VISUAL IMPACT ASSESSMENT FOR THE INLAND RAIL TRAIL PROJECT

Cities of San Marcos and Vista, County of San Diego

11-SD-CML 5381(003)

California Department of Transportation
District 11
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1. PURPOSE OF STUDY

The purpose of this Visual Impact Assessment (VIA) is to assess the visual impacts of the Inland Rail Trail Project in the Cities of San Marcos and Vista and to propose measures to mitigate any adverse visual impacts associated with its construction and operation. This study will be used to support the preparation of environmental documents under the National Environmental Policy Act of 1969 (NEPA) and California Environmental Quality Act (CEQA).

2. REGULATORY SETTING

Federal, state, and local regulations related to visual resources and aesthetics are provided below. The following regulations are requirements which must be met in order to gain environmental approval under both NEPA and CEQA.

2.1 Federal Regulations

- Title 23, U.S.C. 109 (h) cites "aesthetic values" as a matter that must be fully considered in developing a transportation project.

- Title I of NEPA states that it is "the continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings."

- Section 4(f) of the U.S. Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303, declares that it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly-owned land of a public park, recreation area or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

    - There is no prudent and feasible alternative to using that land; and
    - The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

- The National Historic Preservation Act of 1966 states that the "criteria of adverse effect" on historic resources "include(s) the introduction of visual . . . elements that are out of character with the property or alter its setting."

2.2 State Regulations

- Streets and Highway Code, Section 260-263 (State Scenic Highways) states that concerning State Scenic Highways, Caltrans "shall give special attention both to the impact of the highway on the landscape and to the highway's visual appearance" and that, "local governmental agency have taken such action as may be necessary to protect the scenic appearance of the scenic corridor."

- Caltrans Standard Environmental Reference, Chapter 6, guides that:

  "Examples of substantial impairment to visual or aesthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting (Caltrans, 2008)."

- According to CEQA Guidelines Appendix G, a project would have a substantial adverse effect on aesthetics if it would:

  - Have a substantial adverse effect on a scenic vista;
  - Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
  - Substantially degrade the existing visual character or quality of the site and its surroundings; or
  - Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

2.3 Local Regulations

City of San Marcos

The City of San Marcos Draft General Plan Update, adopted in February 2012, includes objectives and policies that help the City map out the look and style of new development so that growth is controlled and the City is able to maintain a high level of service to its customers (City of San Marcos 2012).

The City has many recognized scenic resources including creek corridors, eucalyptus stands, rock outcroppings, landmark or historic buildings, ocean views, and prominent landforms such as Mount Whitney, Double Peak, Owens Peak, San Marcos Mountains, Merriam Mountains, Cerro de Las Posas, Franks Peak, and canyon areas.

The City has designated the entirety of State Route (SR) 78 within the city limits as a view corridor and recommended it as eligible for designation as a State scenic highway. The City restricts night-time lighting in commercial areas to limit the amount of light that spills onto adjacent properties or reflects in to the sky.

The City of San Marcos 2012 General Plan Update provides the following relevant policies and goals regarding aesthetics and visual resources:

Policy COS-2.6: Preserve healthy mature trees where feasible; where removal is necessary, trees shall be replaced at a 1:1.

Policy COS-3.2: Encourage and maintain high-quality architectural and landscaping designs that enhance or complement the hillsides, ridgelines, canyons, and view corridors that comprise the visual character in San Marcos.

Policy COS-3.3: Continue to work with new development and redevelopment project applicants in designing land use plans that respect the topography, landforms, view corridors, wildlife corridors, and open space that exists.

Policy COS-3.4: Evaluate potential impacts to visual and aesthetic resources, including the potential to create new light sources, while still maintaining and being sensitive to rural lighting standards.

City of Vista

The City of Vista General Plan Update includes objectives and policies that help the City direct future development (City of Vista 2011). The General Plan provides the following relevant policies and goals regarding aesthetics and visual resources:

LUCI Policy 1.1: Require the application of the City of Vista Design Guidelines, including site design, architecture, lighting, and signage, when reviewing and approving new development and redevelopment.

LUCI Policy 1.2: Preserve the City's numerous identifying and thematic features, or landmarks, such as historical, aesthetic, or unusual buildings, structures, landscaping, gathering spaces, public art, and other similar features that reflect and enhance Vista's identity, history, and cultural diversity, and incorporate them into new public and private development and redevelopment.

LUCI Policy 1.3: Ensure that public and private gathering places and activity centers are designed to provide a safe, comfortable environment for users, and incorporate features such as shade trees, benches, tables, adequate lighting, and visible links to public streets for enhanced security.

LUCI Policy 1.5: Require public and/or private landscaping along all arterial roadways to: minimize the visual dominance of paved surfaces; create more appropriately defined and human-scaled public places; help distinguish spaces designated for pedestrian and non-motorized use from those designated for vehicular travel and parking; and provide environmental benefits, such as absorbing carbon dioxide, helping manage stormwater, and shading to reduce heat island effects. Preference shall be given to native or drought tolerant landscape species.

LUCI Policy 1.8: Preserve Vista's major creek corridors, such as Buena Vista Creek and Agua Hedionda Creek and their major tributaries, as defining elements in the character of the community and pursue opportunities to enhance these waterways through public works projects, private development, redevelopment, environmental mitigation, and other means.

LUCI Policy 1.9: Consider revising the fencing standards in the zoning ordinance to define the types of fencing permitted in residential, commercial, and industrial areas; identify design guidelines for fencing along public roadways; and minimize the establishment of large visual barriers created by solid fencing placed on top of retaining walls.

LUCI Policy 2.12: Restrict development of hillsides so that the natural appearance and landform of the site is preserved. Development projects on terrain with a slope greater than 15 percent shall conform with the following standards: development shall be designed to minimize grading requirements by conforming to the natural contours of the site; the site shall be landscaped with existing trees and natural vegetation, as much as possible, to stabilize slopes, reduce erosion, and enhance the visual appearance of the development; and grading, terracing, padding, and cut and fill shall be minimized to protect the visual continuity of the hillsides.

LUCI Policy 6.6: Require graffiti-resistant materials and construction techniques, including landscaping, on all perimeter walls for commercial, industrial, institutional, and recreational development and redevelopment.

County of San Diego

The County of San Diego General Plan includes objectives and policies that help the County direct future development (County of San Diego 2011).

COS-11.1 Protection of Scenic Resources: Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.

COS-11.2 Scenic Resource Connections: Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic, visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

COS-11.3 Development Siting and Design: Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:

- Creative site planning

- Integration of natural features into the project
- Appropriate scale, materials, and design to complement the surrounding natural landscape
- Minimal disturbance of topography

COS-13.1 Restrict Light and Glare: Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.

COS-13.3 Collaboration to Retain Night Skies: Coordinate with adjacent federal and State agencies, local jurisdictions, and tribal governments to retain the quality of night skies by minimizing light pollution.

3. PROJECT BACKGROUND AND DESCRIPTION

3.1 Project Description

SANDAG, in cooperation with the City of San Marcos, County of San Diego, City of Vista, and Caltrans, proposes to construct a seven-mile segment of the Inland Rail Trail within the Cities of San Marcos and Vista, and an unincorporated area of the County of San Diego (Figure 1: Project Vicinity and Figure 2: Project Location). The proposed project would involve the construction of a Class I bikeway along the SPRINTER railroad line between the intersection of West Mission Road and North Pacific Street in the City of San Marcos and the intersection of North Melrose Drive and West Bobier Drive. The bikeway would typically consist of two 5-foot bicycle lanes, two 2-foot unpaved shoulders and two 2-foot landscaped zones, but the width may be reduced in small sections to avoid impacts to environmental resources or due to topographical and right-of-way constraints. The California Public Utilities Commission has required the bikeway to depart the SPRINTER railroad line to meet the nearest intersection when there are at-grade crossings with City and County roadways to ensure bicycle and pedestrian safety.

Additional features of this project include chain-link and wrought-iron fencing on both sides of the trail (where necessary), landscaping, lighting, when necessary, which will be low profile and will cast light downward to avoid spillage outside of trail, retaining walls to accommodate for areas with steep slopes, and several small structures to span across existing drainages and the Buena Creek. Improvements associated with the trail, accessibility, and its connections may also be necessary at the SPRINTER train stations as well as where the trail crosses local roadways. Some of these crossings may require improvements to existing sidewalk, crosswalk, and other pedestrian/bicycle facilities.

V:\1948 Inland Rail Trail\F1 Vicinity.mxd

Source: ESRI 2008; Dokken Engineering8/24/2012; Created By: angelas

0 5 10 Miles

FIGURE 1
Project Vicinity
CML 5381(003)
Inland Rail Trail Project
San Diego County, California

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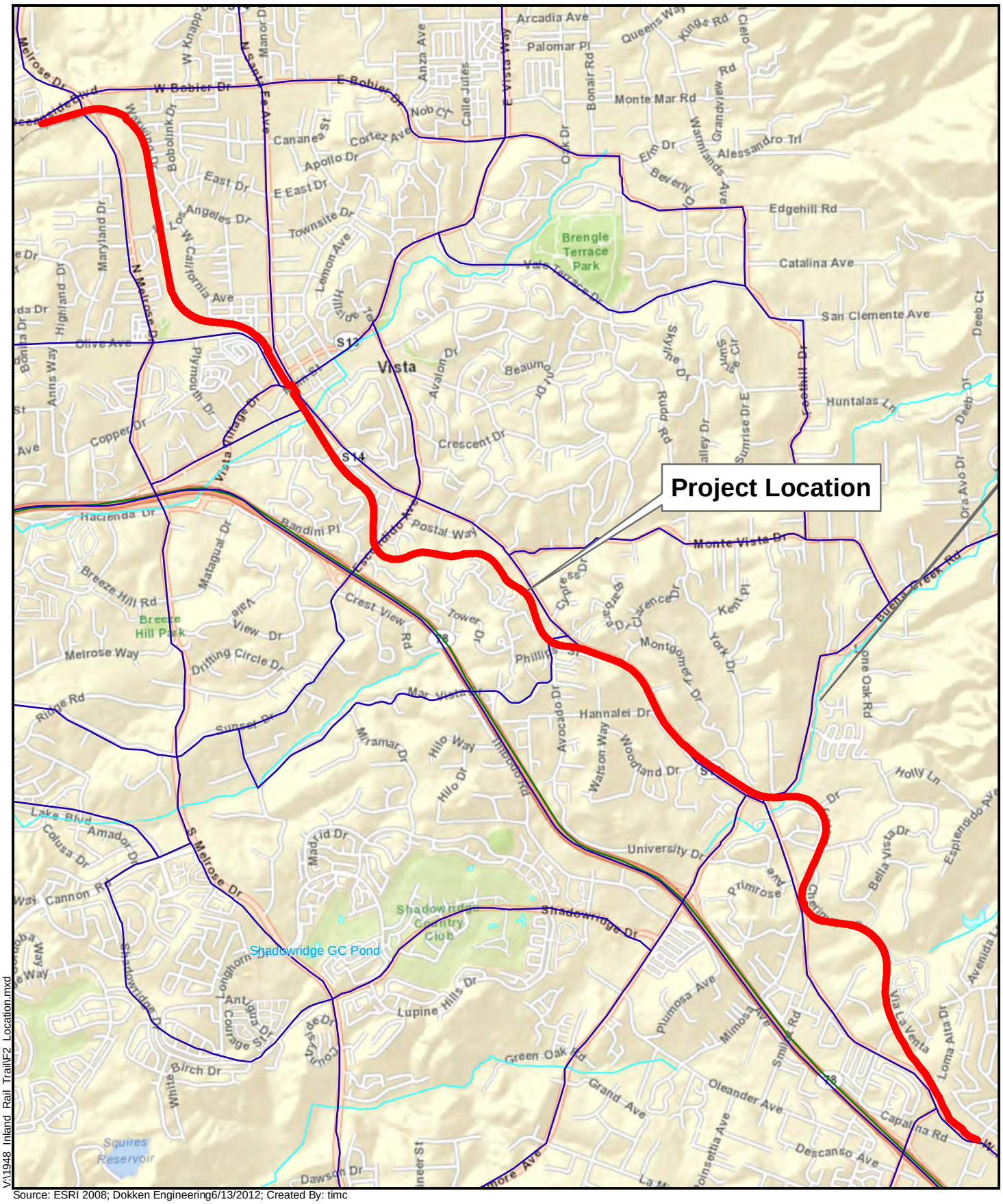

Source: ESRI 2008; Dokken Engineering6/13/2012; Created By: timc

VA1948 Inland Rail TrailF2_Location.mxd

0 0.5 1 Miles

FIGURE 2
Project Location
Inland Rail Trail Project
Cities of San Marcos and Vista, San Diego County, California

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3.2 Project Background

In 1999 and 2000, NEPA and CEQA environmental documents were approved for the Inland Rail Trail Project, a 31-mile long Class 1 bikeway project spanning from the City of Escondido to the City of Oceanside in San Diego County, California. The majority of this bikeway is proposed to be located on North County Transit District (SPRINTER) right-of-way, with the western most portion in the City of Oceanside to be located along Oceanside Boulevard. The City of San Marcos was the lead agency under CEQA (representing the Cities of Escondido, Vista, Oceanside, and San Diego County), while the California Department of Transportation (Caltrans) was the lead agency under NEPA, acting under delegation from the Federal Highway Administration (FHWA). NEPA approval for this project was necessary because the project utilized federal funding. Since the initial environmental approvals in 1999 and 2000, the eastern most portion of the bikeway has been constructed from the Escondido Rail Station in the City of Escondido to the intersection of West Mission Road and North Pacific Street in the City of San Marcos.

In 2011, the San Diego Association of Governments (SANDAG) agreed to take over responsibility as the CEQA lead agency for the design and construction of seven miles of the Inland Rail Trail Project from the intersection of West Mission Road and North Pacific Street in the City of San Marcos to the intersection of North Melrose Drive and West Bobier Drive in the City of Vista. In order to accurately document changes in the natural and built environment, as well as any changes in environmental regulations since 2000, SANDAG will prepare a revalidation of the NEPA Categorical Exclusion and a CEQA document to fully update the environmental record. This process will document any changes to the proposed project and any additional avoidance, minimization, and mitigation measures to reduce any environmental impacts caused by the project.

4. ASSESSMENT METHOD

The VIA follows the guidelines outlined in, "Visual Impact Assessment for Highway Projects", FHWA, March 1981 (USDOT 1981). Due to the federal money designated for the project, the project must obtain approval under NEPA. Caltrans is responsible for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. For visual and aesthetic guidance, Caltran’s still directs to FHWA’s publication, which is the official guidance available on visual impact assessment preparation. The remainder of the VIA addresses the following six steps for visual impact assessments identified in the FHWA guidelines:

1. Define the project setting and viewshed (Section 5), 2. Identify key views for visual assessment (Sections 5 and 7), 3. Analyze existing visual resources and viewer response (Sections 6 and 7), 4. Depict the visual appearance of project alternatives (Section 7), 5. Assess the visual impacts of project alternatives (Section 7), 6. Propose methods to mitigate adverse visual impacts (Section 8).

5. VISUAL ENVIRONMENT OF THE PROJECT

5.1 Project Setting

Regional Landscape

Regional landscapes are characterized by physical landforms, and landcover in the form of water, vegetation, and built development. The regional landscape establishes the general visual environment of the project, but the specific visual environment upon which this assessment will focus is determined by defining landscape units and the project viewshed.

Landform

The project area lies between the elevations of 330 and 580 feet above mean sea level. The site's topography is comprised of many small, low elevation hills with accompanying valleys. Topographical features in the project vicinity include the San Luis Rey River to the north, San Marcos Mountains to the east, Lake San Marcus to the south, and the Pacific Ocean to the west.

Landcover-Water

Water features in the project area consist of the Buena Creek and many concrete lined drainage ditches and tributary features including Buena Vista Creek. Buena Creek, a natural lined perennial creek feature and tributary to Agua Hedionda Creek crosses both the existing SPRINTER railroad and the proposed project. Buena Creek contains relatively undisturbed aquatic habitat that supports a willow-riparian corridor and a small marsh west of the SPRINTER railroad tracks.

Landcover-Vegetation

Much of the vegetation within the project area is highly disturbed or absent due to the SPRINTER railroad, urbanization, and pedestrian use. In these areas, vegetation consists of non-native grasslands, landscaping, and ruderal species. Bare ground is common. In areas where disturbance is low, the regional landscape vegetation consists of coastal-sage scrub and chaparral communities interspersed with riparian vegetation associated with natural drainages and creeks.

Land Cover-Built Development

The proposed project is within developed areas of the City of San Marcos and the City of Vista. The project runs adjacent to the SPRINTER railroad ROW. Built development in the vicinity of the proposed project consists of residential and commercial development.

5.2 Landscape Units

An evaluation of landscape units was not included within the assessment because the SPRINTER passengers, which are the main viewer group, have very limited views while on the train. Several landscape types are visible from the SPRINTER train, but entire landscape units are not viewable while riding as a passenger. As a passenger, the viewer group's field of vision is obscured and obstructed by the train as no front view of the landscape is offered. Due to the lack of unobstructed views and the fleeting nature of the viewer group's view, landscape units are not present.

5.3 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. These viewsheds are broken up into three distance zones, the foreground, middleground, and the background. The foreground is defined as 0-½ miles away from the viewer and can be seen with great clarity and simplicity. The middleground is defined as ½ - 5 miles away from the viewer and can be viewed as where parts of the landscape begin to join together, such as when trees form a forest or manmade elements are sitting upon the natural environment. Lastly, the background is defined as 5-infinite miles away from the viewer and can best be seen from an aerial perspective, where the distinct landforms begin to lose definition. Backgrounds are the setting of which the foreground and middleground sit upon. The viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features.

Six key view locations were identified that best represent visual changes associated with the proposed project (Figure 3). Key views best reveal the project's components and any potential visual changes relative to other locations. Key views show project components, potentially affected resources, and represent sensitive viewer groups. A combination of site visits, aerial photos, land use maps, and interaction with local agencies was performed to identify the key views. Further discussion of key views is provided in Section 7.

Project Study Area

Key Views

1

2

3

4

5

Match Line - See Page 2

Source: BING Maps Online; Dokken Engineering 8/29/2012; Created By: zachl

\\kings\gis\1948 Inland Rail Trail\MXD\TA Key Views Page1.mxd

0 1,000 2,000 3,000 4,000 5,000 Feet

FIGURE 3
Key Views
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Inland Rail Trail Project
San Diego County, California

Project Study Area

Key Views

6

Match Line - See Page 1

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Source: BING Maps Online; Dokken Engineering 7/13/2012; Created By: timc

0 1,000 2,000 3,000 4,000 5,000 Feet

FIGURE 3
Key Views
Page 2 of 2
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5.4 Visual Resources Designations

National Forest Scenic Byway Designation

No National Scenic Byways are in or near the project vicinity. The nearest National Scenic Byway is the Pacific Coast Highway, which is approximately 10 miles southwest of the project area (FHWA 2012).

State Scenic Highway Designation

No officially designated or eligible State Scenic Highways are located in or adjacent to the project (Caltrans 2007). However, the City of San Marcos has designated the entirety of SR 78 within the city limits as a view corridor and recommended it as an eligible State scenic highway. The proposed trail is not visible from SR 78.

6. EXISTING VISUAL RESOURCES AND VIEWER RESPONSE

6.1 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 inherently good nor bad. 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 public preference for the established visual character of a regional landscape and 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 to evaluating visual quality can help identify specific methods for mitigating each adverse impact that may occur as a result of a project. The three criteria for evaluating visual quality can be defined as follows:

- **Vividness:** the visual power or memorability of landscape components as they combine in distinctive visual patterns.

- **Intactness:** the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

- **Unity:** the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual manmade components in the landscape.

6.2 Existing Visual Resources

Existing Visual Character

The existing visual character of the project area is a combination of constructed and natural elements. Constructed elements consist of the existing SPRINTER railroad, concrete lined water features, roadways and parking lots, and adjacent residential neighborhoods and commercial properties. These elements make up the transportation and residential/commercial landcover components. Natural elements are categorized under the open space unit and consist of natural, open space surfaces consisting of undeveloped parcels and hillsides and Buena Creek.

Existing Visual Quality

Existing visual quality of the project area is low to moderately low because of the lack of vividness, intactness, and unity of the adjacent visual elements and landscape units. Many views have low vividness because of their mix of developed features without any striking elements.

Key views 1 through 5 have low to very low memorability and moderate intactness and unity due to their developed nature. Key view 6 has average vividness due to the striking dense riparian corridor associated with Buena Creek. Built landscape surrounding the area leads to a moderately low to moderately high intactness and unity; encroachments of mixed land uses keep the intactness and unity from being higher. The intactness and unity of Key view 6 is low in the foreground, but the compatibility of landscape elements improves in the middle ground and background.

6.3 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 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 view. Local values and goals may confer visual significance on landscape 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, duration of their view, speed at which the viewer moves, and 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.

6.4 Existing Viewer Sensitivity, Viewer Groups, Viewer Exposure, and Viewer Awareness

Three viewer groups in the project vicinity include (1) passengers on the SPRINTER light rail system, (2) residents and employees and patrons of businesses located adjacent to the project, and (3) motorists on roads adjacent to and crossing the proposed project.

SPRINTER passengers are the first viewer group. They have a high sensitivity because the proposed project parallels the SPRINTER. Passengers would view the trail whenever they ride the segment within the project area. Since the train moves quickly, their sensitivity to the views is diminished.

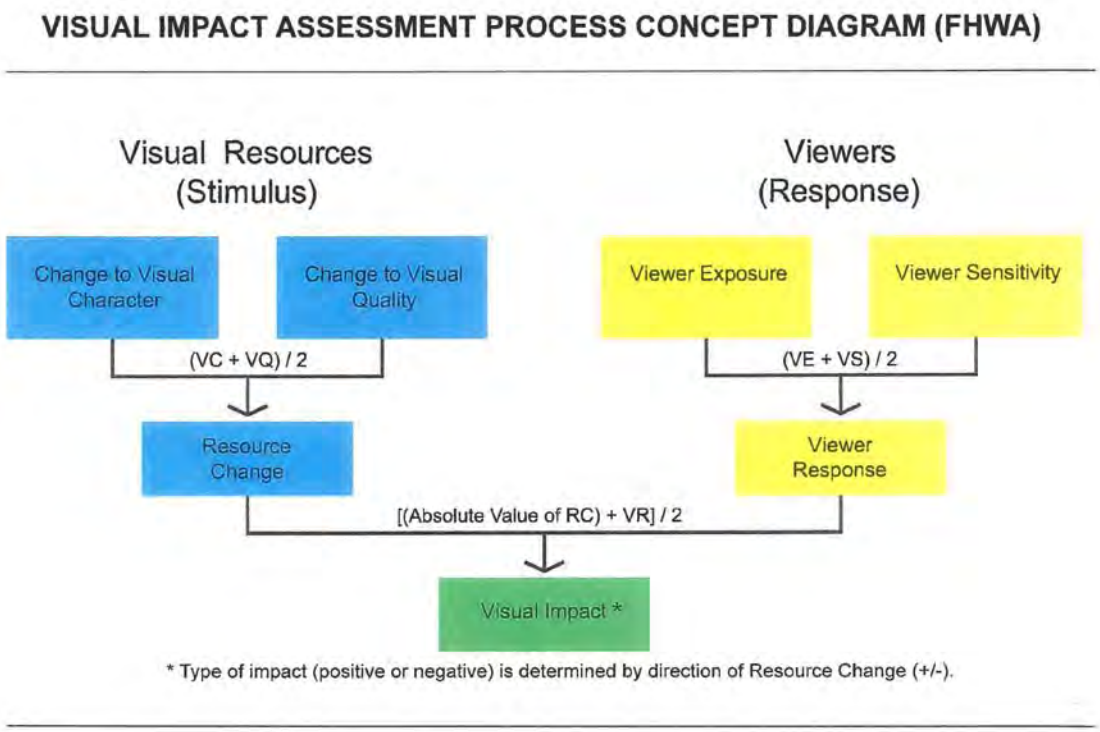
Residents and employees and patrons of commercial businesses located adjacent to the proposed project are the second viewer group. Their viewer exposure is high since they live or work or visit businesses adjacent to the proposed project and the duration of their views are long. Views of the proposed project from residential areas and commercial businesses are often restricted due to existing topography and visual barriers. Viewer awareness is low, due to these obscured views, lack of scenery provided by surrounding topography, and lack of memorable views in the distance. Motorists using roads adjacent to or crossing the proposed project are the third viewer group. Their sensitivity is low due to the relatively short time span spent adjacent to the proposed project.

7. VISUAL IMPACT ASSESSMENT

7.1 Method of Assessing Project Impacts

The visual impacts of project alternatives are determined by assessing the visual resource change due to the project and predicting viewer response to that change. Visual resource change is the sum 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 viewer response to project changes is the sum of viewer exposure and viewer sensitivity to the project as determined in the preceding section. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which viewers are likely to oppose the change. Figure 4 below is a flowchart which details the process of assessing project impacts for both visual resources and viewers. The average of these two quantified values is used to determine the project's visual impact.

Figure 4: Visual Impact Assessment Process Concept Diagram



7.2 Definition of Visual Impact Levels

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

Moderately Low: Low negative change to the visual resource with a moderate viewer response, or moderate negative change with a low viewer response. Impact can be mitigated using conventional practices.

Moderate: Moderate adverse change to the visual resource with moderate viewer response. Moderate visual impacts can 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.

7.3 Analysis of Key Views

Key views 1, 2, 3, 4, 5, and 6 were selected to display the visual results of the proposed project as viewed from potentially affected primary viewer groups. The visual quality of each key view was quantified using an evaluation scale of 1-7 (1=Very Low, 4=Moderate, 7=Very High) for vividness, intactness, and unity. Vividness, intactness, and unity were evaluated for three landscape units: (1) inside the right-of-way, (2) outside the right-of-way within the local landscape unit, and (3) outside the right-of-way outside the local landscape unit (Appendix A Visual Quality Evaluation Forms).

The viewer's response is gauged by evaluating the viewer's exposure and three aspects of the viewer's sensitivity: activity and awareness, local values, and cultural significance. The viewer's exposure is determined by assessing who the viewer groups are, how many people make up the viewer groups, and how far away they are from the project (USDOT 1981).

Key View 1 – Facing North on Melrose Drive towards Oceanside Boulevard Intersection

a. Orientation: Key view 1 is the view from the northbound lanes along Melrose Drive looking north towards the intersection of Melrose Drive and Oceanside Boulevard (Figure 4). This photograph was taken on the easternmost side of the road, closest to the location of the proposed project.

b. Existing Visual Character/Quality: This view is typical of that experienced by motorists traveling along roads adjacent to the proposed project. The land cover consists of hardscape and a hill consisting of disturbed vegetation.

Key view 1 has low visual quality. The immediate foreground consists of the Melrose Drive roadway and compacted dirt adjacent to the berm that is void of landscaping and aesthetically pleasing vegetation. The middle ground consists of traffic signals, utility lines, and road signs. The background vista consists of an elevated hill with residential housing units, trees, and dense landscaping. In addition, a mountain range is visible in the distant background. The background landscape forms are visually heterogeneous. A gas station and car wash located west of the roadway will have a view of the existing facility.

As shown in Table 1, existing visual quality of key view 1 is low to moderately low at a rating of 2.91 on a scale of 1-7. The existing view lacks striking features. There is a low variation in colors and textures, which results in low memorability and vividness (2.55). Nearly all areas in the foreground and middle ground are developed or disturbed. The vegetation located on the right side of photograph is incompatible with the developed nature of the view. As a result, intactness (2.83) and unity (3.33) are moderately low.

c. Proposed Project Features: Project features within Key View 1 include a bike path with asphalt concrete paving and with concrete shoulders, potential graffiti resistant textured retaining wall, and wrought iron fencing on both sides of bike trail for safety and access control. Wall texture shown in Figure 6 is representative of the texture that may be selected. The need for the retaining wall and the final choices for aesthetic design will be determined during final design and with the consensus with the Cities of San Marcos, Vista, the County of San Diego, and SANDAG.

d. Changes to Visual Quality/Character: The visual quality of key view 1 with the proposed project is approximately the same compared to the existing view, which remains moderately low at a rating of 3. The view with the proposed project is remains approximately the same relative to the existing view without the project.

e. Viewer Response: The motorists will have low viewer exposure and viewer sensitivity due to the brief and intermittent views of the project area. Viewer exposure is low due to the fact that those in driving past the project area will have very brief and obscured views of the proposed project features. Viewer sensitivity is also low as the area does not raise concern for scenic quality within the community nor is it predicted that the motorists

within the area will have much response to the change in the visual resources that make up the existing view.

Table 1: Visual Quality Comparison for Key View 1

	VIVIDNESS	INTACTNESS	UNITY	**VISUAL QUALITY[1]**	CHANGE IN VISUAL QUALITY WITH PROJECT
Existing View	2.55	2.83	3.33	**3**	0.00
Proposed Project	2.89	3.33	4.00	**3**	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 2: Viewer Response for Key View 1

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
2	2	**2**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 3: Visual Impact Rating for Key View 1

Visual Quality	0
Viewer Response	2
Total Visual Impact	1

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: The visual simulation of key view 1 with the proposed project shows that the project fits in well with the existing road (Figure 6). Vividness improves slightly (+0.44) due to the introduction of the bike path and clean fence lines; memorability of the view is improved. Views of the background topography and landscaping are unaffected. Intactness improves (+0.50) because the proposed project improves the integrity of the visual order – the proposed project is consistent with existing visual patterns. The addition of the proposed project improves unity (+0.67) as it continues the dominant pattern of a paved road in the view. The proposed project helps tie together the road with the vegetated area.

Figure 5: Key View 1: Existing

Figure 6: Key View 1 - Visual Simulation with the Proposed Project

*Wall texture shown in this Figure is representative of the texture that may be selected

Key View 2 – Facing West on North Drive towards SPRINTER Railroad Crossing

a. Orientation: Key view 2 represents the view from North Drive facing towards the SPRINTER Railroad Crossing (Figure 6). This photograph was taken at the intersection of North Drive and Waxwing Drive facing west.

b. Existing Visual Character/Quality: This view is typical of that experienced by motorists who will be viewing the proposed project as it crosses the road. The viewshed includes transportation and the residential landcover components.

Key view 2 has moderately low visual quality. The immediate foreground consists of the North Drive Roadway with a small section of Waxwing Drive entering the view from the right side of the photograph. Other developed features in the foreground include the hardscape median, a sidewalk section, road signs, residential housing units, and disturbed vegetation. The middle ground consists of utility lines and stands of trees, mostly palm and eucalyptus. The background in this view consists of a clear skyline and an open horizon. No landscape ridges or silhouettes are present.

As shown in Table 4, has key view 2 has a moderately low existing visual quality rating of 3.61 on a scale of 1-7. The low vividness rating (1.67) is attributed to the lack of memorable natural or manmade features existing within the viewshed. Intactness (5.00) and unity (4.67) are moderate to moderately high based on the consistently developed nature of the view.

c. Proposed Project Features: Project features within key view 2 include an asphalt concrete bike path, curb openings for bike and pedestrian access, and new striping on existing road to delineate path crossing.

d. Changes to Visual Quality/Character: The visual quality of key view 2 with the proposed project is approximately the same compared to the existing view, but remains moderate at a rating of 4. However, the view with the proposed project is remains approximately the same relative to the existing view without the project

e. Viewer Response: The motorists at this intersection will have low viewer exposure and viewer sensitivity due to the brief and intermittent views of the project area. Viewer exposure is low due to the fact that the motorists in the area will have very brief and obscured views of the proposed project features. Viewer sensitivity is also low as the area does not raise concern for scenic quality nor is it predicted that the motorists will have much response to the change in the visual resources that make up the existing view.

Table 4: Visual Quality Comparison for Key View 2

KEY VIEW		VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY (V+I+U)/3	VQ DIFFERENCE
2	Existing	1.67	5.00	4.17	4	0.00
	Build	2.00	5.04	4.67	4	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 5: Viewer Response for Key View 2

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
2	2	**2**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 6: Visual Impact Rating for Key View 2

Visual Quality	0
Viewer Response	2
Total Visual Impact	1

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: The proposed project will keep the visual quality of key view 2, visual quality will remain moderate at a rating of 4. As shown in the visual simulation of key view 2 with the proposed project, vividness is improved slightly (+0.33) because the project slightly improves the memorability of the view (Figure 8). Similarly, intactness (+0.04) and unity (+0.50) are slightly improved because the project introduces a paved bike path into a view already dominated by a paved road and other transportation features. The project improves compatibility among landscape elements and improves the degree to which visual resources join to form a coherent visual pattern.

Figure 7: Key View 2 – Existing

Figure 8: Key View 2 –Visual Simulation with the Proposed Project

Key View 3 – North of SPRINTER Railroad Facing West (280 Feet West of North Santa Fe Avenue and West Orange Street Intersection)

a. Orientation: Key view 3 represents the view of the north side of the SPRINTER railroad looking down the tracks to the west (Figure 8).

b. Existing Visual Character/Quality: This photograph is representative of a typical view perceived by passengers riding the SPRINTER and pedestrians and passengers looking west from the Vista SPRINTER Station. Both transportation and residential landcover components are in this viewshed. The SPRINTER train is located immediately adjacent to the station and the residential landscape type is located northwest of the view.

Key view 3 is of low to moderately low visual quality. The immediate foreground consists of maintained ruderal vegetation, a concrete lined channel with intermittent water flow, a metal and wood fence, and the SPRINTER railroad tracks, gravel, and signals. The middle ground consists of residential housing units, a variety of tree species, and street light posts. The background consists of the outline of tree tops, specifically palm trees, and an open horizon.

As shown in Table 7, existing visual quality of key view 3 is low to moderately low at a rating of 2.87 on a scale of 1-7. The low vividness rating is attributed to the lack of memorable natural or manmade features within the viewshed. Manmade features, a concrete drainage, and a grassy hill contribute to the vividness rating. The view contains low memorability as no aspects of the view are striking or distinctive. The existing view has very low intactness due to a variety of visual encroachments from the built, transportation, open space, and landscaped features in the foreground, middle ground, and background. Unity is low due to the incoherent patterns in the visual elements.

c. Proposed Project Features: Project features within key view 3 include a bike path with asphalt concrete paving and dirt shoulders, a potential graffiti resistant textured retaining wall, chain link fences along the outsides of the path for safety and access control. Wall texture shown in Figure 10 is representative of the texture that may be selected. The need for the retaining wall and the final choice of aesthetic design will be determined during final design and with the consensus with the Cities of San Marcos, Vista, the County of San Diego, and SANDAG.

d. Changes to Visual Quality/Character: The visual quality of key view 3 will improve with the proposed project, from a moderately low rating of 3 to a moderate rating of 4. The view with the proposed project is improved by one unit (+1) relative to the existing view without the project.

e. Viewer Response: The pedestrians and passengers at the SPRINTER Station will have low viewer exposure and viewer sensitivity due to the brief and intermittent views of the project area. Viewer exposure is low due to the fact that those in the SPRINTER car will have very brief and obscured views of the proposed project features. Viewer sensitivity is

also low as the area does not raise concern for scenic quality nor is it predicted that the pedestrians and passengers will have much response to the change in the visual resources that make up the existing view.

Table 7: Visual Quality Comparison for Key View 3

KEY VIEW		VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY (V+I+U)/3	VQ DIFFERENCE
3	Existing	2.78	3.00	2.83	3	+1.00
	Build	3.00	4.08	4.21	4	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 8: Viewer Response for Key View 3

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
1	1	**1**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 9: Visual Impact Rating for Key View 3

Visual Quality	1
Viewer Response	1
Total Visual Impact	1

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: Visual quality of key view 3 will improve to moderate with a rating of 4. The visual simulation of key view 3 with the proposed project shows a reduction in the amount of grassy vegetation (Figure 10). The trail adds a transportation feature that ties together the developed nature of the area and slightly increases the view's vividness. Intactness is improved because the integrity of the natural and man-built visual order is improved slightly with introduction of the project. Unity is improved as the grass/vegetation element is replaced with the path; the path is more compatible with the built and transportation visual elements than the existing grass/vegetation.

Figure 9: Key View 3 – Existing

Figure 10: Key View 3 – Visual Simulation with the Proposed Project

*Wall texture shown in this Figure is representative of the texture that may be selected

Key View 4 – Inside Escondido Avenue Sprinter Station Facing West

a. Orientation: Key view 4 represents the view from pedestrians and passengers using the Escondido Avenue SPRINTER Station (Figure 10). This photograph was taken near the station waiting area looking west.

b. Existing Visual Character/Quality: This view is representative of the views pedestrians and passengers will experience at all SPRINTER Stations along the seven-mile length of the proposed project. The viewshed includes transportation and residential landcover components units.

Key view 4 is of moderately low visual quality. The foreground consists of plain and stamped concrete walking areas, an asphalt parking lot with road markings, and parking lot signs and lighting. A small amount of landscaping is present in the foreground. The middle ground consists of roadways, grassy hill with discontinuous shrubs, residential housing units, and a variety of tree species. The background consists of a clear skyline and an open horizon. No landscape ridges or silhouettes are present.

As shown in Table 10, visual quality of key view 4 is moderately low to moderate at a rating of 3.59 on a scale of 1-7. The low vividness rating is attributed to the lack of memorable natural or manmade features within the viewshed. Intactness and unity are rated as moderate as the foreground has coherent built features, but is incompatible with the surrounding landscaping and residential elements viewed in the middle ground and background.

c. Proposed Project Features: Project features within key view 4 include a bike path through an existing parking lot as well as along an adjacent hillside. The path will have asphalt concrete paving and curb where necessary. Striping to define the bike path will be on the pavement within the parking lot.

d. Changes to Visual Quality/Character: The visual quality of key view 4 with the proposed project is essentially the same as the existing view, and is moderate at a rating of 4. The view with the proposed project is remains the same relative to the existing view without the project.

e. Viewer Response: The pedestrians and passengers at the SPRINTER Station will have low viewer exposure and viewer sensitivity due to the brief and intermittent views of the project area. Viewer exposure is low due to the fact that those in the SPRINTER train will have very brief and obscured views of the proposed project features. Viewer sensitivity is also low as the area does not raise concern for scenic quality within the community nor is it predicted that the pedestrians and passengers will have much response to the change in the visual resources that make up the existing view.

Table 10: Visual Quality Comparison for Key View 4

KEY VIEW		VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY (V+I+U)/3	VQ DIFFERENCE
4	Existing	2.78	4.00	4.00	4	0.00
	Build	2.75	3.92	3.92	4	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 11: Viewer Response for Key View 4

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
2	2	**2**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 12: Visual Impact Rating for Key View 4

Visual Quality	0
Viewer Response	2
Total Visual Impact	1

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: Visual quality of key view 4 will remain the same as the proposed project with a moderate rating of 4. As shown in the visual simulation of key view 4 with the project, additional striping and a new bike path are visible in the middle ground (Figure 12). Vividness is nearly identical (-0.03) as the project does not affect the memorability of the view. Intactness slightly decreases (-0.08) because the hardscape trail encroaches into a landscaped hill. Unity also slightly decreases (-0.08) because the manmade and natural visual patterns are disrupted by introduction of the paved bike path in a landscaped view. The proposed project will not obscure any existing views.

Figure 11: Key View 4 – Existing

Figure 12 - Key View 4 - Visual Simulation with the Proposed Project

Key View 5 – South of SPRINTER Railroad Facing West (150 Feet North of the Vista Bonita Drive Cul-de-sac)

a. Orientation: Key view 5 represents the view from residents living adjacent to the proposed project (Figure 12). This photograph was taken in an elevated area south of the SPRINTER railroad tracks approximately 150 feet north of the Vista Bonita Drive cul-de-sac.

b. Existing Visual Character/Quality: This view is representative of the views residents will have of the proposed project adjacent to their property. The viewshed includes transportation, residential and open space landcover components.

Key view 5 has low visual quality. The foreground consists of chain-link fences, the SPRINTER railroad and associated gravel areas, compacted barren ground, and open space landscaped with grasses, shrubs, and a variety of tree species. The middle ground consists of the SPRINTER railroad and associated gravel areas, residential housing units, and additional open space landscaped with grasses, shrubs, and a variety of tree species. The background consists of the tops of trees and additional residential housing units. A majority of the background consists of a clear skyline and an open horizon.

As shown in Table 13, existing visual quality is moderately low at a rating of 2.75 on a scale of 1-7. The moderately low vividness rating (3.16) is attributed to the lack of memorable natural or manmade features existing within the project areas. The view has a low level of intactness (2.50) due to the variety of transportation, residential, open space, and landscaped features in the foreground, middle ground, and background. Unity is low (2.58) because a disturbed plot of land is fenced in and situated between the SPRINTER railroad and an open space area. There is a low degree of compatibility among landscape elements.

c. Proposed Project Features: Project features within key view 5 include a bike path with asphalt concrete paving and dirt shoulders and a graffiti resistant textured retaining wall. The existing chain-link fencing will remain on both sides of the path for safety and access control. Wall texture shown in Figure 14 is representative of the texture that may be selected. The need for the retaining wall and the final choice for aesthetic design will be determined during final design and with the consensus with the Cities of San Marcos, Vista, the County of San Diego, and SANDAG.

d. Changes to Visual Quality/Character: The visual quality of key view 5 with the proposed project is higher than the existing view with a moderately low rating of 3. However, the view with the proposed project is improved by approximately one unit (+1) relative to the existing view without the project.

e. Viewer Response: The residents will have moderate viewer exposure and low viewer sensitivity. Viewer exposure is moderate due to the fact that this view is representative of residents in the area adjacent to the project area. Viewer exposure is low as the views of

the project area are largely obscured. Viewer sensitivity is low as the area does not raise concern for scenic quality nor is it predicted that the residents will have much response to the change in the visual resources that make up the existing view.

Table 13: Visual Quality Comparison for Key View 5

KEY VIEW		VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY (V+I+U)/3	**VQ DIFFERENCE**
5	Existing	3.16	2.50	2.58	3	**+1.00**
	Build	3.83	3.00	3.75	4	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 14: Viewer Response for Key View 5

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
4	2	**3**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 15: Visual Impact Rating for Key View 5

Visual Quality	1
Viewer Response	3
Total Visual Impact	**2**

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: As shown in the visual simulation of key view 5 with the proposed project, it fits agreeably into the disturbed vacant plot of land, provides a striking element in the view, and improves the memorability of the visual impression (Figure 14). Intactness is slightly higher (+0.50) because the visual order in the natural and man-made environments are improved with the addition of the project. Unity is improved (+0.67) because the project is more compatible with the railroad facility than the existing condition and provides a compositional harmony between the existing landscape elements.

Figure 13: Key View 5 – Existing

Figure 14: Key View 5 – Visual Simulation with the Proposed Project

*Wall texture shown in this Figure is representative of the texture that may be selected

Key View 6 – Bridge over Buena Creek Facing North

a. Orientation: Key view 6 was taken just south of Buena Creek looking north towards Buena Creek and towards the SPRINTER railroad bridge over the creek (Figure 14).

b. Existing Visual Character/Quality: This is one of the few undeveloped natural areas remaining within the project limits. Key view 6 shows the view observed by passengers riding the SPRINTER over Buena Creek. The viewshed includes transportation and open space landcover components.

Key view 6 has a moderately low to moderate visual quality. The foreground consists of chain-link and metal fences, the SPRINTER railroad and associated gravel areas, and a densely vegetated riparian area. The middle ground consists of the SPRINTER railroad and associated gravel areas and additional open space vegetated with a variety of naturally occurring vegetation. The background consists of the outline of distant hills with open grassy areas and tree lines. Above the elevation of the hills, the background remains open with a view of a clear skyline and an open horizon.

As shown in Table 16, existing visual quality of key view 6 is moderately low to moderate with a rating of 3.82 on a scale of 1-7. The view has moderate vividness (4.47). The thick riparian corridor is a striking view with high vividness; however, no water is visible and landscape/water features are not apparent or vivid. Intactness is low in the foreground because of the encroachment of the railroad bridge on the riparian corridor. Intactness is higher in the middle ground and background where trees dominate the view. Overall, intactness is moderately low to moderate (3.42). In the foreground, unity is low as the railroad crosses through a riparian corridor. Unity is much higher in the middle ground and background where dense tree canopies dominate the visual pattern. Overall, unity is moderately low to moderate (3.58).

c. Proposed Project Features: Project features within key view 6 include a bridge over Buena Creek to accommodate the bike path, which runs adjacent to the SPRINTER railroad bridge. The bike path bridge is expected to have asphalt concrete paving and graffiti resistant textured walls along the bridge for safety. The bridge structure type and wall texture shown in Figure 16 is representative of the bridge type and texture that may be selected. Final choice of the bridge structure type and the bridge's aesthetic design will be determined during final design. Outside of the bridge, the bike path will have asphalt concrete paving. A wrought iron or chain link fence will be constructed along the path for safety and access control.

d. Changes to Visual Quality/Character: The visual quality of key view 6 with the proposed project is slightly lower than the existing view, and is considered moderately low at a rating of 3. The visual quality of the view with the proposed project is lower by approximately one unit (-1) relative to the existing view without the project.

e. Viewer Response: The passengers on the SPRINTER train will have very low viewer exposure and viewer sensitivity due to the brief and intermittent views of the project area.

Viewer exposure is low due to the fact that only those in the SPRINTER car will have very brief and obscured views of the proposed project features. Viewer sensitivity is also low. Passengers are the only viewer group and are not expected to have an adverse response to the change in the visual resources since views of the existing riparian area will still be available.

Table 16: Visual Quality Comparison for Key View 6

KEY VIEW		VIVIDNESS	INTACTNESS	UNITY	VISUAL QUALITY (V+I+U)/3	VQ DIFFERENCE
6	Existing	4.47	3.42	3.58	4	-1.00
	Build	3.95	2.83	3.13	3	

Notes:

1. Visual quality is the sum of the scores for vividness, intactness, and unity, divided by three.
2. The visual quality rating is rounded (e.g., a visual quality rating of 5.39 would be rounded to 5) using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 17: Viewer Response for Key View 6

Viewer Exposure	Viewer Sensitivity	**VIEWER RESPONSE**
1	1	**1**

Notes:

1. Viewer Response is the sum of the scores for Viewer Exposure and Viewer Sensitivity divided by two.

Table 18: Visual Impact Rating for Key View 6

Visual Quality	-1
Viewer Response	1
Total Visual Impact	1

Notes:

1. Visual Impact is the sum of the scores for the absolute value of Visual Quality and Viewer Response divided by two.

f. Resulting Visual Impact: The visual simulation of key view 6 with the proposed project shows the addition of the project through the riparian corridor (Figure 16). Vividness is reduced slightly (-0.52) as a second manmade feature is introduced and a small patch of the riparian corridor is removed in the foreground of the view. Vividness is unaffected in the middle ground and background. The proposed project would result in lower level of intactness (-0.59) because the trail bridge acts as an additional

encroachment on the foreground view. In the foreground, unity is very low as there are additional manmade features (trail and railroad bridges) crossing the riparian corridor. Unity remains intact in the middle ground and background as the compatibility between landscape elements is improved. Overall, unity would decrease slightly (-0.45).

Figure 15: Key View 6 – Existing

Figure 16: Key View 6 - Visual Simulation with the Proposed Project

*The color of barrier on the bridge crossing Buena Creek will blend into the surroundings

7.4 Summary of Project Impacts

Project impacts to the visual environment include an increase in hardscape within the SPRINTER right-of-way. However, throughout most of the views, the trail is compatible with the existing viewsheds and it improves the degree to which the visual resources join to form a coherent pattern. In addition, the existing conditions throughout much of the study area are disturbed and developed. As a result, the trail would slightly improve the visual quality for two of the six key views.

Based on analysis of the six key views of the project, visual impact level is low (Figures 4 - 15). The visual quality of five of the six key views will remain moderately low to moderate, with the exception of key view 3, which will improve from moderately low to moderate, key view 5, which will be improved from moderately low to moderate, with the existing and build conditions. The visual quality of key view 6 will decrease from moderate to moderately low. The minimal increase in man-made transportation elements will not substantially change views since a majority of the viewsheds are developed and dominated by transportation and residential/commercial features. With the exception of key view 6, only small amounts of disturbed/ruderal vegetation will be removed. At key view 6, removal of trees and other vegetation will create temporary and permanent changes. However, only a small amount of vegetation will be permanently removed and temporarily disturbed vegetation at Buena Creek will be replanted following construction. In addition, the duration of viewer exposure at Buena Creek is very short.

SPRINTER passengers will have a view of this proposed project for up to seven miles of their trip. The visual quality of their view improves at most locations with the addition of the proposed project. Introduction of the project over Buena Creek will slightly reduce the vividness, intactness, and unity of the existing view. However, overall the visual quality will not be substantially lower and the visual impact level is still considered low for the entire project.

Residents and commercial businesses located adjacent to the project will have long-term views of the new project features. In most locations, existing views will not change substantially because topography or other permanent barriers would impede views of the proposed project. In addition, all areas where residents and commercial businesses are located are developed and the project would not conflict with the existing viewshed. The viewer response to the project area is of very low to low, with the exception of key view 5, which has a moderately low viewer response due to the longer exposure time for the adjacent residents.

Vehicle drivers using roads adjacent to or crossing the project will briefly experience a change in their viewshed. The duration of their view is extremely short and there will be no change in the viewsheds being observed.

Table 19 summarizes the visual quality comparison between the “existing” and “build” conditions, viewer response, and visual impact rating. Descriptive change was identified

by rounding the visual quality rating (e.g., a visual quality rating of 5.39 would be rounded to 5) and using the evaluation scale in FHWA's *Visual Impact Assessment for Highway Projects* as a guide.

Table 19: Visual Quality Comparison for all Key Views

Key View	Visual Quality	Viewer Response	Visual Impact Rating	Descriptive Quality
1	0	2	1	Very Low
2	0	2	1	Very Low
3	+1	1	1	Very Low
4	0	2	1	Very Low
5	+1	3	2	Low
6	-1	1	1	Very Low

The evaluation scale is: VQ = 1 (Very Low); VQ = 2 (Low); VQ = 3 (Moderately Low); VQ = 4 (Average/medium/moderate); VQ = 5 (Moderately High); VQ = 6 (High); VQ = 7 (Very High), based on FHWA, 1988).

*To determine Descriptive Change, VQ was rounded to the nearest whole number, and assigned the descriptive term (Very Low, Low, Moderately Low, Moderate, Moderately High, High, or Very High) for existing and build. For example, Key View A-Existing VQ=3.07, which rounds to VQ=3, which is "Moderately Low". Key View A-Build had a VQ=3.19, which rounds to 3, which is "Moderately Low". Therefore, the descriptive change for Key View A from Existing to Build was "Moderately Low" to "Moderately Low".

Based on the table above, visual quality will slightly improve at two of six key views, remain the same for three of the key views, and slightly decline at one of the key views. The visual impact rating is very low for all of the views except for key view 5, which is low. The proposed project is not expected to have significant impacts on visual resources or cause substantial adverse effects on aesthetics due to the following:

- No views of National Scenic Byways, State Scenic Highways, or County Scenic Highways will be affected by the proposed project.

- As shown in Table 19, visual impact in the project vicinity will be very low to low with implementation of the proposed project. The visual quality will not be lowered at any key view except key view 6; however, due to a very low viewer response, this visual impact rating remains very low.

- Aesthetic retaining wall features, minimal landscaping, and lighting fixtures will be incorporated into the project wherever possible to improve views. Aesthetic retaining walls will increase the intactness of the cities by unifying the manmade development. Additionally, lighting fixtures will be low profile and will cast light downward to avoid spillage outside of trail.

7.5 Effects from Other Viewpoints

Other views of the project, which includes individuals not considered a viewer group due to their lack of direct views, but may have occasional intermittent sightings of the project, will be blocked in many locations by existing fences and topography. The

trail parallels the existing SPRINTER railroad and will be constructed mostly within the existing SPRINTER right-of-way. A large number of homes and business are located adjacent to the SPRINTER railroad, and as a result, they will be adjacent to the proposed project. The existing SPRINTER right-of-way is disturbed and dominated by transportation related features. The addition of the project within the right-of-way will not change the existing character of the viewshed.

The proposed project will include low profile lighting that casts light downward towards the trail. This lighting was chosen to avoid light pollution and glare in the areas adjacent to the project.

7.6 Effects on Community Character

The construction of the proposed project will not substantially impair or diminish the public's visual enjoyment of the area. In nearly all locations, the proposed trail will constitute a marginal change to the existing visual environment. The locations where the trail will be located are developed primarily with transportation features. As such, the project will not contrast with or represent a substantial adverse change to existing community character.

The primary viewer group is SPRINTER passengers. Their views of any one part of the project will be brief due to the speed of the train, but since the project generally parallels the railroad for approximately seven miles, the passengers will have relatively longer views of the project as a whole.. The transitory experience of such views diminishes the sensitivity of the viewer. The project will be constructed primarily within SPRINTER railroad right-of-way and will be replacing areas that currently consist of gravel, compacted dirt, and sparse disturbed vegetation. As a result, it is expected that views will slightly improve for this viewer group.

The visual changes will not limit the general public's access to visual resources or create a visually obtrusive feature. As discussed in Section 1, the City of Vista, City of San Marcos, and County of San Diego have policies and design guidelines that directly relate to the visual and aesthetic goals of these communities. The proposed project will comply with applicable policies and guidelines. In addition, the City of Vista, City of San Marcos, and County of San Diego will review and approve the project plans and will ensure that architectural features and landscape designs are incorporated into the project consistent with local policies and guidelines.

7.7 Temporary Impacts

During construction of the proposed project, temporary activities within the project area will be visible to motorists, SPRINTER passengers, residents, and tenants and customers of commercial properties along the proposed project. These temporary activities include grading, asphalt laying, excavation, truck movement and truck shipments, and other routine construction activities. Construction-related materials, such as road-building material, stockpiles, temporary traffic barriers, and construction

equipment will be visible to these viewer groups. These areas may also be lighted during construction. Changes to views during construction are temporary and construction will be subject to local ordinances regarding construction time periods and lighting. The construction area will be kept neat and orderly with regards to trash. Standard special provisions regarding site maintenance will be implemented.

7.8 Cumulative Impacts

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. Cumulative impacts can result from individually minor, but collectively substantial, impacts occurring over time.

Implementation of the proposed project in conjunction with other projects in the vicinity is not anticipated to result in significant adverse cumulative aesthetic impacts. This project is part of a larger 31-mile long Class 1 bikeway project spanning from the City of Escondido to the City of Oceanside in San Diego County, California. The majority of the bikeway is proposed to be located in the SPRINTER right-of-way.

This project will not affect any sensitive visual resources and will be improving the visual environment throughout much of the project area. As such, the Inland Rail Trail project will not contribute to an adverse cumulative visual impact.

8. VISUAL MITIGATION MEASURES

Caltrans and the FHWA mandate that a qualitative/aesthetic approach should be taken to mitigate for visual quality loss. 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.

Potentially adverse project impacts addressed in the previous key view assessments and summarized in the previous section will be addressed through the following design features and minimizations, which will be designed and implemented with the concurrence of the District Landscape Architect. The following measures will be implemented at all key views, where applicable. Because the project will not result in substantial long-term aesthetic impacts with implementation of the design features and minimizations, no mitigation measures are required.

The proposed project will implement the following design features and minimizations for potential temporary constructions impacts:

- Any riparian and/or upland vegetation removal necessary in order to provide space for construction activities will be replaced. The planting palette and/or revegetation plan shall be developed in coordination with Caltrans, the City of San Marcos, City of Vista, and County of San Diego. Preference will be given

towards native species. Species native to Buena Creek shall be used when revegetating Buena Creek.

- If night-time work or lighting is necessary, a lighting plan shall be developed that requires project lighting to be appropriately shielded. The project's lighting design shall be consistent with the City and County's lighting guidelines and standards, and it will be developed in coordination with City and County staff.

Due to the nature of the project, the existing visual qualities of the landscapes, and implementation of the proposed measures, the project's visual impacts are anticipated to be minimal.

9. LIST OF PREPARERS/REVIEWERS

The following people were the principal contributors in the preparation of this Visual Impact Assessment:

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Andrew Martin, San Diego Association of Governments (SANDAG), Associate Environmental Planner

10. REFERENCES

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APPENDIX A
Visual Quality Evaluation Forms

VISUAL QUALITY EVALUATION - VIEW FROM THE ROAD - EXISTING CONDITION

Evaluation Scale: 1-7

Project Name	Inland Rail Trail Project from San Marcos to Vista	Evaluator	Sarah Holm
S.R. No.		Date	Form prepared 8/30/12
Assessment Unit		Weather	

1 = Very Low
4 = Medium
7 = Very High

Observer Viewpoint	VIEW ZONE		General Visual Quality	VISUAL QUALITY: VIVIDNESS CRITERIA Landform	Water	Vegetation	Manmade Develop.	Vividness (1-7)	FEATURES	INTACTNESS CRITERIA Encroachment	Overall Intactness	Intactness (Av. 1-7)	ENCROACHMENT	UNITY CRITERIA Man/Natural	Overall Unity	Unity (Av. 1-7)	Importance (1-3)	(V+I+U)/3	Visual Quality (Weighted av.)
1		Inside ROW		1.00	*	1.00	1.00	1.00	Road and striping	4.00	3.00	3.50	Transportation features - road	3.00	3.00	3.00		2.50	
	O/S ROW	I/S Unit		3.00	*	2.00	2.00	2.33	Residential development and landscaping on hills	2.00	2.00	2.00	Residential development and landscaping	3.00	3.00	3.00		2.44	2.91
		O/S Unit		6.00	*	4.00	3.00	4.33	Hills in distance	4.00	2.00	3.00	Hills in far distance	5.00	3.00	4.00		3.78	
2		Inside ROW		1.00	*	1.00	1.00	1.00	Road, utilities, and road signs	6.00	6.00	6.00	Transportation facilities - no encroachment	4.00	4.00	4.00		3.67	
	O/S ROW	I/S Unit		1.00	*	2.00	2.00	1.67	Transportation facilities and residential development	4.00	5.00	4.50	Transportation facilties and residential development	4.00	5.00	4.50		3.56	3.61
		O/S Unit		1.00	*	4.00	2.00	2.33	Landscaping and additional residential development	5.00	4.00	4.50	Entirely developed	4.00	4.00	4.00		3.61	
3		Inside ROW		1.00	5.00	3.00	3.00	2.33	Grassy undeveloped area and chainlink and wooden fence	3.00	2.00	2.50	Low unity - misplaced grassy area in ROW	1.00	2.00	1.50		2.11	
	O/S ROW	I/S Unit		1.00	4.00	3.00	2.00	2.00	Railroad, water ditch, grass, and fences. Large contrast in colors	3.00	3.00	3.00	Low intactness - no consistency in land uses. Transportation, residential, open grass, and landscaping	3.00	2.00	2.50		2.50	2.87
		O/S Unit		3.00	*	5.00	4.00	4.00	Trees and residential houses in distance	4.00	3.00	3.50	Trees and residential roof tops consistent in view	5.00	4.00	4.50		4.00	

4	Inside ROW			2.00	*	2.00	2.00	2.00	Asphalt parking lot with concrete sidewalks	5.00	6.00	5.50	Parking lot/transportation facility	3.00	5.00	4.00		3.83	
	O/S ROW	I/S Unit		5.00	*	5.00	3.00	4.33	Parking lot, landscaping, hills and residential	2.00	3.00	2.50	Residential and landscaping	4.00	3.00	3.50		3.44	3.59
		O/S Unit		2.00	*	3.00	1.00	2.00	Small hills with trees and roof tops	4.00	4.00	4.00	Trees/landscaping intact	5.00	4.00	4.50		3.50	
5	Inside ROW			3.00	*	1.00	3.00	2.33	Chain link fence and unvegetated ground	3.50	4.00	3.75	Very disturbed ground	2.00	3.00	2.50		2.86	
	O/S ROW	I/S Unit		5.00	*	4.00	2.50	3.83	NCTD railroad, vegetation, and chain link fencing	1.00	2.00	1.50	Open space, disturbed, and NCTD railroad facilities	2.00	3.00	2.50		2.61	2.83
		O/S Unit		4.00	*	4.00	2.00	3.33	Residential development and landscaping	2.00	2.50	2.25	Residential development and landscaping/trees	4.00	3.00	3.50		3.03	
6	Inside ROW			1.00	*	6.50	5.00	4.17	Vegetation and open space with NCTD railroad	3.00	2.00	2.50	Hardscape in form of railroad. Surrounded by dense riparian vegetation	1.50	3.00	2.25		2.97	
	O/S ROW	I/S Unit		2.00	*	7.25	4.50	4.58	Trees and dense vegetation fills views outside of railroad ROW.	4.00	4.50	4.25	Landscape unit is intact with additional hardscape.	2.00	3.00	2.50		3.78	3.82
		O/S Unit		5.00	*	6.00	3.00	4.67	Hills and vegetation in distance has moderate memorability	2.00	5.00	3.50	Landscaping unit intact & views of distant hills are intact	6.00	6.00	6.00		4.72	

*Absent from view

I/S Unit = Inside Landscape Unit

O/S Unit = Outside Landscape Unit

VISUAL QUALITY EVALUATION - VIEW FROM THE ROAD - BUILD CONDITION

Evaluation Scale: 1-7

Project Name	Inland Rail Trail Project from San Marcos to Vista	Evaluator	Sarah Holm
S.R. No.		Date	Form prepared 8/30/12
Assessment Unit		Weather	

1 = Very Low
4 = Medium
7 = Very High

Observer Viewpoint	VIEW ZONE		General Visual Quality	VISUAL QUALITY															
				VIVIDNESS						INTACTNESS				UNITY					
				CRITERIA						CRITERIA				CRITERIA					
				Landform	Water	Vegetation	Manmade Develop.	Vividness (1-7)	FEATURES	Encroachment	Overall Intactness	Intactness (Av. 1-7)	ENCROACHMENT	Man/Natural	Overall Unity	Unity (Av. 1-7)	Importance (1-3)	(V+I+U)/3	Visual Quality (Weighted av.)
1		Inside ROW		1.00	*	1.00	3.00	1.67	Road, trail, and fences	5.00	4.00	4.50	Transportation features - road and trail	3.00	6.00	4.50		3.56	
	O/S ROW	I/S Unit		3.00	*	2.00	3.00	2.67	Residential development and landscaping on hills	2.00	3.00	2.50	Residential development and landscaping	3.00	4.00	3.50		2.89	3.41
		O/S Unit		6.00	*	4.00	3.00	4.33	Hills in distance	4.00	2.00	3.00	Hills in far distance	5.00	3.00	4.00		3.78	
2		Inside ROW		1.00	*	1.00	2.00	1.33	Road, trail, utilities, and road signs	6.00	6.25	6.13	Transportation facilities - no encroachment	4.50	5.00	4.75		4.07	
	O/S ROW	I/S Unit		1.00	*	3.00	3.00	2.33	Transportation facilities and residential development	4.00	5.00	4.50	Transportation facilties and residential development	5.00	5.50	5.25		4.03	3.90
		O/S Unit		1.00	*	4.00	2.00	2.33	Landscaping and additional residential development	5.00	4.00	4.50	Same level of development in area	4.00	4.00	4.00		3.61	
3		Inside ROW		1.00	5.00	2.00	4.00	2.33	More hardscape added to built environment	4.50	5.00	4.75	Higher unity and intactness with built transportation structures	3.25	3.50	3.38		3.49	
	O/S ROW	I/S Unit		1.00	4.00	4.00	3.00	2.67	Contrast in colors between trail, grass, railroad	4.00	4.00	4.00	High intactness within foreground and contrast with residential structures and vegetation	4.50	5.00	4.75		3.81	3.76
		O/S Unit		3.00	*	5.00	4.00	4.00	Trees and residential houses in distance	4.00	3.00	3.50	Trees and residential roof tops	5.00	4.00	4.50		4.00	

4	Inside ROW			2.00	*	2.00	2.00	2.00	Asphalt parking lot with concrete sidewalks	5.00	6.00	5.50	No change in features. Additional striping	3.00	5.00	4.00		3.83	
	O/S ROW	I/S Unit		5.00	*	5.00	2.75	4.25	Parking lot, landscaping, hills and residential	1.50	3.00	2.25	Small break in hill slope with addition of trail	4.00	2.50	3.25		3.25	3.53
		O/S Unit		2.00	*	3.00	1.00	2.00	Small hills with trees and roof tops	4.00	4.00	4.00	Trees/landscaping intact	5.00	4.00	4.50		3.50	
5	Inside ROW			3.00	*	1.00	6.00	3.33	Trail, chain link fence, and retaining wall	4.00	5.00	4.50	Additional transportaiton features inside ROW	4.00	5.00	4.50		4.11	
	O/S ROW	I/S Unit		5.00	*	4.50	3.00	4.17	NCTD railroad, trail, vegetation	2.00	2.50	2.25	Landscape unit similarly intact (low) with transportation feature replacing unvegetated ground	2.50	4.00	3.25		3.22	3.45
		O/S Unit		4.00	*	4.00	2.00	3.33	Residential development and landscaping	2.00	2.50	2.25	Residential development and landscaping/trees	4.00	3.00	3.50		3.03	
6	Inside ROW			1.00	*	4.50	4.00	3.17	Less vegetation and open space, but hardscape is adjacent to existing railroad.	2.00	1.00	1.50	Hardscape in form of trail and railroad. Surrounded by dense riparian vegetation	1.00	2.00	1.50		2.06	
	O/S ROW	I/S Unit		2.00	*	6.00	4.00	4.00	Trees and dense vegetation fills views outside of railroad ROW.	3.00	4.00	3.50	Landscape unit is slightly less intact with additional hardscape. Trail is immediately adjacent to existing transportation facility.	1.50	2.25	1.88		3.13	3.30
		O/S Unit		5.00	*	6.00	3.00	4.67	Hills and vegetation in distance has moderate memorability	2.00	5.00	3.50	Landscaping unit continue to be intact & views of distant hills are intact	6.00	6.00	6.00		4.72	

*Absent from view

I/S Unit = Inside Landscape Unit

O/S Unit = Outside Landscape Unit

VISUAL QUALITY EVALUATION - EXISTING COMPARED WITH BUILD ALTERNATIVE

Project Name: Inland Rail Trail Project from San Marcos to Vista
S.R. No.:
Assessment Unit:

Evaluator: Sarah Holm
Date: Form prepared 8/30/12
Weather:

Evaluation Scale: 1-7
1 = Very Low
4 = Medium
7 = Very High

Observer Viewpoint	Alternative/Existing	VIEW: SETTING: Land Use	Observer Position	Road Distance	General Visual Quality	VISUAL QUALITY: VIVIDNESS: Overall Vividness	The memorability of the visual impression received from contrasting landscape elements as they combine to form striking and distinctive visual pattern. FEATURES	INTACTNESS: General Intactness	The integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment. ENCROACHMENT	UNITY: Overall Unity	The degree to which visual resources of the landscape join to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or inter-compatibility between landscape elements. ELEMENTS	(V+I+U) / 3	IMPACT: Visual Quality Difference	Positive Impact	Negative Impact
1	E	TRA	N	F		2.55	Little vividness and lack of striking features. Background topography is visible. Low variations in colors and textures. Very low memorability.	2.83	View contains transportation features and disturbed vegetation leading into open space in the foreground and residential with mountains in background. As such, visual integrity is moderately low.	3.33	All areas in foreground and midground are developed/disturbed. Vegetation on right side of photo incompatible. As such, there is moderately low unity.	2.91			
	Build Alternative		N	F		2.89	Build Alternative simulation shows trail blends in with existing features. Background topography is unaffected. Vividness improved slightly by strong fences bordering trial that fits in well with surrounding built environment.	3.33	Build Alternative simulation includes an additional transportation feature that is consistent with the visual patterns. The project will slightly improve intactness.	4.00	The addition of the trail improves unity as it continues the dominant pattern of transportation facilities in the view. The trail helps tie together the road with the vegetated area.	3.41	0.50	X	
2	E	TRA	N	F		1.67	Manmade features dominate view. Trees in the middle ground are the only striking feature. Low memorability.	5.00	Nearly entire view consists of developed and landscaped areas. Intactness is moderately high.	4.17	All areas in foreground and midground are developed/disturbed. As such, there is moderate unity.	3.61			
	Build Alternative		N	F		2.00	Build Alternative simulation shows the vividness of the view is nearly identical. Trail slightly improves memorableness of view.	5.04	Build Alternative simulation has slightly improved intactness because it introduces another built/transportation feature into an already built (and transportation oriented) view.	4.67	The addition of the trail improves unity as it continues the dominant pattern of transportation facilities in the view.	3.90	0.29	X	
3	E	TRA	N	F		2.78	Contrast of colors due to manmade features, water drainage, and grassy hill. View contains low memorability as no aspects of view are striking or distinctive.	3.00	View has very low intactness. There is a variety of built, transportation, open space, and landscaped features in the foreground, middle ground, and background.	2.83	There is low unity. The visual elements form an incoherent pattern.	2.87			
	Build Alternative		N	F		3.00	Build Alternative simulation shows decrease in grassy vegetation. Trail adds a formalized/clean feature that ties together the deve loped nature of the area and slightly improves the view's vividness.	4.08	Build Alternative simulation has a slightly higher level of intactness because the additional built transportation feature ties together the landscape.	4.21	Unity is greatly increased as the grass/vegetation element is replaced with the trail. The trail is more compatible with the built/transportation visual elements.	3.76	0.89	X	
4	E	TRA	N	F		2.78	Man-made features/transportation facilities dominate the foreground. Hills and moderately striking palm tress are located in the middle ground.	4.00	Landscape has many encroachments. Integrity is average due to mix of built, landscaped, and residential views.	4.00	Unity is high in the foreground and moderate/moderately low in the middle ground and background.	3.59			
	Build Alternative		N	F		2.75	Build Alternative simulation shows vividness is nearly identical. Slightly lower due to break in landscaping/hill with trail.	3.92	Build Alternative would result in a slightly lower level of intactness because the man-made trail feature encroaches into the landscaping.	3.92	Unity slightly decreases in the build alternative because the trail cuts through the landscaped areas in the middle ground.	3.53	-0.06	X	
5	E	TRA	N	F		3.16	Vividness is moderately low. There is no striking views in the fenced in ROW or outside of it.	2.50	View has very low intactness. There is a variety of built, transportation, open space, and landscaped features in the foreground, middle ground, and background.	2.58	Low unity since a fence and disturbed plot of land is situated between open space and the railroad.	2.75			
	Build Alternative		N	F		3.83	Vividness in foreground is improved with addition of trail.	3.00	Build Alternative simulation has a slightly higher level of intactness because the additional built transportation feature ties together the landscape.	3.75	Unity increases in the build alternative because the trail is more compatible with the railroad facility. Also, the natural/manmade features appear more compatible.	3.53	0.78	X	
6	E	TRA	N	F		4.47	View has an average vividness. Thick riparian corridor is a striking view with high vividness; however no water is visible and landscape/water features are not apparent or vivid.	3.42	Intactness is moderately low. It is low in the foreground because of the encroachment of the railroad bridge on the riparian corridor. Intactness is higher in the middle ground and background where trees dominate the view.	3.58	Unity is moderate. In the foreground, unity is low as the railroad crosses through a riparian corridor. Unity is much higher in the middle ground and background.	3.82			
	Build Alternative		N	F		3.95	Vividness is reduced slightly as a second manmade feature is introduced and a small patch of the riparian corridor is removed in the foreground of the view. Vividness is unaffected in the middle ground and background.	2.83	Build Alternative would result in lower level of intactness because the trail bridge acts as an additional encroachment on the foreground view.	3.13	Unity is lower, but still moderate. In the foreground, unity is very low as there are additional manmade features (trail and railroad bridges) crossing the riparian corridor. Unity is much higher in the middle ground and background.	3.30	-0.52	X	

APPENDIX B
Caltrans Review and Concurrence

STATE OF CALIFORNIA
OFFICE MEMO
STD. 100 (Caltrans 11/93) dwc/OLA

DATE: February 22, 2013

TO: Kevin Hovey

Environmental Analysis, Branch D

AGENCY: SANDAG
FEDERAL PROJECT #: CML-5381 (003)
DISTRICT: 11-MS 242

FROM: Tim Mann, RLA 4143

Environmental Planning – Visual Analysis

ROOM NUMBER: Bldg 2, 4th Floor
PHONE: (619) 688-4255

SUBJECT:

SANDAG Inland Rail Trail Project

Review Visual Impact Assessment (2nd Review)

SANDAG has authorized Caltrans to review this document, for consistency with general format and content, to meet applicable federal (FHWA) requirements. This document review is intended to only address these general criteria.

Following a review of the proposed project intent and 'Visual Impact Assessment for the Inland Rail Trail Project' assembled by Dokken Engineering, we have determined the document is generally consistent with the recommended guidelines provided by the FHWA (Visual Impact Assessment for Highway Projects, 1981), the Caltrans Standard Environmental Reference - Chapter 6, and the Caltrans Visual Impact Assessment (VIA) Annotated Outline.

The subject VIA has provided comprehensive analysis of potential adverse changes in visual quality associated with the project and is approved for use in the further development of minimization measures for adverse visual conditions.

Additionally, please find a record of final comments provided for your consideration. These comments are recommended for further clarification and are not necessary for minimum compliance.

cc: Mr. Constantine Kontaxis, File

INLAND RAIL TRAIL PROJECT
REVIEW COMMENT/RESPONSE LOG

SEGMENT: **Inland Rail Trail Project - Local Assistance (SANDAG)**
REVIEW DOCUMENT: **Visual Impact Assessment**
SUBMITTAL NUMBER: **Review #1-CML5381(003)**

DATE OF SUBMITTAL **10/24/2012**
DATE COMMENTS RETURNED: **12/4/2012**

P:\1948_Inland_Rail_Trail\420 Env Stud\VIA\[Caltrans comments_Decemeber 2012.xls]Comment Matrix

REFERENCE				COMMENT				RESPONSE				
				Comment Codes: **S**=Suggested Correction; **Q**=Question; **G**=General Comment; **R**=Resubmit with Revised Info				Response Codes: **A**=Agree, will revise; **D**=Disagree, see explanation; **F**=Follow up required; **G**=General Response				
Mstr No.	Cmt No.	Dwg/Sec	Page/Sht	Code	Description	Org/By	Date	Code	Explanation	Org/By	Date	Verified By/Date
	1	-	12	**Q**	**Section 5.2, ' Landscape Units'. Further clarify reasoning for no identified landscape units. While its understandable no specific landscape unit may be identifable in the 'project corridor', the final sentence stipulates 'landscape units were not discussed within the document'. Later in the report, Section 7.4 Summary of Project Impacts, there is refernence to landscape units. Please clarify.**	TM	12/3/12	**A**	Section 5.2 and 7.4 were revised to clarify that no landscape units are present. Due to the obstructed views and the nature of the project corridor, landscape types are visible, but no complete landscape units can be observed.	SH	12/14/12	DS
	2	-	25	**S**	**Section 7.3, 'Analysis of Key Views'. (1) Following the paragraph of text, provide a reference to the'Appendix' worksheet at the conclusion of the report. (2) In addition, provide a second paragraph describing the analysis protocol for 'viewer response' .**	TM	12/3/12	**A**	Reference to Appendix A was added. Also, a second paragraph was added to describe the analysis protocol for viewer response.	SH	12/14/12	DS
	3	-	26	**S**	**Section 7.3, 'Key View 1', paragraph c. 'Proposed Project Features'. Add complete list of proposed project features. In addition to 'bike path' and 'fence line' include: bike path (AC paving) with unpaved shoulder; retaining wall; access control fencing (specify material).**	TM	12/3/12	**A**	Text was revised to provide a complete list of proposed project features.	SH	12/14/12	DS
	4	-	26	**S**	**Section 7.3, 'Key View 1', paragraph c. Avoid using good/bad attributes (adjectives) as description of feature. Project features…include 'clean' fence lines. Remove reference to 'clean'.**	TM	12/3/12	**A**	Use of "good/bad" attributes was removed.	SH	12/14/12	DS
	5	-	27	**S**	**Section 7.3, 'Key View 1', paragraph e, 'Resulting Visual Impact'. (1) Change paragraph reference from 'e' to 'f'. (2) Change figure reference from '5' to '6'.**	TM	12/3/12	**A**	Paragraph reference was changed and figure reference was revised from 5 to 6	SH	12/14/12	DS
	6	-	29	**S**	**Section 7.3,'Key View 1 - Visual Simulation of the Proposed Project'. (1) Proposed retaining wall is shown without aesthetic texture. Delineate proposed texture. (2) Architectural character of fence on retaining wall should complement fencing on curb edge. Reconsider fencing style on retaining wall.**	TM	12/3/12	**A/D**	Aesthetic texture will be added to all walls (graffiti resistent texture). The simulations were revised to display a possible texture. Ultimate choice of aesthetic material and design will be decided by SANDAG during final design. Regarding fencing, the chain link fences on top of walls are design to prevent falls as well as preventing access onto private property. Fences that are planned not on the walls are just for access control, mostly to prevent users of the trail from accessing restricted areas of NCTD ROW. Due to cost constraints, much of the required fencing will be to be of the chain-link variety. In areas where the fencing is highly visible (e.g. adjacent to roads and train stations), wrough iron fencing will likely be used.	SH	12/14/12	DS
	7	-	30	**S**	**Section 7.3, 'Key View 2', paragraph b, 'Existing Visual Character/Quality'. Change reference to Table '2' to '4'.**	TM	12/3/12	**A**	Table number reference was revised from 2 to 4.	SH	12/14/12	DS
	8	-	30	**S**	**Section 7.3, 'Key View 2', paragraph c, 'Proposed Project Features'. Add complete list of proposed project features. Add curbs, narrowing city street, to accommodate bike path.**	TM	12/3/12	**A**	Text was revised to provide a complete list of proposed project features.	SH	12/14/12	DS
	9	-	30	**S**	**Section 7.3, 'Key View 2', paragraph d, 'Changes to Visual Quality/Character'. Change reference 'key view 1' to 'key view 2'.**	TM	12/3/12	**A**	Reference to key view was revised from 1 to 2.	SH	12/14/12	DS
	10	-	31	**S**	**Section 7.3, 'Key View 2', paragraph e, 'Viewer Response', Table 5 and Table 6. Revised numbering of notes.**	TM	12/3/12	**A**	Numbering of notes was revised.	SH	12/14/12	DS
	11	-	31	**S**	**Section 7.3, 'Key View 2', paragraph e, 'Resulting Visual Impact'. (1) Change paragraph reference from 'e' to 'f'. (2) Change figure reference from '7' to '8'.**	TM	12/3/12	**A**	Paragraph reference was changed and figure reference was revised from 7 to 8.	SH	12/14/12	DS
	12	-	34	**S**	**Section 7.3, 'Key View 3', paragraph b, 'Existing Visual Character/Quality'. Clarify location of 'transportation and residential landscape units'.**	TM	12/3/12	**A**	Locations of the transportation and residential landcover components were added to the document.	SH	12/14/12	DS

INLAND RAIL TRAIL PROJECT
REVIEW COMMENT/RESPONSE LOG

SEGMENT: **Inland Rail Trail Project - Local Assistance (SANDAG)**
REVIEW DOCUMENT: **Visual Impact Assessment**
SUBMITTAL NUMBER: **Review #1-CML5381(003)**
DATE OF SUBMITTAL **10/24/2012**
DATE COMMENTS RETURNED: **12/4/2012**

P:\1948_Inland_Rail_Trail\420 Env Stud\VIA\[Caltrans comments_Decemeber 2012.xls]Comment Matrix

REFERENCE				COMMENT				RESPONSE				
				Comment Codes: **S**=Suggested Correction; **Q**=Question; **G**=General Comment; **R**=Resubmit with Revised Info				Response Codes: **A**=Agree, will revise; **D**=Disagree, see explanation; **F**=Follow up required; **G**=General Response				
Mstr No.	Cmt No.	Dwg/Sec	Page/Sht	Code	Description	Org/By	Date	Code	Explanation	Org/By	Date	Verified By/Date
	13	-	34	**S**	**Section 7.3, 'Key View 3', paragraph b, 'Existing Visual Character/Quality'. Change reference to Table '3' to '7'.**	TM	12/3/12	**A**	Figure reference was revised from 3 to 7.	SH	12/14/12	DS
	14	-	35	**S**	**Section 7.3, 'Key View 3', paragraph e, 'Viewer Response', Table 8 and Table 9. (1) Revised numbering of notes. (2) Change figure reference from '9' to '10'.**	TM	12/3/12	**A**	Numbering of notes was revised and figure reference was revised from 9 to 10.	SH	12/14/12	DS
	15	-	35	**S**	**Section 7.3, 'Key View 3', paragraph e, 'Resulting Visual Impact'. (1) Avoid using good/bad attributes (adjactives) as description of feature. Formailized and 'clean' feature. Remove reference to 'clean'. (2) Final sentence of paragraph is confusing. Please reword.**	TM	12/3/12	**A**	Use of words "clean" and "formalized". Last second was reworded.	SH	12/14/12	DS
	16	-	37	**S,Q**	**Section 7.3, 'Key View 3 - Visual Simulation of the Proposed Project'. (1) Proposed retaining wall is shown without aesthetic texture. Delineate proposed texture. (2) Is the chainlink fencing proposed for access control or 'fall prevention'? Reconsider fencing type on retaining wall.**	TM	12/3/12	**A/D**	Aesthetic texture will be added to all walls (graffiti resistent texture). The simulations were revised to display a possible texture. Ultimate choice of aesthetic material and design will be decided by SANDAG during final design. Regarding fencing, the chain link fences on top of walls are design to prevent falls as well as preventing access onto private property. Fences that are planned not on the walls are just for access control, mostly to prevent users of the trail from accessing restricted areas of NCTD ROW. Due to cost constraints, much of the required fencing will be to be of the chain-link variety. In areas where the fencing is highly visible (e.g. adjacent to roads and train stations), wrough iron fencing will likely be used.	SH	12/14/12	DS
	17	-	38	**S**	**Section 7.3, 'Key View 4', paragraph b, 'Existing Visual Character/Quality'. Change reference to Table '4' to '10'.**	TM	12/3/12	**A**	Reference to Table 4 was revised to Table 10.	SH	12/14/12	DS
	18	-	39	**S**	**Section 7.3, 'Key View 4', paragraph e, 'Viewer Response', Table 11 and Table 12. Revised numbering of notes.**	TM	12/3/12	**A**	Numbering of notes was revised.	SH	12/14/12	DS
	19	-	39	**S**	**Section 7.3, 'Key View 4', paragraph e, 'Resulting Visual Impact'. Change figure reference from '11' to '12'.**	TM	12/3/12	**A**	Reference to Figure 11 was revised to Figure 12.	SH	12/14/12	DS
	20	-	41	**S**	**Section 7.3, 'Key View 4 - Visual Simulation of the Proposed Project'. Reconsider bike lane striping on existing enriched (interlocking) paving and concrete paving. Alternative design should be considered.**	TM	12/3/12	**D**	At this time, SANDAG plans to include the striping on the concrete to provide continuity for users of the trail. Other stations in San Marcos have similar striping. Additional discussion is ongoing regarding the separation of bicyclists from pedestrians accessing the train station. An alternative design will be considered to suit both aesthetic and safety concerns. The final decision will be made by SANDAG during final design.	SH	12/14/12	DS
	21	-	42	**S**	**Section 7.3, 'Key View 5', paragraph b, 'Existing Visual Character/Quality'. Change reference to Table '5' to '13'.**	TM	12/3/12	**A**	Table number reference was revised.	SH	12/14/12	DS
	22	-	43	**S**	**Section 7.3, 'Key View 5', paragraph e, 'Viewer Response', Table 14 and Table 15. Revised numbering of notes.**	TM	12/3/12	**A**	Numbering of notes was revised.	SH	12/14/12	DS
	23	-	45	**S**	**Section 7.3, 'Key View 5 - Visual Simulation of the Proposed Project'. (1) Proposed retaining wall is shown without aesthetic texture. Delineate proposed texture. (2) Reconsider fencing type on retaining wall.**	TM	12/3/12	**A/D**	Aesthetic texture will be added to all walls (graffiti resistent texture). The simulations were revised to display a possible texture. Ultimate choice of aesthetic material and design will be decided by SANDAG during final design. Due to cost constraints, much of the required fencing will be to be of the chain-link variety. In areas where the fencing is highly visible (e.g. adjacent to roads and train stations), wrough iron fencing will likely be used.	SH	12/14/12	DS
	24	-	46	**S**	**Section 7.3, 'Key View 6', paragraph b, 'Existing Visual Character/Quality'. Change reference to Table '6' to '16'.**	TM	12/3/12	**A**	Table number reference was revised.	SH	12/14/12	DS

INLAND RAIL TRAIL PROJECT
REVIEW COMMENT/RESPONSE LOG

SEGMENT: **Inland Rail Trail Project - Local Assistance (SANDAG)**
REVIEW DOCUMENT: **Visual Impact Assessment**
SUBMITTAL NUMBER: **Review #1-CML5381(003)**

DATE OF SUBMITTAL **10/24/2012**
DATE COMMENTS RETURNED: **12/4/2012**

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REFERENCE				COMMENT				RESPONSE				
				Comment Codes: **S**=Suggested Correction; **Q**=Question; **G**=General Comment; **R**=Resubmit with Revised Info				Response Codes: **A**=Agree, will revise; **D**=Disagree, see explanation; **F**=Follow up required; **G**=General Response				
Mstr No.	Cmt No.	Dwg/Sec	Page/Sht	Code	Description	Org/By	Date	Code	Explanation	Org/By	Date	Verified By/Date
	25	-	46	**S**	**Section 7.3, 'Key View 6', paragraph c. 'Proposed Project Features'. Add complete list of proposed project features. In addition to 'bridge over Buena Creek' include the following: bike path (AC paving); concrete barrier; chainlink and safety fencing.**	TM	12/3/12	**A**	Text was revised to provide a complete list of proposed project features.	SH	12/14/12	DS
	26	-	46	**S**	**Section 7.3, 'Key View 6', paragraph e, 'Viewer Response'. Final sentence of paragraph is confusing. Please reword.**	TM	12/3/12	**A**	Sentence was revised to the following, "Viewer sensitivity is also low. Passengers are the only viewer group and it is not predicted that the passengers will have much response to the change in the visual resources since views of the existing riparian area will still be available."	SH	12/14/12	DS
	27	-	46	**S**	**Section 7.3, 'Key View 6', paragraph e, 'Viewer Response', Table 17 and Table 18. Revised numbering of notes.**	TM	12/3/12	**A**	Numbering of notes was revised.	SH	12/14/12	DS
	28	-	49	**S**	**Section 7.3, 'Key View 6 - Visual Simulation of the Proposed Project'. (1) Proposed concrete barrier rail is shown without aesthetic texture on exterior surfaces. Delineate proposed texture.**	TM	12/3/12	**A**	Aesthetic texture will be added on all walls (graffiti resistent texture). The simulations were revised to display a possible texture. Ultimate choice of aesthetic material and design will be decided by SANDAG during final design.	SH	12/14/12	DS
	29	-	50	**S**	**Section 7.4, 'Summary of Project Impacts'. Review use of the term 'Landscape Units'. The term was not defined due to the transitional character of the project site. 'Viewshed' may be more appropriate.**	TM	12/3/12	**A**	Text was revised to reference viewsheds rather than landscape units.	SH	12/14/12	DS
	30	-	50	**S**	**Section 7.4, 'Summary of Project Impacts'. Revise reference from 'Table 7' to 'Table 19'.**	TM	12/3/12	**A**	Reference to Table 7 was revised to Table 19.	SH	12/14/12	DS
	31	-	51	**S**	**Section 7.4, 'Summary of Project Impacts', paragraph 2, second bulleted item. Change 'reminds' to 'remains'.**	TM	12/3/12	**A**	Typo was revised.	SH	12/14/12	DS
	32	-	53	**Q**	**Section 8.0, 'Visual Mitigation Measures'. Will the design and implementation of minimization measures require concurrence from 'District Landscape Architect'? Will Caltrans participate in the coordination of the planting palette and revegetation plan? Please confirm.**	TM	12/3/12	**G**	No, since the project is off-system, Caltrans will not need to participate in coordination or the planting palette or revegetation plan. The design and implementation of minimization measures will not require concurrence from the District Landscape Architect. SANDAG will have the landscping plans prepared by a certified Landscape Architect.	SH	12/14/12	DS
	33	-	54	**S**	**Section 8.0, 'Visual Mitigation Measures'. Final sentence of page is confusing. Please reword.**	TM	12/3/12	**A**	Sentence was revised to say, "Due to the nature of the project, the existing visual qualities of the landscapes, and implementation of the proposed measures, the project's visual impacts are anticipated to be minimal."	SH	12/14/12	DS
	34	-	55	**Q**	**Section 9.0, 'List of Preparers/Reviewers'. 'The following people/organizations were response in the review of this Visual Impact Assessment:'. Please clarify.**	TM	12/3/12	**A**	Sentence was revised to say, "The following people/organizations were responsible for the review of this Visual Impact Assessment."	SH	12/14/12	DS

INLAND RAIL TRAIL PROJECT
REVIEW COMMENT/RESPONSE LOG

SEGMENT: **Inland Rail Trail Project - Local Assistance (SANDAG)**
REVIEW DOCUMENT: **Visual Impact Assessment - Review Response to Comments** DATE OF SUBMITTAL **12/26/2012**
SUBMITTAL NUMBER: **Review #2-CML5381(003)** DATE COMMENTS RETURNED: **2/22/2013**

U:\02_local assistance\sandag_inland rail trail project\[sandag_inland rail trail_cml-5381-003-comments_2013-02-22.xls]Comment Matrix

REFERENCE				COMMENT				RESPONSE				
				Comment Codes: **S**=Suggested Correction; **Q**=Question; **G**=General Comment; **R**=Resubmit with Revised Info				Response Codes: **A**=Agree, will revise; **D**=Disagree, see explanation; **F**=Follow up required; **G**=General Response				
Mstr No.	Cmt No.	Dwg/Sec	Page/Sht	Code	Description	Org/By	Date	Code	Explanation	Org/By	Date	Verified By/Date
	6		29	**S**	**APPROVED RESPONSE. Acknowledge proposed use of decorative texture for retaining wall. Be advised, the texture shown on the visual simulation (Figure 6) indicates use of Mechanically Stabilized Earth (MSE) panel wall. This would not be a preferred wall type for this application. Please confirm with structural engineer. If this is not the preferred structure type, please revise simulation to more approximate wall type.**	TM	2/22/13					
	16		37	**S**	**APPROVED RESPONSE. Acknowledge proposed use of decorative texture for retaining wall. Be advised, the texture shown on the visual simulation (Figure 10) indicates use of Mechanically Stabilized Earth (MSE) panel wall. This would not be a preferred wall type for this application. Please confirm with structural engineer. If this is not the preferred structure type, please revise simulation to more approximate wall type.**	TM	2/22/13					
	20		41	**S**	**APPROVED RESPONSE. The issue involves both circulation conflicts and aesthetics. Include a general description in your 'VISUAL MITIGATION MEASURES' for this issue.**	TM	2/22/13					

INLAND RAIL TRAIL PROJECT
REVIEW COMMENT/RESPONSE LOG

SEGMENT: **Inland Rail Trail Project - Local Assistance (SANDAG)**
REVIEW DOCUMENT: **Visual Impact Assessment - Review Response to Comments** DATE OF SUBMITTAL **12/26/2012**
SUBMITTAL NUMBER: **Review #2-CML5381(003)** DATE COMMENTS RETURNED: **2/22/2013**

U:\02_local assistance\sandag_inland rail trail project\[sandag_inland rail trail_cml-5381-003-comments_2013-02-22.xls]Comment Matrix

REFERENCE				**COMMENT** Comment Codes: **S**=Suggested Correction; **Q**=Question; **G**=General Comment; **R**=Resubmit with Revised Info				**RESPONSE** Response Codes: **A**=Agree, will revise; **D**=Disagree, see explanation; **F**=Follow up required; **G**=General Response				
Mstr No.	Cmt No.	Dwg/Sec	Page/Sht	Code	Description	Org/By	Date	Code	Explanation	Org/By	Date	Verified By/Date
	23		45	**S**	**APPROVED RESPONSE. Acknowledge proposed use of decorative texture for retaining wall. Be advised, the texture shown on the visual simulation (Figure 14) indicates use of Mechanically Stabilized Earth (MSE) panel wall. This would not be a preferred wall type for this application. Please confirm with structural engineer. If this is not the preferred structure type, please revise simulation to more approximate wall type.**	TM	2/22/13					
	28		49	**S**	**APPROVED RESPONSE. Acknowledge proposed use of decorative texture for concrete barrier. Be advised, the texture shown on the visual simulation (Figure 16) indicates use of Mechanically Stabilized Earth (MSE) panel wall. This would not be a preferred wall/barrier type for this application. Generally, a galvanized or Corten steel safety fencing would be more appropriate for the existing visual character. Please confirm with civil engineer. If this is not the preferred structure type, please revise simulation to more approximate wall/fence typen.**	TM	2/22/13					