

Appendix B

Sectional Planning Area Plan Amendment



SUNBOW II, PHASE 3
SECTIONAL PLANNING AREA PLAN AMENDMENT
(MPA20-0006)
MARCH 2021

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Background

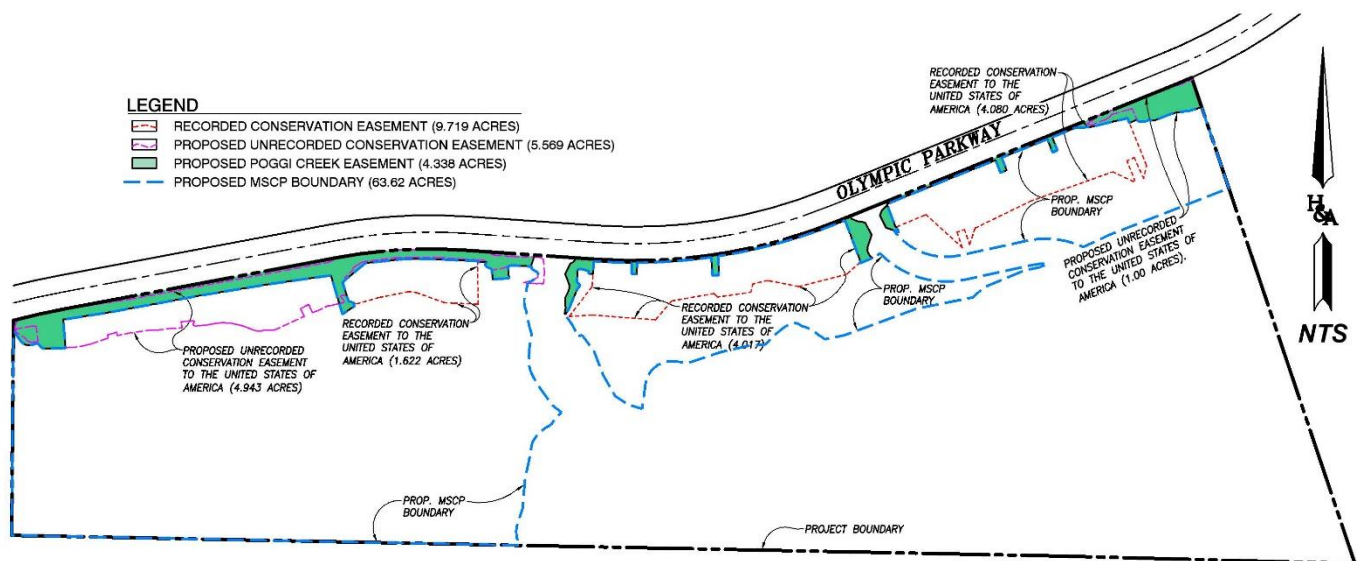
The City of Chula Vista authorized development of the 604.8 acre Sunbow Planned Community upon approval of the following:

- Sunbow II General Development Plan (GDP) approved by Resolution No. 15427 on December 5, 1989;
- Sunbow II Public Facilities Financing Plan (PFFP) approved by Resolution No. 15525 on January 24, 1990;
- Sunbow II Sectional Planning Area (SPA) Plan approved by Resolution No. 15524 on February 20, 1990;
- Sunbow II Planned Community District Regulations and Land Use District Map approved by Ordinance No. 2361 on February 27, 1990;
- Sunbow II Design Guidelines approved by Resolution No. 15640 on May 22, 1990;
- Sunbow II Tentative Subdivision Map (TSM 90-07) approved by Resolution No. 115640 on May 22, 1990; and
- Sunbow II Affordable Housing Agreement approved by Resolution No. 18662 on May 13, 1997.

The adopted Sunbow II SPA Plan established the land use districts, special uses and conditions, comprehensive sign regulations, off-street parking requirements and administrative procedures for development and implementation of the Sunbow community. Sunbow II, Phase 3 was identified as a 46.0-acre Industrial Park in the adopted Sunbow II SPA Plan.

In February 2003, the City of Chula Vista adopted the City of Chula Vista MSCP Subarea Plan. At that time, development of the approved Sunbow II project was underway. When the City adopted the MSCP Plan, the Sunbow II community was not identified as a “covered project;” however, the MSCP Plan established a hardline MSCP Preserve Boundary adjacent to the Sunbow II, Phase 3 development area. Based upon the City’s MSCP Boundary data, the Applicant’s Engineer determined that within the 135.7-acre Sunbow II, Phase 3 Project Area, there are approximately 63.6 acres of land designated MSCP Preserve, the 4.3-acre Poggi Creek Conservation Easement area and approximately 67.5 acres of development area.

As depicted on the following exhibit, there are 19.626 acres of recorded and proposed unrecorded easements associated with Poggi Creek within the Project Area including the Recorded Conservation Easement (9.719 acres), the Unrecorded Conservation Easement (5.569 acres), the Unrecorded Poggi Creek Easement (4.338 acres). Of the 19.626 acres of recorded and proposed easements within the Project Area, approximately 12.53 acres are within the proposed Chula Vista MSCP boundary.



On January 7, 2020, the Chula Vista City Council approved the Community Benefit Agreement (by Resolution No. 2020-003) between the City of Chula Vista and ACI Sunbow, LLC (Applicant) which would allow the Applicant to process entitlements that would involve converting the designation of an undeveloped 54-acre site, within the General Plan, General Development Plan and SPA Plan, from Limited Industrial to residential uses. For the City, the Agreement would provide funding that can be used by the City to direct the construction of either: a Class “A” office building that would facilitate high quality job enhancement uses along the SR-125 corridor on City or non-profit owned land or a commercial/academic building that can facilitate either an academic or private-sector market-rate project to advance the vision of the University Innovation District (such as enabling the development of an Institute for International Studies), or some other notable project at the City’s discretion.

On February 26, 2020, ACI Sunbow, LLC (Applicant) filed an application with the City of Chula Vista for the Sunbow II SPA Plan Amendment within the Sunbow II, Phase 3 area comprised of 135.7 acres (Project Area). The application included the discretionary actions necessary to implement a proposal to: 1) rezone the Sunbow II, Phase 3 Industrial Park and associated development area to residential, Community Purpose Facility and other related land uses and 2) a minor MSCP Boundary adjustment between the development area and the adjacent Chula Vista MSCP Preserve area north and west of Planning Area 23, resulting in an increase of 0.09 acres of Preserve Open Space within the Project Area. The Project includes the following:

- Chula Vista General Plan Amendment
- Sunbow II General Development Plan Amendment
- Chula Vista MSCP Subarea Plan Boundary Adjustment
- Sunbow II SPA Plan Amendment
- Rezone
- Tentative Map
- MSCP Minor Amendment (off-site grading)
- Development Agreement

The scope of the Project encompasses Sunbow II, Phase 3. Based upon a more precise level of engineering information currently available, including GIS mapping, the Sunbow II, Phase 3 development area acreage has been refined and encompasses 67.5 acres, which includes approximately 44.2 acres of residential, a 0.9-acre Community Purpose Facility (CPF) site, 5.9 acres of public streets and 16.5 acres of manufactured slopes and basins. Approximately 4.3 acres of proposed Poggi Canyon Easement areas, a 0.3 acre conserved wetland resource area and 63.6¹ acres of adjacent MSCP Preserve areas are also within the Project Area. The Project includes a proposed MSCP Boundary Adjustment, which would modify the limits of the Sunbow II, Phase 3 development area and increase the MSCP Preserve area by approximately 0.09 acres.

Sunbow II, Phase 3 SPA Plan Amendment (Chapter 10.0) Purpose and Scope

The purpose of Sunbow II, Phase 3 SPA Plan Amendment, Chapters 10.0 to 17.0, is to describe and define the amended land uses for the Sunbow II, Phase 3. In addition, this chapter provides the development regulations and design guidelines for the Project. The Project also includes revisions to planning documents associated with the 1990 Sunbow II SPA Plan as well as additional plans and studies currently required by the City of Chula Vista. Updated or new information supersedes the corresponding sections in the 1990 Sunbow SPA Plan and can be found either within the following Sunbow II, Phase SPA Plan Amendment chapter or within the Appendices to the Sunbow II SPA Plan:

¹ The MSCP Preserve area includes 1.31 in mapping correction areas.

1990 Sunbow SPA Plan	Sunbow II, Phase 3 SPA Plan Amendment
Site Utilization	See Section 10.8
Recreation and Open Space Master Plan	See Section 11.0
	Community Purpose Facility Master Plan – Section 12.0
Public Facilities	See Section 13.0
Planned Community District Regulations	See Section 14.0
Residential Design Criteria	See Residential Design Guidelines – Section 15.0 See PC District Regulations – Section 14.0
Landscape Master Plan	See Landscape Design Guidelines – Section 16.0
	See Affordable Housing Plan – Section 17.0
Sunbow Signage Guidelines	There are no monuments signs proposed. Temporary marketing signs to comply with CVMC Section 19.58.320
	Landscape Palette – Appendix A
Public Facilities Financing Plan	See Supplemental PFFP – Appendix B
	See Air Quality Improvement Plan – Appendix C
	See Fire Protection Plan – Appendix D
Water Conservation Plan	See Water Conservation Plan Update – Appendix E

Purpose and Government Authority

The Sunbow II, Phase 3 SPA Plan Amendment provides the basis for the preparation of implementing subdivision and improvement plans and specifies permitted land uses, densities, maximum units, and required public facilities as allowed by California Government Code §65450.

The SPA Plan will implement and comply with the applicable goals and objectives of the Chula Vista General Plan and the Sunbow II General Development Plan, as amended as part of the Project. It is anticipated that minor refinements to the Project will occur during development of the implementing subdivision and/or Site Plan. Such refinements, with the approval of the Director of Development Services (DDS), will not require amendments to this SPA Plan, provided the number of residential dwelling units is not exceeded and the overall character of Sunbow II, Phase 3 is maintained.

Any matter or issue not specifically covered by the amended Sunbow II SPA Plan shall be subject to the regulations and procedures of the City of Chula Vista Municipal Code (CVMC). In the case of a conflict between this SPA Plan and the CVMC, this SPA Plan shall take precedence.

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APPENDICES

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Appendix D: Fire Protection Plan
Appendix E: Water Conservation Plan Update

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10.0 SUNBOW II, PHASE 3 SPA AMENDMENT

10.1 Background

The City of Chula Vista approved the Sunbow General Development Plan (GDP) in 1989 and Sunbow II Sectional Planning Area (SPA) Plan in 1990, which included Sunbow II, Phase 3. The 1990 Sunbow II SPA Plan established the land use districts, special uses and conditions, comprehensive sign regulations, off-street parking requirements and administrative procedures for the Sunbow community. The City also approved Design Guidelines and Planned Community (PC) District Regulations for the Sunbow community. The Sunbow community is built out, with the exception of Sunbow II, Phase 3, currently designated a 46-acre industrial park on the 1990 Sunbow II SPA Plan Site Utilization Plan, which has subsequently been refined as a 69.0 acre development area.

10.2 Purpose and Scope

The purpose of the Sunbow II, Phase 3 SPA Plan Amendment is to describe and define the amended land uses for the Project. In addition, this amendment establishes the development regulations and design guidelines for Sunbow II, Phase 3. The Project includes Chula Vista General Plan (CVGP), Sunbow General Development Plan (GDP) amendments, a Rezone, and Tentative Map which are necessary to implement the Project.

Approval of the proposed SPA Plan Amendment will include the text and exhibits which establish conformance of Sunbow II, Phase 3 and the surrounding MSCP Preserve areas with the amended Chula Vista General Plan and Sunbow GDP and a land use plan which designates the permitted land uses for the Project. Sunbow II, Phase 3 SPA Plan Amendment, Chapters 10.0 to 17.0 only apply to the Sunbow II, Phase 3. All other provisions of the 1990 Sunbow II SPA Plan remain in effect for all other areas within Sunbow.

Sunbow II, Phase 3 encompasses approximately 135.7² acres and includes a 67.5-acre development area comprised of 44.2 acres of residential, a 0.9-acre Community Purpose Facility (CPF) site, 5.9 acres of public streets, 16.5 manufactured slopes and basins. Approximately 4.3 acres of Poggi Creek Conservation Easement areas, a 0.3-acre conserved wetland resource area and 63.6 acres of adjacent MSCP Preserve area are also within the Project Area (Sunbow II, Phase 3 SPA Plan Amendment area). Refer to Exhibit 1: SPA Plan Site Utilization Plan (Sunbow II SPA Plan 1990) for existing land uses within Sunbow II as well as a reference to the location of the 135.7-acre Sunbow II, Phase 3 SPA Plan Amendment area subject to this SPA Amendment.

² Acreages are rounded to the nearest 1/10th acre and may vary slightly from calculated total.

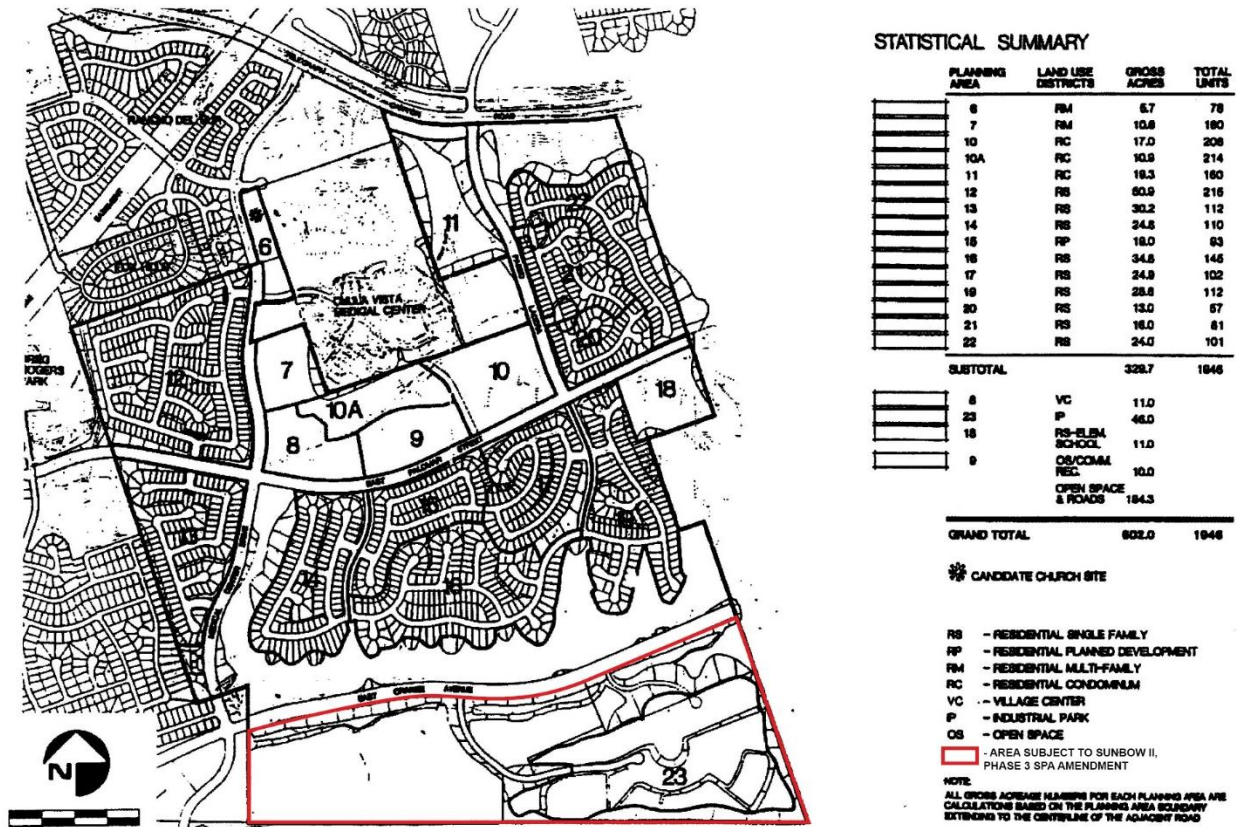


Exhibit 1: SPA Plan Site Utilization Plan (Sunbow II SPA Plan 1990)

10.3 Project Overview

The Sunbow II, Phase 3 SPA Amendment area encompasses 135.7 acres located south of Olympic Parkway, north of the Otay Landfill and City of Chula Vista property, east of Brandywine Avenue and west of the future Otay Ranch Village 2 development area. Refer to Exhibit 2: Aerial Surrounding Land Uses Map.



Exhibit 2: Aerial Surrounding Land Uses Map

The Project includes 718 multi-family units on approximately 44.2 acres within the 135.7-acre Project Area. The Project includes six residential neighborhoods planned to provide four unique multi-family attached residential product types. A 0.9-acre Community Purpose Facility site is centrally located and planned as a Community Recreation Area. Two planned on-site modified Class III Collector public streets (approximately 5.9 acres) provide access to the Project via two fully signalized intersections at Olympic Parkway, in the locations designated in the 1990 Sunbow II SPA Plan. Residential neighborhoods are served by private streets and driveways. The Project also includes approximately 16.5 acres of open space (two water quality/hydromodification basins, manufactured slope/fuel modification areas), a 0.3-acre conserved wetland resource and associated buffer area, 4.3 acres of Poggi Creek Conservation Easement areas and 63.6 acres designated MSCP Preserve open space. Refer to Exhibit 3: Sunbow II, Phase 3 Land Use Plan.

10.4 Supporting Documents

The following additional documents were prepared as part of the Sunbow II, Phase 3 SPA Amendment:

- Supplemental Public Facilities Financing Plan Addendum (Appendix B)

- Air Quality Improvement Plan (Appendix C)
- Fire Protection Plan (Appendix D)
- Water Conservation Plan Update (Appendix E)
- Fiscal Impact Analysis

10.5 Technical Reports

The following technical reports were prepared for the Sunbow II, Phase 3 Environmental Impact Report (EIR):

- Sunbow II, Phase 3 – Air Quality and Greenhouse Gas Analysis. Nuisance Analysis Memorandum (Appendix B) and Health Risk Assessment (Dudek 2020)
- Sunbow II, Phase 3 – Noise Impact Analysis (Dudek 2020)
- Sunbow II, Phase 3 SPA Amendment – Biological Impact Analysis Report (Merkel 2021)
- Sunbow II, Phase 3 SPA Amendment - Functional Equivalency Analysis for MSCP Boundary Line Adjustment and Facility Siting Criteria Report (Merkel 2021)
- Habitat Restoration and Sensitive Species Mitigation Plan for the Sunbow II, Phase 3 SPA Plan Amendment (Merkel 2021)
- Sunbow II, Phase 3 Geotechnical Investigation (GEOCON, Inc. 2020)
- Priority Development Project (PDP) Storm Water Quality Management Plan for the Sunbow II, Phase 3 Tentative Map (Hunsaker 2021)
- Drainage Study for Sunbow II, Phase 3 (Hunsaker 2021)
- Transportation Impact Analysis for Sunbow II, Phase 3 (Linscott, Law & Greenspan 2021)
- Overview of Water Service for Sunbow II, Phase 3 (Dexter Wilson Engineering 2020)
- Sewer System Evaluation for Sunbow II, Phase 3 (Dexter Wilson Engineering 2020)
- Sunbow II, Phase 3 SPA Amendment Water Conservation Plan Updated (SPA Plan Appendix E) (Dexter Wilson Engineering 2020)
- Cultural and Paleontological Resources Report for Sunbow II, Phase 3 (Dudek 2020)

10.6 Development Concept

A residential enclave is planned within Sunbow II, Phase 3 with well-designed multi-family attached homes featuring enhanced architecture, garages accessed from internal private drives, front door access along landscaped paseos, undulating building massing, varied roof pitches and directions, useable private rear yards, courtyards and balconies and a connected network of internal pedestrian walkways. A tree planting program will provide for an enhanced pedestrian experience throughout the residential neighborhoods. A roundabout planned at the intersection of Streets “A” and “B” creates a gateway into the community, with enhanced landscaping features in the center.

The Community Purpose Facility (CPF) site is located in the heart of the community and will create an activity center for the residents.

Neighborhoods are conveniently connected along a network of pedestrian walkways. The land plan respects the areas designated as part of the Chula Vista MSCP Subarea Plan Preserve and

limits grading impacts for entry streets based on previously approved alignments and Poggi Creek crossing improvements. Two on-site water quality/hydromodification basins are provided to treat run-off from the Project Area prior to discharging into Poggi Creek. Fuel Modification Zones are planned at the Project perimeter as discussed further in the Sunbow II, Phase 3 Fire Protection Plan. Refer to Exhibit 3: Sunbow II, Phase 3 Land Use Plan.

The Project also includes areas designated MSCP Preserve Open Space in the Chula Vista MSCP Subarea Plan. The Project includes a proposal for an MSCP Boundary Adjustment which would modify the limits of development within Sunbow II, Phase 3 and the adjacent open space and preserved open space, resulting in an increase of 0.09 acres of MSCP Preserve Open Space within the Project Area.

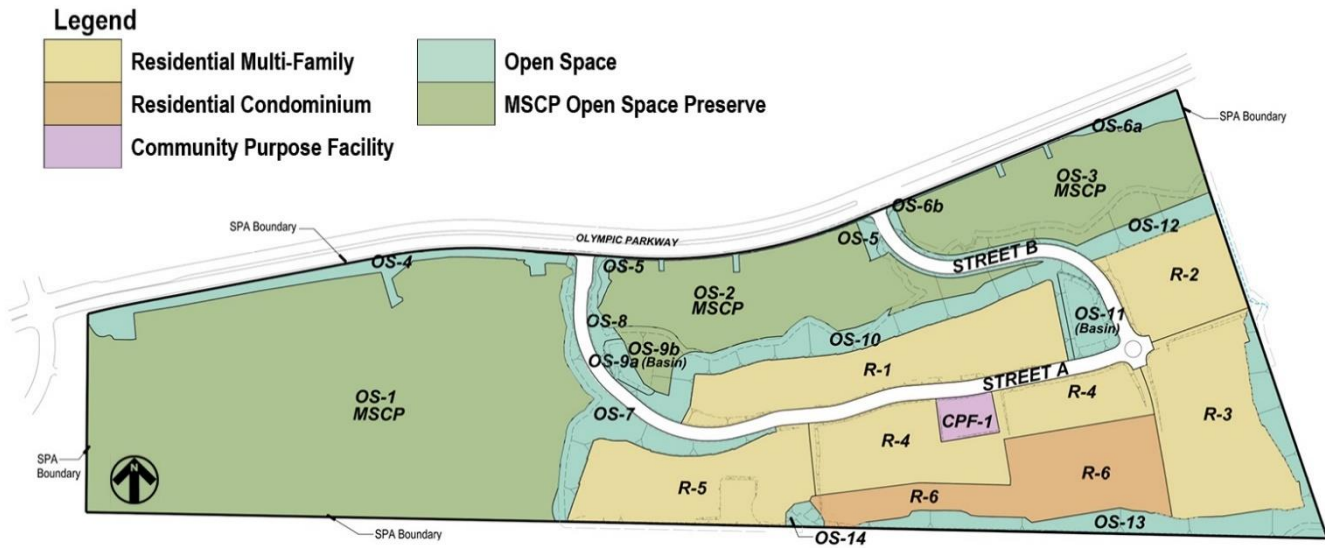


Exhibit 3: Sunbow II, Phase 3 Land Use Plan

10.7 Site Utilization Plan³

The Sunbow II, Phase 3 Site Utilization Plan (Exhibit 4) and the Sunbow II, Phase 3 Site Utilization Table (Table 1) establish the land uses, dwelling unit allocation and density within the Project. Refer to Section 14.0 Planned District Regulations for the land use definitions implemented within Sunbow II, Phase 3.

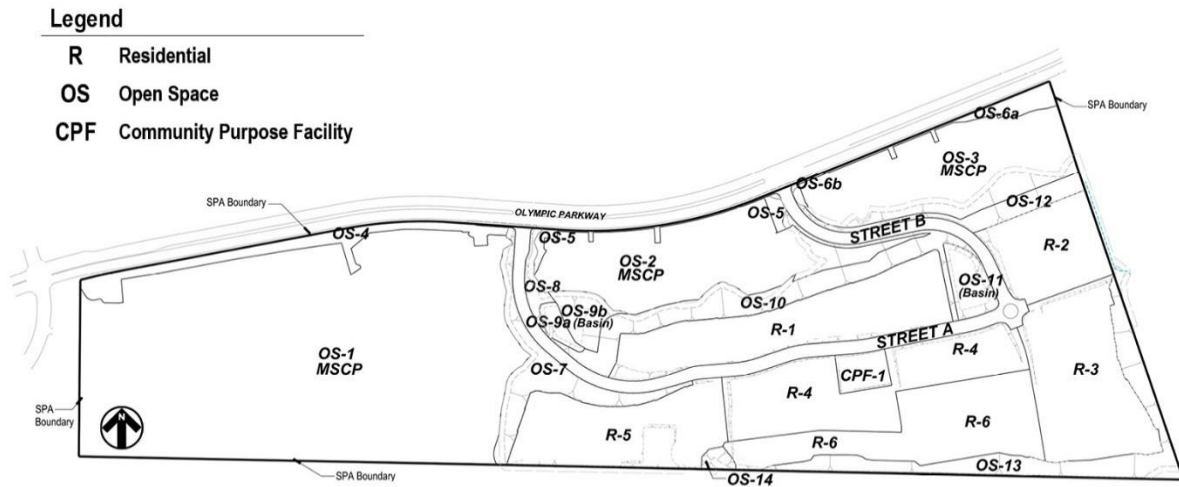


Exhibit 4: Sunbow II, Phase 3 Site Utilization Plan

³ Chapter 10.7 Sunbow II, Phase 3 Site Utilization Plan applies to the Sunbow II, Phase 3 SPA Plan Amendment area only. The 1990 Sunbow II SPA Plan Site Utilization shall remain in effect for all other areas.

Table 1: Sunbow II, Phase 3 Site Utilization Table⁴

Sunbow II, Phase 3	Land Use District	Acres ⁵	Units	Density
Multi-Family Residential				
R-1	RM	8.5	131	15.4
R-2	RM	4.6	73	16.0
R-3	RM	8.1	108	13.3
R-4	RM	8.2	118	14.4
R-5	RM	7.1	104	14.7
R-6	RC	7.6	184	24.1
Subtotal Residential		44.2	718	16.3
Other				
Community Purpose Facility	CPF	0.9		
MSCP Preserve Open Space (OS-1, 2, 3 and 9b)	OSP	63.6		
Poggi Creek Conservation Easement (OS-4, 5, 6a and 6b)	OS	4.3		
Manufactured Slopes/Basins (OS-7, 8, 9a, 10 and 13)	OS	16.5		
Conserved Wetland Resource Area (OS-14)	OS	0.3		
Public Streets	Circulation	5.9		
Subtotal Other		91.5		
TOTAL		135.7	718	16.3

10.8 Mapping Refinements and Unit Transfers

The SPA Plan provides guidance for development at the subdivision and improvement levels and is the basic reference for determining permitted land uses, densities, total units and required public facilities. The SPA Plan does not intend to be used in a manner that predetermines the development solution for each and every parcel. It is intended to reflect the City's intent for determining the intensity, design and desired character of use for the Project Area. The development parcels and internal circulation indicated on the Site Utilization Plan are conceptual. Minor modifications to these configurations may occur as part of the tentative map and final map approval process. Modifications to the SPA Plan exhibits and text, to reflect adjustments based on an approved tentative or final map, may be accomplished without a formal SPA Amendment, through the

⁴ Table 1: Sunbow II, Phase 3 Site Utilization Table presents the land uses within the Sunbow II, Phase 3 SPA Plan Amendment area. The 1990 Sunbow II SPA Plan Site Utilization Plan remains in effect for all other areas within Sunbow.

⁵ Acreages rounded to nearest 1/10th acre and may vary slightly from the calculated total.

substantial conformance procedure established in Planned Community (PC) District Regulations found in Section 14.0 of this SPA Plan Amendment.

Further, the SPA Plan is not a guarantee that a certain dwelling unit yield will be achieved on each parcel; however, the maximum density specified in the land use district designation for each parcel shall not be exceeded. Final dwelling unit yield shall be determined by field conditions, site plan and architectural review and a number of external factors that influence the design and density of individual projects.

Dwelling unit transfers from one parcel to another may be permitted so long as the total dwelling units authorized (718 DUs) in Sunbow II, Phase 3 is not exceeded and the transfer and receiving parcels remain consistent with the Residential Land Use District applied to each parcel on the Sunbow II, Phase 3 Land Use District Map. Said transfer shall be subject to approval of the Development Services Director.

10.9 Circulation

Vehicular access to the Project would be provided from existing Olympic Parkway. Two points of access were planned in the 1990 Sunbow II SPA Plan and two crossings of Poggi Creek were constructed with Poggi Creek and Olympic Parkway improvements. Internal circulation is planned along two Modified Class III Collector Streets and a series of Private Neighborhood Collectors, Streets and Drives. Private street locations to be determined during the Design Review Process.

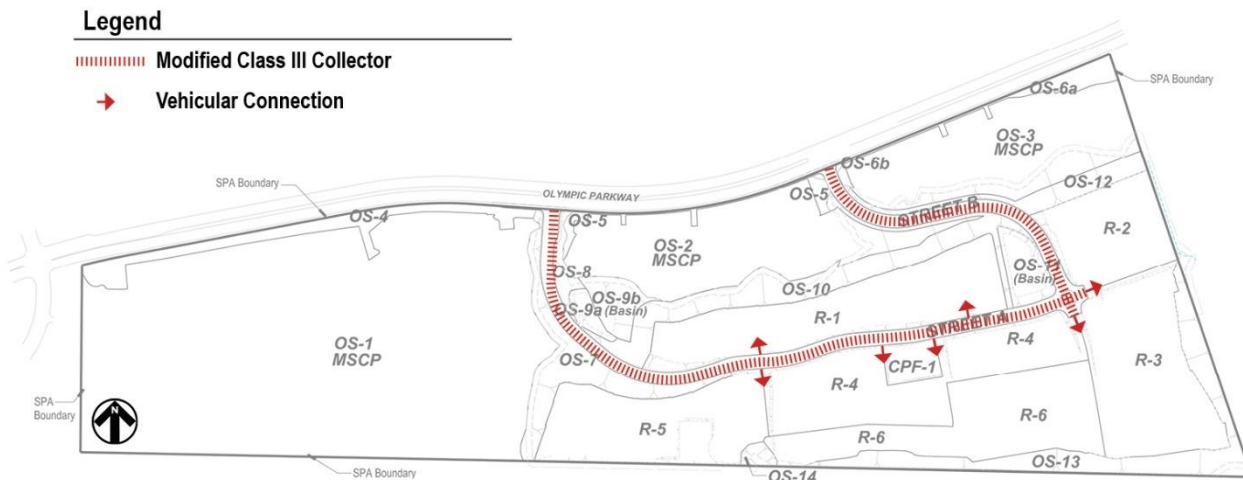


Exhibit 5: On-Site Circulation Plan

Design Review, pedestrian connections from the end of the Private Drives to walkways within individual neighborhoods to be provided where feasible.

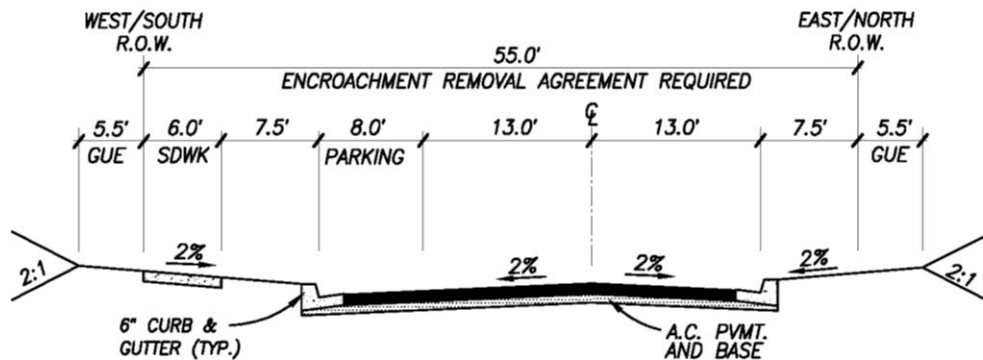


Exhibit 7a: Modified Class III Collector – 55' ROW (Public)

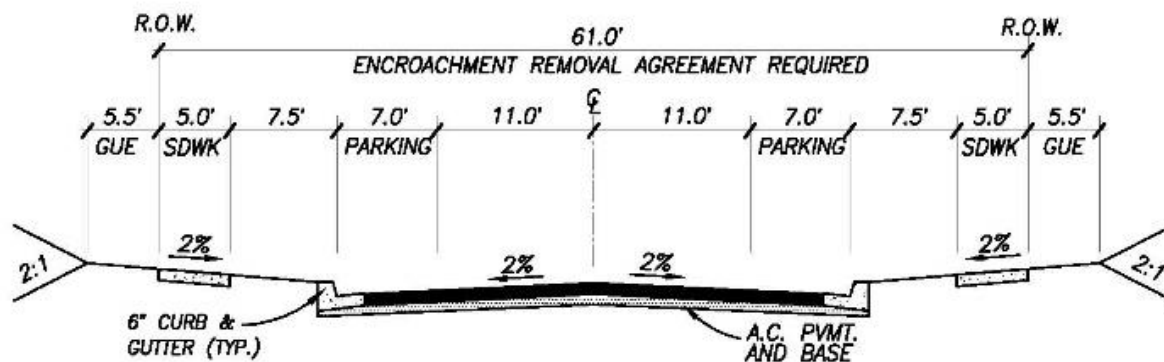
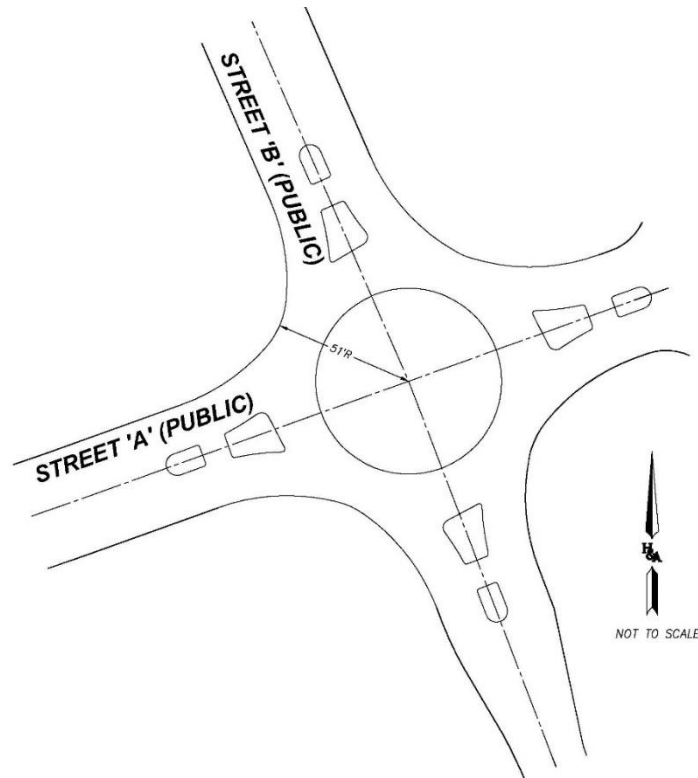


Exhibit 7b: Modified Class III Collector - 61' ROW (Public)

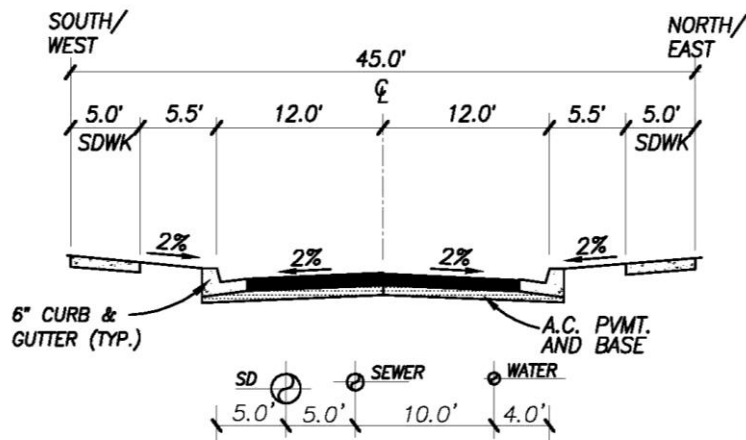
Roundabout:

A roundabout is planned at the intersection of Streets "A" and "B." The roundabout is designed to identify the main entrance into the community as well as provide traffic calming. The center of the roundabout may include low landscaping and enhanced paving. Refer to Exhibit 7c: Conceptual Roundabout Detail.

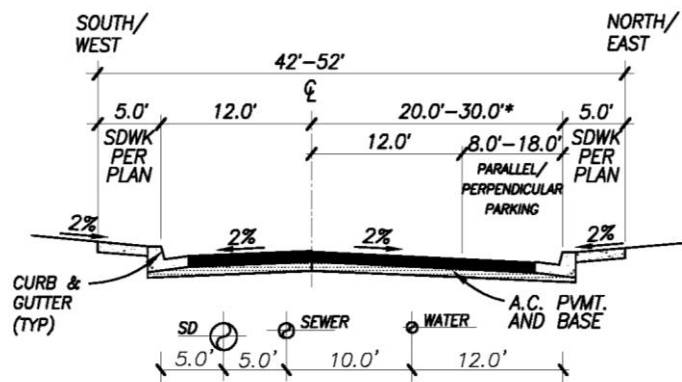
**Exhibit 7c: Conceptual Roundabout Detail**

Private Streets:

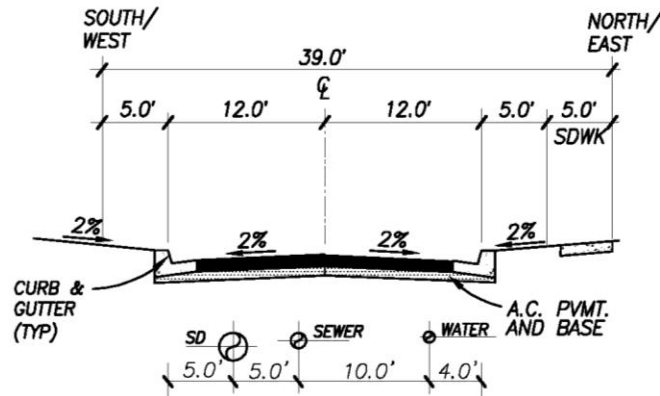
Private Neighborhood Collector streets are planned within the residential neighborhoods. The Private Neighborhood Collector is comprised of two 12-foot travel lanes and 5-foot sidewalks and 5.5-foot landscaped parkways on both sides. Refer to Exhibit 8: Private Neighborhood Collector.

**Exhibit 8: Private Neighborhood Collector**

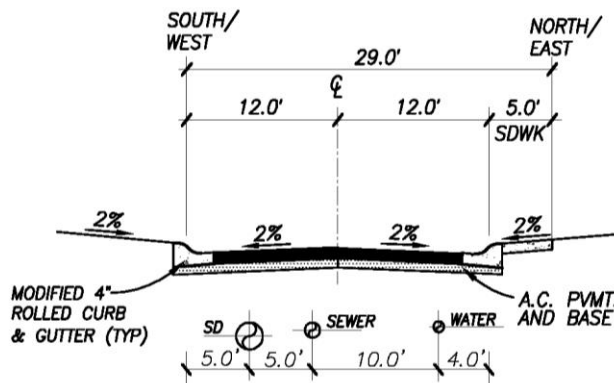
Private Residential Streets with parking are planned in the residential neighborhoods and include two 12-foot travel lanes, 8-foot parallel or 18-foot perpendicular parking lane and a contiguous sidewalk on one side and a 5-foot landscaped parkway on the opposite side. Refer to Exhibit 9: Private Residential Street w/Parking.

**Exhibit 9: Private Residential Street w/Parking**

Private Residential Drives are planned throughout the residential neighborhoods. Improvements include two 12-foot travel lanes and may include a 5-foot sidewalk and a 5-foot landscaped parkway, a 5-foot contiguous sidewalk or be limited to two 12-foot travel lanes with either curb and gutter or rolled curbs. Parking is prohibited on all Private Residential Drives. During preparation of Site Plans for Design Review, pedestrian connections from the end of the Private Drives to walkways within individual neighborhoods to be provided where feasible. Refer to Exhibit 10: Private Residential Drives.

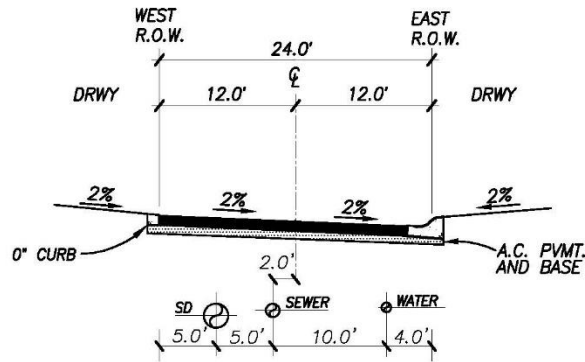


Private Drive with Landscaped Parkways and Sidewalk



Private Drive with Contiguous Sidewalk

Exhibit 10: Private Residential Drives



Private Drive with 0" Rolled Curb

Exhibit 10: Private Residential Drives (Cont'd)

10.9.2. Pedestrian and Bicycle Circulation

The Project provides a pedestrian connection to the existing Chula Vista Regional Trail along both Streets "A" and "B." Internal pedestrian circulation is provided via a network of sidewalks and paseo connections between neighborhoods and the public streets.

Bicycles would share the roadway with vehicles along Streets "A" and "B," providing direct connections to the existing Class 2 bike lanes on Olympic Parkway and the MTS transit stop located at Olympic Parkway and Brandywine Avenue. Refer to Exhibit 11: Pedestrian and Bicycle Circulation Plan.

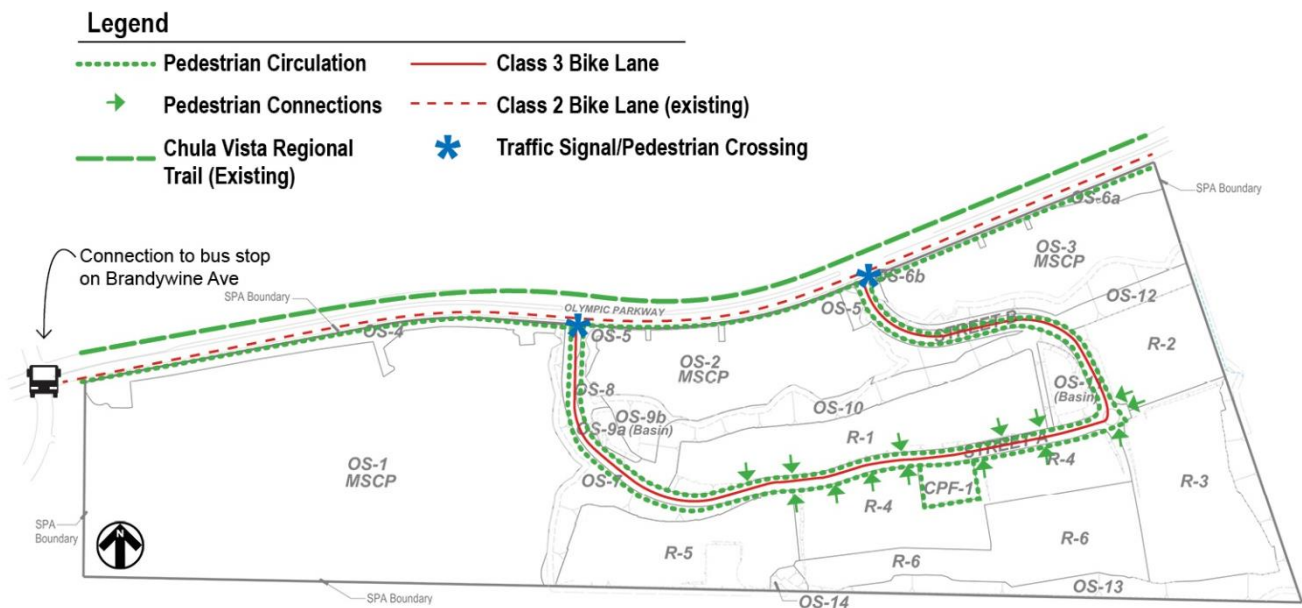


Exhibit 11: Pedestrian and Bicycle Circulation Plan

10.10 Grading

The Chula Vista General Plan, Land Use and Transportation Element, states that mesas, hilltops and gently rolling topography offer the best conditions for development. As anticipated in the 1990 Sunbow II SPA Plan, the southeastern portion of the Project Area is suitable for development, while the northern and western areas are preserved as part of the Chula Vista MSCP Subarea Plan Preserve.

A geotechnical investigation was prepared for the Project that determined that the site as being suitable for development. The proposed raw grading quantities for Sunbow II, Phase 3 are approximately 1.2 million cubic yards of balanced cut and fill material. Refer to Exhibit 12: Conceptual Grading Plan

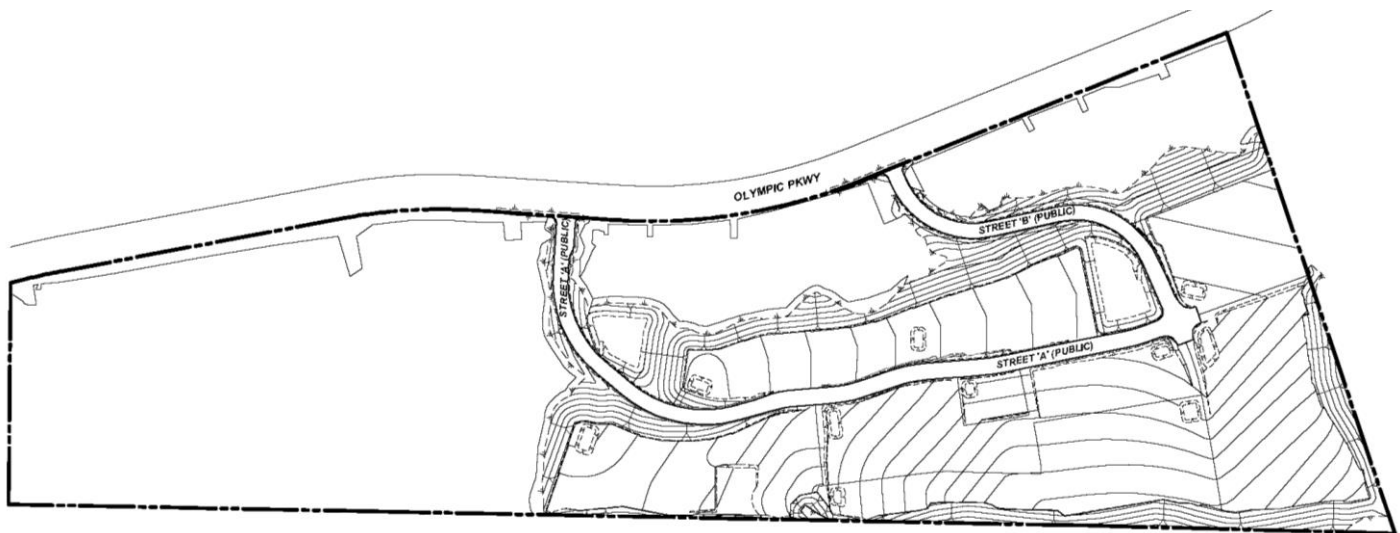


Exhibit 12: Conceptual Grading Plan

11.0 RECREATION AND OPEN SPACE MASTER PLAN

11.1 Regulatory Framework

The provision and implementation of parks and open space in the Project Area is regulated by the following:

Chula Vista Municipal Code – SPA Plans

Section 19.48.090) (P-C Planned Community Zone) of the Chula Vista Municipal Code establishes SPA Plan requires the following information be contained in a SPA site utilization Plan:

- Land Uses
- Parks
- Open Space

Chula Vista Municipal Code – Park Lands and Public Facilities

Chapter 17.10 (Park Lands and Public Facilities) of the Chula Vista Municipal Code establishes the requirements for dedication of land, development of improvements, parkland criteria, in-lieu fees for land dedication and development improvements, commencement of park development and collection and distribution of park fees.

11.2 Park Requirements

The Chula Vista Municipal Code (CVMC) Chapter 17.10. Parklands and Public Facilities, establishes the method by which actual park acreage is to be calculated, based on the number and type of residential units determined at the Final Map level. The City's 2016 Park Acquisition and Development Fee (PAD Fee) Update determined that each multi-family unit generates the need for 341 square feet of development parkland. The 718 multi-family units authorized within Sunbow II, Phase 3 generates a parkland obligation of 5.6 acres.

Table 2: Sunbow II, Phase 3 Estimated Required Park Land Dedication

Unit Type	Units	Park SF/Unit	Total Park SF	Total Park Acres
Multi-Family	718	341	244,838	5.6

The Community Benefit Agreement between the City and the Applicant includes a provision for payment of a Park Benefit Fee, equal to the PAD fees that would otherwise have been due pursuant to Chula Vista Municipal Code (CVMC) Chapter 17.10, of approximately \$11.03 million based on 2019 PAD fees which may be revised by the City from time to time. The final Park Benefit Fee amount will be determined based on the number of residential units constructed and the PAD fee rates in effect as of the date of payment after building permit issuance). To create this Park Benefit Fee, the City will waive the parkland dedication and development requirements set forth in CVMC Chapter 17.10 (including the Parkland Acquisition and Public Facilities Development

Fees/Quimby Fees). The Park Benefit Fee will satisfy the Project's park obligations. The Park Benefit Fees may be utilized by the City to acquire or develop parkland, as the City determines appropriate and in the best interest of the City.

12.0 COMMUNITY PURPOSE FACILITY (CPF) MASTER PLAN

12.1 Regulatory Framework

The City of Chula Vista Municipal Code, Chapter 19.48 (P-C Planned Community Zone) requires 1.39 acres of Community Purpose Facility land per 1,000 persons be provided. Pursuant to the Code, CPF means "a land use designation in a planned community intended for non-profit and certain for-profit land uses..."

The following uses are permitted within the CPF Land Use District, and may be subject to approval of a conditional use permit:

- Boy Scouts, Girl Scouts, and other similar organizations
- Social and human services activities, such as Alcoholics Anonymous
- Services for the homeless
- Services for military personnel during the holidays
- Senior care and recreation
- Worship, spiritual growth and development and teaching of traditional family values
- Non-profit or for-profit day care facilities that are ancillary to any of the above or as a primary use. For-profit facilities as a primary use are subject to further requirements and additional criteria as outlined in CVMC 19.48, Section F.
- Private schools that are ancillary to any of the other permitted uses
- Interim uses, subject to the finding in CVMC 19.48, Section F.
- Recreational facilities, such as ball fields, for non-profit organizations (including homeowner associations) serving the local community, subject to the requirements outlined in CVMC Section 19.48.040(B)(6) and subject to the findings outlined in CVMC 19.48.025(H), Community Purpose Facilities – Minimum Acreage Required – Permitted Uses

12.2 Community Purpose Facility Requirement

The proposed 718 multi-family units within Sunbow II, Phase 3 generate a population of 2,334 persons (based on 3.25⁷ persons per residential unit), resulting in an obligation to provide approximately 3.2 acres of CPF land.

⁷ Source: California Department of Finance (January 1, 2020).

12.3 Community Purpose Facility Implementation

The SPA Plan includes an approximate 0.9-acre site designated CPF, planned as a private recreation facilities to be owned and managed by the Master Homeowners Association (Refer to Exhibit 23: Conceptual Community Recreation Area). Consistent with CVMC Section 19.48.040(B)(6), the site meets the minimum size and slope requirements, is compatible with the surrounding residential land uses and includes the following required amenities:

- Swimming Pool
- Club House
- Pool House
- One multi-purpose hard court
- Children play area
- Community gathering place
- An outdoor cooking facility
- Level Lawn area

The proposed 0.9-acre CPF site is consistent with CVMC Section 19.48.404(b)(6), in that it does not comprise more than 35 percent of the overall CPF acreage required for the Project Area (3.2 acres x 35% = 1.1 acres), the CPF site meets the minimum one-half acre size requirement and satisfies the minimum development criteria outlined in CVMC 19.48.025(H) as described above.

The Development Agreement between the Applicant and the City includes provisions that address how the Applicant will satisfy the remaining 2.3-acre CPF obligation through an alternative compliance mechanism in which the Applicant pays the City \$1,759,134 in the form of a CPF Benefit Fee. The CPF Benefit Fee collected from the Project may be utilized by the City at its discretion to provide a community serving facility located in the City's western territories.

13.0 Public Facilities

This section provides a brief summary of the public facilities required to serve the Project in compliance with the City's goal that new development provides all necessary infrastructure. The public facilities outlined in this section have been determined based upon projected land uses and their distribution as shown on the Sunbow II, Phase 3 Site Utilization Plan (Exhibit 4). The Project will connect to existing sewer, potable water, and recycled water lines within Olympic Parkway. The Project will be served by the Otay Water District (potable and recycled water) and the City of Chula Vista via the existing Poggi Canyon sewer system.

13.1 Water Service

The *Overview of Water Service for Sunbow II, Phase 3* (Dexter Wilson Engineering, June 2020) was prepared for the Project. Below is a summary of potable water and recycled water services necessary to serve the project. The *Sunbow II, Phase 3 SPA Amendment Water Conservation Plan* (Dexter Wilson Engineering, June 2020) described both mandatory and non-mandatory water conservation measures. Refer to Exhibit 13: Conceptual Water & Recycled Water Plan.

Potable Water:

The Sunbow II, Phase 3 site is within the boundaries of the Otay Water District (OWD) for water service. The OWD relies solely on the San Diego County Water Authority (SDCWA), a member of the Metropolitan Water District (MWD) for potable water. The OWD has existing and planned facilities in the vicinity of the Project and water service can be provided by expanding the existing system. In particular, water service will be provided by the 624 Pressure Zone (624 Zone) within the Central Area System of the OWD. The 624 Zone is fed from SDCWA aqueduct connections that supply the 624 Zone Reservoirs. The OWD has three existing reservoirs in the 624 Zone.

Sunbow II, Phase 3 will receive water service by expanding the existing 624 system by making two domestic service connections and two fire service connections to the existing 624 Zone transmission line in Olympic Parkway. An onsite private loop will be constructed for domestic and fire protection systems. The projected potable water demand for Sunbow II, Phase 3 is approximately 122,060 gallons per day (GPD).

Recycled Water:

Recycled water is proposed to be utilized to irrigate all common landscape areas as well as the on-site open space areas and the CPF site. There is an existing 680 Zone recycled water line in Olympic Parkway adjacent to the Project. An 8" public recycled line is planned within Streets "A" and "B." The projected recycled water demand for Sunbow II, Phase 3 is approximately 24,510 GPD.

Water Conservation:

State and local governments have mandated a number of water conservation measures. Water conservation measures mandated by the State of California through the 2019 California Green Building Code Standards include: showerheads, lavatory faucets, sink faucets, metering faucets in public restrooms, residential water closets, flushometer valves, commercial water closets and urinals.

The Otay Water District and Chula Vista Landscape Manual require the use of recycled water for irrigated open space slopes and common landscaped areas, wherever feasible. The Landscape Manual also requires some drought tolerant plant selection in landscaping and the use of evapotranspiration controllers in common landscaped areas. All landscaping shall comply with the requirements of the Landscape Water Conservation Ordinance (CVMC Section 20.12)

The Chula Vista Water Conservation Plan Guidelines require hot water pipe insulation, pressure reducing valves and water efficient dishwashers for all residential construction. Non-residential measures include hot water pipe insulation, compliance with Division 5.3 of the CalGreen Building Code and pressure reducing valves. In addition to complying with the City's required water conservation measures, the City also requires a developer to select at least one additional outdoor and one additional indoor or outdoor water conservation measure. The water savings associated with water conservation measures are estimated at 17,461 GPD. The combination of recycled water use and water conservation measures would reduce potable water usage by 41,971 GPD, or 28.6 percent.

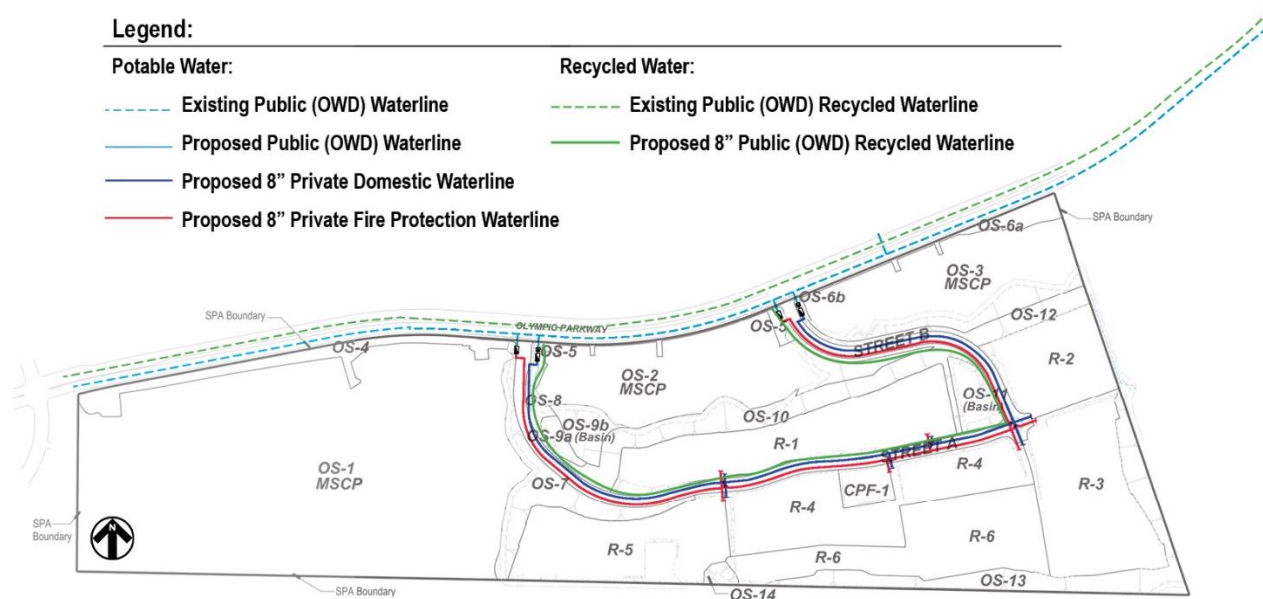
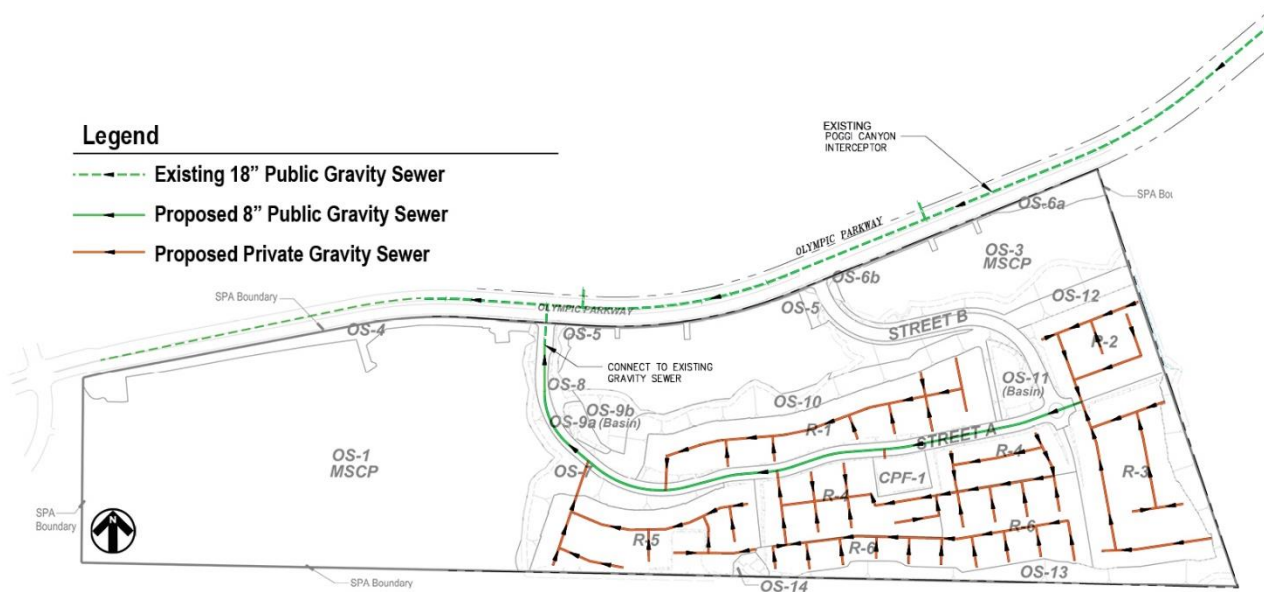


Exhibit 13: Conceptual Water & Recycled Water Plan

13.2 Sewer Service

The *Sewer System Evaluation for Sunbow II, Phase 3* (Dexter Wilson Engineering, Inc., 2/24/2020) evaluated the impact the proposed change in land use from Industrial to Residential would have on the local and regional sewer system. The proposed onsite sewer system planned to serve Sunbow II, Phase 3 consists of gravity sewer lines that will convey flow from Sunbow II, Phase 3 to the existing Poggi Canyon Interceptor in Olympic Parkway. Based on the estimated average flow of 131,858GPD, an 8-inch gravity line is adequate to convey the total projected flow. It is anticipated that an 8-inch public sewer line would be constructed onsite to convey flows to the point of connection in the Poggi Canyon Interceptor. Private sewer lines will be connected to this new 8-inch public sewer line and extended to the proposed building sewer laterals. (Refer to Exhibit 14: Conceptual Sewer Plan.

The available capacity of the Poggi Canyon Interceptor was evaluated in the April 2009 Poggi Canyon Basin Gravity Sewer Development Impact Fee Updated prepared by PMC. Available capacity in the interceptor has been updated several times in recent years as development with the Poggi Canyon Basin has occurred. All previous studies have been based on the adopted Industrial land use for Sunbow II, Phase 3 per the 1990 Sunbow II SPA Plan. Since the project flows from the site based on proposed the proposed land uses (residential) are lower than the industrial land use, no new Poggi Canyon Interceptor improvements are needed to serve the Project.



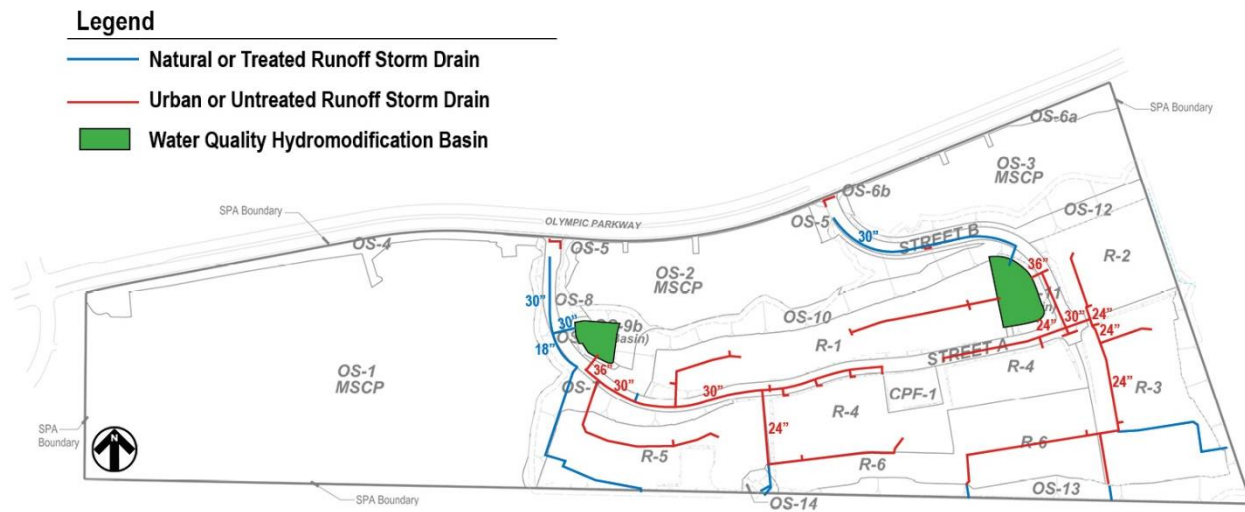
Note: The internal private gravity sewer layout is conceptual. Final layout to be determined during preparation of private utility plans.

Exhibit 14: Conceptual Sewer Plan

13.3 Drainage Facilities

Stormwater will be collected using low impact development (LID) techniques and best management practices (BMP) near the source to ensure that runoff from the Sunbow II, Phase 3 development area is treated for pollutant removal prior to discharging into the natural watershed. All storm water will be treated in compliance with the applicable San Diego Regional Water Quality Control Board requirements.

The drainage system will collect stormwater through a series of swales, catch basins, inlets, and culverts that direct stormwater flows to two onsite basins for purposes of water quality and hydromodification. This system will allow biofiltration, evapotranspiration and filtering of the stormwater to remove microscopic organisms, suspended solids, organic material, nitrogen and phosphorous. Treated stormwater from the basins will drain into Poggi Creek. Most of the offsite flows that drain naturally to the proposed development footprint will be piped directly to Poggi Creek, bypassing the basins and treatment. Refer to Exhibit 15: Conceptual Drainage Plan for storm drain pipe locations and sizes and the location of the two onsite basins.



Note: Pipe sizes are 18" unless noted on Exhibit 15.

Exhibit 15: Conceptual Drainage Plan

14.0 SUNBOW II, PHASE 3 PLANNED COMMUNITY DISTRICT REGULATIONS

14.1 Purpose & Scope

The Planned Community District Regulations apply specifically to Sunbow II, Phase 3⁸ and are intended to:

- Protect and promote the public health, safety, and welfare of the people of the City of Chula Vista.
- Safeguard and enhance the appearance and quality of development in the Sunbow II, Phase 3 SPA Amendment area.
- Provide the social, physical, and economic advantages resulting from comprehensive and orderly planned use of land resources.
- Ensure the Sunbow II, Phase 3 SPA Plan Amendment is prepared and implemented in accordance with the Sunbow GDP.
- Implement the Chula Vista General Plan within Sunbow II, Phase 3.
- Establish conditions which will enable the Sunbow II, Phase 3 to exist in harmony within the larger Sunbow Planned Community.

14.2 Private Agreements

The provisions of this ordinance are not intended to abrogate any easements, covenants, or other existing agreements which are more restrictive than the provisions contained within this ordinance.

14.3 Conflicting Ordinances

Whenever the provisions of this ordinance impose more, or less, restrictive regulations upon construction or use of buildings and structures, or the use of lands/premises than are imposed or required by other ordinances previously adopted, the provisions of this ordinance or regulations promulgated hereunder shall apply to Sunbow II, Phase 3 SPA Plan Amendment area.

14.4 Establishment of Land Use Districts

In order to classify, regulate, restrict, and separate the use of land, buildings and structures, to regulate and limit the type, height and bulk of buildings and structures in the various districts, to establish the areas of yards and other open space areas abutting and between buildings and

⁸ Chapter 10.0 Sunbow II, Phase 3 Planned Community District Regulations apply to Sunbow II, Phase 3 SPA Plan Amendment area only. The Planned Community District Regulations established in the 1990 Sunbow II SPA shall remain in effect for all other areas within Sunbow.

structures, and to regulate the density of population, Sunbow II, Phase 3 is hereby divided into the following Sunbow II, Phase 3 Land Use Districts:

Table 3: Sunbow II, Phase 3 Land Use Districts Definitions

SYMBOL	GENERAL DESCRIPTION
RM	Residential Multi-Family: District which permits housing ranging from 11 to 18 units/acre including triplex, townhouse, row house, and stacked flats product types.
RC	Residential Condominium: District which permits attached housing including row townhomes and stacked flats at densities 18-27 units/acre.
CPF	Community Purpose Facility: District which permits uses established pursuant to the Community Purpose Facilities requirements of the P-C Planned Community Zone.
OSP	Open Space Preserve: District which permits natural, undisturbed and/or restored open space which is part of the Chula Vista MSCP Subarea Plan Preserve.
OS	Open Space: District which permits developed or usable open space, manufactured slopes, fuel modification zones, water quality/hydromodification basins, maintenance easements, wetland resource and associated buffer areas, and may include naturalized open space.

14.5 Adoption of Sunbow II, Phase 3 Land Use Districts Map

Land Use Districts and boundaries are established and adopted as shown, delineated, and designated on the Exhibit 16: Sunbow II, Phase 3 Land Use District Map. This map, together with all notations, references, data, district boundaries and other information thereon, are made a part of the Sunbow II, Phase 3 SPA Plan Amendment and adopted concurrently herewith and only apply to the Sunbow II, Phase 3 SPA Plan Amendment area. The boundaries are intended to align with physical and legal features such as property boundaries, top or toe of slopes, and streets. Refinements to these boundaries are expected during the detail planning and design phases and will not require an amendment providing the refinement does not alter the intent.

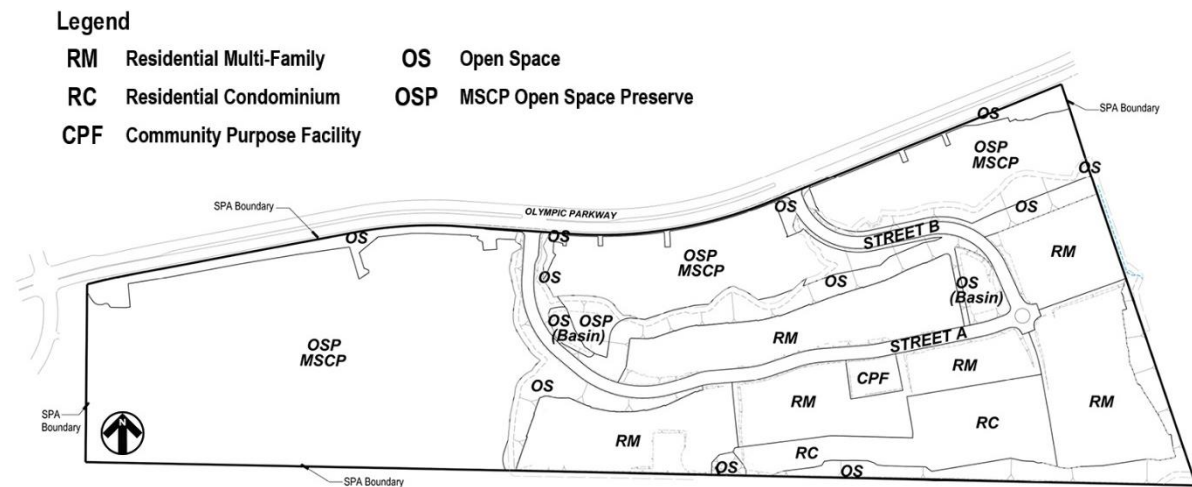


Exhibit 16: Sunbow II, Phase 3 Land Use District Map⁹

14.6 Sunbow II, Phase 3 Residential Land Use Districts¹⁰

14.6.1 Purpose

The purpose of the Residential Land Use Districts is to achieve the following:

- To reserve appropriately located areas for family living at a range of dwelling unit densities consistent with the Sunbow GDP and with sound standards of public health, safety and welfare.
- To ensure adequate light, air, privacy and open space for each dwelling unit.
- To minimize the effects of congestion and to avoid the overloading of public services and utilities by phasing construction of buildings in relation to the surrounding land area and available infrastructure.
- To protect residential properties from noise, illumination, unsightliness, odors, smoke and other objectionable influences.

⁹ Land Use Districts shown on Exhibit 16 apply only to Sunbow II, Phase 3. Land Use Districts established in the 1990 Sunbow II SPA Plan remain in effect for all other areas within Sunbow.

¹⁰ Chapter 14.6 Sunbow II, Phase 3 Residential Land Use Districts apply to Sunbow II, Phase 3 SPA Plan Amendment area only. The Residential Districts established in the 1990 Sunbow II SPA Plan Planned Community District Regulations shall remain in effect for all other areas within Sunbow.

- To facilitate the provision of utility service and other public facilities commensurate with anticipated population, dwelling unit densities and service requirements.

14.6.2 Residential Land Use Districts Intent

Two residential unit types are anticipated within Sunbow II, Phase 3: The Residential Multi-Family (RM) and Residential Condominium (RC) districts. The RM district is intended to accommodate attached multi-family row townhomes and triplex products, in the range of 11 to 18 dwelling units per acre (DUs/AC). The typical multi-family housing product in the RC district is planned to include three-story row townhomes which would be expected at densities in the range of 18 to 27 DUs/AC.

14.6.3 Permitted and Conditional Uses

The matrix of land uses on the following pages indicates the relative permissive status using the following symbols:

- "P" = Permitted.
- "C" = Permitted subject to Conditional Use Permit.
- "A" = Permitted subject to Administrative Approval.
- "N" = Use Not Permitted.

Table 4: Sunbow II, Phase 3 Permitted Use Matrix – Residential Districts

Residential Uses:	RM	RC
Multiple dwellings (3 units and above)	P	P
Townhouse dwellings	P	P
Accessory Dwelling Unit (pursuant to CVMC 19.58.022))	P	P
Accessory Buildings and Structures (pursuant to CVMC 19.58.202	A	A
Community garden	A	A
Family daycare home, large (subject to Section 19.58.147 CVMC – Uses: Family Daycare Homes, Large)	A	A
Public utility and public service sub-stations, reservoirs, pumping plants and similar installations	P	P
Recreation facility less than 2 acres in size	A	A
Private or Common Useable Open Space /Recreation Facility	P	P
Temporary tract offices and tract signs (subject to Temporary Uses Section)	A	A
Unclassified uses (subject to Chapter 19.54 CVMC – Unclassified Uses)	C	C

14.6.4 Residential Property Development Standards

Design Goals, Principles, and Guidelines

The residential property development standards are intended to implement the Sunbow GDP. The intent is to produce a community that encourages and fosters interaction amongst residents. To implement this intent, the land use policies encourage a friendly, well designed environment.

Within multi-family neighborhoods create a “walkable,” inviting environment, within the boundaries of the development.

Pedestrian-oriented features include orienting the front doors toward the streets, plotting the buildings so garages are not visible from the public or commonly used streets; integrating strong, well designed pedestrian connections to the streets, paseos and adjacent trail systems; providing well designed, inviting common usable open space areas and unique, yet compatible, architecture.

General Standards: The following general standards apply to both residential districts.

- Where the Specific Standards listed below are silent on an issue, the Zoning Administrator is authorized to define a standard based on the Chula Vista’s General Plan, Zoning Ordinance, Design Manual and/or Landscape Manual, as may be appropriate.

- Site planning for multi-family neighborhoods adjacent to the Preserve are subject to MSCP adjacency guidelines and Fire Protection Plan.

Specific Standards: The following Property Development Standards shall apply to all land and buildings, other than accessory buildings, permitted in their respective residential land use district. The use of the symbol "DR" indicates that the standard is established through Zoning Administrator (ZA) approval or the Design Review process.

Dimensions and standards are minimums, and minor variations may be permitted subject to Administrative Design Review or tract map approval.

**Table 5:
Sunbow II, Phase 3 Property Development Standards – Residential Districts**

	Land Use Districts		
	RM	RC	Notes
Building Heights			
Maximum Building Height (feet)	35 3-story max	35 3-story max	
Yards & Setbacks			
Between Buildings @ Paseo	DR	DR	
Minimum Side Yard Setback (Feet)			
To adjacent building	5 min	5 min	
To Private Street or Drive	5 min	5 min	
Minimum Rear Yard Setback (Feet)			
To main residence	DR	DR	
To garage off of Private Street or Drive	3 min	3 min	Second story (and above) may project 2 feet into rear yard setback.
Parking Spaces per Unit¹¹			
Garage Spaces/Unit	2	2	Within the RC District: tandem 2-car garages are permitted. 2 assigned spaces are required (1 covered and 1 uncovered space).
Guest Spaces/Unit	0.33	0.33	All required guest spaces permitted on-public streets (Class III Collector) and private streets (Private Residential Street w/Parking)

¹¹ See Section 14.6.6 for parking space dimensions.

14.6.5 Common and Private Useable Open Space Requirements

Residential development proposals within the RM and RC Land Use Districts shall be subject to the following open space requirements.

Private Useable Open Space (PUOS): Within the RM Land Use District, the minimum Private Useable Open Space requirement shall be provided as follows:

- 60 square feet for each 1-bedroom unit
- 80 square feet for each 2-bedroom unit
- 120 square feet for each 3-bedroom unit
- 20 additional square feet for each additional bedroom over 3

Within the RC Land Use District, each multi-family unit shall include a minimum of 60 square feet of Private Useable Open Space.

PUOS areas are intended to provide private outdoor space for individual multi-family units and must meet the following requirements:

- Porches and balconies with minimum dimension of 6 feet and a minimum area of 60 square feet.
- Private fenced yards with no dimension less than 10 feet (side yard, rear yard or front courtyard locations permitted)
- Area is generally level (<5% grade)
- Landscaped front yards
- Yard areas with minimum dimensions less than 6 feet, driveways and pedestrian paths do not qualify.

Common Useable Open Space (CUOS): Common Useable Open Space is intended to be used by multiple homeowners/residents within a community and shall be provided as follows:

- A minimum of 300 square feet per unit within the RM Land Use District
- A minimum of 200 square feet per unit within the RC Land Use District

Common Useable Open Space areas are amenities to available to the entire community. Required CUOS may be combined into conveniently located open space areas and shall meet the following criteria:

- Consist of large meaningful areas that are not fragmented by unrelated uses or improvements
- Developed with recreational uses, including both passive (landscaping) and active amenities (tot lots, picnic areas, etc.)
- No dimension less than 10 feet
- Area is generally level (<5% grade)

14.6.6 Parking Space Requirements

Parking shall meet the following minimum standards:

- Standard spaces:
 - Covered in a garage or carport – 10' x 20' each space
 - Uncovered – 9' x 19' each space
- Wherever a 2-foot overhang occurs, a minimum 48" pedestrian walkway shall be maintained with minimal impacts to adjacent planting areas.
- Wherever adjacent to a landscaped planter area, a minimum 18" concrete or hardscape step out area along the length of the driver and passenger side of the vehicle shall be provided.

14.6.7 Residential Design Review

Development proposals within the RM and RC Land Use Districts shall be subject to the City of Chula Vista Design Review Process as set forth in the CVMC Section 19.14.581 through 19.14.600, except that the Zoning Administrator shall have the authority for review and approval of any application/parcel with 200 or fewer multi-family residential units, but shall have, at his sole discretion, the right to refer such Design Review application to the Planning Commission for their action. In lieu of Development Services staff review, the Zoning Administrator shall have the authority to retain an on-call design professional to assist in the review, at the expense of the Applicant, if he elects to review and approve an application.

14.7 Sunbow II, Phase 3 Community Purpose Facility Land Use District

The Community Purpose Facility (CPF) Land Use District is intended to comply with and shall be developed pursuant to CVMC Section 19.48.025. All proposed uses shall be consistent with CVMC Section 19.48.025 C. and shall be subject to Zoning Administrator Design Review approval. Property development standards for CPF sites shall be determined during the design review process.

14.8 Sunbow II, Phase 3 Open Space Land Use Districts¹²

14.8.1 Purpose and Intent

The two Sunbow II, Phase 3 Open Space Land Use Districts are intended for developed and natural open space areas and landscaping. Only those additional uses which are complementary to and can exist in harmony with open space and recreation uses are permitted. There are no lot size limitations within the Open Space Land Use Districts, and it is intended that these districts may be

¹² Chapter 14.8 Sunbow II, Phase Open Space Zoning Districts apply to the Sunbow II, Phase 3 SPA Plan Amendment area only. Open Space Districts established in the 1990 Sunbow II SPA Plan Planned Community District Regulations shall remain in effect for all other areas within Sunbow.

applied to a portion of a lot, provided the remainder of the lot meets the requirements for the land use district which it is designated.

Open Space Land Use Districts are included in the Planned Community District Regulations to achieve the following purposes:

- Provide focal points for community and neighborhood gathering activities
- Provide for necessary water quality features
- Preserve, enhance, and restore natural resources
- Preserve vistas and conserve viewpoint areas
- Establish edges to help define communities and neighborhoods
- Provide for fuel modification zones and buffers from adjacent land uses

Two Open Space Districts are planned within Sunbow II, Phase 3: Open Space One (OS) and Open Space Two (OSP). The OS District is intended to accommodate manufactured slopes, water quality/hydromodification basins, utilities, maintenance areas, fuel modification zones and wetland resources and buffer area. The OSP District includes both natural and restored open space areas as part of the Chula Vista MSCP Subarea Plan Preserve. Any proposed use within the OSP is subject to Chula Vista MSCP Subarea Plan requirements.

14.8.2 Permitted & Conditional Uses

The matrix of land uses below indicates the relative permissive status using the following symbols:

“P”	=	Permitted
“C”	=	Permitted subject to Conditional Use Permit
“A”	=	Permitted subject to Administrative approval
“N”	=	Use Not Permitted

**Table 6:
Sunbow II, Phase 3 Permitted Use Matrix - Open Space Land Use Districts**

	LAND USE DISTRICT	
	OS	OSP
All types of horticulture	A	N
Arboreta - horticultural garden	A	N
Bicycle and Pedestrian Trails and Associated Signage	P	A
Community gardens	A	N
Water Quality Basins and associated stormwater treatment facilities	P	P*
Slope Restoration	P	P*
Wetland resource and buffer area	P	P

*Planned and Future Facilities and Slope restoration areas permitted subject to Chula Vista MSCP Subarea Plan site and adjacency requirements.

14.8.3 Development Standards

Site Planning: All development proposals in the Open Space Land Use Districts shall be subject to the following:

- Development proposals shall be reviewed on a case-by-case basis to determine appropriate buffering and setbacks.
- All permanent signs, including any required signs (such as monument signage, etc.), shall be identified at the Design Review stage.

Landscaping:

- All landscaping shall meet the requirements of the City of Chula Vista Landscape Manual and the Chula Vista Landscape Water Conservation Ordinance (CVMC 20.12) and the approved Sunbow II, Phase 3 Landscape Master Plan.

15.0 RESIDENTIAL DESIGN GUIDELINES¹³

The following guidelines are provided for architecture, site planning and building plotting, pedestrian connectivity, and landscape, with a focus on creating a well-designed, high quality residential community.

15.1 Architecture

Sunbow II, Phase 3 is a residential enclave featuring contemporary architectural styles. The community is planned to include four unique multi-family attached product types with 15 distinct floor plans. Architecture will include a variety of distinct and unique combinations of elevations and colors. With a strong focus on creating an interesting and varied street scene, garages are accessed off private driveways, while front doors and balconies face streets and communal open space area. Architecture guidelines include:

- Provide variation in architectural style and elements.
- Undulate building massing and roof planes.
- Incorporate vertical and horizontal stepped massing.
- Visually minimize garage doors.
- Design entry features to emphasize front doors.

¹³ Chapter 15.0 Residential Design Guidelines apply to the Sunbow II, Phase 3 SPA Plan Amendment area only. Residential Design Criteria established in the 1990 Sunbow II SPA Plan remain in effect for all other areas within Sunbow.

- Articulate facades visible from public view areas (open space/public streets) to avoid monotony with elements such as wall off-sets, balconies and windows appropriate to the architectural style.
- Incorporate a range of scale-defining elements that relate larger building masses to the pedestrian scale. Elements may include trellises, columns, archways, doorways, patios and upper floor balconies and windows.

The following conceptual architectural renderings are provided for context. The final architectural design shall be determined at Design Review.



Product A (R-6)



Product B (R-1 and R-5)

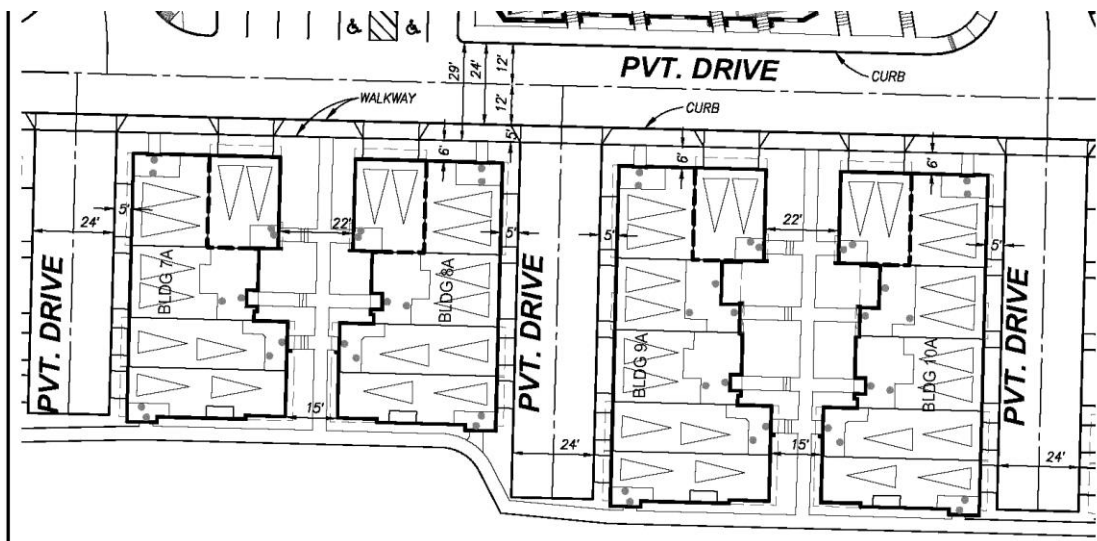


Product C (R-2 and R-4)



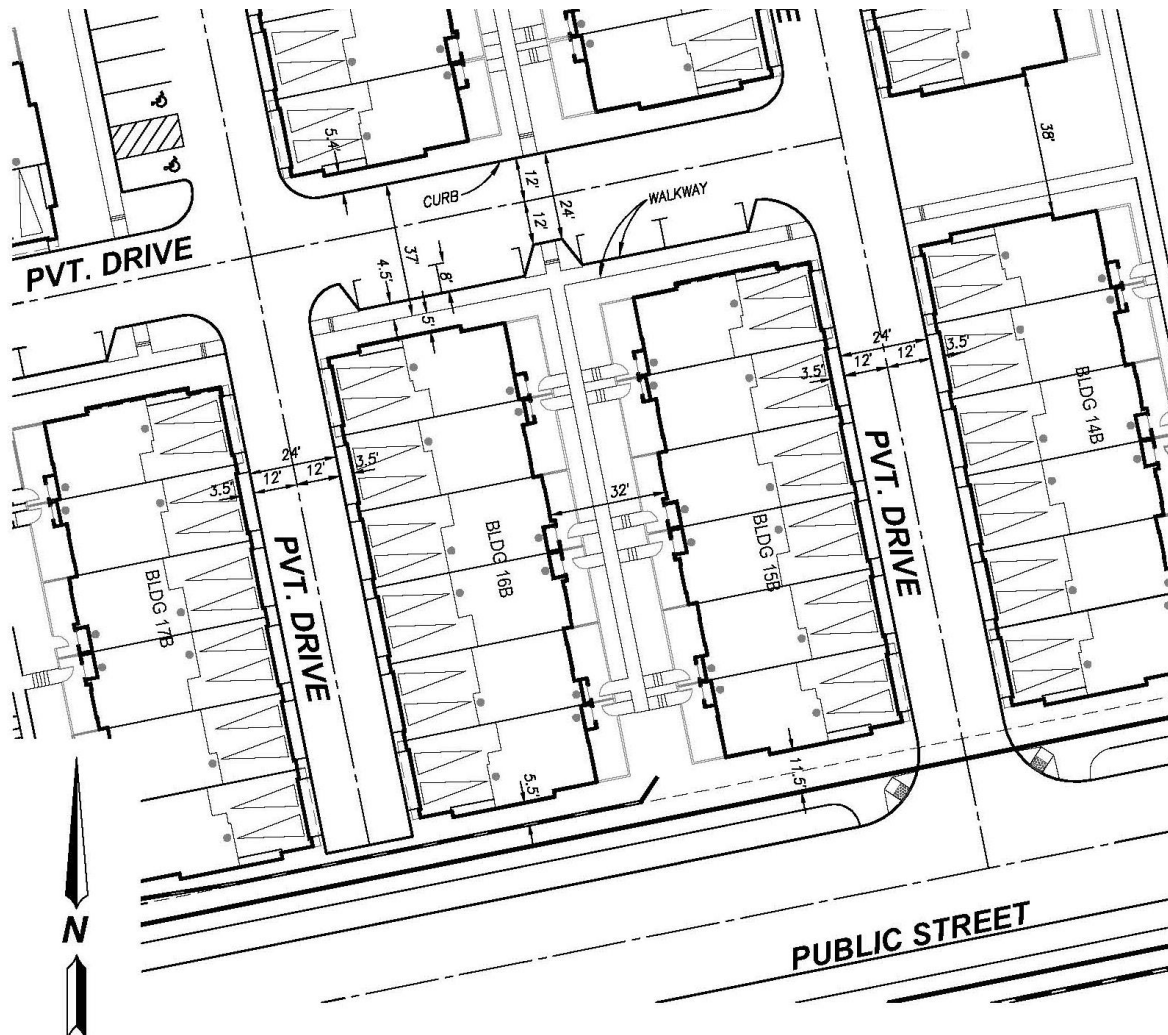
The site planning and plotting of multi-family buildings will focus on creating a cohesive community with green spaces, variety along public street frontages and strong pedestrian connectivity. Site planning and building plotting guidelines include:

- The following conceptual site plans are intended to provide guidance for the future Design Review of individual parcels within the RM and RC Districts. (Refer to Exhibits 17-20: Conceptual Site Plans). The final site plans to be prepared during the Design Review phase of the project.



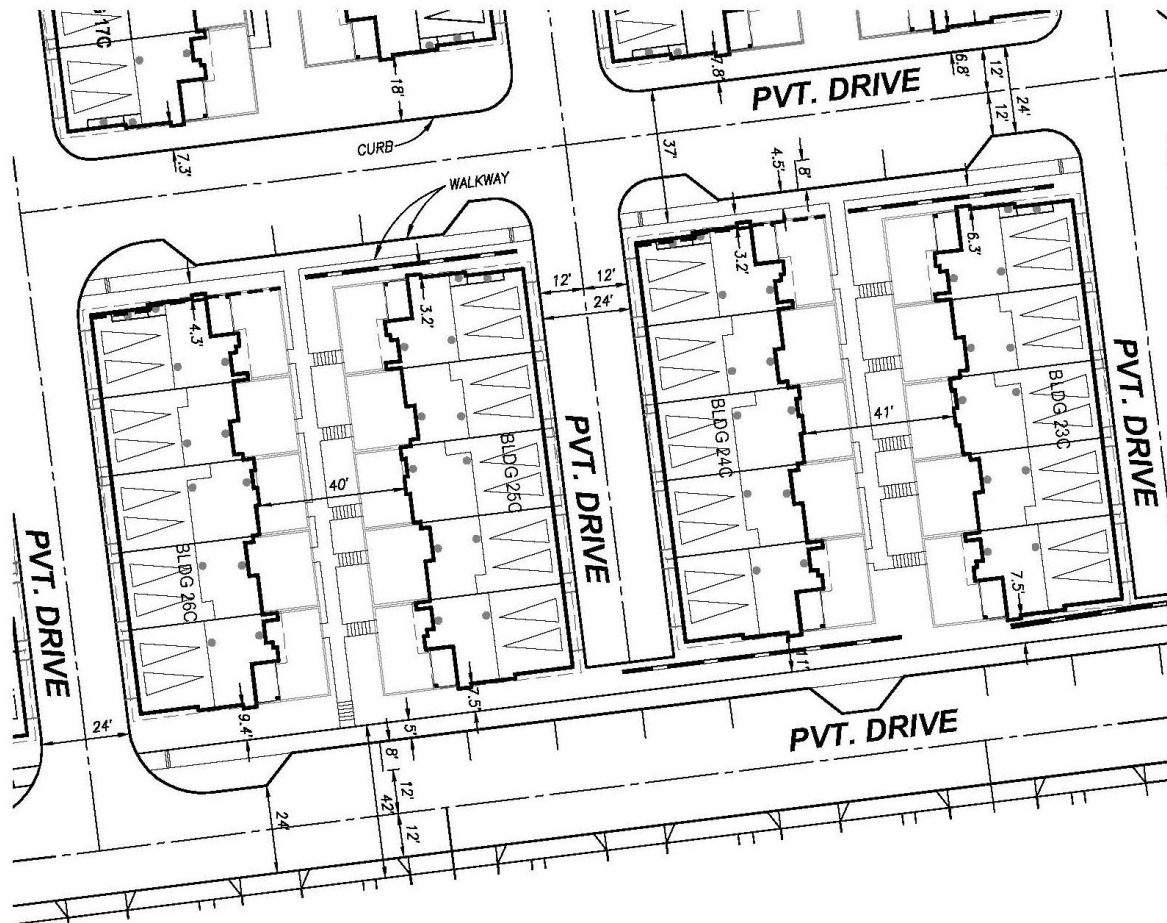
Product A (R-6): 3-Story Townhomes with a communal inner court, connecting walkways and open space

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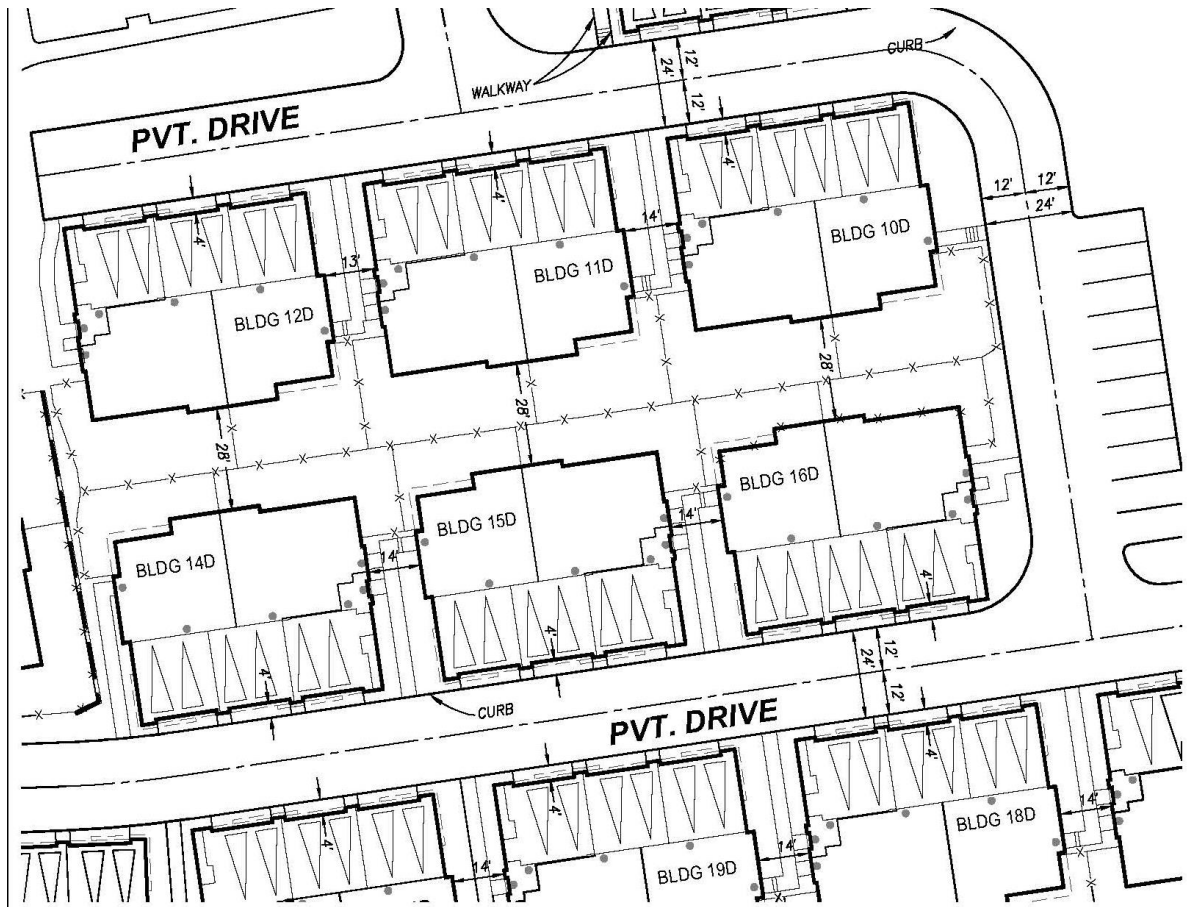
Product B (R-1 and R-5): 2-story townhomes private entrances and patios

Exhibit 19: Conceptual 2-Story Row Townhomes (RM Residential Land Use District)



Product C (R-2 and R-4): 3-story row townhomes with private front courtyards and private balconies

Exhibit 20: Conceptual 3-Story Row Townhomes (RM Residential Land Use District)



Product D (R-3): Attached 2-story homes in a triplex design with balconies and private rear yards

Exhibit 21: Conceptual -Story Triplex Homes (RM Residential Land Use District)

16.0 Landscape Design Guidelines¹⁴

The design for Sunbow II, Phase 3 is influenced by its location adjacent to large natural open space areas and Poggi Creek as well as proximity to future development within the adjacent Otay Ranch. The Community is surrounded by large, landscaped slope areas which provide a buffer between development and adjacent Preserve areas and provide fuel modification zones. The centrally located CPF site (Community Recreation Area) is planned to provide an activity center for the community. Additional passive and active recreation open space areas are distributed throughout the community to provide recreational opportunities within walking distance of most homes. Refer to Exhibit 22: Conceptual Illustrative Plan.



Note: The site plan and building placement shown on the Conceptual Illustrative Plan is conceptual. Final design to be determined during Design Review.

Exhibit 22: Conceptual Illustrative Plan

¹⁴ Chapter 16.0 Landscape Design Guidelines apply to the Sunbow II, Phase 3 SPA Plan Amendment area only. The 1990 Sunbow II SPA Plan Landscape Master Plan remains in effect for all other areas within Sunbow.

16.1 Landscape Concept

The landscape design compliments the contemporary architectural styling of the community while providing a series of open space amenities to serve the recreational needs of the residents. The landscape evolves from a naturalized aesthetic at the project edges to a drought tolerant gardenesque styling in the community's central streetscape and green spaces. Pedestrian pathways connect a series of passive and active recreational spaces provided to serve the residents. Active recreation areas will include the community recreation area (refer to Exhibit 23: Community Recreation Area) and may include children play areas, bocce ball court, a fenced dog run, and open turf areas. Passive use areas may include shaded picnic areas and moveable seating areas. Refer to Exhibit 22: Conceptual Illustrative Plan for the conceptual locations of passive and active recreation areas. The recreational facility locations and program to be finalized during the Design Review process.

The landscape transitions to a naturalized palette at the project perimeter to blend with the existing native character of the existing slopes and MSCP Preserve area located along the northern edge of the site and to the west. The plant palette is composed of durable and low water use/drought tolerant plants which are easily maintained. (See Appendix A: Landscape Palette) It includes a diverse range of textural and flowering species to provide seasonal interest with both foliage and colorful flowering accents. Trees, shrubs, and vines are proposed to soften architectural facades and site walls. Trees will also be used to create shade and scale throughout the community, including at the various amenity spaces and pedestrian circulation paths. Additional species are included in the fuel modification and biological restoration areas to promote fire safety while supporting the local native plant ecologies of the adjacent MSCP Preserve area.

The Landscape Design Guidelines include:

- Landscape to be comprised of trees, shrubs, vines, and groundcover and to be utilized throughout the community to create a cohesive landscape design.
- Tree planting shall be varied to provide interest in the landscape.
- The side and rear/front of building to be landscaped to soften the architecture and provide privacy for residential units.
- Landscape design shall be simple, bold, and easy to maintain
- The landscape palette to incorporate many drought-tolerant non-toxic plant materials
- Landscape elements on multi-family parcels to be visible from public streets and should blend with and appear to be an extension of the public right-of-way landscaping
- All permanently landscaped areas to be irrigated with permanent underground irrigation.
- Transformer and cable box locations are to be carefully planned and coordinated with both the utility company and landscape architect and should be located to be unobtrusive and screened from view with plantings where possible.
- Mailboxes and mailbox structures to be designed to complement the architectural style of the community.
- Landscaping shall be designed to comply with the City's Landscape Water Conservation Ordinance and Shade Tree Policy No. 576-19.
- A Landscape Master Plan shall be prepared by the developer for Sunbow II, Phase 3 and submitted to the City for approval.

Community Recreation Area:

The site designated Community Purpose Facility on the Sunbow II, Phase 3 Site Utilization Plan is planned as a Community Recreation Area. This 0.9-acre area is planned to accommodate a swimming pool, spa and associated pool uses, club house, a fire pit, a shaded BBQ area, children's play area, multi-use hard court area and level turf area. The Recreation Area would be private, owned and maintained by the Master Homeowner's Association. (Refer to Exhibit 23: Conceptual Community Recreation Area)

**LEGEND**

- | | |
|--|--|
| ① CHAISE LOUNGE CHAIRS, TYP. | ⑨ MULTI-USE HARDCOURT (VOLLEYBALL, PICKLEBALL, AND 1/2 COURT BASKETBALL) |
| ② ACCENT TREE, TYP. | ⑩ PALM TREE, TYP. |
| ③ SHADE TREE, TYP. | ⑪ POOL |
| ④ CABANAS, TYP. | ⑫ SPA |
| ⑤ SHADED GATHERING AREA WITH FIRE PIT AND LOUNGE SEATING | ⑬ CHILDREN'S PLAYGROUND (2-5 YRS) |
| ⑥ SHADED PICNIC AREA WITH TABLES & BBQ'S | ⑭ CHILDREN'S PLAYGROUND (5-12 YRS) |
| ⑦ CLUB HOUSE | ⑮ POOL ENCLOSURE FENCE |
| ⑧ TURF | |

Conceptual Design provided for illustrative purposes only –The final design shall meet the requirements of CVMC Section 19.48.025 as a qualified CPF private recreation use.

Exhibit 23: Conceptual Community Recreation Area (CPF)

The relationship between land uses, improvements and the natural MSCP open space areas strongly influenced the landscape design concept for Sunbow II, Phase 3. A series of cross sections depict unique certain conditions across the project site and the landscape concept for each. (Refer to Exhibit 24: Site Conditions Key Map).

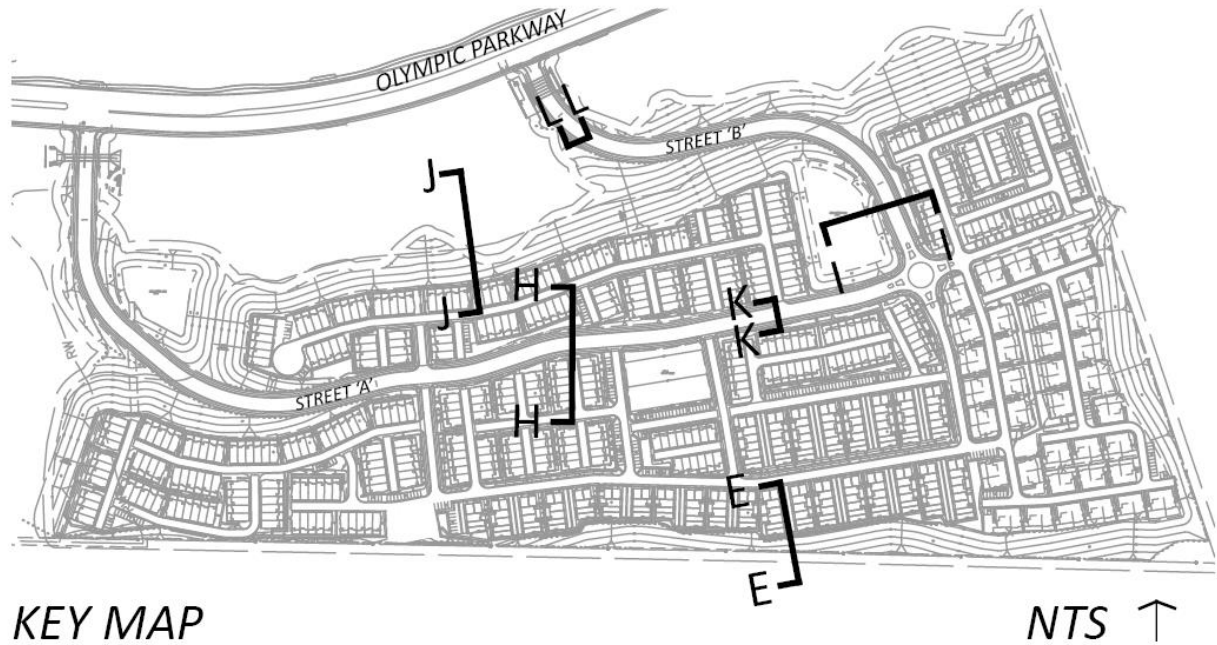
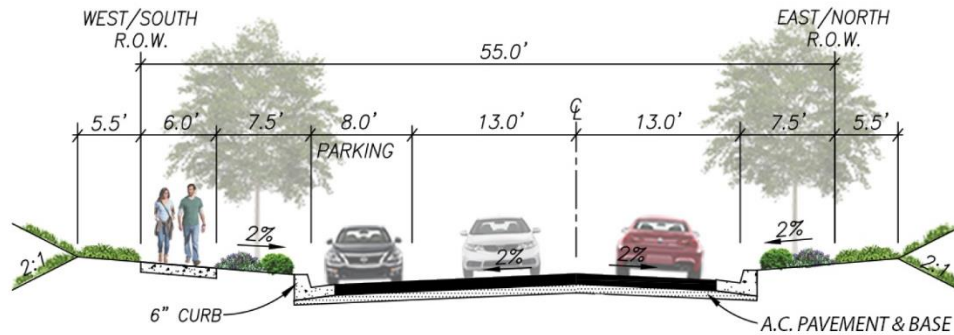


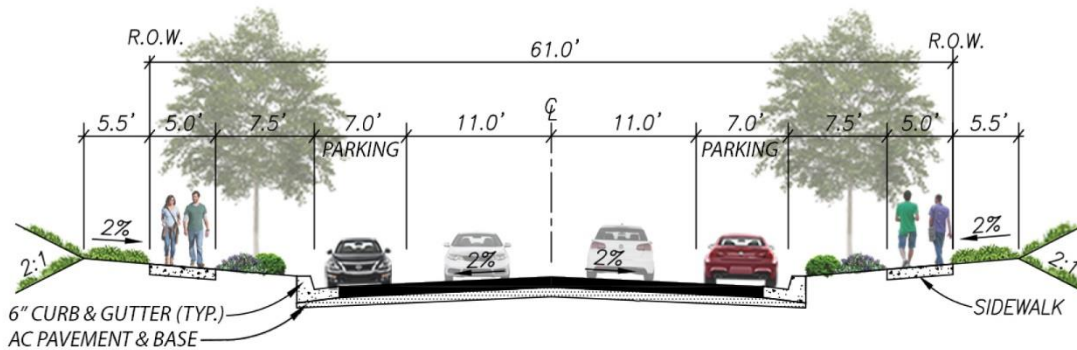
Exhibit 24: Site Conditions Key Map

Community Entry:

Two entries into the community are planned along Streets “A” and “B.” New Zealand Christmas (*Metrosideros Excelsa*), Leslie Roy Mesquite (*Prosopis g. 'Leslie Roy'*), Pink Trumpet Tree (*Handroanthus Impetiginosus*) and other flowering trees line these streets to provide shade and create a colorful, vibrant gateway into the community. Refer to Exhibit 25: Conceptual Landscape Design – Streets “A” & “B.”

**SECTION "L-L"**

SCALE: 1"=40' HORIZ/VERT

 SCHMIDT
DESIGN
GROUP
**SECTION "K-K"**

SCALE: 1"=40' HORIZ/VERT

 SCHMIDT
DESIGN
GROUP
Exhibit 25: Conceptual Landscape Design – Streets “A” & “B”

STREET TREES

Pink Trumpet Tree
Handroanthus Impetiginosus



New Zealand Christmas Tree
Metrosideros Excelsa



Leslie Roy Mesquite
Prosopis g. 'Leslie Roy'

North Perimeter Slope:

Large landscaped 2:1 slopes at the perimeter of Sunbow II, Phase 3 (R-1) are designed to soften the aesthetics of manufactured slopes with a diverse plant palette and planting program. Homes will be setback from the slope and view fencing is planned at the top of slope to provide open views across the natural open space. A 3-foot wide flat bench is provided at the top of slope for maintenance access. Landscaping within the Fuel Modification Zone and adjacent grading buffer must be consistent with the Sunbow II, Phase 3 Fire Protection Plan and Chula Vista MSCP Subarea Plan. (Refer to Exhibit 26: Perimeter Slope @ R-1.

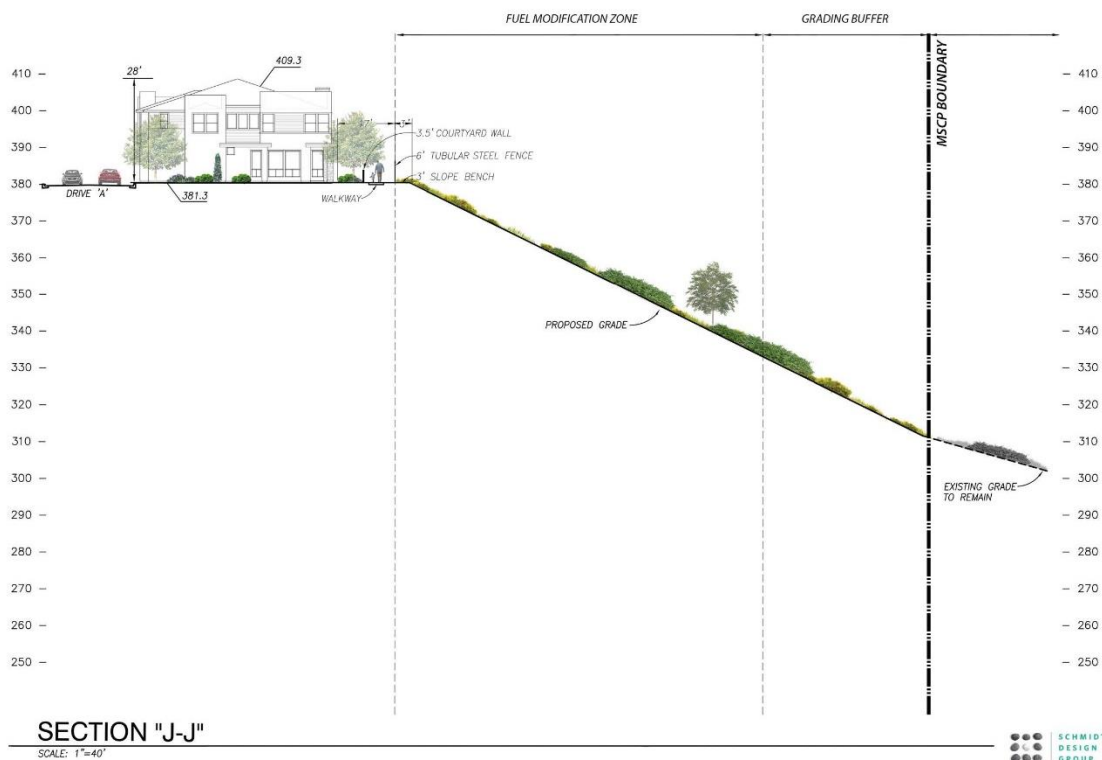


Exhibit 26: Perimeter Edge Condition @ R-1 (Cross Section J-J)

Interior Edge Condition:

The homes along the western edge of R-2 will include private courtyards with open views across Street "B" to the MSCP Preserve area. Interior slopes will be landscaped with low shrubs and trees to screen views into the site. Refer to Exhibit 27: Internal Condition at R-2/Street "B."

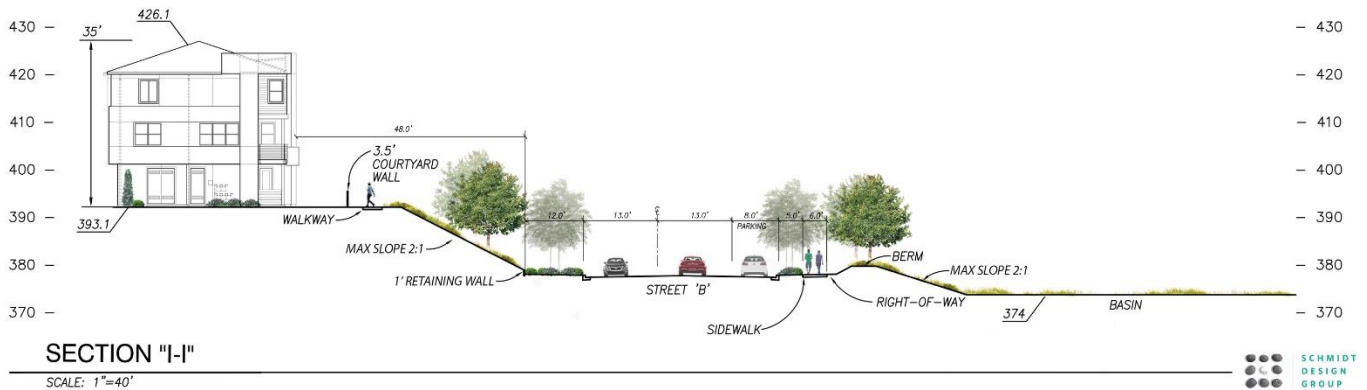
**Exhibit 27: Internal Condition @ R-2 / Street "B" (Cross Section I-I)****Internal Condition:**

Exhibit 28: Internal Condition @ R-1 & R-6 depicts the relationship between multi-family homes within neighborhoods R-1 and R-4. Trees lined walkways and grade changes provide additional buffers between neighborhoods.

**Exhibit 28: Internal Condition @ R-1 & R-4 (Cross Section H-H)**

South Perimeter Condition with Off-Site Fuel Modification Zone:

The perimeter edge condition south of neighborhood R-1 is planned to include a 6-foot high retaining wall and upward slope area to an off-site fuel modification zone. Slope landscaping shall be consistent with the Sunbow II, Phase 3 Fire Protection Plan. (Refer to Exhibit 29: South Perimeter Condition @ R-6).



Exhibit 29: South Perimeter Condition @ R-6 (Cross Section E-E)

17.0 AFFORDABLE HOUSING PLAN

The City of Chula Vista Balanced Communities Policy applies to residential projects of 50 or more units. The Applicant will be required to enter into a Balanced Communities Affordable Housing Agreement. See Development Agreement for additional details.

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APPENDIX A
SUNBOW II, PHASE 3 SPA PLAN AMENDMENT
PLANT PALETTE
MARCH 2021



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SHADE TREES

AGONIS FLEXUOSA / PEPPERMINT TREE
CERCIDIUM X `DESERT MUSEUM` / THORNLESS PALO VERDE
JACARANDA MIMOSIFOLIA / JACARANDA
METROSIDEROS EXCELSA / NEW ZEALAND CHRISTMAS TREE
PROSOPIS G. `LESLIE ROY` / LESLIE ROY MESQUITE

ACCENT TREES

CERCIS CANADENSIS `FOREST PANSY` / FOREST PANSY REDBUD
CHILOPSIS LINEARIS / DESERT WILLOW
HANDROANTHUS IMPETIGINOSUS / PINK TRUMPET TREE
RHUS LANCEA / AFRICAN SUMAC

PALM TREES

PHOENIX DACTYLIFERA / DATE PALM

BIO-BASIN TREES

ALNUS RHOMBIFOLIA / WHITE ALDER
SALIX LASIOLEPIS / ARROYO WILLOW

STREET TREES

HANDROANTHUS IMPETIGINOSUS / PINK TRUMPET TREE
METROSIDEROS EXCELSA / NEW ZEALAND CHRISTMAS TREE
PROSOPIS G. `LESLIE ROY` / LESLIE ROY MESQUITE

SHRUB/ GROUNDCOVER PLANTING

AGAVE SHAWII / COASTAL AGAVE
AGAVE X `BLUE FLAME` / BLUE FLAME AGAVE
AGAVE X `BLUE GLOW` / BLUE GLOW AGAVE
ALOE VERA / MEDICINAL ALOE
ALOE X `BLUE ELF` / ALOE
ASPARAGUS MEYERI / FOXTAIL FERN
BACCHARIS PILULARIS `TWIN PEAKS` / TWIN PEAKS COYOTE BRUSH²
CALLIANDRA CALIFORNICA / RED BAJA FAIRY DUSTER
CISTUS X PURPUREUS / ORCHID ROCKROSE
DIANELLA TASMANICA / FLAX LILY
ERIGERON KARVINSKIANUM / SANTA BARBARA DAISY
FESTUCA CALIFORNICA / CALIFORNIA FESCUE
FICUS PUMILA / CREEPING FIG
GALVEZIA JUNCEA / BAJA SNAPDRAGON
GALVEZIA SPECIOSA `FIRECRACKER` / BUSH SNAPDRAGON
GREVILLEA X `NED KELLY` / NED KELLY GREVILLEA
IVA HAYESIANA / SAN DIEGO POVERTY WEED
LEUCADENDRON X `SAFARI SUNSET` / CONEBUSH
LEUCOPHYLLUM FRUTESCENS `GREEN CLOUD` TM / GREEN CLOUD TEXAS RANGER
LEYMUS CONDENSATUS `CANYON PRINCE` / NATIVE BLUE RYE
MISCANTHUS SINENSIS `ADAGIO` / ADAGIO MAIDEN GRASS²
MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS²
PHILODENDRON X `XANADU` / CUT-LEAF PHILODENDRON
PITTOSPORUM SPP. / PITTOSPORUM SPECIES (except PITTOSPORUM UNDULATUM / VICTORIA
BOX
PITTOSPORUM TENUIFOLIUM / TAWHIWHI

RHAMNUS CALIFORNICA `EVE CASE` / CALIFORNIA COFFEEBERRY
ROSMARINUS OFFICINALIS `PROSTRATUS` / CREEPING ROSEMARY
SALVIA SONOMENSIS / CREEPING SAGE
SALVIA LEUCOPHYLLA `POINT SAL SPREADER` / POINT SAL PURPLE SAGE
SENECIO MANDRALISCAE `BLUE CHALK STICKS` / SENECIO
SESLERIA AUTUMNALIS / AUTUMN MOOR GRASS
WESTRINGIA FRUTICOSA `BLUE GEM` / COAST ROSEMARY

BASIN SHRUB / GROUNDCOVER PLANTING

CAREX PRAEGRACILIS / CALIFORNIA FIELD SEDGE
IVA HAYESIANA / SAN DIEGO POVERTY WEED
JUNCUS MEXICANUS / MEXICAN RUSH
LEYMUS CONDENSATUS / GIANT WILD RYE
LEYMUS TRITICOIDES / CREEPING WILD RYE

TURF (SOD)

DROUGHT TOLERANT HYBRID BERMUDA

ENHANCED SHRUB / GROUNDCOVER PLANTING

AGAVE X `BLUE FLAME` / BLUE FLAME AGAVE
AGAVE X `BLUE GLOW` / BLUE GLOW AGAVE
ALOE VERA / MEDICINAL ALOE
CAREX SPP. / SEDGE
CISTUS X PURPUREUS / ORCHID ROCKROSE
DIANELLA TASMANICA / FLAX LILY
ERIGERON KARVINSKIANUM / SANTA BARBARA DAISY
FESTUCA CALIFORNICA / CALIFORNIA FESCUE
GALVEZIA SPECIOSA `FIRECRACKER` / BUSH SNAPDRAGON
GREVILLEA X `NED KELLY` / NED KELLY GREVILLEA
LEUCADENDRON X `SAFARI SUNSET` / CONEBUSH
LEYMUS CONDENSATUS `CANYON PRINCE` / NATIVE BLUE RYE
MISCANTHUS SINENSIS `ADAGIO` / ADAGIO MAIDEN GRASS²
MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS²
PHORMIUM SPP.
PITTOSPORUM TENUIFOLIUM / TAWHIWHI
RHAMNUS CALIFORNICA `EVE CASE` / CALIFORNIA COFFEEBERRY
ROSMARINUS OFFICINALIS `PROSTRATUS` / CREEPING ROSEMARY
SALVIA SONOMENSIS / CREEPING SAGE
SENECIO MANDRALISCAE `BLUE CHALK STICKS` / SENECIO
SESLERIA AUTUMNALIS / AUTUMN MOOR GRASS
WESTRINGIA FRUTICOSA `BLUE GEM` / COAST ROSEMARY

STREETSCAPE SHRUBS/ GROUNDCOVER

AGAVE SHAWII / COASTAL AGAVE
AGAVE X `BLUE FLAME` / BLUE FLAME AGAVE
BACCHARIS PILULARIS `TWIN PEAKS` / TWIN PEAKS COYOTE BRUSH³
CISTUS X PURPUREUS / ORCHID ROCKROSE
DIANELLA TASMANICA / FLAX LILY
GALVEZIA SPECIOSA `FIRECRACKER` / BUSH SNAPDRAGON
IVA HAYESIANA / SAN DIEGO POVERTY WEED
LEYMUS CONDENSATUS `CANYON PRINCE` / NATIVE BLUE RYE
MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS²
PHORMIUM SPP.
RHAMNUS CALIFORNICA `EVE CASE` / CALIFORNIA COFFEEBERRY
ROSMARINUS OFFICINALIS `PROSTRATUS` / CREEPING ROSEMARY
SALVIA SONOMENSIS / CREEPING SAGE

WESTRINGIA FRUTICOSA `BLUE GEM` / COAST ROSEMARY

SLOPE PLANTING AND FUEL MODIFICATION ZONE TREES³

RHUS LANCEA / AFRICAN SUMAC²

HETEROMELES ARBUTIFOLIA / TOYON²

SLOPE SHRUB / GROUNDCOVER PLANTING IN FUEL MODIFICATION ZONES

ACANTHOMINTHA ILICIFOLIA/SAN DIEGO THORNMINT¹

AMBROSIA CHENOPODIFOLIA/ SAN DIEGO BURSAGE²

ASTER CHILENSIS `POINT SAINT GEORGE` / CALIFORNIA ASTER¹

BACCHARIS PILULARIS `TWIN PEAKS` / TWIN PEAKS COYOTE BRUSH¹

BAHIOPSIS LACINIATA/SAN DIEGO SUNFLOWER²

ACALYPHA CALIFORNICA / CALIFORNIA COPPERLEAF²

BERGEROCACTUS EMORYI/VELVET CACTUS¹

CISTUS SALVIFOLIUS `PROSTRATUS` / SAGELEAF ROCKROSE¹

CORETHROGYNE FILAGINIFOLIA / SILVER CARPET¹

CYLINDROPUNTIA PROLIFERA / COAST CHOLLA

DEINANDRA CONJUGENS/OTAY TARPLANT¹

DUDLEYA PULVERULENTA / CHALK LETTUCE¹

DUDLEYA LANCEOLATA/LANCE-LEAF DUDLEYA¹

ENCELIA CALIFORNICA / CALIFORNIA ENCELIA²

EPILOBIUM CANUM VAR. LATIFOLIUM `EVERETTS` CHOICE¹

EUPHORBIA MISERA / CLIFF SPURGE¹

ISOMERIS ARBOREA / BLADDERPOD²

IVA HAYESIANA / SAN DIEGO POVERTY WEED²

LUPINUS SUCCULENTUS / ARROYO LUPINE²

LYCIUM CALIFORNICUM / CALIFORNIA BOX THORN²

MALACOTHAMNUS FASCICULATUS / BUSH MALLOW²

MYOPORIUM PARVIFOLIUM / MYOPORIUM¹

SALVIA LEUCOPHYLLA `POINT SAL SPREADER` / POINT SAL PURPLE SAGE¹

SALVIA SONOMENSIS / CREEPING SAGE¹

STIPA DIEGOENSIS/SAN DIEGO NEEDLEGRASS¹

STIPA LEPIDA/FOOTHILL NEDDLEGRASS¹

STIPA PULCHRA / PURPLE NEEDLE GRASS¹

OPUNTIA LITTORALIS / SHORE CACTUS¹

OPUNTIA ORICOLA / CHAPARRAL PRICKLYPEAR¹

RHAMNUS CROCEA / REDBERRY²

RHUS INTEGRIFOLIA / LEMONADE BERRY²

RIBES SPECIOSUM / FUCHSIA FLOWERING GOOSEBERRY²

SIMMONDSIA CHINENSIS / JOJOBA²

WESTRINGIA FRUTICOSA `MUNDI` / MUNDI COAST ROSEMARY¹

SHRUB/ GROUNDCOVER PLANTING (NON-SLOPE) IN FUEL MODIFICATION ZONES SHRUBS³

AGAVE SHAWII / COASTAL AGAVE¹

AGAVE X `BLUE FLAME` / BLUE FLAME AGAVE¹

AGAVE X `BLUE GLOW` / BLUE GLOW AGAVE¹

ALOE VERA / MEDICINAL ALOE¹

ALOE X `BLUE ELF` / ALOE¹

ALOE `CYNTHIA GIDDY`/CYNTHIA GIDDY ALOE¹

ASTER CHILENSIS `POINT SAINT GEORGE`/ CALIFORNIA ASTER¹

BACCHARIS PILULARIS `TWIN PEAKS` / TWIN PEAKS COYOTE BRUSH¹

CISTUS SALVIFOLIUS `PROSTRATUS` - SAGELEAF ROCKROSE¹

CORETHROGYNE FILAGINIFOLIA / SILVER CARPET¹

DIANELLA TASMANICA / FLAX LILY¹

DIANELLA REVOLUTA `BABY BLISS`/ BABY BLISS FLAX LILY¹

EPILOBIUM CANUM VAR. LATIFOLIUM `EVERETT'S CHOICE`¹

ERIGERON GLAUCUS/SEASIDE DAISY¹
ERIGERON KARVINSKIANUM / SANTA BARBARA DAISY¹
FESTUCA CALIFORNICA / CALIFORNIA FESCUE¹
FURCRAEA FOETIDA 'MEDIOPICTA'¹
HELIANTHEMUM 'BELGRAVIA ROSE' / BELGRAVIA ROSE¹
LEYMUS TRITICOIDES 'LAGUNITA' / LAGUNITA WILD RYE¹
MYOPORUM PARVIFOLIUM / MYOPORUM¹
OTHONNA CAPENSIS - LITTLE PICKLES¹
ROSMARINUS OFFICINALIS 'PROSTRATUS' / CREEPING ROSEMARY¹
SALVIA SONOMENSIS / CREEPING SAGE¹
SENECIO MANDRALISCAE 'BLUE CHALK STICKS' / SENECIO¹
SESLERIA AUTUMNALIS / AUTUMN MOOR GRASS¹
WESTRINGIA FRUTICOSA 'MUNDI' / MUNDI COAST ROSEMARY¹

BIOLOGICAL RESTORATION AREAS SHRUBS / GROUNDCOVER

ACMISPON GLABER VAR. GLABER / COASTAL DEERWEED
ARTEMISIA CALIFORNICA/CALIFORNIA SAGEBRUSH
BAHIOPSIS LACINIATA/SAN DIEGO SUNFLOWER
BLOOMERIA CROCEA / COMMON GOLDER STAR
BERGEROCACTUS EMORYI/VELVET CACTUS
CORETHROGYNE FILAGINIFOLIA / SAND ASTER
CONVOLVULUS SIMULANS / SMALL-FLOWERED BINDWEED
CYLINDROPUNTIA PROLIFERA / COAST CHOLLA
DICHELOSTEMMA CAPITATUM SSP. CAPITATUM / BLUE DICKS
DEINANDRA CONJUGENS/OTAY TARPLANT
ERIOGONUM FASCICULATUM VAR. FASCICULATUM/FLAT-TOP BUCKWHEAT
ERIOPHYLLUM CONFERTIFLORUM / GOLDDEN YARROW
ESCHSCHOLZIA CALIFORNICA / CALIFORNIA POPPY
EUPHORBIA MISERA / CLIFF SPURGE
GRINDELIA CAMPORUM / RAYLESS GUMPLANT
ISOCOMA MENZIESII VAR. DECUMBENS / DECUMBENT GOLDENBUSH
ISOMERIS ARBOREA / BLADDERPOD
LASTHENIA CORONARIA / ROYAL GOLDFIELDS
LUPINUS BICOLOR / MINIATURE LUPINE
LYCIUM CALIFORNICUM / CALIFORNIA BOX THORN
MELICA IMPERFECTA / COAST RANGE MELIC
SISYRINCHIUM BELLUM / BLUE-EYED GRASS
STIPA DIEGOENSIS/SAN DIEGO NEEDLEGRASS
STIPA LEPIDA/FOOTHILL NEDDLEGRASS
STIPA PULCHRA / PURPLE NEEDLE GRASS
OPUNTIA LITTORALIS / SHORE CACTUS
RHUS INTEGRIFOLIA / LEMONADE BERRY
SIMMONDSIA CHINENSIS / JOJOBA
YUCCA SCHIDIGERA / MOHAVE YUCCA

GENERAL NOTES

TREE SIZES: 15-GALLON (15%), 24" BOX (60%), 36" BOX (20%), 48" BOX (5%)
SHRUB AND GROUNDCOVER SIZES: 5-GALLON (30%), 1-GALLON (70%)
RESTORATION SHRUB AND GROUNDCOVER SIZES: 1-GALLON (100%), OVERSEED ALL AREAS WITH
SEED BLEND OF SAME SPECIES

FOOTNOTES:

1. LOW GROWING VARIETY OF SPECIES ABLE TO BE PLANTED IN FUEL MODIFICATION ZONE 1 AND 2.
2. LOW GROWING VARIETY OF SPECIES ABLE TO BE PLANTED IN FUEL MODIFICATION ZONE 2.

3. SEE PROJECT FIRE PROTECTION PLAN FOR ADDITIONAL INFORMATION. PLANTING MUST BE IMPLEMENTED IN ACCORDANCE WITH CHULA VISTA FIRE DEPARTMENT'S FUEL MODIFICATION GUIDELINES SUMMARIZED WITHIN THE FIRE PROTECTION PLAN.
4. SEE PROJECT BIOLOGICAL RESTORATION PLAN FOR ON-SITE PLANTING SPECIFICATIONS (TIMING, SPECIES, AND SIZE) WITHIN RESTORATION AREA.

SUNBOW II, PHASE 3 SPA AMENDMENT

Supplemental Public Facilities Financing Plan

Appendix B

March 2021

Prepared for:
ACI Sunbow, LLC
Contact: Bill Hamlin
2356 Moore Street
San Diego, CA 92110
619-544-9100

Sunbow II Public Facilities Financing Plan
Adopted January 24, 1990
By Resolution No. 15525

Addendum Adopted _____
By Resolution No. _____

Prepared By:
RH Consulting Group, LLC
Contact: Ranie Hunter
Ranie@RHConsultingGroup.com
619-823-1494

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1. INTRODUCTION

1.1 Overview

The City of Chula Vista authorized development of the Sunbow Planned Community when it approved the following:

- Sunbow II General Development Plan (GDP) approved by Resolution No. 15427 on December 5, 1989;
- Sunbow II Public Facilities Financing Plan (PFFP) approved by Resolution No. 15525 on January 24, 1990;
- Sunbow II Sectional Planning Area (SPA) Plan approved by Resolution No. 15524 on February 20, 1990;
- Sunbow II Planned Community District Regulations and Land Use District Map approved by Ordinance No. 2361 on February 27, 1990;
- Sunbow II Design Guidelines approved by Resolution No. 15640 on May 22, 1990;
- Sunbow II Tentative Subdivision Map (TSM 90-07) approved by Resolution No. 115640 on May 22, 1990; and
- Sunbow II Affordable Housing Agreement approved by Resolution No. 18662 on May 13, 1997.

The Chula Vista City Council also certified the Sunbow Sectional Planning Area Plan and Tentative Map Final Environmental Impact Report (FEIR) (State Clearinghouse No. 88121423) (City of Chula Vista 1989), which contains a comprehensive disclosure and analysis of potential environmental effects associated with implementation of the Sunbow Planned Community.

On February 26, 2020, ACI Sunbow, LLC (Applicant) filed an application with the City of Chula Vista for the Sunbow II, Phase 3 comprised of approximately 135.7 acres (Project Area). The application included the discretionary actions necessary to implement a proposal to: 1) rezone the Sunbow II, Phase 3 Industrial Park to residential, Community Purpose Facility and other related land uses and 2) a minor MSCP Boundary adjustment between the development area and the adjacent Chula Vista MSCP Preserve area north and west of Planning Area 23, resulting in an increase of 0.7 acres of Preserve Open Space within the Project Area. Table 1: Comparison of Land Uses - 1990 SPA to Proposed Project provides a comparison of land use between the 1990 Sunbow II SPA Plan and the Proposed Project.

Table 1 – Comparison of Land Uses – 1990 Sunbow II SPA Plan to Proposed Project

Land Use	Approved Land Uses		Proposed Project Land Uses		Approved vs. Proposed Land Uses	
	Acres	Units	Acres ¹	Units	Acres ¹	Units
Limited Industrial	46.0				-46.0	
Medium High Residential			36.6	534	+36.6	+534
High Residential			7.6	184	+7.6	+184
Community Purpose Facility			0.9		+0.9	
Preserve Open Space	62.1		63.6	0	+1.5 ²	0
Open Space/Other	27.6		21.1		-6.5	
Circulation			5.9		+5.9	
TOTAL	135.7		135.7	718	+0.0	+718

¹ Acreage reflects rounding of numbers to nearest 1/10th acre and may vary slightly from calculated total.

² Proposed Preserve Open Space includes 1.31 acres of mapping correction area.

The 1990 PFFP was prepared consistent with the requirements of the Chula Vista Growth Management Program and Chapter 9, Growth Management of the Sunbow General Development Plan (GDP). The preparation of the 2021 PFFP is required in conjunction with the preparation of the SPA Plan Amendment for the Proposed Project to ensure that the phased development of the Proposed Project is consistent with the overall goals and policies of the Chula Vista General Plan (CVGP), Growth Management Program and the Sunbow GDP, which may be amended from time to time to ensure that the development of the Proposed Project will not adversely impact the City's Growth Management Ordinance Threshold Standards.

This 2021 PFFP is based on the phasing and information presented in the Sunbow II, Phase 3 SPA Amendments, dated January 2021. The Applicant prepared technical analyses to determine whether the proposed amendments resulted in any changes to financing, constructing, or maintaining public facilities within the Project Area. The Applicant-prepared technical analyses for the Proposed Project which are relevant to the 2021 PFFP include the following:

- Priority Development Project (PDP) Storm Water Quality Management Plan for the Sunbow II, Phase 3 Tentative Map (Hunsaker 2021)
- Drainage Study for Sunbow II, Phase 3 (Hunsaker 2021)
- Transportation Impact Analysis for Sunbow II, Phase 3 (Linscott, Law & Greenspan 2021)
- Overview of Water Service for Sunbow II, Phase 3 (Dexter Wilson Engineering 2020)
- Sewer System Evaluation for Sunbow II, Phase 3 (Dexter Wilson Engineering 2020)
- Sunbow II, Phase 3 SPA Amendment Water Conservation Plan (Dexter Wilson Engineering 2020)
- Sunbow II, Phase 3 Fiscal Impact Analysis (DPFG 2021)

1.2 Purpose

The purpose of all PFFPs in the City of Chula Vista is to implement the City's Growth Management Program and to meet the CVGP goals and objectives, specifically those within the Growth Management Element of the General Plan. The Growth Management Program ensures that development occurs only when the necessary public facilities and services exist or are provided concurrent with the demands of new development. The Growth Management Program requires a PFFP be prepared for every new development project which requires either a SPA Plan or tentative map approval. Similarly, amendments to a SPA Plan require an amendment or supplement to the PFFP. The purpose of this Supplemental PFFP is to update and clarify the adopted 1990 PFFP to address changes to the Proposed Project.

In the City of Chula Vista, the PFFP is intended to ensure adequate levels of service are achieved for all public services and facilities impacted by a project. It is understood that assumed growth projections and related public facilities needs are subject to several external factors, such as the local economy, the City's future land use approval decisions, etc. It is also understood that funding sources specified herein may change due to financing programs available in the future or requirements of either state or federal laws. It is intended that revisions to cost estimates and funding programs be handled as administrative revisions whereas revisions to the facilities-driven growth phases are accomplished through an update process via an amendment or supplement to the PFFP.

1.3 Assumptions

This 2021 PFFP supplements the Sunbow PFFP adopted in 1990. The Proposed Project includes amendments to the Chula Vista General Plan, Sunbow GDP and Sunbow II SPA Plan and also includes Sunbow II, Phase 3 Tentative Map CVT No. 20-0002.

1.4 Proposed Land Use Plan

The Project Area encompasses approximately 135.7 acres and includes a 67.5-acre development area comprised of 44.2 acres of residential, a 0.9-acre Community Purpose Facility (CPF) site, 5.9 acres of public streets, and 16.5 manufactured open space slopes and basins and a 0.3-acre wetland preservation and associated buffer area. Approximately 4.3 acres of Poggi Canyon Conservation Easement areas and 63.6 acres of adjacent MSCP Preserve area are also within the Project Area. The Sunbow II, Phase 3 project will create a residential enclave within the larger Sunbow Planned Community and help meet the market demand for attainable workforce and move-up housing. The Proposed Project generates a population of approximately 2,334¹ persons. See Exhibit 1: Sunbow II, Phase 3 Site Utilization Plan and Table 2: Sunbow II, Phase Site Utilization Table.

¹ Source: California Department of Finance (January 1, 2020).

In order to address the changes related to the proposed land use plan, several assumptions were made. These assumptions play a role in determining public facility needs and phasing of those facilities and are summarized below.

This proposal includes amendments to the following CVGP diagrams and tables:

- General Plan Land Use Diagram (Figure 5-12, Page LUT-47) –
 - Modify the General Plan land use designations from Limited Industrial to High Residential, Medium High Residential, Open Space and Open Space Preserve
- General Plan Land Use Distribution in 2030 (Acreages), (Table 5-6, Page LUT-56)
 - Modify the land use acreages of Medium-High Residential, High Residential, Open Space Preserve and Open Space to reflect the Project
- General Plan Land Use in 2030 (Table 5-7, Page LUT-57)
 - Modify the residential dwelling units within the Medium-High and High residential land uses and acreage by land use designations to reflect the Project

1.5 Discretionary Actions

Discretionary actions which require City Council and/or Planning Commission consideration and/or approval include certification of an Environmental Impact Report, amendments to the City of Chula Vista General Plan, the Sunbow General Development Plan and the Sunbow II SPA Plan, a Rezone, a Development Agreement and approval of Sunbow II, Phase 3 Tentative Map CVT No. 20-0002.

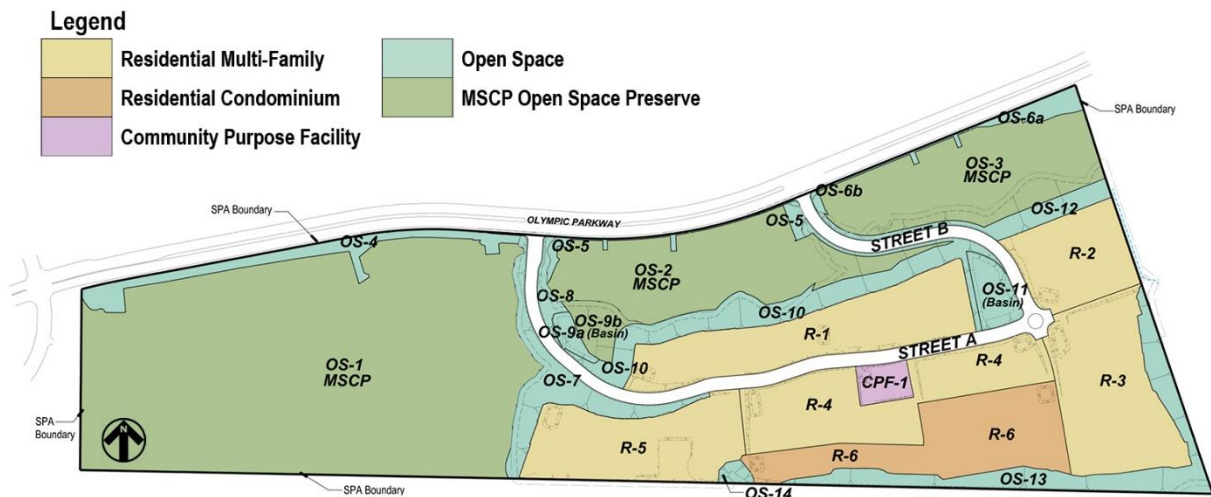


Exhibit 1: Sunbow II, Phase 3 Site Utilization Plan

Table 2: Sunbow II, Phase 3 Site Utilization Table

Sunbow II, Phase 3	Land Use District	Acres ²	Units	Density
Multi-Family Residential				
R-1	RM	8.5	131	15.4
R-2	RM	4.6	73	16.0
R-3	RM	8.1	108	13.3
R-4	RM	8.2	118	14.4
R-5	RM	7.1	104	14.7
R-6	RC	7.6	184	24.1
Subtotal Residential		44.2	718	16.3
Other				
Community Purpose Facility	CPF	0.9		
MSCP Preserve Open Space (OS-1, 2, 3 and 9b)	OSP	63.6		
Poggi Creek Easement (OS-4, 5, 6a and 6b)	OS	4.3		
Manufactured Slopes/Basins (OS-7, 8, 9a, 10 and 13)	OS	16.5		
Wetland Avoidance Area (OS-14)	OS	0.3		
Public Streets	Circulation	5.9		
Subtotal Other		91.5		
TOTAL		135.7	718	16.3

1.6 Development Phasing

Development of the Proposed Project is anticipated to build-out over a six to seven-year period, depending on market conditions. Phasing will be managed to ensure construction of necessary infrastructure and amenities are provided as development progresses. Table 3, Conceptual Phasing Plan, presents the anticipated phasing plan based on the 2021 SPA Plan. Individual parcels may be graded as part of a larger development phase and developed over several years.

² Acreages rounded to nearest 1/10th acre and may vary slightly from the calculated total.

Table 3: Conceptual Phasing

Land Use/Parcel	ESTIMATED DEVELOPMENT YEARS						TOTAL
	1	2	3	4	5	6	
Multi-Family (R-6)	38	48	48	48	2	0	184
Multi-Family (R-1 /R-5)	30	48	48	48	48	13	235
Multi-Family (R-4 /R-4)	21	36	36	36	36	26	191
Multi-Family (R-3)	21	36	36	15	0	0	108
TOTAL	110	168	168	147	86	39	718

1.7 Development Impact Fee Programs

Per Chula Vista Municipal Code Section 3.42.010, the Chula Vista City Council must adopt a fee schedule. The Proposed Project must comply with the City of Chula Development Master Fee Schedule, Chapter 16. Development & In-Lieu Fees, revised November 2019. Fees are subject to change as the ordinance is amended by the City Council from time to time, unless stated otherwise in a separate development agreement.

1.8 Subdivision Security

The Proposed Project will be developed in phases over several years. As public improvements are complete, security provided for the Proposed Project in accordance with the Subdivision Map Act and the Municipal Code should be reduced to reflect the completed improvements. Accordingly, the process described herein will apply to bonds for Grading and Drainage, Public Improvements and Landscape and Irrigation, but will not apply to Survey Monumentation bonds. Applicant may submit to the City not more often than once every six months a detailed engineer's estimate identifying with respect to each bond the costs to complete the remaining improvements secured by such bond ("Cost to Complete"). The City will review and approve or disapprove the Costs to Complete, and if disapproved Applicant may resubmit a modified estimate of Cost to Complete for City review. Upon approval of the Costs to Complete by the City, the amount of the applicable bond may be reduced to an amount equal to 110% of the Costs to Complete. If approved by the City, the reduced amount will be communicated to the bonding company in a letter. Based on the City's communication, the bonding company may issue a bond reduction rider to reduce the principal amount of the bond to the reduced amount approved by the City. However, the bond amount may never be reduced by this process to less than 15% of the original estimate of the costs of the applicable improvements.

2. PUBLIC FACILITIES

2.1 Transportation/Traffic

Linscott, Law and Greenspan, LLC prepared the Transportation Impact Assessment (March 2021) for the Proposed Project. The Conceptual Circulation Plan is provided as Exhibit 2. In compliance with Senate Bill 743 (SB 743), this Transportation Impact Analysis evaluates the Proposed

Project's potential vehicular impacts using a Vehicle Miles Traveled (VMT) metric, pursuant to direction from the Governor's Office of Planning and Research (OPR) in December 2018 (*Technical Advisory on Evaluating Transportation Impacts in CEQA*). Public Resources Code section 20199, enacted pursuant to SB 743, identifies VMT as an appropriate metric for measuring transportation impacts along with the elimination of auto delay/level of service (LOS) for California Environmental Quality Act (CEQA) purposes statewide.

In addition to the VMT analysis, a project-specific Local Mobility Assessment (LMA) was also prepared that focuses on automobile delay/LOS. The LOS analysis was conducted to identify roadway deficiencies in the Project study area and recommend project improvements to address such deficiency; however, the CEQA significance determination for the proposed Project is based only on VMT and not on LOS.

City identified capital improvement projects are summarized in the published *Eastern Transportation Development Impact Fee* ("Eastern TDIF") (September 2014). Additionally, City capital improvement projects include traffic signal upgrades for intersections in the study area published in the City of Chula Vista, *Traffic Signal Communications Master Plan Study* (July 2017). These two documents were referenced when identifying potential operational improvements to address Project-related effects.

Substantial effects and operational improvements are described in the Transportation Impact Analysis, Section 17.0. The TIA identified seven affected Olympic Parkway Segments/Intersections:

- Olympic Parkway/Brandywine Avenue Intersection (Cumulative from Oleander to Brandywine/Project Specific between Brandywine and western Project Driveway)
- Olympic Parkway Segment from Oleander Avenue to Project Driveway (West) (Street A) (Cumulative)
- E. Orange Avenue/I-805 Southbound Intersection (Cumulative)
- Olympic Parkway/I-8-5 Northbound Ramps (Cumulative)
- Olympic Parkway/Heritage Road Intersection (Cumulative)
- Olympic Parkway/La Media Road Intersection (Cumulative)
- Olympic Parkway Segments I-805 Ramps to Oleander and Project Driveway (West) (Street A) to La Media Road (Cumulative)
- The Proposed Project shall pay fair share funding towards the provision of Adaptive Traffic Signal Control (ATSC) modules to each signalized intersection along the Olympic Parkway corridor between the I-805 Ramps and La Media Road. (See TIA, Table 14-1, Near-Term Operations for detailed intersection analysis)

The Project will implement the following project design features, as described in Section 4.4.8.4 of Environmental Impact Report (EIR) 2020-0002:

- **Trip Reduction Strategies.** The strategies outlined below would reduce the number of automobile trips generated by residents of the project and the distance that the residents drive:
 - Provide ride share coordination services thru the project's homeowner's association to match residents interested in carpooling
 - Coordinate with nearby schools and/or the project's homeowner's association to match residents interested in carpooling to/from schools
 - Provide on-site transit opportunities information
 - Encourage bicycling by providing on-site bicycle infrastructure such as bike racks

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standards for traffic are per CVMC Section 19.09.040.G.3:

- *Arterial Level of Service for Nonurban Streets. Traffic monitoring program (TMP) roadway segments classified as other than urban streets in the Land Use and Transportation Element of the City's General Plan shall maintain LOS "C" or better, except that during peak hours LOS "D" can occur for no more than two hours per day.*
- *Level of Service for Urban Streets. TMP roadway segments classified as urban streets in the Land Use and Transportation Element of the City's General Plan shall maintain LOS "D" or better, except that during peak hours, LOS "E" can occur for no more than two hours per day.*

The Applicant shall be required to pay the City's Eastern TDIF which will be applied towards other planned network enhancements included in the Eastern TDIF study that would reduce traffic on Olympic Parkway. Payment of the Eastern TDIF is the only readily identifiable operational improvement that is feasible at this time. Large-scale network enhancements such as the future extension of La Media Road and the extension of Main Street, funded through the Eastern TDIF Program, are expected to reduce the number of trips on Olympic Parkway.

Based on the screening map review and the Project-specific VMT analysis presented in the TIA, *Section 5, a significant transportation impact is calculated.* The following strategies are recommended to reduce the number of automobile trips generated by residents of the Proposed Project and the distance that the residents drive, thereby mitigating the Proposed Project's significant transportation impact:

- Provide Ride Share coordination services through the Project's Home Owner's Association to match residents interested in carpooling.
- Coordinate with near-by schools and / or the Project's Home Owner's Association to match residents interested in carpooling to / from schools.
- Offer transit pass subsidies and on-site transit information.
- Encourage bicycling by providing on-site bicycle infrastructure such as bike lanes and bike racks.

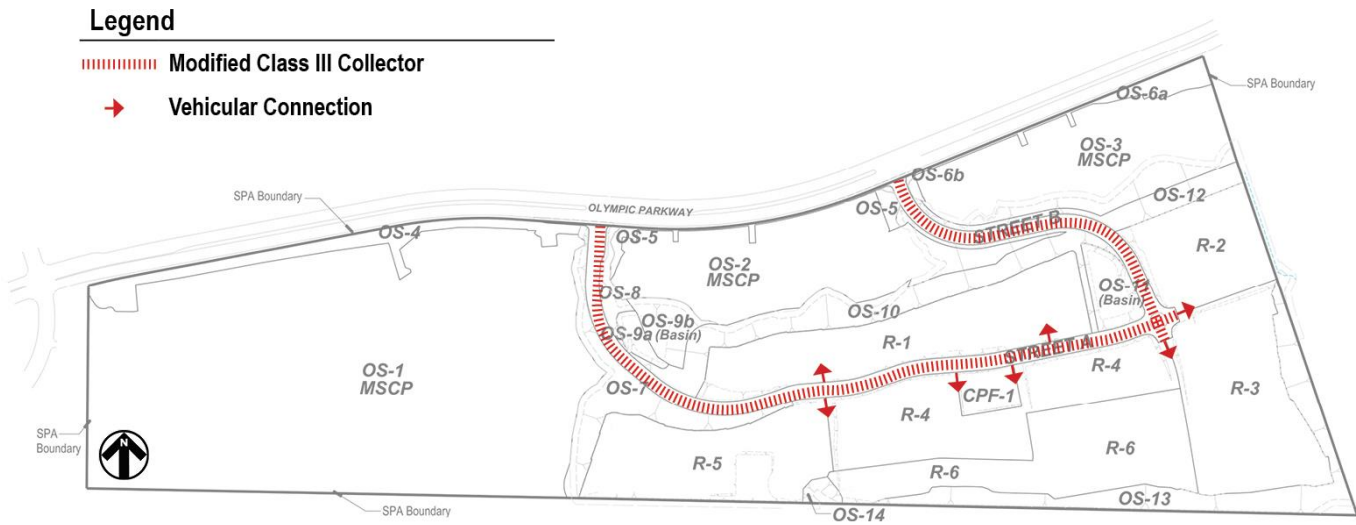


Exhibit 2
Conceptual Circulation Plan

2.2 Water

An Overview of Water Services was prepared by Dexter Wilson Engineering for the Sunbow II, Phase 3 SPA Amendment and EIR which provides an overview of water service for the Proposed Project.

The Project Area is within the boundaries of the Otay Water District (OWD) for water service. The OWD has existing and planned facilities in the vicinity of the Proposed Project and water service can be provided by expanding the existing system. In particular, water service will be provided by the 624 Pressure Zone (624 Zone) within the Central Area System of the OWD. The 624 Zone receives potable water from the SDCWA aqueduct connections that supply 624 Zone reservoirs.

Table 4 provides the projected potable water demands for the Proposed Project. The total estimated average potable water use is 0.12 mgd. This demand will be supplied from OWD's 624 Zone. See Exhibit 3, Conceptual Water & Recycled Water Plan for infrastructure sizing and locations.

Table 4: Projected Potable Water Demand

Neighborhood	Land Use	Gross Acres	Quantity	Water Duty Factor	Total Average Demand (gpd)
R-1	MF Residential	8.5	131	170 gpd/unit	22,270
R-2	MF Residential	4.6	73	170 gpd/unit	12,410
R-3	MF Residential	8.1	108	170 gpd/unit	18,360
R-4	MF Residential	8.2	118	170 gpd/unit	20,060
R-5	MF Residential	7.1	104	170 gpd/unit	17,680
R-6	MF Residential	7.6	184	170 gpd/unit	31,280
	Total		718		122,060

gpd = gallons per day; DU = dwelling units; ac = acre.

Recycled water will be utilized for irrigation of manufactured slopes and common areas. A 680 Zone recycled waterline is located in Olympic Parkway, adjacent to the Proposed Project. The Proposed Project would connect to the 680 Zone line, set a meter(s) and all on-site irrigation systems would be private. Table 5 provides the projected recycled water demands for the Proposed Project.

Table 5: Projected Recycled Water Demands

Land Use	Quantity	Irrigation Factor	Total Average Demand (gpd)
Irrigated Slopes	12.0 ac	1,900 gpd/ac	22,800
Common OS/CPF	0.9	1,900 gpd/ac	1,710
TOTAL			24,510

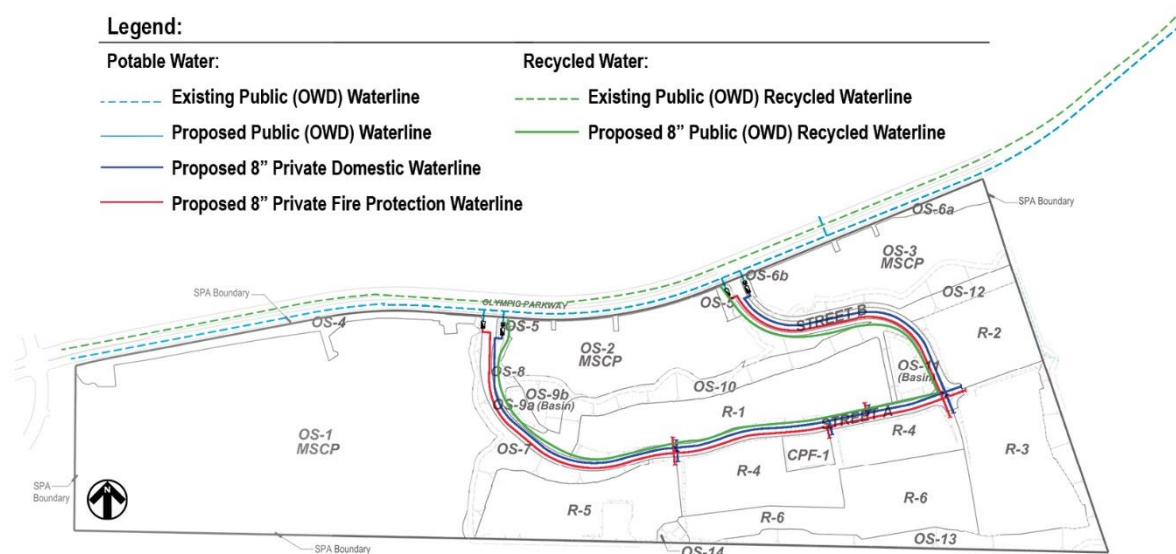


Exhibit 3
Conceptual Water & Recycled Water Plan

Growth Management Threshold Standard Compliance and Requirements

The Applicant shall be required to secure and construct all necessary potable and recycled water infrastructure required to serve the Proposed Project, to the satisfaction of the Otay Water District.

2.3 Sewer

Dexter Wilson Engineering prepared the Sewer System Evaluation for Sunbow II, Phase 3 (2020). The purpose of the evaluation is to determine the effect the conversion of Planning Area 23 from industrial to residential uses would have on the local and regional sewer system. The 2009 Poggi Canyon Basin Development Impact Fee Study prepared by PMC provided projected sewer flows for the industrial land uses within Planning Area 23. Table 6 provides a comparison between 2009 projected sewer flows and the Proposed Project. As shown, a total decrease of approximately 4,642 gpd or 20 EDU is estimated for the proposed land uses.

Table 6: Sewer Flow Comparison 2009 to Proposed Project

Land Use	Acres	Residential Units	Generation Factor	Average Flow (gdp)
2009 Poggi Canyon Basin DIF Sewer Flow				
Industrial	54.6 ¹		2,500 gdp/ac	135,500
2020 Proposed Land Uses				
MF Residential		718	182 gdp/du	130,676
Community Purpose	0.9		1,313 gdp/ac	1,182
Subtotal				131,858
+/- Sewer Flow				-,4,642
+/- Sewer EDUs²				-20

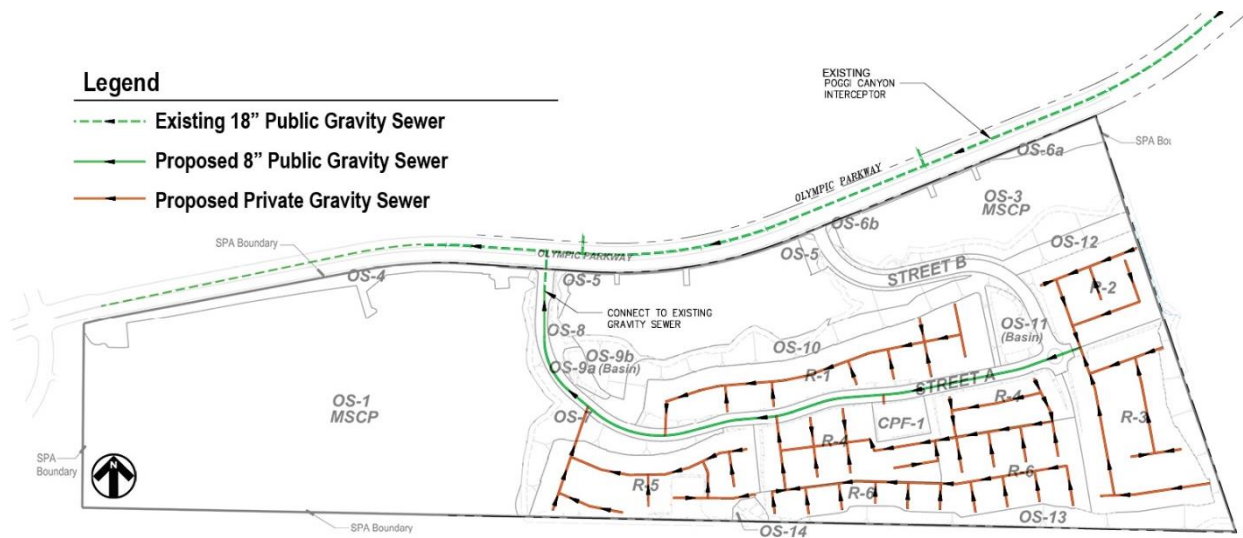
¹Acres from 2009 Poggi Basin DIF Study

²Based on 230 gdp/EDU

Since the 2009 Poggi Canyon DIF Study was prepared, the City has adopted updated sewer generation factors to estimate flows from various land uses. The City currently adopted generation rates for multi-family units at 182 gpd/du and CPF at 1,313 gpd/ac.

The proposed onsite sewer system consists of gravity sewer lines within Streets “A” and “B” that will convey flow to the existing Poggi Canyon Interceptor in Olympic Parkway. Based on the average flow presented in Table 6 and a peak factor of 2.33 per the City Subdivision Manual, the projected peak flow for the Proposed Project is 0.31 mgd. An 8-inch gravity sewer line within Street “A” with a minimum slope of 1.0 percent is adequate to convey total Project flow. Private sewer lines will be connected to this 8-inch public sewer line and extended to the building sewer laterals. See Exhibit 4: Conceptual Sewer Plan for the on-site sewer system layout.

Note: The internal private gravity sewer system layout is conceptual. Final layout to be determined during preparation of private utility plans.



Note: The internal private gravity sewer layout is conceptual. Final layout to be determined during preparation of private utility plans.

Exhibit 4
Conceptual Sewer Plan

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standard for sewer is per CVMC Section 19.09.040.E.3:

1. *Existing and project facility sewage flows, and volumes shall not exceed City engineering standards for the current system and for budgeted improvements, as set forth in the Subdivision Manual.*
2. *The City shall annually ensure adequate contracted capacity in the San Diego Metropolitan Sewer Authority or other means sufficient to meet the projected needs of development.*

The Applicant shall be required to secure and construct all sewer improvements necessary to serve the Proposed Project, to the satisfaction of the City Engineer. The Applicant shall also be required to pay the Poggi Canyon Sewer Basin DIF.

2.4 Drainage

A Drainage Study and Storm Water Quality Management Plans (SWQMP) were prepared by Hunsaker and Associates for the Sunbow II, Phase 3 FEIR. As described in these reports, stormwater will be collected using low impact development (LID) techniques and best management practices (BMP) near the source to ensure that runoff from the development area is treated for pollutant removal prior to discharging into the natural watershed.

The drainage system will collect stormwater through a series of swales, catch basins, inlets and culverts that direct stormwater flows to two onsite basins for purposes of water quality and hydromodification. Onsite storm drain facilities include a series of storm drain pipes within Streets “A” and “B” and the private streets within the residential parcels. A by-pass system of pipes carries natural or treated runoff in separate pipes to discharge into Poggi Creek. Pre- and Post-Development flows are estimated in Table 7. See Exhibit 5, Conceptual Drainage Plan for the drainage system layout.

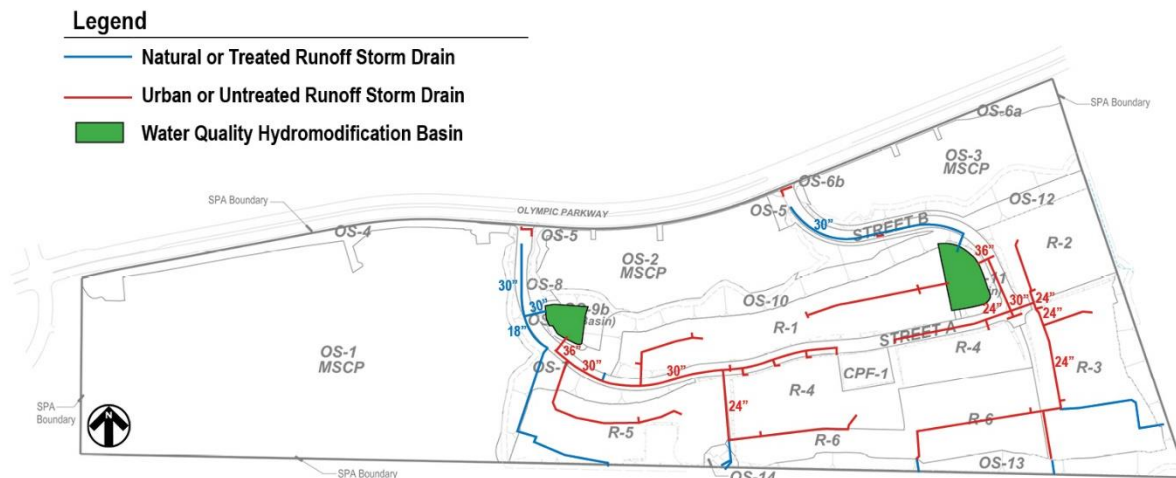
Table 7: Summary of Peak 50-Year Flows

POC	Existing Condition			Developed Condition			
	EX NODE ID	AREA (acres)	Q100 (cfs)	PR NODE ID	AREA (acres)	Q100 (cfs) Unattenuated	Q100 (cfs) Attenuated**
1	126	117.3		126	117.5*	165.69	65.74
Total	-	117.3	90.81	-	117.5*	165.69	65.74

* The 0.2 acres of increase is due to the 0.1 acres of offsite grading on east side of the project and rounding error.

** Design flows used for storm drain design.

Reference: Drainage Study for Sunbow II, Phase 3 TM, Table 1



Note: Pipe sizes are 18” unless noted on Exhibit 5.

Exhibit 5
Conceptual Drainage Plan

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standards for drainage facilities are per CVMC Section 19.09.040.F.3:

- a. *Storm water flows and volumes shall not exceed City engineering standards and shall comply with current local, state and federal regulations, as may be amended from time to time.*
- b. *The GMOC shall annually review the performance of the City's storm drain system, with respect to the impact of new development, to determine its ability to meet the goal and objective for drainage.*

The Proposed Project would continue to comply with all applicable rules and regulations including compliance with National Pollutant Discharge Elimination System permit requirements for urban runoff and stormwater discharge. BMPs for design, treatment, and monitoring for stormwater quality would be implemented as delineated in the FEIR with respect to municipal and construction permits.

2.4 Park & Recreation

The Chula Vista Municipal Code (CVMC) Chapter 17.10. Parklands and Public Facilities, establishes the method by which actual park acreage is to be calculated, based on the number and type of residential units determined at the Final Map level. The City's 2016 Parkland Acquisition and Development Fee (PAD Fee) Update determined that each multi-family unit generates the need for 341 square feet of development parkland. The 718 multi-family units authorized within Planning Area 23 generates a parkland obligation of 5.6 acres, as calculated in Table 8: Estimated Required Park Land Dedication.

Table 8: Estimated Required Park Land Dedication

Unit Type	Units	Park/SF/Unit	Total Park SF	Total Park Acres
Multi-Family	718	341	244,838	5.6

The Community Benefit Agreement between the City and the Applicant includes a provision for the waiver of the Project PAD fees and the payment of a Park Benefit Fee, equal to the PAD fees that would otherwise have been due pursuant to Chula Vista Municipal Code (CVMC) Chapter 17.10. As of the writing of this report, the Park Benefit Fee is anticipated to total \$11.06 million. The final Park Benefit Fee amount will be determined based on the number of residential units constructed and the PAD fee rates in effect as of the date of payment after building permit issuance. The Park Benefit Fee will satisfy the Project's park obligations. The Park Benefit Fees may be utilized by the City to acquire and/or develop parkland, as the City determines appropriate and in the best interest of the City.

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standard for park facilities is per CVMC Section 19.09.040.D.3:

Three acres of neighborhood and community parkland with appropriate facilities per 1,000 residents east of I-805.

2.5 Libraries**Growth Management Threshold Standard Compliance and Requirements**

The growth management threshold standard for library facilities is per CVMC Section 19.09.040.C.4:

The city shall not fall below the citywide ratio of 500 gross square feet (GSF) of library space, adequately equipped and staffed, per 1,000 residents.

The Proposed Project would generate the need for 1,159 square feet of library facilities. Prior to the issuance of each certificate of occupancy for any residential dwelling unit, the Applicant shall pay the City's Public Facilities DIF in accordance with the fees in effect at the time of payment.

2.6 Fire Protection

The Sunbow II, Phase 3 Fire Protection Plan (FPP), prepared by Dudek, analyzed the emergency response capability of existing Chula Vista Fire Department resources in the vicinity of the Proposed Project and the estimated calls and demand for services generated by the Proposed Project.

Based on an estimated population of 2,334 persons and the average number of calls for service of 79/1,000 persons/year, the FPP estimates that the Proposed Project will generate approximately 0.50 calls per service per day. Based on the service analysis in the FPP, existing CVFD Station No. 3 is the closest station to the Proposed Project and has the ability to respond to calls for service within an estimated 2 minutes 41 second travel time. CVFD Station No. 7 is the next closest station and is able to respond to calls for service within a 5 minute 35 second travel time. The newly constructed CVFD Station No. 9 located at the southeastern corner of Naples Street and Alpine Avenue would be able to respond in in approximately 6-minutes 50-seconds travel time to the southeastern portion of the Project site. The FPP concludes existing fire stations can respond to calls for service within the Proposed Project in compliance with City of Chula Vista Growth Management Thresholds and that no new fire and emergency services resources are needed to serve the Proposed Project.

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standard for fire and emergency medical services is per CVMC Section 19.09.040.B.4:

Emergency response: Property equipped and staffed fire and medical units shall respond to calls throughout the City within seven minutes in at least 80 percent of the cases (measured annually). (Note: For growth management purposes, response time includes dispatch, turnout and travel time to the building or site address.)

Prior to the issuance of each certificate of occupancy for any residential dwelling unit, the Applicant shall pay the City's Public Facilities DIF in accordance with the fees in effect at the time of payment.

2.7 Police

The Proposed Project generates demand for Police services as identified in the Sunbow II, Phase 3 FEIR.

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standards for police services are per CVMC Section 19.09.040.A.3:

Priority 1 – Emergency Response: Properly equipped and staffed police units shall respond to 81 percent of Priority 1 emergency calls throughout the city within 7 minutes, 30 seconds and shall maintain an average response time to all Priority 1 emergency calls of 6 minutes or less (measured annually).

Priority 2 – Urgent Response: Property equipped and staffed police units shall respond to all Priority 2 urgent calls throughout the city within 12 minutes.

(Note: For growth management purposes, response time includes dispatch and travel time to the building or site address, otherwise referred to as "received to arrive.")

Per the City's Notice of Deferred DIF Program Policy, prior to the issuance of each certificate of occupancy for any residential dwelling unit, the Applicant shall pay the City's Public Facilities DIF in accordance with the fees in effect at the time of payment.

2.8 Civic Center

There are no adopted threshold standards related to Civic Center facilities.

Per the City's Notice of Deferred DIF Program Policy, prior to the issuance of each certificate of occupancy for any residential dwelling unit, the Applicant shall pay the City's Public Facilities DIF in accordance with the fees in effect at the time of payment.

2.9 Corporation Yard

There is no adopted threshold standard related to Corporation Yard facilities that are part of the Public Facilities Development Impact Fee Program.

2.10 Other Public Facilities

Not applicable.

2.11 Schools

The Proposed Project is within the boundaries of the Chula Vista Elementary School District (CVESD) (K-6 grades) and the Sweetwater Union High School District (SUHSD) (7-12). Student generation estimated for the Proposed Project is based on the most recent student generation factors for each school district serving the Proposed Project as provided in Table 9: Student Generation Factors and Table 10: Student Generation by District. Based on current student generation rates, the Proposed Project will generate approximately 246 elementary school students, 51 middle school students and 108 high school students.

Table 9: Student Generation Factors

School Type	Students by MF Unit
Elementary (K-6)	0.3434
Middle School (7-8)	0.0712
High School (9-12)	0.1504

Table 10: Estimated Student Generation by District

Land Use	Units	Students Generated		
		CVESD	SUHSD	
		Elementary	Middle School	High School
Multi-Family	718	246	51	108

Since the Proposed Project does not generate the need to construct new school facilities, the students generated from the Proposed Project will be served by existing schools within the Chula Vista Elementary School District and Sweetwater Union School District.

Growth Management Threshold Standard Compliance and Requirements

Per CVMC Section 19.09.050.B.4, the City of Chula Vista must provide the school districts with an annual 5-year growth forecast and request an evaluation of their ability to accommodate forecasted growth, both citywide and by subarea.

Prior to the issuance of each building permit for a residential dwelling unit, the Applicant shall provide evidence or certification by the CVESD and SUHSD that any fee, charge or other

requirement levied by the school districts under state law has been complied with or that the district(s) has determined that the fee, charge or other requirements do not apply to the construction of the residential dwelling unit or that the Applicant has entered into a school mitigation agreement with the district(s). School Mitigation Fees shall be in accordance with the fees in effect at the time of payment.

2.12 Fiscal Analysis

Growth Management Threshold Standard Compliance and Requirements

The growth management threshold standards for fiscal are per CVMC Section 19.09.040.H.3:

- a. Fiscal impact analyses and public facilities financing plans, at the time they are adopted, shall ensure that new development generates sufficient revenue to offset the cost of providing municipal services and facilities to that development.*
- b. The City shall establish and maintain, at sufficient levels to ensure the timely delivery of infrastructure and services needed to support growth, consistent with the threshold standards, a development impact fee, capital improvement funding, and other necessary funding programs or mechanisms.*

The Applicant prepared an updated fiscal analysis for the Proposed Project utilizing the City's fiscal model. The fiscal update assumes full build out of all 718 residential units. The results generated from the fiscal model meet the requirements of CVMC 19.09.040.H.3. and demonstrate that the Project will generate an annual fiscal surplus in Years 1 - 20 (\$46,461 - \$270,928) and a cumulative fiscal surplus over the first 20 years of approximately \$3,218,323. (See Attachment A: Sunbow II, Phase 3 Fiscal Impact Analysis, January 2021)

2.13 Public Facility Finance

No changes are necessary related to 2009 PFFP, Public Facility Finance.

ATTACHMENT A
SUNBOW II, PHASE 3 SPA PLAN AMENDMENT
FISCAL IMPACT ANALYSIS

Memorandum

To: Tiffany Allen, Assistant Director, Chula Vista Development Services Dept.

Cc: Bill Hamlin, ACI Sunbow, LLC; David Shepherd, Lennar

From: Sunit Patel, Principal

Date: January 25, 2021

Re: Sunbow II, Phase 3 - Fiscal Impact Analysis

At the request of the project applicant, ACI Sunbow LLC ("Applicant"), DPG has prepared a fiscal impact analysis using the City of Chula Vista's fiscal impact analysis model ("City Model") to estimate the fiscal impact of the proposed Sunbow II, Phase 3 project (the "Project") on the City of Chula Vista ("City") General Fund.

Proposed Residential Project (zoning change)

The proposed Project is a residential development planned for a total of 718 residential units expected to consist of four unique for-sale attached residential product types with 15 unique floor plans, ranging in square footage from approximately 1,100 to 2,050 square feet in two- and three-story units. Each home includes a two-car garage and two to four bedrooms. The following Project assumptions were used in the City Model per information provided by the Developer.

FIA Land Use Classification	Units	Avg. Home Size	Est. Base Price	Absorption (Home Closings)						
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
High Density - "Multifamily"	184	1,422	\$ 421,487	48	48	48	40	0	0	184
Med-High Density - "Single family"	534	1,659	\$ 490,585	120	120	120	84	79	11	534
Total / Wtd. Avg.	718	1,598	\$ 472,878	168	168	168	124	79	11	718

Note: See Exhibit D for additional detail on residential product and pricing assumptions.

Fiscal Impact Analysis – Methodology and Results

As you are aware, the City Model (see Exhibit B) does not currently have the ability to account for the turnover (resale) of residential units over time. Accounting for property turnover is important because it triggers a reassessment of the property's assessed value and affects the amount of property tax revenue generated for the City. Using methodology previously approved by the City, we have separately calculated the additional property tax revenue generated from residential property turnover and adjusted the results of the City Model accordingly. The adjustment is based on the following assumptions:

- An increase in the assessed value of residential property due to turnover (resale) was estimated using an annual escalation factor of 3.5% which is consistent with the historical average of several recognized indices, including Case Shiller, California Association of Realtors, Federal Reserve and Zillow. Average turnover (resale) of eight (8) years was assumed for all residential units for



purposes of adjusting the assessed values to calculate property taxes. In addition to typical turnover, in order to reflect similar assessed value increases over the six-year buildout of the Project, the initial (year 1) home price assumption is increased by 3.5% until the initial year of sale for each unit which is then assumed to be the initial base year value. Over the next 7 years the initial base year value escalates by 2% over the prior year, consistent with California Constitution Article XIII A Section 2(b). In year eight, the initial base year value is reset (second base year value) assuming a reset of the assessed value based on an annual escalation factor of 3.5% for 8 years applied to the initial base year value. This process of resetting the base year value repeats every eight years. Please refer to Exhibits C-1, C-2, and C-3 attached hereto for the supporting analysis.

The results generated by the City Model, with the adjustments outlined above, indicate that the Project will generate a fiscal surplus annually ranging from \$46,461 in Year 1 to \$270,928 in Year 20. The total cumulative fiscal surplus over 20 years is estimated to be approximately \$3,200,000. Please refer to Exhibit A for the supporting analysis.

Potential Industrial Scenario (no zoning change)

The Applicant prepared the Sunbow II, Phase 3 SPA Amendment Chula Vista General Plan Amendment (GPA) Justification Report which demonstrates Project consistency with applicable Chula Vista General Plan objectives and policies. The City contracted with HR&A Advisors, Inc. to assist the Development Services Department in understanding 1) the potential impact of the proposed industrial rezoning on Chula Vista's ability to meet the City's long-term employment goals; and 2) whether it is reasonable to expect the Sunbow property would develop as an industrial property rather than remain vacant, if it were to retain its current industrial zoning. The *Sunbow II, Phase 3 Market and Financial Analysis of Industrial Use* (HR&A 2021) found that:

- “Significant topographical variation on the site is a barrier to industrial development due to the expense and time associated with grading and site development preparation.”
- “Based on an analysis of recent land sales and the lack of developer or end-user interest in sites over the past 20 years, industrial development on the Site is unlikely to be financially feasible.”

As a result of these findings, no fiscal analysis of the current zoning has been prepared. See *Sunbow II, Phase 3 Market and Financial Analysis of Industrial Use* (HR&A 2021), provided as GPA Justification Report, Attachment B, for additional details. This *Sunbow II, Phase 3 – Fiscal Impact Analysis* (DPFG 2021) is also provided as GPA Justification Report, Attachment C.

Exhibits:

- Exhibit A: Summary of Adjustment to Chula Vista Fiscal Impact Analysis Model
- Exhibit B: City of Chula Vista Fiscal Impact Analysis Model
- Exhibit C-1: Total Assessed Value after Turnover
- Exhibit C-2: Assessed Value and Reassessment Year - Breakdown by Absorption Year
- Exhibit C-3: Initial Home Value by Year
- Exhibit D: Product and Pricing Assumptions (un-escalated)

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ



EXHIBIT A

Summary of Adjustment to Chula Vista Fiscal Impact Analysis Model

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ



EXHIBIT A

Sunbow II, Phase 3

Summary of Adjustment to CV Fiscal Impact Analysis Model

Total Project Net Revenue (Turnover based on DPEF Turnover Model - Assumes 3.5% Escalation in new Home Pricing)

January 25, 2021

Year	1	2	3	4	5	6	7	8	9	10
Cumulative Residential AV - Inflated per CV Model	\$79,101,576	\$161,367,215	\$246,891,839	\$313,452,560	\$361,672,585	\$374,864,137	\$382,361,419	\$390,008,648	\$397,808,821	\$405,764,997
Revised Inflation Assuming 8 year Turnover (a)	79,101,576	162,553,739	250,540,399	319,932,924	370,805,231	384,630,607	392,323,219	413,468,507	435,502,160	458,458,235
Difference in Assessed Value	\$0	\$1,186,524	\$3,648,560	\$6,480,364	\$9,132,646	\$9,766,471	\$9,961,800	\$23,459,860	\$37,693,339	\$32,693,238
Total Property Tax Increase Due to City	[1] \$0	\$1,495	\$4,597	\$8,165	\$11,507	\$12,306	\$12,552	\$29,559	\$47,494	\$66,393
Total Projected Net Revenue Before Turnover Adj.	[2] \$46,461	\$79,765	\$105,738	\$116,347	\$125,564	\$112,101	\$93,950	\$76,260	\$81,471	\$87,155
Total Projected Net Revenue After Turnover Adj.	= [1] + [2] \$46,461	\$81,260	\$110,335	\$124,512	\$137,071	\$124,407	\$106,502	\$105,820	\$128,965	\$153,549
Cumulative Adjusted Net Revenues	\$46,461	\$127,721	\$238,057	\$362,568	\$499,639	\$624,046	\$730,549	\$836,368	\$965,333	\$1,118,882

Footnotes:

(a) Assumes 8 year turnover with 2.00% annual escalation and 3.50% escalation when re-assessed.

EXHIBIT A

Sunbow II, Phase 3

Summary of Adjustment to CV Fiscal Impact Analysis Model

Total Project Net Revenue (Turnover based on DPEF Turnover Model - Assumes 3.5% Escalation in new Home Pricing)

January 25, 2021

Year	11	12	13	14	15	16	17	18	19	20
Cumulative Residential AV - Inflated per CV Model	\$413,880,297	\$422,157,903	\$430,601,061	\$439,213,082	\$447,997,344	\$456,957,291	\$466,096,437	\$475,418,365	\$484,926,733	\$494,625,267
Revised Inflation Assuming 8 year Turnover (a)	478,451,471	495,497,560	506,485,060	516,614,761	526,947,056	532,605,028	579,305,325	607,087,315	631,534,621	652,665,756
Difference in Assessed Value	\$64,571,174	\$73,339,657	\$75,883,999	\$77,401,679	\$78,949,712	\$95,647,737	\$113,208,888	\$131,668,950	\$146,607,888	\$158,040,489
Total Property Tax Increase Due to City	[1] \$81,360	\$92,408	\$95,614	\$97,526	\$99,477	\$120,516	\$142,643	\$165,903	\$184,726	\$199,131
Total Projected Net Revenue Before Turnover Adj.	[2] \$87,408	\$87,443	\$87,249	\$85,975	\$84,406	\$82,554	\$80,389	\$77,887	\$75,030	\$71,797
Total Projected Net Revenue After Turnover Adj.	= [1] + [2] \$168,767	\$179,851	\$182,863	\$183,501	\$183,882	\$203,070	\$223,032	\$243,790	\$259,756	\$270,928
Cumulative Adjusted Net Revenues	\$1,287,649	\$1,467,501	\$1,650,364	\$1,833,865	\$2,017,747	\$2,220,817	\$2,443,849	\$2,687,639	\$2,947,394	\$3,218,323

Footnotes:

(a) Assumes 8 year turnover with 2.00% annual escalation and 3.50% escalation when re-assessed.

EXHIBIT B

City of Chula Vista Fiscal Impact Analysis Model

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ





Year		1	2	3	4	5	6	7	8
Population	Single Family Residential	336	672	1,008	1,243	1,464	1,495	1,495	1,495
	Multi-Family Residential	134	269	403	515	515	515	515	515
	Total (Per Capita Base)	470	941	1,411	1,758	1,980	2,010	2,010	2,010
	Employment Population 5% Res Pop	24	47	71	88	99	101	101	101
	Non-Residential	-	-	-	-	-	-	-	-
Totals		494	988	1,482	1,846	2,079	2,111	2,111	2,111
Number of Homes									
Number of Homes	Single Family Residential	120	240	360	444	523	534	534	534
	Multi-Family Residential	48	96	144	184	184	184	184	184
	Totals	168	336	504	628	707	718	718	718
Year		1	2	3	4	5	6	7	8
General Fund Revenues									
Tax Revenues									
Property Tax	AV	\$ 99,668	\$ 203,223	\$ 311,084	\$ 394,950	\$ 455,707	\$ 472,329	\$ 481,775	\$ 491,411
Sales and Use Tax	Per Capita	59,051	114,097	170,640	212,132	238,021	240,940	240,180	239,443
Sales and Use Tax - Project Specific	Project Specific	-	-	-	-	-	-	-	-
Transient Occupancy Tax	Per Capita	7,260	13,988	21,022	26,302	29,728	30,306	30,418	30,590
Motor Vehicle In-Lieu of VLF	AV	63,159	130,242	199,982	254,259	293,579	304,336	310,450	316,686
Franchise Fees	Per Capita	20,333	41,013	62,148	78,195	88,856	91,115	91,900	92,725
Other Taxes	Per Capita	14,196	29,062	43,279	53,670	60,210	60,877	60,618	59,671
Subtotal Tax Revenues		263,667	531,725	808,155	1,019,509	1,166,101	1,199,902	1,215,341	1,230,526
Other Revenues	Per Capita	1,192	3,940	6,392	8,547	10,256	11,040	11,386	11,848
Licenses and Permits	Per Capita	2,685	5,386	8,105	10,133	11,450	11,674	11,723	11,776
Fees, forfeitures, penalties	Per Capita	2,111	4,225	6,373	7,968	9,003	9,179	9,218	9,259
Use of Money & Property	Per Capita	5,106	10,242	15,412	19,269	21,774	22,200	22,293	22,392
Charges for Services	No Forecast	-	-	-	-	-	-	-	-
Intergovernmental	Per Capita	3,638	7,298	10,981	13,730	15,514	15,818	15,885	15,955
Subtotal Other Revenues		14,734	31,100	47,262	59,647	67,998	69,911	70,505	71,231
Total General Fund Revenues		\$ 278,401	\$ 562,825	\$ 855,417	\$ 1,079,155	\$ 1,234,099	\$ 1,269,814	\$ 1,285,846	\$ 1,301,756
General Fund Expenditures									
General Government	Per Capita	\$ 4,765	\$ 9,651	\$ 14,664	\$ 18,515	\$ 21,126	\$ 21,751	\$ 22,057	\$ 22,372
Community Development (20%)	Per Capita	1,069	2,165	3,290	4,153	4,739	4,879	4,948	5,018
Public Works/Engineering (20%)	Per Capita	1,710	3,534	5,357	6,739	7,648	7,839	7,917	7,977
PC/EMP Base									
Drainage Management System	\$ 26.50	12,684	25,368	38,052	47,414	53,379	54,209	54,209	54,209
Building Management System	4.10	1,960	3,920	5,881	7,327	8,249	8,378	8,378	8,378
Parks Management System	15.68	7,503	15,007	22,510	28,048	31,576	32,068	32,068	32,068
Open Space Management System	6.72	3,216	6,431	9,647	12,021	13,533	13,743	13,743	13,743
Fleet Management System	3.73	1,786	3,573	5,359	6,678	7,518	7,635	7,635	7,635
Pavement Annual (PMP)	14.18	6,789	13,577	20,366	25,377	28,569	29,014	29,014	29,014
General Govt Management System	0.65	313	625	938	1,169	1,316	1,336	1,336	1,336
Urban Forestry Management System	6.72	3,216	6,431	9,647	12,021	13,533	13,743	13,743	13,743
\$ 78.28		37,467	74,934	112,400	140,054	157,673	160,126	160,126	160,126
Community Services	Per Capita	6,455	13,074	19,865	25,082	28,619	29,466	29,880	30,307
New Library	Project Specific	-	-	-	-	-	-	-	-
New Facilities	Project Specific	-	-	-	-	-	-	-	-
Public Safety:									
Police Services	DU/Acre	112,849	238,775	373,219	485,723	561,965	593,140	617,645	642,006
Fire Services	DU/Acre	62,823	131,201	206,103	263,882	305,472	318,589	327,094	335,141
Animal Control of Services	Per Capita	4,802	9,727	14,780	18,661	21,293	21,923	22,231	22,548
Total Public Safety		180,474	379,703	594,103	768,265	888,730	933,652	966,969	999,696
Total General Fund Expenditures		\$ 231,939	\$ 483,060	\$ 749,679	\$ 962,808	\$ 1,108,535	\$ 1,157,713	\$ 1,191,896	\$ 1,225,496
Projected Net Revenues/(Shortfall)		\$46,461	\$79,765	\$105,738	\$116,347	\$125,564	\$112,101	\$93,950	\$76,260



Year		9	10	11	12	13	14	15	16	17
Population										
Single Family Residential		1,495	1,495	1,495	1,495	1,495	1,495	1,495	1,495	1,495
Multi-Family Residential		515	515	515	515	515	515	515	515	515
Total (Per Capita Base)		2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010	2,010
Employment Population 5% Res Pop		101	101	101	101	101	101	101	101	101
Non-Residential		-	-	-	-	-	-	-	-	-
Totals		2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111	2,111
Number of Homes										
Single Family Residential		534	534	534	534	534	534	534	534	534
Multi-Family Residential		184	184	184	184	184	184	184	184	184
Totals		718	718	718	718	718	718	718	718	718
Year		9	10	11	12	13	14	15	16	17
General Fund Revenues										
Tax Revenues										
Property Tax	AV	\$ 501,239	\$ 511,264	\$ 521,489	\$ 531,919	\$ 542,557	\$ 553,408	\$ 564,477	\$ 575,766	\$ 587,282
Sales and Use Tax	Per Capita	246,626	254,025	261,646	269,495	277,580	285,908	294,485	303,319	312,419
Sales and Use Tax - Project Specific	Project Specific	-	-	-	-	-	-	-	-	-
Transient Occupancy Tax	Per Capita	31,508	32,453	33,427	34,430	35,462	36,526	37,622	38,751	39,913
Motor Vehicle In-Lieu of VLF	AV	323,046	329,534	336,151	342,901	349,786	356,809	363,972	371,278	378,731
Franchise Fees	Per Capita	95,506	98,372	101,323	104,362	107,493	110,718	114,040	117,461	120,985
Other Taxes	Per Capita	61,461	63,305	65,204	67,160	69,175	71,251	73,388	75,590	77,857
Subtotal Tax Revenues		1,259,387	1,288,953	1,319,240	1,350,268	1,382,055	1,414,620	1,447,983	1,482,165	1,517,186
Other Revenues	Per Capita	12,204	12,570	12,947	13,336	13,736	14,148	14,572	15,009	15,460
Licenses and Permits	Per Capita	12,129	12,493	12,868	13,254	13,651	14,061	14,483	14,917	15,364
Fines, forfeitures, penalties	Per Capita	9,537	9,823	10,118	10,421	10,734	11,056	11,387	11,729	12,081
Use of Money & Property	Per Capita	23,064	23,756	24,469	25,203	25,959	26,738	27,540	28,366	29,217
Charges for Services	No Forecast	-	-	-	-	-	-	-	-	-
Intergovernmental	Per Capita	16,434	16,927	17,425	17,958	18,497	19,051	19,623	20,212	20,818
Subtotal Other Revenues		73,368	75,559	77,836	80,171	82,576	85,053	87,605	90,233	92,940
Total General Fund Revenues		\$ 1,332,755	\$ 1,364,522	\$ 1,397,076	\$ 1,430,439	\$ 1,464,631	\$ 1,499,673	\$ 1,535,588	\$ 1,572,398	\$ 1,610,126
General Fund Expenditures										
General Government	Per Capita	\$ 22,697	\$ 23,032	\$ 23,377	\$ 23,732	\$ 24,098	\$ 24,687	\$ 25,296	\$ 25,919	\$ 26,559
Community Development (20%)	Per Capita	5,091	5,167	5,244	5,324	5,406	5,538	5,674	5,814	5,958
Public Works/Engineering (20%)	Per Capita	8,052	8,116	8,238	8,363	8,492	8,700	8,914	9,134	9,359
	PC/EMP Base									
Drainage Management System	\$ 26.50	54,209	54,209	54,209	54,209	54,209	54,209	54,209	54,209	54,209
Building Management System	4.10	8,378	8,378	8,378	8,378	8,378	8,378	8,378	8,378	8,378
Parks Management System	15.68	32,068	32,068	32,068	32,068	32,068	32,068	32,068	32,068	32,068
Open Space Management System	6.72	13,743	13,743	13,743	13,743	13,743	13,743	13,743	13,743	13,743
Fleet Management System	3.73	7,635	7,635	7,635	7,635	7,635	7,635	7,635	7,635	7,635
Pavement Annual (PMP)	14.18	29,014	29,014	29,014	29,014	29,014	29,014	29,014	29,014	29,014
General Govt Management System	0.65	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336	1,336
Urban Forestry Management System	6.72	13,743	13,743	13,743	13,743	13,743	13,743	13,743	13,743	13,743
	\$ 78.28	160,126	160,126	160,126	160,126	160,126	160,126	160,126	160,126	160,126
Community Services	Per Capita	30,747	31,201	31,668	32,150	32,645	33,442	34,268	35,111	35,978
New Library	Project Specific	-	-	-	-	-	-	-	-	-
New Facilities	Project Specific	-	-	-	-	-	-	-	-	-
Public Safety:										
Police Services	DU/Acre	658,057	674,508	691,371	708,655	726,371	744,531	763,144	782,222	801,778
Fire Services	DU/Acre	343,638	352,003	366,083	380,726	395,955	411,794	428,265	445,396	463,212
Animal Control Services	Per Capita	22,876	23,214	23,561	23,919	24,288	24,881	25,495	26,123	26,768
Total Public Safety		1,024,570	1,049,724	1,081,015	1,113,301	1,146,615	1,181,206	1,216,904	1,253,741	1,291,758
Total General Fund Expenditures		\$ 1,251,284	\$ 1,277,366	\$ 1,309,668	\$ 1,342,996	\$ 1,377,381	\$ 1,413,698	\$ 1,451,182	\$ 1,489,844	\$ 1,529,737
Projected Net Revenues/(Shortfall)		\$81,471	\$87,155	\$87,408	\$87,443	\$87,249	\$85,975	\$84,406	\$82,554	\$80,389



	Year	18	19	20
Population				
Single Family Residential		1,495	1,495	1,495
Multi-Family Residential		515	515	515
Total (Per Capita Base)		2,010	2,010	2,010
Employment Population 5% Rates Pop		101	101	101
Non-Residential		-	-	-
Totals		2,111	2,111	2,111
Number of Homes				
Single Family Residential		534	534	534
Multi-Family Residential		184	184	184
Totals		718	718	718
	Year	18	19	20

General Fund Revenues

Tax Revenues				
Property Tax	AV	\$ 599,027	\$ 611,008	\$ 623,228
Sales and Use Tax	Per Capita	321,792	331,445	341,389
Sales and Use Tax - Project Specific	Project Specific	-	-	-
Transient Occupancy Tax	Per Capita	41,111	42,344	43,614
Motor Vehicle In-Lieu of VLF	AV	386,332	394,086	401,994
Franchise Fees	Per Capita	124,614	128,353	132,203
Other Taxes	Per Capita	80,193	82,599	85,077
Subtotal Tax Revenues		1,553,069	1,599,834	1,627,505
Other Revenues	Per Capita	15,923	16,401	16,893
Licenses and Permits	Per Capita	15,825	16,300	16,789
Fines, forfeitures, penalties	Per Capita	12,443	12,817	13,201
Use of Money & Property	Per Capita	30,094	30,996	31,926
Charges for Services	No Forecast	-	-	-
Intergovernmental	Per Capita	21,443	22,086	22,748
Subtotal Other Revenues		95,728	98,600	101,558
Total General Fund Revenues		\$ 1,648,797	\$ 1,688,434	\$ 1,729,063

General Fund Expenditures

General Government	Per Capita	\$ 27,219	\$ 27,899	\$ 28,600
Community Development (20%)	Per Capita	6,106	6,258	6,415
Public Works/Engineering (20%)	Per Capita	9,592	9,831	10,078
	PC/EMP Base			
Drainage Management System	\$ 26.50	54,209	54,209	54,209
Building Management System	4.10	8,378	8,378	8,378
Parks Management System	15.68	32,068	32,068	32,068
Open Space Management System	6.72	13,743	13,743	13,743
Fleet Management System	3.73	7,635	7,635	7,635
Pavement Annual (PMP)	14.18	29,014	29,014	29,014
General Govt Management System	0.65	1,336	1,336	1,336
Urban Forestry Management System	6.72	13,743	13,743	13,743
	\$ 78.28	160,126	160,126	160,126
Community Services	Per Capita	36,872	37,794	38,743
New Library	Project Specific	-	-	-
New Facilities	Project Specific	-	-	-
Public Safety:				
Police Services	DU/Acre	821,822	842,368	863,427
Fire Services	DU/Acre	481,740	501,010	521,050
Animal Control Services	Per Capita	27,423	28,119	28,825
Total Public Safety		1,330,986	1,371,497	1,413,303
Total General Fund Expenditures		\$ 1,570,910	\$ 1,613,404	\$ 1,657,266
Projected Net Revenues/(Shortfall)		\$77,887	\$75,030	\$71,797

EXHIBIT C-1

Total Assessed Value after Turnover

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ



EXHIBIT C-1
Sunbow II, Phase 3
Total Assessed Value After Turnover
January 25, 2021

Year	Total High Density (MF) Assessed Value After Turnover	Total Med-High Density (SF) Assessed Value After Turnover	Total Assessed Value
1	\$ 20,231,376	\$ 58,870,200	\$ 79,101,576
2	41,575,478	120,978,261	162,553,739
3	64,079,343	186,461,056	250,540,399
4	84,053,337	235,879,587	319,932,924
5	85,734,403	285,070,827	370,805,231
6	87,449,091	297,181,516	384,630,607
7	89,198,073	303,125,146	392,323,219
8	94,383,402	319,085,105	413,468,507
9	99,791,485	335,710,675	435,502,160
10	105,430,944	353,027,291	458,458,235
11	110,682,193	367,769,278	478,451,471
12	112,895,837	382,601,723	495,497,560
13	115,153,754	391,331,306	506,485,060
14	117,456,829	399,157,932	516,614,761
15	119,805,966	407,141,090	526,947,056
16	126,068,996	426,536,031	552,605,028
17	132,592,630	446,712,695	579,305,325
18	139,386,815	467,700,500	607,087,315
19	145,747,312	485,787,308	631,534,621
20	148,662,259	504,003,498	652,665,756

EXHIBIT C-2

AV and Reassessment Year - Breakdown by Absorption Year

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ



EXHIBIT C-2
Sunbow II, Phase 3
Assessed Value and Reassessment Year - Breakdown by Absorption Year
January 25, 2021

HIGH DENSITY (MULTIFAMILY UNITS)											
Current Year	Year 1 Units (48 Units)		Year 2 Units (48 Units)		Year 3 Units (48 Units)		Year 4 Units (40 Units)				Total MF Assessed Value After Turnover
	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value			
1		\$ 20,231,376		\$ -		\$ -		\$ -			\$ 20,231,376
2		20,636,004		20,939,474		-		-			41,575,478
3		21,048,724		21,358,264		21,672,356		-			64,079,343
4		21,469,698		21,785,429		22,105,803		18,692,407			84,053,337
5		21,899,092		22,221,137		22,547,919		19,066,255			85,734,403
6		22,337,074		22,665,560		22,998,877		19,447,580			87,449,091
7		22,783,815		23,118,871		23,458,855		19,836,532			89,198,073
8	Assess	26,640,859		23,581,249		23,928,032		20,233,262			94,383,402
9		27,173,676	Assess	27,573,289		24,406,593		20,637,928			99,791,485
10		27,717,149		28,124,755	Assess	28,538,354		21,050,686			105,430,944
11		28,271,492		28,687,250		29,109,121	Assess	24,614,330			110,682,193
12		28,836,922		29,260,995		29,691,303		25,106,617			112,895,837
13		29,413,661		29,846,215		30,285,129		25,608,749			115,153,754
14		30,001,934		30,443,139		30,890,832		26,120,924			117,456,829
15		30,601,973		31,052,002		31,508,649		26,643,343			119,805,966
16	Assess	35,080,924		31,673,942		32,138,822		27,176,210			126,068,996
17		35,782,542	Assess	36,308,756		32,781,598		27,719,734			132,592,630
18		36,498,193		37,034,931	Assess	37,579,562		28,274,128			139,386,815
19		37,228,157		37,775,630		38,331,154	Assess	32,412,373			145,747,312
20		37,972,720		38,531,142		39,097,777		33,060,620			148,662,259

MED-HIGH DENSITY (SINGLE FAMILY UNITS)											
Current Year	Year 1 Units (120 Units)		Year 2 Units (120 Units)		Year 3 Units (120 Units)		Year 4 Units (84 Units)		Year 5 Units (79 Units)		Total SF Assessed Value After Turnover
	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	
1		\$ 58,870,200		\$ -		\$ -		\$ -		\$ -	\$ 58,870,200
2		60,047,604		60,930,657		63,063,230		-		-	120,978,261
3		61,248,556		62,149,270		64,324,495		-		-	186,461,056
4		62,473,527		63,392,256		65,610,984		45,689,310		-	235,879,587
5		63,722,998		64,660,101		66,923,204		46,603,096		44,473,648	285,070,827
6		64,997,458		65,953,303		68,261,668		47,535,158		6,409,272	297,181,516
7		66,297,407		67,272,369		69,626,902		48,485,861		6,537,457	303,125,146
8	Assess	77,520,811		68,617,816		71,019,440		49,455,579		6,668,207	319,085,105
9		79,071,228	Assess	80,234,040		83,042,231		50,444,690		48,139,707	335,710,675
10		80,652,652		81,838,721	Assess	84,703,076		51,453,584		49,102,501	353,027,291
11		82,265,705		83,475,495		86,397,137	Assess	60,164,096		50,084,551	367,769,278
12		83,911,019		85,145,005		88,297,137		61,367,378	Assess	58,563,302	382,601,723
13		85,589,240		86,847,905		89,125,080		62,594,726		59,734,568	391,331,306
14		87,301,024		88,584,863		90,887,582		63,846,620	Assess	60,929,259	399,157,932
15		89,047,045		90,356,560		91,685,333		65,123,553		62,147,844	407,141,090
16	Assess	102,080,105		92,163,692		93,519,040		66,426,024		63,390,801	426,536,031
17		104,121,707	Assess	105,652,909		95,389,421		67,754,544		64,658,617	446,712,695
18		106,204,141		107,765,967	Assess	109,350,760		69,109,635		65,951,790	467,700,500
19		108,328,224		109,921,286		111,537,776	Assess	79,224,626		67,270,825	485,787,308
20		110,494,789		112,119,712		113,768,531		80,809,118	Assess	77,116,685	504,003,498

Footnotes:

(a) Turnover calculations based on 3.50% escalation and turnover occurring every 8 years. Assumes 2.00% escalation when no turnover event occurs.

EXHIBIT C-3

Initial Home Value by Year

ORANGE COUNTY, CA
AUSTIN, TX

SACRAMENTO, CA
TAMPA, FL

LAS VEGAS, NV
ORANGE COUNTY, FL

BOISE, ID
RESEARCH TRIANGLE, NC

PHOENIX, AZ



EXHIBIT C-3
Sunbow II, Phase 3
Initial Home Value by Year
Assumes 3.50% Annual Appreciation
January 25, 2021

Year	1	2	3	4	5	6	7	8	9	10
High Density (Multifamily)										
MF Unit Absorption	48	48	48	40	-	-	-	-	-	-
MF AV of Single unit	\$ 421,487	\$ 436,239	\$ 451,507	\$ 467,310	\$ 483,666	\$ 500,594	\$ 518,115	\$ 536,249	\$ 555,018	\$ 574,444
Med-High Density (Single Family)										
SF Unit Absorption	120	120	120	84	79	11	-	-	-	-
SF AV of Single Unit	\$ 490,585	\$ 507,755	\$ 525,527	\$ 543,920	\$ 562,958	\$ 582,661	\$ 603,054	\$ 624,161	\$ 646,007	\$ 668,617

EXHIBIT D

Product and Pricing Assumptions (un-escalated)

ORANGE COUNTY, CA	SACRAMENTO, CA	LAS VEGAS, NV	BOISE, ID	PHOENIX, AZ
AUSTIN, TX	TAMPA, FL	ORANGE COUNTY, FL	RESEARCH TRIANGLE, NC	



EXHIBIT D
Sunbow II, Phase 3
Product and Pricing Assumptions (un-escalated)
January 25, 2021

PRODUCT AND PRICING BREAKDOWN:

Product	Units	Avg. Home Size	Est. Base Price (Year 1)	Est. Total Assessed Value *
HIGH DENSITY (18-45/AC)				
Product A (3-Story Attached)	184	1,422	\$ 421,487	\$ 77,553,694
MED-HIGH DENSITY (11-18/AC)				
Product B (2-Story Row Townhome)	235	1,466	\$ 456,511	\$ 107,280,129
Product C (3-Story Row Townhome)	191	1,860	\$ 521,927	\$ 99,688,099
Product D (Triplex)	108	1,725	\$ 509,300	\$ 55,004,400
Subtotal/Wtd. Avg. - Med-High Density	534	1,659	\$ 490,585	\$ 261,972,628
Total / Wtd. Avg.	718	1,598	472,878	339,526,322

SUMMARY BY DENSITY CATEGORY:

FIA Land Use Classification	Units	Avg. Home Size	Est. Base Price (Year 1)	Est. Total Assessed Value *
High Density - "Multifamily"	184	1,422	\$ 421,487	\$ 77,553,694
Med-High Density - "Single family"	534	1,659	\$ 490,585	\$ 261,972,628
Total / Wtd. Avg.	718	1,598	472,878	339,526,322

* Represents the estimated total assessed value using "Year 1" base price with no adjustment for price appreciation over time.

SUNBOW II, PHASE 3 SPA AMENDMENT

Air Quality Improvement Plan

Appendix C

January 2021

Adopted: _____
By Resolution No. _____

Prepared for:

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1. Executive Summary

A. Intent of the AQIP

This AQIP provides an analysis of air pollution impacts which would result from the proposed development and demonstrates the best available design to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled and reduce Greenhouse Gasses (GHG) direct or indirect emissions. This AQIP demonstrates how Sunbow II, Phase 3 (herein referred to as “the project”) which is part of the greater Sunbow community, has been designed consistent with the City’s Energy and Water Conservation regulations (CVMC 20.04) and Landscape Water Conservation (CVMC 20.12), and represents the best available design in terms of improving energy efficiency and reducing GHG emissions. GHG emissions include gases such as CO₂, CH₄, and N₂O. These emissions occur naturally and are produced by human activities, such as by automobile emissions and emissions from production of electricity to provide power to homes and businesses. These gases prevent heat from escaping the earth’s atmosphere, while allowing in sunlight, which has the effect of warming the air temperature.

Applicable action measures contained in the City’s Climate Action Plan that apply to the Sunbow Sectional Planning Area (SPA) Plan Amendment are addressed. The 2017 Climate Action Plan focuses on the following areas:

- Water Conservation and Reuse
 - The Project will be consistent with the City’s Landscape Water Conservation Ordinance.
- Waste Reduction
 - The Project will comply with current CALGreen codes and will not impair the City’s ability to develop a Zero Waste Plan.
- Renewable and Efficient Energy
 - The Project will comply with the current building standards and design solar-ready rooftops.
 - The Project will include shade trees on site to save energy and reduce heat island issues.
- Smart Growth and Transportation
 - The Project is located close to major urban and employment centers. The Project site is within the City and located close to public transit and I-805.
 - The Project will comply with current building standards and EV charging infrastructure requirements. The Project will provide designated preferred parking for alternative fuel vehicles.

- The Project will be EV-ready.

B. Community Site Design Goals

The Sunbow General Development Plan approved in 1989, states that the principal objective of the Sunbow Planned Community is the creation of an efficient, self-contained village. Several primary objectives were set forth when developing the Sunbow plan:

1. Through an interwoven system of community circulation, commercial, office, industrial, residential and recreational uses, achieve a compatible mix of uses surrounding an Urban Activity Center.
2. Provide an opportunity to live within a community that includes commercial, cultural and recreational uses essential to residential.
3. Provide a safe, convenient, and efficient local circulation system which maximizes access between residential areas and community facilities while minimized travel distance and reliance on the automobile.
4. Promote a balanced open space system between active, usable recreation areas and the open space of the Poggi Canyon through the preservation of natural hillside, canyons and creeks. Further, through the provision of trails, paseos and parkways and by exceeding the requirement for active community recreation facilities.
5. Promote community diversity and interaction through the establishment of a Village Center which includes commercial, office, recreational, civic and residential uses.
6. Provide a sensitive land plan which accommodates shifts in residential density without exceeding stated unit totals or community goals.

Build out of the Sunbow plan achieved its goals as it currently provides various housing types, from single-family detached homes to Veteran's housing, as well as a retail center, an elementary school (Hedenkamp Elementary School), a medical center and Community Center/Park.

Public transit (bus stops) are currently located at the intersections of East Palomar Street/Paseo Ladera and Brandywine Avenue/Olympic Parkway in addition to the East Palomar Transit Station which is approximately 2 miles away from the Project.

The proposed amendment to Sunbow will continue its mix of uses and further permit medium-high and high density housing. The project is currently designated as an industrial land use but is being proposed for re-designation to residential. In addition to the residential uses, there are 63.6 acres of MSCP Preserve open space.

C. Planning Features

Sunbow II, Phase 3 comprises of 135.7 acres located south of Olympic Parkway, north of the Otay Landfill and City of Chula Vista property, east of Brandywine Avenue and west of the future Otay Ranch Village 2 development area.

Sunbow II, Phase 3 Project (“Project”) includes 718 multi-family units on approximately 44.2 acres within the 135.7-acre Project Area. The Project includes six residential neighborhoods planned to provide four unique multi-family attached residential product types with 15 unique floorplans, ranging in square footage from approximately 1,100 to 2,050 in two- and three-story units. A 0.9-acre Community Purpose Facility site is centrally located and planned as a Community Recreation Area. Two planned Class III Collector public streets provide access from Olympic Parkway to the Project, in the locations designated in the adopted Sunbow SPA Plan. Residential neighborhoods are served by private streets and driveways. The Project also includes 5.9 acres for backbone public streets, 16.8 acres of open space (two water quality/hydromodification basins, manufactured slopes, a conserved wetland resource and associated buffer area), 4.3 acres of Poggi Canyon Conservation Easements and 63.6 acres designated MSCP Preserve open space.

Public Spaces and Amenities

0.9 acres will be designated as Community Purpose Facility. This will be located at the center of the project and will include a recreation area for the community. There will also be common open space areas distributed throughout the neighborhood.

Open Space and Trails Network

The design for the project is influenced by its location adjacent to large natural open space areas and Poggi Creek as well as proximity to future development within Otay Ranch. The Community is surrounded by large landscaped slope areas which provide a buffer between development and adjacent Preserve areas and provide fuel modification zones. Besides the CPF site, additional passive and active recreation open spaces are distributed throughout the community to provide recreational opportunities within walking distance of most homes. Furthermore, as described in the following Pedestrian and Bike Mobility section, pedestrian walkways and connections will be provided throughout the community. Refer to Figure 1: Conceptual Open Space Plan.

Figure 1: Conceptual Open Space Plan¹



¹ Figure 1 represents a conceptual plan for the Project. The final site plan, including building placement to be determined during the Design Review process.

Pedestrian and Bike Mobility—Minimize Cars

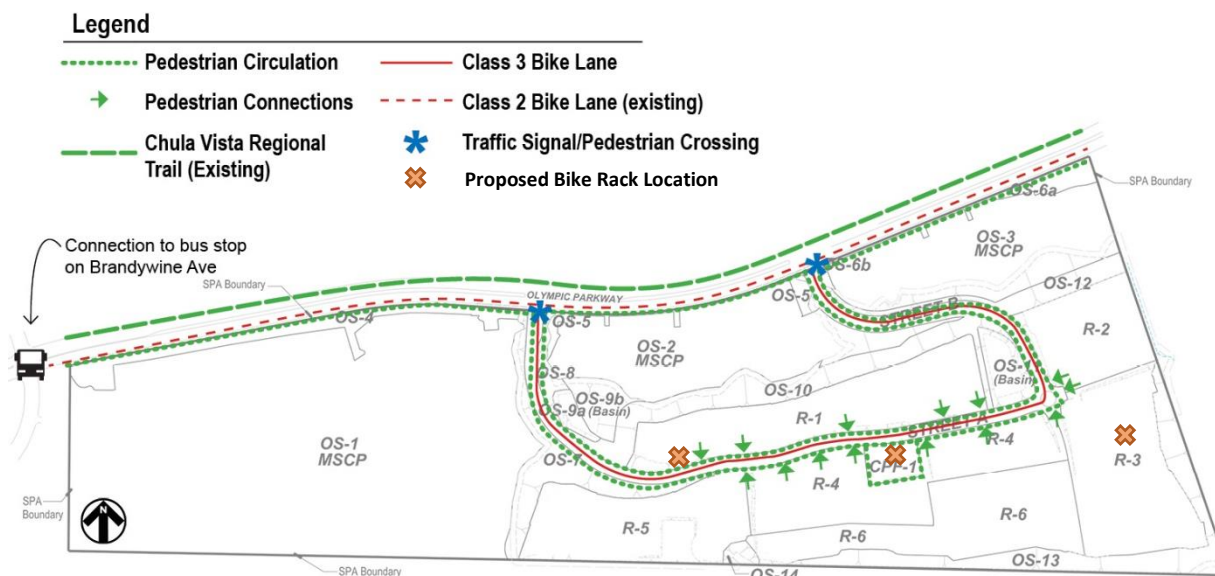
The project neighborhoods are strategically connected along a network of pedestrian walkways, both street sidewalks and pedestrian paseos. These walkways provide connections between neighborhoods and out to the public streets. All streets in the project provide a five-foot wide sidewalk on at least one side of the street. Most of the street sections also include a landscape parkway that provides buffer between pedestrians and automobiles. Additionally, pedestrian activity is encouraged through connection to the existing Chula Vista Regional Trail along both Streets “A” and “B.” The Chula Vista Regional Trail is located on the north side of Olympic Parkway, which is the northern boundary of the planning area, accessible at two signalized intersections.

Bicycle circulation is supported, and connections are provided to travel beyond the project. Running along the northern boundary of the planning area, Olympic Parkway is comprised of Class II bike lanes and the Chula Vista Regional Trail.

Bicycles will share the roadway with vehicles along Streets “A” and “B,” providing direct connections to the existing Olympic Parkway bike lanes and the MTS transit stop located at Olympic Parkway and Brandywine Avenue. Refer to Figure 2: Pedestrian and Bicycle Circulation Plan.

There are three proposed locations for bicycle racks. These locations will be publicly accessible and located in common areas. The project home types each include a private garage. Assumptions are being made that residents will store their own bikes in their garage or homes. Guests will likely do the same or can use the provided racks.

Figure 2: Pedestrian and Bicycle Circulation Plan



Building and Design Features

The project plan incorporates several features into the site design that promote alternative transportation use, encourage energy efficiency, and reduce area source pollutants. These measures include the following:

- Provide connection to the Chula Vista Regional Trail and public transit opportunities.
- Provide all attached higher density housing options rather than large single-family lots.
- Preserve 63.6 acres of on-site open space.
- Build to 2019 Title 24 codes or the prevailing building codes. The next code cycle will become effective January 1, 2023 and depending on the stage of development, the project design may require modifications for compliance with the applicable code.
- Grading activity will be balanced cut and fill onsite.

The updated California Building Standards Code, Title 24, went into effect on January 1, 2020 (2019 Code). This includes Building, Residential, Electrical, Mechanical and Plumbing, as well as Energy and Green Building (CALGreen) Codes.

January 1, 2020 is the statewide effective date established by the California Building Standards Commission (CBSC) for the 2019 California Building Standards Code. In accordance with California Health and Safety Code, Section 18938.5, all applications for a building permit submitted on or after January 1, 2020 are subject to compliance with the 2019 California Building Standards Code.

The 2019 Code updates is another step towards GHG reduction and energy efficiency increases. For example, regarding residential, the 2019 Code is 7% more efficient than 2016.

Non-residential Energy Codes are also proving to be more efficient with the 2019 update reflecting a 30% efficiency increase from 2016, whereas the 2016 Code was only 5% more efficient than 2013.

Therefore, the proposed Sunbow amendment by design will work towards consistency with Chula Vista's Energy and Water Conservation regulations (CVMC 20.04) and Landscape Water Conservation (CVMC 20.12) and represents code compliance in terms of energy efficiency and GHG emissions reductions.

D. Modeled Effectiveness of Community Design

The City of Chula Vista previously used the INDEX CO2 model requirements. This tool is no longer used. Therefore, LEED-ND v4.0 is being utilized as an analytical tool for sustainable design. Table 1: LEED-ND Equivalency Analysis was prepared to study various design features within Sunbow with regard to the proposed amendment.

2. Introduction

A. Need for a Qualitative Air Quality Plan

Pursuant to Chula Vista's Growth Management Ordinance (CVMC 19.09.050B), an Air Quality Improvement Plan (AQIP) is required to be prepared in conjunction with the Sunbow PA Sectional Planning Area (SPA) Plan Amendment. The Growth Management Ordinance requires that no application for a SPA Plan or Tentative Map shall be deemed complete or accepted for review unless an AQIP is provided and approved as part of the approval of the SPA Plan or Tentative Map by the City.

This AQIP will serve to implement several of the key aspects of the City's CO₂ Reduction Plan and Green Building and Energy Efficiency Ordinances for the development of Sunbow II, Phase 3.

B. Purpose and Goals

The purpose of the AQIP is to provide an analysis of air pollution impacts that would result from development of the project and to demonstrate how the design of the Project works toward reducing vehicle trips, maintains or improves traffic flow, reduces vehicle miles traveled, reduces direct or indirect Greenhouse Gas (GHG) emissions, and minimizes pollutant emissions during construction per regulations. This AQIP also demonstrates how the project meets the City's commitment to improving air quality through compliance with the City's Growth Management Ordinance, Carbon Dioxide (CO₂) Reduction Plan, and adopted Green Building and Increased Energy Efficiency Standards.

As the result of rapid development not keeping pace with the demand for facilities and improvements, the City Council adopted Growth Management policy measures that would prohibit new development to occur unless adequate public facilities, improvements and environmental quality of life standards were put in place. The City of Chula Vista's Growth Management ordinance (CVMC Chapter 19.09) purpose is to provide the following:

- Provide quality housing opportunities for all economic sections of the community;
- Provide a balanced community with adequate commercial, industrial, recreational and open space areas to support the residential areas of the City;
- Provide that public facilities, services and improvements meeting City standards exist or become available concurrent with the need created by new development;
- Balance the housing needs of the region against the public service needs of Chula Vista residents and available fiscal and environmental resources;
- Provide that all development is consistent with the Chula Vista general plan;
- Prevent growth unless adequate public facilities and improvements are provided in a phased and logical fashion as required by the general plan;

- Control the timing and location of development by tying the pace of development to the provision of public facilities and improvements to conform to the City's threshold standards and to meet the goals and objectives of the growth management program;
- Provide that the air quality of the City of Chula Vista improves from existing conditions;
- Provide that the City of Chula Vista conserves water so that an adequate supply be maintained to serve the needs of current and future residents.
- Conserve energy use consistent with the General Plan, the General Development Plan, and other City regulations including the City of Chula Vista Climate Action Plan

The AQIP has been prepared based on the best available design practices and also serves to implement several of the key aspects of the City's Climate Action Plan and Municipal Code.

C. Regulatory Framework Related to Air Quality

There are a number of actions that Federal, State and Local jurisdictions have taken to improve air quality, increase energy efficiency, and reduce GHG emissions. This section summarizes those actions.

Air quality is defined by ambient air concentrations of specific pollutants determined by the Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the public. The principal pollutants monitored by the EPA include the following:

- Carbon Monoxide (CO),
- Lead (Pb),
- Nitrogen Dioxide (NO₂),
- Ozone (O₃),
- Respirable 10- and 2.5-micron particulate matter (PM₁₀ and PM_{2.5}),
- Sulfur Dioxide (SO₂),

The EPA has established ambient air quality standards for these pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS). The California Air Resources Board (CARB) subsequently established the more stringent California Ambient Air Quality Standards (CAAQS). Both sets of standards are shown in Table 1 on the following page. Areas in California where ambient air concentrations of pollutants are higher than the state standard are considered to be in "non-attainment" status for that pollutant.

Regulation of air emissions from non-mobile sources within San Diego County has been delegated to the San Diego County Air Pollution Control District (APCD). As part of its air quality permitting process, the APCD has established thresholds for the preparation of Air Quality Impact Assessments (AQIAs) and/or Air Quality Conformity Assessments (AQCA's). APCD has also established an "emissions budget" or Regional Air Quality Strategy (RAQS) for the San Diego Air Basin. This budget considers existing conditions, planned growth based on General Plans for cities

within the region, and air quality control measures implemented by the APCD. The applicable standards are shown in Table 1: Thresholds of Significance for Air Quality Impacts.

Table 1: Thresholds of Significance for Air Quality Impacts



South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

^a Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

1. Federal

Clean Air Act (CAA)

Air quality is defined by ambient air concentrations of specific pollutants identified by the EPA to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 1: Ambient Air Quality Standards Matrix shows the federal and state ambient air quality standards for these pollutants.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. California Air Resources Board (CARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. On April 30, 2012, the San Diego Air Basin (SDAB) was classified as a marginal nonattainment area for the 8-hour NAAQS for ozone. The SDAB is an attainment area under the NAAQS for all other criteria pollutants. The SDAB currently falls under a national “maintenance plan” for CO, following a 1998 re-designation as a CO attainment area (SDAPCD 2010). The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (serious nonattainment), PM₁₀, and PM_{2.5}.

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO₂ is an air pollutant, as defined under the CAA, and that the EPA has the authority to regulate emissions of GHGs. The EPA announced that GHGs (including CO₂, CH₄, N₂O, HFC, PFC, and SF₆) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the EPA’s GHG emissions standards for light-duty vehicles, which were jointly proposed by the EPA and the United States Department of Transportation’s National Highway Traffic Safety Administration (NHTSA). The standards were established on April 1, 2010, for 2012 through 2016 model year vehicles and on October 15, 2012, for 2017 through 2025 model year vehicles (EPA 2011; EPA and NHTSA 2012).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The EPA and the NHTSA have been working together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The EPA is finalizing the first-ever national GHG emissions standards under the CAA, and the NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. On April 1, 2010, the EPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 250 grams per mile by 2016, decreasing to an average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon

(mpg), and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will be made through improvements in air conditioning leakage and the use of alternative refrigerants that would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons (MT) and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined EPA GHG standards and NHTSA CAFE standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other states that have adopted the California standards (EPA 2011; EPA and NHTSA 2012).

Table 2: Ambient Air Quality Standards Matrix

Ambient Air Quality Standards							
Pollutant	Averaging Time	California Standards ¹		National Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		—			
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)	
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—		
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard		
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)		
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—		
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—		
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard		
	Rolling 3-Month Average	—		0.15 µg/m ³			
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards			
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

Source: California Air Resources Board.

Table 2: Ambient Air Quality Standards Matrix Continued (footnotes)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Source: California Air Resources Board.

San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations for the County. The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County's Regional Air Quality Strategies (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The most recent version of the RAQS was adopted by the SDAPCD in 2016. The local RAQS, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the California State Implementation Plan (SIP). The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for San Diego County is presented in Table 3: San Diego County Attainment Status.

Table 3: San Diego County Attainment Status

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

* The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

Source: Air Pollution Control District (<https://www.sdapcd.org>), April 2015.

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

SDAPCD Regulation IV Prohibitions; Rule 51: Prohibits the discharge from any source such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.

SDAPCD Regulation IV: Prohibitions Rule 55: Fugitive Dust Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.

SDAPCD Regulation IV Prohibitions; Rule 67.0: Architectural Coatings: Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

2. State of California

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics are generated by a number of sources, including stationary ones such as dry cleaners, gas stations, combustion sources, and laboratories; mobile ones such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

California's air toxics control program began in 1983 with the passage of the Toxic Air Contaminant Identification and Control Act, better known as AB 1807 or the Tanner Bill. When a compound becomes listed as a TAC under the Tanner process, the CARB normally establishes minimum statewide emission control measures to be adopted by local air pollution control districts (APCDs). Later legislative amendments (AB 2728) required the CARB to incorporate all 189 federal hazardous air pollutants (HAPs) into the state list of TACs.

Supplementing the Tanner process, AB 2588 the Air Toxics "Hot Spots" Information and Assessment Act of 1987 currently regulates over 600 air compounds, including all of the Tanner-designated TACs. Under AB 2588, specified facilities must quantify emissions of regulated air toxics and report them to the local APCD. If the APCD determines that a potentially significant public health risk is posed by a given facility, the facility is required to perform a health risk assessment (HRA) and notify the public in the affected area if the calculated risks exceed specified criteria.

On August 27, 1998, CARB formally identified PM emitted in both gaseous and particulate forms by diesel-fueled engines as a TAC. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by the EPA as HAPs and by CARB as TACs. CARB's Scientific Advisory Committee has recommended a unit risk factor (URF) of 300 in 1 million over a 70-year exposure period for diesel particulate. In September 2000, the CARB approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel Risk Reduction Plan; CARB 2000). The Diesel Risk Reduction Plan outlined a comprehensive and ambitious program that included the development of numerous new control measures over the next several years aimed at substantially reducing emissions from new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). These requirements are now in force on a state-wide basis.

California Greenhouse Gas Regulations

There are numerous State plans, policies, regulations, and laws related to GHGs and global climate change. Following is a discussion of some of these plans, policies, and regulations that (1) establish overall State policies and GHG reduction targets; (2) require State or local actions that result in direct or indirect GHG emission reductions for the proposed Project; and (3) require CEQA analysis of GHG emissions.

California Code of Regulations, Title 24, Part 6

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards went into effect on January 1, 2020, with subsequent iterations expected in three-year cycles that may be in-force at time of build-out. Each building that submits for permit will be required to meet the prevailing code at the time of permit submission, at the sole discretion of the authority having jurisdiction.

California Green Building Standards Code

The California Green Building Standards Code (24 California Code of Regulations [CCR], Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California. The current version of the code went into effect on January 1, 2020. The code is Part 11 of the California Building Standards Code in Title 24 of the California Code of Regulations and is also known as the CALGreen Building Standards Code (California Building Standards Code [CBSC] 2014a).

The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

The CALGreen Code also focuses on Electric Vehicle (EV) infrastructure. Depending on what type of use, EV requirements ranges from EV-capable to fully installed EV charging stations. As it pertains to townhomes with attached private garages, the 2019 CALGreen Code requires the

garages to be EV-capable with the installation of raceways to accommodate a dedicated 208/240-volt branch circuit. The project will also install the code-required infrastructure for future spaces located in guest parking.

Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

AB 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that the CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

AB 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013). In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2013).

AB 341

In 2011, the State legislature enacted AB 341 (California Public Resource Code § 42649.2), increasing the diversion target to 75 percent statewide. AB 341 also requires the provision of recycling service to commercial and residential facilities that generate four cubic yards or more of solid waste per week.

Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs the CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

Senate Bill (SB)375

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

CARB: Scoping Plan

On December 11, 2008, the CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project by project basis.

The CARB released the First Update to the Climate Change Scoping Plan in May 2014, to provide information on the development of measure-specific regulations and to adjust projections in consideration of the economic recession (CARB 2014a). To determine the amount of GHG emission reductions needed to achieve the goal of AB 32 (i.e., 1990 levels by 2020) CARB developed a forecast of the AB 32 Baseline 2020 emissions, which is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. CARB estimated the AB 32 Baseline 2020 to be 509 million metric tons (MMT) of CO₂e. The Scoping Plan's current estimate of the necessary GHG emission reductions is 78 MMT CO₂e (CARB 2014b). This represents an approximately 15.32 percent reduction. The CARB is forecasting that this would be achieved through the following reductions by sector: 25 MMT CO₂e for energy, 23 MMT CO₂e for transportation, 5 MMT CO₂e for high-GWP GHGs, and 2 MMT CO₂e for waste. The remaining 23 MMT CO₂e would be achieved through Cap-and-Trade Program reductions. This reduction is flexible—if CARB receives new information and changes the other sectors' reductions to be less than expected, the agency can increase the Cap-and-Trade reduction (and vice versa).

3. Regional

SANDAG Regional Plan

The Regional Plan (RP) (SANDAG 2015) is the currently approved long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The RP establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The RP encourages the regions and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. The focus is on implementation of basic smart growth principles designed to strengthen the integration of land use and transportation. General urban form goals, policies, and objectives are summarized as follows:

- Mix compatible uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Otay Ranch Preserve open space, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost-effective.
- Encourage community and stakeholder collaboration in development decisions.

As plans are ever-evolving, it is recognized that new plans may be approved in the future. SANDAG lists 12 Near-Term Actions that are intended for implementation in the next Regional Plan. Along with the strategies of the approved RP, these concepts are recognized as potential features in development going forward. The 12 Near Term Actions are as follows:

1. The Regional Transportation Improvement Program (RTIP).
2. Develop a long-term specialized transportation strategy through 2050, as part of the next biennial update of the SANDAG Coordinated Plan, to address the increasing specialized service needs of seniors and people with disabilities.
3. Promote Vehicle Miles Traveled (VMT) reduction by applying the Regional Complete Streets Policy to relevant SANDAG plans, programs, and projects.
4. Develop a Regional Mobility Hub Implementation Strategy.
5. Complete a follow-up study that details ways to reduce greenhouse gases by expanding the use of alternative fuels regionwide.

6. Incorporate regional transportation model enhancements to provide more robust data regarding bike and pedestrian travel, carpools, vanpools, carshare, and public health.
7. Expand the Integrated Corridor Management Concept and design for up to three corridors.
8. Complete the comprehensive 10-year review of the TransNet Program in accordance with the TransNet ordinance.
9. Develop innovative financing tools to self-finance near-term projects for the new border crossing at Otay Mesa East.
10. Participate in the target-setting and monitoring processes for federal performance measures and report on progress toward the achievement of these federal performance measure targets in the new System Performance Report.
11. Develop an Intraregional Tribal Transportation Strategy with tribal nations in the region.
12. Explore the development of a Regional Military Base Multimodal Access Strategy.

4. City of Chula Vista

City of Chula Vista Climate Action Plan

Since 2000, Chula Vista has been implementing a Climate Action Plan (CAP) to address the threat of climate change to the local community. The original Carbon Dioxide Reduction Plan was revised to incorporate new climate mitigation and adaptation measures to strengthen the City's climate action efforts and to facilitate the numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. To help guide implementation of the CAP, the City regularly conducts GHG emission inventories. The City's CAP was updated in 2008, 2010 and 2017.

Municipal Codes

The Chula Vista City Council adopted the California Energy Code 2016 effective January 1, 2017. The 2016 Building Energy Efficiency Standards are more efficient than previous standards and the 2019 Standards exceed 2016 and subsequent code cycles are expected to move aggressively toward zero-energy and zero-emission buildings. The City adopted the California Energy Code, CVMC § 15.26.10 in November 2019 by reference amended via ordinance 3474. This code section has been adopted for the purpose of regulating building design and construction standards to increase energy efficacy for new residential and non-residential buildings.

Per CVMC § 15.24.045, each store in a store building, each flat in a flat building, and each building used as a dwelling shall be so wired that each store, apartment, flat or dwelling shall have separate lighting and/or power distribution panels. Such panels shall not serve other portions of the building. The 2019 Title 24 code supersedes CVMC § 15.24.045 requirements. Any future buildings in Sunbow II, Phase 3 will comply with the prevailing California Building Standards.

Per CVMC § 20.04.040, all new residential units shall include electrical conduit specifically designed to allow the later installation of a photovoltaic (PV) system which utilizes solar energy as a means to provide electricity. No building permit shall be issued unless the requirements of

this section and the Chula Vista Photovoltaic Pre-Wiring Installation Requirements are incorporated into the approved building plans. The 2019 Title 24 code supersedes CVMC § 20.04.040 requirements. Any future buildings in Sunbow II, Phase 3 will comply with the prevailing California Building Standards.

Additionally, per CVMC § 20.04.030, all new residential units shall include plumbing specifically designed to allow the later installation of a system which utilizes solar energy as the primary means of heating domestic potable water. It is expected that this ordinance may be superseded by Title 24 updates though the build-out of the SPA Plan Amendment—future buildings will comply with the more stringent of the requirements following the prevailing approach to water heating.

Finally, per CVMC § 20.04.050, commercial businesses are required to participate in a free resource and energy evaluation of their facilities when they obtain a new business license and every five years thereafter.

The City of Chula Vista has developed a number of strategies and plans aimed at improving air quality. The City is a part of the Cities for Climate Protection Program, which is headed by the International Council of Local Environmental Initiatives (ICLEI). The original plan followed by the city to reduce fossil fuel consumption was the CO2 Reduction Plan, adopted in 2002. Currently, the City uses the Climate Action Plan (CAP) which was adopted in 2017. The Climate Action Plan references the 2002 CO2 Reduction Plan, however, the initiatives set forth in the CAP are more relevant to today's conditions.

They are as follows:

- Water Conservation and Reuse
- Waste Reduction
- Renewable and Efficient Energy
- Smart Growth and Transportation

3. Sunbow SPA Amendment Project Description

The Proposed Sunbow II, Phase 3 project includes a Chula Vista General Plan (CVGP) Amendment, a Sunbow General Development Plan (GDP) Amendment, a Sunbow Sectional Planning Area (SPA) Plan Amendment, Rezone and Tentative Map necessary to implement the proposed land use change to the Planning Area 23 Industrial Park and adjacent open space and Preserve areas.

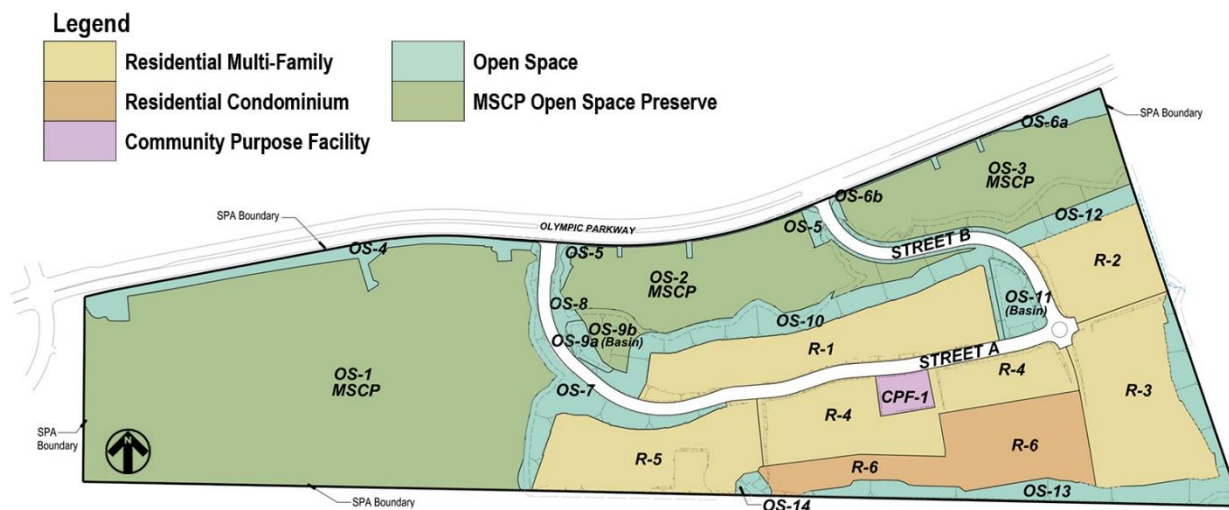
Under the Sunbow Sectional Planning Area Plan and Tentative Map Final Environmental Impact Report (FEIR) (State Clearinghouse No. 88121423) (City of Chula Vista 1989), the Sunbow General Development Plan was approved by the City of Chula Vista City Council in December 1989. The approved Sunbow (approved project) land uses consist of:

- 1,946 residential units (329.7 acres).
- 11.0 acres of commercial
- 46.0 acres of industrial
- 11.0 acres of school
- 10.0 acres of community recreation
- 194.3 acres of open space and roads

ACI Sunbow, LLC (Project Applicant) is now proposing land use changes to the approved project resulting in the following:

- Change the project designation from industrial to residential (44.2 acres within the 135.7-acre area designated Planning Area 23 in the 1998 Sunbow SPA Site Utilization Plan).
- Adding 718 multi-family units (within 6 residential neighborhoods) on approximately 44.2 acres.
- Approximately 5.9 acres of backbone streets (within the Project Area).
- A 0.9-Acre Community Purpose Facility which will serve as the community recreation area.
- 16.8 acres of open space inclusive of two water quality/hydromodification basins, manufactured slopes, conserved wetland resource and associated buffer area.
- 4.3 acres of Poggi Creek Conservation Easement areas
- 63.6 acres of designated MSCP Preserve open space.

Figure 3: Site Utilization Plan and Summary implements the land uses contemplated by the proposed project.

Figure 3: Site Utilization Plan and Summary

Sunbow II, Phase 3	Land Use District	Acres ¹	Units	Density
Multi-Family Residential				
R-1	RM	8.5	131	15.4
R-2	RM	4.6	73	15.8
R-3	RM	8.1	108	13.3
R-4	RM	8.2	118	14.4
R-5	RM	7.1	104	14.7
R-6	RC	7.6	184	24.1
Subtotal Residential		44.2	718	16.3
Other				
Community Purpose Facility	CPF	0.9		
MSCP Preserve Open Space (OS-1,2, and OS-9b)	OSP	63.6		
Poggi Canyon Conservation Easements (OS-4, 5, 6a and 6b)	OS	4.3		
Manufactured Slopes/Basins (OS-7, 8, 9a, 10 to 15)	OS	16.5		
Wetland Avoidance Area (OS-14)	OS	0.3		
Public Streets	Circulation	5.9		
Subtotal Other		91.5		
TOTAL		135.7	718	16.3

¹Acres rounded to nearest 1/10th acre and may vary slightly from the calculated total.

4. Effect of Project on Local/Regional Air Quality

This section includes a generalized discussion of Sunbow II, Phase 3 short-term and long-term effects on local and regional air quality including its contribution to global climate change.

Utilizing all the Federal, State, and Local strategies for reducing GHGs, Sunbow II, Phase 3 is projected to reduce GHG emissions through the incorporation reclaimed water use for outdoor areas, preferential parking for carpools and lower-emitting vehicles, and the advanced energy efficiency and water conservation design requirements that reduce GHG emissions. The energy efficiency and water conservation design requirements include both the California Title 24 requirements for energy as well as the CALGreen requirements.

If a project proposes development that is greater than that anticipated in the local plan and the San Diego Association of Governments (SANDAG) growth projections, the project might be in conflict with the State Implementation Plan (SIP) and Regional Air Quality Strategy (RAQS) and may contribute to a potentially significant cumulative impact on air quality. The Project site is zoned Limited Industrial; however, the Project proposes phased development of 165 multi-family residential units 2025, 127 units in 2026, 75 units in 2027, and 23 units in 2028. SANDAG Series 13 estimates housing would increase from 89,176 in 2020 to 101,188 in 2035. Thus, the phased Project development of multi-family residential units would provide balanced and diverse housing to the City and provide housing to accommodate the City's future growth projections. Therefore, the proposed Project would not stimulate population growth or a population concentration or housing above what is assumed in local and regional land use plans, or projections made by regional planning authorities. Based on these considerations, impacts related to the Project's potential to conflict with or obstruct implementation of the applicable air quality plan is less than significant.

Construction Related Emissions

Air pollutant emission sources during project construction include exhaust and particulate emissions generated from construction equipment; fugitive dust from site preparation, grading, and excavation activities; and volatile compounds that evaporate during site paving and painting of structures.

Construction activities are anticipated to occur in five phases over the course of seven years, with the assumption of heavy construction equipment operating five days a week during project construction. Refer to Table 6: Construction Scenario Assumptions in the Air Quality and Greenhouse Gas Emission Analysis Technical Report (Dudek, 2020) for additional construction details. Grading is proposed to consist of 69.48 acres and will be balanced cut and fill onsite. Balanced cut and fill onsite is beneficial as it eliminates truck emissions that are created when hauling dirt off site.

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by onsite sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (e.g., on-road haul trucks, vendor trucks, and worker vehicle trips). Maximum daily construction emissions would not exceed the City's significance thresholds for

VOCs, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during construction in all construction years (2021 through 2028).

Per the Air Quality and Greenhouse Gas Emission Analysis Technical Report (Dudek, 2020), GHG emissions are reported to be significant and unavoidable. The use of off-road construction equipment, on-road hauling, and vendor (material delivery) trucks, and worker vehicles during construction will be the primary sources of GHG emissions.

To minimize construction and operational emissions to the extent feasible, the project will implement the following mitigation measures as required per the Air Quality and Greenhouse Gas Emissions Analysis Technical Report (Dudek, 2020):

PDF-AQ-1 Fugitive Dust Control Measures.

To reduce construction and operational emissions to the extent feasible, the applicant (ACI Sunbow LLC) would incorporate the following project design features (PDFs) into the new facility. The applicant or its designee shall implement the following measures to minimize fugitive dust (PM₁₀ and PM_{2.5}):

- A non-toxic dust control agent shall be used on the grading areas or watering shall be applied at least three times daily.
- Grading areas shall be stabilized as quickly as possible.
- Chemical stabilizer shall be applied, a gravel pad shall be installed, or the last 100 feet of internal travel path within the construction site shall be paved prior to public road entry and for all haul roads.
- Visible track-out into traveled public streets shall be removed with the use of sweepers, water trucks, or similar method at the end of the workday.
- All soil disturbance and travel on unpaved surfaces shall be suspended if winds exceed 25 miles per hour.
- On-site stockpiles of excavated material shall be covered.
- A 15 mile per hour speed limit on unpaved surfaces shall be enforced.

PDF-AQ-2 Architectural Coating.

The applicant or its designee shall use low or no-volatile organic compound (VOC) architectural coatings.

The design features listed in PDF-AQ-1 and 2 are not required under the current code. SDAPCD Rule 55, Fugitive Dust Rule, does not provide specific measures to reduce fugitive dust such as the ones listed in PDF-AQ-1. Furthermore, the project has committed to watering three times daily and applying chemical stabilizers which are both going above and beyond the minimum requirement. The typical requirement to control fugitive dust is watering two times daily.

The project is also committed to using low or no-VOC paint, beyond code requirements. This goes above and beyond the minimum requirement of SDAPCD Rule 67.0.1, Architectural Coatings.

SDAPCD Rule 67.0.1 limits VOC content for various coating categories (i.e., 50 grams per liter (g/L) for interior architectural coatings and 100 g/L for exterior architectural coatings). Thus, the Air Quality and Greenhouse Gas Emissions Analysis Technical Report assumed that the low or no-VOC content of 5 g/L is much lower than the SDAPCD Rule 67.0.1 limits.

Table 4: Estimated Maximum Daily Construction Criteria Air Pollutant Emissions (Dudek, 2020)

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	<i>pounds per day</i>					
2021	11.72	90.76	84.02	0.24	16.53	9.77
2022	10.68	79.77	79.63	0.24	16.01	6.77
2023	6.48	34.76	47.64	0.16	11.17	3.57
2024	6.17	33.31	45.80	0.16	11.07	3.48
2025	5.88	31.86	44.11	0.16	10.97	3.39
2026	5.73	31.50	42.77	0.15	10.97	3.39
2027	5.59	31.16	41.58	0.15	10.97	3.38
2028	5.43	30.87	40.57	0.15	10.96	3.38
Maximum Daily Emissions	11.72	90.76	84.02	0.24	16.53	9.77
<i>Chula Vista Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	No	No	No	No	No	No

Notes: Emissions include compliance with SDAPCD Rule 55 (Fugitive Dust) and use of no-VOC architectural coatings.

As shown in Table 4, daily construction emissions would not exceed the City's significance thresholds. Therefore, impacts during construction would be less than significant.

Operational Related Emissions

Operation of the Project would generate VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from mobile sources, including vehicle trips; area sources, including the use of consumer products and landscape maintenance equipment; and energy sources. As discussed in Section 2.4.2.2, Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on Project-specific trip rates. CalEEMod default values were used to estimate emissions from the Project area and energy sources (Dudek, 2020).

Table 5 presents the maximum daily area, energy, and mobile source emissions associated with operation (year 2028) of the Project. The values shown are the maximum summer or winter daily emissions results from CalEEMod.

Table 5: Estimated Maximum Daily Operational Criteria Air Pollutant Emissions (Dudek, 2020)

Emission Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	<i>pounds per day</i>					
Area	18.81	0.68	59.39	<0.01	0.33	0.33
Energy	0.29	2.48	1.06	0.02	0.20	0.20
Mobile	5.93	22.66	57.76	0.22	22.37	6.08
Total	25.03	25.83	118.20	0.24	22.90	6.61
<i>Chula Vista Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	No	No	No	No	No	No

As shown in Table 5, the combined daily area, energy, and mobile source emissions would not exceed the City's operational thresholds for VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the Project would be consistent with the existing zoning and land use designation for the site. As a result, the Project would not result in a cumulatively considerable contribution to regional O₃ concentrations or other criteria pollutant emissions. Impacts associated with Project-generated operational criteria air pollutant emissions would be less than significant.

Operation of the Project will also contribute to GHG emissions (e.g. landscape equipment, energy sources, mobile sources, water supply and treatment, and solid waste). However, measures have been suggested to minimize impacts.

Sunbow II, Phase 3 will implement the following mitigation measures:

MM-GHG-1 Greenhouse Gas Emissions Reduction Measures (Dudek, 2020).

- 100% recycled water shall be used for outdoor water uses.
- Prior to the issuance of a Building Permit, the floor plans and/or exterior elevations submitted in conjunction with the Building Permit application shall show use of low-flow water fixtures such as low-flow toilets, faucets, showers, etc.
- Thirty two preferential parking spaces (8% of the total parking spaces). shall be provided for carpool, shared, electric, and hydrogen vehicles.
- Twenty four electric vehicle charging stations (6% of the total parking spaces) shall be installed.
- Install bicycle parking facility.
- Energy-efficient lighting shall be used for all street, parking, and area lighting associated with the proposed project, including all on-site and off-site lighting.
- Energy-efficient design practices, such as high-performance glazing, Energy Star compliant systems and appliances, radiant heat roof barriers, insulation on all pipes, programmable thermostats, solar access, and sealed ducts, shall be implemented.
- Native species and drought-tolerant species shall be used for a minimum of 50% of the ornamental plant palette in non-turf areas to minimize water demand.
- Recycling of construction debris and waste shall be ensured through administration by an onsite recycling coordinator and presence of recycling/separation areas.

Transportation Related Improvements

Based on the Sunbow Transportation Impact Analysis (Linscott Law & Greenspan, 2020), a significant transportation impact was determined. However, to minimize the impact, the following strategies are recommended to reduce the number of automobile trips generated by residents of the Project and the distance that the residents drive.

- Provide Ride Share coordination services thru the Project's Home Owner's Association to match residents interested in carpooling.
- Coordinate with near-by schools and / or the Project's Home Owner's Association to match residents interested in carpooling to / from schools.
- Encourage bicycling by providing on-site bicycle infrastructure such as bike lanes and bike racks.

5. Quantitative Project Evaluation

A quantitative analysis has been performed for Sunbow II, Phase 3 using Option Two: Alternative Modeling Programs, specifically a LEED-ND equivalency analysis. LEED-ND criteria are more appropriate than INDEX indicators for the project for the following reasons:

- INDEX indicators do not take habitat preservation and conservation efforts into account, of which the Project is providing a significant amount.
- LEED-ND criteria measure these benefits to a greater and more accurate extent.
- The INDEX approach uses only 16 indicators, whereas LEED-ND has 56 indicators that are able to characterize a project much more comprehensively and thoroughly, and ultimately capture more contributors to GHG emission reductions.
- The underlying basics of the INDEX approach are nearly 15 years old in contrast to LEED-ND's latest update in July of 2018. Consequently, current best practices in urban design, green infrastructure and resilient neighborhoods are not addressed by INDEX indicators, but are covered by LEED-ND criteria.
- The California Energy Code and Green Building Standards have been updated since the INDEX approach was established.
- The INDEX model is no longer being used.

Sunbow II, Phase 3 scores the equivalent of 25 points under the LEED-ND rating system. Table 1: LEED Equivalency Scorecard provides a description of the project attributes that were considered from the LEED-ND rating system. The INDEX indicator metric is no longer relevant, therefore LEED ND is being used as a scoring method.

One of the largest factors for LEED-ND is location. This includes what land uses are located in and around a 1/4-mile to 1/2-mile walking distance. The project is a large parcel of land, originally intended for industrial but now re-designated for residential and open space uses. The inherent characteristics of this parcel such as open space constraints and topography as well as surrounding uses and proximity to those uses, creates obstacles to achieving a high LEED-ND score.

The project's priority feature and purpose are creating housing. At a minimum, the 2019 Title 24 code will need to be met. These are more stringent than previous code cycles for air quality and energy efficiency. Therefore, there are inherent measures put in place to contribute to air quality improvements. In addition to Title 24, CEQA requirements require analysis and mitigation for project significant impacts. Thus, even if a project does not score highly in LEED due to uncontrollable circumstances, a project can still provide air quality improvement measures to reduce negative environmental impacts. This Project falls into said category.

Table 6: LEED Neighborhood Development Plan V4 Equivalency Analysis

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
Smart Location & Linkage					
SLLp1	Smart Location	Transit Served	Y/N	Yes	New infrastructure will be installed for the project but will connect into existing water and wastewater infrastructure. Thus, the intent of this prerequisite is being met as the project will be an extension of existing infrastructure. Due to the project site location, the MSCP, and the topography, the project does not meet the requirements for “Adjacent Sites with Connectivity.”
SLLp2	Imperiled Species and Ecological Communities	None	Y/N	Yes	The Project has 63.6 acres of open space designated for the MSCP. There is also a 100’ fuel modification zone which requires a 100’ buffer from any building to natural open space.
SLLp3	Wetland and Water Body Conservation	None	Y/N	Yes	The Project is implementing the 63.6 acres of MSCP. Thus, the Project meets the intent of this prerequisite due to the fact that it is permanent preservation. Exact management details are still being determined. In addition, development occurs more than 50’ away from the Poggi Creek Conservation Easement.
SLLp4	Agricultural Land Conservation	None	Y/N	Yes	The Project Amendment is implementing the 63.6 acres of MSCP. Thus, the Project meets the intent of this prerequisite due to the fact that it is permanent preservation. Exact management details are still being determined.
SLLp5	Floodplain Avoidance	None	Y/N	Yes	The Project is not within a 100-year or 500-year floodplain as mapped by FEMA (FEMA, 2012).
SLLc1	Preferred Locations	1. Location Type	10		
		2. Connectivity			
		3. High Priority Locations			

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
SLLc2	Brownfield Remediation	Brownfield Site	1		
		High Priority Redevelopment Area	2		
SLLc3	Access to Quality Transit	Existing/Planned Transit	1-7		
SLLc4	Bicycle Facilities	Bicycle Storage	1	1	Option 2, Existing bicycle network within 1/4 mile, bike network connects to Class 2 Bike Lanes on Olympic Parkway, there are diverse uses that can be accessed from Olympic Parkway as well as transit. Bicycle storage will be provided on site and inclusive of space in residential unit garages.
		Bicycle Location			
		Bicycle Network	1	1	Connects to an existing bicycle network with at least 3 continuous miles.
SLLc5	Housing and Jobs Proximity	Affordable housing	3		
		30% of total SF residential OR # of jobs within 1/2 mile = # of housing	2		
		Infill project with nonresidential component	1		
SLLc6	Steep Slope Protection		1		
SLLc7	Site Design for Habitat or Wetland and Water Body Conservation	Sites w/o Significant habitat or wetlands	1		
		Sites with habitat or wetlands	1	1	Poggi Creek is on-site in the MSCP area.
SLLc8	Restoration of Habitat or Wetlands and Water Bodies		1	1	The Project has 63.6 acres of Preserve (MSCP) area. Habitat restoration will occur within the MSCP areas.

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
SLLc9	Long-Term Conservation Management of Habitat or Wetlands and Water Bodies		1	1	The 63.6 acres of MSCP will be permanently preserved, with management funded through the existing Sunbow Community Facilities District.
Neighborhood Pattern & Design					
NPDp1	Walkable Streets		Y/N	No	The project is a community consisting of attached homes. All homes are accessed from a street or paseo. Each home has its own attached garage which is accessed from a private drive. These product types enable architecture forward designs, with front doors at the front and garages at the rear. Thus, the front door is along the pedestrian route rather than garage doors. Due to the topography of the site and the current site design, the majority of the buildings do not meet the height to street width requirement. In many cases, the circulation network within the planning areas do meet the ratio (alleys not considered) but homes along Street A and B are often farther than 45' from the centerline due to slopes and front yard accommodations. Sidewalks are smaller than the minimum 8' width. Although this pre-requisite is not being met, the subject project does provide walkable streets and pedestrian opportunities throughout, including connections to area trails and transit.
NPDp2	Compact Development		Y/N	Yes	The minimum density for any residential area in the project is 13.3 du/ac. The maximum density for a neighborhood in the project is 24.1 du/ac. The average density for the entire community is 16.3 which exceeds the requirements for 7 du/ac.

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
NPDp3	Connected and Open Community		Y/N	Yes	24 intersections within the project boundary (.07 square miles). Proportionately, this would meet the pre-requisite of 140 intersections/square mile. (Refer to Figure 5: Intersection Density.
NPDc1	Walkable Streets	25' setback (80%)			Residential setbacks are using the minimum amount permitted with the constraints including the MSCP, the slope, and the fuel modification line.
		18' setback (50%)			Residential setbacks are using the minimum amount permitted with the constraints including the MSCP, the slope, and the fuel modification line setback restrictions.
		1' setback for nonresidential (50%)	1		
		Functional entries every 75 feet	1		
		Function entries every 30 feet	1		
		Glass on 60% of facades	1		
		No blank walls 40% of sidewalk	1		
		Ground-level retail, services must be unshuttered at night	1		
		On-street parking provided both sides on 70% of streets	1		
		Continuous sidewalks (10'	1		

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
		wide on mixed-use blocks)			
		Ground-floor residential units at least 24" above grade	1		
		Ground floor retail in multi-stores	1		
		Building height-street width	1		
		20 mph residential streets	1		
		25 mph mixed use street	1		
		Driveways limited	1		
NPDc2	Compact Development	Density/acre	1-6	2	The average density of Sunbow II, Phase 3 is 16.3 du/ac.
NPDc3	Mixed-Use Neighborhoods	Uses with 1/4 mile walking distances	1-4		
NPDc4	Housing Types and Affordability	Diverse housing types	1-7		<p>Option 1: Using SDI. $80 \text{ units less than } 1,250 \text{ sf in R-6.}$ $80/718 = .11$ $.11^2 = .012$</p> <p>$638/718 = .89$ $.89^2 = .792$</p> <p>$.012 + .792 = .804$</p> <p>$1 - .802 = .196.$</p> <p>There are a variety of home options in the project. All attached but they range in size and configuration. This includes opportunity for smaller units with tandem garages and units with side by side garages. Some units are considered carriage units above garages while others have living space on the ground floor. The applicant is also</p>

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
					financially contributing to the existing affordable housing community in Sunbow which will enable on-going affordable rents.
		Affordable housing	1-3	1	All housing within Sunbow II, Phase 3 will be market-rate, however, the applicant is working with the City to ensure obligations are met to comply with the City's Balanced Affordable Communities Policies that will be memorialized in an updated affordable housing agreement with the City.
		Additional diverse housing types			
NPDC5	Reduced Parking Footprint	All off-street parking at side or rear	1	1	The total area for surface parking is approximately 42,610 square feet (.98 acres). This equals 2% of the total development footprint.
NPDC6	Connected and Open Community	Intersections/mile 300-400+	1-3	1	
NPDC7	Transit Facilities		1		
NPDC8	Transportation Demand Management	Transit Passes	1-21 points for every 2 options		
		Developer-sponsored transit			
		Vehicle sharing			
		Unbundling of parking/fees			
		Guaranteed ride home program			
		Flexible work arrangements			
NPDC9	Access to Civic & Public Space	90% of units and non-residential use entrances within 1/4 mile of 1 civic and passive use space	1		

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
NPDc10	Access to Recreation Facilities	1 Rec facility of 1 acre within ½ mile	1	1	There is a 0.9 acre recreation area within the project as well as other passive and active recreation spaces throughout the community.
NPDc11	Visitability and Universal Design	20% of dwellings are a visitable unit	1		
		At least 5 Universal Design Features	1		
		Kitchen features	1		
		Bedroom/Bathroom features	1		
NPDc12	Community Outreach and Involvement	Community outreach	1	1	Will be conducted.
		Charrette	2		
		Endorsement Program	2		
NPDc13	Local Food Production	Neighborhood gardens	1		
		Community supported agriculture	1		
		Farmers Market within 1/2 mile walking distance	1		
NPDc14	Tree-Lined and Shaded Streetscapes	Trees planted 50% on at least 60% of streets	1		Density and utility lines may prohibit this.
		Shaded sidewalks on 40% of sidewalks within 10 years	1		Density and utility lines may prohibit this.

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
		Certification from landscape architect that trees are planted properly and not invasive	1	1	
NPDc15	Neighborhood Schools	Neighborhood school within 1/2 mile	1		There are two schools within a 1-mile radius.
Green Infrastructure & Buildings					
GIBp1	Certified Green Buildings		Y/N	No	No commitment for Certified LEED Buildings at this stage of project.
GIBp2	Minimum Building Energy Efficiency		Y/N	Yes	
GIBp3	Minimum Building Water Efficiency		Y/N	No	All fixtures meet LEED requirements except for toilets which will comply with 2019 Code of 1.28 gallon/flush rather than 1.1 gallon/flush which is required to meet this prerequisite.
GIBp4	Construction Activity Pollution Prevention		Y/N	Yes	
GIBc1	Certified Green Buildings	Number of buildings certified under LEED OR other green building rating system 10-20% 1 point; 20-30% 2 points; 30-40% 3 points; 40-50% 4 points; +50% 5 points	1-5		
GIBc2	Optimize Building Energy Performance	12% above ASHRAE; OR 20% ASHRAE	1-2		
		ASHRAE 50% Advanced Energy Design	2		

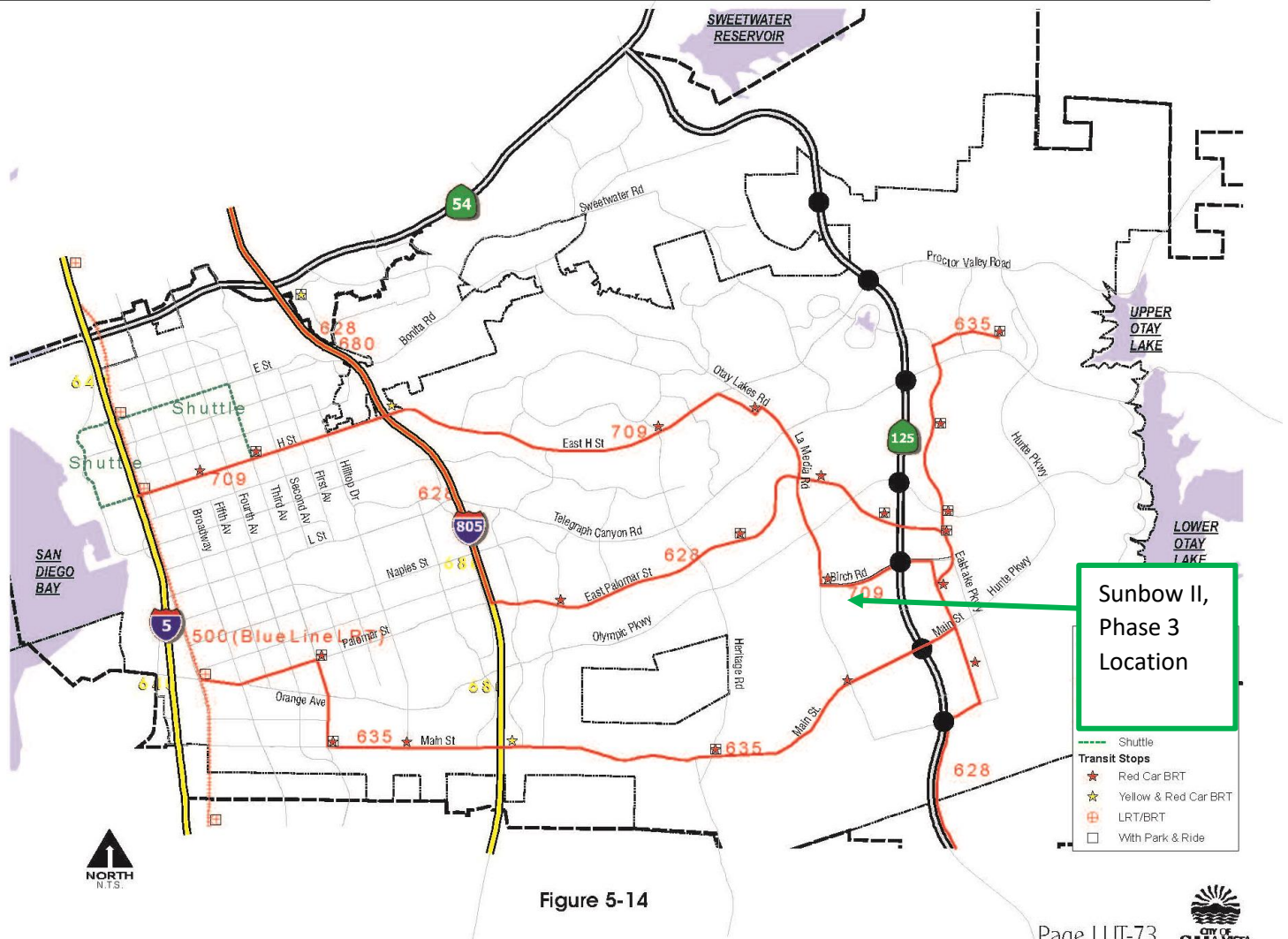
LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
GIBc3	Indoor Water Use Reduction	Reduce water use 40% non-residential	1	1	CALgreen exceeds requirement.
		90% of residential buildings would earn 4 points under LEED v4	1	1	CALgreen exceeds requirement.
GIBc4	Outdoor Water Use Reduction	No irrigation	2		
		Reduced irrigation 30% 1 point; 50% 2 points	1-2	2	California Code exceeds requirements. Approved landscape plans meet California MWELO.
GIBc5	Building Reuse	N/A	1		
GIBc6	Historic Resource Preservation and Adaptive Reuse	N/A			
GIBc7	Minimized Site Disturbance		1		
GIBc8	Rainwater Management	Manage runoff on site 80th percentile 1 point; 85th 2 points; 90th 3 points; 95th 4 points	1-4	2	Stormwater management requirements in the San Diego Region require capture of the 85th percentile
GIBc9	Heat Island Reduction	Non-roof measures	1		
		High-reflectance and vegetated roofs	1		
		Mixed non-roof & roof measures	1		
GIBc10	Solar Orientation	Block orientation	1	1	Site layout is conducive to 2019 solar zone of 90 to 300 degrees.
		Building orientation	1	1	Site layout is conducive to 2019 solar zone of 90 to 300 degrees.

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
GIBc11	Renewable Energy Production	Renewable energy production 5% - 1 point, 12.5% -2 points; 20% -3 points	1-3	1	2019 California Energy Code requires solar installation unless alternative method that is equally efficient as solar is used.
GIBc12	District Heating and Cooling	Needs to be 80% of projects annual heating and/cooling	2		
GIBc13	Infrastructure Energy Efficiency	Infrastructure to be 15% annual energy reduction	1		
GIBc14	Wastewater Management	25% of wastewater is reused on-site 1 point; 50% 2 points	1-2		
GIBc15	Recycled and Reused Infrastructure		1		
GIBc16	Solid Waste Management		1	1	CALGreen requires that a minimum of 65% of nonhazardous construction and demolition waste be either recycled or salvaged for reuse.
GIBc17	Light Pollution Reduction		1	1	Per CALGreen requirements.
Innovation & Design Process					
IDCPc1	Innovation				
IDCPc2	LEED® Accredited Professional		1	1	
Regional Priority Credits					
	Regional Priority Credit: Region Defined	Rainwater Management			

LEED-NDv4 Credit		Options	Possible Points	PA23 Equivalency Points	Notes
	Regional Priority Credit: Region Defined	Mixed-Use Neighborhoods			
	Regional Priority Credit: Region Defined	Housing Types and Affordability			
	Regional Priority Credit: Region Defined				
Total points				25	

Figure 4: Chula Vista General Plan Regional Transit Vision

Regional Transit Vision



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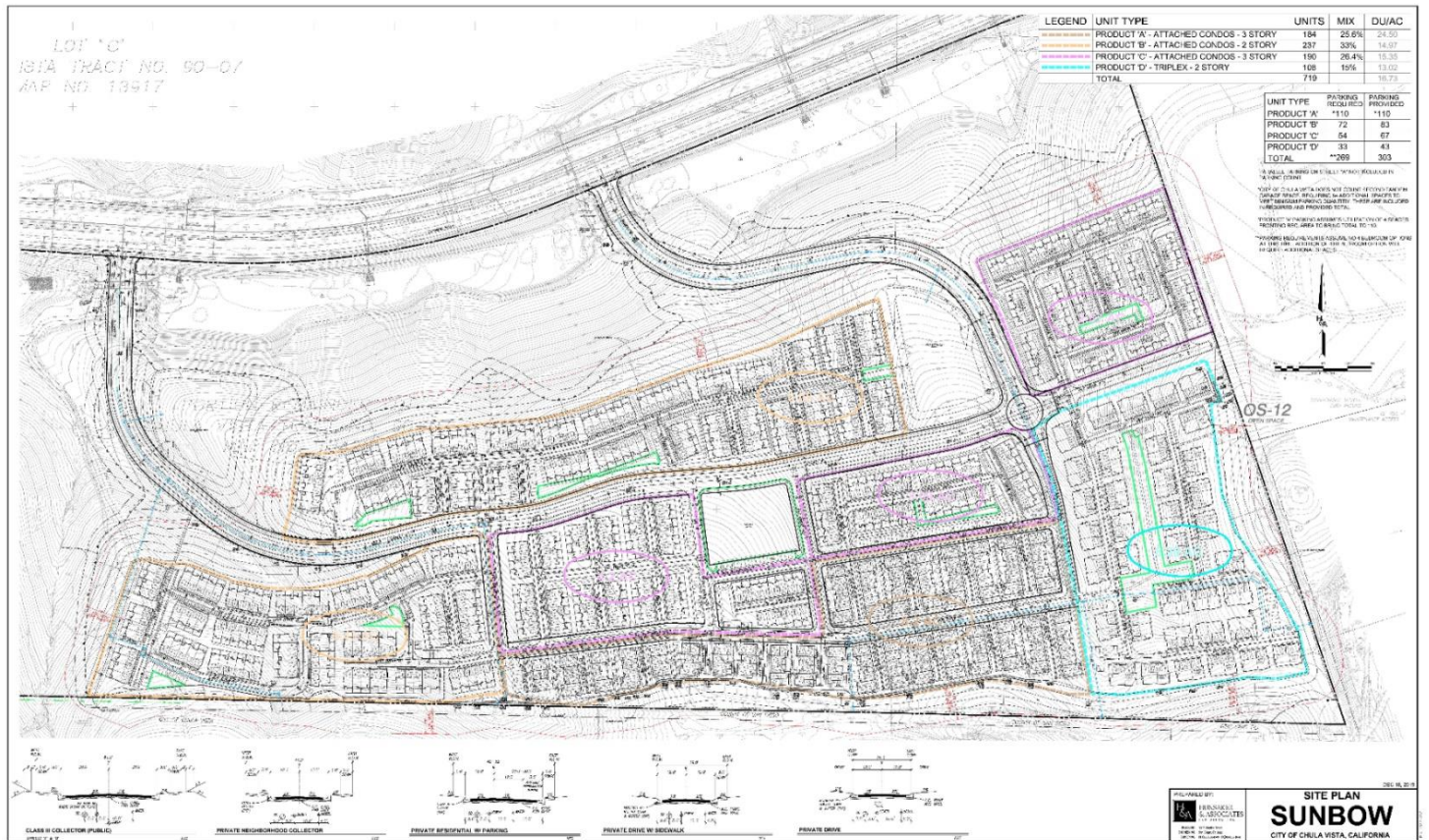
Figure 5: Intersection Density

● 24 Street
Intersections

Total Area = .07 Sq. Miles (less open space)

Required: 90 Intersections/Sq. Mile

Note: Figure 5 represents a conceptual plan for the Project. The final site plan, including building placement to be determined during the Design Review process.

Figure 6: Conceptual Site Plan

Note: Figure 6 represents a conceptual plan for the Project. The final site plan, including building placement to be determined during the Design Review process.

6. Community Design and Site Planning Features

Table 7: Community Design and Site Planning Features below provides an overview of the Community Design and Site Planning Features, as well as building and landscape features, which have been integrated into the Sunbow SPA Plan to create a sustainable community. These measures are based on California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas Mitigation Measures.

Table 7: Community Design and Site Planning Features

Transportation Related Measures
An integrated circulation system provides residents access to commercial, public and residential land uses as well as access to points beyond Sunbow. Non-automobile related circulation options include walking, bicycling, and transit.
Direct pedestrian links extend to Olympic Parkway and its Chula Vista Regional trail. These connections enable access to transit and other areas beyond the Project.
The Project is located close to major urban and employment centers, public transit and I-805.
Class II bicycle facilities exist along Olympic Parkway which connect to the on-site Class III bicycle lanes.
Land uses designed in the Project are intended to be pedestrian and bicycle friendly. With travel speeds of 25 to 35 mph as well as sidewalks and paseos, this community is designed to be a relaxed walking environment.
Pedestrians can comfortably access transit by utilizing the Chula Vista Regional Trail along Olympic Parkway.
Bicycle storage will be provided at the recreation areas. It is expected residents will also store bikes in their private garages.
Two preferential parking spaces shall be provided for carpool, shared, electric, and hydrogen vehicles.
Install EV charging stations and EV-ready infrastructure as required by code.
Energy-Conservation Related Measures
Project will be compliant with prevailing building and energy codes at the time of permit submission.
100% of the residential dwelling units will be multi-family residences that use less energy for heating and cooling when compared to larger single-family detached homes.
Building orientation is suitable for solar access.

Prior to the issuance of a Building Permit, the floor plans and/or exterior elevations submitted in conjunction with the Building Permit application shall show use of low-flow water fixtures such as low-flow toilets, faucets, showers, etc.
Energy-efficient lighting shall be used for all street, parking, and area lighting associated with the proposed project, including all on-site and off-site lighting.
Energy-efficient design practices, such as high-performance glazing, Energy Star compliant systems and appliances, radiant heat roof barriers, insulation on all pipes, programmable thermostats, solar access, and sealed ducts, shall be implemented.
The Project would use energy supplied by SDG&E, which is in compliance with the Renewables Portfolio Standard.
California Green Building Code Title 24, Part 11 (CALGreen) 2019 Code requires 65% of all new construction waste generated at the site be diverted to recycle or salvage. Additionally, the State has set per capita disposal rates of 5.3 pounds per person per day for the City of Chula Vista.
CVMC 8.25.095 requires all new construction and demolition projects to divert 100% of inert waste (asphalt, concrete, bricks, tile, trees, stumps, rocks and associated vegetation and soils resulting from land clearing from landfill disposal); and 50% of all remaining waste generated, unless partial or full diversion exemption is granted. Contractors will be required to put up a performance deposit and prepare a Waste Management Report form to ensure that all materials are responsibly handled. Upon verification that the diversion goals have been met the performance deposit will be refunded.
Recycling of construction debris and waste shall be ensured through administration by an onsite recycling coordinator and presence of recycling/separation areas.
Water-Related Measures to Reduce GHGs
All landscape shall comply with CVMC § 20.12. Landscape Water Conservation requirements.
Landscape and irrigation to comply with California's Model Water Efficient Landscape Ordinance (MWELO).
100% reclaimed water shall be used for outdoor water uses.
Native species and drought-tolerant species shall be used for a minimum of 50% of the ornamental plant palette in non-turf areas to minimize water demand.
Natural turf in residential development will be limited to no more than 30% of the outdoor open space.
When siting sensitive land uses such as residences, schools, day care centers, playgrounds and medical facilities the recommendations set forth in Table 1-1 of California Air Resources Board's (CARB) Land Use and Air Quality Handbook (CARB 2004) will be used as a guideline. Specifically, new sensitive uses would not be located within 50 feet of any typical-sized gas station (one that has a throughput of less than 3.6 million gallons per year). No gas stations with a throughput of 3.6 million gallons per year or greater shall be developed within the Project.

7. Chula Vista CO₂ Reduction Plan

This section provides a comparative evaluation between the community /site design features and the energy efficiency emission reduction action measure. This section provides a comparative evaluation between the community /site design features and the energy efficiency emission reduction action measures contained in the City's Carbon Dioxide CO₂ Reduction Plan.

Table 8: Summary of Sunbow II, Phase 3 Consistency with CO₂ Reduction Action Measures

Action Measure	Project/Community Design Features	Describe how project design will Implement CO ₂ Reduction Action Measures
Measure 6 (Enhanced Pedestrian Connections to Transit): Installation of walkways and crossings between bus stops and surrounding land uses.	The project will have sidewalks and paseos throughout the neighborhoods. There will also be pedestrian and bicycle connections to Olympic Parkway. Olympic Parkway consists of a Class II bike lane and includes the Chula Vista Regional Trail. Transit stops can be accessed from these routes. The project will provide a comfortable pedestrian environment for residents to walk within the community.	Reduces vehicle-miles traveled that in turn reduces the GHG emissions.
Measure 7: Increased Housing Density near Transit: General increase in land use and zoning designations to reach an average of at least 14-18 dwelling units per net acre within ¼ mile of major transit facilities.	The Project will allow for medium-high to high density housing types. There is a bus stop within a ½ mile walking distance of the Project entry.	Reduces vehicle-miles traveled that in turn reduces the GHG emissions.
Measure 8 (Site Design with Transit Orientation): Placement of buildings and circulation routes to emphasize transit rather than auto access; also includes bus turn-outs and other transit stop amenities.	Transit stops are located within a ½ mile walking distance from the Project entry. There are also other transit stops throughout the Sunbow Planned Community. Sunbow provides sidewalks and bike trails that connect to transit. This facilitates ease of use and connectivity.	Convenient access to transit stops encourages ridership, which in turn reduce private automobile trips. Connectivity such as bike lanes to the transit stops also encourage ridership and help minimize first mile/last mile issues.
Measure 9 (Increased Land Use Mix): Provide a greater dispersion/variety of land uses such as siting of neighborhood commercial uses in residential areas and inclusion of housing in commercial and light industrial areas.	The Project is proposing re-designation of an undeveloped industrial parcel to higher density residential. The Project Area is part of the built-out Sunbow General Development Plan and SPA Plan which has existing infrastructure and a mix of uses in place (including but not limited to a fire station, retail, schools, parks, a community center and various housing types).	Reduces vehicle-miles traveled that in turn reduces the GHG emissions.
Measure 11 (Site Design with Pedestrian/Bicycle Orientation): Placement of buildings and circulation routes to emphasize	Existing Olympic Parkway is a 6-lane Prime Arterial that provides access to the Project Area, along two Class III Collector Streets. Olympic Parkway has a Class II bike lane	Promotes bicycling and walking thereby reducing vehicle-miles traveled that

Action Measure	Project/Community Design Features	Describe how project design will Implement CO ₂ Reduction Action Measures
pedestrian and bicycle access without excluding autos; includes pedestrian benches, bike paths, and bike racks.	within the ROW and is designated on the City's Bikeway Master Plan. Brandywine Avenue and Heritage Road, both running north-south, also have designated Class II bike lanes. Brandywine Avenue connects to the Sunbow retail center which can be traveled to via bike on the Class II bike lane from the project. Additionally, Olympic Parkway has a Chula Vista Regional Trail running along the north side of the road, which is accessible from the Project via two fully signalized intersections on Olympic Parkway.	in turn reduces the GHG emissions.
Measure 13 (Bike Lanes, paths, and Routes): Continued implementation of the City's bicycle master plan. Emphasis is to be given to separate bike paths as opposed to striping bike lanes on streets.	The SPA amendment implements the City's bicycle master plan. Olympic Parkway has a Class II bike lane and is designated on the City's Bikeway Master Plan. Brandywine Avenue and Heritage Road, both running north-south, also have designated Class II bike lanes. Brandywine Avenue connects to the Sunbow retail center which can be traveled to by bike on the Class II bike lane from the Project. Additionally, Olympic Parkway includes the Chula Vista Regional Trail along the north side, accessible from the Project via two fully signalized intersections on Olympic Parkway.	Promotes bicycling that can reduce vehicle-miles traveled that in turn reduces the GHG emissions.
Measure 14 (Energy Efficient Landscaping): Installation of shade trees for new single-family homes as part of an overall City-wide tree planting effort to reduce ambient temperatures, smog formation, energy use, and CO ₂ .	There will be shade trees throughout the community, both along streets and common spaces, consistent with the City's Shade Tree Ordinance No. 576-19.	Reduces energy consumption that reduces GHG emissions.
Measure 15 (Solar Pool Heating): Mandatory building code requirements for solar heating of new pools or optional motorized insulated pool cover.	Community pool/recreation area will comply with code requirements.	Reduces energy consumption that reduces GHG emissions.
Measure 16 (Traffic Signal & System Upgrades): Provide high-efficiency LED lamps or similar as approved by the City Engineer.	Energy-efficient lighting will be used for all on-site street, parking, and area lighting within the Project.	Reduces energy consumption that reduces GHG emissions.

Action Measure	Project/Community Design Features	Describe how project design will Implement CO ₂ Reduction Action Measures
Measure 20 (Increased Employment Density Near Transit): General increase in land-use and zoning designations to focus employment-generating land-uses within ¼ mile of major transit stops throughout the City.	The primary Project land use is residential. However, it is providing for higher density residential, within an already developed area which has employment centers in place. The existing transit stops are within a ½ mile of the Project entrance. This transit circulates to employment centers.	Reduces vehicle-miles traveled that in turn reduces the GHG emissions

8. Credit Towards Increased Minimum Energy Efficiency Standards

The project will comply with CVMC Sections 15.12, 15.26, 15.28.015, 15.24.065, 15.28.20 and 20.040.

9. Compliance Monitoring

This section includes a written description and a checklist (Table 9) summarizing the project design features and mitigation measures that have been identified to reduce the project's effects on air quality and improve energy efficiency.

Table 9: Sunbow II, Phase 3 Air Quality Improvement Plan Compliance Checklist

	Method of Verification ¹	Timing of Verification	Responsible Party ²	Project Consistency & Compliance Documentation ³
PLANNING				
AQIP Project Design Features/Principles				
Integrated circulation system	Plan Review	Precise Plan	City of Chula Vista	
Class III Bicycle facilities	Plan Check	Tentative Tract Final Map, Improvement Plans	City of Chula Vista	
Neighborhood circulation pattern w/less than 35mph	Plan Review	Tentative Tract Final Map, Improvement Plans	City of Chula Vista	
Air Quality Mitigation Measures				
Construction related emissions	Permit Review	Grading Permit	City of Chula Vista	
Siting of sensitive land uses	Permit Review	Building Permit	City of Chula Vista	

	Method of Verification¹	Timing of Verification	Responsible Party²	Project Consistency & Compliance Documentation³
TAC Emission Compliance	Permit Review	Building Permit	City of Chula Vista	
BUILDING				
<i>Green Building Standards</i>				
New Construction Recycling Plan	Waste Management Report Review	Construction or demolition permit	City of Chula Vista	
Space of recycling in projects	Plan Check	Tentative Tract OR Building Permit	City of Chula Vista	
	Method of Verification ¹	Timing of Verification	Responsible Party ²	Project Consistency & Compliance Documentation ³
<i>Energy Efficiency Standards</i>				
Size of dwellings units	Plan Check	Building Permit	City of Chula Vista	
Building compliance with prevailing code	Plan Check	Building Permit/ Title 24 Energy Report	City of Chula Vista	
Installation of energy efficient appliances as code requires	Plan Check	Building Permit	City of Chula Vista	
Indoor water fixture requirements	Plan Check	Plumbing Permit	City of Chula Vista	
Installation of Pressure Reducing Valves	Plan Check	Plumbing Permit	Otay Water District	
Landscape Water Conservation	Plan Check	Landscape Plan	City of Chula Vista	
Installation of Recycled Water for common landscape areas, open space and the CPF site.	Plan Check	Tentative Tract Final Map, Improvement Plans	Otay Water District/ City of Chula Vista	

Notes:

1. Method of verification may include, but is not limited to, plan check, permit review, and site inspection.
2. Identify the party responsible for ensuring compliance (City of Chula Vista, San Diego APCD, Other).
3. This column shall include all pertinent information necessary to confirm compliance including document type, date of completion, plan/permit number, special notes/comments, and contact information.