table G**, including the overall funding requirement.

TABLE G PROGRAM FUNDING SUMMARY	
Program Costs	
Total Improvement Cost (Table D)	$ 214,709,133.00
Total Soft Cost (Table D)	$ 79,302,668.16
Approximate Subtotal Facility Costs (Table D)	**$ 294,011,801.16**
Less: HPB Contribution (Willow)	
Improvement Cost (Table D)	$ 15,039,835.00
Soft Cost (Table D)	$ 3,665,593.00
Less: SAFETEA-LU Funds/DEMO (Heritage)	
Soft Costs (Table D)	$ 2,519,720.00
Approximate Total Grant Contribution	**$ 21,225,148.00**
Approximate Subtotal Facility Costs (Table D)	**$ 272,786,653.16**
Credits Due Developers (Table H)	$ 15,304,432.00
TDIF Program Admin	$ 6,441,273.99
Total Program Costs	**$ 294,532,359.15**
Program Assets	
Credits Assigned to Developers for Current Projects	$ (6,337,142.00)
Funds Appropriated to Current Projects	$ (7,486,447.00)
Revenue Adjustment (Table K)	$ (25,928,277.25)
Total Program Assets	**$ (39,751,866.25)**
Future Program Cost	**$ 254,780,492.90**
Future EDU's	**$ 19,545.00**
Program Cost per EDU	**$ 13,035.58**
Proposed Rate per EDU	**$ 13,035.00**

TABLE H
COMBINED FUND BALANCE CALCULATION

		Transportation DIF Fund 591
Fund Assets*+	**$**	**24,473,314.00**
Interest Receivable	$	1,538,702.24
Total Assets	$	26,012,016.24
Liabilities		
Contract Retention Payable	$	(21,306.99)
Total Liabilities	**$**	**(21,306.99)**
Budgeted Expenditures		
CIP	$	(2,356,310.00)
Other Expenses	$	(682,448.00)
Total Expenditures	**$**	**(3,038,758.00)**
Available Fund Balance	**$**	**22,951,951.25**

**As of October 1, 2013*

+Available Fund Balance reflects $10,500,000 loan from TDIF fund to PFDIF.

TABLE I
PROGRAM REVENUE ADJUSTMENT

		Balance
Combined Fund Balance (Table J)		**$ 22,951,951.25**
Future Revenue Adjustments		
Deferred Permit Fees	$ 2,976,326.00	
Total Future Revenue	**$ 2,976,326.00**	**$ 25,928,277.25**
Program Revenue Adjustment		**$ 25,928,277.25**

3. RATE BY LAND USE SUMMARY

Applied to the EDU rates shown in **Table C**, the proposed fee per land use is shown in **Table J** below:

TABLE J

PROPOSED TDIF FEE PER LAND USE CLASSIFICATION

Proposed TDIF Fee per EDU: **$13,035.00**

Land Use Classification		EDU's		TDIF Rate	
Residential (LOW)	0-6 dwelling units per acre*	1.0	EDU/DU	$ 13,035.00	per DU
Residential (MED)	6.1-18 dwelling units per acre*	0.8	EDU/DU	$ 10,428.00	per DU
Residential (HIGH)	>18.1 dwelling units per acre*	0.6	EDU/DU	$ 7,821.00	per DU
Senior Housing		0.4	EDU/DU	$ 5,214.00	per DU
Residential Mixed Use**	>18 dwelling units per acre*	0.4	EDU/DU	$ 5,214.00	per DU
Commercial Mixed Use**		16.0	EDU/20,000 Sq ft	$208,560.00	per 20,000 Sq ft
General Commercial (Acre)	< five (5) stories in height	16.0	EDU/Acre	$208,560.00	per Acre
Regional Commercial (Acre)	> 800,000 sq ft	11.0	EDU/Acre	$143,385.00	per Acre
High Rise Commercial (Acre)	> five (5) stories in height	28.0	EDU/Acre	$364,980.00	per Acre
Office (Acre)	< five (5) stories in height	9.0	EDU/Acre	$117,315.00	per Acre
Industrial (Acre)		9.0	EDU/Acre	$117,315.00	per Acre
Regional Technology Park (Acre)		8.0	EDU/Acre	$104,280.00	per Acre
18-Hole Golf Course		70.0	EDU/Course	$912,450.00	per Course
Medical Center		65.0	EDU/Acre	$847,275.00	per Acre

**Based on gross acreage*

***Project is considered commercial mixed use only if qualifying residential mixed use is located on second floor, or higher, above commercial project.*

CITY OF
CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Section 7

Transportation Facility Maps

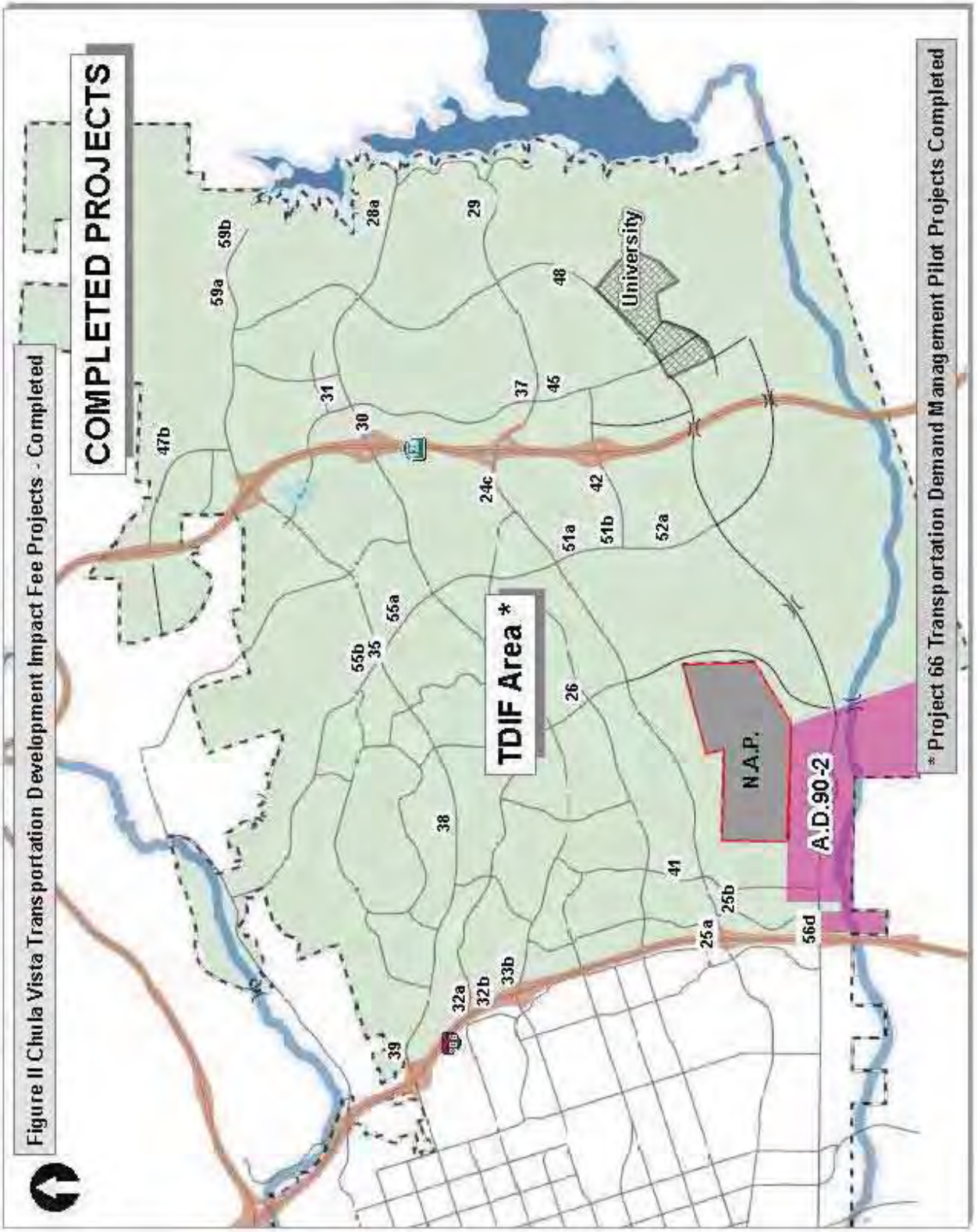


Figure II Chula Vista Transportation Development Impact Fee Projects - Completed
COMPLETED PROJECTS
TDIF Area *
University
N.A.P.
A.D.90-2
* Project 66 Transportation Demand Management Pilot Projects Completed
47b
59b
59a
28a
29
31
30
48
37
45
24c
42
51a
51b
52a
55b
35
55a
26
38
39
32a
32b
33b
41
25a
25b
56d

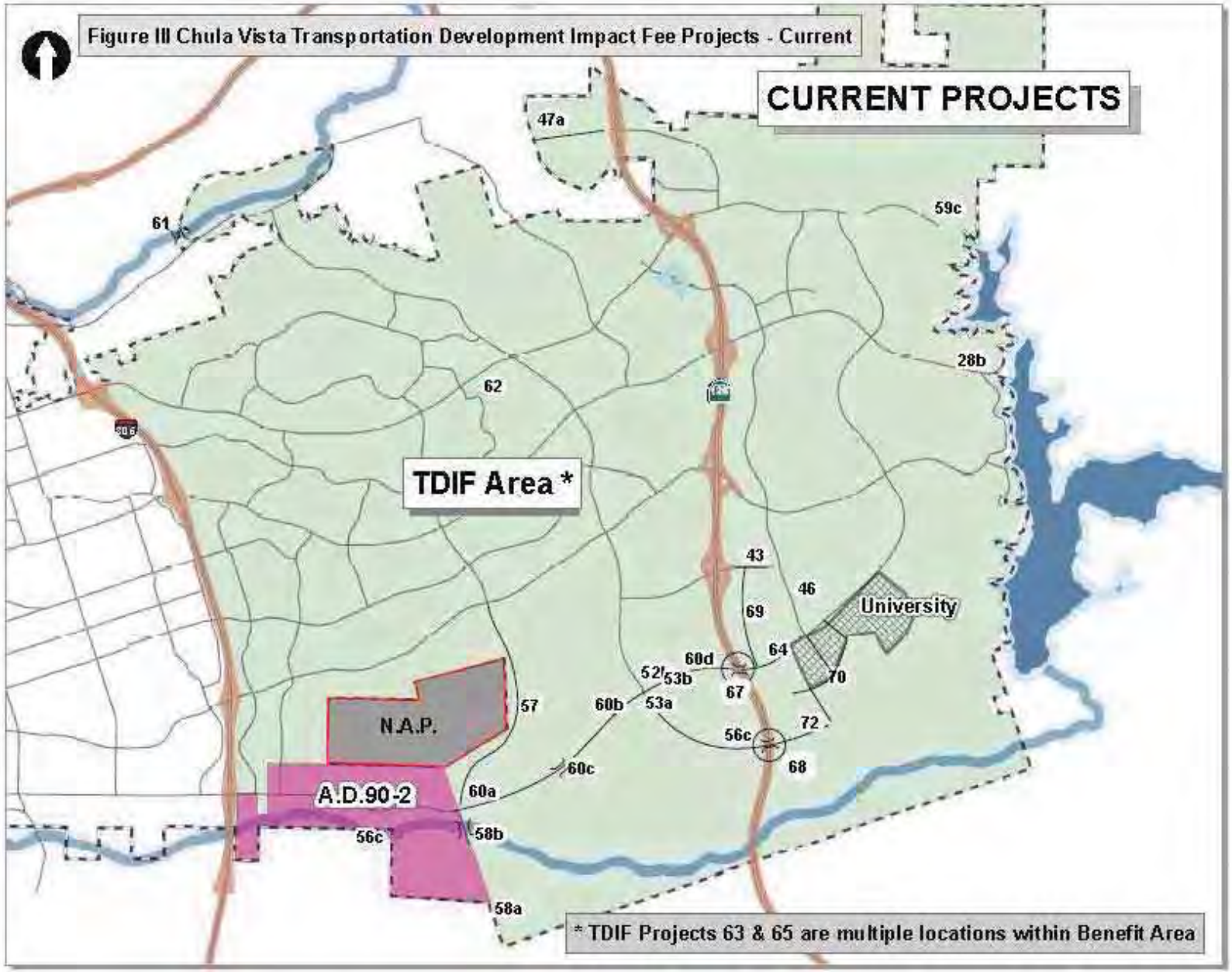


Figure III Chula Vista Transportation Development Impact Fee Projects - Current
CURRENT PROJECTS
TDIF Area *
N.A.P.
A.D.90-2
University
47a
61
59c
28b
62
43
46
69
64
60d
52
53b
67
70
57
60b
53a
72
56c
68
60c
60a
56c
58b
58a
* TDIF Projects 63 & 65 are multiple locations within Benefit Area

CITY OF
CHULA VISTA

Public Works Department

EASTERN TRANSPORTATION DEVELOPMENT IMPACT FEE

SEPTEMBER 2014

Appendix "A"

Transportation Facility Cost Estimate details

COST ESTIMATE

FACILITY 28B

Otay Lakes Road
Lake Crest Drive to Wueste Road — ELV *
Widen to 6 Lane Prime Arterial — Length (LF): 1,082

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	1,082	$ 680.00	$ 735,760	
2	Drainage Items	Linear ft.	1,082	$ 168.00	$ 181,776	
3	Surface Improvements	Linear ft.	1,082	$ 408.00	$ 441,456	
4	Dry Utilities	Linear ft.	1,082	$ 78.00	$ 84,396	
5	Landscape & Irrigation	Linear ft.	1,082	$ 194.00	$ 209,908	
6	Misc. Construction Logistics	Linear ft.	1,082	$ 13.00	$ 14,066	
7	Special Items				$ 617,810	
	Habitat mitigation					$ 617,810
		TOTAL HARD COSTS			**$ 2,285,172**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 342,776
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 171,388
Soils Engineering(15% of earthwork costs)	$ 110,364
Landscape Architecture (10% of landscaping costs)	$ 20,991
Surveying (2% of hard costs, excludes right-of-way)	$ 45,703
Utility Engineering/Coordination (3% of dry utility costs)	$ 2,532
Inspection/Administration (6% of total hard costs including right-of-way)	$ 137,110
Developer Administration (1.75% of total hard costs including right-of-way)	$ 39,991
City Project Administration (2% of total hard costs including right-of-way)	$ 45,703
TOTAL SOFT COSTS	**$ 916,558**
PROJECT COST	**$ 3,201,730**

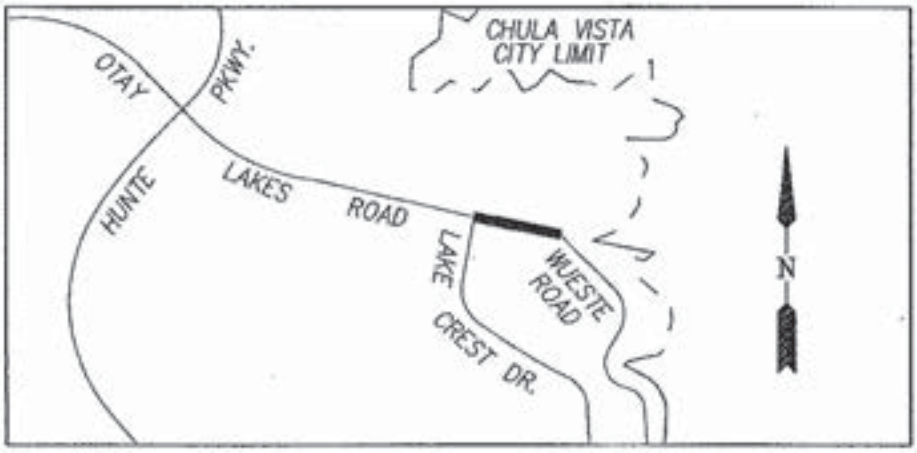
Notes:
(1) The source of this estimate is the 2005 TDIF Update.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.
(3) * indicates developer/village number.

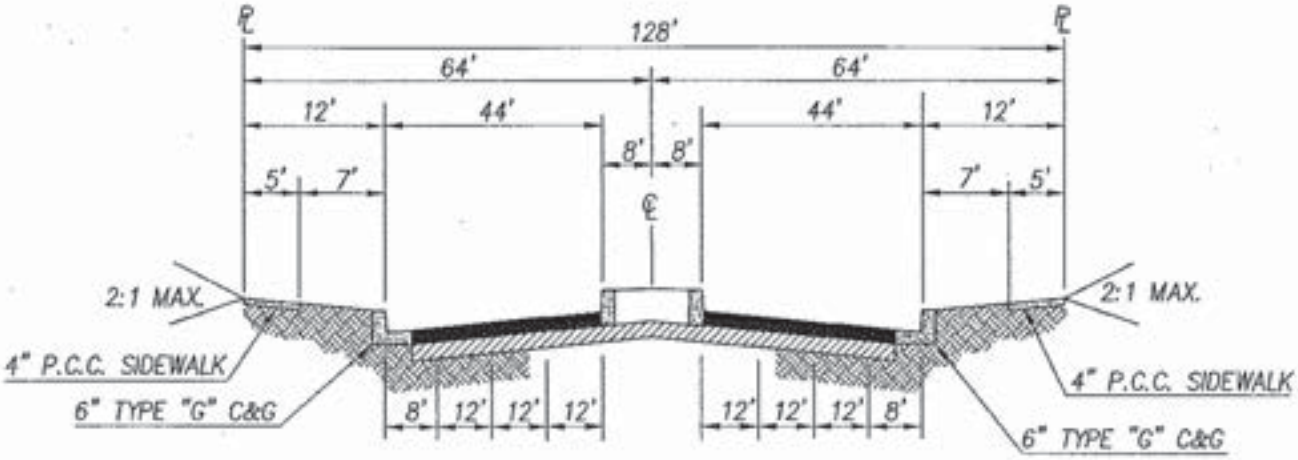
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 28B

PROJECT DESCRIPTION:

OTAY LAKES ROAD FROM LAKE CREST DRIVE TO WUESTE ROAD.
WIDEN TO 6 LANE PRIME ARTERIAL.
(LENGTH = 1,082')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 43

Birch Road
SR-125 to Eastlake Parkway (south curb line to south PL ONLY) EUC *
Widen 6 Lane Prime Arterial Length (LF): 1,750

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork				$ -	
2	Drainage Items				$ -	
3	Surface Improvements				$ 240,827	
4	Dry Utilities				$ -	
5	Landscape & Irrigation				$ 141,663	
6	Misc. Construction Logistics				$ 5,667	
7	Special Items				$ -	
	Habitat mitigation					$ -
		TOTAL HARD COSTS			**$ 388,157**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$	58,224
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$	29,112
Soils Engineering(15% of earthwork costs)	$	-
Landscape Architecture (10% of landscaping costs)	$	14,166
Surveying (2% of hard costs, excludes right-of-way)	$	7,763
Utility Engineering/Coordination (3% of dry utility costs)	$	-
Inspection/Administration (6% of total hard costs including right-of-way)	$	23,289
Developer Administration (1.75% of total hard costs including right-of-way)	$	6,793
City Project Administration (2% of total hard costs including right-of-way)	$	7,763
TOTAL SOFT COSTS	**$**	**147,110**
PROJECT COST	**$**	**535,267**

Notes:

(1) The source of this estimate is the 2005 TDIF Update.

(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.

(3) The scope of work includes the southerly curb line only. The estimate of construction costs was based on a percentage of the total costs for the entire roadway project. Twenty five percent (25%) of the surface improvements, landscape and irrigation, and miscellaneous construction logistics was assumed. It was also assumed that the earthwork, drainage items, dry utilities, and habitat mitigation were completed with the initial construction of the roadway.

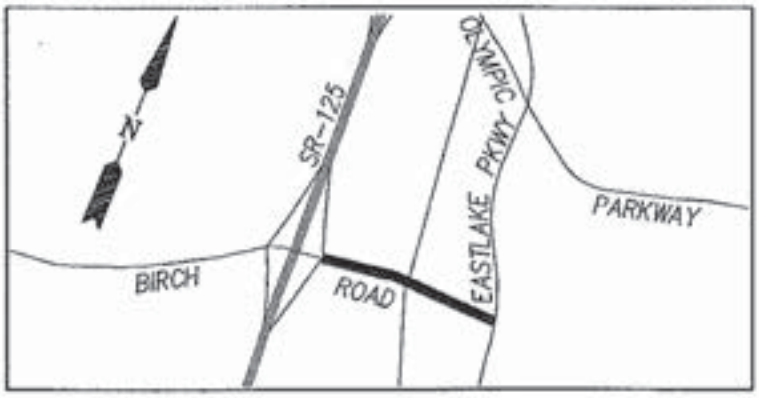
(4) * indicates developer/village number.

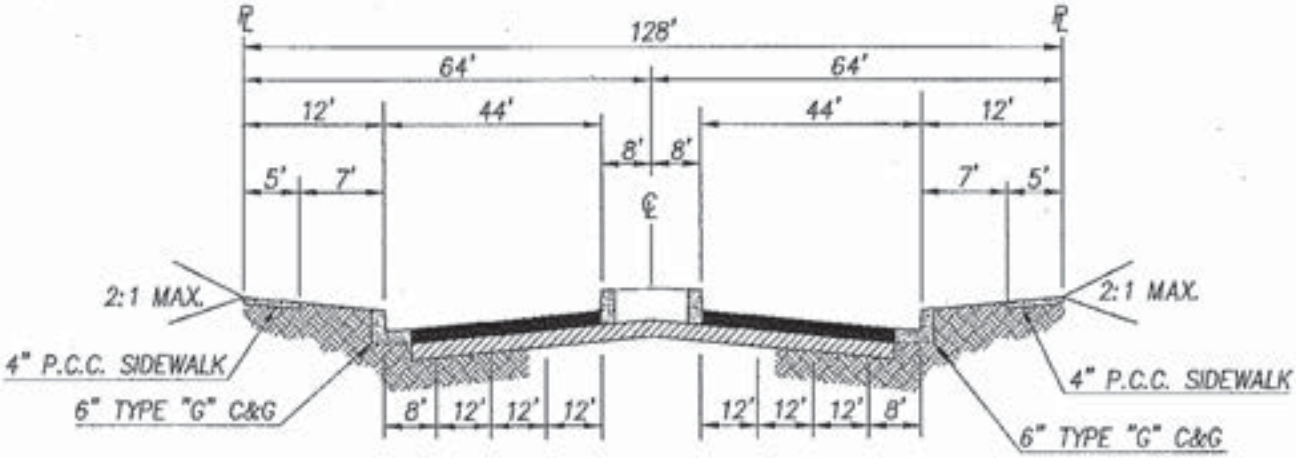
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 43

PROJECT DESCRIPTION:

BIRCH ROAD FROM SR-125 TO EASTLAKE PARKWAY.
CONSTRUCT 6 LANE PRIME ARTERIAL ROAD (SOUTHERLY CURB LINE ONLY).
(LENGTH = 1,750')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 46

Eastlake Parkway
Birch Road to Hunte Prkwy/Main St (west curb line to westerly PL ONLY) EUC *
Widen 6 Lane Major Arterial Length (LF): 4,714

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork				$ -	
2	Drainage Items				$ -	
3	Surface Improvements				$ 648,718	
4	Dry Utilities					
5	Landscape & Irrigation				$ 381,598	
6	Misc. Construction Logistics				$ 15,264	
7	Special Items				$ -	
	Habitat mitigation					$ -
		TOTAL HARD COSTS			**$ 1,045,580**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 156,837
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 78,419
Soils Engineering(15% of earthwork costs)	$ -
Landscape Architecture (10% of landscaping costs)	$ 38,160
Surveying (2% of hard costs, excludes right-of-way)	$ 20,912
Utility Engineering/Coordination (3% of dry utility costs)	$ -
Inspection/Administration (6% of total hard costs including right-of-way)	$ 62,735
Developer Administration (1.75% of total hard costs including right-of-way)	$ 18,298
City Project Administration (2% of total hard costs including right-of-way)	$ 20,912
TOTAL SOFT COSTS	**$ 396,271**
PROJECT COST	**$ 1,441,851**

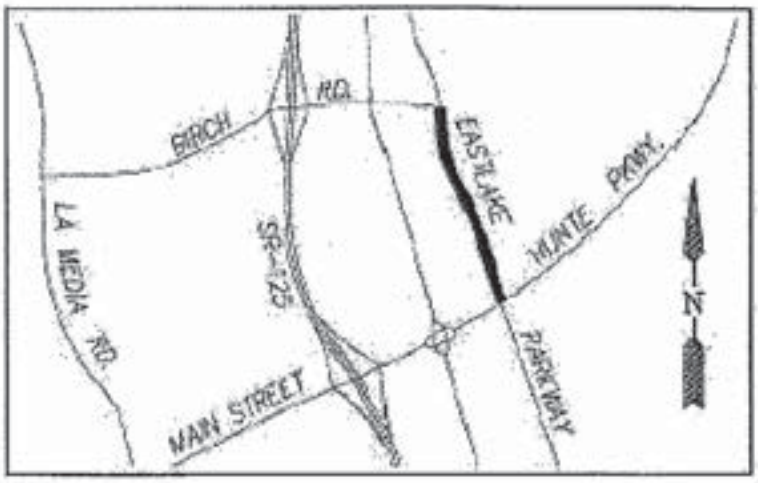
Notes:
(1) The source of this estimate is the 2005 TDIF Update.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.
(3) The scope of work includes the southerly curb line only. The estimate of construction costs was based on a percentage of the total costs for the entire roadway project. Twenty five percent (25%) of the surface improvements, landscape and irrigation, and miscellaneous construction logistics was assumed. It was also assumed that the earthwork, drainage items, dry utilities, and habitat mitigation were completed with the initial construction of the roadway.
(4) * indicates developer/village number.

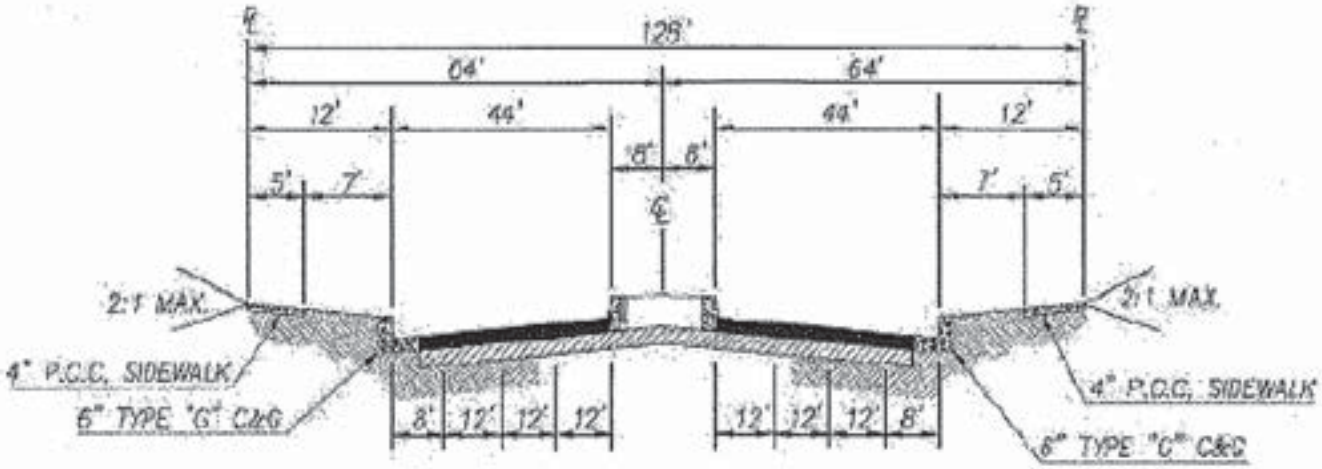
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 46

PROJECT DESCRIPTION:

EASTLAKE PARKWAY FROM BIRCH ROAD TO HUNTE PARKWAY / MAIN STREET.
(WESTERLY CURB LINE ONLY)
WIDEN 6-LANE MAJOR ARTERIAL ROAD.
(LENGTH= 4,714 ft).





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 47A

San Miguel Ranch Road (CY-105)
Proctor Valley Road (N) to SR-125 (westerly intersection improvements at Proctor Valley Road)
Construct 4 Lane Class I Collector (w/ raised median) Length (LF): 500

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork				$ 124,521	
2	Drainage Items				$ 85,198	
3	Surface Improvements				$ 206,442	
4	Dry Utilities				$ 39,322	
5	Landscape & Irrigation				$ 98,306	
6	Misc. Construction Logistics				$ 6,553	
		TOTAL HARD COSTS			**$ 560,342**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$	84,051
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$	42,026
Soils Engineering(15% of earthwork costs)	$	18,678
Landscape Architecture (10% of landscaping costs)	$	9,831
Surveying (2% of hard costs, excludes right-of-way)	$	11,207
Utility Engineering/Coordination (3% of dry utility costs)	$	1,180
Inspection/Administration (6% of total hard costs including right-of-way)	$	33,621
Developer Administration (1.75% of total hard costs including right-of-way)	$	9,806
City Project Administration (2% of total hard costs including right-of-way)	$	11,207
TOTAL SOFT COSTS	**$**	**221,606**
PROJECT COST	**$**	**781,948**

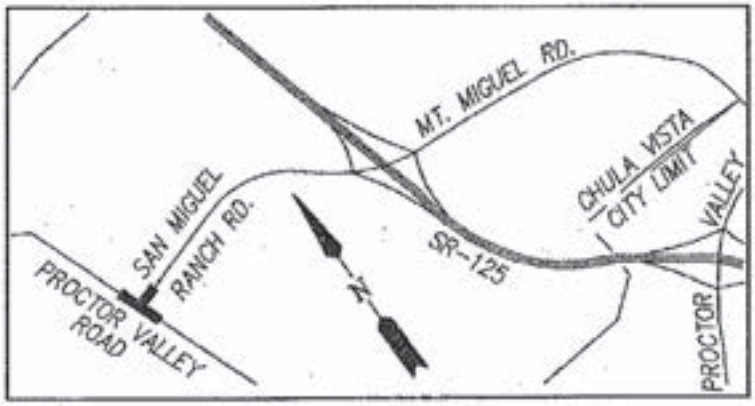
Notes:
(1) The source of this estimate is the 2005 TDIF Update.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.
(3) The scope of work includes the westerly intersection improvements only. The estimate of construction costs was based on a percentage of the total costs for the entire roadway project. Eleven percent (11%) of the total construction costs were assumed. The total length of roadway improvements was based on a 100 foot north leg, 150 foot south leg, and 350 feet east leg. It is also assumed that all right-of-way has been acquired.
(4) Existing all way stop. Traffic signal cost not included in estimate above nor in Facility #63 since it may not be warranted.

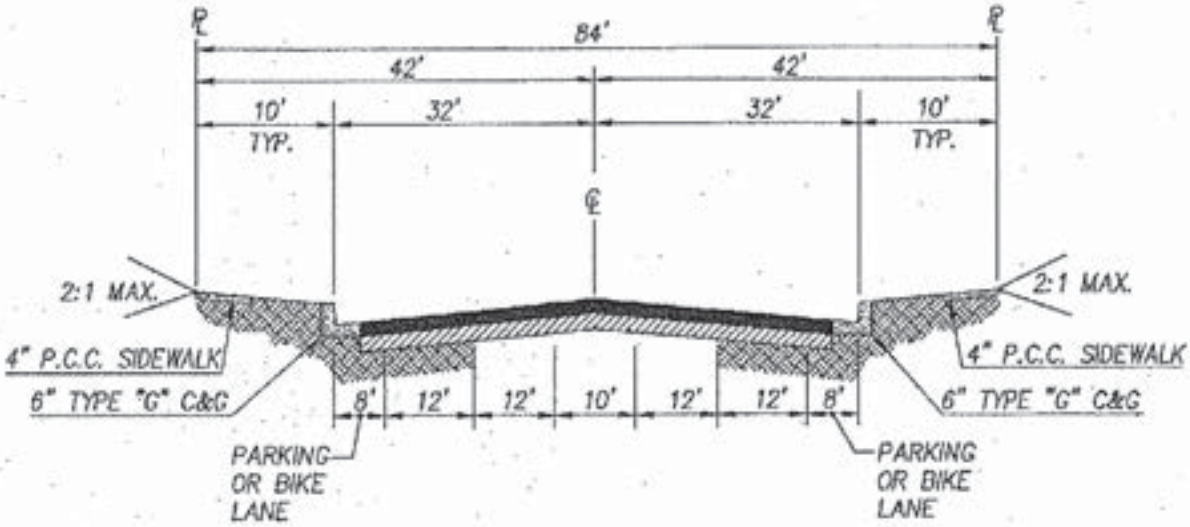
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 47A

PROJECT DESCRIPTION:

SAN MIGUEL RANCH ROAD FROM PROCTOR VALLEY ROAD (NORTH) TO SR-125 (WESTERLY INTERSECTION IMPROVEMENTS AT PROCTOR VALLEY ROAD).
CONSTRUCT 4 LANE CLASS I COLLECTOR ROAD (WITH RAISED MEDIAN).
(LENGTH = 500')





4 - LANE COLLECTOR

NO SCALE

COST ESTIMATE

FACILITY 52B

La Media Road V7 *
Santa Luna Street to La Media Rd Couplet Intersection
New 6 Lane Prime Arterial Length (LF): 1,629

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 3,661,968	
2	Special Items				$ 1,374,600	
	Habitat mitigation	Acres	15.8	$ 87,000		$ 1,374,600
		TOTAL HARD COSTS			**$ 5,036,568**	

(Source - Hunsaker & Associates)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 755,485
Design (12%)	$ 604,388
Inspection/Administration (6% of total hard costs including right-of-way)	$ 302,194
Developer Administration (1.75% of total hard costs including right-of-way)	$ 88,140
City Project Administration (2% of total hard costs including right-of-way)	$ 100,731
TOTAL SOFT COSTS	**$ 1,850,939**
PROJECT COST	**$ 6,887,507**

Notes:

(1) The construction cost for this roadway section was established based on a proration of the total cost of La Media Road from Birch Road to Santa Luna as estimated by Hunsaker and Associates (i.e. 1,629/5,393 lf). It is assumed that all of the habitat mitigation is in this segment (i.e. none was in the segment from Birch to Santa Luna Street).

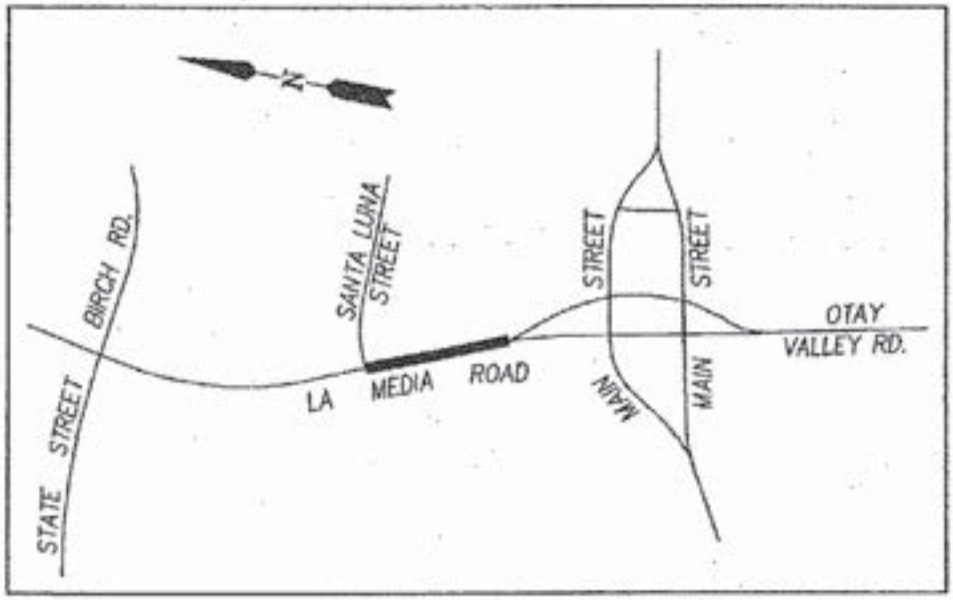
(2) * indicates developer/village number.

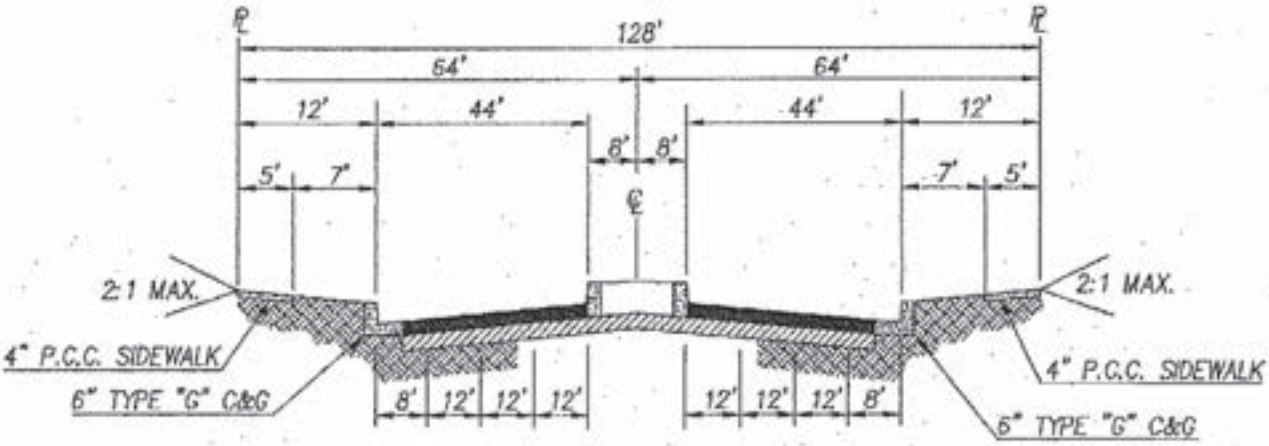
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 52B

PROJECT DESCRIPTION:

LA MEDIA ROAD FROM SANTA LUNA STREET TO MAIN STREET COUPLET INTERSECTION.
CONSTRUCT 6 LANE PRIME ARTERIAL ROAD.
(LENGTH = 1,629')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 53A

La Media Road - One Way Couplet Road (within Village 8W) V8W *
La Media Road Couplet from south of Santa Luna Street to end of couplet north of Otay Valley Road
Construct 2X2-Lane One Way Couplet Road Length (LF): 4,050

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	4,050	$ 247.00	$ 1,000,350	
2	Drainage Items	Linear ft.	4,050	$ 168.00	$ 680,400	
3	Surface Improvements	Linear ft.	4,050	$ 408.00	$ 1,652,400	
4	Dry Utilities	Linear ft.	4,050	$ 77.00	$ 311,850	
5	Traffic Signal Modification	Each	0	$ 129,520.00	$ -	
6	Landscape & Irrigation	Linear ft.	4,050	$ 194.00	$ 785,700	
7	Misc. Construction Logistics	Linear ft.	4,050	$ 13.00	$ 52,650	
8	Special Items				$ -	
	Habitat mitigation					$ -
		TOTAL HARD COSTS			**$ 4,483,350**	

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 672,503
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 336,251
Soils Engineering(15% of earthwork costs)	$ 150,053
Landscape Architecture (10% of landscaping costs)	$ 78,570
Surveying (2% of hard costs, excludes right-of-way)	$ 89,667
Utility Engineering/Coordination (3% of dry utility costs)	$ 9,356
Inspection/Administration (6% of total hard costs including right-of-way)	$ 269,001
City Project Administration (2% of total hard costs including right-of-way)	$ 89,667
TOTAL SOFT COSTS	**$ 1,695,067**
PROJECT COST	**$ 6,178,417**

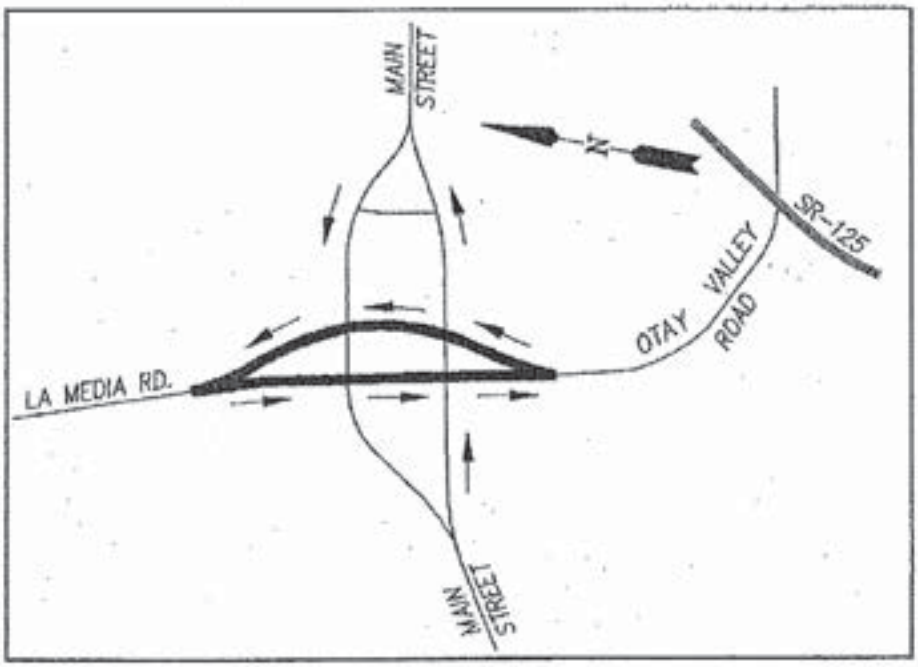
Notes:
(1) The cost of this facility was estimated using the unit prices identified in Table G and an approximate length of the roadway as shown on the Otay Ranch, Village 8 West Tentative Map. The roadway sections was assumed to be equivalent to a 4 lane major roadway.
(2) The developer's estimated cost of this facility at approximately $5,500,000. Difference in cost is due to soft cost percentages.
(3) The habitat mitigation for the Couplet Road will be satisfied as part of the environmental clearance for the subdivision.
(4) * indicates developer/village number.

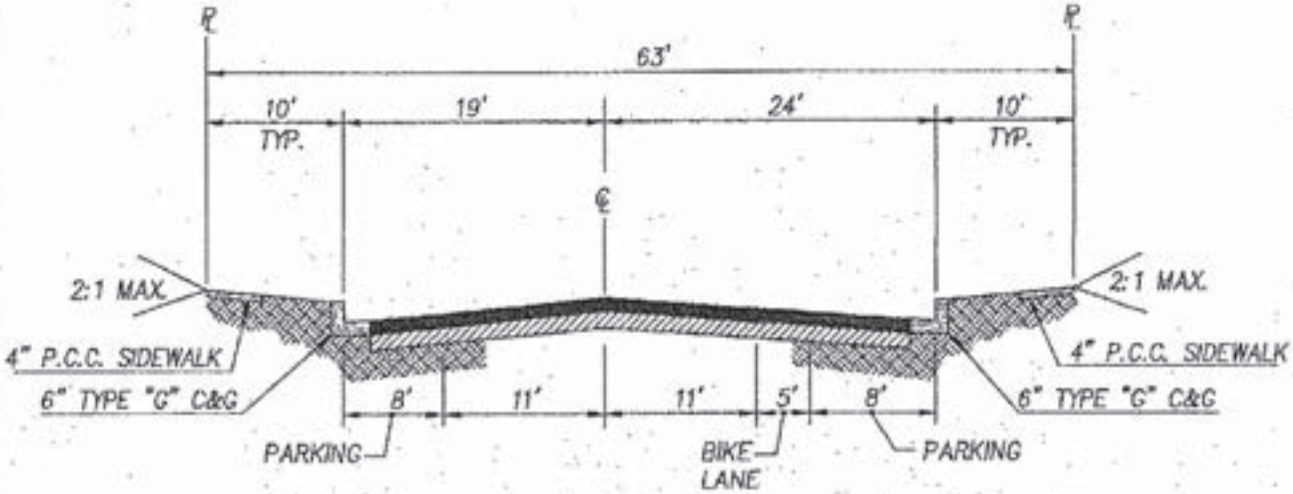
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 53A

PROJECT DESCRIPTION:

ONE-WAY COUPLET ROAD (WITHIN VILLAGE 8W).
LA MEDIA ROAD.
CONSTRUCT 2 LANE ONE-WAY COUPLET.
(LENGTH = 4,050')





2 - LANE ONE-WAY COUPLET

NO SCALE

COST ESTIMATE

FACILITY 53B

Main Street - One Way Couplet Road (within Village 8W) V8W *
From Main St Couplet Intersection west of SB La Media Rd to end of Couplet east of NB La Media Rd
Construct 2X2-Lane One Way Couplet Road = 4-lane couplet Length (LF): 5,500

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	5,500	$ 247.00	$ 1,358,500	
2	Drainage Items	Linear ft.	5,500	$ 168.00	$ 924,000	
3	Surface Improvements	Linear ft.	5,500	$ 408.00	$ 2,244,000	
4	Dry Utilities	Linear ft.	5,500	$ 77.00	$ 423,500	
5	Traffic Signal Modification	Each	0	$ 129,520.00	$ -	
6	Landscape & Irrigation	Linear ft.	5,500	$ 194.00	$ 1,067,000	
7	Misc. Construction Logistics	Linear ft.	5,500	$ 13.00	$ 71,500	
8	Special Items				$ -	
	Habitat mitigation					$ -
		TOTAL HARD COSTS			**$ 6,088,500**	

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 913,275
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 456,638
Soils Engineering(15% of earthwork costs)	$ 203,775
Landscape Architecture (10% of landscaping costs)	$ 106,700
Surveying (2% of hard costs, excludes right-of-way)	$ 121,770
Utility Engineering/Coordination (3% of dry utility costs)	$ 12,705
Inspection/Administration (6% of total hard costs including right-of-way)	$ 365,310
City Project Administration (2% of total hard costs including right-of-way)	$ 121,770
TOTAL SOFT COSTS	**$ 2,301,943**
PROJECT COST	**$ 8,390,443**

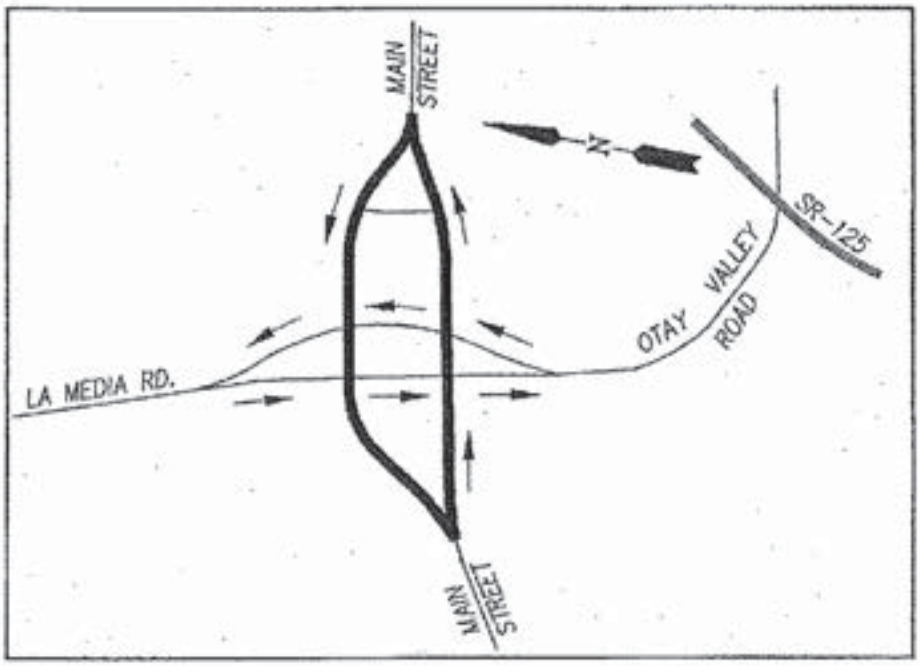
Notes:
(1) The cost of this facility was estimated using the unit prices identified in Table G and an approximate length of the roadway as shown on the Otay Ranch, Village 8 West Tentative Map. The roadway sections was assumed to be equivalent to a 4 lane major roadway.
(2) The developer's estimated the cost of this facility at approximately $8,250,000. Difference is due to soft cost percentages.
(3) The habitat mitigation for the Couplet Road will be satisfied as part of the environmental clearance for the subdivision.
(4) * indicates developer/village number.

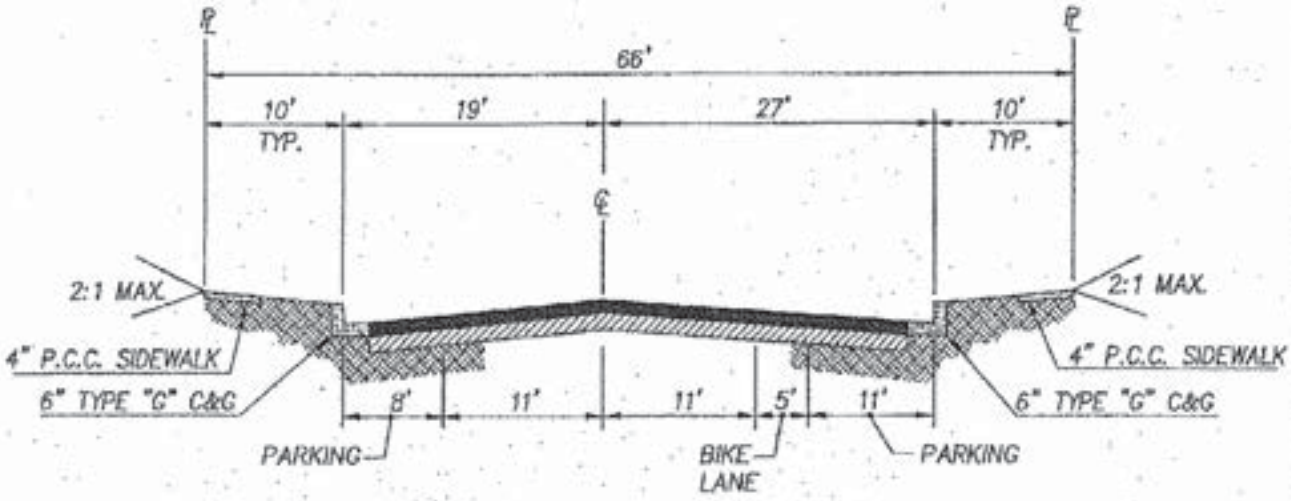
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 53B

PROJECT DESCRIPTION:

ONE-WAY COUPLET ROAD (WITHIN VILLAGE BW).
MAIN STREET.
CONSTRUCT 2 LANE ONE-WAY COUPLET.
(LENGTH = 5,500')





2 - LANE ONE-WAY COUPLET

NO SCALE

COST ESTIMATE

FACILITY 56C

Otay Valley Road
La Media/Couplet Road to SR-125/RW
Construct 4 Lane Major Arterial Road

V8W *

Length (LF): 4,900

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	4,900	$ 246.00	$ 1,205,400	
2	Drainage Items	Linear ft.	4,900	$ 168.00	$ 823,200	
3	Surface Improvements	Linear ft.	4,900	$ 408.00	$ 1,999,200	
4	Dry Utilities	Linear ft.	4,900	$ 78.00	$ 382,200	
5	Landscape & Irrigation	Linear ft.	4,900	$ 194.00	$ 950,600	
6	Misc. Construction Logistics	Linear ft.	4,900	$ 13.00	$ 63,700	
		TOTAL HARD COSTS			**$ 5,424,300**	

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 813,645
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 406,823
Soils Engineering(15% of earthwork costs)	$ 180,810
Landscape Architecture (10% of landscaping costs)	$ 95,060
Surveying (2% of hard costs, excludes right-of-way)	$ 108,486
Utility Engineering/Coordination (3% of dry utility costs)	$ 11,466
Inspection/Administration (6% of total hard costs including right-of-way)	$ 325,458
Developer Administration (1.75% of total hard costs including right-of-way)	$ 94,925
City Project Administration (2% of total hard costs including right-of-way)	$ 108,486
TOTAL SOFT COSTS	**$ 2,145,159**
PROJECT COST	**$ 7,569,459**

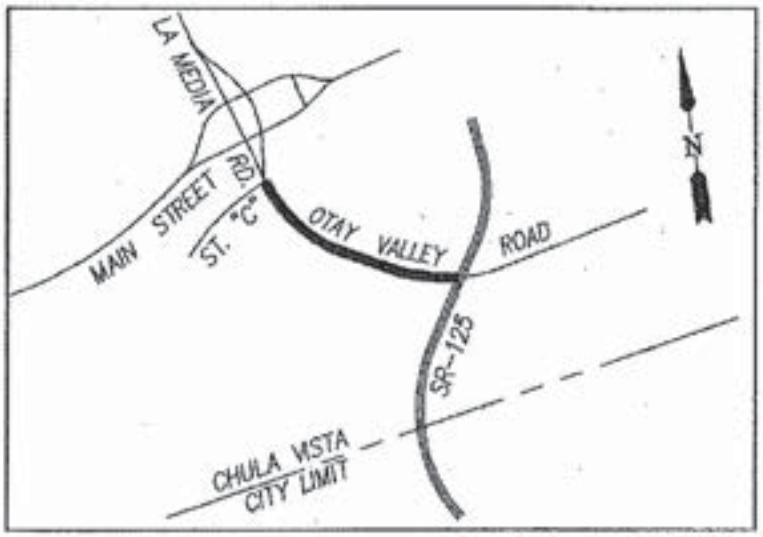
Notes:
(1) The cost of this facility was estimated using the unit prices identified in Table G and an approximate length of the roadway as shown on the Otay Ranch, Village 8 East and West Tentative Maps.
(2) The total length of roadway was based on 2,750 LF within Village 8W and 2,150 LF within V8E.
(3) * indicates developer/village number.

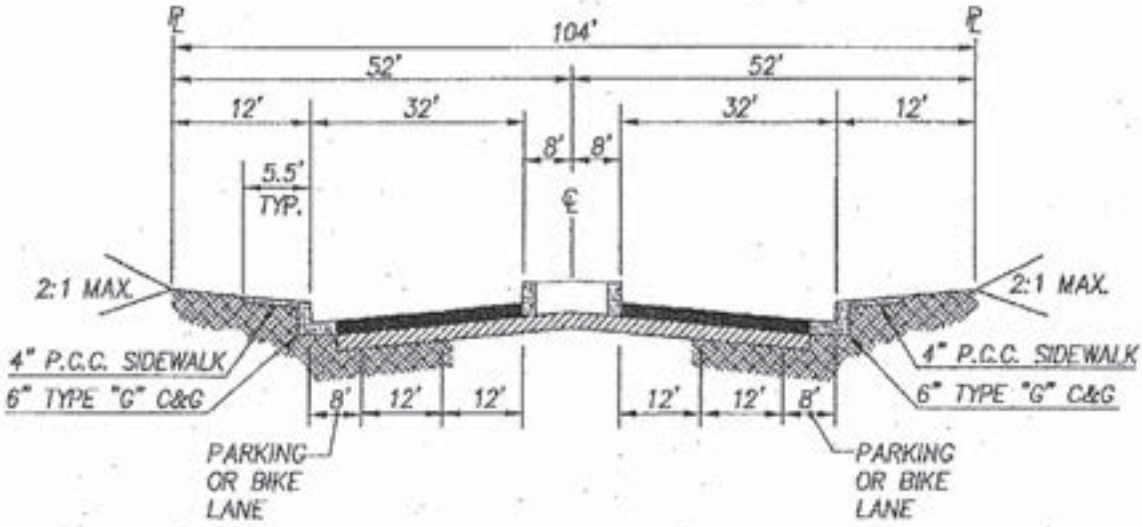
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 56C

PROJECT DESCRIPTION:

OTAY VALLEY ROAD FROM LA MEDIA ROAD/COUPLET ROAD TO SR-125/RW.
CONSTRUCT 4 LANE MAJOR ARTERIAL ROAD.
(LENGTH = 4,900')





4 - LANE MAJOR
NO SCALE

NOTE:

THE SIDEWALK/TRAIL LOCATION IS SHOWN CONCEPTUALLY AND SUBJECT TO CHANGE OUTSIDE OF THE RIGHT-OF-WAY PENDING APPROVAL OF THE TENTATIVE MAP.

COST ESTIMATE

FACILITY 56E

Main Street STM-364
Nirvana Avenue to Heritage/Main Street
Widen South Side to a 6 Lane Major Length (Lf): 3,695

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 947,579	
	TOTAL HARD COSTS				**$ 947,579**	

(Source - Darnell & Associates, July 18, 2012)

SOFT COSTS

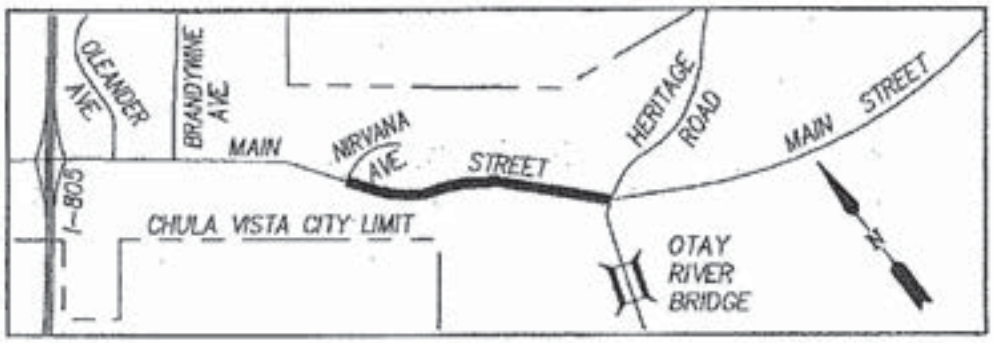
Contingency (15% of total hard costs including right-of-way)	$	142,137
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$	71,068
Soils Engineering(15% of earthwork costs)	$	9,270
Landscape Architecture (10% of landscaping costs)	$	7,300
Surveying (2% of hard costs, excludes right-of-way)	$	18,952
Utility Engineering/Coordination (3% of dry utility costs)	$	-
Inspection/Administration (6% of total hard costs including right-of-way)	$	56,855
Developer Administration (1.75% of total hard costs including right-of-way)	$	16,583
City Project Administration (2% of total hard costs including right-of-way)	$	18,952
TOTAL SOFT COSTS	**$**	**341,116**
PROJECT COST	**$**	**1,288,695**

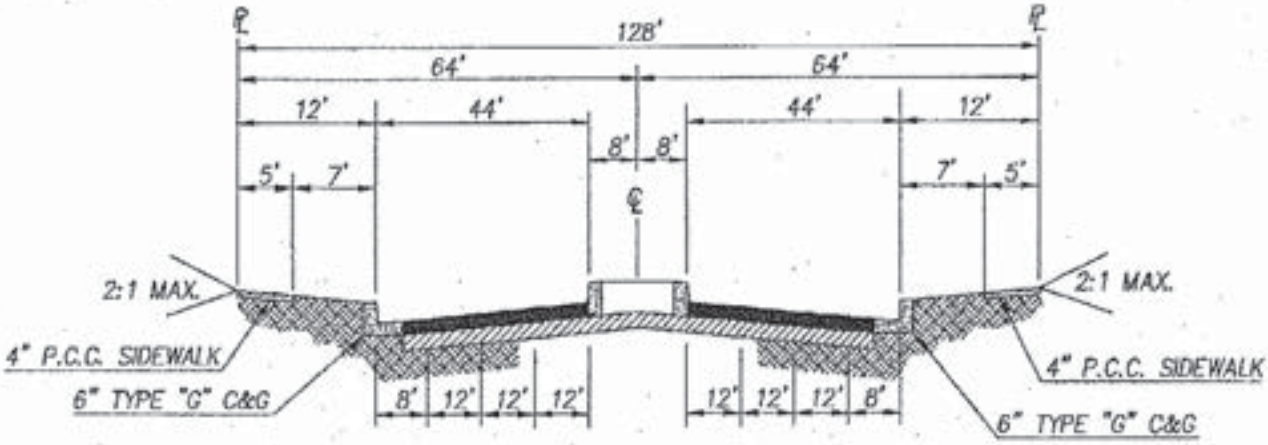
Notes:
(1) The source of this estimate is the Darnell & Associates Preliminary Cost Estimate, dated July 18, 2012.
(2) The costs identified herein are based on an escalation of the 2012 costs using the construction index inflation factor.
(3) The costs identified herein include both Facilities 56a and 56e as identified in the 2005 TDIF Update (i.e. both facilities are combined in this estimate).

CHULA VISTA TDIF FACILITY EXHIBIT
FACILITY NO. 56E

PROJECT DESCRIPTION:

MAIN STREET FROM NIRVANA AVENUE TO HERITAGE ROAD/MAIN STREET.
WIDEN SOUTH SIDE TO A SIX LANE MAJOR.
(LENGTH = 3,695')





6 - LANE MAJOR
NO SCALE

COST ESTIMATE

FACILITY 57

Heritage Road
Olympic Parkway to Main Street
Construct 6 Lane Prime Arterial

V2 and V3 *

Length (LF): 9,438

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Costs				$ 17,480,000	
2	Special Items				$ 1,240,000	
	Habitat Mitigation					$ 1,240,000
		TOTAL HARD COSTS			**$ 18,720,000**	

(Source - Hunsaker & Associates)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 2,808,000
Design (12%)	$ 2,246,400
Inspection/Administration (6% of total hard costs including right-of-way)	$ 1,123,200
Developer Administration (1.75% of total hard costs including right-of-way)	$ 327,600
City Project Administration (2% of total hard costs including right-of-way)	$ 374,400
TOTAL SOFT COSTS	**$ 6,879,600**
PROJECT COST	**$ 25,599,600**

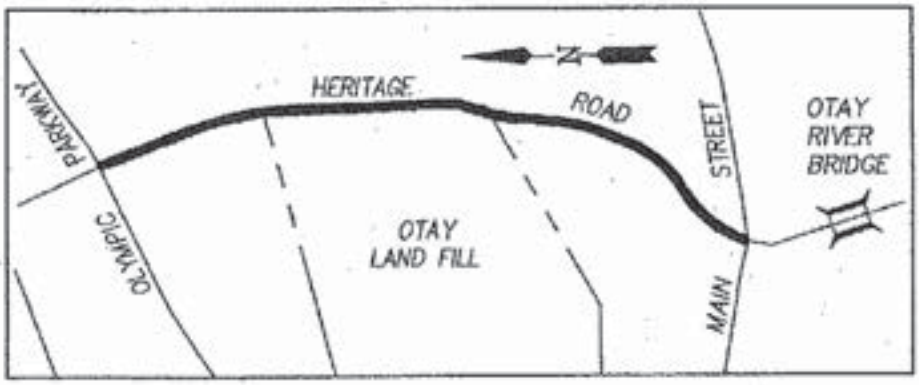
Notes:
(1) * indicates developer/village number.

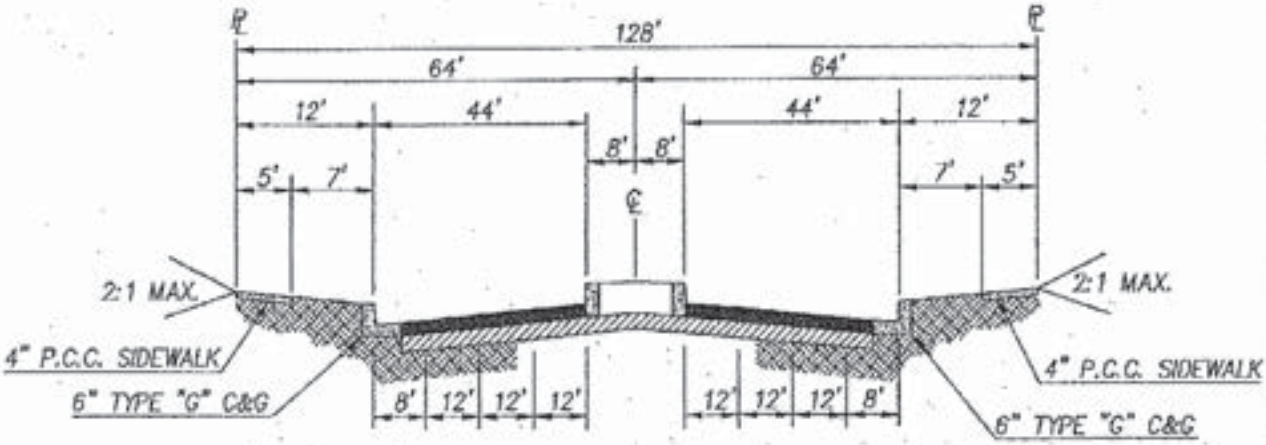
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 57

PROJECT DESCRIPTION:

HERITAGE ROAD FROM OLYMPIC PARKWAY TO MAIN STREET.
CONSTRUCT 6 LANE PRIME ARTERIAL ROAD
(LENGTH = 9,438')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 58A

Heritage Road STM-364
Entertainment Circle North to Southerly City Boundary
Widen to 6 Lane Prime Arterial Length (LF): 3,000

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	3,000	$ 211.00	$ 633,000	
2	Drainage Items	Linear ft.	3,000	$ 110.00	$ 330,000	
3	Surface Improvements	Linear ft.	3,000	$ 358.00	$ 1,074,000	
4	Dry Utilities	Linear ft.	3,000	$ 50.00	$ 150,000	
5	Landscape & Irrigation	Linear ft.	3,000	$ 211.00	$ 633,000	
6	Misc. Construction Logistics	Linear ft.	3,000	$ 8.00	$ 24,000	
		TOTAL HARD COSTS			**$ 2,844,000**	

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$	426,600
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$	213,300
Soils Engineering(15% of earthwork costs)	$	94,950
Landscape Architecture (10% of landscaping costs)	$	63,300
Surveying (2% of hard costs, excludes right-of-way)	$	56,880
Utility Engineering/Coordination (3% of dry utility costs)	$	4,500
Inspection/Administration (6% of total hard costs including right-of-way)	$	170,640
Developer Administration (1.75% of total hard costs including right-of-way)	$	49,770
City Project Administration (2% of total hard costs including right-of-way)	$	56,880
TOTAL SOFT COSTS	**$**	**1,136,820**
PROJECT COST	**$**	**3,980,820**

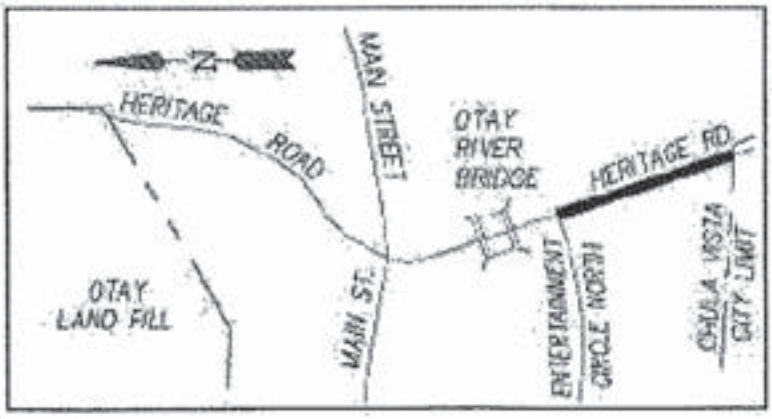
Notes:
(1) The estimate of costs herein is based on the length of the facility and 65% of the unit costs for a 6-lane prime arterial roadway as identified in Table G.

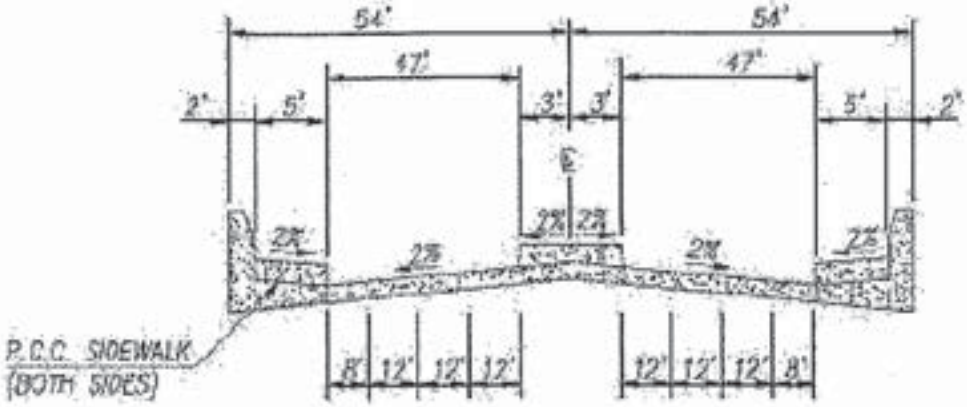
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 58A

PROJECT DESCRIPTION:

HERITAGE ROAD FROM ENTERTAINMENT CIRCLE NORTH TO SOUTHERLY CITY BOUNDARY.
WIDEN TO 6-LANE PRIME ARTERIAL
(LENGTH = 3,000 ft)





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 58B

Heritage Road Bridge STM-364
Otay River Bridge (includes Main Street to Entertainment Circle North)
New Bridge on 6 Lane Prime Arterial (includes north and south roadway approaches)
Length (LF): 1,320

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
HARD COSTS						
1	Roadway Items				$ 7,600,000	
2	Structure Items				$ 12,300,000	
3	Right-of-Way				$ 400,000	
4	Environmental Mitigation				$ 500,000	
		TOTAL HARD COSTS			**$ 20,800,000**	
SOFT COSTS						
1	Construction Engineering				$ 1,600,000	
2	Contingencies				$ 2,000,000	
3	Preliminary Engineering (+SAFETEA-LU)				$ 4,200,000	
		TOTAL SOFT COSTS			**$ 7,800,000**	

(Source - City of Chula Vista Staff, November 22, 2013)

TOTAL PROJECT COST		**$ 28,600,000**
SHARED FUNDING		
Less Funds Expended for Prelinary Engineering		
Fed SAFETEA-LU Funds - 80%	$ 2,519,720	
City's Local Match - 20%	$ 629,930	
		$ (3,149,650)
Remaining Costs		**$ 26,080,280**

TOTAL TDIF FUNDED	**$ 26,080,280**

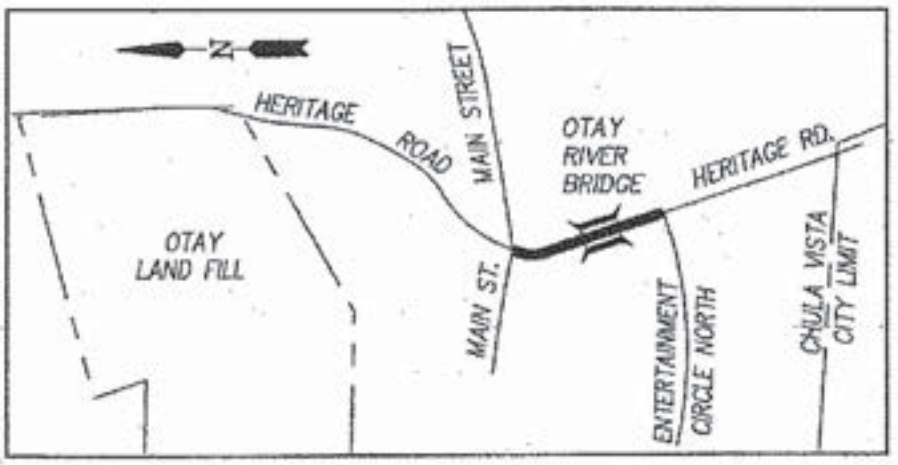
Notes:

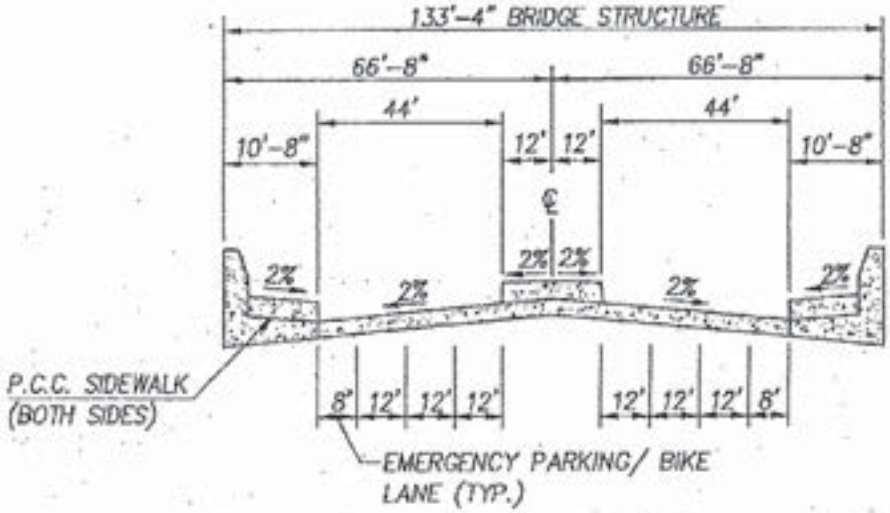
(1) The source of this estimate is the City of Chula Vista Heritage Road Bridge Improvements Estimate, dated November 22, 2013.

CHULA VISTA TDIF FACILITY EXHIBIT
FACILITY NO. 58B

PROJECT DESCRIPTION:

HERITAGE ROAD BRIDGE CROSSING THE OTAY RIVER (INCLUDES MAIN STREET TO ENTERTAINMENT CIRCLE NORTH).
CONSTRUCT 6 LANE PRIME ARTERIAL BRIDGE (INCLUDES NORTH AND SOUTH ROADWAY APPROACHES).
(LENGTH = 1,320')





6 - LANE PRIME
NO SCALE

COST ESTIMATE

FACILITY 59C

Proctor Valley Road — RHR *
Agua Vista Drive/Northwoods Drive to Easterly City Boundary
Construct 4 Lane Major Road — Length (LF): 1,750

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	1,750	$ 680.00	$ 1,190,000	
2	Drainage Items	Linear ft.	1,750	$ 168.00	$ 294,000	
3	Surface Improvements	Linear ft.	1,750	$ 408.00	$ 714,000	
4	Dry Utilities	Linear ft.	1,750	$ 78.00	$ 136,500	
5	Landscape & Irrigation	Linear ft.	1,750	$ 194.00	$ 339,500	
6	Misc. Construction Logistics	Linear ft.	1,750	$ 13.00	$ 22,750	
7	Special Items				$ 1,171,508	
	Habitat mitigation	Acres	6.03	$ 194,280.00		$ 1,171,508
		TOTAL HARD COSTS			**$ 3,868,258**	

(Source - 2005 TDIF Update)

SOFT COSTS

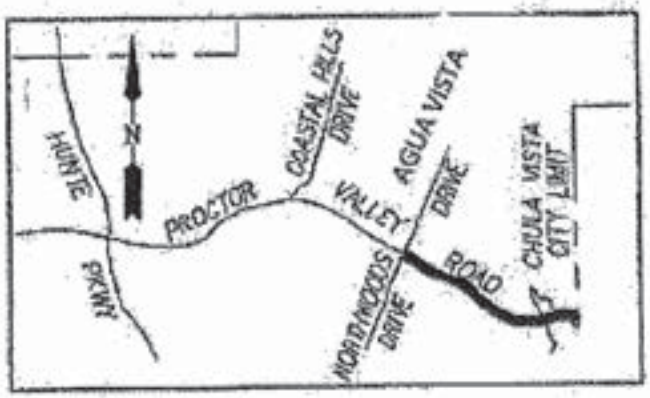
Contingency (15% of total hard costs including right-of-way)	$ 580,239
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 290,119
Soils Engineering(15% of earthwork costs)	$ 178,500
Landscape Architecture (10% of landscaping costs)	$ 33,950
Surveying (2% of hard costs, excludes right-of-way)	$ 77,365
Utility Engineering/Coordination (3% of dry utility costs)	$ 4,095
Inspection/Administration (6% of total hard costs including right-of-way)	$ 232,096
Developer Administration (1.75% of total hard costs including right-of-way)	$ 67,695
City Project Administration (2% of total hard costs including right-of-way)	$ 77,365
TOTAL SOFT COSTS	**$ 1,541,424**
PROJECT COST	**$ 5,409,682**

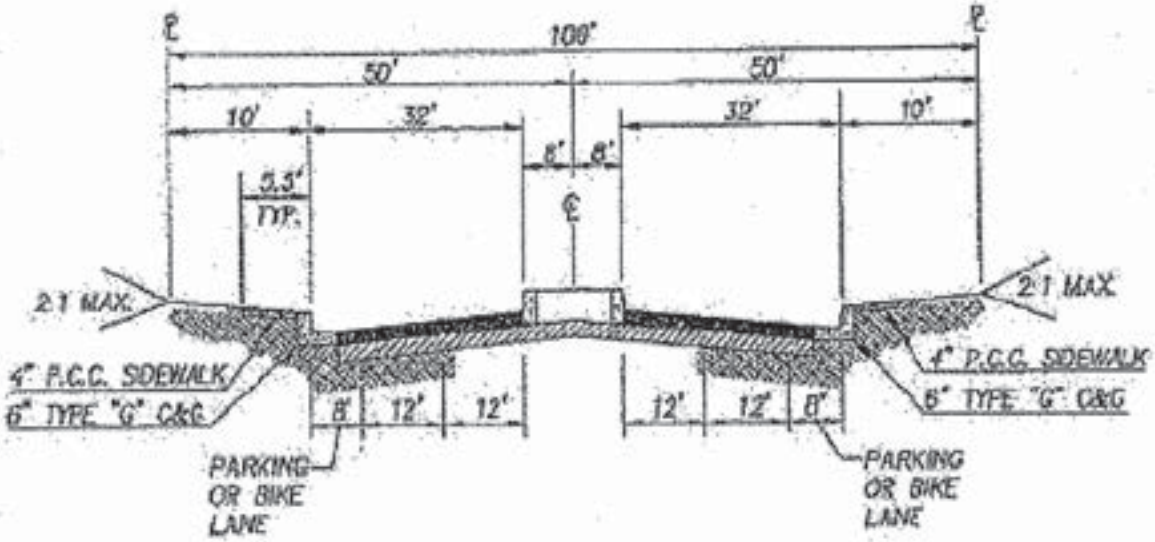
Notes:
(1) The source of this estimate is the 2005 TDIF Update.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.
(3) * indicates developer/village number.

CHULA VISTA TDIF FACILITY EXHIBIT
FACILITY NO. 59C

PROJECT DESCRIPTION:

PROCTOR VALLEY ROAD FROM AGUA VISTA DRIVE / NORTHWOODS DRIVE TO EASTERLY CITY BOUNDARY
CONSTRUCT 4-LANE MAJOR ROAD
(LENGTH = 1750 ft)





4 - LANE MAJOR
NO SCALE

COST ESTIMATE

FACILITY 60A

Main Street
Heritage Road to Wolf Canyon Bridge (Village 3 Frontage)
Construct 6 Lane Prime

STM-357

Length (Lf): 4,330

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 9,246,187	
		TOTAL HARD COSTS			**$ 9,246,187**	

(Source - Hunsaker & Associates, dated May 10,2013)

SOFT COSTS

Contingency (15%)	$ 1,386,928
Design (12%)	$ 1,109,542
Inspection/Administration (6%)	$ 554,771
Developer Administration (1.75%)	$ 161,808
City Project Administration (2%)	$ 184,924
TOTAL SOFT COSTS	**$ 3,397,974**
PROJECT COST	**$ 12,644,161**

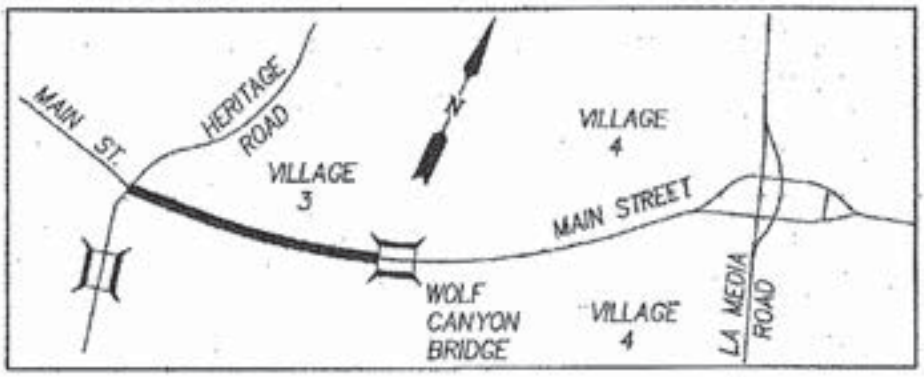
Notes:
(1) The source of this estimate is the Hunsaker & Associates Estimate dated May 10, 2013.

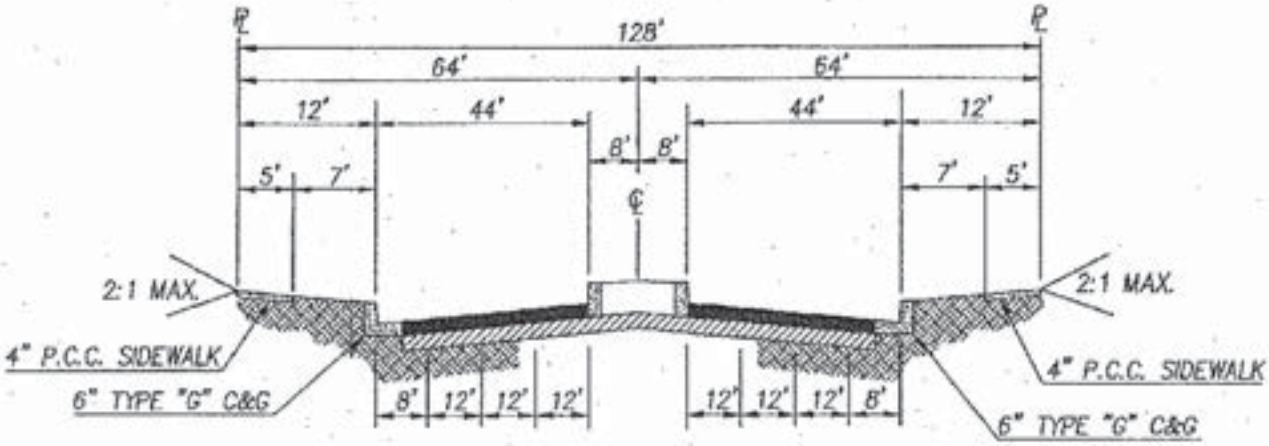
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 60A

PROJECT DESCRIPTION:

MAIN STREET FROM HERITAGE ROAD TO WOLF CANYON BRIDGE.
CONSTRUCT 6 LANE PRIME ARTERIAL.
(LENGTH = 4,330')





6 - LANE PRIME
NO SCALE

COST ESTIMATE

FACILITY 60B

Main Street V4 *
Wolf Canyon Bridge to La Media Road (Village 4 Frontage)
Construct 6 Lane Prime Length (Lf): 4,880

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 9,698,795	
		TOTAL HARD COSTS			**$ 9,698,795**	
	(Source - Hunsaker & Associates, May 10, 2013)					
	SOFT COSTS					
	Contingency (15%)				$ 1,454,819	
	Design (12%)				$ 1,163,855	
	Inspection/Administration (6%)				$ 581,928	
	Developer Administration (1.75%)				$ 169,729	
	City Project Administration (2%)				$ 193,976	
		TOTAL SOFT COSTS			**$ 3,564,307**	
		PROJECT COST			**$ 13,263,102**	

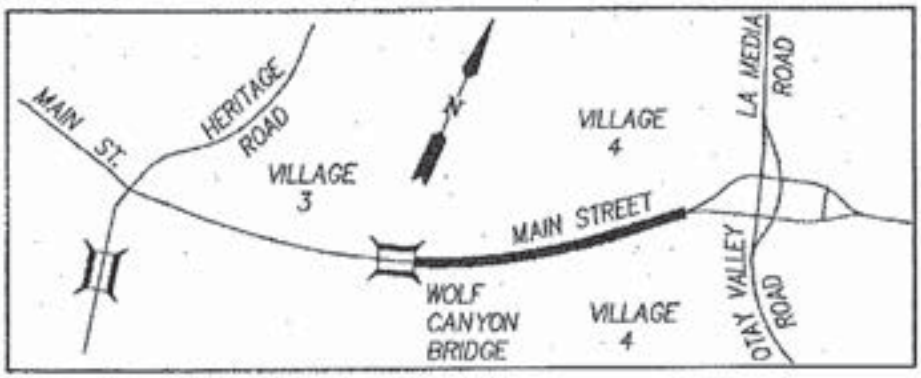
Notes:
(1) The source of this estimate is the Hunsaker & Associates Estimate dated May 10, 2013.
(2) * indicates developer/village number.

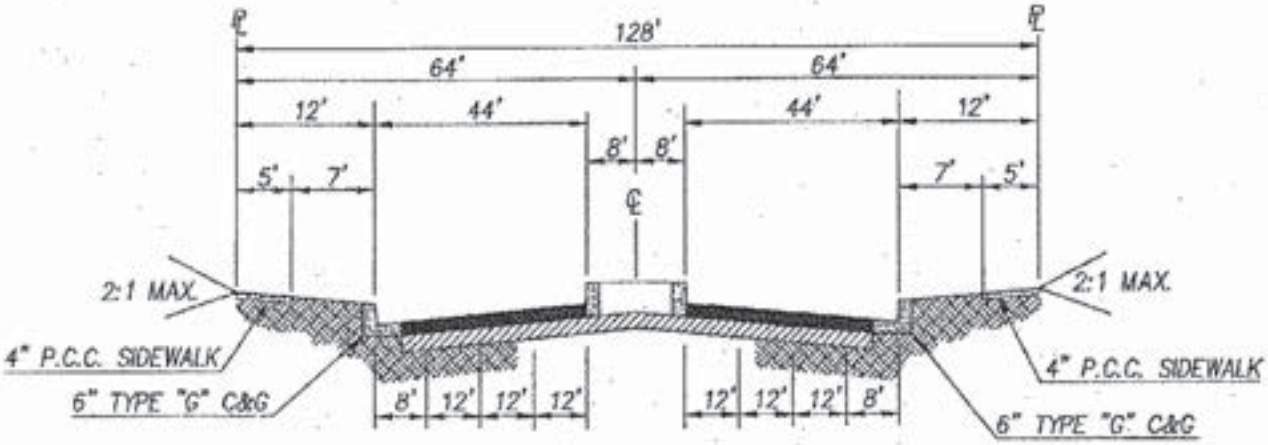
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 60B

PROJECT DESCRIPTION:

MAIN STREET FROM THE WOLF CANYON BRIDGE TO LA MEDIA ROAD.
CONSTRUCT 6 LANE PRIME ARTERIAL.
(LENGTH = 4,880')





6 - LANE PRIME
NO SCALE

COST ESTIMATE

FACILITY 60C

Main Street — V3 and V4 *
Construct Bridge over Wolf Canyon
Construct 6 Lane Prime — Length (Lf): 1,225

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 32,302,000	
		TOTAL HARD COSTS			**$ 32,302,000**	

(Source - Hunsaker & Associates, May 22, 2013 and Moffatt & Nichol, dated May 21, 2013)

SOFT COSTS

Contingency (15%)	$ 4,845,300
Design (12%)	$ 3,876,240
Inspection/Administration (6%)	$ 1,938,120
Developer Administration (1.75%)	$ 565,285
City Project Administration (2%)	$ 646,040
TOTAL SOFT COSTS	**$ 11,870,985**
PROJECT COST	**$ 44,172,985**

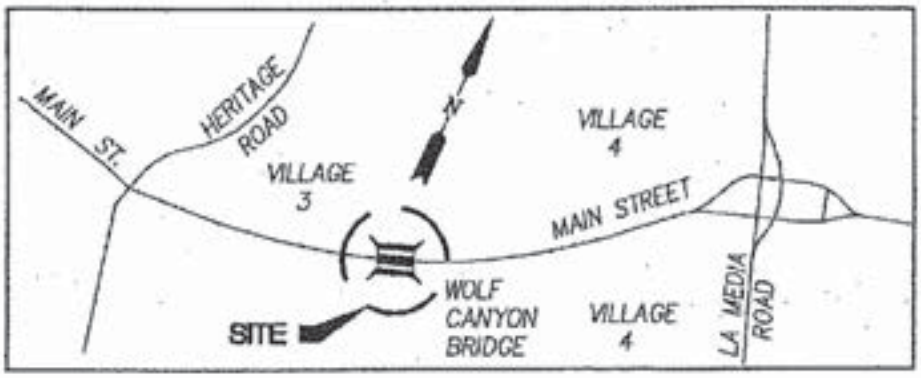
Notes:
(1) The source of this estimate is the Hunsaker & Associates Estimate dated May 22, 2013 and Moffatt & Nichol, dated May 21, 2013.
(2) * indicates developer/village number.

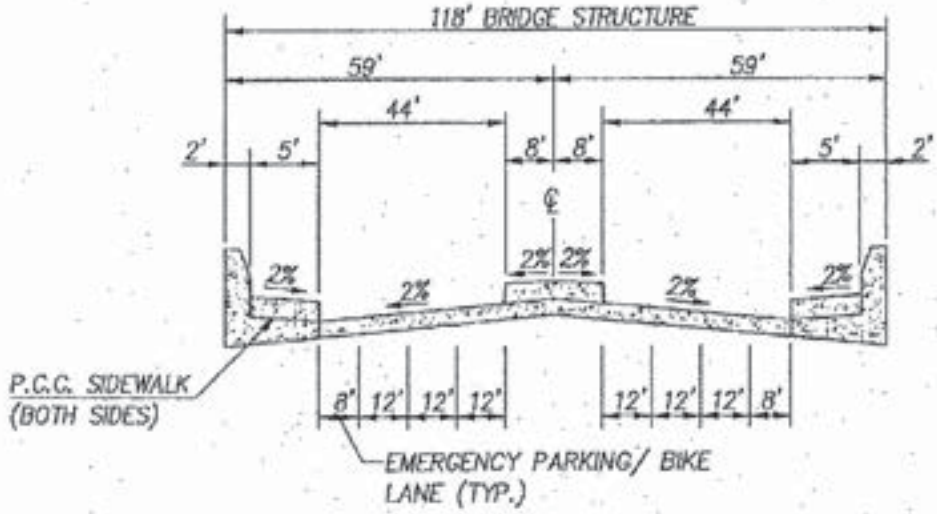
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 60C

PROJECT DESCRIPTION:

MAIN STREET BRIDGE OVERCROSSING WOLF CANYON.
CONSTRUCT 6 LANE BRIDGE.
(LENGTH = 1,225')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 60D

Main Street
La Media Road to SR-125
Construct 6 Lane Prime

V7 and V8 *

Length (Lf): 1,900

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 5,247,060	
		TOTAL HARD COSTS			**$ 5,247,060**	
	(Source - 2005 TDIF Update/Hunsaker & Associates)					
	SOFT COSTS					
	Contingency (15%)				$ 787,059	
	Design (12%)				$ 629,647	
	Inspection/Administration (6%)				$ 314,824	
	Developer Administration (1.75%)				$ 91,824	
	City Project Administration (2%)				$ 104,941	
		TOTAL SOFT COSTS			**$ 1,928,295**	
		PROJECT COST			**$ 7,175,355**	

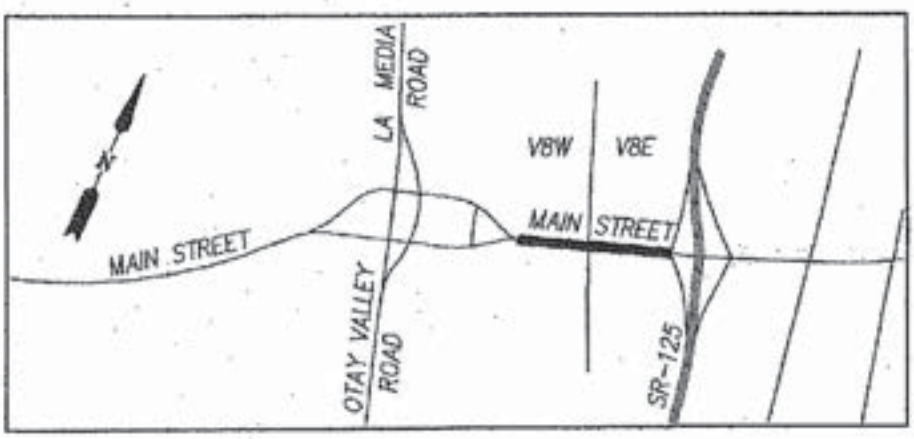
Notes:
(1) The source of this estimate is the 2005 TDIF Update ($6,825,000)
(2) The costs identified herein are based on an escalation of the 2005 costs using the construction index inflation factor ($8,463,000) and adjusted to address the partially completed roadway.
(3) A portion of the roadway (1,450 LF) has completed half width improvements (I.e. westbound lanes) excluding the median. The cost associated with the remaining portion of the roadway was based on a proration of the total cost. The remaining portion of the roadway was estimated at 62% of the total lineal footage identified above.
(4) * indicates developer/village number.

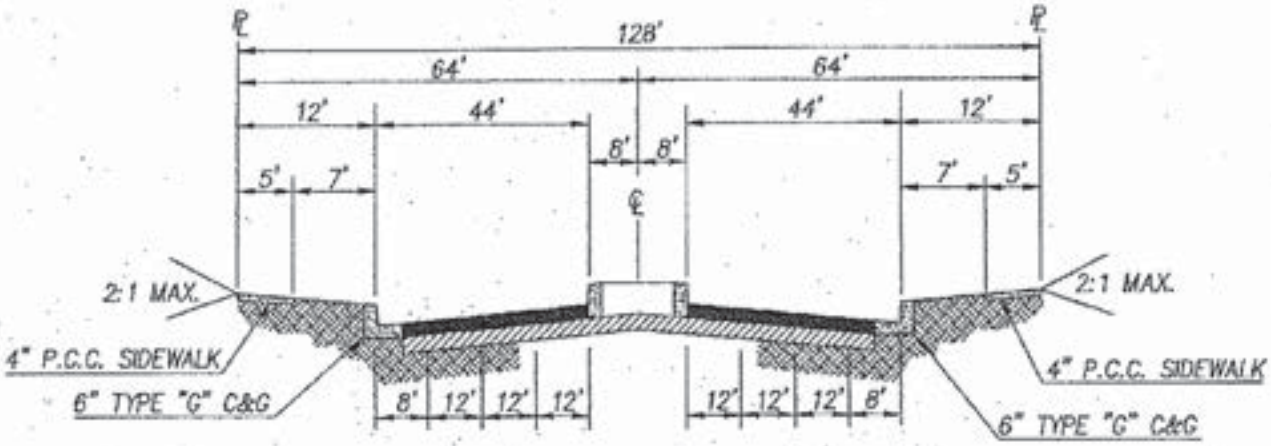
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 60D

PROJECT DESCRIPTION:

MAIN STREET FROM LA MEDIA ROAD TO SR-125.
CONSTRUCT 6 LANE PRIME ARTERIAL.
(LENGTH = 1,900')





6 - LANE PRIME
NO SCALE

COST ESTIMATE

FACILITY 61

Willow Street (STL-261)
Bonita Road to Sweetwater Road
Reconstruct Bridge on 4 Lane Major Road Length (ft): 1,000

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Roadway Items				$ 5,400,000	
2	Structure Items				$ 7,800,000	
3	Right-of-Way				$ 1,815,850	
		TOTAL HARD COSTS			**$ 15,015,850**	
SOFT COSTS						
1	PE-Engineering & Environmental Administration / Mitigation (80%/20%)				$ 4,581,991	
2	CON - Construction Engineering (88.53%)				$ 1,972,555	
		TOTAL SOFT COSTS			**$ 6,554,546**	

(Source - July 17, 2014 City of Chula Vista)

TOTAL PROJECT COST	$ 21,570,396
* NON-PARTICIPATING COSTS Paid by TDIF	$ 298,000
TOTAL PROJECT PARTICIPATING COST	**$ 21,272,396**

SHARED FUNDING

Federal Funding PE (80% of $4,581,991)		$ 3,665,593
Local Funding PE (20%)		$ 916,398
Federal Funding CON (88.53% of $16,988,405)		$ 15,039,835
Local Funding CON (11.47%)		$ 1,948,570
* Non-Participating Costs		$ 298,000
CITY OF CHULA VISTA TDIF COST	14.7 %	**$ 3,162,968**

* Not eligible Capital Items for Federal Highway Bridge Program

Notes:

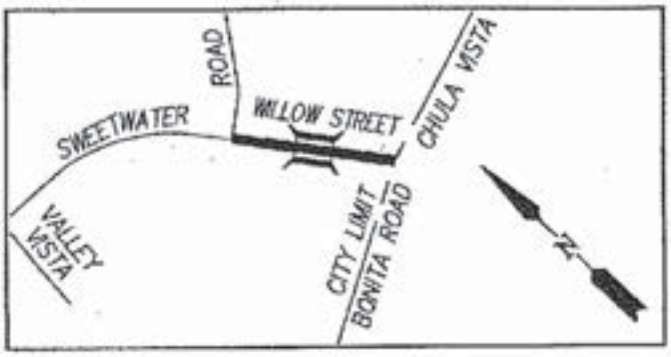
(1) The source of this estimate is the City of Chula Vista Willow Street Bridge Replacement Estimate, dated July 17, 2014.

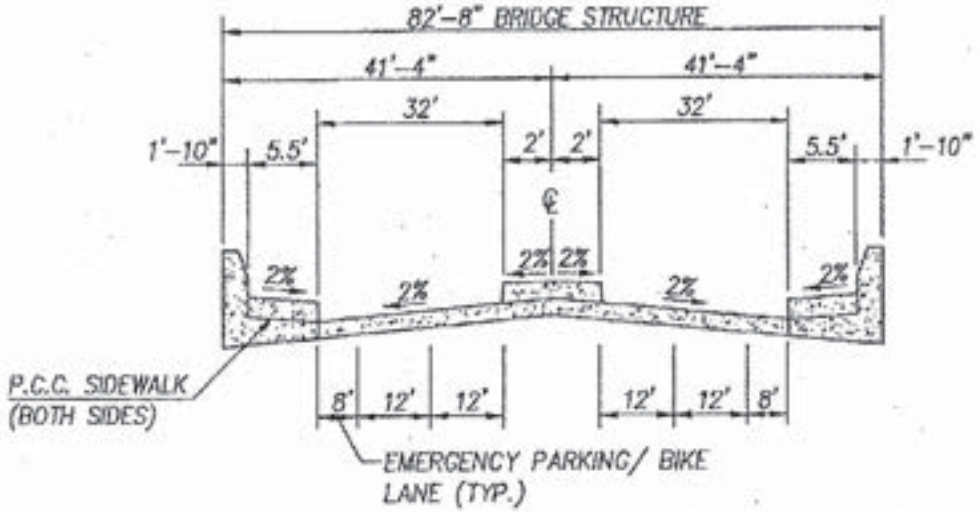
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 61

PROJECT DESCRIPTION:

WILLOW STREET BRIDGE FROM BONITA ROAD TO SWEETWATER ROAD.
RECONSTRUCT BRIDGE 4 LANE MAJOR ROAD
(LENGTH = 1,000')





4 - LANE MAJOR
NO SCALE

COST ESTIMATE

FACILITY 62

East H Street — STM-382

500 LF west of Buena Vista Way to Southwestern College Entrance Road

Widen existing road to provide WB & EB bike lanes and an EB-SB right turn only lane to Southwestern College entrance — Length (LF): 2,100

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	2,100	$ 39.00	$ 81,900	
2	Drainage Items	Linear ft.	2,100	$ 26.00	$ 54,600	
3	Surface Improvements	Linear ft.	2,100	$ 291.00	$ 611,100	
4	Dry Utilities	Linear ft.	2,100	$ 78.00	$ 163,800	
5	Traffic Signal Modification	Each	2	$ 129,520.00	$ 259,040	
6	Landscape & Irrigation	Linear ft.	2,100	$ 194.00	$ 407,400	
7	Misc. Construction Logistics	Linear ft.	2,100	$ 13.00	$ 27,300	
8	Special Items				$ 54,398	
	Habitat mitigation					$ 54,398
		TOTAL HARD COSTS			**$ 1,659,538**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 248,931
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 124,465
Soils Engineering(15% of earthwork costs)	$ 12,285
Landscape Architecture (10% of landscaping costs)	$ 40,740
Surveying (2% of hard costs, excludes right-of-way)	$ 33,191
Utility Engineering/Coordination (3% of dry utility costs)	$ 4,914
Inspection/Administration (6% of total hard costs including right-of-way)	$ 99,572
Developer Administration (1.75% of total hard costs including right-of-way)	$ 29,042
City Project Administration (2% of total hard costs including right-of-way)	$ 33,191
TOTAL SOFT COSTS	**$ 626,331**
PROJECT COST	**$ 2,285,869**

Notes:

(1) The source of this estimate is the 2005 TDIF Update.

(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.

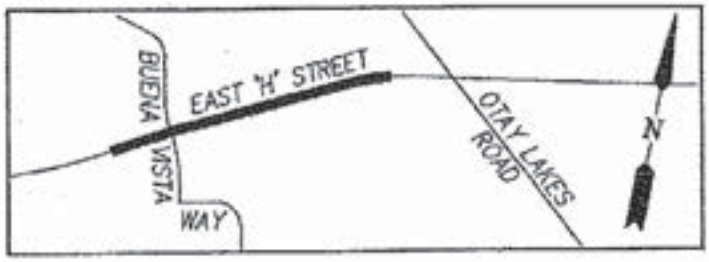
(3) The length of the project was adjusted to reflect previously completed improvements.

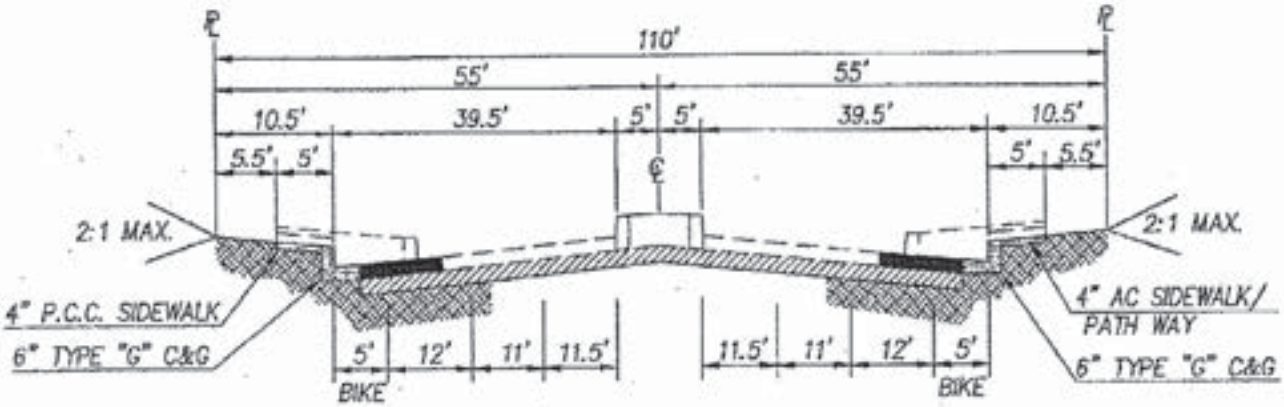
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 62

PROJECT DESCRIPTION:

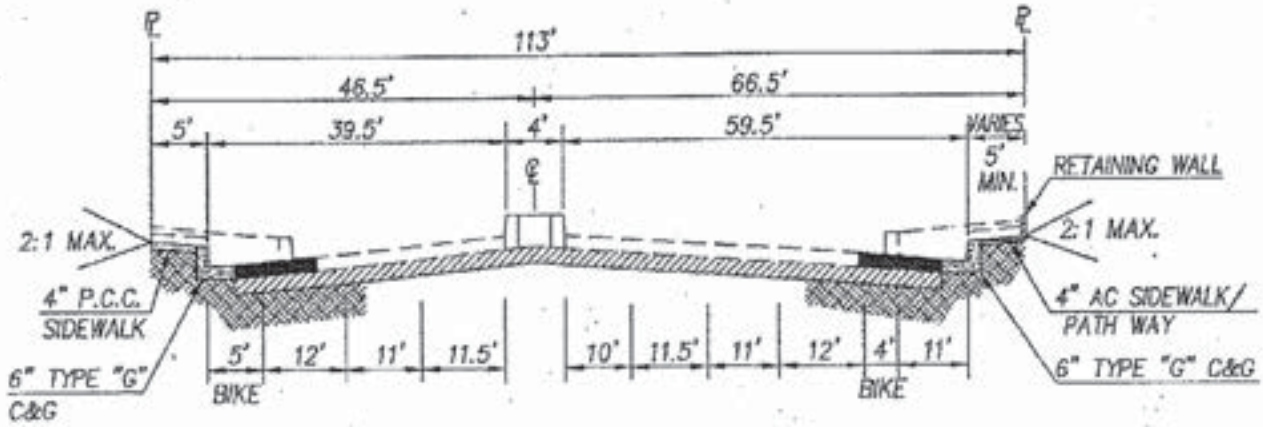
EAST 'H' STREET FROM 500' WEST OF BUENA VISTA WAY TO SOUTHWESTERN COLLEGE ENTRANCE ROAD.
WIDEN EXISTING ROAD TO 7 LANE PRIME ARTERIAL ROAD WITH ADDITIONAL EASTBOUND RIGHT TURN LANE.
(LENGTH = 2,100')





6 - LANE PRIME (SECTION A-A)

NO SCALE



7 - LANE PRIME (SECTION B-B)

NO SCALE

COST ESTIMATE

FACILITY 63

System Wide Intersection Traffic Signalization

ITEM	INTERSECTION	TDIF %	UNIT COST	TOTAL	TDIF PN
2	Olympic Pkwy @ Sunbow II Phase 3 West	67	$ 172,345.00	$ 115,471	
3	Olympic Pkwy @ Sunbow II Phase 3 East	67	$ 172,345.00	$ 115,471	
4	Olympic Pkwy @ Santa Victoria Rd	67	$ 172,345.00	$ 115,471	
6	E Palomar St @ Medical Center Ct	67	$ 172,345.00	$ 115,471	
7	E Palomar St @ Santa Maria Dr	50	$ 172,345.00	$ 86,173	
8	Main St @ Village 3 East Entrance	67			60A
9	Heritage Rd @ Santa Victoria Rd	50			57
10	Heritage Rd @ Main St	100			56E, 57
11	Main St @ Quarry Entrance	50			60A
12	Main St @ Village 3 West Entrance	67			60A
13	La Media Rd @ Otay Valley Rd	50			56C
14	Otay Valley Rd @ Magdalena Ave	50			56C
15	Otay Valley Rd @ Village 8 West Entrance	50			56C
16	La Media Rd @ Main St (x4 Couplet)	100			60B, 60D, 52B
17	Main St @ Magdalena Ave (x2 Couplet)	50			60D
18	La Media Rd @ Santa Luna St and Park Ent.	50			52B
30	Proctor Valley Rd @ Coastal Hills Dr	50	$ 141,010.00	$ 70,505	
31	Proctor Valley Rd @ Agua Vista/Northwoods	50			59C
32	Otay Lakes Rd @ Wueste Rd	67	$ 125,342.00	$ 83,979	
35	Olympic Pkwy @ Olympic Training Ctr	50	$ 141,010.00	$ 70,505	
41	Hunte Pkwy @ Millenia Ave	100			64
43	Eastlake Pkwy @ Crossroads St	50			46
44	Birch Rd @ Town Center/Millenia Ave	50			43
45	Birch Rd @ Orion Ave	50			43
46	Main St @ Village 4 and Park Ent.	50			60B
47	Hunte Pkwy @ Orion Ave	50			64
48	Otay Valley Rd @ Village 9 Street I	50			72
49	Otay Valley Rd @ Village 9 Street A	50			72
50	Otay Valley Rd @ Village 9 Street B	50			72
51	Discovery Falls Dr @ University Dr	75			70, 71
52	Discovery Falls Dr @ Village 10 Entrance	67			70
53	Heritage Rd @ Village 2 Entrance	67			57
54	Heritage Rd @ Village 4 Dwy 1	50			57
55	Heritage Rd @ Village 4 Dwy 2	67			57
56	Heritage Rd @ Village 4 Dwy 3	67			57
	TOTAL CONSTRUCTION COSTS			**$ 773,046**	

SOFT COSTS

Contingency (15%)	$ 115,957
Design (12%)	$ 92,766
Inspection/Administration (6%)	$ 46,383
Developer Administration (1.75%)	$ 13,528
City Project Administration (2%)	$ 15,461
TOTAL SOFT COSTS	**$ 284,094**
PROJECT COST	**$ 1,057,140**

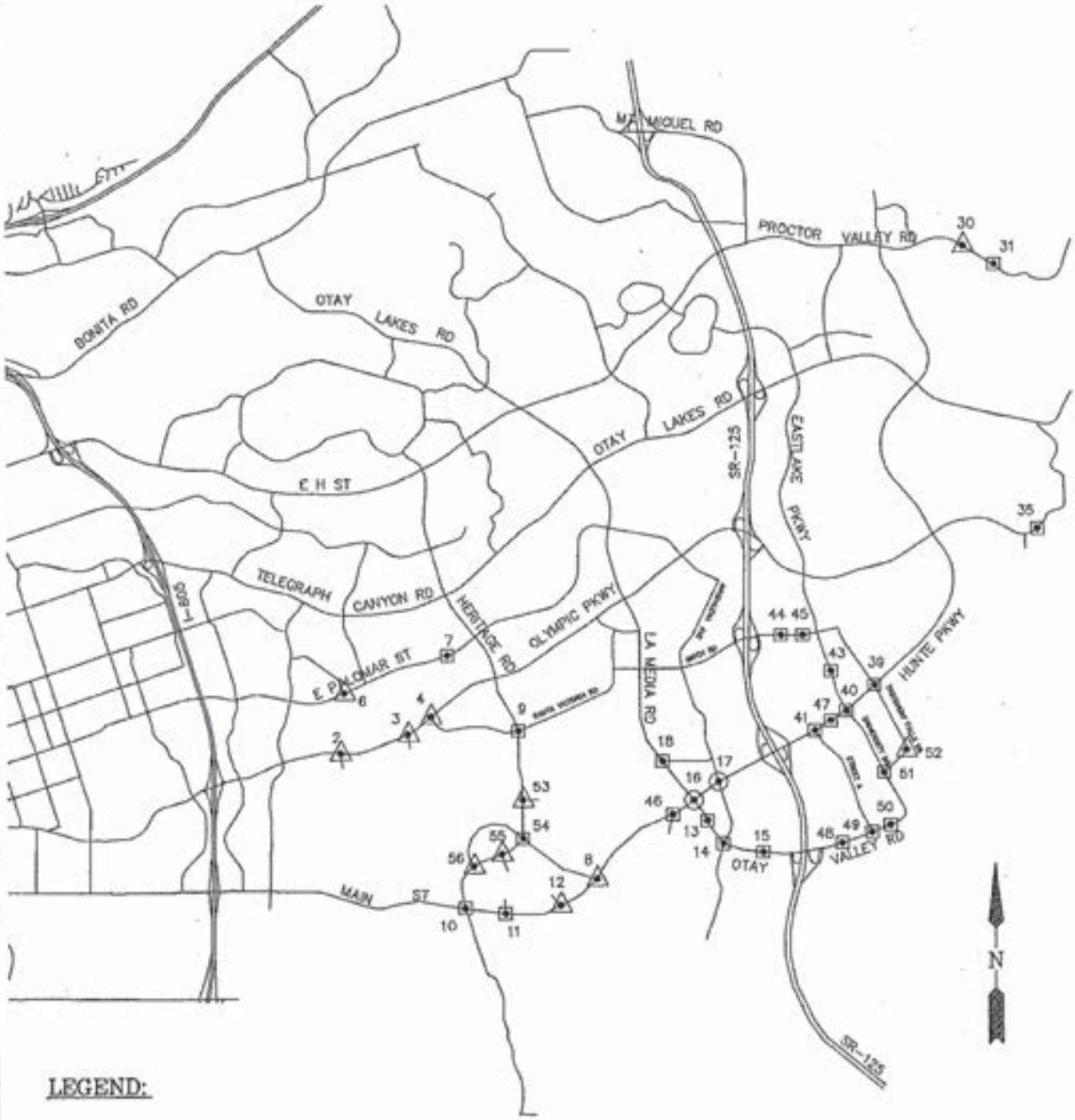
Notes:

(1) The source of this estimate is the City of Chula Vista Engineering Division

(2) If no "UNIT COST" is shown above, the cost of the traffic signal is already included in the separate TDIF roadway facility project (TDIF PN) cost estimate.

CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 63



LEGEND:

- SIGNALS AT 4-WAY INTERSECTIONS
- SIGNALS AT "T" INTERSECTIONS
- SIGANLS AT COUPLETS

COST ESTIMATE

FACILITY 64

Hunte Parkway / Main Street
SR-125 to Eastlake Parkway
New 6 Lane Prime Arterial

V9 *

Length (LF): 2,700

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	2,700	$ 324.00	$ 874,800	
2	Drainage Items	Linear ft.	2,700	$ 168.00	$ 453,600	
3	Surface Improvements	Linear ft.	2,700	$ 550.00	$ 1,485,000	
4	Dry Utilities	Linear ft.	2,700	$ 78.00	$ 210,600	
5	Landscape & Irrigation	Linear ft.	2,700	$ 324.00	$ 874,800	
6	Misc. Construction Logistics	Linear ft.	2,700	$ 13.00	$ 35,100	
		TOTAL HARD COSTS			**$ 3,933,900**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 590,085
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 295,043
Soils Engineering(15% of earthwork costs)	$ 131,220
Landscape Architecture (10% of landscaping costs)	$ 87,480
Surveying (2% of hard costs, excludes right-of-way)	$ 78,678
Utility Engineering/Coordination (3% of dry utility costs)	$ 6,318
Inspection/Administration (6% of total hard costs including right-of-way)	$ 236,034
Developer Administration (1.75% of total hard costs including right-of-way)	$ 68,843
City Project Administration (2% of total hard costs including right-of-way)	$ 78,678
TOTAL SOFT COSTS	**$ 1,572,379**
PROJECT COST	**$ 5,506,279**

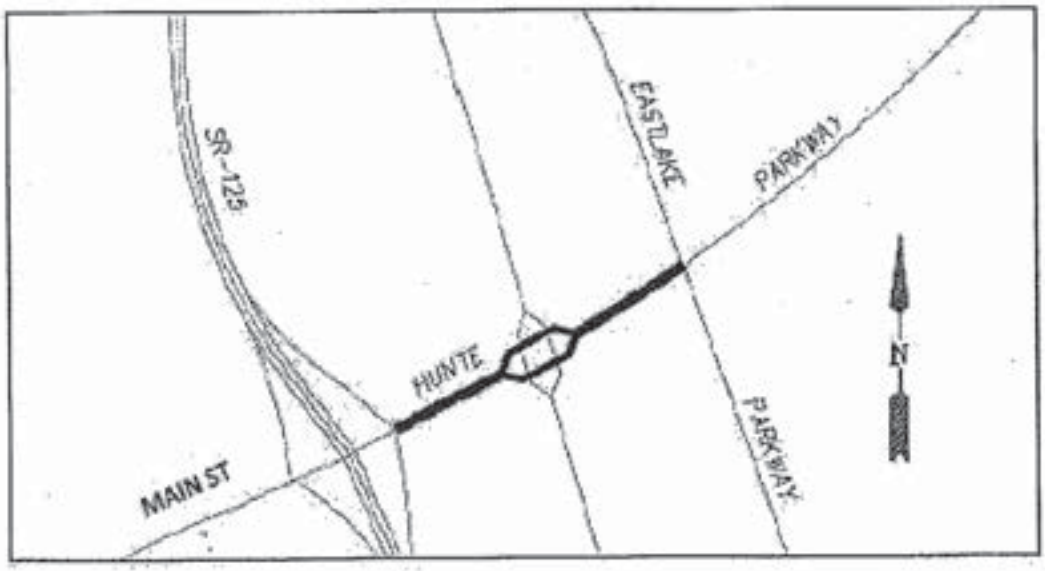
Notes:
(1) The source of this estimate is the 2005 TDIF Update.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.
(3) * indicates developer/village number.

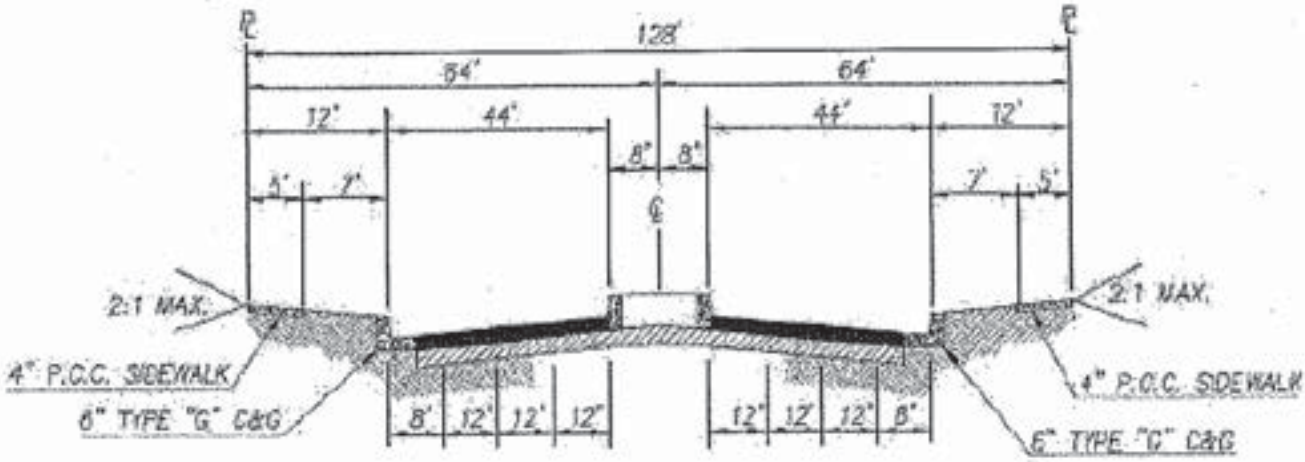
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 64

PROJECT DESCRIPTION:

HUNTE PARKWAY FROM SR-125 TO EASTLAKE PARKWAY.
CONSTRUCT 6 LANE PRIME ARTERIAL ROAD
(LENGTH = 2,700')





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 65

Traffic Demand Management/Transportation System Management TDIF

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	TMC Operations Room				$ 1,010,825	
2	Equipment Room				$ 344,515	
3	General Application Servers, Workstations, Computer Hardware				$ 267,657	
4	TMC Software Applications & Integration				$ 822,551	
5	Video/Traffic Surveillance System, SCATS Optimization				$ 2,311,868	
6	Traffic Monitoring System with Video Surveillance - Arterial Monitoring				Completed (TF-379)	
		SUB-TOTAL HARD COSTS			$ 4,757,416	
		TDIF PORTION (60%)			$ 2,854,450	
		WTDIF PORTION (40%) (OR-4)			$ 1,902,966	
		TOTAL HARD COSTS			**$ 4,757,416**	
		TOTAL TDIF HARD COSTS			**$ 2,854,450**	

(Source - 2005 TDIF Update)

TDIF SOFT COSTS

Contingency (15% of total TDIF hard costs)	$	428,168
City Project Administration (2% of TDIF hard costs)	$	57,089
TOTAL TDIF SOFT COSTS	**$**	**485,257**
TDIF PROJECT COST	**$**	**3,339,707**

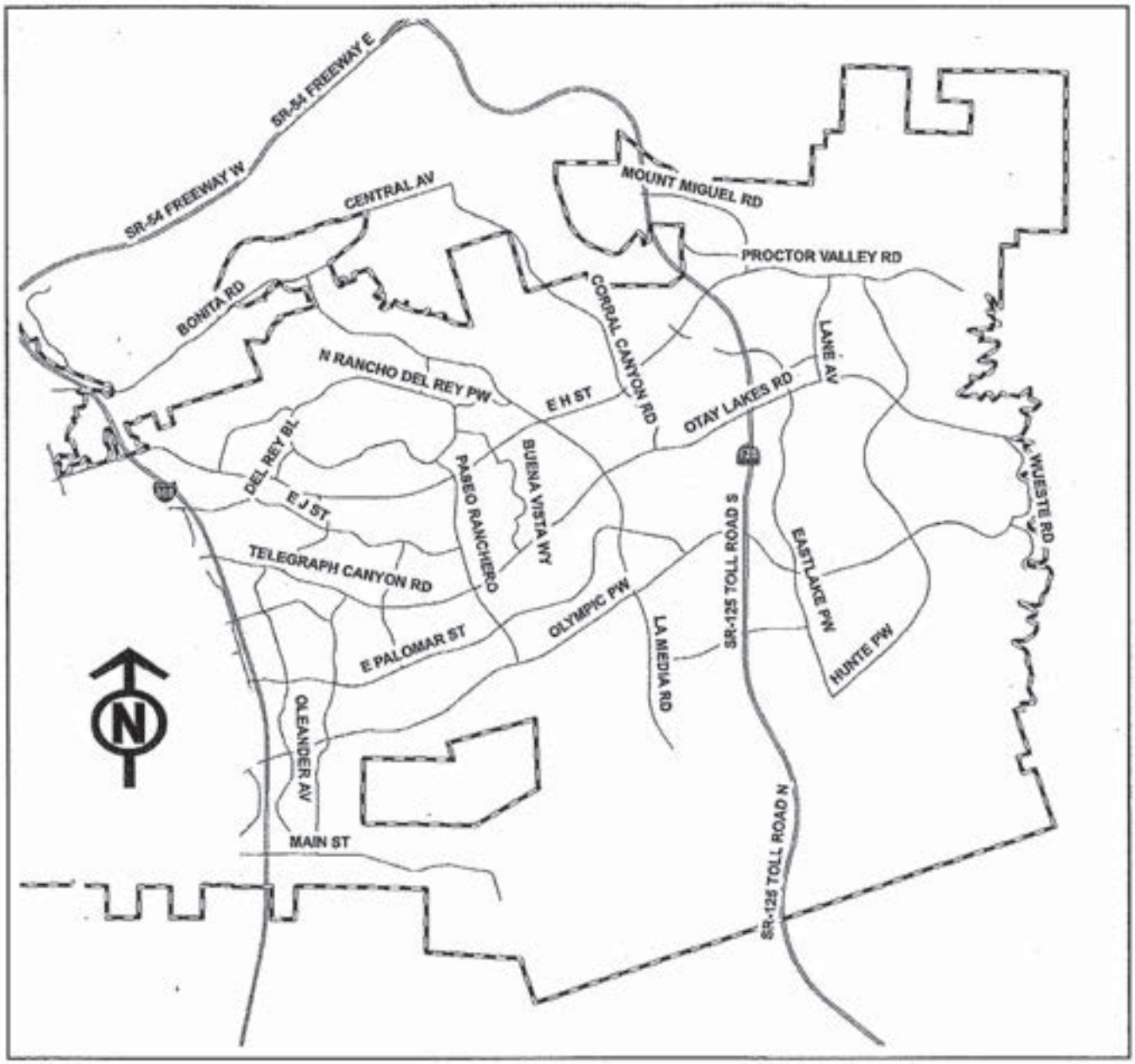
Notes:
(1) The source of this estimate is the City of Chula Vista's estimate dated December 17, 2013.
(2) The TDIF percentages are based on geography.

CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY No. 65

PROJECT DESCRIPTION:

EASTERN TERRITORIES
TRAFFIC MANAGEMENT CENTER &
FIBER OPTIC SYSTEM / RELATED FIELD COMMUNICATIONS EXPANSION / UPGRADES



COST ESTIMATE

FACILITY 67

Main Street / Hunte Parkway STM-359
Bridge over SR-125 and NB and SB Interchange Ramps
New 6 Lane Bridge (118 ft wide) Length (Lf): 1,000 (450 LF bridge and 550 LF roadway)
New NB & SB on/off ramps

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Bridge Cost (53,100 sq. ft. bridge @$261/sq. ft.)				$ 13,859,100	
	New on ramps & off ramps	EA	6	$ 1,436,210	$ 8,617,260	
2	Roadway Cost (e.g., Approaches)					
	Earthwork	Linear ft.	550	$ 324.00	$ 178,200	
	Drainage Items	Linear ft.	550	$ 168.00	$ 92,400	
	Surface Improvements	Linear ft.	550	$ 550.00	$ 302,500	
	Dry Utilities	Linear ft.	550	$ 77.00	$ 42,350	
	Landscape & Irrigation	Linear ft.	550	$ 324.00	$ 178,200	
	Misc. Construction Logistics	Linear ft.	550	$ 13.00	$ 7,150	
					$ 9,418,060	
		TOTAL HARD COSTS			**$ 23,277,160**	

(Source - 2005 TDIF Update)

SOFT COSTS

Contingency (15%)	$ 3,491,574
Design (12%)	$ 2,793,259
Inspection/Administration (6%)	$ 1,396,630
City Project Administration (2%)	$ 465,543
TOTAL SOFT COSTS	**$ 8,147,006**
PROJECT COST	**$ 31,424,166**

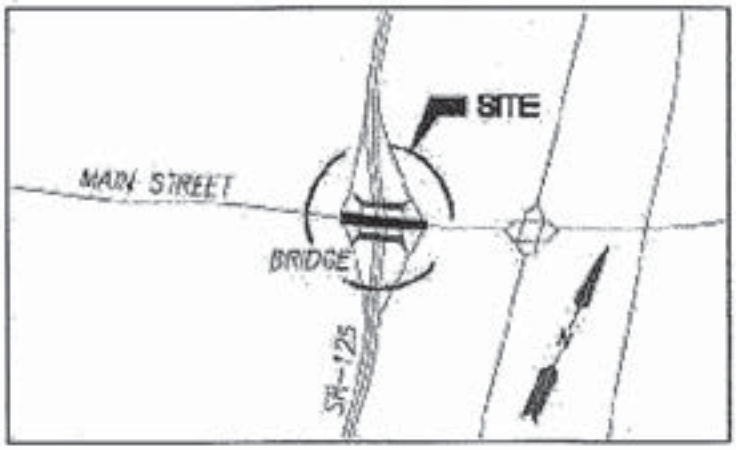
Notes:
(1) The source of this estimate is the 2005 TDIF Update and adjusted based on the scope of work including roadway and bridge improvements.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.

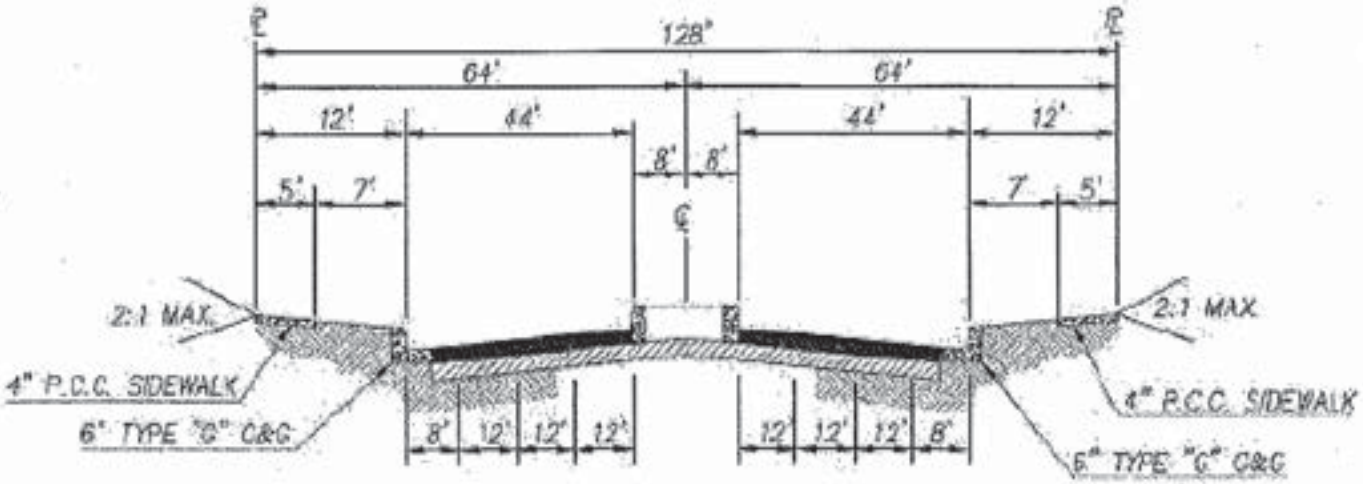
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 67

PROJECT DESCRIPTION:

MAIN ST / HUNTE PARKWAY BRIDGE OVERCROSSING SR125 & RAMPS
CONSTRUCT 6-LANE BRIDGE (450 ft) AND NB & SB RAMPS (550 ft)
LENGTH = 1000 ft





6 - LANE PRIME

NO SCALE

COST ESTIMATE

FACILITY 68

Otay Valley Road STM-359
Bridge over SR-125 and NB & SB ramps within the State R/W area
New 4 Lane Bridge (94 ft wide) Length (Lf): 600 (450 LF bridge and 150 LF roadway)

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost (42,300 sq. ft. bridge @$261/sq. ft.)				$ 11,040,300	
2	Roadway Cost (i.e. Approaches)					
	Earthwork	Linear ft.	150	$ 247.00	$ 37,050	
	Drainage Items	Linear ft.	150	$ 168.00	$ 25,200	
	Surface Improvements	Linear ft.	150	$ 408.00	$ 61,200	
	Dry Utilities	Linear ft.	150	$ 77.00	$ 11,550	
	Landscape & Irrigation	Linear ft.	150	$ 194.00	$ 29,100	
	Misc. Construction Logistics	Linear ft.	150	$ 13.00	$ 1,950	
					$ 166,050	
	Two direct ramps + two loop ramps	LS	1	$ 7,833,871	$ 7,833,871	
		TOTAL HARD COSTS			**$ 19,040,221**	
	(Source - 2005 TDIF Update)					
	SOFT COSTS					
	Contingency (15%)				$ 2,856,033	
	Design (12%)				$ 2,284,827	
	Inspection/Administration (6%)				$ 1,142,413	
	City Project Administration (2%)				$ 380,804	
		TOTAL SOFT COSTS			**$ 6,664,077**	
		PROJECT COST			**$ 25,704,298**	

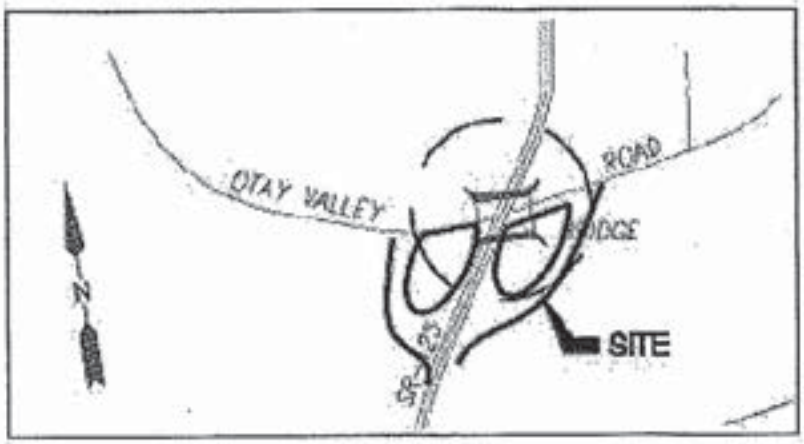
Notes:
(1) The source of this estimate is the 2005 TDIF Update and adjusted based on the scope of work including roadway and bridge improvements.
(2) The costs identified herein are based on an escalation of the 2005 costs to 2014 costs using the construction cost index.

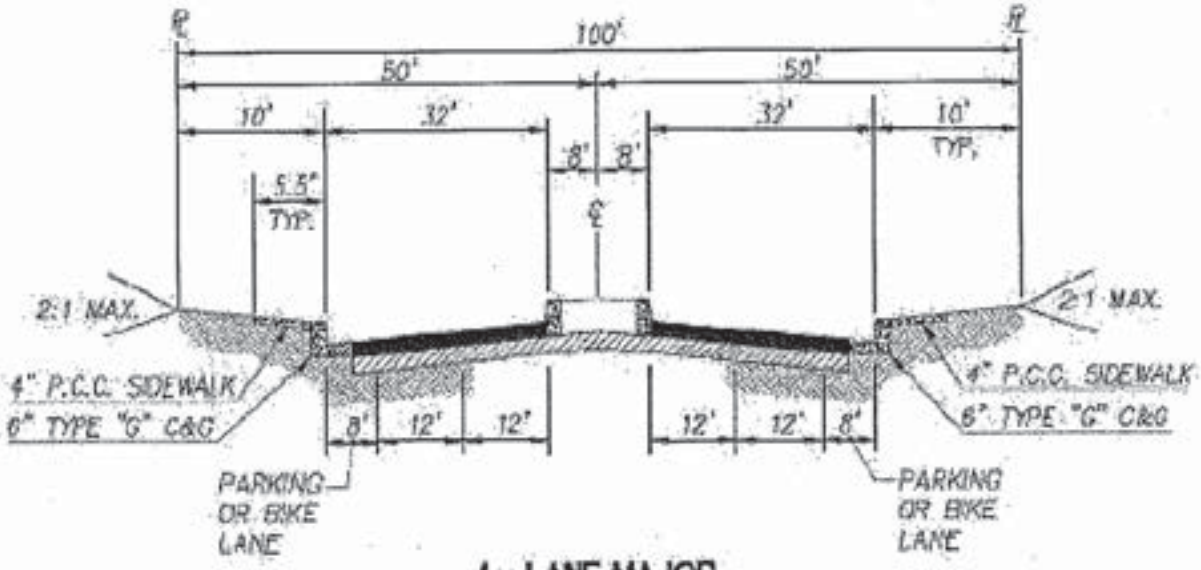
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 68

PROJECT DESCRIPTION:

OTAY VALLEY RD BRIDGE OVERCROSSING SR125
CONSTRUCT 4-LANE BRIDGE (L=450 ft) AND NB & SB RAMPS (150 ft)
(LENGTH =600 ft)





4 - LANE MAJOR

NO SCALE

COST ESTIMATE

FACILITY 69

Millenia Avenue
Birch Road to Hunte Parkway
Construct 4 Lane Major

EUC and V9 *

Length (LF): 4,290

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork				$ 494,395	
2	Drainage Items				$ 984,792	
3	Surface Improvements				$ 3,646,897	
4	Dry Utilities				$ -	
5	Landscape & Irrigation				$ 297,111	
		TOTAL HARD COSTS			**$ 5,423,195**	

(Source - Rick Engineering, dated January 2012)

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 813,479
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 406,740
Soils Engineering(15% of earthwork costs)	$ 74,159
Landscape Architecture (10% of landscaping costs)	$ 29,711
Surveying (2% of hard costs, excludes right-of-way)	$ 108,464
Utility Engineering/Coordination (3% of dry utility costs)	$ -
Inspection/Administration (6% of total hard costs including right-of-way)	$ 325,392
Developer Administration (1.75% of total hard costs including right-of-way)	$ 94,906
City Project Administration (2% of total hard costs including right-of-way)	$ 108,464
TOTAL SOFT COSTS	**$ 1,961,315**
PROJECT COST	**$ 7,384,510**

Notes:

(1) The source of this estimate is the Rick Engineering Estimate, dated January, 2012. This estimate determined the hard cost of a portion of this facility (i.e. from Birch Road to Bob Pletcher). The hard costs per lineal foot for this portion of the facility were applied to the total lineal footage of this facility. The contingencies were applied to the total hard cost.

(2) The costs identified herein are based on an escalation of the 2012 costs using the construction cost index inflation.

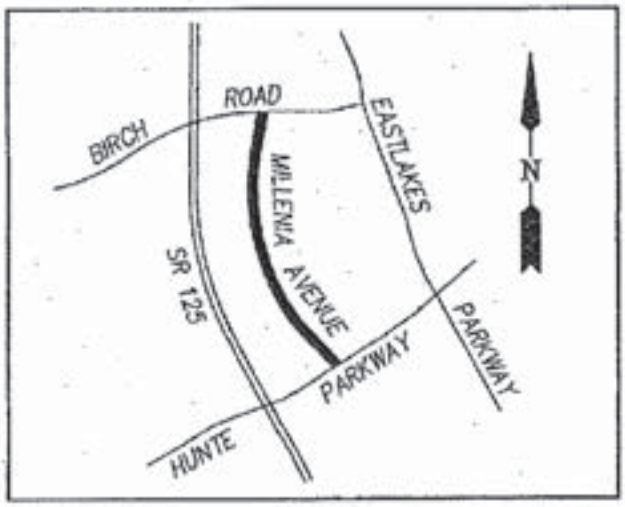
(3) * indicates developer/village number.

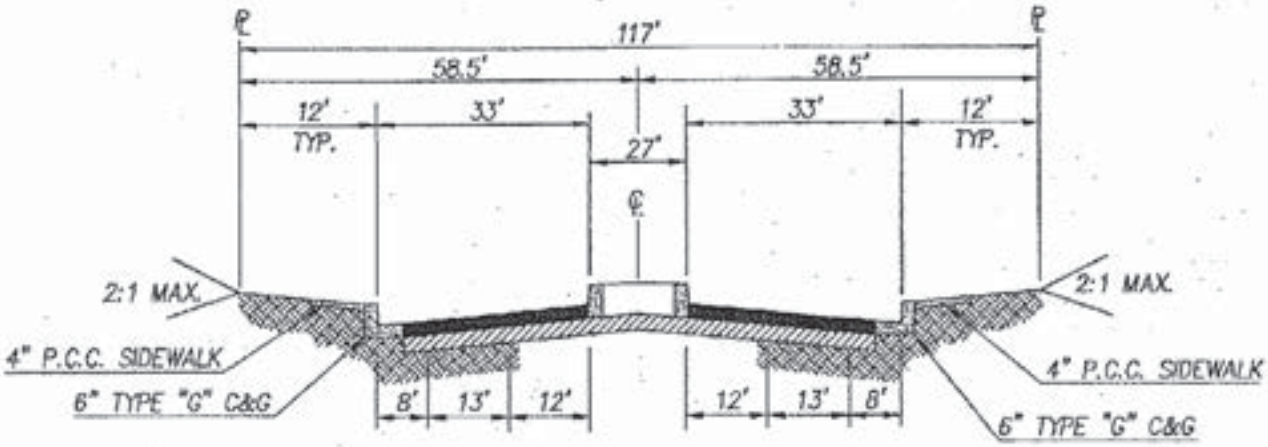
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 69

PROJECT DESCRIPTION:

MILLENIA AVENUE FROM BIRCH ROAD TO HUNTE PARKWAY.
CONSTRUCT 4 LANE MAJOR ROAD.
(LENGTH = 4,290')





4 - LANE MAJOR
NO SCALE

COST ESTIMATE

FACILITY 70

Discovery Falls Drive — V10 */University
Hunte Parkway to Village 9/Street "B"
New 4 Lane Collector transitioning to a 2 Lane Collector — Length (LF): 5,340

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork				$ 2,194,347	
2	Drainage Items				$ 931,492	
3	Surface Improvements				$ 2,822,611	
4	Dry Utilities				$ 623,194	
5	Landscape & Irrigation				$ 457,905	
6	Misc. Construction Logistics					
7	Special Items				$ -	
	Habitat mitigation					
		TOTAL HARD COSTS			**$ 7,029,549**	

(Source - Hunsaker and Associates, May 13, 2013)

SOFT COSTS

Contingency (15%)	$ 1,054,432
Design (12%)	$ 843,546
Inspection/Administration (6%)	$ 421,773
Developer Administration (1.75%)	$ 123,017
City Project Administration (2%)	$ 140,591
TOTAL SOFT COSTS	**$ 2,583,359**
PROJECT COST	**$ 9,612,908**

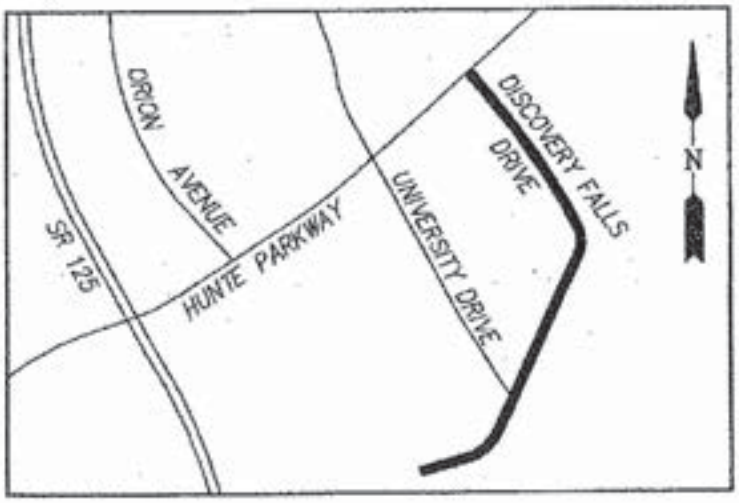
Notes:
(1) The source of this estimate is the Hunsaker & Associates Estimate dated May 13, 2013.
(2) * indicates developer/village number.

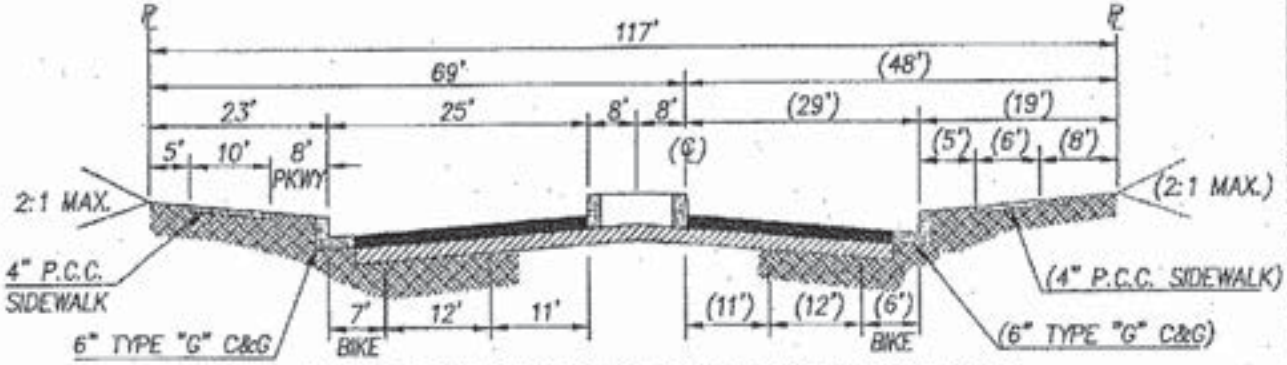
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 70

PROJECT DESCRIPTION:

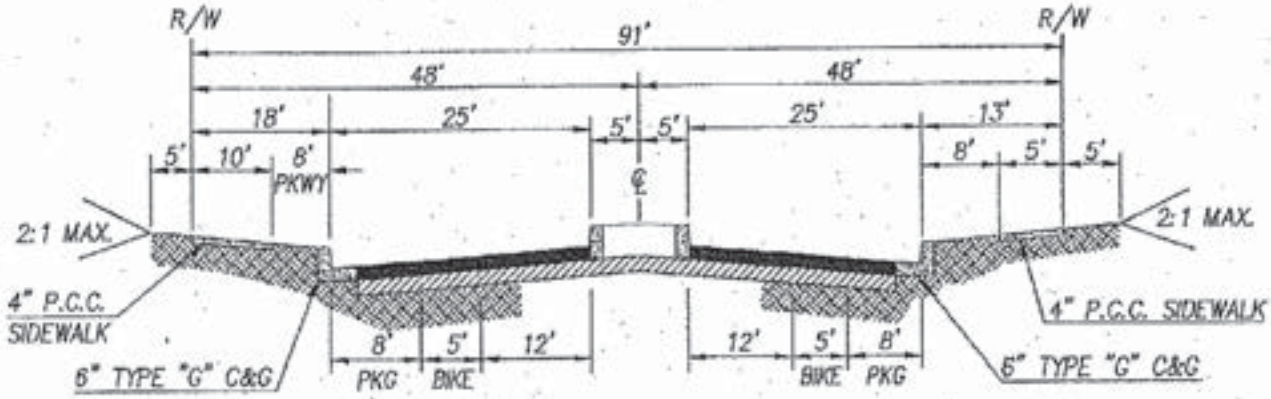
DISCOVERY FALLS FROM HUNTE PARKWAY TO VILLAGE 9/STREET "B". CONSTRUCT 4 LANE COLLECTOR TRANSITIONING TO 2 LANE COLLECTOR. (LENGTH = 5,340')





4 - LANE COLLECTOR STREET/VILLAGE ENTRY STREET

NO SCALE



2 - LANE COLLECTOR STREET/SECONDARY VILLAGE ENTRY WITH MEDIAN

NO SCALE

COST ESTIMATE

FACILITY 71

Street B
Hunte Parkway to Otay Valley Road
Town Center Street (2 plus 2 BRT)

Village 9

Length (Lf): 3,770

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Construction Cost				$ 3,854,376	
		TOTAL HARD COSTS			**$ 3,854,376**	
	(Source - Hunsaker & Associates, dated June 10, 2013)					
	SOFT COSTS					
	Consultants				$ 460,683	
	Fees / Bonds				$ 240,832	
	Contingeny (10%)				$ 455,589	
		TOTAL SOFT COSTS			**$ 1,157,104**	
		PROJECT COST			**$ 5,011,480**	

Notes:
(1) The source of this estimate is the Hunsaker & Associates Estimate dated June 10, 2013.
(2) * indicates developer/village number.

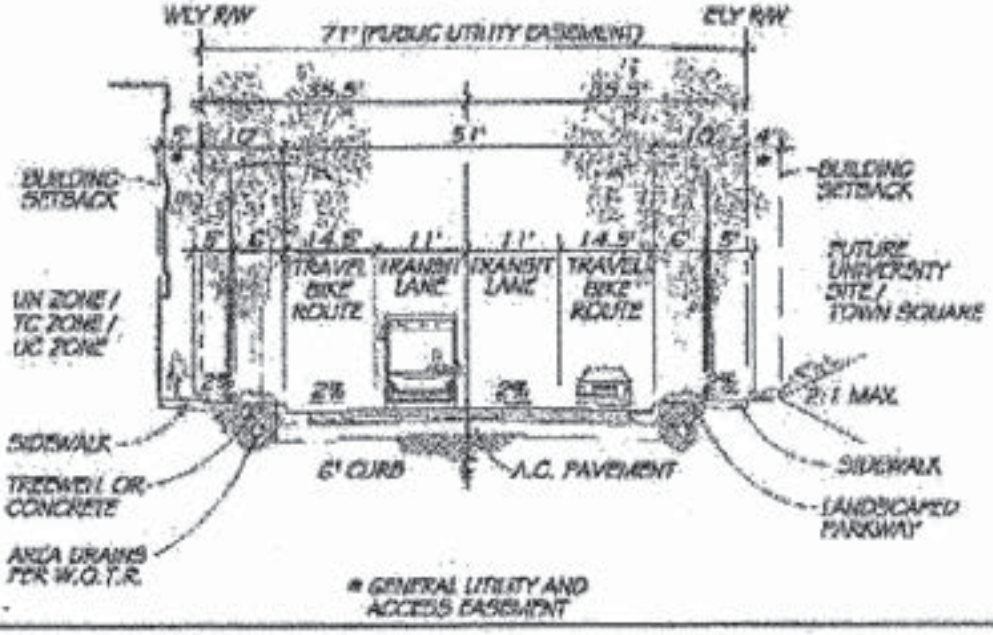
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY No. 71

PROJECT DESCRIPTION:

STREET B FROM HUNTE PARKWAY TO OTAY VALLEY ROAD
LENGTH: 3,770'

SECTION VIEW



COST ESTIMATE

FACILITY 72

Otay Valley Road V9 *
East of SR125 ROW to Easterly Subdivision Boundary
Construct 4 Lane Major Arterial Road Length (LF): 2,700

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Earthwork	Linear ft.	2,700	$ 236.00	$ 637,200	
2	Drainage Items	Linear ft.	2,700	$ 161.00	$ 434,700	
3	Surface Improvements	Linear ft.	2,700	$ 391.00	$ 1,055,700	
4	Dry Utilities	Linear ft.	2,700	$ 74.00	$ 199,800	
5	Landscape & Irrigation	Linear ft.	2,700	$ 186.00	$ 502,200	
6	Misc. Construction Logistics	Linear ft.	2,700	$ 12.00	$ 32,400	
		TOTAL HARD COSTS			**$ 2,862,000**	

SOFT COSTS

Contingency (15% of total hard costs including right-of-way)	$ 429,300
Civil Engineering (7.5% of hard costs, excludes right-of-way)	$ 214,650
Soils Engineering(15% of earthwork costs)	$ 95,580
Landscape Architecture (10% of landscaping costs)	$ 50,220
Surveying (2% of hard costs, excludes right-of-way)	$ 57,240
Utility Engineering/Coordination (3% of dry utility costs)	$ 5,994
Inspection/Administration (6% of total hard costs including right-of-way)	$ 171,720
Developer Administration (1.75% of total hard costs including right-of-way)	$ 50,085
City Project Administration (2% of total hard costs including right-of-way)	$ 57,240
TOTAL SOFT COSTS	**$ 1,132,029**
PROJECT COST	**$ 3,994,029**

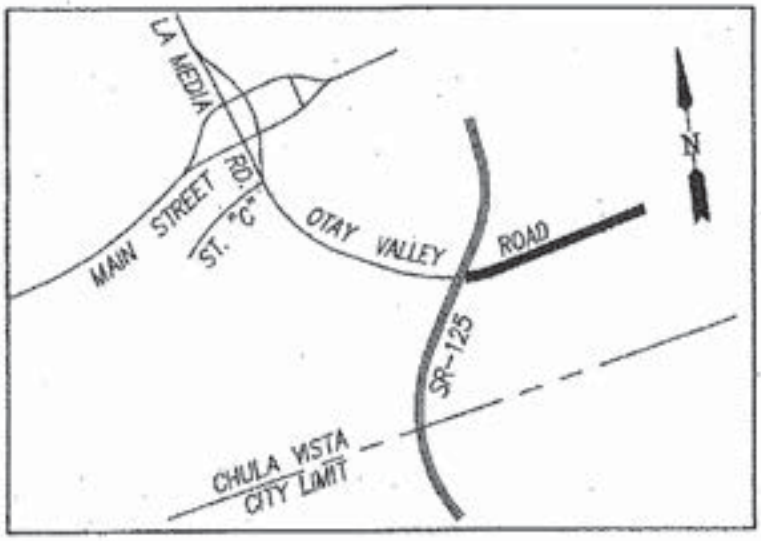
Notes:
(1) The cost of this facility was estimated using the unit prices identified in Table G and an approximate length of the roadway as shown on the Otay Ranch, Village 9 Tentative Map.
(2) * indicates developer/village number.

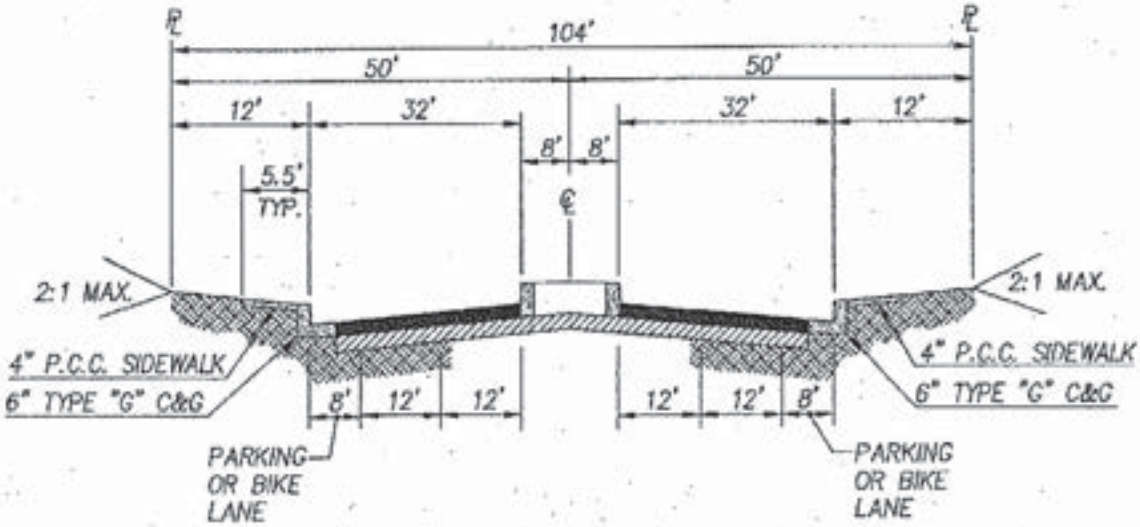
CHULA VISTA TDIF FACILITY EXHIBIT

FACILITY NO. 72

PROJECT DESCRIPTION:

OTAY VALLEY ROAD FROM EAST OF SR-125 TO EASTERLY SUBDIVISION BOUNDARY OF VILLAGE 9. CONSTRUCT 4 LANE MAJOR ARTERIAL ROAD.
(LENGTH = 2,700')





4 - LANE MAJOR
NO SCALE

ATTACHMENT H
TO COMMENT LETTER N
AM Peak Hour Field Review

ATTACHMENT H

AM PEAK HOUR FIELD REVIEW

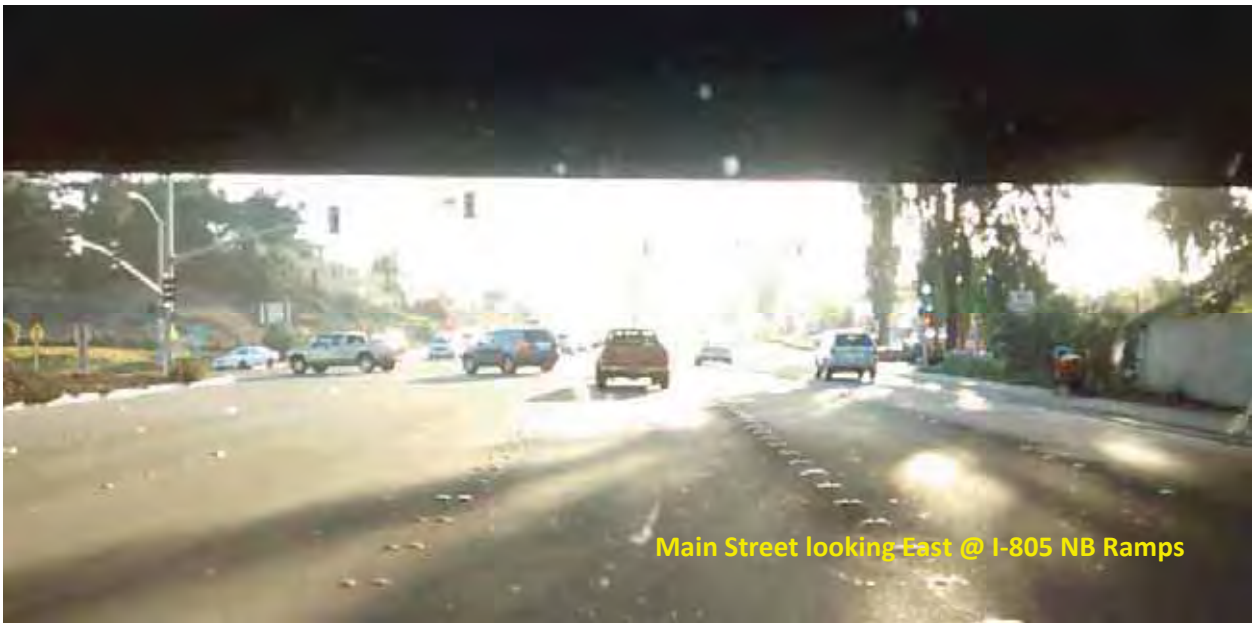
I-805 NB RAMPS / MAIN STREET

I-805 NB RAMPS / OLYMPIC PARKWAY

The following are screen capture of the field review video for the I-805 NB Ramps / Main Street and I-805 NB Ramps / Olympic Parkway intersection, including the On-Ramp condition.

INTERSECTION: MAIN STREET / I-805 NB RAMP

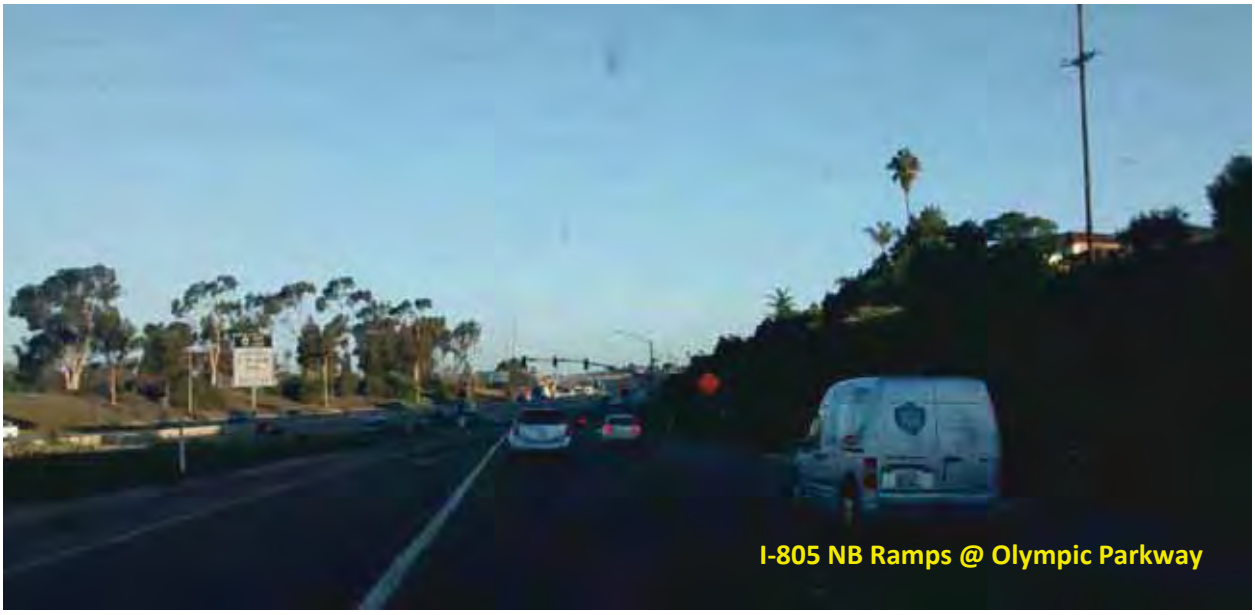
TIME: 7:35 AM



As shown in the images above, the I-805 NB Ramps / Main Street interchange is currently not experiencing any significant delay or queuing.

INTERSECTION: OLYMPIC PARKWAY / I-805 NB RAMPS

TIME: 7:44 AM



As shown in the images above, the I-805 NB Ramps / Olympic Parkway interchange is currently not experiencing any significant delay or queuing.

ATTACHMENT I
TO COMMENT LETTER N

City of Chula Vista Annual Residential Growth Forecast – Years 2014 Through 2019

CITY OF
CHULA VISTA

2014
ANNUAL RESIDENTIAL GROWTH
FORECAST

Years 2014 Through 2019

September 22, 2014

Bella Lago – Bella Lago LLC owns the final 52 lots of this 140-unit, single-family development and expects to contract other builders to develop 32 of them over the next five years, starting with 8 in 2016.

As of September 2014, the remaining capacity for residential units that could be permitted in eastern Chula Vista is approximately 22,072, based on the city's current General Plan amendments. If 10,827 units were permitted over the next five-year forecasted period, approximately 11,245 units would remain. Assuming that continued rate of growth, the capacity could potentially be built out around 2030, although changes in actual growth rates and/or future revisions to plans will affect that timing.

Western Chula Vista

Western Chula Vista has not shown significant increases in housing since the city's growth management program began in the late 1980's. Several developments projected for 2014 did not materialize, with the exception of "Lofts on Landis", a 33-unit multi-family project currently under construction at 240 Landis Avenue.

Both "Urbana", a 266-unit multi-family project at H Street between Third and Fourth Avenues, and "The Colony" at 435 Third Avenue (162 units) have been pushed back to 2016. At the Bayfront, the first 186 of 1,500 multi-family units are projected for 2016, also.

Three other large multi-family projects are projected for 2015, including "Creekside Point" at 944 Third Avenue (119 units), "El Dorado Ridge" on Brandywine Avenue (104 units), and Stone Creek Casitas at 3875 Main Street (97 units). Two smaller multi-family projects are also projected for 2015, including Bahia Vista Townhomes at 778 Ada Street (21 units) and a 17-unit development at 354 Moss Street.

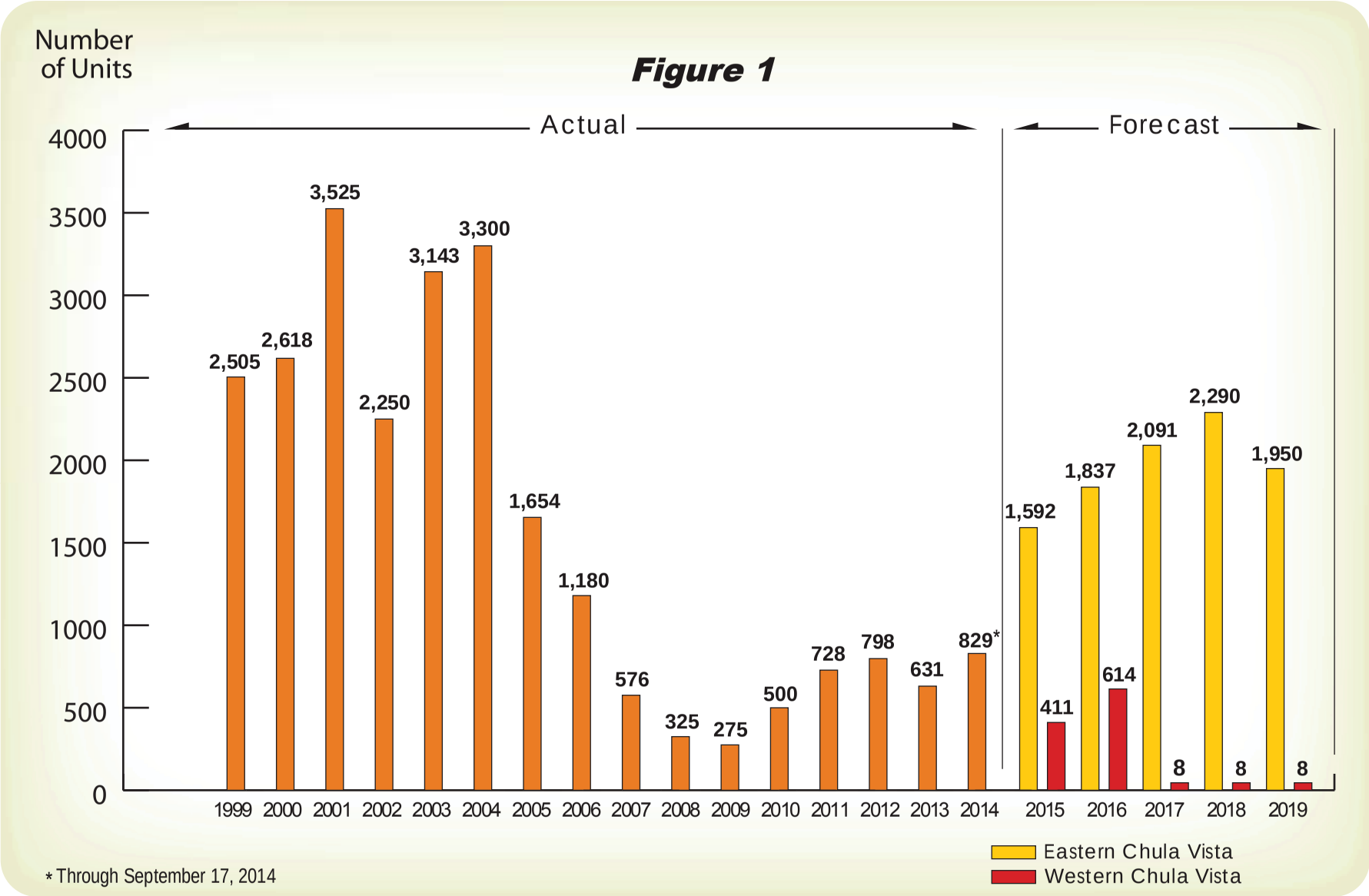
In terms of single-family development, the 16-unit project at 35 Tamarindo Way has been pushed from 2014 and 2015, and a 6-unit project at 386 Date Street is projected for 2015, also.

Residential Construction History

Several market cycles, including recessions, have contributed to a broad range in the number of building permits issued each decade since 1980, as indicated below:

DECADE	AVERAGE NUMBER OF BUILDING PERMITS ISSUED PER YEAR
1980-1989	330
1990-1999	693
2000-2009	2,094
2010-2014	697*

*Through September 17, 2014

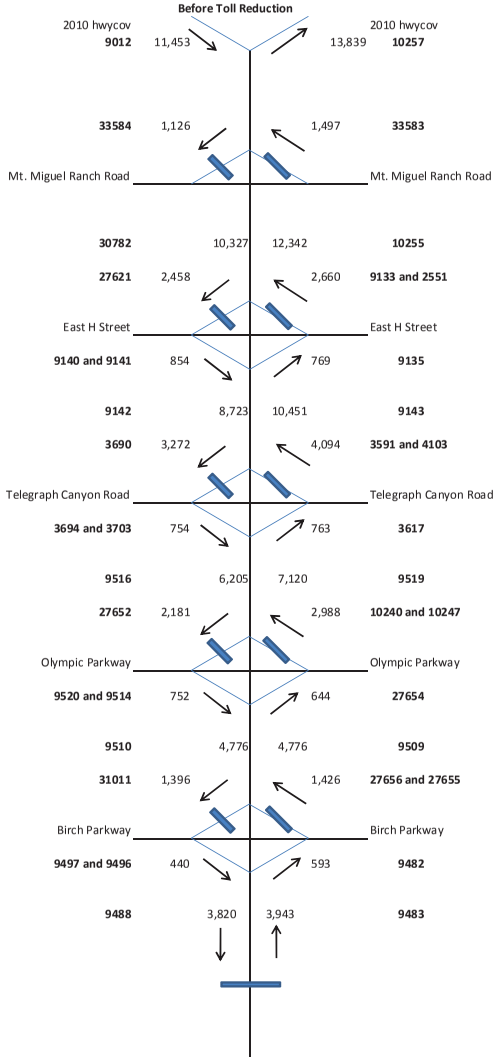


Residential Building Permits Statistics

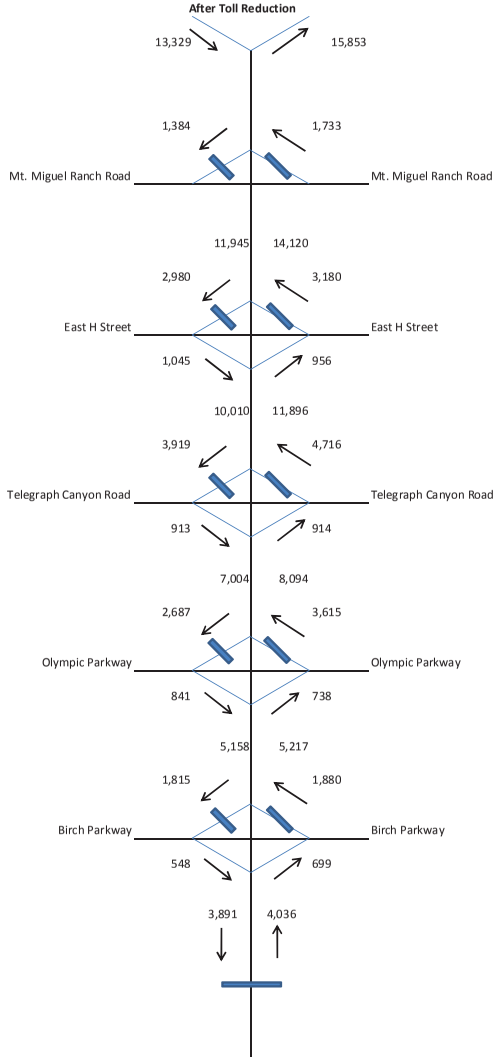
Issued and Forecast 1999 - 2019

ATTACHMENT J
TO COMMENT LETTER N
SR-125 ADTs

SR 125 Average Weekday Traffic (May 2012)
Before Toll Reduction



SR 125 Average Weekday Traffic (October 18 - November 18, 2012)
After Toll Reduction



Δ by segment
(Both Direction)

Information not available

2138

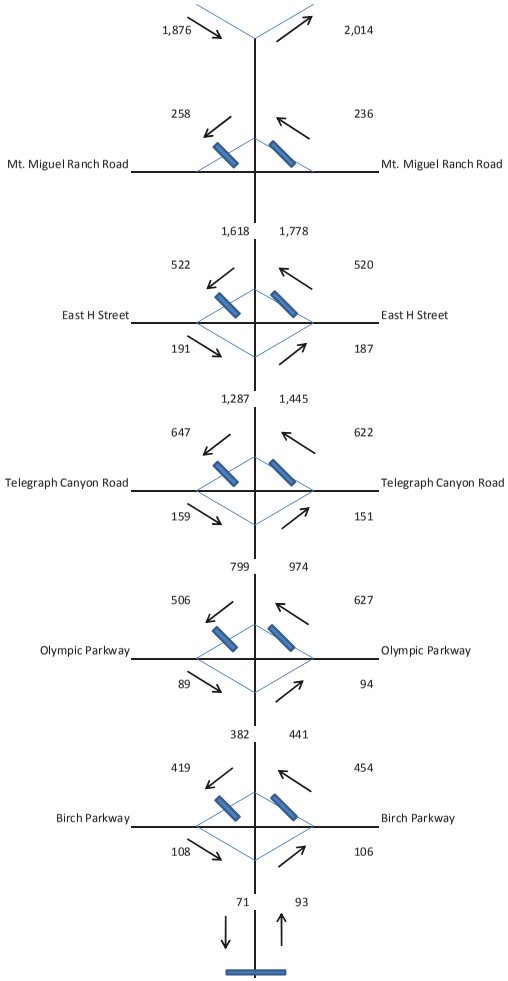
2732

1773

823

164

Change (May to October 2012)



ATTACHMENT K
TO COMMENT LETTER N

Guidelines for Traffic Impact Studies in the City of Chula Vista

ATTACHMENT K

GUIDELINES FOR TRAFFIC IMPACT STUDIES IN THE CITY OF CHULA VISTA

GUIDELINES FOR TRAFFIC IMPACT STUDIES IN THE CITY OF CHULA VISTA

I. INTRODUCTION

A. Background

In May 2000 the City of Chula Vista initiated an effort to establish written guidelines for identification of project traffic impacts in Environmental Impact Report documents. BRW was hired to review criteria currently being utilized by the City of San Diego and traffic impact study guidelines recommended by the San Diego Traffic Engineer's Council (SANTEC) / Institute of Transportation Engineers (ITE). The objective was to determine the applicability of these standards to developments and facilities within the City of Chula Vista, and develop a specific set of standards for the City of Chula Vista based on this review. The City of San Diego and SANTEC/ITE standards were used to reevaluate several recently completed studies in the City of Chula Vista to determine potential changes in the identification of project impacts. Results of this evaluation were communicated to the City of Chula Vista department heads and staff through a series of workshops. Discussions, comments and recommendations precipitated from these workshops provided the foundation for this document.

B. Purpose and Objectives

This document provides written guidelines for determining the need and scope of traffic studies and identifying impacts. Use of these guidelines will ensure uniformity in the preparation and review of traffic studies for developments within the City of Chula Vista. These new guidelines will also help determine the timeline for implementation of specific improvement strategies to address identified deficiencies.

II. DETERMINING WHEN A STUDY IS NEEDED

In conformance with requirements of the Congestion Management Program (CMP), an analysis of CMP freeways and arterials will be required for any project that generates 2,400 daily, or 200 peak hour trips (As detailed in the 1991 Congestion Management Program).

For those developments that do not satisfy the requirements for a CMP analysis, a traffic study may be required based on direction provided by the City Engineer and the Environmental Review Coordinator.

III. METHODOLOGY

A. Study Area Definition

1. Volume Thresholds for Study of CMP Freeway Facilities

   All freeway segments are by definition included in the CMP network. All freeway mainline segments to which the proposed project will add 2400 total trips (Average Daily Trips ADT) or 150 or more peak hour trips in either direction must be analyzed.

2. Volume Thresholds for Study of CMP Arterial Facilities

   All CMP arterial segments, including Regionally Significant Arterials (RSA) and other CMP arterial segments and intersections (including freeway on/off ramp intersections), to which the proposed project will add 800 or more total trips (ADT) or 50 or more peak hour trips in either direction must be analyzed.

3. Volume Thresholds for Local Roadways and Intersections

   Traffic studies will be required to review those local and collector roadway facilities that are not included in the CMP network based on direction provided by the City Engineer.

B. Analysis Scenarios

Each of the study area freeway segments, roadway segments, and intersections shall be analyzed for the following scenarios:

1. Existing Conditions
2. Existing Conditions + Proposed Project
3. Existing Conditions + Approved and Pending Projects + Proposed Project (*Only for non-master planned projects*)
4. Horizon Years (*Usually defined as five year incremental study years for project, i.e. 2005, 2010, 2015, & 2020. However, final determination on years to be studied may vary based on direction of the City Engineer*.)
5. Regional Buildout Year + Proposed Project

Additional scenarios may be required depending on the size and phasing of any proposed development. For each analyzed scenario, peak hour analysis will include the AM and PM peaks. At the direction of the City Engineer, special studies of midday peak or other off-peak periods may be required.

C. Growth Management Oversight Committee (GMOC) Near-Term Analysis

Analysis of roadway segments under near-term conditions (Years 0-4) may be conducted using the methodology described in Chapter 11 (Arterial Streets) of the most recent version of the Highway Capacity Manual, which determines segment level of service based on speed, as detailed in paragraph IVA below. Classification of facilities and definition of segment lengths should be consistent with the City's current Growth Management Traffic Monitoring Program. The Threshold Standard for these arterial analyses requires the maintenance of LOS 'C' or better as measured by average travel speeds except that LOS 'D' can occur for no more than

any two hours of the day. Thus, if LOS 'D' conditions are determined for any period of two (2) hours, additional analysis may be required along these high volume segments based on direction provided by the City Engineer.

For planned arterial facilities that are not currently included in the current Traffic Monitoring Program, the definition of segment length and facility classification will be based on direction provided by the City Engineer.

IV. SIGNIFICANCE CRITERIA

Project impacts will be defined as either *project specific impacts* or *cumulative impacts*. *Project specific impacts* are those impacts for which the addition of project trips result in an identifiable degradation in level of service on freeway segments, roadway segments, or intersections, triggering the need for specific project-related improvement strategies. *Cumulative impacts* are those in which the project trips contribute to a poor level of service, at a nominal level.

Study horizon year as used herein is intended to describe a future period of time in the traffic studies, which corresponds to Sandag's traffic model years, and are meant to synchronize study impacts to be in line with typical study years of 2005, 2010, 2015 and 2020.

Criteria for determining whether the project results in either project specific or cumulative impacts on freeway segments, roadway segments, or intersections are as follows;

A. Short-term (Study Horizon Year 0 to 4)

For purposes of the short-term analysis roadway sections may be defined as either links or segments. A link is typically that section of roadway between two adjacent Circulation Element intersections and a segment is defined as that combination of contiguous links used in the Growth Management Plan Traffic Monitoring Program. Analysis of roadway links under short-term conditions may require a more detailed analysis using the Growth Management Oversight Committee (GMOC) methodology if the typical planning analysis using volume to capacity ratios on an individual link indicates a potential impact to that link. The GMOC analysis uses the Highway Capacity Manual (HCM) methodology of average travel speed based on actual measurements on the segments as listed in the Growth Management Plan Traffic Monitoring Program.

1. Intersections
   a. Project specific impact if both the following criteria are met:

      i. Level of service is LOS E or LOS F.
      ii. Project trips comprise 5% or more of entering volume.

   b. Cumulative impact if only (i) above is met.

2. Street Links/Segments
   If the planning analysis using the volume to capacity ratio indicates LOS C or better, there is no impact. If the planning analysis indicates LOS D, E or F, the GMOC method should be utilized. The following criteria would then be utilized.

   a. Project specific impact if all the following criteria are met:

i. Level of service is LOS D for more than 2 hours or LOS E/F for 1 hour
ii. Project trips comprise 5% or more of segment volume.
iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only (i) above is met.

3. Freeways

a. Project specific impact if both the following criteria are met:

i. Freeway segment LOS is LOS E or LOS F
ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) above is met.

B. Long-term (Study Horizon Year 5 and later)

1. Intersections

a. Project specific impact if both the following criteria are met:

i. Level of service is LOS E or LOS F.
ii. Project trips comprise 5% or more of entering volume.

b. Cumulative impact if only (i) above is met.

2. Street Segments

Use the planning analysis using the volume to capacity ratio methodology only. The GMOC analysis methodology is not applicable beyond a four-year horizon.

a. Project specific impact if all three of the following criteria are met:

i. Level of service is LOS D, LOS E, or LOS F.
ii. Project trips comprise 5% or more of total segment volume.
iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only(i) above is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment Level of Service is LOS F, impact is significant regardless of intersection LOS.

c. Notwithstanding the foregoing, if the impact identified in paragraph a. above occurs at study horizon year 10 or later, and is offsite and not adjacent to the project, the impact is considered cumulative. Study year 10 may be that typical SANDAG model year

which is between 8 and 13 years in the future. In this case of a traffic study being performed in the period of 2000 to 2002, because the typical model will only evaluate traffic at years divisible by 5 (i.e. 2005, 2010, 2015 and 2020) study horizon year 10 would correspond to the Sandag model for year 2010 and would be 8 years in the future. If the model year is less than 7 years in the future, study horizon year 10 would be 13 years in the future.

d. In the event a direct identified project specific impact in paragraph a. above occurs at study horizon year 5 or earlier and the impact is offsite and not adjacent to this project, but the property immediately adjacent to the identified project specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified project specific impact would still occur if the development of the adjacent property does not take place. If the additional analysis concludes that the identified project specific impact is no longer a direct impact, then the impact shall be considered cumulative.

3. Freeways

a. Project specific impact if both the following criteria are met:

i. Freeway segment LOS is LOS E or LOS F
ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) above is met.

ATTACHMENT L
TO COMMENT LETTER N

La Media Road / Main Street – Village 8 West
Geometrics Analysis Memo

ATTACHMENT L - La Media Road / Main Street – V8W Geometrics Analysis Memo

CHEN RYAN

MEMORANDUM

TO: Mr. Sean Kilkenny

FROM: Monique Chen, PE
Phuong Nguyen, PE

DATE: October 10, 2014

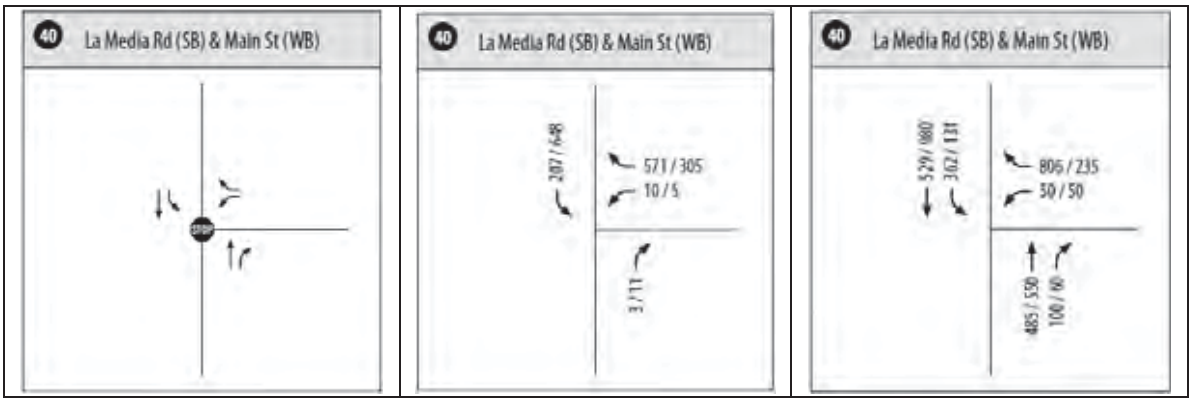
RE: **La Media Road / Main Street Couplet (Year 2020) Analysis**

This memorandum provides an analysis of the La Media Road / Main Street couplet in Year 2020 conditions for the University Villages project using the same assumptions that were used by the Villages 8 West TIA. The Village 8 West TIA's assumption of the La Media Road / Main Street couplet in Year 2020 is different than those assumed in the University Villages TIA. The La Media Road / Main Street couplet is within the Village 8 West project area, and was proposed by the project applicant as part of the Village 8 West Town Center. The Village 8 West TIA was "DRAFT" while the University Villages TIA was being prepared and not available for review. Therefore, without knowing what the Village 8 West study assumed from a network perspective in the La Media Road / Main Street area, the University Villages TIA assumed the couplet configuration based on the available information from the General Plan Circulation Element Map. This is consistent with the City's preference to assume full construction of a facility rather than partial improvements. However, this assumption was overly conservative as the University Villages project does not generate the demand for, or result in impacts which require mitigation that would be required to construct the entire couplet by the Year 2020. Therefore, the following additional analysis was conducted to determine if the couplet assumption by the Village 8 West TIA, when analyzed using the traffic volume in the University Villages TIA, would result in additional or different impacts.

The analysis for the La Media Road/Main Street area has been re-evaluated using the same geometric configuration as those shown on Exhibit 5C of the Village 8 West TIA. **Figure 1** displays the assumed intersection configuration, project trip distribution, and peak hour traffic volumes used in this analysis. It should be noted that the Village 8 West TIA assumed that the intersection of La Media Road (SB) / Main Street (WB) would be constructed as a three-way signalized intersection. However, in order to demonstrate the need for a facility (including intersection control), before it is included in the interim years roadway network, the intersection of La Media Road (SB) / Main Street (WB) was analyzed as a three-way stop controlled intersection.

FIGURE 1
LA MEDIA ROAD (SB) / MAIN STREET (WB)
INTERSECTION GEOMETRICS AND PEAK HOUR VOLUMES
YEAR 2020 CONDITION

Intersection Geometrics	Project Trip Assignment	Year 2020 Peak Hour Volumes



Source: Chen Ryan Associates, October 2014

Table 1 below provides the intersection delays and LOS for the La Media Road (SB) / Main Street (WB) intersection under the Year 2020 conditions with the University Villages projected 2020 land uses. As shown in the table, the intersection of La Media Road (SB) / Main Street (WB) would operate at unacceptable LOS F during both the AM and PM peak hours. Since the percent of entering volume at this intersection from the project is greater than 5% of the overall intersection volume (33.8% and 43.9% during the AM and PM peak, respectively), the project would have a direct impact to the intersection of La Media Road (SB) / Main Street (WB). Signalization would mitigate this traffic impact (consistent with the mitigation assumption in the University Villages TIA). Mitigated intersection result is also shown in Table 1. Intersection analysis worksheet are provided in **Attachment 1**.

INTERSECTION LEVEL OF SERVICE
LA MEDIA ROAD (SB) / MAIN STREET (WB)
YEAR 2020 CONDITIONS

Intersection	Before Mitigation				After Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Avg. Delay (Sec.)	LOS	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
40. La Media Road (SB) / Main Street (WB)	61.3	F	67.3	F	28.4	C	28.8	C

Source: Chen Ryan Associates, October 2014

As shown, the intersection of La Media Road / Main Street would operate at acceptable LOS C or better under the mitigated conditions. This finding is consistent with the result shown in Chapter 7 of the University Villages TIA that Year 2020 traffic impacts at La Media Road/Main Street can be mitigated with intersection signalization. However, because the TIA used the conservative assumption that the entire couplet would be constructed by 2020, the analysis in the University Villages TIA results in four impacts (one at each intersection in the couplet) and four mitigation measures (to signalize each of the intersections). Therefore, the University Villages project would not have any additional impacts outside one of those already documented in the TIA and in fact would have three fewer impacts if analyzed under the same assumptions as the Village 8 West TIA. No additional analysis is required.

ATTACHMENT A - La Media Road / Main Street – V8W Geometrics Analysis

PEAK HOUR INTERSECTION ANALYSIS – YEAR 2020 SCENARIO

LA MEDIA ROAD / MAIN STREET

YEAR 2020 SCENARIO

Intersection	
Intersection Delay, s/veh	61.3
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	50	806	0	485	100	0	362	529
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	848	0	511	105	0	381	557
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	64.2	60.3	59.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	485	100	50	806	362	529
LT Vol	485	0	0	0	0	529
Through Vol	0	100	0	806	0	0
RT Vol	0	0	50	0	362	0
Lane Flow Rate	511	105	53	848	381	557
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	1	0.21	0.123	1	0.865	1
Departure Headway (Hd)	7.873	7.174	8.428	7.229	8.176	7.676
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	459	500	424	501	446	473
Service Time	5.625	4.926	6.217	5.019	5.912	5.413
HCM Lane V/C Ratio	1.113	0.21	0.125	1.693	0.854	1.178
HCM Control Delay	70.3	11.8	12.4	67.4	44.7	69.3
HCM Lane LOS	F	B	B	F	E	F
HCM 95th-tile Q	13.1	0.8	0.4	13.6	8.8	13.2

Intersection	
Intersection Delay, s/veh	67.3
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	50	540	0	550	60	0	568	980
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	568	0	579	63	0	598	1032
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	62.6	64.7	70.1
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	550	60	50	540	568	980
LT Vol	550	0	0	0	0	980
Through Vol	0	60	0	540	0	0
RT Vol	0	0	50	0	568	0
Lane Flow Rate	579	63	53	568	598	1032
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	1	0.127	0.124	1	1	1
Departure Headway (Hd)	7.965	7.266	8.455	7.256	8.177	7.678
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	496	425	500	448	485
Service Time	5.676	4.976	6.179	4.98	5.886	5.387
HCM Lane V/C Ratio	1.267	0.127	0.125	1.136	1.335	2.128
HCM Control Delay	70.6	11	12.4	67.2	71.6	69.2
HCM Lane LOS	F	B	B	F	F	F
HCM 95th-tile Q	13	0.4	0.4	13.6	12.8	13.3

YEAR 2020 (MITIGATED) SCENARIO

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	806	485	100	362	529
Number	5	12	4	14	3	8
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	53	374	511	105	381	557
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	477	425	568	483	426	1131
Arrive On Green	0.27	0.27	0.30	0.30	0.24	0.61
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	53	374	511	105	381	557
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	1.4	14.6	16.9	3.2	13.4	10.8
Cycle Q Clear(g_c), s	1.4	14.6	16.9	3.2	13.4	10.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	477	425	568	483	426	1131
V/C Ratio(X)	0.11	0.88	0.90	0.22	0.89	0.49
Avail Cap(c_a), veh/h	606	541	579	492	441	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	22.5	21.4	16.7	23.7	7.1
Incr Delay (d2), s/veh	0.1	12.9	16.9	0.2	19.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.9	11.3	1.4	8.9	5.5
LnGrp Delay(d),s/veh	17.8	35.4	38.3	16.9	43.6	7.4
LnGrp LOS	B	D	D	B	D	A
Approach Vol, veh/h	427		616			938
Approach Delay, s/veh	33.2		34.7			22.1
Approach LOS	C		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		21.3	19.5	23.6				43.1
Change Period (Y+Rc), s		4.0	4.0	4.0				4.0
Max Green Setting (Gmax), s		22.0	16.0	20.0				40.0
Max Q Clear Time (g_c+I1), s		16.6	15.4	18.9				12.8
Green Ext Time (p_c), s		0.7	0.1	0.7				7.4

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	50	540	550	60	568	980
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	53	200	579	63	598	1032
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	265	236	660	561	630	1409
Arrive On Green	0.15	0.15	0.35	0.35	0.35	0.76
Sat Flow, veh/h	1774	1583	1863	1583	1774	1863
Grp Volume(v), veh/h	53	200	579	63	598	1032
Grp Sat Flow(s),veh/h/ln	1774	1583	1863	1583	1774	1863
Q Serve(g_s), s	2.2	10.4	24.7	2.3	27.9	25.7
Cycle Q Clear(g_c), s	2.2	10.4	24.7	2.3	27.9	25.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	265	236	660	561	630	1409
V/C Ratio(X)	0.20	0.85	0.88	0.11	0.95	0.73
Avail Cap(c_a), veh/h	334	298	680	578	648	1448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	35.2	25.7	18.4	26.7	5.6
Incr Delay (d2), s/veh	0.4	16.4	12.2	0.1	23.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.6	14.9	1.0	17.7	13.6
LnGrp Delay(d),s/veh	32.1	51.6	37.9	18.5	50.0	7.5
LnGrp LOS	C	D	D	B	D	A
Approach Vol, veh/h	253		642			1630
Approach Delay, s/veh	47.5		36.0			23.1
Approach LOS	D		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.1	34.1		16.7		68.3		
Change Period (Y+Rc), s	4.0	4.0		4.0		4.0		
Max Green Setting (Gmax), s	31.0	31.0		16.0		66.0		
Max Q Clear Time (g_c+I1), s	29.9	26.7		12.4		27.7		
Green Ext Time (p_c), s	0.3	3.4		0.3		16.1		

Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

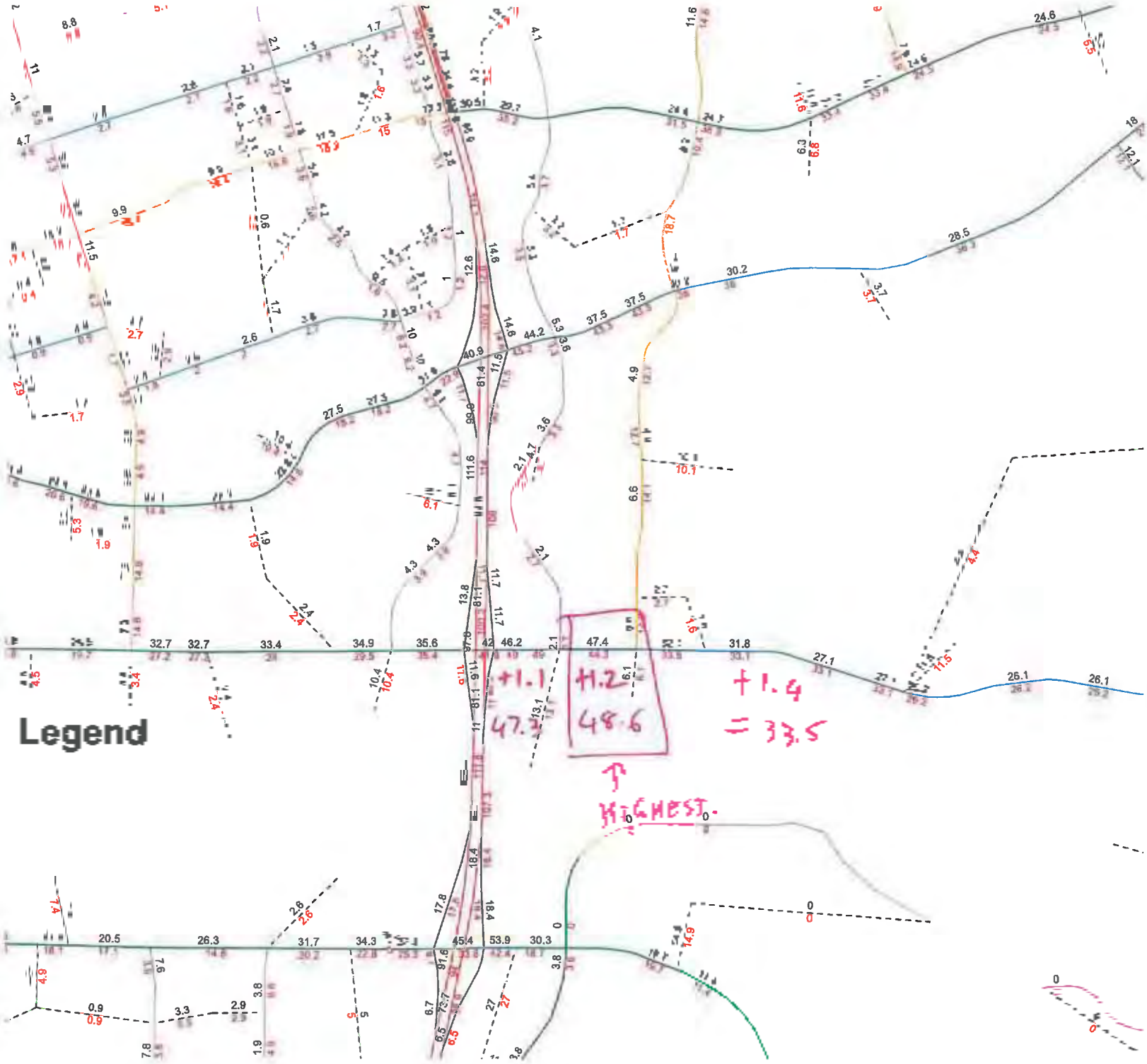
ATTACHMENT M
TO COMMENT LETTER N

Year 2020 Base Plus Project Model w/ Manual Increase of Village 2 SPA Traffic

ATTACHMENT M

YEAR 2020 BASE PLUS PROJECT MODEL W/ MANUAL INCREASE OF VILLAGE 2 SPA TRAFFIC.

YEAR
SAN C



ATTACHMENT N
TO COMMENT LETTER N
Village Ten Deferral Technical Memorandums

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 | T 800.450.1818 | F 760.632.0164

November 6, 2014

Ms. Ranie Hunter
SSBT LCRE V, LLC
1392 East Palomar Street, Suite 202
Chula Vista, CA 91913

Subject: ***Environmental Summary of Deferral Plan for Otay Ranch Village 10 – Chula Vista, California***

Dear Ms. Hunter:

Dudek has reviewed the Deferral Plan for Otay Ranch Village 10. The Village 10 Deferral Plan involves the following components compared to the proposed Village 10 Tentative Map and SPA Plan:

- The 9.3 acre Deferral Area is comprised of 6.4 acres of residential land uses, 0.7 acres of land designated for CPF land uses, 0.2 acres of internal circulation and 2.0 acres of manufactured open space.
- The single family neighborhoods south of Otay Valley Road identified on the proposed Village 10 land plan as a portion of neighborhoods R-8, R-13 and R-14 would be deferred. This would decrease the overall Village 10 residential units by 67 single family units.
- The Deferral Plan includes a reconfigured R-13 residential neighborhood comprised of 19 single family lots.
- The 0.7 acre CPF-4 site designated on the Village Ten land plan would be deferred. This would decrease the overall Village Ten CPF acreage from 4.0 acres to 3.3 acres.

The Deferral Plan Tentative Map, Site Utilization Plan, Zoning District Map, and Land Use Summary Table are included as Attachments 1 through 4 in this memorandum. In order to demonstrate that the Deferral Plan would not result in any new significant environmental impacts beyond those identified in the University Villages Draft EIR, technical memorandums were completed for each technical issue area analyzed in the Draft EIR (see Attachments 5 through 10). Each of those memorandums found that the changes to the proposed project as a result of the Deferral Plan would not create any new impacts that had not been previously identified, and in many cases the Deferral Plan would slightly reduce impacts identified in the Draft EIR due to the

reduction in residential units and associated reduction in vehicle trips. It should also be noted that the project, as amended by the Deferral Plan, would not result in any increase in the development footprint beyond what was previously analyzed.

The environmental issue areas covered by the memorandums include:

- Transportation, Circulation, and Access
- Air Quality
- Noise
- Cultural Resources
- Paleontological Resources
- Biological Resources
- Water Quality and Hydrology
- Geology and Soils
- Utilities
- Global Climate Change

The remaining environmental issue areas not covered by the memorandums include:

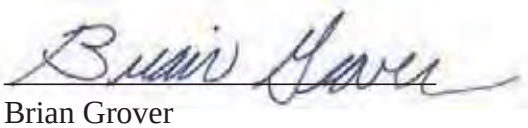
- Land Use, Planning, and Zoning
- Land Form Alteration/Aesthetics
- Agriculture and Forestry Resources
- Public Services
- Hazards and Risk of Upset
- Housing and Population
- Mineral Resources
- Cumulative Impacts
- Growth Inducement

The Deferral Plan would defer 67 residential units and 0.7 acres of CPF uses that were assumed in the Draft EIR analysis. Impacts to Land Use, Planning, and Zoning would remain unchanged from what was analyzed in the Draft EIR, as would impacts to Land Form Alteration/Aesthetics and Hazards. Because the Deferral Plan would not result in any increase in the development footprint beyond what was previously analyzed, physical impacts (Agriculture and Forestry Resources, Mineral Resources) would remain unchanged. Impacts related to Housing and Population and Growth Inducement would be slightly decreased under the Deferral Plan, and there would be slightly less demand for Public Services. Lastly, Cumulative Impacts would remain unchanged, as the revised project's contribution to cumulative impacts for each issue area would be considered equivalent to the impacts identified in the Draft EIR.

As such, the changes to the proposed project as a result of the Deferral Plan would not create any new impacts that had not been previously identified in the University Villages Draft EIR.

If you have any questions, please feel free to contact me at 760.479.4248, or bgrover@dudek.com.

Sincerely,



Brian Grover
Environmental Specialist/Project Manager

Attachments:

1. *Deferral Plan Tentative Map*
2. *Deferral Plan Site Utilization Plan*
3. *Deferral Plan Zoning District Map*
4. *Deferral Plan Land Use Summary Table*
5. *Review of Deferral Plan for Otay Ranch Village 10 – Chula Vista, California (Dudek 2014)*
6. *Review of Deferral Plan for Otay Ranch Village 10 – Chula Vista, California (Geocon 2014)*
7. *Otay Ranch University 10 Deferral Plan Technical Memo: Grading, Storm Drain, Water Quality (Hunsaker and Associates 2014)*
8. *University Villages Village 10 parcel at Otay Ranch: Deferral Plan Review (Brian F. Smith and Associates 2014)*
9. *University Villages – Village 10 Deferral Plan Trip Generation Study (Chen Ryan 2014)*
10. *Otay Ranch Village 10 Deferral Plan Sewer Flow Summary (Dexter Wilson 2014)*

FOR CONTINUATION SEE SHEET 3

FUTURE UNIVERSITY

PROPOSED PROJECT BOUNDARY

MSCP

MSCP

MSCP

MSCP

MSCP

POSD / CITY OF SAN DIEGO PIPELINE EASEMENT

FOR CONTINUATION SEE SHEET 5

VILLAGE 10 DEFERRAL PLAN

PREPARED BY: HUNSAKER & ASSOCIATES

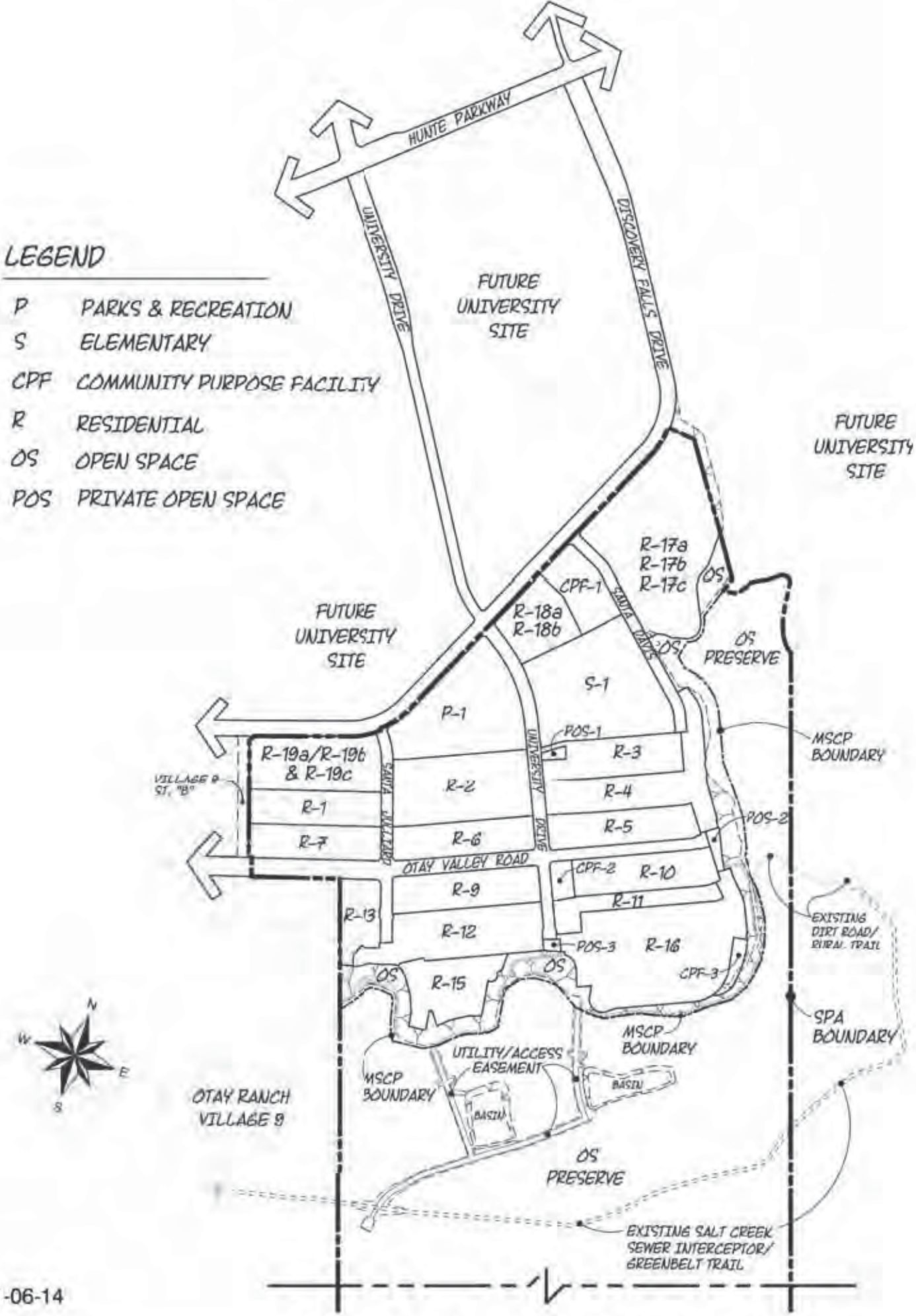
TENTATIVE MAP CVT-13-04

OTAY RANCH VILLAGE 10

City of Chula Vista, California

SHEET 4a OF 7

TENTATIVE MAP OTAY RANCH VILLAGE 10



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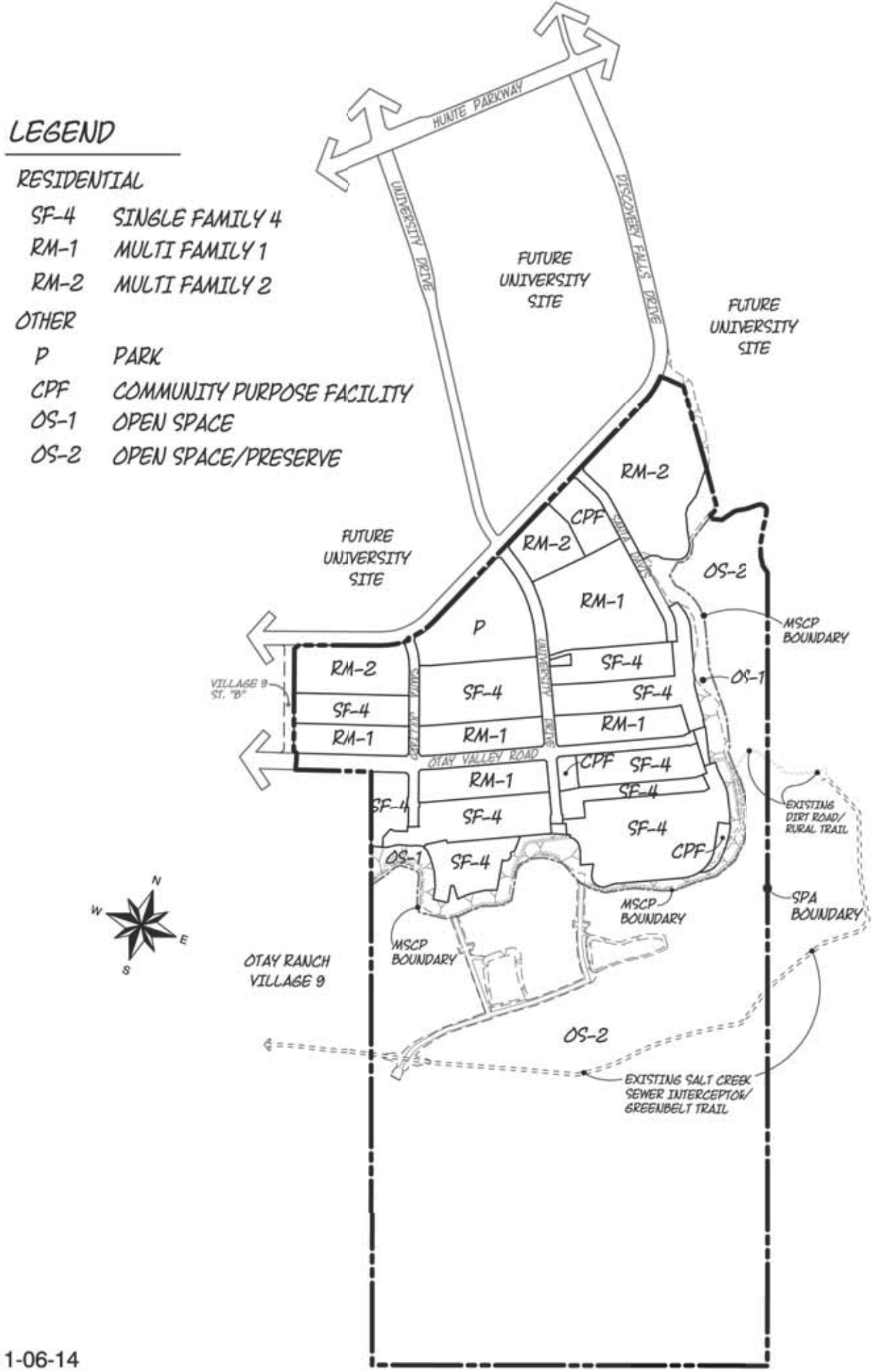
Village 10 (Deferral Plan) Site Utilization Plan



Village 10 (Deferral Plan) Zoning District Map

Village 10 Deferral Plan

		Gross Acres	Net Acres	Units
Single Family Residential				
R-1	48x65	3.6		31
R-2	48x65	7.3		64
R-3	34x75	4.0		42
R-4	48x65	6.1		49
R-5	34x75	4.0		48
R-6	34x75	3.8		47
R-7	34x75	3.5		44
R-8	-	-		-
R-9	34x83	4.2		48
R-10	34x83	4.1		43
R-11	48x65	2.5		22
R-12	48x65	6.3		56
R-13	48x66	2.5		18
R-14	-	-		-
R-15	48x75	4.0		28
R-16	48x75	12.5		38
	Single Famly Total	68.4		628
Multi Family Residential				
R-17		13.1	12.4	635
R-18		3.1	2.8	153
R-19		5.3	4.6	257
	Multi Famly Total	21.5	19.8	1,045
	Residential Total	**89.9**		**1,673**
Parks				
P-1		7.6	6.6	
	Parks Total	**7.6**	6.6	
School				
S-1		9.2	7.9	
	School Total	**9.2**	**7.9**	
Community Purpose Facilities				
CPF-1		2.6	2.4	
CPF-2		0.5	0.4	
CPF-3		0.5	0.5	
CPF-4		-	-	
	CPF Total	**3.6**	**3.4**	
Preserve				
OS-1		212.7		
	Preserve Total	**212.7**		
Open Space				
OS-2	(Manuf. Slopes/Fuel Mod.)	14.5		
POS-1	(Pvt OS)	0.2	0.2	
POS-2	(Pvt OS)	0.3	0.3	
POS-3	(Pvt OS)	0.2	0.2	
	OS Total	**15.2**		
Circulation				
Internal Circulation		15.9		
	Circulation Total	**15.9**		
TOTAL		**354.1**		**1,673**

Village 10 (Deferral Plan) Land Use Summary Table

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

November 6, 2014

Ms. Ranie Hunter
SSBT LCRE V, LLC
1392 East Palomar Street, Suite 202
Chula Vista, CA 91913

Subject: ***Review of Deferral Plan for Otay Ranch Village 10 – Chula Vista, California***

Dear Ms. Hunter:

Dudek has reviewed the Deferral Plan for Otay Ranch Village 10. The Village 10 Deferral Plan involves the following components compared to the proposed Village 10 Tentative Map and SPA Plan:

- The 9.3 acre Deferral Area is comprised of 6.4 acres of residential land uses, 0.7 acres of land designated for CPF land uses, 0.2 acres of internal circulation and 2.0 acres of manufactured open space.
- The single family neighborhoods south of Otay Valley Road identified on the proposed Village 10 land plan as a portion of neighborhoods R-8, R-13 and R-14 would be deferred. This would decrease the overall Village 10 residential units by 67 single family units.
- The Deferral Plan includes a reconfigured R-13 residential neighborhood comprised of 19 single family lots.
- The 0.7 acre CPF-4 site designated on the Village Ten land plan would be deferred. This would decrease the overall Village Ten CPF acreage from 4.0 acres to 3.3 acres.

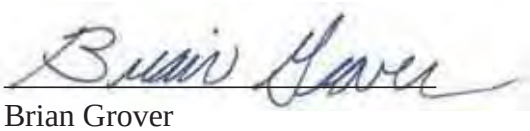
Dudek had previously completed technical analyses to assess the biological, fire, noise, air quality, and climate change impacts associated with the proposed University Villages project. The intent of this memo is to discuss how the Deferral Plan for Otay Ranch Village 10 would affect the findings of those technical analyses, thereby analyzing the Deferral Plan at the project level.

Based on Dudek's review, the Deferral Plan development area is completely within the area previously analyzed for the original Village 10 development. Therefore, the findings and recommendations contained within Dudek's Biological Technical Report (July 2014) as well as Dudek's Fire Protection Plans (July 2014) would remain unchanged under the Deferral Plan.

Additionally, the Deferral Plan would generate fewer vehicle trips (both daily and during the peak hours) than the Village 10 land uses analyzed in the University Villages Traffic Impact Analysis. As such, the land uses in the University Villages Traffic Impact Analysis represent a worst-case traffic scenario, and therefore impacts associated with noise, air quality, and climate change related to vehicular traffic would be slightly reduced from what was analyzed in Dudek's Noise Assessment Technical Report (July 2014) and Dudek's Air Quality and Global Climate Change Technical Report (May 2014). Other noise, air quality, and climate change impacts would remain unchanged from what was analyzed for the proposed project.

If you have any questions regarding this update letter, please feel free to contact me at 760.479.4248, or bgrover@dudek.com.

Sincerely,



Brian Grover
Environmental Specialist/Project Manager

cc: Anita Hayworth, Dudek
Michael Huff, Dudek
Mike Greene, Dudek
David Deckman, Dudek

Project No. G1007-11-03
November 6, 2014

SSBT LCRE V, LLC
c/o JPB Development
1392 East Palomar Street, Suite 202
Chula Vista, California 91913

Attention: Ms. Ranie Hunter

Subject: REVIEW OF DEFERRAL PLAN
OTAY RANCH VILLAGE 10
CHULA VISTA, CALIFORNIA

References: *Geotechnical Investigation, Otay Ranch Village 10, Chula Vista, California* prepared by Geocon Incorporated, dated March 12, 2014 (Project No. G1007-11-03).

Dear Ms. Hunter:

We have prepared the letter regarding our review of the Deferral Plan for Otay Ranch Village 10. We understand that the limits of development have changed to accommodate the deferral plan. Based on our review, the deferral plan development area is completely within the area previously analyzed for the original Village 10 development. Therefore, the recommendations contained within the referenced geotechnical investigation remain valid for use in design and construction of the deferral plan.

If you have any questions regarding this correspondence, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

John Hoeb
CEG 1524

JH:dmc

(e-mail): Addressee

HUNSAKER
& ASSOCIATES
SAN DIEGO INC

PLANNING
ENGINEERING
SURVEYING

IRVINE
LOS ANGELES
RIVERSIDE
SAN DIEGO
ARIZONA

MEMORANDUM

Date: November 6, 2014

To: Ranie Hunter
SSBT LCRE V LLC
1392 East Palomar Street
Suite 202
Chula Vista, CA 91913

From: Alisa Vialpando, RCE, Principal

Subject: Otay Ranch University 10 Deferral Plan Technical Memo: Grading, Storm Drain, Water Quality

---

Pursuant to the proposed Village 10 "Deferral Plan" which defers approval of residential and CPF land uses within the southwestern portion of Village 10 as described on the attached '*Summary of the Village 10 Deferral Plan*', Hunsaker & Associates San Diego, Inc. (Hunsaker) has evaluated the differences between the proposed Village 10 project (Project) and the Deferral Plan. This evaluation was specifically performed in relation to the Deferral Plan's impact on grading, the City of San Diego waterline relocation, storm drain, and water quality aspects of the site compared to the proposed Project. Both plans will be represented as options on the Village 10 Tentative Map with an additional sheet added to depict the Deferral Plan.

The revised grading associated with the Deferral Plan will not affect the grading balances since the Village 9 Parcel "CC" balanced with the overall Village 9 grading. Therefore, that parcel was always intended to grade independent of Village 10 – no grading impacts.

The existing City of San Diego water lines are located within and just south of Otay Valley Road within Village 9 Parcel CC. Although grading will not occur within Parcel CC with the Deferral Plan the City of San Diego water lines will be relocated within Otay Valley Road as shown on the Village 10 Tentative Map. There will be no new impacts associated with relocating the City of San Diego water lines.

The storm drain infrastructure layout for the Project will also not be adversely impacted by the Deferral Plan since that plan will reduce the tributary area to the downstream outlet point and, in turn, generate a lesser outlet flow rate. A small reduction in the amount of storm drain infrastructure will also occur with implementation of the Deferral Plan within the southwestern portion of Village 10.

DAVE HAMMAR
LEX WILLIAMS
ALISA VIALPANDO
DAN SMITH
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For similar reasons described above, the water quality treatment measures designed as part of the Project will not be adversely be impacted by the Deferral Plan. The Project proposes two regional water quality basins for treatment of Village 10 and University flows within the drainage basin.

The basins are located south of the Village 10 development area and adjacent to the Otay River. Since these basin sizes are based on their tributary impervious and pervious areas, the Deferral Plan will not adversely impact the currently designed sizes since it proposes a reduction in tributary area.

In conclusion, Hunsaker's evaluation of the Deferral Plan did not find any adverse impacts when compared to the proposed Project. Please let me know if you wish to discuss this matter or require any additional information.

Summary of the Village 10 Deferral Plan

The Village 10 Deferral Plan defers approval of residential and CPF land uses within the southwestern portion of Village 10. The Applicant has prepared the Village 10 Deferral Plan that does not rely on the previously anticipated Land Exchange Agreement between the SSBT LCRE V, the City of Chula Vista and Otay Land Company. The Village 10 Deferral Plan is evaluated at the Project level to provide an actionable item for the decision making body, should this become the preferred plan.

The following differences exist between the two plans:

- The 9.3 acre deferral area is comprised of 6.4 acres of residential land uses, 0.7 acres of land designated for CPF land uses and 2.0 acres of manufactured open space.
- The single family neighborhoods south of Otay Valley Road identified on the proposed Village 10 land plan as a portion of neighborhoods R-8, R-13 and R-14 would be deferred. This would decrease the overall Village 10 residential units by 66 single family units.
- The 0.7 acre CPF-4 site designated on the Village 10 land plan would be deferred. This would decrease the overall Village 10 CPF acreage from 4.0 acres to 3.3 acres.
- The Deferral Plan includes a reconfigured R-13 residential neighborhood comprised of 19 single family lots.

A comparison of the proposed Project and the Deferral Plan is provided in the Table below.

	Proposed Plan				Deferral Plan			
Land Use	Neighborhood	Acres (gross)	Acres (Net)	Units	Neighborhood	Acres (gross)	Acres (Net)	Units
Single-Family Residential	R-1 – R-16	74.8		695	R-1 – R-13, 15 & 16	68.4		629
Multi-Family Residential	R-17 – R-19	21.5		1,045	R-17 – R-19	21.5		1,045
Neighborhood Park	P-1	7.6	6.6		P-1	7.6	6.6	
Private OS	POS-1 – 3	0.7			POS-1 – 3	0.7		
School	S-1	9.2	7.9		S-1	9.2	7.9	
CPF	CPF-1 – 4	4.3	4.0		CPF-1 – 3	3.6	3.3	
Open Space	OS-2	16.5			OS-2	14.5		
Preserve	OS-1	212.7			OS-1	212.7		
Circulation		16.1				15.9		
TOTAL		**363.4**		**1,740**		**354.1**		

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

November 5, 2014

Ranie Hunter
SSBT LCRE V, LLC
1392 E. Palomar Street, Suite 202
Chula Vista, California 91913

RE: University Villages ***Village 10*** parcel at Otay Ranch: Deferral Plan Review.

Dear Ranie:

I have reviewed the Village 10 Deferral Plan with regards to the cultural and paleontological resources technical reports prepared by our firm in 2014. These studies were submitted to the City and are referenced as:

> "*Archaeological Evaluation of Cultural Resources at the Otay Ranch Villages Project, Village 3 North and a Portion of Village 4, Village 8 East, and Village 10, City of Chula Vista, California*," by Brian F. Smith and Tracy A. Stropes, November 1, 2012; Revised May 1, 2013; Revised March 6, 2014
>
> "*Paleontological Resource and Monitoring Assessment for Village 3 North and a Portion of Village 4, Village 8 East, and Village 10, City of Chula Vista, California*," by George L. Kennedy, Ph.D. and Todd A. Wirths, California Professional Geologist No. 7588, October 29, 2012; Revised May 1, 2013; Revised March 6, 2014

After reviewing the Deferral Plan for Village 10 in comparison to the recorded cultural and paleontological resources noted in our reports, it is clear that the Deferral Plan will not constitute an increase or additional impacts to identified resources within the Village 10 project. In fact, since the Deferral Plan represents a smaller project footprint than the Village 10 plan used for the cultural and paleontological resources studies, the BFSA Village 10 reports cover the total area represented by the Deferral Plan. No additional archaeological or paleontological studies or analyses are necessary as the existing Village 10 BFSA studies cover 100% of the property encompassed by the Deferral Plan.

If you have any questions or need further information, please contact me.

Sincerely,

Brian F. Smith
BFS:ks

14010 Poway Road, Suite A, Poway, CA 92064; Phone (858) 679-8218 or (951) 681-9950; Fax (858) 679-9896; www.bfsa-ca.com
Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

CHEN RYAN

TO: Ms. Ranie Hunter, SSBT, LCRE V, LLC

FROM: Monique Chen, PE, Chen Ryan Associates
Phuong Nguyen, PE, Chen Ryan Associates

DATE: November 6, 2014

RE: **University Villages – Village 10 Deferral Plan Trip Generation Study**

This technical memorandum compares the change in impact between the proposed Village 10 project ("Project") and the Village 10 Deferral Plan. The Village 10 Deferral Plan defers approval of residential and CPF land uses within the southwestern portion of Village 10. The Applicant has prepared this land use plan that does not rely on the previously anticipated Land Exchange Agreement between the SSBT LCRE V, the City of Chula Vista and Otay Land Company. The Village 10 Deferral Plan is evaluated at the Project level to provide an actionable item for the decision making body, should this become the preferred plan.

The following differences exist between the two plans:

- The 9.3 acre deferral area is comprised of 6.4 acres of residential land uses, 0.7 acres of land designated for CPF land uses, 0.2 acres of internal circulation, and 2.0 acres of manufactured open space.
- The single family neighborhoods south of Otay Valley Road identified on the proposed Village 10 land plan as a portion of neighborhoods R-8, R-13 and R-14 would be deferred. This would decrease the overall Village 10 residential units by 67 single family units.
- The 0.7 acre CPF-4 site designated on the Village 10 land plan would be deferred. This would decrease the overall Village 10 CPF acreage from 4.0 acres to 3.3 acres.
- The Deferral Plan includes a reconfigured R-13 residential neighborhood comprised of 19 single family lots.

A trip generation comparison of the land use studied in the TIA and the Deferral Plan for Village 10 is provided in the Table 1.

As shown in the table, the Village 10 Deferral Plan is anticipated to generate fewer number trips (both daily and during the peak hours) than the Village 10 land uses analyzed in the University Villages TIA. Since the land uses in the University Villages TIA represent a worst case scenario, it can be assumed that the Village 10 Deferral Plan would not result in any additional traffic impacts. Therefore, no additional analysis should be required for this Plan.

TABLE 1
UNIVERSITY VILLAGES TRIP GENERATION COMPARISON
VILLAGE 10 DEFERRAL PLAN VS. STUDIED IN TIA

Land Use	Quantity	Trip Generation Rate	Total Trips		
			Daily	AM Peak Hour	PM Peak Hour
Village 10 Deferral Plan					
Single Family	628 DU	10 / DU (8% AM / 10% PM)	6,280	502	628
Multi-Family	1,045 DU	8 / DU (8% AM / 10% PM)	8,360	669	836
Total Residential	1,673 DU				
Community Purpose Facility (CPF)	3.4 AC	30 / Acre (5% AM / 8% PM)	102	5	8
Elementary School	9.2 AC	90 / Acre (32% AM / 9% PM)	828	265	75
Neighborhood Park	7.6 AC	5 / Acre (4% AM / 8% PM)	38	2	3
Village 3 Alternative TM Total			*15,608*	*1,443*	*1,550*
Village 10 - University Villages TIA 10/17/2014					
Single Family	691 DU	10 / DU (8% AM / 10% PM)	6,910	553	691
Multi-Family	1,049 DU	8 / DU (8% AM / 10% PM)	8,392	691	839
CPF	5.0 AC	30 / Acre (5% AM / 8% PM)	138	7	11
Elementary School	8.9 AC	90 / Acre (32% AM / 9% PM)	801	256	72
Neighborhood Park	7.1 AC	5 / Acre (4% AM / 8% PM)	36	1	3
Village 3 TIA Total			*16,277*	*1,488*	*1,616*
		Net Change	**-669**	**-45**	**-66**

Source: SANDAG 2002 Not So Brief Guide of Vehicular Traffic Generation Rate, Chen Ryan Associates; November 2014

In addition, one alley and one residential street connection between Village 10 Street "A" (Santa Julliard) and Village 9 Street "B" is eliminated in the Deferral Plan, however, the TIA (as shown in Figure 12-3) did not assign any project traffic to either connection in order to analyze a worst case scenario for Village 10 access points. Therefore, the Deferral Plan would not affect project access or on-site circulation.

DEXTER WILSON ENGINEERING, INC.

DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.

MEMORANDUM **605-820**

TO: **Ranie Hunter, SSBT LCRE V, LLC**

FROM: **Stephen M. Nielsen, Dexter Wilson Engineering, Inc.**

DATE: **November 6, 2014**

SUBJECT: **Otay Ranch Village 10 Deferral Plan Sewer Flow Summary**

This memorandum summarizes our evaluation of the Village 10 Deferral Plan and the proposed impact it will have on the sewer system for the project. Table 1 provides a comparison of land uses for the Proposed Plan and the Deferral Plan.

TABLE 1
COMPARISON OF
PROPOSED AND DEFERRAL PLANS

Land Use	Proposed Plan			Deferral Plan		
	Neighborhood	Acres (Gross)	Units	Neighborhood	Acres (Gross)	Units
Single-Family Residential	R-1 – R-16	74.8	605	R-1 – R-13, 15 & 16	68.4	628
Multi-Family Residential	R-16 – R-19	21.5	1,045	R-17 – R-19	21.5	1,045
Neighborhood Park	P-1	7.6		P-1	7.6	
Private OS	POS01 – 3	0.7		POS 1 – 3	0.7	
School	S-1	9.2		S-1	9.2	
DPF	CPF-1 – 4	4.3		CPF-1 – 3	3.6	

2234 FARADAY AVENUE • CARLSBAD, CA 92008 • (760) 438-4422 • FAX (760) 438-0173

TABLE 1 COMPARISON OF PROPOSED AND DEFERRAL PLANS						
Land Use	Proposed Plan			Deferral Plan		
	Neighborhood	Acres (Gross)	Units	Neighborhood	Acres (Gross)	Units
Open Space	OS-2	16.5		OS-2	14.5	
Preserve	OS-1	212.7		OS-1	212.7	
Circulation		16.1			16.9	
TOTAL		**363.4**	**1,740**		**354.1**	**1,673**

As shown, the Deferral Plan results in a reduction of 67 single family residential units, a reduction of 0.7 ac of CPF development, and reductions to the project open space and circulation acreage. Table 2 summarizes the sewage flows from the Proposed Plan and reductions as a result of the Deferral Plan.

TABLE 2 OTAY RANCH VILLAGE 10 PROJECTED SEWER FLOWS DEFERRAL PLAN			
Land Use	Quantity	Generation Factor	Projected Sewer Flows, GPD
Proposed Plan			**416,769[1]**
SF Residential	(67 units)	265 gpd/unit	(17,755)
CPF	(0.7 ac)	2,500 gpd/ac	(1,750)
Deferral Plan Charge			(19,505)
Deferral Plan Flows			**397,264**

[1] Based on October 2014 Overview of Sewer Service.

Based on the projections in Table 2, the Deferral Plan will reduce projected sewer flows by approximately 4.6 percent. The results and recommendations from the October 2014 Overview of Sewer Service remain valid with this minimal decrease in flows.

SMN:ps

DEXTER WILSON ENGINEERING, INC.

DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.

MEMORANDUM **605-820**

TO: **Ranie Hunter, SSBT LCRE V, LLC**

FROM: **Stephen M. Nielsen, Dexter Wilson Engineering, Inc.**

DATE: **November 6, 2014**

SUBJECT: **Otay Ranch Village 10 Deferral Plan Water Demand Summary**

This memorandum summarizes our evaluation of the Village 10 Deferral Plan and the proposed impact it will have on the water system for the project. Table 1 provides a comparison of land uses for the Proposed Plan and the Deferral Plan.

TABLE 1
COMPARISON OF
PROPOSED AND DEFERRAL PLANS

Land Use	Proposed Plan			Deferral Plan		
	Neighborhood	Acres (Gross)	Units	Neighborhood	Acres (Gross)	Units
Single-Family Residential	R-1 - R-16	74.8	695	R-1 – R-13, 15 & 16	68.4	628
Multi-Family Residential	R-16 R-19	21.5	1,045	R-17 – R-19	21.5	1,046
Neighborhood Park	P-1	7.6		P-1	7.6	
Private OS	POS01 – 3	0.7		POS-1 – 3	0.7	
School	S-1	9.2		S-1	9.2	
DPF	CPF-1 4	4.3		CPF-1 3	3.6	

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TABLE 1 COMPARISON OF PROPOSED AND DEFERRAL PLANS						
Land Use	Proposed Plan			Deferral Plan		
	Neighborhood	Acres (Gross)	Units	Neighborhood	Acres (Gross)	Units
Open Space	OS-2	16.5		OS-2	14.5	
Preserve	OS-1	212.7		OS-1	212.7	
Circulation		16.1			15.9	
TOTAL		**383.4**	**1,740**		**354.1**	**1,673**

As shown, the Deferral Plan results in a reduction of 67 single family residential units, a reduction of 0.7 ac of CPF development, and reductions to the project open space and circulation acreage. Table 2 summarizes the water demands from the Proposed Plan and reductions as a result of the Deferral Plan.

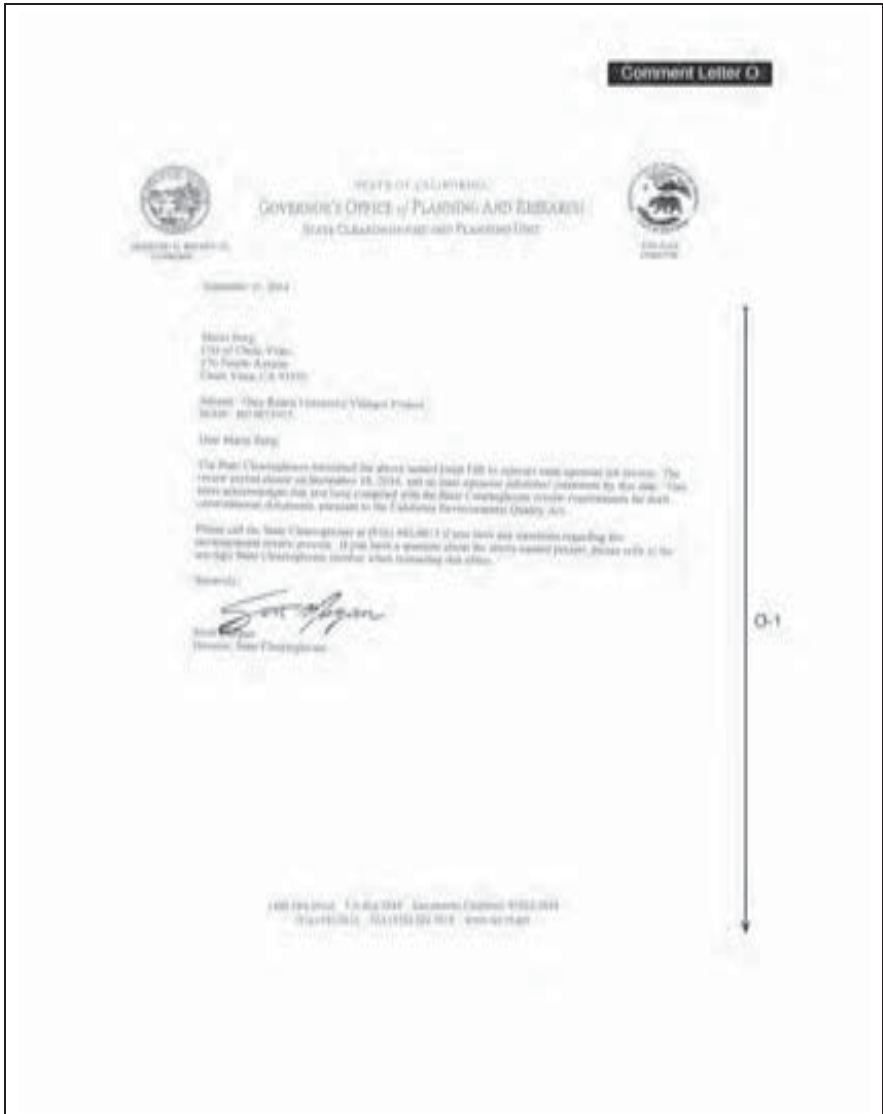
TABLE 2 OTAY RANCH VILLAGE 10 PROJECTED WATER DEMANDS DEFERRAL PLAN			
Land Use	Quantity	Demand Factor	Projected Water Demand, GPD
Proposed Plan			**516,928**[1]
SF Residential	(67 units)	500 gpd/unit	(33,500)
CPF	(0.7 ac)	714 gpd/ac	(500)
Deferral Plan Charge			(34,000)
Deferral Plan Demand			**482,929**

[1] Based on October 2014 Overview of Water Service.

Based on the projections in Table 2, the Deferral Plan will reduce projected water demand by approximately 6.5 percent. The results and recommendations from the October 2014 Overview of Water Service remain valid with this minimal decrease in demand.

In addition, the Deferral Plan will have a minor impact on proposed recycled water demands as a result of the elimination of the CPF-4 site. All other recycled water system findings in the October 2014 Overview of Water Service remain valid.

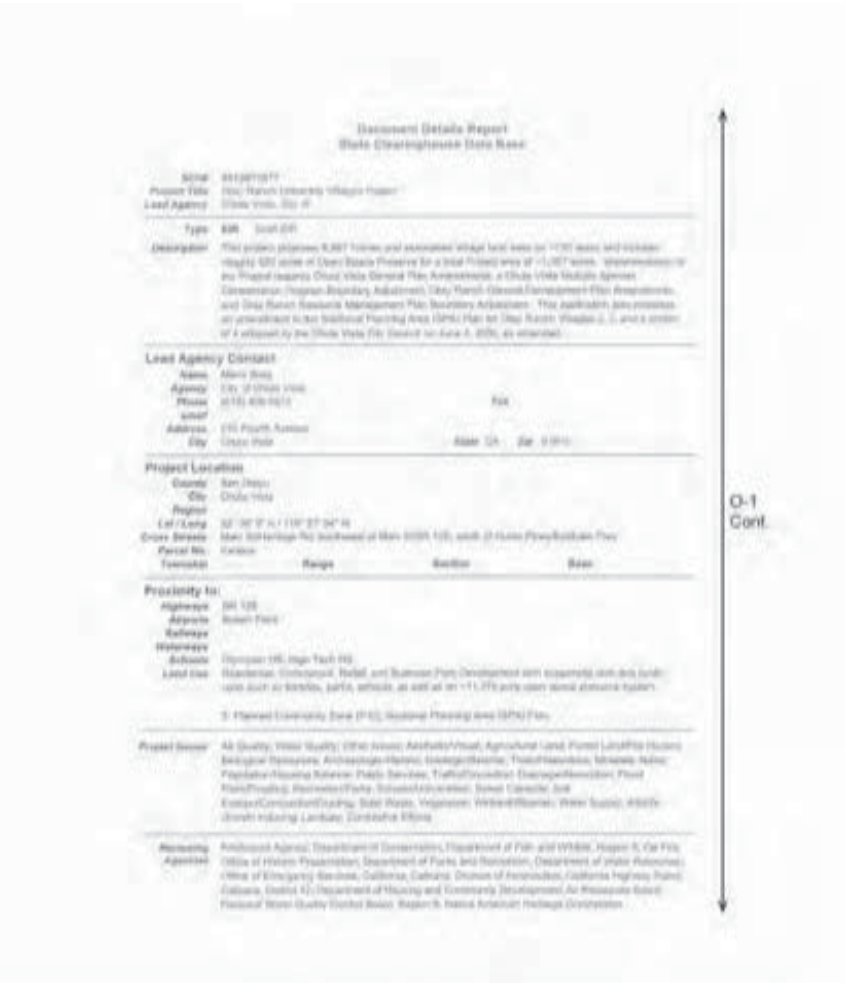
SMN:ps



Response to Comment Letter O

State of California, Governor's Office of Planning and Research (State Clearinghouse) Scott Morgan, Director September 19, 2014

O-1 This comment does not address the adequacy of the environmental analysis in the EIR. No response is required.



Document Details Report
State Clearinghouse Data Base

SCH#
Project Title
Lead Agency

Type EIR Draft EIR

Description

Lead Agency Contact
Name
Agency City of Chula Vista
Phone Fax
email
Address 276 Fourth Avenue
City Chula Vista State CA Zip

Project Location
County San Diego
City Chula Vista
Region
Cross Streets
Parcel No. Various
Township Range Section Base

Proximity to:
Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues

Reviewing Agencies

O-1 Cont.

Document Detailed Report
State Clearinghouse Data Base
O-1
Cont.

ERRATA

After completion and circulation of the Draft EIR, several typographical errors were identified and/or clarifications to the EIR text were necessary. Minor typographical errors were corrected in the text. Clarifications are identified below. All of the corrections have been reviewed, and none of them effect the impact analysis conclusions. The clarifications are summarized below. Modified text is indicated in underline and strikeout format as follows:

~~Old Text~~ Revised Text

Specifically, these changes to the EIR are limited to the following sections:

Executive Summary (Chapter 1) – "~~Approval of Grading Plans~~" on page 1-7 has been deleted from the list of discretionary actions/approvals. This is not a required discretionary approval.

Page 1-12 has been revised to state that the Nuisance Easement Alternative would ~~remove~~ result in fewer residential land uses within 1,000 feet from the active portion of the Otay Landfill.

The following sentence has been removed from Page 1-12 because it no longer stands true: ~~Per direction from the City staff, this alternative has been evaluated at the project level to provide an actionable item for the decision making body, should this become the preferred plan.~~

Page 1-13 has been revised to state that the Nuisance Easement Alternative would ~~not~~ result in less ~~development of~~ residential units within the nuisance easement area of the Otay Landfill. This statement has been revised to be consistent with the analysis for the Nuisance Easement Alternative.

Page 1-14 has been revised to include a more detailed description as to why the Nuisance Easement Alternative was designated the Environmentally Superior Alternative. As a result of the Amended and Restated Otay Landfill Agreement and inclusion of MM LU-4, both the proposed project (with implementation of mitigation measure MM LU-4 and compliance with the Agreement) and the Nuisance Easement Alternative restricted residential development within 1,000 feet of the active portion of the Otay Landfill. The proposed project accomplished this through inclusion of MM LU-4; and the Nuisance Easement Alternative through a land use plan that did not include residential uses within the 1,000-foot setback. The result was two very similar development plans and land uses and, therefore, similar associated impacts. The inclusion of additional analysis does not result in new or significant impacts.

Page 1-18 (MM LU-2), has been revised to delete "~~and in Village Ten~~." Village Ten is not being mitigated by MM LU-2. Village Ten has its own project-specific mitigation measure and trigger, MM LU-3.

Page 1-19 (MM LU-4), has been revised to correct the parenthetical statement that General Plan Policy E 6.4, "will be" corrected. Since the Draft EIR went out for public review, the City has amended General Plan Policy E 6.4; therefore "will be" has been removed from the statement "as ~~will be~~ corrected."

MM LU-4 on page I-19 has also been revised to state that the City shall deny any building permit application regarding any residential lot or parcel that does not comply with this mitigation measure.

Page 1-21 MM AES-3 has been revised to state that the lighting plan and photometric analysis "demonstrate that ~~evaluate~~ the proposed height, location, and intensity of all exterior lighting complies ~~for compliance~~ with the City's performance standards for light, and glare (Chula Vista Municipal Code, § 19.66.100)."

Page 1-21 MM AES-4 was revised to reduce the height of buildings that require a shadow analysis from four to three in response to comment N-15. MM AES-4 has also been revised to state that the lighting plan and photometric analysis "demonstrate that ~~evaluate~~ the proposed height, location, and intensity of all exterior lighting complies ~~for compliance~~ with the City's performance standards for light, and glare (Chula Vista Municipal Code, § 19.66.100)."

Pages 1-22 (MM TCA-1) has been revised to state that the City's determination regarding the adequacy of the circulation system shall be based on whether the quality of life threshold standards for traffic set for in the City of Chula Vista GMO (Chapter 19.09 of the Chula Vista Municipal Code) are met. This mitigation measure has further been revised to state that the City's determination regarding the scope and timing of the alternative method shall be based on demonstrated compliance with the GMO traffic thresholds.

Page 1-23 (MM TCA-3) caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

MM TCA-3 on page 1-23 has been revised to state that the assumed roadway improvement on Heritage Road, south of Main Street, would be a 4-lane Major Road "with Raised Median."

MM TCA-3 on page 1-23 has also been revised to state that "If the first final map containing the 611th EDU is submitted for approval ~~If the project equivalent dwelling unit limit of 611th EDU is exceeded~~ prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken, each to the satisfaction of the City Engineer…" This edit was made to reflect the TIA.

Page 1-27 (MM TCA-11) caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

The Quarry Access Driveway was removed from TCA-11 on page 1-27. This improvement was originally identified as "Assumed Built by Others." However, this interim improvement is not part of the TDIF and CIP; therefore, there is no funding source. Thus, it has now become a component to be constructed as part of the proposed project. This revision does not result in new or significant impacts.

Page 1-28 (MM TCA-12) has been revised in the Final EIR to ensure that the "direct impact" in question, which results in the mitigation measure of constructing the Main Street Bridge, will never occur.

MM TCA-14 on page 1-31 has been revised to state that Caltrans "can and should" work with the project Applicant to adjust the ramp meter as necessary. This is in response to comment J-4.

MM TCA-16 on page 1-32, caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

MM TCA-16 on page 1-32 in the Draft EIR has been revised in the Final EIR to delete "~~Heritage Road / Energy Way (Int #64) is included as a signalized intersection~~" under the 2030 scenario of assumed roadway and intersection improvements. This improvement will occur as part of the project as access and frontage requirements.

MM TCA-16 on page 1-32, regarding caveat (iv), has been revised to state that an alternative measure is selected by the City "that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic ~~in accordance with the City of Chula Vista Growth Management Ordinance~~." This revision clarifies that the Applicant would be required to demonstrate compliance with the GMO quality of life thresholds.

On page 1-49, MM CUL-1, a sentence has been added regarding Native American monitoring. This revision was prompted by a comment letter received from the San Diego County Archaeological Society.

Page 1-50, MM CUL-4, has been revised based on a comment letter received from the San Diego County Archaeological Society regarding the curation requirement. MM CUL-4 has been revised to clarify the curation requirement.

Page 1-51, MM CUL-5, has been revised based on a comment received from the San Diego County Archaeological Society regarding temporary exhibits. The mitigation measure now

requires temporary exhibits to be loaned from the permanent curation facility and processed according to the permanent curation facilities procedures.

On page 1-60 in Table 1-3, MM BIO-16 was moved from page 1-71. In the Draft EIR, MM BIO-16 was said to mitigate an impact due to conflicts with the provisions of an HCP, NCCP, or other approved conservation plan. However, this mitigation measure reduces impacts to special-status species. Therefore, this mitigation measure has been moved under the threshold for special-species to help mitigate potentially significant impacts as stated in Section 5.8.

On page 1-62 to 1-65 in Table 1-3, MM BIO-17 and MM BIO-18 have been moved from page 1-72. In the Draft EIR, MM BIO-17 and MM BIO-18 were said to mitigate an impact due to inconsistency with the General Plan biological resource policies. However, as stated in Section 5.8, Biological Resources, these mitigation measures have been included in the Draft EIR to reduce impacts to special-status species. Therefore, this mitigation measure has been moved to mitigate the impact as stated in Section 5.8.

On page 1-69 in Table 1-3, the row associated with potential impacts to the movement of wildlife has been moved to page 1-72 to improve upon the numerical flow of the mitigation measures. This threshold has also been revised to reference MM BIO-7 and MM BIO-16 through MM BIO-18. These mitigation measures were included in the Draft EIR to reduce impacts to the movement of wildlife. Therefore, reference to the identified mitigation measures has been included.

On page 1-71, MM BIO-16 has been moved to page 1-60. In the Draft EIR, MM BIO-16 was said to mitigate conflicts with the provisions of an HCP, NCCP, or other approved conservation plan. However, this mitigation measure reduces impacts to special-status species. Therefore, this mitigation measure has been moved under the threshold for special-species to help mitigate potentially significant impacts as stated in Section 5.8.

On page 1-72, MM BIO-17 and MM BIO-18 have been moved to page 1-62—to 1-65. In the Draft EIR, MM BIO-17 and MM BIO-18 were said to mitigate an impact due to inconsistency with the General Plan biological resource policies. However, as stated in Section 5.8, Biological Resources, these mitigation measures have been included in the Draft EIR to reduce impacts to special-status species. Therefore, this mitigation measure has been moved to mitigate the impact as stated in Section 5.8.

On page 1-73, under Threshold C, the significance determination has been revised to state "less than significant impact" rather than "~~no impact~~." All other thresholds related to consistency with General Plan and/or Otay Ranch GDP goals and policies concluded less than significant, with the exception of land use. Therefore, this change was made to be consistent with the rest of the EIR.

On page 1-76 in Table 1-3, MM HYD-6 and MM HYD-7 were said to mitigate significant impacts due to a violation of a water quality standard or waste discharge requirement. However, MM HYD-6 was included in the Draft EIR to mitigate impacts associated with erosion due to alteration of an existing drainage pattern. Therefore, this mitigation measure has been moved to further down on page 1-76, to address the threshold it mitigates. In addition, MM HYD-6 has been revised to add "as may be amended" after the Municipal Permit is identified in response to comment L-2.Additionally, "~~See MM HYD-1 and MM HYD-2 above~~" has been removed from page 1-76. MM HYD-7 was included in the Draft EIR to mitigate impacts associated with structures being placed within a 100-year flood hazard area. Therefore, this mitigation measure has been moved to page 1-78, to address the threshold it mitigates.

On page 1-77 in Table 1-3 under the threshold regarding project-related contribution to polluted runoff, the mitigation column has been revised to reference MM HYD-1 through MM HYD-6 instead of ~~MM HYD-7~~. This was a typographical error in the Draft EIR.

On page 1-77 in Table 1-3 under the threshold regarding the degradation of water quality, the mitigation column has been revised to reference MM HYD-1 through MM HYD-6 instead of ~~MM HYD-7~~. This was a typographical error in the Draft EIR.

On page 1-79 in Table 1-3 under the threshold regarding new or expanded stormwater drainage facilities, the mitigation column has been revised to reference MM HYD-1 and MM HYD-6 and "~~no additional mitigation required~~" has been removed.

On page 1-96 in Table 1-3 under the threshold regarding the emission of potentially hazardous materials within one-quarter mile of a school, ~~MM HAZ-2A and MM HAZ-2B~~ have been deleted and reference to MM HAZ-1 has been added. MM HAZ-1 was been included in the Draft EIR to mitigate potential impacts due to emission of potentially hazardous materials.

On page 1-96 in Table 1-3, under the threshold regarding potentially hazardous materials on site, the column "Result of Impact Analysis" has been revised. The Draft EIR stated that a less-than-significant impact would occur because carcinogenic risks due to proximity to the landfill were below the SDAPCD threshold for sensitive receptors. However, as stated in Section 5.15, Hazards and Risk of Upset, the impact analysis for this threshold concluded potentially significant impacts could occur due to the potential presence of munitions and explosives of concern on the FUDS site in Village Ten. Therefore, this column has been revised to reference the correct impact analysis result.

Also under the threshold regarding potentially hazardous materials on site, the mitigation column has been revised to include MM HAZ-2A and MM HAZ-2B, which were deleted from page 1-96 to 1-98. As stated in the Draft EIR in Section 5.15, Hazards and Risk of Upset, these mitigation measures have been included to reduce potential impacts due to the potential presence of

munitions and explosives of concern on the Formerly Used Defense Site (FUDS) in Village Ten. Therefore, MM HAZ-2A and MM HAZ-2B have been included under the correct threshold. Additionally, "~~No Mitigation Required~~" was removed from page 1-98.

Page 1-97 (MM HAZ-2B) has been revised to reflect "trail improvement plans" for the OVRP/Greenbelt Trail rather than "~~a grading permit,~~" and "or grading plans for" water quality basins has also been added.

Page 1-108 in Table 1-4, Summary of Cumulative Impacts, under the environmental issue regarding sewer, the "Result of Impact Analysis" column has been revised. The Draft EIR Summary stated that the proposed project would result in a cumulatively significant impact. However, as stated in Chapter 6, Cumulative Impacts, the proposed project would not result in cumulative impacts. Therefore, the cumulative impact summary has been revised to reflect the analysis and significance determination found in Chapter 6.

On page 1-111 in Table 1-5, Alternatives Impact Summary, the row which summarizes an alternative's ability to meet the project objectives under the Nuisance Easement Alternative has been revised. In the Draft EIR, this table stated that the Nuisance Easement Alternative only partially met the project alternatives. However, as stated in Chapter 10, Alternatives, this alternative would meet all the project objectives. Therefore, this column has been revised to reflect the conclusions in the Alternatives Section.

Table 1-5 on page 1-111 has been revised to reflect similar air quality impacts as the proposed project. This reflects what was identified in the analysis for the Nuisance Easement Alternative.

Table 1-5 on page 1-111 has been revised to reflect significant and unavoidable impacts to cultural resources, since this was identified as a cumulatively considerable significant impact in the Draft EIR on page 6-25.

Project Description (Chapter 4) – The footnote on page 4-55 has been revised to clarify that the off-site improvements, which are not identified in the list, are in fact included in the analysis in the EIR. This revision was made based on a comment received during public review of the Draft EIR (Comment N-11).

"~~Approval of Grading Plans~~" on page 4-154 has been deleted from the list of discretionary actions/approvals. This is not a required discretionary approval.

Land Use – In Section 5.1, Land Use pages 5.1-39, 5.1-48, 5.1-53 and 5.1-55, have been revised to correct the parenthetical statement that General Plan Policy E 6.4, "will be" corrected. Since the Draft EIR went out for public review, the City has amended General Plan Policy E 6.4; therefore, "will be" has been removed from the statement "as ~~will be~~ corrected."

Page 5.1-27 has been revised to reflect the correct date of the approved revised and restated Otay Landfill Agreement. The date has been changed to the correct date of approval, "August 12, 2014" instead of "~~August 5, 2014.~~"

MM LU-4 on page 5.1-55 has been revised to state that the City shall deny any building permit application regarding any residential lot or parcel that does not comply with this mitigation measure.

Landform Alteration/Aesthetics – Page 5.2-91 (MM AES-2 and MM AES-3 have been revised to state that the lighting plan and photometric analysis "demonstrate that ~~evaluate~~ the proposed height, location, and intensity of all exterior lighting complies ~~for compliance~~ with the City's performance standards for light, and glare (Chula Vista Municipal Code, § 19.66.100)."

Page 5.2-92 (MM AES-4) has been revised to state that a shadow analysis must be performed prior to design review approval for any structure ~~four~~ three stories and above. This revision was made based on a comment received during public review of the Draft EIR (Comment N-15).

Traffic – In response to comment J-3, page 5.3-8 has been revised to include the equation that was used to calculate the demand per hour per lane for the ramp meter analyses.

Table 5.3-13 on page 5.3-28 has been revised to include a column for Peak Hour Volume in response to comment J-2.

Page 5.3-45 has been revised to reflect "(LOS ~~E~~ D)" for the roadway segment on Heritage Road between Main Street and Avenida De Las Vistas. This was a typographical error in the Draft EIR.

On page 5.3-52 under the Ramp Intersection Capacity Analysis subheading, I-805 SB Ramps/Main Street intersection has been added to the list of intersections that would operate at over capacity as identified in Table 5.3-20. This was a typographical error in the Draft EIR. This revision was made based on comment N-28.

Table 5.3-21 on page 5.3-57 has been revised to include a column for Peak Hour Volume in response to comment J-2. "D_{VOL} Demand[1] (veh/hr per lane)" was added to the fourth column for clarification.

Page 5.3-58 has been revised to include the six missing freeway/state highway segments that were identified in Table 5.3-40. This was a typographical error in the Draft EIR.

Page 5.3-60 was revised to include "(Assumed Built by Year 2015)" to clarify when the roadway improvements to be constructed by others would be built.

Table 5.3-26 on page 5.3-76 has been updated to include two columns for Peak Hour Volume under both the With Project and Without Project scenarios. Also, the Demand Volume numbers under the Without Project scenario have been revised in response to comment J-2.

Page 5.3-77 was revised to include the Quarry Access Driveway as a component to be constructed as part of the proposed project. It was originally identified on page 5.3-78 under "Assumed Built by Others," where it has now been removed. This interim improvement is not part of the TDIF and CIP; therefore, there is no funding source. Thus, it becomes part of the proposed project. This revision does not result in new or significant impacts.

Page 5.3-78 was revised to include "(Assumed Built by Year 2020)" to clarify when the roadway improvements to be constructed by others would be built.

Page 5.3-79 has been revised to reflect "(LOS ~~E~~ F)" for the intersection on Heritage Road / Main Street. This was a typographical error in the Draft EIR.

Table 5.3-27 on page 5.3-81 under Heritage Road/Main Street (all-way stop controlled) the delay times have been revised to be consistent with the TIA.

Page 5.3-89 has been revised to identify over capacity conditions during the AM peak hour for both the I-805 SB Ramps/Olympic Parkway and I-805 SB Ramps/Main Street intersections. The intersection I-805 NB Ramps/Main Street has also been included as having over capacity impacts during the PM peak hour consistent with Table 5.3-30.

Table 5.3-31 on page 5.3-96 has been updated to include two columns for Peak Hour Volume under both the With Project and Without Project scenarios. Also, the Demand Volume numbers under the Without Project scenario have been revised. This revision was based on response to comment J-2.

Page 5.3-99 under the intersection for La Media Road/Olympic Parkway, the identified impact during PM peak hours has been deleted, because this section is calling out significant impacts, and this intersection does not have a significant impact during the PM peak hours.

Page 5.3-109 under the subheading for Ramp Intersection Capacity Analysis has been revised to include "I-805 NB Ramps / Olympic Parkway – Over capacity during the AM and PM peak hour" consistent with Table 5.3-35.

Table 5.3-36 on page 5.3-114 has been updated to include two columns for Peak Hour Volume under both the With Project and Without Project scenarios. Also, the Demand Volume numbers under the Without Project scenario have been revised. This was revised in response to comment J-2.

Page 5.3-115 has been revised to include "Heritage Road / Energy Way (Int#64) – Signalized intersection" as an improvement to be constructed by the project as an access and frontage requirement.

Page 5.3-116 has been revised to include "(Assumed Built by Year 2030)" to clarify when the roadway improvements to be constructed by others would be built.

Page 5.3-116, the "~~Heritage Road / Energy Way (Int #64)~~" has been removed as a roadway improvement to be constructed by others.

Table 5.3-37 AM and PM Peak Hour Average Delay and LOS columns have been revised to reflect the same delay and LOS identified in TIA Table 9.1 (Appendix M to the Draft EIR) for the intersections at SR-125 SB Ramps/Main Street and SR-125 NB Ramps/Main Street. This was a typographical error.

Page 5.3-131 under the subheading for Ramp Intersection Capacity Analysis, an impact during "AM peak hour" was identified for the intersection I-805 SB Ramps/Main Street consistent with Table 5.3-41.

Table 5.3-42 on page 5.3-136 has been updated to include two columns for Peak Hour Volume under both the With Project and Without Project scenarios. Also, the Demand Volume numbers, Excess Demand Volume numbers, Delay time, and Queue time have been revised under the Without Project scenario. This revision was based on response to comment J-2.

Pages 5.3-162 to 5.3-164 MM TCA-1, has been revised to state that the City's determination regarding the adequacy of the circulation system shall be based on whether the quality of life threshold standards for traffic set for in the City of Chula Vista GMO (Chapter 19.09 of the Chula Vista Municipal Code) are met. This mitigation measure has further been revised to state that the City's determination regarding the scope and timing of the alternative method shall be based on demonstrated compliance with the GMO traffic thresholds.

The reference to the University Villages TIA on page 163 has been revised to state, "~~June~~ October 2014."

MM TCA-3 on page 5.3-164 has also been revised to state that the assumed roadway improvement on Heritage Road, south of Main Street, would be a 4-lane Major Road "with Raised Median."

Page 5.3-164, MM TCA-3, caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

MM TCA-3 on page 5.3-164 has also been revised to state that "If the first final map containing the 611th EDU is submitted for approval ~~If the project equivalent dwelling unit limit of 611th EDU is exceeded~~ prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken, each to the satisfaction of the City Engineer…" This edit was made to reflect the TIA.

MM TCA-3 on page 5.3-164 has also been revised to delete the reference to "~~and Village Eight East~~" under caveat (i). This change was made to be consistent with the TIA.

MM TCA-11 on page 5.3-169, caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

The Quarry Access Driveway was removed from TCA-11 on page 5.3-169. This improvement was originally identified as "Assumed Built by Others." However, this interim improvement is not part of the TDIF and CIP; therefore, there is no funding source. Thus, it has now become a component to be constructed as part of the proposed project. This revision does not result in new or significant impacts.

MM TCA-12 on page 5.3-170 to 5.3-171 in the Draft EIR has been revised in the Final EIR to ensure that the "direct impact" in question, will not occur. This change is in response to comment N-3.

MM TCA-14 on page 5.3-176 was revised to state "Caltrans can and should" adjust the ramp meter at the I-805 northbound on ramp at Main Street such that the ramp meter reflects the additional vehicle traffic attributable to the project. This change was made in response to comment J-4.

MM TCA-16 on page 5.3-178, caveat language has been revised based on response to comment N-3. The revised language has been added to clarify and make explicit the performance standard that will guide future decision making.

MM TCA-16 on page 5.3-179 in the Draft EIR has been revised in the Final EIR to delete "~~Heritage Road / Energy Way (Int #64) is included as a signalized intersection~~" under the 2030 scenario of assumed roadway and intersection improvements. This improvement will occur as part of the project as access and frontage requirements.

MM TCA-16 on page 5.3-179, regarding caveat (iv), has been revised to state that an alternative measure is selected by the City "that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic ~~in accordance with the City of Chula Vista Growth Management Ordinance~~." This revision clarifies that the Applicant would be required to demonstrate compliance with the GMO quality of life thresholds.

The Quarry Access Driveway was removed from the mitigation column under the Year 2020 scenario on Table 5.3-49 page 188. This improvement was originally identified as "Assumed Built by Others." However, this interim improvement is not part of the TDIF and CIP; therefore, there is no funding source. Thus, it has now become a component to be constructed as part of the proposed project. This revision does not result in new or significant impacts.

Table 5.3-56 on page 5.3-197 has been revised to include a row for the Community Park Driveway that is assumed to be built in Year 2025.

Air Quality – In Section 5.4, Air Quality, page 5.4-21 and page 5.4-22 have been revised to correct the parenthetical statement that General Plan Policy E 6.4, "will be" corrected. Since the Draft EIR went out for public review, the City has amended General Plan Policy E 6.4; therefore, "will be" has been removed from the statement "as ~~will be~~ corrected."

Cultural Resources – On page 5.6-21 MM CUL-1, a sentence has been added regarding Native American monitoring. This revision was prompted by a comment letter received from the San Diego County Archaeological Society.

On page 5.6-22, MM CUL-4 has been revised based on a comment letter received from the San Diego County Archaeological Society regarding the curation requirement. MM CUL-4 has been revised to clarify the curation requirement.

On page 5.6-22, MM CUL-5 has been revised based on a comment received from the San Diego County Archaeological Society regarding temporary exhibits. The mitigation measure now requires temporary exhibits to be loaned from the permanent curation facility and processed according to the permanent curation facilities procedures.

Biological Resources – Pages 5.8-105, 5.8-111, 5.8-112, 5.8-115 and 5.8-117 have been revised to state Salt Creek "Sewer Easement," rather than Salt Creek "~~Interceptor Road~~."

Pages 5.8-67, 5.8-100, 5.8-106, 5.8-118, 5.8-129, and 5.8-133 have been revised to state "Otay Ranch Preserve" rather than "~~Salt Creek~~ Preserve."

Agricultural Resources – The conclusion for Threshold C on page 5.9-10 has been revised to state "less than significant impact" rather than "~~no impact~~." All other thresholds related to consistency with General Plan and/or Otay Ranch GDP goals and policies concluded less than significant, with the exception of land use. Therefore, this change was made to be consistent with the rest of the EIR.

Hydrology – Page 5.10-65, MM HYD-6 has been revised based on a comment from the County of San Diego to acknowledge that hydromodification permits may be amended.

Utilities – Page 5.13-1 has been revised to include reference to the Addendum that was prepared for the Overview of Water Service and is included as an appendix to the Final EIR.

Page 5.13-18 has been revised based on the corrected land use acreages reflected in the Addendum to Appendix N, Water Report. Table 5.13-4 and Table 5.13-5 have been revised according to the Appendix N Addendum. These tables in the Draft EIR reflected 20.8 acres of industrial, when in fact it was 15.6, and these tables in the Draft EIR reflected 16.0 acres of commercial, when in fact it was 21.2 acres of commercial office. As noted in footnote (2) to Table 5.13-5, these acreages are net for industrial land uses, which differs from the gross acres identified in Table 4-1. This correction resulted in an increase of project potable water demand by 4,162 gallons per day (gpd). The total water supply identified in the WSAV in the Draft EIR was 2,137,232 gpd, and with the revisions to the Water Service Report, the total is only 2,125,638 gpd, which is 11,594 gdp less than what was identified in the WSAV. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR and do not result in any new or significant impacts.

Page 5.13-20 has been revised to reflect total potable water use of 2,381 acre-feet per year (af/yr) rather than 2,334 af/yr as identified in the Draft EIR. The change in potable water demand is due to the revised land use acreages for industrial and commercial land uses.

Page 5.13-23 to page 5.13-26 has been revised based on the corrected land use acreages reflected in the Addendum to Appendix N, Water Report. The corrected section reflects water conservation savings, due to the use of recycled water and Water Conservation Plans (WCPs), of 784,096 gpd or 874 af/yr, compared to Section 5.13.1.3 of the Draft EIR, which reflected a reduced demand for potable water by 783,557 gpd or 862 af/yr. This results in a net reduction of potable water usage of 539 gpd or 2 af/yr compared to what was identified in the Draft EIR. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR (including Table 4-1 in this EIR) and do not result in any new or significant impacts.

Page 5.13-29 has been revised to include reference to the Addendum that was prepared for the Overview of Sewer Service and is included as an appendix to the Final EIR.

Table 5.13-6 and Table 5.13-7 have been corrected based on land use acreages reflected in the Addendum to Appendix N. The average recycled water demand in Village Three North increased by 431 gpd, and Village Eight East increased by 108 gpd. This results in increased water conservation savings of 784,096 gpd or 874 af/yr, compared to the Draft EIR, which reflected water conservation savings of 783,557 gpd or 862 af/yr. This results in a net reduction of potable water usage of 539 gpd or 2 af/yr compared to what was identified in the Draft EIR. The corrected land use acreages do not cause any other technical reports to change. These

changes were made to be consistent with the land use acreages reflected throughout the EIR (including Table 4-1 in this EIR) and do not result in any new or significant impacts.

Page 5.13-34 has been revised based on the updated land use acreages reflected in the Addendum to Appendix O, Sewer Report. Table 5.13-9 has been revised according to the Addendum to Appendix O. This table in the Draft EIR reflected 33.8 gross acres of industrial, when in fact it was 28.6 net acres, and this table in the Draft EIR reflected 17.7 acres of commercial, when in fact it was 22.9 acres of commercial office. As noted in footnote (2) to Table 5.13-5, acreages are net for industrial land uses, which differs from the gross acres identified in Table 4-1. Therefore, the projected sewage flow by land use changed. The project sewer flow increased by 1,250 gpd compared to what was reflected in Section 5.13.2.3 of the Draft EIR. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR (including Table 4-1 in this EIR) and do not result in any new or significant impacts.

Hazards and Risk of Upset – Page 5.15-48 (MM HAZ-2B) has been revised to reflect "trail improvement plans" for the OVRP/Greenbelt Trail rather than "~~a grading permit,~~" and "or grading plans for" water quality basins has also been added.

Significant and Unavoidable – Section 8.1, page 8-3 has been revised to state "and cumulative" impacts due to conflicts with air quality plans. This revision was based on the conclusions found in the Draft EIR.

Section 8.1, page 8-3 has been revised to include significant and unavoidable cumulative impacts to cultural resources, specifically archaeological resources. This revision was based on the conclusions found in the Draft EIR.

Section 8.1, page 8-3 has also been revised to include "and cumulative" impacts to agricultural resources. This revision was based on the conclusions found in the Draft EIR.

Section 8.1, page 8-3 has been revised to state "direct ~~cumulative~~" impacts due to demand for wastewater capacity. This revision was based on the conclusions found in the Draft EIR.

Section 8.1, page 8-3 has been revised to include "direct" impacts due to demand for energy. This revision was based on the conclusions found in the Draft EIR.

Section 8.1, page 8-3 has been revised to state "direct ~~cumulative~~" impacts to global climate change. This revision was based on the conclusions found in the Draft EIR.

Alternatives – Page 10-44 and page 10-45 have been revised to state that the Reduced Density Alternative "does not meet the following project objectives" rather than "~~the proposed project~~

~~better meets~~." This revision was made to be consistent with the other analyses for each alternative under the Relationship to Project Objectives Sections.

The project objective regarding the establishment of a community park was removed from page 10-45 because although the Reduced Density Alternative would not trigger the demand for the Village Eight East Community Park (P-2), it would still trigger the demand for other, smaller parks. This was an oversight in the Draft EIR and does not result in new or significant impacts.

Page 10-45 has been revised to state that the Nuisance Easement Alternative would ~~remove~~ result in fewer residential land uses within "the nuisance easement area ~~1,000 feet from the active portion of the Otay Landfill~~."

The following sentence has been removed from Page 10-45 because it no longer stands true: ~~Per direction from the City staff, this alternative has been evaluated at the project level to provide an actionable item for the decision making body, should this become the preferred plan.~~

Pages 10-47 has been revised to state that the Nuisance Easement Alternative would remove residential land uses within "1,000 feet of the active portion of the landfill, which the proposed project also doesn't do through compliance with MM LU-4." Rather than stating that the Nuisance Easement Alternative would remove residential land uses within "~~the 1,000-foot nuisance easement area.~~" This statement has been revised to be consistent with the analysis for the Nuisance Easement Alternative.

Page 10-48 has been revised to state, "The Nuisance Easement Alternative would remove all residential land uses within ~~the nuisance easement area~~ 1,000 feet of the active portion of the landfill; however, the proposed project would also not place residential land uses within 1,000 feet of the active portion of the landfill per MM LU-4. This statement has been revised to be consistent with the analysis for the Nuisance Easement Alternative.

Page 10-51 under the traffic discussion for the Nuisance Easement Alternative, has been revised to conclude that impacts would be slightly reduced compared to the proposed project due to the slight reduction in vehicle trips (0.2%) compared to the proposed project. This does not result in new or significant impacts.

Page 10-52 and 10-53 under the air quality analysis for the Nuisance Easement Alternative has been revised to state that as a result of MM LU-4, the proposed project would have the same impacts compared to the Nuisance Easement Alternative. However, due to a 0.2% reduction in vehicle trips, impacts to air quality would be slightly reduced.

The conclusion under the Nuisance Easement Alternative on page 10-59 regarding parks, recreation, and open space was revised to state that the alternative would have the same impacts as the proposed project, rather than reduced impacts. This change was made because this

alternative would result in the same demand for park acreage as the proposed project. This does not result in new or significant impacts.

Page 10-62 has been revised to state that the Nuisance Easement Alternative would designate less residential land uses within the nuisance easement of the Otay Landfill compared to the proposed project.

The discussion under Section 10.4.3.1 Relationship to Project Objectives, on page 10-63 to page 10-64, has been revised to include a more detailed description as to why the Nuisance Easement Alternative is designated the Environmentally Superior Alternative. The inclusion of additional analysis does not result in new or significant impacts.

Table 10-10 on page 10-94 has been revised to reflect significant and unavoidable cumulative impacts to cultural resources, since this was identified as a cumulatively considerable significant impact in the Draft EIR on page 6-25.

Table 10-10 on page 10-94 has been revised to reflect the similar land use impacts as a result of the Nuisance Easement Alternative compared to the proposed project. This revision was made to be consistent with the analysis provided therein.

Table 10-10 on page 10-94 has been revised to reflect the reduced traffic impacts as a result of the Nuisance Easement Alternative compared to the proposed project. This revision was made to be consistent with the analysis provided on page 10-47.

Page 10-97 in Table 10-11 has been revised to reflect the Reduced Density Alternative's "Partial" consistency with the project objective regarding establishment of a community park, because although the Reduced Density Alternative would not trigger the demand for the Village Eight East Community Park (P-2), it would still trigger the demand for other, smaller parks. This was an oversight in the Draft EIR and does not result in new or significant impacts.

Page 10-97 through 10-100 have been revised to include a more detailed description as to why the Nuisance Easement Alternative was designated the Environmentally Superior Alternative. As a result of the Amended and Restated Otay Landfill Agreement and inclusion of MM LU-4, both the proposed project (with implementation of mitigation measure MM LU-4 and compliance with the Agreement) and the Nuisance Easement Alternative restricted residential development within 1,000 feet of the active portion of the Otay Landfill. The proposed project accomplished this through inclusion of MM LU-4; and the Nuisance Easement Alternative through a land use plan that did not include residential uses within the 1,000-foot setback. The result was two very similar development plans and land uses and, therefore, similar associated impacts. The inclusion of additional analysis does not result in new or significant impacts.

Appendix B – Appendix B, Part II, pages B-8 through B-10 have been revised to include a consistency analysis on the Otay Ranch GDP Goal regarding diversification of the economic base within Otay Ranch. Additionally, industrial and business park objectives have been included along with a comparison analysis. These goals and objectives were inadvertently omitted from the Draft EIR. These consistency analyses were also discussed in Appendix B, Part I, in the Draft EIR under General Plan Policy LUT 79.1 and LUT 6.1. These revisions do not result in new or significant impacts. See revised Appendix B attached to Final EIR.

Appendix F – Appendix F has been revised to reflect the updated mitigation measures MM CUL-1, MMCUL-4, and MM CUL-5. See above under Cultural Resources as to why these mitigation measures were revised. Also see the Addendum to Appendix F attached to the Final EIR.

Appendix K – Appendix K has been revised based on a comment from the County of San Diego to acknowledge that hydromodification permits may be amended. Hydromodification criteria "as may be amended" has been added to the water quality reports for Village Three North and Portion of Village Four, Village Eight East, and Village Ten. This revision does not result in new or significant impacts. See Addendum to Appendix K attached to the Final EIR.

Appendix M – Appendix M, Traffic Impact Analysis, has been revised based on comments received during public review of the Draft EIR. See revised Appendix M in this Final EIR.

Appendix N – The Overview of Water Service Report has been revised to reflect the land use acreages identified in the Draft EIR (Addendum to Appendix N in the Final EIR). Appendix N in the Draft EIR reflected 33.8 gross acres of industrial, when in fact it was 27.6 gross acres. The 33.8 gross acres in the Draft EIR included 5.2 acres of office acreage (O-1), which has now been moved under the mixed use designation and is no longer reflected as part of the 33.8 gross acres of industrial. This correction resulted in an increase of project potable water demand by 4,162 gpd. The total water supply identified in the WSAV in the Draft EIR was 2,137,232 gpd, and with the revisions to the Water Service Report, the total is only 2,125,638 gpd, which is 11,594 gdp less than what was identified in the WSAV. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR (including Table 4-1 in this EIR) and do not result in any new or significant impacts.

The average recycled water demand in Village Three North increased by 431 gpd, and Village Eight East increased by 108 gpd. This results in increased water conservation savings of 784,096 gpd or 874 af/yr, compared to the Draft EIR, which reflected water conservation savings of 783,557 gpd or 862 af/yr. This results in a net reduction of potable water usage of 539 gpd or 2 af/yr compared to what was identified in the Draft EIR. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR and do not result in any new or significant impacts.

Appendix O – The Overview of Sewer Service Report has been revised to reflect the land use acreages identified in the Draft EIR (Addendum to Appendix O in Final EIR). Appendix O in the Draft EIR reflected 33.8 gross acres of industrial, when in fact it was 27.6 gross acres. The 33.8 gross acres in the Draft EIR included 5.2 acres of office acreage (O-1), which has now been moved under the mixed use designation and is no longer reflected as part of the 33.8 gross acres of industrial. Therefore, the projected sewage flow by land use changed. The project sewer flow increased by 1,250 gpd compared to what was reflected in the Draft EIR. The corrected land use acreages do not cause any other technical reports to change. These changes were made to be consistent with the land use acreages reflected throughout the EIR (including Table 4-1 in this EIR) and do not result in any new or significant impacts.

Appendix P – Appendix P has been revised based on a comment from the County of San Diego to acknowledge that hydromodification permits may be amended. Hydromodification criteria "as may be amended," has been added to the water quality technical memo for the Village Three North Nuisance Easement Alternative. This revision does not result in new or significant impacts. See Addendum to Appendix P attached to the Final EIR.

Recirculation Not Required. The City has independently reviewed and considered the comments, responses to comments, and revisions made to the Draft EIR since circulation for public review. In its review, the City took into account whether any of those comments, responses to comments, or changes or revisions to the Draft EIR give rise to significant new information, as defined under CEQA, requiring recirculation. Under CEQA, significant new information requiring recirculation includes a disclosure showing that:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or,
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (CEQA Guidelines, 15088.5, subsection (a).)

Recirculation is not required when the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. (CEQA Guidelines, 15088.5, subsection (b).)

In this case, the comments, responses to comments, and revisions to the Draft EIR do not evidence new significant environmental impacts that would result from the project or from a new mitigation measure proposed to be implemented. Additionally, there is no substantial increase in the severity of an environmental impact, nor is there a feasible alternative or feasible mitigation measure that would clearly lessen the significant environmental effects of the project that the project's proponents have declined to adopt. The Draft EIR is adequate in every respect and did not preclude meaningful public review and comment. Any new information that has been added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

As such, based on the Draft EIR, comments and responses to comments, and revisions to the Draft EIR, the City finds that substantial evidence supports the determination that recirculation of the EIR is not required.

OTAY RANCH UNIVERSITY VILLAGES PROJECT
FINAL ENVIRONMENTAL IMPACT REPORT

MITIGATION MONITORING AND REPORTING PROGRAM
SCH No. 2013071077

Lead Agency:

City of Chula Vista
276 Fourth Avenue
Chula Vista, California 91910

NOVEMBER 2014

Printed on 30% post-consumer recycled material.

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

This mitigation monitoring and reporting program (MMRP) was prepared by the City of Chula Vista for the University Villages Project to comply with Public Resources Code Section 21081.6(a)(1), which requires public agencies to adopt such programs to ensure effective implementation of mitigation measures. This monitoring program is dynamic in that it will undergo changes as additional mitigation measures are identified and additional conditions of approval are placed on the project throughout the project approval process. Pursuant to Public Resources Code Section 21081.6(a)(2), the City of Chula Vista designates the Director of Development Services and the City Clerk as the custodians of the documents or their material which constitute the record of proceedings upon which its decision is based.

This monitoring program will serve a dual purpose of verifying completion of the mitigation identified in the Environmental Impact Report (EIR) and generating information on the effectiveness of the mitigation measures to guide future decisions. The program includes the following:

- Monitor qualifications
- Specific monitoring activities
- Reporting system
- Criteria for evaluating the success of the mitigation measures

The project encompasses Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. Implementation of the project requires Chula Vista General Plan Amendments (GPAs), Chula Vista Multiple Species Conservation Plan Boundary Adjustments (MSCPBAs), Otay Ranch General Development Plan Amendments (GDPAs), and Resource Management Plan Boundary Adjustments (RMPBAs). The project also proposes amendments to three approved SPA Plans; Otay Ranch Villages Two, Three, and a Portion of Village Four SPA Plan; Otay Ranch Village Seven SPA Plan; and the Otay Ranch Village Nine SPA Plan.

Three SPA plans are proposed: (a) Otay Ranch Village Three North and a Portion of Village Four SPA Plan, (b) Otay Ranch Villages Eight East SPA Plan, and (c) Otay Ranch Village Ten SPA Plan. Three Tentative Maps (TMs) are also proposed: (a) Village Three North and a Portion of Village Four, (b) Village Eight East, and (c) Village Ten.

The proposed project is described in the EIR text in Chapter 3, Project Description. The EIR, incorporated herein as referenced, addressed all environmental issues listed in Appendix G of the CEQA Guidelines.

Public Resources Code section 21081.6 requires monitoring of only those impacts identified as significant or potentially significant. The monitoring program does not address impacts for issues where no mitigation is available and therefore remain unmitigable. Additionally, Section 5.3, Transportation, Circulation, and Access, of the EIR identify potential mitigation measures that are considered infeasible for reasons identified in Section 5.3; these mitigation measures are not included in the MMRP.

MITIGATION MONITORING TEAM

The monitoring activities would be accomplished by individuals identified in the attached MMRP table. While specific qualifications should be determined by the City, the monitoring team should possess the following capabilities:

- Interpersonal, decision-making, and management skills with demonstrated experience in working under trying field circumstances;
- Knowledge of and appreciation for the general environmental attributes and special features found in the project area;
- Knowledge of the types of environmental impacts associated with construction of cost-effective mitigation options; and
- Excellent communication skills.

PROGRAM PROCEDURAL GUIDELINES

Prior to any construction activities, meetings should take place between all the parties involved to initiate the monitoring program and establish the responsibility and authority of the participants. Mitigation measures that need to be defined in greater detail will be addressed prior to any project plan approvals in follow-up meetings designed to discuss specific monitoring effects.

An effective reporting system must be established prior to any monitoring efforts. All parties involved must have a clear understanding of the mitigation measures as adopted and these mitigations must be distributed to the participants of the monitoring effort. Those that would have a complete list of all the mitigation measures adopted by the City of Chula Vista would include the City of Chula Vista and its Mitigation Monitor. The Mitigation Monitor would distribute to each Environmental Specialist and Environmental Monitor a specific list of mitigation measures that pertain to his or her monitoring tasks and the appropriate time frame that these mitigations are anticipated to be implemented.

In addition to the list of mitigation measures, the monitors will have mitigation monitoring report (MMR) forms, with each mitigation measure written out on the top of the form. Below the stated mitigation measure, the form will have a series of questions addressing the effectiveness of the

mitigation measure. The monitors shall complete the MMR and file it with the Mitigation Monitor following the monitoring activity. The Mitigation Monitor will then include the conclusions of the MMR into an interim and final comprehensive construction report to be submitted to the City. This report will describe the major accomplishments of the monitoring program, summarize problems encountered in achieving the goals of the program, evaluate solutions developed to overcome problems, and provide a list of recommendations for future monitoring programs. In addition, and if appropriate, each Environmental Monitor or Environmental Specialist will be required to fill out and submit a daily log report to the Mitigation Monitor. The daily log report will be used to record and account for the monitoring activities of the monitor. Weekly and/or monthly status reports, as determined appropriate, will be generated from the daily logs and compliance reports and will include supplemental material (i.e., memoranda, telephone logs, and letters). This type of feedback is essential for the City to confirm the implementation and effectiveness of the mitigation measures imposed on the project.

ACTIONS IN CASE OF NONCOMPLIANCE

There are generally three separate categories of noncompliance associated with the adopted conditions of approval:

- Noncompliance requiring an immediate halt to a specific task or piece of equipment;
- Infraction that warrants an immediate corrective action, but does not result in work or task delay; and
- Infraction that does not warrant immediate corrective action and results in no work or task delay.

There are a number of options the City may use to enforce this program should noncompliance continue. Some methods that could be used include “stop work” orders, fines and penalties (civil), restitution, permit revocations, citations, and injunctions. It is essential that all parties involved in the program understand the authority and responsibility of the on-site monitors. Decisions regarding actions in case of noncompliance are the responsibility of the City.

SUMMARY OF MITIGATION MEASURES

Table 1 summarizes the mitigation measures identified in the EIR. The table lists the monitoring efforts necessary to ensure that the measures are properly implemented. All the mitigation measures identified in the EIR are recommended as conditions of project approval and are stated herein in language appropriate for such conditions. In addition, during various stages of implementation the City will further refine the mitigation measures.

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Table 1
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact		Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
University Villages EIR Mitigation Measures											
Section 5.1 Land Use and Planning											
A potentially significant land use compatibility impact would occur if the on-site City of San Diego waterlines would not be relocated before development of Village Eight East and Village Ten.	**MM LU-1**	Prior to approval of the mass grading permit for Village Eight East and Village Ten, the mass grading plans shall include the relocation of the City of San Diego waterlines to the satisfaction of the City of San Diego and the City of Chula Vista.		X			City of Chula Vista				
A potentially significant land use compatibility impact would occur if the on-site City of San Diego waterlines would not be relocated before development of Village Eight East and a new water line isn't constructed prior to the Final Map approving the 1,200th Residential Dwelling Unit.	**MM LU-2**	Prior to approval of the first Final Map in Village Eight East, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the: 1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Villages Eight East within the right-of-way of future Otay Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds. 2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Eight East and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road. Prior to the Final Map approving the 1,200th Residential Dwelling Unit (Single Family and/or Multi-Family Residential) for Village Eight East, the new water line shall be constructed.	X	X			City of Chula Vista				
A potentially significant land use compatibility impact would occur if the on-site City of San Diego waterlines would not be relocated before development of Village Ten and a new water line isn't constructed prior to the Final Map approving the 580th Residential Dwelling Unit.	**MM LU-3**	Prior to approval of the first Final Map in Village Ten, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the: 1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Village Ten within the right-of-way of future Otay Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds. 2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Ten and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road. Prior to the Final Map approving the 580th Residential Dwelling Unit (Single Family and/or Multi-Family Residential) for Village Ten, the new water line shall be constructed.	X	X			City of Chula Vista				
A potentially significant land use compatibility impact may occur if any residential units in Village Three North and a Portion of Village Four shall be constructed within 1,000 feet from the then active solid waste disposal areas of the Otay Landfill at the time of approval of building permits for those units within Village Three North and a Portion of Village Four.	**MM LU-4**	Prior to approval of each residential building permit in Village Three North and a Portion of Village Four, the applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that each proposed residential unit to be constructed shall be located at least 1,000 feet away from the then active solid waste disposal areas of the Otay Landfill as required by General Plan Policy E 6.4 (as corrected) and by Section 2.5 of the Amended and Restated Otay Landfill Expansion Agreement. The City shall deny any building permit application regarding any residential lot or parcel that does not comply with this Mitigation Measure.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 5.2 Landform and Aesthetics											
The project would permanently alter the character of the project site from open, rolling topography to urban development. This impact would be potentially significant prior to mitigation.	MM AES-1	Prior to issuance of the first Final Maps for Village Three North, Village Eight East, and Village Ten, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a Landscape Master Plan. The Landscape Master Plan shall demonstrate compliance with Otay Ranch GDP Policies pertaining to softening manufactured slopes, particularly on visible manufactured slopes greater than 25 feet in height, through plant selection, placement, and density, etc. The Landscape Master Plan shall also demonstrate compliance with Otay Ranch GDP Policies pertaining to blending development harmoniously with natural features of the land including the OVRP and its major canyons.	X	X			City of Chula Vista				
Future lighting and shade and shadow impacts cannot be determined at this time because the location, size, and orientation of future buildings are not yet known. Therefore, these impacts are considered potentially significant prior to mitigation.	MM AES-2	Concurrent with the preparation of site-specific plan(s) for park sites and prior to issuance of a building permit for any park, the Applicant shall prepare, or in the case of the City being the lead on the preparation of the site specific plan, the Applicant shall fund the preparation of a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and demonstrate that the proposed height, location, and intensity of all exterior lighting complies with the City's performance standards for light, and glare (Chula Vista Municipal Code19.66.100).	X	X			City of Chula Vista				
	MM AES-3	Concurrent with design review and prior to the issuance of building permits for mixed-use residential, commercial, Community Purpose Facility and multi-family residential, the Applicant shall prepare a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and demonstrate that the proposed height, location, and intensity of all exterior lighting complies with the City's performance standards for light, and glare (Chula Vista Municipal Code19 19.66.100).	X	X			City of Chula Vista				
	MM AES-4	Prior to design review approval for any structure three stories and above, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a shadow analysis demonstrating that adjacent shadow-sensitive uses are not permanently shadowed, and/or any other approved city-standard in place at the time the shadow analysis is performed.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 5.3 Transportation, Circulation, and Access										
The project would result in direct impacts related to access and frontage, and circulation system assumptions in Year 2015, Year 2020, Year 2025, and Year 2030 conditions. The project would result in direct and cumulative impacts to intersections, roadway segments, freeway/state highways in Year 2020, Year 2025, and Year 2030 conditions. The project would result in significant and unavoidable cumulative impacts in Year 2020, Year 2025, and Year 2030 conditions. Mitigation measures are included to reduce direct and cumulative impacts, but they would not be mitigated to a level below significance. Some impacts remain significant due to infeasible mitigation (see Section 5.3.6 and/or Section 8.0). In the event that the proposed project is not phased in accordance with the assumed phasing schedule as identified in Table 4.3, potentially significant	**MM TCA-1** Prior to the issuance of the building permit for the 2,463rd DU for development east of I-805 commencing from April 4, 2011, the Applicant may: a) Prepare a traffic study that demonstrates, to the satisfaction of the City Engineer, that the circulation system has additional capacity without exceeding the GMO traffic threshold standards. The City's determination regarding the adequacy of the circulation system shall be based on whether the quality of life threshold standards for traffic set for in the City of Chula Vista GMO (Chapter 19.09 of the Chula Vista Municipal Code) are met; The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments, except, that during peak hours a LOS "D" can occur for no more than two hours; or b) Demonstrate that other improvements are constructed which provide the additional necessary capacity to comply with the GMO (Chapter 19.09 of the Chula Vista Municipal Code)traffic threshold to the satisfaction of the City Engineer; or c) Agree to the City Engineer's selection of an alternative method of maintaining GMO traffic threshold compliance. The City's determination regarding the scope and timing of the alternative method shall be based on demonstrated compliance with the GMO traffic thresholds; or d) Enter into agreement, approved by the City, with other Otay Ranch developers that alleviates congestion and achieves GMO traffic threshold compliance for Olympic Parkway. The agreement will identify the deficiencies in transportation infrastructure that will need to be constructed, the parties that will construct said needed infrastructure, and a timeline for such construction, as well as providing assurances for construction, in accordance with the City's customary requirements, for said infrastructure. If GMO compliance cannot be achieved through 1a, 1b, 1c, or 1d, then the City shall stop issuing new building permits within the project area, after building permits for 2,463 DU have been issued for any development east of I-805 after April 4, 2011, until such time that GMO traffic threshold standard compliance can be assured to the satisfaction of the City Manager. These measures shall constitute full compliance with growth management objectives and policies in accordance with the requirements of the General Plan, Chapter 10, and with regard to traffic thresholds set forth in the GMO.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-2 Project Applicant shall construct the access and frontage improvements consistent with the triggers identified in Table 5.3-56 (Attachment A) to the satisfaction of the Development Services Director and the City Engineer.	X	X			City of Chula Vista				
	MM TCA-3 The year 2015 scenario assumes the following intersection and roadway improvements are in place: • Phase 1 of the I-805 South Project, including improvements to I-805 between Home Avenue and East Palomar Street • Heritage Road, south of Main Street to the Chula Vista city limit as a 4-lane Major Road with Raised Median If the first final map containing the 611th EDU is submitted for approval prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken, each to the satisfaction of the City Engineer: i. Development in Village Three and the Portion of Village Four shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-4	**Intersections**: I-805 SB Ramps / Olympic Parkway (CV), I-805 NB Ramps / Olympic Parkway (CV), and Brandywine Avenue / Olympic Parkway (CV); **Roadways**: Olympic Parkway, between I-805 SB Ramps and I-805 NB Ramps (CV); Olympic Parkway, between I-805 NB Ramps and Oleander Avenue (CV); Olympic Parkway, between Oleander Avenue Brandywine Avenue (CV); and Olympic Parkway, between Brandywine Avenue and Heritage Road (CV) – Prior to issuance of the Final Map that contains the 956th equivalent dwelling unit (EDU) in Village Three North, the Project Applicant shall construct Heritage Road, between Olympic Parkway and Main Street, as a Six-Lane Prime Arterial.	X	X			City of Chula Vista				
	MM TCA-5	Heritage Road / Main Street (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 751st EDU in Village Three North, the Project Applicant shall signalize Heritage Road / Main Street intersection.	X	X			City of Chula Vista				
	MM TCA-6	La Media Road (SB) / Main Street (WB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (SB) /Main Street (WB) intersection.	X	X			City of Chula Vista				
	MM TCA-7	La Media Road (NB) / Main Street (WB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (NB) /Main Street (WB) intersection.	X	X			City of Chula Vista				
	MM TCA-8	La Media Road (SB) / Main Street (EB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (SB) /Main Street (EB) intersection.	X	X			City of Chula Vista				
	MM TCA-9	La Media Road (NB) / Main Street (EB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (NB) / Main Street (EB) intersection.	X	X			City of Chula Vista				
	MM TCA-10	Magdalena Avenue / Main Street (one-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 1,693rd EDU in Village Eight East, the Project Applicant shall signalize the Magdalena Avenue / Main Street intersection	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-11 The year 2020 scenario assumes the following intersection and roadway improvements are in place: • Heritage Road, south of Main Street to the Chula Vista city limit as a 6-lane Prime Arterial • Otay Lakes Road between H Street and Telegraph Canyon Road as a 6-lane Prime Arterial If the first Final Map containing the 4,070th EDU is submitted for approval prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken each to the satisfaction of the City Engineer: i. Development in Village Three and the Portion of Village Four and Village Eight East shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-12 **Intersections**: Heritage Road / Olympic Parkway (CV) and La Media Road / Olympic Parkway (CV); **Roadways**: Olympic Parkway, between Heritage Road and Santa Venetia Street (CV); and Heritage Road, between East Palomar Street and Olympic Parkway (CV) – Prior to the issuance of each building permit, the Project Applicant shall pay the appropriate Transportation Development Impact Fees (TDIF) for the construction of Main Street, between Heritage Road and La Media Road, as a Six-Lane Prime Arterial, including the construction of Main Street bridge, the signalization of Quarry Driveway / Main Street (Int #65), and the signalization of Village Three North R-20 Driveway / Main Street (Int #66). The project will signalize the intersection of Village Three North R-20 Driveway / Main Street (Int #66) in conjunction with the construction of Main Street, while the TDIF program will signalize the intersection of Quarry Driveway / Main Street (Int #65). The analysis shows the need for Main Street from the Heritage Road to La Media Road is triggered by the 4,737th EDU. If the project equivalent dwelling unit limit of 4,736 EDU is reached prior to this roadway segment being constructed and open to traffic, then one of the following steps shall be taken as determined by the City Engineer: i. Development in Villages Three North, Eight East, and Ten shall stop until the future roadway is constructed by the City; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway link and receive a transportation development impact fee credit for the improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-13 **Intersection**: Discovery Falls Drive / Hunte Parkway (CV) – Prior to issuance of the 1,295th EDU of Village Ten, the Project Applicant shall construct a dedicated right-turn lane at the northbound Discovery Falls Drive approach to the Discovery Falls Drive/Hunte Parkway intersection.	X	X			City of Chula Vista				
	MM TCA-14 I-805 Northbound On-Ramp at Main Street - Prior to project buildout, the Project Applicant shall work with Caltrans to, and Caltrans can and should, adjust the ramp meter rate at the I-805 northbound on ramp at Main Street such that the ramp meter reflects the additional vehicle traffic attributable to the project.	X	X	X	X	City of Chula Vista				
	MM TCA-15 The Project Applicant shall incorporate the following measures as part of the project design and development, consistent with the identified triggers, to the satisfaction of the Development Services Director: • Implement pedestrian circulation improvements to improve the internal pedestrian circulation and encourage the usage of public transportation (concurrent with the approval of improvement plans for each village). • Implement bicycle circulation improvements to improve internal bicycle circulation and encourage the usage of bicycles (concurrent with the approval of improvement plans for each village). • Participate in car sharing and bike sharing programs through HOA noticing, should such programs become available. • Promote Carpool/Vanpool programs by providing preferential parking for carpools and vanpools (concurrent with the approval of site plans for each village core). • Promote available websites providing transportation options for residents and businesses (concurrent with issuance of certificate of occupancy). • Create and distribute a "new resident" information packet addressing alternative modes of transportation (concurrent with issuance of certificate of occupancy). • Promote programs to encourage workplace peak hour trip reduction, including staggered work hours, regional ride-matching services, and telecommuting (concurrent with issuance of certificate of occupancy). • Orient buildings to the main street or activity area, such that they are not separated from the street by vast parking areas or fences, thereby encouraging pedestrian traffic (concurrent with the approval of site plans for each village core). • Where transit is available on-site, participate in providing the necessary transit facilities, such as bus pads, shelters, signs, lighting, and trash receptacles (concurrent with the approval of improvement plans for each village). • Coordinate with the MPO as to the future siting of transit stops/stations within the project site (concurrent with the approval of improvement plans, and/or site plans, for each village).	X	X	X	X	City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM TCA-16 The year 2030 scenario assumes the following intersection and roadway improvements are in place: • Main Street between SR-125 right-of-way (western boundary) and Eastlake Parkway/University Drive is constructed as a 6-lane Gateway Street (6,432nd EDU) • SR-125 / Main Street interchange constructed (6,432 EDU) • Otay Valley Road constructed between SR-125 right-of-way (western boundary) and Village Nine Street "B" (Int #74), including an overpass at SR-125 (7,767th EDU). If the project equivalent dwelling unit limit of EDUs identified above is submitted for approval prior to the respective improvements being constructed and open to traffic, then one of the following steps shall be taken each to the satisfaction of the City Engineer: i. Development in Village Three and Portion of Village Four, Village Eight East, and Village Ten shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway links an receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic.	X	X	X		City of Chula Vista				
	MM TCA-17 The proposed project shall be implemented, or phased, consistent with the development timeframe set forth in Project Description Table 4-3. In the event that project development substantially deviates from the phasing set forth in Table 4-3 (e.g., Village Three being built first, followed by Village Eight East and then Village Ten), the Applicant, or its designee, shall conduct additional environmental analysis consistent with the requirements of CEQA and as approved by the Development Services Director, or designee. Additional analysis may include a supplemental traffic study that analyzes the potential traffic circulation impacts associated with the phasing deviation, and identifies new circulation improvements or other mitigation measure(s), if needed.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 5.4 Air Quality											
Daily construction emissions for CO and SO_x, would not exceed the City's significance thresholds. However, the VOC, NO_x, PM_{10} and $PM_{2.5}$ emissions associated with project construction would exceed the City of Chula Vista's emission threshold and impacts would be significant and unavoidable. Daily operational emissions for SO_x would not exceed the City's significance thresholds. However, the VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions associated with operation of the project would exceed the City of Chula Vista's significance thresholds. This impact, therefore, is considered significant and unavoidable.	**MM AQ-1**	Prior to approval of any grading permits, the Project Applicant or its designee shall place the following on all grading plans to the satisfaction of the Development Services Director and City Engineer, and these requirements shall be implemented during grading of each phase of the project to minimize NOx emissions: • Minimize simultaneous operation of multiple construction equipment units. During construction, vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions; • All construction equipment shall be outfitted with best available control technology (BACT) devices certified by CARB. A copy of each unit's BACT documentation shall be provided at the time of mobilization of each applicable unit of equipment; • All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications; • All diesel-fueled, on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used, or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible; • The effectiveness of the latest diesel emission controls is highly dependent on the sulfur content of the fuel. Therefore, diesel fuel used by on- and off-road construction equipment shall be low sulfur (less than 15 ppm) or other alternative, low-polluting diesel fuel formulation; • The use of electrical construction equipment shall be employed where feasible; • The use of catalytic reduction for gasoline-powered equipment shall be employed where feasible; • The use of injection timing retard for diesel-powered equipment shall be employed where feasible.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM AQ-2 Prior to approval of any grading permits, the Project Applicant or its designee shall place the following Standard Construction Best Management Practices (BMPs) on all grading plans to the satisfaction of the Development Services Director and City Engineer and shall implement these BMPs during project construction to minimize PM10 and PM2.5 emissions, including: • Water, or utilize another acceptable SDAPCD dust control agent on, the grading areas at least twice daily to minimize fugitive dust; • Stabilize grading areas as quickly as possible to minimize fugitive dust; • Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry; • Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads; • Remove any visible track-out into traveled public streets within 30 minutes of occurrence; • Wet wash the construction access point at the end of the workday if any vehicle travel on unpaved surfaces has occurred; • Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads; • Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; • Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 miles per hour (mph); • Cover/water on-site stockpiles of excavated material; • Enforce a 20 mph speed limit on unpaved surfaces; • Pave permanent roads as quickly as possible to minimize dust; • During construction, site grading activities within 500 feet of a school in operation shall be discontinued or all exposed surfaces shall be discontinued or all exposed surfaces shall be watered to minimize dust transport off site to the maximum degree feasible, when the wind velocity is greater than 15mph in the direction of the school; • During blasting, utilize control measures to minimize fugitive dust. Control measures may include, but are not limited to, blast enclosures, vacuum blasters, drapes, water curtains or wet blasting.	X	X	X		City of Chula Vista				
Impacts specific to TACs, including diesel particulate matter generated from traffic volumes on SR-125, would be less than significant. With respect to the development of on-site land uses, impacts arising from the emission of TACs would be potentially significant if the site is developed to accommodate any light industrial uses, gas stations, or dry cleaning facilities in close proximity to sensitive receptors. Neither the state 1-hour standard nor the 8-hour standard would be equaled or exceeded at any of the intersections studied; potential CO hotspot impacts would be less than significant.	**MM AQ-3** Prior to approval of the building permit for any uses that are regulated for TACs by the SDAPCD, the Project Applicant shall demonstrate to the satisfaction of the Development Services Director (or their designee) that the use complies with established criteria (such as those established by SDAPCD Rule 1200 and CARB). Also, gas stations shall not be located within 50 feet of a sensitive receptor, in accordance with CARB's siting recommendations.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	Section 5.5 Noise									
The project would result in potentially significant impacts due to the exposure of sensitive receptors to noise levels in excess of established thresholds.	**MM NOI-1** Site-Specific Acoustical Analysis – Single- and Multi-Family Residential Development - Exterior. Prior to the approval of rough grading permits for residential development adjacent to Main Street and Heritage Road (Village Three), Otay Valley Road, SR-125 and Main Street (Village Eight), and Discovery Falls Drive and University Drive (Village Ten), the Project Applicant or its designee shall: (i) prepare a site-specific acoustical study based on the Final Map design; (ii) construct noise barriers as specified below; and (iii) implement any additional noise control measures recommended as a result of the analysis necessary to achieve compliance with the City's Land Use/Noise Compatibility Guidelines and the City's Noise Ordinance (Municipal Code Section 19.68) for exterior noise sensitive land uses. Implementation of all recommended measures shall be to the satisfaction of the Development Services Director (or their designee) and all required noise control measures shall be made conditions of grading permit issuance. The acoustical study shall include, but not be limited to the following: 1. Specification of the location, height, and building material to be used for the noise barriers to be constructed in accordance with Figures 12, 13 and 14 (Approximate Sound Wall Locations), contained in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014). The sound wall noise barriers shall be a minimum of six feet in height, must have a surface density of at least four pounds per square foot, and be free of openings and cracks (with the exception of expansion joints gaps and other construction techniques, which could create an opening or crack). The wall may be constructed of acrylic glass, masonry material, earthen berm, or a combination of these materials. Heights are provided relative to final pad elevation. Required heights may be achieved through construction of walls, berms or a wall/berm combination; 2. A detailed analysis that demonstrates that barriers and/or setbacks have been incorporated into the project design, such that noise exposure to residential receivers placed in all useable outdoor areas, including multi-family residential patios and balconies, are at or below 65 dBA CNEL. Measures to reduce noise levels may include, but are not limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation; and 3. Should pad grade elevations, lot configuration/site design, and/or traffic assumptions change during the processing of any Final Maps, the barriers shall be refined to reflect those modifications.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM NOI-2	Site-Specific Acoustical Analysis – Single-Family Residences - Interior. Concurrent with design review and prior to the approval of building permits for single-family residential development where the exterior noise level exceeds 60 dBA CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to ensure that interior noise levels due to exterior noise sources will be at or below 45 dBA CNEL; and (ii) implement all measures recommended as a result of the analysis necessary to achieve compliance with the City's Land Use/Noise Compatibility Guidelines and the City's Noise Ordinance (Municipal Code Section 19.68) for single-family residential interior uses. This mitigation measure shall apply to neighborhoods R-1, R-2, R-9, R-11 and R-20 in Village Three North; and neighborhoods R-11a and R-13 in Village Eight East where exterior noise levels exceed 60 dBA CNEL. Measures to reduce noise levels may include, but are not limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. Design-level architectural plans shall be used to assess the exterior-to-interior transmissions loss for habitable rooms. Contingent upon the results of the interior acoustical analysis, the units may need to include an air conditioning system to provide a habitable interior environment with the windows closed while meeting the interior standard of 45 dBA CNEL. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM NOI-3	Site-Specific Acoustical Analysis – Multi-Family Residences - Interior. Concurrent with design review and prior to the approval of building permits for multi-family areas where first and/or second floor exterior noise levels exceed 60 dBA CNEL and/or where required outdoor area (patios or balconies) noise levels exceed 65 dBA CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to achieve compliance with California's Title 24 Interior Noise Standards (i.e., 45 dBA CNEL) and the City's Exterior Land Use/Noise Compatibility Guidelines for outdoor use areas (i.e., 65 dBA CNEL); and (ii) implement those measures necessary to achieve compliance with all applicable noise standards. This mitigation measure shall apply to neighborhoods R-14a, R-15a, R-16, R-17 and R-18d in Village Eight East; and neighborhoods R-5, R-6, R-7, R-8, R-9, R-10, R-17a, R-17b, R-17c, R-18a, R-18b, R-19a, R-19b, and R-19c in Village Ten, where exterior noise levels exceed 60 dBA CNEL. Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. Design-level architectural plans will be available during design review and will permit the accurate calculation of transmissions loss for habitable rooms. For these areas, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 dBA CNEL. Consequently, the design for buildings in these areas may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the result on the interior acoustical analysis. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM NOI-4	Site-Specific Acoustic Analysis – Non-Residential Commercial and/or Mixed-Use Residential – Exterior. Concurrent with design review and prior to the approval of building permits for non-residential commercial and/or mixed use residential area where exterior noise levels exceed 65 dBA CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to ensure that exterior noise levels at the boundary of the proposed noise sensitive land use will be below 65 dBA CNEL; and (ii) implementation of any measures recommended as a result of the analysis. Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance.	X	X			City of Chula Vista				
	MM NOI-5	Site-Specific Acoustical Analysis – Industrial Zone. As part of the site plan/development plan review process conducted in connection with future industrial development applications submitted to the City, the Applicant or its designee shall prepare a site-specific acoustical analysis to identify those noise control measures necessary to ensure noise levels generated by the proposed use will comply with the City's General Plan noise standards for residential property boundaries proximate to the industrial zone (maximum exterior noise levels of 65 CNEL). The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee). All required noise control measures identified in the acoustical analysis shall be made conditions of development approval.	X	X			City of Chula Vista				
	MM NOI-6	As a condition of approval of the proposed project, the City shall limit the active programming operational hours for neighborhood park sites to 7:00 am–10:00 pm, 7 days a week.	X			X	City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM NOI-7	Concurrent with design review and prior to the approval of building permits for the elementary schools: an acoustical analysis shall be prepared identifying the noise control measures necessary to ensure that noise levels at exterior use areas (i.e., playground, sports fields, athletic courts, etc.) will be below 65 dBA CNEL and requiring implementation of any measures recommended as a result of the analysis. Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The acoustical analysis shall also address control measures for outdoor school activity noise and its effect upon immediately adjacent residential land uses, to ensure school activity related noise levels do not exceed 65 dB CNEL at exterior use areas of adjacent residential properties. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. The acoustical analysis shall be prepared consistent with all applicable requirements to the satisfaction of the school district, and all required noise control measures identified in the acoustical analysis shall be made conditions of development approval. Mitigation measure NOI-7 is consistent with the *School Site Selection and Approval Guide* prepared by the California Department of Education, which provides that if a school district is considering a potential school site near a freeway or other source of noise, it should hire an acoustical engineer to determine the level of sound that location is subject to and assist in designing the school site that should be chosen. The *Guide* provides further that the American Speech-Language-Hearing Association guidelines recommend that in classrooms sounds dissipate in 0.4 seconds or less (and not reverberate) and that background noise not rise above 30 decibels.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Project generated construction noise would pose a potentially significant impact on noise-sensitive receptors if construction hour limitations are not imposed. However, with adherence to a restricted construction schedule dictating project-related site preparation and construction activities limited to the hours between 7:00 am–6:00 pm, Monday–Friday and between the hours of 8:00 am–6:00 pm Saturday, significant construction-related noise impacts could be avoided.	**MM NOI-8**	The Project Applicant or its designee shall limit all project-related site preparation and construction activities to the hours between 7:00 am–6:00 pm, Monday–Friday, and between 8:00 am–6:00 pm Saturday. No construction activities shall occur on Federal holidays (e.g., Thanksgiving, July 4th, Labor Day, etc.). All maintenance of construction equipment shall be limited to the same hours. This language shall be added to the project grading plans. Minor construction (i.e., minor household do-it-yourself type projects) and non-noise-generating construction activities such as interior painting are not subject to these restrictions.		X	X		City of Chula Vista				
Blasting may be required in the Village Four Community Park (P-2) area. Although this would not exceed any City thresholds, blasting, if determined to be necessary, is considered to have a potentially significant impact unless mitigated.	**MM NOI-9**	Prior to the issuance of a grading permit, and in the event that blasting is proposed in Village Four, the Project Applicant or its designee shall prepare a blasting plan to ensure that exterior noise levels at noise sensitive land uses are in compliance with the City of Chula Vista General Plan Exterior Land Use / Noise Compatibility Guidelines and the City's Noise Ordinance Exterior Noise Limits. The plan shall be prepared by a licensed blasting engineer and identify when such blasting events would occur, the approximate amount of explosives to be used (which amount shall be limited to the extent practicable so as to minimize resulting noise), and the location and proximity of the blasting event relative to sensitive receptors. If deemed beneficial for noise reduction purposes, the plan shall include a requirement that blasting mats be used. The blasting plan shall also detail the surrounding zone in which noise-sensitive land uses would be notified of planned blasting activities, and of the nature of audible warning signals to be used just prior to blasting. The blasting plan shall be prepared to the satisfaction of the Development Services Director (or their designee), and all noise control measures identified in the blasting plan shall be made conditions of grading permit issuance.	X	X			City of Chula Vista				
	Section 5.7 Cultural Resources										
Development of Village Three North and a Portion of Village Four, Village Eight East, Village Ten, and Off-Site Improvement Areas could cause a substantial change in the significance of identified archaeological resource as defined in CEQA Guidelines Section 15064.5 impacts to these sites would be potentially significant.	**MM CUL-1**	Prior to issuance of land development permits, including clearing or grubbing and grading permits, the Applicant shall provide written confirmation and incorporate into grading plans, to the satisfaction of the Development Services Director or their designee, that a principal investigator (PI) meeting the criteria listed in the Secretary of the Interior guidelines (36 CFR 61) has been retained in an oversight capacity to ensure that an archaeological monitor(s) will be present during all cutting of previously undisturbed soil. If these cutting activities occur in more than one location, multiple monitors shall be provided to monitor these areas, as determined necessary by the PI. Native American monitoring will only be required in the event that human remains are discovered and identified as Native American. The location and duration of monitoring by a Native American representative will be determined by the Consulting Archaeologist and will be focused strictly upon the area corresponding to the discovery of human remains.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM CUL-2 During the initial grading of previously undisturbed soils within the SPA Plan areas) and off-site improvement areas, prehistoric and historic resources may be encountered. In the event that the archaeological monitor identifies a potentially significant site, the monitor shall secure the discovery site from further impacts by delineating the site with staking and flagging, and by diverting grading equipment away from the archaeological site. Following notification to the City, the archaeological monitor shall conduct investigations as necessary to determine if the discovery is significant under the criteria listed in CEQA and the environmental guidelines of the City. If the discovery is determined to be not significant, grading operations may resume and the archaeological monitor shall summarize the findings in a letter report submitted to the City following the completion of mass grading activities. The letter report shall describe the results of the on-site archaeological monitoring, each archaeological site observed, the scope of testing conducted, results of laboratory analysis (if applicable), and conclusions. The letter report shall be completed to the satisfaction of the City of Chula Vista's Development Services Director or their designee prior to the release of grading bonds. Any artifacts recovered during the evaluation of resources shall be curated at a facility approved by the City.			X		City of Chula Vista				
	MM CUL-3 For the cultural prehistoric/historic resources that are determined to be significant, alternate means of achieving mitigation shall be pursued. In general, these forms of mitigation include: 1. site avoidance by preservation of archaeological site in a natural state in open space, or in specific open space easements, 2. site avoidance by preservation through capping the site and placing landscaping on top of the fill, 3. data recovery through implementation of an excavation and analysis program, 4. a combination of one or more of the above measures. See Chapter 9.0 in the *Cultural Resources Study for the University Villages Project at Otay Ranch* (Appendix F of this EIR) for the detailed mitigation and monitoring program for each of the identified significant sites that would be impacted.			X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM CUL-4	For those sites that are found to contain significant resources and for which avoidance and preservation is not feasible or appropriate, the Applicant shall prepare a Data Recovery Plan. The plan will, at a minimum, include the following: 1. a statement of why data recovery is appropriate as a mitigation measure, 2. a research plan that explicitly provides the research questions that can reasonably be expected to be addressed by excavation and analysis of the site, 3. a statement of the types and kinds of data that can reasonably be expected to exist at the site and how these data will be used to answer important research questions, 4. a step-by-step discussion of field and laboratory methods to be employed, 5. provisions for curation and storage of the artifacts, notes, and photographs will be stated. Grading operations within the affected area may resume once the site has been fully evaluated and mitigated to the satisfaction of the Development Services Director or their designee. All artifacts collected during the survey, test, data recovery, and monitoring programs for this project shall be permanently curated at a qualified facility approved by the City of Chula Vista. Artifacts shall be prepared for curation in accordance with the guidelines of the selected curation facility.			X		City of Chula Vista				
	MM CUL-5	Following the completion of mass grading operations, the Applicant shall prepare a plan that addresses the temporary on-site presentation and interpretation of the results of the archaeological studies for the proposed project. This could be accomplished through exhibition within a future community center, civic building and/or multi-purpose building. Any artifacts used for public displays shall be selected from the curated collections originating from the project. This exhibition will only be for temporary display of artifacts for public interpretation and display purposes. Artifacts selected for the exhibit shall be withdrawn on loan from the curation facility and will subsequently be returned to that facility upon the close of the exhibition. The applicant will be responsible for the artifacts during the display period and for the return of the artifacts at the close of the exhibition. The consulting archaeologist shall act on the applicant's behalf to coordinate the curation of all collections and the subsequent use of selected artifacts for the public display.			X		City of Chula Vista				
Any disturbance of human remains that may occur during project grading or construction would be significant. Therefore, impacts would be potentially significant and mitigation would be required to reduce potential impacts.	MM CUL-6	If human remains are discovered during grading or site preparation activities within the SPA Plan area(s) and off-site improvement areas, the archaeological monitor shall secure the discovery site from any further disturbance. State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to the origin and disposition of the remains pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most likely Descendent (MLD) of the deceased Native American. The MLD will assist the City in determining what course of action shall be taken to deal with the remains. Grading operations within the affected area may resume once the site has been fully evaluated and mitigated to the satisfaction of the Development Services Director or their designee. The Archaeological Monitor shall summarize the findings in a letter report to the City following the completion of mass grading activities.			X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 5.7 Paleontological Resources											
Geologic formations with high and moderate potential for paleontological resources occur on site. Based upon the recognized potential to encounter fossils in these formations, impacts are considered potentially significant, and mitigation measures would be required.	**MM PAL-1**	Prior to the issuance of grading permits for the proposed project, including the Off-site Improvement Areas, the Applicant shall confirm to the Development Services Director, or their designee, that a qualified paleontologist (QP) has been retained to carry out an appropriate mitigation program. A QP is defined as an individual with a doctorate or a master's degree in paleontology or geology, who is familiar with paleontological procedures and techniques. A pre-grade meeting shall be held between the paleontologist and the grading and excavation contractors.	X	X			City of Chula Vista				
	MM PAL-2	A paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., San Diego, Otay, and Sweetwater formations) to inspect cuts for contained fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.) The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on site on at least a half-time basis during the original cutting of previously undisturbed sediments of moderately sensitive geologic formations (i.e., unnamed river terrace deposits of the Mission Valley Formation) to inspect cuts for contained fossils. A. The monitor shall be on site on at least a quarter-tie basis during the original cutting of previously undisturbed sediments of low sensitivity geologic formations (i.e., Lindavista Formation and Santiago Peak Volcanics [metasedimentary portion only] to inspect cuts for contained fossils. He or she shall periodically (every several weeks) inspect original cuts in deposits with an unknown resource sensitivity (i.e., Quaternary alluvium). B. In the event that fossils are discovered in unknown, low, or moderately sensitive formations, the Applicant shall increase the per-day field monitoring time. Conversely, if fossils are not discovered, the monitoring, at the discretion of the Planning Department, shall be reduced. A paleontological monitor is not needed during grading of rocks with no resource sensitivity (i.e., Santiago Peak Volcanics, metavolcanic portion).			X		City of Chula Vista				
	MM PAL-3	When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site.			X		City of Chula Vista				
	MM PAL-4	Prepared fossils along with copies of all pertinent field notes, photos, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.			X	X	City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	Section 5.8 Biological Resources										
Prior to mitigation implementation of the proposed project would result in significant direct and indirect impacts to "covered" sensitive plant species include the following: Otay tarplant, variegated dudleya, and San Diego barrel cactus. Otay tarplant and variegated dudleya are identified in the MSCP Subarea Plan as narrow endemics. Significant impacts to non-covered species include California adolphia, south coast saltscale, San Diego marsh-elder, singlewhorl burrobush, and Robinson's pepper grass. Implementation of the proposed project would result in the direct loss of habitat for all of the special-status animals and is considered significant prior to mitigation. Long-term indirect impacts to special-status wildlife species would also occur as a result of the proposed project. Impacts would consist of lighting, human activity in the Preserve, noise, and domestic animal predation. Indirect impacts to special-status wildlife species are considered significant prior to mitigation.	**MM BIO-1**	Prior to the approval of the first Final Map for the project, the Project Applicant shall coordinate with the City of Chula Vista (City) Engineer and annex the project area within the Otay Ranch Preserve Community Facilities District No. 97-2. Prior to the recordation of each Final Map, the Applicant shall convey land within the Otay Ranch Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at a ratio of 1.188 acres for each acre of "Developable Area" as defined by the RMP. Access for maintenance purposes shall also be conveyed to the satisfaction of the POM. Each tentative map shall be subject to a condition that the Applicant shall execute a maintenance agreement with the POM stating that it is the responsibility of the Applicant to maintain the conveyed parcel until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance responsibilities. The Applicant shall maintain and manage the offered conveyance property consistent with the RMP Phase 2 until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance and management responsibilities. Prior to the POM's formal acceptance of the conveyed land in fee title, the Project Applicant shall prepare, to the satisfaction of the POM, Area Specific Management Directives (ASMDs) for the associated conveyance areas. The ASMDs shall incorporate the guidelines and specific requirements of the Otay Ranch RMP plans and programs, management requirements of Table 3-5 of the MSCP Subregional Plan, and information and recommendations from any relevant special studies. Guidelines and requirements from these documents shall be evaluated in relationship to the Preserve configuration and specific habitats and species found within the associated conveyance areas and incorporated into the ASMDs to the satisfaction of the POM.	X	X			City of Chula Vista				
	MM BIO-2	Prior to the issuance of any land development permits that impact maritime succulent scrub, including clearing and grubbing or grading permits, the Project Applicant shall prepare a restoration plan to restore impacts to maritime succulent scrub at a 1:1 ratio pursuant to the Otay Ranch RMP. A total of 5.5 acres will require restoration. The maritime succulent scrub restoration shall be prepared by a City-approved biologist and to the satisfaction of the Development Services Director (or their designee) pursuant to the Otay Ranch RMP restoration requirements. The restoration plan shall include, at a minimum, an implementation strategy; species salvage and relocation; appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project Applicant shall also be required to implement the revegetation plan subject to the oversight and approval of the Development Services Director (or their designee).	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM BIO-3	Prior to issuance of land development permits, including clearing, grubbing, grading and construction permits for the Future and Planned Facilities associated with Village Ten, the Project Applicant shall provide a revegetation plan for temporary impacts to 0.3 acres of coastal sage scrub habitat. The revegetation plan must be prepared by a qualified City-approved biologist familiar with the City's MSCP Subarea Plan and must include, but not be limited to, an implementation plan; appropriate seed mixtures and planting method; irrigation method; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project Applicant shall be required to prepare and implement the revegetation plan subject to the oversight and approval of the Development Services Director (or their designee).	X	X			City of Chula Vista				
	MM BIO-4	Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the preserve and the off-site facilities located within the preserve, the Project Applicant shall provide written confirmation that a City-approved biological monitor has been retained and shall be on site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the City's MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project. Before construction activities occur in areas containing sensitive biological resources within the off-site facilities area, all workers shall be educated by a City-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Prior to mitigation, sensitive vegetation communities to be permanently impacted include non-native grassland, freshwater marsh, cismontane alkali marsh, disturbed cismontane alkali marsh, coastal sage scrub, disturbed coastal sage scrub, broom baccharis scrub, maritime succulent scrub, disturbed maritime succulent scrub, mulefat scrub, southern mixed chaparral, tamarisk scrub, and southern willow scrub. Impacts to sensitive vegetation communities would be significant prior to mitigation.	**MM BIO-5**	Prior to issuance of grading permits in portions of the SPA Plan areas that are adjacent to the Preserve, the Project Applicant shall install fencing. Prior to issuance of land development permits, including clearing, grubbing, grading and/or construction permits, the Project Applicant shall install fencing in accordance with Chula Vista Municipal Code (CVMC) 17.35.030. Prominently colored, well-installed fencing and signage shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the preserve and for all off-site facilities constructed within the preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.	X	X			City of Chula Vista				
	MM BIO-6	Prior to issuance of land development permits, including clearing, grubbing, grading, and construction permits, the following notes shall be included on the applicable construction plans to the satisfaction of the Development Services Director (or their designee): • A qualified biologist shall be on site to monitor all vegetation clearing and periodically thereafter to ensure implementation of appropriate resource protection measures. • Dewatering shall be conducted in accordance with standard regulations of the RWQCB. A permit to discharge water from dewatering activities will be required. This will minimize erosion, siltation, and pollution within sensitive communities. • During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff. • Material stockpiles shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive vegetation communities. • Graded area shall be periodically watered to minimize dust that may affect adjacent vegetation.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
The project would coordinate with the County for those areas located outside of Otay Ranch and within the County's jurisdiction. However, since impacts to native upland vegetation communities and wetland habitats are considered significant under the City's HLIT Ordinance, impacts would be potentially significant and mitigation would be required.	MM BIO-7	Prior to issuance of any land development permits, including clearing or grubbing and grading and/or construction permits, the project will be required to obtain a HILT Permit pursuant to Section 17.35 of the Chula Vista Municipal Code for impacts to Chula Vista MSCP Tier I, II, and II vegetation communities as shown below in Tables 5.8-24 and 5.8-25 and in accordance with Table 5-3 of the City of Chula Vista MSCP Subarea Plan. These impacts are due to the proposed development and are not associated with Planned or Future Facilities. Mitigation for off-site impacts outside of Otay Ranch will be in accordance with the City of Chula Vista MSCP Subarea Plan and the City's Habitat Loss and Incident Take (HLIT) ordinance and as provided in the HLIT Findings. Mitigation for impacts associated with the landfill (off-site Area 5) is not required. Prior to issuance of any land development permits, the Applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City's MSCP Subarea Plan. In compliance with the City's MSCP Subarea Plan, the Applicant shall secure mitigation credits within a City/Wildlife Agency-approved Conservation Bank or other approved location offering such credits consistent with the ratios specified in Tables 5.8-24 and 5.8-25. The Applicant shall be required to provide verification of purchase to the City, prior to issuance of any land development permits. In the event that a Project Applicant is unable to secure mitigation through an established mitigation bank approved by the City and Wildlife Agencies, the Project Applicant shall secure the required mitigation through the conservation of an area containing in-kind habitat within the City's MSCP Subarea Plan or MSCP Planning Area in accordance with the mitigation ratios contained in Table5-3 of the City's MSCP Subarea Plan and subject to Wildlife Agency concurrence. Prior to issuance of any land development permit, and to the satisfaction and oversight of the City's Development Services Director (or their designee), the Applicant shall secure the parcel(s) that will be permanently preserved for in-kind habitat impact mitigation, prepare a long-term Management and Monitoring Plan (MMP) for the mitigation area, secure an appropriate management entity to ensure long-term biological resource management and monitoring of the mitigation area is implemented in perpetuity, and establish a long-term funding mechanism for the management and monitoring of the mitigation area in perpetuity. The long-term MMP shall provide management measures to be implemented to sustain the viability of the preserved habitat and identify timing for implementing the measures prescribed in the MMP. The mitigation parcel shall be restricted from future development and permanently preserved through the recordation of a conservation easement or other mechanism approved by the Wildlife Agencies as being sufficient to insure that the lands are protected in perpetuity. The conservation easement or other mechanism approved by the Wildlife Agencies shall be recorded prior to issuance of any land development permits. The Project Applicant shall be responsible for maintaining the biological integrity of the mitigation area and shall abide by all management and monitoring measures identified in the MMP until such time as the established long-term funding mechanism has generated sufficient revenues to enable a City-approved management entity to assume the long-term maintenance and management responsibilities.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Impacts to jurisdictional waters and wetlands would occur as a result of the proposed project. Impacts to jurisdictional waters total 0.56 acre and are all permanent. Impacts to jurisdictional wetlands total 1.03 acres.	MM BIO-8	Prior to issuance of grading permits in portions of the SPA Plan areas that are adjacent to the Preserve, the Project Applicant shall develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be developed, approved, and implemented during construction to control storm water runoff such that erosion, sedimentation, pollution, and other adverse effects are minimized. The following performance measures contained in the Edge Plans shall be implemented to avoid the release of toxic substances associated with urban runoff: • Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures. • Where deemed necessary, storm drains shall be equipped with silt and oil traps to remove oils, debris, and other pollutants. Storm drain inlets shall be labeled "No Dumping–Drains to Ocean." Storm drains shall be regularly maintained to ensure their effectiveness. • The parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants. • Permanent energy dissipaters shall be included for drainage outlets. • The BMPs contained in the SWPPP shall include, but are not limited to, silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydro-seeding. • The project area drainage basins will be designed to provide effective water quality control measures, as outlined in the Water Quality Technical Report. Design and operational features of the drainage basins will include design features to provide maximum infiltration, maximum detention time for settling of fine particles; maximize the distance between basin inlets and outlets to reduce velocities; and establish maintenance schedules for periodic removal of sedimentation, excessive vegetation and debris.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
0.05 acre of which includes a compatible use while the remaining acres are permanently impacted. A total of 1.35 acres of jurisdictional areas under the ACOE, RWQCB, and CDFW would be impacted. Impacts to jurisdictional areas under CDFW only are 0.23 acre. Impacts to ephemeral and intermittent unvegetated waters and jurisdictional wetlands are considered significant prior to mitigation.	**MM BIO-9**	The City requires that impacts to wetlands be avoided to the maximum extent possible and where impacts are unavoidable, compensatory mitigation within the Chula Vista Subarea or Chula Vista Planning Area shall be required resulting in no overall net loss of wetlands. A total of up to 1.03 acres of wetland and 0.56 acre of waters of the U.S./State within the project may be impacted within the Development Area. Off-site areas may impact a total of up to 0.98 acre of wetlands and 0.38 acre of waters (0.24 acre of waters of the U.S. and 0.14 acre of water of the State). Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the Project Applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. This plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. Areas under the jurisdictional authority of ACOE and CDFW shall be delineated on all grading plans. Mitigation areas shall occur within the Otay River watershed in accordance with the Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. The Project Applicant shall also be required to implement the Wetlands Mitigation and Monitoring Plan subject to the oversight of the City, ACOE, and CDFW.	X	X	X		City of Chula Vista				
	MM BIO-10	Prior to issuance of land development permits, including clearing, grubbing, and grading permits for areas that impact jurisdictional waters, the Project Applicant shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal Clean Water Act, Section 1600 of the California Fish and Game Code, and the Porter Cologne Water Quality Act have been obtained.	X	X			City of Chula Vista				
	MM BIO-11	The Project Applicant shall implement one of the following prior to the issuance of grading permits for areas impacting vernal pools within Village Three North: 1. The Project Applicant shall restore 240 square feet of vernal pools within the Village Thirteen (resort) planning area. The restoration would involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. The property owner has prepared a Conceptual Vernal Pool Mitigation Plan (Dudek 2008). The Plan includes, but is not limited to an implementation plan, maintenance and monitoring program, estimated completion time, and relevant contingency measures. 2. The Project Applicant shall restore 240 square feet of vernal pools somewhere other than the Village Thirteen (resort) planning area. The restoration would still involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. 3. The Project Applicant shall buy into a mitigation bank in an amount that would mitigate for impacts to 120 square feet of vernal pool.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Prior to mitigation implementation of the proposed project would result in significant direct and indirect impacts to "covered" sensitive plant species include the following: Otay tarplant, variegated dudleya, and San Diego barrel cactus. Otay tarplant and variegated dudleya are identified in the MSCP Subarea Plan as narrow endemics. Significant impacts to non-covered species include California adolphia, south coast saltscale, San Diego marsh-elder, singlewhorl burrobush, and Robinson's pepper grass. Implementation of the proposed project would result in the direct loss of habitat for all of the special-status animals and is considered significant prior to mitigation. Long-term indirect impacts to special-status wildlife species would also occur as a result of the proposed project. Impacts would consist of lighting, human activity in the Preserve, noise, and domestic animal predation. Indirect impacts to special-status wildlife species are considered significant prior to mitigation.	**MM BIO-12**	Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable sensitive biological resources, including Otay tarplant, variegated dudleya, San Diego barrel cactus, San Diego bur-sage, singlewhorl burrobush, south coast saltscale, San Diego marsh-elder, and Robinson's pepper grass (including plant materials and soils/seed bank), the Project Applicant shall prepare a Resource Salvage Plan. The Resource Salvage Plan shall be prepared by a City-approved biologist to the satisfaction of the Development Services Director (or their designee). The Resource Salvage Plan shall, at a minimum, evaluate options for plant salvage and relocation, including individual cactus salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Preserve. The Resource Salvage Plan shall include incorporation of relocation efforts for non-covered species, including singlewhorl burrobush, south coast saltscale, San Diego marsh-elder, and Robinson's pepper grass, species that are all considered special-status by the CEQA and that would be impacted with project implementation. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site and will be based on the most reliable methods of successful relocation. The program shall also contain a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The program shall also be subject to the oversight of the Development Services Director (or their designee).	X	X	X		City of Chula Vista				
	MM BIO-13	To avoid any direct impacts to raptors and/or any migratory birds protected under the MBTA, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the breeding season for these species. The breeding season is defined as February 15 to August 15 for coastal California gnatcatcher and other non-raptor birds and January 15 to August 31 for raptor species. If removal of habitat on the proposed area of disturbance must occur during the breeding season, the Project Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, and the results must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are 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 Mitigation Monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.		X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM BIO-14	Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Project Applicant shall retain a City-approved biologist to conduct focused surveys for northern harrier to determine the presence or absence of this species within 900-feet of the construction area. The pre-construction survey must be conducted within10 calendar days prior to the start of construction. The results of the survey must be submitted to the City for review and approval. If active nests are detected by the City-approved biologist, a bio-monitor shall be on site during construction to minimize construction impacts and ensure that no nests are removed or disturbed until all young have fledged.	X	X	X		City of Chula Vista				
	MM BIO-15	Prior to issuance of any land development permits (including clearing, grubbing, and grading permits), the Project Applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation plan subject to the review and approval by the Wildlife agencies and City, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.	X	X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM BIO-16 Prior to issuance of grading permits, the Project Applicant shall submit evidence to the satisfaction of the Development Services Director (or their designee), showing that the following features of the Preserve Edge Plans (Otay Ranch Company 2013a through 2013c) have been incorporated into grading and landscaping plans: 1. Provide post and fencing and signage for sensitive habitat adjacent to trails. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for the project, the project owner shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access to the Preserve. The wall and fence plans shall, at a minimum, illustrate the locations and cross-sections of proposed walls, fences, informational and directional signage, access controls, and/or boundary markers along the Preserve boundary and off-site pedestrian trails as conceptually described in the Edge Plans. The required wall and fence plan shall be subject to the approval of the Development Services Director (or their designee). 2. Install canyon subdrains to prevent erosion of drainage and wetlands within the Preserve. 3. Prevent release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem within the Preserve. 4. Implement all necessary requirements for water quality as specified by the State and local agencies 5. Phase out agricultural uses adjacent to the Preserve to remove pollutants from the project site. 6. No invasive non-native plant species shall be introduced into areas immediately adjacent to, or within, the Preserve. All slopes immediately adjacent, or within, to the Preserve shall be planted with native species that reflect the adjacent native habitat, per the Edge Plan. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for 1) areas within the 100-foot Preserve edge, and 2) infrastructure (e.g., roads, trails, utilities, etc.) sited within the Preserve, the Project Applicant shall prepare and submit to the satisfaction of the Development Services Director (or their designee) landscape plans to ensure that the proposed plant palette is consistent with the plant list contained in the Preserve Edge Plans for each village. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the Preserve. The manual weeding program shall describe, at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasive species, and a maintenance/monitoring schedule. All fuel modification shall be incorporated into development plans and shall not include any areas within the Preserve.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM BIO-17: In accordance with the City's Adjacency Management Guidelines, the following mitigation measures shall be implemented to further reduce indirect impacts (from lighting, noise, invasive species, toxic substances, and public access) to sensitive biological resources located in the adjacent Preserve areas: 1. *Lighting*. In compliance with the Chula Vista MSCP Subarea Plan, all lighting shall be shielded and directed away from the Preserve. Concurrent with design review and prior to issuance of a building permit for any development located adjacent to the Preserve, the Applicant shall prepare a lighting plan and photometric analysis to the satisfaction of the Development Services Director (or their designee), for review and approval. The lighting plan shall illustrate the location of the proposed lighting standards and type of shielding measures. Low-pressure sodium lighting shall be used, if feasible, and shall be subject to the approval of the Development Services Director (or their designee). 2. *Noise*. Noise impacts adjacent to the Preserve lands shall be minimized. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. A 100-foot buffer around community park areas, specifically Community Parks (P-2) south of Village Eight East and in Portion of Village Four, should be installed in sections adjacent to Preserve habitat occupied by sensitive species such as the coastal cactus wren. Potential noise generating uses, such as baseball diamonds and soccer fields, should be oriented away from sensitive species habitat in these areas. Construction activities shall include noise reduction measures or be conducted outside the breeding season of sensitive bird species. 3. *California Gnatcatcher*. For any work proposed between February 15 and August 15, prior to issuance of any land development permits, including clearing, grubbing, grading, and construction permits, associated with the off-site facilities located within the Preserve, the Project Applicant shall retain a City-approved biologist to conduct a pre-construction survey for the coastal California gnatcatcher to reaffirm the presence and extent of occupied habitat. The pre-construction survey area for the coastal California gnatcatcher shall encompass all habitats within the project work zone, as well as within a 300-foot buffer. The survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the City's MSCP Subarea Plan. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If the coastal California gnatcatcher is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within the occupied habitat from February 15 through August 15 and on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 dB(A) Leq-h at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on-site-specific conditions. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report.		X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
		Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	4. Invasive Species. Prior to issuance of land development permits, including clearing or grubbing and grading and/or construction permits for 1) areas within the 100-foot Preserve edge, and 2) infrastructure (e.g., roads, trails, utilities, etc.) sited within the Preserve, the Project Applicant shall prepare and submit to the satisfaction of the Development Services Director (or their designee), landscape plans to ensure that the proposed plant palette is consistent with the plant list contained in the Preserve Edge Plan. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the preserve. The manual weeding program that shall describe at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasives, and a maintenance/monitoring schedule. 5. Toxic Substances. See MMS BIO-4, BIO-6, BIO-8, BIO-16 6. Public Access. Prior to issuance of grading permits, the Project Applicant shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access into the Preserve. The wall and fence plans shall illustrate the locations and cross-sections of proposed walls and fences along the Preserve boundary, subject to the approval the City's Development Services Director (or their designee).									
	MM BIO-18 In accordance with the City's Adjacency Management Guidelines, the following mitigation measures shall be implemented to further reduce indirect impacts from noise to sensitive biological resources located in the adjacent Preserve areas emanating from the community parks: Concurrent with the preparation of site-specific plan(s), and prior to the approval of a precise grading plan, the Project Applicant shall prepare, or in the case of the City being the lead on the preparation of the site specific plan, the Project Applicant shall fund the preparation of an acoustical analysis to ensure that noise impacts to surrounding Preserve areas have been minimized. The park design shall include measures to minimize noise impacts adjacent to the Preserve. Features that may be included in the park design may include, but are not limited to: • berms or walls; • inclusion of a minimum of 100 feet between the Preserve boundary and park uses where adjacent to habitat occupied by sensitive species such as coastal California gnatcatcher and coastal cactus wren; • allow uses within the 100-foot buffer adjacent to the Preserve that may include access roads, parking, picnic areas, walking paths, and graded slopes; • orient potential noise generating uses such as soccer fields and baseball diamonds away from occupied coastal California gnatcatcher and coastal cactus wren habitat.		X	X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 4.10 Water Quality and Hydrology											
Although construction of the proposed project has the potential to violate water quality standards, compliance with the CBC, the Chula Vista Storm Water Management and Discharge Control Ordinance No 2854, the City of Chula Vista Subdivision Manual, Design and Construction Standards of the City of Chula Vista, San Diego Area Regional Standard Drawings, and Standard Specifications for Public Works Construction, as well as the preparation of site-specific SWPPPs, mitigation would further reduce potential impacts. Even with implementation of BMPs, development would still have the potential to violate water quality standards or waste discharge requirements. This impact would be significant prior to mitigation.	**MM HYD-1**	*Erosion Control.* The developer shall monitor any erosion at the project's outfalls at the Otay River and, prior to the last building permit for the project, obtain approval for and complete any reconstructive work necessary to eliminate any existing erosion and prevent future erosion from occurring, all to the satisfaction of the Development Services Director.		X	X		City of Chula Vista				
	MM HYD-2	*Storm Water Pollution Prevention Plan.* Prior to issuance of each grading permit for each village or any land development permit, including clearing and grading, the Project Applicant shall submit a notice of intent and obtain coverage under the NPDES permit for construction activity from the SWRCB. Adherence to all conditions of the General Permit for Construction Activity is required. The Applicant shall be required under the SWRCB General Construction Permit to develop a SWPPP and monitoring plan that shall be submitted to the City Engineer and the Director of Public Works. The SWPPP shall be incorporated into the grading and drainage plans and shall specify both construction and post-construction structural and non-structural BMPs on site to reduce the amount of sediments and pollutants in construction and post-construction surface runoff before it is discharged into off-site storm water facilities. Section 7 of the City's Storm Water Manual outlines construction site BMP requirements. The SWPPP shall also address operation and maintenance of post-construction pollution prevention measures, including short-term and long-term funding sources and the party or parties that will be responsible for said measures. The grading plans shall note the condition requiring a SWPPP and monitoring plans.	X	X	X	X	City of Chula Vista				
	MM HYD-3	*Supplemental Water Quality Report.* Prior to issuance of each grading permit, the Applicant shall submit supplemental reports to the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, and Village Ten Tentative Map Water Quality Technical Reports, respectively, prepared by Hunsaker and Associates San Diego, Inc. (2014) that identifies which on-site storm water management measures from the Water Quality Technical Report have been incorporated into the project to the satisfaction of the City Engineer. If a storm water management option is chosen by the Applicant that is not shown in the water quality technical report, a project-specific water quality technical report shall be prepared for the parcel, referencing the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, or Village Ten Tentative Map Water Quality Technical Reports, prepared by Hunsaker and Associates and dated March 2014, for information relevant to regional design concepts (e.g., downstream conditions of concern) to the satisfaction of the City Engineer.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM HYD-4	*Post-Construction/Permanent BMPs.* Prior to issuance of each grading permit, the City Engineer shall verify that parcel owners have incorporated and will implement post-construction BMPs in accordance with current regulations. In particular, Applicants are required to comply with the requirements of Section 2c of the City of Chula Vista's Standard Urban Storm Water Management Plan (SUSMP), the Chula Vista Development Storm Water Manual, and the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, and Village Ten Tentative Map Water Quality Technical Report, respectively, or any supplements thereto to the satisfaction of the City Engineer. Specifically, the Applicant shall implement low impact development BMPs in the preparation of all site plans and, the Applicant shall incorporate structural on-site design features into the project design to address site design and treatment control BMPs as well as requirements of the hydromodification management plan. The Applicant shall monitor and mitigate any erosion in downstream locations that may occur as a result of on-site development.				X	City of Chula Vista				
	MM HYD-5	*Limitation of Grading.* The Project Applicant shall comply with the Chula Vista Development Storm Water Manual limitation of grading requirements, which limit disturbed soil area to 100 acres, unless expansion of a disturbed area is specifically approved by the Director of Public Works. With any phasing resulting from this limitation, if required, the Project Applicant shall provide, to the satisfaction of the City Engineer, erosion and sediment control BMPs in areas that may not be completed, before grading of additional area begins.			X		City of Chula Vista				
The net increase in runoff discharged to the Otay River would be a result of an alteration in the existing drainage pattern, which could consequently result in substantial erosion or siltation on- or off-site.	MM HYD-6	*Hydromodification Criteria.* The Project Applicant shall comply, to the satisfaction of the City Engineer, with city hydromodification criteria (Municipal Permit Order R9-2007-0001 as may be amended) or the hydrograph modification management plan, as applicable, addressed regionally at the SPA Plan level concurrent with grading and improvement plans for each village.		X	X		City of Chula Vista				
The proposed project would place drainage structures within a 100-year flood hazard area. In the event of a 100-year flood, the drainage structures would not impede or redirect flows in the project area. However, do to the fact that these structures would be placed within a 100-year flood hazard area impacts could be potentially significant and mitigation would be required.	MM HYD-7	*Scour Analysis.* Concurrent with all grading plan submittals, the Applicant shall prepare a scour analysis for all structures within the 100-year flood hazard area. Additionally, all said structures shall be monitored until the last building permit for the project has been issued.	X	X			City of Chula Vista				
Section 5.11 Geology and Soils											
The exterior concrete flatwork has a potential to experience some uplift due to expansive soil beneath grade. Therefore, impacts associated with expansive soil are considered to be potentially significant.	MM GEO-1	Prior to the issuance of each grading permit for Village Three North and Portion of Village Four, Village Eight East, and Village Ten, the Applicant shall verify that the applicable recommendations in the Geotechnical Investigation prepared by Geocon, dated May 23, 2013; November 21, 2012; and November 20, 2012, respectively, have been incorporated into the final project design and construction documents to the satisfaction of the City Engineer. These recommendations address issues including but not limited to site grading, retaining walls, seismic design, slope stability, backdrain systems, undercuts, excavation and fill, monitoring, and soil testing. Geotechnical review of grading plans shall include a review of all proposed storm drain facilities to ensure the storm water runoff would not interfere with the proposed geotechnical recommendations.	X	X			City of Chula Vista				
	MM GEO-2	All graded slopes shall have a minimum factor of safety of 1.5. Strategies to increase stability may include, but are not limited to, a stability buttress or shear pins. All slope stability strategies shall be to the satisfaction of the City Engineer.			X		City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Section 5.12 Public Services											
Payment of PFDIF fees, implementation of the FPPs, compliance with existing city codes, policies and regulations, and implementation of mitigation measures would ensure that the growth management ordinance threshold standard is achieved. This impact would be potentially significant if these mechanisms are not enforced. Therefore, impacts would be potentially significant and mitigation is required.	**MM PUB-1**	Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall pay a Public Facilities Development Impact Fee (PFDIF) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan, unless stated otherwise in a separate development agreement.	X	X			City of Chula Vista				
	MM PUB-2	Prior to issuance of the first building permit for Village Ten, the Applicant(s) will be required to build a temporary fire station in the currently designated Community Purpose Facilities (CPF) site if a fire station has not yet been built in Village Eight West or the EUC as identified in the Fire Facility Equipment and Deployment Master Plan (FFMP).	X	X			City of Chula Vista and Chula Vista Fire Department				
Payment of PFDIF fees, implementation of the CPTED strategies and design objectives, and compliance with existing city policies and mechanisms would ensure that the growth management ordinance threshold standard is achieved. This impact would be potentially significant if these mechanisms are not enforced. Therefore, impacts would be potentially significant and mitigation is required.	**MM PUB-3**	Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall pay the City's Public Facilities Development Impact Fee (PFDIF) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan, unless stated otherwise in a separate development agreement.	X	X			City of Chula Vista				
	MM PUB-4	The City of Chula Vista will continue to monitor the Chula Vista Police Department responses to emergency calls and report the results to the Growth Management Oversight Commission on an annual basis.				X	City of Chula Vista				
	MM PUB-5	Prior to issuance of each building permit, site plans shall be reviewed by the Chula Vista Police Department or its designee to ensure the incorporation of Crime Prevention through Environmental Design Features (CPTED) features and other recommendations of the Chula Vista Police Department, including but not limited to, controlled access points to parking lots and buildings, maximizing visibility along building fronts, sidewalks and public parks, and providing adequate street, parking lot and parking structure visibility and lighting.	X	X			City of Chula Vista and the Chula Vista Police Department				
If the proposed project does not pay the State mandated fees or enter into a school mitigation agreement, which would guarantee construction of the needed school facilities, there would be a potentially significant impact to elementary, middle, and high schools.	**MM PUB-6**	Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall provide evidence or certification by the Chula Vista Elementary School District (CVSD) that any fee charge, dedication or other requirement levied by the school district has been complied with or that the district has determined the fee, charge, dedication or other requirements do not apply to the construction or that the Applicant has entered into a school mitigation agreement. School Facility Mitigation Fees shall be in accordance with the fees in effect at the time of building permit issuance.	X	X			City of Chula Vista and Chula Vista Elementary School District				
	MM PUB-7	Prior to approval of a Final Map for private development on parcels S-1 in Village Three North, Village Eight East, and Village Ten, designated for future schools, the Applicant shall provide evidence from the CVESD that the site has been determined by the district to not be needed for future use as a school site.	X	X			City of Chula Vista and Chula Vista Elementary School District				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Compliance with the PLDO and Otay Ranch GDP would ensure that impacts associated with parks and recreational facilities as a result of project implementation would be reduced. However, the proposed project would increase the use of existing neighborhood parks and recreational facilities; therefore, impacts would be potentially significant.	**MM PUB-8**	Prior to the approval of each Final Map for the project, or, for any residential development within the project that does not require a Final Map, prior to building permit approval, the Applicant shall either dedicate parkland and/or pay applicable Park Acquisition and Development in-lieu fees in accordance with the phasing indicated in the project's approved SPA Plan, the PFFP, and a park agreement, if any, subject to approval of the Development Services Director or their designee. In-lieu fees shall be based on the Park Acquisition and Development fees in effect at the time of issuance of building permits, unless stated otherwise in a parks or development agreement.	X	X			City of Chula Vista				
	MM PUB-9	Prior to the issuance of each building permit for any residential dwelling units, the Applicant shall pay recreation facility development impact fees (part of the Public Facilities Development Impact Fee) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan, subject to approval of the Development Services Director or their designee.	X	X			City of Chula Vista				
	MM PUB-10	Prior to the approval of the first Final Map for each village (Village Three North, Village Eight East, and Village Ten) the Applicant shall enter into an agreement with the City that provide the following: phased dedication of public park sites, payment of Park Improvement Fees, schedule for completion of improvements, including utilities to streets adjacent to the park sites, all to the satisfaction of the Development Services Director or their designee. Under the current method for delivery of new parks the City will award a design-build contract for the project's neighborhood park. The agreement will include provisions that in the event the City chooses not to go forward with a design-build contract, the Applicant will be obligated to fully comply with the Parkland Ordinance and park threshold standards by constructing the parks in accordance with all City standards and under a time schedule as specified in the agreement.	X	X			City of Chula Vista				
	MM PUB-11	Prior to approval of the first Final Map for each Village, the Applicant shall offer for dedication all public parkland identified in the Project's approved SPA Plan, or as approved by the Development Services Director or their designee. Park facilities required to meet the overall park obligation shall be identified on the first Final Map and shall be publically accessible.	X	X			City of Chula Vista				
	MM PUB-12	The Applicant shall comply with the Threshold Compliance and Recommendations contained within the PFFPs for Village Three North and Portion of Village Four, Village Eight East and Village Ten.	X				City of Chula Vista				
	MM PUB-13	Prior to the Final Map containing the 1,313th EDU in Village Eight East, the Applicant shall secure and agree to construct the Village 8 East Community Park (P-2) Access Road from Otay Valley Road to the Community Park (P-2). Prior to the issuance of the Final Map containing for the 1,313th EDU, the Applicant shall submit to the City and obtain approval for improvement plans for the Community Park (P-2) access road to the satisfaction of the Development Services Director (or their designee). The Community Park (P-2) Access Road shall be completed prior to the issuance of the Final Map Containing the 1,929th EDU in Village Eight East.	X	X			City of Chula Vista				
Funding for required facilities would be necessary to reduce impacts on operations and maintenance of library facilities to less than significant. Future library facilities would be funded in part by payment of the PFDIF. Therefore, prior to payment of the PFDIF, impacts to library facilities would be potentially significant and mitigation would be required.	**MM PUB-14**	Prior to the issuance of each building permit for any residential dwelling units, the Applicant shall pay the required Public Facilities Development Impact Fee in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan.	X	X			City of Chula Vista				
	MM PUB-15	The City of Chula Vista shall continue to monitor library facilities and services and report the results to the Grown Management Oversight Commission on an annual basis.				X	City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	Section 5.13 Utilities										
Until service availability letters and approval of SAMP(s) from OWD, the project would not be in compliance with the city threshold standards. Impacts would be potentially significant.	MM UTL-1	Prior to issuance of each Final Map for each village, the permit Applicant/developer shall deliver to the City service availability letters from the appropriate water district.	X	X			City of Chula Vista				
	MM UTL-2	Prior to approval of the first Final Map for each village, the Applicant shall provide a Subarea Master Plan to the Otay Water District. Water facilities improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing pursuant to the approved Public Facilities Financing Plan(s) and Subarea Master Plan(s). The Subarea Master Plan shall include, but shall not be limited to: a) Existing pipeline locations, size, and capacity b) The proposed points of connection and system c) The estimated water demands and/or sewer flow calculations d) Governing fire department's flow requirements (flow rate, duration, hydrant spacing, etc.) e) Agency Master Plan f) Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies Standards) g) Water quality maintenance h) Size of the system and number of lots to be served.	X	X			City of Chula Vista and Otay Water District				
	MM UTL-3	Prior to approval of the first Final Map, the Applicant shall obtain the Otay Water District's approval of the Subarea Master Plan(s) for both potable and recycled water. Any on-site and off-site facilities identified in the Subarea Master Plan required to serve a Final Mapped area, including but not limited to water facilities within the SR-125 overcrossing at Otay Valley Road, shall be secured or constructed by the Applicant prior to approval of the Final Map and in accordance with the phasing in the public facilities finance plans.	X	X			City of Chula Vista and Otay Water District				
	MM UTL-4	Prior to design review approval in accordance with the Density Transfer provision in the Village Three and Portion of Village Four, Village Eight East and Village Ten SPA Plans, the Applicant/developer shall provide an update to the Overview of Water Service for Otay Ranch University Villages (Dexter Wilson 2014a) with each proposed project requesting a density transfer. The density transfer technical study shall demonstrate to the satisfaction of the City Engineer that adequate on-site water infrastructure will be available to support the transfer. The transfer of residential density shall be limited by the ability of the on-site water supply infrastructure to accommodate flows.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
The proposed project could have a significant impact with respect to capacity to serve the proposed project and the project in conjunction with other existing commitments if treatment capacity is not provided commensurate with demand.	**MM UTL-5**	The Applicant shall finance or install all on-site and off-site sewer facilities required to serve development in each village in accordance with the fees and phasing in the approved Public Facilities Finance Plan to the satisfaction of the City Engineer.			X		City of Chula Vista				
	MM UTL-6	Prior to issuance of each building permit, the Applicant shall pay the Salt Creek Development Impact Fee at the rate in effect at the time of building permit issuance and corresponding to the sewer basin that the building will permanently sewer to, unless stated otherwise in a development agreement that has been approved by the City Council.	X	X			City of Chula Vista				
	MM UTL-7	Prior to design review approval in accordance with the Density Transfer provision in the Village Three North and Portion of Village Four, Village Eight East and Village Ten SPA Plans, the Applicant shall provide an update to the Overview of Sewer Service for Otay Ranch University Villages (Dexter Wilson 2014c) with each proposed project requesting a density transfer. The technical study shall demonstrate to the satisfaction of the City Engineer that adequate on-site wastewater infrastructure will be available to support the transfer. The transfer of residential density shall be limited by the ability of the on-site sewerage facilities to accommodate flows.	X	X			City of Chula Vista				
Section 5.15 Hazards and Risk of Upset											
Accidental spills or unauthorized releases of hazardous materials during construction, including ground clearing, access road construction and foundation excavation could potentially result in soil contamination, which would be a potentially significant impact. In order to reduce this potential impact, mitigation is provided. Due to the proximity of the project area to schools and potential for hazardous impacts due to the Otay Landfill, former Brown Field Bombing Range, and potentially contaminated soils, impacts to schools could be potentially significant.	**MM HAZ-1**	Prior to issuance of a mass grading permit for each village, the Applicant shall prepare a soils assessment to the satisfaction of the City Engineer to determine if residual pesticides, herbicides, and/or arsenic are present on site. The assessment shall be prepared by a Registered Environmental Assessor in accordance with Department of Toxic Substances Control guidance document. The assessment shall include analysis for organochlorine pesticides that include compounds such as toxaphene, dichlorodiphenyldichloroethane (DDD), dichlorodiphenyltrichloroethane (DDT), and dichlorodiphenyldichloroethylene (DDE), which have been historically identified at properties in the site vicinity. The concentrations of the contaminants shall be compared to regulatory agency soil screening levels for residential land use (e.g. U.S. EPA Region IX Soil Screening Levels). If levels of contamination exceeding the soil screening levels are found on site, a Soil Reuse Plan shall be prepared prior to construction on site. The Soil Reuse Plan shall include a determination of the suitability of the soils for on-site or off-site reuse, any special handling provisions that shall be incorporated as part of the site grading activities, and the procedure for the proper remediation and disposal of the contaminated soils, either on site or off site. The results of the limited soil assessment and the Soil Reuse Plan shall be submitted to the County of San Diego Department of Environmental Health, the Development Services Director (or their designee), and/or the Regional Water Quality Control Board for review and approval, prior to implementation.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
Due to the determinations found during the risk assessment, although unlikely, the presence of munitions and explosives of concern, along with munitions debris, have the potential for harm to human health, if there is contact to still functioning munitions on the FUDS site in Village Ten.	MM HAZ-2A	Prior to approval of the Village Ten Final Map, the Applicant shall retain a Unexploded Ordnance (UXO) specialist to prepare a Safety Plan for the approximately 154 acres of the Village Ten Sectional Planning Area (SPA) Plan area that is within the boundaries of the Formerly Used Defense Site (FUDS)-eligible property as defined in the *Final Site Inspection Report for the Former Brown Field Bombing Range* (hereinafter referred to as the Site Inspection Report) prepared by Parsons for the UD Army Corps of Engineers (ACOE) dated December 2007. The Safety Plan shall be prepared to the satisfaction of the Director of Development Services or their designee. The Safety Plan shall include, but not be limited to, the following: • Findings based on a current visual inspection of the approximately 154-acre SPA Plan area within the FUDS-eligible property including a description of evidence of current activity and uses. • A discussion on the prior use of the site and the types of munitions used, dates of use, etc. • Review of prior US Army Corps of Engineers Site Inspection Reports and historical data and summaries of those reports' conclusions. • Review of current site inspection data to determine trail access to and through the FUDS area. • A detailed characterization of the site and its risk profile, based on a combination of the reports to date, the types of munitions uses and found in the prior investigation and current site inspection. • Hazard mitigation measures, such as fencing and signage, appropriate for this site given its risk profile and planned land use in accordance with applicable Federal, State and local requirements and best practices. • As part of implementation of the Safety Plan, specifically the installation of fencing and/or signage determined to be appropriate for the site, or the dedication of any trails, the following shall be performed: o A surface visual survey (SVS) of future dedication trails within the approximately 154-acre Village Ten SPA Plan Area within the FUDS-eligible property boundaries shall be conducted. • UXO anomaly avoidance - performed by a UXO technician using a handheld detector at each point where intrusive activities will be performed for the installation of a fence/sign post. If subsurface metal is indicated at the desired installation point, the fence/sign post will be moved slightly to avoid the subsurface metal. If multiple fencing/signage teams are fielded, it is recommended that a UXO Technician accompany each team to provide UXO anomaly avoidance during intrusive activities such as fence and sign post installation.	X	X			City of Chula Vista				

Table 1 (Continued)
Mitigation Monitoring and Reporting Program (Proposed Project)

Potentially Significant Impact	Mitigation Measure		Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of Completion	Date of Verification
			Planning[1]	*Pre-Const.*[2]	*During Const.*[3]	*Post Const.*[4]		*Monitor*	*Report*		
	MM HAZ-2B	Prior to the approval of trail improvement plans for the OVRP/Greenbelt trail (approximately 1.3 acres), or grading plans for water quality basins (approximately 1.8 acres) and any associated access roads (approximately 0.8 acre) that are within the Village Ten SPA Plan boundary and FUDS-eligible property boundaries(hereinafter referred to as the "Cleanup area"), the applicant shall develop and implement a Village Ten FUDS Cleanup Plan in cooperation with the appropriate agencies, including but not limited to the Army Corps of Engineers (ACOE) and Department of Toxic Substances Control (DTSC), as applicable. The purpose of the Village 10 FUDS Cleanup Plan is to identify and clean up any risks of munitions or other FUDS associated risks within the Cleanup area in order to render the area suitable for the intended uses. The Village Ten FUDS Cleanup Plan shall include a risk assessment that identifies the nature and extent of munitions, explosives, munitions debris or other FUDS associated risks within the Cleanup area. Enough data shall be gathered to assess the threat to human health, safety and the environment, as well as to support the detailed cleanup program for any portion of the site anticipated to be impacted by grading activity, signage and fence installation, future trail users and/or future maintenance activities for the basins. The Village Ten FUDS Cleanup Plan shall be developed in cooperation with the appropriate agencies and shall be implemented by a qualified UXO specialist prior to issuance of the grading permit for the Cleanup area. Upon completion of the Cleanup Plan, and prior to issuance of construction permits for construction within the Cleanup area, the Applicant shall provide verification by the appropriate agency that the site is suitable for the intended uses to the satisfaction of the Development Services Director (or their designee).	X	X			City of Chula Vista				
Although the project does not propose any buildings that create a hazard for aircrafts, the proposed project would be required to show compliance with FAA regulations. In order to show compliance, the Applicant must prepare and file Form 7460-1, Notice of Proposed Construction or Alteration; obtain and provide proof of FAA clearance; and record the Airport Overflight Agreement with the County Recorder's office.	**MM HAZ-3**	Prior to issuance of a building permit for the first structure and/or dwelling unit within the Airport Influence Area of Brown Field, the Applicant shall prepare and file a Form 7460-1, Notice of Proposed Construction or Alteration, with the Federal Aviation Administration to ensure that no objects related to development would present a hazard to air navigation.	X	X			City of Chula Vista and Federal Aviation Administration				
	MM HAZ-4	Prior to the issuance of a building permit for the first structure and/or dwelling unit within the Airport Influence Area of Brown Field, the Applicant shall obtain and provide proof of Federal Aviation Administration clearance to the satisfaction of the Development Services Director (or their designee).	X	X			City of Chula Vista and Federal Aviation Administration				
	MM HAZ-5	Prior to approval of the first Final Map for those areas within the overflight notification area for Brown Field, the Applicant shall record the Airport Overflight Agreement with the County Recorder's office, and provide a signed copy of the recorded Airport Overflight Agreement to the City's Development Service Director (or their designee).	X	X			City of Chula Vista				

[1] Planning: The mitigation measures under this category are triggered during the planning stages of the project; [2] Pre-Construction: The mitigation measures under this category are triggered prior to the final map and after the planning phase; [3] During Construction: The mitigation measures under this category are triggered during the construction phase and prior to buildout; [4] Post-Construction: The mitigation measures under this category are triggered after construction is complete and the project has been fully builtout.

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CHAPTER 1
EXECUTIVE SUMMARY

This Environmental Impact Report (EIR) is an informational document intended for the use by the City of Chula Vista, other public agencies, and members of the general public in evaluating the potential environmental effects of the proposed University Villages Project, hereafter referred to as the proposed project. The proposed project encompasses Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. Implementation of the proposed project requires Chula Vista General Plan Amendments (GPAs), Chula Vista Multiple Species Conservation Plan Boundary Adjustments (MSCPBAs), Otay Ranch General Development Plan Amendments (GDPAs), and Resource Management Plan Boundary Adjustments (RMPBAs). The project also proposes amendments to three approved SPA Plans; Otay Ranch Villages Two, Three, and a Portion of Village Four SPA Plan; Otay Ranch Village Seven SPA Plan; and the Otay Ranch Village Nine SPA Plan.

Three SPA plans are proposed: (a) Otay Ranch Village Three North and a Portion of Village Four SPA Plan, (b) Otay Ranch Villages Eight East SPA Plan, and (c) Otay Ranch Village Ten SPA Plan. Three Tentative Maps (TMs) are also proposed: (a) Village Three North and a Portion of Village Four, (b) Village Eight East, and (c) Village Ten.

CEQA statute Section 21002 requires that an EIR identify the significant effects of a project on the environment and provide measures or alternatives that can mitigate or avoid these effects. This EIR evaluates the environmental effects associated with development of the project and discusses the manner in which the project's significant effects can be reduced or avoided through the implementation of mitigation measures or feasible alternatives to the proposed project. In accordance with Section 15130 of the CEQA Guidelines, this EIR also includes an examination of the effects of cumulative development.

This EIR tiers from the 1993 Otay Ranch GDP Program EIR, and the 2005 GPU/GDPA Program EIR in accordance with CEQA Guidelines Section 15152. Additionally, the cumulative analysis in this EIR tiers from the 2013 GPA/GDPA Supplemental EIR also in accordance with CEQA Guidelines Section 15152. The 2006 Otay Ranch Village Two, Three, and Portion of Village Four SPA Plan Final Second Tier EIR (Second Tier EIR), the Otay Ranch Resource Management Plan (RMP), and the City of Chula Vista MSCP Subarea Plan have been incorporated by reference throughout the analysis provided in this EIR in accordance with Public Resources Code Section 21083 and CEQA Guidelines Section 15150.

This summary provides a brief synopsis of: 1) the proposed project, 2) results of the environmental analysis contained within this environmental document, 3) alternatives to the proposed project that were considered, and 4) major areas of controversy and issues to be resolved by decision-makers. This summary does not contain the extensive background and

analysis found throughout the individual chapters within the EIR. Therefore, the reader should review the entire document to fully understand the project and its environmental consequences.

1.1 PROJECT LOCATION AND SETTING

The proposed project is located within the City of Chula Vista in southwestern San Diego County, approximately 3.5 miles east of downtown Chula Vista and 13 miles southeast of downtown San Diego (Figure 4-1). The proposed project area occupies approximately 1,375 acres[1] composed of Village Three North, a portion of Village Four, Village Eight East, and Village Ten within the Otay Valley Parcel of the adopted Otay Ranch GDP (Figure 4-2). In addition, the proposed project includes necessary off-site improvements totaling approximately 160 acres.

Otay Ranch lies within the East Planning Area of the City of Chula Vista, as identified in the City's General Plan. The proposed project is a component of the Otay Ranch General Development Plan (Otay Ranch GDP), which organizes the Otay Ranch into 20 villages or planning areas.

Historically, the Otay Valley Parcel, including the project area, has been used for ranching, grazing, dry farming, and truck farming activities. The project area is currently vacant and is generally comprised of gently sloping terrain covered with primarily non-native grasslands crossed by dirt roads and old cattle trails.

The boundaries of the villages included in the proposed project differ from those identified in the Otay Ranch GDP due to ownership patterns that do not match the Otay Ranch GDP village boundaries. Village Three North encompasses a portion of Village Three as identified in the Otay Ranch GDP, as well as the open space area west of Village Three. The portion of Village Four included in the project area is within the Otay Ranch GDP boundaries of Village Four; however, it is limited to a strip of land extending southwest toward Village Three. Village Eight East encompasses the eastern part of Village Eight as identified in the Otay Ranch GDP, adjacent to State Route 125 (SR-125), as well as a portion of Village Seven. Village Ten includes the eastern portion of Village Nine and most of Village Ten.

1.2 PROJECT DESCRIPTION

Three SPA plans are proposed: (a) Otay Ranch Village Three North and a Portion of Village Four SPA Plan, (b) Otay Ranch Villages Eight East SPA Plan, and (c) Otay Ranch Village Ten SPA

[1] The current ownership is 1,363 acres; however, approximately 12 acres of land currently within the SR-125 right-of-way adjacent to Village Eight East will be decertified and exchanged with CalTrans, resulting in a project total of 1,375 acres.

Plan. Three Tentative Maps (TMs) are also proposed: (a) Village Three North and a Portion of Village Four, (b) Village Eight East, and (c) Village Ten.

The development program for the proposed project is based on the Chula Vista General Plan and the approved Otay Ranch planning documents (Otay Ranch GDP, Overall Design Plan, and other SPA plans for Otay Ranch), which describe the land use plans and general design characteristics of the Otay Ranch Villages. The village design is intended to provide balanced and diverse land uses, focus on transit and pedestrian orientation, and create a sense of place for village residents. The specific development program for each village is described in detail in Sections 4.2.2.1 through 4.2.2.3, and the proposed land uses are provided in Table 1-1. For a complete project description please see Section 4.0.

The proposed project is consistent with the Land Offer Agreement between the Applicant and the City, which consists of up to 6,897 homes and associated village land uses within the project site. Implementation of the proposed project requires Chula Vista GPAs, MSCPBAs, Otay Ranch GDPAs, and RMPBAs. The project also proposes amendments to three approved SPA Plans; Otay Ranch Villages Two, Three, and a Portion of Village Four SPA Plan; Otay Ranch Village Seven SPA Plan; and the Otay Ranch Village Nine SPA Plan.

Table 1-1
Proposed Land Uses

Land Use	Gross Acres	Commercial Square Footage	Residential Dwelling Units	Population
Village Three North/Portion of Village Four				
Single-Family Residential	115.2		1,002	3,247
Multi-Family Residential	10.8		515	1,667
Mixed-Use	8.2	20,000	80	259
Industrial	28.6			
Office	5.2			
Parks	25.7			
School	8.3			
Community-Purpose Facilities	4.2			
Private Open Space	2.4			
Open Space	35.4			
Preserve	158.1[b]			
Circulation	33.9			
Subtotal	*436*	*20,000*	*1,597*	*5,174*
Village Eight East				
Single-Family Residential	117.1		943	3,055
Multi-Family Residential	46.2		2,177	7,053
Mixed Use	9.5	20,000	440	1,426
Parks [c]	58.8			
School	10.8			
Community-Purpose Facilities	4.2			
Open Space [d]	33.8			

Table 1-1 (Continued)
Proposed Land Uses

Land Use	Gross Acres	Commercial Square Footage	Residential Dwelling Units	Population[a]
Preserve	253.6			
Circulation	29.6			
Other (Future Development Areas)	8.1			
Other (SR-125 ROW, Lot 4)	3.6			
Subtotal	*575.3*	*20,000*	*3,560*	*11,534*
Village Ten				
Single-Family Residential	74.8		695	2,252
Multi-Family Residential	21.5		1,045	3,386
Parks	7.6			
School	9.2			
Community-Purpose Facilities	4.3			
Open Space (OS-2)	16.5			
Private Open Space	0.7			
Preserve	212.7			
Circulation	16.1			
Subtotal	*363.4*		*1,740*	*5,638*
Total	**1,374.7**	**40,000**	**6,897**	**22,346**

ROW = right-of-way
[a] Population estimates based on 3.24 persons per residential dwelling unit.
[b] Includes 2.9 acres of roadway, which is located within the Preserve and is an allowable use in the Preserve. This acreage is not accounted for in the Circulation acreage.
[c] Includes 51.5 acres of Village Eight East Community Park (P-2) and 7.3 acres of Neighborhood Park.
[d] Includes 22.6 acres of Active Recreation Area (AR-11) and 11.2 acres of Open Space

1.2.1 Project Objectives

Section 15124(b) of the CEQA Guidelines requires an EIR to include a statement of objectives for the proposed project that outlines the underlying purpose of the project and assist in the development of project alternatives. In addition to more specific objectives for each of the project's components set forth later in this section, the SPA plan identifies the following general objectives of the proposed project:

- Implement the goals, objectives, and policies of the Chula Vista General Plan, the MSCP, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.
- Provide a wide variety of housing options, including affordable housing, to City residents, future students, and faculty of the planned 4-year university and employees of the Regional Technology Park, Village Eight West and Village Nine Town Centers and the EUC.
- Implement the City of Chula Vista Growth Management Ordinance to ensure that public facilities are provided in a timely manner and financed by the parties creating the demand for, and benefiting from, the improvements.
- Foster development patterns that promote orderly growth and prevent urban sprawl by comprehensively planning Villages Three North and a Portion of Village Four, Eight East, and Ten simultaneously.
- Add to the creation of a unique Otay Ranch image that differentiates Otay Ranch from other communities.
- Accentuate the relationship of the land use plan with its natural setting and the physical character of the region and promote effective management of natural resources by concentrating development in less sensitive areas while preserving large, contiguous open space areas with sensitive resources.
- Establish multi-use trail linkages to the Chula Vista Greenbelt, consistent with the Chula Vista Greenbelt Master Plan.
- Wisely manage limited natural resources.
- Implement the Otay Valley Regional Park (OVRP) Concept Plan within the SPA boundaries through the planning and provision of portions of connections to the City's Greenbelt trail network.
- Establish land use and facility plans that assures the economic viability of the SPA Plan Areas in consideration of existing and anticipated economic conditions.

1.2.2 Discretionary Actions

A discretionary action is an action taken by an agency that calls for the exercise of judgment in deciding whether to approve or how to carry out a project. The following discretionary actions are associated with the proposed project and will be considered by the Chula Vista Planning Commission and City Council:

- Certification of a Final EIR, adoption of the Mitigation Monitoring and Reporting Program pursuant to CEQA, and approval of the CEQA Findings and Statement of Overriding Considerations
- Approval of the Chula Vista General Plan Amendments (please see discussion in Section 4.2.8)
- Approval of the Otay Ranch GDP Amendments (please see discussion in Section 4.2.8)
- Approval of the Otay Ranch RMP Boundary Adjustment
- Approval of amendments to the Villages Two, Three, and a portion of Four SPA Plan; Village Seven SPA Plan and Village Nine SPA Plan
- Adoption of the Village Three North and a Portion of Village Four SPA Plan (please see discussion in Section 4.2.9)
- Adoption of the Village Eight East SPA Plan (please see discussion in Section 4.2.9)
- Adoption of the Village Ten SPA Plan (please see discussion in Section 4.2.9)
- Approval of three TMs; Village Three North and a Portion of Four, Village Eight East, and Village Ten (please see discussion in Section 4.2.6)
- Approval of the Chula Vista MSCP Subarea Plan Boundary Adjustment (please see discussion in Section 4.2.8)
- ~~Approval of Grading Plans (please see discussion in Section 4.2.5)~~
- Habitat Loss and Incidental Take (HLIT) Ordinance Permit
- Amend the Development Agreement in accordance with the Land Offer Agreement provisions.

Additionally, implementation of the project may require that the Applicant obtain approval, permits, licenses, certifications, or entitlements from various federal, state, and other local agencies, including but not limited to those listed in Table 1-2.

Table 1-2
Future Discretionary Approvals and Permits

Discretionary Approval/Permit	Agency Description	Agency Status	Notes/Explanation
Final "A" Map(s)/Financial Parcel Map(s)	City of Chula Vista	Lead Agency	Mapping to facilitate project financing.
Final "B" Map(s)	City of Chula Vista	Lead Agency	Final Mapping to facilitate development.
Construction and Encroachment Permit(s)	City of Chula Vista	Lead Agency	Construction and encroachment permits are required for work performed within the City's road right-of-way.
License, Easement, Entry Permit, Encroachment Permit, Land Sale, Land Exchange, or Other Similar Action	City of San Diego	Responsible Agency	Approval to relocate City of San Diego waterlines through Villages Eight East and Ten from existing alignment into future alignment of Otay Valley Road/La Media Road.
Construction and Encroachment Permit(s)	Caltrans	Responsible Agency	Construction and encroachment permits are required for work performed within Caltrans road right-of-way (SR-125).
Site Plans	City of Chula Vista	Lead Agency	Site plans for single-family residential, mixed-use sites, and park developments.
Village Core Master Precise Plans	City of Chula Vista	Lead Agency	Each SPA Plan includes a requirement to prepare a subsequent Master Precise Plan to better define the village core uses, character and site plan.
Section 401 Water Quality Certification	RWQCB	Responsible Agency	Action required for development projects affecting waters of the United States.
Section 404 Permit – Clean Water Act	ACOE	Responsible Agency	Action required for development projects affecting waters of the United States.
Streambed Alteration Agreement/Memorandum of Understanding	CDFW	Responsible Agency/Trustee Agency	Action required for development projects affecting jurisdictional streams/waters.
Air Quality Permit	SDAPCD	Responsible Agency	Action required for construction and development projects using certain machinery, such as backup or emergency generators.
NPDES Permit; General Construction Activity Storm Water Permit, including the Storm Water Pollution Prevention Plan	RWQCB	Responsible Agency	Action required for development projects.
NPDES General Groundwater Extraction Waste Discharge Permit	RWQCB	Responsible Agency	Permit would be applicable if groundwater disposal is proposed during construction.
General Construction Storm Water Permit	RWQCB	Responsible Agency	Action required for development projects.
Subarea Master Plan	OWD	Responsible Agency	Reporting approval required from OWD for overall water availability, service connection, etc.

Caltrans = California Department of Transportation; RWQCD = Regional Water Quality Control District; ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; SDAPCD = San Diego Air Pollution Control District; NPDES = National Pollutant Discharge Elimination System; OWD = Otay Water District

1.3 AREAS OF CONTROVERSY

The Notice of Preparation (NOP) was distributed on July 22, 2013 to interested agencies, organizations, and parties for a 30-day public scoping period that ended on August 21, 2013. Additionally, a public scoping meeting was held on August 7, 2013, from 3:00 p.m. to 5:00 p.m., at 276 Fourth Avenue (Building C, Room B129), Chula Vista, California, 91910, to gather additional public input. Comments received during the NOP public scoping period were considered during the preparation of this EIR. The NOP and comments are included in Appendix A to this EIR Comments covered a variety of topics, including increases in traffic within Chula Vista and surrounding jurisdictions, potential hazardous materials/air toxics and nuisance impacts due to proximity to the Otay Landfill, impacts to the OVRP, impacts to biological resources and the MSCP Preserve, stormwater runoff, and loss of industrial land. These issues are analyzed in this EIR.

1.4 ISSUES TO BE RESOLVED BY THE CITY COUNCIL

The issues to be resolved by the decision-making body are whether to adopt the proposed project and how to mitigate significant effects created by its implementation. The City will decide if benefits of the project outweigh any significant unmitigable impacts associated with visual character (change from rural, open land to urban uses), traffic (level of service standards and congestion management), air quality (consistency with regional air quality plans, air quality standards, operational emissions), agricultural resources (incremental loss of agricultural land), sewer treatment (potential need for additional sewage treatment capacity), energy (guarantee of future energy resources), and global warming (consistency with regional air quality plans, operational emissions).

The City will also decide if the significant impacts associated with the environmental issues of land use, landforms and aesthetics, transportation and traffic, air quality, noise, cultural resources, paleontological resources, biological resources, agricultural resources, water quality and hydrology, geology and soils, public services, utilities, climate change, hazards and risk of upset, population and housing, and mineral resources have been fully mitigated below a level of significance. Lastly, the City would determine whether any alternative might meet the key objectives of the project while reducing its environmental impact.

1.5 PROJECT ALTERNATIVES

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, EIRs are required to “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives” (14 CCR 15126.6(a)). This EIR “must consider a reasonable range

of potentially feasible alternatives that will foster informed decision making and public participation" (14 CCR 15126.6(a)). The alternatives discussion is required even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (14 CCR 15126.6(b)).

1.5.1 No Project Alternative

CEQA Guidelines Section 15126.6 requires the inclusion of a No Project Alternative to be analyzed. Per CEQA, a No Project Alternative would entail analysis of no build and no development would occur on Village Three North and a Portion of Village Four, Village Eight East, or Village Ten. Accordingly, the site characteristics of this alternative would be equivalent to the existing conditions for each category analyzed in Section 5.0 of this EIR. Although no development would occur, surrounding land uses and villages would continue to be built-out.

1.5.2 Existing GP and GDP Alternative

Under the Existing GP and GDP Alternative, the villages would develop consistent with the existing General Plan and Otay Ranch GDP. The adopted Otay Ranch GDP land uses village boundaries are different than those in the proposed project. Village Three North is within Village Three as shown in the Otay Ranch GDP and planned as an "Industrial" village. The Portion of Village Four is the same as the proposed project, with a portion designated as "Open Space," and a portion designated for "Community Park." No residential units were allocated to Village Three North or the Portion of Village Four by the Otay Ranch GDP. As discussed in Section 2.0, Introduction, and Section 3.0, Environmental Setting, the General Plan and Otay Ranch GDP designate Village Three North for Limited Industrial land uses in a business park setting that reflects the unique characteristics of the landform and surrounding development. A 1,000 foot nuisance easement area surrounds the Otay Landfill and extends into the northern portion of Village Three. General Plan Policy E 6.4 does not allow the placement of sensitive receptors, such as a residential land use, within 1,000 feet of a major toxic emitter. In the case of proposed Village Three North land uses, planned residential land uses are considered sensitive receptors and the landfill to the north of Village Three is considered a toxic emitter. Further, Village Three North was a part of the previously approved Village Two, Village Three and Portion of Village Four Sectional Planning Area (SPA) Plan which identified Village Three North for Industrial and CPF development.

The General Plan designates Village Eight East for residential uses including Residential Mixed Use, Residential Medium–High, Residential Low–Medium, Public and Quasi Public, Parks and Recreation, and Open Space. The Otay Ranch GDP designates Village Eight East as an urban village with single-family and multi-family residential, and a mixed-use village core. Under the Otay Ranch GDP, a portion of what is proposed as Village Eight East is within the Village Seven

SPA Plan boundary. This portion of Village Seven is designated as Open Space. The Otay Ranch GDP allocates Village Eight East a total of 928 residential units.

The General Plan designates Village Ten as part of the University Study Area. The village is designated Public and Quasi Public uses. The Otay Ranch GDP has two land uses identified for Village Ten. The primary land use designates Village Ten as Public and Quasi-Public for a university campus site; the secondary land use designates Village Ten as an urban village with single-family and multifamily residential, a mixed-use village core, and a community park. The Otay Ranch GDP allocates the secondary land use designation for Village Ten a total of 642 residential units.

This alternative includes generally the same development area as the proposed project (Figure 10-1); however, the land uses are reconfigured per the Otay Ranch GDP and no Give/Take is proposed to convert Preserve areas to development nor any development areas to Preserve. This alternative would not require an MSCP Preserve Boundary Adjustment or GDPA related to increased densities, circulation element modifications, and the allowance of residential land uses within the landfill nuisance easement area; however, as described further below in Land Use, a GPA would be required for residential land uses in Village Ten to be consistent with the Otay Ranch GDP land use.

A total of 1,570 residential units would be built under the Existing GP and GDP Alternative. Using a household coefficient of 3.24 persons per household, this alternative would increase the population by 5,087 people. Overall, this alternative would not provide enough housing for the projected growth anticipated in the region; therefore, this alternative would not meet the project objective of providing a wide variety of residential units to accommodate future growth.

1.5.3 Reduced Density Alternative

The Reduced Density Alternative would follow the same land use pattern as the proposed project, with the exception of having reduced maximum dwelling units for multi-family and mixed-use land uses. Instead of the proposed 45.0+ du/ac for multi-family land uses, the Reduced Density Alternative would assume the Otay Ranch GDP's maximum density of 18.0 du/ac for multi-family land uses; and instead of the proposed 44.4 du/ac for mixed-use land uses, the Reduced Density Alternative would assume the Otay Ranch GDP's maximum density of 27.0 du/ac for mixed-use land uses. Similar to the proposed project, the Reduced Density Alternative would also require a General Plan amendment, an Otay Ranch GDP amendment, and a MSCP Subarea Plan Boundary Adjustment as detailed below.

This alternative would include the same development area as the proposed project. The proposed project would result in 2,640 single-family dwelling units, 3,737 multi-family dwelling units, and 520 mixed-use dwelling units, for a total of 6,897 dwelling units. The Reduced Density Alternative would retain the 2,640 single-family dwelling units, but reduce the number of multi-family units to 1,413 multi-family dwelling units and would not provide any mixed-use dwelling units. Therefore,

the Reduced Density Alternative would have a decrease of 2,324 multi-family dwelling units, and a decrease of 520 mixed-use dwelling units, for a total reduction in dwelling units of 2,844 compared to the proposed project. Overall, the Reduced Density Alternative would have a 41% decrease in dwelling units and a 41% decrease in population compared to the proposed project. Further, because of the decrease in dwelling units and population, the Reduced Density Alternative would reduce the amount of park demand such that the Village Eight East Community Park (P-2) would not be developed, thus, this alternative would not be compliant with project objectives.

1.5.4 Nuisance Easement Alternative

General Plan Policy E 6.4 does not allow the placement of sensitive receptors within 1,000 feet of a major toxic emitter. In the case of proposed Village Three North land uses, planned residential land uses are considered sensitive receptors and the landfill to the north of Village Three is considered a toxic emitter. The landfill property's southern boundary is within approximately 450 feet of planned residential land uses within Village Three North and the active landfill[2] is approximately 700 feet away from planned residential land uses.

The Nuisance Easement Alternative would ~~remove~~ result in fewer residential land uses within ~~1,000 feet from the active portion~~ the nuisance easement area of the Otay Landfill. This Nuisance Easement Alternative has been developed to comply with the City of Chula Vista General Plan Policy E 6.4, which does not allow sensitive receptors within 1,000 feet of a "toxic emitter." ~~Per direction from City staff, this alternative has been evaluated at the project level to provide an actionable item for the decision making body, should this become the preferred plan.~~

The Nuisance Easement Alternative would only affect Village Three North and there would be no changes to the Portion of Village Four, Village Eight East, or Village Ten. Therefore, all discretionary actions, impacts and conclusions, and mitigation measures related to these villages as discussed in Section 4.0 and Section 5.0 are identical to the proposed project. In Village Three North this alternative plan includes the same number of overall units as the proposed Village Three North project and the development area is identical to the proposed project (i.e., no additional grading areas), the following differences exist between the proposed project and this alternative land plan for Village Three North:

- The single-family neighborhoods north of Tributary Street and between Santa Maya and Santa Picacho (proposed project neighborhoods R-1, R-4 and R-5) would be replaced by MF-18, Mixed Use Residential/Commercial neighborhood MU-1 and Neighborhood Park P-1. As shown in Figure 10-3, the 1,000-foot setback from the active portion of the landfill bisects the mixed use pad (MU-1). The Nuisance Easement Alternative would

[2] The "active portion" of the landfill is defined as cells which have accepted waste but have not undergone final closure. This represents portions of the landfill which could become the "working face," or the area being filled with waste.

designate non-residential commercial and park uses on the north side of this line, and multi-family residential uses on the south side of this line.

- The single family neighborhoods Tributary Street "C" and west of Santa Maya (proposed project neighborhoods R-2, R-3 and R-6) would be converted to Multi-Family neighborhood R-17 and Open Space (O-4).
- The former MU-2a – 2f (Mixed Use Commercial/Office) and CPF-1 site north of Tributary Street between Santa Picacho and Santa Macheto would be revised to MU-2/CPF-1 and MU-3, which would allow for Mixed Use with non-residential uses north of the 1,000' setback and multi-family residential uses on the south side of the setback.
- The School site would move to the proposed project's P-1 Neighborhood Park site. The proposed project's S-1 Elementary School site would be converted to neighborhood R-10 and lotted as single family homes.
- The proposed project's O-1 Office site would be converted to a Commercial site (C-1) and would be slightly increased to coincide with the 1,000-foot setback. As a result of this increase the proposed project's R-21a – c multi-family site would be reduced and become neighborhood R-16 under the Nuisance Easement Alternative.

The Nuisance Easement Alternative would meet all the project objectives. This alternative is superior to the proposed project because it would slightly reduce vehicle trips and associated operational air quality emissions, and ~~not~~ result in ~~the~~ less development of residential units within the nuisance easement area of the Otay Landfill. Therefore, fewer sensitive receptors would be exposed to landfill odors.

1.5.5 Otay SRP Alternative

The Otay Subregional Plan (SRP) Alternative depicts the County of San Diego's primary land uses for Villages Three North, the Portion of Four, Eight East and Ten (Figure 10-4). The Otay SRP Alternative is consistent with the land uses and village boundaries that currently exist in the Otay Ranch GDP with the exception of Village Three. The Otay Ranch GDP designates industrial land uses in Village Three and does not designate any residential land uses. Conversely, the Otay SRP does designates industrial land uses in Village Three North (as part of Planning Area 18-B) and also include residential land uses. The land uses designated, as well as the number of dwelling units allocated, in a Portion of Village Four, Village Eight East, and Village Ten are the same under the Otay SRP as they are in the Otay Ranch GDP. Therefore, this analysis will focus on the difference between the Otay Ranch GDP and Otay SRP for the Village Three North area.

The General Plan designates industrial land uses within Village Three and does not designate any residential land uses, similar to the Otay Ranch GDP. Under the County Otay SRP, Village

Three is allocated 613 single-family dwelling units and 128 multi-family dwelling units, for a total of 741 dwelling units. Using a household coefficient of 3.24 persons per household, this alternative would result in approximately 2,401 people in Village Three. In comparison to the proposed project, the Otay SRP Alternative would result in a decrease 4,586 dwelling units, which would result in the reduction of the population by 14,858 people. The Otay SRP Alternative would also implement Planning Area 18-B (which was incorporated as part of Village Three in the Otay Ranch GDP) which calls for 69.7 acres of Industrial uses west of Heritage Road.

1.5.6 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. The Nuisance Easement Alternative was developed during preparation of the Draft EIR and was found to be the environmentally superior alternative. The proposed project's design placed residential land uses within 1,000 feet of the property boundary of the Otay Landfill (i.e., the 1,000-foot nuisance easement area), which was consistent with the General Plan Policy E 6.4, as then written. However, as noted in Section 5.1, Land Use, General Plan Policy E 6.4 was amended during the writing of this EIR such that residential land uses were prohibited within 1,000 feet of a "major toxic emitter," that according to City staff, includes the existing Otay Landfill. Therefore, the EIR's Nuisance Easement Alternative was developed to avoid placing residential land uses within 1,000 feet of the active portion of the Landfill, resulting in reduced impacts due to potential incompatible land uses compared to the proposed project, which located such residential uses within 1,000 feet of the Landfill.

Prior to the release of the DEIR, City staff notified the project applicant that the City had been negotiating with the Landfill operator on an Amended and Restated Landfill Expansion Agreement (Agreement). The Agreement, among other things, clarified the location of the "residential setback" with respect to the active area of the Otay Landfill. Specifically, Section 2.5 of the Agreement states, in part, that the "City shall not allow the construction of residential units on properties within 1,000 feet of the active area of the Otay Landfill, as illustrated on the attached drawing" shown in Exhibit B of the Agreement. Section 2.5 further provides that the Landfill operator "shall keep the active area of the landfill at least 1,000 feet away from any constructed residential units." Moreover, Section 2.5 requires the parties to the Agreement to meet and confer from time to time as appropriate to coordinate regarding implementation of the obligations set forth in that section of the Agreement. Based on this Agreement, which is a valid expression and implementation of the City's police power and zoning authority to avoid the proximity of incompatible land uses, residential units in the proposed project would not be allowed to be constructed within 1,000 feet of the

then active area of the Otay Landfill, as shown on revised Exhibit B of the Agreement. At a duly noticed public meeting held on August 12, 2014 (i.e., during the public review period for the Draft EIR), the City Council adopted a resolution approving the Agreement and authorizing the Mayor to execute it on behalf of the City.

Based on the language in the public notice for the Agreement, mitigation measure MM LU-4 was added to the Draft EIR, which requires that the proposed project include a residential setback that precludes the construction of residential units on properties within 1,000 feet from the "then active" area of the Otay Landfill. This setback requirement is similar to the Nuisance Easement Alternative contained in the Draft EIR.

To be consistent with the setback set forth in the Agreement, the applicant revised the proposed project's tentative map for Village Three and a Portion of Village Four (October 2014) to show the limits of the active portion of the landfill.

As a result of these various developments, when the Draft EIR was released for public review, both the proposed project (with implementation of mitigation measure MM LU-4 and compliance with the Agreement) and the Nuisance Easement Alternative restricted residential development within 1,000 feet of the active portion of the Otay Landfill. The proposed project accomplished this through inclusion of MM LU-4; and the Nuisance Easement Alternative through a land use plan that did not include residential uses within the 1,000-foot setback. The result was two very similar development plans and land uses and, therefore, similar associated impacts.

The overall unit count remained the same for both plans (1,597 units), although in order to achieve this total in the Nuisance Easement Alternative, the ratio of multi-family homes to single family homes was greater for the Alternative than the proposed project. In addition, the Nuisance Easement Alternative provided for more acreage of non-residential uses, including more commercial/retail uses than the proposed project. More specifically, the Nuisance Easement Alternative differs from the proposed project as follows:

- The single-family neighborhoods north of Tributary Street and between Santa Maya and Santa Picacho (proposed project neighborhoods R-1, R-4 and R-5) would be replaced by MF-18, Mixed Use Residential/Commercial neighborhood MU-1 and Neighborhood Park P-1. As shown in Figure 10-3, the 1,000-foot setback from the active portion of the landfill bisects the mixed use pad (MU-1). The Nuisance Easement Alternative would designate non-residential commercial and park uses on the north side of this line, and multi-family residential uses on the south side of this line.

- The single family neighborhoods Tributary Street "C" and west of Santa Maya (proposed project neighborhoods R-2, R-3 and R-6) would be converted to Multi-Family neighborhood R-17 and Open Space (OS-4).
- The former MU-2a – 2f (Mixed Use Commercial/Office) and CPF-1 site north of Tributary Street between Santa Picacho and Santa Macheto would be revised to MU-2/CPF-1 and MU-3, which would allow for Mixed Use with non-residential uses north of the 1,000' setback and multi-family residential uses on the south side of the setback.
- The School site would move to the proposed project's P-1 Neighborhood Park site. The proposed project's S-1 Elementary School site would be converted to neighborhood R-10 and lotted as single family homes.
- The proposed project's O-1 Office site would be slightly increased to coincide with the 1,000-foot setback. As a result of this increase the proposed project's R-21a – c multi-family site would be reduced and become neighborhood R-16 under the Nuisance Easement Alternative.

Although very similar, the impacts of the Nuisance Easement Alternative differ in that the mix of land uses would

- generate 38 fewer average daily trips (0.2%)than the proposed project;
- use approximately 186 gpd (0.03%) more potable water, which is offset by the use approximately 1,477 gpd (0.9%) more recycled water;
- increase sewage flows by approximately 4,145 gpd (0.8%); and;
- reduce the amount of residential units within the nuisance easement area (1,000 feet from property line).

Various technical memoranda were prepared at the project level (traffic, air quality, noise, biology, drainage and water quality, water and sewer) to compare impacts. As summarized above, these memoranda found that impacts are virtually the same. This alternative would result in a slight reduction in trips and associated reduced operational air quality emissions, and reduction of units within the nuisance easement area. Therefore, this alternative does not avoid or substantially minimize any impacts of the proposed project identified as significant and unavoidable; nor does the slight increase in potable and recycled water usage, or increase in sewer generation, result in new or greater impacts compared to the proposed project.

Based on the City's assessment of the potential significant impacts of both the proposed project and the Nuisance Easement Alternative, the City finds that the Nuisance Easement Alternative remains the environmentally superior alternative among the other alternatives identified in the Draft EIR.

~~The No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the environmentally superior alternative is the Nuisance Easement Alternative. The Nuisance Easement Alternative meets all of the projects goals and objectives and eliminates potential hazards associated with the Otay Landfill by not developing any residential units within the 1,000 nuisance easement area.~~

1.6 SUMMARY TABLES

Table 1-3
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
5.1 Land Use			
Would the project physically divide an established community of be incompatible with adjacent and surrounding uses?	The proposed project could result in a potentially significant land use compatibility impact if the on-site City of San Diego waterlines would not be relocated before development of Village Eight East and Village Ten.	MM LU-1 Prior to approval of the mass grading permit for Village Eight East and Village Ten, the mass grading plans shall include the relocation of the City of San Diego waterlines to the satisfaction of the City of San Diego and the City of Chula Vista. MM LU-2 Prior to approval of the first Final Map in Village Eight East ~~and in Village Ten~~, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the: 1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Villages Eight East within the right-of-way of future Otay Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds. 2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Eight East and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road. Prior to the Final Map approving the 1,200th Residential Dwelling Unit (Single Family and/or Multi-Family Residential) for Village Eight East, the new water line shall be constructed. MM LU-3 Prior to approval of the first Final Map in Village Ten, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the: 1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Village Ten within the right-of-way of future Otay	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds. 2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Ten and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road. Prior to the Final Map approving the 580th Residential Dwelling Unit (Single Family and/or Multi-Family Residential) for Village Ten, the new water line shall be constructed.	
Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	The project would conflict with the land use designations in the City's adopted General Plan and Otay Ranch GDP. Upon adoption of the proposed amendments to the General Plan and GDP, impacts would be considered less than significant. The project is also consistent with the Parks and Recreation Master Plan, OVRP Concept Plan, Greenbelt Master Plan, and ALUCP. the proposed project would not be consistent with the intent under General Plan Policy E 6.4 (as will be corrected) to avoid siting or approving residential land uses within 1,000 of a major toxic air emitter. Therefore, a potentially significant impact related to consistency with the General Plan would occur.	**MM LU-4** Prior to approval of each residential building permit in Village Three North and a Portion of Village Four, the applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that each proposed residential unit to be constructed shall be located at least 1,000 feet away from the then active solid waste disposal areas of the Otay Landfill as required by General Plan Policy E 6.4 (as ~~will be~~ corrected) and by Section 2.5 of the Amended and Restated Otay Landfill Expansion Agreement. ~~Notwithstanding the typically ministerial nature of building permit approvals, t~~The City shall ~~have and retain discretion here to~~ deny any building permit application regarding any residential lot or parcel that does not comply with this Mitigation Measure.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project conflict with any applicable habitat conservation plan or natural community habitat conservation plan?	No significant impacts related to Habitat Conservation Plans or Natural Community Conservation Plans have been identified for implementation of the proposed project.	No mitigation required.	No Impact.
5.2 Landform and Aesthetics			
Would the project have a substantial adverse effect on a scenic vista?	The proposed project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No significant impacts to scenic resources within a state scenic highway have been identified; impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	The project would permanently alter the character of the project site from open, rolling topography to urban development. This impact would be potentially significant prior to mitigation.	MM AES-1 Prior to issuance of the first Final Maps for Village Three North, Village Eight East, and Village Ten, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a Landscape Master Plan. The Landscape Master Plan shall demonstrate compliance with Otay Ranch GDP Policies pertaining to softening manufactured slopes, particularly on visible manufactured slopes greater than 25 feet in height, through plant selection, placement, and density, etc. The Landscape Master Plan shall also demonstrate compliance with Otay Ranch GDP Policies pertaining to blending development harmoniously with natural features of the land including the OVRP and its major canyons.	Significant and unavoidable
Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	New lighting installed at parks, mixed-use residential and commercial buildings, multi-family residential, and CPF uses may be incompatible with surrounding development and inconsistent with applicable regulations. Future lighting and shade and shadow impacts cannot be determined at this time because the	MM AES-2 Concurrent with the preparation of site-specific plan(s) for park sites and prior to issuance of a building permit for any park, the Applicant shall prepare, or in the case of the City being the lead on the preparation of the site specific plan, the Applicant shall fund the preparation of a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and ~~evaluate~~ demonstrate that the proposed height, location, and intensity of	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
	location, size, and orientation of future buildings are not yet known. Therefore, these impacts are considered potentially significant prior to mitigation.	all exterior lighting ~~for compliance~~complies with the City's performance standards for light, and glare (Chula Vista Municipal Code19.66.100). MM AES-3 Concurrent with design review and prior to the issuance of building permits for mixed-use residential, commercial, Community Purpose Facility and multi-family residential, the Applicant shall prepare a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and ~~evaluate~~ demonstrate that the proposed height, location, and intensity of all exterior lighting ~~for compliance~~complies with the City's performance standards for light, and glare (Chula Vista Municipal Code19 19.66.100). MM AES-4 Prior to design review approval for any structure ~~four~~ three stories and above, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a shadow analysis demonstrating that adjacent shadow-sensitive uses are not permanently shadowed, and/or any other approved city-standard in place at the time the shadow analysis is performed.	
Would the project alter areas of sensitive landforms and grade steep slopes that may be visible from future development and roadways that negatively detract from aesthetic character of the site or surrounding area?	The project would not significantly impact steep slopes; however, landform alterations and the visibility of these alterations from future development and roadways are considered potentially significant prior to mitigation.	See mitigation measure MM AES-1.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch GDP or other objectives and policies regarding	The project would be consistent with all applicable visual character policies. Impacts would be less than significant.	No mitigation required	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
visual character thereby resulting in a significant physical impact?			
5.3 Transportation, Circulation, and Access			
Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersection)?	The project would result in direct impacts related to access and frontage, and circulation system assumptions in Year 2015, Year 2020, Year 2025, and Year 2030 conditions. The project would result in direct and cumulative impacts to intersections, roadway segments, freeway/state highways in Year 2020, Year 2025, and Year 2030 conditions. The project would result in significant and unavoidable cumulative impacts in Year 2020, Year 2025, and Year 2030 conditions. Mitigation measures are included to reduce direct and cumulative impacts, but they would not be mitigated to a level below significance. Some impacts remain significant due to infeasible mitigation (see Section 5.3.6 and/or Section 8.0). In the event that the proposed project is not phased in accordance with the assumed phasing schedule as identified in Table 4.3, potentially significant impacts could occur.	**MM TCA-1** Prior to the issuance of the building permit for the 2,463rd DU for development east of I-805 commencing from April 4, 2011, the Applicant may: a. Prepare a traffic study that demonstrates, to the satisfaction of the City Engineer, that the circulation system has additional capacity without exceeding the GMO traffic threshold standards. <u>The City's determination regarding the adequacy of the circulation system shall be based on whether the quality of life threshold standards for traffic set for in the City of Chula Vista GMO (Chapter 19.09 of the Chula Vista Municipal Code) are met; The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments, except, that during peak hours a LOS "D" can occur for no more than two hours; or</u> b. Demonstrate that other improvements are constructed which provide the additional necessary capacity to comply with the GMO traffic threshold to the satisfaction of the City Engineer; or c. Agree to the City Engineer's selection of an alternative method of maintaining GMO traffic threshold compliance. <u>The City's determination regarding the scope and timing of the alternative method shall be based on demonstrated compliance with the GMO traffic thresholds; or</u> d. Enter into agreement, approved by the City, with other Otay Ranch developers that alleviates congestion and achieves GMO traffic threshold compliance for Olympic Parkway. The agreement will identify the deficiencies in	Significant and unavoidable.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		transportation infrastructure that will need to be constructed, the parties that will construct said needed infrastructure, and a timeline for such construction, as well as providing assurances for construction, in accordance with the City's customary requirements, for said infrastructure. If GMO compliance cannot be achieved through 1a, 1b, 1c, or 1d, then the City ~~may, in its sole discretion,~~shall stop issuing new building permits within the project area, after building permits for 2,463 DU have been issued for any development east of I-805 after April 4, 2011, until such time that GMO traffic threshold standard compliance can be assured to the satisfaction of the City Manager. These measures shall constitute full compliance with growth management objectives and policies in accordance with the requirements of the General Plan, Chapter 10, and with regard to traffic thresholds set forth in the GMO. MM TCA-2 Project Applicant shall construct the access and frontage improvements consistent with the triggers identified in Table 5.3-56 to the satisfaction of the Development Services Director and the City Engineer. MM TCA-3 The year 2015 scenario assumes the following intersection and roadway improvements are in place: • Phase 1 of the I-805 South Project, including improvements to I-805 between Home Avenue and East Palomar Street • Heritage Road, south of Main Street to the Chula Vista city limit as a 4-lane Major Road with Raised Median If the first final map containing the 611th EDU is submitted for approval ~~If the project equivalent dwelling unit limit of 611th EDU~~	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		~~is exceeded~~ prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken, each to the satisfaction of the City Engineer: i. Development in Village Three and the Portion of Village Four shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service ~~assessment may be necessary~~ at that time to determine: (i) if such improvements ~~are~~ in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic~~in accordance with the City of Chula Vista Growth Management Ordinance~~. Direct Impact Mitigation	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM TCA-4 Intersections: I-805 SB Ramps / Olympic Parkway (CV), I-805 NB Ramps / Olympic Parkway (CV), and Brandywine Avenue / Olympic Parkway (CV); Roadways: Olympic Parkway, between I-805 SB Ramps and I-805 NB Ramps (CV); Olympic Parkway, between I-805 NB Ramps and Oleander Avenue (CV); Olympic Parkway, between Oleander Avenue Brandywine Avenue (CV); and Olympic Parkway, between Brandywine Avenue and Heritage Road (CV) – Prior to issuance of the Final Map that contains the 956th equivalent dwelling unit (EDU) in Village Three North, the Project Applicant shall construct Heritage Road, between Olympic Parkway and Main Street, as a Six-Lane Prime Arterial. I-805 NB Ramps / Olympic Parkway, and Brandywine Avenue / Olympic Parkway would be reduced to less than significant by this mitigation measure. Additionally, the impacts identified on Olympic Parkway between the I-805 SB Ramps and I-805 NB Ramps; Olympic Parkway between the I-805 NB Ramps and Oleander Avenue; Olympic Parkway between Oleander Avenue and Brandywine Avenue; and, Olympic Parkway between Brandywine Avenue and Heritage Road also would be reduced to less than significant with implementation of this mitigation measure. The impact at the intersection of I-805 SB Ramps / Olympic Parkway (CV) will remain significant and unavoidable at this location.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Impacts identified at the intersections of I-805 NB Ramps / Olympic Parkway (CV), and Brandywine Avenue / Olympic Parkway (CV) would be reduced to less than significant. Impacts identified on the roadways listed above would all be reduced to less than significant with implementation of this mitigation measure. MM TCA-5 Heritage Road / Main Street (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 751st EDU in Village Three North, the Project Applicant shall signalize Heritage Road / Main Street intersection. MM TCA-6 La Media Road (SB) / Main Street (WB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (SB) /Main Street (WB) intersection. MM TCA-7 La Media Road (NB) / Main Street (WB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (NB) /Main Street (WB) intersection MM TCA-8 La Media Road (SB) / Main Street (EB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (SB) /Main Street (EB) intersection. MM TCA-9 La Media Road (NB) / Main Street (EB) (all-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 880th EDU in Village Eight East, the Project Applicant shall signalize the La Media Road (NB) / Main Street (EB) intersection.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM TCA-10 Magdalena Avenue / Main Street (one-way stop controlled) (CV) – Prior to issuance of the Final Map that contains the 1,693rd EDU in Village Eight East, the Project Applicant shall signalize the Magdalena Avenue / Main Street intersection. Cumulative Impact Mitigation Orange Avenue, between Melrose Avenue and I-805 SB Ramps - Due to right-of-way constraints there are no feasible mitigation measures to reduce the cumulative impact at Orange Avenue, between Melrose Avenue and I-805 SB Ramps. The impact will remain cumulatively significant and unavoidable at this location. . MM TCA-11 The year 2020 scenario assumes the following intersection and roadway improvements are in place: • Heritage Road, south of Main Street to the Chula Vista city limit as a 6-lane Prime Arterial • Otay Lakes Road between H Street and Telegraph Canyon Road as a 6-lane Prime Arterial ~~• Quarry Driveway (Int #65) @ Main Street as an all-way stop controlled intersection~~ If the first Final Map containing the 4,070th EDU is submitted for approval prior to these improvements being constructed and open to traffic, then one of the following steps shall be taken each to the satisfaction of the City Engineer: i. Development in Village Three and the Portion of Village Four and Village Eight East shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service ~~assessment may be necessary~~ at that time to determine: (i) if such improvements ~~are~~ in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway links and receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic~~in accordance with the City of Chula Vista Growth Management Ordinance~~. Direct Impact Mitigation **MM TCA-12 Intersections**: Heritage Road / Olympic Parkway (CV) and La Media Road / Olympic Parkway (CV); **Roadways**: Olympic Parkway, between Heritage Road and Santa Venetia Street (CV); and Heritage Road, between East Palomar Street and Olympic Parkway (CV) – Prior to the issuance of each building permit, the Project Applicant shall pay the appropriate Transportation Development Impact Fees (TDIF) for the construction of Main Street, between Heritage Road and La	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Media Road, as a Six-Lane Prime Arterial, including the construction of Main Street bridge, the signalization of Quarry Driveway / Main Street (Int #65), and the signalization of Village Three North R-20 Driveway / Main Street (Int #66). The project will signalize the intersection of Village Three North R-20 Driveway / Main Street (Int #66) in conjunction with the construction of Main Street, while the TDIF program will signalize the intersection of Quarry Driveway / Main Street (Int #65). The analysis shows the need for Main Street from the Heritage Road to La Media Road is triggered by the 4,737th EDU. If the project equivalent dwelling unit limit of 4,736 EDU is reached prior to this roadway segment being constructed and open to traffic, then one of the following steps shall be taken as determined by the City Engineer: i. Development in Villages Three North, Eight East, and Ten shall stop until the future roadway is constructed by the City; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service at that time to determine: (i) if such improvements in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. . The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or iii. Applicant shall construct the missing roadway link and receive a transportation development impact fee credit for the improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic. ~~Prior to the Final Map containing the 4,737th EDU, the Project Applicant shall pay the appropriate Transportation Development Impact Fees (TDIF) for the construction of Main Street, between Heritage Road and La Media Road, as a Six-Lane Prime Arterial, including the construction of Main Street bridge, , the signalization of Quarry Driveway / Main Street (Int #65), and the signalization of Village Three North R-20 Driveway / Main Street (Int #66). The project will signalize the intersection of Village Three North R-20 Driveway / Main Street (Int #66) in conjunction with the construction of Main Street, while the TDIF program will signalize the intersection of Quarry Driveway / Main Street (Int #65).~~ The segment of Main Street between Heritage Road and La Media Road will provide an important direct east-west linkage and reduce traffic along Heritage Road – Olympic Parkway – La Media Road, thereby improving operations at the Heritage Road / Olympic Parkway intersection to acceptable levels and reducing the identified impact to less than significant. Cumulative Impact Mitigation I-805 SB Ramps / Olympic Parkway (CV) –mitigation is infeasible and the impact at this location will remain cumulatively significant and unavoidable at this location. Orange Avenue, between Melrose Avenue and I-805 SB Ramps (CV) –mitigation is infeasible and the impact will remain cumulatively significant and unavoidable at this location.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Direct Impact Mitigation **MM TCA-13 Intersection**: Discovery Falls Drive / Hunte Parkway (CV) – Prior to issuance of the 1,295th EDU of Village Ten, the Project Applicant shall construct a dedicated right-turn lane at the northbound Discovery Falls Drive approach to the Discovery Falls Drive/Hunte Parkway intersection. Cumulative Impact Mitigation I-805 SB Ramps / Olympic Parkway (CV) –mitigation is infeasible and the impact will remain cumulatively significant and unavoidable at this location. Orange Avenue, between Melrose Avenue and I-805 SB Ramps (CV)– mitigation is infeasible and the impact will remain cumulatively significant and unavoidable at this location. **MM TCA-14** I-805 Northbound On-Ramp at Main Street - Prior to project buildout, the Project Applicant shall work with Caltrans to, and Caltrans can and should, adjust the ramp meter rate at the I-805 northbound on ramp at Main Street such that the ramp meter reflects the additional vehicle traffic attributable to the project. **MM TCA-15** The Project Applicant shall incorporate the following measures as part of the project design and development, consistent with the identified triggers, to the satisfaction of the Development Services Director: • Implement pedestrian circulation improvements to improve the internal pedestrian circulation and encourage the usage of public transportation (concurrent with the approval of improvement plans for each village).	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		• Implement bicycle circulation improvements to improve internal bicycle circulation and encourage the usage of bicycles (concurrent with the approval of improvement plans for each village). • Participate in car sharing and bike sharing programs through HOA noticing, should such programs become available. • Promote Carpool/Vanpool programs by providing preferential parking for carpools and vanpools (concurrent with the approval of site plans for each village core). • Promote available websites providing transportation options for residents and businesses (concurrent with issuance of certificate of occupancy). • Create and distribute a "new resident" information packet addressing alternative modes of transportation (concurrent with issuance of certificate of occupancy). • Promote programs to encourage workplace peak hour trip reduction, including staggered work hours, regional ride-matching services, and telecommuting (concurrent with issuance of certificate of occupancy). • Orient buildings to the main street or activity area, such that they are not separated from the street by vast parking areas or fences, thereby encouraging pedestrian traffic (concurrent with the approval of site plans for each village core). • Where transit is available on-site, participate in providing the necessary transit facilities, such as bus pads, shelters, signs, lighting, and trash receptacles (concurrent with the approval of improvement plans for each village). • Coordinate with the MPO as to the future siting of transit stops/stations within the project site (concurrent with the approval of improvement plans, and/or site plans, for each village). MM TCA-16 The year 2030 scenario assumes the following intersection and roadway improvements are in place: • Main Street between SR-125 right-of-way (western boundary)	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		and Eastlake Parkway/University Drive is constructed as a 6-lane Gateway Street (6,432nd EDU) • SR-125 / Main Street interchange constructed (6,432 EDU) • Otay Valley Road constructed between SR-125 right-of-way (western boundary) and Village Nine Street "B" (Int #74), including an overpass at SR-125 (7,767th EDU). If the project equivalent dwelling unit limit of EDUs identified above is submitted for approval prior to the respective improvements being constructed and open to traffic, then one of the following steps shall be taken each to the satisfaction of the City Engineer: i. Development in Village Three and Portion of Village Four, Village Eight East, and Village Ten shall stop until those assumed future roadways are constructed by others as presently planned; or ii. City and the Applicant shall meet to determine the need for the incomplete roadway segments. Because a number of factors, including changes to the tolling structure at SR-125, may affect future traffic patterns in Otay Ranch, the Applicant shall submit to the City additional traffic analysis of the roadway network and levels of service ~~assessment may be necessary~~ at that time to determine: (i) if such improvements ~~are~~ in fact are necessary; and (ii) the scope and timing of additional circulation improvements, if any. The City's determination of whether such improvements are necessary, or the scope and timing of additional improvements, shall be based on whether the City's traffic quality of life threshold standards are met, consistent with the performance standards set forth in the City of Chula Vista Growth Management Ordinance (GMO) (Chapter 19.09 of the Chula Vista Municipal Code). The current traffic threshold is to maintain LOS "C" or better as measured by observed average travel speed on all signalized arterial segments; except, that during peak hours, a LOS "D" can occur for no more than two hours; or	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		iii. Applicant shall construct the missing roadway links an receive a transportation development impact fee credit for those improvements as applicable; or iv. An alternative measure is selected by the City that is demonstrated to ensure that the applicable GMO quality of life thresholds are met for traffic~~in accordance with the City of Chula Vista Growth Management Ordinance~~. MM TCA-17 The proposed project shall be implemented, or phased, consistent with the development timeframe set forth in Project Description Table 4-3. In the event that project development substantially deviates from the phasing set forth in Table 4-3 (e.g., Village Three being built first, followed by Village Eight East and then Village Ten), the Applicant, or its designee, shall conduct additional environmental analysis consistent with the requirements of CEQA and as approved by the Development Services Director, or designee. Additional analysis may include a supplemental traffic study that analyzes the potential traffic circulation impacts associated with the phasing deviation, and identifies new circulation improvements or other mitigation measure(s), if needed.	
Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	See response to first Traffic, Circulation, and Access threshold standard.	See response to first Traffic, Circulation, and Access threshold standard.	Significant and unavoidable.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	The project would not significantly impact air traffic patterns.	No mitigation required.	Less than significant.
Would the project substantially increase hazards due to a design feature or incompatible uses?	The proposed circulation network would be consistent with the City's Street Design Standards, therefore the proposed project would not increase hazards due to a design feature or incompatible uses.	No mitigation required.	Less than significant.
Would the project result in inadequate emergency access?	The internal roadways, along with access points, would be designed per City standards, which would ensure design consideration for emergency vehicles. Compliance with street design standards, along with six Village access points and proximity of Fire Station No. 7 would result in less than significant impacts.	No mitigation required.	Less than significant.
Would the project be inconsistent with the General Plan, Otay Ranch GDP, ordinances or policies establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non –motorized travel and relevant components of the circulation system including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	The project would not conflict with any applicable General Plan or Otay Ranch GDP policies.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
5.4 Air Quality			
Would the project conflict with or obstruct implementation of the applicable air quality plan or General Plan policies?	The proposed project would result in an increase in land use intensity and associated increase in vehicle trips that have not been anticipated in the applicable air quality plans. Therefore, the proposed project would be not be consistent with the SIP and RAQS, and impacts would be significant and unavoidable.	No feasible mitigation.	Significant and unavoidable.
Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Daily construction emissions for CO and SO_x, would not exceed the City's significance thresholds. However, the VOC, NO_x, PM_{10} and $PM_{2.5}$ emissions associated with project construction would exceed the City of Chula Vista's emission threshold and impacts would be significant and unavoidable. Daily operational emissions for SO_x would not exceed the City's significance thresholds. However, the VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions associated with operation of the project would exceed the City of Chula Vista's significance thresholds. This impact, therefore, is considered significant and unavoidable.	**MM AQ-1** Prior to approval of any grading permits, the Project Applicant or its designee shall place the following on all grading plans to the satisfaction of the Development Services Director and City Engineer, and these requirements shall be implemented during grading of each phase of the project to minimize NO_x emissions: • Minimize simultaneous operation of multiple construction equipment units. During construction, vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions; • All construction equipment shall be outfitted with best available control technology (BACT) devices certified • by CARB. A copy of each unit's BACT documentation shall be provided at the time of mobilization of each applicable unit of equipment; • All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications; • All diesel-fueled, on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used, or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible;	Significant and unavoidable.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		• The effectiveness of the latest diesel emission controls is highly dependent on the sulfur content of the fuel. Therefore, diesel fuel used by on- and off-road construction equipment shall be low sulfur (less than 15 ppm) or other alternative, low-polluting diesel fuel formulation; • The use of electrical construction equipment shall be employed where feasible; • The use of catalytic reduction for gasoline-powered equipment shall be employed where feasible; • The use of injection timing retard for diesel-powered equipment shall be employed where feasible. MM AQ-2 Prior to approval of any grading permits, the Project Applicant or its designee shall place the following Standard Construction Best Management Practices (BMPs) on all grading plans to the satisfaction of the Development Services Director and City Engineer and shall implement these BMPs during project construction to minimize PM_{10} and $PM_{2.5}$ emissions, including: • Water, or utilize another acceptable SDAPCD dust control agent on, the grading areas at least twice daily to minimize fugitive dust; • Stabilize grading areas as quickly as possible to minimize fugitive dust; • Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry; • Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads; • Remove any visible track-out into traveled public streets within 30 minutes of occurrence; • Wet wash the construction access point at the end of the workday if any vehicle travel on unpaved surfaces has occurred;	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		• Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads; • Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling; • Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 miles per hour (mph); • Cover/water on-site stockpiles of excavated material; • Enforce a 20 mph speed limit on unpaved surfaces; • Pave permanent roads as quickly as possible to minimize dust; • During construction, site grading activities within 500 feet of a school in operation shall be discontinued or all exposed surfaces shall be discontinued or all exposed surfaces shall be watered to minimize dust transport off site to the maximum degree feasible, when the wind velocity is greater than 15mph in the direction of the school; • During blasting, utilize control measures to minimize fugitive dust. Control measures may include, but are not limited to, blast enclosures, vacuum blasters, drapes, water curtains or wet blasting.	
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 releasing emissions which exceed quantitative thresholds for ozone precursors)?	The project's contribution to cumulative construction and operational emissions of VOC, NO_x, PM_{10} and $PM_{2.5}$ and would be significant and unavoidable even with implementation of MM AQ-3.	No feasible mitigation.	Significant and unavoidable.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project expose sensitive receptors to substantial pollutant concentrations?	Impacts specific to TACs, including diesel particulate matter generated from traffic volumes on SR-125, would be less than significant. With respect to the development of on-site land uses, impacts arising from the emission of TACs would be potentially significant if the site is developed to accommodate any light industrial uses, gas stations, or dry cleaning facilities in close proximity to sensitive receptors. Neither the state 1-hour standard nor the 8-hour standard would be equaled or exceeded at any of the intersections studied; potential CO hotspot impacts would be less than significant.	MM AQ-3 Prior to approval of the building permit for any uses that are regulated for TACs by the SDAPCD, the Project Applicant shall demonstrate to the satisfaction of the Development Services Director (or their designee) that the use complies with established criteria (such as those established by SDAPCD Rule 1200 and CARB). Also, gas stations shall not be located within 50 feet of a sensitive receptor, in accordance with CARB's siting recommendations.	Less than significant.
Would the project create objectionable odors affecting a substantial number of people?	The proposed project would not create significant odors during construction and operations. Impacts would be less than significant.	No mitigation required.	Less than significant.
5.5 Noise			
Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies?	The project would result in potentially significant impacts due to the exposure of sensitive receptors to noise levels in excess of established thresholds.	Also see mitigation measures MM BIO-17 and MM BIO-18. MM NOI-1 Site-Specific Acoustical Analysis – Single- and Multi-Family Residential Development - Exterior. Prior to the approval of rough grading permits for residential development adjacent to Main Street and Heritage Road (Village Three), Otay Valley Road, SR-125 and Main Street (Village Eight), and Discovery Falls Drive and University Drive (Village Ten), the Project Applicant or its designee shall: (i) prepare a site-specific acoustical study based on the Final Map design; (ii) construct noise barriers as specified below; and (iii) implement any additional noise control measures recommended as a result of the analysis necessary to achieve compliance with the City's Land Use/Noise Compatibility Guidelines and the City's	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Noise Ordinance (Municipal Code Section 19.68) for exterior noise sensitive land uses. Implementation of all recommended measures shall be to the satisfaction of the Development Services Director (or their designee) and all required noise control measures shall be made conditions of grading permit issuance. The acoustical study shall include, but not be limited to the following: 1. Specification of the location, height, and building material to be used for the noise barriers to be constructed in accordance with Figures 12, 13 and 14 (Approximate Sound Wall Locations), contained in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014). The sound wall noise barriers shall be a minimum of six feet in height, must have a surface density of at least four pounds per square foot, and be free of openings and cracks (with the exception of expansion joints gaps and other construction techniques, which could create an opening or crack). The wall may be constructed of acrylic glass, masonry material, earthen berm, or a combination of these materials. Heights are provided relative to final pad elevation. Required heights may be achieved through construction of walls, berms or a wall/berm combination; 2. A detailed analysis that demonstrates that barriers and/or setbacks have been incorporated into the project design, such that noise exposure to residential receivers placed in all useable outdoor areas, including multi-family residential patios and balconies, are at or below 65 dBA CNEL. Measures to reduce noise levels may include, but are not limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation; and	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		3. Should pad grade elevations, lot configuration/site design, and/or traffic assumptions change during the processing of any Final Maps, the barriers shall be refined to reflect those modifications. MM NOI-2 Site-Specific Acoustical Analysis – Single-Family Residences - Interior. Concurrent with design review and prior to the approval of building permits for single-family residential development where the exterior noise level exceeds 60 dBA CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to ensure that interior noise levels due to exterior noise sources will be at or below 45 dBA CNEL; and (ii) implement all measures recommended as a result of the analysis necessary to achieve compliance with the City's Land Use/Noise Compatibility Guidelines and the City's Noise Ordinance (Municipal Code Section 19.68) for single-family residential interior uses. This mitigation measure shall apply to neighborhoods R-1, R-2, R-9, R-11 and R-20 in Village Three North; and neighborhoods R-11a and R-13 in Village Eight East where exterior noise levels exceed 60 dBA CNEL. Measures to reduce noise levels may include, but are not limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. Design-level architectural plans shall be used to assess the exterior-to-interior transmissions loss for habitable rooms. Contingent upon the results of the interior acoustical analysis, the units may need to include an air conditioning system to provide a habitable interior environment with the windows closed while meeting the interior standard of 45 dBA CNEL. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance. MM NOI-3 Site-Specific Acoustical Analysis – Multi-Family Residences - Interior. Concurrent with design review and prior to the approval of building permits for multi-family areas where first and/or second floor exterior noise levels exceed 60 dBA CNEL and/or where required outdoor area (patios or balconies) noise levels exceed 65 dBA CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to achieve compliance with California's Title 24 Interior Noise Standards (i.e., 45 dBA CNEL) and the City's Exterior Land Use/Noise Compatibility Guidelines for outdoor use areas (i.e., 65 dBA CNEL); and (ii) implement those measures necessary to achieve compliance with all applicable noise standards. This mitigation measure shall apply to neighborhoods R-14a, R-15a, R-16, R-17 and R-18d in Village Eight East; and neighborhoods R-5, R-6, R-7, R-8, R-9, R-10, R-17a, R-17b, R-17c, R-18a, R-18b, R-19a, R-19b, and R-19c in Village Ten, where exterior noise levels exceed 60 dBA CNEL.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. Design-level architectural plans will be available during design review and will permit the accurate calculation of transmissions loss for habitable rooms. For these areas, it may be necessary for the windows to be able to remain closed to ensure that interior noise levels meet the interior standard of 45 dBA CNEL. Consequently, the design for buildings in these areas may need to include a ventilation or air conditioning system to provide a habitable interior environment with the windows closed based on the result on the interior acoustical analysis. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance. MM NOI-4 Site-Specific Acoustic Analysis – Non-Residential Commercial and/or Mixed-Use Residential – Exterior. Concurrent with design review and prior to the approval of building permits for non-residential commercial and/or mixed use residential area where exterior noise levels exceed 65 dBA	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		CNEL as indicated in the Noise Assessment Technical Report for the Otay Ranch University Villages Project (Dudek 2014), the Applicant or its designee shall: (i) prepare a site-specific acoustical analysis identifying those noise control measures necessary to ensure that exterior noise levels at the boundary of the proposed noise sensitive land use will be below 65 dBA CNEL; and (ii) implementation of any measures recommended as a result of the analysis. Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee), and all required noise control measures identified in the acoustical analysis shall be made conditions of building permit issuance. **MM NOI-5** Site-Specific Acoustical Analysis – Industrial Zone. As part of the site plan/development plan review process conducted in connection with future industrial development applications submitted to the City, the Applicant or its designee shall prepare a site-specific acoustical analysis to identify those noise control measures necessary to ensure noise levels generated by the proposed use will comply with the City's General Plan noise	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		standards for residential property boundaries proximate to the industrial zone (maximum exterior noise levels of 65 CNEL). The acoustical analysis shall be prepared to the satisfaction of the Development Services Director (or their designee). All required noise control measures identified in the acoustical analysis shall be made conditions of development approval. MM NOI-6 As a condition of approval of the proposed project, the City shall limit the active programming operational hours for neighborhood park sites to 7:00 am–10:00 pm, 7 days a week. MM NOI-7 Concurrent with design review and prior to the approval of building permits for the elementary schools: an acoustical analysis shall be prepared identifying the noise control measures necessary to ensure that noise levels at exterior use areas (i.e., playground, sports fields, athletic courts, etc.) will be below 65 dBA CNEL and requiring implementation of any measures recommended as a result of the analysis. Measures to reduce noise levels may include, but would not be limited to, setback of structures from the roadway, installing acoustic barriers, or orienting outdoor activity areas away from roadways so that surrounding structures provide noise attenuation. The acoustical analysis shall also address control measures for outdoor school activity noise and its effect upon immediately adjacent residential land uses, to ensure school activity related noise levels do not exceed 65 dB CNEL at exterior use areas of adjacent residential properties. The analysis shall also demonstrate that barriers or setbacks have been incorporated into the project design, such that, when considered with proposed construction specifications, ground level and upper story interior noise levels shall not exceed 45 dBA CNEL. Roof-ceiling assemblies making up the building	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		envelope shall have a sound transmission class value of at least 50, and exterior windows shall have a minimum sound transmission class of 30 in compliance with the California Green Building standards code. The acoustical analysis shall be prepared consistent with all applicable requirements to the satisfaction of the school district, and all required noise control measures identified in the acoustical analysis shall be made conditions of development approval. Mitigation measure NOI-7 is consistent with the *School Site Selection and Approval Guide* prepared by the California Department of Education, which provides that if a school district is considering a potential school site near a freeway or other source of noise, it should hire an acoustical engineer to determine the level of sound that location is subject to and assist in designing the school site that should be chosen. The *Guide* provides further that the American Speech-Language-Hearing Association guidelines recommend that in classrooms sounds dissipate in 0.4 seconds or less (and not reverberate) and that background noise not rise above 30 decibels.	
Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Project generated construction noise would pose a potentially significant impact on noise-sensitive receptors if construction hour limitations are not imposed. However, with adherence to a restricted construction schedule dictating project-related site preparation and construction activities limited to the hours between 7:00 am–6:00 pm, Monday–Friday and between the hours of 8:00 am–6:00 pm Saturday, significant construction-related noise impacts could be avoided.	**MM NOI-8** The Project Applicant or its designee shall limit all project-related site preparation and construction activities to the hours between 7:00 am–6:00 pm, Monday–Friday, and between 8:00 am–6:00 pm Saturday. No construction activities shall occur on Federal holidays (e.g., Thanksgiving, July 4th, Labor Day, etc.). All maintenance of construction equipment shall be limited to the same hours. This language shall be added to the project grading plans. Minor construction (i.e., minor household do-it-yourself type projects) and non-noise-generating construction activities such as interior painting are not subject to these restrictions.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	The proposed project's contribution to cumulative traffic noise levels would be limited, a 1 dB increase at most, which by itself is not a discernible increase. Additionally, the proposed project would not contribute any increase in noise levels at those locations equal to or exceeding the City's 65 dB CNEL noise standard for residential land use under Without Project conditions. Impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Blasting may be required in the Village Four Community Park (P-2) area. Although this would not exceed any City thresholds, blasting, if determined to be necessary, is considered to have a potentially significant impact unless mitigated.	**MM NOI-9** Prior to the issuance of a grading permit, and in the event that blasting is proposed in Village Four, the Project Applicant or its designee shall prepare a blasting plan to ensure that exterior noise levels at noise sensitive land uses are in compliance with the City of Chula Vista General Plan Exterior Land Use / Noise Compatibility Guidelines and the City's Noise Ordinance Exterior Noise Limits. The plan shall be prepared by a licensed blasting engineer and identify when such blasting events would occur, the approximate amount of explosives to be used (which amount shall be limited to the extent practicable so as to minimize resulting noise), and the location and proximity of the blasting event relative to sensitive receptors. If deemed beneficial for noise reduction purposes, the plan shall include a requirement that blasting mats be used. The blasting plan shall also detail the surrounding zone in which noise-sensitive land uses would be notified of planned blasting activities, and of the nature of audible warning signals to be used just prior to blasting. The blasting plan shall be prepared to the satisfaction of the Development Services Director (or their designee), and all noise control measures identified in the blasting plan shall be made conditions of grading permit issuance.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be located within an airport land use plan (ALUP) or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	The 2005 ALUCP indicates that the project site (i.e., Villages 3 North, 4, 8 East, and 10) is north and outside of the 60 and 65 dB CNEL noise contours for Brown Field. According to existing data for Brown Field, the project site would not be exposed to noise levels from aircraft operations that exceed 60–65 dB CNEL. In that 65 dB CNEL is an acceptable exterior noise exposure level for all of the land uses proposed within the project, airport noise exposure levels would remain below significant levels.	No mitigation required.	Less than significant.
Would project be within the vicinity of a private airstrip, which would expose people residing or working in the project area to excessive noise levels?	The graphics in the 2005 ALUCP indicate that the project site (i.e., Villages 3 North, 4, 8 East, and 10) is north and outside of the 60 and 65 dB CNEL noise contours for Brown Field. According to existing data for Brown Field, the project site would not be exposed to noise levels from aircraft operations that exceed 60–65 dB CNEL. In that 65 dB CNEL is an acceptable exterior noise exposure level for all of the land uses proposed within the project, airport noise exposure levels would remain below significant levels.	No mitigation required.	Less than significant.
Would the project be inconsistent with the Chula Vista General Plan, Otay Ranch General Development Plan or other objectives and policies regarding noise thereby resulting in a significant physical impact?	The proposed project would not conflict with the General Plan and Otay Ranch GDP and impacts would be less than significant.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
5.7 Cultural Resources			
Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	Construction and operation of the proposed project would not cause a substantial change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5, and less than significant impacts would occur.	No mitigation required.	Less than significant.
Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5?	Development of Village Three North and a Portion of Village Four, Village Eight East, Village Ten, and Off-Site Improvement Areas could cause a substantial change in the significance of identified archaeological resource as defined in CEQA Guidelines Section 15064.5 impacts to these sites would be potentially significant.	**MM CUL-1** Prior to issuance of land development permits, including clearing or grubbing and grading permits, the Applicant shall provide written confirmation and incorporate into grading plans, to the satisfaction of the Development Services Director or their designee, that a principal investigator (PI) meeting the criteria listed in the Secretary of the Interior guidelines (36 CFR 61) has been retained in an oversight capacity to ensure that an archaeological monitor(s) will be present during all cutting of previously undisturbed soil. If these cutting activities occur in more than one location, multiple monitors shall be provided to monitor these areas, as determined necessary by the PI. Native American monitoring will only be required in the event that human remains are discovered and identified as Native American. The location and duration of monitoring by a Native American representative will be determined by the Consulting Archaeologist and will be focused strictly upon the area corresponding to the discovery of human remains. **MM CUL-2** During the initial grading of previously undisturbed soils within the SPA Plan areas) and off-site improvement areas, prehistoric and historic resources may be encountered. In the event that the archaeological monitor identifies a potentially significant site, the monitor shall secure the discovery site from further impacts by delineating the site with staking and flagging, and by diverting grading equipment away from the archaeological site. Following notification to the City, the archaeological monitor shall conduct investigations as necessary to determine if the discovery is	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		significant under the criteria listed in CEQA and the environmental guidelines of the City. If the discovery is determined to be not significant, grading operations may resume and the archaeological monitor shall summarize the findings in a letter report submitted to the City following the completion of mass grading activities. The letter report shall describe the results of the on-site archaeological monitoring, each archaeological site observed, the scope of testing conducted, results of laboratory analysis (if applicable), and conclusions. The letter report shall be completed to the satisfaction of the City of Chula Vista's Development Services Director or their designee prior to the release of grading bonds. Any artifacts recovered during the evaluation of resources shall be curated at a facility approved by the City. MM CUL-3 For the cultural prehistoric/historic resources that are determined to be significant, alternate means of achieving mitigation shall be pursued. In general, these forms of mitigation include: 1. site avoidance by preservation of archaeological site in a natural state in open space, or in specific open space easements, 2. site avoidance by preservation through capping the site and placing landscaping on top of the fill, 3. data recovery through implementation of an excavation and analysis program, 4. a combination of one or more of the above measures. See Chapter 9.0 in the *Cultural Resources Study for the University Villages Project at Otay Ranch* (Appendix F of this EIR) for the detailed mitigation and monitoring program for each of the identified significant sites that would be impacted. MM CUL-4 For those sites that are found to contain significant resources and for which avoidance and preservation is not feasible or appropriate, the Applicant shall prepare a Data Recovery Plan.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		The plan will, at a minimum, include the following: 1. a statement of why data recovery is appropriate as a mitigation measure, 2. a research plan that explicitly provides the research questions that can reasonably be expected to be addressed by excavation and analysis of the site, 3. a statement of the types and kinds of data that can reasonably be expected to exist at the site and how these data will be used to answer important research questions, 4. a step-by-step discussion of field and laboratory methods to be employed, 5. provisions for curation and storage of the artifacts, notes, and photographs will be stated. Grading operations within the affected area may resume once the site has been fully evaluated and mitigated to the satisfaction of the Development Services Director or their designee. All artifacts collected during the survey, test, data recovery, and monitoring programs for this project shall be permanently curated at a qualified facility approved by the City of Chula Vista. Artifacts shall be prepared for curation in accordance with the guidelines of the selected curation facility ~~All significant artifacts collected during the implementation of the Data Recovery Plan shall be curated at a facility approved by the City.~~ MM CUL-5 Following the completion of mass grading operations, the Applicant shall prepare a plan that addresses the temporary on-site presentation and interpretation of the results of the archaeological studies for the proposed project. This could be accomplished through exhibition within a future community center, civic building and/or multi-purpose building. Any artifacts used for public displays shall be selected from the curated collections	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		originating from the project. This exhibition will only be for temporary display of artifacts for public interpretation and display purposes. Artifacts selected for the exhibit shall be withdrawn on loan from the curation facility and will subsequently be returned to that facility upon the close of the exhibition. The applicant will be responsible for the artifacts during the display period and for the return of the artifacts at the close of the exhibition. The consulting archaeologist shall act on the applicant's behalf to coordinate the curation of all collections and the subsequent use of selected artifacts for the public display. ~~This exhibition will only be for temporary curation display of those materials being actively used for interpretation and display, and that permanent curation of artifacts and data will be at a regional repository that meets the standards of the State Historical Resource Commission's *Guidelines for the Curation of Archaeological Collections,* dated May 7, 1993, when one is established. All significant artifacts collected during the implementation of the Data Recovery Plan shall be permanently curated at a facility approved by the City.~~	
Would the project disturb any human remains, including those interred outside of formal cemeteries?	Any disturbance of human remains that may occur during project grading or construction would be significant. Therefore, impacts would be potentially significant and mitigation would be required to reduce potential impacts.	**MM CUL-6** If human remains are discovered during grading or site preparation activities within the SPA Plan area(s) and off-site improvement areas, the archaeological monitor shall secure the discovery site from any further disturbance. State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to the origin and disposition of the remains pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most likely Descendent (MLD) of the deceased Native American. The MLD will assist the City in determining what course of action shall be taken to deal with	Less than significant

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		the remains. Grading operations within the affected area may resume once the site has been fully evaluated and mitigated to the satisfaction of the Development Services Director or their designee. The Archaeological Monitor shall summarize the findings in a letter report to the City following the completion of mass grading activities.	
5.7 Paleontological Resources			
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Geologic formations with high and moderate potential for paleontological resources occur on site. Based upon the recognized potential to encounter fossils in these formations, impacts are considered potentially significant, and mitigation measures would be required.	MM PAL-1 Prior to the issuance of grading permits for the proposed project, including the Off-site Improvement Areas, the Applicant shall confirm to the Development Services Director, or their designee, that a qualified paleontologist (QP) has been retained to carry out an appropriate mitigation program. A QP is defined as an individual with a doctorate or a master's degree in paleontology or geology, who is familiar with paleontological procedures and techniques. A pre-grade meeting shall be held between the paleontologist and the grading and excavation contractors.	Less than significant
		MM PAL-2 A paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., San Diego, Otay, and Sweetwater formations) to inspect cuts for contained fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.) The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on site on at least a half-time basis during the original cutting of previously undisturbed sediments of moderately sensitive geologic formations (i.e., unnamed river terrace deposits of the Mission Valley Formation) to inspect cuts for contained fossils. A. The monitor shall be on site on at least a quarter-tie basis during the original cutting of previously undisturbed sediments of low sensitivity geologic formations (i.e., Lindavista Formation and Santiago Peak Volcanics [metasedimentary portion only] to	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		inspect cuts for contained fossils. He or she shall periodically (every several weeks) inspect original cuts in deposits with an unknown resource sensitivity (i.e., Quaternary alluvium). B. In the event that fossils are discovered in unknown, low, or moderately sensitive formations, the Applicant shall increase the per-day field monitoring time. Conversely, if fossils are not discovered, the monitoring, at the discretion of the Planning Department, shall be reduced. A paleontological monitor is not needed during grading of rocks with no resource sensitivity (i.e., Santiago Peak Volcanics, metavolcanic portion). MM PAL-3 When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site. MM PAL-4 Prepared fossils along with copies of all pertinent field notes, photos, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan paleontological policies thereby resulting in a significant physical impact?	The proposed project would be consistent with all General Plan goals, objectives, and policies related to paleontological resources, impacts would be less than significant.	No mitigation required.	Less than significant.
5.8 Biological Resources			
Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Wildlife Service?	Prior to mitigation implementation of the proposed project would result in significant direct and indirect impacts to "covered" sensitive plant species include the following: Otay tarplant, variegated dudleya, and San Diego barrel cactus. Otay tarplant and variegated dudleya are identified in the MSCP Subarea Plan as narrow endemics. Significant impacts to non-covered species include California adolphia, south coast saltscale, San Diego marsh-elder, singlewhorl burrobush, and Robinson's pepper grass. Implementation of the proposed project would result in the direct loss of habitat for all of the special-status animals and is considered significant prior to mitigation. Long-term indirect impacts to special-status wildlife species would also occur as a result of the proposed project. Impacts would consist of lighting, human activity in the Preserve, noise, and domestic animal predation. Indirect impacts to special-status wildlife species are considered significant prior to mitigation.	Also see mitigation measures MM AQ-1 through AQ-3 and MM HYD-1 through HYD-5. MM BIO-1 Prior to the approval of the first Final Map for the project, the Project Applicant shall coordinate with the City of Chula Vista (City) Engineer and annex the project area within the Otay Ranch Preserve Community Facilities District No. 97-2. Prior to the recordation of each Final Map, the Applicant shall convey land within the Otay Ranch Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at a ratio of 1.188 acres for each acre of "Developable Area" as defined by the RMP. Access for maintenance purposes shall also be conveyed to the satisfaction of the POM. Each tentative map shall be subject to a condition that the Applicant shall execute a maintenance agreement with the POM stating that it is the responsibility of the Applicant to maintain the conveyed parcel until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance responsibilities. The Applicant shall maintain and manage the offered conveyance property consistent with the RMP Phase 2 until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance and management responsibilities. Prior to the POM's formal acceptance of the conveyed land in fee title, the Project Applicant shall prepare, to the satisfaction of the POM, Area Specific Management Directives (ASMDs) for the associated conveyance areas.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		The ASMDs shall incorporate the guidelines and specific requirements of the Otay Ranch RMP plans and programs, management requirements of Table 3-5 of the MSCP Subregional Plan, and information and recommendations from any relevant special studies. Guidelines and requirements from these documents shall be evaluated in relationship to the Preserve configuration and specific habitats and species found within the associated conveyance areas and incorporated into the ASMDs to the satisfaction of the POM. MM BIO-2 Prior to the issuance of any land development permits that impact maritime succulent scrub, including clearing and grubbing or grading permits, the Project Applicant shall prepare a restoration plan to restore impacts to maritime succulent scrub at a 1:1 ratio pursuant to the Otay Ranch RMP. A total of 5.5 acres will require restoration. The maritime succulent scrub restoration shall be prepared by a City-approved biologist and to the satisfaction of the Development Services Director (or their designee) pursuant to the Otay Ranch RMP restoration requirements. The restoration plan shall include, at a minimum, an implementation strategy; species salvage and relocation; appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project Applicant shall also be required to implement the revegetation plan subject to the oversight and approval of the Development Services Director (or their designee). MM BIO-3 Prior to issuance of land development permits, including clearing, grubbing, grading and construction permits for the Future and Planned Facilities associated with Village Ten, the Project Applicant shall provide a revegetation plan for temporary impacts to 0.3 acres of coastal sage scrub habitat.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		The revegetation plan must be prepared by a qualified City-approved biologist familiar with the City's MSCP Subarea Plan and must include, but not be limited to, an implementation plan; appropriate seed mixtures and planting method; irrigation method; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project Applicant shall be required to prepare and implement the revegetation plan subject to the oversight and approval of the Development Services Director (or their designee). MM BIO-4 Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the preserve and the off-site facilities located within the preserve, the Project Applicant shall provide written confirmation that a City-approved biological monitor has been retained and shall be on site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the City's MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project. Before construction activities occur in areas containing sensitive biological resources within the off-site facilities area, all workers shall be educated by a City-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources. MM BIO-12 Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		salvageable sensitive biological resources, including Otay tarplant, variegated dudleya, San Diego barrel cactus, San Diego bur-sage, singlewhorl burrobush, south coast saltscale, San Diego marsh-elder, and Robinson's pepper grass (including plant materials and soils/seed bank), the Project Applicant shall prepare a Resource Salvage Plan. The Resource Salvage Plan shall be prepared by a City-approved biologist to the satisfaction of the Development Services Director (or their designee). The Resource Salvage Plan shall, at a minimum, evaluate options for plant salvage and relocation, including individual cactus salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Preserve. The Resource Salvage Plan shall include incorporation of relocation efforts for non-covered species, including singlewhorl burrobush, south coast saltscale, San Diego marsh-elder, and Robinson's pepper grass, species that are all considered special-status by the CEQA and that would be impacted with project implementation. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site and will be based on the most reliable methods of successful relocation. The program shall also contain a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The program shall also be subject to the oversight of the Development Services Director (or their designee). MM BIO-13 To avoid any direct impacts to raptors and/or any migratory birds protected under the MBTA, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the breeding season for these species. The	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		breeding season is defined as February 15 to August 15 for coastal California gnatcatcher and other non-raptor birds and January 15 to August 31 for raptor species. If removal of habitat on the proposed area of disturbance must occur during the breeding season, the Project Applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction, and the results must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are 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 Mitigation Monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction. MM BIO-14 Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Project Applicant shall retain a City-approved biologist to conduct focused surveys for northern harrier to determine the presence or absence of this species within 900-feet of the construction area. The pre-construction survey must be conducted within10 calendar days prior to the start of construction. The results of the survey must be submitted to the City for review and approval. If active nests are detected by the City-approved biologist, a bio-monitor shall be on site during construction to minimize construction impacts and ensure that no nests are removed or disturbed until all young have fledged.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM BIO-15 Prior to issuance of any land development permits (including clearing, grubbing, and grading permits), the Project Applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation plan subject to the review and approval by the Wildlife agencies and City, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities. MM BIO-16 Prior to issuance of grading permits, the Project Applicant shall submit evidence to the satisfaction of the Development Services Director (or their designee), showing that the following features of the Preserve Edge Plans (Otay Ranch Company 2013a through 2013c) have been incorporated into grading and landscaping plans: • Provide post and fencing and signage for sensitive habitat adjacent to trails. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for the project, the project owner shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access to the Preserve. The wall and fence plans shall, at a minimum, illustrate the locations and cross-sections of proposed walls, fences, informational and directional signage, access controls, and/or boundary markers along the Preserve boundary and off-site pedestrian trails as conceptually described in the Edge Plans. The required wall and fence plan shall be subject to the approval of the Development Services Director (or their designee). • Install canyon subdrains to prevent erosion of drainage and wetlands within the Preserve.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		• Prevent release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem within the Preserve. • Implement all necessary requirements for water quality as specified by the State and local agencies Phase out agricultural uses adjacent to the Preserve to remove pollutants from the project site. • No invasive non-native plant species shall be introduced into areas immediately adjacent to, or within, the Preserve. All slopes immediately adjacent, or within, to the Preserve shall be planted with native species that reflect the adjacent native habitat, per the Edge Plan. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for 1) areas within the 100-foot Preserve edge, and 2) infrastructure (e.g., roads, trails, utilities, etc.) sited within the Preserve, the Project Applicant shall prepare and submit to the satisfaction of the Development Services Director (or their designee) landscape plans to ensure that the proposed plant palette is consistent with the plant list contained in the Preserve Edge Plans for each village. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the Preserve. The manual weeding program shall describe, at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasive species, and a maintenance/monitoring schedule. All fuel modification shall be incorporated into development plans and shall not include any areas within the Preserve.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM BIO-17: In accordance with the City's Adjacency Management Guidelines, the following mitigation measures shall be implemented to further reduce indirect impacts (from lighting, noise, invasive species, toxic substances, and public access) to sensitive biological resources located in the adjacent Preserve areas: • Lighting. In compliance with the Chula Vista MSCP Subarea Plan, all lighting shall be shielded and directed away from the Preserve. Concurrent with design review and prior to issuance of a building permit for any development located adjacent to the Preserve, the Applicant shall prepare a lighting plan and photometric analysis to the satisfaction of the Development Services Director (or their designee), for review and approval. The lighting plan shall illustrate the location of the proposed lighting standards and type of shielding measures. Low-pressure sodium lighting shall be used, if feasible, and shall be subject to the approval of the Development Services Director (or their designee). • Noise. Noise impacts adjacent to the Preserve lands shall be minimized. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. A 100-foot buffer around community park areas, specifically Community Parks (P-2) south of Village Eight East and in Portion of Village Four, should be installed in sections adjacent to Preserve habitat occupied by sensitive species such as the coastal cactus wren. Potential noise generating uses, such as baseball diamonds and soccer fields, should be oriented away from sensitive species habitat in these areas. Construction activities shall include noise reduction measures or be conducted outside the breeding season of sensitive bird species. • Noise, California Gnatcatcher. For any work proposed	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		between February 15 and August 15, prior to issuance of any land development permits, including clearing, grubbing, grading, and construction permits, associated with the off-site facilities located within the Preserve, the Project Applicant shall retain a City-approved biologist to conduct a pre-construction survey for the coastal California gnatcatcher to reaffirm the presence and extent of occupied habitat. The pre-construction survey area for the coastal California gnatcatcher shall encompass all habitats within the project work zone, as well as within a 300-foot buffer. The survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the City's MSCP Subarea Plan. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If the coastal California gnatcatcher is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within the occupied habitat from February 15 through August 15 and on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 dB(A) Leq-h at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on-site-specific conditions. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		• Invasive Species. Prior to issuance of land development permits, including clearing or grubbing and grading and/or construction permits for 1) areas within the 100-foot Preserve edge, and 2) infrastructure (e.g., roads, trails, utilities, etc.) sited within the Preserve, the Project Applicant shall prepare and submit to the satisfaction of the Development Services Director (or their designee), landscape plans to ensure that the proposed plant palette is consistent with the plant list contained in the Preserve Edge Plan. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the preserve. The manual weeding program that shall describe at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasives, and a maintenance/monitoring schedule. • Toxic Substances. See MMS BIO-4, BIO-6, BIO-8, BIO-16 • Public Access. Prior to issuance of grading permits, the Project Applicant shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access into the Preserve. The wall and fence plans shall illustrate the locations and cross-sections of proposed walls and fences along the Preserve boundary, subject to the approval the City's Development Services Director (or their designee). MM BIO-18 In accordance with the City's Adjacency Management Guidelines, the following mitigation measures shall be implemented to further reduce indirect impacts from noise to sensitive biological resources located in the adjacent Preserve areas emanating from the community parks: Concurrent with the preparation of site-specific plan(s), and prior to the approval of a precise grading plan, the Project Applicant shall prepare, or in the case of the City being the lead on the	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		preparation of the site specific plan, the Project Applicant shall fund the preparation of an acoustical analysis to ensure that noise impacts to surrounding Preserve areas have been minimized. The park design shall include measures to minimize noise impacts adjacent to the Preserve. Features that may be included in the park design may include, but are not limited to: • berms or walls; • inclusion of a minimum of 100 feet between the Preserve boundary and park uses where adjacent to habitat occupied by sensitive species such as coastal California gnatcatcher and coastal cactus wren; • allow uses within the 100-foot buffer adjacent to the Preserve that may include access roads, parking, picnic areas, walking paths, and graded slopes; • orient potential noise generating uses such as soccer fields and baseball diamonds away from occupied coastal California gnatcatcher and coastal cactus wren habitat.	
Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	Prior to mitigation, sensitive vegetation communities to be permanently impacted include non-native grassland, freshwater marsh, cismontane alkali marsh, disturbed cismontane alkali marsh, coastal sage scrub, disturbed coastal sage scrub, broom baccharis scrub, maritime succulent scrub, disturbed maritime succulent scrub, mulefat scrub, southern mixed chaparral, tamarisk scrub, and southern willow scrub. Impacts to sensitive vegetation communities would be significant prior to mitigation.	**MM BIO-5** Prior to issuance of grading permits in portions of the SPA Plan areas that are adjacent to the Preserve, the Project Applicant shall install fencing. Prior to issuance of land development permits, including clearing, grubbing, grading and/or construction permits, the Project Applicant shall install fencing in accordance with Chula Vista Municipal Code (CVMC) 17.35.030. Prominently colored, well-installed fencing and signage shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the preserve and for all off-site facilities constructed within the preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM BIO-6 Prior to issuance of land development permits, including clearing, grubbing, grading, and construction permits, the following notes shall be included on the applicable construction plans to the satisfaction of the Development Services Director (or their designee): • A qualified biologist shall be on site to monitor all vegetation clearing and periodically thereafter to ensure implementation of appropriate resource protection measures. • Dewatering shall be conducted in accordance with standard regulations of the RWQCB. A permit to discharge water from dewatering activities will be required. This will minimize erosion, siltation, and pollution within sensitive communities. • During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff. • Material stockpiles shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive vegetation communities. • Graded area shall be periodically watered to minimize dust that may affect adjacent vegetation.	
Would the project have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Impacts to jurisdictional waters and wetlands would occur as a result of the proposed project. Impacts to jurisdictional waters total 0.56 acre and are all permanent. Impacts to jurisdictional wetlands total 1.03 acres, 0.05 acre of which includes a compatible use while the remaining acres are permanently	MM BIO-8 Prior to issuance of grading permits in portions of the SPA Plan areas that are adjacent to the Preserve, the Project Applicant shall develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be developed, approved, and implemented during construction to control storm water runoff such that erosion, sedimentation, pollution, and other adverse effects are minimized. The following performance measures contained in the Edge Plans shall be implemented to avoid the	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
	impacted. A total of 1.35 acres of jurisdictional areas under the ACOE, RWQCB, and CDFW would be impacted. Impacts to jurisdictional areas under CDFW only are 0.23 acre. Impacts to ephemeral and intermittent unvegetated waters and jurisdictional wetlands are considered significant prior to mitigation.	release of toxic substances associated with urban runoff: • Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures. • Where deemed necessary, storm drains shall be equipped with silt and oil traps to remove oils, debris, and other pollutants. Storm drain inlets shall be labeled "No Dumping–Drains to Ocean." Storm drains shall be regularly maintained to ensure their effectiveness. • The parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants. • Permanent energy dissipaters shall be included for drainage outlets. • The BMPs contained in the SWPPP shall include, but are not limited to, silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydro-seeding. • The project area drainage basins will be designed to provide effective water quality control measures, as outlined in the Water Quality Technical Report. Design and operational features of the drainage basins will include design features to provide maximum infiltration, maximum detention time for settling of fine particles; maximize the distance between basin inlets and outlets to reduce velocities; and establish maintenance schedules for periodic removal of sedimentation, excessive vegetation and debris. MM BIO-9 The City requires that impacts to wetlands be avoided to the maximum extent possible and where impacts are unavoidable, compensatory mitigation within the Chula Vista Subarea or Chula Vista Planning Area shall be required resulting	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		in no overall net loss of wetlands. A total of up to 1.03 acres of wetland and 0.56 acre of waters of the U.S./State within the project may be impacted within the Development Area. Off-site areas may impact a total of up to 0.98 acre of wetlands and 0.38 acre of waters (0.24 acre of waters of the U.S. and 0.14 acre of water of the State). Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the Project Applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. This plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. Areas under the jurisdictional authority of ACOE and CDFW shall be delineated on all grading plans. Mitigation areas shall occur within the Otay River watershed in accordance with the Wetlands Mitigation and Monitoring Plan to the satisfaction of the City, ACOE, and CDFW. The Project Applicant shall also be required to implement the Wetlands Mitigation and Monitoring Plan subject to the oversight of the City, ACOE, and CDFW. MM BIO-10 Prior to issuance of land development permits, including clearing, grubbing, and grading permits for areas that impact jurisdictional waters, the Project Applicant shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal Clean Water Act, Section 1600 of the California Fish and Game Code, and the Porter Cologne Water Quality Act have been obtained. MM BIO-11 The Project Applicant shall implement one of the following prior to the issuance of grading permits for areas impacting vernal pools within Village Three North: 1. The Project Applicant shall restore 240 square feet of	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		vernal pools within the Village Thirteen (resort) planning area. The restoration would involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. The property owner has prepared a Conceptual Vernal Pool Mitigation Plan (Dudek 2008). The Plan includes, but is not limited to an implementation plan, maintenance and monitoring program, estimated completion time, and relevant contingency measures. 2. The Project Applicant shall restore 240 square feet of vernal pools somewhere other than the Village Thirteen (resort) planning area. The restoration would still involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species and inoculation of the pools with vernal pool species. 3. The Project Applicant shall buy into a mitigation bank in an amount that would mitigate for impacts to 120 square feet of vernal pool.	
~~Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?~~	~~Direct and indirect impacts to wildlife corridors would be potentially significant absent mitigation.~~	~~Less than significant.~~	~~Less than significant.~~
Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	The project would coordinate with the County for those areas located outside of Otay Ranch and within the County's jurisdiction. However, since impacts to	MM BIO-7 Prior to issuance of any land development permits, including clearing or grubbing and grading and/or construction permits, the project will be required to obtain a HILT Permit pursuant to Section 17.35 of the Chula Vista Municipal Code for	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
	native upland vegetation communities and wetland habitats are considered significant under the City's HLIT Ordinance, impacts would be potentially significant and mitigation would be required.	impacts to Chula Vista MSCP Tier I, II, and II vegetation communities as shown below in Tables 5.8-24 and 5.8-25 and in accordance with Table 5-3 of the City of Chula Vista MSCP Subarea Plan. These impacts are due to the proposed development and are not associated with Planned or Future Facilities. Mitigation for off-site impacts outside of Otay Ranch will be in accordance with the City of Chula Vista MSCP Subarea Plan and the City's Habitat Loss and Incident Take (HLIT) ordinance and as provided in the HLIT Findings. Mitigation for impacts associated with the landfill (off-site Area 5) is not required. Prior to issuance of any land development permits, the Applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City's MSCP Subarea Plan. In compliance with the City's MSCP Subarea Plan, the Applicant shall secure mitigation credits within a City/Wildlife Agency-approved Conservation Bank or other approved location offering such credits consistent with the ratios specified in Tables 5.8-24 and 5.8-25. The Applicant shall be required to provide verification of purchase to the City, prior to issuance of any land development permits. In the event that a Project Applicant is unable to secure mitigation through an established mitigation bank approved by the City and Wildlife Agencies, the Project Applicant shall secure the required mitigation through the conservation of an area containing in-kind habitat within the City's MSCP Subarea Plan or MSCP Planning Area in accordance with the mitigation ratios contained in Table 5-3 of the City's MSCP Subarea Plan and subject to Wildlife Agency concurrence. Prior to issuance of any land development permit, and to the satisfaction and oversight of the City's Development Services Director (or their designee), the Applicant shall secure the parcel(s) that will be permanently preserved for in-kind habitat impact mitigation, prepare a long-term	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Management and Monitoring Plan (MMP) for the mitigation area, secure an appropriate management entity to ensure long-term biological resource management and monitoring of the mitigation area is implemented in perpetuity, and establish a long-term funding mechanism for the management and monitoring of the mitigation area in perpetuity. The long-term MMP shall provide management measures to be implemented to sustain the viability of the preserved habitat and identify timing for implementing the measures prescribed in the MMP. The mitigation parcel shall be restricted from future development and permanently preserved through the recordation of a conservation easement or other mechanism approved by the Wildlife Agencies as being sufficient to insure that the lands are protected in perpetuity. The conservation easement or other mechanism approved by the Wildlife Agencies shall be recorded prior to issuance of any land development permits. The Project Applicant shall be responsible for maintaining the biological integrity of the mitigation area and shall abide by all management and monitoring measures identified in the MMP until such time as the established long-term funding mechanism has generated sufficient revenues to enable a City-approved management entity to assume the long-term maintenance and management responsibilities.	
Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	The proposed Preserve boundary adjustment meets the requirements of the MSCP Subregional Plan for adjustments to the boundary of the Preserve under the "like or equivalent" exchange concept and the direct and permanent impacts to the Preserve would be less than significant.	No mitigation measures are required. ~~MM BIO-16~~	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan biological resource policies thereby resulting in a significant physical impact?	The proposed project would be consistent with General Plan and Otay Ranch GDP goals associated with biological resources and impacts would be less than significant.	No mitigation measures required ~~MM BIO-17~~ ~~MM BIO-18~~	Less than significant.
Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Direct and indirect impacts to wildlife corridors would be potentially significant absent mitigation.	See MM BIO-7 and BIO-16 through MM BIO-18 identified above.	Less than significant.
5.9 Agricultural Resources			
Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?	The incremental loss of Farmland of Local Importance as a result of the proposed project would be a significant impact.	No feasible mitigation.	Significant and unavoidable.
Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?	The proposed project would not affect Williamson Act contract land or conflict with existing on-site zoning for an agricultural use, and there would be no impact.	No mitigation required.	No impact.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan agricultural resource policies thereby resulting in a significant physical impact?	The proposed project is consistent with the applicable General Plan and Otay Ranch GDP objectives and policies related to agricultural resources. Therefore, the proposed project would result in no impact due to inconsistency with General Plan agricultural resources policies.	No mitigation required.	~~No impact.~~ Less than significant
Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	The project area does not contain any forest land, land suitable for timber production, or any parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982 (Chapter 6.7 (commencing with Government Code Section 51100) of Part 1 of Division 1 of Title 5). Therefore, the proposed project would not affect such lands, and there would be no impact.	No mitigation required.	No impact.
Would the project result in the loss of forest land or conversion of forest land to non-forest use?	The project area does not include any forest land. Therefore, the proposed project would not result in the loss of forest land or the conversion of forest land to non-forest use and there would be no impact.	No mitigation required.	No impact.
Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Since there is no forest land within the project area, there would be no impact associated with the conversion of forest land to non-forest use.	No mitigation required.	No impact.
5.10 Water Quality and Hydrology			
Would the project violate any water quality standards or waste discharge	Although construction of the proposed project has the potential to violate water	MM HYD-1 *Erosion Control.* The developer shall monitor any erosion at the project's outfalls at the Otay River and, prior to the	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
requirements, including City of Chula Vista Engineering Standards for storm water flows and volumes?	quality standards, compliance with the CBC, the Chula Vista Storm Water Management and Discharge Control Ordinance No 2854, the City of Chula Vista Subdivision Manual, Design and Construction Standards of the City of Chula Vista, San Diego Area Regional Standard Drawings, and Standard Specifications for Public Works Construction, as well as the preparation of site-specific SWPPPs, mitigation would further reduce potential impacts. Even with implementation of BMPs, development would still have the potential to violate water quality standards or waste discharge requirements. This impact would be significant prior to mitigation.	last building permit for the project, obtain approval for and complete any reconstructive work necessary to eliminate any existing erosion and prevent future erosion from occurring, all to the satisfaction of the Development Services Director. MM HYD-2 *Storm Water Pollution Prevention Plan.* Prior to issuance of each grading permit for each village or any land development permit, including clearing and grading, the Project Applicant shall submit a notice of intent and obtain coverage under the NPDES permit for construction activity from the SWRCB. Adherence to all conditions of the General Permit for Construction Activity is required. The Applicant shall be required under the SWRCB General Construction Permit to develop a SWPPP and monitoring plan that shall be submitted to the City Engineer and the Director of Public Works. The SWPPP shall be incorporated into the grading and drainage plans and shall specify both construction and post-construction structural and non-structural BMPs on site to reduce the amount of sediments and pollutants in construction and post-construction surface runoff before it is discharged into off-site storm water facilities. Section 7 of the City's Storm Water Manual outlines construction site BMP requirements. The SWPPP shall also address operation and maintenance of post-construction pollution prevention measures, including short-term and long-term funding sources and the party or parties that will be responsible for said measures. The grading plans shall note the condition requiring a SWPPP and monitoring plans. MM HYD-3 *Supplemental Water Quality Report.* Prior to issuance of each grading permit, the Applicant shall submit supplemental reports to the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, and Village Ten Tentative Map Water Quality Technical Reports, respectively, prepared by Hunsaker and Associates San Diego, Inc. (2014) that identifies	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		which on-site storm water management measures from the Water Quality Technical Report have been incorporated into the project to the satisfaction of the City Engineer. If a storm water management option is chosen by the Applicant that is not shown in the water quality technical report, a project-specific water quality technical report shall be prepared for the parcel, referencing the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, or Village Ten Tentative Map Water Quality Technical Reports, prepared by Hunsaker and Associates and dated March 2014, for information relevant to regional design concepts (e.g., downstream conditions of concern) to the satisfaction of the City Engineer. MM HYD-4 *Post-Construction/Permanent BMPs*. Prior to issuance of each grading permit, the City Engineer shall verify that parcel owners have incorporated and will implement post-construction BMPs in accordance with current regulations. In particular, Applicants are required to comply with the requirements of Section 2c of the City of Chula Vista's Standard Urban Storm Water Management Plan (SUSMP), the Chula Vista Development Storm Water Manual, and the Otay Ranch Villages Three North and Portion of Village Four, Village Eight East, and Village Ten Tentative Map Water Quality Technical Report, respectively, or any supplements thereto to the satisfaction of the City Engineer. Specifically, the Applicant shall implement low impact development BMPs in the preparation of all site plans and, the Applicant shall incorporate structural on-site design features into the project design to address site design and treatment control BMPs as well as requirements of the hydromodification management plan. The Applicant shall monitor and mitigate any erosion in downstream locations that may occur as a result of on-site development.	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM HYD-5 *Limitation of Grading*. The Project Applicant shall comply with the Chula Vista Development Storm Water Manual limitation of grading requirements, which limit disturbed soil area to 100 acres, unless expansion of a disturbed area is specifically approved by the Director of Public Works. With any phasing resulting from this limitation, if required, the Project Applicant shall provide, to the satisfaction of the City Engineer, erosion and sediment control BMPs in areas that may not be completed, before grading of additional area begins. ~~MM HYD-6~~ ~~MM HYD-7~~	
Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	The project would not significantly impact groundwater recharge or supplies.	No mitigation required.	Less than significant.
Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	The net increase in runoff discharged to the Otay River would be a result of an alteration in the existing drainage pattern, which could consequently result in substantial erosion or siltation on- or off-site.	MM HYD-6 *Hydromodification Criteria.* The Project Applicant shall comply, to the satisfaction of the City Engineer, with city hydromodification criteria (Municipal Permit Order R9-2007-0001 ~~Section D.1.g~~ as may be amended) or the hydrograph modification management plan, as applicable, addressed regionally at the SPA Plan level concurrent with grading and improvement plans for each village. ~~See MM HYD-1 and MM HYD-2 above.~~	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	The proposed project would not substantially alter the existing drainage pattern of the project area in a manner which would result in flooding on or off site.	No mitigation required.	Less than significant.
Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	The net increase in runoff discharged to the Otay River would be a substantial contribution to existing conditions. Additionally, the proposed project could create additional sources of polluted runoff; impacts would be potentially significant and mitigation measures would be required.	See MM HYD-1 through MM HYD-6~~7~~ above.	Less than significant.
Would the project otherwise, substantially degrade water quality?	The combination of the proposed construction and permanent BMPs, for the proposed project would reduce, to the maximum extent practicable, the expected pollutants and would not adversely impact the beneficial uses of the receiving waters. However, BMPs would not adequately reduce potential impacts to a level below significance. Impacts would be potentially significant and mitigation would be required.	See MM HYD-1 through MM HYD-6~~7~~ above.	Less than significant.
Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	The project would not place housing within a 100-year flood zone.	No mitigation required.	No impact.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project place structures within a 100-year flood hazard area which would impede or redirect flood flows?	The proposed project would place drainage structures within a 100-year flood hazard area. In the event of a 100-year flood, the drainage structures would not impede or redirect flows in the project area. However, do to the fact that these structures would be placed within a 100-year flood hazard area impacts could be potentially significant and mitigation would be required.	MM HYD-7 *Scour Analysis.* Concurrent with all grading plan submittals, the Applicant shall prepare a scour analysis for all structures within the 100-year flood hazard area. Additionally, all said structures shall be monitored until the last building permit for the project has been issued. ~~See MM HYD-1 through MM HYD-7 above.~~	No impact.
Would the project be inconsistent with General Plan, Otay Ranch GDP or other objectives and policies regarding water quality thereby resulting in a significant physical impact?	The project would be consistent with applicable General Plan and Otay Ranch GDP policies related to water quality.	No mitigation required.	Less than significant.
Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	The potential for the Savage dam to fail is considered minimal and impacts in the event of dam failure would be reduced by not placing residential, commercial, or industrial development within the inundation zone. The proposed project locates non-residential uses in the southern portions of Village Three and Portion of Village Four, Village Eight East, and Village Ten that are within the dam inundation zone (Community Park (P-2), open space Preserve). Therefore, impacts would be considered less than significant.	No mitigation required.	Less than significant.
Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	The project would not be located in an area where inundation by seiche, tsunami, or mudflow would likely occur.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	The proposed project involves the construction of new stormwater drainage facilities as analyzed throughout this EIR, and mitigation measures are required as outlined in this table and in Section 5.0.	See MM HYD-1 through MM HYD-6 identified above. ~~No additional mitigation required.~~	Less than significant.
5.11 Geology and Soils			
Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)? Strong seismic ground shaking? Seismic-related ground failure, including liquefaction? Landslides?	Components of the proposed project would be constructed in accordance with the City's Grading Ordinance, current seismic design specifications, current CBC standards, and other regulatory requirements, which would reduce the potential for risks related to seismic events. Therefore, since development would be in compliance with applicable regulatory requirements, impacts associated with the rupture of a known earthquake fault, seismic-related ground failure, liquefaction, or landslides would be less than significant.	No mitigation required.	Less than significant.
Would the project result in substantial soil erosion or the loss of topsoil?	Implementation of Best Management Practices and compliance with applicable RWQCB orders and City standard would result in less than significant impacts.	No mitigation required.	Less than significant.
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	Compliance with the City's Grading Ordinance, current seismic design specifications, current CBC standards, and other regulatory requirements, in addition	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	to implementation of project design features and BMPs, would ensure that the proposed project would have less than significant impacts associated with geologic hazards.		
Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	The exterior concrete flatwork has a potential to experience some uplift due to expansive soil beneath grade. Therefore, impacts associated with expansive soil are considered to be potentially significant.	MM GEO-1 Prior to the issuance of each grading permit for Village Three North and Portion of Village Four, Village Eight East, and Village Ten, the Applicant shall verify that the applicable recommendations in the Geotechnical Investigation prepared by Geocon, dated May 23, 2013; November 21, 2012; and November 20, 2012, respectively, have been incorporated into the final project design and construction documents to the satisfaction of the City Engineer. These recommendations address issues including but not limited to site grading, retaining walls, seismic design, slope stability, backdrain systems, undercuts, excavation and fill, monitoring, and soil testing. Geotechnical review of grading plans shall include a review of all proposed storm drain facilities to ensure the storm water runoff would not interfere with the proposed geotechnical recommendations. MM GEO-2 All graded slopes shall have a minimum factor of safety of 1.5. Strategies to increase stability may include, but are not limited to, a stability buttress or shear pins. All slope stability strategies shall be to the satisfaction of the City Engineer.	Less than significant.
Be inconsistent with General Plan geotechnical policies thereby resulting in a significant physical impact?	The project would be consistent with geotechnical policies found in the General Plan and Otay Ranch GDP.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
5.12 Public Services			
Fire Protection			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services?	In the event that the Village Eight West or EUC stations identified in the FFMP are not built before the first building permit is issued in Village Ten, construction of a temporary station would be required. Because the location has been analyzed throughout this EIR as being developed, the construction of a temporary fire station has been covered by this analysis. While the use would be different, no new physical impacts would occur. Therefore, impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project reduce the ability of properly equipped and staffed fire and medical units to respond to calls throughout the City within 7 minutes in 80% of the cases?	Payment of PFDIF fees, implementation of the FPPs, compliance with existing city codes, policies and regulations, and implementation of mitigation measures would ensure that the growth management ordinance threshold standard is achieved. This impact would be potentially significant if these mechanisms are not enforced. Therefore, impacts would be potentially significant and mitigation is required.	MM PUB-1 Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall pay a Public Facilities Development Impact Fee (PFDIF) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan, unless stated otherwise in a separate development agreement. MM PUB-2 Prior to issuance of the first building permit for Village Ten, the Applicant(s) will be required to build a temporary fire station in the currently designated Community Purpose Facilities (CPF) site if a fire station has not yet been built in Village Eight West or the EUC as identified in the Fire Facility Equipment and Deployment Master Plan (FFMP).	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan, Otay Ranch GDP, and other objectives and policies regarding fire protection and emergency medical services thereby resulting in a significant physical impact?	The Otay Ranch GDP objectives and policies related to fire protection and emergency medical services are consistent with those in the City's General Plan. Impacts associated with the proposed project would be less than significant.	No mitigation required.	Less than significant.
Police Protection			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?	Increased demand for police protection resulting from development of the proposed project would not necessitate the construction of any new police facilities (or the expansion of any existing police facilities) that could entail changes in the physical environment. Therefore, impacts would be considered less than significant.	No mitigation required.	Less than significant.
Would the project: • Exceed the City's threshold standards to respond to Priority One emergency calls throughout the City (within 7 minutes in 81% of the cases and an average response time to all Priority One calls of 5.5 minutes or less)? • Exceed the City's threshold standards to respond to Priority Two urgent calls throughout the City (within 7 minutes in 57% of cases and an average response	Payment of PFDIF fees, implementation of the CPTED strategies and design objectives, and compliance with existing city policies and mechanisms would ensure that the growth management ordinance threshold standard is achieved. This impact would be potentially significant if these mechanisms are not enforced. Therefore, impacts would be potentially significant and mitigation is required.	**MM PUB-3** Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall pay the City's Public Facilities Development Impact Fee (PFDIF) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan, unless stated otherwise in a separate development agreement. **MM PUB-4** The City of Chula Vista will continue to monitor the Chula Vista Police Department responses to emergency calls and report the results to the Growth Management Oversight Commission on an annual basis.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
time to all Priority Two calls of 7.5 minutes or less)?		MM PUB-5 Prior to issuance of each building permit, site plans shall be reviewed by the Chula Vista Police Department or its designee to ensure the incorporation of Crime Prevention through Environmental Design Features (CPTED) features and other recommendations of the Chula Vista Police Department, including but not limited to, controlled access points to parking lots and buildings, maximizing visibility along building fronts, sidewalks and public parks, and providing adequate street, parking lot and parking structure visibility and lighting.	
Would the project be inconsistent with General Plan objectives and policies regarding police protection thereby resulting in a significant physical impact?	The proposed project would be consistent with all applicable General Plan police protection policies. The Otay Ranch GDP objectives and policies related to police protection are consistent with those in the City's General Plan (see Appendix B). Therefore, the proposed project would also be consistent with the Otay Ranch GDP. Impacts associated with project implementation would be less than significant.	No mitigation required.	Less than significant.
Schools			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services?	If the proposed project does not pay the State mandated fees or enter into a school mitigation agreement, which would guarantee construction of the needed school facilities, there would be a potentially significant impact to elementary, middle, and high schools.	MM PUB-6 Prior to the issuance of each building permit for any residential dwelling units, the Applicant(s) shall provide evidence or certification by the Chula Vista Elementary School District (CVSD) that any fee charge, dedication or other requirement levied by the school district has been complied with or that the district has determined the fee, charge, dedication or other requirements do not apply to the construction or that the Applicant has entered into a school mitigation agreement. School Facility Mitigation Fees shall be in accordance with the fees in effect at the time of building permit issuance.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		MM PUB-7 Prior to approval of a Final Map for private development on parcels S-1 in Village Three North, Village Eight East, and Village Ten, designated for future schools, the Applicant shall provide evidence from the CVESD that the site has been determined by the district to not be needed for future use as a school site.	
Would the project locate schools at inappropriate sites?	The project would not locate schools at inappropriate sites. Impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch GDP, and other objectives and policies regarding school services thereby resulting in a significant physical impact?	The project would be consistent with school services policies found in the General Plan and Otay Ranch GDP.	No mitigation required.	Less than significant.
Parks, Recreation, and Open Space			
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Compliance with the PLDO and Otay Ranch GDP would ensure that impacts associated with parks and recreational facilities as a result of project implementation would be reduced. However, the proposed project would increase the use of existing neighborhood parks and recreational facilities; therefore, impacts would be potentially significant.	MM PUB-8 Prior to the approval of each Final Map for the project, or, for any residential development within the project that does not require a Final Map, prior to building permit approval, the Applicant shall either dedicate parkland and/or pay applicable Park Acquisition and Development in-lieu fees in accordance with the phasing indicated in the project's approved SPA Plan, the PFFP, and a park agreement, if any, subject to approval of the Development Services Director or their designee. In-lieu fees shall be based on the Park Acquisition and Development fees in effect at the time of issuance of building permits, unless stated otherwise in a parks or development agreement. MM PUB-9 Prior to the issuance of each building permit for any residential dwelling units, the Applicant shall pay recreation facility development impact fees (part of the Public Facilities Development Impact Fee) in accordance with the fees in effect at the time of building permit issuance and phasing approved in the	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		Public Facilities Finance Plan, subject to approval of the Development Services Director or their designee. MM PUB-10 Prior to the approval of the first Final Map for each village (Village Three North, Village Eight East, and Village Ten) the Applicant shall enter into an agreement with the City that provide the following: phased dedication of public park sites, payment of Park Improvement Fees, schedule for completion of improvements, including utilities to streets adjacent to the park sites, all to the satisfaction of the Development Services Director or their designee. Under the current method for delivery of new parks the City will award a design-build contract for the project's neighborhood park. The agreement will include provisions that in the event the City chooses not to go forward with a design-build contract, the Applicant will be obligated to fully comply with the Parkland Ordinance and park threshold standards by constructing the parks in accordance with all City standards and under a time schedule as specified in the agreement. MM PUB-11 Prior to approval of the first Final Map for each Village, the Applicant shall offer for dedication all public parkland identified in the Project's approved SPA Plan, or as approved by the Development Services Director or their designee. Park facilities required to meet the overall park obligation shall be identified on the first Final Map and shall be publically accessible. MM PUB-12 The Applicant shall comply with the Threshold Compliance and Recommendations contained within the PFFPs for Village Three North and Portion of Village Four, Village Eight East and Village Ten. MM PUB-13 Prior to the Final Map containing the 1,313th EDU in Village Eight East, the Applicant shall secure and agree to	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		construct the Village 8 East Community Park (P-2) Access Road from Otay Valley Road to the Community Park (P-2). Prior to the issuance of the Final Map containing for the 1,313th EDU, the Applicant shall submit to the City and obtain approval for improvement plans for the Community Park (P-2) access road to the satisfaction of the Development Services Director (or their designee). The Community Park (P-2) Access Road shall be completed prior to the issuance of the Final Map Containing the 1,929th EDU in Village Eight East.	
Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Payment of the recreation portion of the DIF would be used for the development of major recreational facilities, including community centers, and aquatic facilities. Mitigation measures provided through Chapter 5 of this EIR would reduce potential impacts associated with the construction of recreational facilities to a less than significant level.	No additional mitigation required.	Less than significant.
Would the project fail to meet the City's threshold standard of three acres of neighborhood and community parkland per 1,000 residents?	The proposed project would be in compliance with all applicable rules and regulations regarding parks and recreational facilities and impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch GDP or other relevant objectives and policies regarding parks thereby resulting in a significant physical impact?	the proposed project would be consistent with the applicable policies related to parks, recreation, and open space found in the General Plan, Otay Ranch GDP, Chula Vista Greenbelt Master Plan, and the Chula Vista Parks and Recreation Master Plan. Therefore, impacts associated with the proposed project would be less than significant.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Library			
Would the project result in substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for library services?	The addition of 30,000 gross square of additional library space approved in the EUC, would accommodate the increased population resulting from development of the proposed project and maintain acceptable service ratios. Impacts as a result of the proposed project would be less than significant.	No mitigation required.	Less than significant.
Would the project fail to meet the City's threshold standard of 500 gross square feet of library space, adequately equipped and staffed, per 1,000 population?	Funding for required facilities would be necessary to reduce impacts on operations and maintenance of library facilities to less than significant. Future library facilities would be funded in part by payment of the PFDIF. Therefore, prior to payment of the PFDIF, impacts to library facilities would be potentially significant and mitigation would be required.	MM PUB-14 Prior to the issuance of each building permit for any residential dwelling units, the Applicant shall pay the required Public Facilities Development Impact Fee in accordance with the fees in effect at the time of building permit issuance and phasing approved in the Public Facilities Finance Plan. MM PUB-15 The City of Chula Vista shall continue to monitor library facilities and services and report the results to the Grown Management Oversight Commission on an annual basis.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan, Otay Ranch GDP or other objectives and policies regarding library services thereby resulting in a significant physical impact?	The project would be consistent with library policies found in the General Plan and Otay Ranch GDP.	No mitigation required.	Less than significant.
5.13 Utilities			
Water			
Would the project require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	No significant impacts related to new water treatment facilities have been identified with respect to implementation of the proposed project.	No mitigation required.	Less than significant.
Would the project have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements?	Based on the WSAV for the proposed project, and the UWMP data provided by the water agencies, the proposed project's increase in water demand is accounted for by the water agencies; and, therefore, impacts to long-term water supplies/entitlements are considered less than significant. The transfer of density between planning areas could have a significant impact to on-site infrastructure.	No mitigation required.	Less than significant.
Would the project exceed City threshold standards which seeks to ensure availability of adequate supplies of quality water, appropriate for intended uses. The standards require the Applicant to request and deliver to the City service availability letters from the appropriate water district for each project; to submit a	Until service availability letters and approval of SAMP(s) from OWD, the project would not be in compliance with the city threshold standards. Impacts would be potentially significant.	MM UTL-1 Prior to issuance of each Final Map for each village, the permit Applicant/developer shall deliver to the City service availability letters from the appropriate water district. MM UTL-2 Prior to approval of the first Final Map for each village, the Applicant shall provide a Subarea Master Plan to the Otay Water District. Water facilities improvements shall be financed or installed on-site and off-site in accordance with the fees and phasing pursuant to the approved Public Facilities Financing	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Water Conservation Plan along with the SPA Plan application; and such project plans must ensure an adequate supply of water on a long-term basis prior to the development of each Otay Ranch SPA Plan?		Plan(s) and Subarea Master Plan(s). The Subarea Master Plan shall include, but shall not be limited to: a) Existing pipeline locations, size, and capacity b) The proposed points of connection and system c) The estimated water demands and/or sewer flow calculations d) Governing fire department's flow requirements (flow rate, duration, hydrant spacing, etc.) e) Agency Master Plan f) Agency's planning criteria (see Sections 4.1 through 4.3 of the Water Agencies Standards) g) Water quality maintenance h) Size of the system and number of lots to be served. MM UTL-3 Prior to approval of the first Final Map, the Applicant shall obtain the Otay Water District's approval of the Subarea Master Plan(s) for both potable and recycled water. Any on-site and off-site facilities identified in the Subarea Master Plan required to serve a Final Mapped area, including but not limited to water facilities within the SR-125 overcrossing at Otay Valley Road, shall be secured or constructed by the Applicant prior to approval of the Final Map and in accordance with the phasing in the public facilities finance plans. MM UTL-4 Prior to design review approval in accordance with the Density Transfer provision in the Village Three and Portion of Village Four, Village Eight East and Village Ten SPA Plans, the Applicant/developer shall provide an update to the Overview of Water Service for Otay Ranch University Villages (Dexter Wilson 2014a) with each proposed project requesting a density transfer. The density transfer technical study shall demonstrate to the satisfaction of the City Engineer that adequate on-site water infrastructure will be available to support the transfer. The	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		transfer of residential density shall be limited by the ability of the on-site water supply infrastructure to accommodate flows.	
Would the project be inconsistent with General Plan, Otay Ranch GDP or other relevant objectives and policies regarding water supply thereby resulting in a significant physical impact?	No significant impacts related to consistency with water supply policies have been identified with respect to implementation of the proposed project.	No mitigation required.	Less than significant.
Recycled Water			
Would the project require or result in the construction of new recycled water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	No significant impacts related to new or expanded recycled water treatment facilities have been identified with respect to implementation of the proposed project.	No new mitigation required.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch GDP or other relevant objectives and policies regarding recycled water thereby resulting in a significant physical impact?	No significant impacts related to consistency with applicable recycled water policies have been identified with respect to implementation of the proposed project.	No mitigation required.	Less than significant.
Sewer			
Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	The proposed project could have a significant impact with respect to capacity to serve the proposed project and the project in conjunction with other existing commitments if treatment capacity is not provided commensurate with demand.	MM UTL-5 The Applicant shall finance or install all on-site and off-site sewer facilities required to serve development in each village in accordance with the fees and phasing in the approved Public Facilities Finance Plan to the satisfaction of the City Engineer. MM UTL-6 Prior to issuance of each building permit, the Applicant shall pay the Salt Creek Development Impact Fee at the rate in effect at the time of building permit issuance and	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		corresponding to the sewer basin that the building will permanently sewer to, unless stated otherwise in a development agreement that has been approved by the City Council. MM UTL-7 Prior to design review approval in accordance with the Density Transfer provision in the Village Three North and Portion of Village Four, Village Eight East and Village Ten SPA Plans, the Applicant shall provide an update to the Overview of Sewer Service for Otay Ranch University Villages (Dexter Wilson 2014c) with each proposed project requesting a density transfer. The technical study shall demonstrate to the satisfaction of the City Engineer that adequate on-site wastewater infrastructure will be available to support the transfer. The transfer of residential density shall be limited by the ability of the on-site sewerage facilities to accommodate flows.	
Would the project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	As the location and scope of construction of any newly developed treatment facility is unknown, the development of treatment capacity beyond the City's existing and allocated capacity may result in a potentially significant environmental impact, even though such a project would likely be subject to its own environmental review in compliance with CEQA.	No feasible mitigation	Significant and unavoidable.
Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	If new wastewater treatment plant facilities are required, wastewater disposal from those facilities would be required to comply with all wastewater treatment requirements of the San Diego Regional Water Quality Control Board; therefore, the project would not exceed wastewater treatment requirements.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project generate sewage flows and volumes that exceed City Engineering Standards as set forth in the Subdivision Manual adopted by City Council Resolution Number 11175 on February 12, 1983, as amended in 2012?	No impact related to consistency with City engineering standards has been identified should the proposed project be implemented.	No mitigation required.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch GDP or other relevant objectives and policies regarding wastewater thereby resulting in a significant physical impact?	No impact related to consistency with City wastewater policies has been identified should the proposed project be implemented.	No mitigation required.	Less than significant.
Solid Waste Disposal			
Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	Under the current franchise agreement between the City of Chula Vista and Republic Services, solid waste would be disposed of at the Sycamore Landfill once the Otay Landfill meets its permitted capacity and terminates solid waste services (City of Chula Vista 2012). As such, solid waste service would continue following closure of the Otay Landfill and permitted capacity would be available to accommodate the proposed project. Impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project not comply with federal, state, and local statutes and regulations relating to solid waste?	Waste collection for the proposed land uses would be provided by the City of Chula Vista under its contract agreement with Republic Services. The waste collection procedures and programs would be required to comply with the municipal requirements for	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
	recycling and collection of solid waste, including provision for litter control for public events. Therefore, the project would be consistent with all applicable statutes and regulations, and would have a less than significant impact with respect to solid waste collection and management.		
Would the project be inconsistent with General Plan, Otay Ranch GDP, or other relevant objectives and policies regarding solid waste thereby resulting in a significant physical impact?	The proposed project would be consistent with applicable General Plan policies, and impacts would be less than significant.	No mitigation required.	Less than significant.
Energy			
Would the project increase the demand of energy resources to exceed the City's available supply or cause a need for new and expanded facilities the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives?	Because no assurance can be made that long-term energy will be supplied to the site at full buildout and beyond, impacts would be considered potentially significant because the proposed project could increase the demand for energy resources that exceed the City's available supply.	With preparation of the project's Energy Conservation Plan, the project complies with mitigation measure 5.3.5-1 from the Supplemental Environmental Impact Report for Amendments to the City of Chula Vista General Plan (GPA-09-01) and Otay Ranch General Development Plan (PCM-09-11). However, there is no assurance that long-term energy resources would be supplied to the project site following full project buildout and no feasible project specific mitigation measures are available to address the regional supply of energy.	Significant and unavoidable
Would the project result in the wasteful, inefficient, or unnecessary use of energy?	Compliance with policies and the energy conservation plan would ensure that average energy consumed by future occupants would not be wasteful, inefficient, or unnecessary, and would in fact be less than the regional average and less than statewide business-as-usual projections. Therefore, this impact would be less than significant.	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan, Otay Ranch GDP, or other relevant objectives and policies regarding energy thereby resulting in a significant physical impact?	The proposed project would be consistent with General Plan and Otay Ranch GDP policies that pertain to energy. Therefore, energy impacts would be less than significant related to consistency with existing policies pertaining to energy.	No mitigation required.	Less than significant.
5.14 Climate Change			
Would the project conflict with or obstruct goals or strategies of the California Global Warming Solutions Act of 2006 (AB32) or related Executive Orders?	The proposed project would therefore be consistent with the goals of AB 32 and the City's requirements, and would not result in a significant impact on Global Climate Change. The project includes project design features to reduce impacts to Global Climate Change.	No mitigation required.	Less than significant.
Would the project result in substantially increased exposure of the project from potential adverse effects of global warming identified in the California Global Warming Solutions Act of 2006 (AB32)?	The increase in land use intensity and associated increase in vehicle trips has not been anticipated in local air quality plans; therefore, the proposed project would be inconsistent at a regional level with the underlying growth forecasts in the RAQS. Furthermore, as discussed in Section 5.4, the emissions VOCs and NO_x (precursors of O_3), as well as those of PM_{10} and $PM_{2.5}$, would exceed operational significance thresholds. Even with implementation of Mm AQ-1 and MM AQ-2, operation of the proposed project would result in significant impacts to air quality.	No feasible mitigation.	Significant and unavoidable.
Section 5.15 Hazards and Risk of Upset			
Would the project create a significant hazard to the public or environment through the routine	While the proposed project would result in the increase in routine transport, use and disposal of hazardous materials and/or wastes generated by future	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
transport, use or disposal of hazardous materials?	growth, all hazardous materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials.		
Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Accidental spills or unauthorized releases of hazardous materials during construction, including ground clearing, access road construction and foundation excavation could potentially result in soil contamination, which would be a potentially significant impact. In order to reduce this potential impact, mitigation is provided.	MM HAZ-1 Prior to issuance of a mass grading permit for each village, the Applicant shall prepare a soils assessment to the satisfaction of the City Engineer to determine if residual pesticides, herbicides, and/or arsenic are present on site. The assessment shall be prepared by a Registered Environmental Assessor in accordance with Department of Toxic Substances Control guidance document. The assessment shall include analysis for organochlorine pesticides that include compounds such as toxaphene, dichlorodiphenyldichloroethane (DDD), dichlorodiphenyltrichloroethane (DDT), and dichlorodiphenyldichloroethylene (DDE), which have been historically identified at properties in the site vicinity. The concentrations of the contaminants shall be compared to regulatory agency soil screening levels for residential land use (e.g. U.S. EPA Region IX Soil Screening Levels). If levels of contamination exceeding the soil screening levels are found on site, a Soil Reuse Plan shall be prepared prior to construction on site. The Soil Reuse Plan shall include a determination of the suitability of the soils for on-site or off-site reuse, any special handling provisions that shall be incorporated as part of the site grading activities, and the procedure for the proper remediation and disposal of the contaminated soils, either on site or off site. The results of the limited soil assessment and the Soil Reuse Plan shall be submitted to the County of San Diego Department of Environmental Health, the Development Services Director (or their designee), and/or the Regional Water Quality Control Board for review and approval, prior to implementation.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Due to the proximity of the project area to schools and potential for hazardous impacts due to the Otay Landfill, former Brown Field Bombing Range, and potentially contaminated soils, impacts to schools could be potentially significant.	See MM HAZ-1 identified above. ~~MM HAZ-2A~~ ~~MM HAZ-2B~~	Less than significant
Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment is created?	~~Based on the fact that all calculated carcinogenic (cancerous) and non-carcinogenic (non-cancerous) risks are below the identified SDAPCD CEQA thresholds for each respective receptor within the development, LFG monitoring reports indicate compliance with methane gas concentrations, and the fact that no stormwater violations have occurred, impacts are not considered significant. Furthermore, based on the regulations and the periodic monitoring conducted to ensure continued compliance, it has been determined that impacts due to implementation of the proposed project would be less than significant.~~ Due to the determinations found during the risk assessment, although unlikely, the presence of munitions and explosives of concern, along with munitions debris, have the potential for harm to human health, if there is contact to still functioning munitions on the FUDS site in Village Ten.	MM HAZ-2A Prior to approval of the Village Ten Final Map, the Applicant shall retain a Unexploded Ordnance (UXO) specialist to prepare a Safety Plan for the approximately 154 acres of the Village Ten Sectional Planning Area (SPA) Plan area that is within the boundaries of the Formerly Used Defense Site (FUDS)-eligible property as defined in the *Final Site Inspection Report for the Former Brown Field Bombing Range* (hereinafter referred to as the Site Inspection Report) prepared by Parsons for the UD Army Corps of Engineers (ACOE) dated December 2007. The Safety Plan shall be prepared to the satisfaction of the Director of Development Services or their designee. The Safety Plan shall include, but not be limited to, the following: • Findings based on a current visual inspection of the approximately 154-acre SPA Plan area within the FUDS-eligible property including a description of evidence of current activity and uses. • A discussion on the prior use of the site and the types of munitions used, dates of use, etc. • Review of prior US Army Corps of Engineers Site Inspection Reports and historical data and summaries of those reports' conclusions. • Review of current site inspection data to determine trail access to and through the FUDS area. • A detailed characterization of the site and its risk profile, based on a combination of the reports to date, the types of munitions	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		uses and found in the prior investigation and current site inspection. • Hazard mitigation measures, such as fencing and signage, appropriate for this site given its risk profile and planned land use in accordance with applicable Federal, State and local requirements and best practices. • As part of implementation of the Safety Plan, specifically the installation of fencing and/or signage determined to be appropriate for the site, or the dedication of any trails, the following shall be performed: o A surface visual survey (SVS) of future dedication trails within the approximately 154-acre Village Ten SPA Plan Area within the FUDS-eligible property boundaries shall be conducted. • UXO anomaly avoidance - performed by a UXO technician using a handheld detector at each point where intrusive activities will be performed for the installation of a fence/sign post. If subsurface metal is indicated at the desired installation point, the fence/sign post will be moved slightly to avoid the subsurface metal. If multiple fencing/signage teams are fielded, it is recommended that a UXO Technician accompany each team to provide UXO anomaly avoidance during intrusive activities such as fence and sign post installation. MM HAZ-2B Prior to the approval of ~~a grading permit~~trail improvement plans for the OVRP/Greenbelt trail (approximately 1.3 acres),or grading plans for water quality basins (approximately 1.8 acres) and any associated access roads (approximately 0.8 acre) that are within the Village Ten SPA Plan boundary and FUDS-eligible property boundaries (hereinafter referred to as the “Cleanup area”), the applicant shall develop and implement a Village Ten FUDS Cleanup Plan in cooperation	

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
		with the appropriate agencies, including but not limited to the Army Corps of Engineers (ACOE) and Department of Toxic Substances Control (DTSC), as applicable. The purpose of the Village 10 FUDS Cleanup Plan is to identify and clean up any risks of munitions or other FUDS associated risks within the Cleanup area in order to render the area suitable for the intended uses. The Village Ten FUDS Cleanup Plan shall include a risk assessment that identifies the nature and extent of munitions, explosives, munitions debris or other FUDS associated risks within the Cleanup area. Enough data shall be gathered to assess the threat to human health, safety and the environment, as well as to support the detailed cleanup program for any portion of the site anticipated to be impacted by grading activity, signage and fence installation, future trail users and/or future maintenance activities for the basins. The Village Ten FUDS Cleanup Plan shall be developed in cooperation with the appropriate agencies and shall be implemented by a qualified UXO specialist prior to issuance of the grading permit for the Cleanup area. Upon completion of the Cleanup Plan, and prior to issuance of construction permits for construction within the Cleanup area, the applicant shall provide verification by the appropriate agency that the site is suitable for the intended uses to the satisfaction of the Development Services Director (or their designee). ~~No mitigation required.~~	
Would the project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would result in a safety	Although the project does not propose any buildings that create a hazard for aircrafts, the proposed project would be required to show compliance with FAA regulations. In order to show compliance, the Applicant	**MM HAZ-3** Prior to issuance of a building permit for the first structure and/or dwelling unit within the Airport Influence Area of Brown Field, the Applicant shall prepare and file a Form 7460-1, Notice of Proposed Construction or Alteration, with the Federal Aviation Administration to ensure that no objects related to	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
hazard for people residing or working in the project area?	must prepare and file Form 7460-1, Notice of Proposed Construction or Alteration; obtain and provide proof of FAA clearance; and record the Airport Overflight Agreement with the County Recorder's office.	development would present a hazard to air navigation. MM HAZ-4 Prior to the issuance of a building permit for the first structure and/or dwelling unit within the Airport Influence Area of Brown Field, the Applicant shall obtain and provide proof of Federal Aviation Administration clearance to the satisfaction of the Development Services Director (or their designee). MM HAZ-5 Prior to approval of the first Final Map for those areas within the overflight notification area for Brown Field, the Applicant shall record the Airport Overflight Agreement with the County Recorder's office, and provide a signed copy of the recorded Airport Overflight Agreement to the City's Development Service Director (or their designee).	
Would the project impair implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan?	The proposed roadways in the project area would increase regional connectivity and provide new potential emergency evacuation routes. Therefore, the proposed project would not interfere with an adopted emergency response or emergency evacuation plan; impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project expose people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	FPPs have been prepared for the University Villages project, as required by Article 86 of the California Fire Code. The FPPs address the risk analysis and code compliance components that are common to all three proposed villages, as well as village-specific fire protection features. Implementation of the FPPs would reduce wildland fire risk to a less than significant level.	No mitigation required.	Less than significant.
Would the project be inconsistent with General Plan, Otay Ranch	A General Plan Amendment is proposed to allow residential land uses within the Otay	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
GDP, and other objectives and policies regarding hazards thereby resulting in a significant physical impact?	Landfill nuisance easement area. With the adoption of the General Plan Amendment, the proposed project will be consistent with the General Plan and impacts would be less than significant. The HRA that was prepared for Village Eight East due to its proximity to I-125 concluded, that due to the relatively low cancer risk associated with a 9-year exposure scenario, impacts would be considered less than significant and no mitigation would be required.		
Would the project increase in urbanization increase the uses, transport, storage, and disposal of hazardous waste materials and an associated increase in the risk of an upset condition in the area?	All hazardous materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Therefore, although the proposed project would increase the transport, use, and disposal of hazardous materials, impacts would be less than significant.	No mitigation required.	Less than significant.
Would the historic use of pesticides result in soil contamination and health effects?	The site history is similar to the history of other Otay Ranch Villages which have undergone assessment for organochlorine pesticides, organophosphorous pesticides, organochlorine herbicides, and metals including arsenic and lead associated with former agricultural use. Considering the potential consequences of encountering contaminated soils, impacts would be potentially significant.	See MM HAZ-1 above.	Less than significant.
5.16 Housing and Population			
Would the project induce substantial population growth in an area, either directly (i.e., by	Although the proposed project would result in substantial population growth, the General Plan and Otay Ranch GDP amendments,	No mitigation required.	Less than significant.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
proposing new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)?	compliance with the GMOC and related thresholds, preparation of a PFFP, payment of DIFs and TDIFs, as well as the updated 2050 SANDAG Regional Growth Forecast, would ensure that the proposed project would have less than significant impacts associated with population growth.		
Would the project displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?	The proposed project would have no impacts associated with displacement of households or people.	No mitigation required.	No impact.
Would the project be inconsistent with General Plan, Otay Ranch GDP, and other objectives and policies regarding housing and population thereby resulting in a significant physical impact?	The proposed project would be consistent with the goals included in the General Plan and Otay Ranch GDP and impacts would be less than significant.	No mitigation required.	Less than significant.
5.17 Mineral Resources			
Would the project result in the loss of availability of a valuable mineral resource that would be of value to the region and the residents of the state?	Construction and operation of the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. As such, impacts would be less than significant.	No mitigation required.	Less than significant.
Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	The Chula Vista General Plan does not identify any mineral resource recovery sites within the City. Therefore, construction and operation of the proposed project would not result in the loss off availability of a locally important mineral resources recovery site, and there would be no impact.	No mitigation required.	No impact.

Table 1-3 (Continued)
Summary of Significant Environmental Analysis Results

Environmental Issue	Result of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project be inconsistent with General Plan, Otay Ranch GDP, and other objectives and policies regarding mineral resources thereby resulting in a significant physical impact?	The proposed project does not involve the extraction of any mineral resources, no impacts to mineral resources would occur and no mitigation measures are required to reduce or avoid impacts. Since the project would be consistent with the General Plan and Otay Ranch GDP policies regarding mineral resources, potential impacts would be less than significant with respect to this threshold.	No mitigation required.	Less than significant.

Table 1-4
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
5.1 Land Use			
Physical Division of an Established Community and Conflicts with Land Use Plans, Policies, and Regulations	Analysis of individual projects as they are submitted to the City will ensure compatibility with applicable plans and policies. Since all current and future projects would be analyzed for compatibility and compliance with land use regulations, the proposed project would not result in a cumulatively considerable impact.	No	Not cumulatively considerable.
Conflicts with HCPs or NCCPs	The Chula Vista MSCP Subarea Plan and the Otay Ranch RMP are the applicable natural resource plans for the project and cumulative projects. The cumulative projects, including the University Villages project, would be required to demonstrate compliance with the MSCP Subarea Plan and the RMP as part of project approval. Therefore, cumulative land use impacts associated with potential conflicts with HCPs or NCCPs would be less than significant.	No	Not cumulatively considerable.
5.2 Landforms and Aesthetics			
Visual Character and Visual Quality	Development of the project site would change the undeveloped, open and natural character of the on-site rolling hills to one of high-density urbanized uses. This alteration in the visual character and quality of the site, combined with cumulative project development, is considered cumulatively considerable. Grading and development of the project site's vacant land with 6,897 residential units, 40,000 square feet of commercial land use, 28.6 acres of industrial land use, parks, and schools would incrementally contribute to the cumulative loss of open, rolling topography.	Yes	Cumulatively considerable and unavoidable.
Scenic Vistas and Scenic Resources	Due to the cumulative permanent conversion of the existing rural setting that characterizes Otay Ranch to an urban/built up setting, the project, in combination with planning future development, would result in a cumulatively considerable contribution to a significant and unavoidable cumulative impact.	Yes	Cumulatively considerable and unavoidable.
Landform Alteration	Cumulative development, including the proposed project, would be required to adhere to such standards, which would reduce potentially cumulative impacts to landform alteration less than significant.	No	Not cumulatively considerable.
Lighting and Glare	Development of the proposed project would contribute new sources of light to the surrounding area. The SPA Plan includes lighting performance standards to minimize the proposed projects contribution to nighttime lighting and light sources. Lighting would be consistent with lighting standards prevalent in urbanized and rural areas of San Diego County and lighting would adhere to all applicable City and County ordinances and	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
	standards. All other cumulative projects in the surrounding area would be required to comply with similar standards in order to reduce the cumulative effects of lighting and glare.		
5.3 Transportation, Circulation, and Access			
Traffic and Level of Service Standards and Congestion Management	The cumulative project trip generation would total 162,825. Due to the increase in vehicle trips generated as a result of the cumulative project condition in 2030, impacts would be considered cumulatively considerable.	Yes	Cumulatively considerable and unavoidable.
5.4 Air Quality			
Air Quality Violations	Mitigation measures have been provided to reduce impacts but not to below the significance thresholds. Other projects would likely be required to also have construction mitigation measures as well; however, impacts would still be significant. Additionally, daily operational emissions for VOCs, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ would be significant due to the absence of feasible mitigation measures.	Yes	Cumulatively considerable and unavoidable.
Sensitive Receptors	Impacts related to siting new sensitive receptors near sources of TACs would generally be site specific. Similar to the proposed project, new emitters of TACs would need to comply with the San Diego Air Pollution Control District criteria, such as Rule 1200. The HRA prepared for Village Eight East analyzed TACs from traffic on SR-125 and determined that impacts would be less than significant. Additionally an odor analysis prepared for Village Three North due to proximity to the landfill determined that impacts would also be less than significant.	No	Not cumulatively considerable.
Objectionable Odors	Impacts relative to objectionable odors are generally limited to the area in close vicinity to the source and are not cumulative in nature.	No	Not cumulatively considerable.
Air Quality Plans	The project as proposed is not accounted for in the current SIP emissions budget. Consequently, the proposed project is not consistent with Chula Vista's General Plan and is not considered consistent with the growth assumptions in the RAQS and SIP. As such, impacts would be considered cumulatively considerable and unavoidable	Yes	Cumulatively considerable and unavoidable.
5.5 Noise			
Excessive Noise Levels	With the build-out of Otay Ranch the noise levels in the currently undeveloped area would continue to increase exponentially. The proposed project would have mitigation measures that would ensure operational noise levels comply with City standards. Cumulative projects would also be required to demonstrate compliance with City noise standards. Therefore, a cumulative operational noise impact would not be significant.	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
Excessive Groundborne Vibration	The highest vibration levels during construction typically occur during pile-driving, blasting or demolition activities. Neither pile driving or demolition activities are anticipated as part of this project. The proposed project as well as cumulative projects would be developed with new buildings constructed in accordance with all building codes and would not be susceptible to vibration damage. Therefore, groundborne vibration impacts would be less than significant and cumulatively considerable impacts would not result.	No	Not cumulatively considerable.
Permanent Increase in Ambient Noise Levels	Long-term on-site activities associated with the project would not have a regional effect upon community noise levels, and therefore need not be considered in combination with approved or proposed projects in the region. Therefore, the project's contribution to increased noise levels would not be cumulatively considerable and cumulative impacts would be less than significant.	No	Not cumulatively considerable.
Temporary Increase in Ambient Noise Levels	Compliance with the Chula Vista ordinance would reduce impacts to a less than significant level. The project would comply with the Chula Vista construction limits and would not result in a cumulatively considerable contribution to construction noise.	No	Not cumulatively considerable.
Excessive Noise Exposure from a Public or Private Airport	Village Two lies outside the 60-65 dB CNEL noise contours. All cumulative projects would be required to comply to similar measures associated with Brown Field and would therefore not result in cumulatively considerable impacts.	No	No cumulative impact.
5.6 Cultural Resources			
Loss of Historic or Archaeological Resources	While any individual project may avoid or mitigate the direct loss of a specific resource, the effect is considerable when considered cumulatively. Although the actions of the proposed project would be mitigated through data recovery, curation, and reporting, the proposed project's contribution to a cumulatively considerable impact would not be reduced to a less than significant level.	Yes	Cumulatively considerable and unavoidable.
5.7 Paleontological Resources			
Loss of Paleontological Resources	Cumulative projects in the surrounding area are likely to have similar paleontological resources as the project, and may contain the Sweetwater Formation, the upper sandstone-mudstone member of the Otay Formation and San Diego Formation, the Lindavista Formation, and Quaternary terrace deposits. However, implementation of proposed mitigation measures would reduce the proposed project's potentially cumulative impact on paleontological resources and impacts would be less than significant and not cumulatively considerable.	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
5.8 Biological Resources			
Sensitive Plant and Wildlife Species, Riparian Habitat and Other Sensitive Natural Communities, Federally Protected Wetlands, and Wildlife Movement Corridors and Nursery Sites	Cumulative projects would all be developed in compliance with the MSCP Subarea Plan and Otay Ranch RMP, which would reduce impacts associated with development of these villages. Therefore, the project in combination with the other development projects proposed would not result in a cumulatively considerable contribution to biological impacts.	No	Not cumulatively considerable.
Local Policies, Ordinances, HCP, and NCCP	Significant cumulative impacts related compliance with local plans or ordinances would be avoided through implementation of a Boundary Modification to the RMP and Boundary Adjustment to the MSCP Subarea Plan.	No	No cumulative impact.
5.9 Agricultural Resources			
Loss of Agricultural Resources	The project, when combined with many of the cumulatively considerable projects would contribute to a significant, unmitigable cumulative impact to agricultural resources.	Yes	Cumulatively considerable and unavoidable.
5.10 Water Quality and Hydrology			
Water Quality Standards and Degradation of Water Quality	Because all of the cumulative projects are regulated under the same City and Regional Water Quality Control Board standards, they too would be required to attenuate all drainage on site (to maintain pre development flow quantities) and incorporate water quality design features to prevent cumulative impacts to local drainage systems or water quality. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to water quality.	No	Not cumulatively considerable.
Erosion or Siltation, Surface Runoff, and Exceed Drainage Capacity	Cumulative projects would be required to take into consideration similar grading modifications in order to reduce stormwater runoff and erosion as the proposed project, and comply with standard mitigation measures for water quality and drainage features (See Section 5.10); therefore, impacts would not be cumulatively considerable.	No	Not cumulatively considerable.
5.11 Geology and Soils			
Exposure to Seismic Related Hazards, Soil Stability, and Expansive Soils	Since geologic hazards are site-specific and not cumulative in nature, the proposed project would not have a cumulatively considerable impact.	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
Soil Erosion or Topsoil Loss	Earth-disturbing activities associated with construction would be temporary and compliance with the General Construction Permit and BMPs outlined in the SWPPP, cumulative impacts related to soil erosion and the loss of topsoil would be less than significant. Furthermore, implementation of BMPs and proposed drainage facilities would ensure cumulative impacts related to soil erosion and the loss of topsoil would be less than significant.	No	Not cumulatively considerable.
5.12 Public Services			
Fire Protection and Emergency Services; Police Services; Libraries	Required by CVMC Section 19.09, the construction of new fire stations, and other public facilities, would be supported on a fair share basis through payment of the City's PFDIF. Cumulative projects, as well as the proposed project, would be required to pay the City's PFDIF in order to ensure fire protection and emergency medical facilities, and police services and facilities are constructed concurrently with demand. The PFDIF addresses the project's proportional impact on capital facilities, such as structures and equipment, associated with police protection. It does not address the impact associated with operations and maintenance for those facilities. Public funds such as property taxes, sales taxes, and fees generated by the project would be used to cover the incremental costs associated with providing police services. Therefore, impacts related to public services would not be cumulatively considerable.	No	No cumulative impact.
Schools	Similarly, Section 19.09 (Growth Management) provides policies and programs that tie the pace of development to the provision of public facilities and improvements. Section 19.09.040.C requires that the City annually provide the two local school districts with a 12- to 18-month development forecast and requests an evaluation from the districts of their ability to accommodate the forecast and continuing growth. The PFFP is required to ensure funding for any needed expansion of services, and ensure that schools will be provided commensurate with development and demand. Therefore, impacts would not be cumulatively considerable. from the districts of their ability to accommodate the forecast and continuing growth. The PFFP is required to ensure funding for any needed expansion of services, and ensure that schools will be provided commensurate with development and demand. Therefore, impacts would not be cumulatively considerable.	No	No cumulative impact.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
Parks, Recreation, and Open Space	All cumulative projects, including the proposed project is required to comply with the parkland requirements in the CVMC. Compliance would ensure that cumulatively considerable impacts would not occur.	No	No cumulative impact.
5.13 Utilities			
Water	Cumulative developments would be required to provide documentation of adequate long-term water supply similar to the proposed project. Therefore, cumulative impacts associated with adequate water supply would not result in a cumulatively considerable impact.	No	Not cumulatively considerable.
Sewer	The City of Chula Vista would need to acquire capacity rights for an additional 5.4 mgd to accommodate year 2030 flows. The Salt Creek Interceptor Technical Sewer Study for South Otay Ranch addresses the City's current projections regarding the need to acquire additional treatment capacity. The City may acquire rights for this additional capacity in the Metro system through negotiations with the City of San Diego. In addition, the City of Chula Vista is evaluating construction of a new wastewater treatment plant and other alternatives to meet its future treatment capacity and disposal requirements. The cumulative projects will be timed to proceed with the City's acquisition of additional treatment capacity. Building permits will be issued only if the City Engineer has determined that adequate sewer capacity exists. Furthermore, all developments are required to prepare a PFFP that articulates needed facilities and funding mechanisms. The proposed project includes a PFFP and requires new and expanded sewer facilities to serve the proposed development. Implementation of existing policies and expanded sewer facilities would therefore avoid significant cumulative impacts associated with inadequate treatment capacity. Mitigation measures are also provided to ensure that adequate wastewater facilities are provided concurrently with demand. ~~The project, in combination with other cumulative development within the City, may require sewerage treatment that exceeds the City's existing wastewater treatment capacity. Therefore, additional capacity may need to be acquired from the San Diego Metropolitan Sewer Authority or other sources to support treatment needs through the Year 2030. The means by which additional treatment capacity would be acquired by the City is unknown and could include the acquisition of available sewerage treatment capacity from another participating agency, including the City of San Diego, or the construction of a new treatment facility. As the location and scope of construction for any~~	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
Solid Waste Disposal	The Otay Landfill is scheduled to close in 2028. Solid waste service would continue at Sycarmore Landfill following closure of the Otay Landfill and permitted capacity would be available to accommodate the proposed project and cumulative projects. All planned and proposed projects would be required to be consistent with all applicable statutes and regulations, and would therefore not have cumulatively considerable impacts with respect to solid waste collection and management.	No	Not cumulatively considerable.
Energy	Because no assurance can be made that long-term energy will be supplied to the site, and other planned sites, at full buildout and beyond, impacts would be considered cumulatively considerable.	Yes	Cumulatively considerable and unavoidable.
5.14 Climate Change			
Compliance with AB 32	Since the proposed project is not anticipated to result in a significant increase in greenhouse gas emissions, it would not be a significant cumulative impact.	No	Not cumulatively considerable.
Potential Effects of Global Climate Change	Since the proposed project is not anticipated to result in a significant increase in greenhouse gas emissions, it would not result in cumulative impacts increasing the potential effects of global climate change.	No	Not cumulatively considerable.
5.15 Hazards and Risk of Upset			
Expose People to Hazardous Conditions	Potential soil contamination from past pesticide use on the project site as well as the cumulative project sites could create a hazard to public health during grading and excavation. The cumulative projects would also be required to further analyze soils and mitigate any potentially significant hazards. Therefore, with additional testing and compliance with applicable mitigation measures the proposed project would not result in a cumulatively considerable impact associated with contaminated soils. The cumulative projects are also in the same general area as the proposed project and would be similarly vulnerable to wildfires. Preparation of FPPs, which is required for all the cumulative projects, would further reduce cumulative project impacts related to wildland fires. The HRA prepared for Village Eight East analyzed TACs from traffic on SR-125 and determined that impacts would be less than significant. Additionally an HRA and	No	Not cumulatively considerable.

Table 1-4 (Continued)
Summary of Cumulative Impacts

Environmental Issue	Result of Impact Analysis	Significant Cumulative Impact?	Project Contribution
	odor analysis were prepared for Village Three North due to proximity to the landfill that determined that impacts would also be less than significant. A mitigation measure is required for future development on Village Ten, the former Brownfield Bombing Range, which could potentially contain contaminated soils as well as Munitions and Explosives of Concern (MEC).		
5.16 Housing and Population			
Population Growth	When combined with the list of cumulative projects, which are primarily residential developments, there would be an exponential increase in population and housing and would, therefore, contribute to a cumulatively considerable impact.	No	Not cumulatively considerable.
5.17 Mineral Resources			
Loss of Mineral resources	Cumulative projects would be expected to result in a less than significant impact on mineral resources and the proposed project's potential impact on mineral resources would not be cumulatively considerable.	No	Not cumulatively considerable.

Table 1-5
Alternatives Impact Summary

Environmental Issue	Proposed Project Impacts Prior to Mitigation	Proposed Project Impacts with Mitigation	Existing GP and GDP Alternative	Reduced Density Alternative	Nuisance Easement Alternative	Otay SRP Alternative	No Build Alternative
Land Use	S	LTS	▬	▬	▬~~▼~~	▬	△
Landform and Aesthetics	SU	SU	▬	▬	▬	▼	▼
Transportation and Circulation	SU	SU	▼	▼	▼▬	▼	△
Air Quality	SU	SU	▼	▼	▼	▼	▼
Noise	S	LTS	▬	▬	▬	▬	▼
Cultural Resources	SU	~~LTS~~ SU	▬	▬	▬	▬	▼
Paleontological Resources	S	LTS	▬	▬	▬	▬	▼
Biological Resources	S	LTS	▬	▬	▬	▬	▼
Agricultural Resources	SU	SU	▬	▬	▬	▬	▼
Water Quality and Hydrology	S	LTS	▬	▬	▬	▬	▼
Geology and Soils	S	LTS	▼	▼	▬	▼	▼
Public Services	S	LTS	▼	△	▬	▼	▼
Utilities	SU	SU	▼	▼	△	▼	▼
Climate Change	SU	SU	▼	▼	▬	▼	▼
Hazards and Risk of Upset	S	LTS	▼	▼	▼	▼	▼
Housing and Population	LTS	LTS	△	▼	▬	△	△
Mineral Resources	LTS	LTS	▬	▬	▬	▬	▼
Meet Project Objectives	Yes	Yes	No	Partial	~~Partial~~Yes	No	No

△ Alternative is likely to result in greater impacts to issue when compared to proposed project.
▬ Alternative is likely to result in similar impacts to issue when compared to proposed project.
▼ Alternative is likely to result in reduced impacts to issue when compared to proposed project.
LTS = Less than significant impact.
S = Significant impact.
SU= Significant and Unavoidable

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CHAPTER 2
INTRODUCTION

This chapter of the Environmental Impact Report (EIR) describes the purpose, scope and legislative authority of the EIR, the intent of the California Environmental Quality Act (CEQA) and other pertinent environmental rules and regulations, and the environmental review process. The section also includes the structure, required contents, and relationship of the EIR to other potential responsible or trustee agencies.

2.1 PROJECT PURPOSE AND BACKGROUND

This EIR addresses the environmental effects associated with the proposed University Villages Project (proposed project), which encompasses Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. Implementation of the proposed project requires Chula Vista General Plan Amendments (GPAs), Chula Vista Multiple Species Conservation Plan Boundary Adjustments (MSCPBAs), Otay Ranch General Development Plan Amendments (GDPAs), and Resource Management Plan Boundary Adjustments (RMPBAs). The project also proposes amendments to three approved Sectional Planning Area (SPA) Plans: Otay Ranch Villages Two, Three, and a Portion of Village Four SPA Plan, adopted by the Chula Vista City Council on June 4, 2006; Otay Ranch Village Seven SPA Plan, adopted by the Chula Vista City Council on October 4, 2004; and the Otay Ranch Village Nine SPA Plan, adopted by the Chula Vista City Council on June 3, 2014.

Three SPA plans are proposed: (a) an Otay Ranch Village Three North and a Portion of Village Four SPA Plan, (b) Otay Ranch Village Eight East SPA Plan, and (c) Otay Ranch Village Ten SPA Plan. Three Tentative Maps (TMs) are also proposed: (a) Village Three North and a Portion of Village Four, (b) Village Eight East, and (c) Village Ten.

This EIR was prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.), the CEQA Guidelines (14 California Code of Regulations (CCR) Section 15000 et seq.), and the City's Environmental Review Procedures. The City is the lead agency for the EIR and processing of the proposed project.

This EIR provides decision makers, public agencies, and the public with detailed information about the potential for significant adverse environmental impacts to occur as a result of the proposed project. As determined in the case *Ballona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, "An EIR must identify and analyze the significant environmental impacts that may result from the project (PRC Section § 21100(a)(b); Guidelines,§§ 15126.2(a), 15143). It must include facts and analysis sufficient to allow the decision makers and the public to understand the environmental consequences of the project. The analysis need not be exhaustive, but it must be reasonably complete and reflect a good faith effort at full disclosure

(*Ballona Wetlands Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473-474)." The purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project.

Responsible agencies will use this EIR to fulfill their legal authority associated with permits issued for the proposed project. The analysis and findings in this document reflect the independent judgment of the City.

2.2 HIERARCHY OF OTAY RANCH PLANNING DOCUMENTS

Due to the size and complexity of Otay Ranch, both the planning and environmental documentation for the specific planning areas or villages within the Otay Ranch have been tiered, in accordance with CEQA Statute Section 21093 and CEQA Guidelines Section 15152. As specific villages and planning areas are proposed for development, second-tier documentation is required for more precise or project-level planning and project-specific environmental documentation. This EIR relies upon several previously certified EIRs, as discussed below.

2.2.1 City of Chula Vista General Plan/Otay Ranch General Development Plan

California law requires that each county and city adopt a General Plan "for the physical development of the County or City, and of any land outside its boundaries which…bears relation to its planning" (CCR Section 65300). Each General Plan must be internally consistent and all discretionary land use plans and projects must also be consistent with the General Plan. The Chula Vista General Plan outlines goals, policies and objectives for land uses within Chula Vista in response to the community's vision for the City. The General Plan includes specific requirements in the Land Use and Transportation Element for master planned communities and resource management plans for water, air quality, recycling, solid waste management, and energy. A comprehensive General Plan Update was adopted in 2005 and is discussed in detail below. The latest update to the General Plan and Otay Ranch GDP was in February 2013.

In 1993, the City of Chula Vista and County of San Diego jointly processed the Otay Ranch GDP/Otay Subregional Plan (SRP). Otay Ranch is an approximately 23,000-acre master planned community in southern San Diego County, partly within the limits of the City. The Otay Ranch GDP includes plans for multiple urban villages and town centers, resort village, university site, regional technology park, regional open space preserve, freeway commercial area, the Eastern Urban Center, industrial areas, and two rural estate planning areas. Otay Ranch includes the Otay Ranch Preserve, a hard-line preserve encompassing approximately 11,375 acres set aside, or to be set aside, as mitigation for impacts to sensitive biota resources and associated species resulting from Otay Ranch development occurring within both the City and County.

The Otay Ranch GDP groups residential areas into "Villages." The heart of the village is the "village core." Pursuant to the guidelines in the Otay Ranch GDP, village cores are strategically located within each village. These are mixed-use areas designed to contain essential facilities and services such as elementary schools, shops, civic facilities, childcare centers, local parks, and higher-density housing.

2.2.1.1 1993 Otay Ranch General Development Plan and Program EIR

The Otay Ranch GDP/SRP was originally adopted by the Chula Vista City Council and the San Diego County Board of Supervisors on October 28, 1993, and was accompanied by certification of the Final Program EIR and related technical addendum (SCH No. 89010154). In addition to establishing community-wide land use policies, the Otay Ranch GDP includes an Overall Design Plan, which presents a design context for Otay Ranch that serves as a basis for individual SPA Plans. The Otay Ranch GDP groups residential areas into "Villages." Village cores are strategically located, mixed-use areas designed to contain essential facilities and services.

The 1993 Otay Ranch GDP was amended in 1996 as part of the approval of the first SPA plan in Otay Ranch (SPA One) and again in conjunction with the General Plan Update process in 2005, and was recently updated in February 2013, as described below. The 2013 General Plan Amendment included the existing land uses, which are the 2001 Otay Ranch GDP uses.

The analysis within this EIR tiers from the 1993 Otay Ranch GDP Program EIR because the proposed project implements land uses (although at a different intensity), a circulation network, and village design policies that were analyzed in the Otay Ranch GDP, and because the certified Program EIR assessed the significant environmental effects associated with development of the entire Otay Ranch area at a programmatic level, including the proposed project site. Therefore, the analysis herein will be "tiered" from the certified 1993 Program EIR in accordance with Public Resources Code Section 21093(a) and CEQA Guidelines Section 15168(c). Public Resources Code Section 21093 encourages a lead agency to tier from a previously certified program EIR, whenever feasible.

2.2.1.2 Otay Ranch SPA One EIR

The Second Tier EIR for Otay Ranch SPA One and Annexation (SCH # 94101046 – "SPA One EIR") was adopted by the Chula Vista City Council in April of 1996. The SPA One EIR analyzed the potential impacts associated with implementation of the first SPA Plan in Otay Ranch. As required by the Otay Ranch GDP and Program EIR, the SPA One EIR included the preparation and consideration of the Phase 2 Resource Management Plan (Phase 2 RMP) which implemented a series of tasks such as preparing Ranch-wide studies, establishing the Preserve conveyance plan, creating the preserve financing mechanism, and setting requirements for the Otay Ranch Preserve Owner/Manager. The Phase 2 RMP conveyance requirement established

the mechanism for land to be dedicated to the Otay Ranch Preserve which allowed for the assemblage of a connected, integrated, managed, fully-funded Preserve to mitigate biological impacts within the developed portions of Otay Ranch and became a major component of the Chula Vista MSCP Subarea Plan.

2.2.1.3 2005 Chula Vista General Plan Update/Otay Ranch General Development Plan Amendment and Program EIR

In 2005, the City of Chula Vista completed a comprehensive update of its General Plan, which included an amendment to the GDP (hereinafter referred to as the 2005 GPU/GDPA). The 2005 GPU/GDPA Program EIR (EIR 05-01) was certified on December 13, 2005.

The analysis within this EIR also tiers from the 2005 GPU/GDPA Program EIR, because existing conditions for the entire Otay Ranch area were assessed as part of the 2005 GPU/GDPA. The 2005 GPU/GDPA analyzed the environmental impacts associated with the adopted General Plan Preferred Alternative (as well as three other project level alternatives). However, not all of the components proposed as part of the Preferred Alternative were adopted. The rejected components of the Preferred Alternative were designated as Deferral Areas[1], and included Villages Eight East and Ten. The following provides a description of the components that were adopted and those that were designated as "Deferral Areas," as they pertain to the University Villages Project (proposed project):

Adopted Components

Village Three - The 2005 GPU/GDPA included amendments to the GDP, which eliminated the secondary residential urban village scenario that the County identified as its primary land use, in the County SRP, and the City of Chula Vista identified as an alternative land use to Industrial. The land was annexed to the City in 1995 and the County no longer had jurisdiction over the property. The land use designations for Village Three remained the same as the land uses adopted as part of the original 1993 Otay Ranch GDP.

Village Four - The 2005 GPU/GDPA removed 84 acres of land in Village Four and incorporated it with Village Eight. This component was adopted, but amendments to land uses within the 84 acres were not (see below). Another adopted component of the 2005 GPU/GDPA was the designation of 82 gross-acres in the northern portion of Village Four as a major Community Park.

[1] Deferral Areas – Portions of the Central and Eastern University Districts where land use and policy changes analyzed in the 2005 GPU/GDPA were not approved as described in Resolution 2005-424 and GDP Resolution 2004-427.

Deferral Areas

Village Eight - The 2005 GPU/GDPA Preferred Alternative included, but was not limited to, designating the Regional Technology Park (RTP) in the eastern portion of Village Eight on 200 acres. However, none of the land use or policy changes analyzed in the 2005 GPU/GDPA were approved and all of Village Eight became part of the Deferral Area.

Village Ten - The 2005 GPU/GDPA Preferred Alternative included, but was not limited to, removing the urban village alternative from the GDP as an option for Village Ten, designating 530 acres for a university campus, and replacing the GDP designation with "University Campus." However, none of the land use or policy changes analyzed in the 2005 GPU/GDPA were approved and all of Village Ten became part of the Deferral Area.

As part of the 2005 GPU/GDPA, the Chula Vista City Council deferred taking action on land use designations for Village Eight and Village Ten. Because the land uses within the Deferral Areas were not adopted as part of the 2005 GPU/GDPA land uses reverted back to the 2001 Otay Ranch GDP land uses for Villages Eight and Village Ten.

2.2.1.4 2006 Otay Ranch Villages Two, Three, and a Portion of Village Four SPA Plan and Final Second Tier EIR

The 2006 Otay Ranch Village Two, Three, and Portion of Village Four SPA Plan Final Second Tier EIR (Second Tier EIR), tiers from the 1993 Otay Ranch GDP Program EIR. The 2006 Second Tier EIR evaluated the environmental effects associated with development of the Village Two, Three, and a Portion of Village Four SPA Plan, which were not evaluated at a project-level in the 1993 Otay Ranch GDP Program EIR. The Second Tier EIR required Amendments to be made to the General Plan, Otay Ranch GDP, Phase 1 and Phase 2 RMPs, and the County of San Diego Otay Subregional Plan, Volume 2.

The Second Tier EIR, which amended the Otay Ranch GDP, designated only Industrial uses within 1,000 feet of the Otay Landfill in Village Three. Chapter 10, Alternatives, of this EIR analyzes an "Otay Ranch GDP Alternative" and an "Otay SRP Alternative," which designate only Industrial uses within 1,000 feet of the Otay Landfill in Village Three. Therefore, the Villages Two, Three, and a Portion of Village Four SPA Plan Second Tier EIR has been "incorporated by reference" in this EIR in accordance with Public Resources Code Section 21083 and CEQA Guidelines Section 15150.

The incorporated part of the referenced document will be briefly summarized where possible or briefly described if the data or information cannot be summarized. The relationship between the incorporated part of the referenced document and the analysis provided herein will be described.

The proposed project includes an amendment to the existing Villages Two, Three, and a Portion of Village Four SPA Plan. The amendment to the Village Two, Three and a Portion of Village Four SPA Plan is to remove the Village Three North area from that SPA Plan to allow for the area to be planned as part of a separate SPA Plan (the Village Three North SPA Plan). See also Section 4.3 Discretionary Actions.

2.2.1.5 2013 City of Chula Vista General Plan Amendment/Otay Ranch General Development Plan Amendment and SEIR

In 2013, a Supplemental EIR (SEIR 09-01) was certified for a General Plan Amendment and General Development Plan Amendment (hereinafter referred to as the 2013 GPA/GDPA), in accordance with CEQA and the guidelines of the City of Chula Vista. As it pertains to the proposed project, the 2013 GPA/GDPA separated Village Eight into Village Eight West and Village Eight East based on separate ownerships; relocated the RTP out of Village Eight East to combine with the University site; and re-designated Village Eight East and Village Ten to their previously adopted uses as identified in the 1993 Otay Ranch GDP.

A previous version of the proposed project was included in the cumulative analysis in the SEIR for the 2013 GPA/GDPA as a “foreseeable” project. The cumulative analysis in the SEIR for the 2013 GPA/GDPA analyzed Village Eight East and Village Ten with 5,756 multi-family dwelling units and park (45.1 acres), school (20.0 acres), and community purpose facility (8 acres) land use designations. These uses were generally consistent with the Land Offer Agreement in place at the time the SEIR was prepared. These uses were consistent with the approved Village 2, 3 and Portion of Village 4 SPA Plan and Final Second Tier EIR referenced above.

2.2.2 Otay Ranch Resource Management Plan and Multiple Species Conservation Program

The Otay Ranch Resource Management Plan (RMP) and the City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan have been “incorporated by reference” throughout the analysis provided in Section 5.8, Biological Resources in this EIR in accordance with Public Resources Code Section 21083 and CEQA Guidelines Section 15150. The incorporated part of the referenced document will be briefly summarized where applicable or briefly described if the data or information cannot be summarized. The relationship between the incorporated part of the referenced document and the analysis provided herein will be described.

For development projects located within Otay Ranch, the City’s MSCP Subarea Plan relies on the Preserve design and policies contained in the Otay Ranch RMP, as may be amended from time to time, as the framework for conservation and management of biological resources within the Otay Ranch Preserve (City of Chula Vista 2003a; City of Chula Vista and County of San Diego 1993, 1996). The RMP comprises two separate documents, the Phase 1 RMP and Phase 2 RMP. The

Phase 1 RMP was approved concurrently with the Otay Ranch GDP by the County of San Diego and the City in October 1993. The Phase 2 RMP was approved concurrently with SPA One by the City in June 1996. Both the Phase 1 and Phase 2 RMPs were amended in 2002 and 2005.

The Phase 1 RMP identifies Preserve areas within Otay Ranch and contains policies regarding species and habitat conservation and long-term management of the Preserve. The Phase 2 RMP includes ranch-wide studies conducted pursuant to the Phase 1 RMP and provides additional detail on Preserve land conveyance, management, and funding (City of Chula Vista and County of San Diego 1993, 2002).

The municipalities of southern San Diego County collaborated in producing the MSCP Subarea Plan. The MSCP Subarea Plan is implemented through individual Subarea Plans adopted by each jurisdiction receiving "take" authorization for covered species. The Chula Vista MSCP Subarea Plan provides for conservation of upland habitats and species through preserve design, regulation of impacts and uses, and management of the Preserve (City of Chula Vista 2003).

2.2.3 Sectional Planning Area Plans

The Otay Ranch GDP is implemented through more detailed plans called "Sectional Planning Areas" (or SPA) plans. A SPA plan implements the plans, policies, and objectives of the Otay Ranch GDP by further defining land uses, development standards, and zoning for a particular portion of the Otay Ranch. SPA plans also establish design criteria and define the type and amount of development permitted.

Section E.1.a of the Otay Ranch GDP specifies the contents of a SPA Plan. The proposed project includes the adoption of three new SPA plans: (a) Village Three North and a Portion of Village Four, (b) Village Eight East, and (c) Village Ten. In addition, as described above, the project proposes amendments to three approved SPA Plans: the Village Three North and Portion of Village Four SPA Plan includes approximately 253 acres within the area identified as "Village Three" in the Village Two, Three and Portion of Village Four SPA Plan Area, adopted in 2006; the Village Eight East SPA Plan includes approximately 6.5 acres within the Village Seven SPA Plan Area, adopted in 2004; and the Village Ten SPA Plan Area includes approximately 16.1 acres currently within the Village Nine SPA Plan Area, adopted in 2014. The proposed project would amend the Village Two, Three and Portion of Four SPA Plan, the Village Seven SPA Plan, and the Village Nine SPA Plan such that no SPA Plan would include overlapping property, consistent with the requirements of the Otay Ranch GDP. The amendment to the Village Two, Three and a Portion of Village Four SPA Plan is to remove the Village Three North area from that SPA Plan to allow for the area to be planned as part of a separate SPA Plan (the Village Three North SPA Plan).

2.2.4 Subdivisions and Building Permits

Upon approval of SPA plans, property may be subdivided in accordance with the California Subdivision Map Act and the applicable Subdivision Ordinances. Thereafter, building permits may be issued. The proposed project includes TMs for development of Village Three North and a Portion of Village Four, Village Eight East, and Village Ten.

2.3 SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

Pursuant to Section 15161 of the CEQA Guidelines, this document has been prepared as a "Project EIR" and is "focused primarily on the changes in the environment that would result from the development" (i.e., the build out of the proposed University Villages Project). Where environmental impacts have been determined to be potentially significant, this EIR presents mitigation measures directed at reducing those adverse environmental effects. The development of mitigation measures provides the lead agency with ways to substantially lessen or avoid the significant effects of the project on the environment, to the degree feasible. Alternatives to the proposed project are presented to evaluate whether there are alternative development scenarios that can further minimize or avoid significant impacts associated with the project.

In addition, and as discussed in Section 2.2, because the proposed project implements a part of the Otay Ranch GDP, and because the certified Otay Ranch Final Program EIR assessed the significant environmental effects associated with development of the entire Otay Ranch area, this EIR "tiers" from the certified Otay Ranch Final Program EIR in accordance with Public Resources Code Section 21093(a) and CEQA Guidelines Section 15168(c). This EIR also tiers from the 2005 GPU/GDPA Program EIR, because existing conditions for the entire Otay Ranch area were assessed as part of the 2005 GPU/GDPA Program EIR. Public Resources Code Section 21093 encourages a lead agency to tier from a previously certified program EIR, whenever feasible. In this way, the EIR can focus on site-specific issues relating to the proposed project and allows the City, as the lead agency, to concentrate on issues, which are ripe for decision and exclude from consideration issues already decided or not ripe for decision under CEQA Guidelines Sections 15168(c), 15385.

Table 2-1 lists the environmental topics included in this EIR and the environmental document from which the analysis was tiered.

Table 2-1
Tiered Analysis by Environmental Issue

Environmental Topic	Documents Utilized in Tiered Analysis	
	Existing Conditions	*Potential Impacts*
Land Use and Planning	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR
Landform Alteration / Aesthetics	2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR
Transportation and Traffic	2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR
Air Quality	2005 GPU/GDPA Program EIR	2005 GPU/GDPA Program EIR
Noise	2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR
Cultural Resources	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Paleontological Resources	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Biological Resources	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Agricultural Resources	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Water Quality and Hydrology	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Geology and Soils	1993 Otay Ranch GDP Program EIR	1993 Otay Ranch GDP Program EIR
Public Services	2005 GPU/GDPA Program EIR	2005 GPU/GDPA Program EIR
Utilities	2005 GPU/GDPA Program EIR	2005 GPU/GDPA Program EIR
Climate Change	2013 GPA/GDPA SEIR	2013 GPA/GDPA SEIR
Hazards and Risk of Upset	2005 GPU/GDPA Program EIR	2005 GPU/GDPA Program EIR
Housing and Population	2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Mineral Resources	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR	1993 Otay Ranch GDP Program EIR and 2005 GPU/GDPA Program EIR
Cumulative Impacts	2013 GPA/GDPA SEIR	2013 GPA/GDPA SEIR

2.4 ENVIRONMENTAL PROCEDURES

2.4.1 California Environmental Quality Act Compliance

The California Public Resources Code (Section 21000 et seq.) requires the preparation and certification of an EIR for any project that a lead agency determines may have a significant effect on the environment. This EIR has been prepared in compliance with all criteria, standards, and procedures of the CEQA Guidelines (14 CCR Section 15000 et seq.).

2.4.2 Notice of Preparation and Scoping

CEQA establishes mechanisms whereby the public and decision makers can be informed about the nature of a proposed project and the extent and types of impacts that the project and its alternatives would have on the environment, should the project or alternatives be implemented. Pursuant to Section 15082 of the CEQA Guidelines, the City circulated a Notice of Preparation (NOP) dated July 22, 2013, to interested agencies, organizations, and parties. The NOP was also sent to the State Clearinghouse at the California Office of Planning and Research. The State Clearinghouse assigned a state identification number (SCH No. 2013071077) to this EIR.

The NOP is intended to encourage interagency communication regarding the proposed action so that agencies, organizations, and individuals are afforded an opportunity to respond with specific comments and/or questions regarding the scope and content of the EIR. A public scoping meeting was held on August 7, 2013, from 3:00 p.m. to 5:00 p.m., at 276 Fourth Avenue (Building C, Room B129), Chula Vista, California, 91910, to gather additional public input. The 30-day public scoping period ended on August 21, 2013.

Comments received during the NOP public scoping period were considered during the preparation of this EIR. The NOP and comments are included in Appendix A to this EIR. Twelve comment letters were received in response to the NOP and public scoping meeting. Comments covered a variety of topics, including increases in traffic within Chula Vista and surrounding jurisdictions, potential hazardous materials/air toxics impacts due to proximity to the Otay Landfill, impacts to the Otay Valley Regional Park, impacts to biological resources and the MSCP Preserve, stormwater runoff, and loss of industrial land.

Based on the scope of the proposed project as described in the NOP, the following issues were determined to be potentially significant and are addressed in Chapter 5, Environmental Impact Analysis, of this EIR:

- Land Use, Planning, and Zoning
- Landform Alteration/Aesthetics
- Transportation, Circulation, and Access
- Air Quality
- Noise
- Cultural Resources
- Paleontological Resources
- Biological Resources
- Agricultural Resources
- Water Quality and Hydrology
- Geology and Soils
- Public Services and Utilities
- Climate Change
- Hazards
- Housing and Population
- Mineral Resources
- Cumulative Impacts
- Growth Inducement.

2.4.3 Overview of the EIR Process

This EIR will be made available to members of the public, agencies, and interested parties for a 45-day public comment period in accordance with Section 15105 of the CEQA Guidelines. Public comment of the EIR is intended to focus "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (14 CCR 15204). The Notice of Completion of the EIR will be filed with the State Clearinghouse as required by Section 15085 of the CEQA Guidelines. In addition, the Notice of Availability of the EIR will be distributed pursuant to Section 15087 of the CEQA Guidelines. Interested parties may provide comments on the EIR in written form. This EIR and all related technical appendices are available for review upon request during the 45-day public comment period at the following locations:

- The offices of the City of Chula Vista, Development Services Department, located at 276 Fourth Avenue, Chula Vista, California 91910
- The Chula Vista Public Library, 365 F Street, Chula Vista, California 91910.

Once the 45-day public comment period has concluded, the City will review all public comments on the EIR, provide written responses to comments, and authorize revisions to the EIR text, if necessary. The final Mitigation Monitoring and Reporting Program (MMRP) will be incorporated into the Final EIR. Mitigation measures contained in the EIR consider future monitoring requirements and are written in sufficient detail to address impacts of the proposed project, referencing the appropriate implementing permits and plans. If one or more significant environmental impacts are determined, written findings for each of those significant effects, accompanied by an overriding justification and rationale for each finding in the form of a statement of overriding considerations will also be included in the Final EIR, if necessary. The Final EIR includes all comment letters received, final written response to comments, a Final EIR preface, if applicable, edits made to the EIR as a result of public review/comment, and findings of fact and statement of overriding considerations, if necessary.

2.5 INTENDED USES OF THE EIR

According to Section 21002.1(a) of the Public Resources Code (CEQA), "[t]he purpose of an environmental impact report is to identify the significant effects of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." This EIR provides relevant information concerning the potential environmental effects associated with construction and operation of the proposed project and identifies and evaluates potentially significant effects that may result from implementation of the proposed project. It is intended for use by decision makers and the public.

As the designated lead agency, the City has assumed responsibility for preparing this EIR. When deciding whether to approve the proposed project, the City will use the information provided in this EIR to consider potential impacts to the physical environment associated with the proposed project. The City will consider all written comments received on the EIR during the 45-day public comment period in making its decision to certify the EIR as complete and in compliance with CEQA and in making its determination whether to approve or deny the project. In the final review of the document, environmental considerations, and economic and social factors will be weighed to determine the most appropriate course of action.

After certification of the Final EIR, agencies with permitting authority over all or portions of the project will use the Final EIR as the basis for their evaluation of environmental effects related to the project and approval or denial of other applicable permits or authorizations.

2.6 ORGANIZATION AND CONTENT OF THE EIR

This EIR is organized to provide a tiered project-level analysis of the potentially significant environmental impacts, mitigation measures, and alternatives for the proposed project. In order to describe the direct, indirect, and cumulative impacts, mitigation measures, and alternatives for the proposed project, this EIR is organized as follows:

- Chapter 1, Executive Summary, outlines the conclusions of the environmental analysis and a summary of the project as compared to the alternatives analyzed in the EIR. This section also includes a table summarizing all environmental impacts identified in this EIR along with the associated mitigation measures proposed to reduce or avoid each impact.
- Chapter 2, Introduction, serves as a foreword to this EIR, introducing the project background, applicable environmental review procedures, and format of the EIR.
- Chapter 3, Environmental Setting, describes the project location and physical environmental setting.
- Chapter 4, Project Description, provides a thorough description of the proposed project and required discretionary approvals.
- Chapter 5, Environmental Impact Analysis, provides an analysis of the potentially significant environmental impacts identified, and proposed mitigation measures to reduce or avoid any potentially significant impacts.
- Chapter 6, Cumulative Impacts, provides an analysis of the cumulative effects of the proposed project.
- Chapter 7, Growth Inducement, discusses the project’s potential growth-inducing impact.

- Chapter 8, Significant and Unavoidable Environmental Impacts, addresses impacts that have been identified as significant and unavoidable.
- Chapter 9, Significant Irreversible Environmental Changes, addresses impacts that have been identified as significant and irreversible.
- Chapter 10, Alternatives, analyzes a range of reasonable alternatives to the proposed project that would lessen or avoid significant environmental effects of the proposed project.
- Chapter 11, References, provides a compiled list of references cited in each section of the EIR.
- Chapter 12, List of Preparers/Organizations Consulted, provides a list of persons, organizations, and agencies consulted during the preparation of this EIR.
- Appendices include various technical studies and correspondence prepared for the project, as listed in the table of contents.

2.7 MITIGATION MONITORING AND REPORTING PROGRAM

The City will prepare an MMRP prior to project approval. The MMRP will include all mitigation measures outlined in the EIR, the responsible entity for implementation, implementation timing (prior to construction, during construction, post-construction), and any follow-up reporting requirements (such as submittal of materials to regulatory agencies). The City, as the designated lead agency, is responsible for enforcing and verifying that each mitigation measure is implemented as required.

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CHAPTER 3
ENVIRONMENTAL SETTING

This section provides a description of the existing site conditions, surrounding land uses, and land use planning context relevant to the proposed project. This section also provides an overview of the environmental resources present on and around the project area.

3.1 EXISTING SITE CONDITIONS

Otay Ranch lies within the East Planning Area of the City, as identified in the City's General Plan. The proposed project is a component of the Otay Ranch GDP, which organizes the Otay Ranch into 20 villages and planning areas. The 1,375-acre[1] project area is located within the Otay Valley Parcel of the Otay Ranch. The project area is comprised of Village Three North, a portion of Village Four, Village Eight East, and Village Ten. In addition, the proposed project includes necessary off-site improvements totaling approximately 160 acres.

Historically, the Otay Valley Parcel, including the project area, has been used for ranching, grazing, dry farming, and truck farming activities. The project area is currently vacant and is generally comprised of gently sloping terrain covered with primarily non-native grasslands crossed by dirt roads and old cattle trails. Additional information regarding biological resources on the site is provided in Subsection 3.1.2.

The boundaries of the villages included in the proposed project differ from those identified in the Otay Ranch GDP due to ownership patterns that do not match the Otay Ranch GDP village boundaries. Village Three North encompasses a portion of Village Three as identified in the Otay Ranch GDP, as well as the open space area west of Village Three. The portion of Village Four included in the project area is within the Otay Ranch GDP boundaries of Village Four; however, it is limited to a strip of land extending southwest toward Village Three. Village Eight East encompasses the eastern part of Village Eight as identified in the Otay Ranch GDP, adjacent to State Route 125 (SR-125), as well as a portion of Village Seven. Village Ten includes the eastern portion of Village Nine and most of Village Ten.

Village Three North

Village Three North is located at the southwest edge of the Otay Valley Parcel of Otay Ranch, just north of the Otay Valley Regional Park (OVRP), north and south of the future extension of Main Street and east of existing industrial development. Village Three North is visible from the OVRP and the Chula Vista Greenbelt trail systems.

[1] The current ownership is 1,363 acres; however, as part of the proposed project, approximately 12 acres of land currently within the SR-125 ROW will be "decertified" (removed from the ROW) and exchanged with Caltrans, resulting in a project total of 1,375 acres.

Portion of Village Four

The portion of Village Four is located west of the southern terminus of La Media Road, east of Wolf Canyon and north of the Otay Valley rock quarry. This portion of Village Four is visible from the southern edge of Village Two and from the eastern portion of Village Three North.

Village Eight East

Village Eight East is located at the southern edge of the Otay Valley Parcel of Otay Ranch, just north of the Otay River Valley, south of Main Street, and west of SR-125. Situated above the bottom of the river valley, Village Eight East is visible from the OVRP and Chula Vista Greenbelt trail systems.

Village Ten

Village Ten is located south of Hunte Parkway and the future University, west of Salt Creek Canyon and north of the Otay River Valley. Village Ten is visible from the OVRP and Chula Vista Greenbelt trail systems, as well as the County of San Diego Lower Otay Regional Park.

3.1.1 Surrounding Land Uses

The project area is surrounded by other Otay Ranch villages and a variety of land uses and natural features, as described below.

Village Three North

Village Three North is located south of Otay Ranch Village Two and the Otay Landfill, west of Wolf Canyon and the Otay Valley rock quarry, north of the OVRP, and east of various auto recycling facilities. The portion of Village Two adjacent to the project area is currently undeveloped. The Otay Landfill is an active solid waste facility that is currently at 47% capacity and has an expected closure date of February 2028 (Solid Waste Facility Permit No. 37-AA-0010, August 14, 2012). The Otay Valley rock quarry is currently an active aggregate mining operation. Mining operations are expected to continue for approximately 80 years, until 2089.

Portion of Village Four

The portion of Village Four, included in the proposed project, is located south of Village Two and the northern reach of Wolf Canyon, west of Village Seven and a portion of Village Four, north of the remainder of Village Four, and east of Wolf Canyon open space. The areas adjacent to this portion of Village Four are currently undeveloped. The dominant landform within Village Four is Rock Mountain, which is located south of the portion included in the proposed project.

Village Eight East

Village Eight East is located in the central portion of the southern third of the Otay Valley Parcel. Immediately surrounding Village Eight East are existing and planned development areas and Otay Ranch Preserve areas. Existing development includes Otay Ranch Village Seven and Olympian High School to the north, and SR-125 immediately east of the village. Planned development includes Village Eight West to the west of Village Eight East and Village Nine which lies east of SR-125. The OVRP and Otay Ranch Preserve are south of Village Eight East.

Village Eight West includes a Town Center planned for up to 2,050 residential units and up to 300,000 square feet of office and commercial/retail. To the east of Village Eight East, Village Nine and the University and Regional Technology Park are planned. Village Nine is planned for 4,000 residential units and up to 1,500,000 square feet of office and commercial/retail. Expected buildout of these villages and planning areas is forecasted for 2030 (City of Chula Vista 2012b).

Village Ten

Village Ten is surrounded by existing and planned development areas. Village Ten is located east of Village Nine, south of the University/Regional Technology Park site, west of Salt Creek Canyon, and north of the OVRP. The existing Otay Ranch Village Eleven (Village of Winding Walk) is located to the north of the University Planning Area. The University Planning Area is defined in the Otay Ranch GDP and consists of a planned University and a Regional Technology Park (RTP) comprising approximately 345 acres. High Tech High School is located northeast of Village Ten. These villages/planning areas are expected to be built out by 2030.

3.1.2 Natural Resources in Project Area

Based on species composition and general physiognomy, nine native or naturalized plant communities, including disturbed forms, were identified within Villages Three North/Portion of Village Four, Village Eight East, and Village Ten: broom baccharis scrub, cismontane alkali marsh (including disturbed), coastal sage scrub (including disturbed), maritime succulent scrub (including disturbed), mulefat scrub (including disturbed), non-native grassland, southern mixed chaparral, and southern willow scrub. Four non-native or disturbed land covers also occur on site: agriculture, developed, disturbed habitat, and tamarisk scrub.

A total of 71 species of birds were observed on the project site, in the Preserve, or immediately off site during biological surveys conducted on the site from 2002 to 2011, including: California gnatcatcher (*Polioptila californica*), rufous-crowned sparrow (*Aimophila ruficeps*), California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), house finch (*Carpodacus mexicanus*), red-tailed hawk (*Buteo jamaicensis*), and northern mockingbird (*Mimus polyglottos*).

Five species of reptiles were observed on the project site or within the Preserve during the surveys: western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta* ssp.), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), gopher snake (*Pituophis catenifer*), and southern alligator lizard (*Elgaria multicarinata*). Based on habitat present and knowledge of the area, it is presumed that several other reptile and amphibian species occur on the project site. Some of these include: coastal whiptail (*Aspidoscelis tigris stejnegeri*), western skink (*Eumeces skiltonianus*), red-diamond rattlesnake (*Crotalus ruber*), western rattlesnake (*Crotalus oreganus*), Blainville's horned lizard (*Phrynosoma blainvillii*), western toad (*Anaxyrus boreas halophilus*), and Baja California treefrog (*Pseudacris hypochondriaca hypochondriaca*).

Ten species of mammals were detected on site or within the Preserve by direct observation or sign; they are black-tailed jackrabbit (*Lepus californicus*), brush rabbit (*Sylvilagus bachmani*), desert cottontail (*Sylvilagus audubonii*), wood rat (*Neotoma* ssp.), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), and bobcat (*Lynx rufus*). Other mammal species that likely use the site include Dulzura kangaroo rat (*Dipodomys simulans*) and common raccoon (*Procyon lotor*).

Twenty eight species of invertebrates, all butterflies, were identified on site or in the Preserve by direct observation. Common species on site include Behr's metalmark (*Apodemia virgulti*), California ringlet (*Coenonympha tullia california*), Sara's orangetip (*Anthocharis sara sara*), and common white (*Pieris rapae*). A detailed analysis of the existing on- and off-site habitats, and plant and animal species is provided in Section 5.8, Biological Resources.

3.1.3 Existing Topography and Soils

The project site is topographically diverse. In Village Three North/Portion of Village Four, elevations range from approximately 150 feet above mean sea level along the south/southwestern boundary of the site to 470 feet to the north. In Village Eight East, elevations range from approximately 190 feet in the south/southwest portion of the site to 600 feet in the northern/north-central portion of the site. In Village Ten, elevations range from approximately 280 feet in the very south to 500 feet along the northern boundary of the site.

In Village Three North/Portion of Village Four, numerous drainages trend north–south and drain into the Otay River, which is located immediately south of Main Street. Additionally, there are several north–south running drainages within Villages Eight East and Ten that drain south into the Otay River.

Soils on site consist of Diablo clays, Diablo-Olivenhain complex, gravel pits, Huerhuero loam, Linne clay loam, Olivenhain cobbly loams, riverwash, Salinas clay loam, Stockpen gravelly clay loam, and terrace escarpments. Village Three North and Portion of Village Four soils are

dominated by the Diablo clays with smaller areas of Olivenhain and Linne clay loam. Geotechnical surveys confirmed some unconsolidated fill in the western portion of the site with the soil characterized as sandy clay to clayey sand with gravel and cobble. Village Eight East soils are also dominated by the Diablo and Olivenhain soils with Huerhuero and Salinas soils as well as small amounts of other soil types. Geotechnical surveys confirmed some unconsolidated fill in the western portion of the site with sandy clay to clayey sand that is expansive and compressible. Village Ten soils are dominated by Olivenhain soils with small amounts of Diablo and Linne soils. Geotechnical surveys confirmed soils similar in condition to those for Village Eight East. A detailed analysis of on-site geotechnical features is provided in Section 5.11, Geology and Soils.

3.1.4 Climate

The climate in the project area is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The nearest climatological monitoring station that records precipitation data is located at the lower Otay Reservoir, approximately 1.5 miles east of the project site. The normal precipitation in the lower Otay Reservoir area is 11 inches annually, occurring primarily from December through March (WRCC 2013a). Temperature is recorded at the monitoring station located in the community of Bonita, north of the Otay Ranch area. According to the Western Regional Climate Center, in summer (August) the normal daily maximum temperature in Bonita is 81 degrees Fahrenheit (°F), and in winter (January) the normal daily minimum temperature is 40°F (WRCC 2013b). Additional information pertaining to climate as it relates to air quality is provided in Section 5.4, Air Quality and Section 5.14, Climate Change.

3.1.5 Access

Village Three North

Regional access to Village Three North is currently provided from Interstate 805 (I-805) via Main Street which turns south becoming Heritage Road at the southwestern corner of the village. As part of the project, Heritage Road would be extended northward to provide three access points along the western boundary of the site. Main Street, which currently terminates at the intersection of Heritage Road, would be constructed through Village Three North from Heritage Road to Wolf Canyon to provide east-west access and frontage improvements.

Portion of Village Four

Regional access to Village Four is currently provided from I-805 via Olympic Parkway and La Media Road. La Media Road currently terminates at Santa Luna Street east of the portion of

Village Four. As part of the project, Santa Luna would be extended west into the Village Four Community Park providing access to the portion of Village Four.

Village Eight East

Regional access to Village Eight East is currently provided by SR-125, which is adjacent to the eastern boundary of Village Eight East. Additional north–south access is provided from I-805 and I-5, located approximately four miles west and seven miles west, respectively, of Village Eight East. SR-54 and SR-905 provide regional east–west circulation, approximately seven miles north and three miles south, respectively, of the project area. As part of the proposed project, La Media Road will be extended south to Main Street, Main Street will be constructed east from La Media along the northern frontage of Village Eight East, and Otay Valley Road will be constructed south from La Media Road through Village Eight West. The La Media Road and Otay Valley Road extensions are planned for development as part of the Village Eight West SPA Plan and TM; however, in the event that these extensions are not provided prior to Village Eight East developing, the proposed project would construct the improvements. Three access points are provided to Main Street and two access points are provided to Otay Valley Road.

Village Ten

Regional access to Village Ten is currently provided from SR-125 via Birch Road and EastLake Parkway. EastLake Parkway currently terminates at Hunte Parkway north of Village Ten. As part of the proposed project, Discovery Falls and EastLake Parkway would be extended by the project south of Hunte Parkway to provide north–south access to Village Ten. Three access points are provided from Discovery Falls. Otay Valley Road would be extended southeast from the current termination of La Media Road, over SR-125 to provide the main east–west access.

3.2 EXISTING LAND USE DESIGNATIONS

Land uses within the project area are designated in both the City of Chula Vista General Plan and the Otay Ranch GDP. Zoning within the project area is designated by the City of Chula Vista Zoning Map, which specifies the zoning for the entire Otay Ranch as Planned Community (PC) zoned, as defined in Chapter 19.48 of the Chula Vista Municipal Code (City of Chula Vista 2012a). The land use designations are described for each village below.

Village Three North

The General Plan designates Village Three North as Limited Industrial land uses in a business park setting that reflects the unique characteristics of the landform and surrounding development. The Otay Ranch GDP also designates Village Three North for Research and Limited Industrial land uses. Further, Village Three North was a part of the previously

approved Village Two, Village Three and Portion of Village Four Sectional Planning Area (SPA) Plan which identified Village Three North for Industrial and Community Purpose development. A nuisance easement area surrounds the Otay Landfill and extends 1,000 feet from the landfill property line into the northern portion of Village Three North. General Plan Policy E 6.4 calls for the avoidance of placing sensitive receivers within 1,000 feet of a major toxic emitter. Due to the proximity to the landfill and existing uses, Village Three North was identified as an Industrial village in the Otay Ranch GDP and was approved for business park uses as part of the Village 2, 3 and portion of 4 SPA Plan.

Portion of Village Four

The General Plan designates the portion of Village Four within the project area Parks and Recreation, Open Space, and Open Space Preserve. The Otay Ranch GDP designates the portion of Village Four as a Community Park and Open Space. The portion of Village Four north of the project site was approved for Community Park uses as part of the Village Two, Village Three and Portion of Village Four SPA Plan in 2006.

Village Eight East

The General Plan designates Village Eight East for residential uses including Residential Mixed Use, Residential Medium–High, Residential Low–Medium, Public and Quasi Public, Parks and Recreation, and Open Space. The Otay Ranch GDP designates Village Eight East as an urban village with single-family and multi-family residential, and a mixed-use village core.

Village Ten

The General Plan designates Village Ten as part of the University Study Area. The village is designated Public and Quasi Public uses. The Otay Ranch GDP has two land uses identified for Village Ten. The primary land use designates Village Ten as Public and Quasi-Public for a university campus site; the secondary land use designates Village Ten as an urban village with single-family and multifamily residential, a mixed-use village core, and a community park. The proposed Village Ten generally covers the area shown as the eastern third of Village Nine and southern edge of Village Ten on the adopted Otay Ranch GDP Villages Nine and Ten Secondary Land Use Map. However, due to the ownership fragmentation, the western two thirds of Village Nine were SPA planned as the Village Nine SPA Plan, leaving the remaining portions of Village Nine and Village Ten as the University Planning Area. Through refined site planning, the Project proposed to establish new boundaries for Village Ten and the remaining University Planning Area.

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CHAPTER 4
PROJECT DESCRIPTION

This chapter provides a description of the University Villages project (proposed project). As required by Section 15124 of the CEQA Guidelines (14 CCR 15000 et seq.), this section includes the precise location and boundaries of the project, a statement of project objectives, a general description of project characteristics, and a statement briefly describing the intended uses of the Draft EIR.

4.1 PROJECT LOCATION

The proposed project is located within the City in southwestern San Diego County (County), approximately 3.5 miles east of downtown Chula Vista and 13 miles southeast of downtown San Diego (Figure 4-1). The proposed project area occupies approximately 1,375 acres[1] composed of Village Three North, a portion of Village Four, Village Eight East, and Village Ten within the Otay Valley Parcel of the adopted Otay Ranch General Development Plan (Otay Ranch GDP) (Figure 4-2). The location of each village is described in greater detail in the following subsections and shown on Figure 4-3. In addition, the proposed project includes several off-site improvement areas including utility and roadway corridors, described in Section 4.2.3 and totaling approximately 160.0 acres.

As described in Chapter 3, Environmental Setting, the boundaries of these villages differ from those identified in the Otay Ranch GDP due to ownership patterns that do not match the Otay Ranch GDP village boundaries and Otay Ranch GDP amendments approved in 2013. The Village Three North component of the proposed project encompasses a portion of Village Three as identified in the Otay Ranch GDP. The portion of Village Four included in the proposed project area is within the Otay Ranch GDP boundaries of Village Four; however, it is limited to 29.7 acres. Village Eight East encompasses the eastern part of Village Eight, adjacent to SR-125, as identified in the Otay Ranch GDP, as well as a portion of Village Seven. The Village Ten component of the proposed project includes the eastern portion of Village Nine and the southern portion of Village Ten as identified in the Otay Ranch GDP.

4.1.1 Village Three North and a Portion of Village Four

Approximately 436.0 acres of the proposed project area is composed of Village Three North and a Portion of Village Four, in the southwest corner of the Otay Valley Parcel. The Village Three North site and the Portion of Village Four site are large, flat mesas, with slopes adjacent to Wolf

[1] The current ownership is 1,363 acres; however, approximately 12 acres of land currently within the SR-125 right-of-way adjacent to Village Eight East will be decertified and exchanged with CalTrans, resulting in a project total of 1,375 acres.

Canyon and the Otay Valley Regional Park (OVRP). Village Three North is situated between Wolf Canyon to the east, the OVRP to the south, the Otay Landfill to the north, and existing industrial uses to the west. The Portion of Village Four included in the proposed project is located on the northeastern edge of Wolf Canyon, north of the Otay River Valley and the Otay Valley rock quarry, south of Otay Ranch Village Two, and west of La Media Road and the future Village Eight West development area.

4.1.2 Village Eight East

The Village Eight East site is composed of approximately 575.3 acres located in the southern portion of the Otay Valley Parcel, west of SR-125 and north of the Otay River Valley. The site is characterized by a broad mesa with slopes leading down to the Otay River Valley along the southern boundary. Village Eight East is surrounded by the remainder of Village Eight (Village Eight West) to the west, Village Seven to the north, SR-125 and Village Nine to the east, and the OVRP to the south.

4.1.3 Village Ten

Village Ten is composed of approximately 363.4 acres located in the south eastern portion of the Otay Valley Parcel, between the University and the Otay River Valley. The site is characterized by a broad mesa with slopes leading down to the Otay River Valley along the southern boundary. Village Ten is adjacent to Village Nine to the west, the proposed University and Research Technology Park site to the north and east, and the OVRP to the south.

4.2 PROJECT DESCRIPTION

The proposed project is consistent with the Land Offer Agreement between the Applicant and the City, which consists of up to 6,897 homes and associated village land uses within the Otay Valley Parcel of the Otay Ranch GDP. Implementation of the proposed project requires Chula Vista General Plan Amendments, a Chula Vista Multiple Species Conservation Program (MSCP) Boundary Adjustment, Otay Ranch GDP Amendments, and Otay Ranch Resource Management Plan (RMP) Boundary Modifications. The project also proposes amendments to three SPA Plans: Otay Ranch Village Two, Village Three, and a Portion of Village Four SPA Plan, adopted by the Chula Vista City Council on June 4, 2006; Otay Ranch Village Seven SPA Plan, adopted by the Chula Vista City Council on October 4, 2004; and the Otay Ranch Village Nine SPA Plan, adopted by the Chula Vista City Council on June 3, 2014.

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FIGURE 4-1

Regional Map

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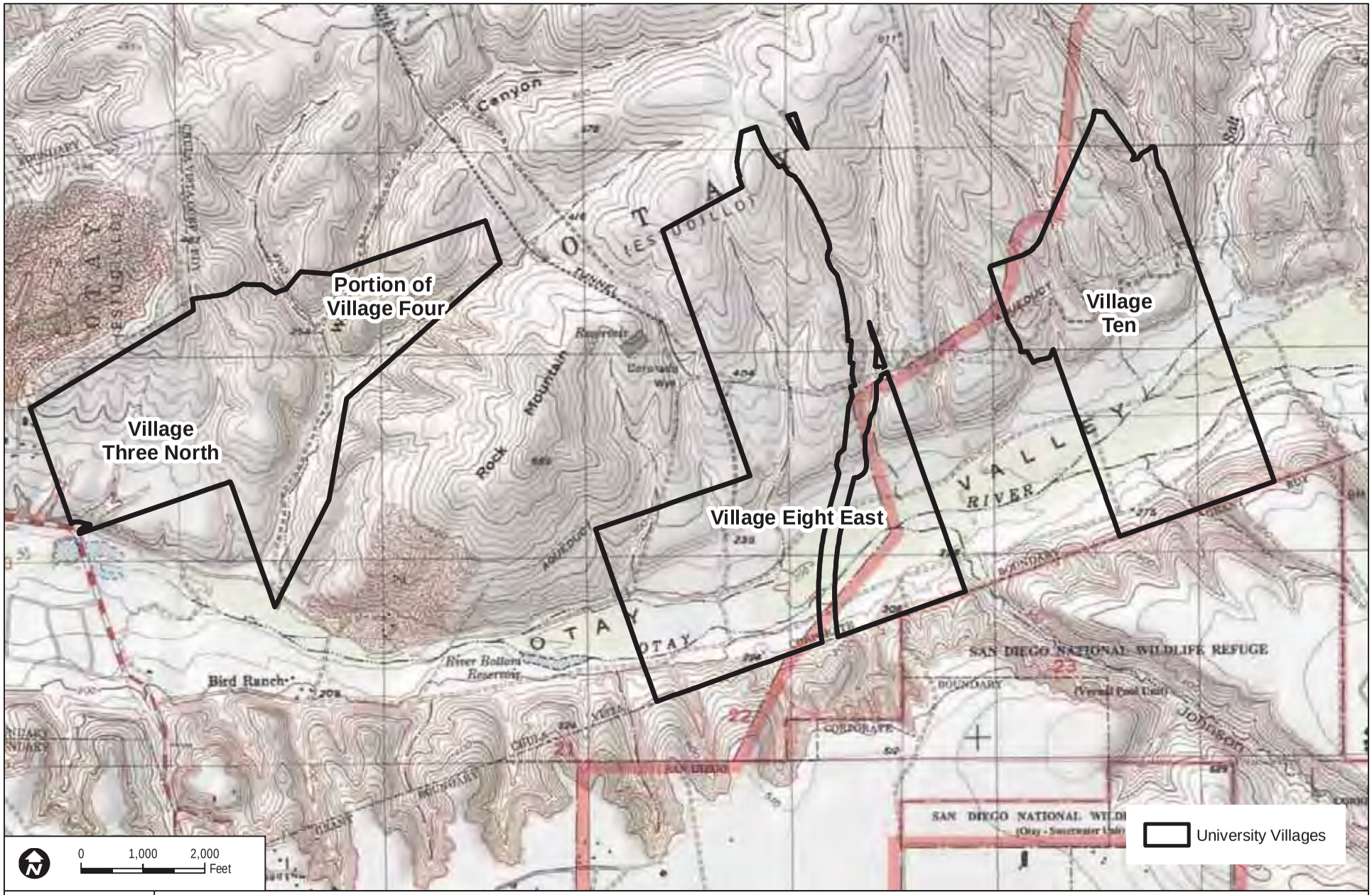

AERIAL SOURCE: USGS 7.5 MINUTE SERIES QUADRANGLE

FIGURE 4-2

Vicinity Map

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AERIAL SOURCE: BING MAPPING SERVICE

FIGURE 4-3

Project Area

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Three SPA plans are proposed: (1) an Otay Ranch Village Three North and a Portion of Village Four SPA Plan, (2) an Otay Ranch Village Eight East SPA Plan, and (3) an Otay Ranch Village Ten SPA Plan. Tentative Maps (TMs) are also proposed for (1) Village Three North and a Portion of Village Four, (2) Village Eight East, and (3) Village Ten. The SPA plan components are described in Section 4.2.9.

4.2.1 Overall Project Objectives

Section 15124(b) of the CEQA Guidelines requires an EIR to include a statement of objectives for the proposed project that outlines the underlying purpose of the project and assist in the development of project alternatives. In addition to more specific objectives for each of the project's components set forth later in this section, the SPA plan identifies the following general objectives of the proposed project:

- Implement the goals, objectives, and policies of the Chula Vista General Plan, the MSCP Subarea Plan, the Otay Ranch GDP, the Otay Ranch Phase 1 and Phase 2 RMP, the Otay Ranch Facility Implementation Plan, the Otay Ranch Village Phasing Plan, and the Otay Ranch Service/Revenue Plan.
- Provide a wide variety of housing options, including affordable housing, to City residents, future students, and faculty of the planned 4-year university and employees of the Regional Technology Park, Village Eight West and Village Nine Town Centers and the EUC.
- Implement the City of Chula Vista Growth Management Ordinance to ensure that public facilities are provided in a timely manner and financed by the parties creating the demand for, and benefiting from, the improvements.
- Foster development patterns that promote orderly growth and prevent urban sprawl by comprehensively planning Villages Three North and a Portion of Village Four, Eight East, and Ten simultaneously.
- Add to the creation of a unique Otay Ranch image that differentiates Otay Ranch from other communities.
- Accentuate the relationship of the land use plan with its natural setting and the physical character of the region and promote effective management of natural resources by concentrating development in less sensitive areas while preserving large, contiguous open space areas with sensitive resources.
- Establish multi-use trail linkages to the Chula Vista Greenbelt, consistent with the Chula Vista Greenbelt Master Plan.
- Wisely manage limited natural resources.

- Implement the OVRP Concept Plan within the SPA boundaries through the planning and provision of portions of and connections to the City's Greenbelt trail network.
- Establish land use and facility plans that assure the economic viability of the SPA Plan Areas in consideration of existing and anticipated economic conditions.

4.2.2 Development Program

The development program for the proposed project is based on the Chula Vista General Plan and the approved Otay Ranch planning documents (Otay Ranch GDP, Overall Design Plan, and other SPA plans for Otay Ranch), which describe the land use plans and general design characteristics of the Otay Ranch Villages. The village design is intended to provide balanced and diverse land uses, focus on transit and pedestrian orientation, and create a sense of place for village residents. The specific development program for each village is described in detail in Sections 4.2.2.1 through 4.2.2.3, and the proposed land uses are provided in Table 4-1.

Table 4-1
Proposed Land Uses

Land Use	Gross Acres	Commercial Square Footage	Residential Dwelling Units	Population[a]
Village Three North/Portion of Village Four				
Single-Family Residential	115.2		1,002	3,247
Multi-Family Residential	10.8		515	1,667
Mixed-Use	8.2	20,000	80	259
Industrial	28.6			
Office	5.2			
Parks	25.7			
School	8.3			
Community-Purpose Facilities	4.2			
Private Open Space	2.4			
Open Space	35.4			
Preserve	158.1[b]			
Circulation	33.9			
Subtotal	*436*	*20,000*	*1,597*	*5,174*
Village Eight East				
Single-Family Residential	117.1		943	3,055
Multi-Family Residential	46.2		2,177	7,053
Mixed Use	9.5	20,000	440	1,426
Parks [c]	58.8			
School	10.8			
Community-Purpose Facilities	4.2			
Open Space [d]	33.8			

Table 4-1 (Continued)
Proposed Land Uses

Land Use	Gross Acres	Commercial Square Footage	Residential Dwelling Units	Population [a]
Preserve	253.6			
Circulation	29.6			
Other (Future Development Areas)	8.1			
Other (SR-125 ROW, Lot 4)	3.6			
Subtotal	*575.3*	*20,000*	*3,560*	*11,534*
Village Ten				
Single-Family Residential	74.8		695	2,252
Multi-Family Residential	21.5		1,045	3,386
Parks	7.6			
School	9.2			
Community-Purpose Facilities	4.3			
Open Space (OS-2)	16.5			
Private Open Space	0.7			
Preserve	212.7			
Circulation	16.1			
Subtotal	*363.4*		*1,740*	*5,638*
Total	**1,374.7**	**40,000**	**6,897**	**22,346**

ROW = right-of-way
[a] Population estimates based on 3.24 persons per residential dwelling unit.
[b] Includes 2.9 acres of roadway, which is located within the Preserve and is an allowable use in the Preserve. This acreage is not accounted for in the Circulation acreage.
[c] Includes 51.5 acres of Village Eight East Community Park (P-2) and 7.3 acres of Neighborhood Park.
[d] Includes 22.6 acres of Active Recreation Area (AR-11) and 11.2 acres of Open Space

4.2.2.1 Village Three North and a Portion of Village Four

Project Objectives

The objectives of the SPA Plan for Village Three North and a Portion of Village Four are as follows:

- Develop a business park that provides a strong employment base for Village Three North residents and the City of Chula Vista and supports the economic development goals of the Chula Vista General Plan.
- Develop Mixed-Use Office/Commercial uses within the Village core area that provide a strong employment base for Village Three North residents and the City of Chula Vista and meet the commercial/retail needs of the village and surrounding villages.
- Establish a pedestrian-oriented urban village with a village core designed to reduce reliance on the automobile and promote multimodal transportation, including walking and the use of bicycles, buses, and regional transit.

- Promote synergistic uses between Village Three North and the adjacent Village Two by providing pedestrian/trail connections and complementary land uses to balance housing, activities, services, and facilities.

Land Use

The proposed Village Three North Site Utilization Plan, shown on Figure 4-4, creates a pedestrian-oriented urban village containing 1,597 homes. Village Three North contains a mixed-use village core with approximately 20,000 square feet of commercial/retail uses surrounded by multi-family attached and detached neighborhoods. A total of 1,002 single-family and 595 multi-family dwelling units are provided in Village Three North, for a total projected population of 5,174 persons. Village Three North also includes elementary school and neighborhood park sites. Small recreation sites (Private Open Space (P-OS) and Community-Purpose Facility (CPF)) extend recreational opportunities into residential neighborhoods, enhancing the walkability of the village.

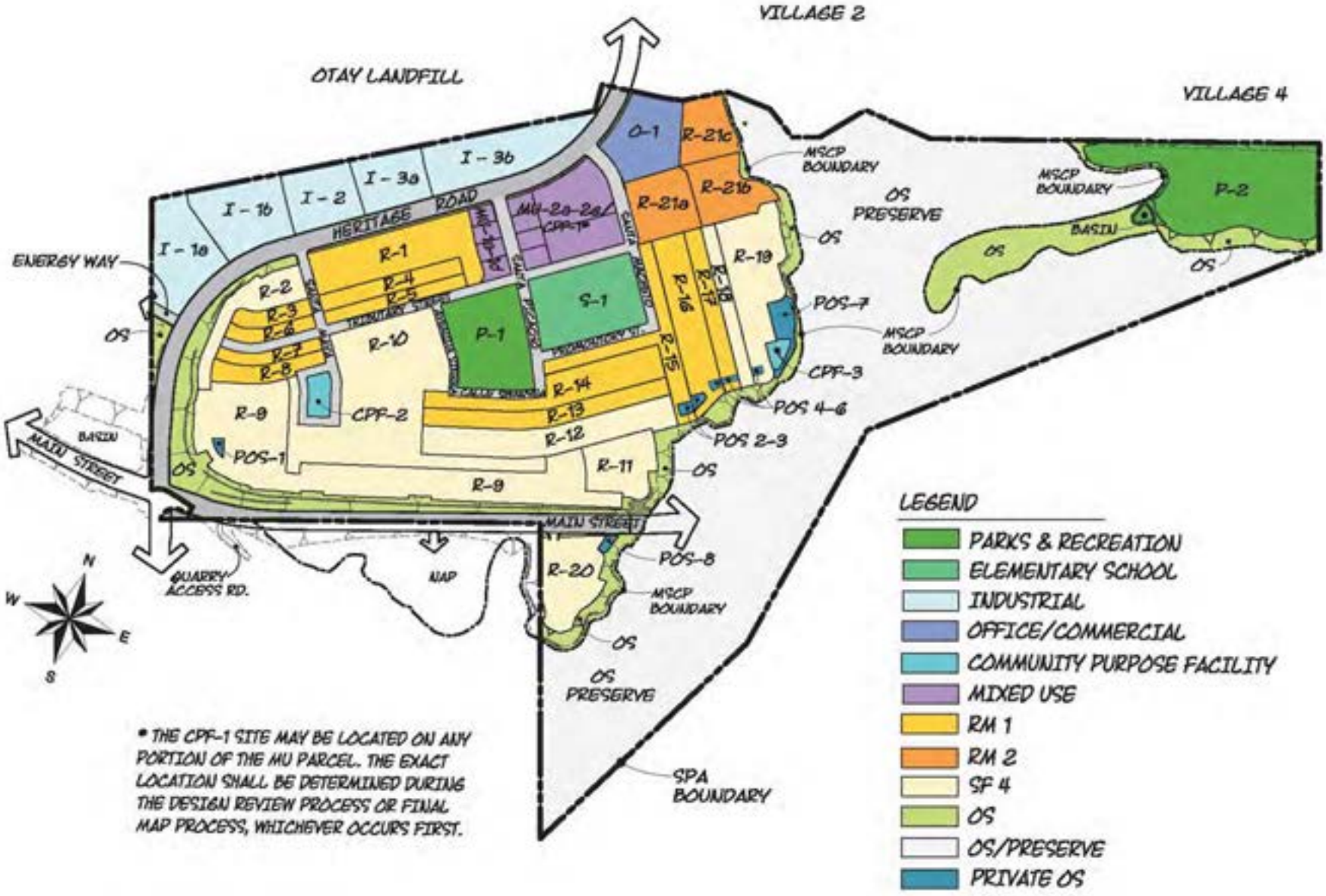
Approximately 28.6 acres immediately south of the Otay Landfill remain Limited Industrial. Just east of Heritage Road are 5.2 acres of Office uses. Village Three North also includes 8.2 acres of Mixed-Use, including 2.1 acres of Mixed Use Residential/Commercial and 6.1 acres of Mixed Use Office/Commercial, which would provide job-producing uses near the Village Three North neighborhoods. In addition, 2.6 acres of CPF uses are included within the Mixed-Use Office/Commercial site for a nonprofit or other community-serving use pursuant to the City's CPF Ordinance.

The proposed mix of residential land use designations for Village Three North includes small lot single family (SF-4 and RM-1), and multi-family attached (RM-2). Non-residential land use designations include Parks and Recreation (P), Open Space (OS), Private Open Space (P-OS), Open Space Preserve (OS/Preserve), Office (O), School (S), and Light Industrial (I). The location designated for a future school site (S-1) has underlying zoning. In the event that the school district does not want or need the designated site, then residential land uses will be put in place.

The Portion of Village Four included in the project includes 29.7 acres, of which 17.8 acres are currently designated, and will remain Community Park (P-2), 8.6 acres will remain designated OS, and 3.3 acres previously identified in the General Plan as OS will be re-designated OS/P. Overall, Village Three North and a Portion of Village Four include 158.1 acres designated OS/P.

The proposed Village Three North and a Portion of Village Four TM establishes the subdivision, street standards, and infrastructure requirements.

A portion of the proposed development in Village Three North would occur within an existing 1,000-foot nuisance easement area around the Otay Landfill. The 1,000-foot nuisance easement was recorded in1996 over the area along the south and southeast property boundary of the Otay Landfill extending into the northern portion of Village Three North. The Otay Ranch GDP currently designates industrial land uses within the 1,000-foot nuisance easement area. The proposed project would designate industrial, office, mixed-use and residential land uses within the 1,000-foot nuisance easement area.



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-4

Village Three North and a Portion of Village Four Site Utilization Plan

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Access, Internal Circulation, and Trip Generation

Regional access to Village Three North and a Portion of Village Four is provided by SR-125, located approximately 2.5 miles to the east, and via I-805, located approximately 1.75 miles to the west. Additional north–south access is available from I-5, approximately 6 miles west of Village Three North and a Portion of Village Four. SR-54 and SR-905 (approximately 6.5 miles north and 3 miles south, respectively, of Village Three North and a Portion of Village Four) provide regional east–west circulation. Access to Village Three North will be provided by the extension of Heritage Road north from Main Street. This will either be constructed by adjacent development (Village Two) or by the proposed project. Access to the Portion of Village Four is proposed via existing La Media Road at the intersection with Santa Luna Street.

The Circulation Plan is shown on Figure 4-5. The internal circulation streets include Secondary Village Entry, Residential Streets (Promenade), and Parkway Residential Streets, all specifically designed to enhance the mixed-use village core area. Traffic calming features such as curb extensions, raised and narrowed intersections, and landscaped pop-outs may also be located in the internal circulation network at appropriate locations. The circulation plan encourages pedestrian activity and the use of bicycles through the provision of the Village Pathway, an off-street paved path, and bike lanes. The design of all village streets includes sidewalks and landscaped parkways to promote pedestrian circulation throughout the Village Three North area.

The Otay Ranch GDP provides for the expansion of the regional transit-way system into Otay Ranch. A transit stop/station is planned within the mixed-use village core area of Village Three North should transit service be extended to the village. Additional transit stops/stations are located at the intersection of Main Street and Heritage Road. Circulation within the villages also includes an extensive network of bicycle routes and pedestrian trails, as described below.

Village Streets

The village streets are designed to promote pedestrian and bicycle travel. The preferred design for all village streets provides for minimum 5-foot-wide sidewalks separated from the roadway by landscaped parkways. In the village core commercial areas, wider sidewalks are provided to allow for window shopping and pedestrian amenities such as seating and outdoor dining. The Modified Residential Promenade Street includes a wider sidewalk (Promenade Trail) on one side flanked by a double row of street trees and special pedestrian lighting. The Promenade Trail links the residential neighborhoods to the village activity core and pedestrian network.

Village Three North generates a total of 24,720 average daily trips (ADT), of which 20,786 ADT are trips external to the village. The community park in the Portion of Village Four included as part of the project generates 890 daily trips, for a total of 25,610 ADT for Village Three North and a Portion of Village Four. A detailed discussion of traffic and circulation is provided in Section 5.3, Transportation, Circulation, and Access.

Parks, Recreation, and Open Space

The Village Three North and Portion of Village Four Parks, Recreation, and Open Space Plan is shown on Figure 4-6. The amenities include a community park (P-2), neighborhood park (P-1), pedestrian and bicycle facilities, private recreation sites (CPF), and Private Open Space (P-OS).

Community Park

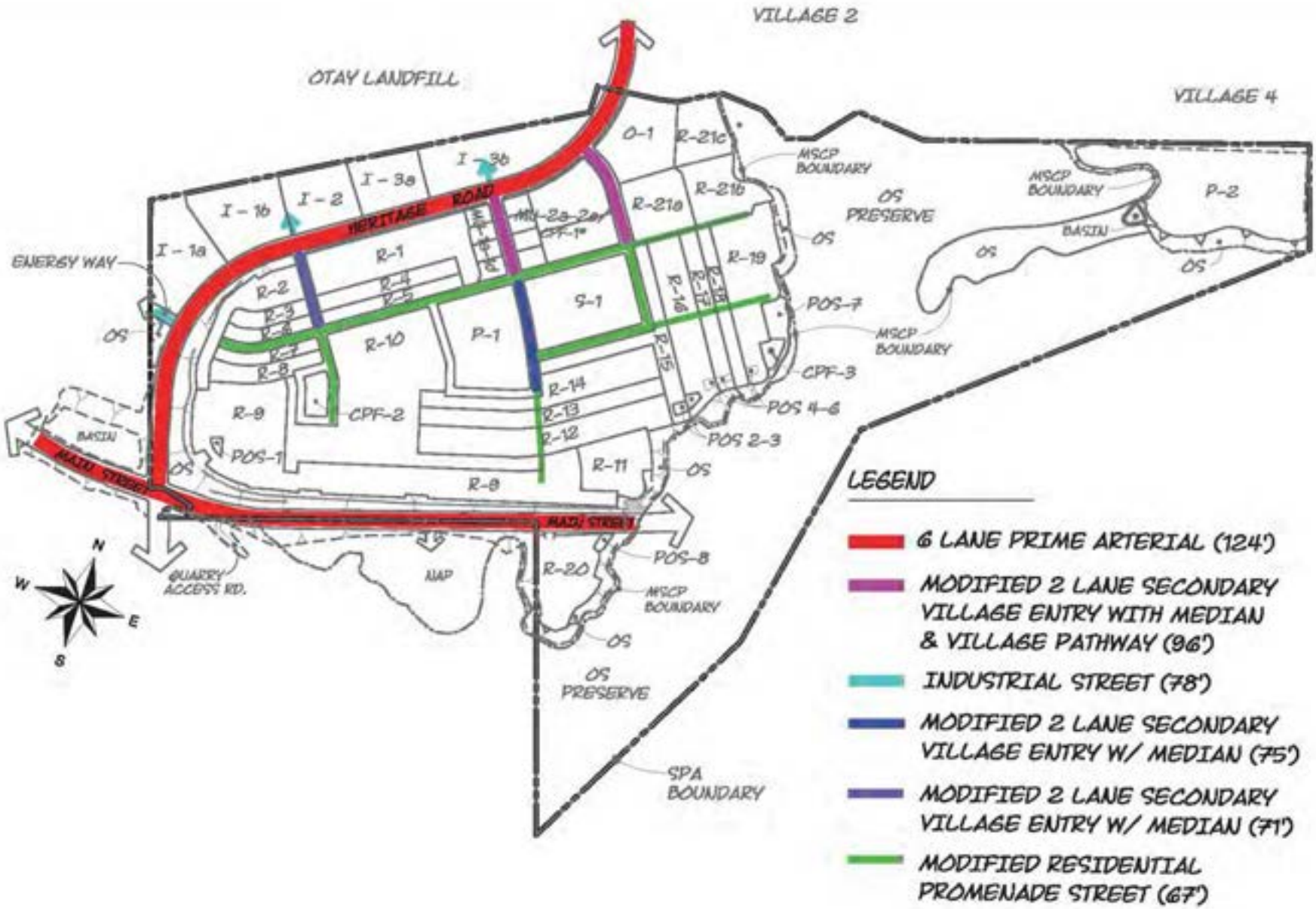
The Portion of Village Four includes 17.8-acres of the planned 70-acre Village Four Community Park site. Recreational facilities in the community park (P-2) may include lighted ball fields and courts, recreation complexes (buildings and swimming pools), security lighting, parking, and areas for children's play, informal play, and picnicking. Park amenities will be in conformance with the City of Chula Vista Parks Master Plan.

Neighborhood Park

A 7.9-acre neighborhood park (P-1) is located in the village core of Village Three North, within walking distance of the most densely populated portion of the village and the elementary school to provide opportunities for shared facilities and programs. Amenities may include multipurpose open lawn areas, ball fields, lighted sports courts, picnic shelters, tot lots, parking, and restroom and maintenance buildings.

Pedestrian and Bicycle Facilities

Village Three North is designed to accommodate the trails program described in the Otay Ranch Overall Design Plan, the City's Greenbelt Master Plan, and the OVRP Concept Plan. Regional Trails located adjacent to roadways provide alternative circulation routes for pedestrians and bicycles separate from roadways. Village Pathways are inter-village, multipurpose paths that link all of the Otay Valley Parcel villages and provide access to the regional transit-way stations. The Village Three North and a Portion of Village Four Trails Plan and Bicycle Circulation Plan are shown on Figures 4-7 and 4-8.



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-5

Village Three North and Portion of Village Four Circulation Plan

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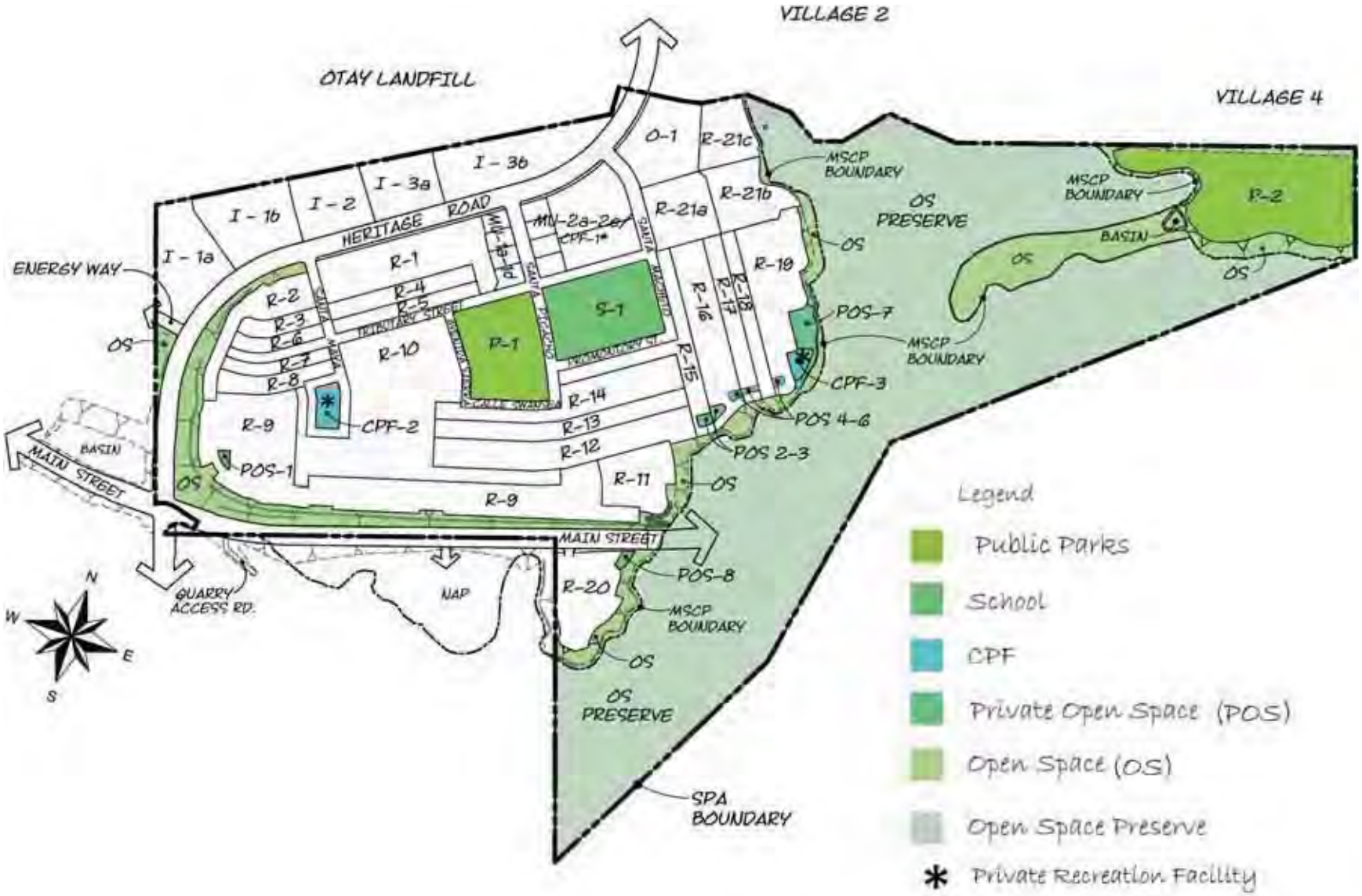

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-6

Parks and Open Space for Village Three North and Portion of Village Four

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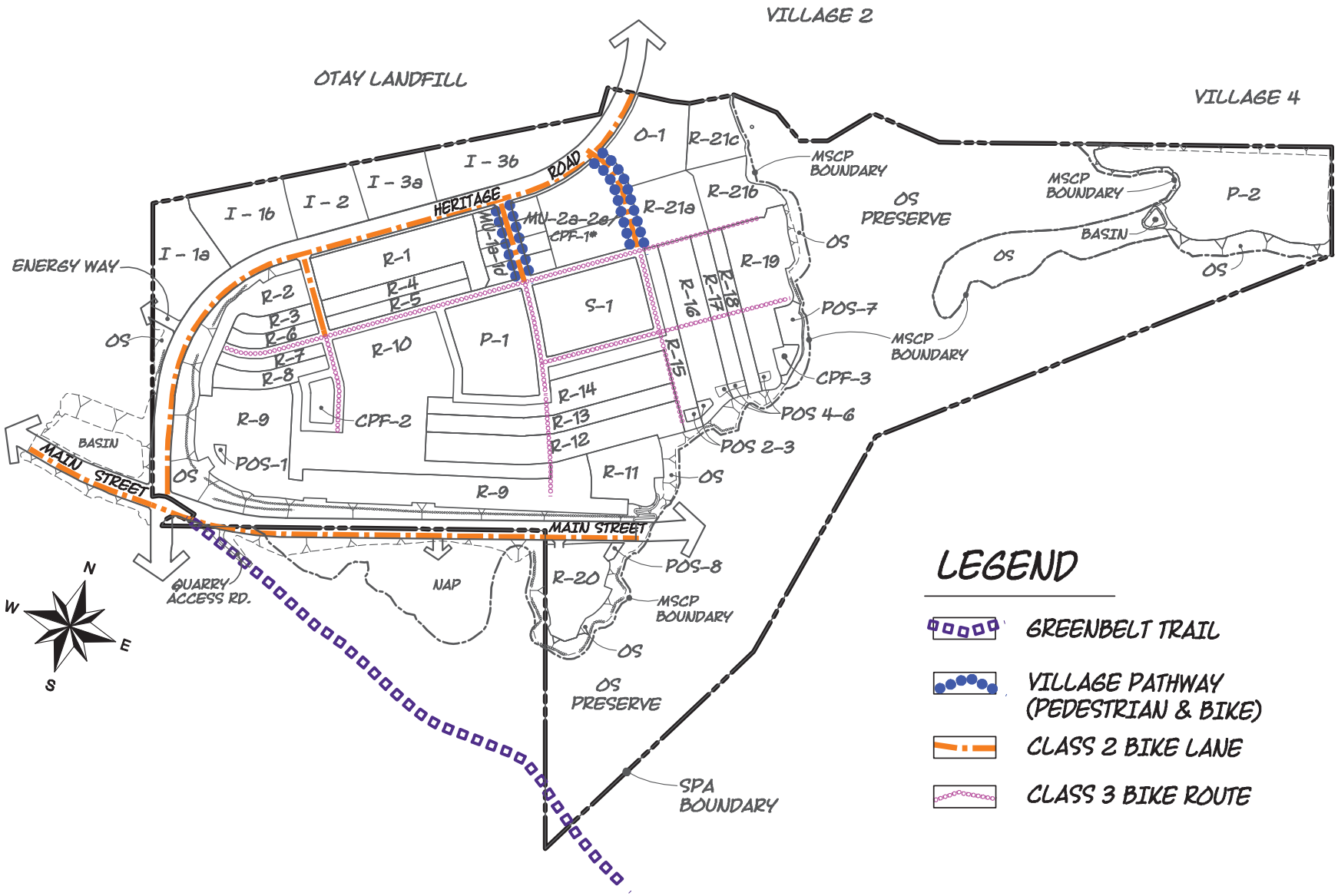

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-7

Bicycle Circulation Plan for Village Three North and Portion of Village Four

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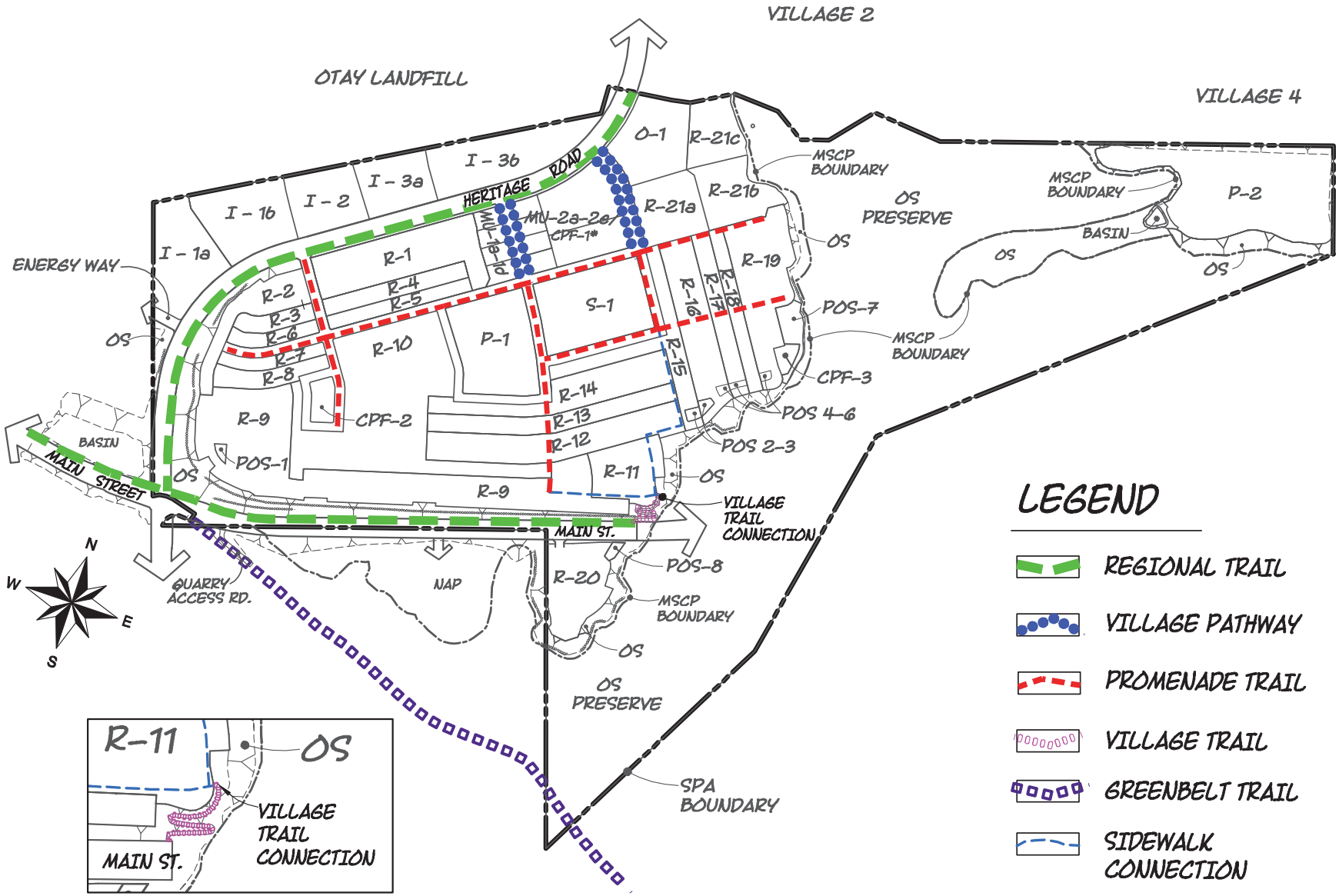

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-8

Pedestrian Circulation Plan for Village Three North and Portion of Village Four

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Community-Purpose Facilities

Village Three North provides a total of 4.2 acres of CPF designated sites. A 2.6-acre CPF site is located in the MU-2 Office/Commercial site in the village core and is anticipated to house a nonprofit or other qualifying use. Smaller private recreation facilities (CPFs) are distributed throughout the village to provide recreation opportunities within walking distances of homes. Amenities in these private recreation facilities may include open lawn areas, ball fields and sports courts, tot lots/play areas, picnic areas, swimming pools, and meeting rooms.

Private Open Space

P-OS areas totaling 2.4 acres are located throughout Village Three North. These areas are intended to serve residents within single-family neighborhoods. Facilities may include open lawn areas, ball fields and sports courts, tot lots/play areas, picnic areas, and swimming pools.

4.2.2.2 Village Eight East

Project Objectives

The objectives of the SPA Plan for Village Eight East are as follows:

- Establish a pedestrian-oriented urban village with a village core designed to reduce reliance on the automobile and promote multimodal transportation, including walking and the use of bicycles, buses, and regional transit.
- Promote synergistic uses between Village Eight East and Village Eight West, the Eastern Urban Center, and the University/Regional Technology Park to balance activities, services, and facilities with employment, housing, transit, and commercial opportunities.
- Develop, maintain, and enhance a sense of community identity that complements the future Village Eight West Town Center and surrounding land uses.
- Designate a portion of Active Recreation Area (AR-11) as a 51.5-acre Community Park (a portion of the park may function as a staging area within the OVRP).
- Establish a community park with amenities such as multipurpose open lawn areas, lighted ball fields, lighted sports courts, lighted picnic shelters, play areas, a community center building, lighted parking areas, and restroom and maintenance buildings.

Land Use

The proposed Village Eight East Site Utilization Plan, shown on Figure 4-9, creates a pedestrian-oriented urban village containing 3,560 homes on approximately 575 acres. A total of 943 single-family dwelling units, 2,117 multi-family dwelling units, and 440 Mixed-Use Residential units are included in Village Eight East, generating a total population of approximately 11,534. The activity center for Village Eight East is the centrally located village core, which contains a 9.5-

acre mixed-use residential component with approximately 20,000 square feet of commercial/ retail uses, a 2.6-acre CPF site, a 10.8-acre elementary school site (S), and a 7.3-acre neighborhood park (P-1). A 51.5-acre Community Park (P-2) site and a 22.6 acre Active Recreation Area (AR-11) site are located south of the village, within the Otay River Valley.

The proposed mix of residential land use designations for Village Eight East includes small lot single family (SF-4 and RM-1) and multifamily attached (RM-2). Consistent with the village planning concept, higher-density residential development is located in the village core, with decreasing densities and single-family detached homes toward the perimeter of the village. The proposed Village Eight East TM establishes the subdivision, street standards, and infrastructure requirements.

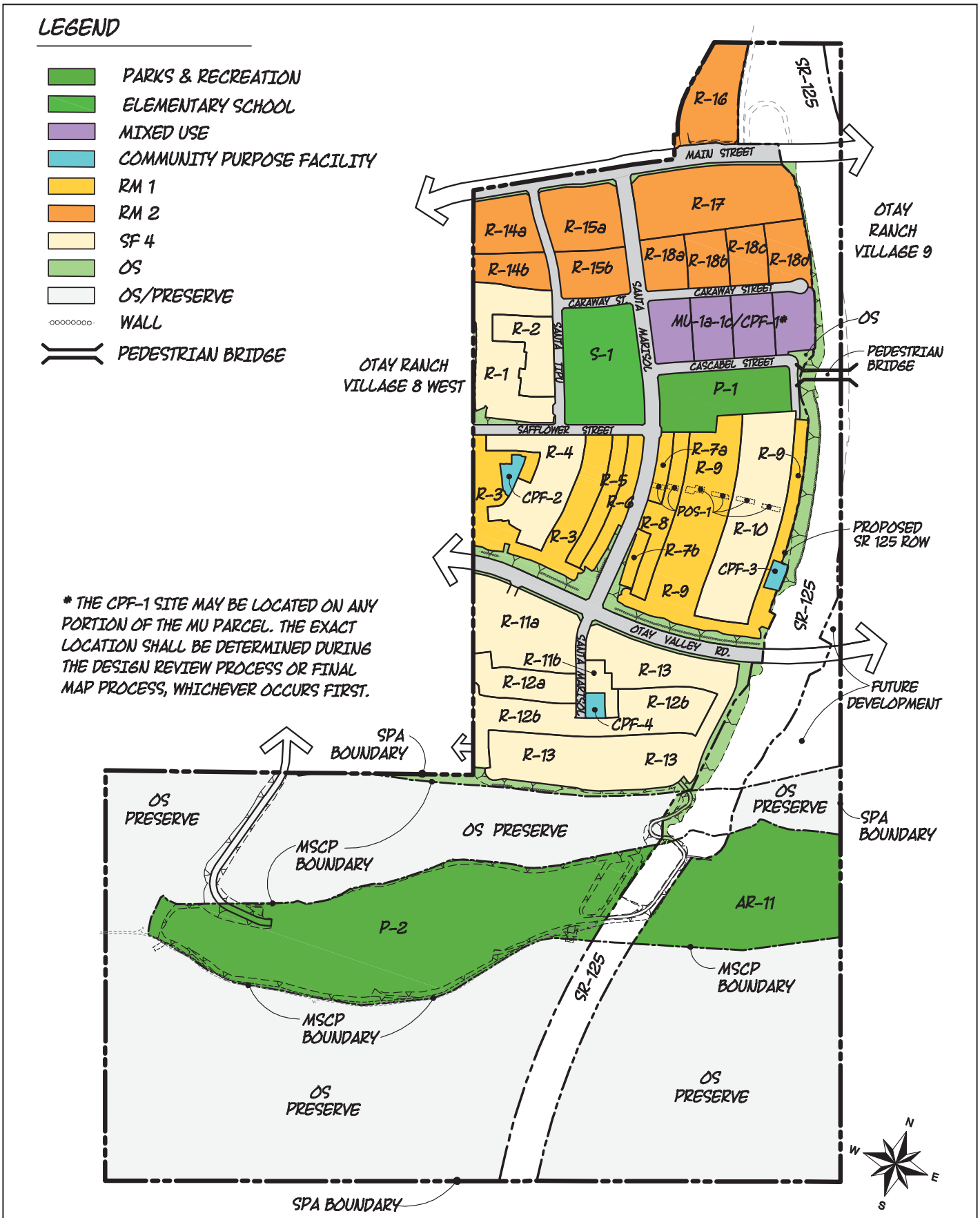
Non-residential land use designations include Parks and Recreation (P), School (S), OS, and OS/Preserve. Small private recreation sites (CPF and P-OS) extend recreational opportunities into residential neighborhoods and provide focal points outside the village core. The location designated for a future school site (S-1) has underlying zoning. In the event that the school district does not want or need the designated site, then residential land uses will be put in place.

Alternative Development Scenario

Village Eight East includes a Land Use Alternative to provide greater flexibility to respond to the possibility of changing market conditions through the buildout of the village. The Land Use Alternative allows for the flexibility to build either single-family or multi-family units without requiring a subsequent SPA Plan Amendment within two neighborhoods; R-11a and R-12a. These neighborhoods may be developed with either 103 single-family units or up to 449 multi-family units. The overall unit count in the village will not exceed 3,560 units because under the multi-family scenario, up to 365 units would be transferred from other multi-family sites within the village to the combined R-11a and R-12a neighborhoods. Table 4-2 compares the proposed development to the Land Use Alternative for Village Eight East.

Table 4-2
Proposed Development vs. Land Use Alternative for Village Eight East

Land Use	Acres	Commercial Square Footage	Residential Dwelling Units	Population
Proposed Development				
Single-Family Residential	117.1		943	3,055
Multi-Family Residential	46.3		2,177	7,053
Mixed Use	9.5	20,000	440	1,426
Total	**172.9**	**20,000**	**3,560**	**11,534**
Alternative Development Scenario				
Single-Family Residential	105.8		840	2,722
Multi-Family Residential	59.4		2,280	7,387
Mixed Use	9.6	20,000	440	1,426
Total	**174.8**	**20,000**	**3,560**	**11,535**



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-9

Village Eight East Site Utilization

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Access, Internal Circulation, and Trip Generation

Regional access to Village Eight East is currently provided by SR-125, which is adjacent to the eastern boundary of Village Eight East. Additional north–south access is provided from I-805 and I-5, located approximately four miles west and seven miles west, respectively, of Village Eight East. SR-54 and SR-905 provide regional east–west circulation, approximately seven miles north and three miles south, respectively, of the project area. Access will be provided by the extension of La Media Road to Main Street, the extension of Main Street east from La Media along the frontage of Village Eight East, and the extension of Otay Valley Road south from La Media Road through Village Eight West. The La Media Road southern extension is planned as part of the Village Eight West SPA Plan and TM and are assumed as part of the roadway network in year 2025; however, in the event that these extensions are not provided prior to Village Eight East being developed, the proposed project would construct the improvements. Site access is proposed via five points: three accessing Main Street; two accessing Otay Valley Road, The proposed Village Eight East community park (P-2) will take access at a separate roadway which connects to Otay Valley Road through the Village Eight West project site.

The Village Eight East Circulation Plan is shown on Figure 4-10. The primary entry into Village Eight East is from Main Street, with an additional entry into the southern portion of the village from Otay Valley Road. The internal circulation streets include Secondary Village Entry, Residential Streets (Promenade), and Parkway Residential Streets, all specifically designed to enhance the village core. Traffic calming features such as curb extensions, raised and narrowed intersections, and landscaped pop-outs may also be located in the internal circulation network at appropriate locations. The circulation plan encourages pedestrian activity and the use of bicycles through the provision of the Village Pathway, an off-street paved path, and bike lanes. Additionally, multiuse trail linkages will be established to improve connectivity to the Chula Vista Greenbelt and Greenbelt trails within project boundaries. These multiuse trails will be consistent with the Chula Vista Greenbelt Master Plan and OVRP Concept Plan. The design of all village streets includes sidewalks and landscaping to promote pedestrian circulation throughout the Village Eight East area.

The Chula Vista General Plan and Otay Ranch GDP identify a planned pedestrian bridge over SR-125 to link Village Eight East to Village Nine and the University Site. The project proposes to reserve land area for the western connection to this future bridge. Otay Valley Road, a Four-Lane Major Road, will provide a strong vehicular linkage from Village Eight West to Village Eight East, through Village Nine, and east to Village Ten.

The Otay Ranch GDP provides for the expansion of the regional transit-way system into Otay Ranch. An east–west bus rapid transit commuter service line is planned to be located along Main Street. A potential local bus stop is conceptually planned within and/or adjacent to Village Eight

East. Circulation within the villages also includes an extensive network of bicycle routes and pedestrian trails, as described further under Pedestrian and Bicycle Facilities in this section.

Village Eight East generates a total of 35,776 ADT, of which 30,727 ADT are trips external to the village. A detailed discussion of traffic and circulation is provided in Section 5.3, Transportation, Circulation, and Access.

Village Streets

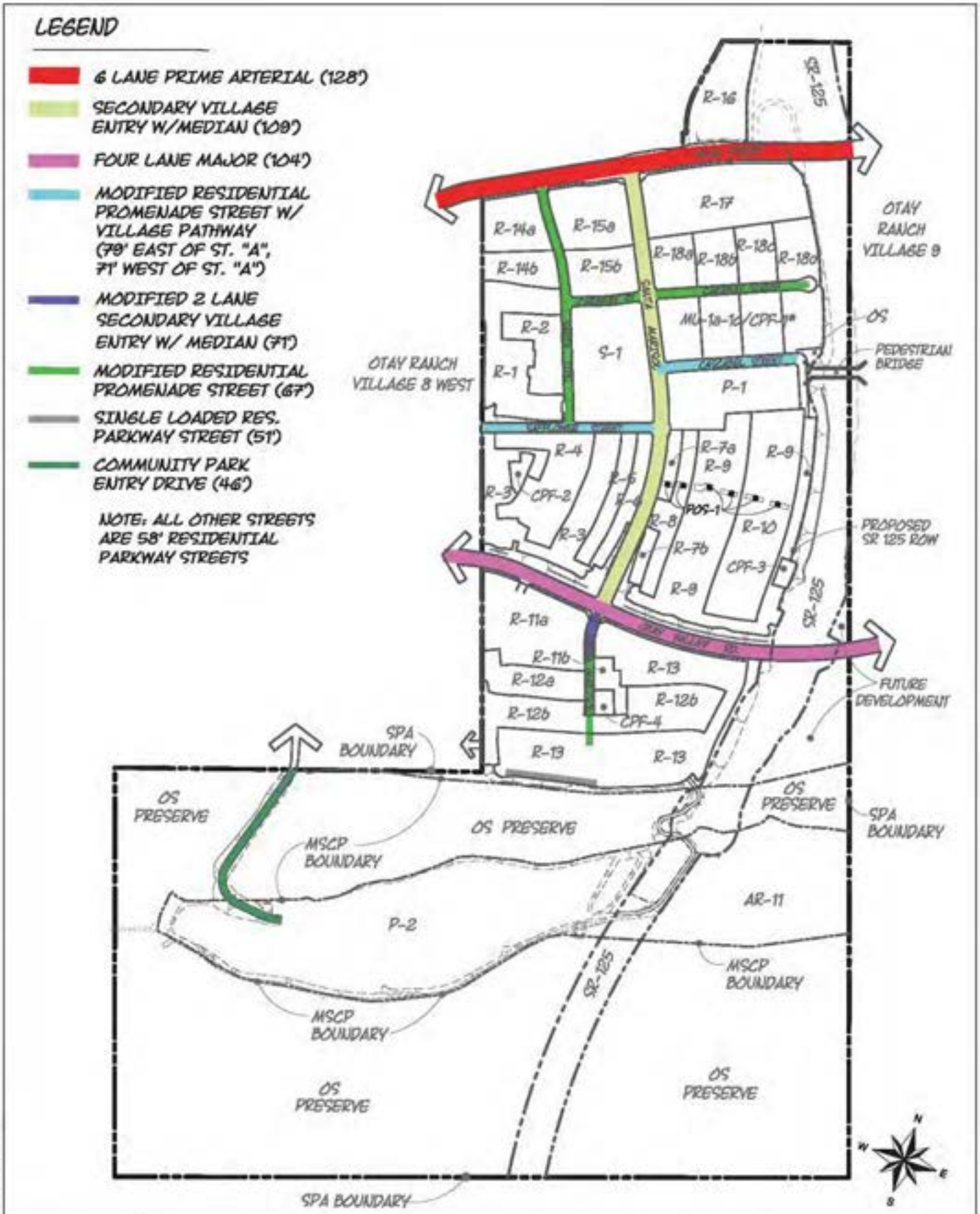
The village streets are designed to promote pedestrian and bicycle travel. The preferred design for all village streets provides for minimum 5-foot-wide sidewalks separated from the roadway by landscaped parkways. In the village core commercial areas, wider sidewalks are provided to allow for window shopping and pedestrian amenities such as seating and outdoor dining.

Parks, Recreation, and Open Space

The Parks, Recreation, and Open Space Plan for Village Eight East is shown on Figure 4-11. The amenities include a Community Park (P-2), neighborhood park (P-1), pedestrian and bicycle facilities, and private recreation sites (CPF). As described below in Section 4.2.3, Off-Site Area 9 would provide for vehicular access to the Community Park (P-2) south of Village Eight East. This access route through Village Eight West is necessary to provide a direct connection from a Circulation Element roadway (Otay Valley Road) to the Community Park (P-2) without requiring travel through a residential neighborhood. As further discussed and analyzed in Section 5.8, Biological Resources, this access road is consistent with a Planned Facility (La Media Road) per the MSCP Subarea Plan.

Active Recreation/Community Park

In the southern portion of Village Eight East, 74.1 acres are identified in the OVRP Concept Plan as Active Recreation Area (AR-11) and are subject to the policies contained in the Chula Vista MSCP Subarea Plan and Otay Ranch RMP. SR-125 traverses the Active Recreation Area (AR-11) and divides the area in two. The portion of the Active Recreation Area (AR-11) on the east side of SR-125 (22.6 acres) will remain designated Active Recreation Area (AR-11), is not proposed for improvements as part of the proposed project, and will remain available for future development under jurisdiction of the City. The portion of the Active Recreation Area (AR-11) area west of SR-125 (51.5 acres) would be designated Community Park (P-2) and will be dedicated to the city as a developable park site.



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-10
Village Eight East Circulation Plan

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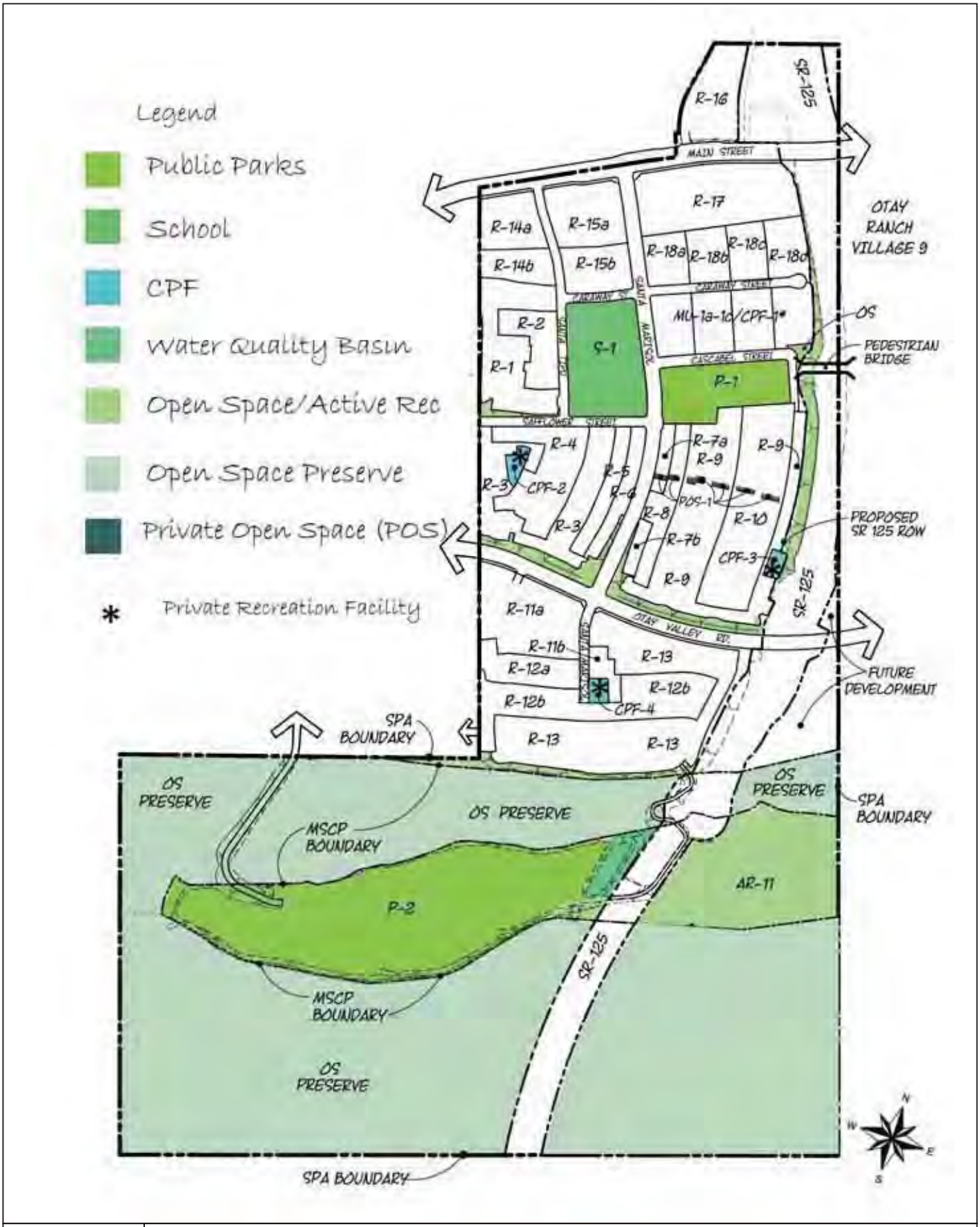

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-11

Parks and Open Space Plan for Village Eight East

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The MSCP Subarea Plan identifies P-2 as "Active Recreation," and not part of the Preserve. Figure 1-2 of the MSCP Subarea Plan further identifies this area as "Planned Active Recreation Area – Subject to RMP Policies and OVRP Planning." The Phase 2 RMP provides siting criteria for active recreation areas and emphasizes providing the majority of the active recreation in the Otay Valley.

The OVRP Concept Plan states, "Recreation Areas are areas that may be suitable for a variety of active or passive recreational uses. They may be vacant or have existing recreational uses, are relatively flat, have been previously disturbed or lack sensitive biological resources and have the potential for access from regional or local circulation roads. They are intended to provide land suitable for development of recreational facilities that are regional in scope and may also serve community and neighborhood needs. They may also provide Staging Areas and Viewpoint and Overlook Areas, as appropriate" (OVRP 1997).

Community Park (P-2) amenities may include multipurpose open lawn areas, lighted ball fields, lighted sports courts, lighted picnic shelters, play areas, a community center building, lighted parking areas, and restroom and maintenance buildings. A portion of the park may also function as a staging area within the OVRP.

Internal trail connections provide linkages between villages, consistent to the Greenbelt Master Plan. The Village Eight East trail connection is provided along the Community Park Entry Drive and Community Park Paseo located south of Village Eight East. In addition, three direct trail connections to the Chula Vista Greenbelt Trail and the Community Park (P-2) are provided along the southern edge of the Community Park (P-2). As discussed in Section 5.8, Biological Resources, the main access to the Community Park (P-2) is consistent with the MSCP Subarea Plan for the alignment of a planned facility (La Media Road). Further, Section 5.8 also discusses the trail connections under the Future Facilities requirements of the MSCP Subarea Plan.

The Village Pathways link the villages to adjacent villages along a 10-foot wide concrete path. The proposed project would help establish a greenbelt system that would visually reinforce the character of the community, to ensure public access through an active and passive recreation park system with trails connecting each segment, to accommodate a wide range and number of users including disabled access, to offer a variety of active and passive recreation experiences, and to provide other amenities that enhance the greenbelt system. In addition, a future pedestrian bridge is planned over SR-125 that would provide pedestrian and bicycles lanes connecting Villages Eight to Village Nine and the future University and RTP.

Neighborhood Park

A 7.3-acre neighborhood park (P-1) is located in the village core within walking distance of the most densely populated portion of the village and adjacent to the elementary school in order to provide opportunities for shared facilities and programs. This park connection is located to provide access to the planned neighborhood park in Village Nine via a planned pedestrian bridge

over SR-125. Amenities may include multipurpose open lawn areas, ball fields, lighted sports courts, picnic shelters, and tot lots as well as restroom, parking, and maintenance buildings.

Pedestrian and Bicycle Facilities

Village Eight East is designed to accommodate the trails program described in the Otay Ranch Overall Design Plan, the City's Greenbelt Master Plan, and the OVRP Concept Plan. Regional Trails are located within open space areas adjacent to Circulation Element roadways, providing circulation routes for pedestrians and bicycles separate from roadways. The Village Pathway is an inter-village, multipurpose path that links all of the Otay Valley Parcel villages and provides access to the regional transit-way stations. Multiuse trail linkages will be established to improve connectivity to the Chula Vista Greenbelt and Greenbelt trails within Village Eight East.

The Modified Residential Promenade Street includes a wider tree-shaded sidewalk on one side and a standard sidewalk with a landscaped parkway on the other side. The Promenade Trail links the residential neighborhoods to the village activity core and pedestrian network. The Village Eight East Trails Plan and Bicycle Circulation Plan are shown on Figures 4-12 and 4-13. As shown on Figure 4-13 the Village Pathway bridge will provide pedestrian and bicycle lanes over the SR-125 toll way.

Community-Purpose Facilities

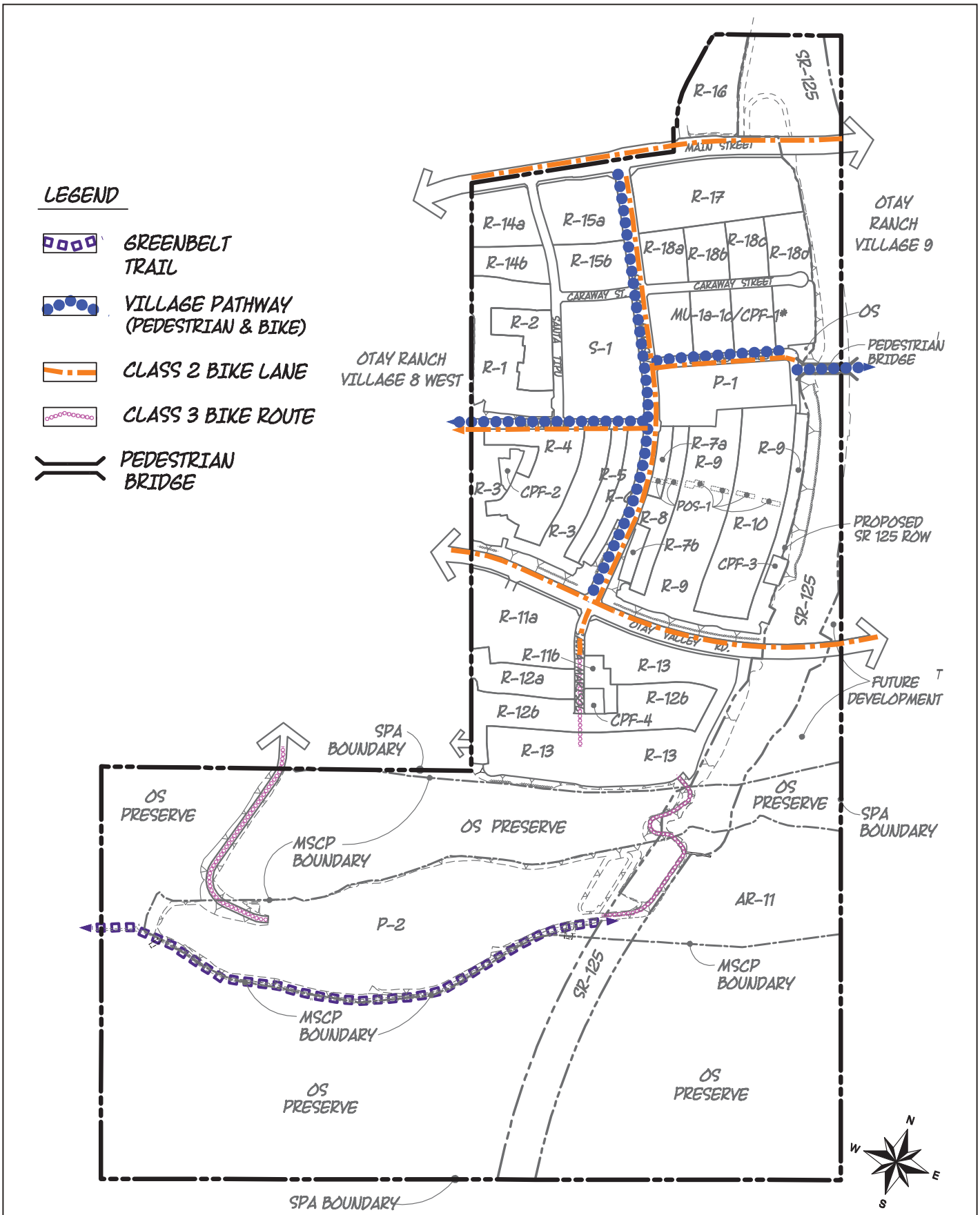
Four CPF sites totaling 4.2 acres are located throughout Village Eight East and range in size from .5 to 2.6 acres. This 2.6 acre site is anticipated as a site for a nonprofit or other qualifying community-purpose use as identified by Chula Vista Municipal Code Section 19.48.025. CPF-2, CPF-3 and CPF-4 are private recreation facilities that extend recreational opportunities into neighborhoods. Amenities in the CPF-2, CPF-3 and CPF-4 sites may include tot lots, sport courts, picnic areas, swimming pools, and meeting rooms.

4.2.2.3 Village Ten

Project Objectives

The objectives of the SPA Plan for Village Ten are as follows:

- Establish a pedestrian-oriented urban village within the University Planning Area designed to complement and support the University land uses, reduce reliance on the automobile, and promote multimodal transportation, including walking and the use of bicycles, buses, and regional transit.
- Promote synergistic uses between Village Ten and Village Nine and the University to balance employment, retail, and educational activities, as well as services, housing, and public facilities.
- Develop, maintain, and enhance a sense of community identity that complements the University and Village Nine Town Center.



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-12

Bicycle Circulation Plan for Village Eight East

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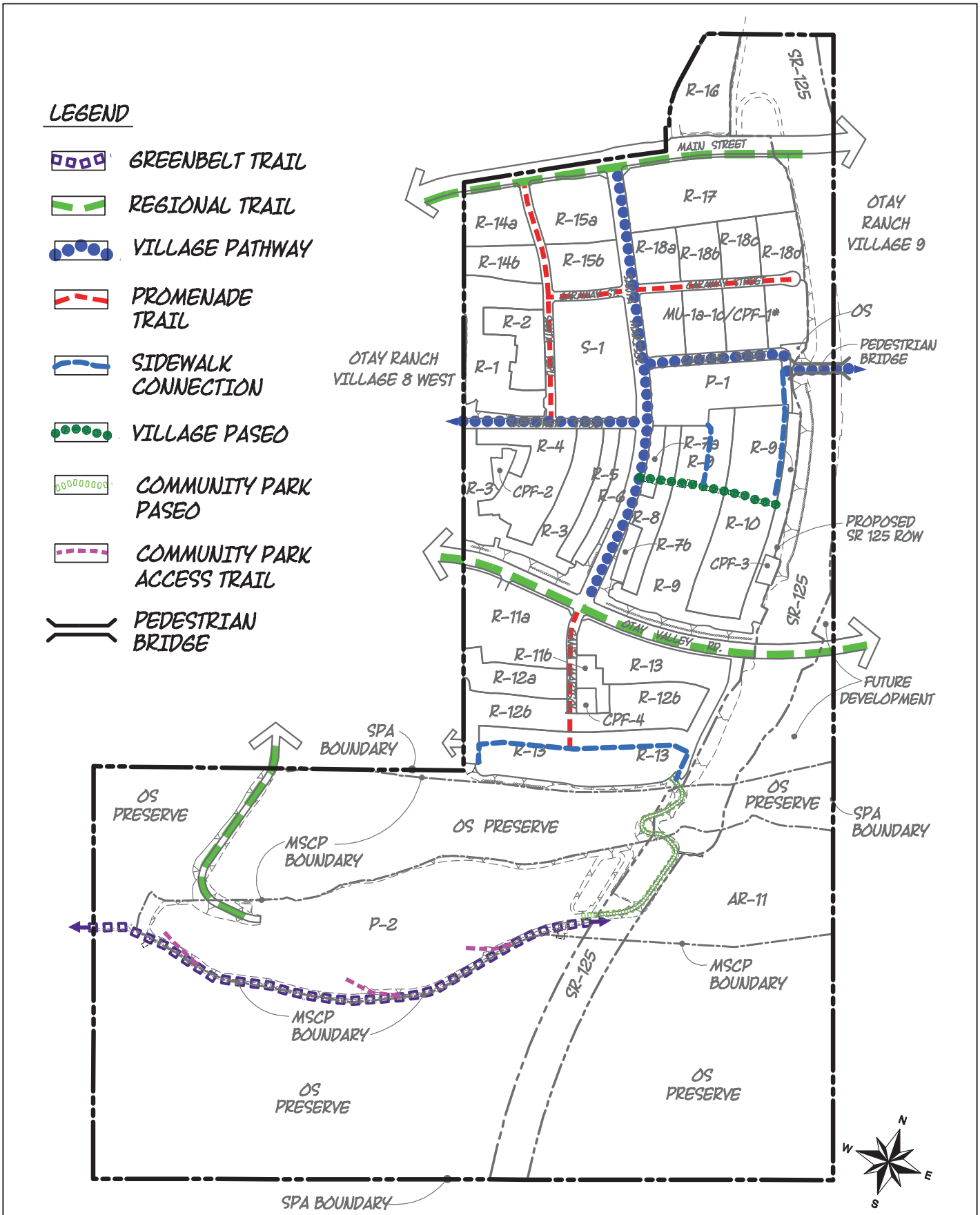

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-13

Pedestrian Circulation Plan for Village Eight East

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Land Use

The proposed Village Ten Site Utilization Plan, shown on Figure 4-14, creates a pedestrian-oriented urban village containing 1,740 homes and other village-associated land uses on approximately 363.4 acres. Village Ten is a complementary village to the planned Village Nine Town Center and future University and Regional Technology Park site. The village core area contains higher-density, multi-family homes, an elementary school site, a 2.6-acre CPF site, and a 7.6-acre neighborhood park (P-1) located along the northern village edge. It provides a transition area between future University land uses and the lower-density residential land uses to the south.

A total of 1,045 multi-family units are located in a linear village core. The lower-density residential areas south of the village core provide a total of 695 single-family units. The total population of Village Ten is approximately 5,638. The proposed mix of residential land use designations for Village Ten includes small lot single family (SF-4 and RM-1) and attached multifamily (RM-2). Village Ten also includes 212.7 acres of designated OS/P.

Private recreational sites (CPF and P-OS) are distributed throughout the residential neighborhoods to the south of the village core and connected to the core along a network of Promenade Streets. The proposed Village Ten TM establishes subdivision, street standards, and infrastructure requirements. Other non-residential land uses included Parks and Recreation (P), School (S), OS, and OS/Preserve. The location designated for a future school site (S-1) has underlying zoning. In the event that the school district does not want or need the designated site, then residential land uses will be put in place.

Access, Internal Circulation, and Trip Generation

Regional access to Village Ten is currently provided by SR-125, located approximately 1.5 miles west of the project area. I-805 and I-5, approximately 5.5 miles west and 8 miles west of Village Ten, respectively, provide additional north–south access. SR-54 and SR-905 provide regional east–west circulation, both approximately 6.5 miles northwest of the project area.

The proposed Village Ten Site Circulation Plan is shown on Figure 4-15. Village Ten access is proposed via four points including three accessing Discovery Falls Drive and one accessing Otay Valley Road. Access will be provided by the extension of University Drive (EastLake Parkway) south of Hunte Parkway to Discovery Falls/Village Ten. Discovery Falls will be extended south from Hunte Parkway and turn southwest, connecting to the extension of University Drive and ultimately connecting to Village Nine Street B. Otay Valley Road will be extended south and east from La Media Road, through Villages Eight West, Eight East and Nine, over SR-125 into Village Ten. The improvements through Villages Eight West and Nine are assumed to be constructed as part of those projects; however, in the event that these extensions are not provided prior to Village Eight East being developed, the proposed project would construct the

improvements. The internal circulation network includes Secondary Village Entry, Residential Streets (Promenade), and Parkway Residential streets, all specifically designed to promote walkability within Village Ten. Traffic calming features such as curb extensions, raised and narrowed intersections, and landscaped pop-outs may also be located in the internal circulation network at appropriate locations. The circulation plan encourages pedestrian activity and the use of bicycles through the provision of the Village Pathway, an off-street paved path, and bike lanes. The design of all village streets includes sidewalks and landscaped parkways to promote pedestrian circulation throughout the Village Ten area.

The Otay Ranch GDP provides for the expansion of the regional transit-way system into Otay Ranch. An east–west Rapid Bus commuter service line is planned along Main Street. A north–south bus rapid transit route is planned through the Eastern Urban Center, connecting to Village Nine adjacent to Village Ten. Local bus lines are planned to provide public transit service to the villages, including Village Ten. Circulation within the villages also includes an extensive network of bicycle routes and pedestrian trails, as described under Pedestrian and Bicycle Facilities in this section.

Village Streets

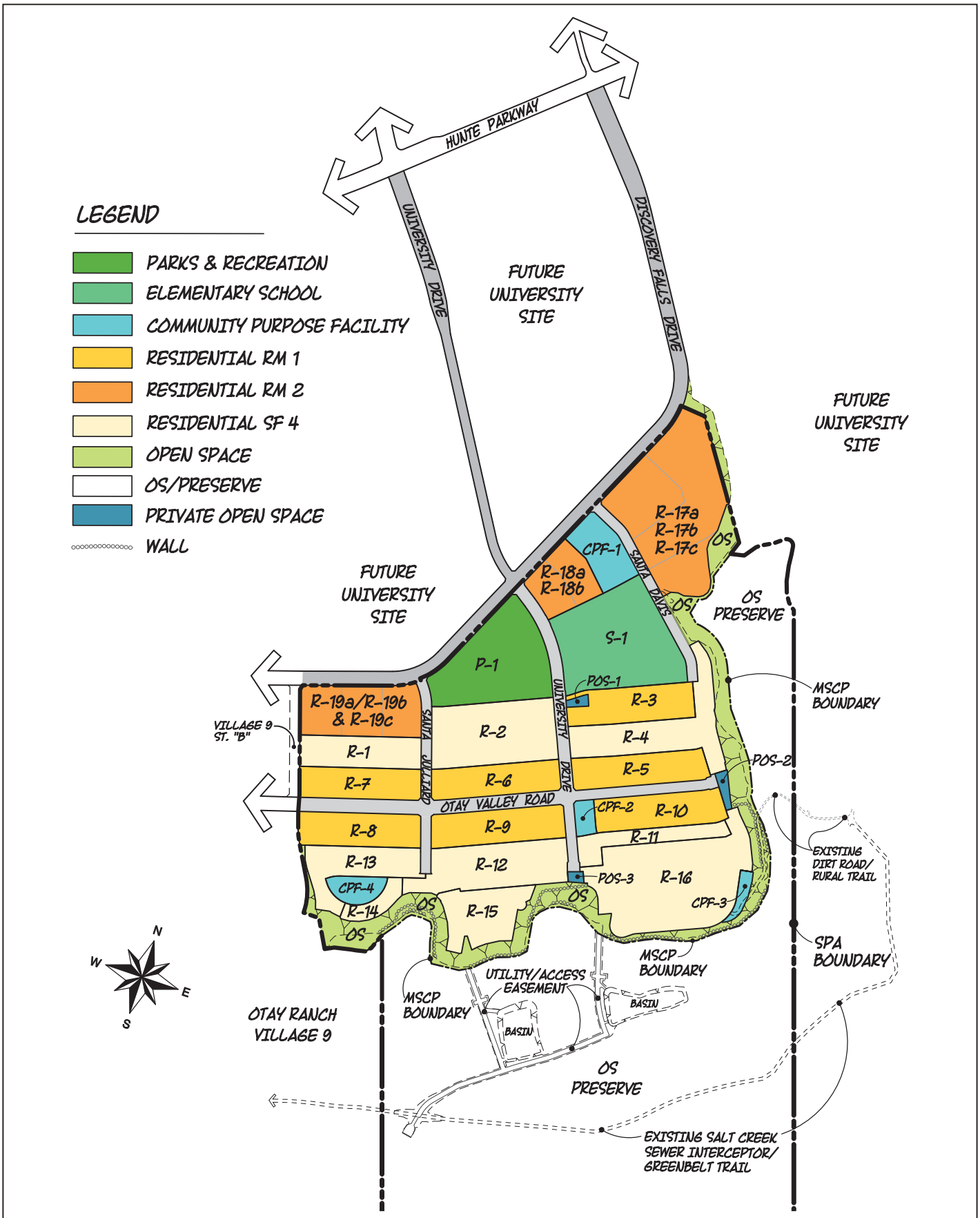
The village streets are designed to promote pedestrian and bicycle travel. The planned design for all village streets provides for minimum 5-foot-wide sidewalks separated from the roadway by landscaped parkways. In the village core, wider sidewalks are provided.

University Drive is the central north–south spine road through Village Ten, connecting the village core to residential neighborhoods to the south. Otay Valley Road provides secondary access to Village Ten as it transitions from a Four-Lane Major Road to a Secondary Village Entry as it enters Village Ten from the west. This community structure establishes key pedestrian connections along University Drive and Otay Valley Road between village-serving land uses in the core and the surrounding residential neighborhoods. Multiple points of vehicular and pedestrian connectivity between Village Ten and the University/Research Technology Park site are provided along the northern village edge.

Village Ten generates a total of 16,277 ADT, of which 13,968 ADT are trips external to the village. A detailed discussion of traffic and circulation is provided in Section 5.3, Transportation, Circulation, and Access, of the EIR.

Parks, Recreation, and Open Space

The Village Ten Parks, Recreation, and Open Space Plan is shown on Figure 4-16. The amenities include a neighborhood park (P-1), pedestrian and bicycle facilities, private recreation sites (CPF), and P-OS.



SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-14
Village Ten Site Utilization

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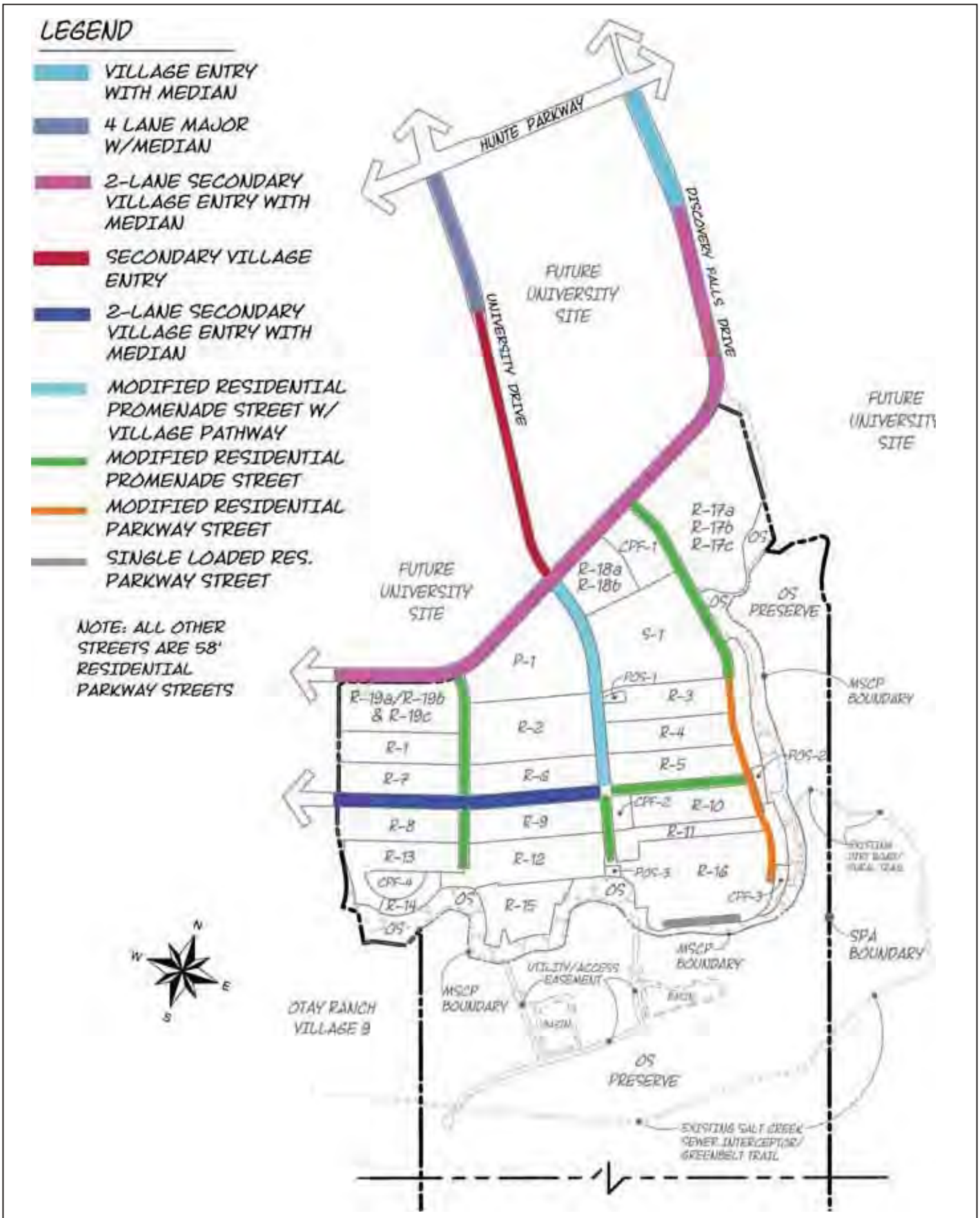

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-15
Village Ten Circulation Plan

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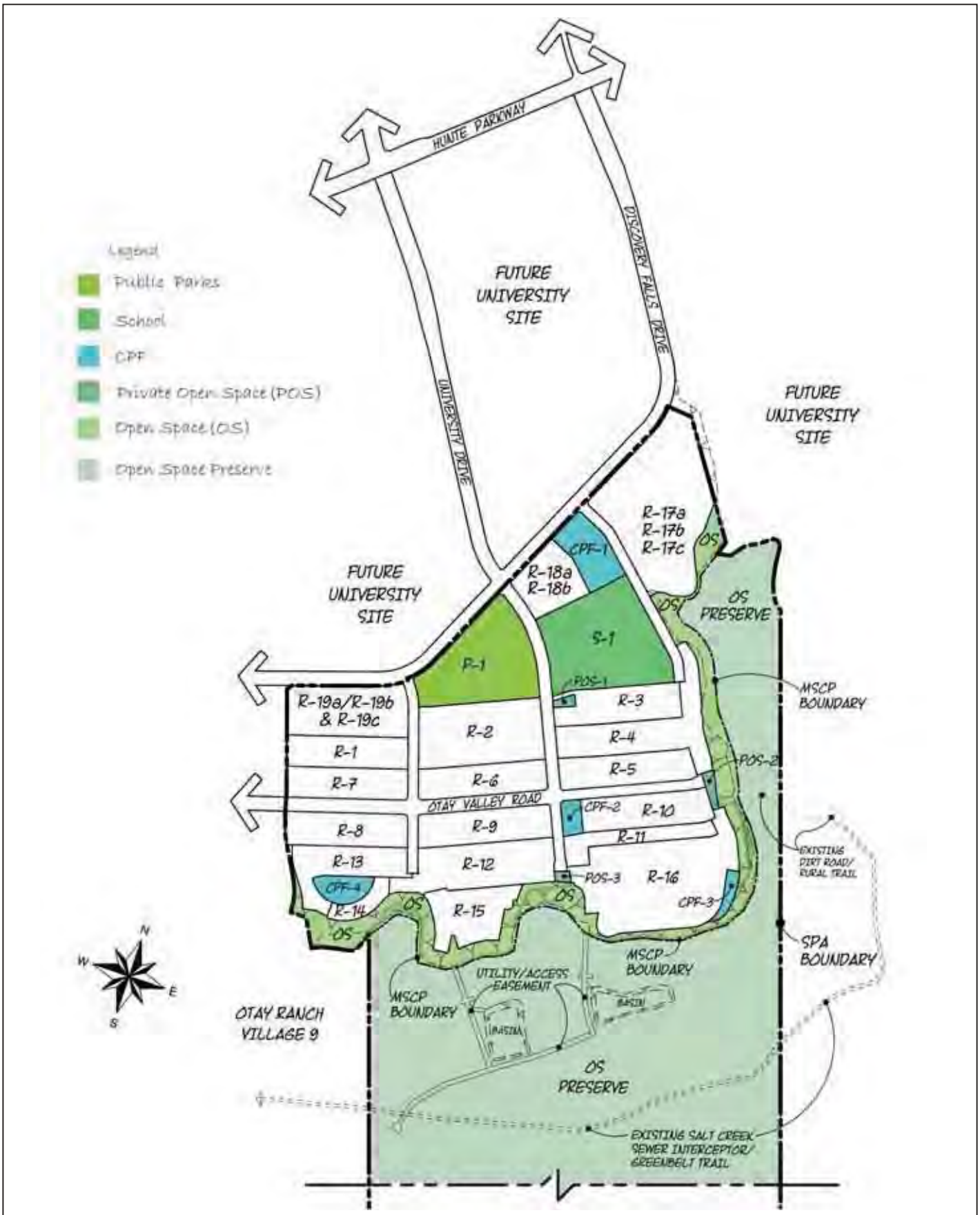

SOURCE: OTAY RANCH NEW HOMES 2014

FIGURE 4-16

Parks and Open Space for Village Ten

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