VISUAL IMPACT ASSESSMENT

I-5/SR-56 FREEWAY INTERCHANGE PROJECT

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I. PURPOSE OF STUDY

The purpose of this study is to assess the potential visual impacts of the proposed project and to propose measures to mitigate any adverse visual impacts associated with the construction of the I-5/SR-56, Carmel Valley Road/El Camino Real Freeway Connector Project on the surrounding visual environment. The "study area" refers to the project's ultimate right-of-way as defined in the description of work and plans of alternatives (Attachments A and B), and areas outside the project right-of-way, where viewers can see the project changes.

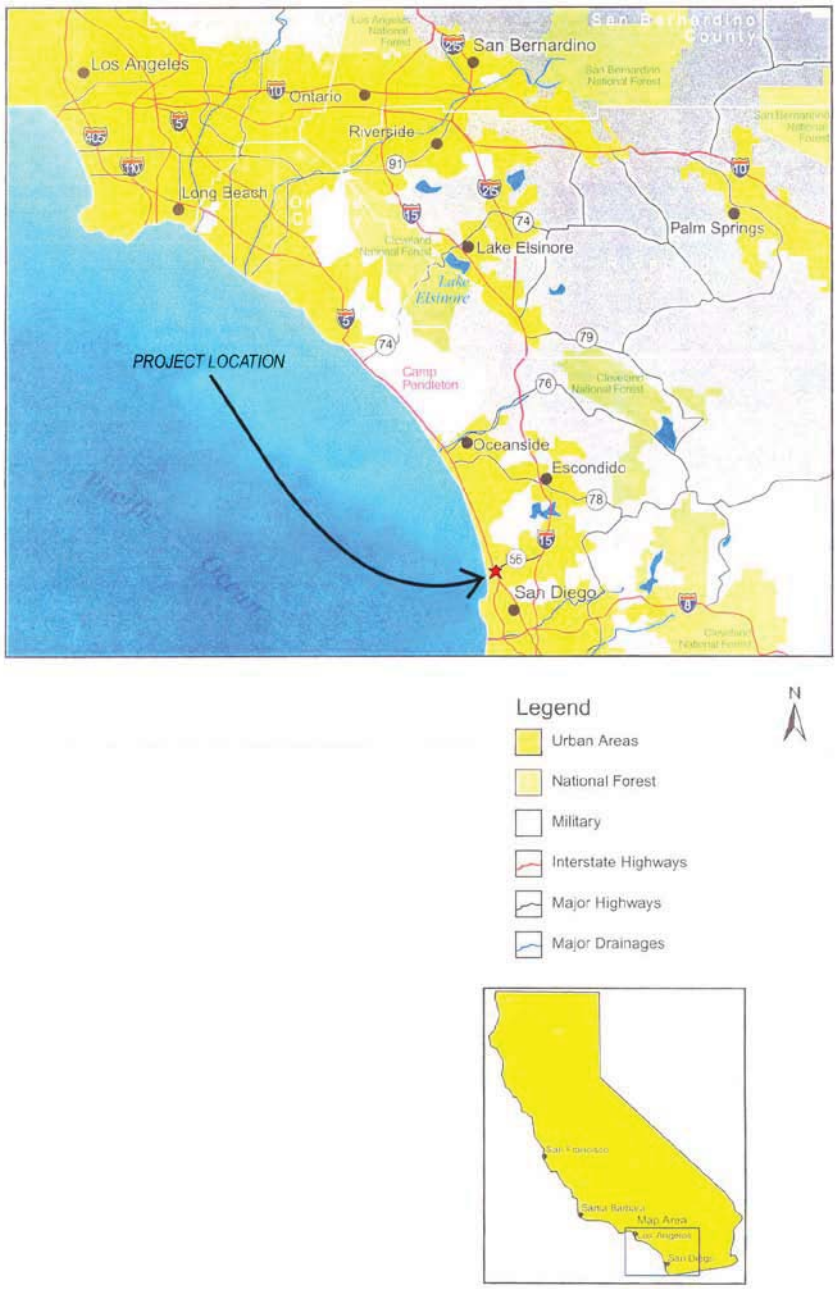


Figure 1

Project Vicinity Map

II. PROJECT DESCRIPTION

A. Introduction

State Route 56 (SR-56) is a four lane facility servicing the northern communities of the City of San Diego. Completed in 2004, the facility serves as a vital interregional east-west link between Interstate 5 (I-5) to the west and Interstate 15 to the east. The I-5/SR-56 Interchange project proposes to maintain or improve the existing and future traffic operations along the I-5 and SR-56 corridors between Del Mar Heights Road, Carmel Valley Road, and Carmel Country Road, (see Project Location Map), in order to improve the safe and efficient local and regional movement of people and goods, while minimizing environmental and community impacts for the planning design year of 2030.

Figure 2 - Project Location Map

The objectives of this project are to:

- Maintain or improve future traffic levels of service in 2030 over the existing and forecasted level of service.
- Maintain or reduce off peak and peak hour delay for SR-56 traffic moving to and from the north on I-5.
- Maintain or reduce peak hour congestion at the El Camino Real/56 ramp termini.
- Maintain or reduce freeway related traffic bypassing the congestion by traveling through local communities during the peak hour.
- Maintain or reduce congestion on I-5 and SR-56 mainlines during the peak hour.
- Provide a facility that is compatible with future transit and other modal options.
- Follow the Regional Transportation Plan, Mobility 2030 – The Transportation Plan for the San Diego Region, SANDAG, April 2003 (2003 SANDAG RTP) where feasible and be in compliance with Federal and State regulations.
- Maintain the facility as an effective link in the intra-regional and inter-regional movement of people and goods.
- Avoid and minimize impacts to human and natural environment.

B. Overall Project Purpose Statement

To maintain or improve the existing and future traffic operations along the I-5 and SR-56 corridors between Del Mar Heights Road, Carmel Valley Road, and Carmel Country Road, (see Project Location Map), in order to improve the safe and efficient local and regional movement of people and goods, while minimizing environmental and community impacts for the planning design year of 2030.

C. Background

Interstate 5 and Interstate 15 (I-15) are principal north-south arterials for the western United States, linking the Mexican border in the south to the Canadian border to the north. Regionally, I-5 and I-15 serve as a commuter link for North San Diego County with significant intraregional, interregional and international traffic. Located in Central San Diego County, SR-56 serves as an east-west corridor for I-5 and I-15. SR-56 was completed in three phases with the final phase opening to traffic in 2004 as a four-lane facility.

A project to reduce congestion along I-5 from the I-5/Interstate 805 (I-805) interchange to Del Mar Heights Road was completed in phases beginning in 1995, with the final phase completed in April of 2007. This project entailed the addition of high occupancy vehicle (HOV) lanes in the northbound (NB) and southbound (SB) directions, a four-lane SR-56 bypass in the NB and SB directions, and the construction of NB to eastbound (EB) and westbound (WB) to SB freeway-to-freeway connectors. Traffic projections prior to the North City Future Urbanizing Area phase shifts indicated that connectors were not warranted, limiting construction to the WB to SB and NB to EB freeway-to-freeway connectors. Drivers traveling on SB I-5 or WB SR-56 must use Carmel Valley Road and El Camino Real to travel on EB SR-56 and NB I-5, respectively.

In 1996 and again in 1998, the citizens of San Diego voted to phase shift the relatively undeveloped section of the North City Future Urbanizing Area from “future” to “planned” urbanizing. This phase shift and the associated developments will increase the population and traffic demand in the region utilizing the SR-56 facility.

D. Need

Currently, local streets and the surrounding communities experience increased demand and congestion during peak hours from I-5 and SR-56 traffic. The current network forces drivers to exit the freeway to travel between SB I-5 to EB SR-56 and WB SR-56 to NB I-5. This causes congestion at the El Camino Real and Carmel Valley Road intersection. A recent widening to the westbound SR-56 off-ramp has improved current operations, but will need to be evaluated with future traffic projections. During peak hours, in order to avoid traffic congestion at the I-5/SR-56 interchange, drivers use alternate routes including El Camino Real, Carmel Valley Road, and Carmel Creek Road causing increased traffic on surface streets near the project area.

The increased congestion negatively impacts the surrounding communities by increasing the traffic through neighborhoods. Continued regional development and inter-regional travel will further increase traffic volumes and reduce traffic operational quality.

This project proposes improvements between the Del Mar Heights Road interchange and SR-56 along I-5 and between the Carmel Country Road interchange and I-5 along SR-56. The project may include improvements to the surface streets, the addition of auxiliary lanes along SR-56 and I-5, interchange improvements, or new freeway-to-freeway connector ramps.

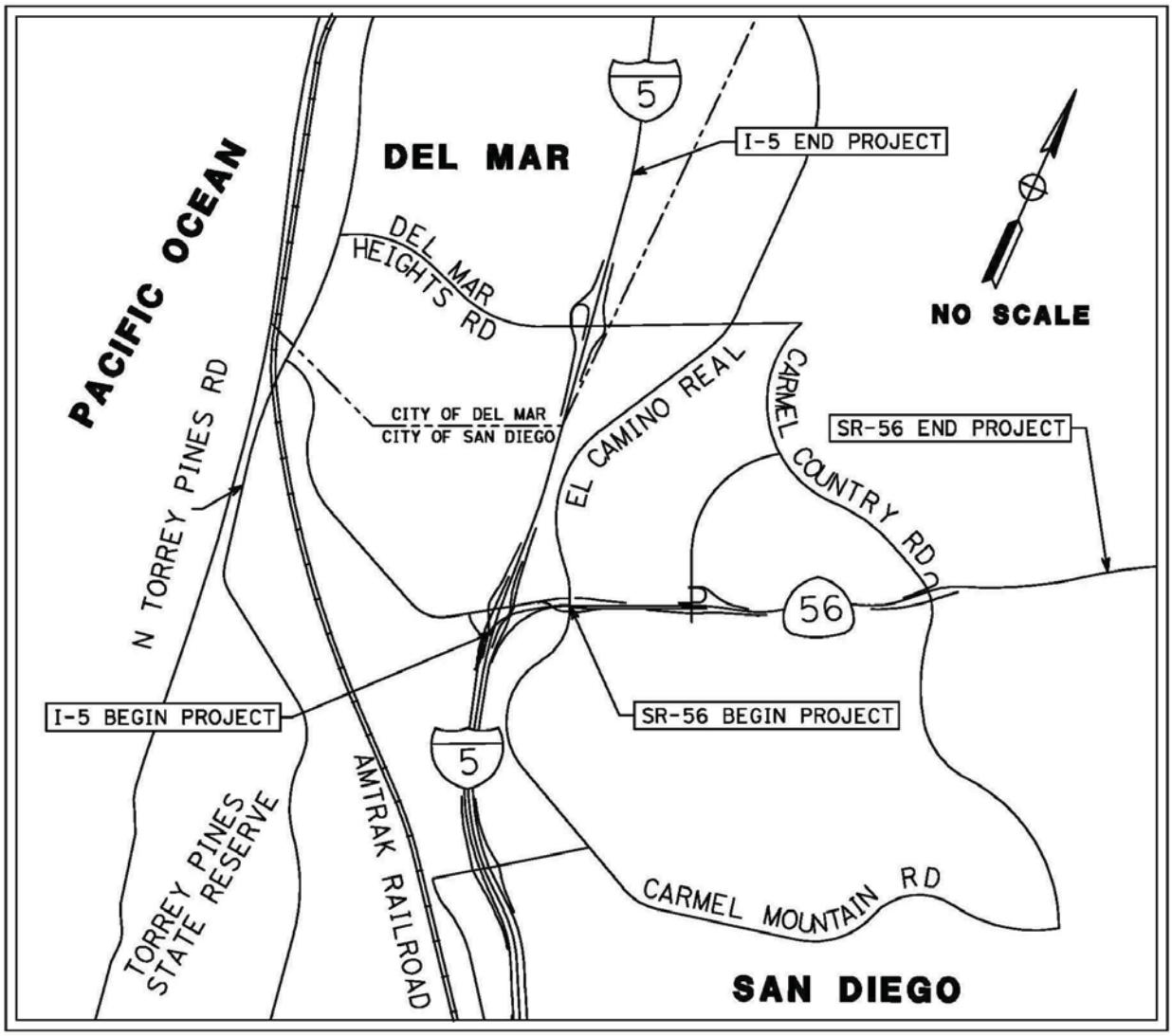


Figure 3 – Project Limits

E. PROJECT ALTERNATIVES

Proposed Engineering Features

This project proposes multiple improvements within the project limits. This project would accommodate the I-5 North Coast Widening Project. Improvements proposed in the I-5 North Coast Widening Project include the addition of two managed/HOV lanes (one in each direction) within the median of I-5, one general-purpose lane along northbound I-5 and improvements to the I-5/Del Mar Heights Road interchange. The I-5/SR 56 Interchange Project would also accommodate the future construction of two HOV lanes (one in each direction) located within the median of SR 56.

The No Build Alternative (Alternative 1)

The No Build Alternative assumes the existing configuration for the I-5/SR-56 interchange with the improvements proposed as part of the I-5 North Coast Widening Project, which are independent of the I-5/SR-56 Interchange Project. This alternative **would not include** the construction of direct freeway-to-freeway connectors in the westbound SR-56 to northbound I-5 (west to north) and southbound I-5 to eastbound SR-56 (south to east) directions or improvements to local streets in the Carmel Valley area.

The Direct Connector Alternative (Alternative 2)

The Direct Connector Alternative proposes the construction of direct freeway-to-freeway connectors in the west to north and south to east directions. The connector ramps would have two general purpose lanes.

To improve operations and to accommodate the proposed connector ramps, the local bypass would be re-aligned and extended in both the northbound and southbound directions to the Del Mar Heights Road interchange. Travelers who want to use the southbound local bypass must access the bypass just south of the Del Mar Heights Road interchange. A concrete barrier would separate the freeway mainline traffic from the local bypass and connector ramps in the northbound and southbound directions. A barrier separated collector/distributor system along westbound SR-56 would separate the westbound to southbound traffic from the westbound to northbound traffic just east of the Carmel Creek interchange. To eliminate the weave movement between the drivers traveling on the eastbound connectors and drivers wishing to access Carmel Creek Road a barrier would be constructed along SR 56 between El Camino Real and Carmel Creek Road. Drivers traveling eastbound would need to use local street alternatives to access Carmel Creek Road.

An auxiliary lane would be constructed along eastbound and westbound SR-56 between Carmel Creek Road and Carmel Country Road, and along northbound and southbound I-5 between the connector ramps and Del Mar Heights Road. Several local street interchanges would be modified in order to accommodate the new configurations on and along I-5 and SR-56. Improvements are proposed for the northbound on- and off-ramps and the southbound off-ramp at Carmel Valley Road. Improvements are also proposed for the eastbound and westbound on- and off-ramps at Carmel Creek Road and the eastbound on- and off-ramps and westbound loop on-ramp at Carmel Country Road. Carmel Valley Road would be widened to four lanes east of I-

5 and improvements would be made to the intersection of El Camino Real and Carmel Valley Road south of SR 56; the intersection would be widened to accommodate higher traffic volumes.

The Del Mar Heights interchange would be reconstructed; the overcrossing would be replaced and the northbound and southbound on- and off-ramps would be reconfigured. The bridge at El Camino Real would be widened to accommodate the west to north connector ramp. Portofino Circle would be realigned and reconstructed as well. Seventeen retaining walls would be constructed for this alternative.

The Auxiliary Lane Alternative (Alternative 3)

The Auxiliary Lane Alternative proposes the construction of an auxiliary lane along southbound I-5, improvements to the southbound off-ramp and northbound on-ramp at Carmel Valley Road, and improvements to the eastbound El Camino Real on-ramp. Carmel Valley Road would be widened to four lanes east of I-5 and improvements would be made to the intersection of El Camino Real and Carmel Valley Road south of SR 56; the intersection would be widened to accommodate higher traffic volumes.

State Route 56 westbound would be widened to the north to accommodate an additional general purpose lane and the future construction of HOV lanes within the median. Due to this addition, the westbound Carmel Creek Road loop on-ramp and off-ramp and the Carmel Country Road loop on-ramp would be realigned.

Additional auxiliary lanes, reconstruction of the Del Mar Heights Road overcrossing and associated operational improvements are also proposed with this alternative. Seven retaining walls would be constructed for this alternative.

The Hybrid Alternative (Alternative 4)

The Hybrid Alternative is a combination of the Direct Connector Alternative and the Auxiliary Lane Alternative. In this alternative, the proposed west to north connector featured in the Direct Connector Alternative would be combined with the proposed south to east improvements featured in the Auxiliary Lane Alternative.

The Hybrid with Flyover Alternative (Alternative 5)

The Hybrid with Flyover Alternative is a variation of the Hybrid Alternative. This alternative includes a proposed flyover structure that would connect eastbound Carmel Valley Road to the eastbound SR-56 fast lane, in addition to the proposed west to north connector featured as part of the Direct Connector Alternative. The Hybrid with Flyover Alternative would require use of non-standard lane and shoulder widths along Carmel Valley Road and would require tunneling behind the Carmel Valley Road undercrossing abutments to provide pedestrian/bicycle access.

III. ASSESSMENT METHOD

This visual analysis is based on a combination of site observations by driving and walking the site, photographic survey, and analysis of the existing conditions and proposed alternatives. Site observations were performed periodically in February and March of 2006, July 2007, November and December of 2008 and January 2009. Photographs for key view simulations were taken in November 2008 through February 2009. The visual analysis was conducted in conformance with the guidelines itemized below.

A. Federal Highway Administration Guidelines

The process used in this visual impact study generally follows the guidelines outlined in the publication "Visual Impact Assessment for Highway Projects," Federal Highway Administration (FHWA), March 1981. Six principle steps required to assess visual impacts were carried out. They are as follows:

A. Define the project setting and viewshed.
B. Identify key views for visual assessment.
C. Analyze existing visual resources and viewer response.
D. Depict the visual appearance of project alternatives.
E. Assess the visual impacts of project alternates.
F. Propose methods to mitigate adverse visual impacts.

B. Applicable Federal, State and Local Planning Policies

Following is a summary of the regulations and laws pertaining to visual impact studies for highway projects. The guidelines under these laws are used to determine potential effects of a project on the visual and aesthetic environment.

<u>National Environmental Protection Act (NEPA):</u>
NEPA requires that proposed federal projects consider potential effects that the project will likely have on the environment. Visual resources are considered an integral part of the environment. Consequently, the topic is included in NEPA, which is concerned with the protection of the existing visual appearance of scenic highways, Section 4(f) lands (public parks, recreation areas, wildlife and waterfowl refuges, and historic sites), lands managed by the U.S. Forest Service and the Bureau of Land Management, significant cultural and historic resources, lands associated with the National Wild and Scenic Rivers system. In general, NEPA addresses areas with high visual quality.

<u>Historic Preservation Act of 1966:</u> This Act and the 1976 regulations implementing it define "the criteria of adverse effect (Section 800.8), including the introduction of visual, audible or atmospheric elements that are out of character with the property or alters its setting".

<u>Department of Transportation Act, Section 4(f):</u> This law is intended to protect and preserve the natural beauty of public park and recreational lands, wildlife and waterfowl refuges, and historic sites. The act encourages planning to minimize harm to any of these natural and recreational areas. There are currently no federally recognized historic Section 4(f) resources within the project study area. Torrey Pines State Park, Torrey Pines Extension, Torrey Reserve, and Penasquitos Lagoon may be considered preserves under section 4 (f). Carmel Creek may be

considered a preserve conserving riparian woodland, freshwater marsh, and pond aquatic habitats and may qualify as a refuge under Section 4 (f).

California Department of Transportation (the Department), Scenic Resources: A State Scenic Highway is any freeway, highway, road, or other public right-of-way designated by the Department of Transportation that traverses an area of exceptional scenic quality. Interstate 5 has been determined to be an eligible Scenic Route, but has not yet been approved as an officially Designated Scenic Route. In addition, the Torrey Pines Community Plan states that North Torrey Pines Road, Carmel Valley Road, and Sorrento Valley Road possess "dramatic vistas and are recommended for a Scenic Route designation".

California Coastal Act of 1976

This project is within the costal zone boundaries established by the California Coastal Act of 1976. The Coastal Commission has developed planning and development requirements designed to protect and enhance California's coastal resources. This project is subject to those requirements. *(Specific requirements have not yet been provided by the Coastal Commission. These comments are to be added when they become available.)*

North Coastal City Local Coastal Program (LCP)

The project site is within the North Coastal City Local Coastal Program Land Use Plan (LCP) adopted by the San Diego City Council in March, 1981, revised in March 1981, May 1985 and March 1987. As stated in the Torrey Pines Community Plan, page 17, the Community Plans take precedence over this plan.

Major public roads and collector streets are exempt from the slope encroachment limitations of the LCP. The LCP states that "landforms that consist of slopes of 25 percent grade and over, that have not been identified as sensitive habitats, significant scenic amenities, or hazards may be developed provided the applicant can demonstrate the following: 1. To protect the scenic and visual qualities of the site as seen from public vantage points, recreational areas, and roads or highways, the proposed development shall minimize the alteration of natural landforms and create only new slopes that are topographically compatible with natural landforms of the surrounding area. 2. The proposed development restores and enhances natural landforms and native vegetation." The LCP also requires limitations on developing areas of sensitive vegetation, and floodplain areas.

The Visual Resources Section of the LCP reiterates that the State Coastal act states that the scenic and visual qualities of the coastal areas shall be considered and protected as a resource of public importance. The Torrey Pines community planning area possesses many highly scenic open space areas and dramatic vistas. Torrey Pines also has a number of road segments that have scenic qualities worthy of formal recognition and protection." Some of the pertinent recommendations include:

> "2. Three road segments possessing dramatic vistas are recommended for a Scenic Route designation, including North Torrey Pines Road, Carmel Valley Road, and Sorrento Valley Road."
>
> "5. Landscaping of properties adjacent to open space shall not use invasive plant species. Landscaping adjacent to these areas should use plant species naturally occurring in that area."

"10. Mechanical equipment, outdoor storage and appurtenances shall be screened from view…"

"11. The plan recommends the preservation of Torrey Pine trees in private as well as public areas and encourages the planting of Torrey Pines trees in roadways and other landscaped areas. Should Torrey Pines require removal, relocation or replacement of the trees shall occur whenever feasible."

"12. New residential, commercial, and industrial development shall provide landscape buffers to screen views of the buildings from designated scenic roadways."

City of San Diego Community Plans:
The I-5/SR-56 interchange is located within the City of San Diego, at the intersection of three Community Planning areas. Development is subject to the policies and guidelines of the City General Plan and the Torrey Pines, Torrey Hills, and Carmel Valley Community Plans. Each planning area has its own planning goals, and community identity. Some of the applicable goals and requirements pertaining to visual resources are summarized below to provide a planning context for the project area.

City of San Diego, Torrey Pines Community Plan:
The Torrey Pines Community is located between the west side of I-5 and the Pacific Ocean. The Community Plan emphasizes that the area is characterized by an abundance of sensitive environmental resources and contains a large amount of local and regional open space. Sensitive habitats near or adjacent to the project include Coastal Marsh, Riparian, Coastal Mixed Chaparral, Coastal Sage Scrub, Grasslands, and Torrey Pine Woodland.

A goal of the Resource Management and Open Space Element is to "Preserve, enhance, and restore all natural open space and sensitive resource areas, including…Los Penasquitos Lagoon, and associated uplands, Torrey Pines State Park and Reserve Extension areas with its distinctive sandstone bluffs and red rock, and all selected corridors providing linkage between these areas." Additional goals include the preservation and protection of all Torrey Pine trees on public property.

There is one City of San Diego designated historic landmark, the Stephens Ranch House, located along Carmel Creek, approximately 8,000 feet east of the I-5/SR-56 intersection. A prehistoric Native American village is also said to have been sited in the vicinity of the lagoon.

The Visual Resources Section of the Community Plan identifies Torrey Pines State Reserve Extension and Los Penasquitos Lagoon as significant scenic resources, which have been designated and rezoned to open space. North Torrey Pines Road, Carmel Valley Road and Sorrento Valley Road "are recommended for a Scenic Route designation". Landscaping of properties adjacent to open space should use plant species naturally occurring in that area, and shall not use invasive plant species. The plan recommends the "preservation of Torrey Pines in private as well as public areas, and encourages the planting of Torrey Pines in roadways and other landscaped areas". "New residential, commercial, and industrial development shall provide landscape buffers to screen views of the buildings from designated scenic roadways." It should be noted that while there are currently no "designated scenic roadways" in the planning area, this statement may be taken as an indication that the view from the road may be more critical to the community than the view from individual developments or residential areas.

Key policies reflecting the underlying concerns for the Torrey Pines community planning area include several statements that indicate the importance of visual resources. "All development adjacent to open space areas shall be designed to reduce visual and development impacts." "The construction of public projects shall avoid impacts to residential neighborhoods". "Public projects that cross or encroach into open space areas shall eliminate or avoid loss to biological resources, shall result in no net loss to wetlands, and shall be required to contribute to the restoration and enhancement of those open space areas."

The Torrey Pines Community Plan recognizes that State Route 56/I-5/I-805 Widening Projects will be constructed, and acknowledges that "visual impacts include permanent landform change as a result of new cut slopes, fill slopes, bridge structures, traffic movement and retaining walls. Visual grading impacts will be reduced to levels below significance by erosion control measures including immediate plant cover on cut/fill slopes. Newly planted slopes will be compatible with surrounding landforms. Interchanges will be given a full planting scheme with Torrey Pines. The visual impact from retaining walls will be mitigated by incorporating crib walls where feasible, special wall treatment utilizing texture, color, and design elements, and new bridges with slender, aesthetically pleasing design."

<u>City of San Diego, Carmel Valley (North City West) Community Plan:</u>
The center of the Carmel Valley Community is located on the east side of Interstate 5, and northeast of the I-5 and SR-56 interchange. State Route 56 runs east through the community and the major east/west oriented valley of Carmel Creek. The community is described as including lands with distinctive physical characteristics, such as eroded bluffs, which are highly visible within the study area, and are the same geological formation as the bluffs within Torrey Pines Park.

The Planning Principles section of the introduction includes the following indicative statement regarding Transportation Principles "The transportation system should be used as a tool for shaping the urban environment. This can be accomplished by integrating the major system into the natural land forms and by complementing open space systems."

The Community Plan references the following goals and planning concepts pertaining to visual considerations:

"3. To preserve the natural environment."

"4. To establish a balanced transportation system which is used as a tool for shaping the urban environment."

The Park and Recreation Element of the Community Plan states that "Design concepts for open space simply expressed revolve around the necessity to keep open space in its natural state for conservation, biological and psychological reasons. Any deviation, even for recreational or public facility purposes from this natural environment, must be justified by favorable environmental impact analysis."

Carmel Valley (the geological valley) is designated as a major open space system providing a break in the urbanization, but allows that "compatible uses such as agriculture and golf courses may be appropriately located within these open space areas".

The objectives for the Circulation (Transportation) Element of the plan include this rather ambiguous goal: "In order to promote preservation of the natural environment, transportation facilities should be regarded as an integral part of the landscape in which they are sited. They must be something more than the standard provision of a surface for moving cars or guiding

mass transit vehicles. It must be kept in mind that corridors should be conceived of as "space" and not as a "line." When the requirements for continuity, integrity, and articulation are met, transportation facilities will merge with the natural landscape."

The grading section provides an indication of some aesthetic priorities: "When it is impossible to avoid the creation of a steep bank, necessary benching to slow the runoff of water and slides should be incorporated into a pathway system." Also: "Planting of natural plant covers on all created slopes together with irrigation and maintenance must be required."

To summarize, the visual goals of the North City West Community Plan emphasize preservation of natural areas and blending development and infrastructure with the natural environment. Transportation is regarded as a tool for shaping the urban environment.

City of San Diego, Torrey Hills (Sorrento Hills) Community Plan:
The Torrey Hills Community borders the project area on the southeast quadrant of the intersection of I-5 and SR-56. The nearest land uses to the project area consist of a commercial area with the open space of Torrey Reserve to the east. The community plan is based closely on the Community Plan for North City West (Carmel Valley) and many of the statements from the North City West Community Plan are replicated in the Torrey Hills Plan. The following excerpts provide a summary of the contents relating to visual resources.

The Community Plan Executive Summary lists key policies developed to respond to the plan's vision:

> "1. Develop a mix of land uses which integrates and balances existing and planned land uses in the community as well as takes advantage of view opportunities and accessibility."
>
> "8. Preserve and, if necessary, enhance or restore open space areas identified within the community. Protect open space areas from development pressures through dedication, acquisition or open space easements."
>
> "10. Provide for land development projects within the community which are sensitive to landform and adjacent uses, which have adequate internal circulation and linkage to regional vehicular and transit transportation systems and which demonstrate high quality design and construction."

The Community Plan references the goals of the North City West Community, the broader community context, and includes the following goals:

> "3. To preserve the natural environment."
>
> "4. To establish a balanced transportation system which is used as a tool for shaping the urban environment."

The Park and Recreation Element of the Community plan states that "Design concepts for open space simply expressed revolve around the necessity to keep open space in its natural state for conservation, biological and psychological reasons. Any deviation, even for recreational or public facility purposes from this natural environment, must be justified by favorable environmental impact analysis."

Carmel Valley is designated as a major open space system providing a break in the urbanization, but allows "compatible uses such as agriculture and golf courses".

The Community Plan appears to have a practical view of transportation: ”The primary goal of the transportation system is the design of a network which provides mobility, accessibility and safety for residents of the Community.”

The objectives for the Circulation (Transportation) Element of the plan, similar to the Carmel Valley Community Plan, include the following goal: “In order to promote preservation of the natural environment, transportation facilities should be regarded as an integral part of the landscape in which they are sited. They must be something more than the standard provision of a surface for moving cars or guiding mass transit vehicles. It must be kept in mind that corridors should be conceived of as “space” and not as a “line.” When the requirements for continuity, integrity, and articulation are met, transportation facilities will merge with the natural landscape.”

There is no visual resource section in either the Transportation Element, or the Park and Recreation element of the plan, and there are few comments relating to visual quality other than that explicitly pertaining to private development. Based on the Sorrento Hills Community Plan, it appears that visual resources have a lesser priority compared with the Torrey Pines Community Plan.

<u>City of San Diego, Land Development Review Significance Determination Thresholds:</u>
The City of San Diego, Land Development Review Significance Determination Thresholds, November 2004, provides guidelines for determining the significance of visual impacts and establishes criteria for the basis of determinations for this highly subjective topic. The criteria for determinations include: substantial view blockage, scale and material incompatibility, creation of a negative aesthetic, alteration of the planned character of the area, loss of distinctive landmarks or mature trees, substantial change in landform, or substantial light or glare adversely affecting daytime or nighttime views. These criteria aid in understanding local values and goals applicable in identifying viewer sensitivity.

Specific significance thresholds that may apply to this project are as follows:

Views:

- Blockage of public views from designated open space areas, roads, or parks or to scenic vistas such as waterways, skyline, canyons.
- View blockage of designated public view corridor including consideration of the level of effort required by the viewer to retain the view.
- View blockage of a public resource such as the Penasquitos Lagoon, ocean views, canyons and hillsides.
- Cumulative effect on views: View blockage would be considered extensive when the overall scenic quality of a visual resource is changed; for example, from an essentially natural view to a largely manufactured appearance.

Neighborhood Character/Architecture:

- Strong contrast with the surrounding neighborhood character.
- Location in a highly visible area and would strongly contrast with the surrounding development or topography.

Grading:

- Significant alteration of the natural landform.
- Disturbance of steep hillside slopes in excess of the encroachment allowances of the Land Development Code 143.01.

- Manufactured slopes over 10 feet in height or steeper than 2:1.

Development Features:

- Creating a disorganized appearance.
- Inclusion of crib, retaining or noise walls greater than six feet in height and 50 feet in length with minimal landscape screening or berming where the walls would be visible to the public.
- Size of project resulting in a monotonous visual environment.
- Significance is increased when visible from open spaces roads, parks or visual landmarks.

Light and Glare:

- Project would emit or reflect a significant amount of light and glare.
- Project would shed light onto adjacent light sensitive property such as residential, commercial, industrial and natural areas.

City of San Diego Municipal Code, June 2000

Chapter 14 of the City of San Diego Municipal Code addresses environmentally sensitive lands including 100-year floodplains, steep hillsides and sensitive biological resources, which occur within the project area. The purpose of the regulations is to protect, preserve and restore environmentally sensitive lands and the viability of the species supported by those lands. The regulations are intended to assure that development occurs in a manner that protects the overall quality of the resources and the natural and topographic character of the area. Pertinent to the visual analysis for this project are the regulations addressing encroachment into steep hillsides, landform alteration, and erosion control measures such as retaining walls. The Code indicates these features are to be designed incorporating existing adjacent landform characteristics. The design standards for development occurring in areas of steep hillsides are identified in the Steep Hillside Guidelines in the Land Development Manual. Also pertinent are the regulations limiting the disturbance of biological resources. For the purposes of this analysis, these Municipal Code regulations indicate accepted standards of the community that may be used as an indicator of community sensitivity to aspects of the project when assessing viewer sensitivity.

IV. VISUAL ENVIRONMENT OF THE PROJECT

A. Project Setting

The project site from Torrey Pines State Park with Penasquitos Lagoon in the foreground

The regional landscape establishes the general visual environment of the project. However, the specific visual environment upon which this assessment will focus is determined by defining landscape units and the project viewshed. This section provides a broad overview of the project setting and key visual elements and themes.

The intersection of I-5 and SR-56 is located on the edge of Penasquitos Lagoon, a broad, open highly visible geological feature that provides a visual, spatial separation in the urban fabric, and signals the entry to the communities of the City of San Diego from the communities of North County. The project area is surrounded by sedimentary mesas, uplifted from the seabed and eroded into a variety of diverse land forms, including densely vegetated ridges, colorful eroded bluffs and escarpments, grass covered, rounded hills, steep sided river valleys, and a flat estuarian lagoon.

The hills surrounding the project site to the north, east and southeast are relatively recently developed since the 1970's with combinations of housing types, mid-rise office and commercial structures, hotels, gas stations, restaurants, and office buildings. This development spreads across the undulating upland topography. Landscaping, and preserved open space is visible and perceptible as green spaces in the urban fabric. The Carmel River Valley provides an open space linage to the east.

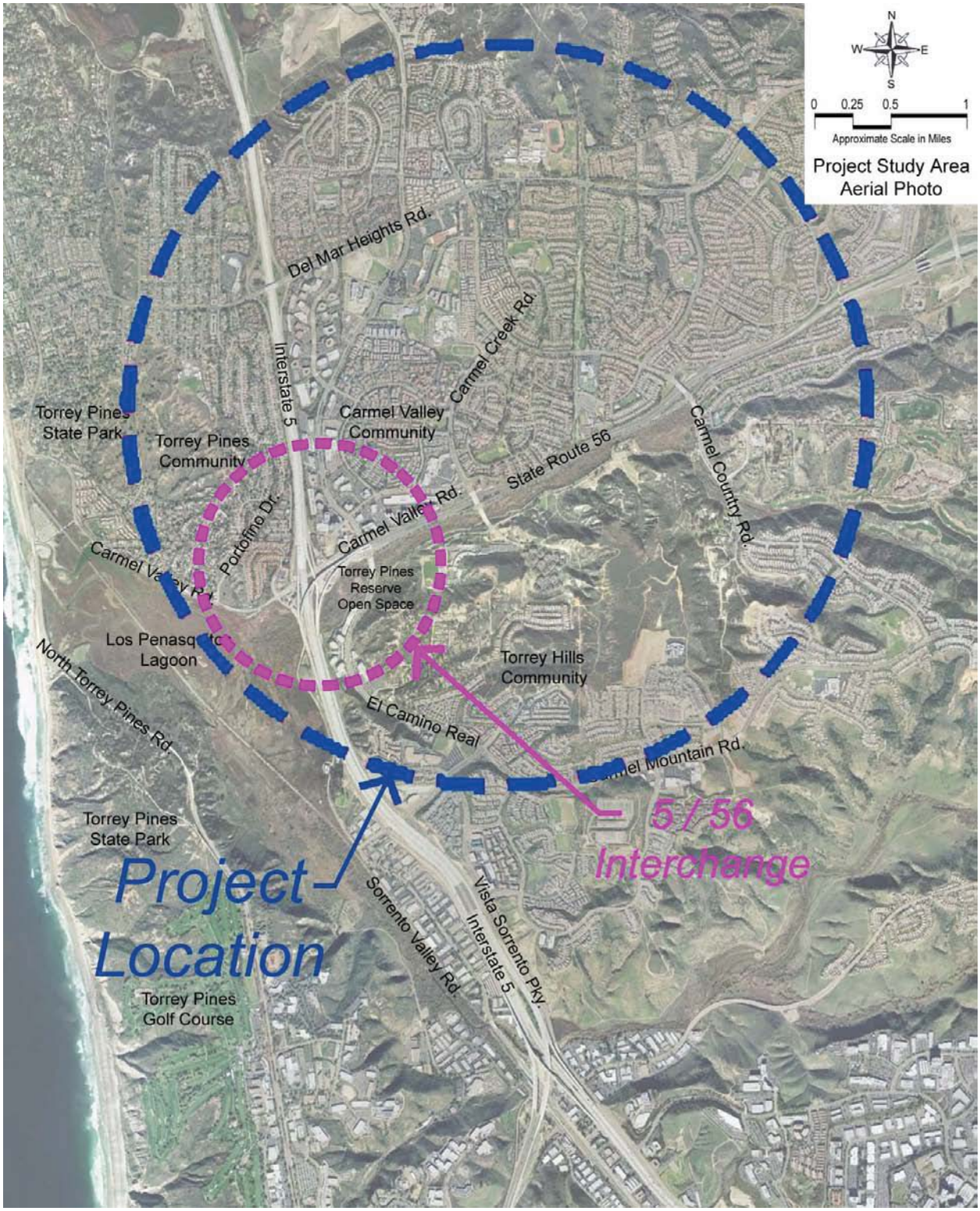


Figure 4: Aerial Photo of Project Study Area

Hotels and offices northeast of the project site

Penasquitos Creek and its tributaries, including Carmel Creek have carved a complex of drainages that reach a confluence near the project site and continue one mile west to the Pacific Ocean at Torrey Pines Beach. Penasquitos lagoon is a highly visible scenic element, and is a regionally perceptible visual element, with broad, open wetland, and active and highly visible bird life. The lagoon is visible from I-5 and the existing connector ramps from SR-56.

Carmel Creek, historic Stephens House and the CVREP Trail southeast of the project

This section of the Penasquitos Lagoon has historical significance as the location of a prehistoric Native American village. The Stephens Ranch House, located 8,000 feet east of the I-5/SR-56 intersection, is designated by the City of San Diego as a historic landmark.

The project site is highly visible from Torrey Pines State Park, a scenic and ecological reserve, preserving habitat for the rare Torrey Pine, Chaparral, Coastal Sage Scrub, and Coastal Strand habitats. Torrey Pines Park is heavily used for passive recreation, hiking, nature study, bike riding, running, swimming, surfing, picnicking, and beach going. A visitor center displays exhibits on cultural history, and environment for the area, and ranger/docent nature walks are a key educational use. The preservation of views from Torrey Pines State Park is an important consideration for all development in the area.

The view from Torrey Pines State Park to the project site across Penasquitos Lagoon

As the area around the project site has been developed, the predominant visual elements have become modern buildings, shopping centers, and a network of roadways, including three multi-lane and Interstate highways, major connector roads, and congested surface streets. Modern architecture includes glass and steel office buildings, eclectic shopping malls, stucco and terra cotta single and multi-family residential buildings. Residential development in the area is primarily suburban in form and consists primarily of single-family residences.

The clean lines of concrete freeway bridges, concrete and steel railings and tall, steel lighting standards are the primary visual elements of the freeway interchange. The observer's attention is primarily focused on traffic in this congested vehicular environment. The photos and simulations do not convey the continual flow and movement of the mass of traffic through the area.

<u>Natural Visual Elements</u>
Key natural visual elements that provide a unique character to the area include:

- Eroded sandstone bluffs in colors ranging from white to yellow ocher, to oxide red.
- Rounded cobblestone in multiple red oxide, brown and tan colors cemented in layers of soil on nearby natural and cut slopes.

Eroded sandstone bluffs with Coastal Sage and Chaparral vegetation

- The lagoon area is visually identified by rushes, cattails and other riparian plants of the wetland plant communities. This provides visual exposure to this significant regional visual element adjacent to the project area.

- Torrey Pine trees, chaparral, and coastal sage plant species characterize upland areas west of the project.

Torrey Pines and native vegetation

Eroded sandstone

- Vegetation in other areas is characterized by open soil, rock and Coastal Sage Scrub on the south facing natural slopes, and chaparral and oaks on the north facing slopes of the valley.

Existing Landscape

Key visual elements established in the existing roadways and public spaces include:

- Gray concrete structures with graceful curved forms and rounded columns.

- Architectural treatments including Caltrans Class 2 (gun) finish, Class 1 smooth finish, and various form liners including fractured fin texture, and cobble wall texture.

- Green road signs with white letters.

Bridge structure

- Retaining walls with brown cobblestone veneer finish with a smooth plain concrete cap.

Caltrans Class 1 finish over Class 2 (gun) finish

Cobblestone form liner walls

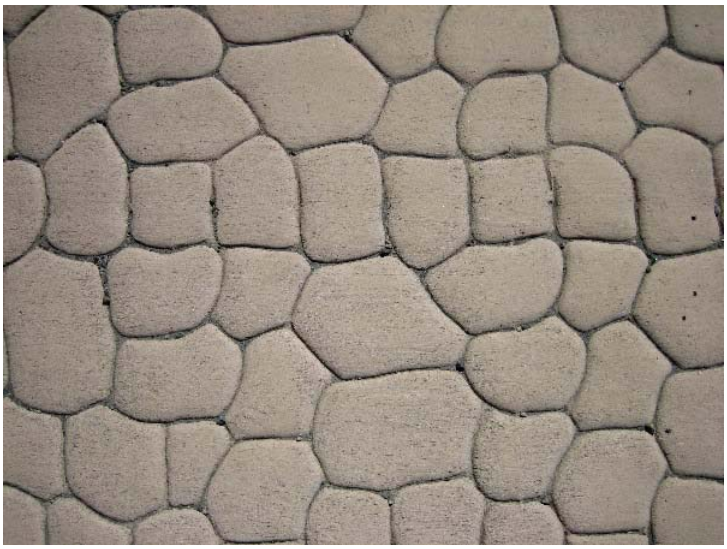
- Colored stamped concrete slope paving under freeway overpasses

- Classic lighting standards and black steel railings on the Carmel Creek Road bridge over Carmel Creek.

Lights, railings, and textured concrete

- Medians on connector roads are paved with stamped concrete with the color and appearance of warm tan dried and cracked mud.

- Slope paving under bridges, consisting of granite cobblestone set in concrete.



Tan median paving similar to dried, cracked mud

- Torrey Pines are planted along SR-56 corridor.

- Torrey Pines, Eucalyptus and Carpobrotus Ice Plant are planted on the surrounding slopes.

- Oaks, Lemonade Berry and other mid-sized native plants are planted along the right-of-ways.

Planting on SR-56 includes Torrey Pine and Lemonade Berry

- California Sycamore trees, planted in the SR-56 right-of way, reflect the riparian environment of adjacent Carmel Creek.

- The Caltrans right-of-way is planted primarily with non-native groundcovers, including Carpobrotus Ice Plant and Myoporum 'Pacificum'.

- More recent plantings on the slopes south of the intersection include native hydroseeded groundcovers.

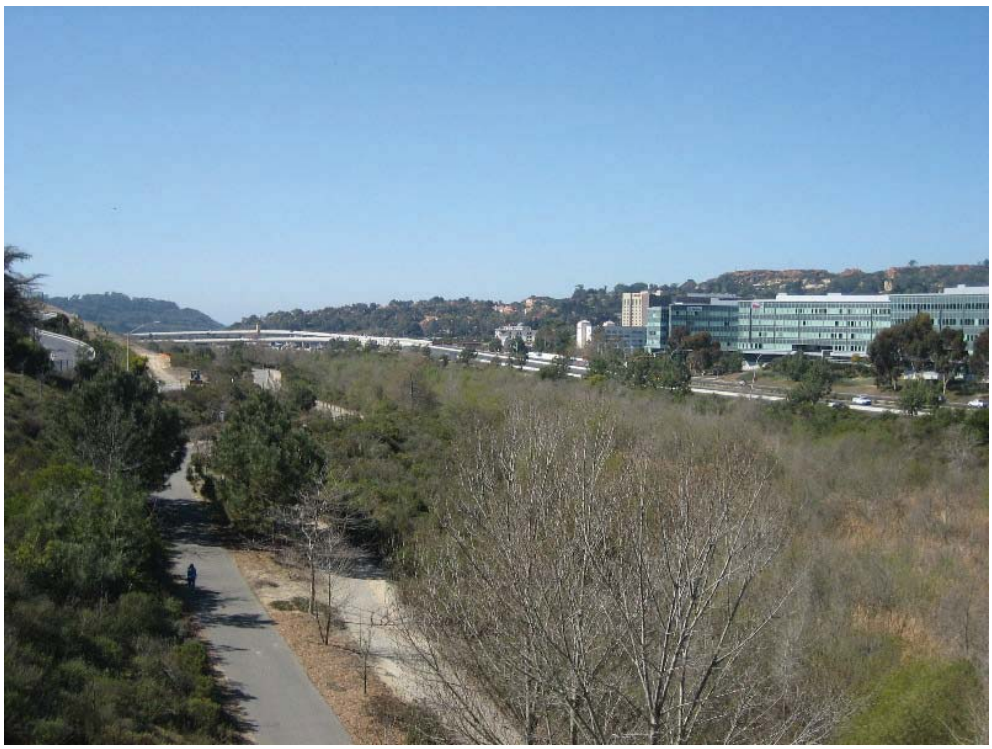
- I-5 includes cobblestone texture retaining walls, neutral colored slump block sound walls.

- The surrounding commercial and residential landscapes are a mix of exotic and native plant materials, including pines, palms, evergreen and deciduous trees commonly planted in Southern California.

Granite cobblestones adjacent to SR-56 ramps

- Salt and pepper granite cobblestones used in the on-ramp gores, and other areas too small to landscape with plants.

- The adjacent CVREP project features the enhanced riparian areas of Carmel Creek with Willows, Oaks and Sycamore trees.



Enhanced riparian areas of CVREP project along Carmel Creek

Sequential Existing Visual Condition

Following is a summary of the visual experience traveling north on I-5 from the I-5/805 merge: The viewer enters the viewshed on an overwhelmingly wide expanse of freeway, congested with traffic; past intensely graded, terraced slopes with pastel homes along the ridgeline to the east. To the west, the natural ridge, estuarian lagoon and Pacific Ocean are seen. The road descends and passes under a set of gray concrete overpasses, before ascending on a continuously steep roadway slope through a "u" shaped graded corridor to Del Mar Heights Road where the viewer crosses under the road, and leaves the viewshed.

Approaching the viewshed from the south

The Hills of Del Mar come into view

Curve into the viewshed

Approaching the I-5/SR-56 interchange

The I-5/SR-56 interchange

Under the overpass

Climbing toward Del Mar Heights

Climbing through "U" shaped corridor

Leaving viewshed through underpass at Del Mar Heights

B. Landscape Units

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit will often correspond to a place or district that is commonly known among local viewers. There are two landscape units within the project area. These are illustrated in Figure 5 and described below.

Del Mar Heights Landscape Unit

The majority of the project site is contained within a regional landscape unit defined by the slopes, ridges, rolling hills and mesa tops surrounding I-5 and Del Mar Heights Road, which define the visual character of the Del Mar Heights landscape unit. However, the area has been heavily impacted by development and highway construction. The primary visual features include the I-5/SR-56 freeway interchange with its ramps and retaining walls, commercial buildings, multi-family and single family residential development, cut slopes and retaining walls. The topographic features are visible, but highly impacted by development. Periodic glimpses of colorful eroded bluffs and native Torrey Pine trees are visible on the heights to the west.

General view of western portion of the Del Mar Heights Landscape Unit from the Southeast

General view of Del Mar Heights Landscape Unit from Torrey Pines State Park

A special characteristic of the project location is the diversity of visual character in each quadrant of the view from the central project area within this landscape unit: residential character at the center and the northwest; natural estuarian and upland ridges to the southwest; urban development to the northeast; and a combination of natural, commercial and residential character to the southeast. Over the preceding years, the height and density of the interchange overpasses has increased, and as interchange expansion projects have been constructed, the landscape unit has been bisected repeatedly by additional structures. While the visual character is quite different in each quadrant surrounding the interchange structures, the overall character of the landscape unit is highly developed with the natural character diminished.

Carmel Valley Landscape Unit

The valley containing Carmel Creek is strongly defined on the north and south by distinct uplands and topographical variety creating a defined landscape unit through which SR-56 passes following the creek. The rolling upland topography of the Del Mar Heights area to the north and the higher and steeper slopes of Torrey Highlands to the south provide a visual contrast to the low lying riparian areas of the creek. The landscape unit is defined on the west by the I-5/SR-56 intersection in combination with views to more distant Torrey Pines Ridge and the distant horizon of the Pacific Ocean. To the north are the residential and commercial development covered mesa tops and slopes. To the east is a curvilinear view up the river valley and the visually complex natural drainages from the steep slopes of Torrey Hills to the south. The rolling hills of Carmel Valley to the north contrast with the valley of Carmel Creek running almost directly east to a distant view of Black Mountain. The Carmel Valley landscape unit is easily perceived by casual observers, due to its distinct contrast to the surrounding mesas and uplands.

General view of Carmel Valley Landscape Unit from Torrey Pines State Park

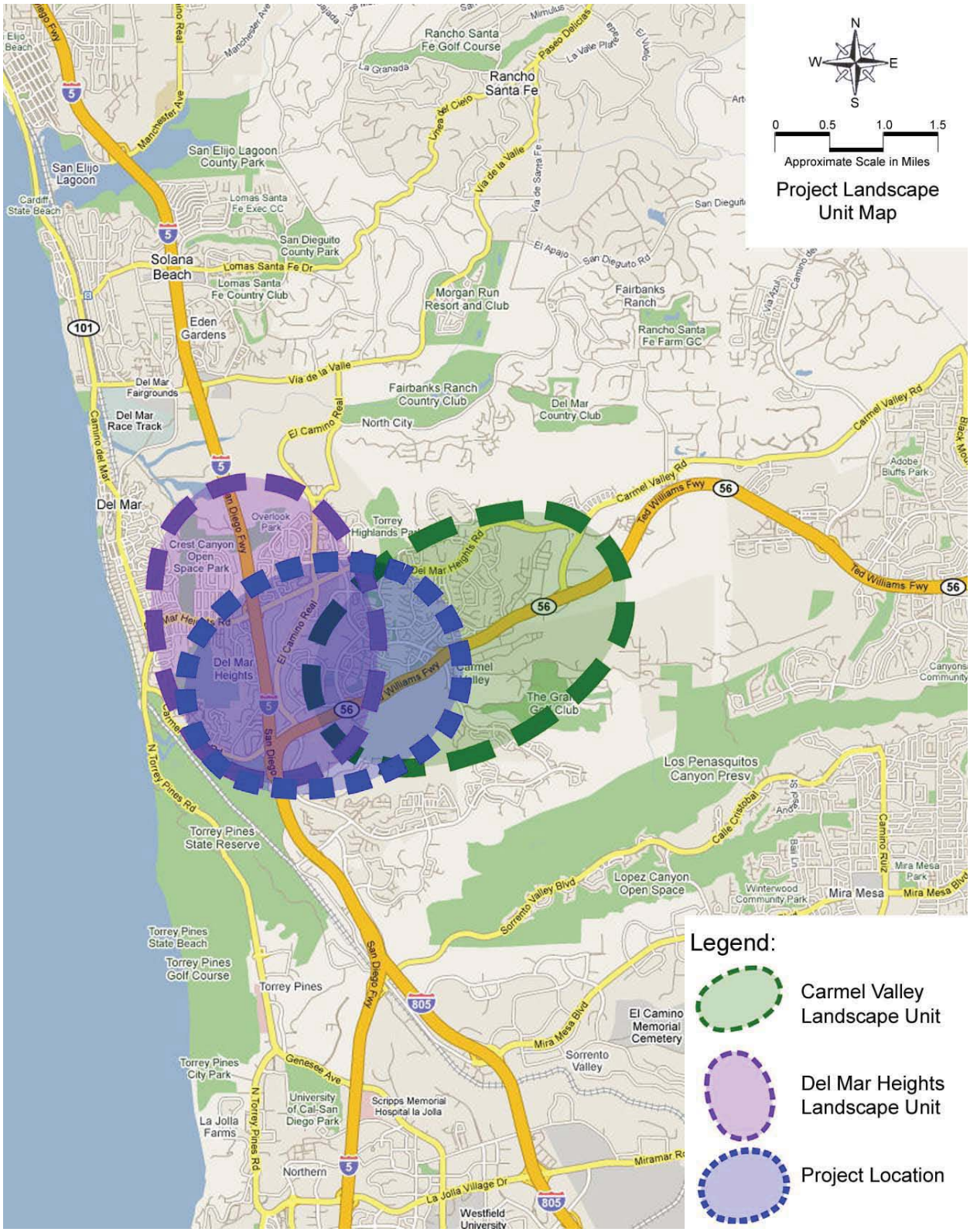


Figure 5 – Landscape Units

C. Project Viewshed

A viewshed is a subset of a landscape unit and is comprised of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views located from the proposed project. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features.

Due to its location near the confluence of several valley systems, the project includes one primary viewshed defined by the skyline edge of the surrounding ridgelines, hilltops, and distant hills viewed at the end of long valleys. To the north the viewshed is bounded by the southern hills of Del Mar, and the Carmel Valley commercial area flanking El Camino Real, with I-5 leading north out of the lowlands. To the west, the viewshed is contained by the eminence of the Torrey Pines ridge and escarpment, with the open expanse of Penasquitos Lagoon in the middleground. To the south lies the vast freeway corridor of the I-5/805 "merge" with the viewshed defined by the high mesas of Genesee Avenue, near the University of California at San Diego and continuing out to the distant views up Penasquitos Valley to the southeast. To the east, the heights of Torrey Reserve, and the Carmel Hills frame the Carmel Valley leading east to Black Mountain on the distant horizon.

Penasquitos/Carmel Valley Viewshed is defined by hills and ridges

This viewshed includes all areas from which the project can be seen, and that can be seen from the project. The project viewshed is illustrated in Figure 6. The site has a dynamic viewshed that varies in response to topography and the built environment. Depending on the location of the observer, the specific viewshed at any given point will vary as it is defined by surrounding slopes, bridges, buildings and other features that obscure views. Viewer location in the viewshed is critical for this project. Consequently a large variety of viewpoints are needed to illustrate the visual impacts.

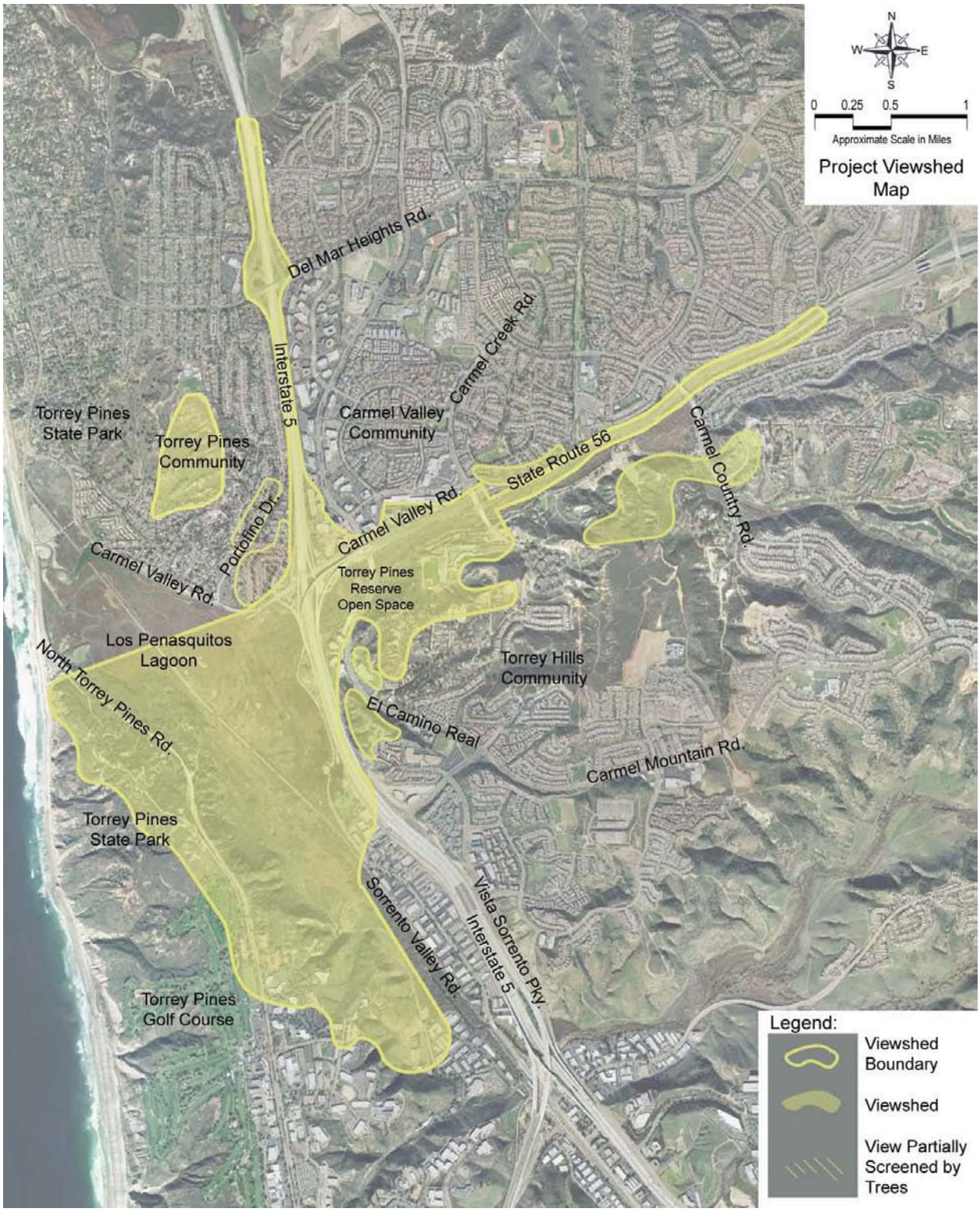


Figure 6: Project Viewshed Map

V. EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

A. FHWA Method of Visual Resource Analysis

Identify Visual Character – Visual character is descriptive and non-evaluative which means it is based on defined attributes that are neither good nor bad in themselves. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. If there is a public preference for the established visual character of a regional landscape and a resistance to a project that would contrast that character, then changes in the visual character can be evaluated.

Assess Visual Quality – Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. The FHWA states that this method should correlate with public judgments of visual quality well enough to predict those judgments. This approach is particularly useful in highway planning because it does not presume that a highway project is necessarily an eyesore. This approach to evaluating visual quality can also help identify specific methods for mitigating specific adverse impacts that may occur as a result of a project. The three criteria for evaluating visual quality can be defined as follows:

> **Vividness** is the visual power or memorability of landscape components as they combine in distinctive visual patterns.
>
> **Intactness** is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements and interruptions to the view. It can be present in well-kept urban and rural landscapes, as well as natural settings.
>
> **Unity** is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to natural continuity of elements and forms, or the careful design of individual components in the landscape.

B. Existing Visual Resources

1. Existing Visual Character

The existing visual character of the project area is a combination of natural and constructed elements with a great deal of diversity and complexity. The project is located at the confluence of Carmel Creek and Penasquitos Lagoon surrounded by ridges and highlands providing a strong topographical and vegetative backdrop for a diverse range of urban and suburban construction. The skyline ridges and hills provide a varied, but unifying horizontal element with native trees blending the separation between land and sky along the western portion of the viewshed. On the eastern side of the viewshed, a variety of design styles, colors and building shapes of commercial and residential structures contrasts strongly with the more natural western and southern view exposures. The visual character and scale of all these views has been diminished by the massive scale of the major transportation corridors and overpasses which feature the unifying element of gray concrete.

View from Hotel looking south

Underlying these diverse elements, Carmel Creek flows alongside SR-56 into Penasquitos Lagoon in a corridor of existing and restored riparian woodland, marsh and open water.

Seasonal variation of the developed area is minimal due to the large number of evergreen trees and shrubs. However, the seasonal variation of the native slopes and ridges provides contrasts between the browns and olive green of the dry, summer months, and the more lush green colors in the winter season.

Looking north across Carmel Creek toward project site

Combining these visual elements, the project scene is a complex blend of natural features, development, and transportation that provides a co-mingling of human-made forms and natural environment. Overall, the existing visual character of the project viewshed can be considered to be a complex suburban transportation corridor through mixed development in a river valley/ estuary setting.

View looking north across Torrey Reserve to project site in middleground

2. Existing Visual Quality

Following is an analysis of the visual quality of the project viewshed as a whole. Visual quality and other variables are rated on a scale of 0 (none) to 5 (high).

Vividness - The project setting expresses a high degree of vividness as a result of the expansiveness of the views of the surrounding landscape. A sense of regional character suffuses the views. Although there is no single dominant feature of the landscape, the scene is memorable due to the overall appearance that establishes a sense of the regional character. The viewer is able to obtain a broad and distant view of the general visual surroundings. The ridges, hills, lagoon, intriguing bluffs, and diverse urbanized environments contribute to the memorability of the scene. The views leading into and out of the valley on I-5, and the sense of arriving in a definable region promotes a sense of understanding of the regional landscape context that establishes the scene in the viewer's mind. Although the ocean is not quite visible from the project area, its presence is strongly perceived and it is visible from areas just to the south of the proposed construction. Approaching from the east along Carmel River Valley, the views down the valley lead to the more open and expansive views at the freeway intersection. Observing all areas visible from the intersection, the view is complex, and composed of diverse scenic elements. Consequently, there is a great degree of variety in the vividness of each view depending on the orientation. This variety will be evaluated as this study investigates specific views in section VI. Overall vividness rating is moderately high: 4.0 on a scale of 0 to 5.

Intactness - Due to the large number of conflicting elements distracting the viewer from the essential character of the landscape, the visual integrity of the project area may be judged to be minimal. Such conflicting elements include speeding traffic, freeway signs, bridges, flyover ramps, underpasses, fences, retaining walls graded slopes, light posts, large office buildings, hotels, parking garages, and other structures in a wide variety of architectural styles, which interrupt views of many of the visually intact surrounding hillsides. These elements encroach and distract from the intactness of the view. Despite the proximity of the lagoon, Torrey Pines

State Park, Torrey Pines Reserve, and the Torrey Pines Extension, the project has a strongly urban character full of the elements of urban and suburban life. The viewshed is essentially an urban scene full of movement, variety, vitality, and diversity overlaid on the background of its natural setting. The existence of these diverse elements results in a lack of visual intactness. Overall intactness rating is considered to be low: 1 on a scale from 0 to 5.

Unity - While the strong topographical elements of the lagoon, ridges, steep slopes and vegetated ridges, hills and valleys provide a visually unifying background element, the compositional harmony of the natural landscape is disrupted by the diverse and conflicting man-made elements of the foreground and middleground. Signs, commercial, residential buildings in a variety of architectural styles, a wide variety of trees and landscape elements with no currently perceptible prevailing theme, manufactured slopes, new vegetation, expanses of concrete, and a variety of fences, sound walls, and retaining structures tend to break up the composition of the views to and from the project site. Contrasting with the natural landscape and eclectic development, the subtle curves and straight lines of the massively scaled concrete roadways, ramps, bridges, and concrete barriers provide a unifying element to the scene, connecting the project area to the regional context of the intersection of major transportation corridors, including three freeways, major collector streets, and a railroad.

Viewed from the freeway, the predominant colors are the reflective white/gray of the roadway, ramp and bridge paving, tans and browns of exposed soils, a variety of greens of plant material, and a wide variety of colors of the surrounding commercial enterprises and residential structures.

To summarize, the compositional integrity, or unity, is promoted by the natural elements. Steep slopes, vegetation types, as well as the concrete structures of the transportation elements define the viewshed. Unity is diminished by the conflicting variety of urban and suburban structures of the built environment, which complicate, and reduce the compositional integrity. The overall unity rating is considered to be moderate: 3 on a scale of 0 to 5.

C. Methods of Predicting Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a highway project.

> **Viewer sensitivity** is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the components and areas that would otherwise appear unexceptional in a visual resource analysis. Even when the existing appearance of a project site is uninspiring, a community may still object to projects that fall short of its visual goals. Analysts can learn about these special resources and community aspirations for visual quality through citizen participation procedures, as well as from local publications and planning documents.
>
> **Viewer exposure** is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, the duration of their view, the speed at which the viewer moves, and the position of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project.

D. Existing Viewer Sensitivity

The City of San Diego, Land Development Review Significance Determination Thresholds, November 2004, provides guidelines for determining the significance of visual impacts. The criteria for determinations include: substantial view blockage, scale and material incompatibility, creation of a negative aesthetic, alteration of the planned character of the area, loss of distinctive landmarks or mature trees, substantial change in landform, or substantial light or glare adversely affecting daytime or nighttime views. These criteria provide an understanding of local values and goals applicable in identifying viewer sensitivity, and were taken into consideration to make the determinations regarding viewer sensitivity included in this document. The viewer sensitivity rating is based on a combination of viewer types and locations, resulting in a combination of sensitivities that are considered to make up the overall viewer sensitivity.

Drivers and passengers in vehicles traveling on I-5, and SR-56 include a high proportion of commuters traveling at high speed, unless stalled by traffic. Their concern for scenic quality might be considered moderate, since their awareness of the scene is heightened by the interesting visual experience of entering the Penasquitos Lagoon/Carmel Valley viewshed. There may be some anticipation of arrival at this unique setting or destination. However, the rate of travel, and traffic distractions diminish the ability to focus on individual elements. Drivers and passengers are likely to have a broad awareness of the scene rather than a detailed understanding. Sensitivity rating is considered to be moderately low: 2 on a scale of 0 to 5.

Viewers traveling on surface streets such as Carmel Valley Road or El Camino Real move at a slower speed with long waits at traffic signals with opportunities to view the scene at length and in more detail than those on I-5 and SR-56. These viewers could be considered to be more aware of their surroundings and consequently more sensitive. Many are arriving and leaving hotels, restaurants, and the State Park or beach and are involved in a leisure activity, which may increase the viewer's sensitivity to their surroundings. Sensitivity rating is considered to be moderate: 3 on a scale of 0 to 5.

Viewers from the surrounding neighborhoods and high-rise buildings may observe the landscape from a state of relaxation from a stationary point. This increases their awareness of detail. There is a wide variety of viewpoints from the neighborhoods. The homes along Portofino Drive are close, and look down on the project; however, the views are typically partially screened by large trees in the foreground slopes of the development.

View of site from Portofino Drive screened by Eucalyptus

Partial views to project from Portofino Drive

Other residential views, such as those from residences in the Torrey Hills Community are from a greater distance, and consequently less sensitive. The views from offices and hotel rooms near the intersection will be short distance, and viewers are likely to be sensitive to changes in the view. Taken as an average, the viewer sensitivity rating for viewers in structures is moderately high: 4 on a scale of 0 to 5.

View looking south from mid-rise commercial area.

Viewers from Torrey Pines State Park must be considered one of the most sensitive viewer groups. Until relatively recently, the view from the upper mesa at Torrey Pines was one of a broad, spreading expanse of open country, with a few ranches, and farm fields visible across the line of Interstate 5. That view has been replaced by one of heavy urbanization, massive freeways, and the monotonously spreading suburbs of Carmel Valley, merging with Penasquitos and Black Mountain to the east. The project will be clearly visible from the park viewpoints southeast of the visitor center, and from High Point Lookout, as well as intermittently from the Guy Flemming Trail and East Mesa Trail. The project site is not visible from Torrey Pines State Beach, or from the beach parking areas due to obstruction by the ridge east of Portofino Drive. The overall viewer sensitivity from Torrey Pines State Park would be considered high: 5 on a scale of 0 to 5.

Highway 101 is considered by many to be a scenic highway, and is noted in the Torrey Pines Community Plan as qualifying for Scenic Highway designation. The view from northbound Highway 101 features glimpses of the project site as motorists proceed down the slope from Torrey Pines Industrial Park. The views are partially screened by native vegetation and Torrey Pines in the foreground on the east side of the highway. Also, the motorists' attention is typically focused on the distant views straight ahead to the North County Coast. By the time the road passes into open views at Torrey Pines Beach, the project is hidden by the ridge east of Portofino Drive. Viewer Sensitivity would be considered moderate: 3 on a scale of 0 to 5.

Viewers riding the Coaster and other trains will view the scene from an elevated, moving position with good views to the site out the northeast side windows as the train traverses the lagoon. This will provide a view of the project area, with the heavy development of the Carmel Valley commercial area in the background. There are few distractions from viewing the scene. Sensitivity rating is considered to be moderately high: 4 on a scale of 0 to 5.

Pedestrians traversing the interchange on Carmel Valley Road, or crossing I-5 on Del Mar Heights Road are one of the viewer groups likely to be most sensitive to the visual effects of the project. The slow speed of travel and the extreme exposure to traffic and environmental conditions promote high viewer sensitivity. Pedestrians under the I-5 underpasses on Carmel Valley Road will view the scene from a low position from which the improvements have the potential to be perceived as very large and oppressive, blocking out much of the open view. However, the traffic roaring by creates a great deal of distraction. The overall pedestrian sensitivity rating is considered to be moderately high: 4 on a scale of 0 to 5.

Cyclists in the area will also be sensitive viewers. Similar to pedestrians, they have an open view. However, the challenges of negotiating the traffic safely diminish the ability for detailed observation of the scene. The sensitivity rating for cyclists is considered to be moderate: 3 on a scale of 0 to 5.

View of site from bike rest area

Equestrians, cyclists and pedestrians will observe the project area intermittently from the CVREP Trail on the south side of Carmel Creek. Since these viewers are primarily recreational, and the creek-side trail attempts to feature natural elements, the perception of any increase to the visual dominance of the roadway would be a significant impact. The sensitivity rating would be considered to be high: 4.5 on a scale of 0 to 5.

View from bridge at Carmel Creek Road

Passenger's side view from Torrey Pines Road (Hwy 101) between trees

Combining the aesthetic goals and preferences expressed in the Community Plans, and viewer sensitivities for the variety of viewer groups, the overall viewer sensitivity would be considered to be moderately high (4 on a scale of 0 to 5).

E. Existing Viewer Groups, Viewer Exposure, and Viewer Awareness

Drivers and passengers in vehicles traveling on I-5 and SR-56 will be the largest group of viewers subject to the project impacts. These viewers will be aware of the general regional context through which they are traveling, but due to the typically busy traffic conditions, they typically cannot concentrate on the view for more than a few seconds. Therefore, the view from the freeway is a fleeting glimpse of landscapes, neighborhoods, and commercial buildings flowing past on the periphery of the unifying 12 lane concrete roadway. The exposure rating is considered to be low: 1 on a scale of 0 to 5.

Viewers traveling on Carmel Valley Road typically stop at traffic lights allowing more prolonged views to the surrounding buildings in the foreground and middleground, and to the hillsides and ridges in the background. The surrounding vehicles and roadway structures typically provide a distracting foreground that limits sensitivity to the surrounding views. Exposure rating is considered to be moderately high: 4 on a scale of 0 to 5.

Viewers from the nearby surrounding neighborhoods and mid-rise buildings observe the scene in longer duration, and with more intensity and concentration than people in vehicles. These viewers are the most likely to perceive visual impacts, and in many cases are extremely close to the project site. Exposure rating is considered to be moderately high: 4.5 on a scale of 0 to 5.

View from top floor of hotel on El Camino Real

Viewers from more distant neighborhoods, such as those of Torrey Hills, will have a reduced viewer exposure. These neighborhoods will view the project as background. Consequently it will not make up a major portion of their view. The viewer exposure from more distant neighborhoods would be considered to be moderate: 3 on a scale of 0 to 5.

Viewers from Torrey Pines State Park will view the project as background. However, the viewers experience is from a fixed location, and directed at the project. The viewer exposure rating from Torrey Pines is considered to be moderate: 3 on a scale of 0 to 5.

Due to the intermittent, moving exposure and oblique viewing angle, the exposure rating of the view from Highway 101 would be considered to be low: 1.5 on a scale of 0 to 5.

Viewers riding the Coaster or other trains have an elevated view of the project area and are likely to observe the project area looking northeast from the train windows. The duration of view is approximately one minute due to the speed of the train, but the viewers have more likelihood of observing the area in detail than those actively engaged in negotiating traffic. The project would appear in the middleground of the view. Exposure rating is considered to be moderate: 3 on a scale of 0 to 5.

Pedestrians traversing the interchange are one of the viewer groups likely to be most sensitive to the visual affects of the project. The slow speeds and location in the midst of the traffic and confusion allow acute perception of visual character and change. Exposure rating is considered to be high: 5 on a scale of 0 to 5.

Cyclists will have a high viewer exposure due to the moderate speeds, and the ability to look around. However, much of the cyclist's attention will need to be directed to traffic in this busy area. Exposure rating for cyclists is considered to be moderately high: 4 on a scale of 0 to 5.

Users of the CVREP Trail would have a relatively low viewer exposure to the project due to the large trees and dense foliage of Carmel Creek, which screens out most of the view of the project area. The intermittent and screened views would result in a moderately low exposure rating: 2 on a scale of 0 to 5.

View from Carmel Valley bike and equestrian trail

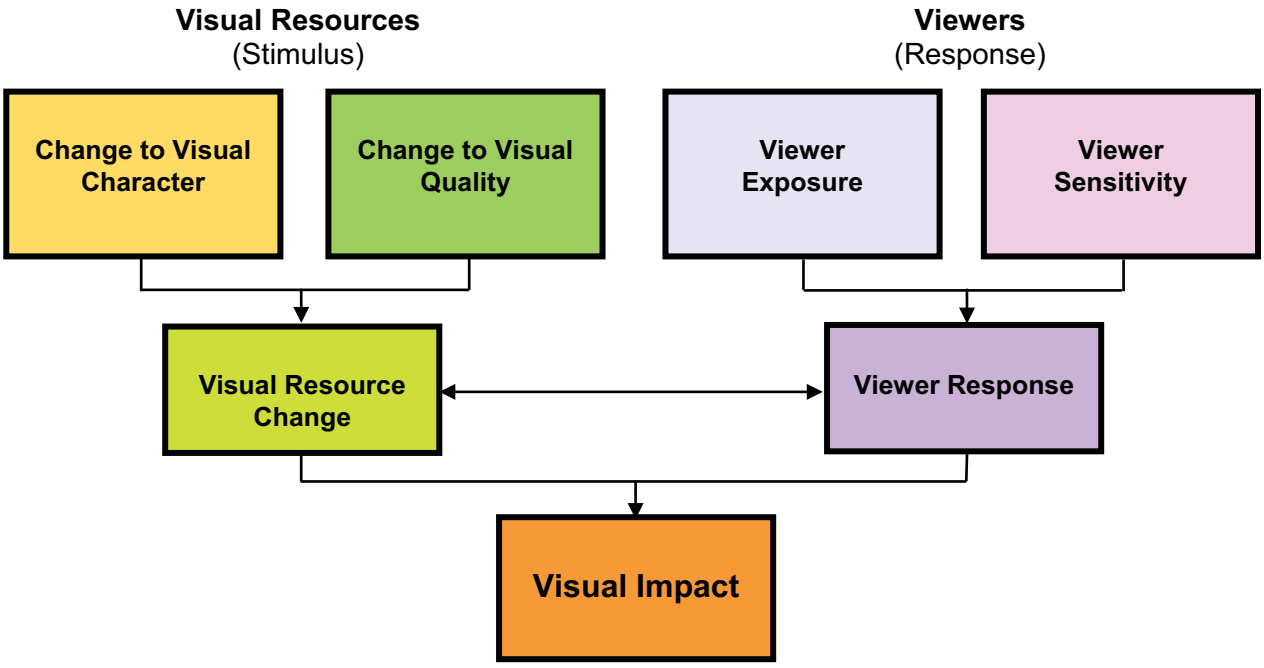
Combining the proximities, exposures, and duration of the views with the ability to closely observe the project, the overall viewer exposure rating would be rated at moderate 3.0 on a scale of 0 to 5.

VI. VISUAL IMPACT ASSESSMENT

A. Method of Assessing Project Impacts

The visual impacts of project alternatives are determined by assessing the visual resource change caused by the project, and predicting viewer response to that change. Visual resource change is measured as the combination of the change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed. The third step is to evaluate viewer response to project changes. This is the average of viewer exposure and viewer sensitivity to the project from the specific key view point. The fourth step is to determine the visual impact by combining the severity of resource change with the degree to which people are likely to oppose the change.

The diagram below illustrates the visual impact assessment procedure used to analyze each key view by combining the evaluation of Visual Resources with Viewer Response.



The four step process for Visual Impact Assessment for each key view is illustrated in detail below:

<u>Step One: Assess Change to Visual Character</u>

Since visual character is descriptive and non-evaluative, change alone is assessed at this stage. The change likely to be caused by the project is assessed according to the visual attributes of objects (Pattern Elements) and the relationships between those objects (Pattern Character) in the visual environment before and after the project is constructed. A two sided "pendulum" scale (3 to 0 to -3, with 5 units of change possible) is used to

Change to Visual Character	
Degree of Change (% = Δ / 5)	Level of Change
50.1% - 100%	High
40.1% - 50%	Moderately High
30.1% - 40%	Moderate
15.1% - 30%	Moderately Low
0 - 15%	Low

measure contrasting qualities in each category. For example, the existing and proposed view would each be assessed for the qualities "curvilinear" and "rectilinear" under the category "line" in the pattern elements analysis. The amount of change between the existing and proposed view for each category is determined, then the degree of change is expressed as a percentage of maximum change possible. The overall level of change to visual character is then assigned a value that ranges from low to high.

Step Two: Assess Change to Visual Quality

The second step of the process is to compare the visual quality of the existing resources with projected visual quality after the project is constructed. Existing and proposed intactness, unity and vividness are scored from one to five (five being highest). The amount of change in quality between the existing and proposed view for each category is determined (with four units of change possible), then the degree of change is expressed as a percentage of maximum change possible. The overall level of change to visual quality is then assigned a value that ranges from low to high.

Change to Visual Quality		
Amt. of Change (Δ = E-P)	Degree of Change (% = Δ / 4)	Level of Change
2.01 – 4.0	50.1% - 100%	High
1.61 – 2.00	40.1% - 50%	Moderately High
1.21 – 1.60	30.1% - 40%	Moderate
0.61 – 1.20	15.1% - 30%	Moderately Low
0 – 0.60	0 - 15%	Low

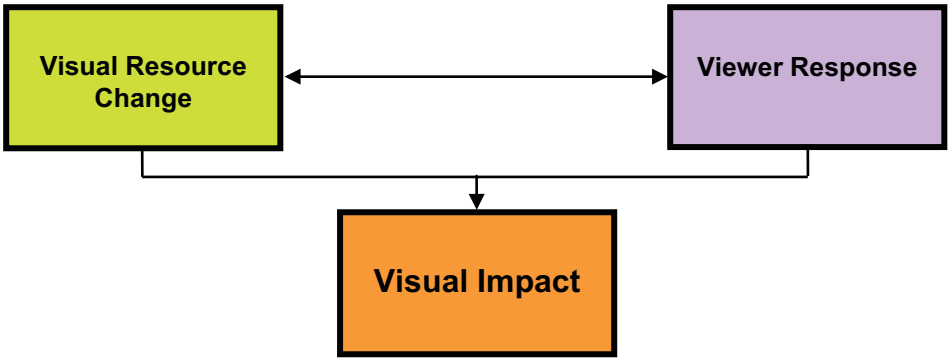
Step Three: Predict Viewer Response

Viewer response to changes in the visual environment is predicted by using existing viewer exposure and viewer sensitivity values, which are assumed to remain constant before and after the project is implemented. The viewer response to project changes is the average of viewer exposure and viewer sensitivity to the project.

Viewer Response	
Averaged Response Score	Level of Response
4.5 – 5.0	High
3.5 – 4.4	Moderately High
2.5 – 3.4	Moderate
1.5 – 2.4	Moderately Low
0 – 1.4	Low

Step Four: Synthesis – Determine the Level of Visual Impact

The resulting level of visual impact is determined by averaging the degree of change to visual resources (stimulus), with the extent to which people are likely to be affected by the change (viewer response).



B. Definition of Visual Impact Levels

None – No change to the existing visual resource. Does not require mitigation.

Low – Minor adverse change to the existing visual resource, with low viewer response to change in the visual environment. May or may not require mitigation.

Moderately Low – Minor adverse change to the existing visual resource, with moderately low viewer response to change in the visual environment. May or may not require mitigation.

Moderate – Moderate adverse change to the visual resource with moderate viewer response. Impact would be mitigated within five years using conventional practices.

Moderately High – Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than five years to mitigate.

High – A high level of adverse change to the resource or a high level of viewer response to visual change such that architectural design and landscape treatment cannot mitigate the impacts. Viewer response level is high. An alternative project design may be required to avoid highly adverse impacts.

C. Analysis of Key Views

Because it is not feasible to analyze all the views in which the proposed project would be seen, it is necessary to select a number of key viewpoints that would most clearly display the visual effects of the project. Key views also represent the primary viewer groups that would potentially be affected by the project.

The four project alternatives studied in this document present similar visual impacts for the majority of the study area. However, the project improvements in the immediate area of the I-5/ SR-56 interchange to Del Mar Heights Road vary greatly between the four "build" alternatives. The intensity of the visual impacts is also different. Consequently the alternatives are analyzed separately. For the purposes of this visual analysis, each alternative has a separate landscape concept plan which is used as the basis of analysis for each. These are supported by sketch plans, illustrations and sections within the text. The overall conceptual themes, plants, and design elements are interchangeable for the two alternatives, although the areas to which they apply and the scale of the improvements vary in each alternative.

The key views have been selected to illustrate the most critical visual changes, which affect the largest number of viewers. Six key views have been selected to illustrate the visual effects of the Direct Connector Alternative, five key views illustrate the Auxiliary Lane Alternative, five key views illustrate the Hybrid Alternative, and six views illustrate the Hybrid with Flyover Alternative. The key views represent the viewpoints of motorists traveling in all four directions on Interstate 5 and SR-56. Changes visible to pedestrians were also considered, but determined to be less than those visible to motorists on these two high volume transportation corridors. The viewpoints illustrate the locations where the proposed construction features are most visible and are anticipated to have the greatest visual impact to the most viewers.

D. Analysis of the Direct Connector Alternative

The highway design has been carefully reviewed to determine the proposed features of each alternative which may result in perceivable visual impacts. These construction features are evaluated to anticipate the associated visual changes likely to occur. Following is a summary of the proposed construction items that are considered to result in visual changes.

1. Changes Due to Construction of the Direct Connector Alternative

Changes resulting in the primary visual impacts for the Direct Connector Alternative include:

- The proposed direct connector from southbound I-5 to eastbound SR-56.
- The proposed direct connector from westbound SR-56 to I-5
- The new bridge crossing I-5 at Del Mar Heights Road
- Widening the SR-56 roadway from 400 meters east of Carmel Country Road to I-5 (approximately 3200 meters). SR-56 would be widened from a total of 4 general purpose lanes to a total of 8 lanes.
- Widening I-5 from 1000 meters north of Del Mar Heights Road to Carmel Valley Road (approximately 2700 meters), increasing the width from 11 general purpose lanes and 2 HOV lanes to 14 general purpose lanes and 4 HOV lanes, an average addition of 3 general purpose lanes and 2 HOV lanes.
- Adjustments and reconfiguration of interchange ramps and associated retaining walls at the following intersections:
  - I-5 / Del Mar Heights Road
  - I-5 / Carmel Valley Road
  - SR-56 / El Camino Real
  - SR-56 / Carmel Country Road
  - SR-56 / Carmel Creek Road
- Relocation of project neighborhood perimeter wall and associated internal streets, sound wall and landscaping for the Portofino residential development on Portofino Circle
- Elimination of much of the landscape buffer between the east edge of I-5 and the commercial buildings along El Camino Real
- Elimination of the landscape buffer between the west edge of I-5 and the residential homes along Portofino Drive and Portofino Circle
- Removal of some existing maturing trees, including Eucalyptus, Torrey Pines, Italian Stone Pines and other plants installed during previous highway construction projects along SR-56 and I-5
- Addition of retaining walls along I-5:

RW No. SE-1:	Length: 140 meters Average height: 2.5 meters Maximum height: 5.0 meters
RW No. SE-2:	Length: 141 meters, Average height: 2.6 meters, Maximum height 5.2 meters
RW No. 542:	Length: 1625 meters Average height: 12.5 meters

Maximum height: 15 meters
Combines with possible sound wall

RW No. 559: Length: 1070 meters
Average height: 4.1 meters
Maximum height: 7.1 meters

RW No. WN-1: Length: 145 meters
Average height: 2.7 meters
Maximum height: 5.4 meters

RW No. WN-2: Length 145 meters
Average height 2.4 meters
Maximum height 4.8 meters

RW No. 541 Length: 188 meters
Average height: 3.0 meters
Maximum height: 6.1 meters

RW No. 543 Length: 618 meters
Average height: 3.4 meters
Maximum height: 5.4 meters

RW No. 550 Length 288 meters
Average height: 4.2 meters
Maximum height: 9.2 meters

RW No. 555 Length: 345 meters
Average height: 2.3 meters
Maximum height: 4.9 meters

RW No. 560: Length: 916 meters
Average height: 3.4 meters
Maximum height: 10.0 meters

- Construction of retaining walls along SR-56:

RW No. SE-3: Length: 645 meters
Average height: 4.6 meters
Maximum height: 8.2 meters

RW No. 15: Length 215 meters,
Average height: 1.0 meters,
Maximum height: 2.5 meters

RW No. 18: Length: 410 meters
Average height: 2.0 meters
Maximum height: 3.0 meters

RW No. 22: Length 74 meters
Average height: 5.4 meters
Maximum height: 6.8 meters

RW No. 23: Length: 301 meters
Average height: 1.7 meters
Maximum height: 3.3 meters

RW No. 24: Length: 245 meters
Average height: 2.7 meters
Maximum height: 5.1 meters

- Sound walls along I-5 and SR-56:
  The following sound walls are proposed for the Direct Connector Alternative based on the noise analysis for the design alternatives, and are being recommended as both reasonable and feasible, or as severely impacted or conditional in the NADR.

Sound Wall 56.S35: Station 33+36 to 33 + 56 & 33+84 to 37+50
Length: 392 meters
Maximum height: 3.7 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S541: Station 540+36 to 541+64
Length: 183 meters
Maximum height: 4.3 meters
Noise Abatement Decision: Recommended due to existence of severely impacted receptors.

Sound Wall 05.S545: Station 541+80 to 547+00
Length: 500 meters
Maximum height: 4.9 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S555: Station 555+20 to 556+37
Length: 123 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended

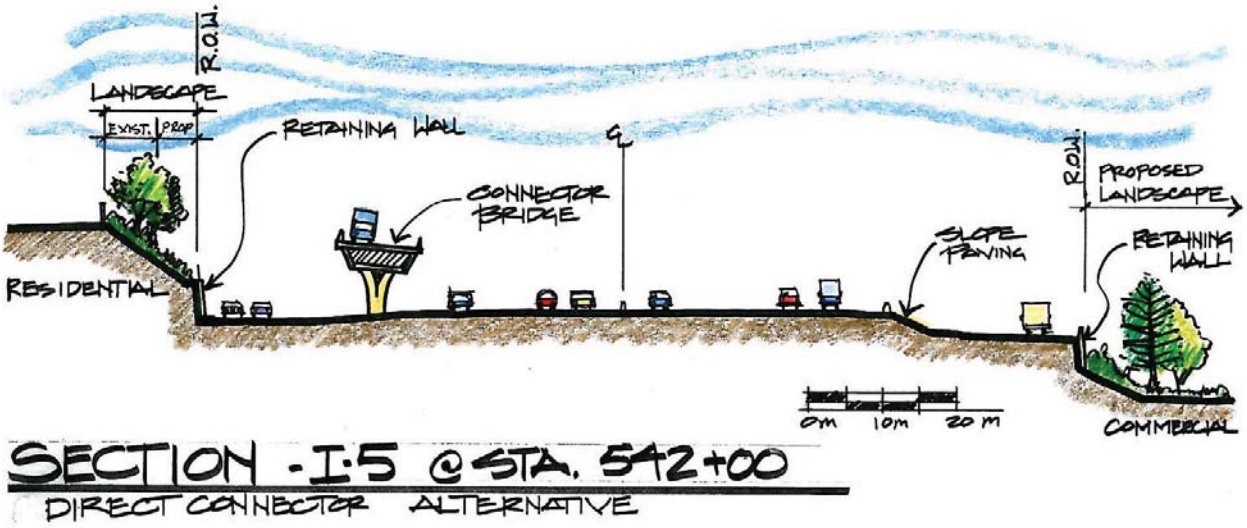
Sound Wall 05.S561: Station 560+85 to 562+21
Length: 156 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended due to existence of severely impacted receptors.

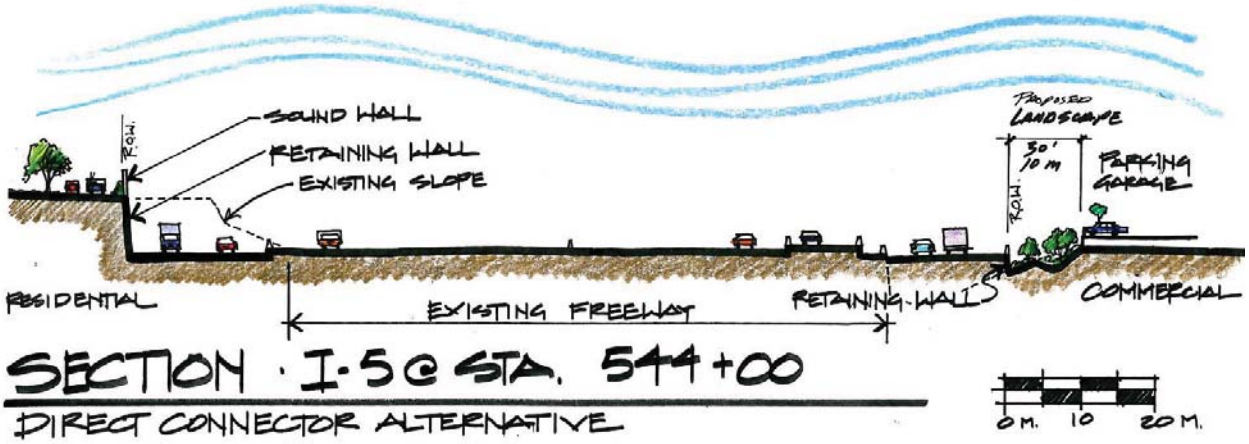
Sound Wall 05.S563: Station 563+28 to 564+36
Length: 130 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

Sound Wall 05.S567: Station 564+61 to 567+18
Length: 299 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S568: Station 566+24 to 567+90
Length: 215 meters
Maximum height: 3.7 meters
Noise Abatement Decision: Conditional

The landscape concept plans attached in Appendix A illustrate the proposed improvements and landscaping for the Direct Connector Alternative. The sections below illustrate the typical proposed conditions along I-5.





2. Key View Selection:

Key view locations selected to illustrate the above visual impacts are shown in Figure 7 and include the following:

Direct Connector Alternative:

- Key View 1: View from Torrey Pines State Park viewpoint at the viewing area adjacent to the parking area for the Park Information Center looking northeast toward the intersection of I-5 and SR-56.
- Key View 2: View south from southbound I-5 between Carmel Valley Road and Del Mar Heights Road (I-5 station 546+10)
- Key View 3: View east from eastbound Carmel Valley Road 110 meters west of Caminito Del Mar (Carmel Valley Road station 535+80)
- Key View 4: View from westbound SR-56 at off-ramp to Carmel Valley Road from approximately SR-56 station 19+60
- Key View 5: View from northbound I-5 south of intersection with SR-56 (I-5 station 534+50)
- Key View 6: View from northbound I-5 north of Carmel Valley Road (station 543+50)

The visual simulations in this study were created by applying the conceptual designs of the proposed project to the key views to show the anticipated condition following completion of construction and establishment of plant material. The visual simulations are for conceptual analysis and are not intended to provide a precise, scaled depiction of the proposed project. They illustrate the potential future post-project visual character for the project area approximately 5 years after project completion. The visual simulations represent typical views and the potential changes that can be expected. No changes would occur under the No-Build Alternative, therefore, the existing condition photographs are representative of The No-Build Alternative.

The location and direction of the key views are shown in Figure 7. Each key view is discussed in detail in the following sections, including orientation, existing visual quality, proposed project features, changes to visual character, anticipated viewer response and the resulting visual impact.

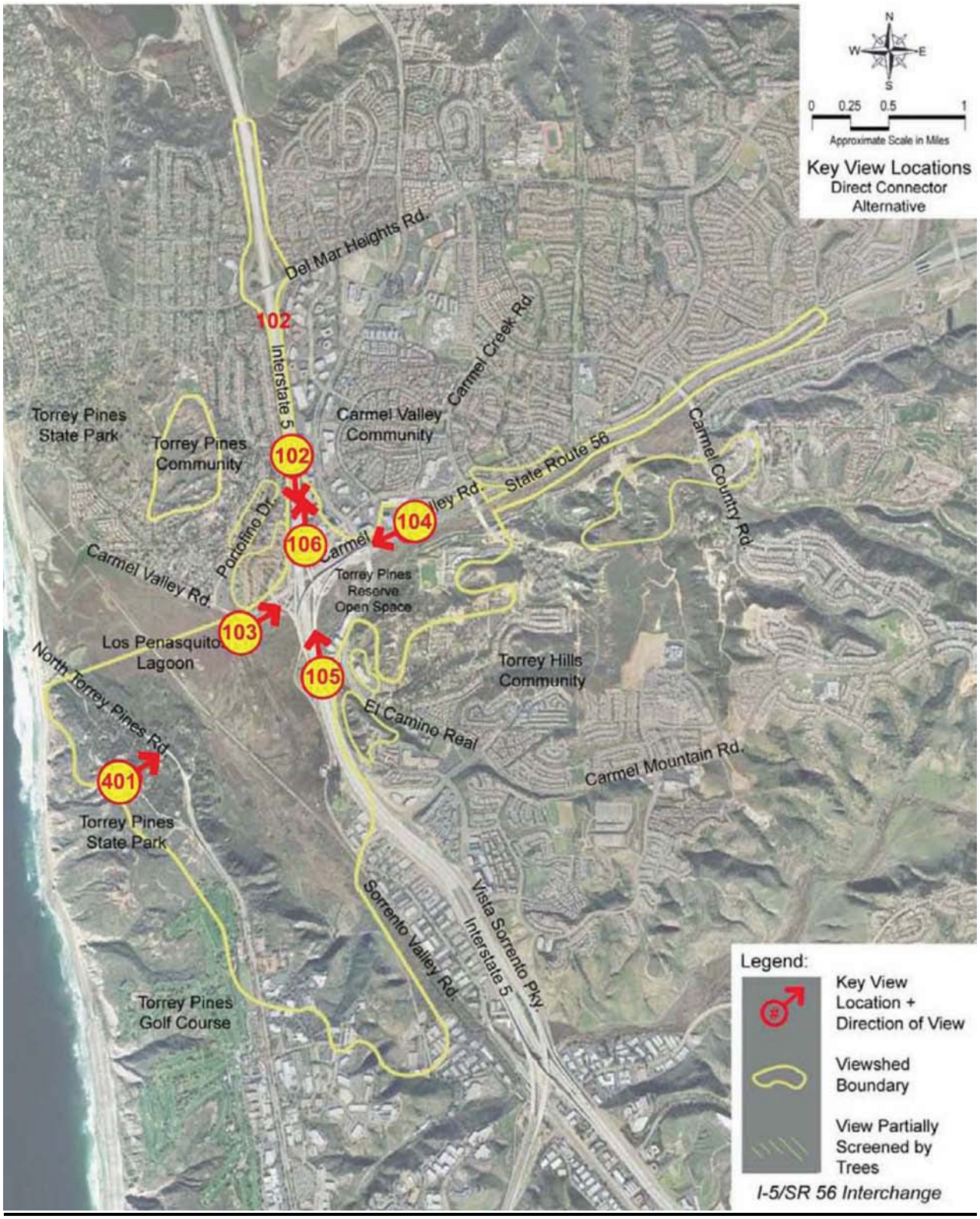


Figure 7: Key View Locations – Direct Connector Alternative

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3. Visual Analysis of Direct Connector Alternative Key Views

Key View 101 – Direct Connector Alternative

Figure 8 - Key View 101 – Existing View

Figure 9 - Key View 101 – Proposed View

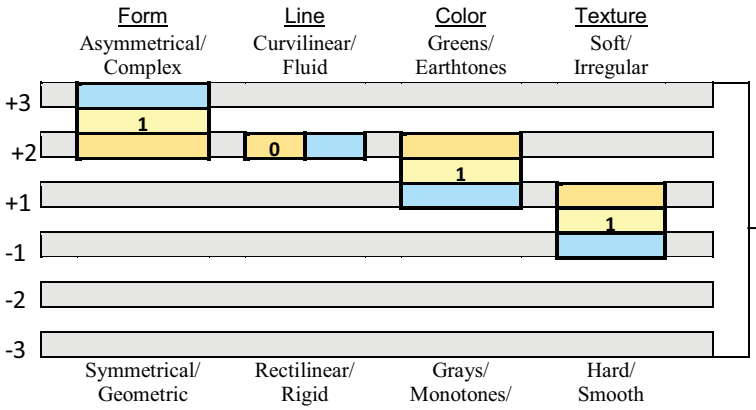
KEY VIEW #101 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

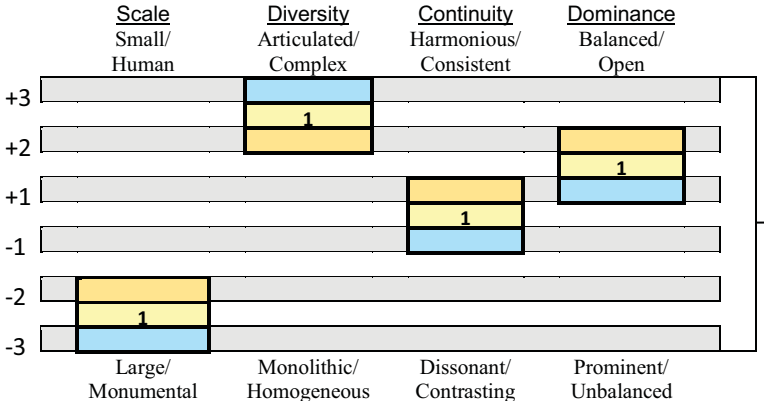
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change
0.75
15
% Change

Pattern Character
Describes the relationships between visual elements (Project and Setting)

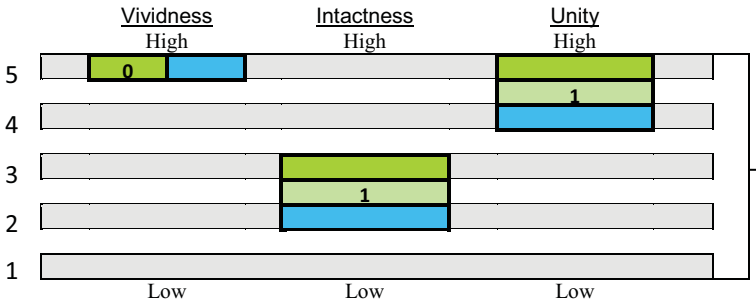


Avg. Change
1.0
20
% Change

Avg. Change
0.88
17.5
% Change

ML
Change to Visual Character

VISUAL QUALITY



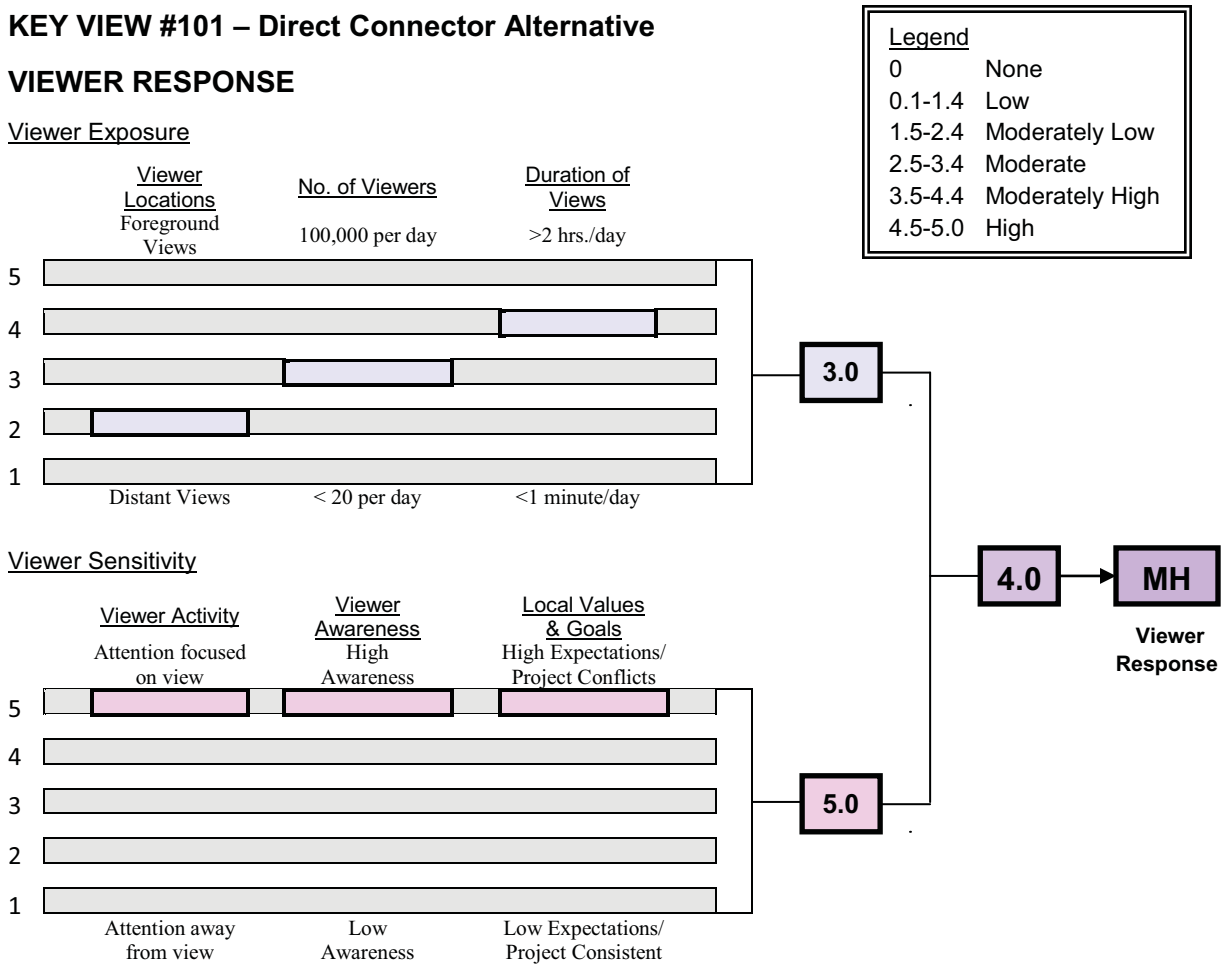
Avg. Change
0.7
17
% Change

ML
Change to Visual Quality

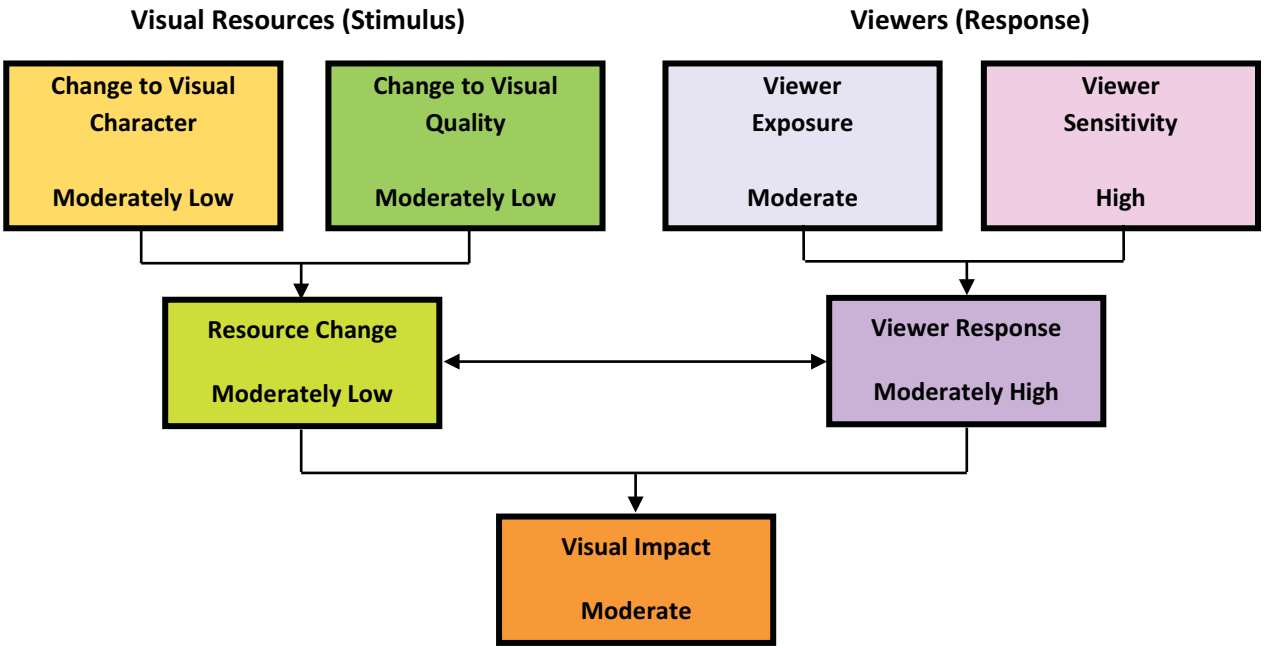
Legend
Existing View
Proposed View

KEY VIEW #101 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 101 – Direct Connector Alternative

Orientation

Key View 101 illustrates the view of the project from the upland area of Torrey Pines State Park. The existing condition is shown in Figure 8. The photo is taken from behind the low wall at the edge of the viewing area in the old picnic area east of the visitor center parking. The view is expansive, and includes Palomar Mountain on the left; Black Mountain on the right, Penasquitos lagoon in the middleground, and a rare natural grove of Torrey Pine trees in the foreground. I-5 crosses the view, intersecting with SR-56 at the center of the photo. Carmel Valley runs east from the intersection. This is a distant view of the project, but a critical one, since it captures the visual change from an established State Park viewing area with a sensitive viewer group, and long duration of view.

Existing Visual Quality/Character

This is an expansive panoramic view, providing a full sense of the regional context from the coast to the mountains over 40 miles away. It is a balanced view composed of dramatic natural features and manmade, urban elements. The foreground consists of natural groves of Torrey Pines on the bluff slopes dropping toward the flat wetland areas of Penasquitos Lagoon. The characteristic eroded sandstone bluffs associated with the Torrey Pines area are visible on the left, and also behind the Pine on the right of the photo. The rugged backcountry of San Diego County is visible on the horizon with steep mountains combining dense olive colored vegetation and granite outcroppings. The suburban commercial and residential areas of Carmel Valley spread across the view, with light colored surfaces of the structures catching the light. Interstate 5 creates a strong line across the view and the intersection with SR-56 is a prominent feature. The linear roadways are highly animated by the movement of vehicles, drawing attention to the transportation corridor.

This view is extremely vivid due to the combination of mountains, lagoons, sandstone bluffs, evocative pine trees, and clusters of suburban structures. The contrast of natural elements with the built environment enhances the vividness, providing a combination of features that attract the interest of the viewer. The vividness rating would be considered to be high. While the natural features create a vivid setting, the intactness of the view is affected by the encroachment of existing development, visible grading, and the highly visible I-5 corridor with its moving traffic crossing the view. The intactness would be rated moderate. The balanced compositional qualities of foreground, middleground and background and sweeping lines of the canyons and valleys provide an attractive composition unity resulting in a high unity rating. Combining vividness, intactness and unity, the existing visual quality is rated at moderately high.

Proposed Project Features

The Direct Connector Alternative proposes two flyover structures which would be visible over the existing bridge over Carmel Creek, and the existing SR-56 connector flyover structures connecting to I-5. This would add a fourth tier of traffic lanes to the existing triple tiered interchange and increase the overall height of the interchange by approximately 12 meters over the existing condition. Grading and some retaining walls would be visible along the north and south side of the SR-56 corridor.

Change to Visual Quality/Character

The proposed project would add flyovers, increasing the height and visual complexity of the intersection of I-5 and SR-56. The flyovers would partially obscure the commercial buildings and the landscaping along the north side of Carmel Valley Road. Some moderately mature landscaping would be removed and replaced with new landscaping to allow grading. There will

not be a change to the Carmel Creek wetland to the south (right side) of the existing SR-56. Since the flyover will be below the horizon, it will primarily screen commercial buildings from this viewpoint. It is anticipated that native landscape, bluffs and existing grades would not be affected by the changes visible from this location. Due to the distance to the intersection, the visual changes would be considered to represent a low amount of visual change. The vividness of the view appears to be unaffected by the project, and would remain high. The intactness would decrease slightly due to the addition of the flyover obscuring the commercial buildings. The compositional qualities of the view would remain as existing but be complicated by the introduction of the new ramps and other improvements, resulting in a decrease in the unity rating. The resulting change to visual quality is considered to be moderately low. Similarly, the changes result in a moderately low change to the visual character.

Viewer Response

The viewer response to the visual changes from this viewpoint would be anticipated to be highly sensitive to change due to the location at the State Park visitor center viewing area. This is a view that people choose to observe as a recreational activity and expectations are high. Since Torrey Pines State Park is a natural park located in a region of highly visible natural features, manmade features in the view create a contrast that is highly noticeable. However, the change to this view over the last 50 years has been great. Suburban development has become an increasing percentage of the view, replacing the farm fields and native vegetation of Carmel Valley. Therefore, the addition of transportation facilities would appear to be within the viewer's acceptance, especially since the new features will not eliminate views of natural features. Viewer sensitivity is anticipated to be high. Viewer exposure from this location would be anticipated to be moderate due to the direct view of the project area, although the long distance diminishes the visual change to a relatively small portion of the view. The resulting viewer exposure would be estimated at moderately high. Combining viewer sensitivity and viewer exposure for this viewpoint, the anticipated viewer response to the changes would be moderately high.

Resulting Visual Impact

The proposed project improvements will affect the view from this recreational viewpoint, placing a clearly visible elevated element at the center of the view. However, the affected area is less than 20% of the framed view, and the new elements will be not break the horizon, or block natural features. Exposed slopes will be landscaped with native species, and the colors of the bridges, and other structures will be consistent with the colors in the existing view, resulting in a minimum overall visual change. The visual changes will tend to be absorbed into the existing visual context of suburban and transportation development. Considering the moderately low amount of visual change together with the moderately high viewer response, the visual impact would be considered to be moderate for this project alternative.

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Key View 102 – Direct Connector Alternative

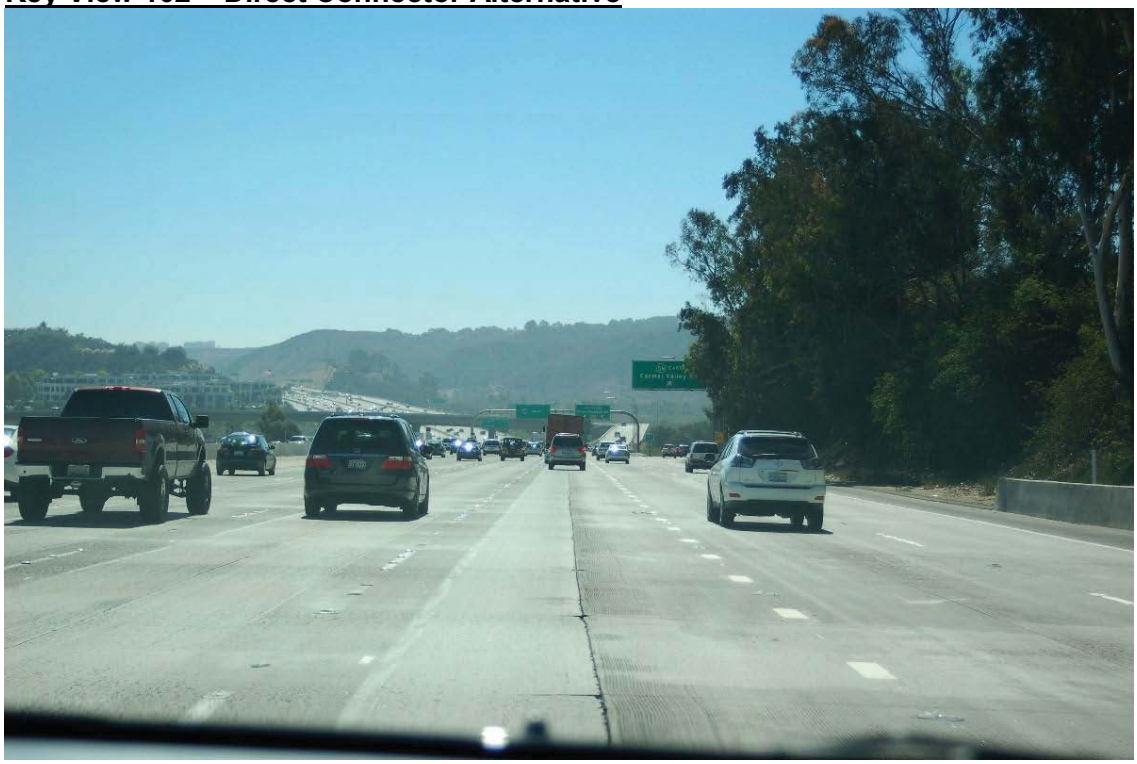


Figure 10 - Key View 102 – Existing View

Figure 11 - Key View 102 – Proposed View

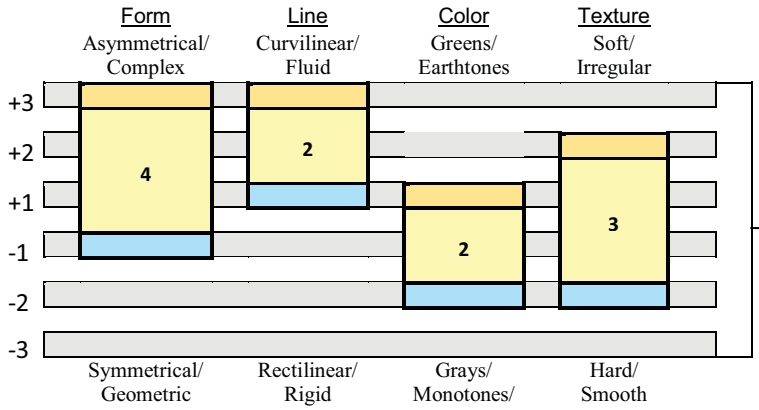
KEY VIEW #102 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

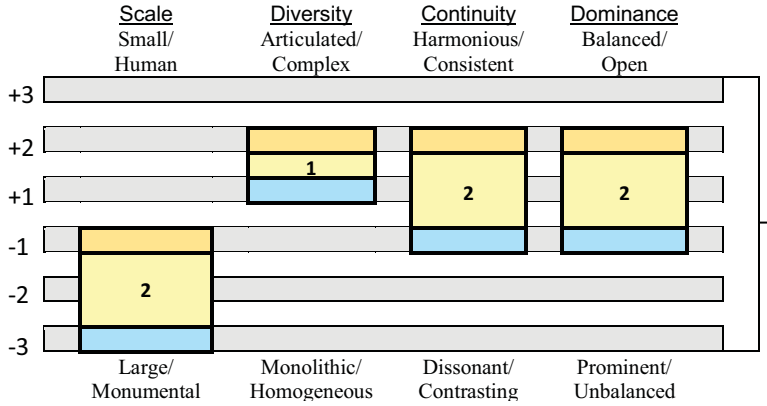
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change
2.75
55
% Change

Pattern Character
Describes the relationships between visual elements (Project and Setting)

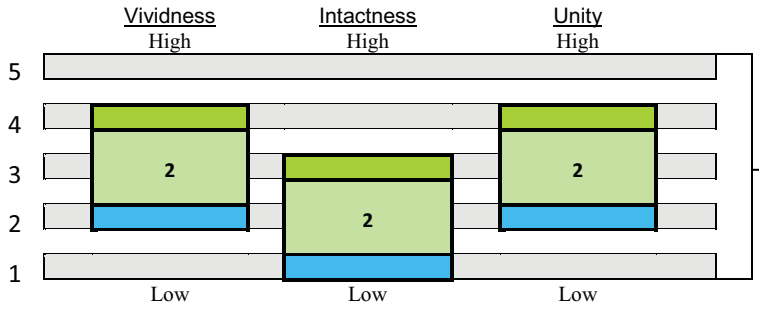


Avg. Change
1.75
35
% Change

Avg. Change
2.25
45
% Change

MH
Change to Visual Character

VISUAL QUALITY



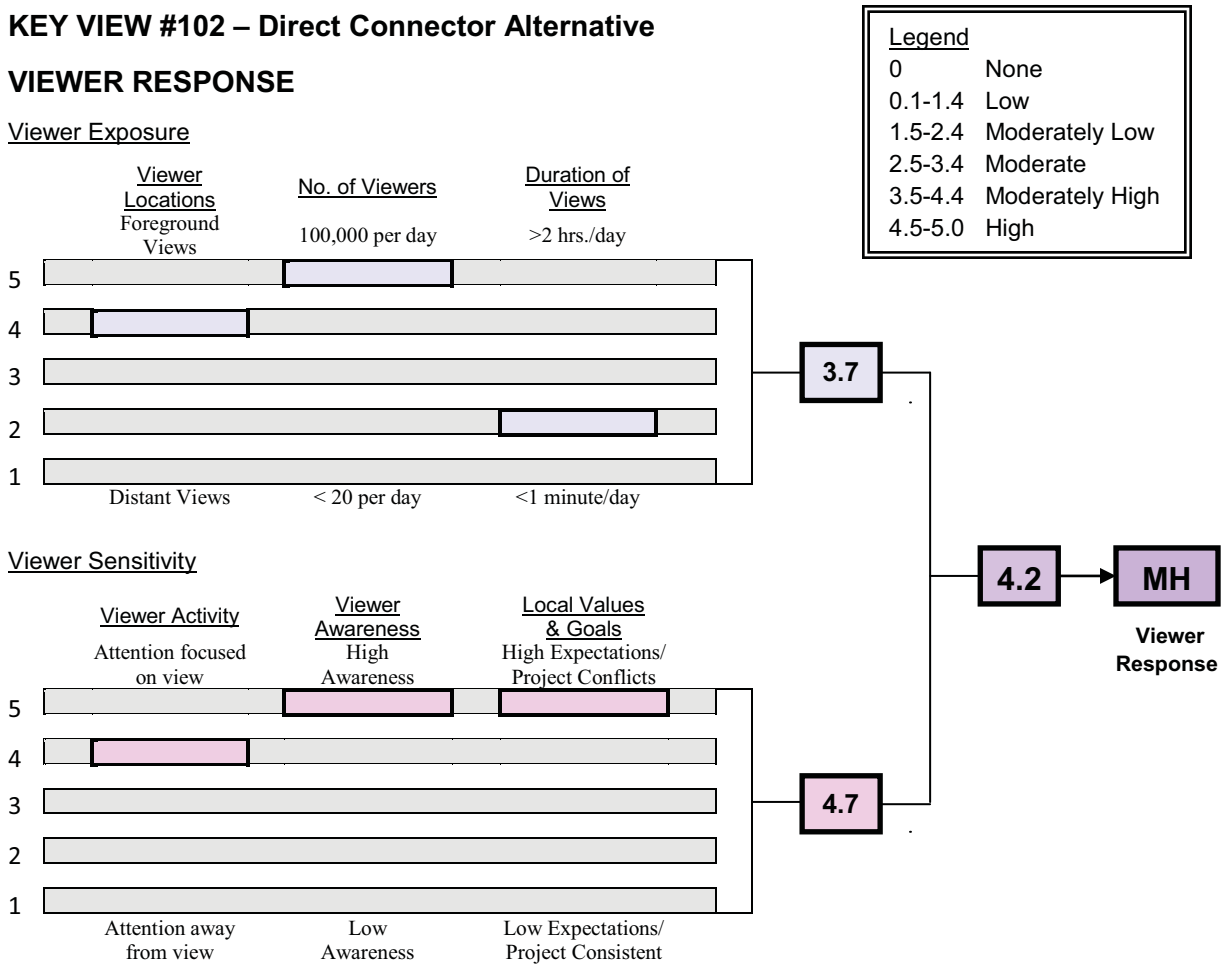
Avg. Change
2.0
50
% Change

MH
Change to Visual Quality

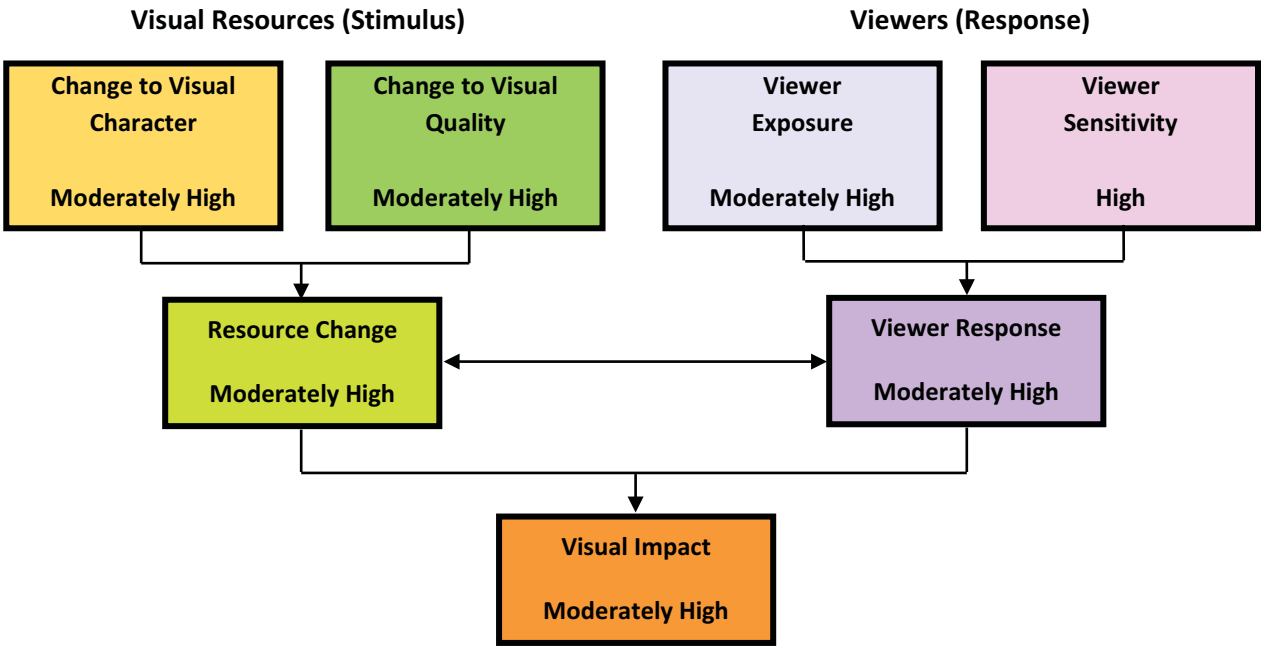
Legend
Existing View
Proposed View

KEY VIEW #102 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 102 – Direct Connector Alternative

Orientation

Key View 102 provides the view from a vehicle passing station 544+00 of Interstate 5 southbound approaching the off-ramp to Carmel Valley Road. On the right, the 2:1 slope rises through heavily vegetated slope to the sound wall along the top edge of the slope. Directly ahead are the hills beyond Carmel Creek and the Penasquitos Lagoon. To the left is the commercial and office area along El Camino Real. The existing condition photograph for this view is illustrated in Key View 102.

Existing Visual Quality/Character

The existing visual character is strongly influenced by the uniformity of the 12-lane wide freeway which runs on the edge of the Del Mar Hills on the right. At this point, the character is largely defined by the large Eucalyptus clad slopes to the right, which conceal the sound wall and homes. The center of the view offers a good prospect of the distant wooded ridge across Penasquitos Lagoon. The topography is undulating, and the freeway curves to the left and out of site around the Torrey Hills community. Although there is no primary focus, the view has a moderately high vividness rating due to the evocative topography of ridges and canyons, set off by the trees in the foreground. The view is relatively free of intrusive visual elements outside of the road itself, and the vehicles. The freeway signs and light standards are consistent in design, and the green color blends with the surrounding landscape. Consequently, the view would be described as moderately intact. The view has a pleasing composition combining hills, valleys and the wide but gracefully curved roadway curving into the distance, resulting in a moderately high unity rating. Combining vividness, unity and intactness, the overall visual quality of this view is considered to be moderately high.

Proposed Project Features

The proposed design of the Direct Connector Alternative features a flyover connector that rises from the right lanes, and crosses the view in the middleground. An 8 meter high retaining wall surmounted by a 4.3 meter sound wall will be constructed in place of the vegetated slope. Further south from the viewpoint, as the sound wall separates from the retaining wall, tree and shrub planting will be installed between the sound wall and the retaining wall. The planting buffer between the freeway and adjacent businesses will be replaced by additional lanes of traffic, resulting in increased exposure of the large commercial buildings just out of the view on the left. The retaining walls will be colored to reflect the natural color of Torrey Sandstone, and will be abstractly designed to evoke a sense of the natural eroded slopes unique to the Torrey Pines/Del Mar/Solana Beach area.

Change to Visual Quality/Character

The visual environment for motorists travelling south on Interstate 5 would be altered as a result of the roadway widening and connector construction. The connector crosses in front of Penasquitos Lagoon creating an additional obstruction to the view. The tall retaining/sound wall on the right is highly visible and in close proximity to the motorist, dominating the right foreground and replacing the landscape buffer with an expanse of hard surfaces. The elimination of landscape screen material at the far left of the view further diminishes the vegetated feeling that this area of the freeway previously provided. The serpentine shape of I-5 curving east is obscured. Additional lanes and guardrails emphasize and constrict the defined transportation corridor eliminating the sense of openness previously experienced from this viewpoint. The vividness of the view is diminished to moderately low due to the elimination of the evocative vegetative features, and the exposure of expanses of hard surfaces, as well as the obscuring of the ridges and valleys. The intactness of the view is greatly reduced to low due

to the flyover connector directly across the view. Unity of the view is reduced to moderately low due to the obscuring of the flowing composition of the roadway, ridges, bluffs and valleys. Combining the ratings for vividness, intactness and unity, the net visual change is moderately high. Similarly, the change to pattern elements and pattern character reflects a moderately high degree of change.

Viewer Response

It is anticipated that the viewer sensitivity would be moderately high due to the community's interest in preserving views, open space and natural features as expressed in the Community Plans. However, viewer sensitivity for most motorists may be diminished due to the speed of travel, and the traffic congestion, which often dominates the viewer's attention. The net viewer sensitivity would be anticipated to be high.

The viewer exposure would be considered to be moderate due to the number of viewers travelling the road and the duration of the view while travelling downhill between Del Mar Heights Road and Carmel Valley Road. Similarly, the viewing aspect, looking out and down while descending the hill focuses the viewer's attention on the scene. Combining viewer sensitivity with viewer exposure, the net viewer response would be estimated as moderately high.

Resulting Visual Impact

The negative change in visual character and quality in this key view will be evident, and will be further exacerbated by the high viewer exposure and sensitivity. Due to the lack of space to re-introduce landscape buffers and screening, the lack of planting space for median planting, and the impracticality of maintaining vine planting on the walls, the proposed visual improvements primarily address textures, shapes and colors of the hardscape. With these limitations, compensation for the change in visual character as a result of the proposed project does not appear possible. Combining the rating for visual change with the viewer response, it is anticipated that the resulting visual impact would be considered to be moderately high.

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Key View 103 – Direct Connector Alternative

Figure 12 - Key View 103 – Existing View

Figure 13 - Key View 103 – Proposed View

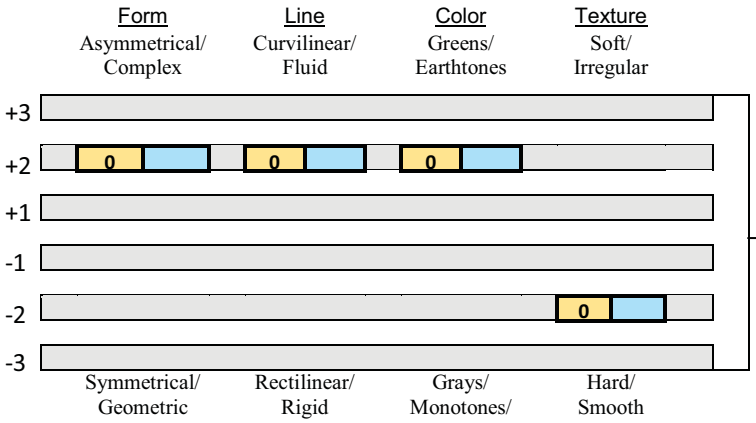
KEY VIEW #103 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

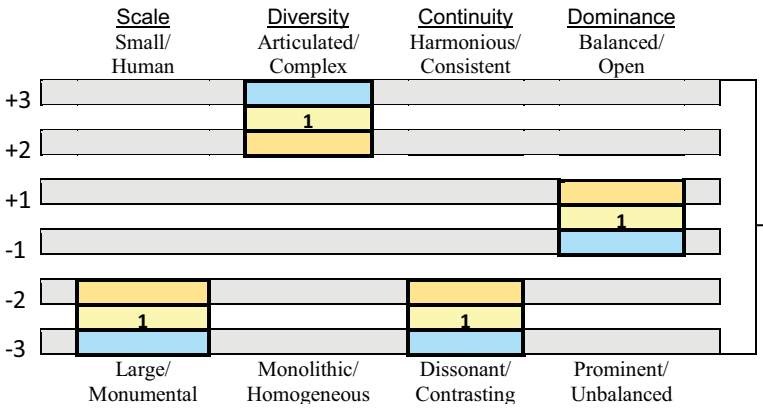
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 0
% Change: 0

Pattern Character
Describes the relationships between visual elements (Project and Setting)

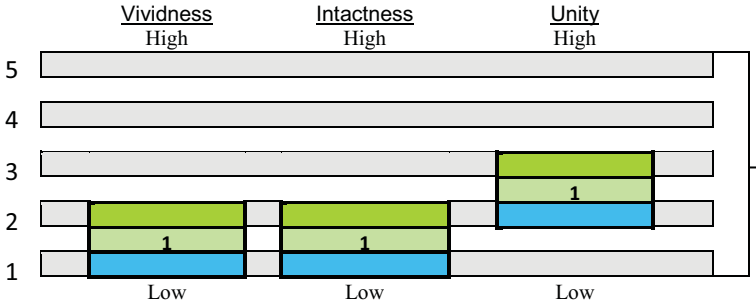


Avg. Change: 1.0
% Change: 20

Avg. Change: 0.5
% Change: 10

L
Change to Visual Character

VISUAL QUALITY



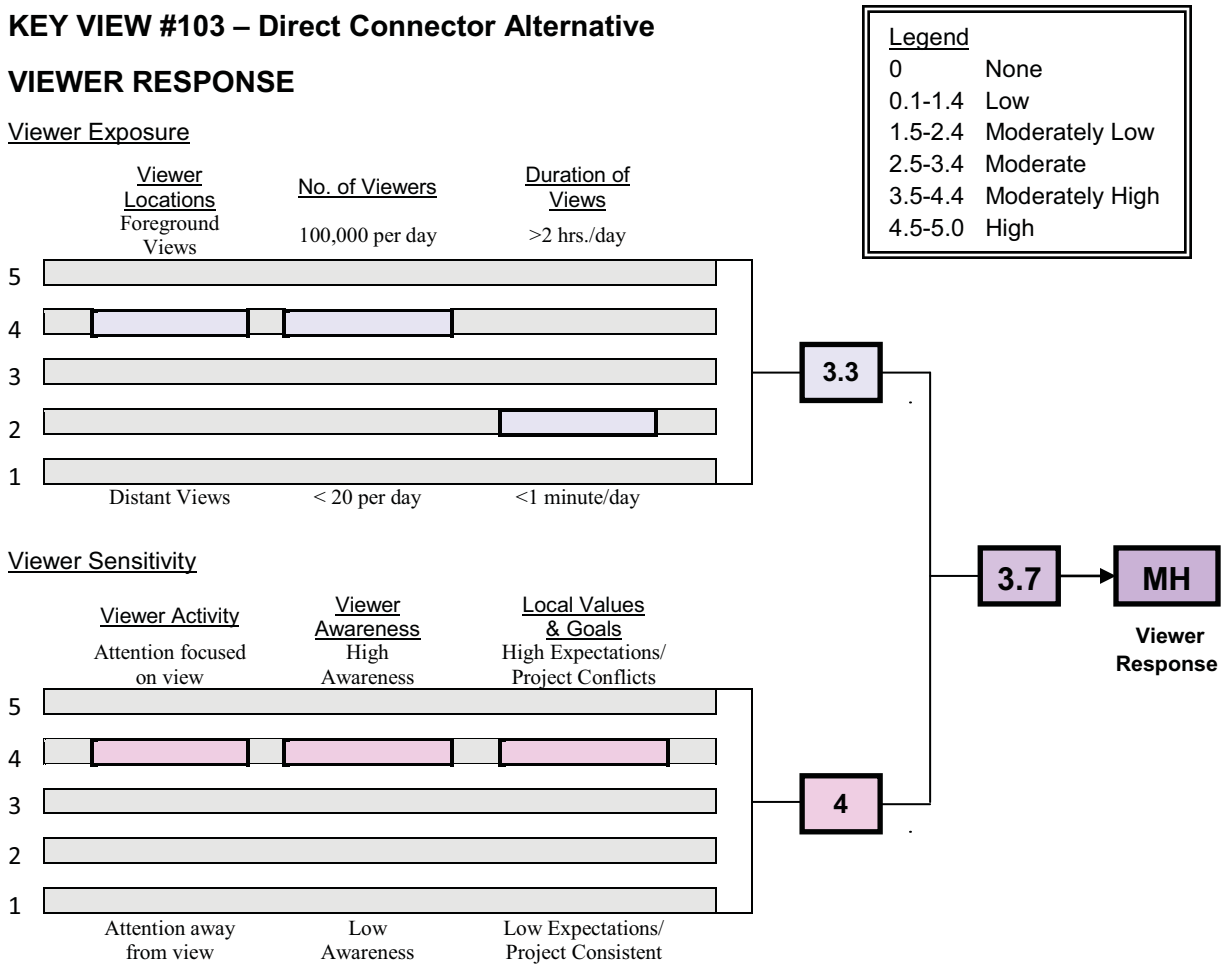
Avg. Change: 1.0
% Change: 25

ML
Change to Visual Quality

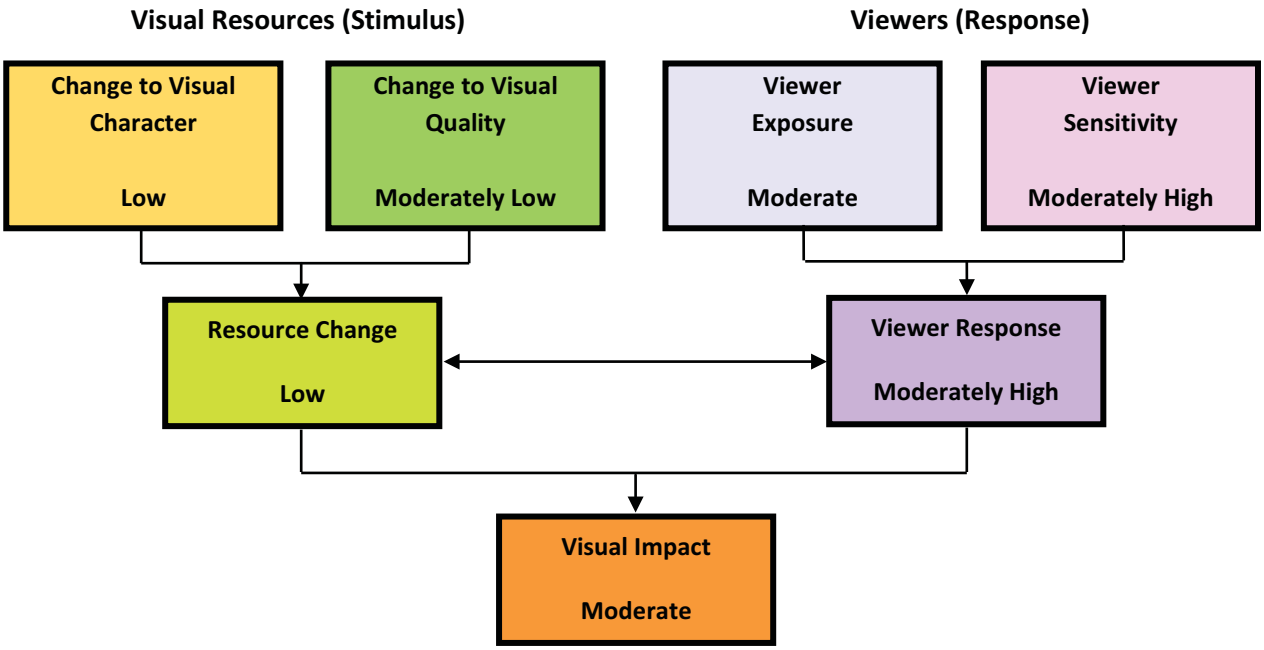
Legend
Existing View
Proposed View

KEY VIEW #103 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 103 – Direct Connector Alternative

Orientation

Key View 103 is the view from eastbound Carmel Valley Road 110 meters west of the intersection of Caminito Del Mar looking east toward Interstate 5. To the right, the lush landscape of Pointe Del Mar is visible with palms and Eucalyptus trees providing heavy screening of the development. On the right side, large Torrey Pines can be seen over the willow woodland at the edge of the Penasquitos Lagoon. A park and ride lot is located just east of the traffic signals.

Existing Visual Quality/Character

The approach to this view is through an area of relatively natural character, since the road follows the Penasquitos Lagoon for a mile before rounding the curve to confront the freeway interchange. The viewer quickly travels from an attractive natural area with view to Torrey Pines State Park to a highly developed transportation corridor. In the existing condition photo, Carmel Valley Road transitions from a two-lane road to a six-lane road at the freeway interchange. The interchange is composed of a three level roadway construction creating a layered assembly of freeway ramps. On the skyline, mid-rise commercial buildings break the skyline, and obscure the hills beyond. There are no natural landforms, or vegetation in the middleground and background of this view. Two sets of traffic signals are visible. While this view has an intriguing confluence of ramps and structures, the vividness of the view would be considered to be moderately low due to the lack of visual interest and variety. This view has been highly impacted by previous road construction, and is full of competing visual elements. Only the foreground retains a semblance of visual intactness. Consequently visual intactness rating of this view would be considered moderately low. The visual composition of this view is strongly linear, but the view to the distance is obscured by the multiple, strong lateral elements of the freeway bridges breaking the composition. The compositional integrity of the view is moderate, consequently, the unity rating would be considered to be moderate. Combining the vividness, intactness and unity of the existing visual character, the overall visual quality rating for the existing view is moderately low.

Proposed Project Features

The flyover ramp proposed for the Direct Connector Alternative from I-5 to SR-56 will be highly visible in the middleground of this key view, and will encroach above the skyline of the existing flyover for more than half of this view. Minor changes to the traffic signals at the off-ramp, and the completion of the Caltrans maintenance buildings at the Park and Ride will further change the view. New landscaping will provide minor visual relief to the scene by obscuring a portion of the freeway elements.

Change to Visual Quality/Character

The proposed flyover structure will be highly visible and extend above the existing horizon creating a new concrete and steel element in the sky accented by moving traffic. The addition of trees will help to improve the appearance, and reduce the expanse of concrete freeway bridges. Due to the similarity of the pattern elements and pattern character in the existing and proposed views, the change to visual character is relatively low. The vividness of the view will be reduced to low. The already low intactness of the view will be further decreased by the addition of the flyover, further obscuring the view to the distance. The intactness rating would be considered to be decreased to low. The compositional integrity of the view reduces the unity rating to moderately low. Combining the vividness, intactness and unity, the resulting visual quality rating would be considered to be moderately low.

Viewer Response

After traversing the mile of Carmel Valley Road along the relatively natural Penasquitos lagoon, rounding the curve to this view provides a strong visual contrast which is likely to heighten the viewer's response to the complex intersection structures. Viewers leaving the natural area will be more sensitive to the appearance of the freeway, and sensitive to change. However, the moderate to high amount of traffic, and the need to pay attention to traffic conditions would tend to distract the driver and passengers, reducing sensitivity. Motorists stopped at the traffic signal would have time to observe the scene due to the duration of the view, however, the movement of cross traffic and traffic from the turn lane would distract attention from other features. Viewer sensitivity would be considered to be moderately high at this location. Viewer exposure is considered to be moderate due to the proximity and height of the freeway structures. The combined viewer response is anticipated to be moderately high.

Resulting Visual Impact

The addition of the highly visible flyover will create a dominant new element in this view. While the additional landscape will provide screening along the edges of Carmel Valley Road, the combined visual quality rating will decrease. The moderately high viewer response in this busy intersection will enhance the impact. There is little opportunity for visual mitigation, since the visual impacts are primarily high, structural and not able to be screened or otherwise diminished. The resulting visual impact would be moderate.

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Key View 104 – Direct Connector Alternative

Figure 14 - Key View 104 – Existing View

Figure 15 - Key View 104 – Proposed View

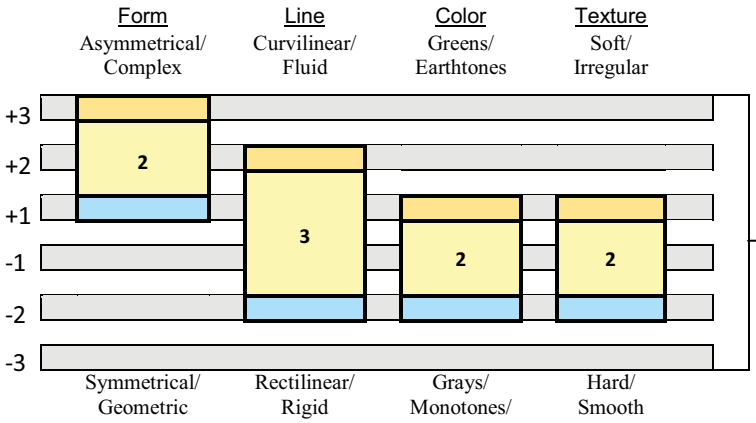
KEY VIEW #104 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

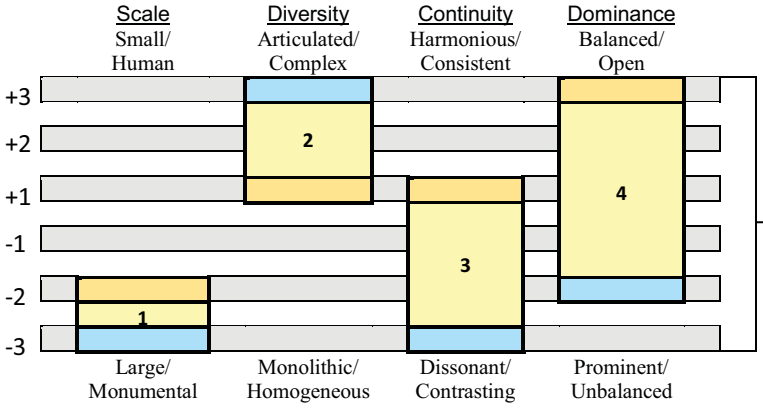
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

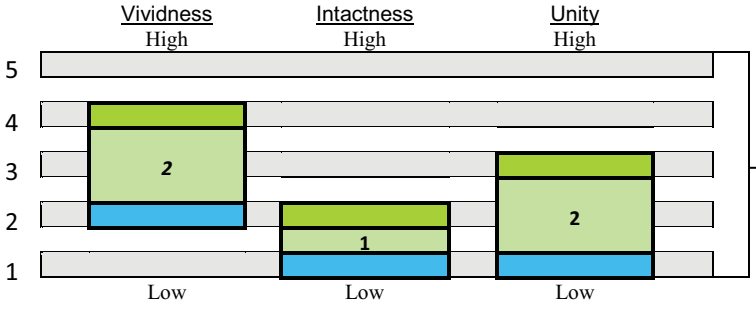


Avg. Change: 2.5
% Change: 50

Avg. Change: 2.4
% Change: 48

MH
Change to Visual Character

VISUAL QUALITY



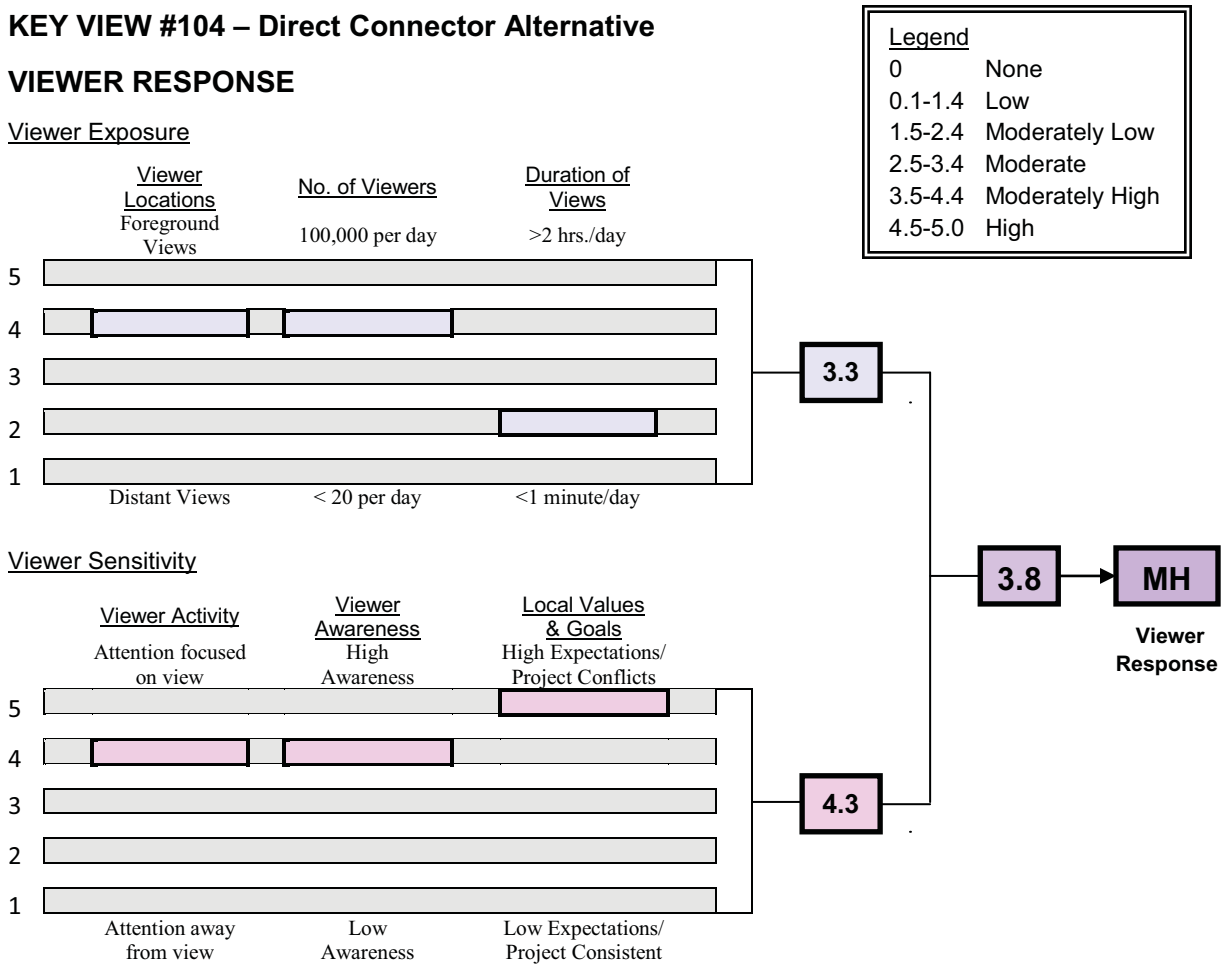
Avg. Change: 1.7
% Change: 43

MH
Change to Visual Quality

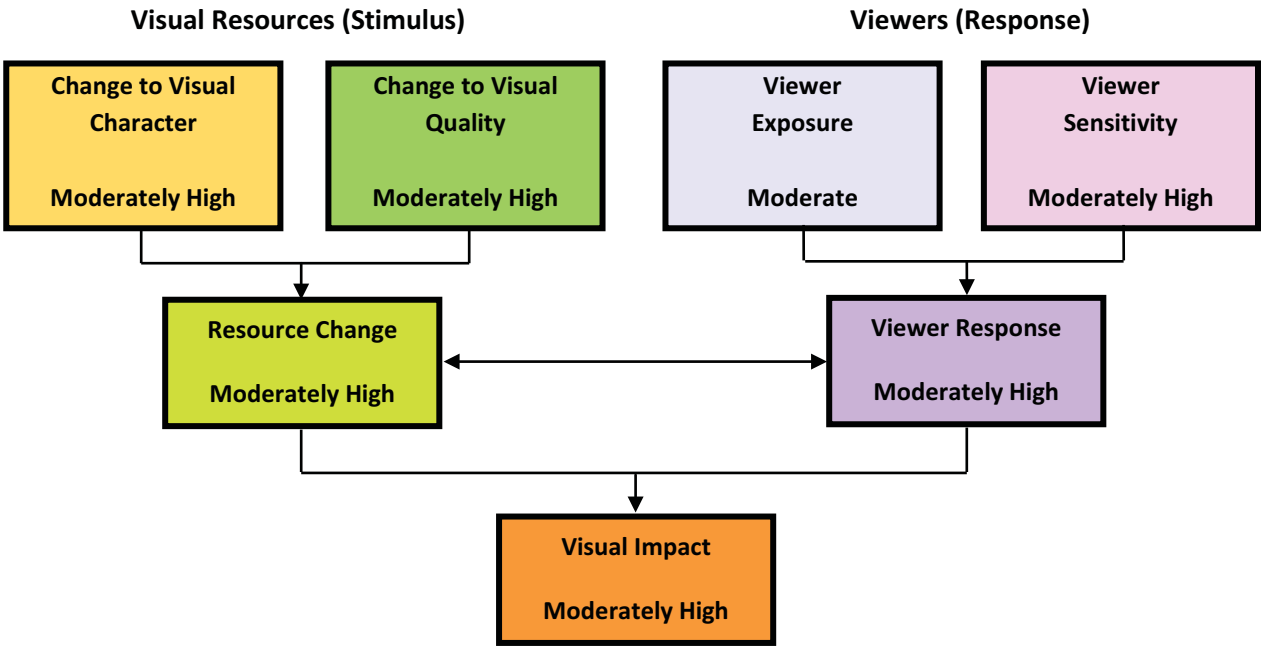
Legend
Existing View
Proposed View

KEY VIEW #104 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 104 – Direct Connector Alternative

Orientation

Key View 104 illustrates the view from SR-56 westbound at the Carmel Valley Road off-ramp, looking west toward Torrey Pines Bluffs and the Pacific Ocean from SR-56 station 534+70. This is the view approaching the existing third tier flyover, and provides a view to the coastal hills of Del Mar on the right, and the elevated ridge of Torrey Pines State Park to the center left. The Pacific Ocean would be visible directly ahead if not obstructed by the Eucalyptus trees at Pointe Del Mar. Commercial buildings centered around the El Camino Real intersection with Carmel Valley Road can be seen on the right. Farther along the road, a view of the ocean is partially visible from the flyover from vehicles taller than standard sedan height. The super-elevation of the roadway and rail limits expansive views.

Existing Visual Quality/Character

The existing visual character is defined by the expanse of roadway paving, the attractive wooded hillsides of Del Mar and Torrey Pines, and a sense of spaciousness created by the elevated position of the roadway just prior to beginning the flyover. The vividness of the view is somewhat limited by its horizontal quality, since the items of visual interest are compressed between the roadway and the sky. However, the heavily forested hillsides are attractive, green, and evoke a strong sense of the character of the rare native Torrey Pines woodland. The vividness of the view would be rated as moderately high. The roadway blocks a portion of the view, and there are few other visual intrusions resulting in a moderately low amount of intactness. The compositional quality of the scene is interesting due to the complexity of the hills beyond the roadway, but is limited by the extremely horizontal nature of the view. The hillsides converging directly ahead provide a balanced composition. Consequently the unity rating is moderate. The resulting existing visual quality would be defined as moderate.

Proposed Project Features

The project proposes to construct flyover connectors to link SR-56 with I-5. The westbound to northbound flyover will be constructed on the right of the view, and the southbound to eastbound will appear directly ahead of this view crossing approximately 11 meters above the roadway. The flyover will consist of a concrete bridge structure, with concrete columns and solid concrete rails. Lights will be located on the flyover structure. It is anticipated that noise walls will not be required along the flyover. Retaining walls are not visible from this location.

Change to Visual Quality/Character

Construction of the Direct Connector Alternative will result in several changes to the visual character of this key view. On the right of the view, the new flyover will partially obstruct the view of the existing commercial buildings, traffic lights, and the wooded slopes beyond. The southbound to eastbound connector will obscure portions of the wooded slopes of the hills of Del Mar, as well as portions of the Torrey Pines Park bluffs and pine forest. A portion of these will be visible under the flyover. The flyover will also create an obstruction of the horizon line, and be highly visible against the sky. Due to the imposition of this large horizontal element over the wooded hillsides, the integrity of the view is compromised. The vividness rating of this view is anticipated to decline to moderately low as a result of the project. The view will be severely affected by the intrusion of the flyover, light poles, concrete rail, and moving traffic, resulting in a decline in the intactness rating to low. The flyover traversing the view will compromise the compositional quality, resulting in a decrease in unity rating to low. Combining the vividness, unity and intactness, the visual quality rating of the proposed view would be reduced to moderately low, resulting in a moderately high degree of change in visual quality. The overall change to the pattern elements in this view include large reductions in rating for form, line color

and texture. The dominance of the new project features partially blocking a previously open view, and the dissonance of the new flyover creates a strong contrast with the scenic elements. The change to visual character would be considered moderately high.

Viewer Response

Due to its location on a freeway with a speed limit of 65 miles per hour, this view will not be visible to pedestrians, or cyclists, or long-term viewers. This is a major transportation corridor, and viewers are typically not seeking an intensive visual experience, however, there may be a great deal of anticipation at this point where the westbound SR-56 freeway reaches the coast in an attractive and relatively natural area. The soaring feeling of travelling on this ramp past a uniquely expansive coastal view provides a unique visual experience. The viewer sensitivity at this location is estimated to be moderately high. Due to the high quantity of viewers, their elevated viewer position, directional focus, lack of major traffic distractions, and lack of visual obstructions, the viewer exposure at this location would be considered moderate. Combining viewer sensitivity and viewer exposure, the rating for viewer response is moderately high.

Resulting Visual Impact

Combining the moderately high degree of changes to the visual character, and visual quality with the moderately high viewer response, the resulting visual impact would be considered to have a moderately high degree of negative visual impact. The flyover will create substantial view blockage to this unique viewing location, which features expansive views of the attractive coastal landscape. The change would be clearly noticeable to viewers. Mitigation measures to reduce the visual impact appear not to be possible at this location.

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Key View 105 – Direct Connector Alternative

Figure 16 - Key View 105 – Existing View

Figure 17 - Key View 105 – Proposed View

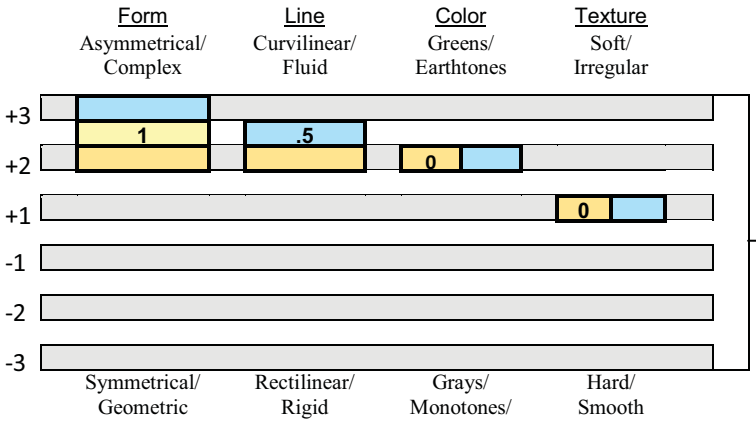
KEY VIEW #105 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

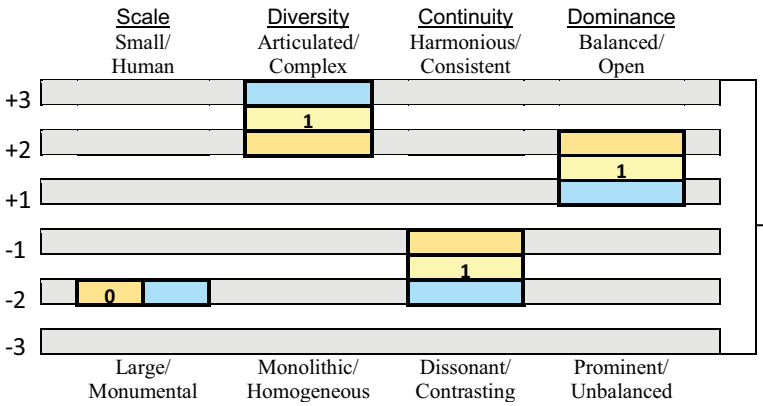
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 0.38
% Change: 7.5

Pattern Character
Describes the relationships between visual elements (Project and Setting)

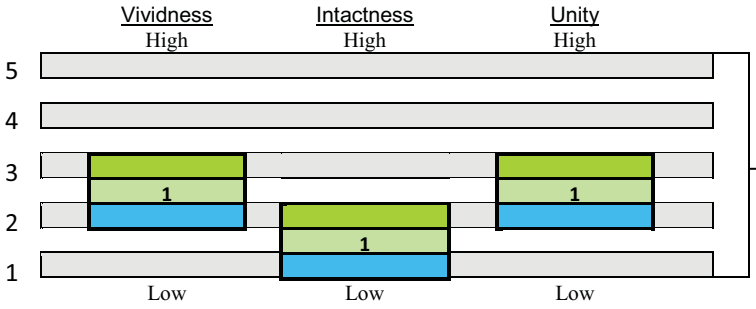


Avg. Change: 0.75
% Change: 15

Avg. Change: 0.56
% Change: 11

L
Change to Visual Character

VISUAL QUALITY



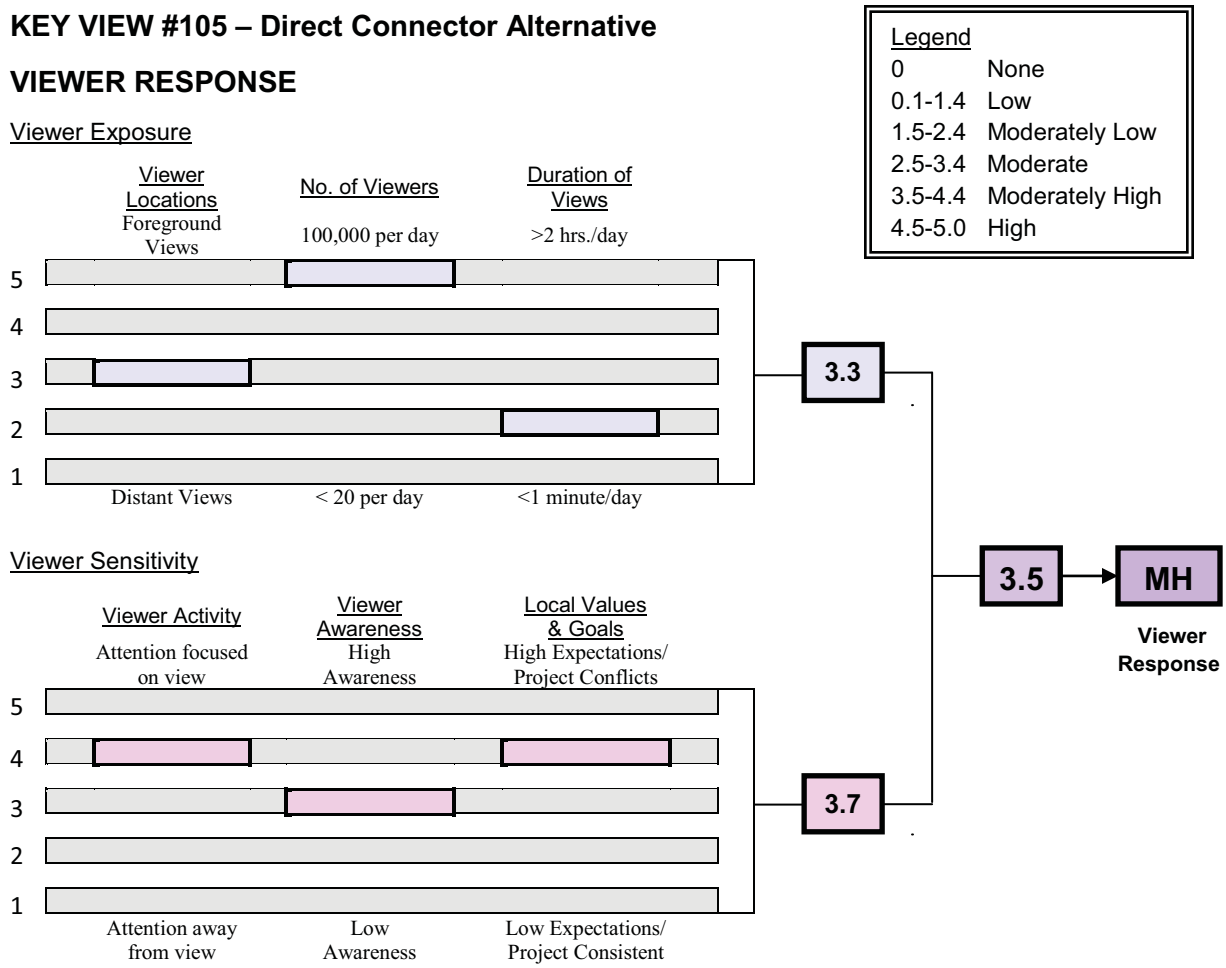
Avg. Change: 1.0
% Change: 25

ML
Change to Visual Quality

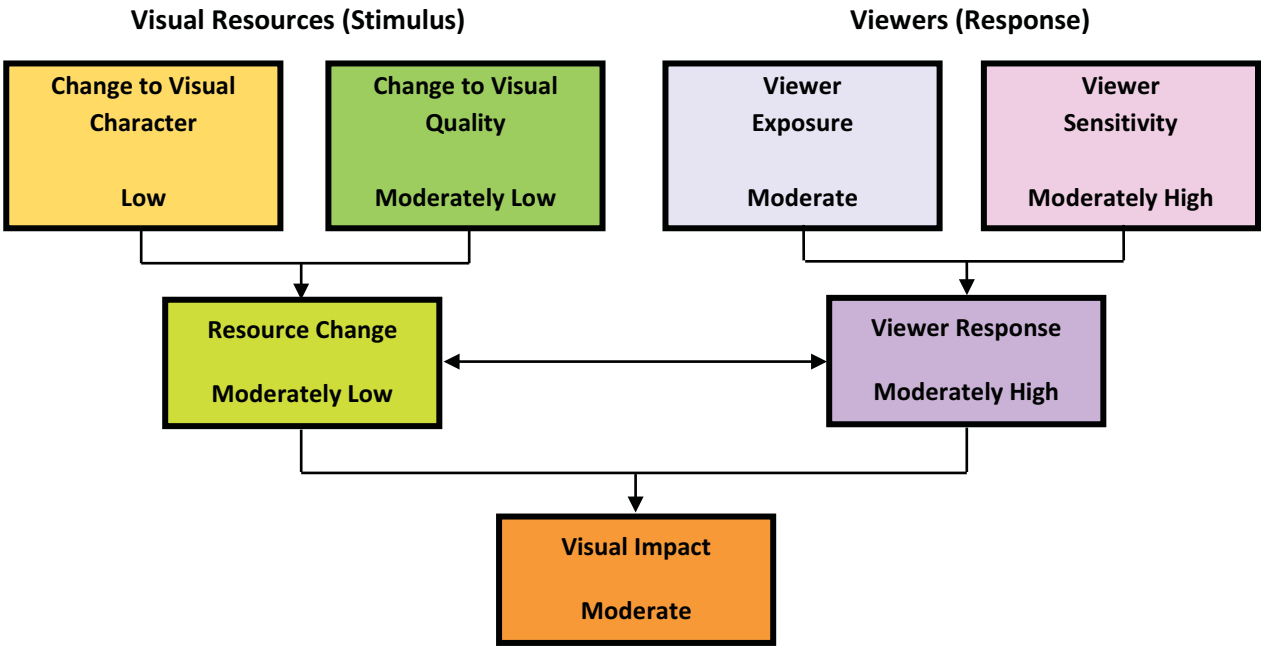
Legend
Existing View
Proposed View

KEY VIEW #105 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 105 – Direct Connector Alternative

Orientation

Key View 105 illustrates the view from I-5 driving north toward Carmel Valley Road. The existing direct connector eastbound to southbound crosses the view on the left, obscuring the view to the hills of Del Mar to the west. The existing condition photograph is illustrated in Figure 16. The viewpoint allows a full view of the direct connector as it crosses over Interstate 5 and represents the viewpoint of motorists driving north on I-5, typically traveling at 65 miles per hour.

Existing Visual Quality/Character

The foreground consists of a 9-lane wide concrete roadway with concrete barriers, rails, signs and tall lights. A flyover connector crosses the view, partially obstructing the Del Mar Hills to the west. Tall hotel buildings at the intersection of El Camino Real and Carmel Valley Road are visible identifying this as an urban setting. The native trees of Carmel Valley and Eucalyptus trees beyond are visible to the right, obscuring the subdivisions and offices across the creek. The majority of areas visible in this view are elements of the freeway, the vegetation and hills provide a sense of place to this otherwise quite common transportation corridor view. The view has moderate vividness since the dominant element is the freeway itself, and the other elements are interrupted by the existing freeway features. The view is interrupted by the existing connector, signs, lights and barriers, as well as the imposition of the freeway elements upon the existing landscape. Consequently, the intactness of the view would be rated moderately low. The compositional qualities of the view are very horizontal, and dominated by the sweeps of freeway creating a distracting interplay of forms leading away from the view instead of focusing the composition. There is a moderate compositional balance between the vegetation on the left and right. Therefore, the unity would be rated as moderate. Combining vividness, unity and intactness, the existing visual quality is rated at moderate.

Proposed Project Features

The project will construct a flyover structure visible in the center of the view. Lights, signs and traffic will be highly visible, although not a great contrast to the existing transportation elements. The northbound bypass connector will also be highly visible, further complicating the view and adding road surfaces and structures. The native trees in Carmel Valley on the right will remain.

Change to Visual Quality/Character

The proposed project would modify the appearance from this viewpoint due to the addition of the south to east connector flyover and the bypass connector. The proposed connector will appear in the center middleground of the view providing a new visual focus silhouetted against the sky, and creating a partial obstruction to the view. However, due to the amount of obstruction and contrasting elements present in the existing view, the change in visual quality is not as substantial as might be anticipated. The connector flyover will result in some obstruction of the Del Mar hills, and the hotels at Carmel Valley Road. The bypass connector will also result in the elimination of some planting at the center of the view, and will add another distracting element. At the far left, the large retaining wall will replace some of the landscape along the western edge of I-56. Overall, the view will remain essentially a transportation related sight, with the planting diminished and the hardscape increased. Change to the visual pattern elements and pattern character is fairly minor for this view, resulting in a low degree of change to visual character. With the proposed construction and mitigation measures in place, vividness is considered to be reduced to moderately low. The intactness is decreased to low. The compositional qualities and unity of the view are decreased to moderately low due to the increasing complexity of conflicting shapes. The resulting visual quality for the proposed condition would be considered to be moderately low.

Viewer Response

The viewer response to changes from this viewpoint are anticipated to be moderately negative due to the addition of the flyover which will be an obvious new and distracting element dominating the upper portion of the view. Viewer exposure is moderate due to the quantity of viewers passing the area on a daily basis, and the high visibility of the improvements directly ahead of the viewer. Viewer sensitivity at this view would be considered to be moderately high due to the amount of distractions from other traffic, and the need to merge.

There will be no pedestrians or bicyclists observing from this location. Combining viewer sensitivity and viewer exposure for this viewpoint, the likely viewer response to the changes would be moderately high.

Resulting Visual Impact

The proposed project improvements will affect the view from northbound I-5, placing a large and clearly visible elevated element across a portion of the middleground of the view and removing landscape buffers on the left. Considering these changes together with the moderately high viewer response, the negative change to visual quality would be considered to be moderate.

The visual impact portrayed in this still photograph indicates only one location along a progression of travel that would be affected by the proposed connector ramp. The perception of the visual obstruction may be perceived to be more of an imposition on the scene, resulting in higher visual impact. Travelling through the scene, the viewer would not only see a portion of the view blocked by the structure, but would pass under it, creating a strong impression of enclosure compared with the existing condition. Consequently, the visual impact of the connector would appear to be greater than the moderate rating provided by the rating methodology.

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Key View 106 – Direct Connector Alternative

Figure 18 - Key View 106 – Existing View

Figure 19 - Key View 106 – Proposed View

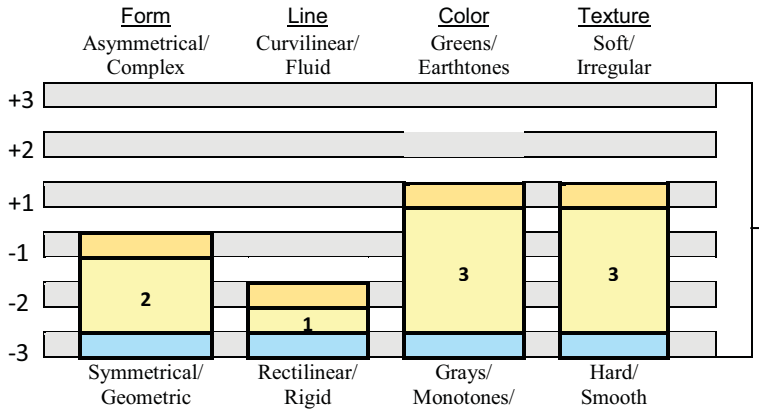
KEY VIEW #106 – Direct Connector Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

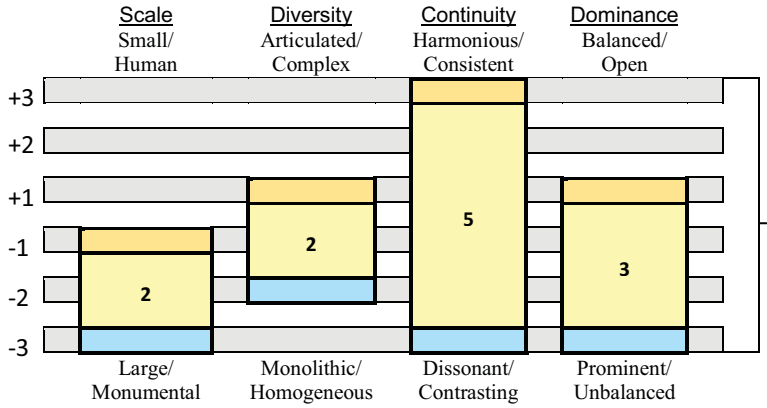
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

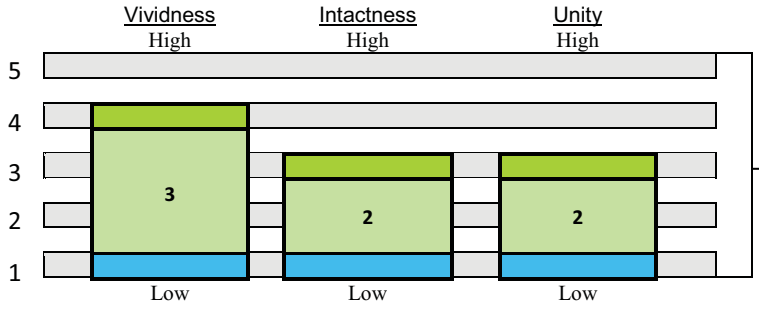


Avg. Change: 3.0
% Change: 60

Avg. Change: 2.6
% Change: 52

H
Change to Visual Character

VISUAL QUALITY



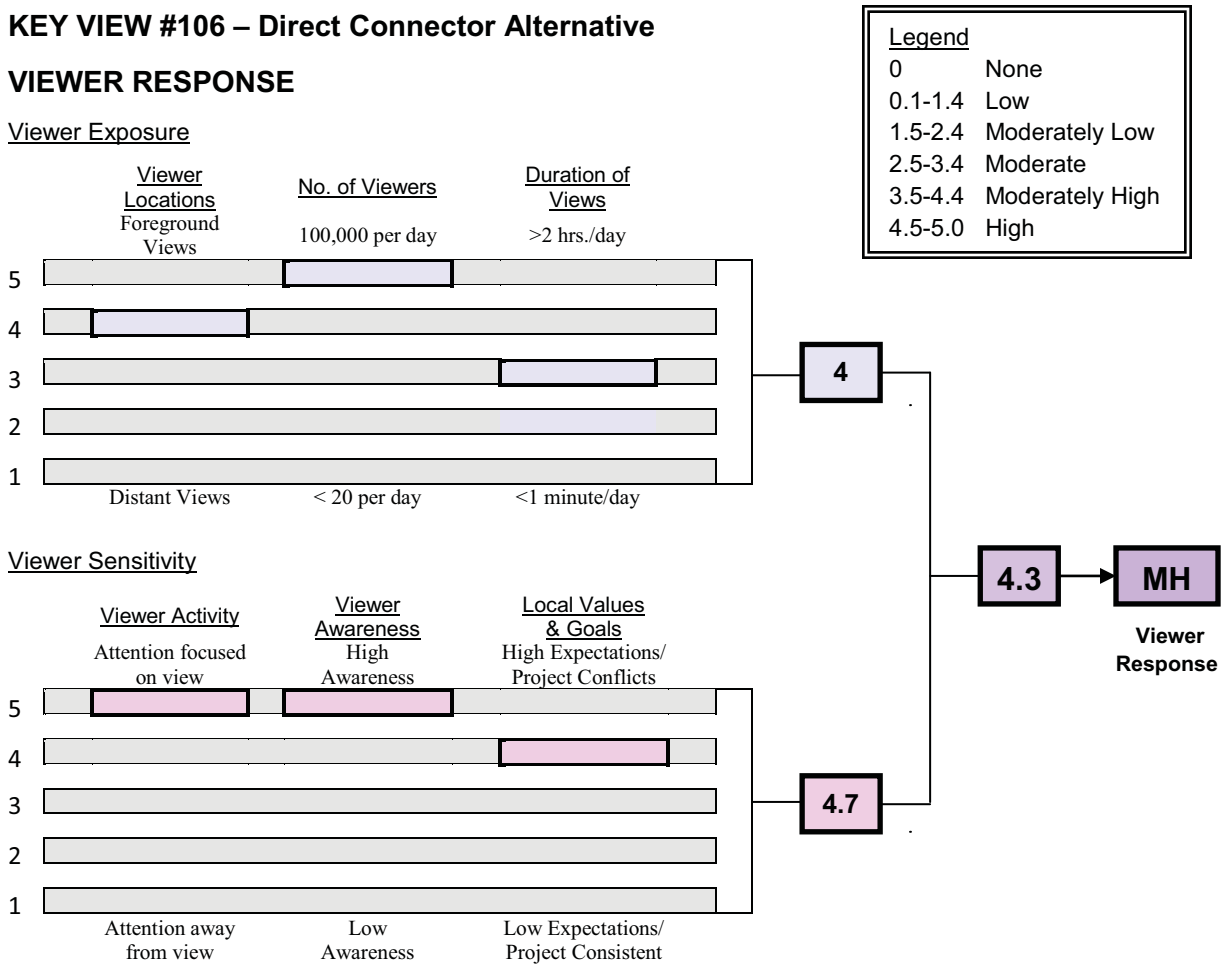
Avg. Change: 2.3
% Change: 58

H
Change to Visual Quality

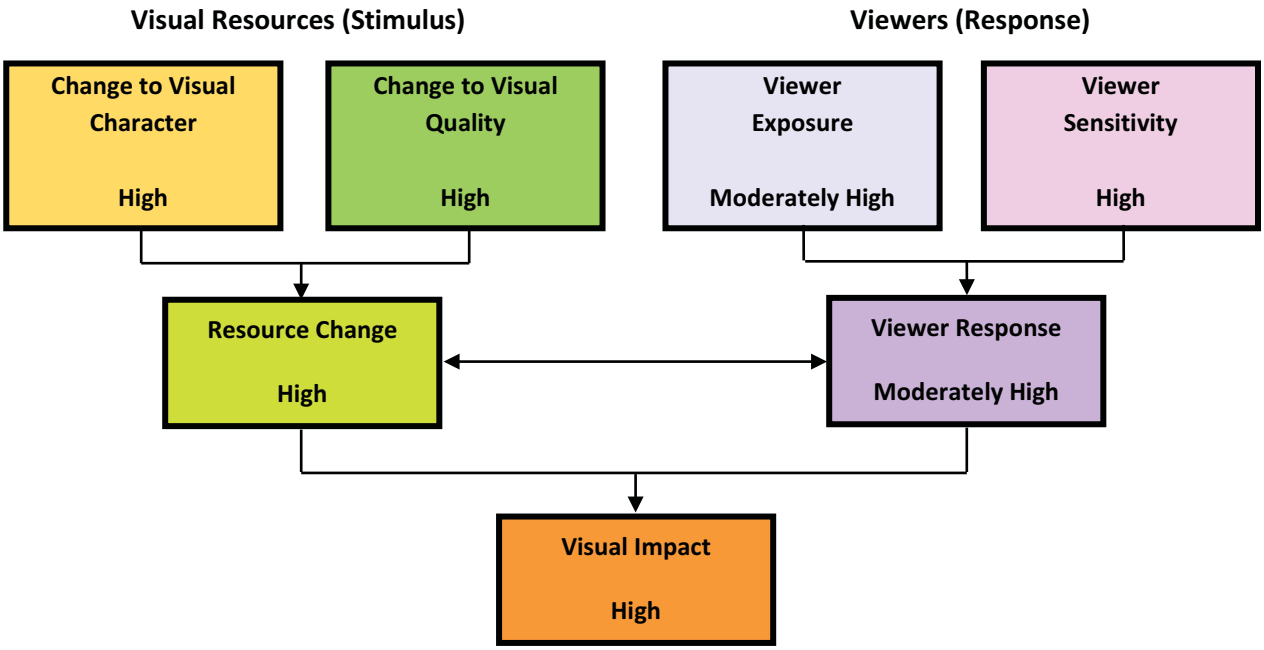
Legend
Existing View
Proposed View

KEY VIEW #106 – Direct Connector Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 106 – Direct Connector Alternative

Orientation

Key View 106 provides the view looking north from I-5 just beyond Carmel Valley Road with the bridge at Del Mar Heights Road in the distance. The view shows the concrete roadway, signs, barriers and lights of the freeway adjacent to landscaped commercial buildings on the right. The landscape between the freeway and the buildings was planted in the 1970's and 1980's and has achieved good size and screening capacity with a mix of Eucalyptus, Torrey Pines and other trees and shrubs. The majority of this landscape is currently privately maintained. The coastal hills of Del Mar are visible across the freeway on the left (west side) of the view.

Existing Visual Quality/Character

The visual character of this view is dominated by the broad expanse of transportation facilities, and the landscaping and attractive commercial buildings on the right. The vividness of the view could be considered moderate due to the lack of memorable qualities, and the expanse of gray concrete surfaces. However, the elevated terrain, high quality of the buildings on the right, and attractive mature landscapes provide a sense of heightened visual quality raising the rating to moderately high. The intactness of the view is interrupted by the roadway elements and signs, but due to the maturing landscape, would be considered to be moderately intact. The compositional character of the view is simple and balanced, resulting in a moderate rating of visual unity. The resulting combined visual quality would be defined as moderate.

Proposed Project Features

The Direct Connector alternative proposes to construct an additional 4 lanes at the right side of the view. These will be comprised of the connector flyover and the northbound bypass which merge onto I-5 at this location. Retaining walls will be constructed to support the grade changes. The landscape at the right will be removed to accommodate the additional road width, and the right-of-way will be moved to just beyond the proposed freeway edge, resulting in the elimination of most of the buffer planting area. Parking garages and parking areas will be close to the freeway edge, and in some cases will need to be cut back to allow freeway construction. Very limited mitigation planting will be possible in this area. Across I-5 on the west, the widened roadway will be visible, as well as the 9 to 14 meter tall retaining wall surmounted by a 2.4 meter sound wall that will continue north for the first 6 single family homes. Beyond that point the existing sound walls will remain. The sound wall has a height varying from 2.4 meters high within this view, to 4.3 meters south of the view.

Change to Visual Quality/Character

The expanded freeway width, retaining walls, intersecting ramps and the elimination of screen planting on the east (right) will result in a great amount of visual change in this view. The buildings on the right will be exposed to view with minimal landscaping. Parking areas will become highly visible, and additional parking structures to accommodate parking displaced by the roadway may also be visible. The vividness of the view will decrease due to the reduction of planting, roadside trees and the addition of retaining structures on the west. An increase in the roadway width will contribute to visual monotony. The resulting vividness is anticipated to be low. The unity of this view will be decreased to low due to the elimination of the planting and trees both on the left and right of the view reducing the balanced composition. The intactness will also decrease to low due to the elimination of the existing planting, and the addition of retaining walls, and other visual clutter. Combining vividness, unity and intactness results in a low visual quality rating, with a high change to visual quality.

Changes to the visual pattern elements, especially a loss of color and an increase of hard texture, create a large amount of character change. This is combined with large changes to the pattern character elements of continuity and balance. This results in a high degree of change to visual character.

Viewer Response

Viewers are likely to have a strong response to the changes in this view as a result of the removal of landscape, and replacement with concrete freeway elements and expanded traffic area. Viewer sensitivity would be anticipated to be high due to the speed and complexity of the traffic, combined with the expectation that the views available from freeways are typically highly influenced by the developed nature of the freeway. The viewer exposure rating would be anticipated to be moderately high at this location, due to the large number of viewers, and their ability to directly observe the visual changes despite the speed of travel.

Resulting Visual Impact

Combining the high degree of change to visual quality with the moderately high viewer sensitivity, the resulting visual impact would be considered high. The change to the view would be clearly noticeable to viewers. Mitigation measures to reduce the visual impact of the retaining walls will help compensate for the size and severity of the wall on the west. However, the diminished planting will result in a high degree of change apparent to the viewers. Due to the limited space for mitigation planting on the east side, and the increased exposure of the parking and buildings, the visual quality is markedly decreased with a high degree of visual change.

Direct Connector Alternative Sound Walls

As part of the Visual Impact Analysis, the sound walls identified in the Preliminary Noise Abatement Decision Report (NADR) as "Recommended", "Conditional" and for "Severely Impacted Receptor" have been included on the Landscape Concept Plans for the Direct Connector Alternative. The following analysis is provided for the identified walls:

Sound Wall 56.S35: Located on the north side of SR-56 from station 33+36 to 33+56 and 33+84 to 37+50 with a length of 392 meters and a maximum height: 3.7 meters, this wall will be constructed at the top of a densely vegetated slope along a line of residential homes. This wall

will be located a very short distance outside the rear of the residences, where a solid wall would obstruct the openness of the existing yards and views of vegetation and the slopes of Carmel Valley. Consequently, the wall type will likely be glass over a low wall with glass for the upper portion to preserve the openness. While this is a potentially highly visible location seen from eastbound SR-56, it appears that the existing slope planting that currently almost completely hides the residences from view and is to remain in place, will obscure the proposed sound wall to such a degree that it is not anticipated to have a visual impact from SR-56 or the surrounding area. An existing sound wall occurs here that is solid masonry block with a portion being a combination of masonry block and glass. The wall will be located behind the dense trees in the photograph on the right and above. Some of the trees in the foreground are anticipated to be removed near the base of the slope to allow grading adjustments, but the trees above approximately the midpoint of the slope are anticipated to remain.

Sound Wall 05.S541: Located on the west side of I-5 from station 540+36 to 541+64 with a length of 183 meters and a maximum height of 4.3 meters This tall wall is proposed to surround the eastern edge of the tennis courts and recreation area of Pointe Del Mar. There is currently

an existing solid wall and an approximately 4 meter green screened tennis court fence at this location visible in the photo above. This fence is currently screened from view by the existing Acacia and Eucalyptus trees located on private property. It is anticipated that these trees will largely remain in place after construction and will continue to provide screening to the wall from I-5 and I-56 viewpoints.

Sound Wall 05.S545: This wall is proposed to be located on the west side of I-5 from station 541+80 to 547+00 with a length of 500 meters and a height from 2.4 to 4.9 meters. This wall will be located directly above the retaining wall at the same location for a combined height of approximately 12 to 15 meters which will vary based on the retaining wall and sound wall height. The combination wall would reach a maximum height of 15 meters at station 442+80 and again at station 546+00. Due to the property line constraints of the existing development, there is not anticipated to be planting to screen this wall for much of its length. The visual impact of this wall is illustrated and discussed in Key View 106.

Sound Wall 05.S555: Located on the west side of I-5 from station 555+20 to 556+37 with a length of 123 meters and a maximum height of 2.4 meters, this wall is located between the southbound on-ramp from Del Mar Heights Road and applies to 4 homes with existing sound walls at almost the same location. Due to the moderate height of the wall and the distance from the homes similar to the walls existing at this time, it is anticipated that the proposed sound wall would have only a minor visual impact on the residences. From the roadway, this wall will be visible on top of a retaining wall resulting in a higher combination wall. It is anticipated that vines would be planted on the exposed east side of the wall and shrubs would be installed along the ramp to provide screening and help reduce the apparent height and visual impact of the wall.

Sound Wall 05.S561: Located on the west side of I-5 from station 560+85 to 562+21 with a length of 156 meters and a maximum height of 2.4 meters, the area where this sound wall is proposed is currently screened by existing planting on private property. Due to its orientation and substantial elevation above the freeway, it is anticipated that this wall is not highly visible except intermittent views from the homes directly across the freeway to the east. Due to the

relatively low height of this wall, and the likelihood that it will be a combination low wall and glass panels, the wall will have little more visual impact than the existing wall at this location. The sound wall will be located in the area behind the trees in the center of the photograph below.

Sound Wall 05.S563: Located on the west side of I-5 from station 563+28 to 564+36 with a length of 130 meters and a maximum height of 2.4 meters, this wall is located adjacent to a school recreation field. Due to its moderate height, and the screening provided by the existing planting, it is anticipated that the visual impact of the wall would result in a low degree of visual impact visible primarily from the northbound I-5 lanes or the homes on the east side of Interstate 5. The sound wall will be located in the area behind the trees at the left of the photograph above and will be a combination masonry block/glass wall.

Sound Wall 05.S567: Located on the west side of I-5 from station 564+61 to 567+18 with a length of 299 meters and a maximum height of 2.4 meters, this wall surrounds the east side of the residential homes on Minorca Cove but extends past only 13 homes below the three power

poles in the photo. The wall is not recommended for the three northerly homes on Minorca Cove. This wall is likely to be a combination low wall and glass type sound wall to allow views to the east. Due to its elevation above the freeway, this wall will be primarily seen from the northbound lanes and the homes to the east. However, due to the moderate height of the wall and existing vegetation, it is anticipated that the proposed wall would result in a low degree of visual impact.

Sound Wall 05.S568: Located on the east side of I-5 from station 566+24 to 567+90 with a length of 215 meters and a maximum height of 3.7 meters, this wall would replace a slightly lower wall visible in the photograph below. The wall is proposed for the 10 homes at the center of the photo. Since the proposed wall is anticipated to be a glass over solid type wall similar to the existing wall, it is anticipated that the proposed wall would result in a low degree of visual impact.

Additional Visual Considerations for the Direct Connector Alternative

In addition to the Key View Analysis for the Direct Connector Alternative, this section provides additional considerations regarding the visual impact of the proposed project. While selection of the key views are based upon the direct visual impacts to the largest number of viewers, or the most sensitive public viewpoints, the discussion in this section provides additional understanding of the project's effect on the visual environment.

Panoramic View

The Direct Connector Alternative introduces two new flyover connectors that will be highly visible from the surrounding region. The panorama below is a general view of the area from a hillside location selected to show the overall project, but is not a key viewpoint. It provides an understanding of the scale, location and size of the additional connector ramps.

Panoramic view of existing I5/SR-56 intersection looking northwest toward Del Mar from above El Camino Real

Simulated panoramic view with proposed improvements for the Direct Connector Alternative

This is a highly scenic coastal area with unique bluffs, Torrey Pine woodlands, and striking views of the nearby Pacific Ocean. The proposed connectors appear as a new feature on a view already heavily developed with freeways, ramps, bridges and crossovers. The proposed

construction appears to further detract from the natural visual character by adding monochromatic, smooth surfaces, increasing the visual complexity of the view, and further breaking the natural visual patterns, lines and forms. These changes will be visible from homes and businesses in the surrounding area, from Torrey Pines State Park, hiking and biking trails.

View west across I-5

The following photo comparison provides an understanding of the general visual impacts of the project, showing one of the most extensive visual changes. This is the view from businesses and parking garages to the east of I-5 between Carmel Valley Road and Del Mar Heights Road This is not considered a key view since it is visible from private business property, however, it clearly indicates the extent and intensity of the visual change anticipated as a result of the proposed Direct Connector Alternative.

The existing view faces southwest across Interstate 5 toward the Tennis Courts at Pointe Del Mar at the center of the photo, and Portofino Circle on the right of the photo, both heavily screened by dense planting. In the distance, the ridge containing Torrey Pines commercial area and Torrey Pines State Park is visible. The foreground is an area that is heavily planted with screen planting and trees including pines and Eucalyptus trees, which are heavy on both sides of the photo location. This specific location provides a view through the screen planting and so best typifies the condition after the proposed project is constructed during which the majority of screen planting along the eastern side of the freeway will be eliminated.

Existing view across I-5 looking southwest from parking for commercial buildings

The simulation of the proposed view shows the expansion of I-5 and the addition of the two proposed SR-56 connectors. In the foreground, I-5 will be expanded and a new retaining wall at the edge of the freeway will be constructed. The SR-56 west to I-5 north connector can be seen sweeping in from the left middle ground over a new retaining wall. The southbound to eastbound connector transitions from a retaining wall on grade on the right to an elevated bridge structure on the left. Behind this structure is the combination retaining wall and sound wall at Portofino Circle on the right, which slopes down with the southbound off-ramp for Carmel Valley Road. New and existing planting is visible at the south end of Portofino Circle and at the Pointe Del Mar tennis courts behind the existing trees on private property at the center of the photo. The large retaining walls on the right cannot be obscured by planting due to lack of planting and maintenance space. In the proposed view, the connector ramps visually encumber the sense of the natural environment of Carmel Valley, and the Penasquitos Lagoon beyond, complicating the perception of this special geographical place. The retaining walls cut through the topography and eliminate large areas of mature planting. Residences are exposed and the potential for screening is reduced.

The change to visual character represented by this view is clear. The largely vegetated existing view has a green and natural foreground and background providing visual context to the view. The proposed view has a much more disturbed appearance, with an attendant loss of visual continuity, massive expansion of hard surfaces, increase in loss of vegetation, and an increase in monochromatic character, linearity, complexity and dissonance. The view has a very high degree of decline in vividness, unity and intactness. This view represents the high degree of change to visual character and visual quality that will be generally visible from the project vicinity. It also provides a sense of the severity of the visual impacts of the project if constructed using the Direct Connector Alternative.

Simulation of proposed project features looking southwest from commercial buildings east of I-5

4. Summary of Project Impacts of the Direct Connector Alternative

Based on this analysis, the Direct Connector Alternative would result in a relatively high degree of change to the visual environment in the project area. The primary changes include two crossover bridges, increases in the expanse of paving, massive retaining walls combined with sound walls and a large loss of the existing screen planting and landscape area. The natural visual character would be diminished and the urban character would be increased. Scenic resources would be partially obstructed. Implementation of the proposed visual mitigation measures would improve the appearance of the project components, and help to blend them into the visual context. However the high degree of visual change would remain for this alternative.

The analysis is based on the Key Views as well as consideration of the overall effect of the project on the visual environment. The key views are selected based on the types of project-related features that would be visible in the Direct Connector Alternative, the number of viewers, the frequency with which it would be viewed, and the potential sensitivity of the viewers. Each key view is presented in its existing condition and its future condition with implementation of the proposed project and proposed mitigation. The locations of the key views are shown in Figure 7. The Landscape Concept Plan for the Direct Connector Alternative (Attachment A) provides the overall design concept allowing an understanding of the design associated with each key view location. Illustrative sections for the Direct Connector Alternative are provided in this subsection. Sound walls and their likely effect on the visual environment are described in detail. To supplement the key views, additional views have been considered to provide a greater understanding of the visual impacts not provided by the Key View locations. A detailed description of the proposed mitigation measures is provided in Section VII, Mitigation.

Effects on Existing Visual Quality Context

The Direct Connector Alternative is to be constructed in an area already heavily disturbed, highly developed and impacted by the elaborate I-5/56 intersection constructed in the 1980's and expanded in the 1990's and early 2000's. The immediate area has substantially changed from its natural character due to the construction of roadways, walls and bridges in the public right-of-way, and office, commercial and residential construction. The surrounding area contains some of the most scenic features in the San Diego region, including wetlands, tidal estuaries, forested coastal ridges, naturally eroded bluffs, and views of the Pacific Ocean.

The Direct Connector Alternative will create clearly noticeable changes to the visual character and environment including the addition of two new flyover connector bridges, a new Del Mar Heights Road Bridge, additional traffic lanes on I-5 and SR-56, the removal of much of the existing mature screen planting, especially on both sides of I-5 between Del Mar Heights and Carmel Valley Roads, and the construction of many large retaining walls to allow the freeway widening. The project adds a greater expanse of concrete and asphalt paving, structures and many additional retaining walls and sound walls creating a higher intensity viewer experience. There will be a large net reduction in the size of the landscape areas due to the expansion of the paved highway lanes.

The proposed improvements, bridges, flyovers and retaining structures are not unique to the urban context currently present in the area, and consequently the proposed features should not appear out of place in the urban context. However, while the character of the project may be compatible with the existing previously constructed urban conditions, it is not in harmony with the existing natural features and scenic context that remain a vital part of the community identity and regional visual context.

Adjacent freeway interchanges, such as I-805/I-5, Mira Mesa Boulevard interchange and the I-805 bridge over Carroll Canyon provide a regional context of similar structures and traffic accommodations. All of these interchanges present the viewer with bands of elevated concrete roadways curving across the field of view and the skyline. The existing two and three level connectors create visual intensity at the intersection of SR-56 and I-5. These patterns of intensive transportation facilities are visual elements consistent with the other portions of the North Coastal viewshed and its visual context. However, the impact of this evolving transportation corridor will be greatly intensified by the construction of an additional level of bridge structures and the massive retaining walls. Existing views to the coastal bluffs and ocean will be diminished and partially blocked. The reduction of screening on both sides of I-5 between Carmel Valley Road and Del Mar Heights Road will result in the exposure of buildings more directly adjacent to the roadside, and a more expansive view of the highway surfacing. Retaining walls will appear taller and more imposing. Overall this change represents an increasing trend toward ever larger and more complex transportation structures, resulting in high degree of change to the existing visual character and diminishing the existing visual quality.

Following is a discussion of the major impacts to viewers on the freeway and to the community and scenic resources.

Impacts to Viewers on the Freeway

Reduction in Quality to Existing Views

Due to the expansion of the highway lanes, areas for landscaping will be greatly reduced from the existing condition. On the west side of I-5 the landscape is almost completely eliminated for most of the distance between Del Mar Heights Road and Carmel Valley Road. In addition, on the east side of I-5, the landscape areas will be cut back to within the existing private property, eliminating both the right-of-way planting and portions of the private lot landscape of the commercial buildings. This will result in exposure of the commercial buildings along the east side of I-5 to a far greater degree. In some areas, the landscape between the freeway and the parking areas will be completely eliminated.

The destruction or elimination of screen planting along SR-56 as a result of grading for the widening will reduce the visual quality of the views in both directions.

Crossover Bridges

The south I-5 to east SR-56 crossover bridge structure, combined with the west SR-56 to north I-5 crossover will cross over the existing interchange ramps creating a fourth level of traffic bearing lanes above grade and the adjacent areas and the Carmel Valley Road area. In combination, these bridges will result in a high degree of visual impact to the views to the surrounding hills, bluffs, estuary and Pacific Ocean. The concrete structures contrast with the natural environment and the scale and size contrasts with the community contexts. When passing through the bridges on I-5, the large scale will be especially noticeable. In some cases such as SR-56 westbound, the bridges partially obstruct views of Torrey Pines woodlands, estuary and ocean. The structures diminish the unique visual identity of the area and reduce perceptions of regional identity and relation to the land.

Large Retaining Walls and Expansive paving

Large, very tall retaining walls will be highly visible on the west side of I-5 between Del Mar Heights Road and Carmel Valley Road. Approach ramps to the connector bridges will also require retaining walls. Consequently, retaining walls would be considered to be one of the highest visual impacts of this alternative. In some areas the increase in retaining walls will result

in a narrowing of the view creating a partial tunnel effect, especially at the Carmel Valley Road southbound off ramp. Even though these walls will be designed to harmonize with the visual environment in color texture and shape, they will create a high degree of visual impact.

The expanded paving areas will result in a strong change to the visual character as both I-5 and SR-56 become wider and the proportion of the view that is fully paved becomes larger. This results in a sense of an increasingly urbanized and paved environment.

The large walls and the expanded paving contrast with the visual character of the largely vegetated existing regional visual character.

Loss of Existing Freeway Landscape and Screen Planting

Large portions of the landscape on both sides of I-5 south of Del Mar Heights Road would be removed as a result of this project and be replaced by additional travel lanes with retaining walls instead of landscaped slopes. Many of the retaining walls would be located adjacent to the freeway and would not have planting relief. Where possible, walls in other areas of the I-5 area would be located with planting areas at the bottom to provide potential screening of the walls.

Along SR-56 the widening will result in a loss of the existing slope planting due to the grading for the road widening. This planting is becoming increasingly mature and its loss, including the loss of many maturing Torrey Pines planted for the original freeway construction would be striking.

Loss of Median Planting on SR-56

It is anticipated that the existing median Oleander shrub plantings that currently provide color and visual relief would be removed for the majority of the project length due to the lane widening. These would not be replaced due to lack of space.

Impacts to Viewers in Communities Adjacent to the project

Impacts due to increasing the proximity of the freeway to the community

Views to the freeway would be adversely affected at the right of way edges where the freeway would become closer to the existing homes. This would be especially critical at I-5 southbound, where the additional lanes would be separated from some of the residential areas by retaining walls instead of extensive landscape areas. This would have a high degree of visual impact at Portofino Circle, where the retaining walls would be moved west into the existing property resulting in a very close proximity and minimization of screening opportunities. In the current configuration, the freeway is obscured by a 3.5 meter sound wall. In the new condition, the proposed sound wall would continue to screen the freeway, however, it is moved onto the property diminishing interior landscape areas and eliminating trees. The existing recreation area and landscape would also be diminished within the Portofino development.

The screening between the commercial buildings along I-5 would also be eliminated to a large degree resulting in many cases to direct views from the offices and parking garage to the freeway.

Community Entry Interchange Impacts

At the Carmel Valley Road interchange, the increased number of lanes and intensity of the roadway complexity will increase the urban visual character of the visual environments.

The proposed project will result in many changes at the interchange with Del Mar Heights Road that would affect the perception of the community, including an increase in the number of lanes,

construction of retaining walls, loss of landscape area, loss of landscape screening, and the widened bridge over I-5.

The increase in urban visual character will also affect the interchanges at Carmel Country Road, El Camino Real and Carmel Creek Road as the interchanges are expanded to include additional lanes.

Impacts to Scenic Resource Views

The project viewed from Torrey Pines Visitor Center (Key view 101) is part of a regional panorama that includes the rare Torrey Pines, unusual eroded sandstone coastal bluffs, chaparral, coastal sage, wetland and estuarine habitats and well as a complexity of urban and suburban elements. The impact of the project on this view has been analyzed to result in a moderate degree of visual impact, primarily due to the distance and the blending of the proposed construction into the existing freeway and commercial elements.

There will also be a diminishment of the views from the trails, and bike paths in the surrounding region, although no specific area of high impact has been identified due to distance and location from the viewer, as well as the screening along trails by existing vegetation.

Viewer Response

As defined in section V.C of this report, viewer response is a combination of viewer sensitivity and viewer exposure. For the purposes of this project, viewer sensitivity considers the viewer's observation and understanding of the existing visual conditions, combined with the concern for preserving and enhancing the regional visual context expressed in the Community Plans. The project is in an area of comparatively high scenic quality, and viewer expectations would be considered to be high. Based on these indicators, viewer sensitivity within the viewshed is considered to be moderately high overall.

Viewer exposure is relatively high due to the direct observation on the relatively straight roadways, and the high numbers of viewers living in and passing through the viewshed. However, viewer exposure from the highways in the project study area is frequently impacted by the congested traffic conditions. Due to the speed of travel, the need to pay close attention to traffic conditions and signage at this busy location, and the number of distractions to the motorist, the viewer exposure must be adjusted downward, and consequently is considered to be moderately high overall.

Based on this analysis, the combined Viewer Response is considered to be moderately high, which maintains and amplifies the changes to visual quality.

Light and Glare

The proposed project includes the widening of portions of SR-56, and I-5 to include additional lanes, and will result in the widening of the light and glare during the nighttime hours. The width of the focused light from headlights will increase, and the overall light from the freeway will be increased. Except for the traffic on the new connectors, the direction of the headlights should conform closely with the additional headlight illumination patterns. The flyovers for the Direct Connector alternative will contribute new illumination patterns from the elevated structures. Given the amount of light and movement in the existing interchange, the implementation of the Direct Connector Alternative is expected to cause a moderately high visual impact from lighting. The impact appears to be a combination of new headlight directional patterns, and an increase in lighting levels due to the increased numbers of lanes of headlights, and additional lighting fixtures, possible with higher output.

Construction Related Visual Impacts
During the construction period, demolition, grading, bridge falsework, cranes, heavy machinery and other vehicles associated with construction will be highly visible and will have a temporary impact on the viewers during construction. Storage of construction equipment, fences, orange safety markings, barricades, temporary warning lights, signs and other construction related items will create a temporarily disturbed and degraded view. These are temporary visual impacts associated with the requirements of construction and are not considered a long term visual impact.

Analysis Conclusions
The project area includes a wide range of commercial, residential open space and park land uses. I-5 has been determined to be an eligible Scenic Route, but has not yet been designated by the Caltrans. There are no designated historic resources within the project area, although portions of Torrey Pines State Park, Torrey Pines State Beach, the Penasquitos Lagoon, and the Carmel River are within the project viewshed.

The primary changes to the visual character due to the Direct Connector Alternative include the construction of two connector bridge structures over the existing I-5/SR-56 intersection, the construction of a wider replacement bridge at Del Mar Heights Road, construction of additional traffic lanes, massive retaining walls, a large reduction of screen planting, removal of mature trees, a greater expanse of concrete paving and structures and many additional retaining walls. There will be a net reduction in the size of the landscape areas. Other visual effects associated with the project would result from retaining walls, graded slopes, and seven sound walls along I-5 and one along SR-56. Due to the largely urbanized condition of the area, the presence of large commercial and residential buildings, existing landform alterations, and extensive highway facilities, the visual change is tempered by the existing visual character. However, the amount of visual changes as a result of the proposed project in combination with other proposed projects would be considered high.

Long distance views from Torrey Pines State Park will be affected by the addition of the direct connectors as shown in Key View 101. These ramps are visible in the distance, but blend with the existing transportation facilities, and do not obstruct distant views. The changes represent only a moderate amount of visual change. The impacts will appear minimal due to the distance of the viewer from the project improvements. The project is also visible from the rest area on the bike and equestrian trail south of Carmel Valley, but the changes will not be readily apparent since they are primarily on the opposite side of the existing connector flyovers and highway structures.

Pedestrians and bicyclists primarily view the project from Carmel Valley Road, El Camino Real, and Del Mar Heights Road. The widening of the bridge and addition of traffic lanes will impact the pedestrians due to the increasing expansion of motorized vehicle orientation as opposed to expansion of accommodations for pedestrian and bicycle travel. The existing conditions for pedestrians and bicyclists are minimally supportive of these activities, relying on the minimum required width sidewalks traversing intersections and crossing the bridge at Del Mar Heights.

The proposed project would have a high degree of adverse effect on the visual quality of the project area. The overall aesthetic quality of the project area would be affected with implementation of the Direct Connector Alternative. The aesthetic quality of many areas could be restored similar to the existing condition as a result of the revegetation and visual mitigation for this project. However, the area between Del Mar Heights Road and Carmel Valley Road

would be especially impacted by the elimination of screening vegetation and the construction of large retaining walls. Establishment of new planting with thematic connections to adjacent natural areas, development of attractive bridge enhancements, and focal landscape elements would help reduce potential adverse impacts resulting from the proposed project, but would not compensate for the adverse visual effects.

Based on this analysis, the proposed construction of the Direct Connector Alternative will result in a high degree of visual change. A comparative study of the project alternatives is included in Section VIII of this document.

E. Visual Analysis of the Auxiliary Lane Alternative

The key views have been selected to illustrate the most critical visual changes, which affect the largest number of viewers. Five key views illustrate the Auxiliary Lane Alternative. The key views represent the viewpoints of motorists traveling in three directions on Interstate 5 and SR-56. Changes visible to pedestrians were also considered, but determined to be less critical to the overall visual impact than those visible to motorists on these two high volume transportation corridors. The viewpoints illustrate the locations where the proposed construction features are most visible and are anticipated to have the greatest visual impact to the most viewers.

The Auxiliary Lane Alternative design has been carefully reviewed to determine the proposed features of each alternative which may result in perceivable visual impacts. These construction features are evaluated to anticipate the associated visual changes likely to occur. Following is a summary of the proposed construction items that are considered to result in visual changes.

1. Changes Due to Construction of the Auxiliary Lane Alternative

Changes resulting in the primary visual impacts for the Auxiliary Lane Alternative include:

- Widening of the CV-1 line connecting Carmel Valley Road to northbound I-5
- Widening of westbound Carmel Valley Road at the ramp to I-5 (CV-1 line)
- Widening of the eastbound connector ramp (EC-2 line) east of El Camino Real
- Widening the southbound (west) side of I-5 from Del Mar Heights to Carmel Valley Road
- Widening the westbound SR-56 off-ramp to Carmel Creek Road
- Widening the north side of the SR-56 roadway from 120 meters east of Carmel Country Road to 250 meters east of El Camino Real
- Widening Del Mar Heights Road I-5 bridge approaches
- Construction of the new bridge crossing I-5 at Del Mar Heights Road
- Adjustments to interchange ramps and associated retaining walls at the following intersections:
  - I-5 / Del Mar Heights Road
  - I-5 / Carmel Valley Road
  - SR-56 / El Camino Real
  - SR-56 / Carmel Country Road
  - SR-56 / Carmel Creek Road
- Elimination of a portion of the landscape buffer between the east edge of I-5 and the commercial buildings along El Camino Real
- Elimination of a portion of the landscape buffer between the west edge of I-5 and the residential homes along Portofino Drive and Portofino Circle
- Elimination of a portion of the landscape buffer between the east edge of SR-56 and the commercial buildings to the north
- Removal of some existing maturing trees, including Eucalyptus, Torrey Pines and Italian Stone Pines planted in previous highway construction projects
- Retaining walls along I-5:

RW No. 539:	Length: 1697 meters
	Average height: 4.4 meters
	Maximum height: 9.0 meters

RW No. 540: Length: 43 meters
Average height: 0.6 meters
Maximum height: 1.6 meters

RW No. 541: Length: 413 meters
Average height: 4.5 meters
Maximum height: 7.0 meters

RW No. 556: Length: 138 meters
Average height: 1.0 meters
Maximum height: 2.0 meters

- Retaining walls along SR-56:

RW No. 15: Length: 191 meters
Average height: 2.6 meters
Maximum height: 4.0 meters

RW No. 19: Length: 190 meters
Average height: 1.1 meters
Maximum height: 1.4 meters

RW No. 24: Length: 211 meters
Average height: 2.3 meters
Maximum height: 4.5 meters

- Sound walls along I-5 and SR-56:
  The following sound walls are proposed for the Auxiliary Lane Alternative based on the noise analysis for the design alternatives, and are being recommended as both reasonable and feasible, or as severely impacted or conditional in the NADR.

Sound Wall 56.S35: Station 33+84 to 35+66
Length: 195 meters
Maximum height: 3.7 meters
Noise Abatement Decision: Conditional

Sound Wall 05.S541: Station 540+36 to 541+64
Length: 183 meters
Maximum height: 4.3 meters
Noise Abatement Decision: Recommended due to existence of severely impacted receptors.

Sound Wall 05.S561: Station 560+85 to 562+21
Length: 156 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended due to existence of severely impacted receptors.

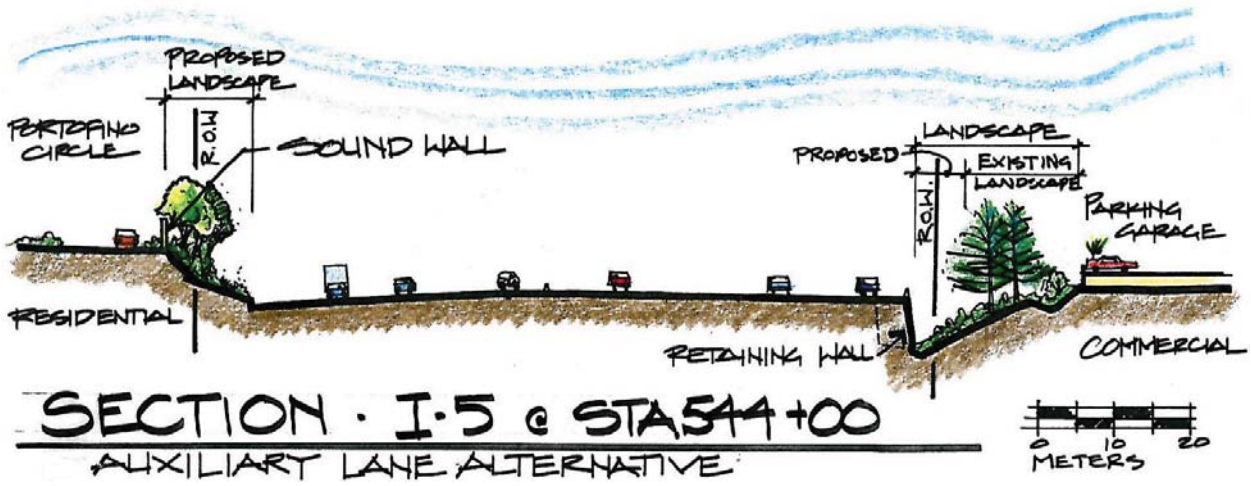
Sound Wall 05.S563: Station 563+28 to 564+36
Length: 130 meters

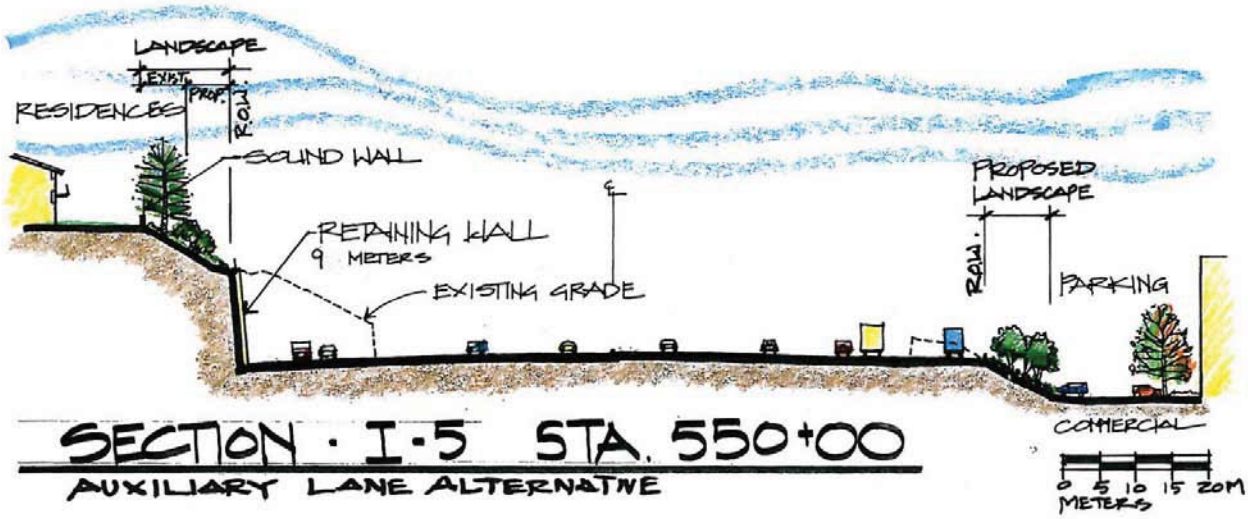
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

Sound Wall 05.S567: Station 564+61 to 567+18
Length: 299 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S568: Station 566+24 to 567+90
Length: 215 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

The Landscape Concept Plan in Appendix B illustrates the improvements and landscaping proposed for the Auxiliary Lane Alternative. The following sections illustrate the proposed condition of the project along I-5.





2. Key View Selection

Key view locations selected to illustrate the above visual impacts for the Auxiliary Lane Alternative are shown in Figure 20 and include the following:

Auxiliary Lane Alternative:

- Key View 201: View from Torrey Pines State Park viewpoint at the viewing area adjacent to the parking area for the Park Information Center looking northeast toward the intersection of I-5 and SR-56.
- Key View 202: View from southbound I-5 north of Carmel Valley Road (station 546+00)
- Key View 203: View from northbound I-5 south of Del Mar Heights Road (station 555+00)
- Key View 204: View from westbound SR-56 west of Carmel Creek Road (station 21+50)
- Key View 205: View from northbound I-5 north of Carmel Valley Road (station 543+60)

The visual simulations in this study were created by applying the conceptual designs of the proposed project to the key views to show the anticipated condition following completion of construction and establishment of plant material. The visual simulations are for conceptual analysis and are not intended to provide a precise, scaled depiction of the proposed project. They illustrate the potential future post-project visual character for the project area approximately 5 years after project completion. The visual simulations represent typical views and the potential changes that can be expected. No changes would occur under the No-Build Alternative, therefore, the existing condition photographs are representative of The No-Build Alternative.

The following section analyzes the Auxiliary Lane Alternative for comparison with the Direct Connector Alternative discussed in the preceding sections D and Hybrid Alternative (Section F). The location and direction of the key views are shown in the Key View Location Map (Figure 20). Each key view is discussed in detail in the sections below, including orientation, existing visual quality, proposed project features, changes to visual character, viewer response and the resulting visual impact. Section E provides a summary of the analysis and conclusions for the Auxiliary Lane Alternative.

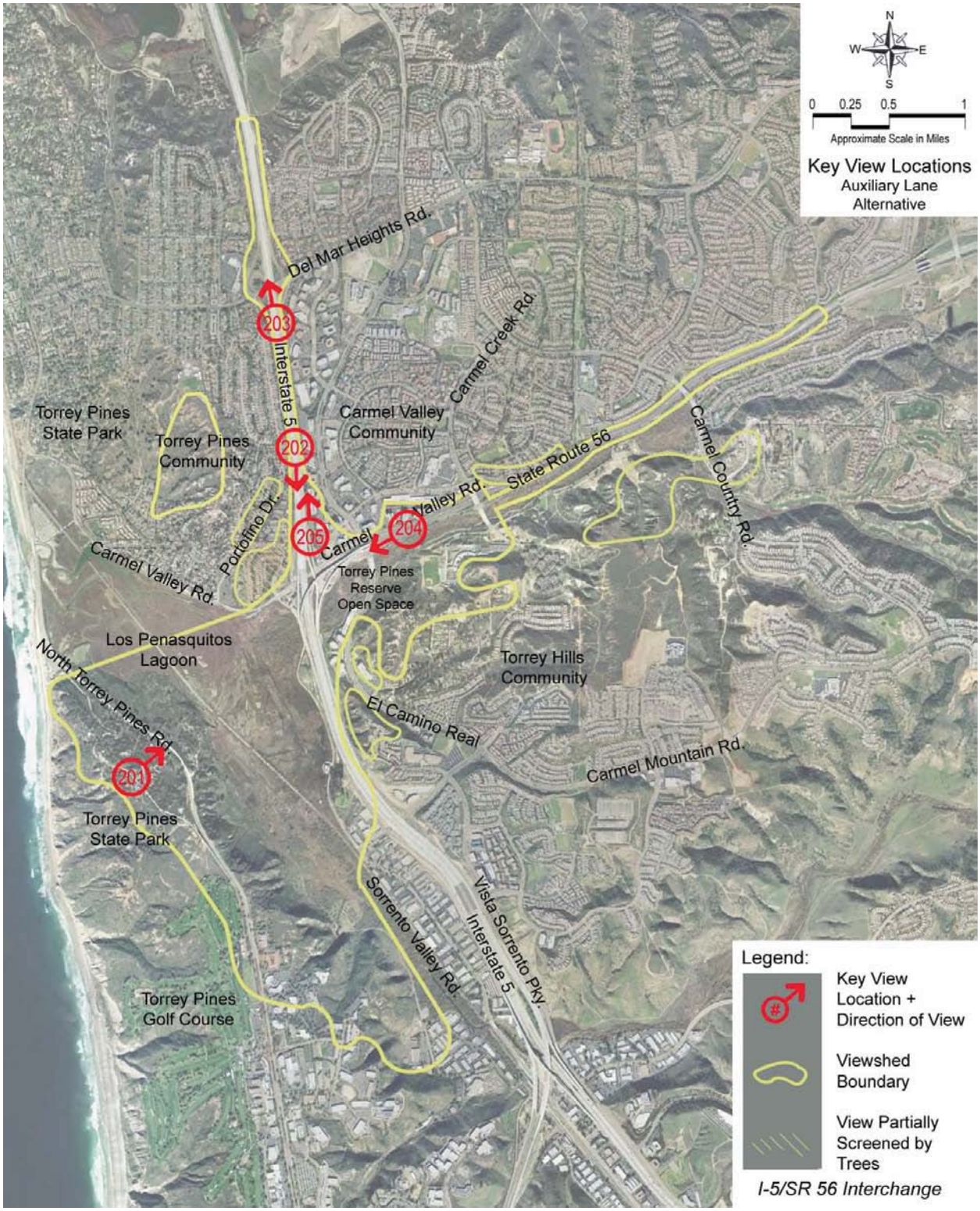


Figure 20: Key View Location Map for Auxiliary Lane Alternative.

3. Visual Analysis of Auxiliary Lane Alternative Key Views

Key View 201 – Auxiliary Lane Alternative

Figure 21 - Key View 201 – Existing View

Figure 22 - Key View 201 – Proposed View

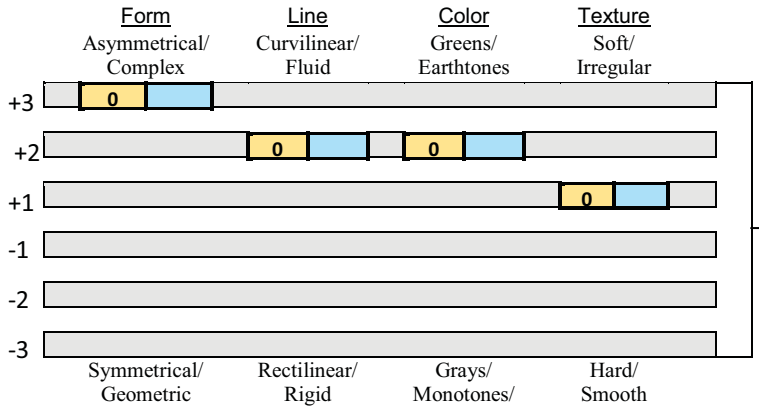
KEY VIEW #201 – Auxiliary Lane Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

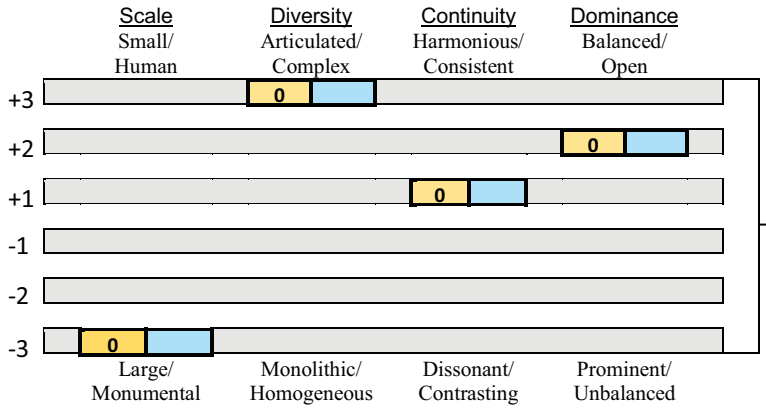
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 0
% Change: 0

Pattern Character
Describes the relationships between visual elements (Project and Setting)

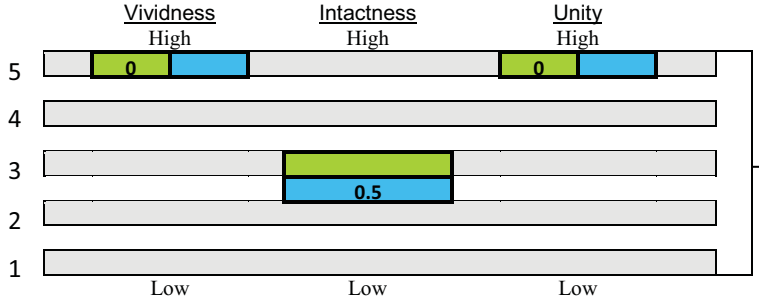


Avg. Change: 0
% Change: 0

Avg. Change: 0
% Change: 0

L
Change to Visual Character

VISUAL QUALITY



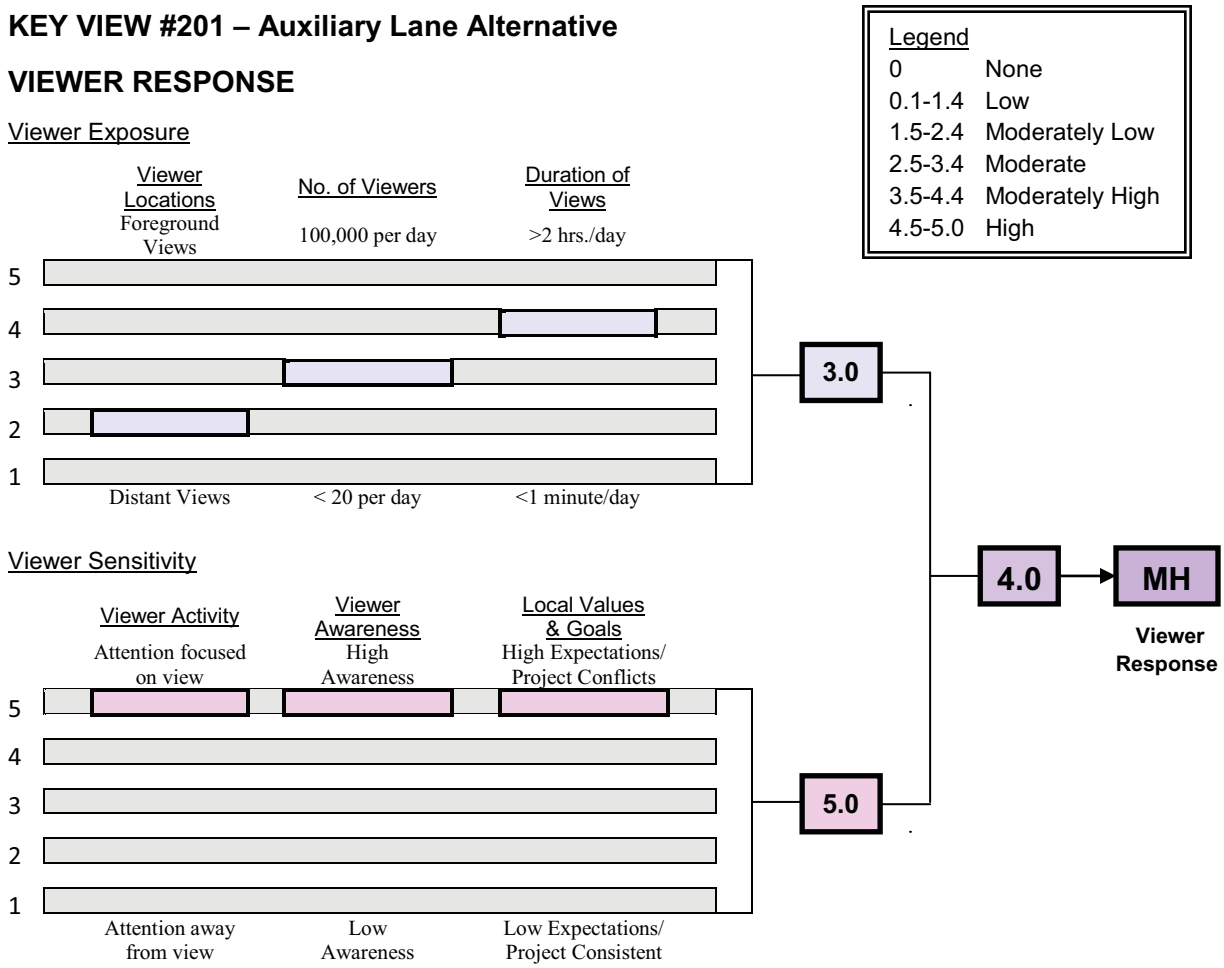
Avg. Change: 0.2
% Change: 5.0

L
Change to Visual Quality

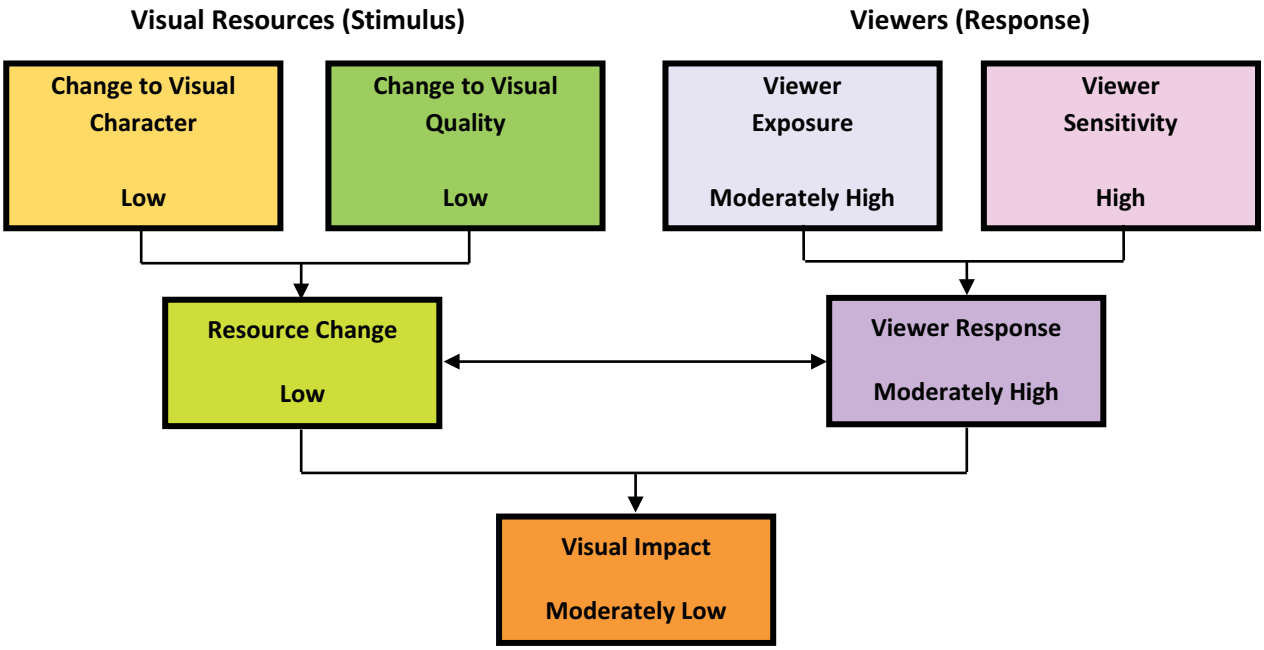
Legend
Existing View
Proposed View

KEY VIEW #201 – Auxiliary Lane Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 201 – Auxiliary Lane Alternative

Orientation

Key View 201 illustrates the view of the project from the upland area of Torrey Pines State Park. The existing condition is shown in Figure 21. The photo is taken from behind the low wall at the edge of the viewing area in the old picnic area east of the visitor center parking. The view is expansive, and includes Palomar Mountain on the left; Black Mountain on the right, Penasquitos lagoon in the middleground, and rare natural grove of Torrey Pine Trees in the foreground. I-5 crosses the view, intersecting with SR-56 at the center of the photo. Carmel Valley runs east from the intersection. This is a distant view of the project, but a critical one, since it captures the visual change from an established State Park viewing area with a sensitive viewer group, and long duration of view.

Existing Visual Quality/Character

This is an expansive panoramic view, providing a full sense of the regional context from the coast to the mountains over 40 miles away. It is a balanced view composed of dramatic natural features and manmade, urban elements. The foreground consists of natural groves of rare Torrey Pines on the bluff slopes dropping toward the flat, wetland areas of Penasquitos Lagoon. The characteristic eroded sandstone bluffs associated with the Torrey Pines area are visible on the left, and also behind the Pine on the right of the photo. The rugged backcountry of San Diego County is visible on the horizon with steep mountains combining dense olive-colored vegetation and granite outcroppings. The suburban commercial and residential areas of Carmel Valley spread across the view, with light colored surfaces of the structures catching the light. Interstate 5 creates a strong line across the view. This line is highly animated by the movement of vehicles, drawing attention to the transportation corridor.

This view is extremely vivid due to the combination of mountains, lagoons, sandstone bluffs, evocative pine trees, and clusters of suburban structures. The contrast of natural elements with the built environment enhances the vividness, providing a combination of features that attract the interest of the viewer. The vividness rating would be considered to be high. While the natural features create a vivid setting, the intactness of the view is affected by the encroachment of existing development, visible grading, and the highly visible I-5 corridor with its moving traffic crossing the view. Although there is a slight reduction in intactness, it can still be rated moderate. The balanced compositional qualities of foreground, middleground and background and sweeping lines of the canyons and valleys provide an attractive composition unity resulting in a high unity rating. Combining vividness, intactness and unity, the existing visual quality is rated at moderately high.

Proposed Project Features

The Auxiliary Lane Alternative proposes ground level construction elements which would be difficult to perceive at this distance, especially since most construction will occur on the side facing away from this viewpoint. It would be expected that some vegetation in close proximity to the I-5/SR-56 intersection may be removed, resulting in a minor increase in visibility of the buildings and roadways. The southbound off-ramp would appear one lane wider at the intersection of Carmel Valley Road. Grading and some minor retaining walls and traffic barriers would be visible along the north and south side of the SR-56 corridor.

Change to Visual Quality/Character

The proposed Auxiliary Lane Alternative would result in minimal visual change to this viewpoint. Some mature landscaping would be removed to allow grading, and replaced with new landscaping. No change is proposed to the Carmel Creek wetland to the south (right side) of

the existing SR-56. It is anticipated that native landscape, bluffs and existing grades would not be affected by the changes visible from this location. Due to the distance to the intersection, the visual changes would be considered to be a very low amount of visual change. The vividness of the view appears to be unaffected by the project, and would remain high. The intactness would decrease slightly but still be moderate. The compositional qualities of the view would remain as existing, resulting in no change to the unity rating, which would remain high. Combining vividness, unity and intactness, the resulting visual quality rating would remain moderately high. The resulting change to visual quality is considered to be low. With the construction proposed for the Auxiliary Lane Alternative, there appears to be very little change to the form, line, color and texture pattern elements, and changes to pattern character will be minimal and should not be perceptible from this viewpoint. Change to visual character is anticipated to be low.

Viewer Response

The viewer response to the visual changes from this viewpoint would be anticipated to be highly sensitive to change due to the location at the State Park visitor center viewing area. This is a view that people choose to observe as a recreational activity and expectations are high. Since Torrey Pines State Park is a natural park located in a region of highly visible natural features, manmade features in the view create a contrast that is highly noticeable. However, the change to this view over the last 50 years has been great. Suburban development has become an increasing percentage of the view, replacing the farm fields and native vegetation of Carmel Valley. Therefore, the addition of transportation facilities would appear to be within the viewer's acceptance, especially since the new features will not eliminate views of natural features. Viewer sensitivity is anticipated to be high. Viewer exposure from this location would be anticipated to be high due to the direct view of the project area, although the long distance diminishes the visual change to a relatively small portion of the view. The resulting viewer exposure would be estimated at moderately high. Combining viewer sensitivity and viewer exposure for this viewpoint, the anticipated viewer response to the changes would be moderately high.

Resulting Visual Impact

The proposed project improvements will have a minimal effect on the visual quality of the view from this recreational viewpoint. The project area is less than 20% of the framed view, and the new elements will not be strongly visible, and will not block natural features. Exposed slopes will be landscaped with native species, and the colors of the construction, and roadway structures will be consistent with the colors in the existing view, resulting in a minimum of overall visual change. The visual changes will tend to be absorbed into the existing visual context of suburban and transportation development. Considering the low amount of visual change together with the moderately high viewer response, the visual impact would be considered to be moderately low.

Comparison with Direct Connector Alternative

This key view is similar to Key View 101 prepared to evaluate the Direct Connector Alternative. Comparing Key View 201 with Key View 101, it appears that the Auxiliary Lane Alternative has less visual impact than the Direct Connector Alternative which features two flyover connectors that will be visible above the existing intersection, and more screen planting removal.

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Key View 202 - Auxiliary Lane Alternative

Figure 23 - Key View 202 – Existing View

Figure 24 - Key View 202 – Proposed View

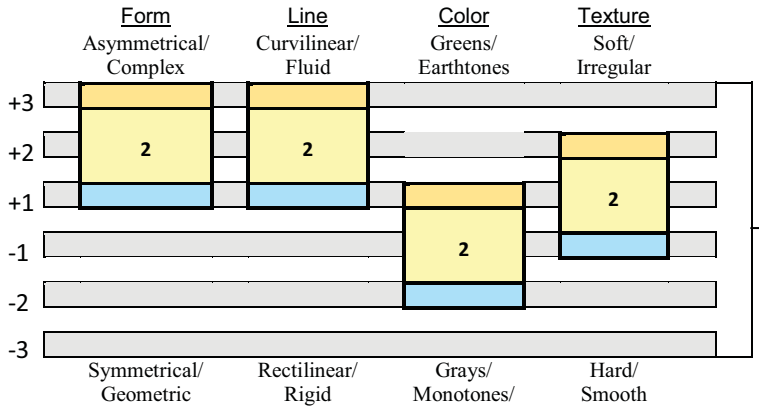
KEY VIEW #202 – Auxiliary Lane Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

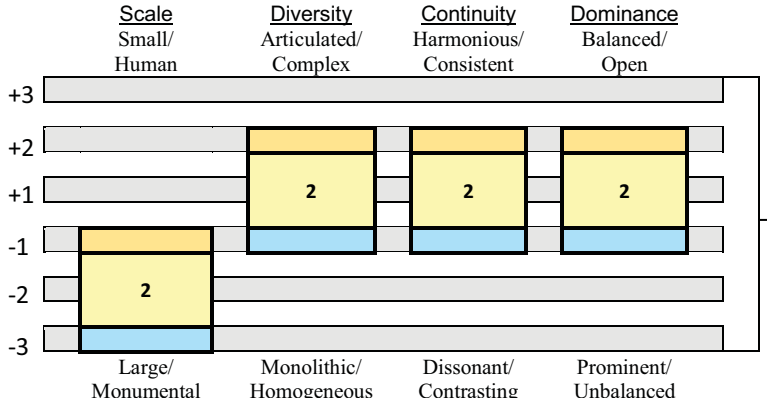
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change 2.0
% Change 40

Pattern Character
Describes the relationships between visual elements (Project and Setting)

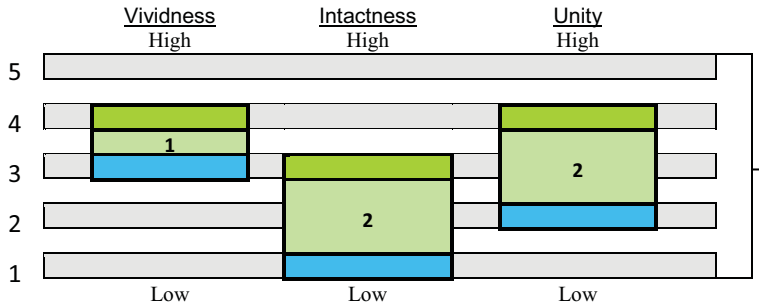


Avg. Change 2.0
% Change 40

Avg. Change 2.0
% Change 40

M
Change to Visual Character

VISUAL QUALITY



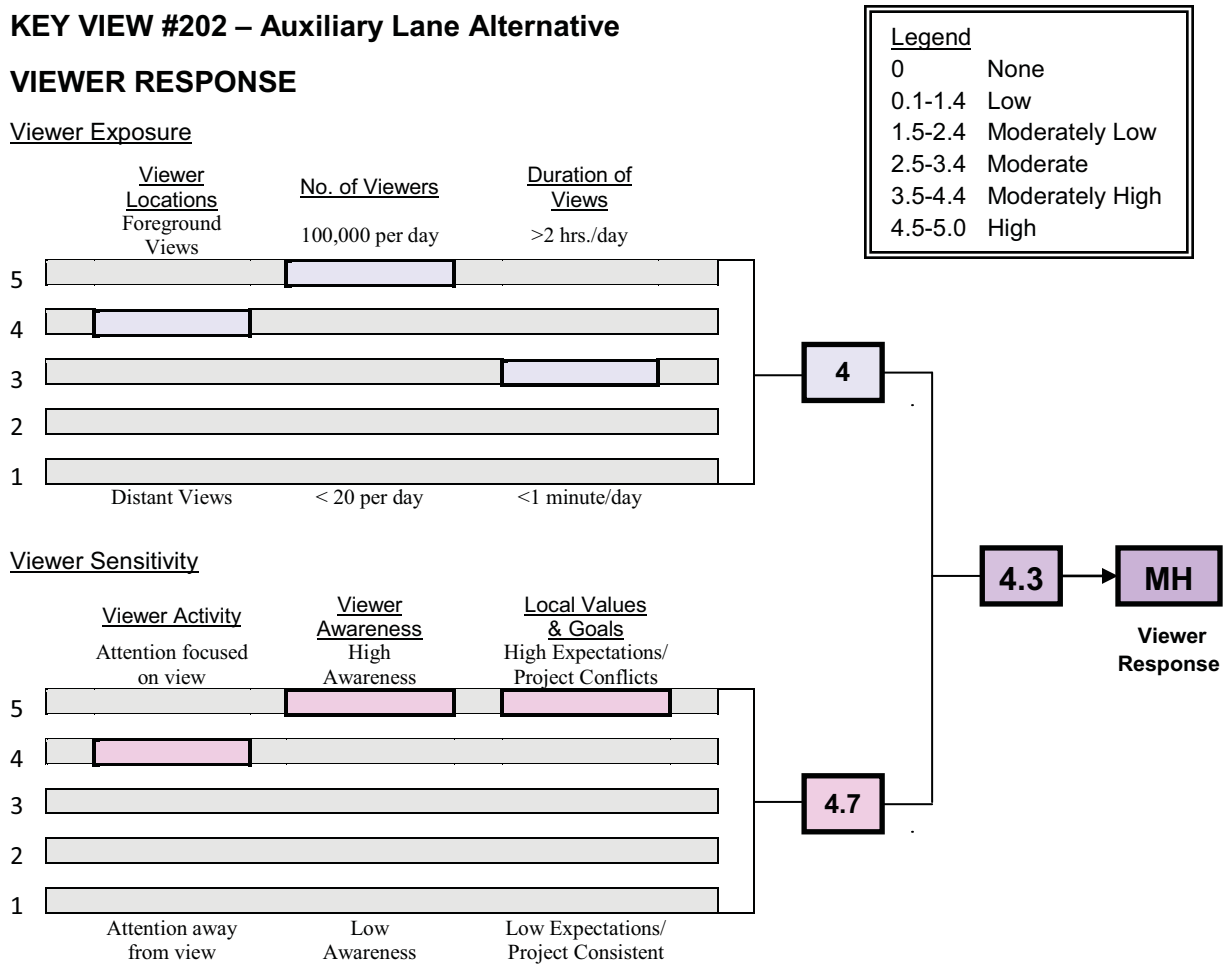
Avg. Change 1.7
% Change 42

MH
Change to Visual Quality

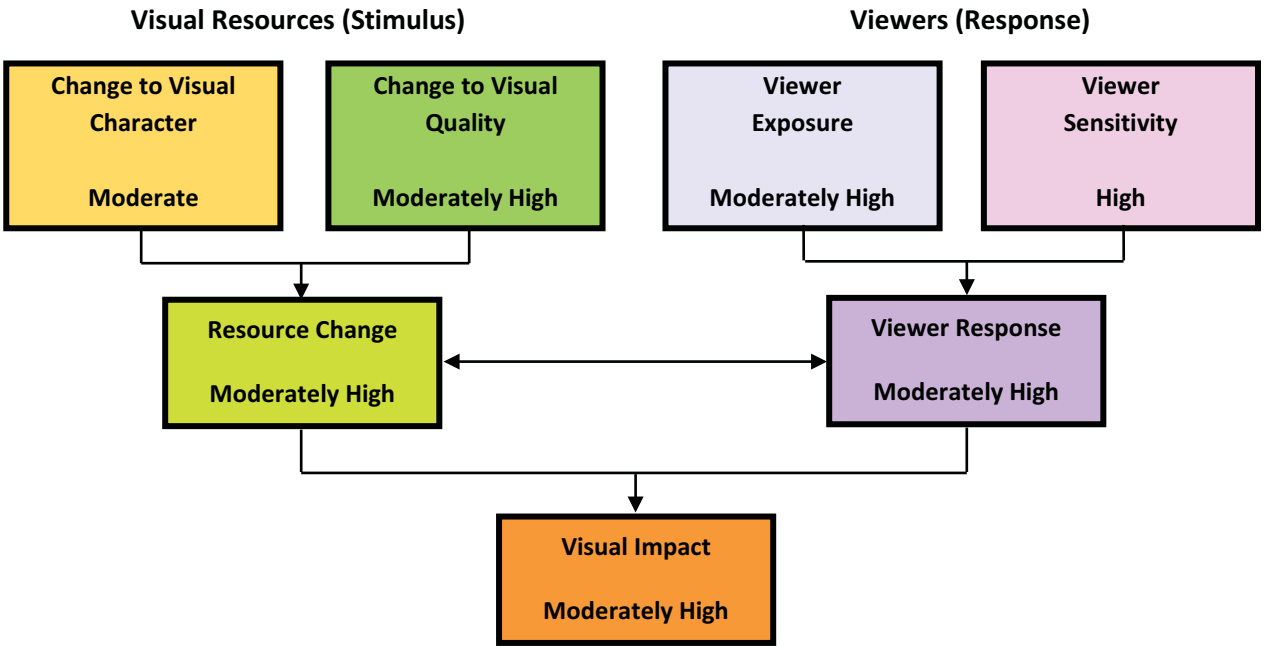
Legend
Existing View
Proposed View

KEY VIEW #202 – Auxiliary Lane Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 202 - Auxiliary Lane Alternative

Orientation

Key View 202 provides the view from a vehicle passing station 544+00 of Interstate 5 southbound approaching the off-ramp to Carmel Valley Road. On the right, the 2:1 slope rises through heavily vegetated slope to the sound wall along the top edge of the slope. Directly ahead are the hills beyond Carmel Creek and the Penasquitos Lagoon. To the left is the commercial and office area along El Camino Real. The existing condition photograph for this view is illustrated in Figure 23.

Existing Visual Quality/Character

The existing visual character is strongly influenced by the uniformity of the 10 lane wide freeway which runs on the edge of the Del Mar Hills on the right. At this point, the character is largely defined by the large Eucalyptus clad slopes to the right, which conceal the sound wall and homes. The center of the view offers a good prospect of the distant wooded ridge across Penasquitos Lagoon. The topography is undulating, and the freeway curves to the left and out of site around the Torrey Hills community. Although there is no primary focus, the vividness is moderately high due to the evocative topography of ridges and canyons, set off by the trees in the foreground. The view is relatively free of intrusive visual elements outside of the road itself, and the vehicles. The freeway signs and light standards are consistent in design, and the green color blends with the surrounding landscape. Consequently, the view would be described as moderately intact. The view has a pleasing composition combining hills, valleys and the wide but gracefully curved roadway curving into the distance, resulting in a moderately high unity rating. Combining vividness, unity and intactness, the overall visual quality of this view is considered to be moderately high.

Proposed Project Features

The proposed design of the Auxiliary Lane Alternative features a 6 to 9 meter high retaining wall constructed at the bottom of the vegetated slope resulting in the removal of some trees and screen planting. The planting buffer between the freeway and adjacent residences will be partially replaced by additional lanes of traffic, resulting in increased exposure of the existing sound walls and residences. The retaining walls will be colored to match the natural Torrey Sandstone, and will be abstractly designed to evoke a sense of the natural eroded slopes unique to the Torrey Pines/Del Mar/Solana Beach area. To the left and just outside of this key view, removal of the planting buffers adjacent to the roadway will expose more of the large commercial buildings.

Change to Visual Quality/Character

The visual environment for motorists travelling south on Interstate 5 would be altered as a result of the roadway widening, and retaining wall construction. The tall retaining wall on the right is highly visible and in close proximity to the motorist, replacing the lower portion of the landscape buffer with an expanse of hard surfaces. The elimination of a portion of the landscape screen material at the far left of the view further diminishes the vegetated feeling that this area of the freeway provides in the existing view. Additional lanes and guardrails emphasize and constrict the defined transportation corridor reducing the sense of openness previously experienced from this viewpoint. The vividness of the view is diminished to moderate due to the reduction of many of the evocative vegetative features, and the exposure of expanses of hard surfaces. The intactness of the view is reduced to low due to the imposition of retaining walls at the sides of the roadway and additional travel lanes. The unity of the view is reduced to moderately low due to the compositional complication from the addition of unscreened retaining walls. Combining the ratings for vividness, intactness and unity, the net visual change is moderately high.

Changes in form, line, color texture, the pattern elements indicate a moderate degree of change. Scale is larger, more monolithic and less harmonious and balanced, resulting in moderate degree of change in visual character.

Viewer Response

It is anticipated that the viewer sensitivity would be high due to the community's interest in preserving views, open space and natural features as expressed in the Community Plans. Viewer sensitivity for most motorists may be diminished slightly due to the speed of travel, and the traffic congestion, which often dominates the viewer's attention. The net viewer sensitivity would be anticipated to be high.

The viewer exposure would be considered to be moderately high due to the number of viewers travelling the road and the duration of the view while travelling downhill between Del Mar Heights Road and Carmel Valley Road. Similarly, the viewing aspect, looking out and down while descending the hill focuses the viewer's attention on the scene. Combining viewer sensitivity with viewer exposure, the net viewer response would be estimated as moderately high.

Resulting Visual Impact

The negative change in visual character and quality in this key view will be observable, and will be further exacerbated by the high viewer exposure and sensitivity. Due to the reduced space to re-introduce landscape buffers and screening, the lack of planting space for median planting, and the impracticality of maintaining vine planting on the walls, the proposed visual improvements will offer less visual relief than the existing condition. Combining the rating for visual change with the viewer response, it is anticipated that the resulting visual impact would be considered to be moderately high.

Comparison with Hybrid and Direct Connector Alternatives

This key view is identical to Key View 302 for the Hybrid Alternative, similar to Key View 102 prepared to evaluate the Direct Connector Alternative. Comparing Key View 202 with Key View 102, it appears that the Auxiliary Lane Alternative has less visual impact than the Direct Connector Alternative which features two flyovers that will be visible above the existing intersection, higher retaining walls, and more screen planting removal.

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Key View 203 - Auxiliary Lane Alternative

Figure 25 - Key View 203 – Existing View

Figure 26 - Key View 203 – Proposed View

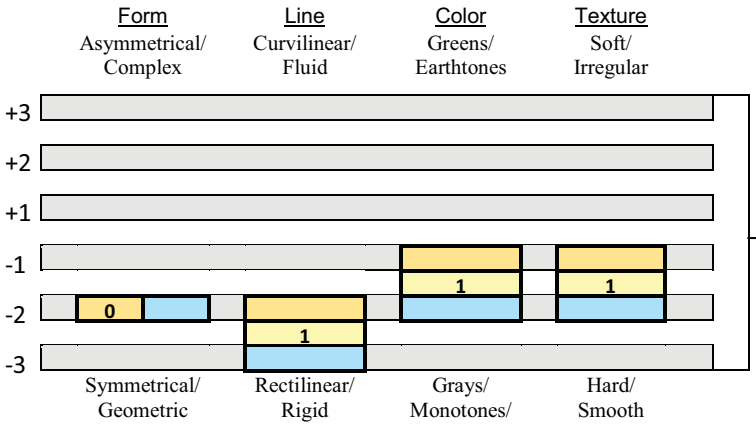
KEY VIEW #203 – Auxiliary Lane Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

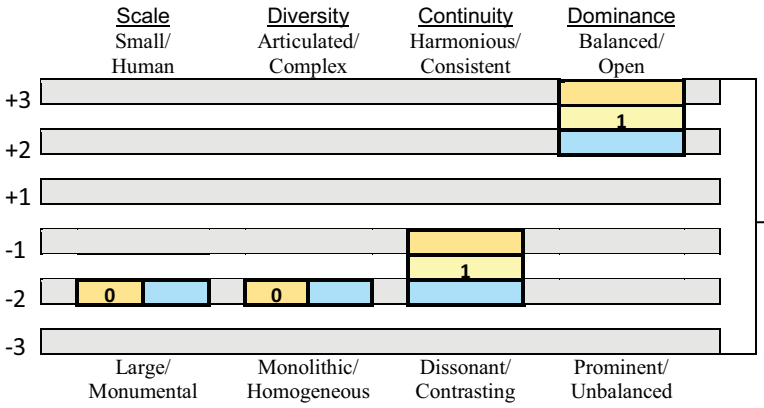
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change
0.75
15
% Change

Pattern Character
Describes the relationships between visual elements (Project and Setting)

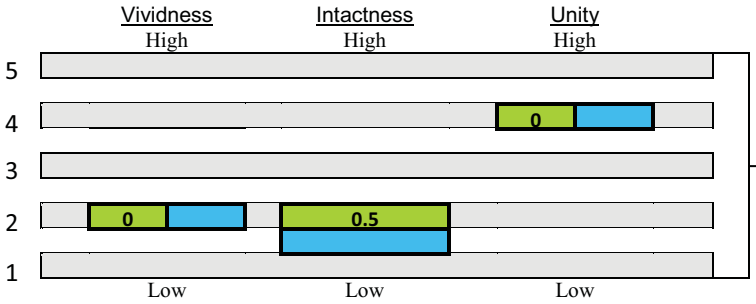


Avg. Change
0.5
10
% Change

Avg. Change
0.63
13
% Change

L
Change to Visual Character

VISUAL QUALITY



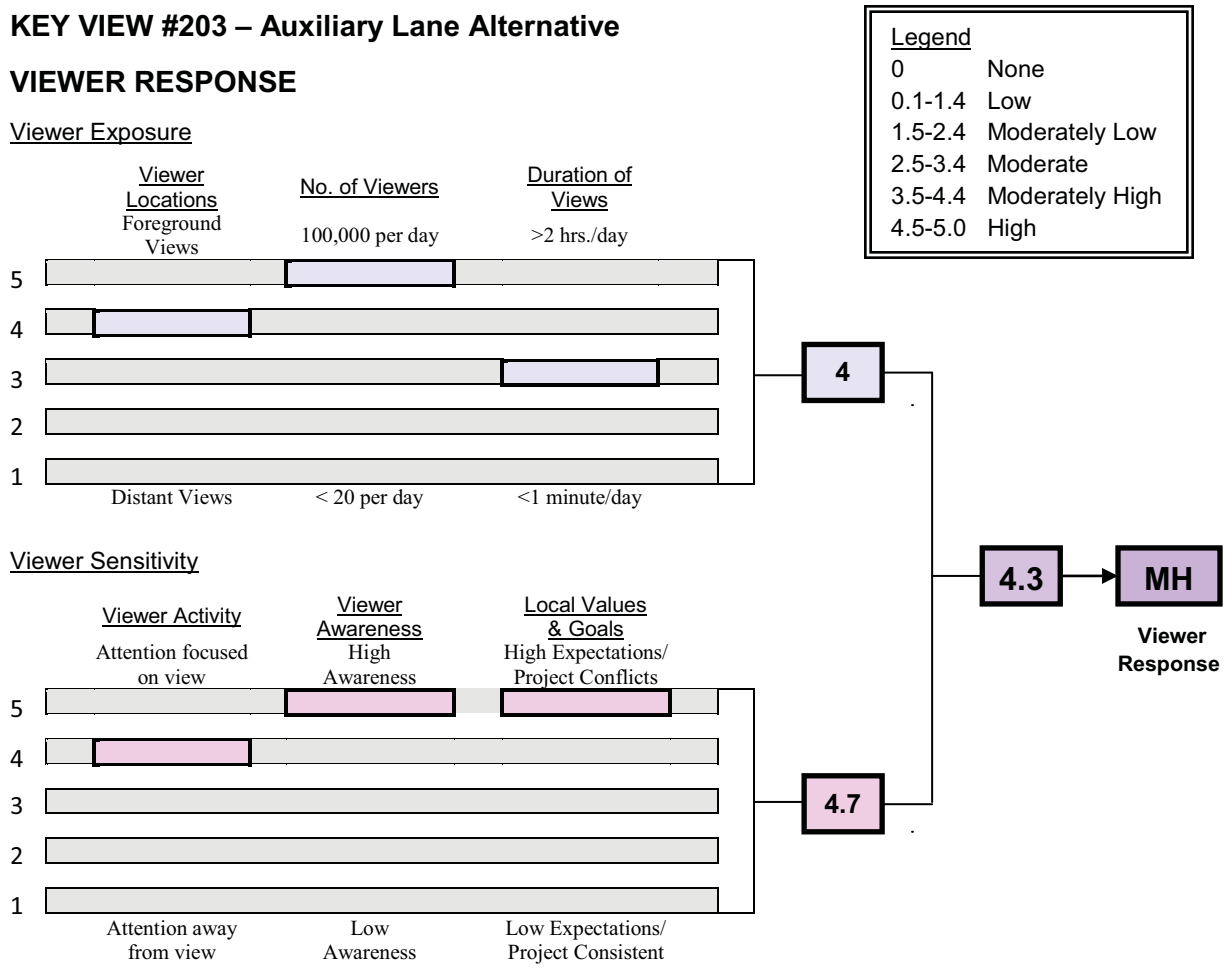
Avg. Change
0.2
5
% Change

L
Change to Visual Quality

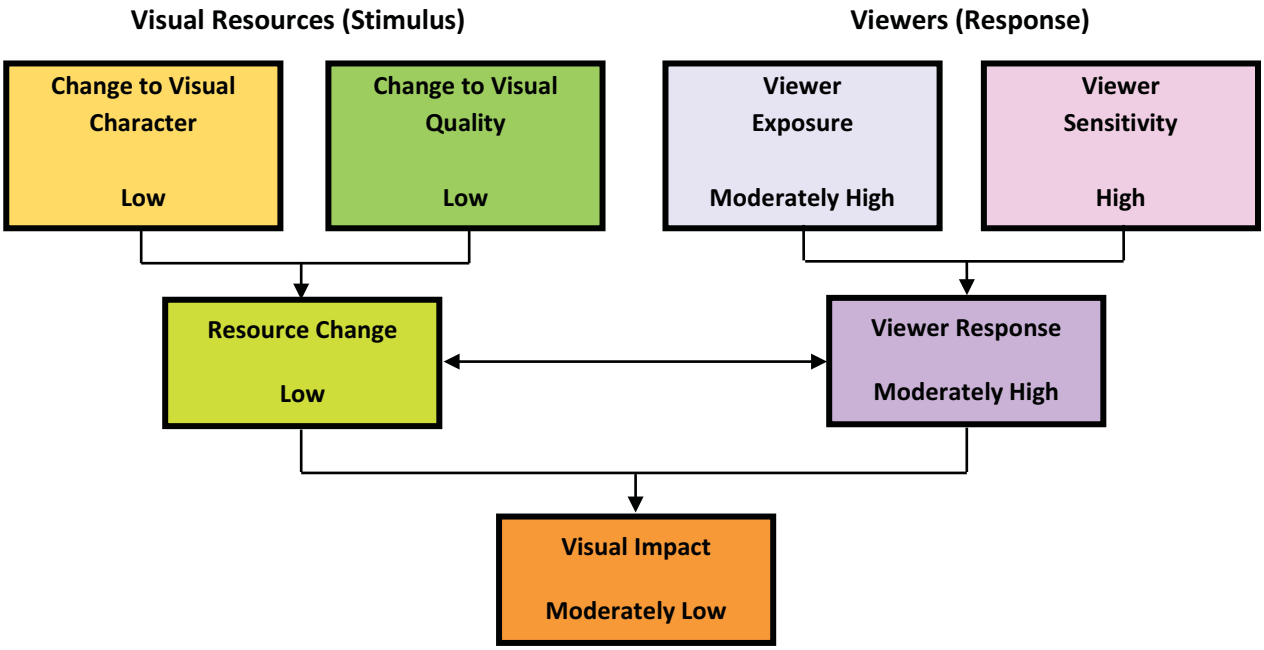
Legend
Existing View
Proposed View

KEY VIEW #203 – Auxiliary Lane Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 203 - Auxiliary Lane Alternative

Orientation

Key View 203 is the view approaching Del Mar Heights Road on northbound I-5 400 meters south of the bridge. The existing four-lane bridge is the focal element in this view. Torrey Pine trees and Eucalyptus grow as part of the highway landscape and buffer the surrounding development from view. This view was selected due to the potential prominence of the new bridge silhouetted against the skyline, directly ahead at the top of a long and uniform incline.

Existing Visual Quality/Character

The bridge is the dominant feature and focal element of the view. The landscape buffer separates the highway from the adjacent large commercial buildings on the east (right), and the residential neighborhood to the west (left). The median is a simple traffic barrier without planting. This view is a one point perspective with the highway vanishing under the bridge at the center of the frame. This perspective focuses the viewer's attention on the bridge and its form against the sky. Although the view is forceful and focused, it is not particularly memorable due to the ordinariness of the bridge, traffic lanes and the buffer planting. Due to the lack of eye-catching features, the vividness would be considered to be moderately low. The view is relatively free of conflicting clutter. However, the traffic sign and the bridge itself would be considered an obstruction to the view. Consequently the intactness would be defined as moderately low. The unity of the view is moderately high since all features are harmonious with the visual character of a relatively standard landscaped transportation corridor, and the composition is balanced. Combining vividness, unity and intactness, the resulting visual quality would be defined as moderate.

Proposed Project Features

A new 8-lane wide bridge will replace the existing 7-lane bridge. The highway will be widened from the existing 14 lanes, to 18 lanes under the bridge. The space under the bridge will appear wider with 2:1 slope paving under the bridge. Additional lights, signs and fences will be visible against the skyline at the top of the bridge. Many of the Pines and Eucalyptus on both sides of the roadway will be removed to accommodate grading, and the adjusted ramps exposing buildings and homes along the freeway. In addition to the trees removed due to conflict with the proposed built elements, additional trees will likely be removed due to Caltrans standard safety setback requirements for trees and vegetation.

Change to Visual Quality/Character

The visual character will not change substantially due to construction. The view will continue to be dominated by traffic, asphalt and striping directing the viewer's attention to the freeway crossing bridge outlined against the sky. The highway will be wider, the bridge broader, allowing more viewing width under the bridge, and less vegetation. Proposed retaining walls appear not to be visible from this viewpoint. The removal of trees will open the width of the view, and allow an increased view of the office buildings, and homes on both sides of the highway. While screen planting will be reduced, new planting between the ramps and the freeway will help to increase the vegetated appearance and help compensate for the loss of screening. The vividness of the view will remain moderately low but would be increased if the bridge is architecturally enhanced to provide an attractive focus, and dense tree groves and accent planting is incorporated in the construction. The view will have some additional minor clutter of directional signs, lights and bridge columns, but will not result in a substantial change to the intactness rating, which will remain moderately low. The scale of the composition of the view will increase, but the composition will remain a balanced one point perspective focused on the bridge with a resulting moderately high unity rating. Combining vividness, intactness, and

unity, the change to visual quality of the proposed view will be low, a slight decrease from the existing condition.

Viewer Response

Viewer sensitivity is anticipated to be high due to the high visibility of changes, and the high aesthetic expectations of North County coastal residents, and visitors to the San Diego region. This sensitivity is underscored by the importance of aesthetics referenced in the local area Community Plans. Exposure to the view will be moderately high due to the focused one point perspective view of the bridge set against the skyline at the top of the hill directly ahead. The view will be seen by motorists on 8 lanes of very busy traffic on California's primary transportation corridor. Duration of the view is long, due to the straight, inclined 1-mile approach. The observation of many viewers may be blocked by large vehicles ahead, but may have a clearer view on the next repeat trip.

Resulting Visual Impact

Construction of the new bridge, removal of screening material, and the widening of the overall paved freeway width will result in a moderately low amount of visual change. With aesthetic improvements in place, it is anticipated that the view would be more vivid and have a similar sense of unity despite the wider transportation corridor. Visual mitigation elements are discussed in section VII of this report. With enhancement measures fully implemented and the bridge architectural treatments in place, the resulting visual impact could be considered to be almost neutral. Combining the change to visual character with the viewer response, the amount of visual impact could be considered to be moderately low.

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Key View 204 - Auxiliary Lane Alternative

Figure 27 - Key View 204 – Existing View

Figure 28 - Key View 204 – Proposed View

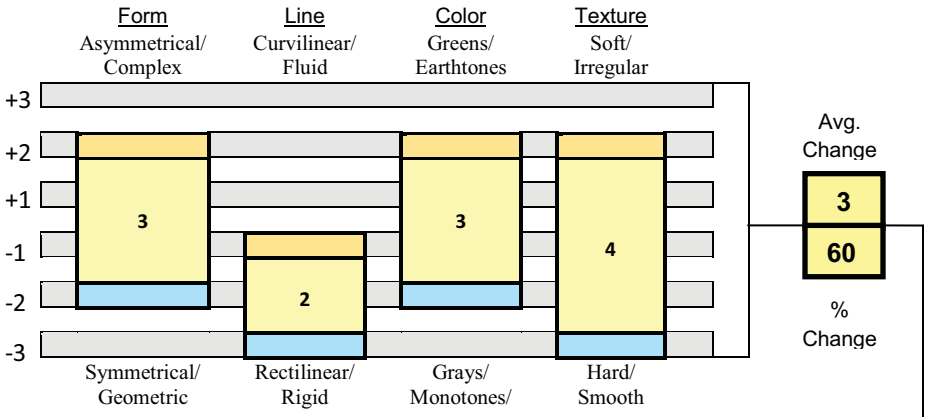
KEY VIEW #204 – Auxiliary Lane Alternative

VISUAL CHARACTER

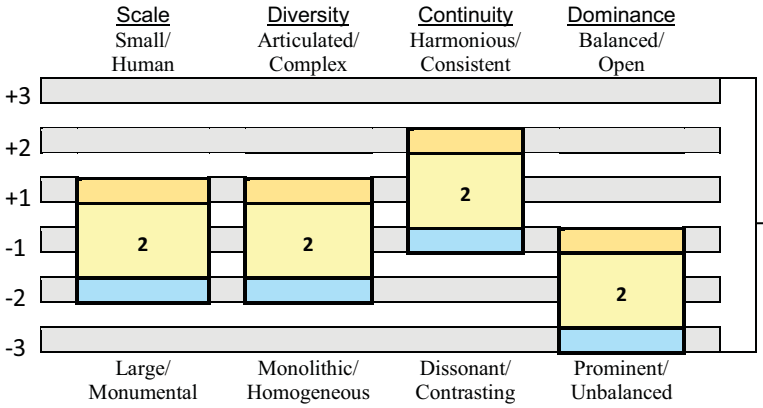
Legend
Existing Conditions
Proposed Conditions

Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



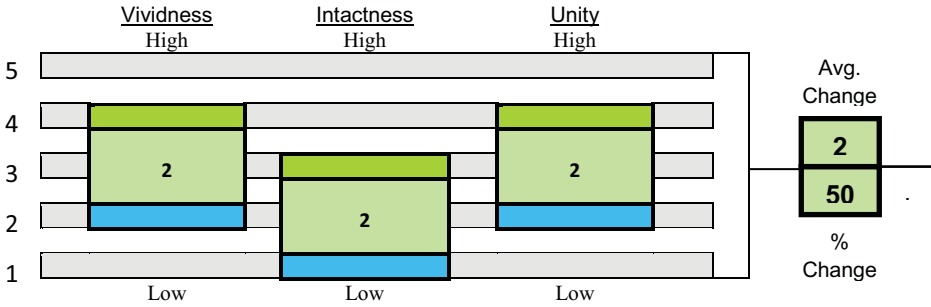
Pattern Character
Describes the relationships between visual elements (Project and Setting)



Avg. Change
2.5
50
% Change

MH
Change to Visual Character

VISUAL QUALITY

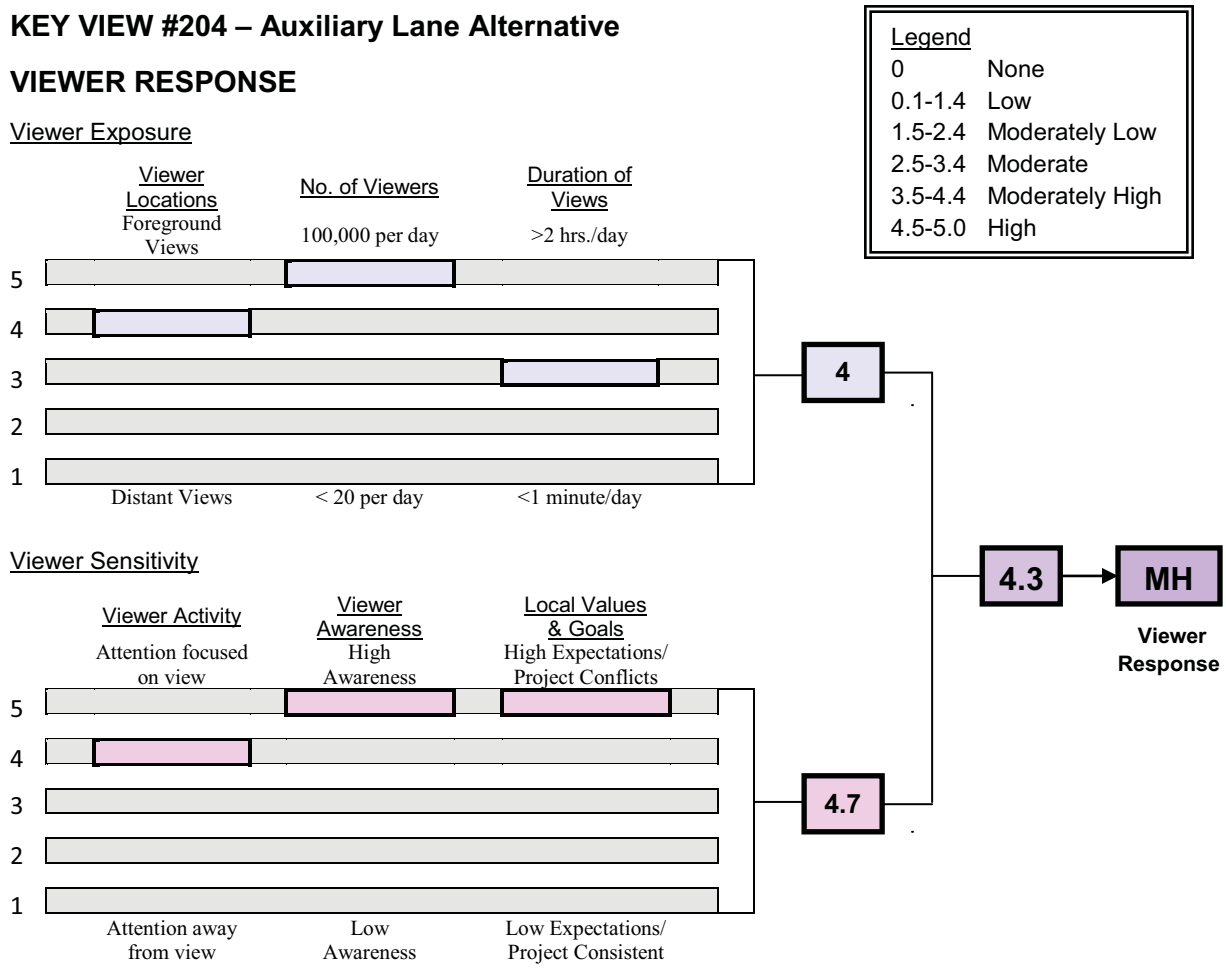


MH
Change to Visual Quality

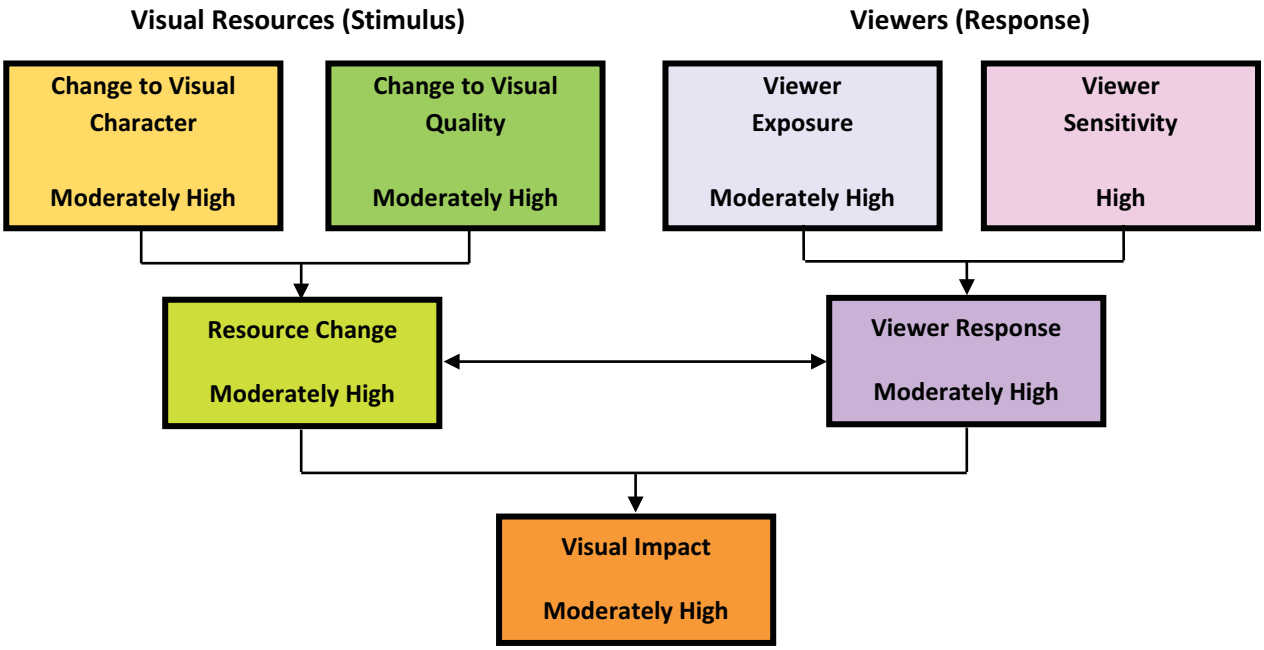
Legend
Existing View
Proposed View

KEY VIEW #204 – Auxiliary Lane Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 204 - Auxiliary Lane Alternative

Orientation

Key View 204 provides the view from SR-56 westbound, east of the exit to North I-5, Carmel Valley Road and El Camino Real. The coastal bluff of Torrey Pines State Park is visible at the left of the view. On the right, the glass buildings of a five structure office complex would be seen behind the freeway screen trees, with a green vegetated slope leading up to the base of the buildings.

Existing Visual Quality/Character

Dominant elements contributing to the visual character of the view are the large Eucalyptus trees in the foreground and middleground which provide a graceful screen in front of the reflective building. Low foliage also blocks the chain link freeway fence and the parking and ground floor of the offices. The architecture visible from this view is of a single style and relatively high quality, contributing a business-like and technical character to the view. The freeway median is a simple barrier with Oleander planting. To the far left, the Carmel Valley riparian corridor would be seen at the left periphery of the view, extending the natural appearance in connection with the Penasquitos Lagoon and Torrey Pines bluffs in the distance.

The view exhibits a moderately high amount of vividness due to the combination of the open screen trees with the architectural character of the buildings, and the natural ridge lined with Torrey Pines, an unusual natural feature unique to this part of San Diego. The view is moderately intact due to the lack of conflicting visual elements other than cars and signs. The freeway signs are distant and their colors blend well with the colors of the view. Consequently, the intactness rating of this view would be considered to be moderate. The composition of the view focuses on the trees leading away to the left, and although not balanced, the viewer's attention is directed to the distant coastal ridge. The unity rating for this view would be considered to be moderately high. Combining vividness, intactness and unity, the overall rating for the visual quality of the view would be considered to be moderately high.

Proposed Project Features

The Auxiliary Lane Alternative proposes to widen the highway with one lane on the left and one lane on the right of the westbound SR-56 visible in this view. A retaining wall would be constructed on the right. Less green space, and more asphalt and concrete will be visible. The Eucalyptus and Pine trees on the right would be expected to be removed due to construction, Caltrans' required vegetation setbacks, and the proximity of the roots of the large trees to the proposed retaining wall. As a result, the glass buildings will be fully exposed until the proposed screen planting would reach a moderate size. In the right foreground of the view, the 7 meter wide planting area is of insufficient width for tree planting to be allowed per the Caltrans planting setbacks. Oleanders in the median will be eliminated and replaced by paving and concrete barriers.

Change to Visual Quality/Character

The construction of the Auxiliary Lane Alternative will result in the removal of the large screen trees in this view. Even though screen planting will be installed to replace the existing, it will be several decades before the new planting allowed by Caltrans standards provides minor screening. The screening provided by the existing 15 to 25 meter high trees cannot be replicated in the narrow remaining planting area. As a result, the character of the existing view would be considered to be altered with a harder, smoother surfaces, less green and more gray colors, and a more geometric forms and rigid linearity. The pattern character also shows an

increase toward a more monumental, monolithic and contrasting elements resulting in a moderately high degree of visual change.

Vividness will decrease to moderately low due to the full exposure of the flat building sides and the loss of complexity and interest provided by the trees. The intactness of the view is diminished to low due to the new concrete wall, removal of landscape, and exposure of the freeway fence and items around the first floor of the building. The unity of the view will be diminished to moderately low due to the loss of the large trees creating a focal element in front of the buildings, and balancing the natural trees on the left.

Combining the ratings for vividness, unity, and intactness, the proposed condition is anticipated to have a visual quality rating of moderately low. The change to visual quality would be determined to be moderately high.

Viewer Response

The viewer response to the visual changes would be anticipated to be relatively high due to the orientation of the viewer toward Torrey Pines State Park tree lined-ridge, and the anticipation of views of the Pacific Ocean directly ahead. This would be a highly anticipated view for some observers. According to the Community Plans, the communities in the area have a high amount of concern for aesthetics, screening and views. As a result, the viewer sensitivity to the removal of screen trees and the greater exposure of five 5-story glass buildings is likely to be high. Viewer exposure at this location is moderately high due to the direct view up the road, the large number of viewers traveling westbound on SR-56, and the ease of observing the scene from the viewer's position. Combining viewer sensitivity with viewer exposure, the viewer response rating would be considered to be moderately high.

Resulting Visual Impact

The removal of the large screen trees, addition of the retaining wall, and widening of the paved surfaces results in a substantial visual change. Combining the moderate changes to the visual quality with the moderately high viewer sensitivity, the resulting visual impact would be considered moderately high. Measures to reduce the visual impact of the changes would include screen trees where allowable, and shrub planting, which will reduce the visual impacts over time.

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Key View 205 - Auxiliary Lane Alternative

Figure 29 - Key View 205 – Proposed View

Figure 30 - Key View 205 – Proposed View

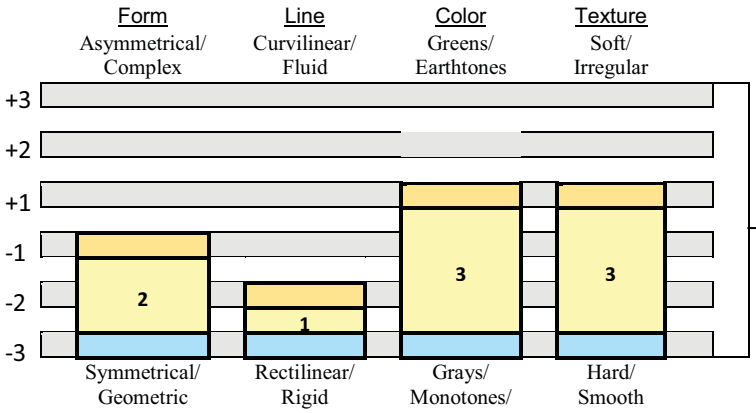
KEY VIEW #205 – Auxiliary Lane Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

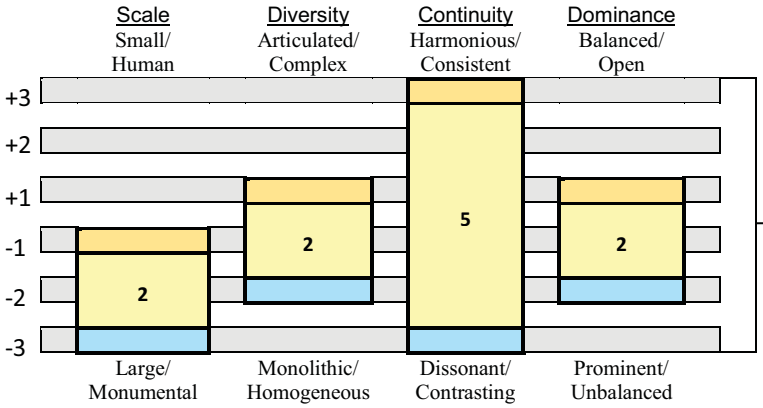
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

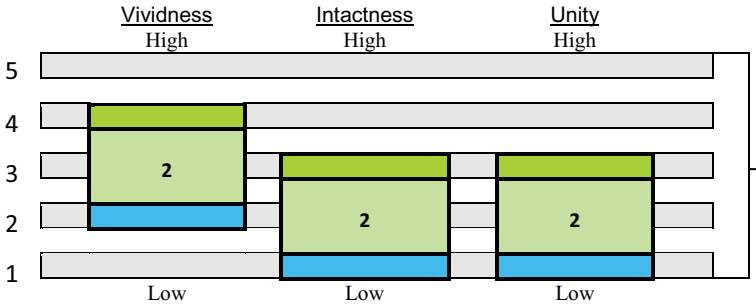


Avg. Change: 2.75
% Change: 55

Avg. Change: 2.5
% Change: 50

MH
Change to Visual Character

VISUAL QUALITY



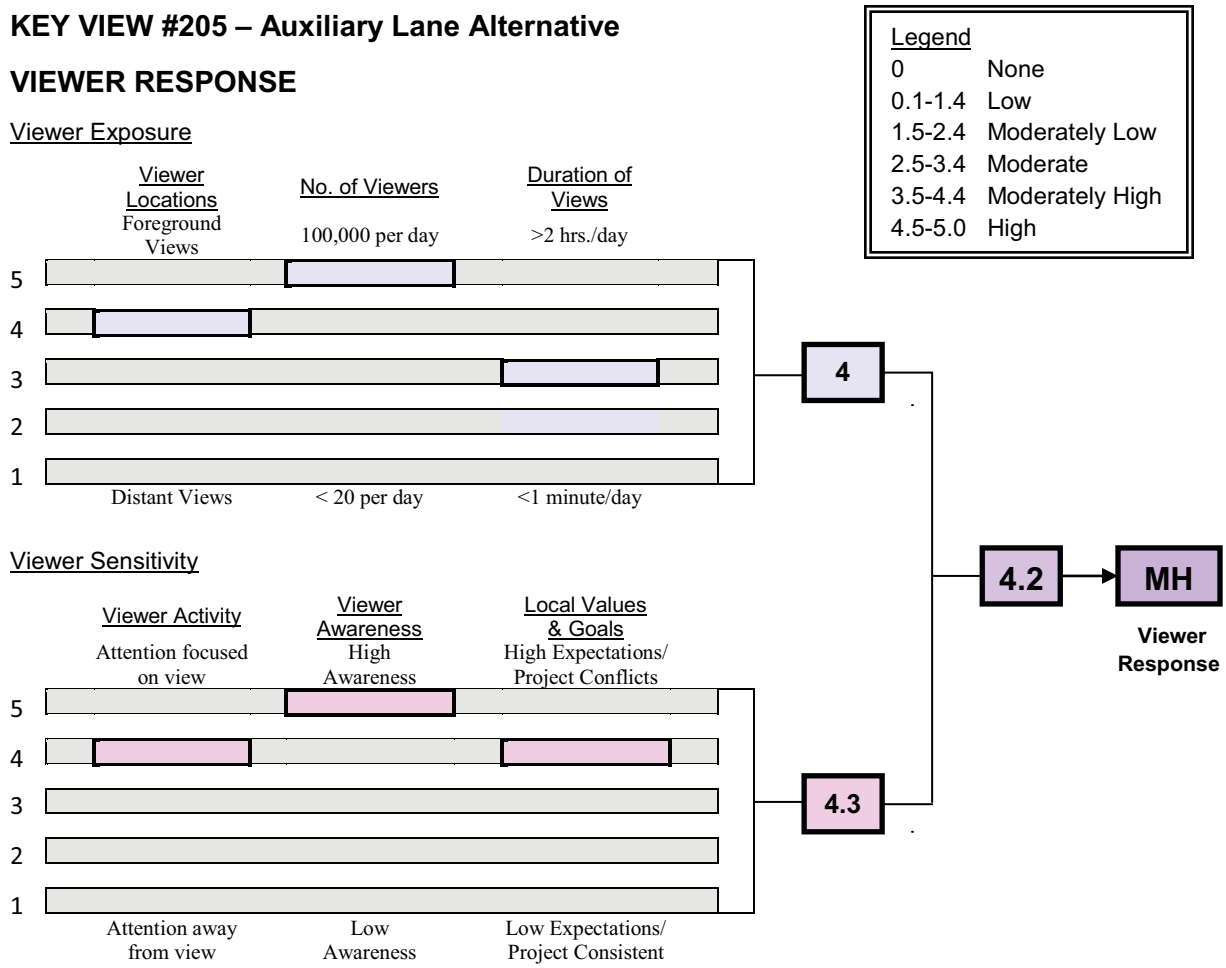
Avg. Change: 2
% Change: 50

MH
Change to Visual Quality

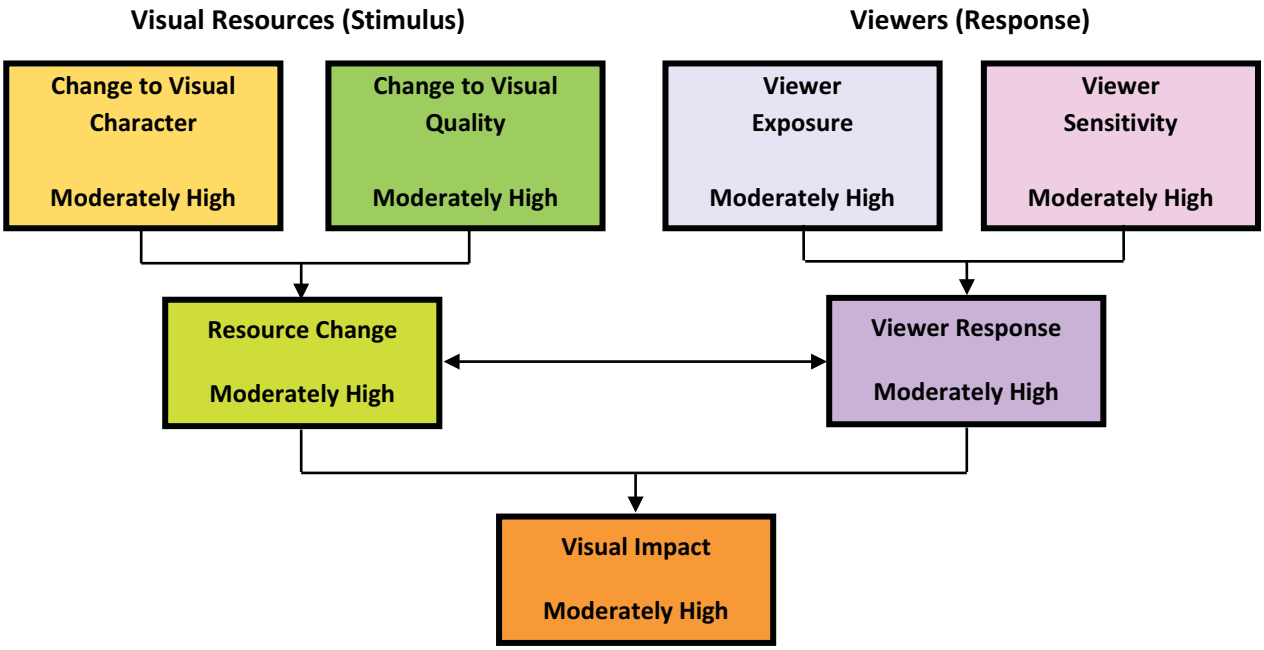
Legend
Existing View
Proposed View

KEY VIEW #205 – Auxiliary Lane Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 205 - Auxiliary Lane Alternative

Orientation

Key View 205 provides the view looking north from I-5 just beyond Carmel Valley Road with the bridge at Del Mar Heights Road in the distance. The view shows the concrete roadway, signs, barriers and lights of the freeway adjacent to landscaped commercial buildings on the right. The landscape between the freeway and the buildings was planted in the 1970's and 1980's and has achieved good size and screening capacity with a mix of Eucalyptus, Torrey Pines and other trees and shrubs. The majority of this landscape is currently privately maintained. The coastal hills of Del Mar are visible across the freeway on the left (west side) of the view.

Existing Visual Quality/Character

The visual character of this view is dominated by the broad expanse of transportation facilities and the perimeter screen landscaping with periodic views of attractive commercial buildings on the right. The view has a relatively enclosed character resulting from the slopes and vegetation confining the view and directing the viewer's attention directly ahead. There is no evidence of the natural visual character of the area in this view.

The vividness of the foreground of the view has a lack of memorable qualities, and an expanse of gray concrete surfaces. However, the elevated terrain, the high quality and variety of the buildings on the right, and the attractive mature landscapes provide a sense of heightened visual quality. The vividness rating would be considered to be moderately high. The intactness of the view is interrupted by the encroaching roadway elements and signs, but due to the relative dominance of the maturing landscape, the view would be considered to be moderately visually intact. The compositional character of the view is a simple and balanced one-point perspective. The simplicity of the view, and lack of complex compositional interest results in a moderate rating of visual unity. Combining vividness, unity and intactness, the resulting combined existing visual quality would be defined as moderate.

Proposed Project Features

The Auxiliary Lane alternative proposes to construct an additional traffic lane at the right side of the view. The right lanes will be comprised of the auxiliary lanes and the northbound bypass which merge onto I-5 at this location. Retaining walls will be constructed to support the grade changes. A portion of the landscape at the right will be removed to accommodate the additional road width, and the right-of-way will be moved to just beyond the freeway edge, resulting in the elimination of some of the buffer planting area between the freeway and the parking areas for the commercial buildings. Parking garages and parking areas will be closer to the freeway edge. Limited mitigation planting will be possible in this area considering the Caltrans required setbacks for vegetation from the travelled way. Across I-5 on the west, the widened roadway will be visible, as well as the proposed 4.4 meter to 9 meter retaining wall. The existing sound walls located on private property at the top of the slope planting area will remain in place. New sound walls proposed by the NADR document will not be visible from this viewpoint.

Change to Visual Quality/Character

The addition of retaining walls, intersecting ramps, roadway widening and the reduction of screen planting on the east (right) will result in a great amount of visual change in this view. The buildings on the right will be more exposed to view with less space for screening landscape. Parking areas will become more visible. The vividness of the view will decrease due to the reduction of planting, removal of roadside trees and the addition of retaining structures on the west. An increase in the roadway width will contribute to visual monotony. The resulting vividness is anticipated to be moderately low. The unity of this view will be decreased to low

due to the elimination of the planting and trees both on the left and right of the view reducing the balanced composition. The intactness will also decrease to low due to the elimination of the existing planting, and the addition of retaining walls, and other visual clutter. Combining vividness, unity and intactness results in a low visual quality rating.

The visual character will change to a more symmetrical, geometrical, hard surfaced condition, with a more monochromatic color scheme. A great degree of change in continuity, and an increase in scale makes this more dissonant and unbalanced pattern character. The result is a moderately high degree of change in visual character.

Viewer Response

Viewers are likely to have a strong response to the changes in this view as a result of the removal of landscape, and replacement with concrete freeway elements and the expanded traffic area. Viewer sensitivity would be anticipated to be moderately high due to the speed and complexity of the traffic, combined with the expectation that the views available from freeways are typically highly influenced by the developed nature of the freeway. The viewer exposure rating would be anticipated to be moderately high at this location, due to the large number of viewers, and their ability to directly observe the visual changes despite the speed of travel. The resulting viewer response is anticipated to be moderately high.

Resulting Visual Impact

Combining the lower visual quality of the proposed condition with the moderately high viewer sensitivity, the resulting visual impact would be considered moderately high. The change would be clearly noticeable to viewers. Measures to reduce the visual impact of the retaining walls will help compensate for the size and severity of the wall on the west. Due to the limited space for screen planting on the east side, and the increased exposure of the parking, and buildings, the visual quality is markedly decreased.

Comparison with Direct Connector Alternative

This key view is similar to Key View 106 prepared to evaluate the Direct Connector Alternative. Comparing Key View 205 with Key View 106, it appears that while the Auxiliary Lane Alternative reduces the landscape buffers on the east and west side of I-5, Key View 205 does not indicate as high an impact as for the Direct Connector Alternative, which eliminates most of the screen planting and creates taller walls and wider paving surfaces.

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Auxiliary Lane Alternative Sound Walls

As part of the Visual Impact Analysis, the sound walls identified in the Preliminary Noise Abatement Decision Report (NADR) as "Recommended", "Conditional" and for "Severely Impacted Receptor" have been included on the Landscape Concept Plans for the Auxiliary Lane Alternative. The following analysis is provided for the identified walls:

<u>Sound Wall 56.S35:</u> Located on the north side of SR-56 from station 33+84 to 35+66 with a length of 195 meters and a maximum height: 3.7 meters, this wall will be constructed at the top of a densely vegetated slope along a line of residential homes. This wall will be located a very

short distance outside the rear of the residences, where a solid wall would obstruct the openness of the existing yards and views of vegetation and the slopes of Carmel Valley. Consequently, the wall type will likely be glass over a low wall with glass for the upper portion to preserve the openness. While this is a potentially highly visible location seen from eastbound SR-56, it appears that the existing slope planting that currently almost completely hides the residences from view and is to remain in place, will obscure the proposed sound wall to such a degree that it is not anticipated to have a visual impact from SR-56 or the surrounding area. The wall will be located behind the dense trees in the photograph on the right and above. Some of the trees in the foreground are anticipated to be removed near the base of the slope to allow grading adjustments, but the trees above approximately the midpoint of the slope are anticipated to remain.

Sound Wall 05.S541: Located on the west side of I-5 from station 540+36 to 541+64 with a length of 183 meters and a maximum height of 4.3 meters This tall wall is proposed to surround the eastern edge of the tennis courts and recreation area of Pointe Del Mar. There is currently

an existing solid wall and an approximately 4 meter green screened tennis court fence at this location visible in the photo above. This fence is currently screened from view by the existing Acacia and Eucalyptus trees located on private property. It is anticipated that these trees will largely remain in place after construction and will continue to provide screening to the wall from I-5 and I-56 viewing locations.

Sound Wall 05.S561: Located on the west side of I-5 from station 560+85 to 562+21 with a length of 156 meters and a maximum height: 2.4 meters, the area where this sound wall is proposed is currently screened by existing planting on private property. The sound wall will be located in the area behind the trees in the center of the photograph below. Due to its orientation and substantial elevation above the freeway, it is anticipated that this wall is not highly visible except intermittent views from the homes directly across the freeway to the east. Due to the

relatively low height of this wall, and the likelihood that it will be a combination low wall and glass panels, the wall will have little more visual impact than the existing wall at this location.

Sound Wall 05.S563: Located on the west side of I-5 from station 563+28 to 564+36 with a length of 130 meters and a maximum height of 2.4 meters, this wall is located adjacent to a school recreation field. Due to its moderate height, and the screening provided by the existing planting, it is anticipated that the visual impact of the wall would result in a low degree of visual impact visible primarily from the northbound I-5 lanes or the homes on the east side of Interstate 5. The sound wall will be located in the area behind the trees at the left of the photograph below.

Sound Wall 05.S567: Located on the west side of I-5 from station 564+61 to 567+18 with a length of 299 meters and a maximum height of 2.4 meters, this wall surrounds the east side of the residential homes on Minorca Cove but extends past only 13 homes below the three power

poles in the photo. The wall is not recommended for the three northerly homes on Minorca Cove. This wall is likely to be a combination low wall and glass type sound wall to allow views to the east. Due to its elevation above the freeway, this wall will be primarily seen from the northbound lanes and the homes to the east. However, due to the moderate height of the wall and existing vegetation, it is anticipated that the visual impact of the wall would result in a low degree of visual impact.

Sound Wall 05.S568: Located on the east side of I-5 from station 566+24 to 567+90 with a length of 215 meters and a maximum height of 2.4 meters, this wall would replace a slightly lower wall visible in the photograph below. The wall is proposed for the 9 homes at the center of the photo. Since the proposed wall is anticipated to be a glass over solid type wall similar to the existing wall, it is anticipated that the proposed wall would result in a low degree of visual impact.

4. Summary of Project Impacts of the Auxiliary Lane Alternative

Based on this analysis, the Auxiliary Lane Alternative would result in a comparatively lesser degree of moderately high change to the visual environment in the project area than the Direct Connector Alternative, the Hybrid Alternative and the Hybrid with Flyover Alternative. The primary changes include increases in the expanse of paving, large retaining walls, sound walls and a loss of the existing screen planting and landscape area. The natural visual character would be diminished and the urban character would be increased. There appears to be no additional obstruction of scenic resources. Implementation of the proposed visual mitigation measures would improve the appearance of the project components, and help to blend them into the visual context. However the moderately high degree of visual change would remain for this alternative although much less than for the other alternatives.

The analysis is based on the Key Views as well as consideration of the overall effect of the project on the visual environment. The key views are selected based on the types of project-related features that would be visible in the Auxiliary Lane Alternative, the number of viewers, the frequency with which it would be viewed, and the potential sensitivity of the viewers. Each key view is presented in its existing condition and its future condition with implementation of the proposed project and proposed mitigation. The locations of the key views are shown in Figure 20. The Landscape Concept Plan for the Auxiliary Lanes Alternative (Attachment B) provides the overall design concept allowing an understanding of the design associated with each key view location. Illustrative sections for the Hybrid Alternative are provided in this subsection. Sound walls and their likely effect on the visual environment are described in detail. A detailed description of the proposed mitigation measures is provided in Section VII, Mitigation.

Effects on Existing Visual Quality Context

The Auxiliary Lane Alternative is to be constructed in an area already heavily disturbed, highly developed and impacted by the elaborate I-5/56 intersection constructed in the 1980's and expanded in the 1990's and early 2000's. The immediate area has substantially changed from its natural character due to the construction of roadways, walls and bridges in the public right-of-way, and office, commercial and residential construction. The surrounding area contains some of the most scenic features in the San Diego region, including wetlands, tidal estuaries, forested coastal ridges, naturally eroded bluffs, and views of the Pacific Ocean.

The Auxiliary Lane Alternative will create clearly noticeable changes to the visual character and environment including the addition of one new flyover connector bridges, a new Del Mar Heights Road Bridge, additional traffic lanes on I-5 and SR-56, the removal of a large portion of the existing mature screen planting, especially on both sides of I-5 between Del Mar Heights and Carmel Valley Roads, and the construction of many large retaining walls to allow the freeway widening. The project adds a greater expanse of concrete and asphalt paving, structures and many additional retaining walls and sound walls creating a higher intensity viewer experience. There will be a net reduction in the size of the landscape areas due to the expansion of the paved highway lanes although not as large as the other build alternatives.

The proposed improvements, bridges, flyovers and retaining structures are not unique to the urban context currently present in the area, and consequently the proposed features should not appear out of place in the urban context. However, while the character of the project may be compatible with the existing previously constructed urban conditions, it is not in harmony with the existing natural features and scenic context that remain a vital part of the community identity and regional visual context.

Adjacent freeway interchanges, such as I-805/I-5, Mira Mesa Boulevard interchange and the I-805 bridge over Carroll Canyon, provide a regional context of similar structures and traffic accommodations. All of these interchanges present the viewer with bands of elevated concrete roadways curving across the field of view and the skyline. The existing two and three level connectors create visual intensity at the intersection of SR-56 and I-5. These patterns of intensive transportation facilities are visual elements consistent with the other portions of the North Coastal viewshed and its visual context. However, the impact of this evolving transportation corridor will be greatly intensified by the construction of an additional level of bridge structures and the large retaining walls. The reduction of screening on both sides of I-5 between Carmel Valley Road and Del Mar Heights Road will result in the exposure of buildings more directly adjacent to the roadside, and a more expansive view of the highway surfacing. Retaining walls will appear taller and more imposing. Overall this change represents an increasing trend toward ever larger and more complex transportation structures, resulting in high degree of change to the existing visual character and diminishing the existing visual quality.

Following is a discussion of the major impacts to viewers on the freeway and to the community and scenic resources.

Impacts to Viewers on the Freeway

Reduction in Quality to Existing Views

Due to the expansion of the highway lanes, areas for landscaping will be reduced from the existing condition. On the west side of I-5 the majority of the existing landscape will be removed and the planting area will be reduced for most of the distance between Del Mar Height Road and Carmel Valley Road. In addition, on the east side of I-5, the landscape areas will be cut back to within the existing private property, reducing both the right-of-way planting and portions of the private lot landscape of the commercial buildings. This will result in exposure of the commercial buildings along the east side of I-5 to a far greater degree. In some areas, the landscape between the freeway and the parking areas will be reduced to approximately 5 meters.

The destruction or elimination of much of the existing screen planting along SR-56 as a result of grading for the widening will reduce the visual quality of the views in both directions.

Large Retaining Walls and Expansive paving

Large retaining walls will be highly visible on the west side of I-5 between Del Mar Heights Road and Carmel Valley Road, Approach ramps to the connector bridges will also require retaining walls. Consequently, retaining walls would be considered to be one of the highest visual impacts of this alternative. Even though these walls will be designed to harmonize with the visual environment in color texture and shape, they will create a high degree of visual impact.

The expanded paving areas will result in a strong change to the visual character as both I-5 and SR-56 become wider and the proportion of the view that is fully paved becomes larger. This results in a sense of an increasingly urbanized and paved environment.

The large walls and the expanded paving contrast with the visual character of the largely vegetated existing regional visual character.

Loss of Existing Freeway Landscape and Screen Planting

To a lesser degree than the other Build Alternatives, large portions of the Landscape on both sides of I-5 south of Del Mar Heights Road would be removed as a result of this project and be replaced by additional travel lanes with retaining walls instead of landscaped slopes. Many of

the retaining walls would be located adjacent to the freeway and would not have planting relief. Where possible, walls in other areas of the I-5 area would be located with planting areas at the bottom to provide potential screening of the walls.

Along SR-56 the widening will result in a loss of the existing slope planting due to the grading for the road widening. This planting is becoming increasingly mature and its loss, including the loss of many maturing Torrey Pines planted for the original freeway construction would be striking.

Loss of Median Planting on SR-56
It is anticipated that the existing median Oleander shrub plantings that currently provide color and visual relief would be removed for the majority of the project length due to the lane widening. These would not be replaced due to lack of space.

Impacts to Viewers in Communities Adjacent to the Project
Impacts due to increasing the proximity of the freeway to the community
Views to the freeway would be adversely affected at the right-of-way edges where the freeway would become closer to the existing homes and businesses. This would be especially critical at I-5 southbound, where the additional lanes would be separated from the homes by a reduced amount of planting. However, there is anticipated to be more landscape at this location than with the Direct Connector Alternative, and it is anticipated that the need to remove existing landscape screening material on private property east of Portofino Circle would be less with this alternative.

The screening between the commercial buildings along I-5 would also be eliminated to a large degree resulting in many cases to direct views from the offices and parking garage to the freeway.

Community Entry Interchange Impacts
At the Carmel Valley Road interchange, the increased number of lanes and greater intensity of the roadway complexity will increase the urban visual character of the visual environment.

The proposed project will result in changes at the interchange with Del Mar Heights Road that would affect the perception of the community, including an increase in the number of lanes, construction of retaining walls, loss of landscape area, loss of landscape screening, and the widened bridge over I-5.

The increase in urban visual character will also affect the interchanges at El Camino Real, Carmel Country Road, and Carmel Creek Road as the interchanges are expanded to include additional lanes.

Impacts to Scenic Resource Views
The project viewed from Torrey Pines Visitor Center (Key view 201) is part of a regional panorama that includes the rare Torrey Pines, unusual eroded sandstone coastal bluffs, chaparral, coastal sage, wetland and estuarine habitats and well as a complexity of urban and suburban elements. The impact of the project on this view has been analyzed to result in a low degree of visual impact, primarily due to the distance and the blending of the proposed construction into the existing freeway and commercial elements.

Diminishment of the views from the trails, and bike paths in the surrounding region is not anticipated with this alternative due to the lack of flyover and connector structures., although no

specific area of high impact has been identified due to distance and location from the viewer, as well as the screening along trails by existing vegetation.

Viewer Response

As defined in section V.C of this report, viewer response is a combination of viewer sensitivity and viewer exposure. For the purposes of this project, viewer sensitivity considers the viewer's observation and understanding of the existing visual conditions, combined with the concern for preserving and enhancing the regional visual context expressed in the Community Plans. The project is in an area of comparatively high scenic quality, and viewer expectations would be considered to be high. Based on these indicators, viewer sensitivity within the viewshed is considered to be moderately high overall.

Viewer exposure is relatively high due to the direct observation on the relatively straight roadways, and the high numbers of viewers living in and passing through the viewshed. However, viewer exposure from the highways in the project study area is frequently impacted by the congested traffic conditions. Due to the speed of travel, the need to pay close attention to traffic conditions and signage at this busy location, and the number of distractions to the motorist, the viewer exposure must be adjusted downward, and consequently is considered to be moderately high overall.

Based on this analysis, the combined Viewer Response is considered to be moderately high, which maintains and amplifies the changes to visual quality.

Light and Glare

The proposed project includes the widening of portions of SR-56, and I-5 to include additional lanes, and will result in the widening of the light and glare during the nighttime hours. The width of the focused light from headlights will increase, and the overall light from the freeway will be increased. Except for the traffic on the new connectors, the direction of the headlights should conform closely with the additional headlight illumination patterns. The flyover for the Hybrid Alternative will contribute some new illumination patterns from the elevated structure. Given the amount of light and movement in the existing interchange, the implementation of the Hybrid Alternative is expected to cause a moderately low visual impact from lighting. The impact appears to be a combination of some new headlight directional patterns, and an increase in lighting levels due to the increased numbers of lanes of headlights, and additional lighting fixtures, possible with higher output.

Construction Related Visual Impacts

During the construction period, demolition, grading, bridge falsework, cranes, heavy machinery and other vehicles associated with construction will be highly visible and will have a temporary impact on the viewers during construction. Storage of construction equipment, fences, orange safety markings, barricades, temporary warning lights, signs and other construction related items will create a temporarily disturbed and degraded view. These are temporary visual impacts associated with the requirements of construction and are not considered a long term visual impact.

Analysis Conclusions

The project area includes a wide range of commercial, residential open space and park land uses. I-5 has been determined to be an eligible Scenic Route, but has not yet been designated by the Caltrans.

There are no designated historic resources within the project area, although portions of Torrey Pines State Park, Torrey Pines State Beach, the Penasquitos Lagoon, and the Carmel River are within the project viewshed.

The primary changes to the visual character due to the Auxiliary Lanes Alternative include the construction of a wider replacement bridge at Del Mar Heights Road, construction of additional traffic lanes, large retaining walls, a large reduction of existing screen planting, removal of mature trees, a greater expanse of concrete paving and structures and many additional retaining walls. There will be a net reduction in the size of the landscape areas. Other visual effects associated with the project would result from retaining walls, graded slopes, and five sound walls along I-5 and one along SR-56. Due to the largely urbanized condition of the area, the presence of large commercial and residential buildings, existing landform alterations, and extensive highway facilities, the visual change is tempered by the existing urban visual character of the immediate area. However, the amount of visual change as a result of the proposed project would be considered moderately high, but a lesser degree than the other build alternatives.

Long distance views from Torrey Pines State Park will be affected by the reduction of vegetation density and more exposure of the surrounding commercial areas as shown in Key View 201. The planting removals will be visible in the distance, but blend with the existing transportation facilities, and do not obstruct distant views. The changes represent only a low amount of visual change. The impacts will appear minimal due to the distance of the viewer from the project improvements. The project is also visible from the rest area on the bike and equestrian trail south of Carmel Valley, but the changes will not be readily apparent due to the riparian vegetation or distance from the viewer.

Pedestrians and bicyclists primarily view the project from Carmel Valley Road, El Camino Real, and Del Mar Heights Road. The widening of the bridge and addition of traffic lanes will impact the pedestrians due to the increasing expansion of motorized vehicle orientation as opposed to expansion of accommodations for pedestrian and bicycle travel. The existing conditions for pedestrians and bicyclists are minimally supportive of these activities, relying on the minimum required width sidewalks traversing intersections and crossing the bridge at Del Mar Heights.

The proposed project would have a moderately high degree of adverse effect on the visual quality of the project area although less than the other build alternatives. The overall aesthetic quality of the project area would be affected with the implementation of the Hybrid Alternative. The aesthetic quality of many areas could largely be restored similar to the existing condition over time as a result of the revegetation and visual mitigation for this project. However, the area between Del Mar Heights Road and Carmel Valley Road would be impacted by the overall reduction of screening vegetation and the construction of large retaining walls. Establishment of new planting with thematic connections to adjacent natural areas, development of attractive bridge enhancements, and focal landscape elements would help reduce or visually blend potential adverse impacts resulting from the proposed project, but would not compensate for the adverse visual effects.

Based on this analysis, the proposed construction of the Auxiliary Lanes Alternative will result in a moderately high degree of visual change although less than the other build alternatives. A comparative study of the project alternatives is included in Section VIII of this document.

F. Analysis of the Hybrid Alternative

The highway design has been carefully reviewed to determine the proposed features of each alternative which may result in perceivable visual impacts. These construction features are evaluated to anticipate the associated visual changes likely to occur. Following is a summary of the proposed construction items that are considered to result in visual changes.

1. Changes Due to Construction of the Hybrid Alternative

Changes resulting in the primary visual impacts for the Hybrid Alternative include:

- The proposed direct connector from westbound SR-56 to I-5
- Construction of the new bridge crossing I-5 at Del Mar Heights Road
- Widening Del Mar Heights Road I-5 bridge approaches
- Widening the SR-56 roadway from 1000 meters east of Carmel Country Road to I-5 (approximately 3200 meters)
- Widening I-5 from 1000 meters north of Del Mar Heights Road to Carmel Valley Road (approximately 2700 meters)
- Widening of the westbound exit to El Camino Real (EC-3 line)
- Adjustments and reconfiguration of interchange ramps and associated retaining walls at the following intersections:
  - I-5 / Del Mar Heights Road
  - I-5 / Carmel Valley Road
  - SR-56 / Camino Real
  - SR-56 / Carmel Country Road
  - SR-56 / Carmel Creek Road
- Elimination of a portion of the landscape buffer between the west edge of I-5 and the residential homes along Portofino Drive and Portofino Circle
- Elimination of much of the landscape buffer between the east edge of I-5 and the commercial buildings along El Camino Real
- Removal of some existing maturing trees, including Eucalyptus, Torrey Pines, Italian Stone Pines and other plants installed during previous highway construction projects along SR-56 and I-5
- Addition of retaining walls along I-5:

RW No. WN-1:	Length: 145 meters Average height: 2.7 meters Maximum height: 5.4 meters
RW No. WN-2:	Length 145 meters Average height 2.4 meters Maximum height 4.8 meters
RW No. 539:	Length: 1697 meters Average height: 4.4 meters Maximum height: 9.0 meters
RW No. 541	Length: 188 meters

Average height: 3.0 meters
Maximum height: 6.1 meters

RW No. 542: Length: 1650 meters
Average height: 10.3 meters
Maximum height: 14.7 meters
Combines with possible sound wall

RW No. 543 Length: 618 meters
Average height: 3.4 meters
Maximum height: 5.4 meters

RW No. 550 Length 288 meters
Average height: 4.2 meters
Maximum height: 9.2 meters

RW No. 555 Length: 345 meters
Average height: 2.3 meters
Maximum height: 4.9 meters

RW No. 556: Length: 138 meters
Average height: 1.0 meters
Maximum height: 2.0 meters

RW No. 560: Length: 916 meters
Average height: 3.4 meters
Maximum height: 10.0 meters

- Construction of retaining walls along SR-56:

RW No. 15: Length: 191 meters
Average height: 2.6 meters
Maximum height: 4.0 meters

RW No. 18: Length: 410 meters
Average height: 2.0 meters
Maximum height: 3.0 meters

RW No. 24: Length: 245 meters
Average height: 2.7 meters
Maximum height: 5.1 meters

- Sound walls along I-5 and SR-56:
  The following sound walls are proposed for the Hybrid Alternative based on the noise analysis for the design alternatives, and are being recommended as both reasonable and feasible, or as severely impacted or conditional in the NADR.

Sound Wall 56.S35: Station 33+84 to 37+50
Length: 370 meters
Maximum height: 3.7 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S541: Station 540+36 to 541+64
Length: 183 meters
Maximum height: 4.3 meters
Noise Abatement Decision: Recommended for Severely impacted receptor only

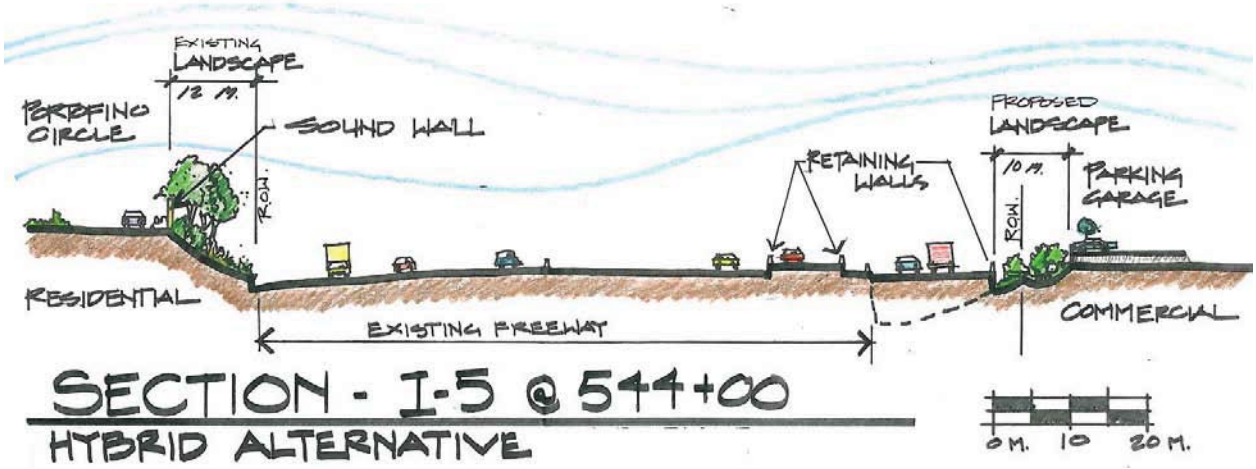
Sound Wall 05.S561: Station 560+65 to 562+21
Length: 156 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

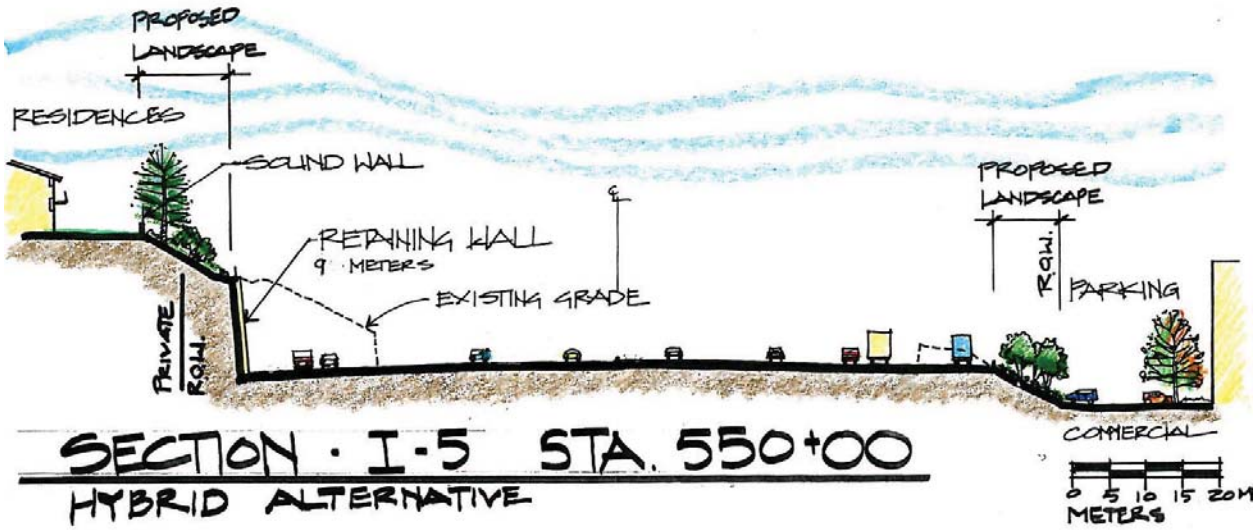
Sound Wall 05.S563: Station 563+28 to 564+36
Length: 130 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

Sound Wall 05.S567: Station 564+61 to 567+18
Length: 299 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S568: Station 566+24 to 567+90
Length: 215 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

The landscape concept plans attached in Appendix C illustrate the proposed improvements and landscaping for the Hybrid Alternative. The sections below illustrate the typical proposed conditions along I-5.





2. Key View Selection

Key view locations selected to illustrate the above visual impacts are shown in Figure 31 and include the following:

Hybrid Alternative:

- Key View 301: View from Torrey Pines State Park viewpoint at the viewing area adjacent to the parking area for the Park Information Center looking northeast toward the intersection of I-5 and SR-56.
- Key View 302: View south from southbound I-5 between Carmel Valley Road and Del Mar Heights Road (I-5 station 546+10)
- Key View 303: View east from eastbound Carmel Valley Road 110 meters west of Caminito Del Mar (Carmel Valley Road station 535+80)
- Key View 304: View from westbound SR-56 at off-ramp to Carmel Valley Road from approximately SR-56 station 19+60
- Key View 305: View from northbound I-5 south of intersection with SR-56 (I-5 station 534+50)

The visual simulations in this study were created by applying the conceptual designs of the proposed Hybrid Project Alternative to the key views to show the anticipated condition following completion of construction and establishment of plant material. The visual simulations are for conceptual analysis and are not intended to provide a precise, scaled depiction of the proposed project. They illustrate the potential future post-project visual character for the project area approximately 5 years after project completion. The visual simulations represent typical views and the potential changes that can be expected. No changes would occur under the No-Build Alternative, therefore, the existing condition photographs are representative of The No-Build Alternative.

The location and direction of the key views are shown in Figure 31. Each key view is discussed in detail in the following sections, including orientation, existing visual quality, proposed project features, changes to visual character, anticipated viewer response and the resulting visual impact.

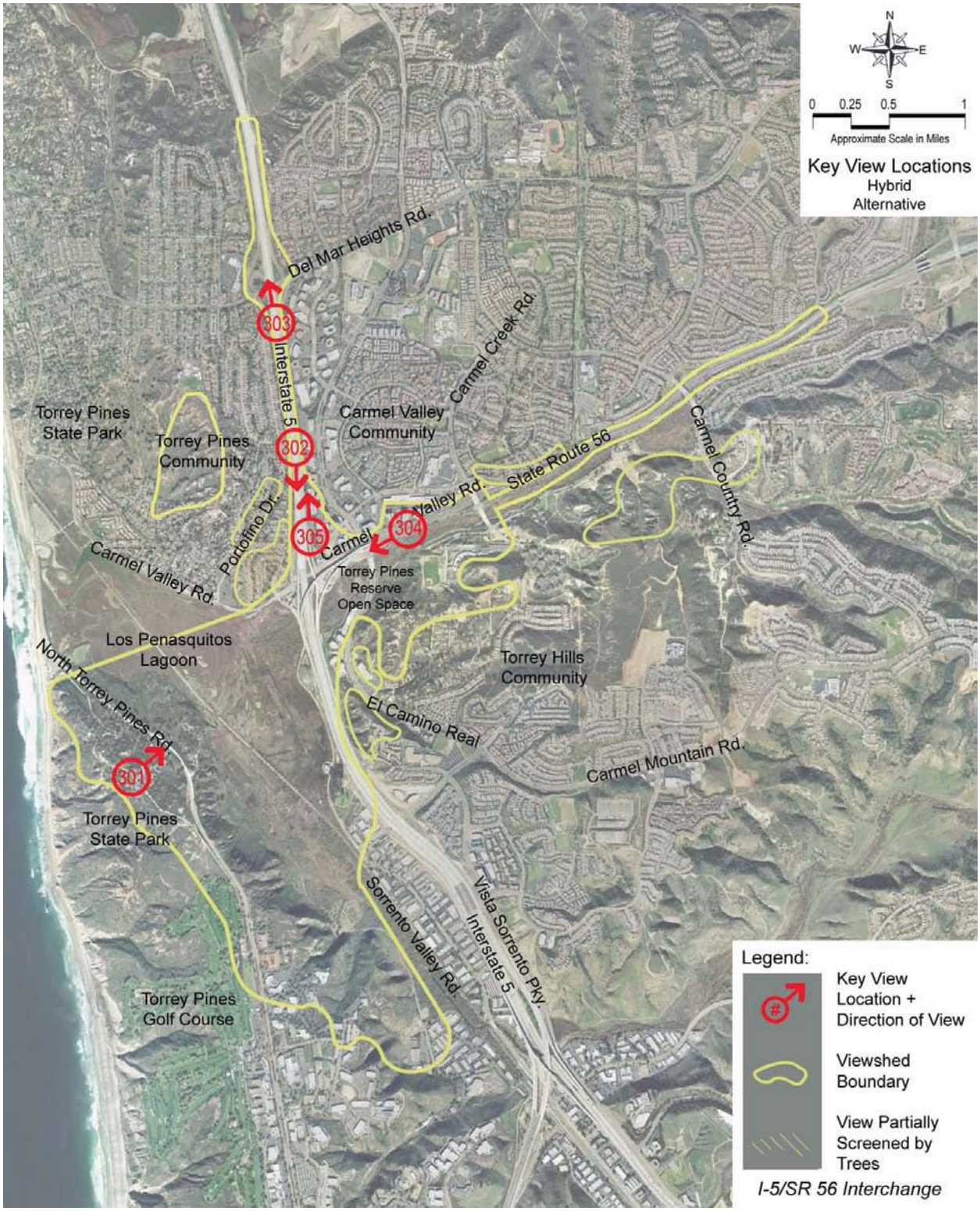


Figure 31: Key View Locations – Hybrid Alternative

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3. Visual Analysis of Hybrid Alternative Key Views

Key View 301 – Hybrid Alternative

Figure 32 - Key View 301 – Existing View

Figure 33 - Key View 301 – Proposed View

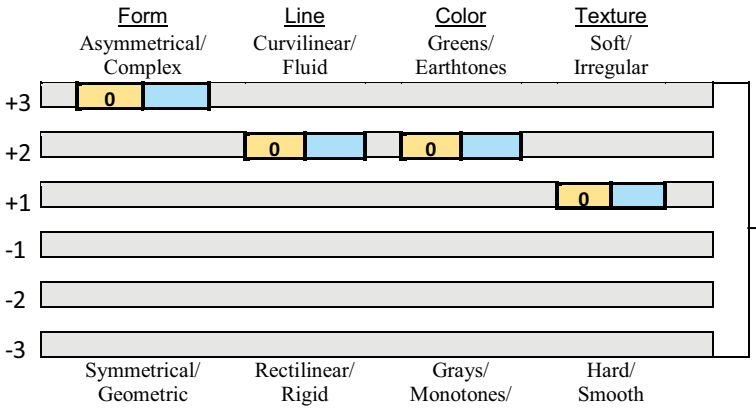
KEY VIEW #301 – Hybrid Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

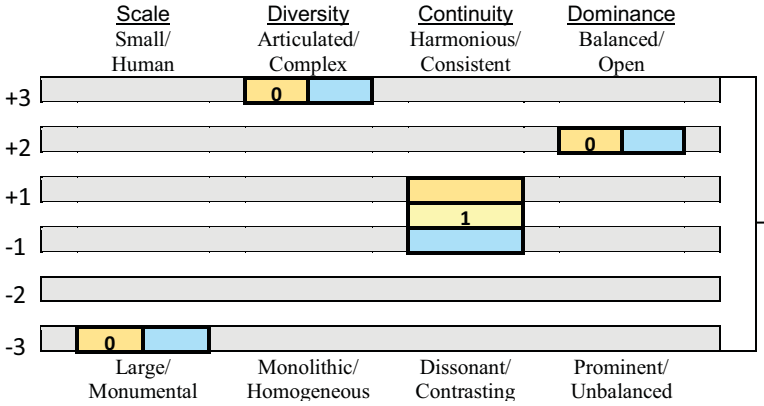
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 0
% Change: 0

Pattern Character
Describes the relationships between visual elements (Project and Setting)

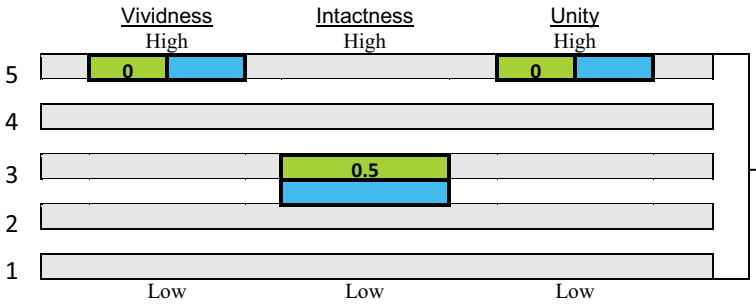


Avg. Change: 0.25
% Change: 5

Avg. Change: 0.13
% Change: 2.5

L
Change to Visual Character

VISUAL QUALITY



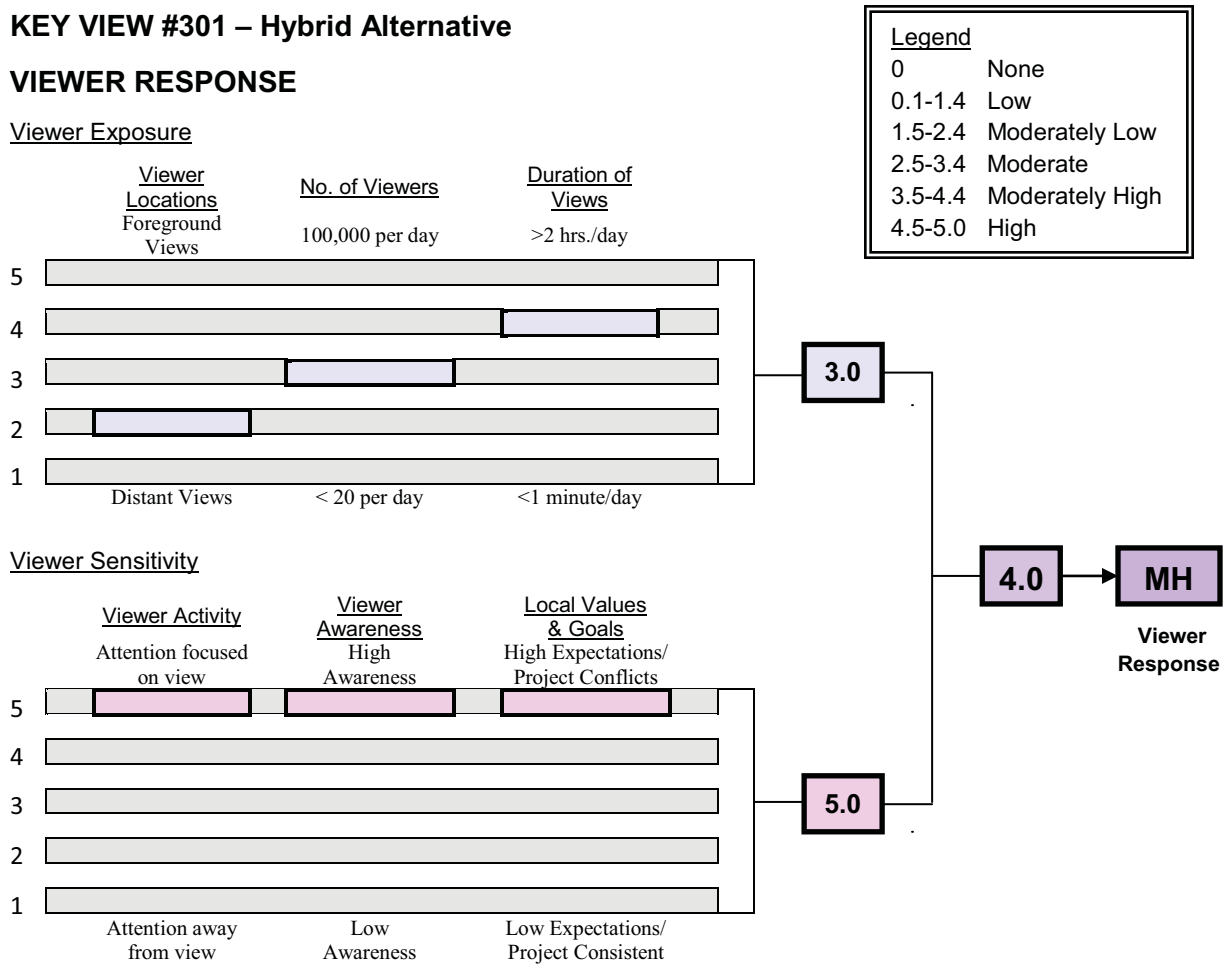
Avg. Change: 0.2
% Change: 5.0

L
Change to Visual Quality

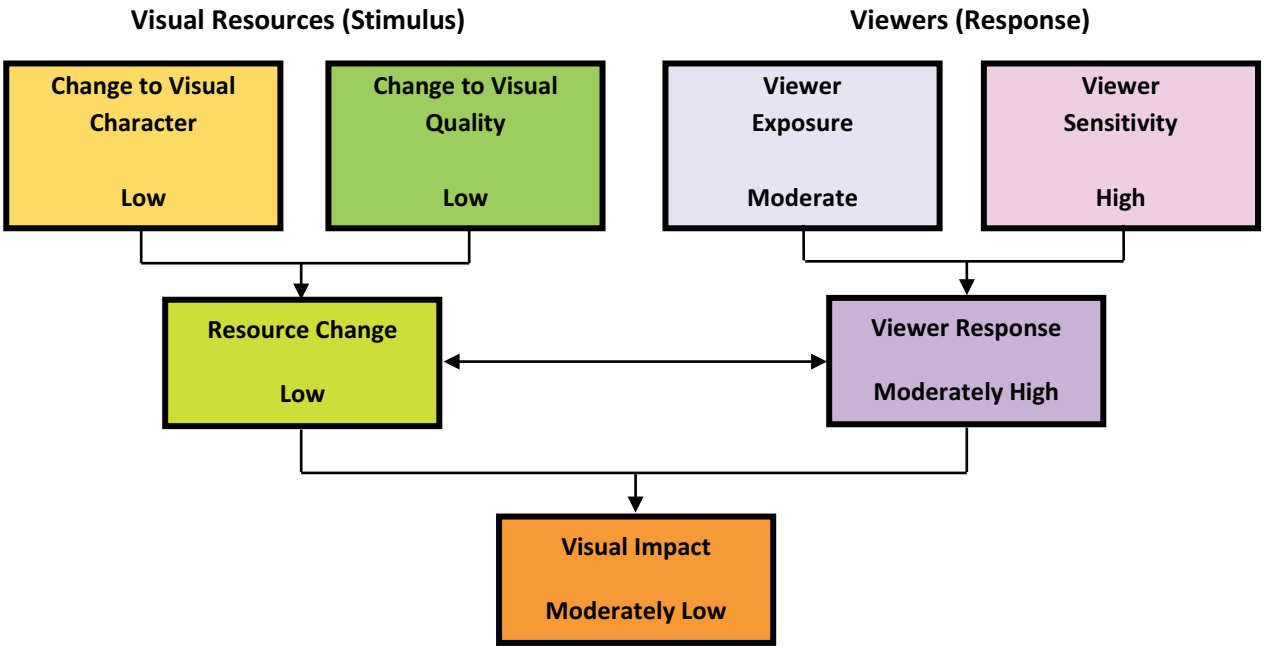
Legend
Existing View
Proposed View

KEY VIEW #301 – Hybrid Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 301 – Hybrid Alternative

Orientation

Key View 301 illustrates the view of the project from the upland area of Torrey Pines State Park. The existing condition is shown in Figure 32. The photo is taken from behind the low wall at the edge of the viewing area in the old picnic area east of the visitor center parking. The view is panoramic, and includes Palomar Mountain on the left; Black Mountain on the right, Penasquitos Lagoon in the middleground, and a rare natural grove of Torrey Pine trees in the foreground. I-5 crosses the view, intersecting with SR-56 at the center of the photo. Carmel Valley runs east from the intersection. This is a distant view of the project, but a critical one, since it captures the visual change from an established State Park viewing area with a sensitive viewer group, and long duration of view.

Existing Visual Quality/Character

This is an expansive panoramic view, providing a full sense of the regional context from the coast to the mountains over 40 miles away. It is a balanced view composed of dramatic natural features and manmade, urban elements. The foreground consists of natural groves of Torrey Pines on the bluff slopes dropping toward the flat wetland areas of Penasquitos Lagoon. The characteristic eroded sandstone bluffs associated with the Torrey Pines area are visible on the left, and also behind the pine on the right of the photo. The rugged backcountry of San Diego County is visible on the horizon with steep mountains combining dense olive colored vegetation and granite outcroppings. The suburban commercial and residential areas of Carmel Valley spread across the view, with light colored surfaces of the structures catching the light. Interstate 5 creates a strong, line across the view. This line is highly animated by the movement of vehicles, drawing attention to the transportation corridor.

This view is extremely vivid due to the combination of mountains, lagoons, sandstone bluffs, evocative pine trees, and clusters of suburban structures. The contrast of natural elements with the built environment enhances the vividness, providing a combination of features that attract the interest of the viewer. The vividness rating would be considered to be high. While the natural features create a vivid setting, the intactness of the view is affected by the encroachment of existing development, visible grading, and the highly visible I-5 corridor with its moving traffic crossing the view. The intactness would be rated moderate. The balanced compositional qualities of foreground, middleground and background and sweeping lines of the canyons and valleys provide an attractive composition unity resulting in a high unity rating. Combining vividness, intactness and unity, the existing visual quality is rated at moderately high.

Proposed Project Features

The Hybrid Alternative proposes a fly-over structure connecting SR-56 west to I-5 northbound. This structure would be visible above and behind the existing structure over Carmel River, and the existing SR-56 connector flyover structures connecting to I-5. This would add another third tier of traffic lanes to the existing triple tiered interchange and increase the overall height of the northeast side of the interchange by approximately 12 meters over the existing condition. Grading and some retaining walls would be visible along the north and south side of the SR-56 corridor.

Change to Visual Quality/Character

The proposed project would add one flyover, increasing the height and visual complexity of the intersection of I-5 and SR-56. The flyover would partially obscure the commercial buildings and the landscaping along the north side of Carmel Valley Road. Some moderately mature landscaping would be removed and replaced with new landscaping to allow grading resulting in

less screening and more visibility of hard surfaces. There will not be a change to the Carmel Creek wetland to the south (right side) of the existing SR-56. Since the flyover will be below the horizon, it will primarily screen commercial buildings from this viewpoint. It is anticipated that native landscape, bluffs and existing grades would not be affected by the changes visible from this location. Due to the distance to the intersection, the visual changes would be considered to represent a low amount of visual change. The vividness of the view appears to be unaffected by the project, and would remain high. The intactness would decrease slightly due to the addition of the flyover obscuring the commercial buildings but would still be considered moderate. The compositional qualities of the view would remain as existing, resulting in no change to the unity rating, which would remain high. The resulting change to visual quality is considered to be low.

Visual character will remain relatively the same as the existing condition, except that the continuity of the pattern character will be less consistent due to the introduction of additional manmade forms. Overall change to visual character is anticipated to be low.

Viewer Response

The viewer response to the visual changes from this viewpoint would be anticipated to be highly sensitive to change due to the location at the State Park visitor center viewing area. This is a view that people choose to observe as a recreational activity and expectations are high. Since Torrey Pines State Park is a natural park located in a region of highly visible natural features, man-made features in the view create a contrast that is highly noticeable. However, the change to this view over the last 50 years has been great. Suburban development has become an increasing percentage of the view, replacing the farm fields and native vegetation of Carmel Valley. Therefore, the addition of transportation facilities would appear to be within the viewer's acceptance, especially since the new features will not eliminate views of natural features. Viewer sensitivity is anticipated to be high. Viewer exposure from this location would be anticipated to be elevated due to the direct view of the project area from a viewpoint, although the long distance diminishes the visual change to a relatively small portion of the view. The resulting viewer exposure would be estimated at moderate. Combining viewer sensitivity and viewer exposure for this viewpoint, the anticipated viewer response to the changes would be moderately high.

Resulting Visual Impact

The proposed project improvements will affect the view from this recreational viewpoint, placing a clearly visible elevated element at the center of the view. However, the affected area is less than 20% of the framed view, and the new elements will be not break the horizon, or block natural features. Exposed slopes will be landscaped with native species, and the colors of the bridges, and other structures will be consistent with the colors in the existing view, resulting in a minimum overall visual change. The visual changes will tend to be absorbed into the existing visual context of suburban and transportation development. Considering the low amount of visual change together with the high viewer response, the visual impact would be considered to be moderately low.

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Key View 302 – Hybrid Alternative

Figure 34 - Key View 302 – Existing View

Figure 35 - Key View 302 – Proposed View

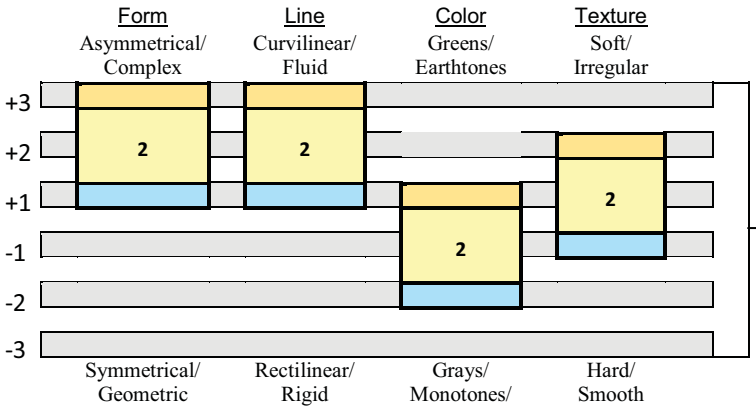
KEY VIEW #302 – Hybrid Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

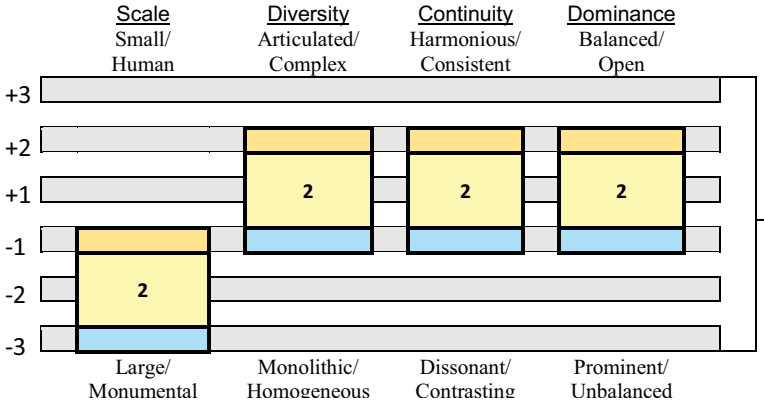
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change 2.0
% Change 40

Pattern Character
Describes the relationships between visual elements (Project and Setting)

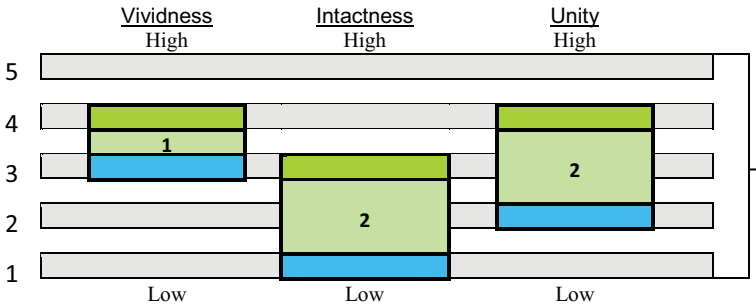


Avg. Change 2.0
% Change 40

Avg. Change 2.0
% Change 40

M
Change to Visual Character

VISUAL QUALITY



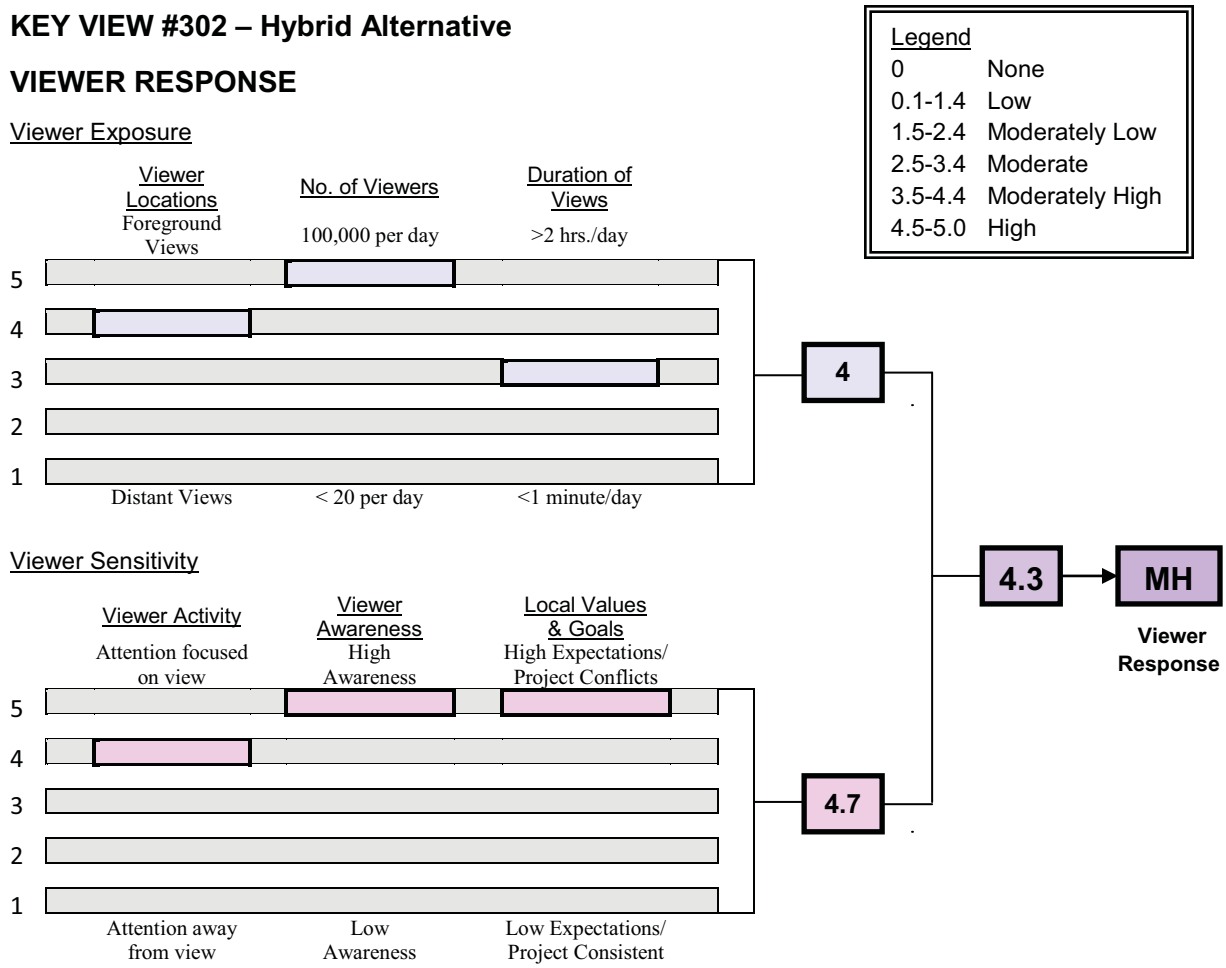
Avg. Change 1.7
% Change 42

MH
Change to Visual Quality

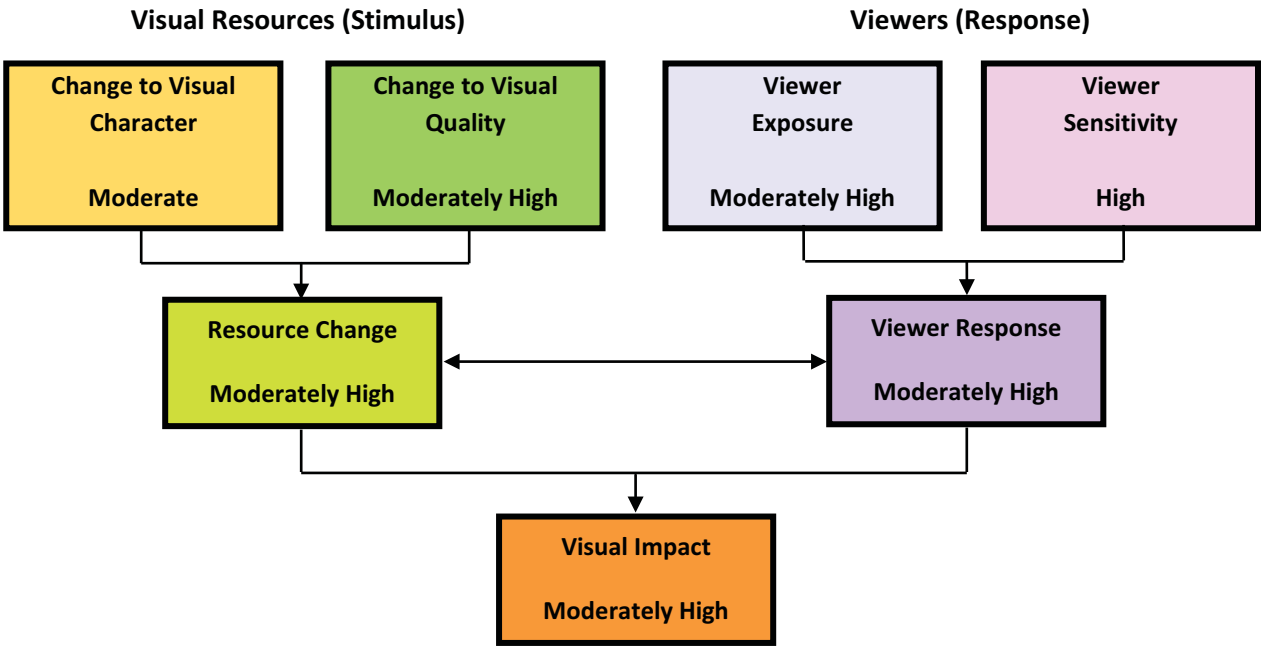
Legend
Existing View
Proposed View

KEY VIEW #302 – Hybrid Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 302 - Hybrid Alternative

Orientation

Key View 302 illustrates the view from a vehicle passing station 544+00 of Interstate 5 southbound approaching the off-ramp to Carmel Valley Road. On the right, the 2:1 slope rises through heavily vegetated slope to the sound wall along the top edge of the slope. Directly ahead are the hills beyond Carmel Creek and the Penasquitos Lagoon. To the left is the commercial and office area along El Camino Real. The existing condition photograph for this view is illustrated in Key View 302.

Existing Visual Quality/Character

The existing visual character is strongly influenced by the uniformity of the 10 lane wide freeway which runs on the edge of the Del Mar Hills on the right. At this point, the character is largely defined by the large Eucalyptus clad slopes to the right, which conceal the sound wall and homes. The center of the view offers a good prospect of the distant wooded ridge across Penasquitos Lagoon. The topography is undulating, and the freeway curves to the left and out of site around the Torrey Hills community. Although there is no primary focus, the vividness is moderately high due to the evocative topography of ridges and canyons, set off by the trees in the foreground. The view is relatively free of intrusive visual elements outside of the road itself, and the vehicles. The freeway signs and light standards are consistent in design, and the green color blends with the surrounding landscape. Consequently, the view would be described as moderately intact. The view has a pleasing composition combining hills, valleys and the wide but gracefully curved roadway curving into the distance, resulting in a moderately high unity rating. Combining vividness, unity and intactness, the overall visual quality of this view is considered to be moderately high.

Proposed Project Features

The proposed design of the Hybrid Alternative features a 9 to 12 meter high retaining wall to be constructed at the bottom of the vegetated slope resulting in the removal of some trees. The retaining walls will be colored to reflect the natural color of Torrey Sandstone, and will be abstractly designed to evoke a sense of the natural eroded slopes unique to the Torrey Pines/Del Mar/Solana Beach area. The existing sound wall at Portofino will remain with a sloped planting area between the freeway and the sound wall. The planting buffer between the east side of the freeway and adjacent businesses will be replaced by additional lanes of traffic, resulting in increased exposure of the large commercial buildings just out of the view on the left.

Change to Visual Quality/Character

The visual environment for motorists travelling south on Interstate 5 would be altered as a result of the roadway widening, and retaining wall construction. The tall retaining wall on the right is highly visible and in close proximity to the motorist, replacing the lower portion of the landscape buffer with an expanse of hard surfaces. The elimination of a portion of the landscape screen material at the far left of the view further diminishes the vegetated feeling that this area of the freeway provides in the existing view. Additional lanes and guardrails emphasize and constrict the defined transportation corridor reducing the sense of openness previously experienced from this viewpoint. The vividness of the view is diminished to moderate due to the reduction of many of the evocative vegetative features, and the exposure of expanses of hard surfaces. The intactness of the view is reduced to low due to the imposition of retaining walls at the sides of the roadway and additional travel lanes. The unity of the view is reduced to moderately low due to the compositional complication from the addition of unscreened retaining walls. Combining

the ratings for vividness, intactness and unity, the net visual change for Key view 302 is moderately high.

Change to visual character will be moderately high, with much more symmetry, more hard surfaces and a more monolithic and monochromatic appearance with more contrast with the surrounding landscape.

Viewer Response

It is anticipated that the viewer sensitivity would be high due to the community's interest in preserving views, open space and natural features as expressed in the Community Plans. However, viewer sensitivity for most motorists may be diminished due to the speed of travel, and the traffic congestion, which often dominates the viewer's attention. The net viewer sensitivity would be anticipated to be high.

The viewer exposure would be considered to be moderately high due to the number of viewers travelling the road and the duration of the view while travelling downhill between Del Mar Heights Road and Carmel Valley Road. Similarly, the viewing aspect, looking out and down while descending the hill focuses the viewer's attention on the scene. Combining viewer sensitivity with viewer exposure, the net viewer response would be estimated as moderately high.

Resulting Visual Impact

The negative change in visual character and quality in this key view will be observable, and will be further exacerbated by the high viewer exposure and high sensitivity. Due to the reduced space to re-introduce landscape buffers and screening, the lack of planting space for median planting, and the impracticality of maintaining vine planting on the walls, the proposed visual improvements will offer less visual relief than the existing condition. Combining the rating for visual change with the viewer response, it is anticipated that the resulting visual impact would be considered to be moderately high.

Comparison with Direct Connector and Auxiliary Lane Alternative

This key view is similar to Key View 102 prepared to evaluate the Direct Connector Alternative. Comparing Key View 302 with Key View 102 and 202, it appears that the Hybrid Alternative has the same visual impact as the Auxiliary Lane Alternative, and has less visual impact than the Direct Connector Alternative which features two flyovers that will be visible above the existing intersection, higher retaining walls, sound walls and more screen planting removal.

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Key View 303 – Hybrid Alternative

Figure 36 - Key View 303 – Existing View

Figure 37 - Key View 303 – Proposed View

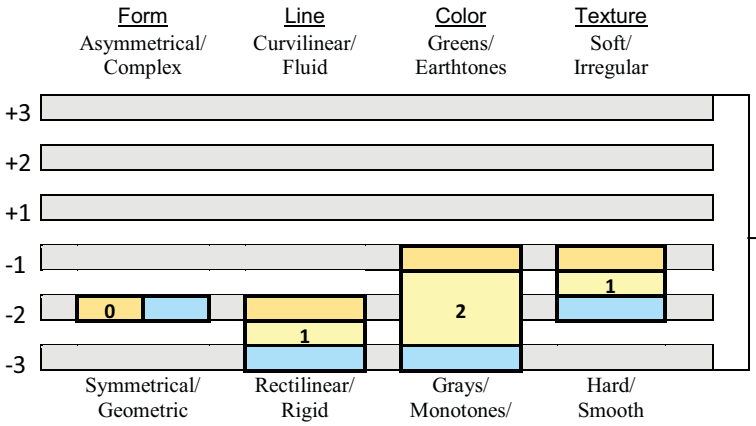
KEY VIEW #303 – Hybrid Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

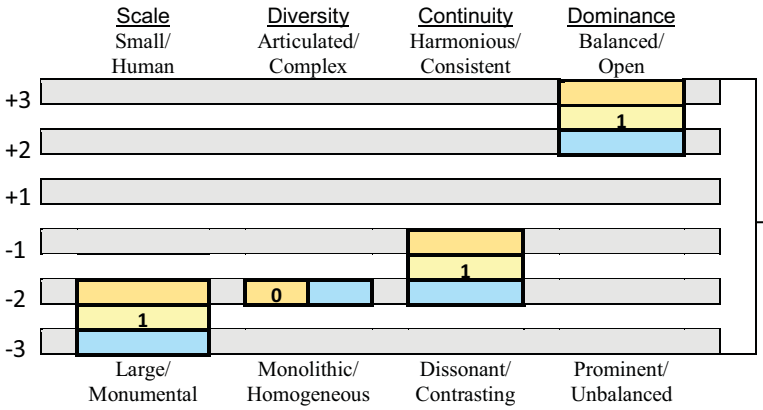
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 1.0
% Change: 20

Pattern Character
Describes the relationships between visual elements (Project and Setting)

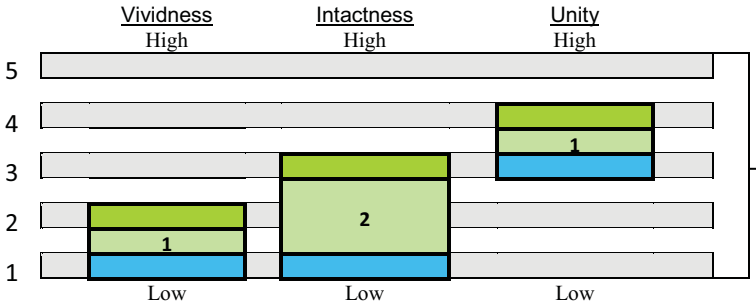


Avg. Change: 0.75
% Change: 15

Avg. Change: 0.88
% Change: 18

ML
Change to Visual Character

VISUAL QUALITY



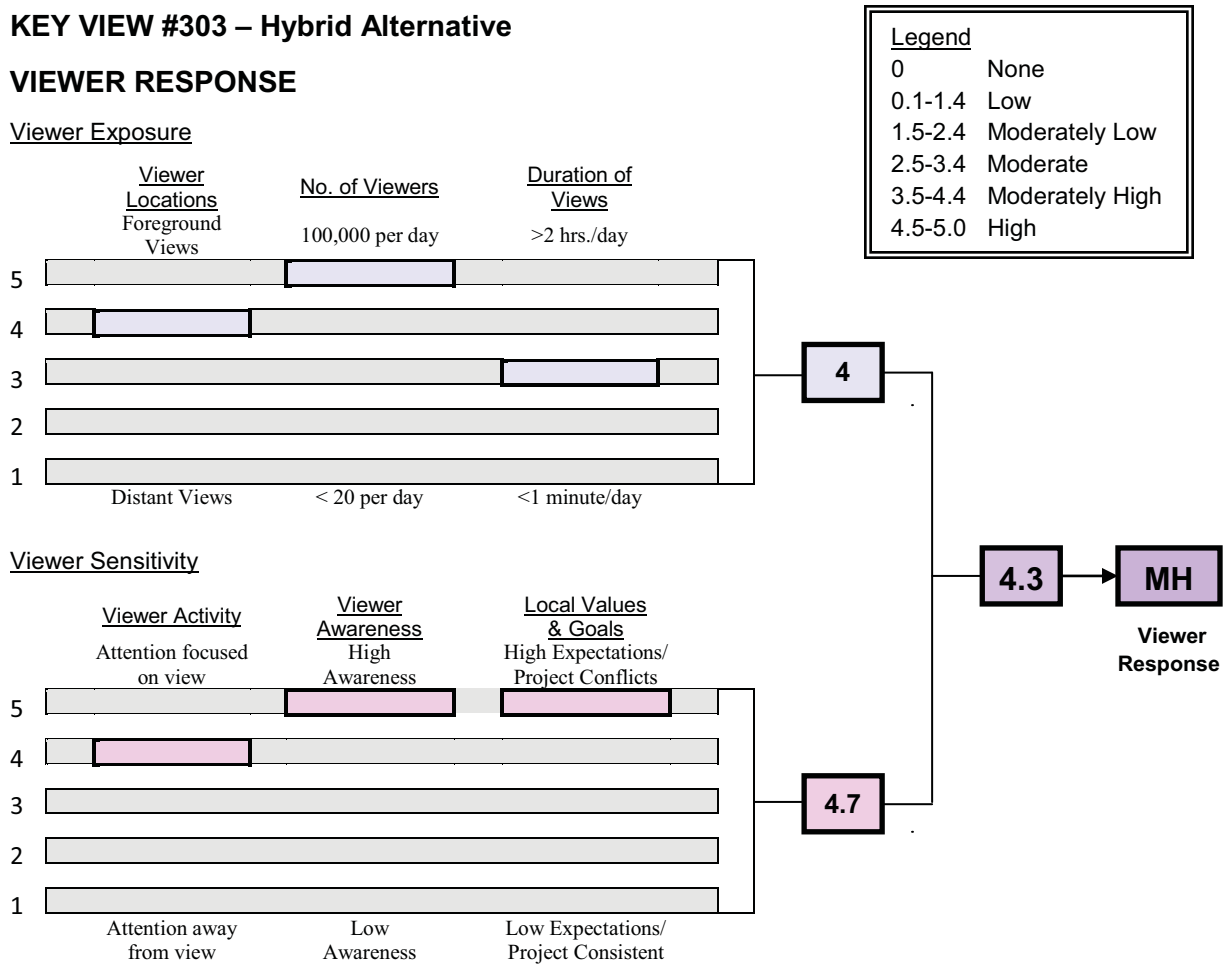
Avg. Change: 1.34
% Change: 34

M
Change to Visual Quality

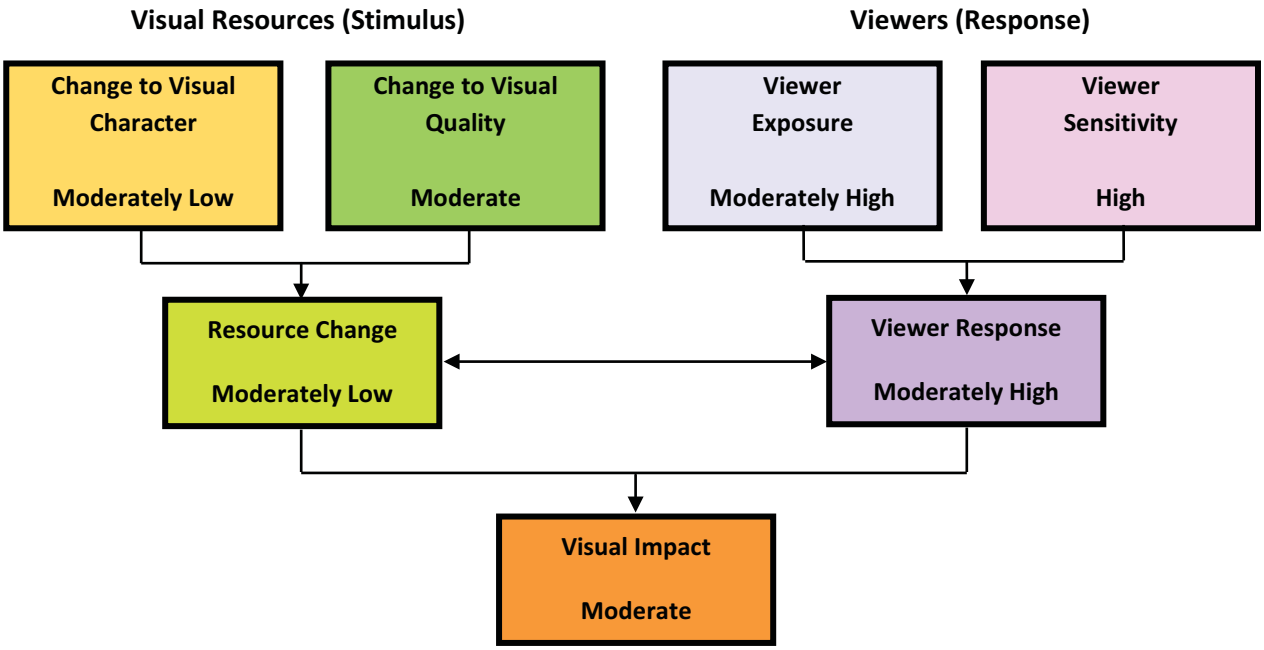
Legend
Existing View
Proposed View

KEY VIEW #303 – Hybrid Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 303 – Hybrid Alternative

Orientation

Key View 303 is the view approaching Del Mar Heights Road on northbound I-5 400 meters south of the overpass bridge. The existing four-lane bridge is the focal element in this view. Torrey Pine trees and Eucalyptus grow as part of the highway landscape and buffer the surrounding development from view. This view was selected due to the potential prominence of the new bridge silhouetted against the skyline, directly ahead at the top of a long and uniform incline.

Existing Visual Quality/Character

The bridge is the dominant feature and focal element of the view. The landscape buffer separates the highway from the adjacent large commercial buildings on the east (right), and the residential neighborhood to the west (left). The median is a simple traffic barrier without planting. This view is a one point perspective with the highway vanishing under the bridge at the center of the frame. This perspective focuses the viewer's attention on the bridge and its form against the sky. Although the view is forceful and focused, it is not particularly memorable due to the ordinariness of the bridge, traffic lanes and the buffer planting. Due to the lack of eye-catching features, the vividness would be considered to be moderately low. The view is relatively free of conflicting clutter. However, the traffic sign and the bridge itself would be considered an obstruction to the view. Consequently the intactness would be defined as moderate. The unity of the view is moderately high since all features are harmonious with the visual character of a relatively standard landscaped transportation corridor, and the composition is balanced. Combining vividness, unity and intactness, the resulting visual quality would be defined as moderate.

Proposed Project Features

A new 8-lane wide bridge will replace the existing 4-lane bridge. The highway will be widened from the existing 14 lanes, to 18 lanes under the bridge. The space under the bridge will appear wider with 2:1 slope paving under the bridge. Additional lights, signs and fences will be visible against the skyline at the top of the bridge. Many of the Pines and Eucalyptus on both sides of the roadway will be removed to accommodate grading and the adjusted ramps, exposing buildings and homes along the freeway. In addition to the trees removed due to conflicts with the proposed built elements, additional trees will likely be removed due to Caltrans standard safety setback requirements for trees and vegetation.

Change to Visual Quality/Character

The visual character will not change substantially due to construction. The view will continue to be dominated by traffic, asphalt and striping directing the viewer's attention to the freeway crossing bridge outlined against the sky. The highway will be wider, the bridge broader, allowing more viewing width under the bridge, and less vegetation. Proposed retaining walls appear not to be visible from this viewpoint. The removal of trees will open the width of the view, and allow an increased view of the office buildings, and homes on both sides of the highway. While screen planting will be reduced, new planting between the ramps and the freeway will help to increase the vegetated appearance and help compensate for the loss of screening. The vividness of the view will decrease to low. The view will have some additional minor clutter of directional signs, lights and bridge columns, but will result in a decrease to the intactness rating to low. The scale of the composition of the view will increase, but the composition will remain a balanced one point perspective focused on the bridge with a resulting moderate unity rating. Combining vividness, intactness, and unity, for the proposed view results in a moderately low visual quality. A moderate decrease from the existing condition.

Comparison of pattern elements and pattern character also results in a moderately low change to visual character, due primarily to the minor differences between the visual attributes for form, line color texture. Pattern character also shows a minor increase in scale, more dissonance and less balanced appearance.

Viewer Response

Viewer sensitivity is anticipated to be high due to the high visibility of changes, and the high aesthetic expectations of North County coastal residents, and visitors to the San Diego region. This sensitivity is underscored by the importance of aesthetics referenced in the local area Community Plans. Exposure to the view will be moderately high due to the focused one point perspective view of the bridge set against the skyline at the top of the hill directly ahead. The view will be seen by motorists on 8 lanes of very busy traffic on California's primary transportation corridor. Duration of the view is long, due to the straight, inclined 1-mile approach. The observation of many viewers may be blocked by large vehicles ahead, but may have a clearer view on the next repeat trip. Combined viewer response is moderately high.

Resulting Visual Impact

Construction of the new bridge, removal of screening material, and the widening of the overall paved freeway width will result in a moderately low amount of visual change. With aesthetic improvements in place, it is anticipated that the view would be more vivid and have a similar sense of unity despite the wider transportation corridor. Visual mitigation elements are discussed in section VII of this report. With enhancement measures fully implemented and the bridge architectural treatments in place, the resulting visual impact could be considered neutral. Combining the change to visual character with the viewer response, the amount of visual impact could be considered to be moderately low.

Comparison with Key View 203

In comparison with Key View 203, the hybrid connector introduces slightly more visual change on the right side of the view where additional lanes and ramps are included to accommodate the west to north connector.

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Key View 304 – Hybrid Alternative

Figure 38 - Key View 304 – Existing View

Figure 39 - Key View 304 – Proposed View

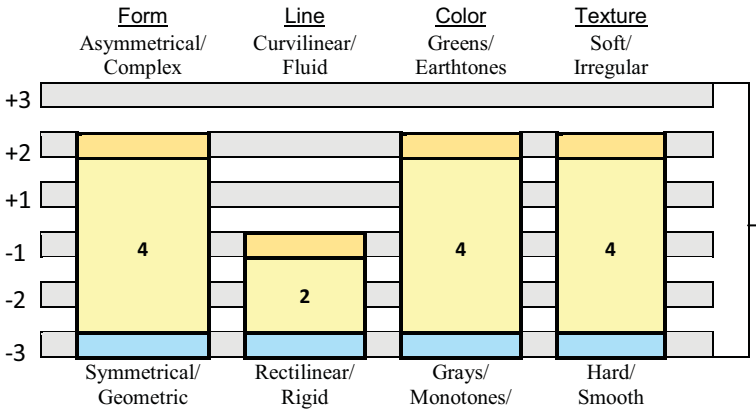
KEY VIEW #304 – Hybrid Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

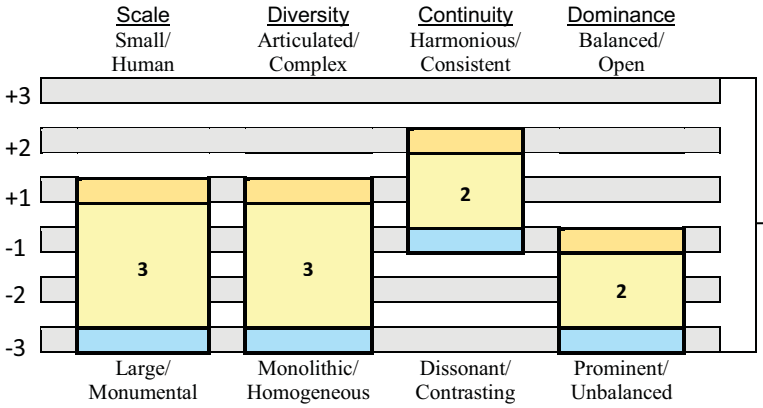
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 3.5
% Change: 70

Pattern Character
Describes the relationships between visual elements (Project and Setting)

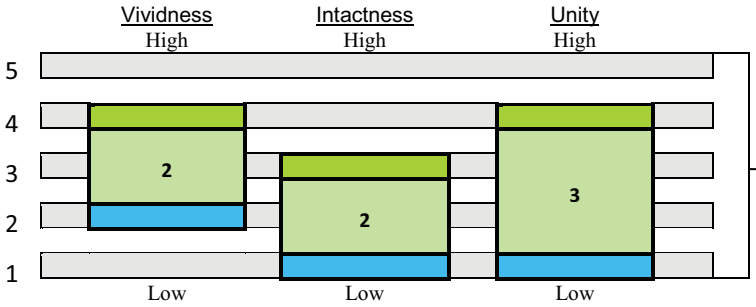


Avg. Change: 2.5
% Change: 50

Avg. Change: 3.0
% Change: 60

H
Change to Visual Character

VISUAL QUALITY



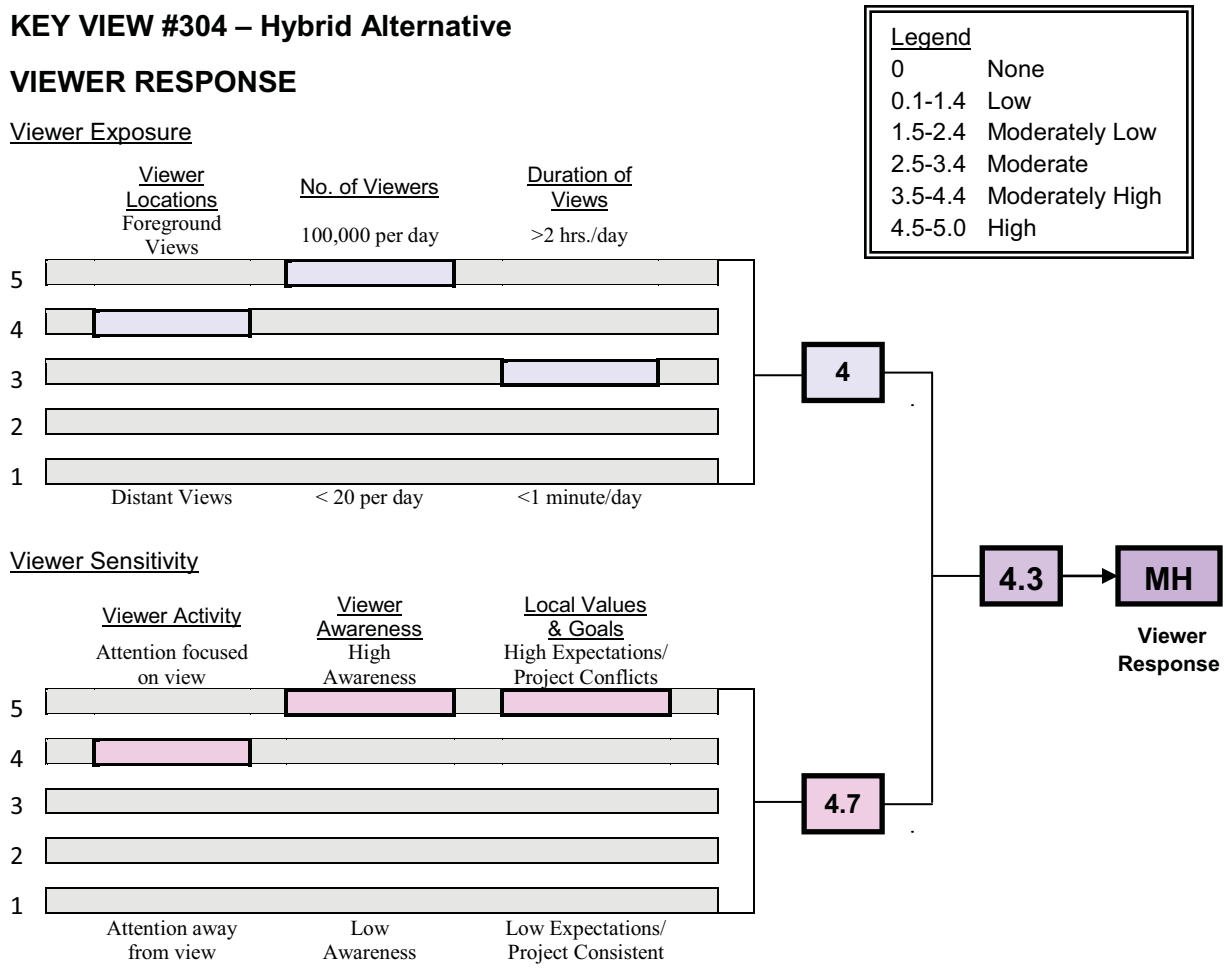
Avg. Change: 2.3
% Change: 58

H
Change to Visual Quality

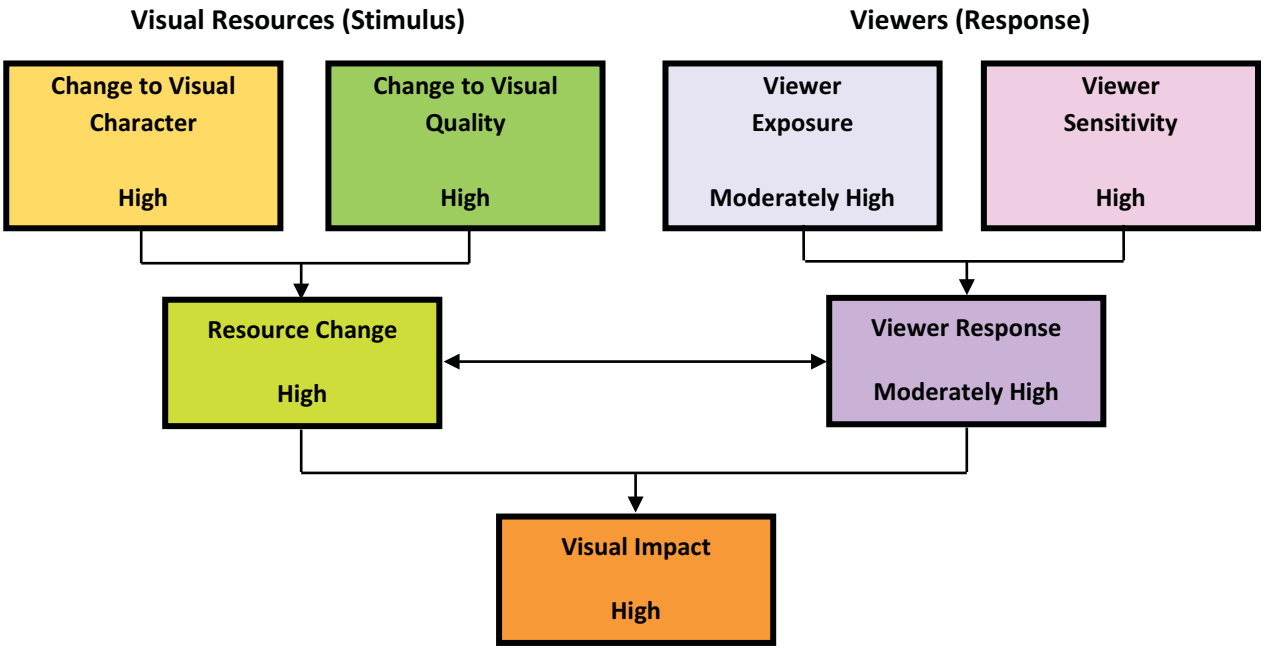
Legend
Existing View
Proposed View

KEY VIEW #304 – Hybrid Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 304 – Hybrid Alternative

Orientation
Key View 304 provides the view from SR-56 westbound, east of the exit to North I-5, Carmel Valley Road and El Camino Real. The coastal bluff of Torrey Pines State Park is visible at the left of the view. On the right, the glass buildings of a five structure office complex would be seen behind the freeway screen trees, with a retaining wall between the freeway and the base of the buildings.

Existing Visual Quality/Character
Dominant elements contributing to the visual character of the view are the large Eucalyptus trees in the foreground and middleground which provide a graceful screen in front of the reflective building. Low foliage also blocks the chain link freeway fence and the parking and ground floor of the offices. The architecture visible from this view is of a single style and relatively high quality, contributing a business-like and technical character to the view. The freeway median is a simple barrier with Oleander planting. To the far left, the Carmel Valley riparian corridor can be seen at the left periphery of the view, extending the natural appearance in connection with the Penasquitos Lagoon and Torrey Pines bluffs in the distance.

The view exhibits a moderately high amount of vividness due to the combination of the open screen trees with the architectural character of the buildings, and the natural ridge lined with Torrey Pines, an unusual natural feature unique to this part of San Diego. The view is moderately intact due to the lack of conflicting visual elements other than cars and signs. The freeway signs are distant and their colors blend well with the colors of the view. Consequently, the intactness rating of this view would be considered to be moderate. The composition of the view focuses on the trees leading away to the left, and although not balanced, the viewer's attention is directed to the distant coastal ridge. The unity rating for this view would be considered to be moderately high. Combining vividness, intactness and unity, the overall rating for the visual quality of the view would be considered to be high.

Proposed Project Features
The Hybrid Alternative proposes to widen the highway with two lanes on the left and two lanes on the right of the westbound SR-56 visible in this view. A 6 meter retaining wall would be constructed on the right completely eliminating the landscape buffer along the side of the road. Less green space, and more asphalt and concrete will be visible. The Eucalyptus and Pine trees on the right would be expected to be removed due to construction, Caltrans' required vegetation setbacks, and the proximity of the roots of the large trees to the proposed retaining wall. As a result, the glass buildings will be fully exposed to the viewer, and screening potential is eliminated. In the right foreground of the view, the planting area is of insufficient width for tree or shrub planting to be allowed per the Caltrans planting setbacks. Oleanders in the median will be eliminated and replaced by paving and a concrete barrier.

Change to Visual Quality/Character
The construction of the Hybrid Alternative will result in the removal of the large screen trees in this view. New planting allowed by Caltrans standards may provide minor screening for a portion of the area. The screening provided by the existing 15 to 25 meter high trees cannot be replicated in the narrow remaining planting area. There appears to be no space for vine or shrub planting to screen the wall. As a result, the character and visual quality of the existing view would be considered to be altered. Vividness will decrease to moderately low due to the full exposure of the flat building sides and the loss of the complexity and interest provided by the trees. The intactness of the view is diminished to low due to the new, fully exposed concrete

wall, removal of landscape, and exposure of the freeway fence and items around the first floor of the building. The unity of the view will be diminished to low due to the loss of the large trees creating a focal element in front of the buildings, and balancing the natural trees on the left. Combining the ratings for vividness, unity, and intactness, the proposed condition is anticipated to have a visual quality rating of low. This would be a high net change in visual quality.

As shown on the rating graphics the proposed project features result in a large degree of change to the form, line color and texture primarily due to the elimination of screen trees, and complete exposure of the building walls and foreground retaining wall. Similarly the exposed buildings increase the sense of a larger scale, more monolithic and contrasting elements, and the decrease in balance reduce the pattern character for the view.

Viewer Response

The viewer response to the visual changes would be anticipated to be relatively high due to the orientation of the viewer toward Torrey Pines State Park tree lined-ridge, and the anticipation of views of the Pacific Ocean directly ahead. This would be a highly anticipated view for some observers. According to the Community Plans, the communities in the area have a high amount of concern for aesthetics, screening and views. As a result, the viewer sensitivity to the removal of screen trees and the greater exposure of five 5-story glass buildings is likely to be high. Viewer exposure at this location is moderately high due to the direct view west on SR-56, the large number of viewers traveling westbound on SR-56, and the ease of observing the scene from the viewer's position. Combining viewer sensitivity with viewer exposure, the viewer response rating would be considered to be moderately high.

Resulting Visual Impact

The removal of the large screen trees, addition of the retaining wall, and widening of the paved surfaces results in a large amount of visual change. Combining the high degree of changes to the visual quality and character with the moderately high viewer sensitivity, the resulting visual impact would be considered high. Measures to reduce the visual impact of the changes would include screen trees where allowable, and shrub planting, which may help reduce the visual impacts over time.

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Key View 305 – Hybrid Alternative

Figure 40 - Key View 305 – Existing View

Figure 41 - Key View 305 – Proposed View

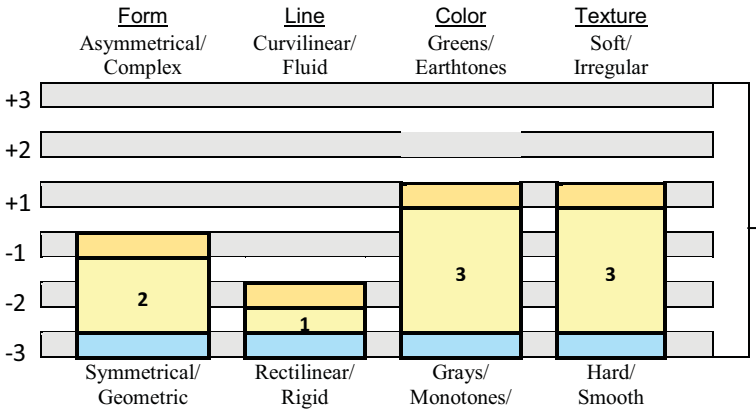
KEY VIEW #305 – Hybrid Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

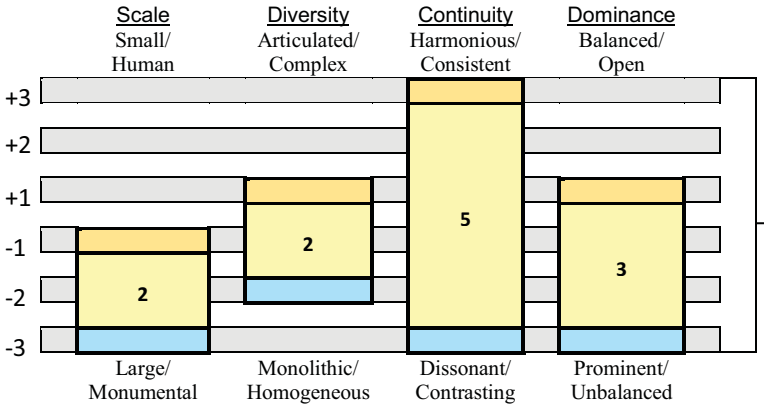
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

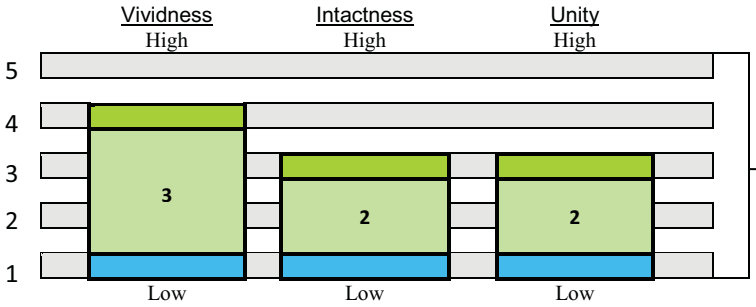


Avg. Change: 3.0
% Change: 60

Avg. Change: 2.6
% Change: 52

H
Change to Visual Character

VISUAL QUALITY



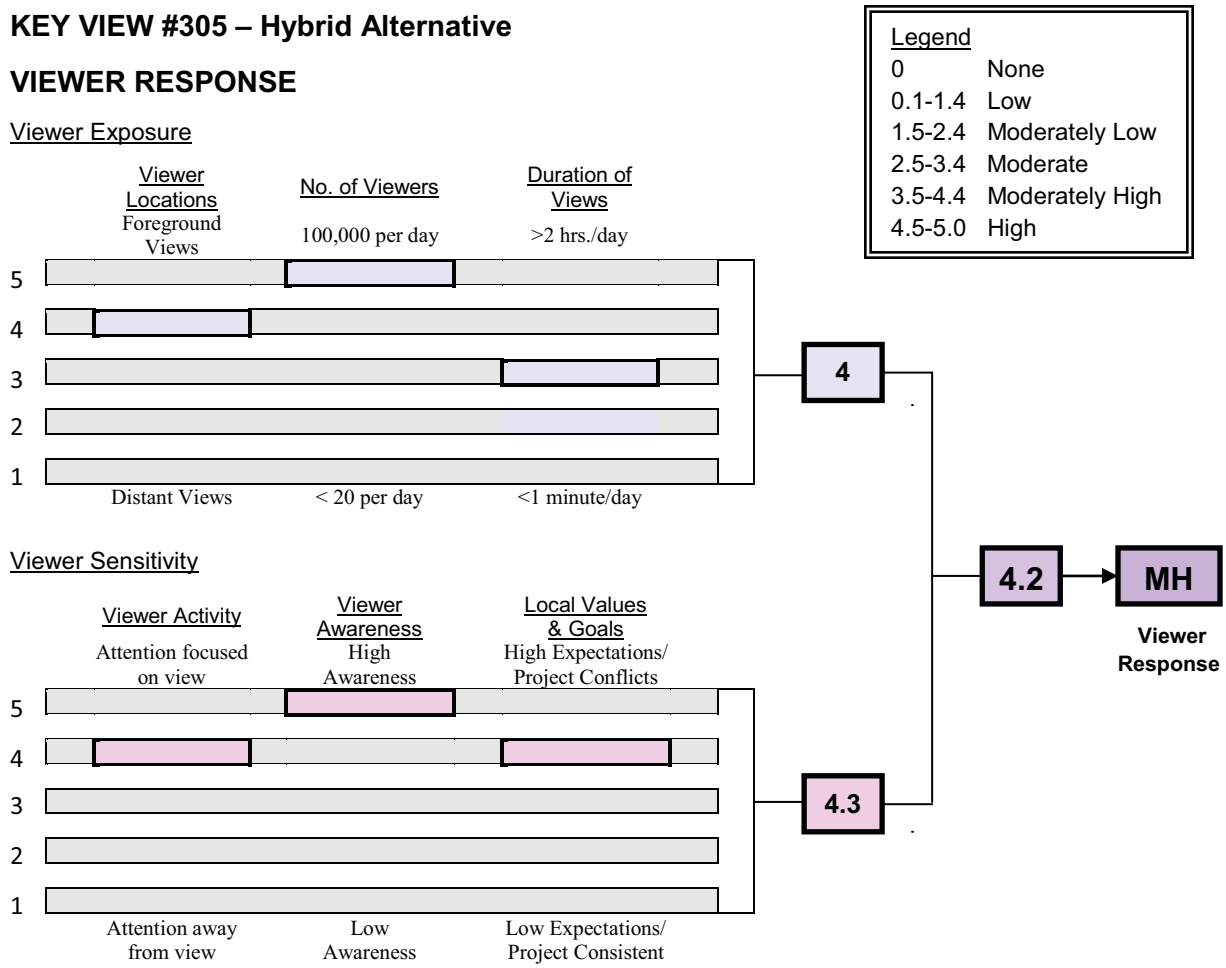
Avg. Change: 2.3
% Change: 58

H
Change to Visual Quality

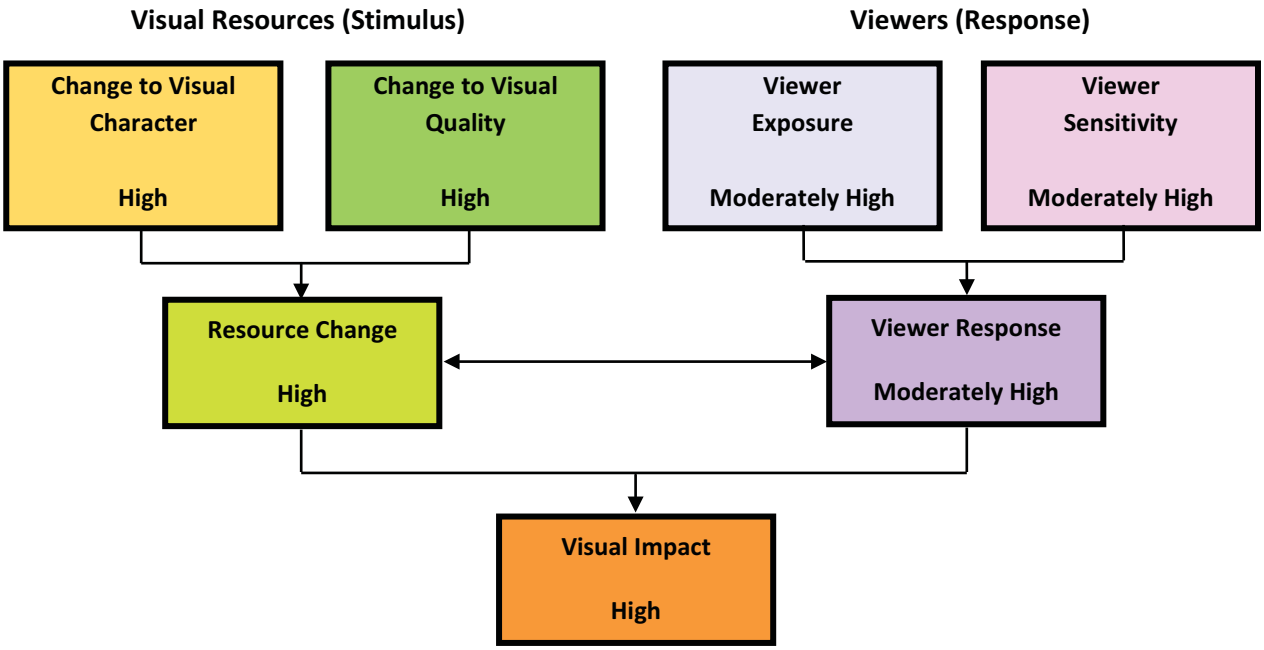
Legend
Existing View
Proposed View

KEY VIEW #305 – Hybrid Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 305 – Hybrid Alternative

Orientation

Key View 305 provides the view looking north from I-5 just beyond Carmel Valley Road with the bridge at Del Mar Heights Road in the distance. The view shows the concrete roadway, signs, barriers and lights of the freeway adjacent to landscaped commercial buildings on the right. The landscape between the freeway and the buildings was planted in the 1970's and 1980's and has achieved good size and screening capacity with a mix of Eucalyptus, Torrey Pines and other trees and shrubs. The majority of this landscape is currently privately maintained. The coastal hills of Del Mar are visible across the freeway on the left (west side) of the view.

Existing Visual Quality/Character

The visual character of this view is dominated by the broad expanse of transportation facilities, and the landscaping and attractive commercial buildings on the right. The vividness of the view is moderate due to the lack of memorable qualities, and the expanse of gray concrete surfaces. However, the elevated terrain, high quality of the buildings on the right, and attractive mature landscapes provide a sense of heightened visual quality raising the vividness rating to moderately high. The intactness of the view is interrupted by the roadway elements and signs, but due to the maturing landscape, would be considered to be moderately intact. The compositional character of the view is simple and balanced, resulting in a moderate rating of visual unity. The resulting combined visual quality would be defined as moderate.

Proposed Project Features

The Hybrid Alternative proposes to construct an additional four lanes at the right side of the view. These will be comprised of the connector flyover and the northbound bypass which merge onto I-5 at this location. Retaining walls will be constructed to support the grade changes. The landscape at the right will be removed to accommodate the additional road width, and the right-of-way will be moved to just beyond the proposed freeway edge, resulting in the elimination of most of the buffer planting area. Parking garages and parking areas will be close to the freeway edge, and in some cases will need to be cut back to allow freeway construction. Very limited mitigation planting will be possible in this area. Across I-5 on the west, the widened roadway will be visible, as well as the 3 to 10 meter tall retaining wall. The existing sound wall for the residences on the west side of the freeway will remain at the top of the private vegetated slope.

Change to Visual Quality/Character

The expanded freeway width, retaining walls, intersecting ramps and the elimination of screen planting on the east (right) will result in a great amount of visual change in this view. The buildings on the right will be exposed to view with minimal landscaping. Parking areas will become highly visible, and additional parking structures to accommodate parking displaced by the roadway may also be visible. The vividness of the view will decrease due to the reduction of planting, roadside trees and the addition of retaining structures on the west. An increase in the roadway width will contribute to visual monotony. The resulting vividness is anticipated to be low. The unity of this view will be decreased to low due to the elimination of the planting and trees both on the left and right of the view reducing the balanced composition. The intactness will also decrease to low due to the elimination of the existing planting, and the addition of retaining walls, and other visual clutter. Combining vividness, unity and intactness results in a low visual quality rating, with a high change to visual quality.

With the construction of the proposed project, there will be a high degree of change in visual character. Forms become more geometric, colors, more monochromatic, there is and increase

in hard, smooth textures and a decrease in softening landscape. The pattern character also exhibits more monolithic, less human scale, and the composition becomes unbalanced, with an attendant loss of harmony and increase in contrasting elements.

Viewer Response

Viewers are likely to have a strong response to the changes in this view as a result of the removal of landscape, and replacement with concrete freeway elements and expanded traffic area. Viewer sensitivity would be anticipated to be moderately high due to the speed and complexity of the traffic, combined with the expectation that the views available from freeways are typically highly influenced by the developed nature of the freeway. The viewer exposure rating would be anticipated to be moderately high at this location, due to the large number of viewers, and their ability to directly observe the visual changes despite the speed of travel.

Resulting Visual Impact

Combining the high degree of change to visual quality with the moderately high viewer sensitivity, the resulting visual impact would be considered high. The change to the view would be clearly noticeable to viewers. Mitigation measures to reduce the visual impact of the retaining walls will help compensate for the size and severity of the wall on the west. However, the diminished planting will result in a high degree of change apparent to the viewers. Due to the limited space for mitigation planting on the east side, and the increased exposure of the parking, and buildings, the visual quality is markedly decreased.

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Hybrid Alternative Sound Walls

As part of the Visual Impact Analysis, the sound walls identified in the Preliminary Noise Abatement Decision Report (NADR) as "Recommended", "Conditional" and for "Severely Impacted Receptor" have been included on the Landscape Concept Plans for the Hybrid Alternative. The following analysis is provided for the identified walls:

<u>Sound Wall 56.S35:</u> Located on the north side of SR-56 from station 33+84 to 37+50 with a length of 370 meters and a maximum height: 3.7 meters, this wall will be constructed at the top of a densely vegetated slope along a line of residential homes. This wall will be located a very

short distance outside the rear of the residences, where a solid wall would obstruct the openness of the existing yards and views of vegetation and the slopes of Carmel Valley. Consequently, the wall type will likely be glass over a low wall with glass for the upper portion to preserve the openness. While this is a potentially highly visible location seen from eastbound SR-56, it appears that the existing slope planting that currently almost completely hides the residences from view and is to remain in place, will obscure the proposed sound wall to such a degree that it is not anticipated to have a visual impact from SR-56 or the surrounding area. The wall will be located behind the dense trees in the photograph on the right and above. Some of the trees in the foreground are anticipated to be removed near the base of the slope to allow grading adjustments, but the trees above approximately the midpoint of the slope are anticipated to remain.

Sound Wall 05.S541: Located on the west side of I-5 from station 540+36 to 541+64 with a length of 183 meters and a maximum height of 4.3 meters This tall wall is proposed to surround the eastern edge of the tennis courts and recreation area of Pointe Del Mar. There is currently

an existing solid wall and an approximately 4 meter green screened tennis court fence at this location visible in the photo above. This fence is currently screened from view by the existing Acacia and Eucalyptus trees located on private property. It is anticipated that these trees will largely remain in place after construction and will continue to provide screening to the wall from I-5 and I-56 viewpoints.

Sound Wall 05.S561: Located on the west side of I-5 from station 560+85 to 562+21 with a length of 156 meters and a maximum height: 2.4 meters, the area where this sound wall is proposed is currently screened by existing planting on private property. The sound wall will be located in the area behind the trees in the center of the photograph below. Due to its orientation and substantial elevation above the freeway, it is anticipated that this wall is not highly visible

except intermittent views from the homes directly across the freeway to the east. Due to the relatively low height of this wall, and the likelihood that it will be a combination low wall and glass panels, the wall will have little more visual impact than the existing wall at this location.

Sound Wall 05.S563: Located on the west side of I-5 from station 563+28 to 564+36 with a length of 130 meters and a maximum height of 2.4 meters, this wall is located adjacent to a school recreation field. Due to its moderate height and the screening provided by the existing planting, it is anticipated that the visual impact of the wall would result in a low degree of visual impact visible primarily from the northbound I-5 lanes or the homes on the east side of interstate 5. The sound wall will be located in the area behind the trees at the left of the photograph below.

Sound Wall 05.S567: Located on the west side of I-5 from station 564+61 to 567+18 with a length of 299 meters and a maximum height of 2.4 meters, this wall surrounds the east side of the residential homes on Minorca Cove but extends past only 13 homes below the three power poles in the photo. The wall is not recommended for the three northerly homes on Minorca

Cove. This wall is likely to be a combination low wall and glass type sound wall to allow views to the east. Due to its elevation above the freeway, this wall will be primarily seen from the northbound lanes and the homes to the east. However, due to the moderate height of the wall and existing vegetation, it is anticipated that the visual impact of the wall would result in a low degree of visual impact.

Sound Wall 05.S568: Located on the east side of I-5 from station 566+24 to 567+90 with a length of 215 meters and a maximum height of 2.4 meters, this wall would replace a slightly lower wall visible in the photograph below. The wall is proposed for the 9 homes at the center of the photo. Since the proposed wall is anticipated to be a glass over solid type wall similar to the existing wall, it is anticipated that the proposed wall would result in a low degree of visual impact.

4. Summary of Project Impacts of the Hybrid Alternative

Based on this analysis, the Hybrid Alternative would result in a moderately high degree of change to the visual environment in the project area. The primary changes include one crossover bridge, increases in the expanse of paving, large retaining walls, sound walls and a loss of the existing screen planting and landscape area. The natural visual character would be diminished and the urban character would be increased. Scenic resources would be partially obstructed. Implementation of the proposed visual mitigation measures would improve the appearance of the project components, and help to blend them into the visual context. However the moderately high degree of visual change would remain for this alternative.

The analysis is based on the Key Views as well as consideration of the overall effect of the project on the visual environment. The key views are selected based on the types of project-related features that would be visible in the Hybrid Alternative, the number of viewers, the frequency with which it would be viewed, and the potential sensitivity of the viewers. Each key view is presented in its existing condition and its future condition with implementation of the proposed project and proposed mitigation. The locations of the key views are shown in Figure 31. The Landscape Concept Plan for the Hybrid Alternative (Attachment C) provides the overall design concept allowing an understanding of the design associated with each key view location. Illustrative sections for the Hybrid Alternative are provided in this subsection. Sound walls and their likely effect on the visual environment are described in detail. A detailed description of the proposed mitigation measures is provided in Section VII, Mitigation.

Effects on Existing Visual Quality Context

The Hybrid Alternative is to be constructed in an area already heavily disturbed, highly developed and impacted by the elaborate I-5/56 intersection constructed in the 1980's and expanded in the 1990's and early 2000's. The immediate area has substantially changed from its natural character due to the construction of roadways, walls and bridges in the public right-of-way, and office, commercial and residential construction. The surrounding area contains some of the most scenic features in the San Diego region, including wetlands, tidal estuaries, forested coastal ridges, naturally eroded bluffs, and views of the Pacific Ocean.

The Hybrid Alternative will create clearly noticeable changes to the visual character and environment including the addition of one new flyover connector bridges, a new Del Mar Heights Road Bridge, additional traffic lanes on I-5 and SR-56, the removal of a large portion of the existing mature screen planting, especially on both sides of I-5 between Del Mar Heights and Carmel Valley Roads, and the construction of many large retaining walls to allow the freeway widening. The project adds a greater expanse of concrete and asphalt paving, structures and many additional retaining walls and sound walls creating a higher intensity viewer experience. There will be a net reduction in the size of the landscape areas due to the expansion of the paved highway lanes although not as large as the Direct Connector alternative.

The proposed improvements, bridges, flyovers and retaining structures are not unique to the urban context currently present in the area, and consequently the proposed features should not appear out of place in the urban context. However, while the character of the project may be compatible with the existing previously constructed urban conditions, it is not in harmony with the existing natural features and scenic context that remain a vital part of the community identity and regional visual context.

Adjacent freeway interchanges, such as I-805/I-5, Mira Mesa Boulevard interchange and the I-805 bridge over Carroll Canyon, provide a regional context of similar structures and traffic

accommodations. All of these interchanges present the viewer with bands of elevated concrete roadways curving across the field of view and the skyline. The existing two and three level connectors create visual intensity at the intersection of SR-56 and I-5. These patterns of intensive transportation facilities are visual elements consistent with the other portions of the North Coastal viewshed and its visual context. However, the impact of this evolving transportation corridor will be greatly intensified by the construction of an additional level of bridge structures and the large retaining walls. The reduction of screening on both sides of I-5 between Carmel Valley Road and Del Mar Heights Road will result in the exposure of buildings more directly adjacent to the roadside, and a more expansive view of the highway surfacing. Retaining walls will appear taller and more imposing. Overall this change represents an increasing trend toward ever larger and more complex transportation structures, resulting in high degree of change to the existing visual character and diminishing the existing visual quality.

Following is a discussion of the major impacts to viewers on the freeway and to the community and scenic resources.

Impacts to Viewers on the Freeway

Reduction in Quality to Existing Views

Due to the expansion of the highway lanes, areas for landscaping will be greatly reduced from the existing condition. On the west side of I-5 the landscape will be removed and the planting area will be reduced by more than 50% for most of the distance between Del Mar Heights Road and Carmel Valley Road. In addition, on the east side of I-5, the landscape areas will be cut back to within the existing private property, eliminating both the right-of-way planting and portions of the private lot landscape of the commercial buildings. This will result in exposure of the commercial buildings along the east side of I-5 to a far greater degree. In some areas, the landscape between the freeway and the parking areas will be completely eliminated.

The destruction or elimination of much of the existing screen planting along SR-56 as a result of grading for the widening will reduce the visual quality of the views in both directions.

Crossover Bridge

The west SR-56 to north I-5 crossover will cross over the existing interchange ramps creating a second level of traffic bearing lanes above grade and the adjacent areas and the Carmel Valley Road area. This bridge will result in an imposition on the space near the existing gas station and will cover a portion of the Carmel Valley Road northbound on-ramp high degree of visual impact to the lower commercial area at Del Mar Hills Drive cul-de sac. The concrete bridge structure contrasts with the natural environment and the scale and size contrasts with the community contexts.

Large Retaining Walls and Expansive Paving

Large, tall retaining walls will be highly visible on the west side of I-5 between Del Mar Heights Road and Carmel Valley Road. Approach ramps to the Connector bridges will also require retaining walls. Consequently, retaining walls would be considered to be one of the highest visual impacts of this alternative. Even though these walls will be designed to harmonize with the visual environment in color texture and shape, they will create a high degree of visual impact.

The expanded paving areas will result in a strong change to the visual character as both I-5 and SR-56 become wider and the proportion of the view that is fully paved becomes larger. This results in a sense of an increasingly urbanized and paved environment.

The large walls and the expanded paving contrast with the visual character of the largely vegetated existing regional visual character.

Loss of Existing Freeway Landscape and Screen Planting
Large portions of the landscape on both sides of I-5 south of Del Mar Heights Road would be removed as a result of this project and be replaced by additional travel lanes with retaining walls instead of landscaped slopes. Many of the retaining walls would be located adjacent to the freeway and would not have planting relief. Where possible, walls in other areas of the I-5 area would be located with planting areas at the bottom to provide potential screening of the walls.

Along SR-56 the widening will result in a loss of the existing slope planting due to the grading for the road widening. This planting is becoming increasingly mature and its loss, including the loss of many maturing Torrey Pines planted for the original freeway construction, would be striking.

Loss of Median Planting on SR-56
It is anticipated that the existing median Oleander shrub plantings that currently provide color and visual relief would be removed for the majority of the project length due to the lane widening. These would not be replaced due to lack of space.

Impacts to Viewers in Communities Adjacent to the project
Impacts due to increasing the proximity of the freeway to the community
Views to the freeway would be adversely affected at the right-of-way edges where the freeway would become closer to the existing homes and businesses. This would be especially critical at I-5 southbound, where the additional lanes would be separated from the homes by a reduced amount of planting. However, there is anticipated to be more landscape at this location than with the Direct Connector Alternative.

The screening between the commercial buildings along I-5 would also be eliminated to a large degree resulting in many cases to direct views from the offices and parking garage to the freeway.

Community Entry Interchange Impacts
At the Carmel Valley Road interchange, the increased number of lanes and intensity of the roadway complexity will increase the urban visual character of the visual environments.

The proposed project will result in many changes at the interchange with Del Mar Heights Road that would affect the perception of the community, including an increase in the number of lanes, construction of retaining walls, loss of landscape area, loss of landscape screening, and the widened bridge over I-5.

The increase in urban visual character will also affect the interchanges at Carmel Country Road, El Camino Real and Carmel Creek Road as the interchanges are expanded to include additional lanes.

Impacts to Scenic Resource Views
The project viewed from Torrey Pines Visitor Center (Key view 101) is part of a regional panorama that includes the rare Torrey Pines, unusual eroded sandstone coastal bluffs, chaparral, coastal sage, wetland and estuarine habitats and well as a complexity of urban and suburban elements. The impact of the project on this view has been analyzed to result in a

moderately low degree of visual impact, primarily due to the distance and the blending of the proposed construction into the existing freeway and commercial elements.

While this alternative include only a low connector bridge, there may also be a minor diminishment of the views from the trails, and bike paths in the surrounding region, although no specific area of high impact has been identified due to distance and location from the viewer, as well as the screening along trails by existing vegetation.

Viewer Response

As defined in section V.C of this report, viewer response is a combination of viewer sensitivity and viewer exposure. For the purposes of this project, viewer sensitivity considers the viewer's observation and understanding of the existing visual conditions, combined with the concern for preserving and enhancing the regional visual context expressed in the Community Plans. The project is in an area of comparatively high scenic quality, and viewer expectations would be considered to be high. Based on these indicators, viewer sensitivity within the viewshed is considered to be moderately high overall.

Viewer exposure is relatively high due to the direct observation on the relatively straight roadways, and the high numbers of viewers living in and passing through the viewshed. However, viewer exposure from the highways in the project study area is frequently impacted by the congested traffic conditions. Due to the speed of travel, the need to pay close attention to traffic conditions and signage at this busy location, and the number of distractions to the motorist, the viewer exposure must be adjusted downward, and consequently is considered to be moderately high overall.

Based on this analysis, the combined Viewer Response is considered to be moderately high, which maintains and amplifies the changes to visual quality.

Light and Glare

The proposed project includes the widening of portions of SR-56, and I-5 to include additional lanes, and will result in the widening of the light and glare during the nighttime hours. The width of the focused light from headlights will increase, and the overall light from the freeway will be increased. Except for the traffic on the new connectors, the direction of the headlights should conform closely with the additional headlight illumination patterns. The flyover for the Hybrid Alternative will contribute some new illumination patterns from the elevated structure. Given the amount of light and movement in the existing interchange, the implementation of the Hybrid Alternative is expected to cause a moderately low visual impact from lighting. The impact appears to be a combination of some new headlight directional patterns, and an increase in lighting levels due to the increased numbers of lanes of headlights, and additional lighting fixtures, possible with higher output.

Construction Related Visual Impacts

During the construction period, demolition, grading, bridge falsework, cranes, heavy machinery and other vehicles associated with construction will be highly visible and will have a temporary impact on the viewers during construction. Storage of construction equipment, fences, orange safety markings, barricades, temporary warning lights, signs and other construction related items will create a temporarily disturbed and degraded view. These are temporary visual impacts associated with the requirements of construction and are not considered a long term visual impact.

Analysis Conclusions

The project area includes a wide range of commercial, residential open space and park land uses. I-5 has been determined to be an eligible Scenic Route, but has not yet been designated by the Caltrans. There are no designated historic resources within the project area, although portions of Torrey Pines State Park, Torrey Pines State Beach, the Penasquitos Lagoon, and the Carmel River are within the project viewshed.

The primary changes to the visual character due to the Hybrid Alternative include the construction of a connector bridge structure over the existing Carmel Valley Road intersection, the construction of a wider replacement bridge at Del Mar Heights Road, construction of additional traffic lanes, large retaining walls, a large reduction of screen planting, removal of mature trees, a greater expanse of concrete paving and structures and many additional retaining walls. There will be a net reduction in the size of the landscape areas. Other visual effects associated with the project would result from retaining walls, graded slopes, and five sound walls along I-5 and one along SR-56. Due to the largely urbanized condition of the area, the presence of large commercial and residential buildings, existing landform alterations, and extensive highway facilities, the visual change is tempered by the existing urban visual character of the immediate area. However, the amount of visual change as a result of the proposed project would be considered moderately high.

Long distance views from Torrey Pines State Park will be affected by the addition of the hybrid connector as shown in Key View 301. The connector and planting removals will be visible in the distance, but blend with the existing transportation facilities, and do not obstruct distant views. The changes represent only a moderately low amount of visual change. The impacts will appear minimal due to the distance of the viewer from the project improvements. The project is also visible from the rest area on the bike and equestrian trail south of Carmel Valley, but the changes will not be readily apparent since they are primarily on the opposite side of the existing connector flyovers and highway structures.

Pedestrians and bicyclists primarily view the project from Carmel Valley Road, El Camino Real, and Del Mar Heights Road. The widening of the bridge and addition of traffic lanes will impact the pedestrians due to the increasing expansion of motorized vehicle orientation as opposed to expansion of accommodations for pedestrian and bicycle travel. The existing conditions for pedestrians and bicyclists are minimally supportive of these activities, relying on the minimum required width sidewalks traversing intersections and crossing the bridge at Del Mar Heights.

The proposed project would have a moderately high degree of adverse effect on the visual quality of the project area. The overall aesthetic quality of the project area would be affected with implementation of the Hybrid Alternative. The aesthetic quality of many areas could largely be restored similar to the existing condition over time as a result of the revegetation and visual mitigation for this project. However, the area between Del Mar Heights Road and Carmel Valley Road would be especially impacted by the reduction of screening vegetation and the construction of large retaining walls. Establishment of new planting with thematic connections to adjacent natural areas, development of attractive bridge enhancements, and focal landscape elements would help reduce or visually blend potential adverse impacts resulting from the proposed project, but would not compensate for the adverse visual effects.

Based on this analysis, the proposed construction of the Hybrid Alternative will result in a moderately high degree of visual change. A comparative study of the project alternatives is included in Section VIII of this document.

G. Analysis of the Hybrid with Flyover Alternative

The highway design has been carefully reviewed to determine the proposed features of each alternative which may result in perceivable visual impacts. These construction features are evaluated to anticipate the associated visual changes likely to occur. Following is a summary of the proposed construction items that are considered to result in visual changes.

1. Changes Due to Construction of the Hybrid with Flyover Alternative

Changes resulting in the primary visual impacts for the Hybrid with Flyover Alternative include:

- The proposed direct connector from westbound SR-56 to I-5
- The proposed flyover connecting Carmel Valley Road to SR-56 eastbound
- Construction of the new bridge crossing I-5 at Del Mar Heights Road
- Widening Del Mar Heights Road I-5 bridge approaches
- Widening the SR-56 roadway from 1000 meters east of Carmel Country Road to I-5 (approximately 3200 meters)
- Widening I-5 from 1000 meters north of Del Mar Heights Road to Carmel Valley Road (approximately 2700 meters)
- Widening of the eastbound connector ramp (EC-3 line)
- Adjustments and reconfiguration of interchange ramps and associated retaining walls at the following intersections:
  - I-5 / Del Mar Heights Road
  - I-5 / Carmel Valley Road
  - SR-56 / Camino Real
  - SR-56 / Carmel Country Road
  - SR-56 / Carmel Creek Road
- Elimination of a portion of the landscape buffer between the west edge of I-5 and the residential homes along Portofino Drive and Portofino Circle
- Elimination of much of the landscape buffer between the east edge of I-5 and the commercial buildings along El Camino Real
- Removal of some existing maturing trees, including Eucalyptus, Torrey Pines, Italian Stone Pines and other plants installed during previous highway construction projects along SR-56 and I-5
- Addition of retaining walls along I-5:

RW No. WN-1:	Length: 145 meters Average height: 2.7 meters Maximum height: 5.4 meters
RW No. WN-2:	Length 145 meters Average height 2.4 meters Maximum height 4.8 meters
RW No. 539:	Length: 1697 meters Average height: 4.4 meters Maximum height: 9.0 meters

RW No. 541	Length: 188 meters Average height: 3.0 meters Maximum height: 6.1 meters
RW No. 543	Length: 618 meters Average height: 3.4 meters Maximum height: 5.4 meters
RW No. 550	Length 288 meters Average height: 4.2 meters Maximum height: 9.2 meters
RW No. 555	Length: 492 meters Average height: 2.0 meters Maximum height: 4.9 meters
RW No. 556:	Length: 138 meters Average height: 1.0 meters Maximum height: 2.0 meters
RW No. 560:	Length: 916 meters Average height: 3.4 meters Maximum height: 10.0 meters

- Construction of retaining walls along SR-56:

RW No. 11:	Length: 83 meters Average height: 1.5 meters Maximum height: 2.4 meters
RW No. 12:	Length: 173 meters Average height: 2.5 meters Maximum height: 3.2 meters
RW No. 16:	Length: 361 meters Average height: 0.9 meters Maximum height: 1.2 meters
RW No. 21:	Length: 237 meters Average height: 2.1 meters Maximum height: 3.0 meters
RW No. 23:	Length: 301 meters Average height: 1.7 meters Maximum height: 3.3 meters
RW No. 24:	Length: 245 meters Average height: 2.7 meters Maximum height: 5.1 meters

- Construction of retaining walls along Carmel Valley Road:

CVR1:	Length: 115 meters Average height: 3.0 meters Maximum height: 3.8 meters
CVR2:	Length: 129 meters Average height: 2.9 meters Maximum height: 3.5 meters

- Construction of retaining walls along flyover structure:

RW No. Fly1:	Length: 137 meters Average height: 3.3 meters Maximum height: 7.1 meters
RW No. Fly2:	Length 53 meters Average height: 1.3 meters Maximum height: 2.6 meters
RW No. Fly3:	Length: 181 meters Average height: 2.4 meters Maximum height: 6.2 meters
RW No. Fly4:	Length: 181 meters Average height: 2.9 meters Maximum height: 6.6 meters

- Sound walls along I-5 and SR-56:
  The following sound walls are proposed for the Hybrid with Flyover Alternative based on the noise analysis for the design alternatives, and are being recommended as both reasonable and feasible, or as severely impacted or conditional in the NADR.

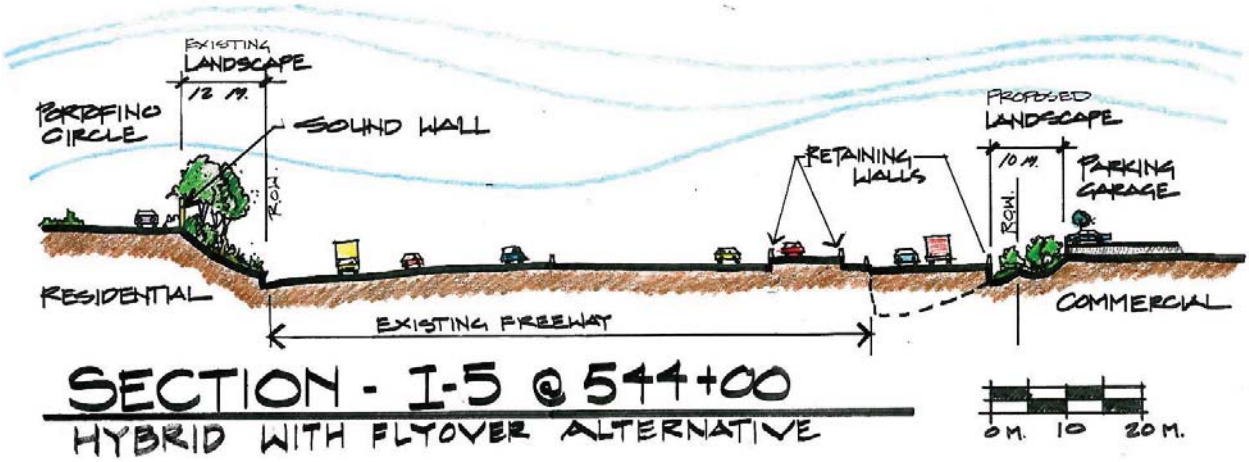
Sound Wall 56.S35:	Station 33+36 to 33+56 & 33+84 to 37+50 Length: 392 meters Maximum height: 3.7 meters Noise Abatement Decision: Recommended
Sound Wall 05.S541:	Station 540+36 to 541+64 Length: 183 meters Maximum height: 4.3 meters Noise Abatement Decision: Recommended due to existence of severely impacted receptors.
Sound Wall 05.S561:	Station 560+85 to 562+21 Length: 156 meters Maximum height: 2.4 meters Noise Abatement Decision: Recommended due to existence of severely impacted receptors.

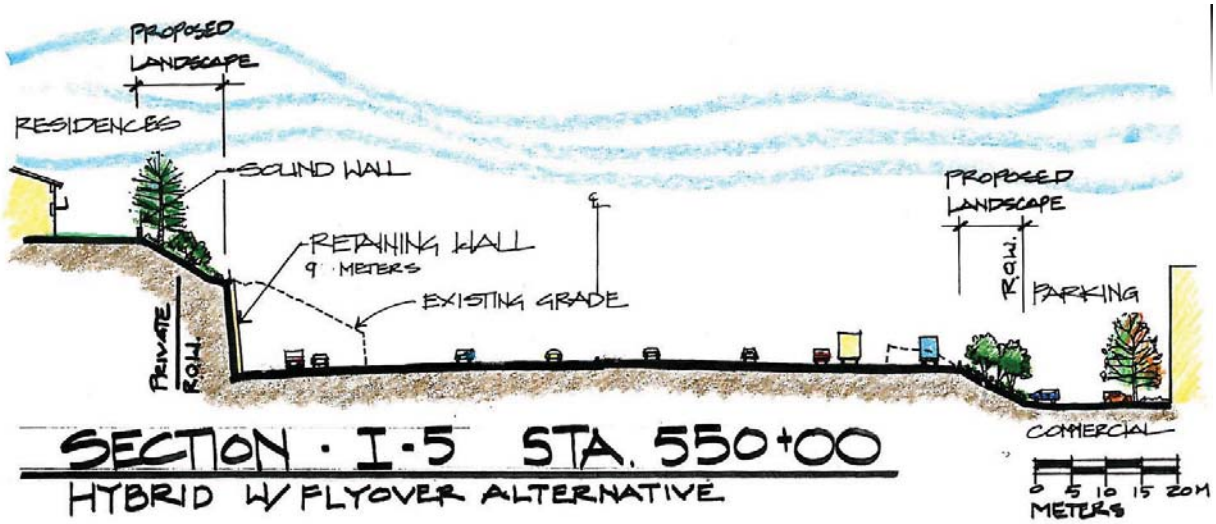
Sound Wall 05.S563: Station 563+28 to 564+36
Length: 130 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

Sound Wall 05.S567: Station 564+61 to 567+18
Length: 299 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Recommended

Sound Wall 05.S568: Station 566+24 to 567+90
Length: 215 meters
Maximum height: 2.4 meters
Noise Abatement Decision: Conditional

The landscape concept plans attached in Appendix D illustrate the proposed improvements and landscaping for the Hybrid with Flyover Alternative. The sections below illustrate the typical proposed conditions along I-5.





2. Key View Selection

Key view locations selected to illustrate the above visual impacts are shown in Figure 42 and include the following:

Hybrid with Flyover Alternative:

- Key View 401: View from Torrey Pines State Park viewpoint at the viewing area adjacent to the parking area for the Park Information Center looking northeast toward the intersection of I-5 and SR-56.
- Key View 402: View south from southbound I-5 between Carmel Valley Road and Del Mar Heights Road (I-5 station 546+10)
- Key View 403: View east from eastbound Carmel Valley Road 110 meters west of Caminito Del Mar (Carmel Valley Road station 535+80)
- Key View 404: View from westbound SR-56 off-ramp to Carmel Valley Road from approximately SR-56 station 534+70
- Key View 405: View from northbound I-5 south of intersection with SR-56 (I-5 station 534+50)
- Key View 406: View from the connector from I-5 northbound to SR-56 eastbound (I-5 Station 542+20)

The visual simulations in this study were created by applying the conceptual designs of the proposed Hybrid with Flyover Project Alternative to the key views to show the anticipated condition following completion of construction and establishment of plant material. The visual simulations are for conceptual analysis and are not intended to provide a precise, scaled depiction of the proposed project. They illustrate the potential future post-project visual character for the project area approximately 5 years after project completion. The visual simulations represent typical views and the potential changes that would be expected. No changes would occur under the No-Build Alternative, therefore, the existing condition photographs are representative of The No-Build Alternative.

The location and direction of the key views are shown in Figure 42. Each key view is discussed in detail in the following sections, including orientation, existing visual quality, proposed project features, changes to visual character, anticipated viewer response and the resulting visual impact.

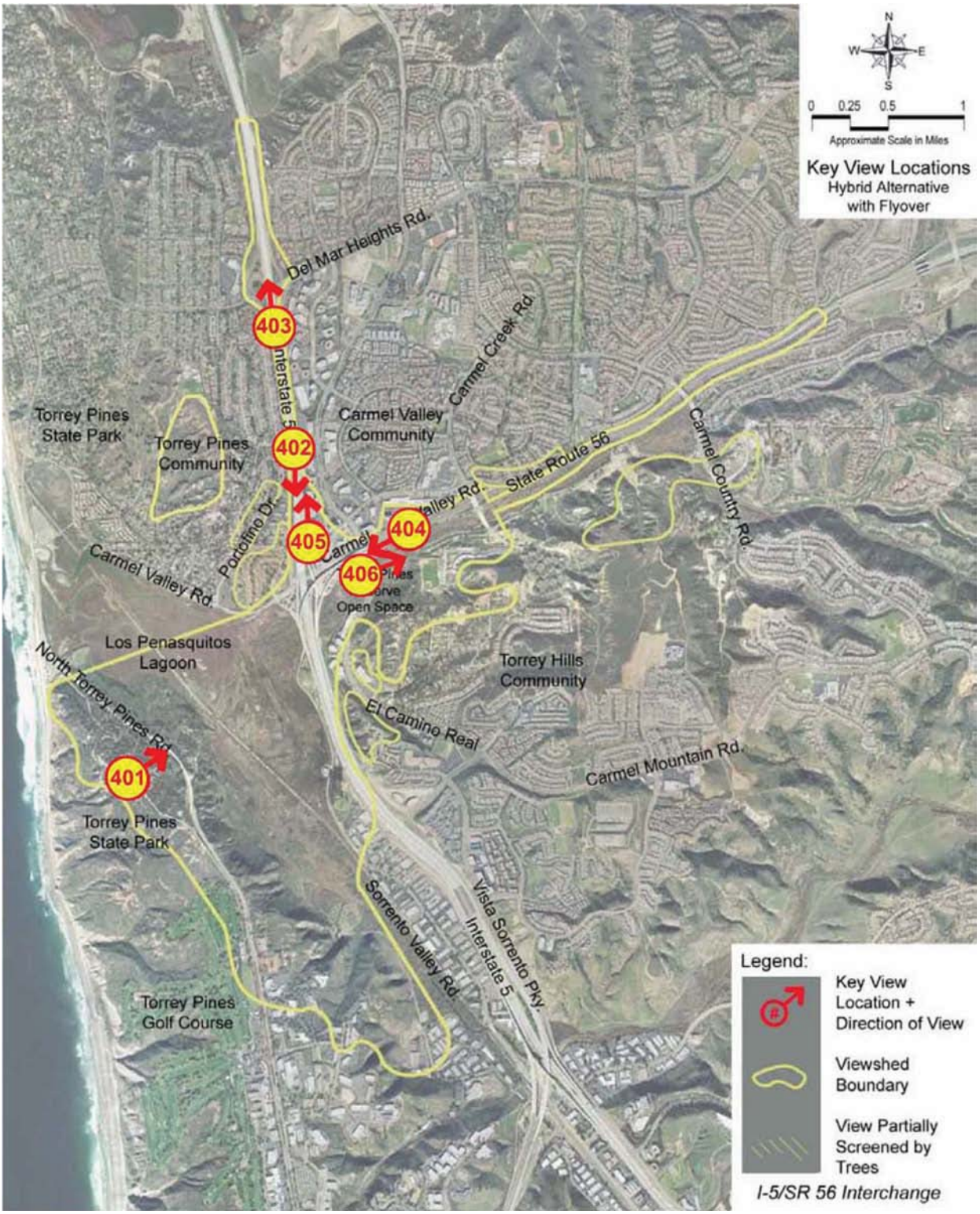


Figure 42: Key View Locations – Hybrid with Flyover Alternative

3. Visual Analysis of Hybrid with Flyover Alternative Key Views

Key View 401 – Hybrid with Flyover Alternative

Figure 43 - Key View 401 – Existing View

Figure 44 - Key View 401 – Proposed View

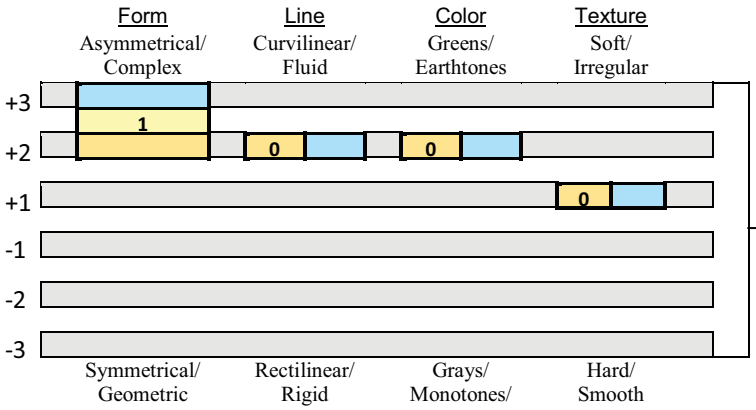
KEY VIEW #401 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

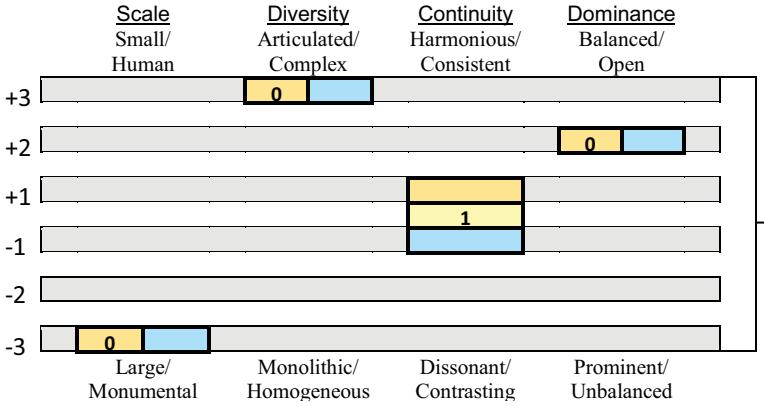
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change
0.25
5
% Change

Pattern Character
Describes the relationships between visual elements (Project and Setting)

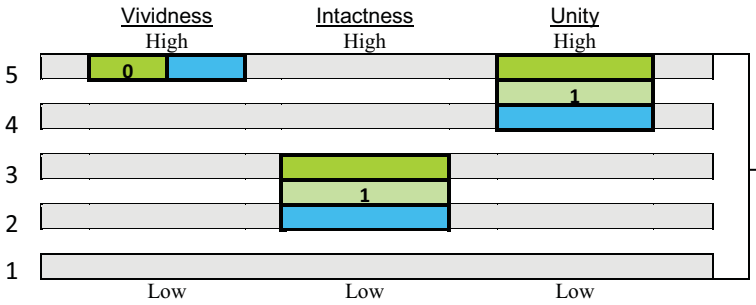


Avg. Change
0.25
5
% Change

Avg. Change
0.25
5
% Change

L
Change to Visual Character

VISUAL QUALITY



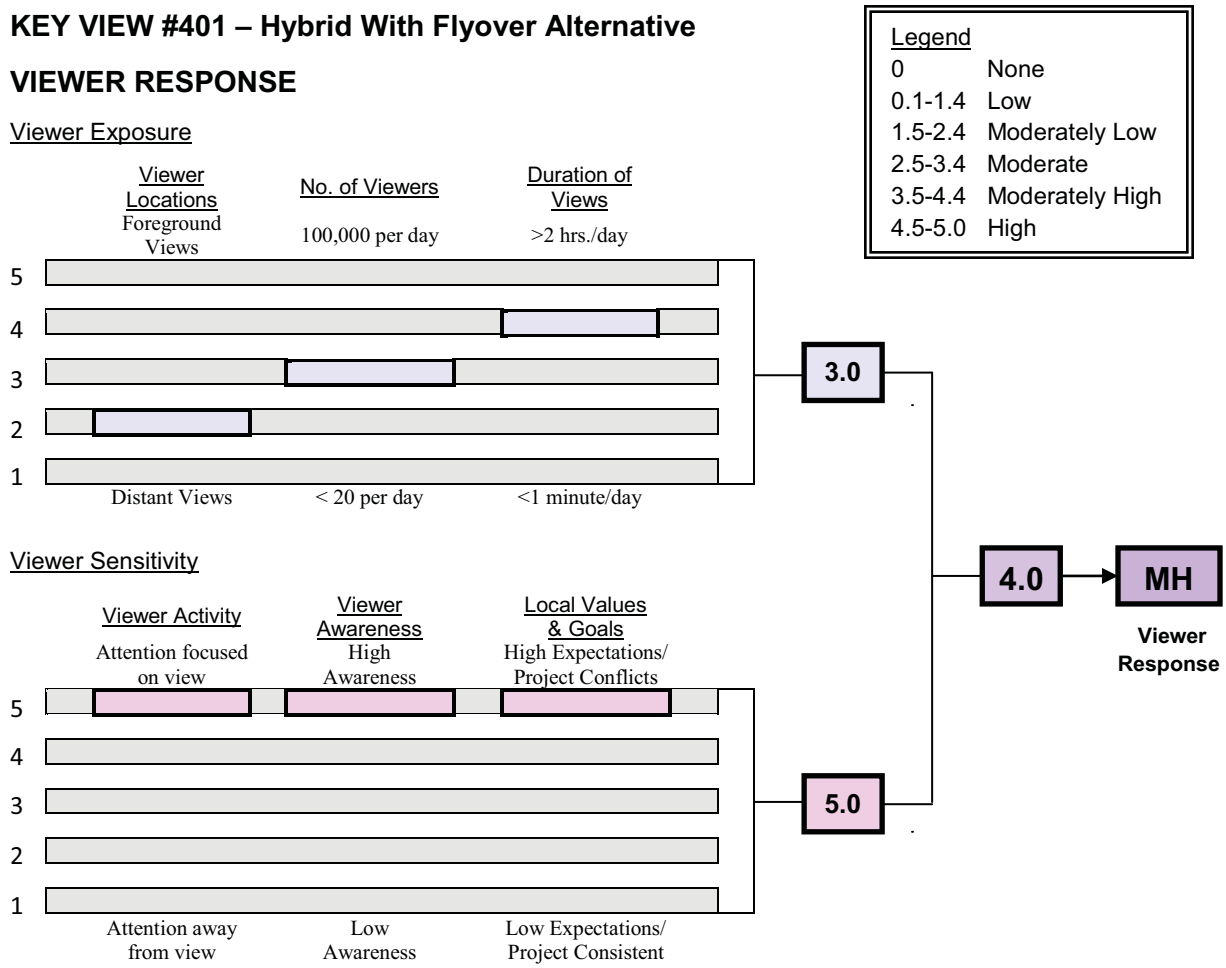
Avg. Change
0.7
17
% Change

ML
Change to Visual Quality

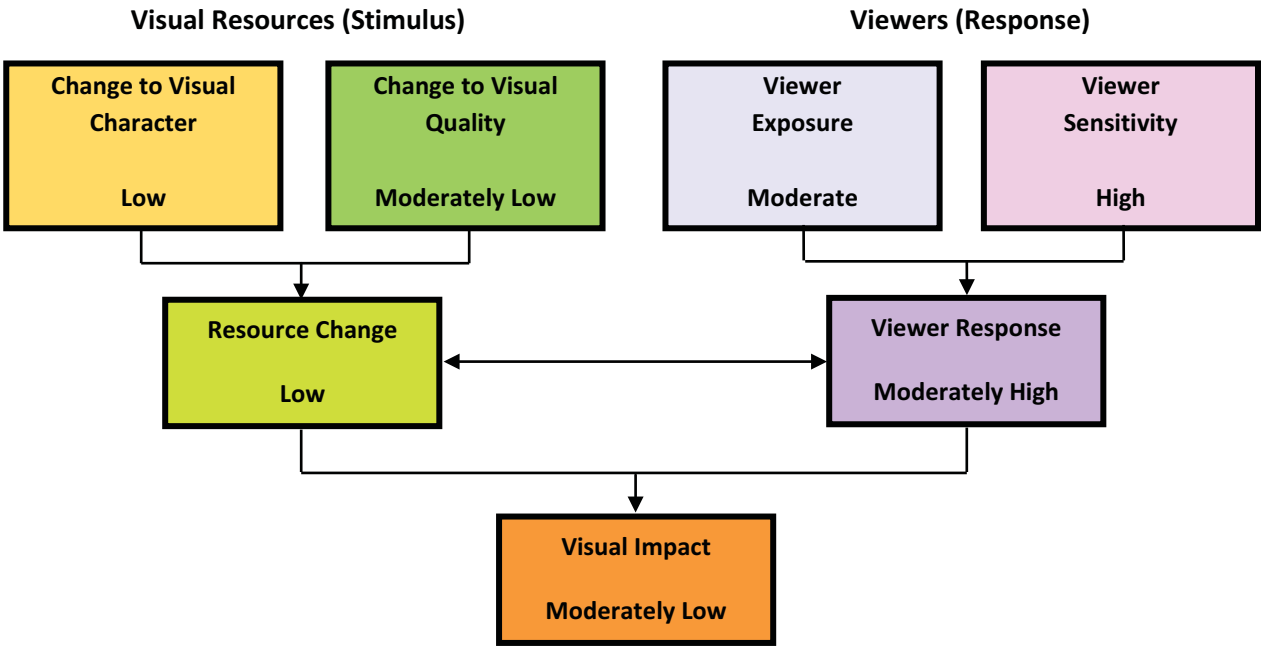
Legend
Existing View
Proposed View

KEY VIEW #401 – Hybrid With Flyover Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 401 – Hybrid with Flyover Alternative

Orientation

Key View 401 illustrates the view of the project from the upland area of Torrey Pines State Park. The existing condition is shown in Figure 43. The photo is taken from behind the low wall at the edge of the viewing area in the old picnic area east of the visitor center parking. The view is panoramic, and includes Palomar Mountain on the left; Black Mountain on the right, Penasquitos lagoon in the middleground, and a rare natural grove of Torrey Pine trees in the foreground. I-5 crosses the view, intersecting with SR-56 at the center of the photo. Carmel Valley runs east from the intersection. This is a distant view of the project, but a critical one, since it captures the visual change from an established State Park viewing area with a sensitive viewer group, and long duration of view.

Existing Visual Quality/Character

This is an expansive panoramic view, providing a full sense of the regional context from the coast to the mountains over 40 miles away. It is a balanced view composed of dramatic natural features and manmade, urban elements. The foreground consists of natural groves of Torrey Pines on the bluff slopes dropping toward the flat wetland areas of Penasquitos Lagoon. The characteristic eroded sandstone bluffs associated with the Torrey Pines area are visible on the left, and also behind the pine on the right of the photo. The rugged backcountry of San Diego County is visible on the horizon with steep mountains combining dense olive green colored vegetation and granite outcroppings. The suburban commercial and residential areas of Carmel Valley spread across the view, with light colored surfaces of the structures catching the light. Interstate 5 creates a strong line across the view. This line is highly animated by the movement of vehicles, drawing attention to the transportation corridor.

This view is extremely vivid due to the combination of mountains, lagoons, sandstone bluffs, evocative pine trees, and clusters of suburban structures. The contrast of natural elements with the built environment enhances the vividness, providing a combination of features that attract the interest of the viewer. The vividness rating would be considered to be high. While the natural features create a vivid setting, the intactness of the view is affected by the encroachment of existing development, visible grading, and the highly visible I-5 corridor with its moving traffic crossing the view. The intactness would be rated moderate. The balanced compositional qualities of foreground, middleground and background and sweeping lines of the canyons and valleys provide an attractive composition unity resulting in a high unity rating. Combining vividness, intactness and unity, the existing visual quality is rated moderately high.

Proposed Project Features

The Hybrid with Flyover Alternative proposes two fly-over structures. The westernmost flyover structure will connect SR-56 west to I-5 northbound. A second structure east of El Camino Real will connect eastbound Carmel Valley Road to eastbound SR-56 and is visible in the center of the proposed view as it crosses in front of the hotel and the group of glass-clad office buildings. This flyover will cross approximately 12 meters above the existing SR-56 lanes. The SR-56 to I-5 structure would be visible above and behind the existing structure over Carmel Creek Road. This would add another third tier of traffic lanes to the existing triple tiered interchange and increase the overall height of the northeast side of the interchange by approximately 12 meters over the existing condition. Grading and some retaining walls would be visible along the north and south side of the SR-56 corridor.

Change to Visual Quality/Character

The proposed project would add two flyovers, increasing the height and visual complexity of the intersection of I-5 and SR-56. The Carmel Valley Road to SR-56 flyover would partially obscure the commercial buildings and the landscaping along the north side of Carmel Valley Road. Some moderately mature landscaping would be removed and replaced with new landscaping to allow grading resulting in less screening and more visibility of hard surfaces. There will not be a change to the Carmel Creek wetland to the south (right side) of the existing SR-56. Since the flyover will be below the horizon, it will primarily screen commercial buildings from this viewpoint. It is anticipated that native landscape, bluffs and existing grades would not be affected by the changes visible from this location. Due to the distance to the intersection, the visual changes would be considered to represent a low amount of visual change. The vividness of the view appears to be unaffected by the project, and would remain high. The intactness would decrease slightly due to the addition of the flyover obscuring the commercial buildings but would still be considered moderately low. The compositional qualities of the view would remain as existing, resulting in a minor change to the unity rating to moderately high. The resulting change to visual quality is considered to be moderately low.

The visual character is defined by the complexity of the broad, sweeping view, and since the changes occupy a small portion of this expansive view, there is little change in the overall visual character base on form, line, color and texture. Similarly, analysis pattern character indicates a minor drop in continuity with the introduction of less harmonious freeway components consisting of the flyover and Wet to north connector. The overall change to visual character represents a low amount of visual change.

Viewer Response

The viewer response to the visual changes from this viewpoint would be anticipated to be highly sensitive to change due to the location at the State Park visitor center viewing area. This is a view that people choose to observe as a recreational activity and expectations are high. Since Torrey Pines State Park is a natural park located in a region of highly visible natural features, man-made features in the view create a contrast that is highly noticeable. However, the change to this view over the last 50 years has been great. Suburban development has become an increasing percentage of the view, replacing the farm fields and native vegetation of Carmel Valley. Therefore, the addition of transportation facilities would appear to be within the viewer's acceptance, especially since the new features will not eliminate views of natural features. Viewer sensitivity is anticipated to be high. Viewer exposure from this location would be anticipated to be moderate due to the direct, but long distance view of the project area, although the long distance diminishes the visual change to a relatively small portion of the view. The resulting viewer exposure would be estimated to be moderate. Combining viewer sensitivity and viewer exposure for this viewpoint, the anticipated viewer response to the changes would be moderately high.

Resulting Visual Impact

The proposed project improvements will affect the view from this recreational viewpoint, placing clearly visible elevated elements at the center of the view. However, the affected area is less than 20% of the framed view, and the new elements will be not break the horizon, or block existing views of natural features. Exposed slopes will be landscaped with native species, and the colors of the bridges, and other structures will be consistent with the colors in the existing view, resulting in a minimum overall visual change. The visual changes will tend to be absorbed into the existing visual context of suburban and transportation development. Considering the moderately low amount of visual change together with the moderately high viewer response, the visual impact would be considered to be moderately low based on the numerical comparison.

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Key View 402 – Hybrid with Flyover Alternative

Figure 45 - Key View 402 – Existing View

Figure 46 - Key View 402 – Proposed View

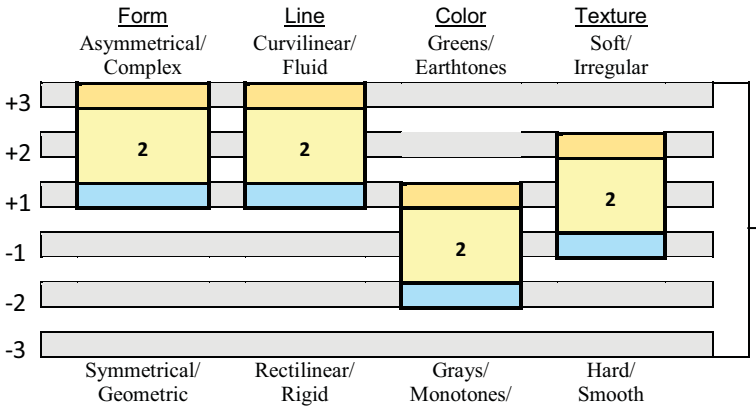
KEY VIEW #402 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

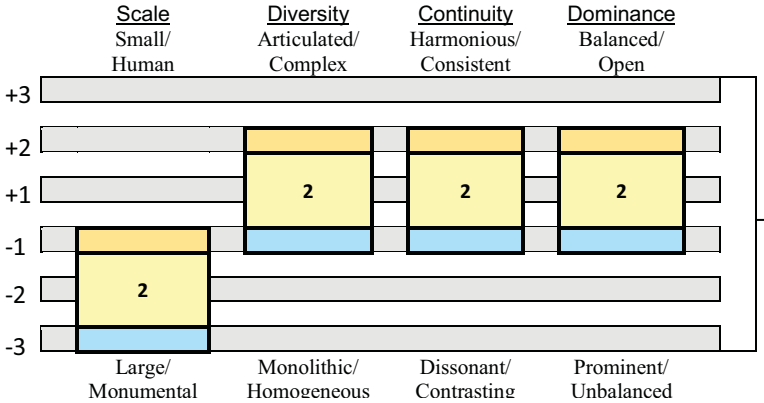
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change 2.0
% Change 40

Pattern Character
Describes the relationships between visual elements (Project and Setting)

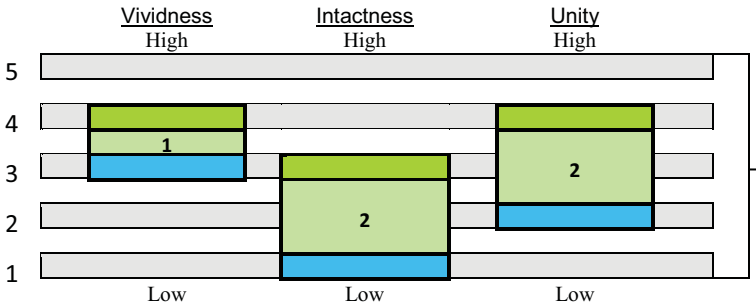


Avg. Change 2.0
% Change 40

Avg. Change 2.0
% Change 40

M
Change to Visual Character

VISUAL QUALITY



Avg. Change 1.7
% Change 42

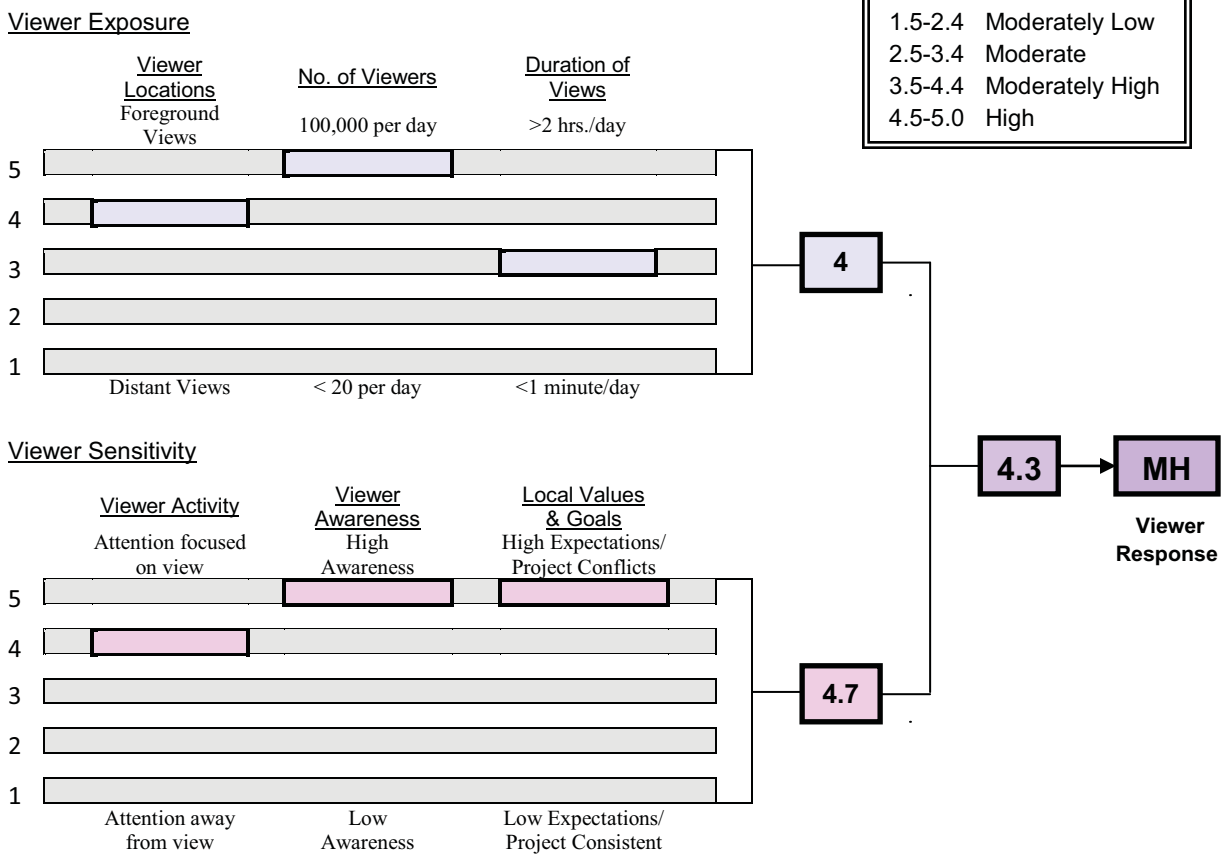
MH
Change to Visual Quality

Legend
Existing View
Proposed View

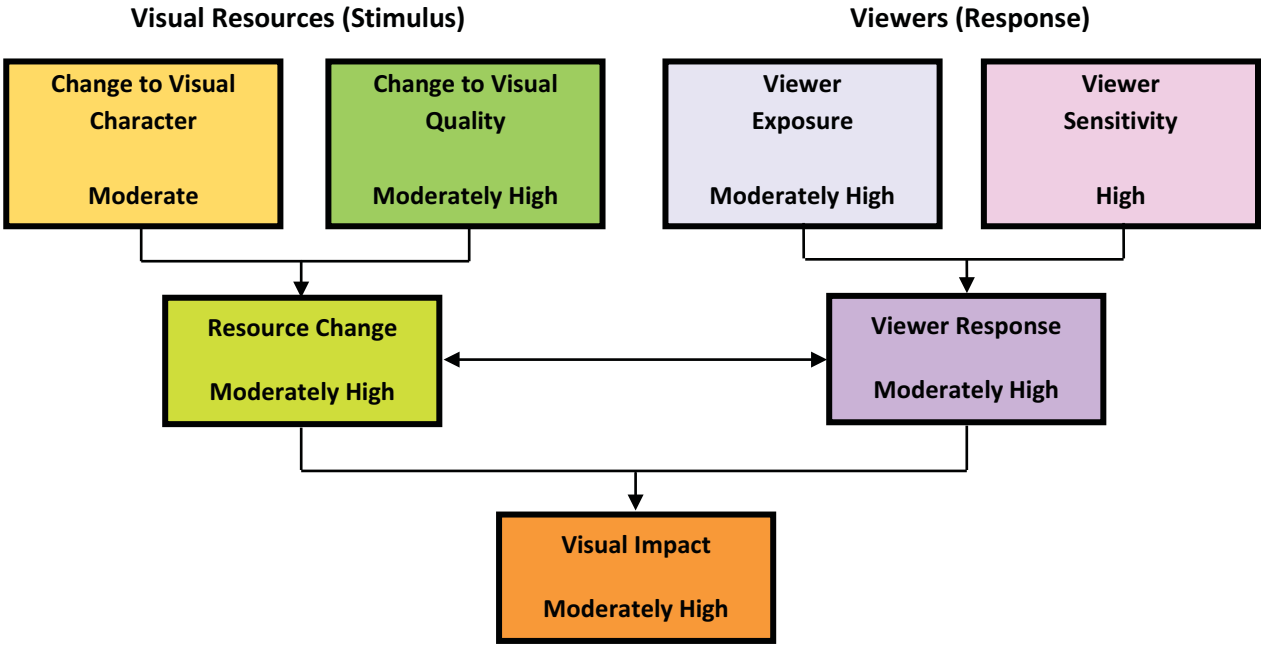
KEY VIEW #402 – Hybrid With Flyover Alternative

VIEWER RESPONSE

Legend	
0	None
0.1-1.4	Low
1.5-2.4	Moderately Low
2.5-3.4	Moderate
3.5-4.4	Moderately High
4.5-5.0	High



ANALYSIS SUMMARY



Key View 402 - Hybrid with Flyover Alternative

Orientation

Key View 402 illustrates the view from a vehicle passing station 544+00 of Interstate 5 southbound approaching the off-ramp to Carmel Valley Road. On the right, the 2:1 slope rises through heavily vegetated slope to the sound wall along the top edge of the slope. Directly ahead are the hills beyond Carmel Creek and the Penasquitos Lagoon. To the left is the commercial and office area along El Camino Real. The existing condition photograph for this view is illustrated in Key View 402.

Existing Visual Quality/Character

The existing visual character is strongly influenced by the uniformity of the 10 lane wide freeway which runs on the edge of the Del Mar Hills on the right. At this point, the character is largely defined by the large Eucalyptus clad slopes to the right, which conceal the sound wall and homes. The center of the view offers a good prospect of the distant wooded ridge across Penasquitos Lagoon. The topography is undulating, and the freeway curves to the left and out of site around the Torrey Hills community. Although there is no primary focus, the vividness is moderately high due to the evocative topography of ridges and canyons, set off by the trees in the foreground. The view is relatively free of intrusive visual elements outside of the road itself, and the vehicles. The freeway signs and light standards are consistent in design, and the green color blends with the surrounding landscape. Consequently, the view would be described as moderately intact. The view has a pleasing composition combining hills, valleys and the wide but gracefully curved roadway curving into the distance, resulting in a moderately high unity rating. Combining vividness, unity and intactness, the overall visual quality of this view is considered to be moderately high.

Proposed Project Features

The proposed design of the Hybrid with Flyover Alternative features a 4.4 to 9 meter high retaining wall to be constructed at the bottom of the vegetated slope resulting in the removal of some of the existing trees. The retaining walls will be colored to reflect the natural color of Torrey Sandstone, and will be abstractly designed to evoke a sense of the natural eroded slopes unique to the Torrey Pines/Del Mar/Solana Beach area. The existing sound walls at Portofino Circle will remain at the top of slope to the west, screened by planting. The planting buffer on the east side between the freeway and adjacent businesses will be replaced by additional lanes of traffic, resulting in increased exposure of the large commercial buildings just out of the view on the left.

Change to Visual Quality/Character

The visual environment for motorists travelling south on Interstate 5 would be altered as a result of the roadway widening, and retaining wall construction. The tall retaining wall on the right is highly visible and in close proximity to the motorist, replacing the lower portion of the landscape buffer with an expanse of hard surfaces. The elimination of a portion of the landscape screen material at the far left of the view further diminishes the vegetated feeling that this area of the freeway provides in the existing view. Additional lanes and guardrails emphasize and constrict the defined transportation corridor reducing the sense of openness previously experienced from this viewpoint. The vividness of the view is diminished to moderate due to the reduction of many of the evocative vegetative features, and the exposure of expanses of hard surfaces. The intactness of the view is reduced to low due to the imposition of retaining walls at the sides of the roadway and additional travel lanes. The unity of the view is reduced to moderately low due to the compositional complication from the addition of unscreened retaining walls. Combining the ratings for vividness, intactness and unity, the visual quality for the proposed condition is

rated moderately low. Comparing the visual quality of the existing to the proposed, the net visual change is moderately high.

Contrasting the visual character of the existing to the proposed results in moderately high degree of change. This is due to the increase in geometric, rigid and monochromatic surfaces with hard and smooth textures becoming predominant in the proposed condition. The pattern character also changes, becoming larger scale, more monolithic, with an increase in contrast and loss of balance in the composition.

Viewer Response

It is anticipated that the viewer sensitivity would be high due to the community's interest in preserving views, open space and natural features as expressed in the Community Plans. However, viewer sensitivity for most motorists may be diminished due to the speed of travel, and the traffic congestion, which often dominates the viewer's attention. The net viewer sensitivity would be anticipated to be high.

The viewer exposure would be considered to be moderately high due to the number of viewers travelling the road and the duration of the view while travelling downhill between Del Mar Heights Road and Carmel Valley Road. Similarly, the viewing aspect, looking out and down while descending the hill focuses the viewer's attention on the scene. Combining viewer sensitivity with viewer exposure, the net viewer response would be estimated as moderately high.

Resulting Visual Impact

The negative change in visual character and quality in this key view will be observable, and will be further exacerbated by the high viewer exposure and sensitivity. Due to the reduced space to re-introduce landscape buffers and screening, the lack of planting space for median planting, and the impracticality of maintaining vine planting on the walls, the proposed visual improvements will offer less visual relief than the existing condition. Combining the rating for visual change with the viewer response, it is anticipated that the resulting visual impact would be considered to be moderately high.

Comparison with Direct Connector and Auxiliary Lane Alternative

This key view is similar to Key View 102 prepared to evaluate the Direct Connector Alternative. Comparing Key View 402 with Key View 102, 202 and 302, it appears that the Hybrid with Flyover Alternative has the same visual impact as the Auxiliary Lane Alternative and Hybrid Alternative, and has less visual impact than the Direct Connector Alternative which features two flyovers that will be visible above the existing intersection, higher retaining walls, and more screen planting removal.

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Key View 403 – Hybrid with Flyover Alternative

Figure 47 - Key View 403 – Existing View

Figure 48 - Key View 403 – Proposed View

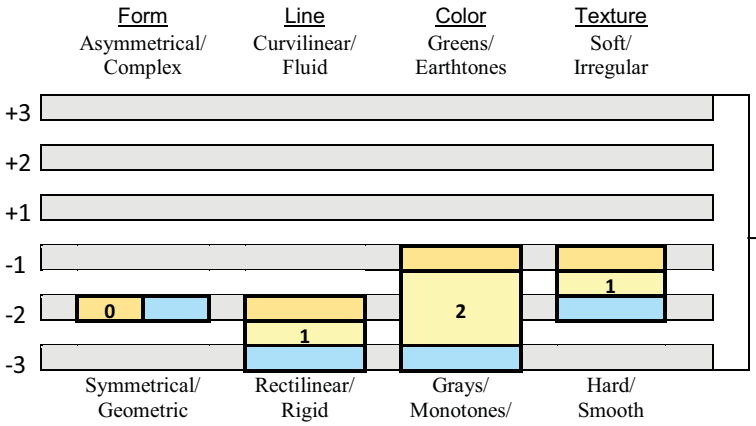
KEY VIEW #403 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

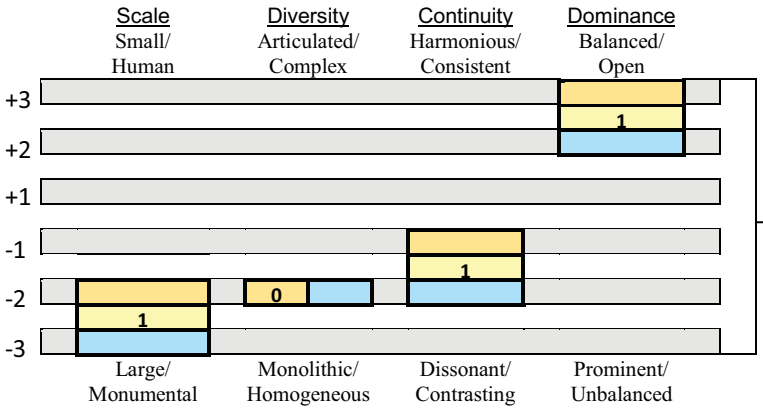
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 1.0
% Change: 20

Pattern Character
Describes the relationships between visual elements (Project and Setting)

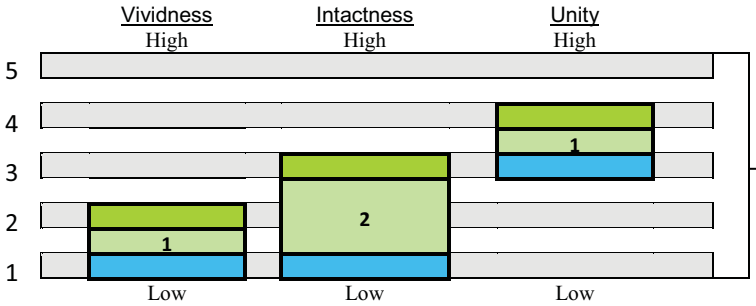


Avg. Change: 0.75
% Change: 15

Avg. Change: 0.88
% Change: 18

ML
Change to Visual Character

VISUAL QUALITY



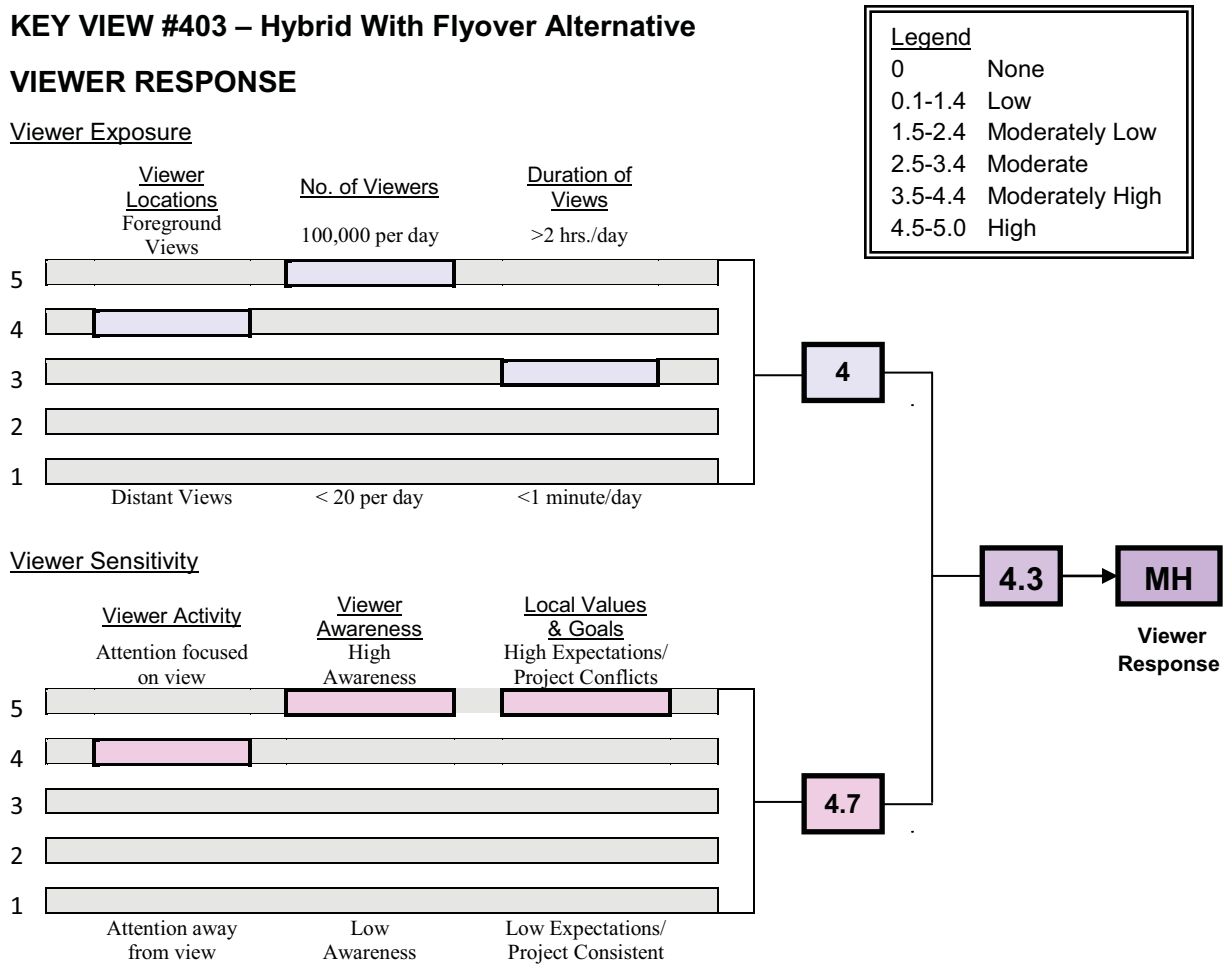
Avg. Change: 1.34
% Change: 34

M
Change to Visual Quality

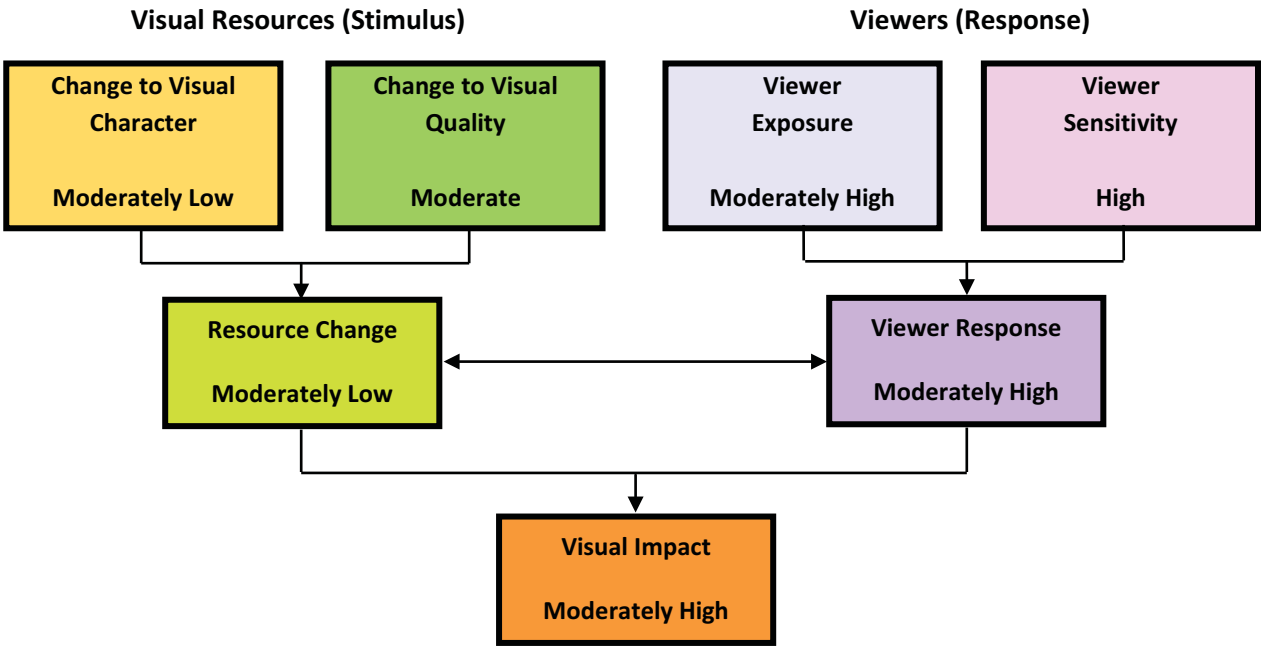
Legend
Existing View
Proposed View

KEY VIEW #403 – Hybrid With Flyover Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 403 – Hybrid with Flyover Alternative

Orientation

Key View 403 is the view approaching Del Mar Heights Road on northbound I-5 400 meters south of the overpass bridge. The existing four-lane bridge is the focal element in this view. Torrey Pine trees and Eucalyptus grow as part of the highway landscape and buffer the surrounding development from view. This view was selected due to the potential prominence of the new bridge silhouetted against the skyline, directly ahead at the top of a long and uniform incline.

Existing Visual Quality/Character

The bridge is the dominant feature and focal element of the view. The landscape buffer separates the highway from the adjacent large commercial buildings on the east (right), and the residential neighborhood to the west (left). The median is a simple traffic barrier without planting. This view is a one point perspective with the highway vanishing under the bridge at the center of the frame. This perspective focuses the viewer's attention on the bridge and its form against the sky. Although the view is forceful and focused, it is not particularly memorable due to the ordinariness of the bridge, traffic lanes and the buffer planting. Due to the lack of eye-catching features, the vividness would be considered to be moderately low. The view is relatively free of conflicting clutter. However, the traffic sign and the bridge itself would be considered an obstruction to the view. Consequently the intactness would be defined as moderate. The unity of the view is moderately high since all features are harmonious with the visual character of a relatively standard landscaped transportation corridor, and the composition is balanced. Combining vividness, unity and intactness, the resulting existing visual quality would be defined as moderate.

Proposed Project Features

A new 8-lane wide bridge will replace the existing 4-lane bridge. The highway will be widened from the existing 14 lanes, to 18 lanes under the bridge. The space under the bridge will appear wider with 2:1 slope paving under the bridge. Additional lights, signs and fences will be visible against the skyline at the top of the bridge. Many of the Pines and Eucalyptus on both sides of the roadway will be removed to accommodate grading and the adjusted ramps, exposing buildings and homes along the freeway. In addition to the trees removed due to conflicts with the proposed built elements, additional trees will likely be removed due to Caltrans standard safety setback requirements for trees and vegetation.

Change to Visual Quality/Character

The visual character will not change substantially due to construction. The view will continue to be dominated by traffic, asphalt and striping directing the viewer's attention to the freeway crossing bridge outlined against the sky. The highway will be wider, the bridge broader, allowing more viewing width under the bridge, and less vegetation. Proposed retaining walls appear not to be visible from this viewpoint. The removal of trees will open the width of the view, and allow an increased view of the office buildings, and homes on both sides of the highway. While screen planting will be reduced, new planting between the ramps and the freeway will help to increase the vegetated appearance and help compensate for the loss of screening, but will take time to replace the mature height. The vividness of the view will change to low due to the reduced vegetation. The view will have some additional minor clutter of directional signs, lights and bridge columns, but will not result in a substantial change to the intactness rating, which would be rated as low. The scale of the composition of the view will increase, but the composition will remain a balanced one point perspective focused on the

bridge with a resulting moderate unity rating. Combining vividness, intactness, and unity, the visual quality of the proposed view will be a moderate decrease from the existing condition.

Changes in visual character elements result in a shift toward more geometric and hard surfaces, less green and vegetation. There is also a change to larger, more contrasting and prominent roadway features in comparison to the natural and landscape features. Combined, these changes result in a moderately low rate of change to the visual character of this key view.

Viewer Response

Viewer sensitivity is anticipated to be high due to the high visibility of changes, and the high aesthetic expectations of North County coastal residents, and visitors to the San Diego region. This sensitivity is underscored by the importance of aesthetics referenced in the local area Community Plans. Exposure to the view will be moderately high due to the focused one point perspective view of the bridge set against the skyline at the top of the hill directly ahead. The view will be seen by motorists on 8 lanes of very busy traffic on California's primary transportation corridor. Duration of the view is long, due to the straight, inclined 1-mile approach. The observation of many viewers may be blocked by large vehicles ahead, but may have a clearer view on the next repeat trip. Combined viewer response is moderately high.

Resulting Visual Impact

Construction of the new bridge, removal of screening material, and the widening of the overall paved freeway width will result in a moderately low amount of visual change. With aesthetic improvements in place, it is anticipated that the view would be more vivid and have a similar sense of unity despite the wider transportation corridor. Visual mitigation elements are discussed in section VII of this report. These include landscaping, wall treatments, paving treatments, and bio-swales. With enhancement measures fully implemented and the bridge architectural treatments in place, the resulting change in visual quality could be considered moderately low. Combining the change to visual quality with the viewer response, the amount of visual impact could be considered to be moderate. In comparison with Key View 203, the hybrid with flyover connector introduces slightly more visual change on the right side of the view where additional lanes and ramps are included to accommodate the west to north connector.

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Key View 404 – Hybrid with Flyover Alternative

Figure 49 - Key View 404 – Existing View

Figure 50 - Key View 404 – Proposed View

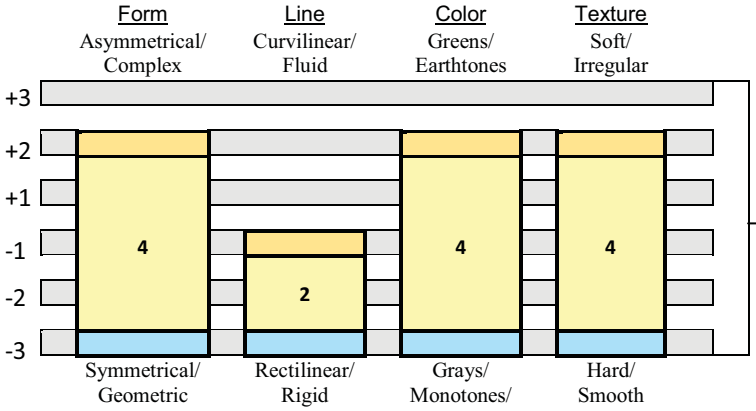
KEY VIEW #404 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

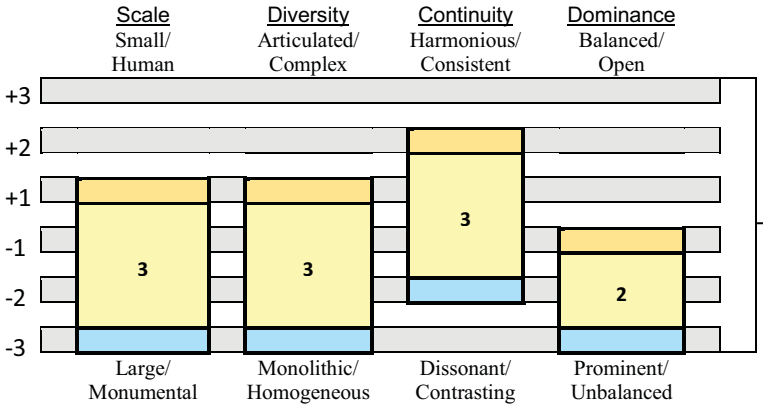
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 3.5
% Change: 70

Pattern Character
Describes the relationships between visual elements (Project and Setting)

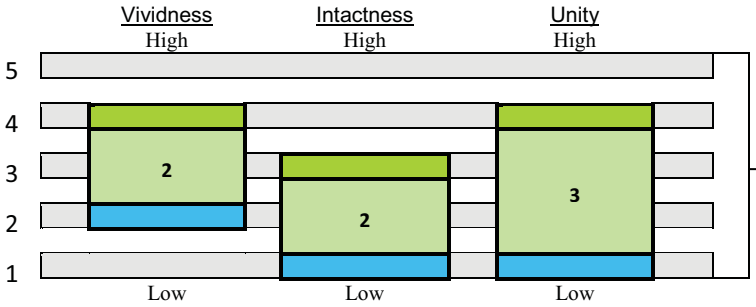


Avg. Change: 2.75
% Change: 55

Avg. Change: 3.1
% Change: 62

H
Change to Visual Character

VISUAL QUALITY



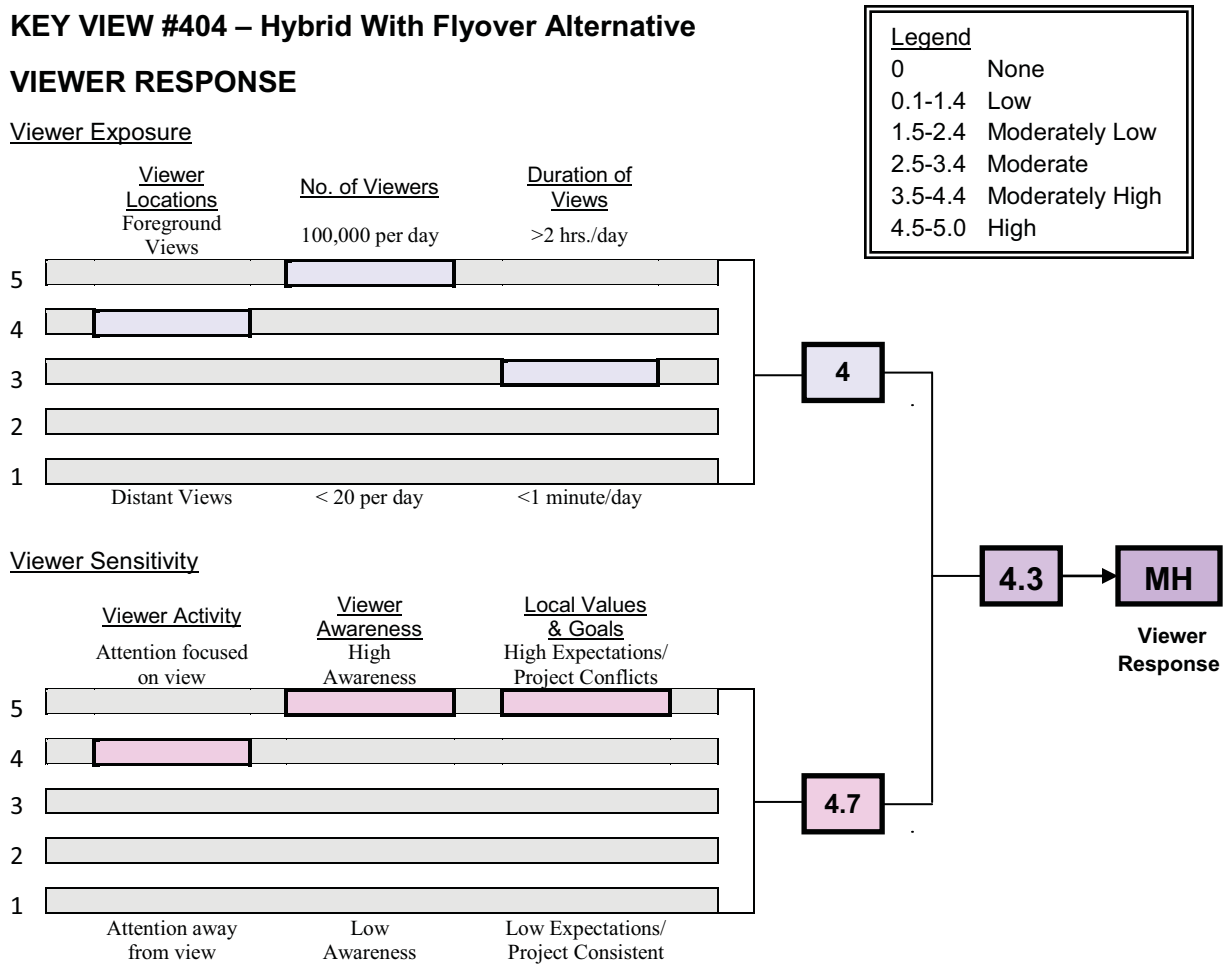
Avg. Change: 2.3
% Change: 58

H
Change to Visual Quality

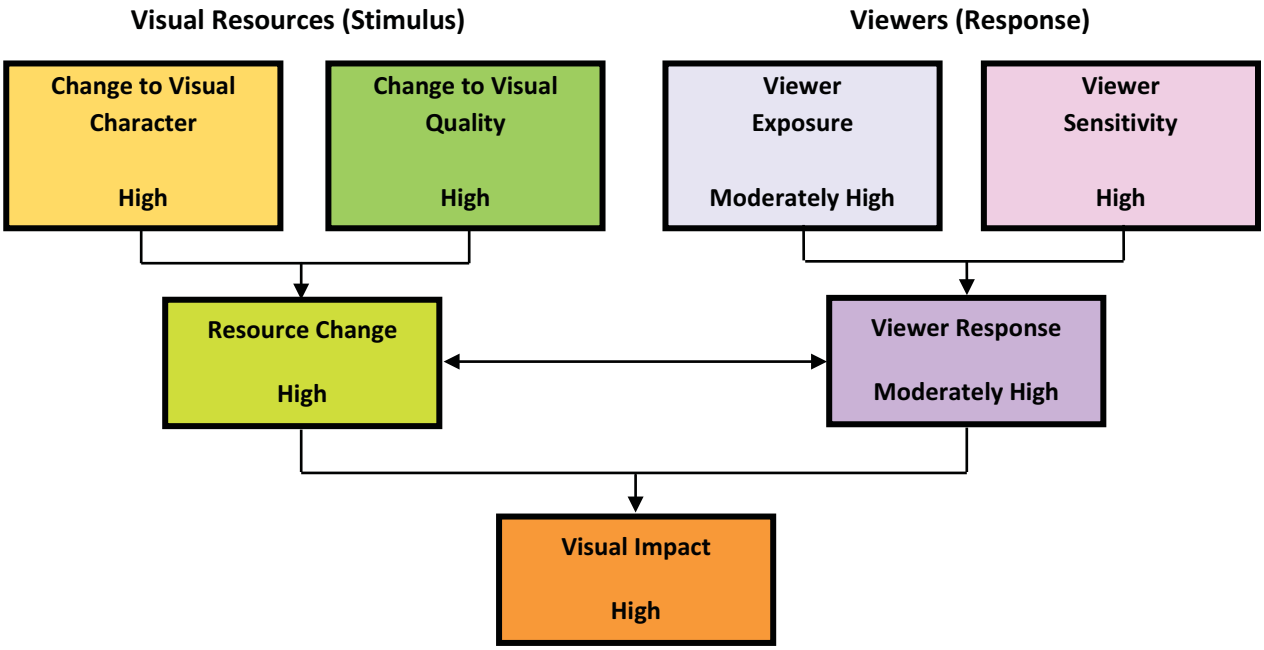
Legend
Existing View
Proposed View

KEY VIEW #404 – Hybrid With Flyover Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 404 – Hybrid with Flyover Alternative

Orientation

Key View 404 illustrates the view from SR-56 westbound at the Carmel Valley Road off-ramp, looking west toward Torrey Pines Bluffs and the Pacific Ocean from SR-56 station 534+70. This is the view approaching the existing third tier flyover to Southbound I-5, and provides a view to the coastal hills of Del Mar on the right, and the elevated ridge of Torrey Pines State Park to the center left. The Pacific Ocean would be visible directly ahead if not obstructed by the Eucalyptus trees at Pointe Del Mar. Commercial buildings centered around the El Camino Real intersection with Carmel Valley Road can be seen on the right. Farther along the road, a view of the ocean is partially visible from the flyover from vehicles taller than standard sedan height. The super-elevation of the roadway and rail limits expansive views, especially for smaller cars.

Existing Visual Quality/Character

The existing visual character is defined by the expanse of roadway paving, the attractive wooded hillsides of Del Mar and Torrey Pines, and a sense of spaciousness created by the elevated position of the roadway just prior to beginning the flyover. The vividness of the view is somewhat limited by its horizontal quality, since the items of visual interest are compressed between the roadway and the sky. While the heavily forested hillsides are attractive, there is little visual intensity, and a lack of interest in the foreground and middleground. The vividness of the view would be rated as moderately high due to the sense of place provided by the background topography, and forested hills and bluffs and the viewer's anticipation of reaching the coast. The roadway blocks a portion of the view, but there are few other visual intrusions resulting in a moderate amount of intactness. The compositional quality of the scene is limited by the extremely horizontal nature of the view, although the hillsides converging directly ahead provide a balanced composition. Consequently the unity is rated moderately high. The resulting existing visual quality would be defined as moderate.

Proposed Project Features

The project proposes to construct a flyover connector to link SR-56 westbound with I-5 north. A second flyover connecting eastbound Carmel Valley Road with eastbound SR-56 will cross over the existing SR-56 westbound lanes and join SR-56 eastbound east of the key view photo location. The westbound to northbound flyover will be constructed on the right of the view, and the southbound to eastbound will appear directly ahead of this view crossing approximately 11 meters above the roadway. The flyover will consist of a concrete bridge structure, with concrete columns and solid concrete rails. Lights will be located on the flyover structure. It is anticipated that noise walls will not be required along the flyover. Retaining walls are not visible from this location.

Change to Visual Quality/Character

Construction of the Hybrid with Flyover Alternative will result in several changes to the visual character of this key view. On the right of the view, the new flyover will partially obstruct the view of the existing commercial buildings, traffic lights, and portions of the wooded slopes beyond. The Carmel Valley Road to eastbound connector flyover will obscure portions of the wooded slopes of the hills of Del Mar, as well as portions of the Torrey Pines Park bluffs and pine forest. A portion of these will be visible under the flyover. The flyover will create an obstruction across the horizon line, and be highly visible against the sky. Due to the imposition of this large horizontal element over the sky and the wooded hillsides, the integrity of the view is compromised. The vividness rating of this view is anticipated to decline to moderately low as a result of the project. The view will be severely affected by the intrusion of the flyover, light poles, concrete rail, and moving traffic, resulting in a decline in the intactness rating to low. The

flyover traversing the view will compromise the compositional quality, resulting in a decrease in unity rating to low. Combining the vividness, unity and intactness, the visual quality rating of the proposed view would be reduced to low. This results in a high degree of change in the visual quality rating.

There is a high amount of change to the visual character of this key view. The proposed flyover connector increases the rigid, geometrical quality of the view, and adds monochromatic hard and smooth surfaces to the view. The ramp is large, monolithic and becomes dominant in the view, decreasing balance and resulting in a dissonant and contrasting appearance

Viewer Response

Due to its location on a freeway with a speed limit of 65 miles per hour, this view will not be visible to pedestrians, or cyclists, or long-term viewers. This is a major transportation corridor, and viewers are typically not seeking an intensive visual experience, however, there may be some anticipation at this point where the westbound SR-56 freeway reaches the coast approaching an attractive and relatively natural area with a view of the ocean. Viewer sensitivity at this location is estimated to be high. Due to the high quantity of viewers, their elevated viewer position, directional focus, lack of major traffic distractions, and lack of visual obstructions, the viewer exposure at this location would be considered moderately high. Combining viewer sensitivity and viewer exposure, the rating for viewer response is moderately high.

Resulting Visual Impact

Combining the changes to the visual quality with the moderately high viewer response, the resulting visual impact would be considered to have high degree of negative visual impact. The flyover will create substantial view blockage to this viewing location. The change would be clearly noticeable to viewers. Due to the nature of the obstructions, visual mitigation measures to reduce the visual impact appear not to be possible at this location.

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Key View 405 – Hybrid with Flyover Alternative

Figure 51 - Key View 405 – Existing View

Figure 52 - Key View 405 – Proposed View

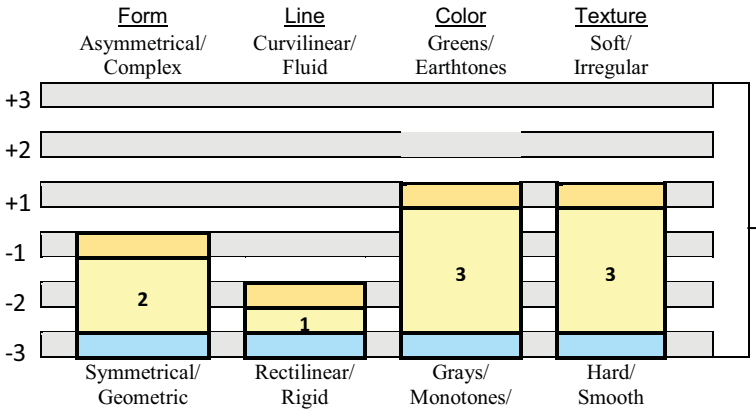
KEY VIEW #405 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

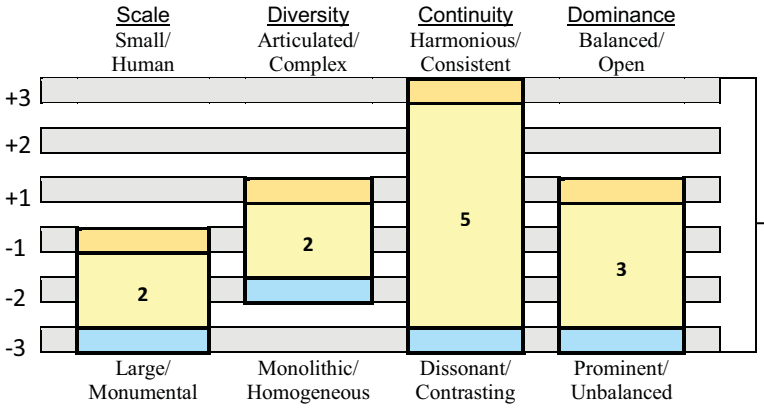
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

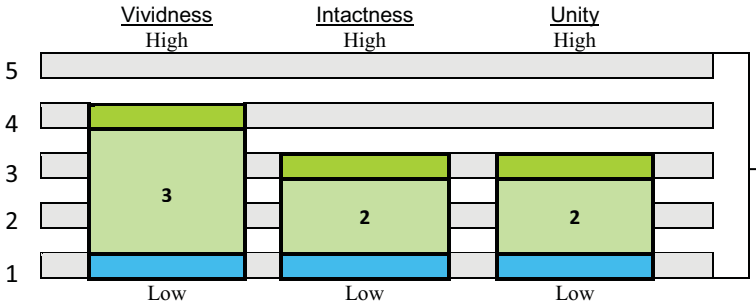


Avg. Change: 3.0
% Change: 60

Avg. Change: 2.6
% Change: 52

H
Change to Visual Character

VISUAL QUALITY



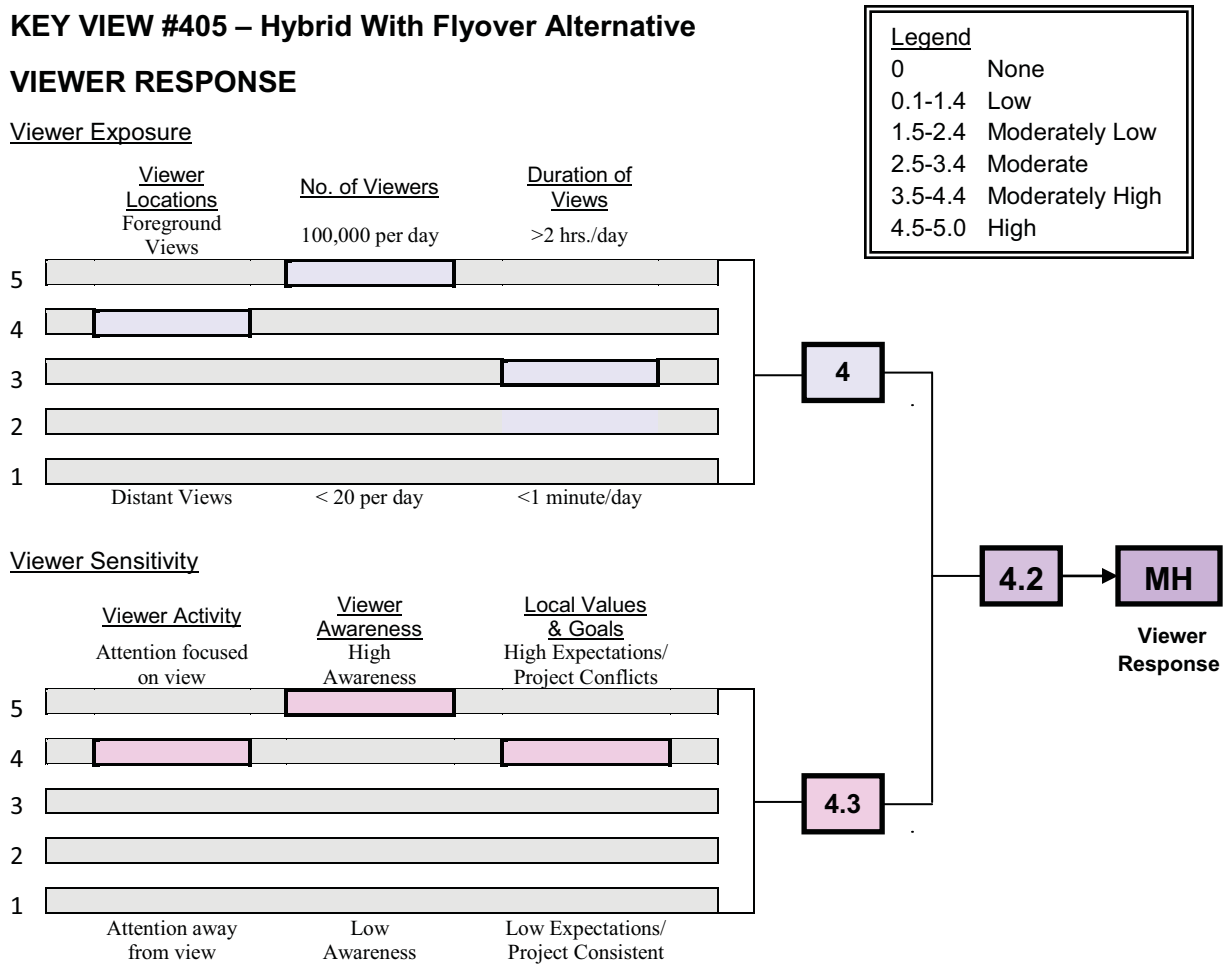
Avg. Change: 2.3
% Change: 58

H
Change to Visual Quality

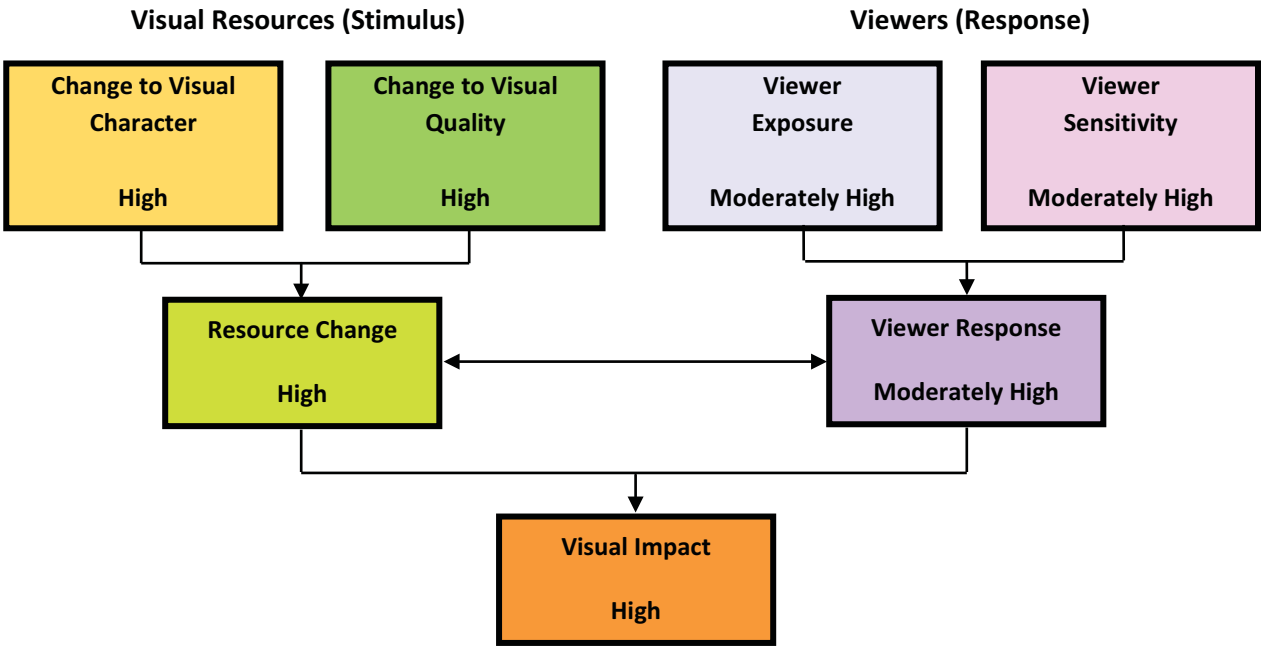
Legend
Existing View
Proposed View

KEY VIEW #405 – Hybrid With Flyover Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 405 – Hybrid with Flyover Alternative

Orientation

Key View 405 provides the view looking north from I-5 just beyond Carmel Valley Road with the bridge at Del Mar Heights Road in the distance. The view shows the concrete roadway, signs, barriers and lights of the freeway adjacent to landscaped commercial buildings on the right. The landscape between the freeway and the buildings was planted in the 1970's and 1980's and has achieved good size and screening capacity with a mix of Eucalyptus, Torrey Pines and other trees and shrubs. The majority of this landscape is currently privately maintained. The coastal hills of Del Mar are visible across the freeway on the left (west side) of the view.

Existing Visual Quality/Character

The visual character of this view is dominated by the broad expanse of transportation facilities, and the landscaping and attractive commercial buildings on the right. The vividness of the view lacks highly memorable qualities, and features an expanse of gray concrete surfaces. However, the elevated terrain, high quality of the buildings on the right, and attractive mature landscapes provide a sense of heightened visual quality raising the rating to moderately high. The intactness of the view is interrupted by the roadway elements and signs, but due to the maturing landscape, would be considered to be moderately intact. The compositional character of the view is simple and balanced, resulting in a moderate rating of visual unity. The resulting combined visual quality would be defined as moderate.

Proposed Project Features

The Hybrid with Flyover Alternative proposes to construct an additional four lanes at the right side of the view. These will be comprised of the connector flyover and the northbound bypass which merge onto I-5 at this location. Retaining walls will be constructed to support the grade changes. The landscape at the right will be removed to accommodate the additional road width, and the right-of-way will be moved to just beyond the proposed freeway edge, resulting in the elimination of most of the buffer planting area. Parking garages and parking areas will be close to the freeway edge, and in some cases will need to be cut back to allow freeway construction. Very limited mitigation planting will be possible in this area. Across I-5 on the west, the widened roadway will be visible, as well as the 4.4 to 9 meter tall retaining wall. The existing sound walls for the residences will remain at the top of the vegetated slope.

Change to Visual Quality/Character

The expanded freeway width, retaining walls, intersecting ramps and the elimination of screen planting on the east (right) will result in a great amount of visual change in this view. The buildings on the right will be exposed to view with minimal landscaping. Parking areas will become highly visible, and additional parking structures to accommodate parking displaced by the roadway may also be visible. The vividness of the view will decrease due to the reduction of planting, roadside trees and the addition of retaining structures on the west. An increase in the roadway width will contribute to visual monotony. The resulting vividness is anticipated to be low. The unity of this view will be decreased to low due to the elimination of the planting and trees both on the left and right of the view reducing the balanced composition. The intactness will also decrease to low due to the elimination of the existing planting, and the addition of retaining walls, and other visual clutter. Combining vividness, unity and intactness results in a low visual quality rating, with a high change to visual quality.

The project results in a high degree of change to the visual character of this key view. The soft edges of the existing view are replaced by geometric hard edges of the walls on both sides containing the view to the hard surfaces and monochromatic colors of the roadway. The

continuity of the view is interrupted, and becomes unbalanced with an increase in scale and a reduction in visual diversity.

Viewer Response

Viewers are likely to have a strong response to the changes in this view as a result of the removal of landscape, and replacement with concrete freeway elements and expanded traffic area. Viewer sensitivity would be anticipated to be moderately high due to the speed and complexity of the traffic, combined with the expectation that the views available from freeways are typically highly influenced by the developed nature of the freeway. The viewer exposure rating would be anticipated to be moderately high at this location, due to the large number of viewers, and their ability to directly observe the visual changes despite the speed of travel. The combined viewer response rating is moderately high.

Resulting Visual Impact

Combining the high degree of change to visual quality with the moderately high viewer sensitivity, the resulting visual impact would be considered high. The change to the view would be clearly noticeable to viewers. Mitigation measures to reduce the visual impact of the retaining walls will help compensate for the size and severity of the wall on the west. However, the diminished planting will result in a high degree of change apparent to the viewers. Due to the limited space for mitigation planting on the east side, and the increased exposure of the parking, and buildings, the visual quality is markedly decreased.

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Key View 406 – Hybrid with Flyover Alternative

Figure 53 - Key View 406 – Existing View

Figure 54 - Key View 406 – Proposed View

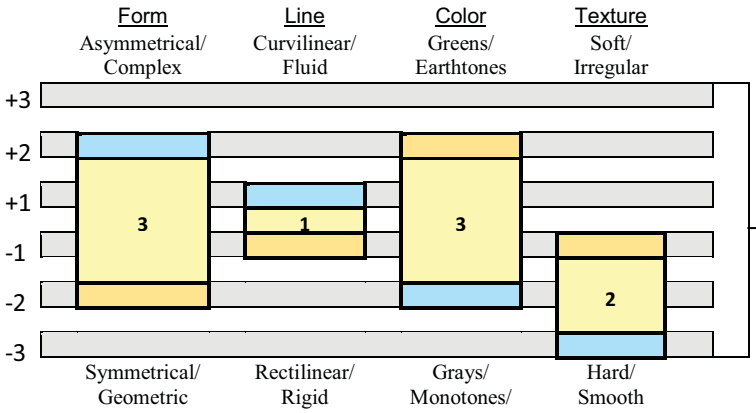
KEY VIEW #406 – Hybrid With Flyover Alternative

VISUAL CHARACTER

Legend
Existing Conditions
Proposed Conditions

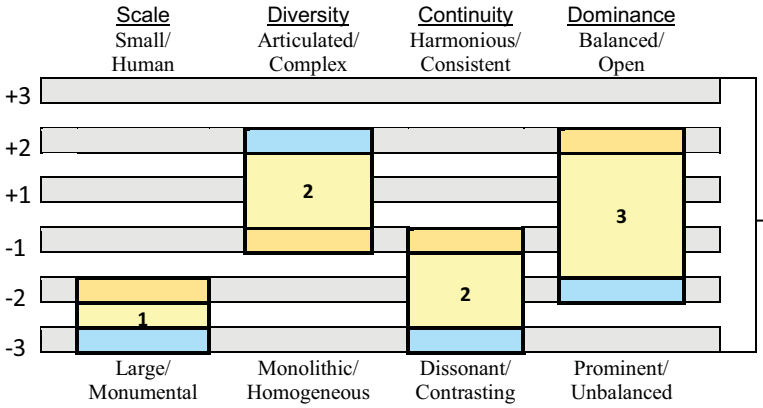
Visual Change Ratings	
0%-15%	Low
15.1%-30%	Moderately Low
30.1%-40%	Moderate
40.1%-50%	Moderately High
50.1%-100%	High

Pattern Elements
Describes the visual attributes of objects (Project and Setting)



Avg. Change: 2.25
% Change: 45

Pattern Character
Describes the relationships between visual elements (Project and Setting)

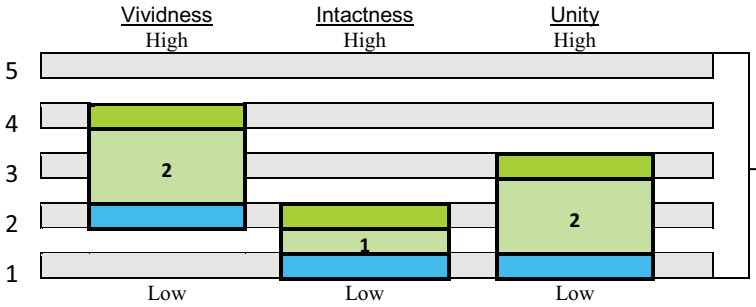


Avg. Change: 2.0
% Change: 40

Avg. Change: 2.12
% Change: 43

MH
Change to Visual Character

VISUAL QUALITY



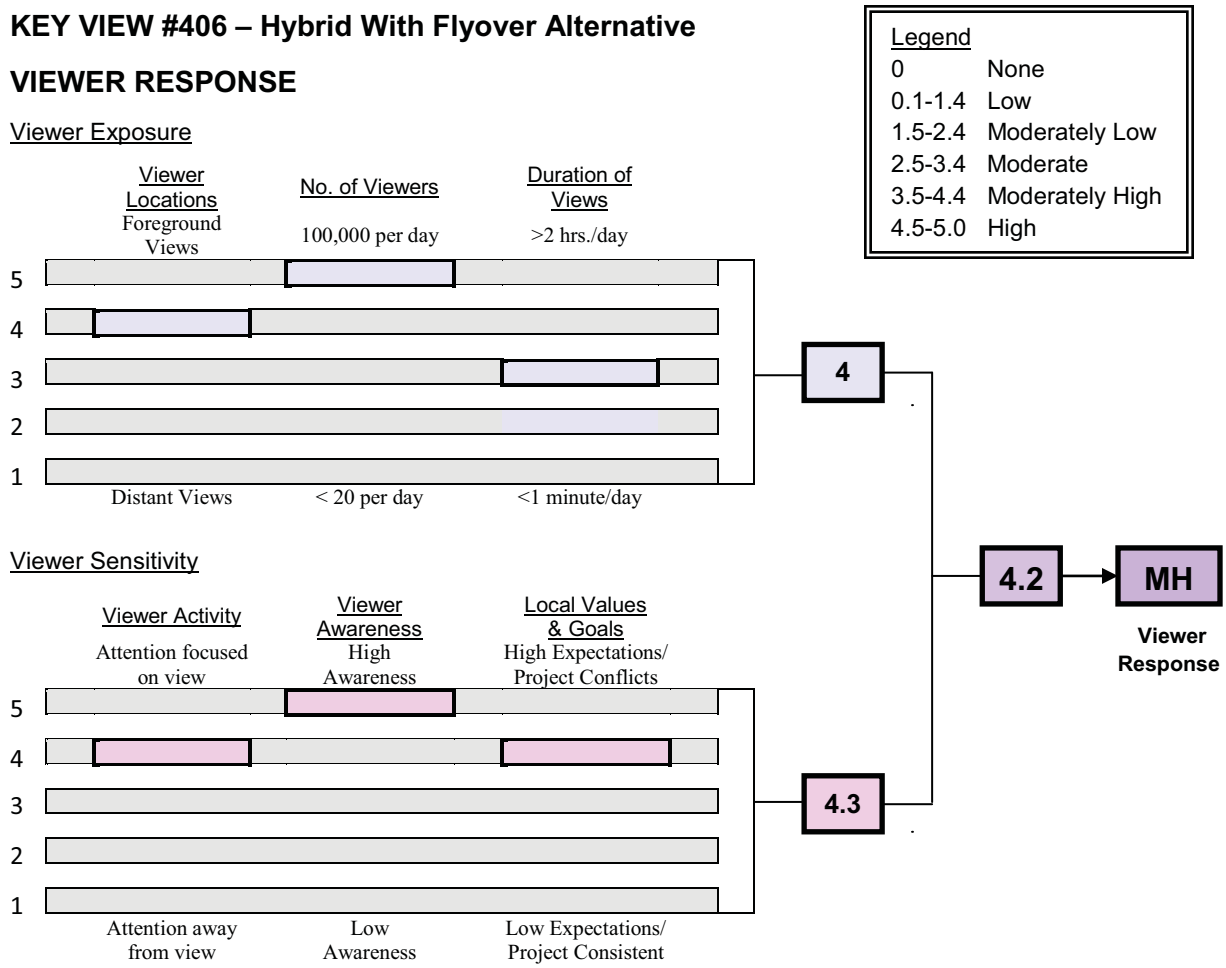
Avg. Change: 1.7
% Change: 42

MH
Change to Visual Quality

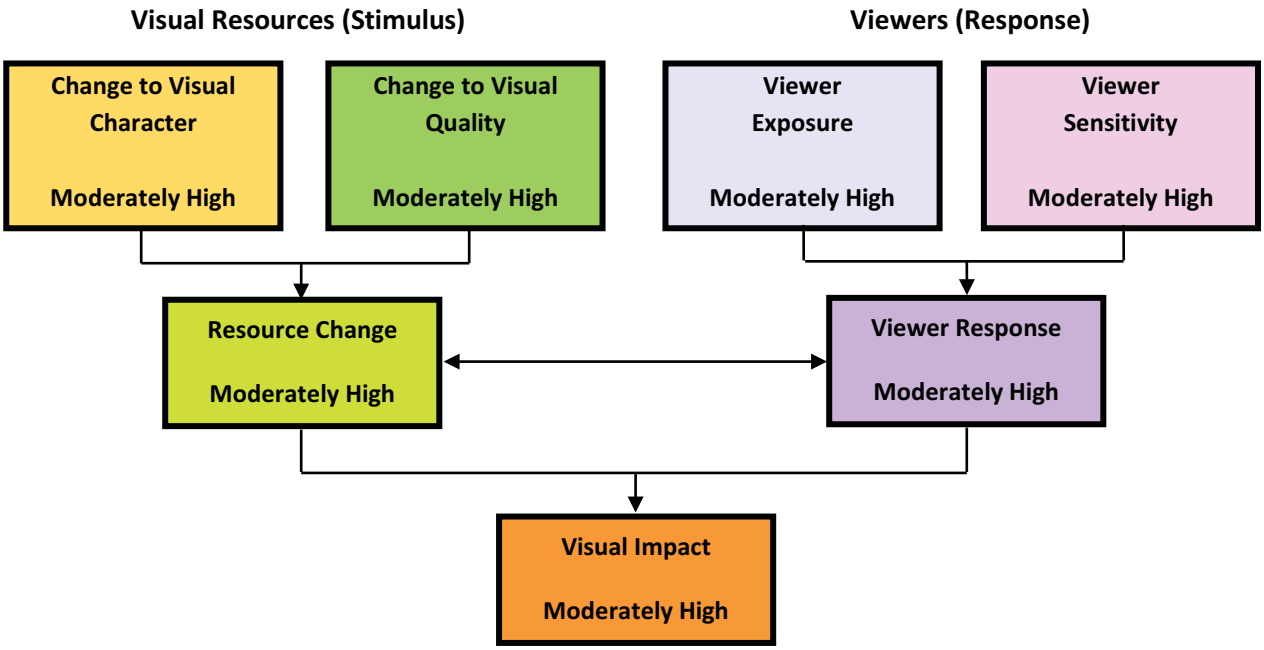
Legend
Existing View
Proposed View

KEY VIEW #406 – Hybrid With Flyover Alternative

VIEWER RESPONSE



ANALYSIS SUMMARY



Key View 406 – Hybrid with Flyover Alternative

Orientation

Key View 406 provides the view looking east from the I-5 north to SR-56 east connector structure. The view provides a view east along the SR-56 Corridor to Black Mountain in the distance. To the right, the dense trees of the Carmel River Valley provide a lush middleground over which the eroded bluffs, conservation areas, and mixed development can be seen. A glassy office park provides a palisade of building facades on the right, obscuring views of the hills of Carmel Valley neighborhood behind. The foreground consists of concrete roadway, signs, barriers and lights of the freeway. The landscape between the freeway and the glass buildings was planted in the 1980's and has achieved moderate size and screening capacity with a mix of Eucalyptus, Torrey Pines and other trees and shrubs. This landscape near the buildings is currently privately maintained, and the area closest to the freeway is maintained by Caltrans.

Existing Visual Quality/Character

The strong linear concrete highway focuses attention on Black Mountain and provides a strong visual connection to the backcountry to the east. The roadway splits the view into two distinct characters, with the repeated forms of the four large glass commercial buildings on the left contrasting strongly with the more vegetated and natural areas to the right. The vividness of the view is moderately high due to the memorable qualities of the bluffs to the right, the glass buildings to the left, and the framed view of Black Mountain., and the expanse of gray concrete surfaces. The intactness of the view is interrupted by the roadway elements and a clutter of freeway signs, so the intactness would be considered to be moderately low. The compositional character of the view is balanced, but complex due to the contrast of elements opposed across the freeway. The visual unity would be considered to be moderate. The resulting combined visual quality would be defined as moderate.

Proposed Project Features

The Hybrid with Flyover Alternative proposes to construct an additional flyover connector structure that will appear at the left side of the view, rising from below the level of SR-56 east of El Camino Real. Two lanes will be constructed on a bridge structure which will cross over the existing westbound lanes, and enter SR-56 eastbound directly ahead. The existing eastbound lanes will be shifted to the right of the new flyover, increasing the roadway width to 6 lanes between I-5 and Carmel Creek Road. The west to north connector will be slightly below the level of the eastbound lanes, so will not be visible from this viewpoint, although the tops of cars would be visible. Retaining walls will be constructed to support the grade changes but will not be visible from this view. The impact to the existing landscape along the glass buildings appears to be minimal, so it will remain to provide screening. The landscaping buffer and berm along the edge of the Carmel Valley River area, to the right, is to be preserved beyond the retaining walls.

Change to Visual Quality/Character

The proposed flyover on the left side of the view, and the expanded freeway width will result in a great amount of visual change in this view. The buildings on the left will be partially obscured by the elevated concrete structure of the flyover. Minimal landscaping is possible to reduce potential impacts. The vividness of the view will decrease due to the imposition of the flyover structure, reducing the openness, balance and interest of the view, and distracting from the distant view of Black Mountain. An increase in the roadway width will contribute to visual monotony. The resulting vividness is anticipated to be moderately low. The unity of this view will be decreased to low due to the proximity of the flyover structure interrupting the visual continuity and reducing the balanced composition. The addition of the flyover, more signs,

lights, retaining walls, and other visual clutter is anticipated to result in a reduction in intactness to a rating of low. Combining vividness, unity and intactness results in a moderately high negative change to the visual quality rating.

Change to visual character pattern character will be moderately high due to an increase in the scale, introduction of contrasting and dissonant visual feature of the flyover. The view will become more unbalanced with the interruption of the left side of the view by the flyover. The proposed flyover will create a more asymmetrical form with a more curvilinear quality, but will greatly increase the monochromatic color and smooth hard texture of the view. The resulting change to visual character will be moderately high.

Viewer Response

Viewers are likely to have a strong response to the changes in this view due to the high visibility of the flyover structure. Viewer exposure to the view will be moderately high due to the high number of viewers observing the change as well as the view angle directly ahead as the driver curves east to SR-56. The parallel nature of the tall concrete structure directly adjacent to the driver side reinforces this exposure. Viewer sensitivity would be anticipated to be moderately high with a high amount of local value placed on conservation and appreciation of the adjacent natural areas as indicated in the community plans. The combined viewer response is anticipated to be moderately high.

Resulting Visual Impact

Combining the moderately high degree of change to visual quality with the moderately high viewer response, the resulting visual impact would be considered moderately high. The change to the view would be clearly noticeable to viewers and will result in a less open and balanced view with a reduction in visible vegetation. Visual mitigation measures will have a negligible effect in reducing the visual impact from this viewpoint due to the lack of planting areas and the nature of the view obstruction.

Hybrid with Flyover Alternative Sound Walls

As part of the Visual Impact Analysis, the sound walls identified in the Preliminary Noise Abatement Decision Report (NADR) as "Recommended", "Conditional" and for "Severely Impacted Receptor" have been included on the Landscape Concept Plans for the Direct Connector Alternative. The following analysis is provided for the identified walls:

Sound Wall 56.S35: Located on the north side of SR-56 from station 33+36 to 33+56 and 33+84 to 37+50 with a length of 392 meters and a maximum height: 3.7 meters, this wall will be constructed at the top of a densely vegetated slope along a line of residential homes. This wall

will be located a very short distance outside the rear of the residences, where a solid wall would obstruct the openness of the existing yards and views of vegetation and the slopes of Carmel Valley. Consequently, the wall type will likely be glass over a low wall with glass for the upper portion to preserve the openness. While this is a potentially highly visible location seen from eastbound SR-56, it appears that the existing slope planting that currently almost completely hides the residences from view and is to remain in place, will obscure the proposed sound wall to such a degree that it is not anticipated to have a visual impact from SR-56 or the surrounding area. The wall will be located behind the dense trees in the photograph on the right and above. Some of the trees in the foreground are anticipated to be removed near the base of the slope to allow grading adjustments, but the trees above approximately the midpoint of the slope are anticipated to remain.

Sound Wall 05.S541: Located on the west side of I-5 from station 540+36 to 541+64 with a length of 183 meters and a maximum height of 4.3 meters This tall wall is proposed to surround the eastern edge of the tennis courts and recreation area of Pointe Del Mar. There is currently an existing solid wall and an approximately 4 meter green screened tennis court fence at this

location visible in the photo above. This fence is currently screened from view by the existing Acacia and Eucalyptus trees located on private property. It is anticipated that these trees will largely remain in place after construction and will continue to provide screening to the wall from I-5 and I-56 viewpoints.

Sound Wall 05.S561: Located on the west side of I-5 from station 560+85 to 562+21 with a length of 156 meters and a maximum height: 2.4 meters, the area where this sound wall is proposed is currently screened by existing planting on private property. Due to its orientation and substantial elevation above the freeway, it is anticipated that this wall is not highly visible except intermittent views from the homes directly across the freeway to the east. Due to the relatively low height of this wall, and the likelihood that it will be a combination low wall and glass panels, the wall will have little more visual impact than the existing wall at this location. The sound wall will be located in the area behind the trees in the center of the photograph below.

Sound Wall 05.S563: Located on the west side of I-5 from station 563+28 to 564+36 with a length of 130 meters and a maximum height of 2.4 meters, this wall is located adjacent to a school recreation field. Due to its moderate height, and the screening provided by the existing planting, it is anticipated that the visual impact of the wall would result in a low degree of visual impact visible primarily from the northbound I-5 lanes or the homes on the east side of Interstate 5. The sound wall will be located in the area behind the trees at the left of the photograph above.

Sound Wall 05.S567: Located on the west side of I-5 from station 564+61 to 567+18 with a length of 299 meters and a maximum height of 2.4 meters, this wall surrounds the east side of the residential homes on Minorca Cove but extends past only 13 homes below the three power

poles in the photo. The wall is not recommended for the three northerly homes on Minorca Cove. This wall is likely to be a combination low wall and glass type sound wall to allow views to the east. Due to its elevation above the freeway, this wall will be primarily seen from the northbound lanes and the homes to the east. However, due to the moderate height of the wall and existing vegetation, it is anticipated that the visual impact of the wall would result in a low degree of visual impact.

Sound Wall 05.S568: Located on the east side of I-5 from station 566+24 to 567+90 with a length of 215 meters and a maximum height of 2.4 meters, this wall would replace a slightly lower wall visible in the photograph below. The wall is proposed for the 9 homes at the center of the photo. Since the proposed wall is anticipated to be a glass over solid type wall similar to the existing wall, it is anticipated that the addition of the proposed wall would result in a low degree of visual impact.

4. Summary of Project Impacts of the Hybrid with Flyover Alternative

Based on this analysis, the Hybrid with Flyover Alternative would result in a high degree of change to the visual environment in the project area. The primary changes include one flyover bridge creating a third level bridge over El Camino Real and westbound SR-56, one west to north crossover bridge, increases in the expanse of paving, large retaining walls, sound walls and a loss of the existing screen planting and landscape area. The natural visual character would be diminished and the urban character would be increased. Scenic resources would be partially obstructed. Implementation of the proposed visual mitigation measures would improve the appearance of the project components, and help to blend them into the visual context. However the moderately high degree of visual change would remain for this alternative.

The analysis is based on the Key Views as well as consideration of the overall effect of the project on the visual environment. The key views are selected based on the types of project-related features that would be visible in the Hybrid Alternative, the number of viewers, the frequency with which it would be viewed, and the potential sensitivity of the viewers. Each key view is presented in its existing condition and its future condition with implementation of the proposed project and proposed mitigation. The locations of the key views are shown in Figure 42. The Landscape Concept Plan for the Hybrid with Flyover Alternative (Attachment D) provides the overall design concept allowing an understanding of the design associated with each key view location. Illustrative sections for the Hybrid with Flyover Alternative are provided in this subsection. Sound walls and their likely effect on the visual environment are described in detail. A detailed description of the proposed mitigation measures is provided in Section VII, Mitigation.

Effects on Existing Visual Quality Context

The Hybrid with Flyover Alternative is to be constructed in an area already heavily disturbed, highly developed and impacted by the elaborate I-5/56 intersection constructed in the 1980's and expanded in the 1990's and early 2000's. The immediate area has substantially changed from its natural character due to the construction of roadways, walls and bridges in the public right-of-way, and office, commercial and residential construction. The surrounding area contains some of the most scenic features in the San Diego region, including wetlands, tidal estuaries, forested coastal ridges, naturally eroded bluffs, and views of the Pacific Ocean.

The Hybrid with Flyover Alternative will create clearly noticeable changes to the visual character and environment including the addition of one new flyover and one connector bridge, a new Del Mar Heights Road Bridge, additional traffic lanes on I-5 and SR-56, the removal of a large portion of the existing mature screen planting, especially on both sides of I-5 between Del Mar Heights and Carmel Valley Roads, and the construction of many large retaining walls to allow the freeway widening. The project adds a greater expanse of concrete and asphalt paving, structures and many additional retaining walls and sound walls creating a higher intensity viewer experience. There will be a net reduction in the size of the landscape areas due to the expansion of the paved highway lanes although not as large as the Direct Connector alternative.

The proposed improvements, bridges, flyovers and retaining structures are not unique to the urban context currently present in the area, and consequently the proposed features should not appear out of place in the urban context. However, while the character of the project may be compatible with the existing previously constructed urban conditions, it is not in harmony with the existing natural features and scenic context that remain a vital part of the community identity and regional visual context.

Adjacent freeway interchanges, such as I-805/I-5, Mira Mesa Boulevard interchange and the I-805 bridge over Carroll Canyon, provide a regional context of similar structures and traffic accommodations. All of these interchanges present the viewer with bands of elevated concrete roadways curving across the field of view and the skyline. The existing two and three level connectors create visual intensity at the intersection of SR-56 and I-5. These patterns of intensive transportation facilities are visual elements consistent with the other portions of the North Coastal viewshed and its visual context. However, the impact of this evolving transportation corridor will be greatly intensified by the construction of an additional level of bridge structures and the large retaining walls. The reduction of screening on both sides of I-5 between Carmel Valley Road and Del Mar Heights Road will result in the exposure of buildings more directly adjacent to the roadside, and a more expansive view of the highway surfacing. Retaining walls will appear taller and more imposing. Overall this change represents an increasing trend toward ever larger and more complex transportation structures, resulting in high degree of change to the existing visual character and diminishing the existing visual quality.

Following is a discussion of the major impacts to viewers on the freeway and to the community and scenic resources.

Impacts to Viewers on the Freeway

Reduction in Quality to Existing Views

Due to the expansion of the highway lanes, areas for landscaping will be greatly reduced from the existing condition. On the west side of I-5 the landscape will be removed and the planting area will be reduced by more than 50% for most of the distance between Del Mar Height Road and Carmel Valley Road. In addition, on the east side of I-5, the landscape areas will be cut back to within the existing private property, eliminating both the right-of-way planting and portions of the private lot landscape of the commercial buildings. This will result in exposure of the commercial buildings along the east side of I-5 to a far greater degree. In some areas, the landscape between the freeway and the parking areas will be completely eliminated.

The destruction or elimination of much of the existing screen planting along SR-56 as a result of grading for the widening will reduce the visual quality of the views in both directions.

Flyover Bridge

The flyover bridge will pass over El Camino Real and over the westbound lanes of SR-56 creating shadow and overhead obstruction. The flyover will create view blockage toward the hills of Torrey Pines and Eucalyptus wooded hills of Del Mar and will break the expansiveness of the views on westbound and eastbound SR-56.

Crossover Bridge

The west SR-56 to north I-5 crossover will cross over the existing interchange ramps creating a second level of traffic bearing lanes above grade and the adjacent areas and the Carmel Valley Road area. This bridge will result in an imposition on the space near the existing gas station and will cover a portion of the Carmel Valley Road northbound on-ramp high degree of visual impact to the lower commercial area at Del Mar Hills Drive cul-de sac. The concrete bridge structure contrast with the natural environment and the scale and size contrasts with the community contexts.

Large Retaining Walls and Expansive paving

Large, tall retaining walls will be highly visible on the west side of I-5 between Del Mar Heights Road and Carmel Valley Road, Approach ramps to the connector bridges will also require retaining walls. Consequently, retaining walls would be considered to be one of the highest

visual impacts of this alternative. Even though these walls will be designed to harmonize with the visual environment in color texture and shape, they will create a high degree of visual impact.

The expanded paving areas will result in a strong change to the visual character as both I-5 and SR-56 become wider and the proportion of the view that is fully paved becomes larger. This results in a sense of an increasingly urbanized and paved environment.

The large walls and the expanded paving contrast with the visual character of the largely vegetated existing regional visual character.

Loss of Existing Freeway Landscape and Screen Planting
Large portions of the landscape on both sides of I-5 south of Del Mar Heights Road would be removed as a result of this project and be replaced by additional travel lanes with retaining walls instead of landscaped slopes. Many of the retaining walls would be located adjacent to the freeway and would not have planting relief. Where possible, walls in other areas of the I-5 area would be located with planting areas at the bottom to provide potential screening of the walls.

Along SR-56 the widening will result in a loss of the existing slope planting due to the grading for the road widening. This planting is becoming increasingly mature and its loss, including the loss of many maturing Torrey Pines planted for the original freeway construction would be striking.

Loss of Median Planting on SR-56
It is anticipated that the existing median Oleander shrub plantings that currently provide color and visual relief would be removed for the majority of the project length due to the lane widening. These would not be replaced due to lack of space.

Impacts to Viewers in Communities Adjacent to the project
Impacts Due to Increasing the Proximity of the Freeway to the Community
Views to the freeway would be adversely affected at the right-of-way edges where the freeway would become closer to the existing homes and businesses. This would be especially critical at I-5 southbound, where the additional lanes would be separated from the homes by a reduced amount of planting. However, there is anticipated to be more landscape at this location than with the Direct Connector Alternative.

The screening between the commercial buildings along I-5 would also be eliminated to a large degree resulting in many cases to direct views from the offices and parking garage to the freeway.

Community Entry Interchange Impacts
At El Camino Real, the flyover and east to north connector bridge will approximately double the shadowed width of the lower roadway creating a dark undercrossing on this busy major roadway.

At the Carmel Valley Road interchange, the increased number of lanes and intensity of the roadway complexity will increase the urban visual character of the visual environments. The flyover will require construction of a retaining wall that will constrain the openness and views from Carmel Valley Road and eliminate landscape area.

The proposed project will result in many changes at the interchange with Del Mar Heights Road that would affect the perception of the community, including an increase in the number of lanes, construction of retaining walls, loss of landscape area, loss of landscape screening, and the widened bridge over I-5.

The increase in urban visual character will also affect the interchanges at Carmel Country Road, El Camino Real and Carmel Creek Road as the interchanges are expanded to include additional lanes.

Impacts to Scenic Resource Views

The project viewed from Torrey Pines Visitor Center (Key view 101) is part of a regional panorama that includes the rare Torrey Pines, unusual eroded sandstone coastal bluffs, chaparral, coastal sage, wetland and estuarine habitats and well as a complexity of urban and suburban elements. The impact of the project on this view has been analyzed to result in a moderately low degree of visual impact, primarily due to the distance and the blending of the proposed construction into the existing freeway and commercial elements.

While this alternative includes only a low connector bridge, there may also be a minor diminishment of the views from the trails and bike paths in the surrounding region, although no specific area of high impact has been identified due to distance and location from the viewer, as well as the screening along trails by existing vegetation.

Viewer Response

As defined in section V.C of this report, viewer response is a combination of viewer sensitivity and viewer exposure. For the purposes of this project, viewer sensitivity considers the viewer's observation and understanding of the existing visual conditions, combined with the concern for preserving and enhancing the regional visual context expressed in the Community Plans. The project is in an area of comparatively high scenic quality, and viewer expectations would be considered to be high. Based on these indicators, viewer sensitivity within the viewshed is considered to be moderately high overall.

Viewer exposure is relatively high due to the direct observation on the relatively straight roadways, and the high numbers of viewers living in and passing through the viewshed. However, viewer exposure from the highways in the project study area is frequently impacted by the congested traffic conditions. Due to the speed of travel, the need to pay close attention to traffic conditions and signage at this busy location, and the number of distractions to the motorist, the viewer exposure must be adjusted downward, and consequently is considered to be moderately high overall.

Based on this analysis, the combined Viewer Response is considered to be moderately high, which maintains and amplifies the changes to visual quality.

Light and Glare

The proposed project includes the widening of portions of SR-56, and I-5 to include additional lanes, and will result in the widening of the light and glare during the nighttime hours. The width of the focused light from headlights will increase, and the overall light from the freeway will be increased. Except for the traffic on the new connectors, the direction of the headlights should conform closely with the additional headlight illumination patterns. The flyover for the Hybrid Alternative will contribute some new illumination patterns from the elevated structure. Given the amount of light and movement in the existing interchange, the implementation of the Hybrid with Flyover Alternative is expected to cause a moderately low visual impact from lighting. The

impact appears to be a combination of some new headlight directional patterns, and an increase in lighting levels due to the increased numbers of lanes of headlights, and additional lighting fixtures, possible with higher output.

Construction Related Visual Impacts
During the construction period, demolition, grading, bridge falsework, cranes, heavy machinery and other vehicles associated with construction will be highly visible and will have a temporary impact on the viewers during construction. Storage of construction equipment, fences, orange safety markings, barricades, temporary warning lights, signs and other construction related items will create a temporarily disturbed and degraded view. These are temporary visual impacts associated with the requirements of construction and are not considered a long term visual impact.

Analysis Conclusions
The project area includes a wide range of commercial, residential open space and park land uses. I-5 has been determined to be an eligible Scenic Route, but has not yet been designated by the Caltrans. There are no designated historic resources within the project area, although portions of Torrey Pines State Park, Torrey Pines State Beach, the Penasquitos Lagoon, and the Carmel River are within the project viewshed.

The primary changes to the visual character due to the Hybrid with Flyover Alternative include the construction of a connector bridge structure over the existing Carmel Valley Road intersection, the construction of a wider replacement bridge at Del Mar Heights Road, construction of additional traffic lanes, large retaining walls, a large reduction of screen planting, removal of mature trees, a greater expanse of concrete paving and structures and many additional retaining walls. There will be a net reduction in the size of the landscape areas. Other visual effects associated with the project would result from retaining walls, graded slopes, and five sound walls along I-5 and one along SR-56. Due to the largely urbanized condition of the area, the presence of large commercial and residential buildings, existing landform alterations, and extensive highway facilities, the visual change is tempered by the existing urban visual character of the immediate area. However, with the imposition of the flyover in addition to the features of the Hybrid Alternative, the amount of visual change as a result of the proposed Hybrid with Flyover project would be considered high.

Long distance views from Torrey Pines State Park will be affected by the addition of the Hybrid with Flyover connector as shown in Key View 401. The connector and planting removals will be visible in the distance, but blend with the existing transportation facilities, and do not obstruct distant views. The changes represent only a moderately low amount of visual change. The impacts will appear minimal due to the distance of the viewer from the project improvements. The project is also visible from the rest area on the bike and equestrian trail south of Carmel Valley, but the changes will not be readily apparent since they are primarily on the opposite side of the existing connector flyovers and highway structures and are partially screened by the increasing height of the wetland vegetation.

Pedestrians and bicyclists primarily view the project from Carmel Valley Road, El Camino Real, and Del Mar Heights Road. The widening of the bridge and addition of traffic lanes will impact the pedestrians due to the increasing expansion of motorized vehicle orientation as opposed to expansion of accommodations for pedestrian and bicycle travel. The existing conditions for pedestrians and bicyclists are minimally supportive of these activities, relying on the minimum required width sidewalks traversing intersections and crossing the bridge at Del Mar Heights.

The proposed project would have a moderately high degree of adverse effect on the visual quality of the project area. The overall aesthetic quality of the project area would be affected with implementation of the Hybrid with Flyover Alternative. The aesthetic quality of many areas could largely be restored similar to the existing condition over time as a result of the revegetation and visual mitigation for this project. However, the area between Del Mar Heights Road and Carmel Valley Road would be especially impacted by the reduction of screening vegetation and the construction of large retaining walls. Establishment of new planting with thematic connections to adjacent natural areas, development of attractive bridge enhancements, and focal landscape elements would help reduce or visually blend potential adverse impacts resulting from the proposed project, but would not compensate for the adverse visual effects.

Based on this analysis, the proposed construction of the Hybrid with Flyover Alternative will result in a high degree of visual change. A comparative study of the project alternatives is included in Section VIII of this document.

VII. VISUAL MITIGATION

Caltrans and the FHWA mandate that a qualitative/aesthetic approach be taken to mitigate for visual quality loss in the project area. This approach fulfills the letter and the spirit of FHWA requirements because it addresses the actual cumulative loss of visual quality that will occur in the project viewshed when the project is implemented. It also constitutes mitigation that can more readily generate public acceptance of the project.

Visual mitigation for the adverse project impacts addressed in the key view assessments and summarized in the previous section will consist of adhering to the following design requirements in cooperation with the District Landscape Architect. The requirements are arranged in two sections related to the associated roadway and are listed in sections by improvement type, and approximate order of effectiveness. All visual mitigation will be designed and implemented with the concurrence of the District Landscape Architect.

The mitigation described below is intended to establish a unique identity and character for the project design that is in keeping with the existing regional character, and to help to mitigate the visual impact of the proposed project improvements. While these measures will not eliminate the visual impacts, they will provide visual enhancements that can improve the project visual quality and help to compensate for the project impacts.

A. Landscape Concept

To provide a guideline for mitigation for the proposed project, a Landscape Concept Plan for each alternative (Attachments A, B, C and D) have been developed for the re-establishment of landscaping following construction. The plans identify opportunities to enhance areas within the project limits with planting. The plan establishes planting themes, as well as surface architectural treatments for paving, retaining walls, sound walls and other construction items. These landscape concepts apply to the Direct Connector Alternative and the Auxiliary Lane Alternative and the two hybrid alternatives. The design concepts are as follows:

I-5

The project is situated in a transition from the upland area at Del Mar Heights Road to the lowland riparian areas of Carmel Creek, as it broadens to a confluence with Penasquitos Lagoon. Visually, the river valley and lagoon area contrasts with the surrounding bluffs and mesa tops. A 5% highway grade and steep slopes along the side of the road help create a dramatic transition and visual experience.

To emphasize the relationship of the mesa tops, slopes and riparian areas associated with the Carmel River Valley and the lagoon, the design concept attempts to emphasize these natural landscapes to the extent possible within the confines of the right-of-way and areas of disturbance. Since these landscape themes provide connection to adjacent existing natural landscapes, the effect of these concepts promotes unity and continuity to the regional visual character. To attain these goals, the mitigation design includes the following elements and recommendations:

Grading

- Where conditions permit, grading should be designed using the techniques of contour grading to promote smooth transitions to existing landforms, eliminate appearance of engineered slopes and visually soften the contours.

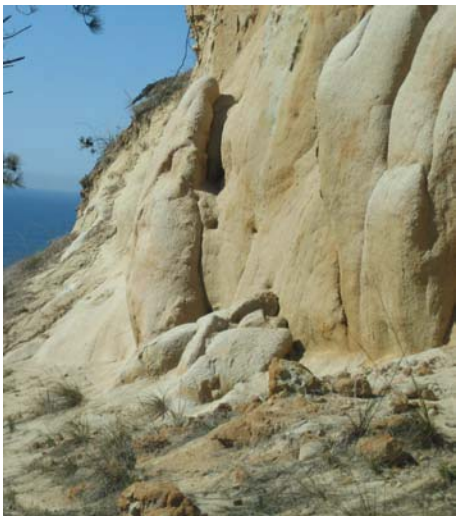
- Grading adjacent to retaining walls should transition smoothly into the walls without dips and irregularities that would draw attention to the wall.

- Stepped slopes should be avoided for slopes less than 20 meters tall to reduce visual impact of large scale visually objectionable grading methods.

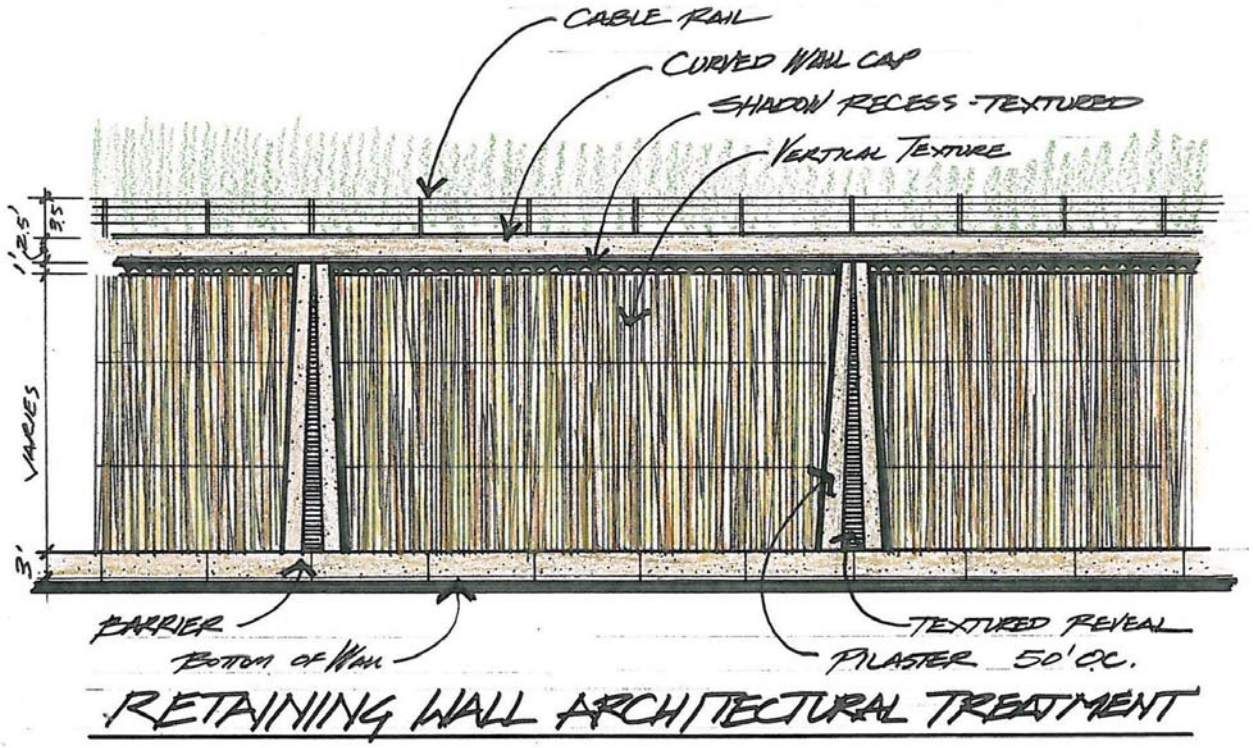
Retaining Walls

- Retaining walls should be similar in color and form to those constructed at the Lomas Santa Fe interchange, but should also express a unique character to differentiate the Del Mar Heights to Carmel Valley area from other portions of the North Coastal Corridor.

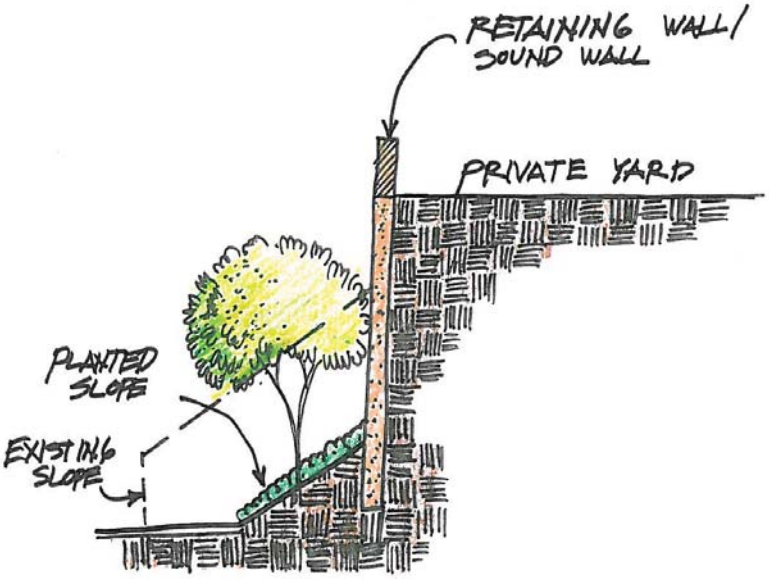
- The natural eroded sandstone bluff formations visible in the vicinity should be reflected in the design for retaining wall treatments. Wall coloration should provide a connection with the natural bluffs.



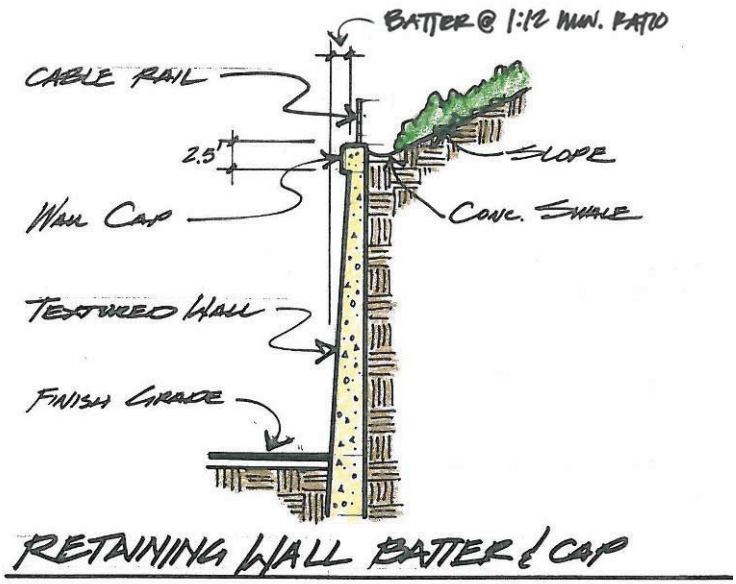
- Tall retaining walls should be designed in a manner to reduce the apparent scale of the wall. A thick wall cap, and vertical partitions or columns are recommended to provide relief to the surface, reduce the reflectiveness of the flat wall and provide shadow patterns.



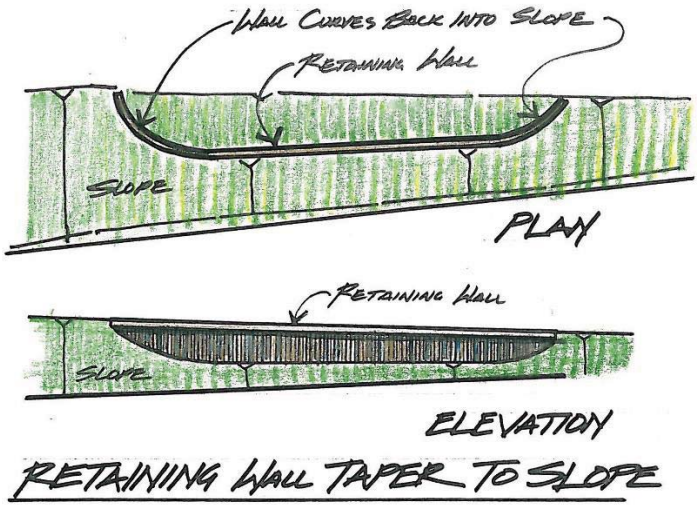
- The retaining/sound wall west of the freeway and south of Del Mar Heights Road should be located atop the new slope to allow for landscaping in front of the wall thus softening the visual impact of the wall.



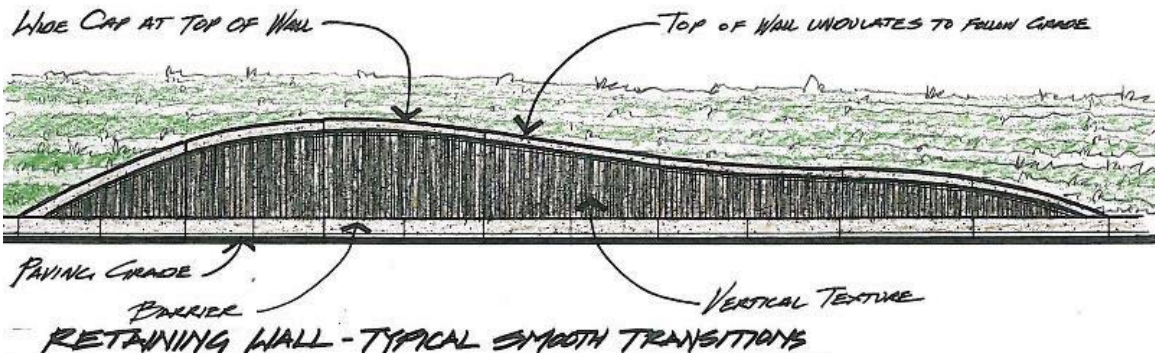
- To relieve the vertical constraint of the walls, the walls should be battered at a 1:12 minimum ratio. This can be a function of the wall being narrower in thickness at the top.



- Retaining walls should be designed to taper back into the slope, reducing the height of the wall as it returns to slope. This may be repeated as the wall diminishes in height to create a cascading wall transition as it wraps into the slope. This allows planting at the base of the wall, sets the wall back from the road, and provides curved transitions at the ends to reduce hard geometry associated with high visual impact. In addition, the in-cut walls should be placed mid-slope.



- Where it is necessary to construct walls adjacent to the roadway, the tops of retaining walls should be softly curved in elevational view to conform with the grade rather than stepped or angled. The tops of walls should also feature a broad cap of concrete to create a precise finish at the top of the wall and emphasize the smooth line and shape of the wall. This type of wall should not be used when the above type is possible.

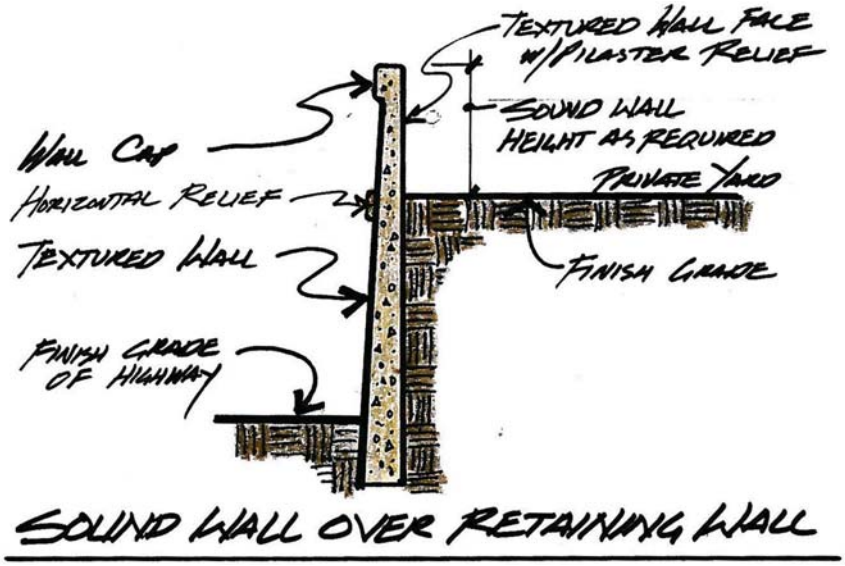


- 0.9 meter to 1.5 meter retaining walls relating mainly to traffic areas may be constructed of smooth form finish natural color concrete similar to those at I-5 and Lomas Santa Fe. Where adjacent to colored concrete retaining or sound walls, these walls should be colored to match the adjacent wall.

Sound Walls

- Many of the existing sound walls along the west side of I-5 may remain in place with the Auxiliary Lane alternative. These consist of solid slump block walls, or view walls (glass panels over a low slump block wall). Where walls are continuous with existing walls, the materials, colors and forms should be repeated in the new walls.

- Where sound walls are to be constructed directly on top of retaining walls, the sound wall should be designed as a visual continuation of the retaining wall to be indistinguishable from the retaining wall.



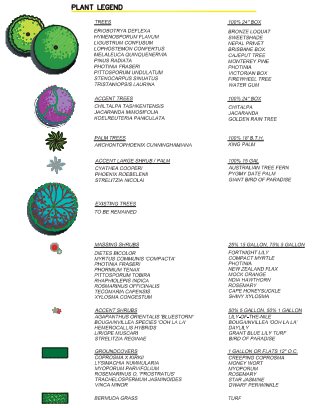
- Where sound walls are to be constructed separately from the retaining walls, the sound walls shall conform to the existing sound walls, adjacent colors and architecture. Typically this will be slump block or stucco walls with columns approximately 3 meters on center.

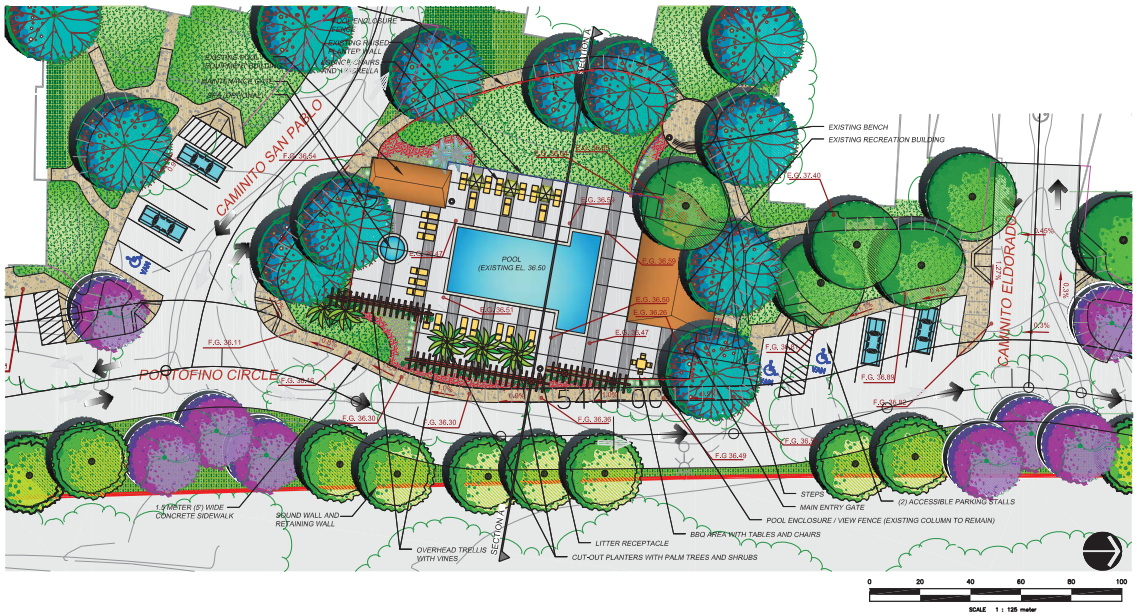
  Where views from the interior of the yard are to be preserved by using a transparent sound wall, the panels would be glass similar to the photo example located at Portofino development.

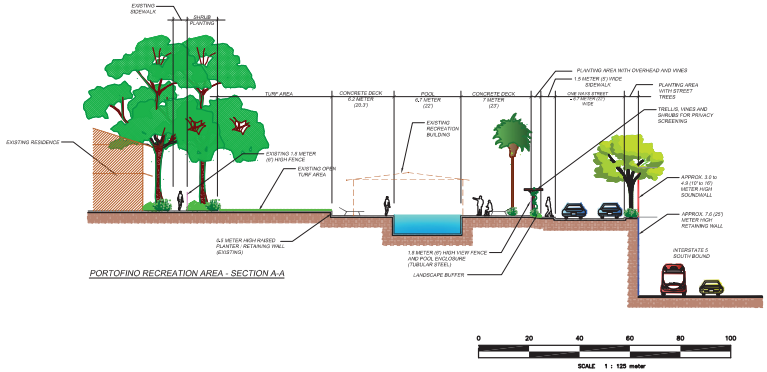
  Each required sound wall shall be considered individually to select the type that will best blend with adjacent walls, including consideration of the proposed and existing retaining walls. When new sound walls are in close proximity to the proposed retaining walls, consideration shall be given to making the wall types match for visual compatibility. The selection shall provide continuity in design when viewed from the road.

Local Street Re-Alignment

The Portofino development west of I-5 will need to be modified due to impacts to Portofino Circle. Portofino Circle will be shifted slightly to the west and modified to meander resulting in a more pleasant visual experience (compared to the existing straight street). To replace the parking spaces lost adjacent to the freeway, some diagonal spaces have been added on the west side of the street. In addition, the recreation area will be enhanced including a new pool deck. See following graphic.







PORTOFINO RECREATION AREA - SECTION A-A

Caltrans

LANDSCAPE CONCEPT PLAN

PORTOFINO

NOVEMBER 5, 2010

SHEET 1 OF 1

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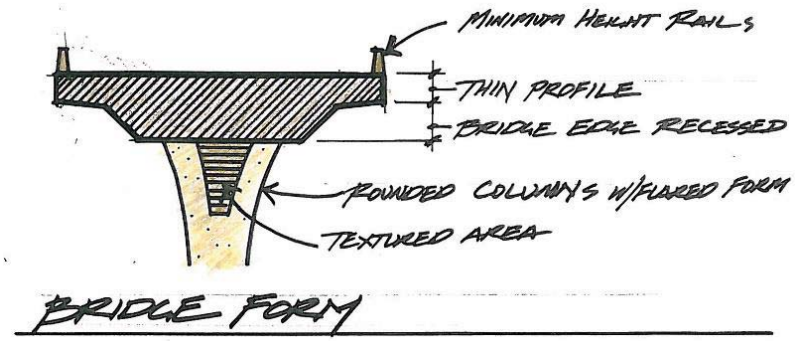
Connector Bridge Structures

- The connector bridge structures design should match the existing bridge structures.

- Smooth, gently curving concrete bridge structures should be enhanced by a linear design treatment featuring shadow lines that enhance the clean horizontal lines and reduce the expanse of reflective smooth concrete surfaces as shown in the above photo of the existing crossover bridges at Carmel Valley Road.

- The side view of the bridge and flyover structures should be designed to present a thin appearance to the leading edge to minimize the thickness of the edge facing the viewer and create shadow under the rail.



- Bridge and flyover support columns should match the existing columns. These are cleanly designed to visually diminish the visual importance of the verticals to allow the smooth flowing horizontals of the concrete road structures to take visual precedence. Support columns should feature curved forms, in profile and section, to minimize stark shadow lines.

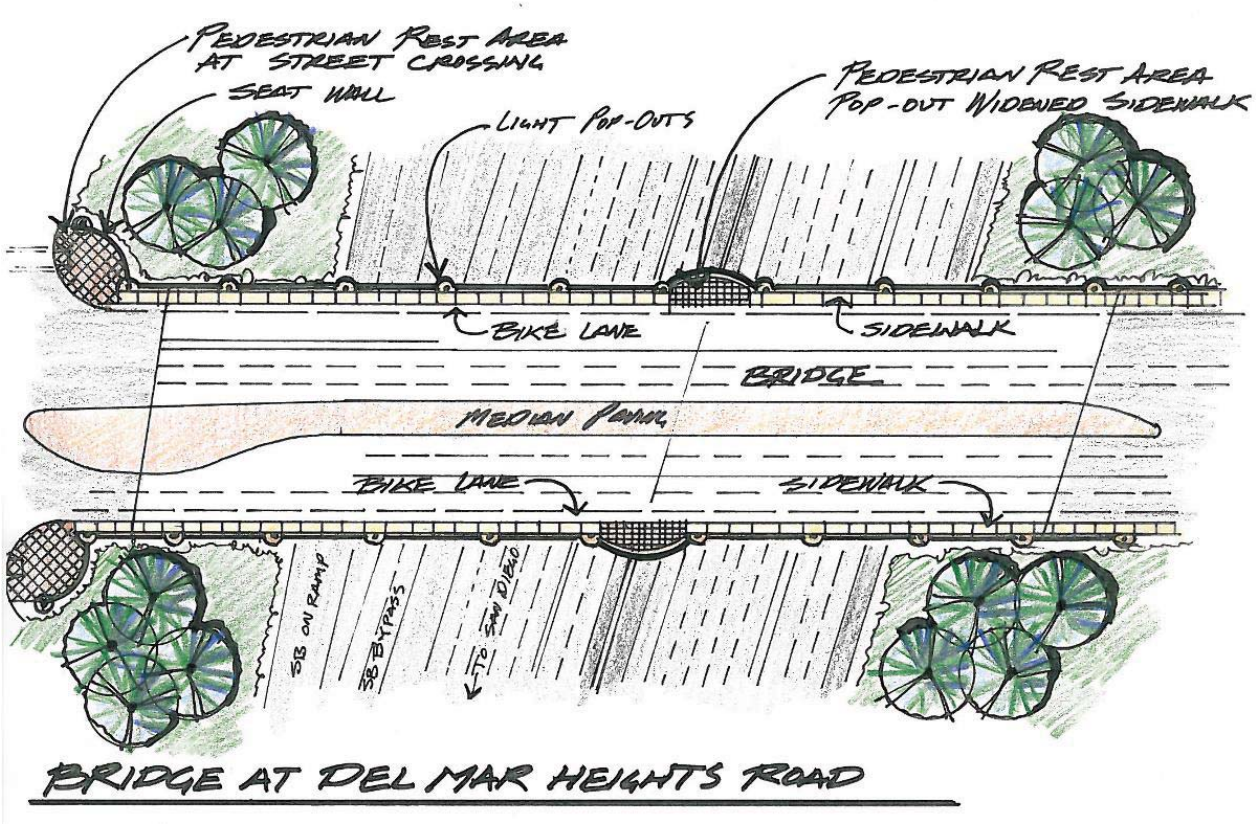
Del Mar Heights Bridge

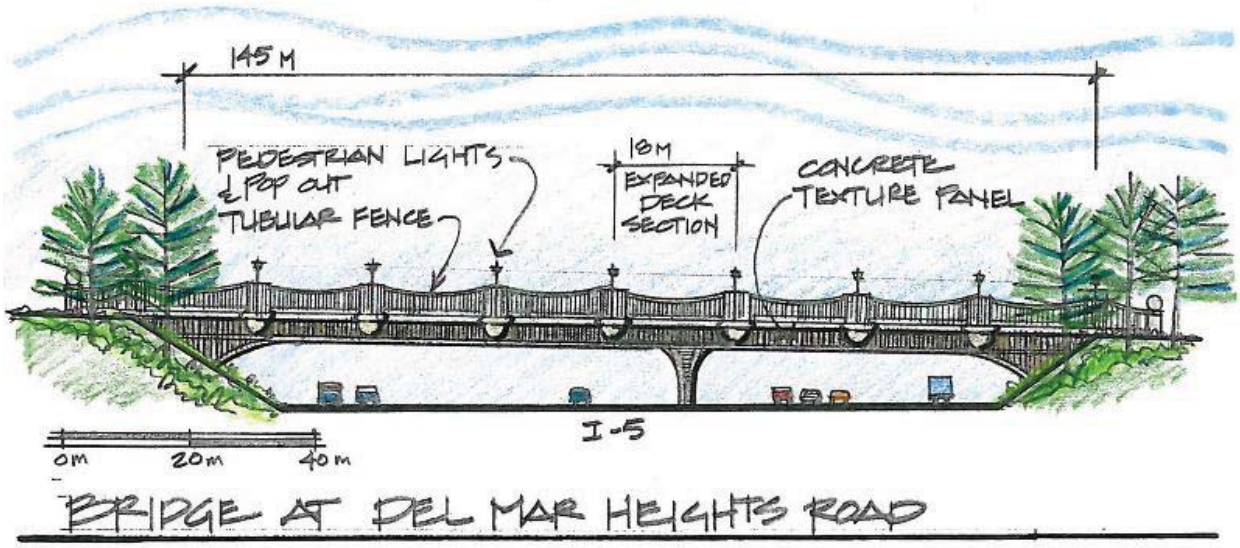
The enhanced bridge features shown will be implemented if the City of San Diego agrees to maintain them in perpetuity.

- The replacement bridge should be designed as a focal element and visual enhancement featuring a rich combination of aesthetic treatments to achieve a strongly positive viewer response. The bridge is viewed from both the northbound and southbound upward incline, making it extremely visible and potentially memorable and vivid. This is an opportunity to combine dramatic and high quality design in a focal element signaling the transition from Coastal North County to the symbolic entry to the City of San Diego.

- The bridge structure should be an elegant expression of fine modern bridge design, with clean lines and a graceful simplicity of form, but should also combine an intriguing combination of elements at the street level, also visible from the highway. This design of simple form below, and intriguing detail above, should combine to provide a memorable transition element that provides a sense of the communities it connects.

- Key pedestrian features would include sidewalks widened to the extent possible. A 12' sidewalk width provides a comfortable pedestrian experience and better separation from traffic. A low concrete barrier between the sidewalk and roadway would promote pedestrian safety and comfort.





- The bridge should be substantially consistent with the I-5 North Corridor Design Guidelines.
- The bridge should incorporate unique and attractive fencing, and lighting fixtures to enhance the pedestrian experience and the visual quality of the structure.
- The pedestrian experience crossing the bridge on Del Mar Heights Road should be enhanced by the incorporation of sidewalk paving enhancements such as grid paving, seating alcoves, protection from traffic, and the incorporation of artistic elements.

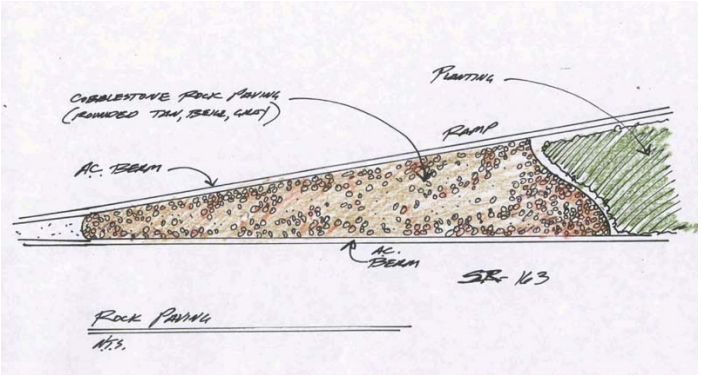
Slope Paving

- Rounded creek cobble shall be used where possible for slope paving under the bridge structures and in areas of the project that are too shady to plant.

Gore Paving

- To reflect the natural canyon bottom and continue the landscape treatment, the gore paving between the freeway and off- and on-ramps should be constructed of 2 centimeter exposed aggregate set in a matrix of warm toned, earth colored concrete to provide a natural appearing river bottom gravel surface. The addition of 0.1 to 0.15 meter creek bottom cobble in the gore paving would be preferable if permitted.

- Repeat the use of the gore paving, where possible in areas of the design that are too narrow or shady for planting. Such areas include turning gores, median tapers and slope paving under the bridge structures.



Planting

- Planting themes should be derived from the surrounding native plant community, selecting key shrubs to fulfill specific functions of screening, accent planting and erosion control.

- Surface cover of the planting spaces should be San Diego native plants such as Artemisia californica, Eriogonum fasciculatum, Iva hayesiana in a blend of plants providing species diversity and the ability to naturalize over a 5 year establishment period.

- Screen shrubs should be planted to reduce exposure of large walls and slopes, and to provide mid-level screening. Shrubs should include, but not be limited to Heteromeles arbutifolia, Rhus integrifolia, Malosma laurina, Prunus ilicifolia, Rhamnus californica and croccea, and Ceaothus verrucosus.

- Tree planting should consist of trees native to the region, including Torrey Pines, Quercus agrifolia, and in low areas where more moisture is available, Plantanus racemosa.

- Tall trees such as Torrey Pines, should be planted in the vicinity of the flyover to help visually diminish the scale of the structures. Sycamore or Cottonwoods are tall trees that would be appropriate to the Carmel Valley riparian area south of the 5-56 interchange. The verticality of the trees will provide contrast with the horizontals of the road promoting visual relief.

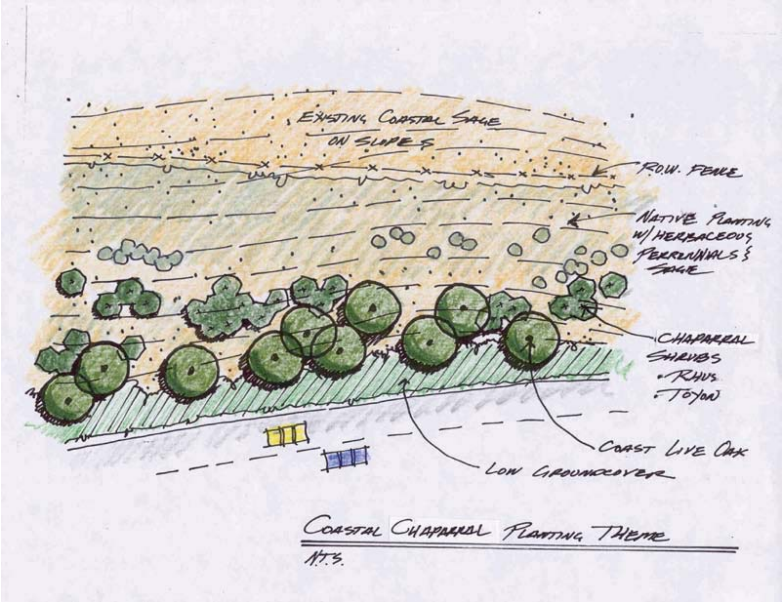
- Where planting space and maintenance access provisions allow, plant the retaining walls with a clinging vine to provide visual relief of the large expanse of wall face and to visually soften the appearance, replacing the effect of the existing vegetation on the slopes. Each wall condition should be reviewed on a case by case basis for compatibility with native plants. A separate bubbler irrigation system should be included for vine plantings when combined with native plants.

- The subtle gray green of Coast Live Oaks and chaparral plants should be planted to create a transition to a coastal sage/chaparral type plant palette on the slopes to increase in contrast with the lush river vegetation.

- Native riparian tree species should be planted where possible in the lowland areas to the base of the slopes at the edge of the valley to amplify and extend the visual connection with the Carmel River Valley.

- Where permitted by NPDES, large retention basins should incorporate the planting of riparian trees such as Sycamore, Willow, and Quercus agrifolia near the perimeter to reflect the character of ephemeral creek areas.

- Where appropriate, provide dense, native moderately low groundcover type planting along edges of roadways to contrast with the widened mass of concrete roadway and bring a sense of landscape toward the roadway. Plants might include low growing Prostrate Coyote brush, Buckwheat and other low natives.



- All planted areas would be fully irrigated with below grade, automatically controlled irrigation systems to establish and support plant growth. Separately valved bubbler irrigation would be provided for the proposed tree and vine planting.

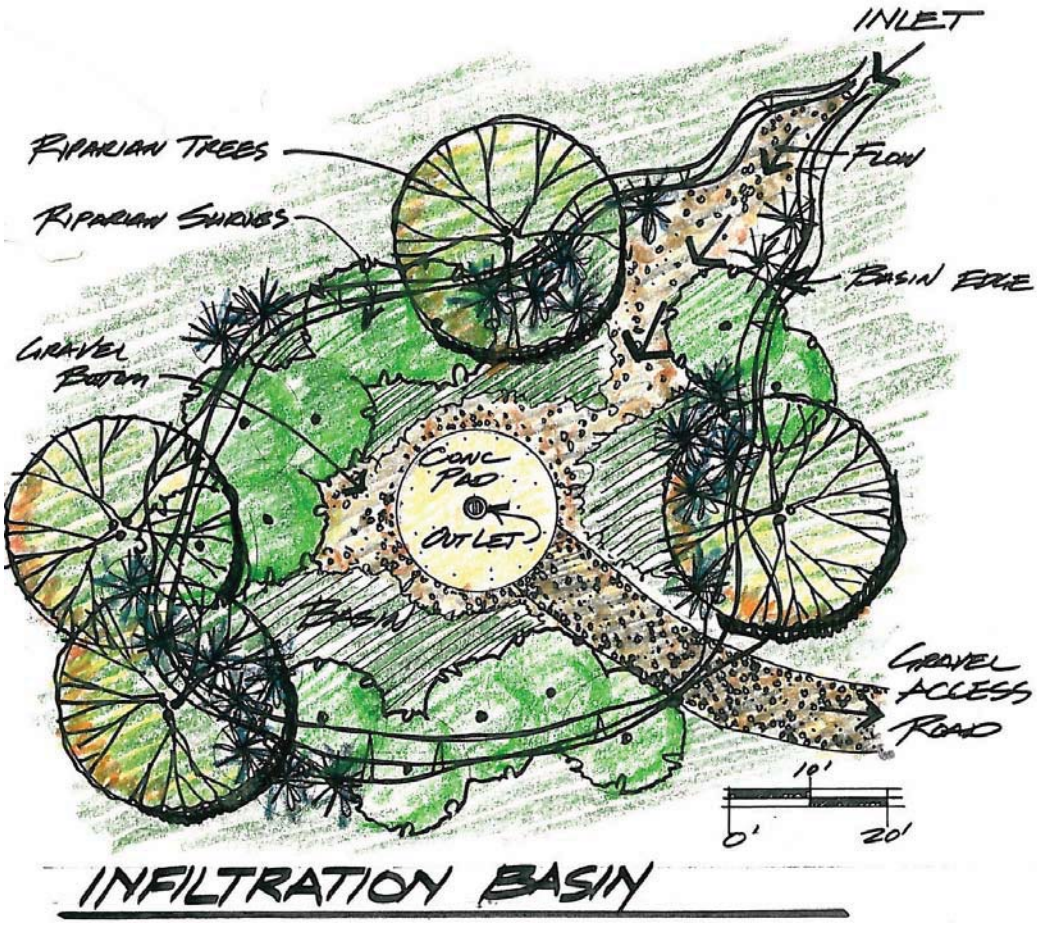
- Landscape should be designed with the understanding that there is likely to be no irrigation or plant maintenance performed once the project is turned over to Caltrans after a 5 year establishment period.

Bio-swales

- Bio-swales, where required, should be specially formulated soil and drainage layers planted with a mixture of mowable native non-invasive grasses and similar plants tolerant of both dry and wet conditions.

Retention and Infiltration Basins

- To provide a natural appearing and sustainable solution for temporary storm water run-off storage, retention basins should be constructed of gravel lined soil basins planted with self-sustaining native riparian vegetation such as Baccharis salicifolia and Artemesia douglasiana, dracunculus and tridentata. The low point of the basin should be constructed as a circular 9 to 18 square meter concrete pad around the overflow outlet to allow cleaning. A 2.4 meter wide gravel road base access road may be constructed to the concrete pad to allow maintenance access. Paved or lined retention basins should be avoided.



Signs and Lights

- Avoid placing signage, fencing and distracting railings and other vertical elements along the flyover to avoid distracting elements that would be silhouetted against the sky or in front of distant views.

- To the full extent that illumination safety requirements allow, lighting should be designed to remain peripheral to the views and sight lines, and should be designed to remain in scale with the perimeter planting and slopes.

- Densely arrayed lamp clusters on massive, strongly colored poles should <u>not</u> be used to avoid attracting attention to the lighting fixtures, and detracting from the views. Lights can create a strongly negative visual impact and view obstructions, resulting in a decrease in visual quality.

- Signs should be standard Caltrans white letters on green background mounted on non-reflective galvanized tubular steel supports.

SR-56

The existing landscape and hardscape of SR-56 has its own character, drawing extensively from its close relationship with the adjoining Carmel River Valley natural vegetation and cobble bottom creek. The existing highway landscaping consists of native trees such as Sycamore, Oak and Torrey Pine trees, supplemented with a range of exotic species. In addition to the design measures listed above, the following shall apply specifically to the SR-56 area of the project.

- Planting should reflect the natural character of the Carmel River Valley and be composed of native plants similar to those proposed for I-5.

- Planting in close proximity of buildings may be non-native if necessary to fulfill aesthetic functions such as screening in narrow areas.

- Concrete retaining walls less than 2 meters high may be constructed of a muted shade of light tan colored concrete and incorporate a textured band to help reduce the appearance of height of the wall.

- Where space permits, Oleander shrubs should be planted in the median to replace those removed for this project. It appears that there is insufficient space to allow Oleander planting in the Direct Connector, Hybrid and Hybrid with Flyover Alternatives.

B. Maintenance

The planting mitigation measures rely on growth, maintenance and time to reach a size and maturity to perform their intended function. It is anticipated that the permanent mitigation measures itemized in this document will begin to become effective in approximately 5 years of implementation. This is subject to variability in climate variability, growing conditions, irrigation maintenance and other factors. The maintenance for the project area will be determined by cooperative agreement between the City of San Diego and Caltrans. Maintenance agreements will be designed to promote the full potential of the mitigation measures proposed.

C. Conclusions

The mitigation measures proposed in this document are designed to improve the overall visual quality of the proposed construction of the project design alternatives, and promote a positive viewer response from motorists, pedestrians, and bicyclists. The measures propose a wide range of visual enhancements to improve project aesthetics and connect the design to the regional context. These improvements may partially compensate for the addition of new, highly visible features including the flyover, extended roadway width, bridge widening and retaining walls that are required to promote more effective traffic flow, increase capacity and safety. While it appears not to be possible to directly mitigate the tall Direct Connector bridges, and the increase in paving and hard surfaces impacting the visual environment, the overall design provides compensatory measures to improve the viewer experience and indirectly provide visual improvement for the project.

For the No-Build Alternative, there would be no mitigation required for visual impacts since the project area would remain unchanged.

The mitigation design features and principles for the Direct Connector and Auxiliary Lane Alternatives, the Hybrid Connector Alternative and the Hybrid with Flyover Alternative described above and in the Landscape Concept Plan would reduce the potential temporary and permanent visual impacts of the project and would improve visual quality related to new and modified project features. With the implementation of the visual improvement measures and project features listed in Section VII, the visual impacts would be reduced for the proposed project. However, the change in visual quality is anticipated to decline due to the large reduction in screen planting on both sides of Interstate 5, and portions of the north side of SR-56, the imposing retaining walls and the potential for visual impacts from sound walls. The elevated connector ramps of the Direct Connector Alternative further reduce visual quality. As concluded in the analysis section VI, it is considered that the net gain in visual quality resulting from visual improvements will not balance the effects of the proposed project construction. When considered in conjunction with the I-5 North Coast Corridor Widening, the project is also anticipated to result in adverse impacts relating to visual quality.

VIII. COMPARATIVE SUMMARY OF VISUAL IMPACTS

This visual study analyzes impacts through the comparison of key views, evaluated for changes in character, visual quality, and the anticipated viewer response. This provides an objectified opinion of the effects of the project on the visual environment. Combining the anticipated visual changes and the key view analysis results in an understanding of the overall visual change due to the proposed project alternatives. The four project alternatives studied in this document, present different visual impacts to the study area, and consequently have been analyzed separately. This allows comparison of the severity of project impacts for each alternative. Although the scale and complexity of the improvements is greater for the Direct Connector and Hybrid and Hybrid with Flyover Alternatives, than the Auxiliary Lane Alternative, the conceptual themes, proposed planting, and design elements are interchangeable for the four alternatives. Summarizing the visual analysis for each alternative leads to the following conclusions.

A. Direct Connector Alternative

The analysis contained in this report indicates that the Direct Connector Alternative would result in a large amount of negative visual change due to the loss of existing mature vegetation, the lack of space for screen planting, large visually intrusive retaining walls, extensive sound walls, loss of median planting on SR-56 and a general increase in the expanse of asphalt and concrete surfacing. There will be a large net decrease in planted area and the elimination of the planted median on SR-56. In addition to the above, the imposition of two new connector bridge structures that will be highly visible crossing above the existing three level interchange results in a strong new visual element that strongly affects the views from the road and to the road. While the structures, bridges and walls can be enhanced with extensive aesthetic treatments to improve the public perception of their visual impact, these visual improvement measures will not compensate for the change in visual character and quality resulting from the project. This is due to the lack of space for installing and maintaining screen planting, landscape buffers, vine planting on walls, and the proximity of new traffic lanes to the surrounding homes and commercial structures. The visual impact associated with the limited space for landscaping is exacerbated by the Caltrans standard setbacks for planting of trees that could otherwise potentially provide planting buffers to help mitigate these impacts. Without the visual buffers, not only is the visual character of the project area changed, but the I-5 transportation corridor will no longer be visually separated from the adjacent developed land uses. This will result in a visual juxtaposition of disparate land uses that was not easily perceptible in the existing condition. Due to the great amount of visual change, the Direct Connector Alternative project can be concluded to have a relatively large visual effect.

B. Auxiliary Lane Alternative

Based on this study, the implementation of the Auxiliary Lane Alternative would have less visual impact than the Direct Connector Alternative. This is due to the relatively lower heights of the retaining walls, more planting area for buffers and screening, and less paved surfaces. The tall connector bridge structures are also absent in this alternative eliminating the view blockage and visual intrusion associated with the structures constructed over the existing connectors. The additional planting space in this alternative allows additional screen planting and provides more visual buffering on both sides of I-5, allowing the visual separation of the transportation corridor from adjacent land uses. There is also less disturbance to planting along the edge of SR-56, although in some areas the screening is greatly reduced. Due to the relatively lower visual

impact of the Auxiliary Lane Alternative, the visual effect can be anticipated to be much less than the Direct Connector Alternative and less than the Hybrid and Hybrid with Flyover Alternatives.

C. Hybrid Alternative

The implementation of the Hybrid Alternative combines elements of both of the previous alternatives resulting in a greater degree of visual impact than the Auxiliary Lane Alternative, but less than the Direct Connector Alternative and Hybrid with Flyover Alternative. The westbound SR-56 to I-5 connector structure, approach and transition match the Direct Connector Alternative, resulting in a large amount of negative visual change due to the loss of existing mature vegetation, the lack of space for replacement screen planting, increased exposure of adjacent commercial buildings, loss of median planting on SR-56 and a general increase in the expanse of asphalt, and concrete surfacing.

On the west and south sides of the intersection, the Hybrid Alternative matches the Auxiliary Lane Alternative with corresponding visual impacts including retaining walls, and a reduction in landscape screening areas between I-5 and adjacent residential areas to the west. In this alternative, there would be no south I-5 to east SR-56 connector structure or approach. Since this is the higher of the two connectors, the direct visual impact of the taller structure would not be present in this alternative. Many of the existing trees and landscape buffers are anticipated to remain between I-5 and the homes on Portofino Drive and Portofino Circle.

The visual effect of the Hybrid Alternative can be anticipated to be less than the Direct Connector Alternative and Hybrid with Flyover Alternative but greater than the Auxiliary Lane Alternative.

D. Hybrid with Flyover Alternative

The implementation of the Hybrid with Flyover Alternative combines The Hybrid Alternative above with a flyover connector from eastbound Carmel Valley Road to SR-56, resulting in a greater degree of visual impact than the Auxiliary Lane Alternative and the Hybrid Alternative, but less than the Direct Connector. The westbound SR-56 to I-5 connector structure, approach and transition match the Direct Connector Alternative, resulting in a large amount of negative visual change due to the loss of existing mature vegetation, the lack of space for replacement screen planting, increased exposure of adjacent commercial buildings, loss of median planting on SR-56 and a general increase in the expanse of asphalt, and concrete surfacing.

On the west and south sides of the intersection, the Hybrid with Flyover Alternative closely matches the Auxiliary Lane Alternative with corresponding visual impacts including retaining walls, and a reduction in landscape screening areas between I-5 and adjacent residential areas to the west. Many of the existing trees and landscape buffers are anticipated to remain between I-5 and the homes on Portofino Drive and Portofino Circle.

In this alternative, the Carmel Valley to SR-56 connector would replace south I-5 to east SR-56 connector structure of the Direct Connector Alternative. The proposed flyover connecting Carmel Valley Road with SR-56 east creates an additional visual obstruction visible from several approaches. This structure contributes to the relatively greater visual impact of the Hybrid with Flyover Alternative when compared with the Hybrid Alternative.

The visual effect of the Hybrid Alternative with Flyover can be anticipated to be less than the Direct Connector Alternative and Hybrid Alternative but greater than the Auxiliary Lane Alternative.

E. No-Build Alternative

The No-Build Alternative is the basis of comparison illustrated in the existing condition for this analysis. No construction would result from this alternative. Consequently, there would be no visual impact. The No-Build Alternative would conform to the appearance illustrated in the key view existing condition photograph. No mitigation would be required for this alternative.

Under the No-Build Alternative, the existing visual conditions would remain unchanged, and further growth of the existing plants can be expected to result in more visual screening, and an increase in the separation between the highway and the adjacent land uses. There would be no direct connectors crossing over the existing connectors. Visual impacts would not be increased. However, if the North Coast I-5 Improvement Project is constructed, a large degree of visual change is anticipated result in the project area.

F. Comparative Summary

Arranging the alternatives in descending order of severity of the corresponding visual impact allows a direct comparison between the alternatives.

<u>Hierarchy of Visual Impacts in order of severity:</u>

Direct Connector Alternative	High degree of adverse visual impact (The highest of the Alternatives)
Hybrid with Flyover Alternative	High degree of adverse visual impact
Hybrid Alternative	Moderately high degree of adverse visual impact.
Auxiliary Lane Alternative	Lesser degree of moderately high adverse visual impact
No-build Alternative	No adverse visual impact

IX. REFERENCES

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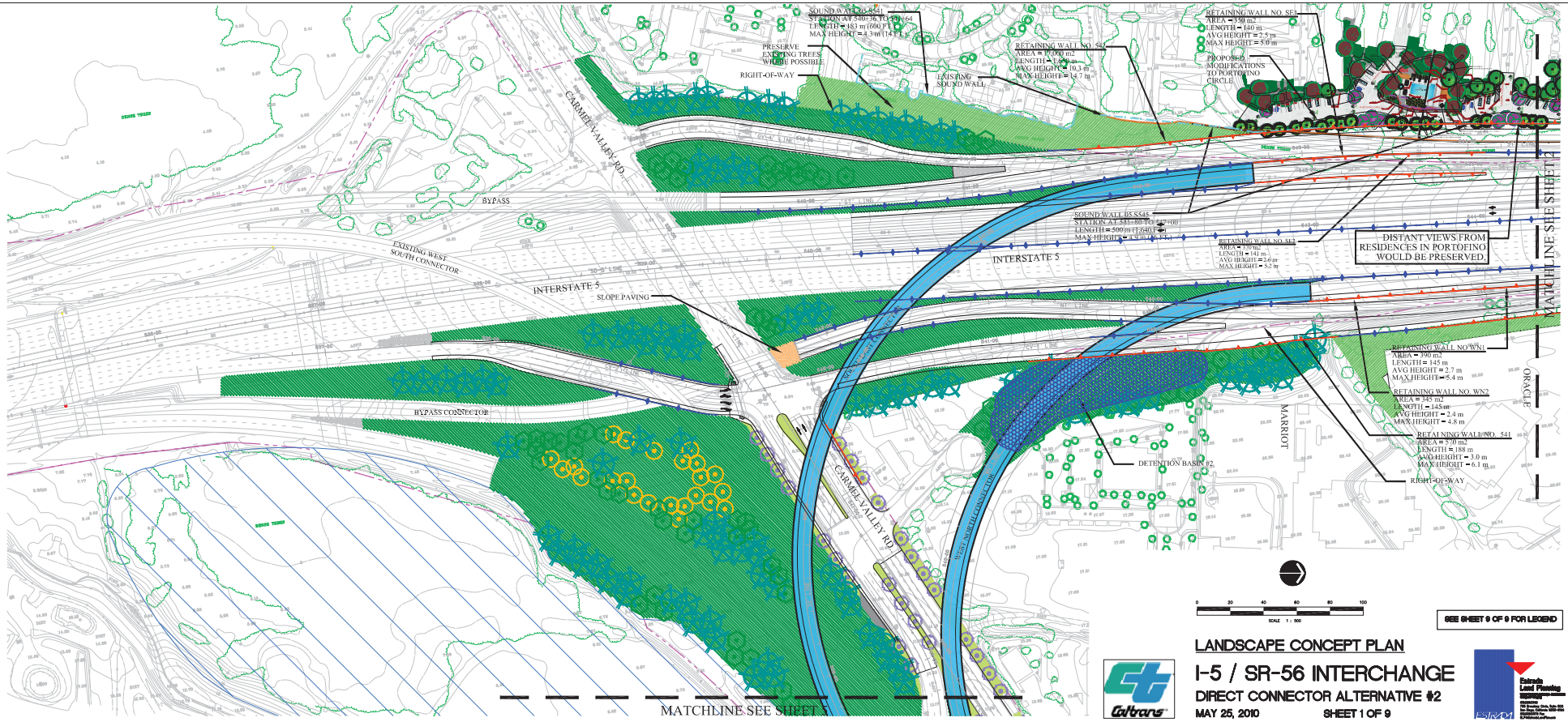
ATTACHMENT A

LANDSCAPE CONCEPT PLAN – DIRECT CONNECTOR ALTERNATIVE



LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010

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LANDSCAPE CONCEPT PLAN

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I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010

SHEET 2 OF 9

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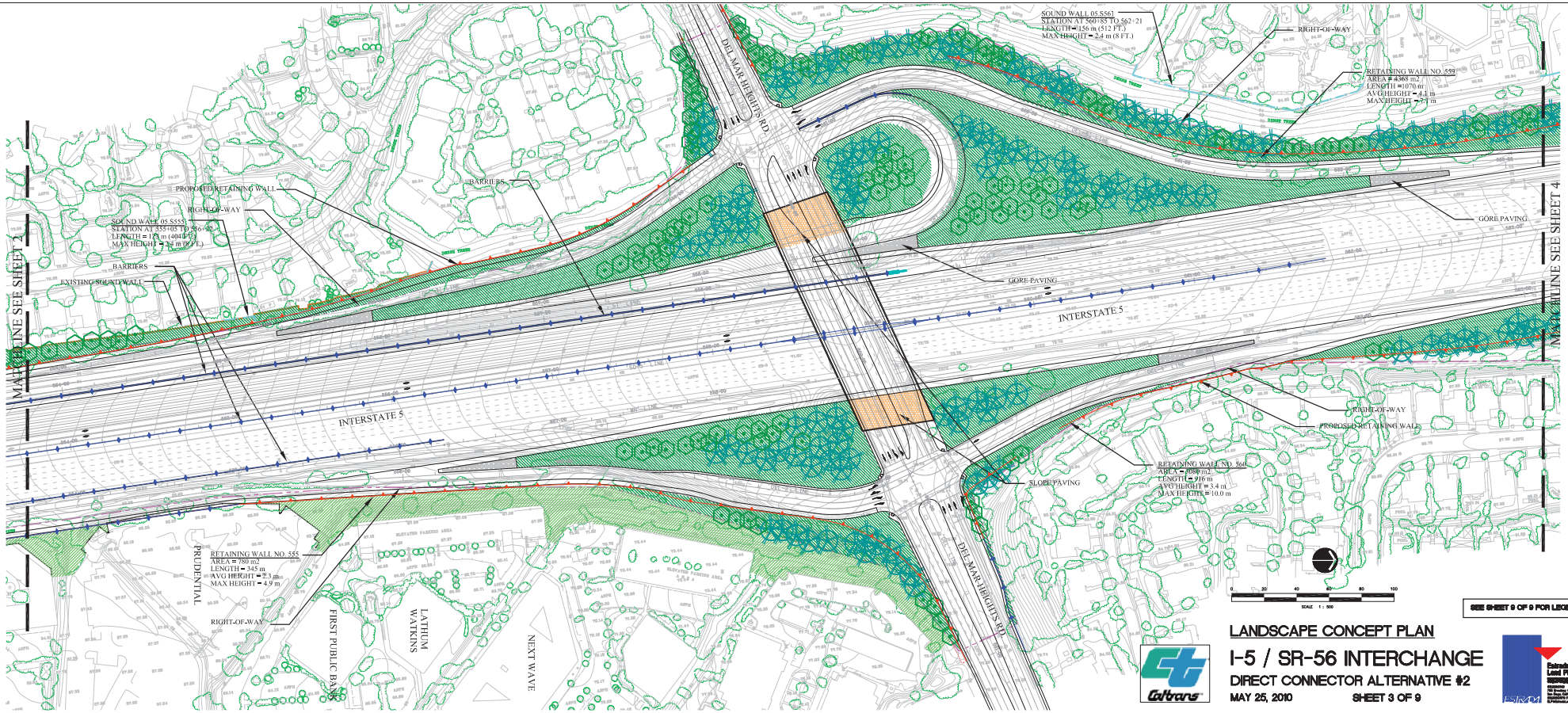
I-5/SR-56



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LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

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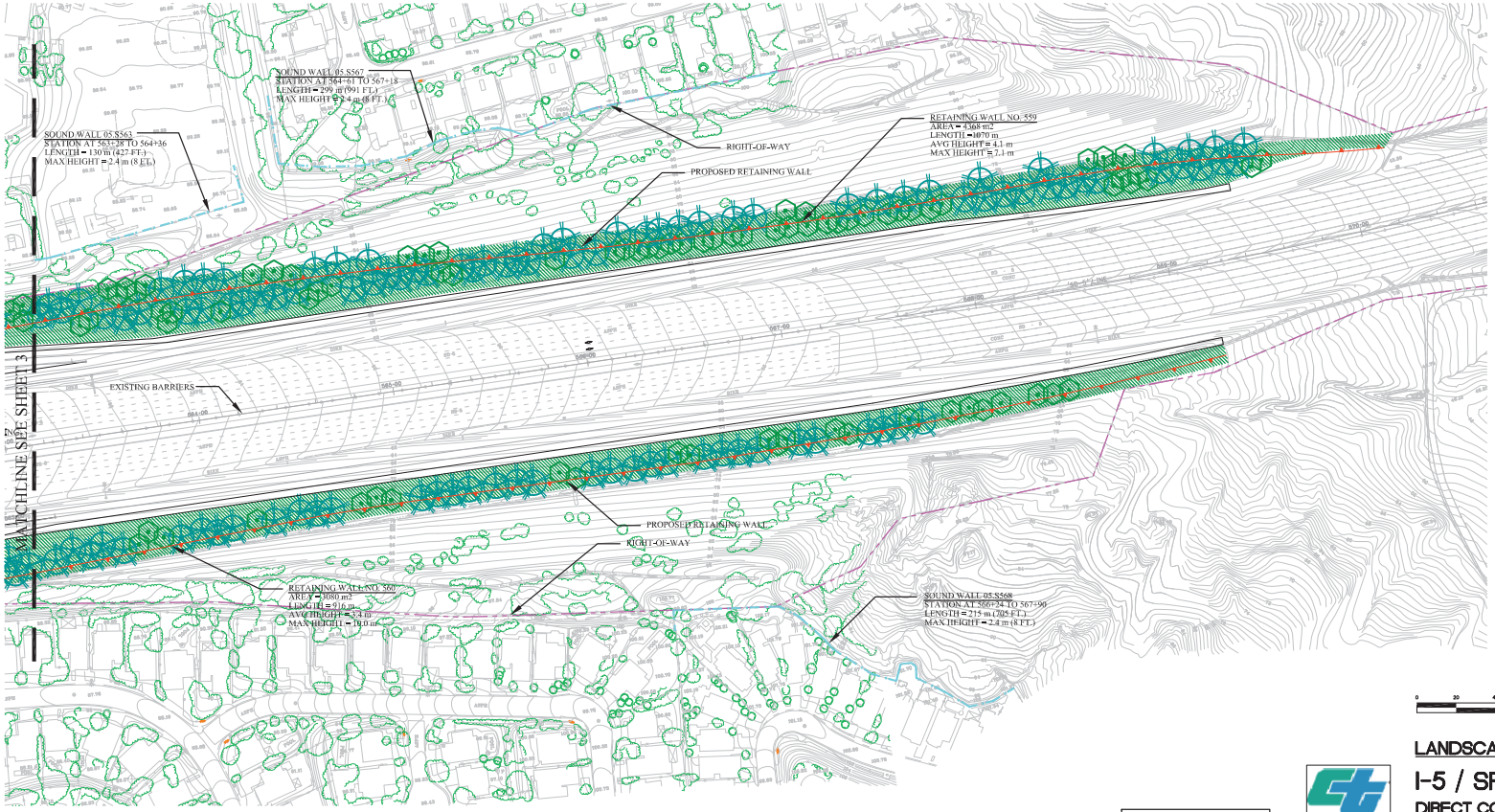

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LANDSCAPE CONCEPT PLAN

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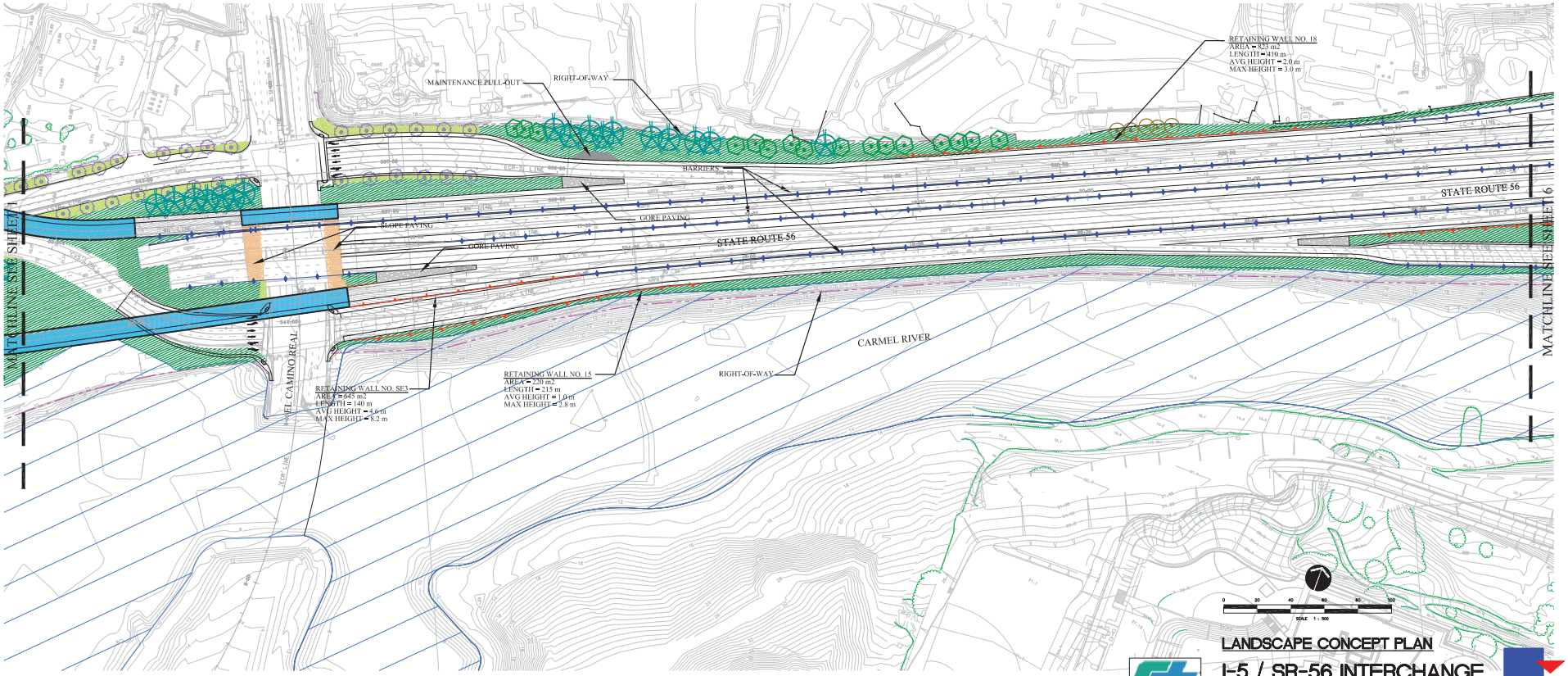

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LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

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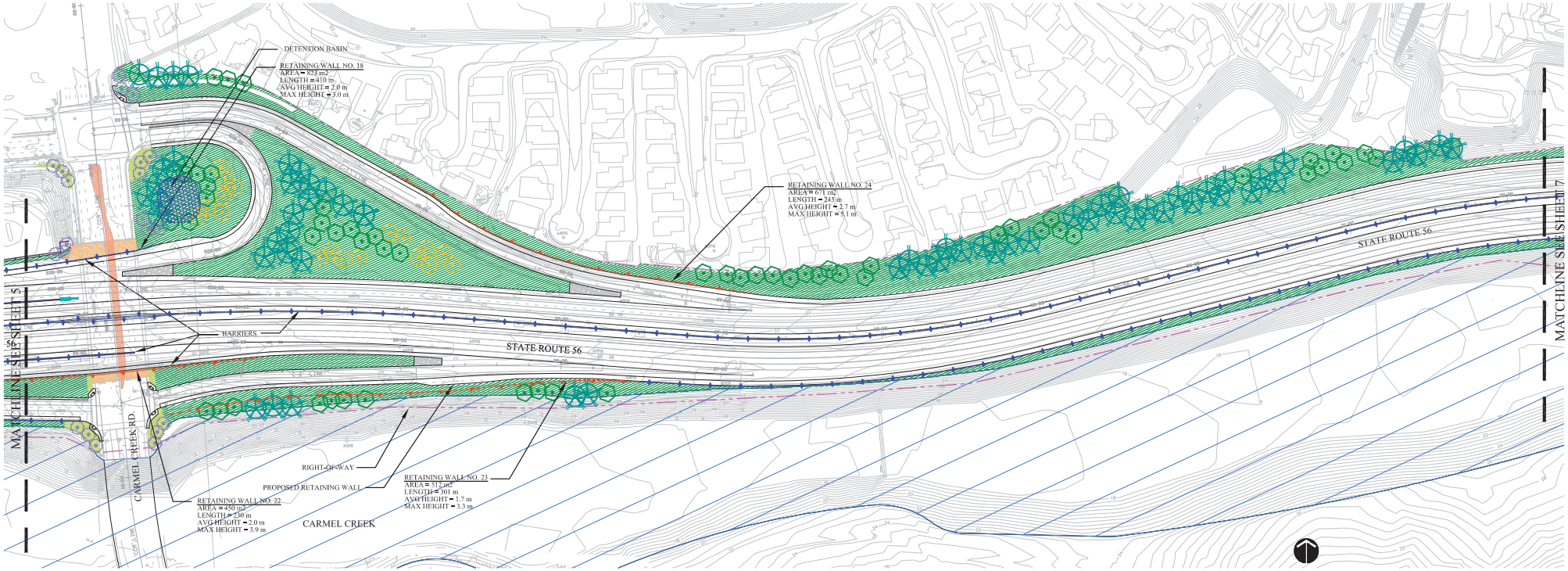

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LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010 SHEET 6 OF 9

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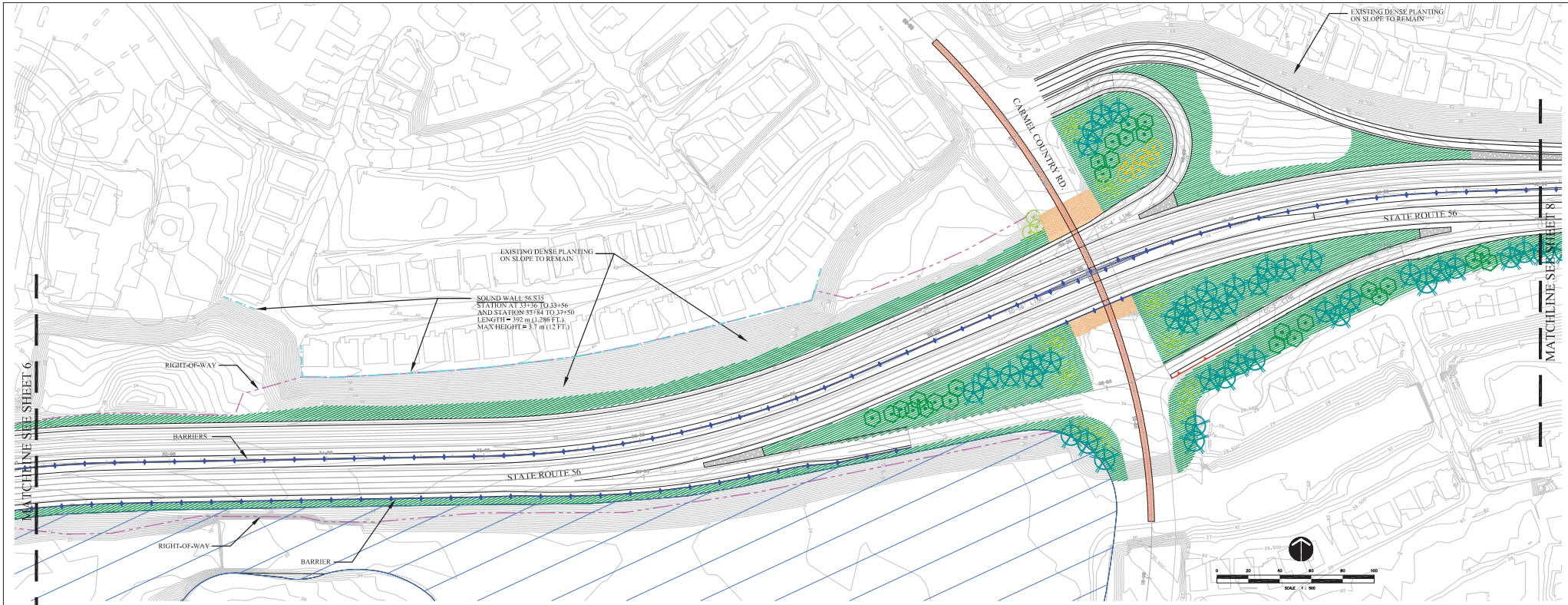

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LANDSCAPE CONCEPT PLAN

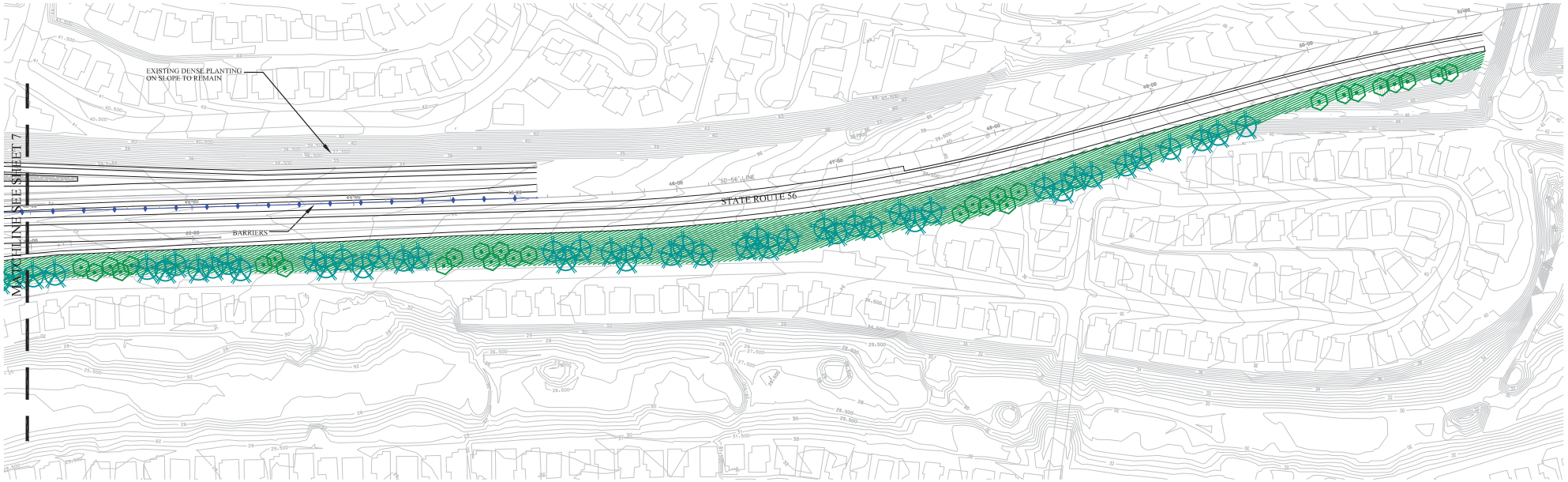
I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010

SHEET 7 OF 9

Estrada Land Planning



0 20 40 60 80 100

SCALE 1 : 500

SEE SHEET 9 OF 9 FOR LEGEND

Caltrans

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010 SHEET 8 OF 9

Estrada Land Planning

PREPARED BY:
Estrada Land Planning
10 Pacific Grove, Suite 200
San Rafael, California 94901-3924
(415) 456-7900
E-MAIL@ELP.NET

LEGEND

Botanical Name	Common Name	Size
Trees:		
Area Theme tree		
Pinus Torreyana	Torrey Pine	24" box
Canyon theme tree		
Quercus agrifolia	Coast Live Oak	24" box
Carmel Valley Deciduous Accent Tree		
Platanus racemosa	California Sycamore	24" box
Carmel Valley Vertical Accent tree		
Populus Fremontii	Western Cottonwood	15 gallon
Screen tree		
Lyonothamnus f. 'Asplenifolia'	Ironbark	24" box
Accent tree at Carmel Center Road		
Tipuana Tipu	Tipu	24" box
Accent Tree at Carmel Road		
Chitalpa tashkentensis	Chitalpa	24" Box
(Replaces existing failed Walnut (Jugulans))		
Street Tree – City of San Diego		

NORTH COAST I-5 WIDENING PROJECT

I-5/56 PLANTING

Planting type 1 – Native Coastal Vegetation

Shrubs:		
Heteromeles arbutifolia	Toyon	
Rhus integrifolia	Lemonade Berry	5 gallon
Malosma laurina	Laurel Sumac	5 gallon
Ceanothus verrucosus	Warty-Stem Ceanothus	5 gallon
Baccharis p. 'consanguinea '	Coyote brush	1 gallon
Eriogonum fasciculatum	California Buckwheat	1 gallon
Prunus illicifolia	Holly leaf Cherry	1 gallon
Ribes speciosum	Fuchsia Flowering Gooseberry	5 gallon
Rhamnus crocea	Red Berry	1 gallon
Rhamnus californica	Coffee Berry	1 gallon
Quercus dumosa	Scrub Oak	1 gallon
Opuntia littoralis	Coast Prickly Pear	5 gallon
Lycium californicum	Desert Thorn	5 gallon
Isomeris arborea	Bladderpod	1 gallon
Salvia melifera	Black sage	1 gallon
Agave shawii	Shaw's Agave	1 gallon
Adenostoma fasciculatum	Chamise	1 gallon
Cneoridium dumosum	Spice Bush	1 gallon
Yucca shidigera	Mohave Yucca	1 gallon
Malacothamnus fasciculatus	Coastal Bushmallow	5 gallon
Salvia clevelandii	Cleveland Sage	5 gallon
Xylococcus bicolor	Mission Manzanita	1 gallon
		5 gallon

I-5/56 PLANTING

Hydroseed Mix 1: Native Coastal Vegetation

Abronia maritima	Sand Verbena
Artemisia californica	Coastal sage
Baccharis p. 'consanguinea'	Coyote Brush
Camissonia cheiranthifolia	Beach Evening Primrose
Coreopsis maritime	Sea Dahlia
Encelia californica	Bush Sunflower
Eriogonum fasciculatum	Coast Buckwheat
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy
Isocoma mensiezii'	Coast Goldenbush
Lasthenia chrystostema	Goldfields
Lotus scoparius	Deer weed
Lupinus nanus	Sky Lupine
Lupinus succulentus	Arroyo Lupine
Mimulus puniceus	Mission Red Monkeyflower.
Plantago indica	Plantain
Stipa pulchra	Purple needle grass
Viguiera laciniata	San Diego Sunflower
Vulpia microshachys	Small Fescue

Planting Type 2 – Groundcover

Carpobrotus edulis	Pickle weed	Cuttings
Delosperma alba	White Ice Plant	Rooted cuttings
Iva hayesiana	Hayes Iva	Liners
(No shrubs)		

Planting type 3 – Clinging vines for walls:

Ficus pumila	Creeping Fig	5 gallon
Hedera helix	English Ivy	5 gallon
Parthenocissus tricuspidata	Boston Ivy	5 gallon

Hardscape Rock Blanket Paving 3–6" tan cobble (Gore paving)	For areas too small to plant
Slope Paving (Natural cobble stone set in concrete)	Under overpasses
Stamped concrete (Type varies)	To match existing patterns in City medians

Retaining wall aesthetic treatment treatment A similar to Lomas Santa Fe I-5 theme
Retaining wall aesthetic treatment treatment B I-56 treatment
Proposed guard rail
Existing sound wall
Proposed sound wall
Existing right-of-way
Proposed right-of-way
Maintenance vehicle pull-out
Private Landscape – Contributing to screening and landscape buffers

0 20 40 60 80 100
SCALE 1 : 500

Caltrans

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

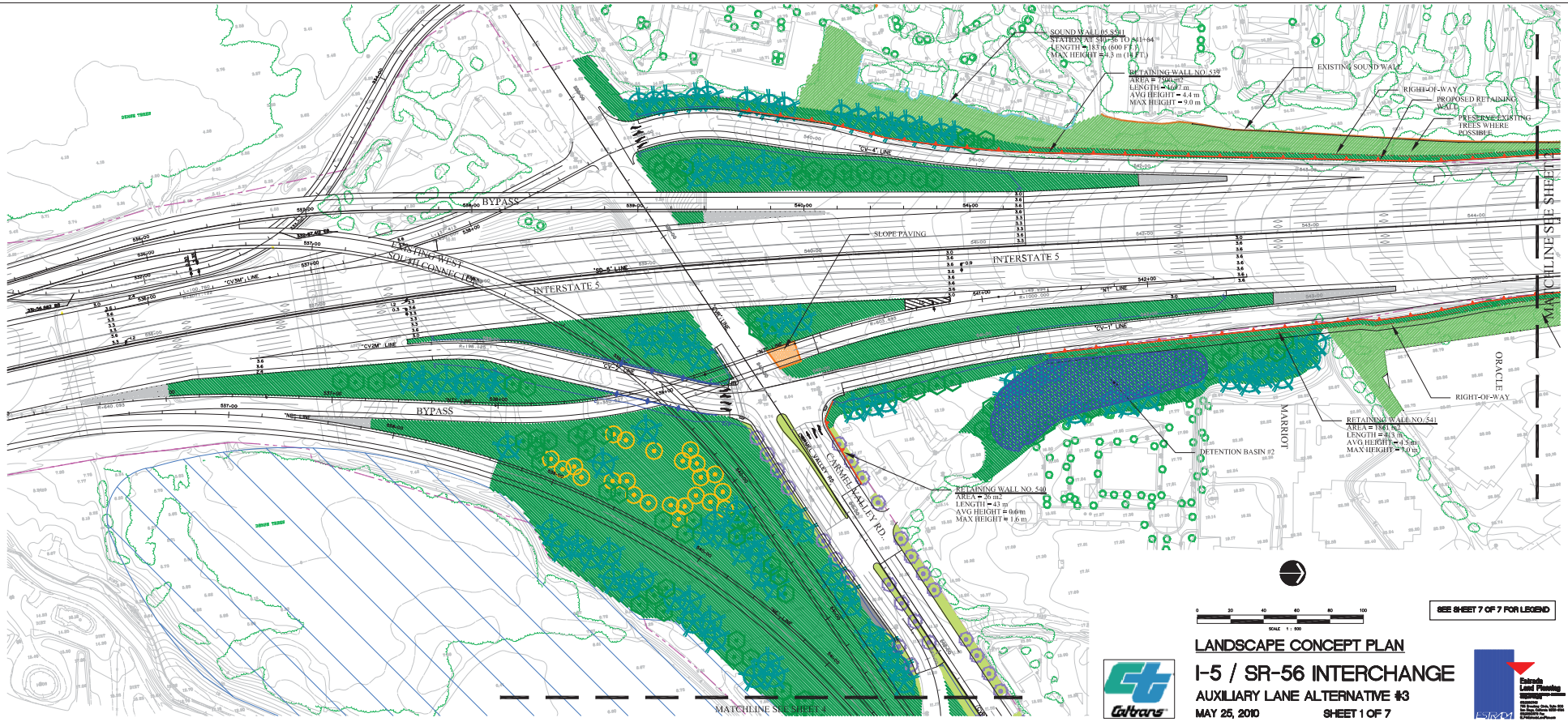
DIRECT CONNECTOR ALTERNATIVE #2

MAY 25, 2010 SHEET 9 OF 9

Estrada Land Planning

ATTACHMENT B

LANDSCAPE CONCEPT PLAN – AUXILIARY LANE ALTERNATIVE



LANDSCAPE CONCEPT PLAN

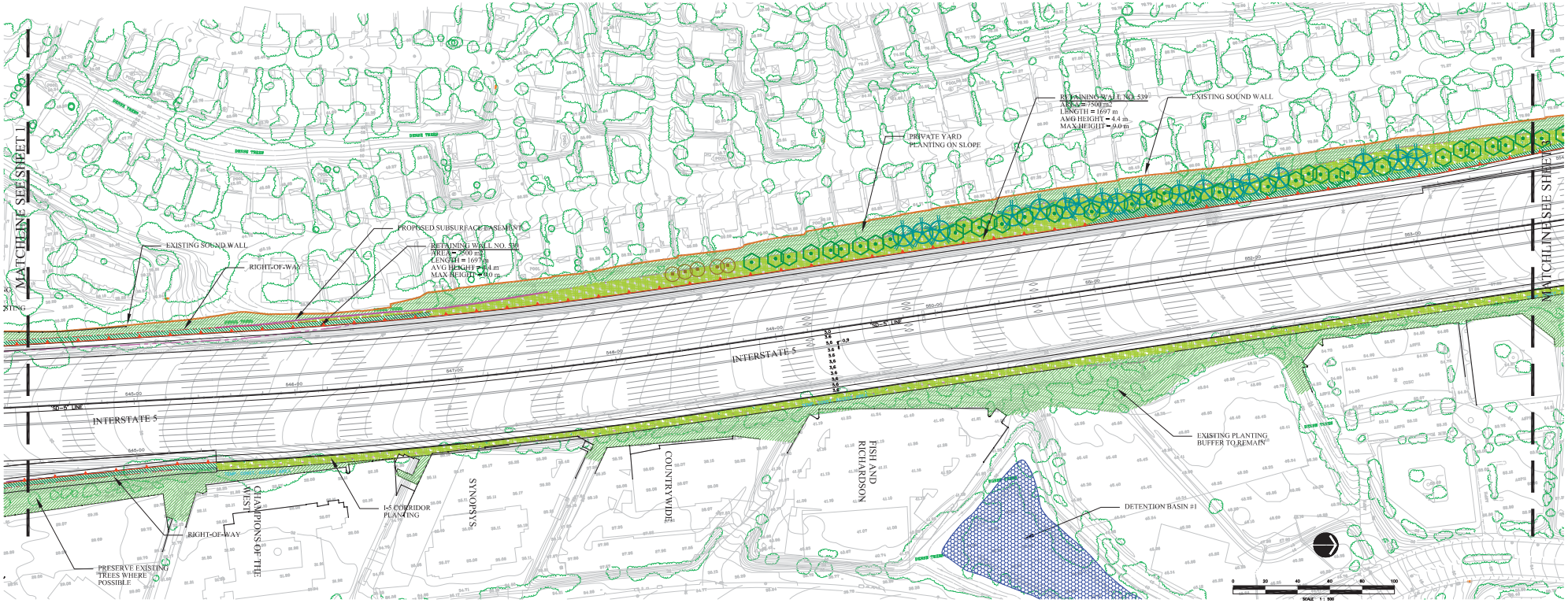
I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 1 OF 7

Caltrans

Estrada Land Planning



SEE SHEET 7 OF 7 FOR LEGEND

Caltrans

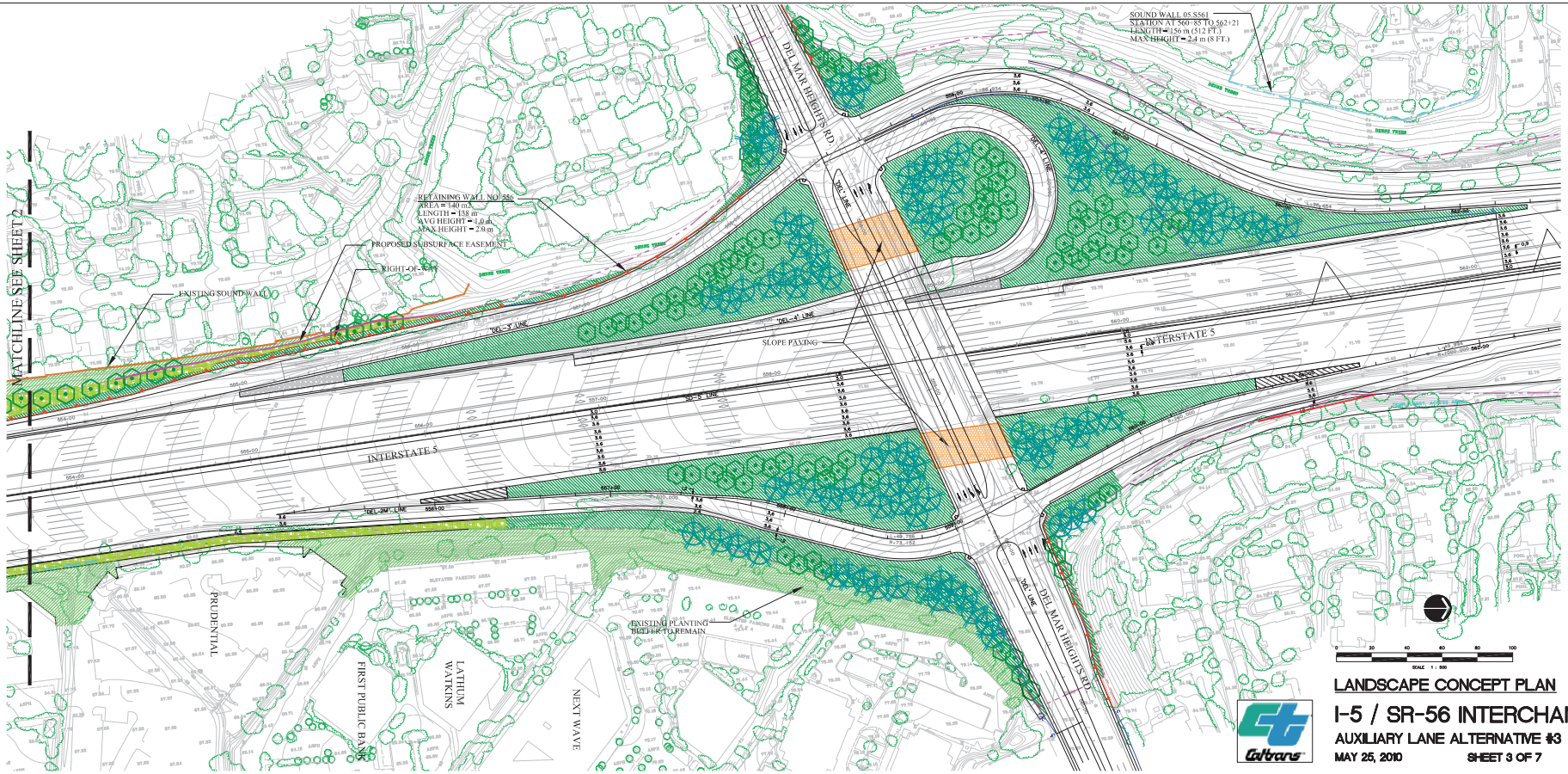
LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 2 OF 7

Estrada Land Planning



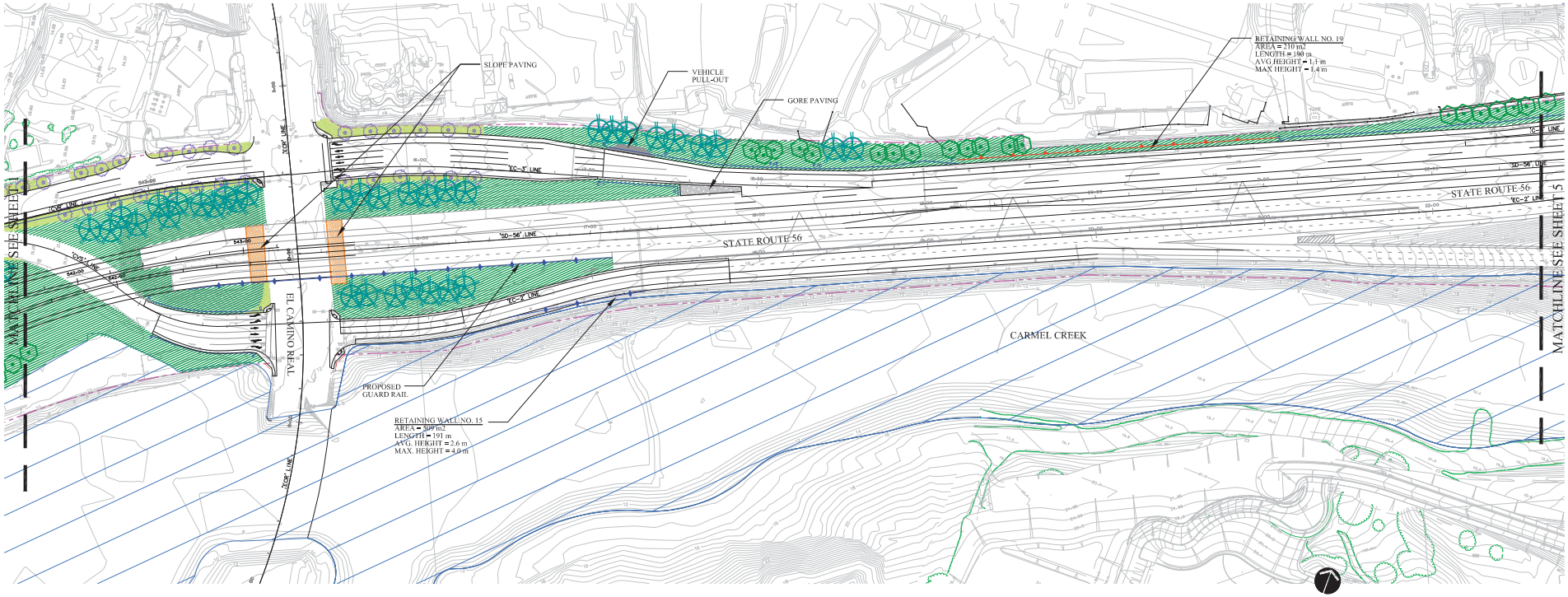
SEE SHEET 7 OF 7 FOR LEGEND

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 3 OF 7



SCALE 1 : 500

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

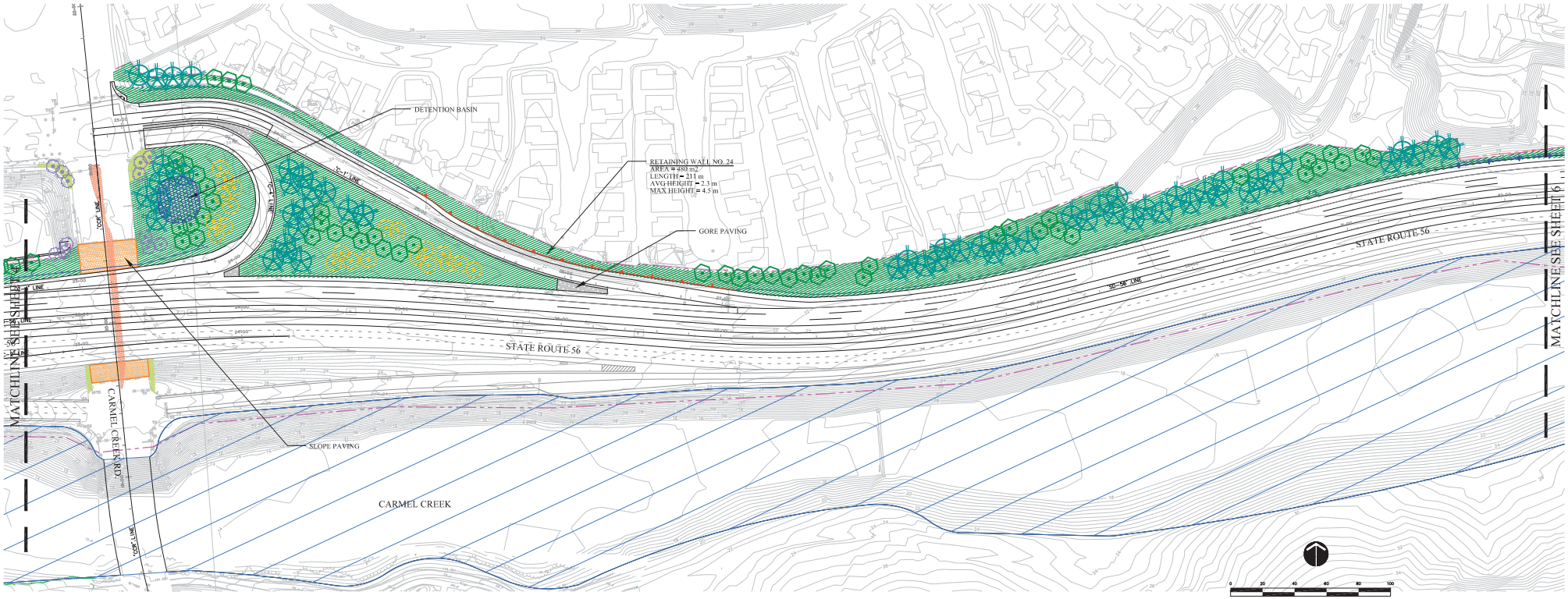
AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 4 OF 7

SEE SHEET 7 OF 7 FOR LEGEND

Caltrans

Estrada Land Planning



SEE SHEET 7 OF 7 FOR LEGEND

Caltrans

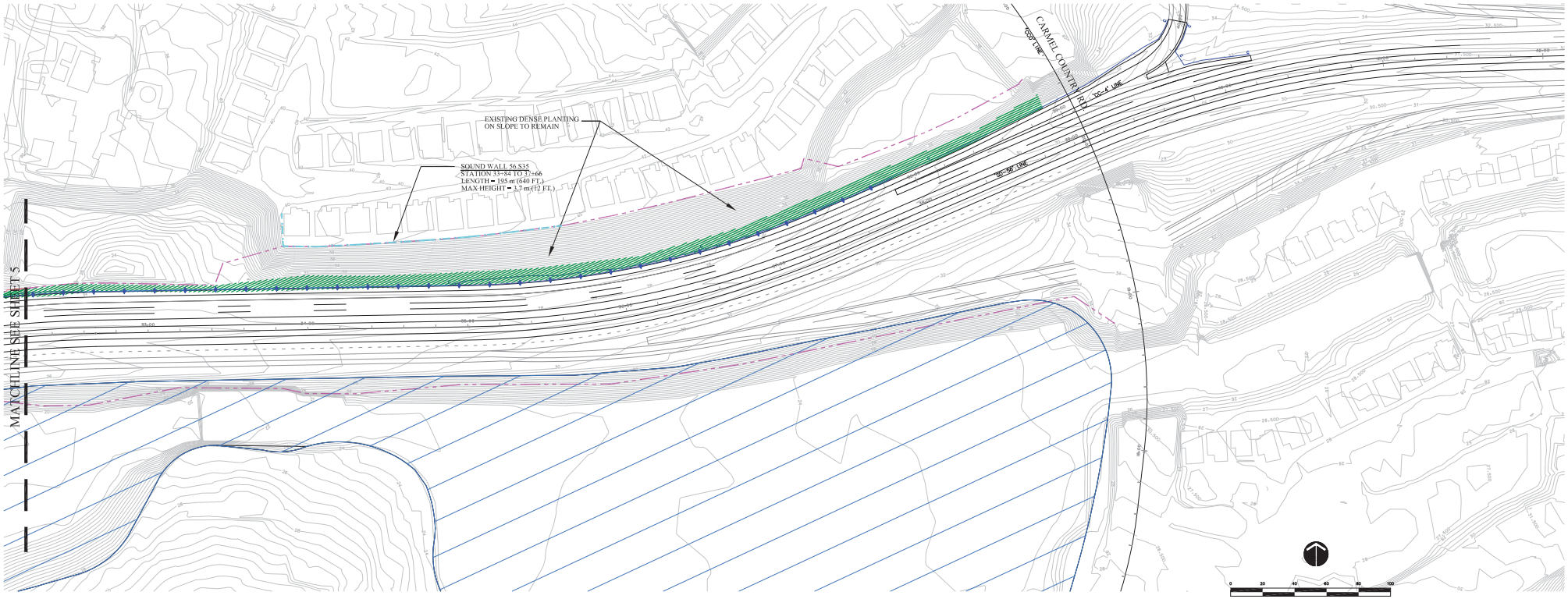
LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 5 OF 7

Estrada Land Planning



SEE SHEET 7 OF 7 FOR LEGEND

Caltrans

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

MAY 25, 2010 SHEET 6 OF 7

Estrada Land Planning

LEGEND

Botanical Name	Common Name	Size
Trees:		
Area Theme tree		
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Canyon theme tree		
Quercus agrifolia	Coast Live Oak	24" box
Carmel Valley Deciduous Accent Tree		
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Carmel Valley Vertical Accent tree		
Populus Fremontii	Western Cottonwood	15 gallon
Screen tree		
Lyonothamnus f. 'Asplenifolia'	Ironbark	24" box
Accent tree at Carmel Center Road		
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Accent Tree at Carmel Road		
Chitalpa tashkentensis	Chitalpa	24" Box
(Replaces existing failed Walnut (Jugulans))		
Street Tree – City of San Diego		

NORTH COAST I-5 WIDENING PROJECT

I-5/56 PLANTING

Planting type 1 – Native Coastal Vegetation

Shrubs:		
Heteromeles arbutifolia	Toyon	
Rhus integrifolia	Lemonade Berry	5 gallon
Malosma laurina	Laurel Sumac	5 gallon
Ceanothus verrucosus	Warty-Stem Ceanothus	5 gallon
Baccharis p. 'consanguinea '	Coyote brush	1 gallon
Eriogonum fasciculatum	California Buckwheat	1 gallon
Prunus illicifolia	Holly leaf Cherry	1 gallon
Ribes speciosum	Fuchsia Flowering Gooseberry	5 gallon
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Rhamnus californica	Coffee Berry	1 gallon
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Opuntia littoralis	Coast Prickly Pear	5 gallon
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Isomeris arborea	Bladderpod	1 gallon
Salvia melifera	Black sage	1 gallon
Agave shawii	Shaw's Agave	1 gallon
Adenostoma fasciculatum	Chamise	1 gallon
Cneoridium dumosum	Spice Bush	1 gallon
Yucca shidigera	Mohave Yucca	1 gallon
Malacothamnus fasciculatus	Coastal Bushmallow	5 gallon
Salvia clevelandii	Cleveland Sage	5 gallon
Xylococcus bicolor	Mission Manzanita	1 gallon
		5 gallon

I-5/56 PLANTING

Hydroseed Mix 1: Native Coastal Vegetation

Abronia maritima	
Artemisia californica	Sand Verbena
Baccharis p. 'consanguinea'	Coastal sage
Camissonia cheiranthifolia	Coyote Brush
Coreopsis maritime	Beach Evening Primrose
Encelia californica	Sea Dahlia
Eriogonum fasciculatum	Bush Sunflower
Eriophyllum confertiflorum	Coast Buckwheat
Eschscholzia californica	Golden Yarrow
Isocoma menseziii'	California Poppy
Lasthenia chrystostema	Coast Goldenbush
Lotus scoparius	Goldfields
Lupinus nanus	Deer weed
Lupinus succulentus	Sky Lupine
Mimulus puniceus	Arroyo Lupine
Plantago indica	Mission Red Monkeyflower.
Stipa pulchra	Plantain
Viguiera laciniata	Purple needle grass
Vulpia microshachys	San Diego Sunflower
	Small Fescue

Planting Type 2 – Groundcover

Carpobrotus edulis	Pickle weed	Cuttings
Delosperma alba	White Ice Plant	Rooted cuttings
Iva hayesiana	Hayes Iva	Liners
(No shrubs)		

Planting type 3 – Clinging vines for walls:

Ficus pumila	Creeping Fig	5 gallon
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Slope Paving (Natural cobble stone set in concrete) — Under overpasses

Stamped concrete (Type varies) — To match existing patterns in City medians

Retaining wall aesthetic treatment treatment A similar to Lomas Santa Fe I-5 theme

Retaining wall aesthetic treatment treatment B I-56 treatment

Proposed guard rail

Existing sound wall

Proposed sound wall

Existing right-of-way

Proposed right-of-way

Maintenance vehicle pull-out

Private Landscape – Contributing to screening and landscape buffers

0 30 40 60 80 100

SCALE 1 : 500

Caltrans

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

AUXILIARY LANE ALTERNATIVE #3

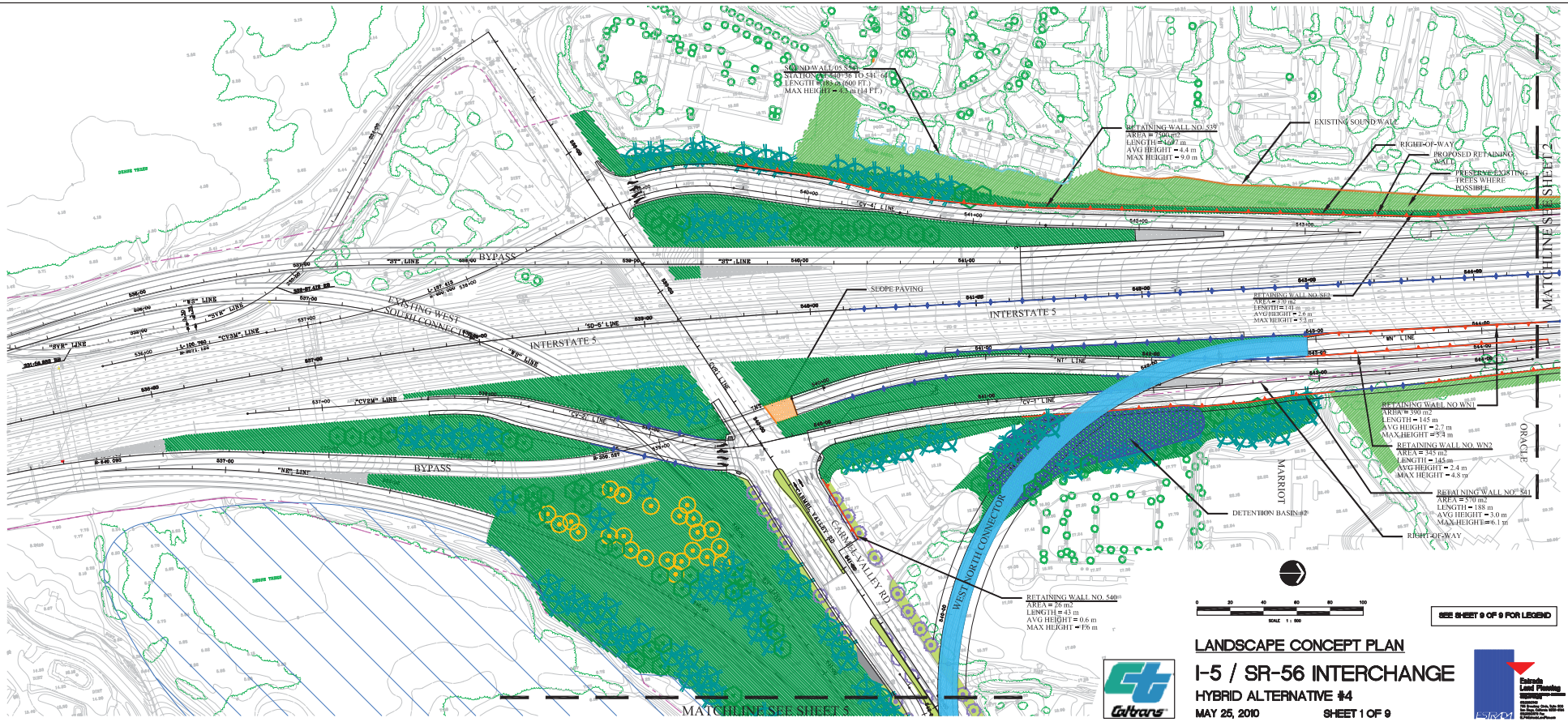
MAY 25, 2010 SHEET 7 OF 7

Estrada Land Planning

Prepared by
Estrada Land Planning
7575 Metropolitan Drive, Suite 103
San Diego, California 92108-4404
619.295.1159 voice
619.295.1808 fax
E-Mail: info@elp.com

ATTACHMENT C

LANDSCAPE CONCEPT PLAN – HYBRID ALTERNATIVE



LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 1 OF 9

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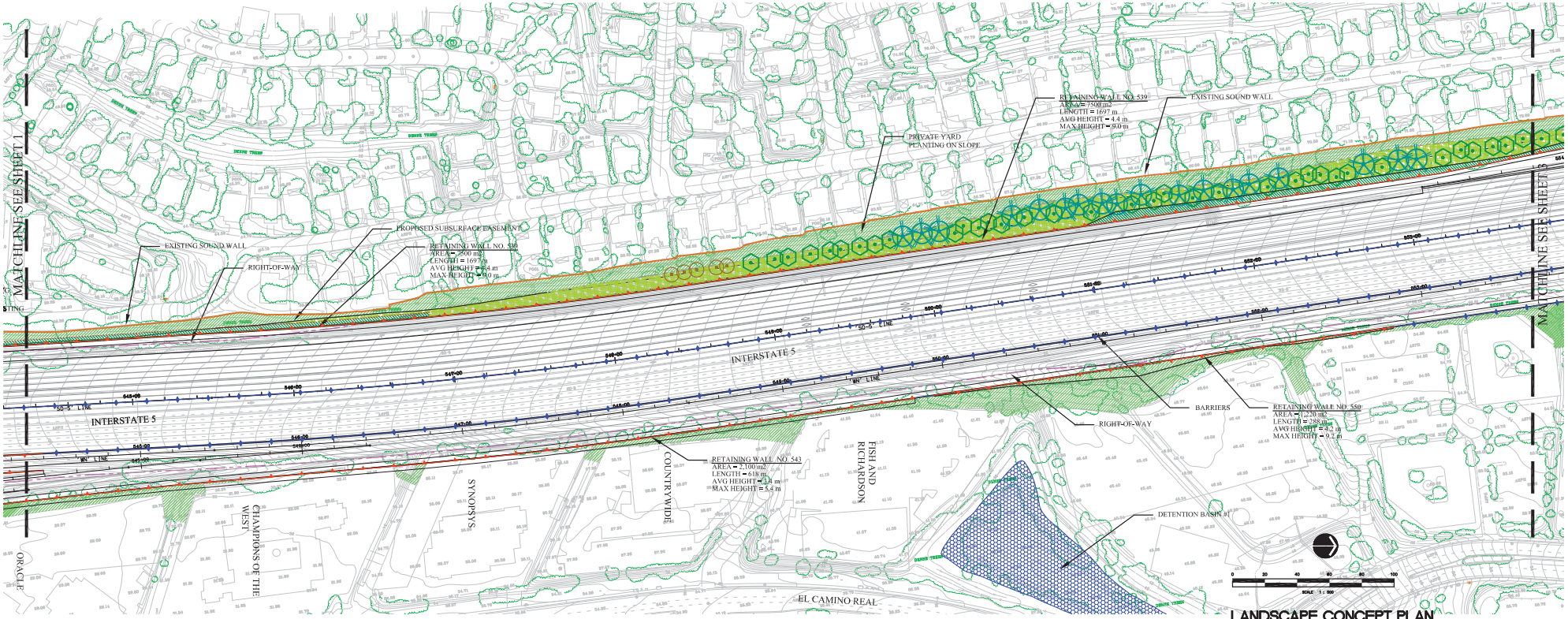

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 2 OF 9

SEE SHEET 9 OF 9 FOR LEGEND

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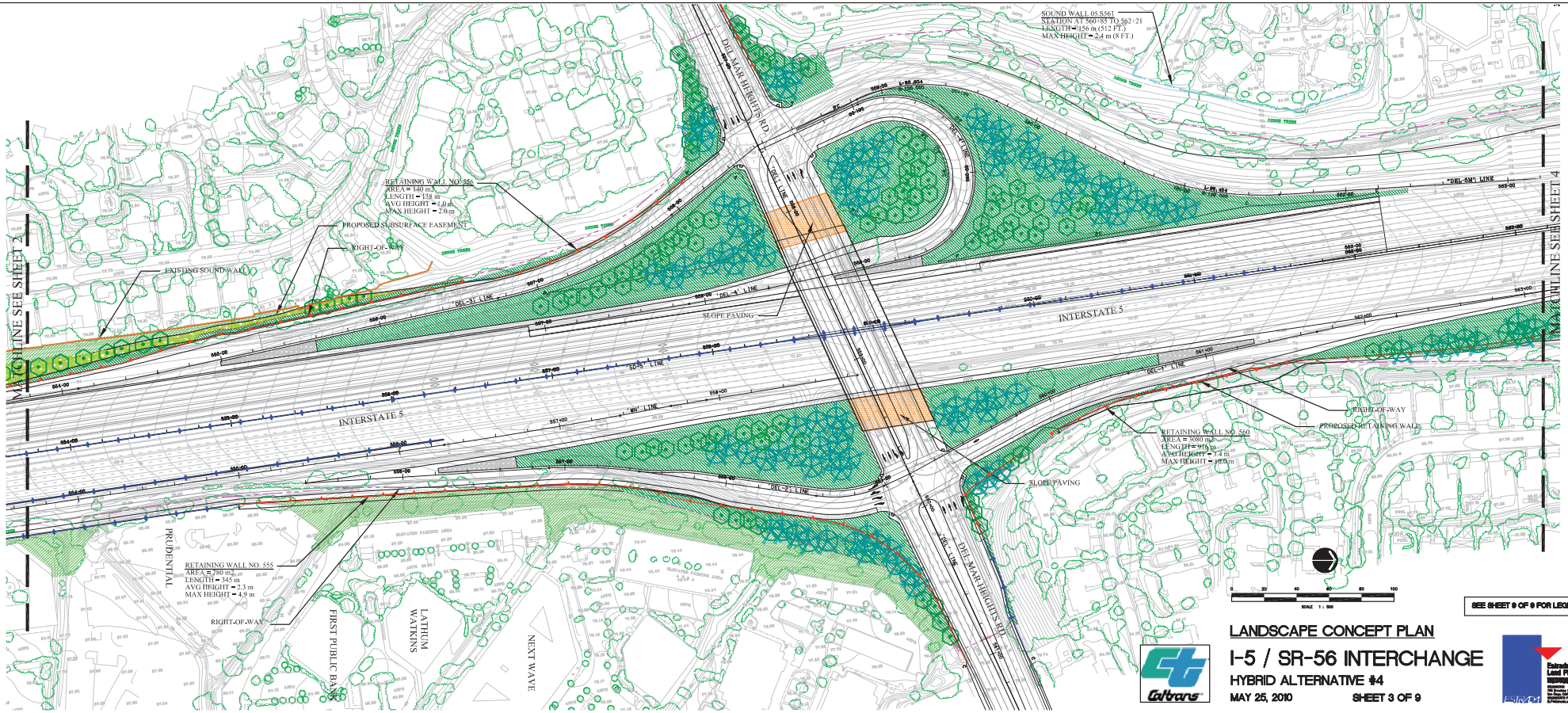
Estrada Land Planning



SEE SHEET 9 OF 9 FOR LEGEND

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 3 OF 9

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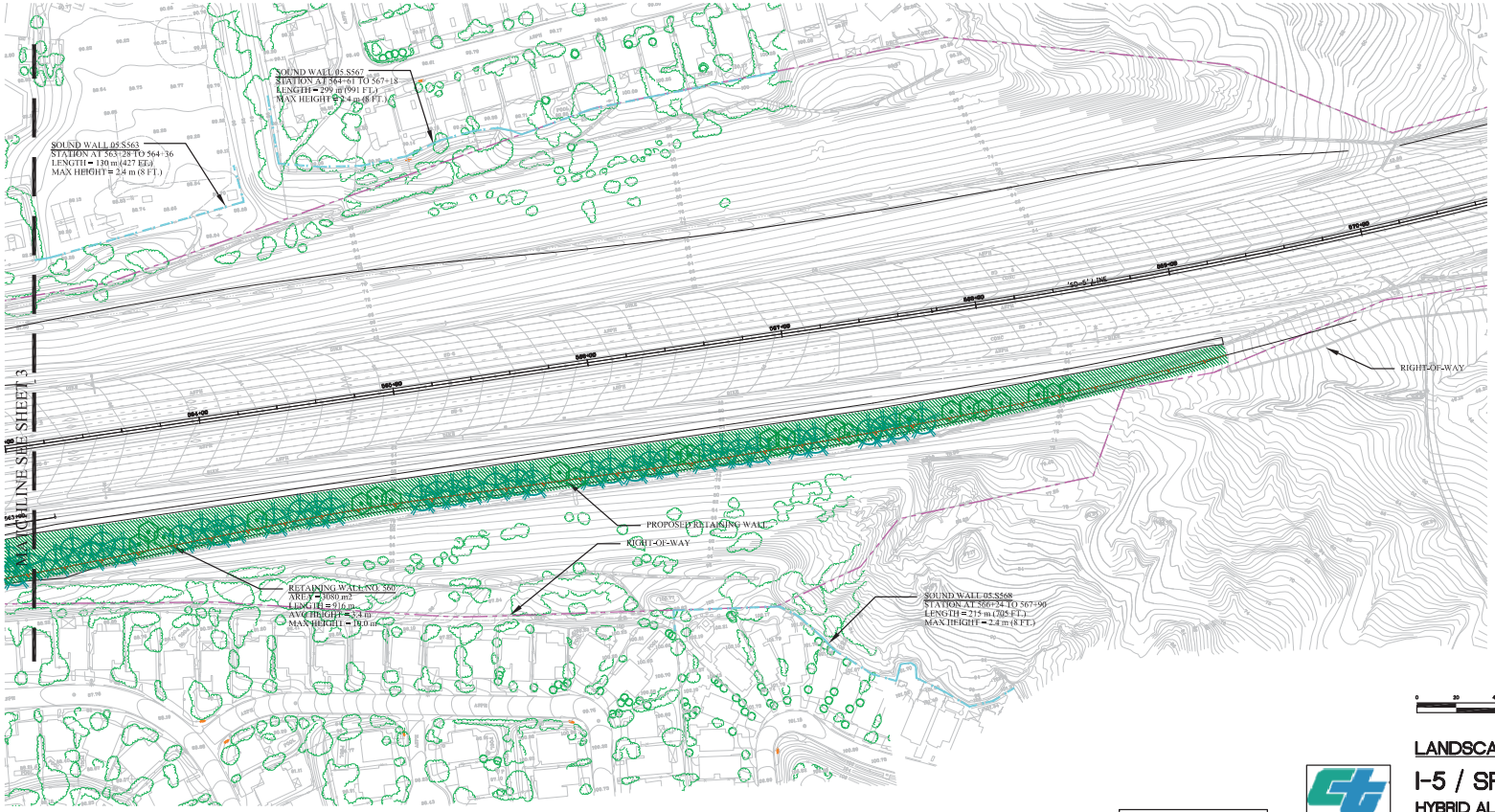
Estrada Land Planning



SEE SHEET 8 OF 8 FOR LEGEND

Caltrans

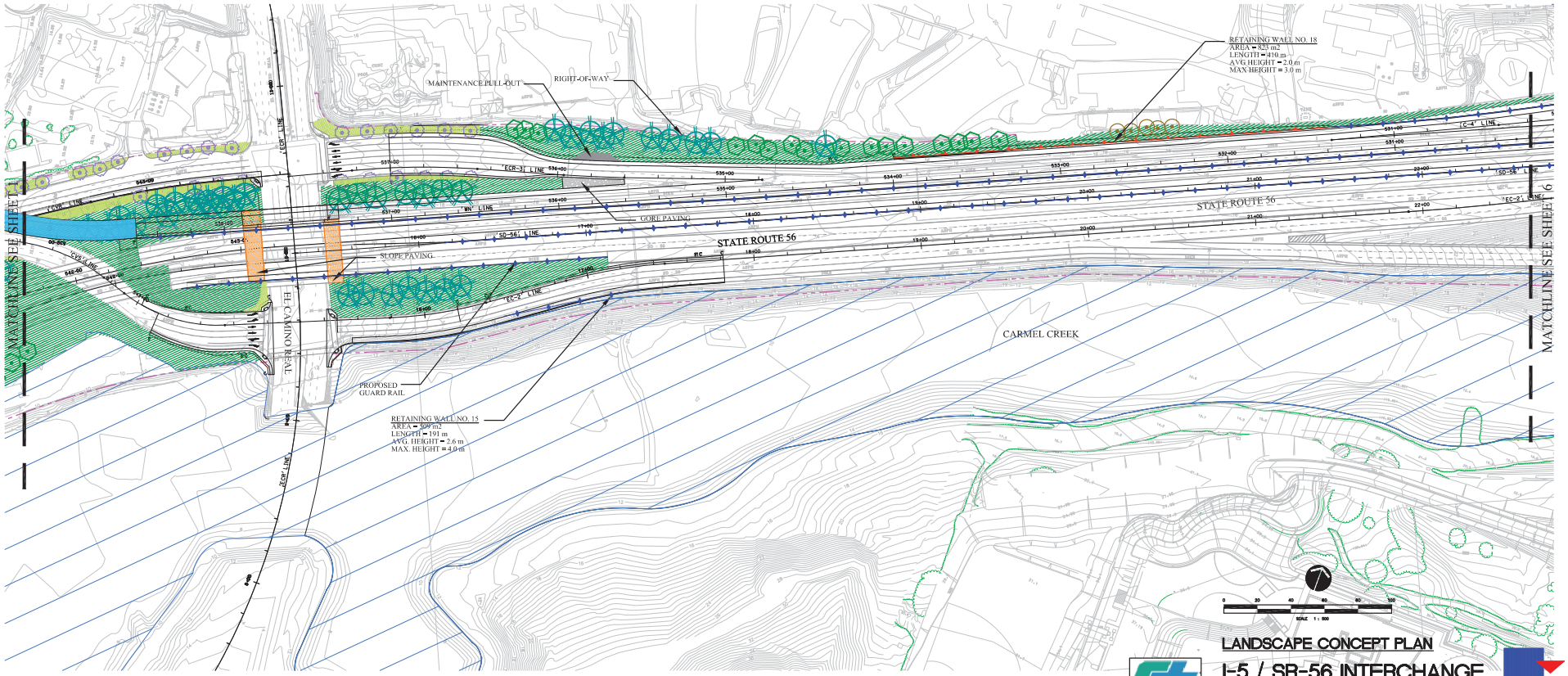
LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010 SHEET 4 OF 9

Estrada Land Planning



SEE SHEET 9 OF 9 FOR LEGEND

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LANDSCAPE CONCEPT PLAN

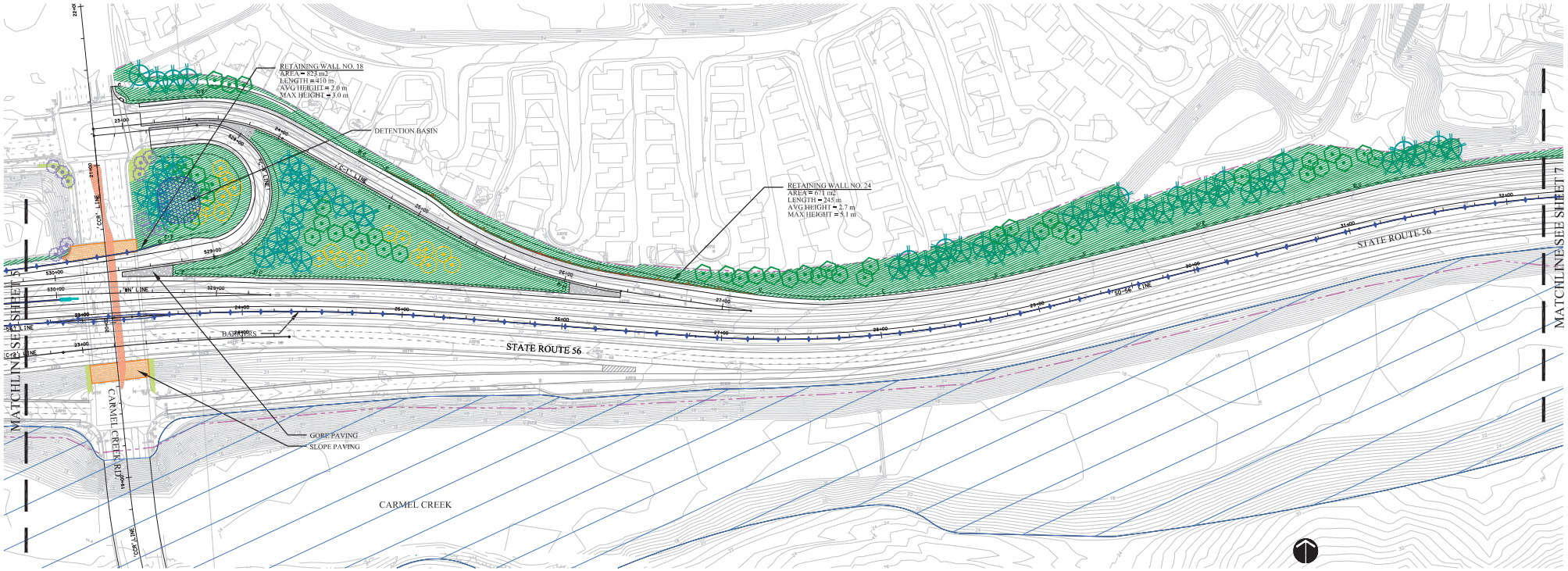
I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 5 OF 9

Estrada Land Planning



SEE SHEET 9 OF 9 FOR LEGEND

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LANDSCAPE CONCEPT PLAN

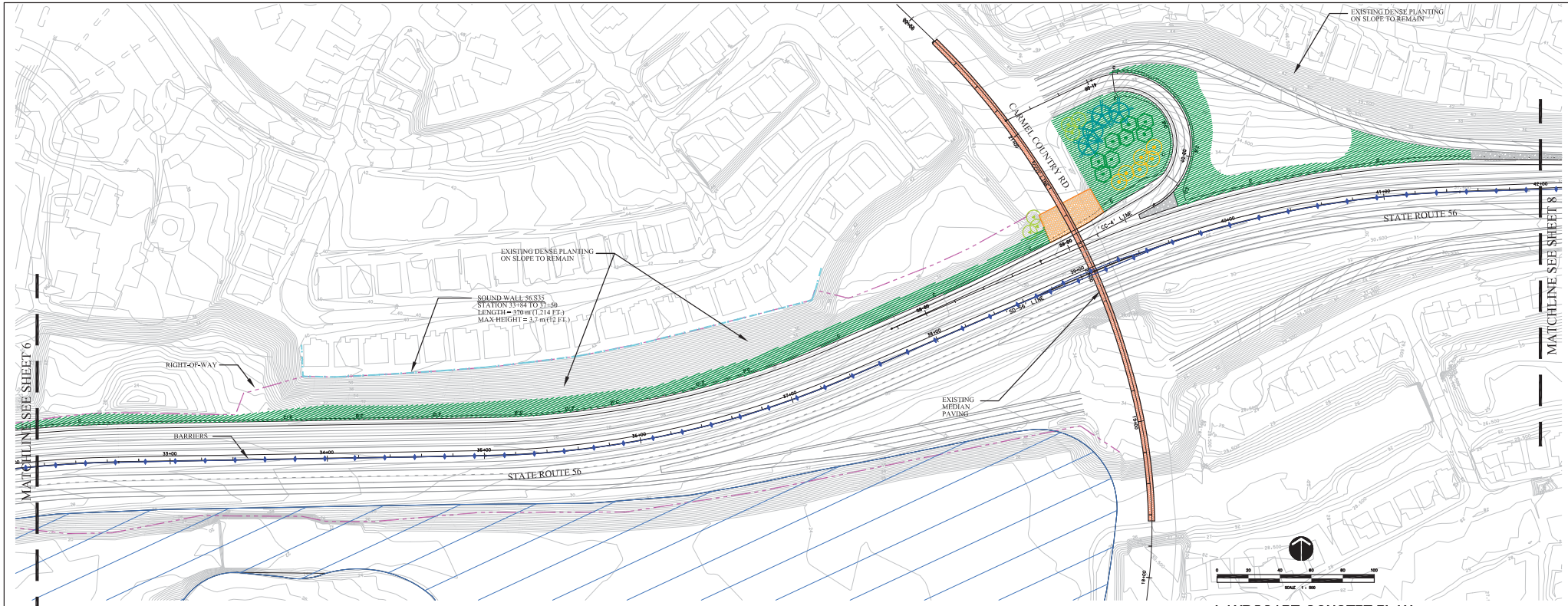
I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 6 OF 9

Estrada Land Planning



SEE SHEET 9 OF 9 FOR LEGEND

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LANDSCAPE CONCEPT PLAN

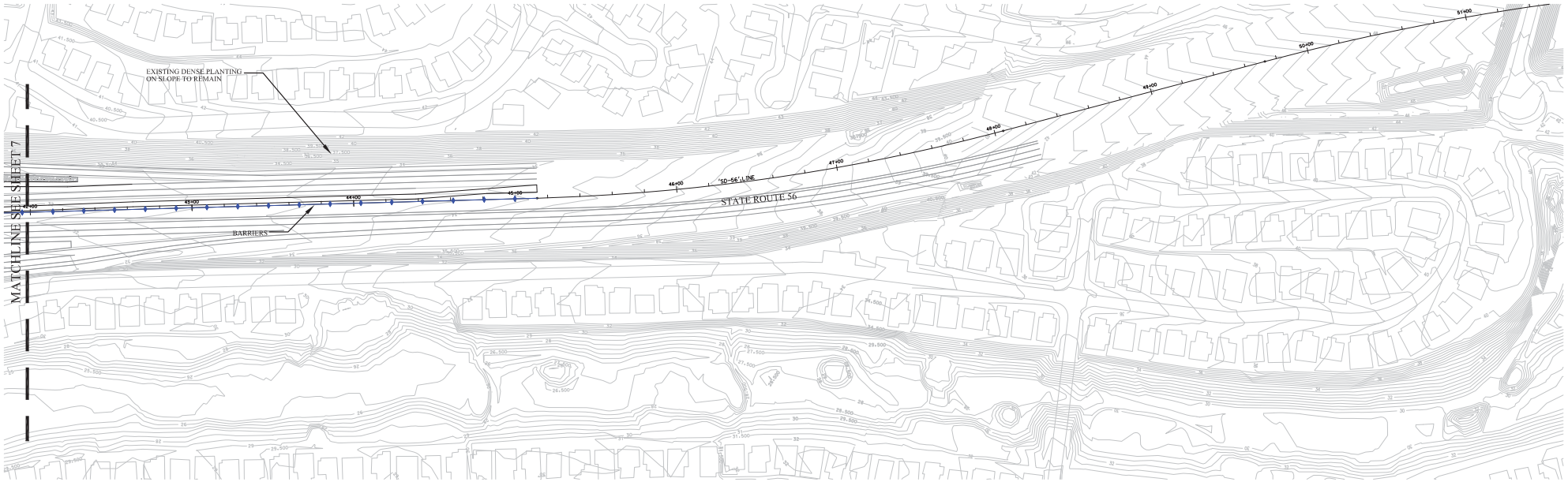
I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010

SHEET 7 OF 9

Estrada Land Planning



0 30 40 60 80 100

SCALE 1 : 800

SEE SHEET 9 OF 9 FOR LEGEND

Caltrans

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010 SHEET 8 OF 9

Estrada Land Planning

PREPARED BY
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10 Pacific Oriole, Suite 200
San Diego, California 92108-2504
Phone 619-297-1200
E-Mail info@elp.com

LEGEND

Botanical Name	Common Name	Size
Trees:		
Area Theme tree		
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(Replaces existing failed Walnut (Jugulans))		
Street Tree – City of San Diego		

NORTH COAST I-5 WIDENING PROJECT

I-5/56 PLANTING

Planting type 1 – Native Coastal Vegetation

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I-5/56 PLANTING

Hydroseed Mix 1: Native Coastal Vegetation

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Encelia californica	Bush Sunflower
Eriogonum fasciculatum	Coast Buckwheat
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy
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Lasthenia chrystostema	Goldfields
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Lupinus succulentus	Arroyo Lupine
Mimulus puniceus	Mission Red Monkeyflower.
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Proposed guard rail

Existing sound wall

Proposed sound wall

Existing right-of-way

Proposed right-of-way

Maintenance vehicle pull-out

Private Landscape – Contributing to screening and landscape buffers

0 30 40 60 80 100

SCALE 1 : 800

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID ALTERNATIVE #4

MAY 25, 2010 SHEET 9 OF 9

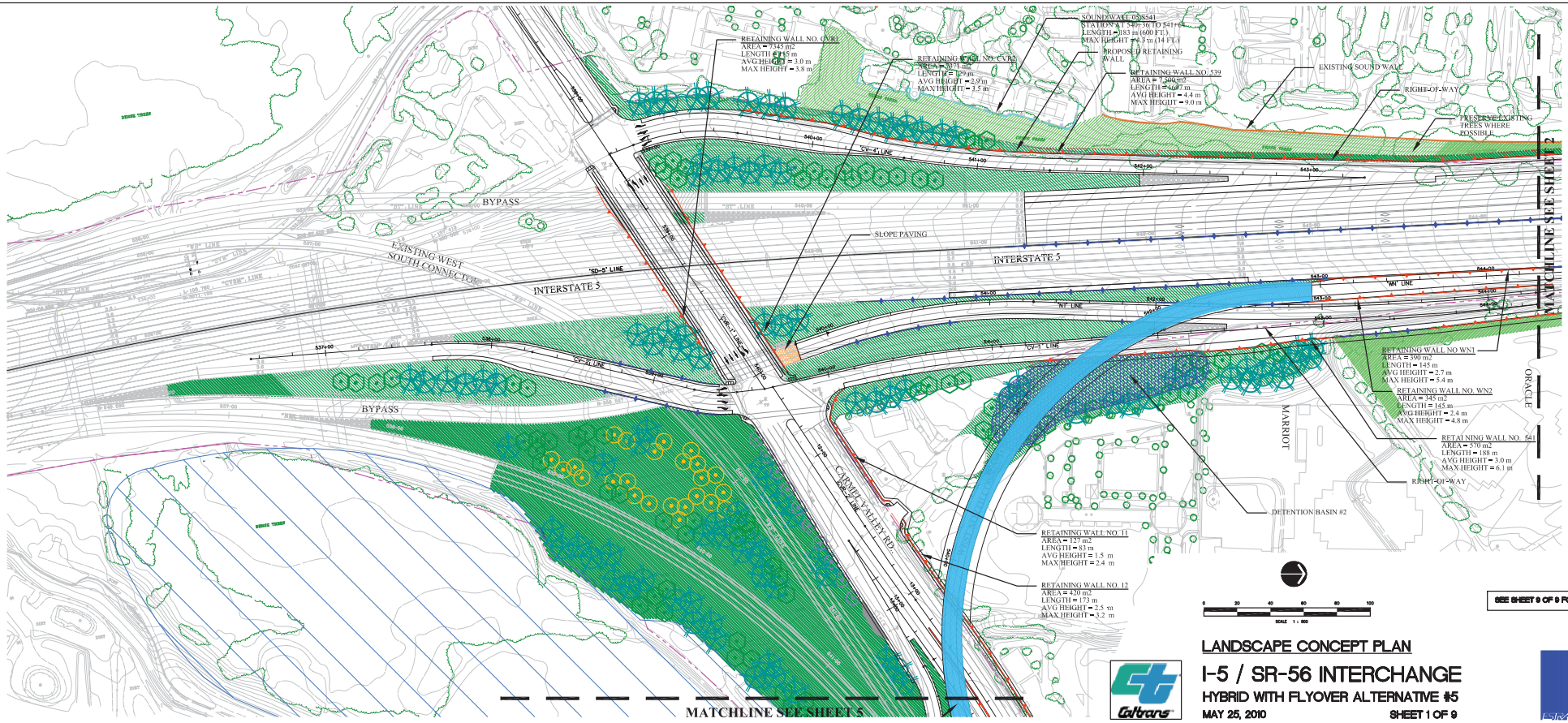
Caltrans

Estrada Land Planning

ENGINEERING
Civil Engineers
Land Surveyors
Water Resources
Environmental
Transportation
Planning
Construction Management
Geotechnical
Structures
Traffic
Hydraulics
Environmental Services
Transportation

ATTACHMENT D

LANDSCAPE CONCEPT PLAN – HYBRID WITH FLYOVER ALTERNATIVE



SEE SHEET 9 OF 9 FOR LEGEND

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

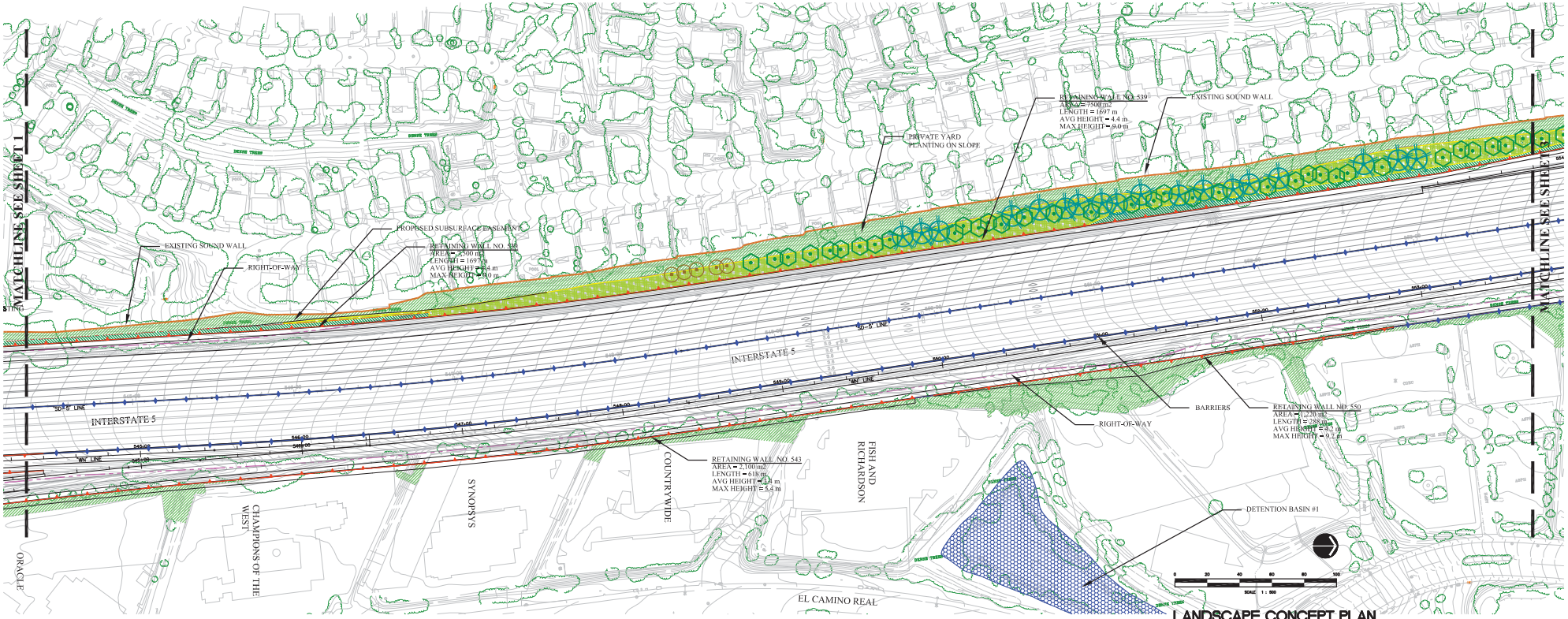
HYBRID WITH FLYOVER ALTERNATIVE #5

MAY 25, 2010

SHEET 1 OF 9

Caltrans

Estrada Land Planning



LANDSCAPE CONCEPT PLAN

SEE SHEET 9 OF 9 FOR LEGEND

Caltrans

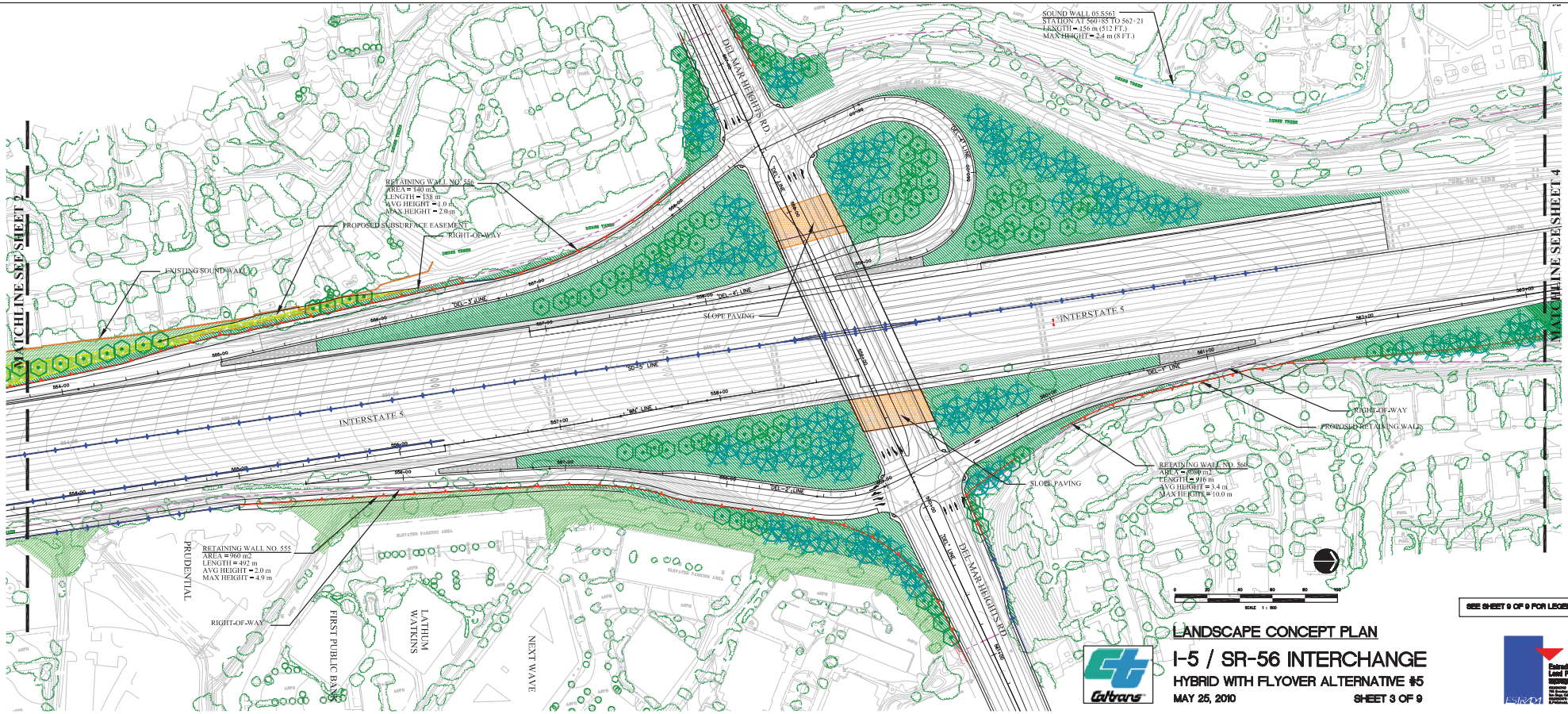
I-5 / SR-56 INTERCHANGE

HYBRID WITH FLYOVER ALTERNATIVE #5

MAY 25, 2010

SHEET 2 OF 9

Estrada Land Planning



SEE SHEET 9 OF 9 FOR LEGEND

LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

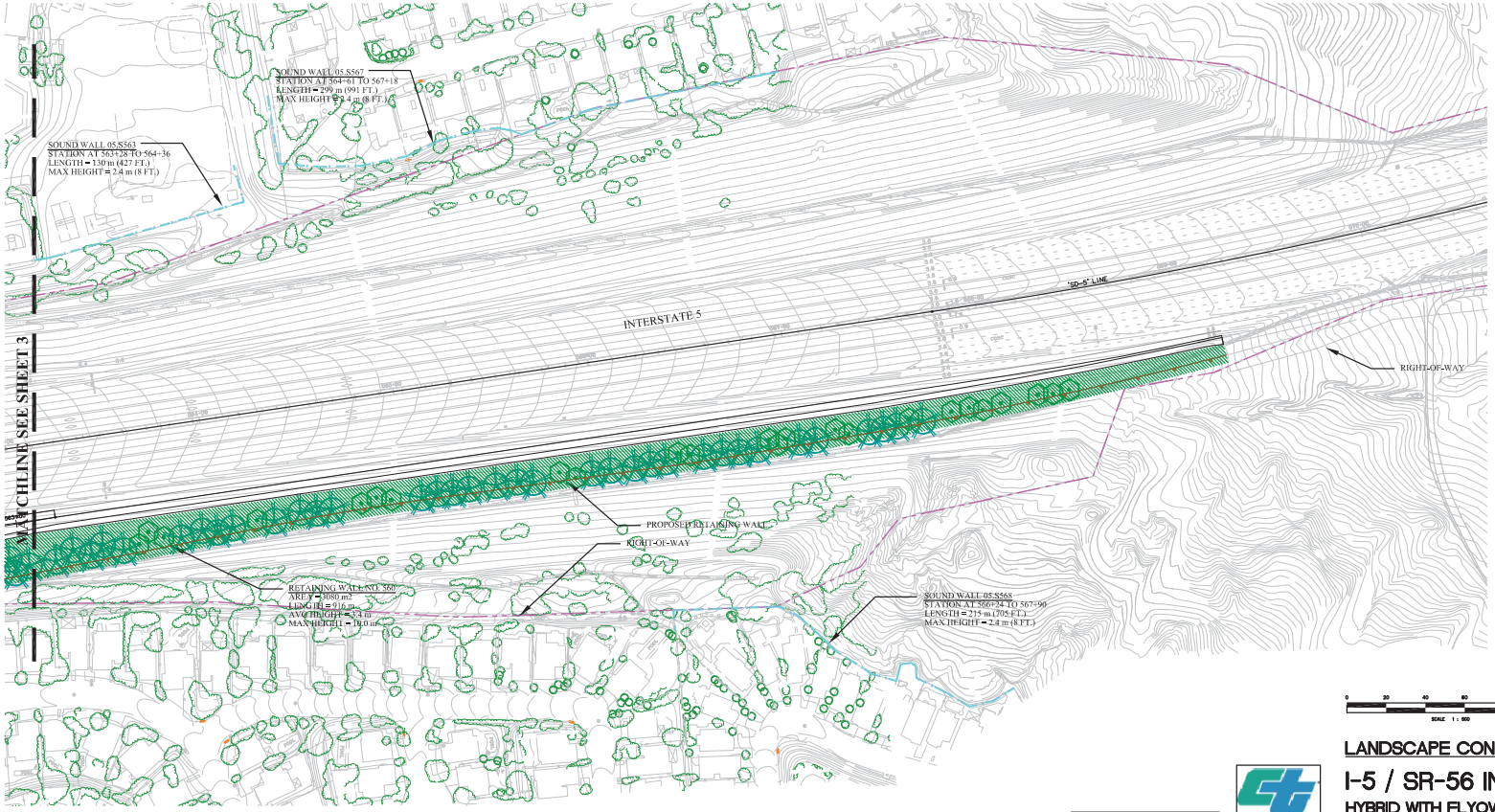
HYBRID WITH FLYOVER ALTERNATIVE #5

MAY 25, 2010

SHEET 3 OF 9

Caltrans

Estrada Land Planning



0 20 40 60 80 100
SCALE 1 : 500

SEE SHEET 9 OF 9 FOR LEGEND

Caltrans

LANDSCAPE CONCEPT PLAN

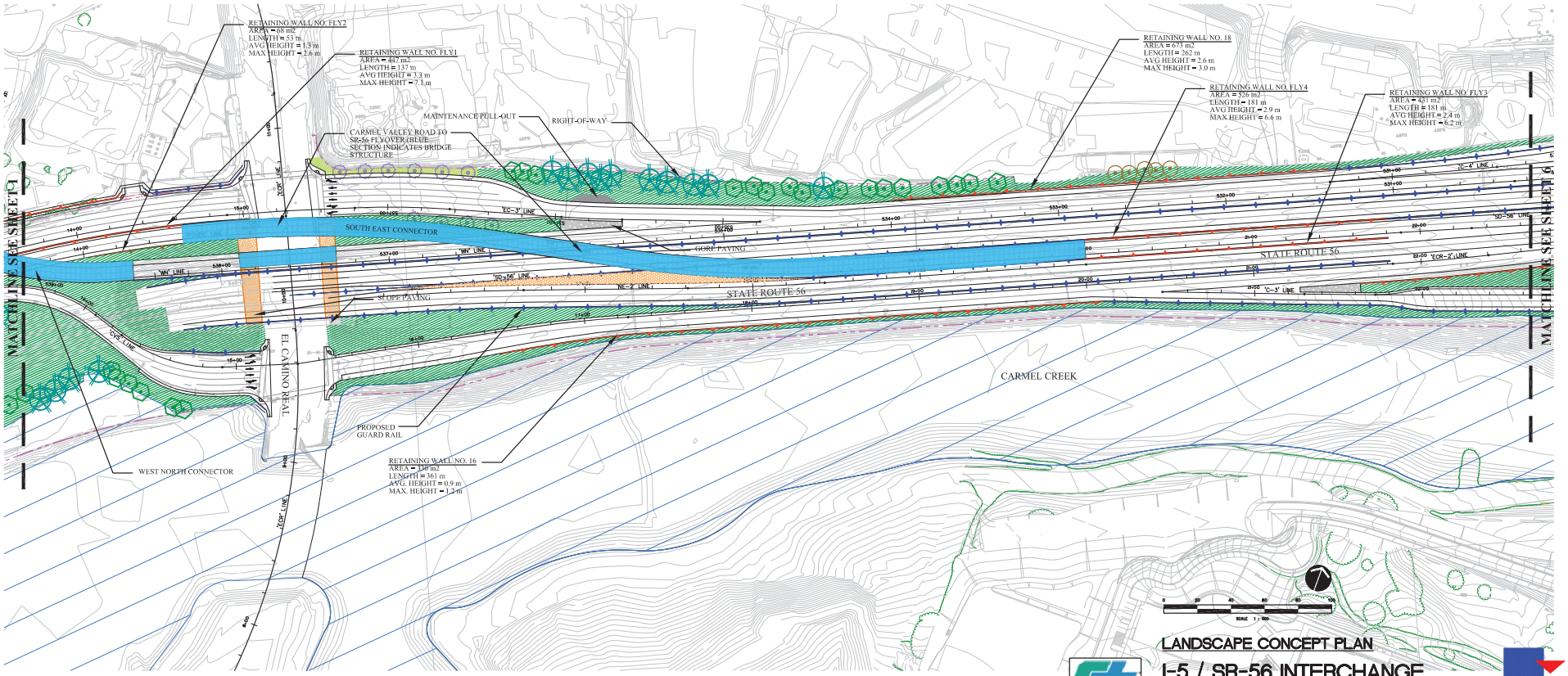
I-5 / SR-56 INTERCHANGE

HYBRID WITH FLYOVER ALTERNATIVE #5

MAY 25, 2010

SHEET 4 OF 9

Estrada Land Planning
Landscape Architecture
Urban Design
Planning
Visualization
Site Planning, Grading, Public Art
Site Analysis, Reports, Studies
San Diego, California 92108-3004
619.296.4200
E-Mail: Estrada@LandPlanner



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LANDSCAPE CONCEPT PLAN

I-5 / SR-56 INTERCHANGE

HYBRID WITH FLYOVER ALTERNATIVE #5

MAY 25, 2010

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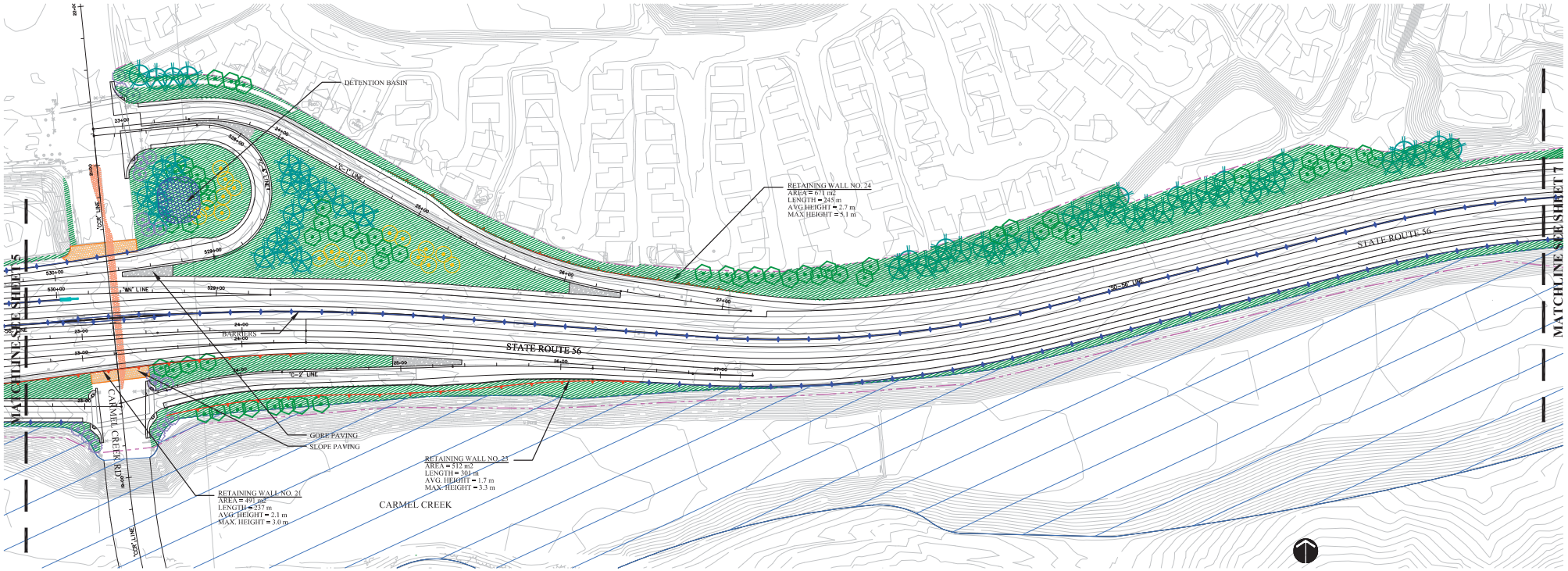

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HYBRID WITH FLYOVER ALTERNATIVE #5

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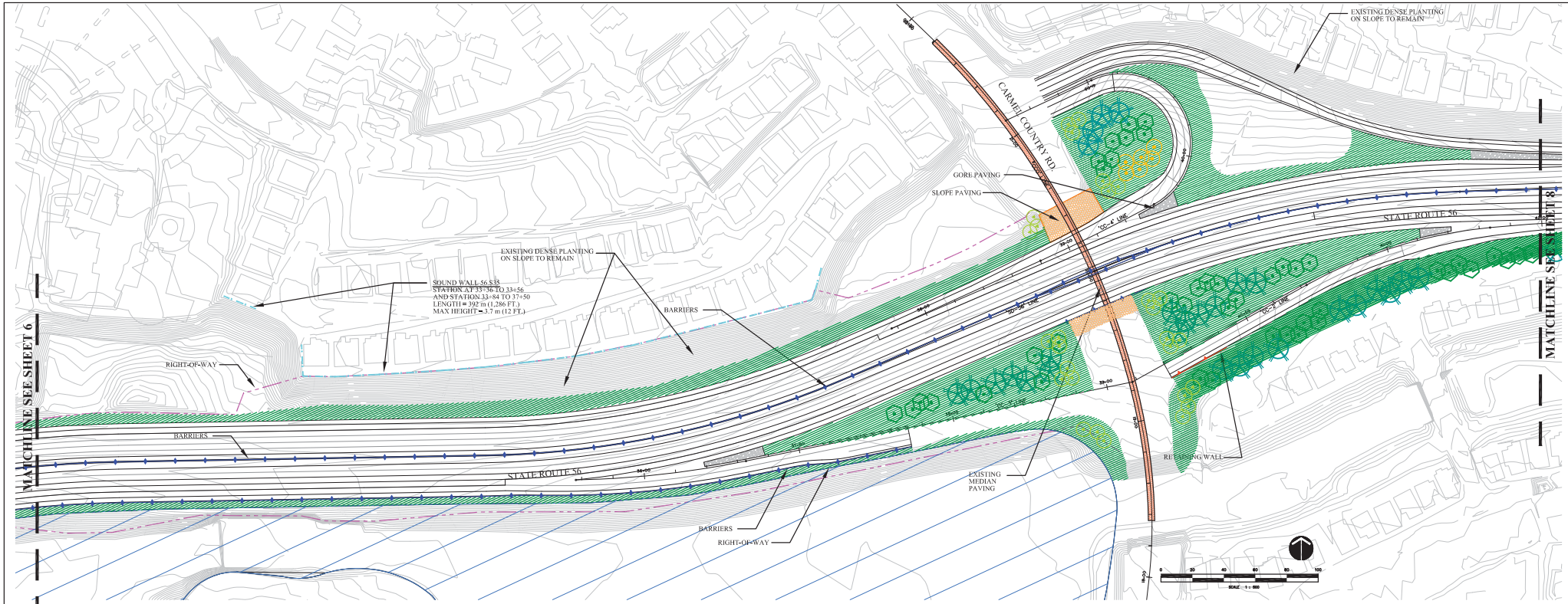

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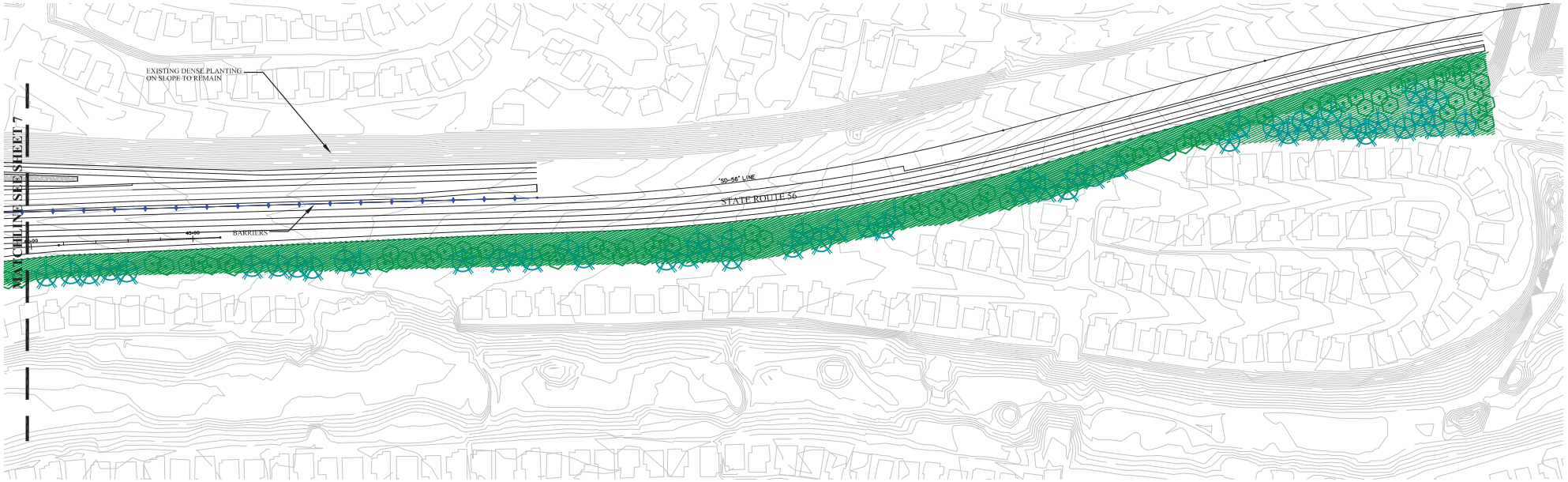

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SCALE 1 : 500

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PREPARED BY:
701 Palomar Airport Drive, Suite 200
San Diego, California 92069-2024
Phone: (619) 297-1200
E-MAIL: info@elp.com

LEGEND

Botanical Name	Common Name	Size
Trees:		
Area Theme tree		
Pinus Torreyana	Torrey Pine	24" box
Canyon theme tree		
Quercus agrifolia	Coast Live Oak	24" box
Carmel Valley Deciduous Accent Tree		
Platanus racemosa	California Sycamore	24" box
Carmel Valley Vertical Accent tree		
Populus Fremontii	Western Cottonwood	15 gallon
Screen tree		
Lyonothamnus f. 'Asplenifolia'	Ironbark	24" box
Accent tree at Carmel Center Road		
Tipuana Tipu	Tipu	24" box
Accent Tree at Carmel Road		
Chitalpa tashkentensis	Chitalpa	24" Box
(Replaces existing failed Walnut (Jugulans))		
Street Tree – City of San Diego		

NORTH COAST I–5 WIDENING PROJECT

I–5/56 PLANTING

Planting type 1 – Native Coastal Vegetation

Shrubs:		
Heteromeles arbutifolia	Toyon	
Rhus integrifolia	Lemonade Berry	5 gallon
Malosma laurina	Laurel Sumac	5 gallon
Ceanothus verrucosus	Warty–Stem Ceanothus	5 gallon
Baccharis p. 'consanguinea '	Coyote brush	1 gallon
Eriogonum fasciculatum	California Buckwheat	1 gallon
Prunus lilicifolia	Holly leaf Cherry	1 gallon
Ribes speciosum	Fuchsia Flowering Gooseberry	5 gallon
Rhamnus crocea	Red Berry	1 gallon
Rhamnus californica	Coffee Berry	1 gallon
Quercus dumosa	Scrub Oak	1 gallon
Opuntia littoralis	Coast Prickly Pear	5 gallon
Lycium californicum	Desert Thorn	5 gallon
Isomeris arborea	Bladderpod	1 gallon
Salvia melifera	Black sage	1 gallon
Agave shawii	Shaw's Agave	1 gallon
Adenostoma fasciculatum	Chamise	1 gallon
Cneoridium dumosum	Spice Bush	1 gallon
Yucca shidigera	Mohave Yucca	1 gallon
Malacothamnus fasciculatus	Coastal Bushmallow	5 gallon
Salvia clevelandii	Cleveland Sage	5 gallon
Xylococcus bicolor	Mission Manzanita	1 gallon
		5 gallon

I–5/56 PLANTING

Hydroseed Mix 1: Native Coastal Vegetation

Abronia maritima	
Artemisia californica	Sand Verbena
Baccharis p. 'consanguinea'	Coastal sage
Camissonia cheiranthifolia	Coyote Brush
Coreopsis maritime	Beach Evening Primrose
Encelia californica	Sea Dahlia
Eriogonum fasciculatum	Bush Sunflower
Eriophyllum confertiflorum	Coast Buckwheat
Eschscholzia californica	Golden Yarrow
Isocoma menziezii'	California Poppy
Lasthenia chrystostema	Coast Goldenbush
Lotus scoparius	Goldfields
Lupinus nanus	Deer weed
Lupinus succulentus	Sky Lupine
Mimulus puniceus	Arroyo Lupine
Plantago indica	Mission Red Monkeyflower.
Stipa pulchra	Plantain
Viguiera laciniata	Purple needle grass
Vulpia microshachys	San Diego Sunflower
	Small Fescue

Planting Type 2 – Groundcover

Carpobrotus edulis	Pickle weed	Cuttings
Delosperma alba	White Ice Plant	Rooted cuttings
Iva hayesiana	Hayes Iva	Liners
(No shrubs)		

Planting type 3 – Clinging vines for walls:

Ficus pumila	Creeping Fig	5 gallon
Hedera helix	English Ivy	5 gallon
Parthenocissus tricuspidata	Boston Ivy	5 gallon

Hardscape Rock Blanket Paving 3–6" tan cobble (Gore paving)	For areas too small to plant
Slope Paving (Natural cobble stone set in concrete)	Under overpasses
Stamped concrete (Type varies)	To match existing patterns in City medians

Retaining wall aesthetic treatment treatment A similar to Lomas Santa Fe I–5 theme
Retaining wall aesthetic treatment treatment B I–56 treatment
Proposed guard rail
Existing sound wall
Proposed sound wall
Existing right–of–way
Proposed right–of–way
Maintenance vehicle pull–out
Private Landscape – Contributing to screening and landscape buffers

0 20 40 60 80 100
SCALE 1 : 500

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