3.16 Aesthetics and Visual Resources

3.16.1 Introduction

This section describes the existing visual environment of the Fresno to Bakersfield Section, including scenic resources, and analyzes the potential impacts on aesthetics and visual resources that would result from the HST alternatives. This section also describes the regulatory setting, affected environment, impacts, and mitigation measures for aesthetics and visual resources. The *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2011) includes photographs of existing conditions and simulated views at key locations; it also provides additional information on aesthetics and visual resources.

Aesthetics and visual resources are the natural and cultural landscape features that people see and that contribute to the public's appreciative enjoyment of the environment. Aesthetic and visual resource impacts are generally defined in terms of the extent to which the project's physical characteristics and potential visibility would change the perceived visual character and visual quality of the viewed landscape. Section 3.13, Station Planning, Land Use, and Development, provides information on issues related to land use compatibility.

The Statewide Program EIR/EIS (Authority and FRA 2005) concluded that the HST Project would have low potential to result in visual impacts on aesthetic and visual resources in the Central Valley, with the exception of changes at the HST stations. However, project-level analysis indicated that visual impacts would occur in both rural and urban portions of the project. Overall, the HST alternatives incorporate design solutions that would lead to development of attractive project facilities. The facilities are expected to integrate into the landscape context, such that view blockage, contrast with settings, light and shadow effects, and other visual impacts would be minimized. Where possible, the design is at-grade, which would reduce view blockage and intrusion from aerial structures. It would also follow existing transportation corridors, reducing changes in visual character.

3.16.2 Laws, Regulations, and Orders

The following federal, state, and local laws, regulations, and agency jurisdiction and management guidance apply to this resource. Consideration of potential impacts to the existing visual environment is informed by federal, state, and local rules and policies. These rules and polices focus on preserving visual quality, minimizing conflicts, improving aesthetic character, and mitigating adverse effects. The federal, state, and local regulations and policies that affect this project are listed below, with a brief explanation.

A. FEDERAL

Department of Transportation Act, Section 4(f) [DOT Act 49 U.S.C.303]

The DOT Act became law on October 15, 1966. It is aimed to preserve the natural beauty of the countryside, public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

National Historic Preservation Act [16 U.S.C. Section 470 et seq.]

The NHPA establishes the federal government policy on historic preservation. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. Potential adverse effects include change in the physical features of the property's setting that contribute to its historic significance, or introduction of visual elements that diminish the integrity of the property's significant historic features.

Federal Highway Administration [23 U.S.C. 109(h) and 23 CFR Part 771]

In its implementation of NEPA, the FHWA has developed specific guidance for the evaluation of visual impacts of highway projects; this guidance is discussed at length in the Methods for Evaluating Impacts section below.

B. STATE

State Scenic Highways [California Streets and Highways Code Sections 260 to 263]

The State Scenic Highways Program lists highways that are either eligible for designation as a scenic highway or already are designated as a scenic highway. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view (Caltrans 2010). Because no designated state scenic highways are located within the HST alignments, they are not discussed further in this section.

C. LOCAL AND REGIONAL

Several city and county plans, including general plans, downtown master plans, community plans, and specific plans address aesthetic and visual resources. Policies and regulations include design guidelines, designated scenic corridors/routes, and identify areas of particular scenic value. Table 3.16-1 outlines the policies related to aesthetics and visual resources from Central Valley plans. These local plans and policies were identified and considered in the preparation of this analysis.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
Fresno County	
Fresno County, Fresno County General Plan, Agriculture and Land Use Element, Policy LU-B.11 (Fresno County 2000a, 2-22)	This policy indicates that new development requiring a County discretionary permit must be planned and designed to maintain the scenic open space character of rangelands, including views corridors of highways.
Fresno County, Fresno County General Plan, Open Space and Conservation Element, Goal OS-K, Policies OS-K.1 through OS-K.4 (Fresno County 2000b, 5-33)	This goal and these policies are concerned with conservation, protection, and maintenance of scenic quality and development that degrades areas of scenic quality. Policies in this section identify methods to achieve this goal, including encouraging private property owners to enter into open space easements; purchasing sites for park use; requiring development adjacent to scenic areas and roadways to incorporate natural features of the site; and requiring development to minimize impacts to scenic qualities. A system of scenic roadways that includes landscaped drives, scenic drives, and scenic highways is also identified.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
City of Fresno	
City of Fresno, Fresno 2025 General Plan, Urban Form Element, Policy 3-C-a, Objective C-5, Policy C-5-a, Objective C-18, Policies C-18-a, C-18-b, C-18-h, C-18-j, Objective C-20, and Policy C-20-e (City of Fresno Planning and Development Department 2002, 34-35, 47-49)	The objectives and policies are concerned with improving the overall image in the Fresno Central Plan Area. This includes, but is not limited to, enhancing the visual image of all "gateway" routes entering the Fresno metropolitan area, such as passenger rail rights-of-way. Properties adjacent to both side of a gateway are to provide a sense of entry and transition, and serve as initial information points for visitors. Gateways are to include more prominent landscaping, special lighting, orientation signs, and symbols or logos. Unsightly land uses are restricted, or subject to special design/buffering standards. Emphasis is on site and building design in order to preserve functionality and community aesthetics.
City of Fresno, Fulton Corridor Specific Plan and the Downtown Neighborhoods Community Plan (City of Fresno 2010)	In January 2010, the City of Fresno began preparation of two new plans for the portions of Downtown Fresno potentially affected by the project. These include: the Fulton Corridor Specific Plan, covering the area of downtown in which the project is located; the Downtown Neighborhoods Community Plan, covering the surrounding residential areas. Completion of the Fulton Corridor Specific Plan is anticipated in early 2011 and adoption in 2012. Policies of that plan applicable to the project, including the Fresno downtown station, will then supersede the existing 1996 Fulton-Lowell Specific Plan and 1989 Central Area Community Plan, and add specificity to policies currently in place under Urban Form Element.
Kings County	
Kings County, County of Kings 2035 General Plan, Open-Space Element, Scenic Resources OS Goal B1, OS Objectives B1.1 to B1.3 (Kings County Planning Department 2010a, OS-13, OS-14)	The open space policies for scenic resources are concerned with maintaining and protecting the scenic beauty of Kings County. Objectives and policies in this section include protection and enhancement of roadways which cross scenic areas or serve as scenic entranceways to cities and communities.
Kings County, County of Kings 2035 General Plan, Resource Conservation Element, RC Goal D3, RC Objective D3.1, RC Policy D3.1.3 (Kings County Planning Department 2010b, RC-47, RC-48)	The Resource Conservation Element includes objectives and policies concerned with protection of scenic qualities in riparian environments. Conservation of fish and wildlife habitat and protection of scenic qualities are to be guiding principles when potential impacts on riparian environment are evaluated.
City of Corcoran	
City of Corcoran, Corcoran General Plan 2025, Land Use Element, Objective B, Policies 1.4, 1.37, and 1.41 (City of Corcoran 2007, 1-2, 1-3, and 1-10)	Objectives and policies include maintaining and enhancing Corcoran's visual qualities. Scenic entryways (gateways) and roadway corridors are to be developed into the City, including the Whitley Avenue corridor. Special setback and landscape standards, entry signage, open space and park development, and/or land use designations are to be included. Industrial development is not to create significant offsite circulation, noise, dust, odor, visual, and hazardous materials impacts that cannot be adequately mitigated.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
Tulare County	
Tulare County, Tulare County General Plan 2030 Update, Land Use, Policy LU-5.6, Goal LU-7, Policies LU-7.6 and LU-7.12 (Tulare County 2010, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	The Land Use goals and policies provide provisions regarding industrial uses and preservation of the character and scale of Tulare County's communities, among other things. Policy LU-5.6 prohibits new heavy industrial uses to a minimum of 500 feet from schools, hospitals, or populated residential areas, unless mitigated. Policy LU-7.6 requires landscaping to adequately screen new industrial uses, to minimize visual impacts. Policy LU-7.12 encourages preservation of buildings and areas with special and recognized historic, architectural, or aesthetic value.
Tulare County, Tulare County General Plan 2030 Update, Scenic Landscapes, Goal SL-1, Policies SL-1.1, SL-1.2, and SL-4.3 (Tulare County 2010, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	The Scenic Landscape goals and policies emphasize the enhancement and preservation of scenic landscapes in the County. Goal SL-1 is to protect and feature the beauty of working and natural landscapes. Policy SL-1.1 requires new development to not significantly impact or block views of natural landscapes by minimizing obstruction of views from public lands and rights-of-ways, keeping development below ridge lines, blending structures into the landscape, screening parking areas from view, including landscaping that screens the development, limiting the impact of new roadways and grading on natural settings, and including signage that is compatible and in character with the location and building design. Policy SL-1.2 requires that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds, be designed to reference traditional agricultural building forms and materials, screen and break up parking and paving with landscaping, and minimize light pollution and bright signage. Policy SL-4.3 encourage rail infrastructure to be planned and designed to limit visual impacts on scenic landscapes by concentrating infrastructure in existing railroad rights-of-ways, by avoiding additional grade separated crossings in viewshed locations, and by Using new transit stations supporting rail transit as design features in existing and future core community areas.
Tulare County, Tulare County General Plan 2030 Update, Corridors Framework Plan, Policy C-1.3 (Tulare County 2010, Part 1: 4-30, 4-31, 4-32, 7-3, 7-8, and Part II: 2-1)	Policy C-1.3 supports the development and adoption of scenic corridor protection plans that protect and enhance the scenic qualities of major transportation routes.
Kern County	
Kern County, Kern County General Plan, Land Use, Open Space, and Conservation Element; Industrial Policies 6 and 7; General Provisions 47, 48, 49, and 66 (Kern County Planning Department 2007b, 48, 71, 72, and 74)	These policies outline measures for upgrading the visual character of existing industrial areas through the use of landscaping, screening, or buffering; for including design features in industrial areas such as screen walls, landscaping, increased height and/or setbacks, and lighting restrictions so as to reduce impacts on residences due to light, noise, sound, and vibration; for ensuring that light and glare from discretionary new development projects are minimized in rural as well as urban areas; for encouraging the use of low-glare lighting; for incorporating aesthetically pleasing and unifying design features that promote a visually pleasing environment; and for promoting the conservation of oak tree woodlands for their environmental value and scenic beauty.

Table 3.16-1
Summary of Local Plans and Policies

Policy Title	Summary
Kern County, Kern County General Plan, Circulation Element, Scenic Route Corridors Policy 2 (Kern County Planning Department 2007a, 105)	The Circulation Element of the Kern County General Plan contains a scenic route corridors section which focuses primarily on State-designated routes within the County. Policy 2 stipulated that various methods of protecting, and enhancing the scenic qualities of land and uses within the boundaries of a scenic route corridor be devised and carried out.
Kern County, Kern County General Plan, Kern River Plan Element, Open Space Versus Development Policies 3, 4, 5, 6, and 8 (Kern County Planning Department 1985, Section 3.2.3: 4-5)	The Kern River Plan Element was adopted in 1985 as a part of the General Plans of both the City of Bakersfield and Kern County. Specific policies regarding the aesthetics of Kern River require that buildings, structures, and vegetation be constructed, installed, or planted in a manner that minimizes obstruction of scenic views from highways, streets, trails, parks, or beach areas; land developments which would detract from scenic quality be screened by vegetation, fencing, or landscaped berms, or be located in a reasonably inconspicuous manner; natural topography, vegetation, and scenic features be retained to the greatest feasible extent in development along the River; grading or earthmoving within the secondary floodway blend with existing topography, and that vegetation subsequently be reestablished where it does not conflict with channel maintenance and recharge facilities; building heights and setbacks not significantly obstruct River views; and that structural improvements be set back as far as possible from the primary floodway line.
City of Wasco	
City of Wasco, City of Wasco General Plan Policies Statement, Land Use Element, Objective A, Policies 1 and 8 (City of Wasco 2010, 2.0-1)	Objectives and policies include maintaining and enhancing Wasco's visual qualities. The Central Business District is to be maintained as the geographical center of the community and aesthetics along the BNSF Railroad gateway into downtown are to be improved.
City of Shafter	
City of Shafter, City of Shafter General Plan, Land Use Organization, Policy 5 (City of Shafter 2005)	This policy emphasizes the "entry" function of lands adjacent to the Lerdo Highway and 7th Standard Road interchanges along State Route 99, including lands adjacent to Shafter Airport, promoting uses that present a positive image of the community.
City of Bakersfield	
City of Bakersfield, Metropolitan Bakersfield General Plan, Land Use Element, Policies 70 and 71 (City of Bakersfield 2007a, II-15)	These policies promote the establishment of attractive entrances into communities, major districts, and transportation terminals, centers, and corridors within the planning area and encourage landscaping on banks of flood control channels, canals, roadways and other public improvements with trees to provide a strong visual element in the planning area.
City of Bakersfield, Metropolitan Bakersfield General Plan, Open-Space Element, Policy 5 (City of Bakersfield 2007b, VI-5)	This policy indicates that development location should be sensitive to its relationship to the Kern River.

3.16.3 Methods for Evaluating Impacts

A visual resource is a site, object, or landscape feature that contributes to the visual character of the surrounding area or is important because of its visual characteristics or scenic qualities. For this discussion, visual resources also include designated scenic routes and views toward and

within natural areas, parks, and urban areas identified as having historical or cultural significance or that include buildings of similar significance or notable, landmark status. Policy documents, cultural resource reports, or observations of scenic value and apparent popularity during fieldwork directed the list of visual resources.

The methodology used to evaluate aesthetics and visual quality impacts follows federal guidelines provided in the *Visual Impact Assessment for Highway Projects* (FHWA 1988) and California Department of Transportation guidelines provided in the *Standard Environmental Reference* (Caltrans 2007). The FHWA visual impact assessment methodology provides an approach and the terminology for analyzing both visual quality and viewer response for transportation corridors. Chapter 27 of the *Standard Environmental Reference* provides an overview of the visual and aesthetics review process that Caltrans uses; Chapter 27 references the FHWA methodology for visual impact assessment.

The FHWA visual impact assessment methodology for visual impact assessment includes the following components:

- Define the project setting and viewshed.
- Determine who has views of the proposed project.
- Identify key viewpoints (KVPs) and views for visual assessment.
- Analyze changes in existing visual resources and viewer response.
- Depict the visual appearance with the project.
- Assess the project's visual impacts.
  Propose methods to mitigate adverse visual impacts.

Change to the visual quality of each KVP was determined by applying the FHWA visual quality analysis system, using the visual quality analyst's professional judgment and familiarity with the Merced to Fresno Section of the HST System. The analyst also reviewed engineering drawings of project components, aerial images, and examined visual simulations of the KVPs. The determination of the impacts on the entire landscape unit was based in large part upon the impacts on the KVPs within the landscape units but also included the analyst's review of engineering drawings of project components within the entire landscape unit and on-the-ground familiarity with the landscape units within the Merced to Fresno Section of the HST System. The following describes terms and concepts that are used when evaluating the visual impacts associated with long, linear transportation projects, such as the Fresno to Bakersfield Section of the HST System.

Landscape Units are used to "break up" long linear projects into logical geographic entities for which impacts from a proposed project can be assessed. These units generally have broadly similar visual characteristics (or character), although the visual characteristics of specific locations within each landscape unit may differ from the overall unit's character. In order to assist in characterizing the existing visual conditions of the landscape units, and to assist in determining impacts on them, KVPs are used to provide examples of existing views of the landscape within each landscape unit. KVPs are also used to illustrate how a proposed project would change those views. KVPs represent specific locations within a landscape unit from which a proposed project would be visible. These locations are typically selected to either represent (1) "typical" views from common types of viewing areas from which a proposed project could be seen by viewers of high visual sensitivity, such as certain highways or residential areas with high exposure to the project, or (2) specific high-sensitivity areas such as parks, scenic viewpoints, and historic districts that may be impacted by a proposed project. KVPs are very useful for depicting the range of visual character and visual quality found within a landscape unit. The views from KVPs selected for analysis serve as site-specific examples of existing visual conditions so analysts can simulate the view with the proposed project in place to assess impacts.

Visual or landscape character is an impartial description of what the landscape consists of and is defined by the relationships between the existing visible natural and built landscape features. These relationships are considered in terms of dominance, scale, diversity, and continuity. Visual character-defining resources and features include landforms, vegetation, land uses, buildings, transportation facilities, overhead utility structures and lighting, open space, viewpoints and views to visual resources, water bodies, historic structures, downtown skylines, and apparent upkeep and maintenance of property. Examples of types of visual or landscape character found along the Merced to Fresno Section of the HST System include irrigated row crop agriculture, industrial, automobile-oriented retail shopping centers, single-family residential, undeveloped vacant lots, downtown business district, and parks.

Viewer groups within the study area represent such people as roadway/highway/rail users, residents, commercial viewers, office viewers, park and trail users, and agricultural and industrial workers. Sensitivity to visual change varies among viewer types, and sensitivity to views, along with the degree of project visibility or visual exposure, affects the viewer response.

Low viewer sensitivity exists when there are few viewers who experience a defined view or they are not particularly concerned about the view, such as a commuter on the freeway. High viewer sensitivity exists when there are many viewers who have a view frequently or for a long duration, as well as viewers (many or few), such as those in a residential neighborhood, who are likely to be very aware of and concerned about the view (FHWA 1988). Generally, residents and recreationists are highly sensitive viewers; local business staff and commuters are less sensitive viewers, although viewer sensitivity in established downtown areas can be high. In these areas–particularly in parks or along pedestrian-oriented sidewalks–viewers are likely to have expectations of a built environment particular to an identifiable urban core, including specific structures; expectations related to such views leads to higher viewer sensitivity. The FHWA visual quality analysis system recognizes that most views are seen by a variety of viewer types with different sensitivities to changes in the viewed landscape. The FHWA system uses the most sensitive viewer type as the basis for determining the potential impact of a proposed project on viewers.

Visual quality is an assessment of the composition of the character-defining features of the landscape. Under the FHWA visual quality analysis system, visual quality is determined by evaluating the viewed landscape's characteristics in terms of vividness, intactness, and unity (which are defined below). Visual quality is rated as very low, low, moderately low, moderate, moderately high, high, or very high. To determine overall visual quality, the vividness, intactness, and unity of a viewed landscape are rated and the ratings of these three factors determine the overall visual quality. The *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2011) includes the ratings that were done for the KVPs. The following three factors determine visual quality:

- Vividness is the degree of drama, memorability, or distinctiveness of the landscape components as seen in a particular view.

- Intactness is a measure of the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes, as well as in natural settings. High intactness means that the landscape is free of unattractive features, and out-of-place features and elements do not break up the landscape. Low intactness means that visual elements in a view are unattractive or detract from the view's quality.

- Unity is the landscape's degree of visual coherence and compositional harmony considered as a whole. High unity frequently attests to the careful design of individual components and their relationship in the landscape or an undisturbed natural landscape.

The existing visual quality of the study area was determined by analysts familiar with the FHWA methodology and who visited the study area on several occasions. Section 3.16.4.B (Landscape Units, Key Viewpoints, and Existing Visual Quality) describes how the existing visual quality categories for the study area were determined.

Changes in visual quality and the sensitivity of people who view the impacted landscape determine the level and degree of impact of a proposed project. For this project, level of impact was determined for KVPs according to the following:

- If there were a change in visual quality category of two categories or more (for example, from high to moderate) and the changes were viewed by people with high or moderate viewing sensitivity, the impact was considered to be significant for the CEQA determination and substantial for the NEPA determination.
- If a change in visual quality of one or more categories occurred (for example, high to moderately high, or moderate to low) in an area where people with high viewer sensitivity would see it, the impact was considered to be significant for the CEQA determination and substantial for the NEPA determination.
- If viewers with moderate to low sensitivity observed a change of one visual quality category, the impact would be considered to be less than significant for the CEQA determination and negligible or moderate for the NEPA assessment.
- Changes in visual quality observed by people with low viewer sensitivity were assumed to have impacts that would be less than significant for the CEQA determination and negligible or moderate for the NEPA assessment.

In many landscape units (and KVPs) the presence of the alternatives would alter visual quality, but not enough to lower the visual quality category. These impacts would be considered to be less than significant for the CEQA determination and negligible or moderate for the NEPA determination.

A. METHOD FOR EVALUATING EFFECTS UNDER NEPA

Pursuant to NEPA regulations (40 CFR 1500-1508), project effects are evaluated based on the criteria of context and intensity. Context means the affected environment in which a proposed project occurs. Intensity refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved, location and extent of the effect, duration of the effect (short- or long-term), and other consideration of context. Beneficial effects are identified and described. When there is no measurable effect, impact is found not to occur. Intensity of adverse effects are summarized as the degree or magnitude of a potential adverse effect where the adverse effect is thus determined to be negligible, moderate, or substantial. It is possible that a significant adverse effect may still exist when on balance the impact is negligible or even beneficial. For aesthetics and visual resources, the terms are defined as follows:

The level (negligible, moderate, or substantial) of impact under NEPA was determined based on FHWA methodology (see Section 3.16.3, above, for detailed methodology). The impact assessment evaluated the degree to which the proposed project would change the existing visual quality category of a viewed landscape and considered the viewer sensitivity (high, moderate, and low) of people who would view the proposed project in the landscape. *Substantial* is defined as a change in the existing visual quality category by (a) two or more categories (for example, from high to moderate or moderate to low) in an area where people with high or moderate viewing sensitivity would see it; or (b) one category in an area where people with high viewing sensitivity would see it. *Moderate* is defined as a change in the existing visual quality category by one category (for example, high to moderately high or moderately low to low) in an area where

people with moderate viewer sensitivity would see it. *Negligible* is defined as (a) a change in the existing visual quality category by one or more visual quality categories in an area where people with low viewer sensitivity would see it; or (b) areas where the proposed project would not change the existing visual quality categories and would be seen by viewers with high, medium, or low viewing sensitivity.

B. CEQA SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines indicates that the project would result in a significant impact on aesthetics and visual quality in the following instances:

- The project would have a substantial adverse impact on a scenic vista.
- The project would substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historical buildings within a state scenic highway.
- The project would substantially degrade the existing visual character or quality of the site and its surroundings. (See "Visual Quality" paragraph in Section 3.16.3, above, for additional discussion regarding determination of degree of impact under CEQA.)
- The project would create a new source of substantial light or glare, which would adversely affect day or nighttime area views.

A significant impact would also occur if the project were to (1) introduce elements that would conflict with the visual character of a historic district, state-, or federally listed or eligible historic property, or (2) substantially affect a feature or area identified as an important visual resource. By contrast, the project would be considered to result in a beneficial visual impact if it eliminates a dominant feature in the landscape that currently detracts from scenic qualities or blocks scenic vistas. In addition, a significant impact would occur when the visual quality of the landscape changed two or more categories and was viewed by viewers with moderate to high sensitivity; or changed one category and was viewed by viewers with high sensitivity

C. STUDY AREA

The study area for aesthetics and visual resources is the project's viewshed (i.e., the area that could potentially have views of the project features, and the area potentially viewed from the project). The Fresno to Bakersfield Section of the HST System is located on mostly flat terrain and includes agricultural and urbanized areas. Viewing distances toward the corridor vary throughout the study area. In agricultural and other open areas, the corridor is visible over extensive areas due to the general scarcity of buildings and tall vegetation that could block views. In these areas the study area is considered to be all areas within 0.5 mile of the alignment centerline from which the corridor would be visible. In urbanized areas views toward the corridor are often more restricted by the presence of buildings and tall vegetation. Therefore, the study area in urbanized areas encompasses the area within 0.25 mile of both sides of the centerline of the alignment from which the corridor would be visible.

3.16.4 Affected Environment

This section discusses the affected environment for study area aesthetics and visual resources. Existing visual resources are inventoried and the landscape units into which the study area has been divided for this analysis are described. The Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report (Authority and FRA 2011) includes photographs and simulation of the HST project for each KVP; it also provides additional information on aesthetics and visual resources. There are no applicable regional plans or policies pertaining to aesthetics and visual resources within the Fresno to Bakersfield Section study area.

A. INVENTORY OF VISUAL RESOURCES

For this discussion, visual resources include designated scenic routes; views toward/within natural areas; parks; and urban areas that have been identified as having historical or cultural significance or that include buildings of similar significance or landmark status. These visual resources have been identified in planning and policy documents, in cultural resource reports, or in evaluations of scenic quality and apparent public popularity during field work related to aesthetics and visual resources. The selection of KVPs for this analysis was based on these visual resources, as seen by identified sensitive viewer groups.

Section 3.16.5, Environmental Consequences, reviews the effects of the project on 24 KVPs, some of which lie within or near the visual resources described below. (Refer to Section 3.16.5[B] to see photos and simulations of representative KVPs used for the visual analysis from each landscape unit.) Photos and simulations for KVPs that are not included in this section may be seen in the *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2011).

Fresno to Bakersfield Section of the HST System Visual Resources

Downtown Fresno. Several buildings of historical and cultural significance exist in Downtown Fresno, and portions of the downtown area are designated historic districts. The Southern Pacific Depot is adjacent to the UPRR right-of-way and is listed on the National Register of Historic Places. The Pantages/Warnors Theater, San Joaquin Light and Power Building, and the Bank of Italy/Bank of America Building are in the National Register of Historic Places, which is the official list, managed by National Parks Service, of the nation's historic places worthy of preservation. These buildings lie along the Fulton Mall, within approximately 0.25 mile of the proposed HST alignment. Fulton Mall is a six-block-long outdoor pedestrian mall and has been nominated for listing in the National Register of Historic Places. Chukchansi Stadium attracts large numbers of visitors and directly faces the proposed HST alignment and station site. Chinatown, though not listed in the National Register, contains eligible state and national historic sites and directly faces portions of the proposed Downtown Fresno HST station site.

Rural San Joaquin Valley. Panoramic views toward the Sierra Nevada are among the aesthetic and visual resources present throughout the Central Valley. Other natural aesthetic amenities in the area include rivers, and vast areas comprising a mix of orchards and open field crops.

Kings River, Tule River, Cross Creek, and Poso Creek. The project would cross these four streams. The riparian forest canopy of these streams is a highly distinctive natural element of the San Joaquin Valley (also known as the Central Valley) landscape.

Downtown Corcoran, Wasco, and Shafter. The BNSF Alternative Alignment would pass through the centers of these towns. Each town includes a visually intact, historic town center located within the visual foreground of the BNSF Alternative Alignment, as well as nearby parks and residential areas.

Colonel Allensworth State Historic Park. The BNSF Alternative Alignment would adjoin the eastern boundary of this National Register historic site. The integrity of the highly intact rural landscape setting is considered critical to the site's historic value, as described later in this section.

Kern River and Parkway. The project alignments would cross the Kern River west of Downtown Bakersfield. The Kern River Parkway is an important scenic and recreational resource of the city, with trails, landscape improvements, habitat restoration areas, and active recreation facilities. Portions of the Greenhorn and Tehachapi Mountains are visible from within the

parkway. The Kern River Plan Element, a portion of the city General Plan, identifies the river as "the single most valuable visual resource in the southern San Joaquin Valley."

Downtown Bakersfield. The BNSF Alternative Alignment would cross portions of Bakersfield High School, an eligible National Register historic site. The alignment also adjoins the Truxtun Avenue corridor, the core of Downtown Bakersfield, and location of numerous civic, governmental, and commercial destinations.

B. LANDSCAPE UNITS, KEY VIEWPOINTS, AND ESTABLISHING EXISTING VISUAL QUALITY CATEGORIES

This section describes the landscape units in the study area. These landscape units are the smaller geographic units that were used for determining project impacts. This section also describes the KVPs and explains how existing visual quality categories were determined. The following landscape units were identified between Fresno and Bakersfield for each HST alternative:

- BNSF Alternative
  - City of Fresno: Central Fresno (Central Business District/Chinatown) Landscape Unit
  - City of Fresno: South Fresno Landscape Unit
  - San Joaquin Valley Rural/Agricultural Landscape Unit
  - Riparian/River Crossing Landscape Units (Kings and Tule rivers; Cross and Poso creeks)
  - Rural City/Town Landscape Units (Corcoran, Wasco, Shafter)
  - Colonel Allensworth State Historic Park Landscape Unit
  - City of Bakersfield: Greenacres/Rosedale Landscape Unit
  - City of Bakersfield: Kern River Landscape Unit
  - City of Bakersfield: Central Bakersfield Landscape Unit

- Corcoran Elevated Alternative
  - Rural City/Town (Corcoran) Landscape Unit

- Corcoran Bypass Alternative Alignment
  - San Joaquin Valley Rural/Agricultural Landscape Unit

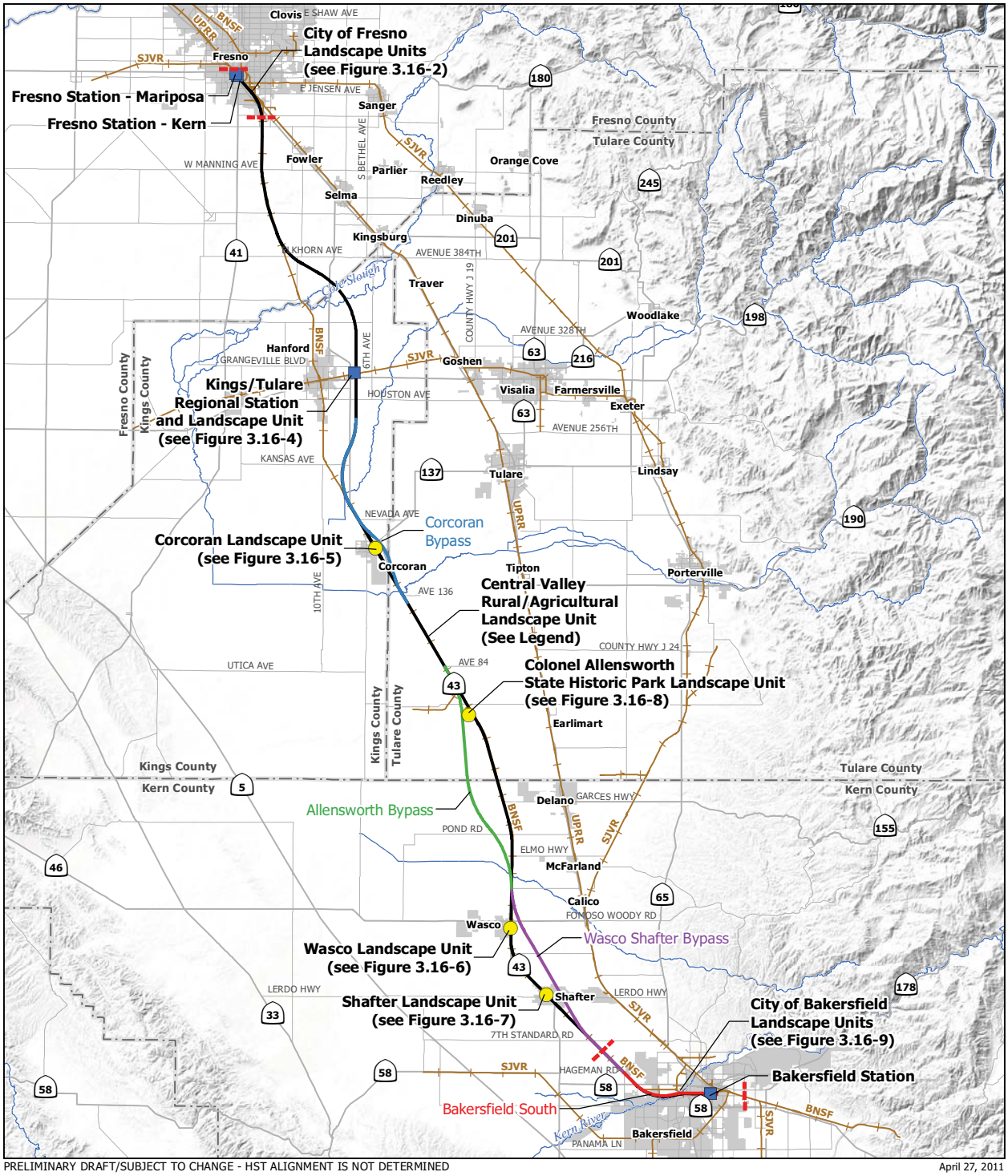
- Allensworth Bypass Alternative Alignment
  - Colonel Allensworth State Historic Park Landscape Unit
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Wasco-Shafter Bypass Alternative Alignment
  - San Joaquin Valley Rural/Agricultural Landscape Unit

- Bakersfield South Alternative Alignment
  - City of Bakersfield: Central Bakersfield Landscape Unit

- Heavy Maintenance Facility Sites (Fresno Works–Fresno, Kings County–Hanford, Kern Council of Governments–Wasco, Kern Council of Governments–Shafter East, and Kern Council of Governments–Shafter West alternatives)
  - San Joaquin Valley Rural/Agricultural Landscape Unit

Figure 3.16-1 shows the general location of each landscape unit in their larger context. Figures 3.16-2 through 3.16-12 show close-ups of the landscape units, with the location and view



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

April 27, 2011

Source: URS, 2011

- Wasco-Shafter Bypass
- BNSF Alternative
- Corcoran Bypass
- Allensworth Bypass
- Bakersfield South
- Landscape unit
- Station
- Landscape unit division
- Existing rail line
- Community/Urban area
- County boundary

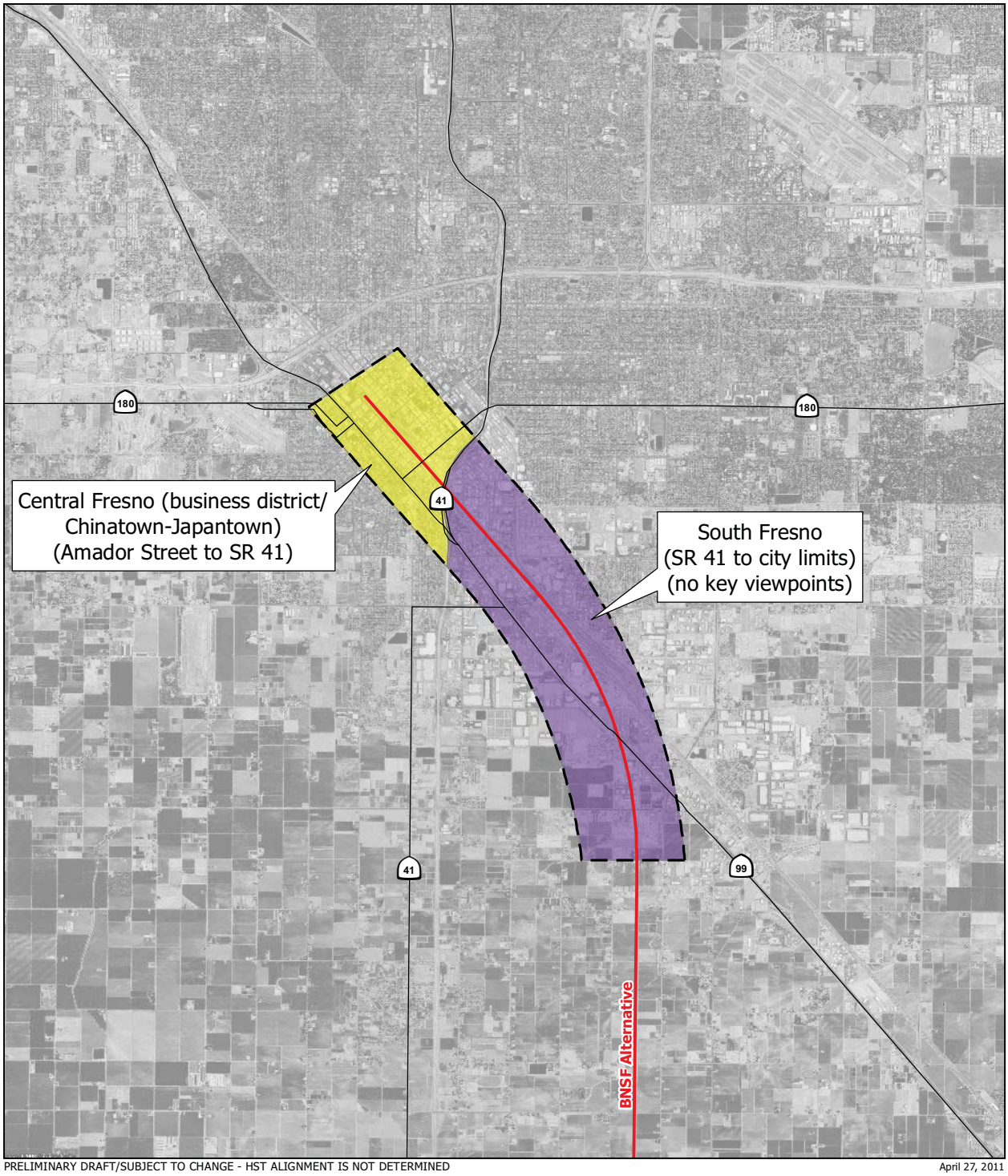
Note: Central Valley Rural/Agricultural Landscape Units extend from City of Bakersfield to the City of Fresno.

N

0 5 10 Miles

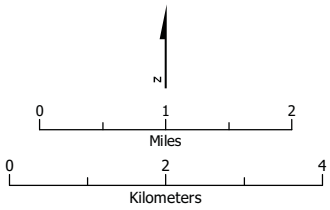
0 10 20 Kilometers

Figure 3.16-1
Fresno to Bakersfield alignments and landscape units



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: Environmental Data Resources, 2011; URS, 2011.

April 27, 2011



Central Fresno
South Fresno
Aesthetics and visual quality study area
Alternative alignments
Highway

Figure 3.16-2
City of Fresno landscape units

PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2010; DigitalGlobe Imagery, 2009

April 27, 2011

Key viewpoint

Existing visual quality of view

- Low
- Moderate-Low
- Moderate-High

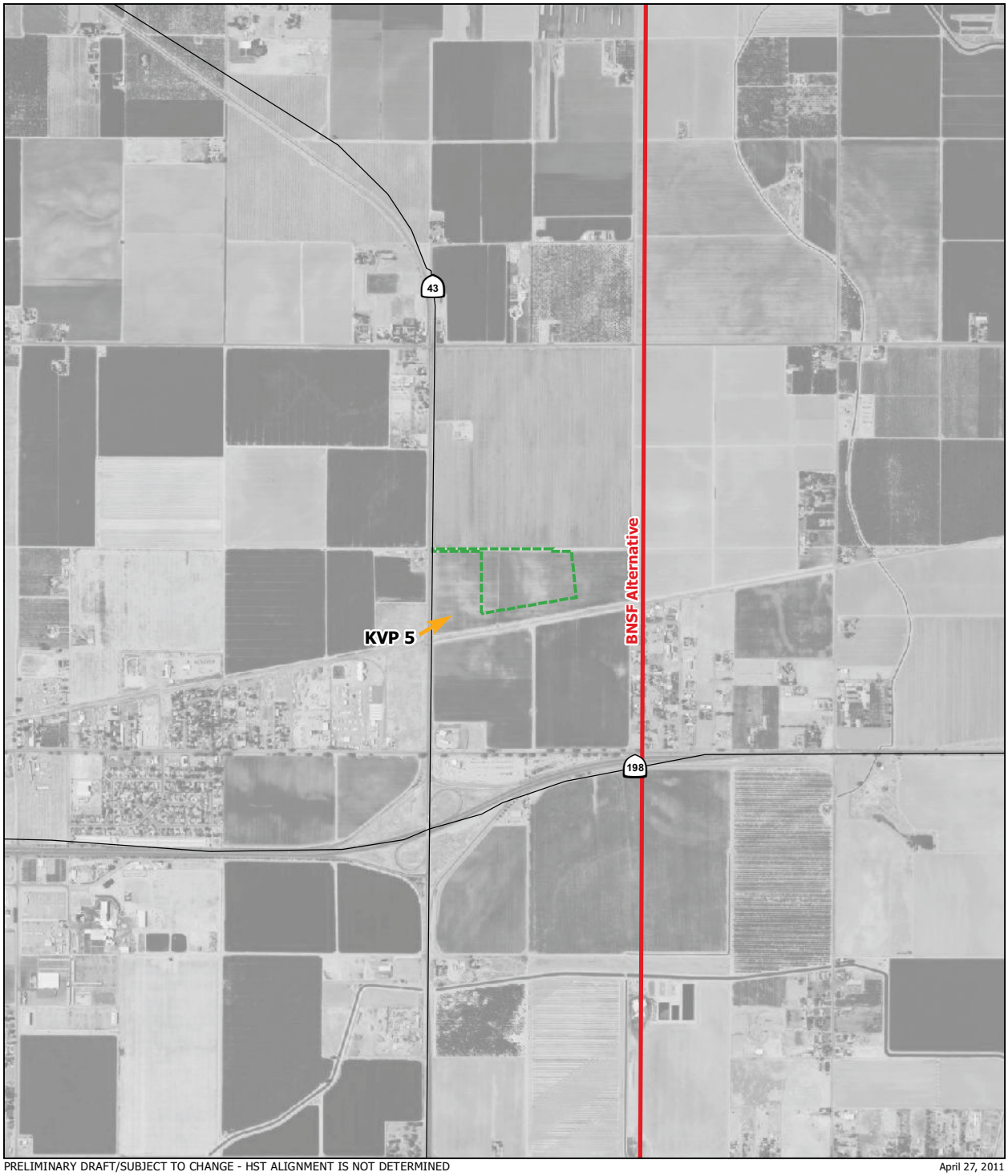
- Alternative alignments
- Highway
- General land-use types within viewshed
- landscape unit limit

N

0 500 1,000
Feet

0 250 500
Meters

Figure 3.16-3
Key viewpoints: Central Fresno landscape unit



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2010; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 500 1,000
Feet

0 250 500
Meters

Key viewpoint

Existing visual quality of view

Moderate

Alternative alignment

Highway

Potential Kings/Tulare regional station

Figure 3.16-4
Key viewpoint: Potential Kings/Tulare Regional Station

PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 200 400
Feet

0 100 200
Meters

Key viewpoint

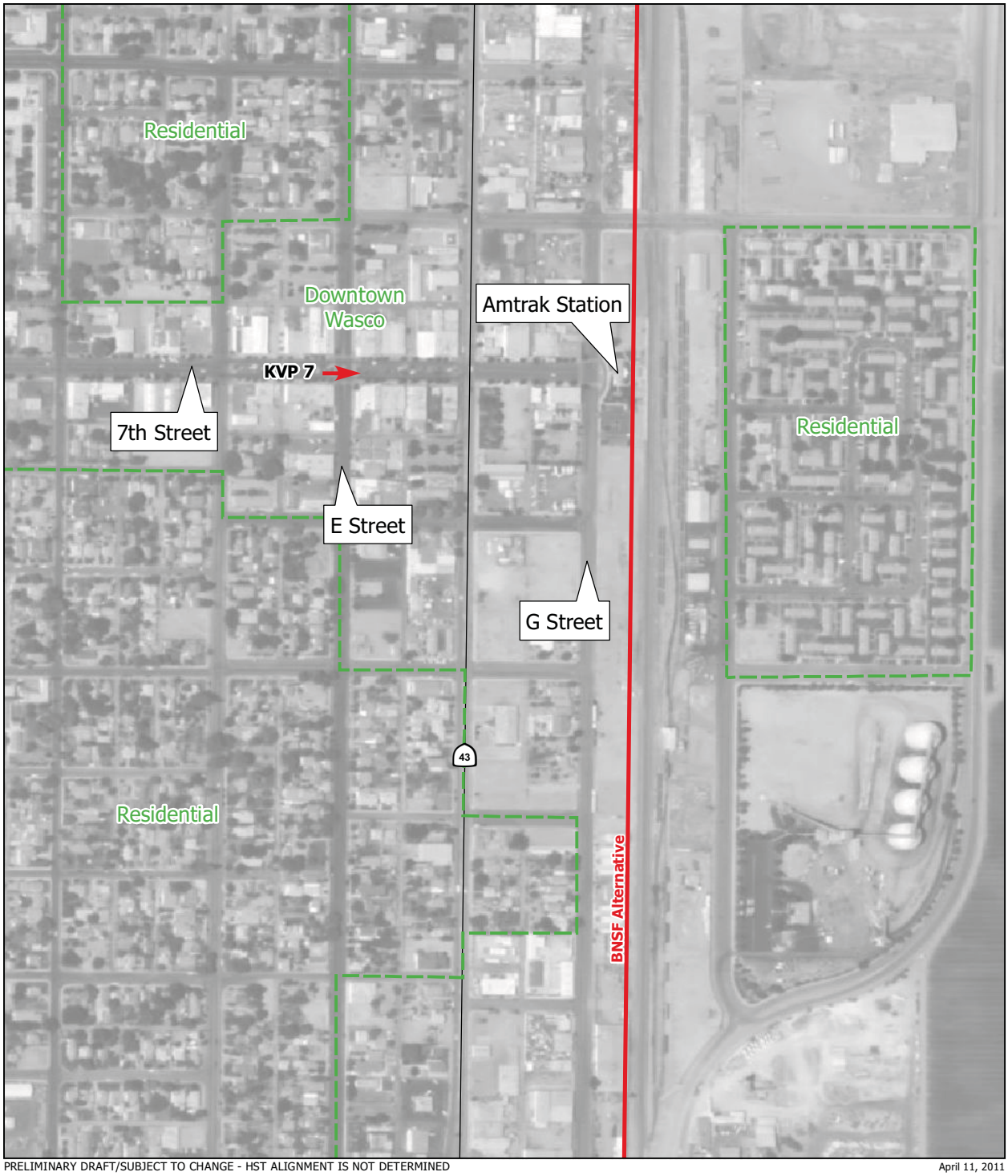
Existing visual quality of view

Moderate-High

Alternative alignment

General land-use types within viewshed

Figure 3.16-5
Key viewpoint: Corcoran



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 11, 2011

N

0 200 400
Feet

0 100 200
Meters

Key viewpoint

Existing visual quality of view

Moderate-High

Alternative alignment

Highway

General land-use types within viewshed

Figure 3.16-6
Key viewpoint: Wasco

PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2010; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 200 400
Feet

0 100 200
Meters

Key viewpoint

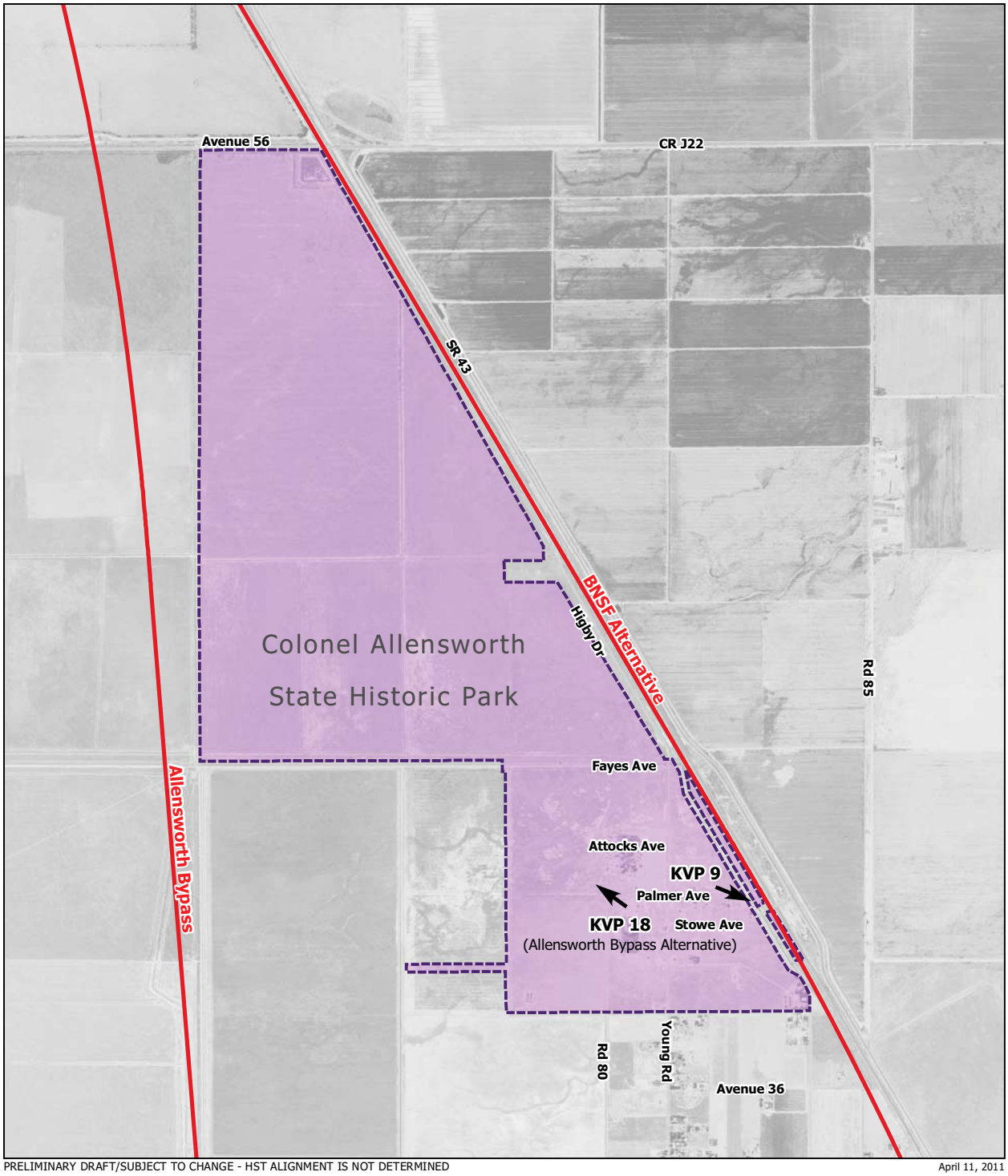
Existing visual quality of view

Moderate

Alternative alignment

General land-use types within viewshed

Figure 3.16-7
Key viewpoint: Shafter



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 11, 2011

N

0 500 1,000
Feet

0 250 500
Meters

Key viewpoint

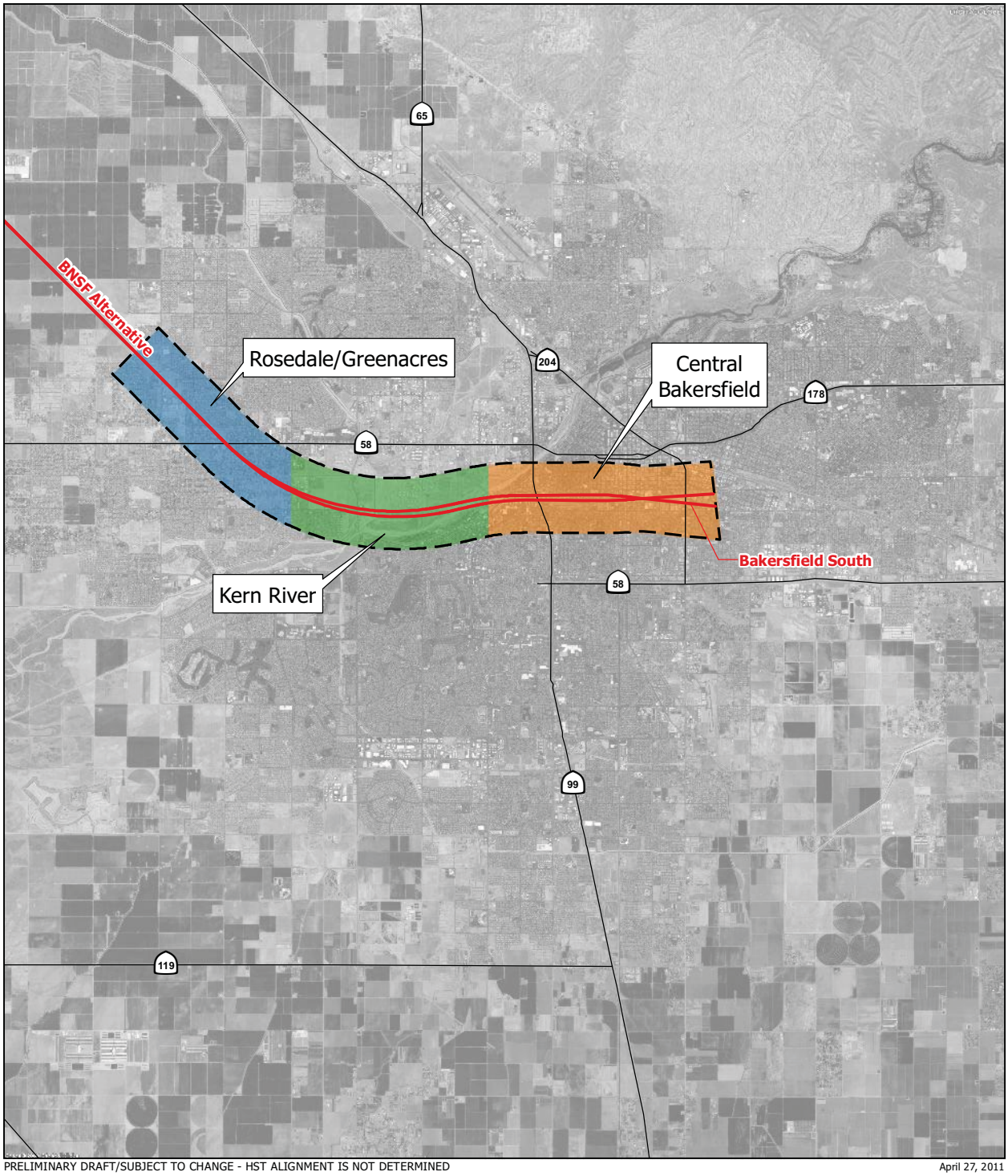
Existing visual quality of view

High

Alternative alignment

Allensworth State Historic Park boundary

Figure 3.16-8
Key viewpoints: Colonel Allensworth State Historic Park



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 27, 2011

N

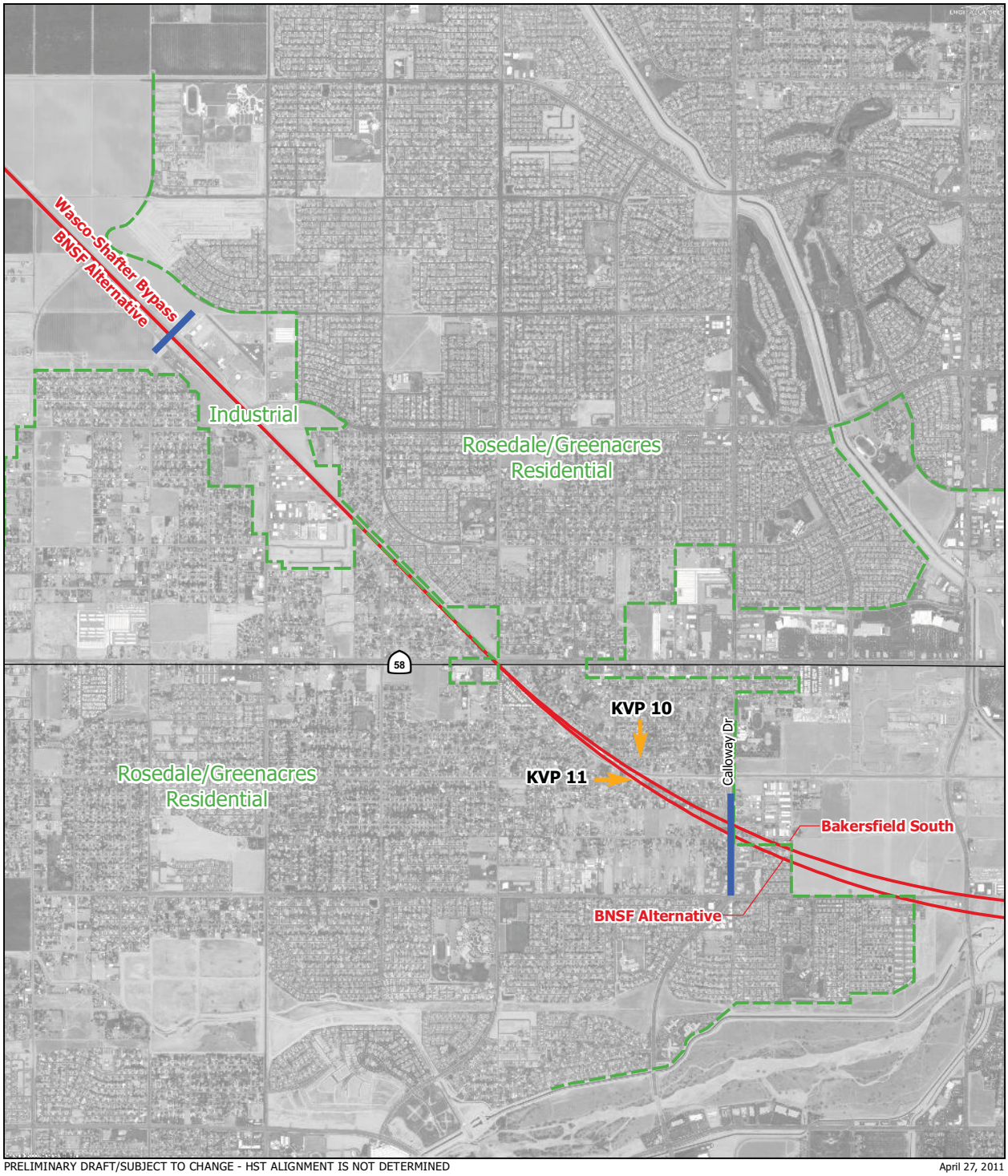
0 1 2
Miles

0 2 4
Kilometers

Central Bakersfield
Rosedale/Greenacres
Kern River

Aesthetics and visual quality study area
Alternative alignments
Highway

Figure 3.16-9
City of Bakersfield landscape units



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 1,000 2,000
Feet

0 500 1,000
Meters

Key viewpoint

Existing visual quality of view

Moderate

Alternative alignments

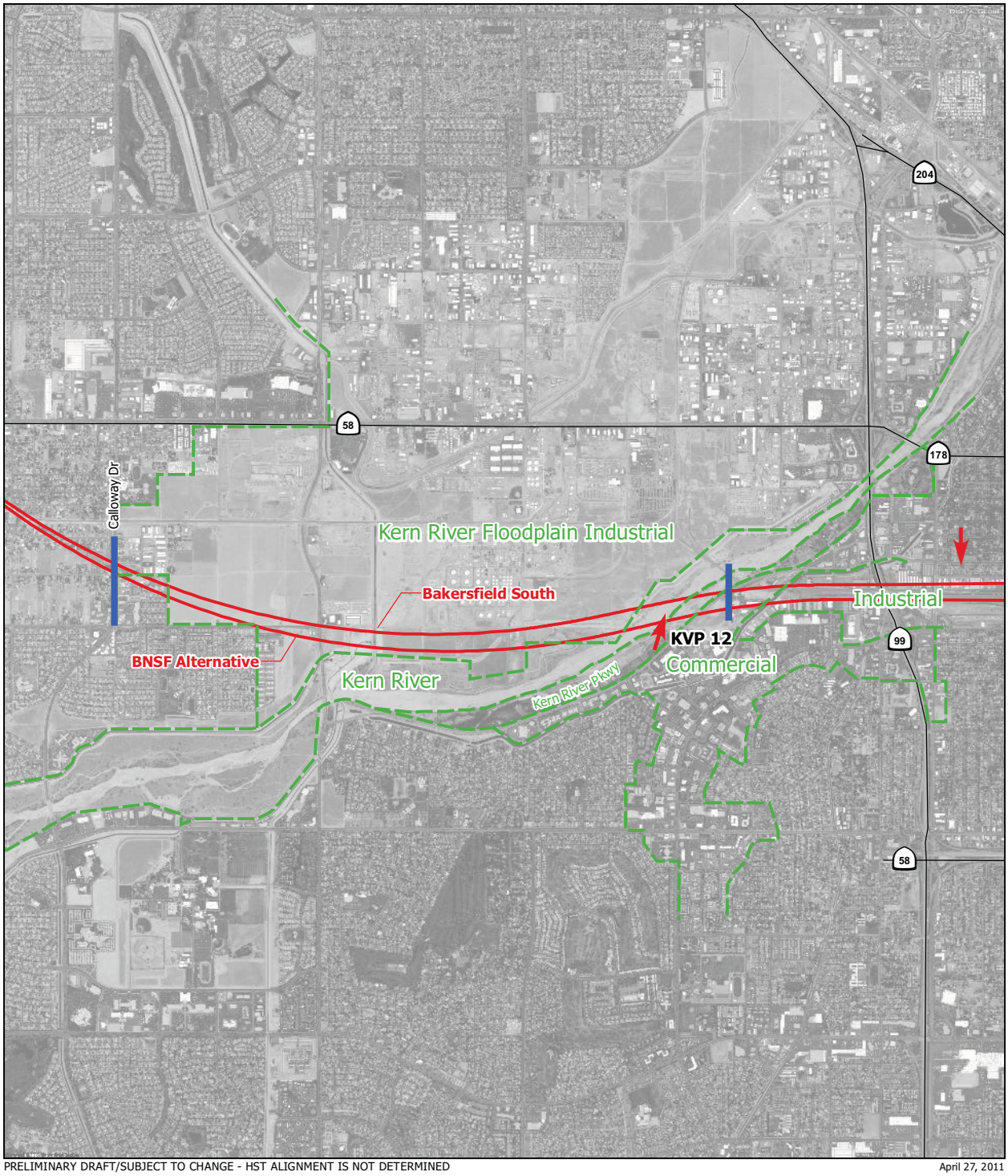
Highway

General land-use types within viewshed

Landscape unit limit

Figure 3.16-10

Key viewpoint: Rosedale/Greenacres landscape unit



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 1,000 2,000
Feet

0 500 1,000
Meters

Key viewpoint

Existing visual quality of view

Moderate-High

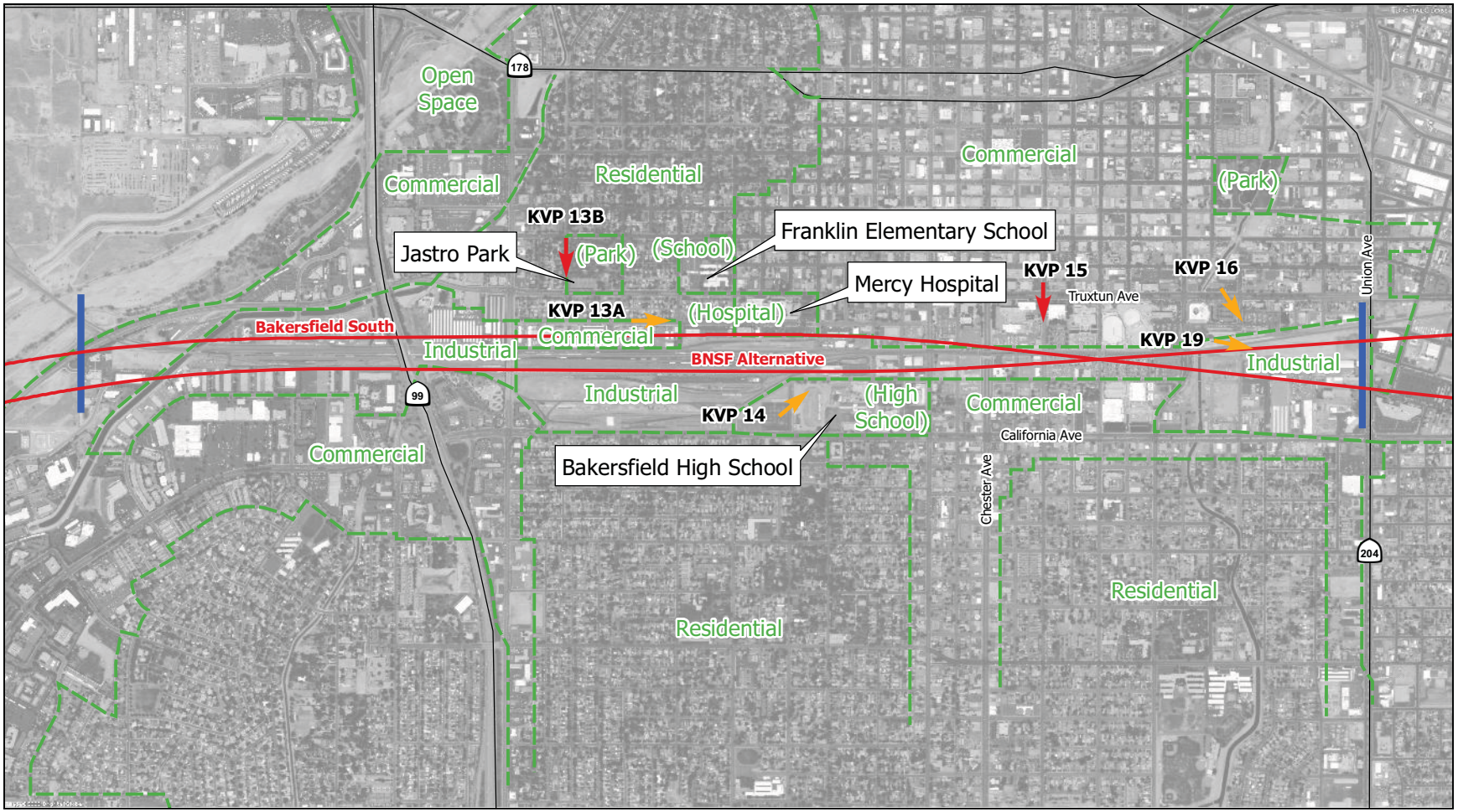
Alternative alignments

Highway

General land-use types within viewshed

Landscape unit limit

Figure 3.16-11
Key viewpoint: Kern River landscape unit



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED
Source: William Kanemoto & Associates, 2011; DigitalGlobe Imagery, 2009

April 27, 2011

N

0 1,000 2,000
Feet

0 500 1,000
Meters

Key viewpoint

Existing visual quality of view

Moderate

Moderate-High

Alternative alignments

Highway

General land-use types within viewshed

landscape unit limit

Figure 3.16-12
Key viewpoints: Central Bakersfield landscape unit

orientation of their corresponding KVPs. The KVPs represent key views within each landscape unit that were selected to assist in describing the landscape character of the landscape unit and the existing visual quality. The figures also indicate the existing visual quality rating category of the viewed landscape from each KVP and the distribution of land use types and associated viewer groups within each landscape unit. The latter factors are generally predictive of likely viewer sensitivity and response. It should be noted that visual quality ratings from some KVPs may differ from the landscape unit taken as a whole because of the specific local conditions of a particular key viewpoint.

The following sections describe the visual quality categories found within each landscape unit, the associated viewer groups and their levels of visual sensitivity, and the KVPs representing key sensitive viewers within each landscape unit.

BNSF Alternative Alignment

Central Fresno Landscape Unit and Key Viewpoints

The visual quality of existing views toward the proposed HST alternative from locations within the Central Fresno Landscape Unit covers the gamut from low to moderately high (see Figure 3.16-3). Existing rail yards and associated industrial uses of low visual quality adjoin moderate or moderately high quality commercial, governmental, and recreational uses, located in the central downtown area to the northeast of the proposed alignment and station. Viewer sensitivity is assumed high in the pedestrian-oriented downtown area, which includes numerous historical buildings; sensitivity is generally low to moderate in the commercial and freeway corridors near downtown. Downtown Fresno includes commercial, residential, industrial, and public land uses, with several historic and culturally significant buildings. Large portions of the alignment in downtown are visible from G and H streets (represented by KVP 1 [Figures 3.16-13a and 3.16-13b, which show view from H Street at Tulare Street looking west] and KVP 2 [Figures 3.16-14a and 3.16-14b, which show view from China Alley between F and G Streets, looking north]). KVPs 1 and 2 adjoin both of the Fresno Station site alternatives and parallel the alignment on opposite sides (see Figure 3.16-3). In the same vicinity, KVP 1a (Figure 3.16-15) shows the view from H Street at Tulare Street looking south and KVP 2a (Figure 3.16-16) shows the view from G Street near Kern Street looking north.

To the southwest, the proposed alignment adjoins the historic Chinatown/Japantown district. Despite localized redevelopment improvements on F Street, Kern Street, and elsewhere, the prevailing visual quality and vividness within Chinatown is moderately low overall. Land uses directly adjoining the alternative alignments on Chinatown's eastern edge are generally industrial, mixed with a high proportion of undeveloped parcels. With some notable exceptions, the district is typified by very heterogeneous, nondescript low-rise architecture, much of it in disrepair, and a relative scarcity of highly memorable, vivid features.

Viewer sensitivity within Chinatown/Japantown, however, is considered to be moderately high, due to the historic significance of the district. Visual exposure to the project from Chinatown is also high; all of the station alternatives have components in Chinatown. This proximity is accentuated by open view corridors over the area's many vacant lots.

South Fresno Landscape Unit and Key Viewpoints

The landscape adjoining this section of the alignment is dominated by the adjacent Calwa rail yard to the east, and associated industrial land uses with virtually no sensitive viewers. Calwa, a small residential neighborhood, is located east of the rail yards in the vicinity of Jensen Avenue within foreground distance of the HST alignments. Views of the project from the vicinity of these residences would be highly filtered or strongly dominated by the intervening industrial

Existing View

Conceptual Station Design (Functional Design Treatment)

Figure 3.16-13a
Key viewpoint 1: Downtown Fresno Station - Mariposa Alternative
from Downtown (H Street at Tulare Street)
looking west

Source: VBN Architects, 2011.

Existing View

Figure 3.16-14a
Key viewpoint 2: Downtown Fresno Station - Mariposa Alternative from Chinatown (China Alley between F and G STreets) looking north

Source: VBN Architects, 2011

development and rail yard views. Visual quality of the project setting is therefore low; and despite the high viewer sensitivity of residents, overall viewer response is low due to low visual exposure. The potential for substantial impacts in this section is therefore very low or nonexistent, and representative viewpoints are not depicted.

San Joaquin Valley Rural/Agricultural Landscape Unit and Key Viewpoints

The visual quality of existing views of the study area within the San Joaquin Valley Rural/Agricultural Landscape Unit is predominantly moderate, though ranging from moderately low to moderately high depending on specific local circumstances (see Figure 3.16-1). This landscape unit comprises mostly agricultural land. Row crops, orchards, and a variety of rural residential and agro-industrial structures are visible from nearby roadways. Because the majority of viewers are travelers and commuters along State Route (SR) 43, viewer sensitivity is generally assumed to be moderate. However, all alternative alignments would affect rural residences within distances of 0.5 mile or less. These residences would have high viewer sensitivity.

In views from SR 43, the Sierra Nevada is often visible to the east, though they are increasingly obscured by valley haze and smog. The view from KVP 3 (Figures 3.16-17 and 3.16-18) is typical of vast areas of the Central Valley, consisting of agricultural lands with few vertical features to obstruct long, panoramic views which, however, often lack variety and vividness. Views of mountains or natural riparian corridors are few and of limited prominence, typically resulting in moderately low to moderate vividness in the unit as a whole. KVP 3 is not meant to depict a specific location within the valley, but rather to illustrate the typical character of the overall landscape unit, and to provide a basis for simulations of the project within that landscape. Similarly, KVP 4 (Figure 3.16-19) depicts a view from a rural residence on Floral Avenue in Fresno County. As with KVP 3, the view is not meant to focus upon a single location but is representative of the typical view conditions experienced at the 50+ road overcrossings proposed by the HST throughout the landscape unit, extending from Fresno to Kern Counties. KVP 5 (Figure 3.16-20), KVP 5, located east of the City of Hanford, is similar in character and quality to KVPs 3 and 4 and depicts the view to the proposed Kings/Tulare Regional Station from SR 43.

Viewers in the rural valley are generally few, and viewer activities are predominantly work-oriented. Viewer sensitivity of motorists is considered moderate, and of workers, moderately low. Sensitivity would be considered higher for views from designated scenic highways, but no such routes were identified within the project viewshed. The principal sensitive viewers within the valley landscape are thus residents within the critical 0.5-mile foreground distance zone of alternative project facilities. In general, residents are considered to have high viewer sensitivity. Views of the project, where they occur, would be of extended duration and residents have a high level of concern for the quality of their day-to-day living environment. Viewer exposure of rural residents in the Central Valley varies primarily by distance because there is often little to screen or filter views; exposure would generally be high within the foreground distance zone. Overall, viewer exposure in the valley is moderated by a low density of viewers. This unit also includes the riparian canopies at the river crossings of the Kings and Tule rivers, and Cross and Poso creeks. These narrow bands of riparian tree canopy are among the few natural features providing vertical form and vividness within the generally level valley terrain. Viewer sensitivity at creek crossings however varies widely depending on the presence or absence of recreational use. Sensitivity of recreational users on the rivers or associated recreational facilities such as trails would be high. In their absence, sensitivity would be low.

The vast Valley Rural/Agricultural Landscape Unit stretching from the city of Fresno to the city of Bakersfield is punctuated by other short landscape units of contrasting character and quality, as shown on Figure 3.16-1. The short landscape units for rural towns and the Colonel Allensworth State Historic Park within the Valley Rural/Agricultural Landscape Unit are discussed below.

Rural City/Town Landscape Units and Key Viewpoints

These landscape units include the predominantly agriculture-related communities of Corcoran (see Figures 3.16-5 and 3.16-21), Wasco (see Figures 3.16-6 and 3.16-22), and Shafter (see Figures 3.16-7 and 3.16-23). The BNSF Alternative Alignment passes near the community of Laton and the city of Hanford, but skirts them, and would not directly affect them. Each of these communities supports an historic, defined central business district with associated parks, schools, medical facilities, and local governmental institutions. In marked contrast to vast areas of suburban sprawl characteristic of portions of the Sacramento Valley, these historic towns remain spatially distinct islands within the wider agricultural landscape, which strongly influences them.

In Corcoran, Wasco, and Shafter most areas within a narrow band immediately adjoining the existing BNSF railway right-of-way are typified by railroad-related industrial uses, often with low visual quality. However, in all three towns, these narrow railroad-related industrial zones are juxtaposed with the historic old town centers, which constitute the key sensitive viewpoints. Visual quality in these old town centers ranges from moderate to moderately high, with corresponding levels of vividness, intactness, and unity. Elements contributing to visual quality include a large proportion of historic architecture, local parks, as well as street trees, median plantings, and other elements of main street redevelopment. These features contribute to a prevailing intactness of character and unity of scale typical of the historic main streets.

As reflected in the General Plan policies for the cities of Corcoran, Wasco, and Shafter, viewer sensitivity in these communities is anticipated to be high because of community concern for the integrity and quality of the downtowns, and the presence of parks and residential areas near the alignment. In both downtowns and nearby parks, the concentration of potential viewers may also be relatively high, with broad visibility from multiple locations and extended exposure to views. KVP 6 (Figure 3.16-21), KVP 7 (Figure 3.16-22), and KVP 8 (Figure 3.16-23) depict the BNSF Alternative Alignment from viewpoints in the downtowns of Corcoran, Wasco, and Shafter, respectively. KVP 17 (Figure 3.16-31) depicts the Corcoran Elevated Alternative Alignment from downtown Corcoran.

Colonel Allensworth State Historic Park Landscape Unit and Key Viewpoints

The Colonel Allensworth State Historic Park is a picturesque historic district marking an African-American farm settlement founded in 1908 by the site's namesake (see Figure 3.16-8). Because visual integrity of the site's setting is critical to the district's historic integrity and its experience for visitors, visual sensitivity of users of the park is considered to be high. Because it adjoins the BNSF railway alignment with minimal visual buffering, visual exposure is also high. The park entrance crosses the existing BNSF alignment and areas of the park frequented by visitors are within 250 feet of the existing BNSF alignment. Overall, viewer response is therefore high.

Visual quality of the park is moderately high. The terrain of the park and surrounding area is flat, with some scattered shrubs and trees. Buildings are scattered around the park along the original street grid. The elementary school is surrounded by several large trees. Although the surrounding landscape is relatively featureless and lacks vivid elements, the intactness of the setting is striking, with few or no anachronistic features to distract from the historic character of the setting. Vividness, although lacking in the landscape, is provided by the homes and structures of the district itself, which are painted in a variety of colors and are memorable for their historically distinctive and highly intact quality. The setting is similarly unified, spatially expressing the original agricultural and community functions clearly through the street grid and organization of buildings on lots. Due to the site's historic significance, the visual integrity of setting is considered an over-riding factor in evaluating visual quality—the intactness of the setting and absence of anachronistic features within the viewshed are paramount. KVP 9 (Figure 3.16-24) depicts the view eastward toward the BNSF Alternative Alignment from within the park.

City of Bakersfield: Rosedale/Greenacres Landscape Unit and Key Viewpoints

For approximately 4 miles from the point where SR 43 diverges from the BNSF railway line north of Bakersfield, the alternative alignments follow the existing BNSF route through an unincorporated suburban residential area, Rosedale/Greenacres, for approximately 2 miles before diverging eastward from the rail line south of SR 58 (see Figure 3.16-10). Adjacent land uses in the northern portion of this section include industrial uses and empty parcels. However, the principal adjoining use consists of dense suburban residential development that continues until the vicinity of Calloway Drive to the southeast. The existing BNSF right-of-way in this section is narrow, with as little as 100 feet separating residences across the right-of-way.

Beginning south of SR 58 where the alternative alignments diverge from the BNSF route, and for approximately 1.5 miles between SR 58 and Calloway Drive, the alignments occupy the immediate visual foreground of adjacent remaining homes. Visual character is typical of suburban single-story, single-family residential development, mostly built during the latter half of the twentieth century.

Visual quality of Rosedale, typical of such suburban residential settings, is moderate overall. Vividness, intactness, and unity are all generally moderate, with most neighborhoods characterized by wide front lawns and mature landscaping.

Key sensitive viewers in this section consist primarily of residents adjoining the alternative alignments. Affected residential neighborhoods would have high sensitivity to project visual effects. Most or all neighborhoods are partially screened from the existing rail line by fencing, community walls, and landscaping. However, because of the very close proximity of relatively large numbers of residents (in the hundreds) to the alternative alignments, the extended duration of exposure, the proposed highly elevated guideways in this section, and the high level of viewer sensitivity, overall viewer response is considered high. KVPs 10 and 11 (Figures 3.16-25 and 3.16-26) depict typical views of the alignment as it passes through this residential area.

City of Bakersfield: Kern River Landscape Unit and Key Viewpoints

The visual quality in the vicinity of the Kern River varies greatly, from very low in the industrial floodplain dominated by an oil refinery on the river's east bank, to moderately high within the Kern River Parkway along Truxtun Avenue on the west bank (see Figure 3.16-11). Key sensitive viewer groups in this landscape unit include viewers on the east bank within the Truxtun Avenue corridor and, particularly, recreational users of the bike trail and open space within the Kern River Parkway.

Visual quality on the river's east bank is moderately high. Although the floodplain appears somewhat barren for portions of the year, its vividness is enhanced year-round by riparian vegetation on both banks of the river, including a large area of restored riparian woodland, trails, and a large, attractive artificial lagoon, which adjoins the Kern River Parkway trail north of Truxtun Avenue. Abundant street tree-planting enhances visual quality east of the river along Truxtun Avenue. However, the proposed alignment crossings themselves occupy a small unimproved portion of the river corridor with no trees and with an existing electrical transmission line and moderately low visual quality. Viewer sensitivity of parkway and bike trail users—a recreational, scenery-oriented viewer group—is high; visual exposure, however, is moderate. Despite the foreground distances to the alignments, most views from Truxtun Avenue and the adjoining, parallel bike trail are filtered by dense landscaping at the edge of the road, within the parkway, and by riparian vegetation on both banks of the river.

Overall, viewer response in this area is moderately high. KVP 12 (Figure 3.16-27) depicts the proposed river crossing over the Kern River as seen from the bike and hiking trail in the Kern River Parkway.

A small area of retail and office commercial uses line Truxtun Avenue to the southeast of the alignment. Viewer sensitivity of these activity types is considered moderate. Views of the project from the vicinity of these land uses are buffered by landscaping, and viewer response from these areas is therefore moderate. Residences south of Truxtun Avenue are visually isolated from the alignment by backyards, landscaping, community walls, and landscaping along the Kern River Parkway. Viewer exposure and response is thus minimal.

City of Bakersfield: Central Bakersfield Landscape Unit and Key Viewpoints

Visual quality in this unit varies by subarea. Key sensitive viewer groups in this section include residents in northwestern/central Bakersfield, and viewers of all kinds in the core of the downtown close to the proposed HST station and alignment alternatives (see Figure 3.16-12).

Central Bakersfield Residential

The area north of the alternative alignments and west of the central business district, and most of the section south of California Avenue between SR 99 and Union Avenue, comprise extensive older residential, single-story, single-family neighborhoods dating from the early- to mid-twentieth century. Mature, large-scale tree canopies line the streets within these residential neighborhoods, providing a visually unifying character. Overall, visual quality is considered moderately high.

Viewer sensitivity for these urban residential areas is considered to be high. Typically, residents are considered sensitive to visual change due to prolonged periods spent at home, and the high value placed on the home environment.

Both alternative alignments are within the within the 0.25-mile distance zone of residences in this area. For 0.5 mile between Oak and A streets, residences are located as close as 200 feet to the north of the nearest (Bakersfield South) alternative alignment. For these residences, exposure is thus potentially high. Jastro Community Park and Franklin Elementary School are within 550 feet of the BNSF Alternative Alignment centerline in this area, with a moderate level of visual exposure to the alignments from adjoining south-facing streets. Overall, viewer response is therefore considered moderately high in the 0.25-mile zone, and moderate beyond that distance. KVP 13A and 13B (Figure 3.16-12) represents views from this area (simulations are not depicted for this viewpoint).

Central Business District

The central business district is bordered to the west approximately by Mercy Hospital, which directly adjoins the Bakersfield South Alternative Alignment at a distance of 150 feet, or less, from the centerline. Bakersfield High School is 125 feet south of the BNSF Alternative Alignment. Truxtun Avenue, the downtown main street, runs east-west paralleling the project alignments as little as 450 feet to its north. The City of Bakersfield and Kern County governmental centers are located on Truxtun Avenue near Chester Avenue within this section. The city arena and convention center, the Condors' pro hockey stadium, the city library, and the Amtrak station are just east of the government center. The Bakersfield HST Station would be located to the east of these.

Existing views on the Bakersfield High School campus currently look out onto rail yards, a parking lot, and school buildings of undistinguished architecture, against a background of more rail lines, and industrial and commercial development with little unity or visual distinction. Existing visual quality of views off-campus are thus moderately low. However, unsightly off-campus views to the north are largely blocked from within the campus by the Industrial Arts Building and street trees along 14th Street. Views within the campus are thus somewhat enclosed, focusing attention inward and enhancing visual quality within the campus, causing visual quality to remain

moderate. KVP 14 (Figure 3.16-28) depicts a view from the Bakersfield High School stadium, looking northeast.

Truxtun and Chester avenues form the central axes of Downtown Bakersfield, with civic and office buildings ranging from 1 to 12 stories high in a wide range of styles, but with a predominantly modern architectural image. Both Truxtun and Chester avenues are landscaped with side- and center-median street tree planting and landscaping that lend a moderately high level of intactness and unity to the streetscape. Distinctive early–twentieth-century, high-rise buildings are scattered within the district, contributing to a vivid and unifying visual image. Overall, visual quality along this streetscape is moderately high.

Viewer sensitivity is high due to the concentration of high public-profile uses in the central business district, and the potential to adversely affect the city's visual image. Visual exposure in this section is high because of the large number of viewers in the central business district and high potential visibility of the proposed station and elevated guideway from numerous locations, including Truxtun Avenue and its important commercial and civic land uses.

From Truxtun Avenue northward, visibility of the guideway, station, and parking structures would tend to be restricted by building facades to view corridors down north-south streets in the downtown core. However, overall, visual exposure to the project features would be moderately high within 0.25 mile, and particularly south of Truxtun Avenue. Overall, viewer response is considered to be high. KVP 15 (Figure 3.16-29) depicts the view from L Street north of Truxtun Avenue, looking toward the alignment and proposed guideways. KVP 16 (Figures 3.16-30a [existing view] and 3.16-30b [a simulated view]) depicts the view toward the proposed Bakersfield Station–North Alternative site under the BNSF Alternative Alignment, as seen from Truxtun Avenue looking southeast. Figure 3.16-30c provides an additional simulated view from within the station site near the proposed station entry.

East of Union Avenue, the two alternative alignments diverge until the project terminus at the southern end of the Bakersfield Station tracks: the BNSF Alternative Alignment turning northward to parallel Truxtun Avenue and Edison Highway, the Bakersfield South Alternative turning southward to parallel East California Avenue. Within the project limits in this section, the alignments are largely within industrial or commercial zones of low or moderately low visual quality. No impacts would be anticipated in these areas because of poor visual quality and the absence of sensitive viewers. Residential areas to the east lie largely outside of the project limits. However, some homes would be relocated or affected by the project east of Kern Street at the project terminus.

Corcoran Elevated Alternative Alignment

The Corcoran Elevated Alternative Alignment would follow the BNSF alignment as described above, except that the HST guideways would be elevated on an aerial structure between roughly Niles Avenue in the north and 4th Avenue to the south of downtown Corcoran. The baseline setting conditions would thus be the same as described previously for the town of Corcoran under Rural City/Town Landscape Units of the BNSF Alternative, above. KVP 17 (Figure 3.16-31) depicts a view of the aerial structure under this alternative.

Corcoran Bypass Alternative Alignment

The Corcoran Bypass Alternative Alignment would pass entirely through sparely populated portions of the San Joaquin Valley Rural/Agricultural Landscape Unit, as described under the BNSF Alternative Alignment, above. Potentially sensitive viewers would consist solely of rural residents within 0.25 mile of the project alignment.

Allensworth Bypass Alternative Alignment

The Allensworth Bypass Alternative Alignment would pass entirely through a nearly unpopulated portion of the San Joaquin Valley Rural/Agricultural Landscape Unit, as described under the BNSF Alternative Alignment, above, at a distance of approximately 1 mile west of Colonel Allensworth State Historic Park. KVP 18 (Figure 3.16-32) depicts the view westward from the park toward this alternative alignment.

Wasco-Shafter Bypass Alternative Alignment

The Wasco-Shafter Bypass Alternative Alignment would pass entirely through sparely populated portions of the San Joaquin Valley Rural/Agricultural Landscape Unit, as described under the BNSF Alternative Alignment, above, to the east of the cities of Wasco and Shafter. Potentially sensitive viewers would consist solely of rural residents within 0.25 mile of the project alignment.

Bakersfield South Alternative Alignment

The Bakersfield South Alternative Alignment would be located approximately 450 feet north of the BNSF Alternative in central Bakersfield, and then would turn south of the BNSF Alternative to the project terminus at Baker Street. It would occupy the same landscape unit (Central Bakersfield Landscape Unit) and affect the same viewer groups as described under the BNSF Alternative Alignment, above. KVP 19 (Figure 3.16-33) depicts the view of the Bakersfield Station–South Alternative.

Heavy Maintenance Facility Alternatives

Four potential HMF locations fall within the Fresno to Bakersfield study area: south Fresno, east Hanford, Wasco, and Shafter. All the sites fall within the previously described San Joaquin Valley Rural/Agricultural Landscape Unit. The facility would occupy approximately 150 acres within the larger site study areas described below.

Fresno Works–Fresno HMF Site

The Fresno site includes approximately 590 available acres and is near the southern limit of the city of Fresno and county of Fresno next to the BNSF Railway right-of-way. Visual quality of the area, typical of agricultural, rural residential/farmstead areas described previously under the San Joaquin Valley Rural/Agricultural Landscape Unit, is moderate. Although the exact facility site within the overall site study area is not yet known, the facility could be located within the visual foreground of a substantial number of rural residences, whose visual sensitivity and viewer response would be high.

Kings County–Hanford HMF Site

The Hanford site includes a total of about 510 available acres and is located southeast of the city of Hanford in an agricultural area of moderate visual quality. Although the exact facility site within the overall site study area is not yet known, the facility could be located within the near visual foreground of roughly five residences adjacent to the northern portion of the site study area. These residences would have high visual sensitivity and viewer response.

Kern Council of Governments–Wasco HMF Site

The Wasco site is located directly east of the city of Wasco between SR 46 and Filburn Street. It includes a total of approximately 420 available acres near industrial and residential areas of the city to the west, and agricultural fields to the east. Depending upon the exact siting of the

facility, a large concentration of multi-unit housing at the eastern boundary of Wasco could adjoin the site. These residences would have high visual sensitivity and viewer response.

Kern Council of Governments–Shafter East and –Shafter West HMF Sites

The Shafter site includes a total of approximately 490 available acres and is located in a relatively sparsely populated area north of 7th Standard Road southeast of the city of Shafter next to the BNSF Alternative and the Wasco-Shafter Bypass Alternative. Two siting options are under consideration for this site, but the setting conditions are essentially the same for both. Nearby receptors at both sites would include motorists on SR 43 and 7th Standard Road with moderate viewer sensitivity and response; a small number of rural residences potentially within foreground distance of the site; and the Shafter Cemetery, located within 0.5 mile of the site study area to the north. Residences and the cemetery would have high visual sensitivity and viewer response. However, the existing study area is predominantly orchard, with potential to provide screening of the facility to offsite viewers.

3.16.5 Environmental Consequences

This section describes potential impacts on aesthetics and visual resources from the proposed HST project using the NEPA and CEQA impact criteria discussed in Section 3.16.3, Methods for Evaluating Impacts. Impacts are identified based on project-related change in visual quality of the setting, in the context of prevailing viewer sensitivity, project visibility, and anticipated viewer response. The project would be consistent with applicable general plans and policies regarding aesthetic and visual treatment of the proposed infrastructure. These policies would be fulfilled by the specific design guidelines of the project's final design phases.

A. OVERVIEW

The BNSF Alternative Alignment would reduce the existing visual character or quality of the cities of Fresno, Corcoran, Wasco, Shafter, and Bakersfield, and the Colonel Allensworth State Historic Park. This would be a substantial effect under NEPA and a significant impact under CEQA. Mitigation measures such as visual screening would reduce project effects on the visual character of the city of Fresno to moderate under NEPA and the impact would be less than significant under CEQA. Mitigation measures would moderate and reduce the overall effect of visual changes in Corcoran, Wasco, Shafter, and Bakersfield. However, views would continue to be affected because many impacts of the HST would result from elevated guideways or roadway overcrossings whose bulk and mass cannot be reduced. Therefore, the visual effects of the BNSF Alternative Alignment to Corcoran, Wasco, Shafter, and Bakersfield would remain substantial under NEPA and the impact would be significant under CEQA. Because the HST would be inconsistent with the early 20th century character of Allensworth State Historic Park, its presence in the park landscape would be a substantial visual effect under NEPA and a significant impact under CEQA following mitigation. The Corcoran Bypass, Wasco-Shafter Bypass, and Allensworth Bypass alternatives would have no visual effects to Corcoran, Wasco, Shafter, and Allensworth State Historic Park, respectively. The Bakersfield South Alternative would have the same impact on the visual character of Bakersfield as the corresponding segment of the BNSF Alternative, which would be substantial under NEPA and a significant impact under CEQA.

In the rural valley, some features of the HST would be visually prominent and out of character with the existing rural setting. The resulting strong decline in visual quality as experienced by rural residents within 0.25 mile of the HST alignment would be a substantial effect under NEPA and a significant impact under CEQA. Views of riparian and river crossings would not be substantially affected by the HST because of the lack of public access and thus limited exposure of potential viewers.

All HST alternatives would have temporary impacts related to sources of light and glare during construction, which would be avoided and minimized by construction specifications and practices.

Under all alternatives, the proposed HST stations would not substantially degrade the existing visual character or quality of the site and its surroundings. The design of the Fresno and Bakersfield HST stations could offer a strong focal element unifying the surrounding urban elements. This, along with proposed street landscaping, could improve visual quality in those areas.

Although the HMF alternatives could substantially degrade the existing visual character or quality of the site and its surroundings, these impacts could be mitigated so the effect would be moderate under NPEA and the impact would be less than significant under CEQA. Lighting for safety and security at an HMF would incorporate design-related measures, such as shielding and altering light direction, to avoid and minimize light and glare impacts.

There are no scenic highways in the vicinity of the BNSF Alternative and other build alternatives; therefore, there would be no impact to scenic highways.

B. NO PROJECT ALTERNATIVE

Much of the growth in the study area is anticipated to be suburban in nature (see Section 3.18, Regional Growth). This growth would add additional residential and commercial developments and associated infrastructure to the viewed landscape. The No Project Alternative would include future development reported in the general plans of the cities and counties crossed by the Fresno to Bakersfield Section, which include both instances of suburban expansion, and development in existing urban areas. Section 3.19, Cumulative Impacts, identifies a number of proposed projects that would influence the future visual character of the study area. Visual measures, such as landscaping, would be incorporated into new development and into roadway and infrastructure projects to minimize visual impacts. Such measures have already been undertaken in the case of foreseeable proposed projects. Cities and counties in the region would evaluate the aesthetic impacts of projects in the course of environmental review and require that projects incorporate visual measures to mitigate for potentially significant impacts. If mitigation is not feasible, local jurisdictions would have the opportunity to deny the projects. For this reason, the visual quality of foreseeable future development is not expected to result in significant unmitigable impacts.

None of the visual effects resulting from the HST alternatives described in the following sections would occur under the No Project Alternative. Although some redevelopment may occur in the Fresno and Bakersfield downtown areas, as seen from recent past development patterns, the No Project Alternative would not provide an economic incentive to concentrate urban growth in the downtown areas. Therefore, the No Project Alternative would result in limited improvement to the generally moderate to moderately low visual quality in downtown areas. Because of planned development on land that is now in agriculture, there would be a continued loss of the rural landscape in the study area under the No Project Alternative.

C. HIGH-SPEED TRAIN ALTERNATIVES

The following sections discuss temporary construction impacts and permanent impacts potentially resulting from the project. Such impacts are discussed for each HST alternative, including those that would be common to all build alternatives. The analysis relies on visual simulations to demonstrate effects to visual quality and existing visual character from the HST alternatives. This analysis considers many project components. Characteristics of typical HST components and their potential to affect the aesthetic environment are listed in Table 3.16-2.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
Elevated Guideways and Associated Structures (piers/columns, straddlebents)	Piers are columns holding up the guideway; straddle bents are supports made of two columns that support a beam on which the guideway sits. These are often the most visible project components. The aboveground height of the elevated guideway box girders range between approximately 30 and 80 feet above grade. In some locations, elevated guideways and their associated overhead catenary system (OCS) components can intrude on views, although they may not block them completely. Elevated HST stations (and guideways to a lesser extent) can create shadows that could have negative impacts on some areas under some conditions. The final design process would include coordination with local jurisdictions and take into consideration all applicable design guidelines as part of a collaborative process related to construction of HST stations. Associated structures would be designed to be attractive architectural elements or features, and would add visual interest to the streetscapes near them.
At-Grade Guideways	At-grade guideways are generally located in or adjacent to existing streets and railways (UPRR and BNSF); they would be designed to be compatible with the roadway or adjacent streetscape.
Overhead Catenary System	The OCS is a highly visible element from close viewing distances. OCS components (wires and poles) become less visible as viewing distances increase. The structures may intrude on views but would not block views because of their thin, cable-like profile and appearance.
Street Modifications	Street-widening relocations can involve the removal of buildings, trees, and other vegetation. In some locations and situations, trees and other vegetation would be replanted with similar plants to restore visual quality.
New Road Overcrossings (Retained Fill Guideways)and Undercrossings	New overcrossings of local roads, including embankments and/or retaining walls, and bridge structures, would be needed to provide connectivity over (or under) the HST right-of-way. These would occur in both urban and rural contexts. These structures can introduce a prominent urban element into rural settings, and a prominent, utilitarian concrete feature into urban streetscapes that may require aesthetic design treatment to minimize visual impacts. Depending on the height and location of the retained fill, views can be blocked and shadows can create negative impacts on some areas. The walls of retained fill also can be targets for graffiti. Retaining walls can incorporate textured surfaces and artistic patterns that discourage graffiti and add visual interest to the landscape. The final design process would include coordination with local jurisdictions and take into consideration all applicable design guidelines as part of a collaborative process.
HST Stations	Depending on their size, bulk, and whether they would be elevated or at-grade, HST stations can block views, cast shadows, or add built features to the landscape. Elevated HST stations would generally be more visible than at-grade stations. HST stations would be designed to be aesthetically and architecturally compatible with their surrounding areas. The final design process would include coordination with local jurisdictions and take into consideration all applicable design guidelines as part of a collaborative process so that, during design, the HST stations would undergo appropriate design review to incorporate local design elements.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
Parking Structures	Depending upon size and bulk, parking structures can block existing views. Parking structures can be designed or assigned criteria to match surrounding architecture types to help them aesthetically fit with their surroundings. Local design guidelines would be taken into consideration and incorporated as part of a collaborative process with local agencies so that parking structures visually and aesthetically blend into the areas where they would be located.
Lighting	Train lighting would be temporary and directed along the guideway, which should not cause glare impact on nighttime views. If not properly designed and shielded, project-related lighting can create glare impacts, increase the ambient light levels in nearby areas, and increase skyglow, which can adversely affect nighttime star viewing. This would be true during construction and operation of the HST System. Design-related measures, such as shielding and directing lights, would be used where appropriate to reduce potential impacts, while providing adequate lighting for safety and security.
Building Removal	Removal of existing buildings can improve or detract from visual settings depending on building condition, style, scale, and color. Areas where buildings would be removed would be limited to areas that contain project components or be revegetated to blend in with nearby areas.
Vegetation Removal	Removal of vegetation can open up new scenic views or, conversely, expose unattractive views, such as additional hard surfaces. When possible, the existing vegetation would be preserved, vegetation replanted, trees replaced, and, where appropriate, temporary vegetative screens used to minimize effects of vegetation removal prior to revegetation.
Retaining Walls	A retaining wall can be used to stabilize a steep cut in a hillside or in pairs to hold earth and rock between them (retained fill) or as bridge abutments. Retaining walls are generally concrete and may require surface design treatments to reduce aesthetic and visual impacts. Where appropriate, retaining walls would include design enhancements (such as patterns, texture, or coloring).
Sound Walls	Trains and relocated roadway traffic can induce noise impacts that, by FRA requirements, must be mitigated. Typical noise-reduction methods include noise walls. While the noise wall placements, both at-grade and elevated, are not finally determined yet, the walls could block views, create places for unwanted graffiti, and become unattractive. Noise walls can be made from transparent materials or include surface design enhancements to blend with the area's visual context. Design considerations would be made during final design stages. Section 3.4, Noise and Vibration, includes images of noise walls built for similar projects.
HMF	An HMF is an industrial site of approximately 150 acres that would include large spans of open rail yard, several buildings, and employee parking. The buildings can potentially block views, and can be similar in scale to large agricultural storage structures. Maintenance facilities, which would be designed to be aesthetically compatible with the surrounding uses and landscape, would include screening using fencing, walls, berms or vegetation to help them blend in with the areas where they would be located. During facility design, the exterior of the maintenance facilities would undergo appropriate design review to emulate the surrounding rural context.

Table 3.16-2
Characteristics of Typical HST Components

Project Component	Characteristics
Traction Power Substations (TPSSs)	The TPSSs would be installed at approximately 5-mile intervals. The TPSSs would vary in size, depending on whether they are paralleling stations, switching stations, or combination substations (see Chapter 2, Alternatives, for examples). Where appropriate, TPSSs would be screened from public view by landscaping and a wall or fence.

Table 3.16-3 presents a generalized summary of impacts from the HST alternatives within each landscape unit, which can be used to compare the alternatives. The change in visual quality at each KVP within the landscape units is detailed further in the discussion that follows.

Construction-Period Impacts

Common Aesthetics and Visual Quality Impacts

Visual Impacts on Adjacent Land Uses

Chapter 2, Alternatives, describes the duration of temporary construction activities, which would include pile driving, partial or total road and lane closures, detours (vehicular and pedestrian), partial/limited vehicle access on nearby roads, materials and equipment deliveries, and potentially establishing one or more concrete batch plants, where concrete would be prepared for use in nearby project construction. Large roadway overcrossings may be shorter in duration. Most of the staging sites would be located adjacent to the proposed HST alignment, in areas that are generally rural or industrial in nature. Equipment and earthmoving activities are not visually intrusive in these types of settings. In urban areas, staging areas would be largest at the HST stations. Both urban HST stations (Fresno Station and Bakersfield Station) would be adjacent to the BNSF right-of-way, where adjacent land uses are accustomed to freight and industrial movements.

Construction activities would cease after completion; therefore, impacts from these activities are considered temporary. Although impacts would be potentially significant in some instances, with mitigation, construction effects would be negligible under NEPA and the impact would be less than significant under CEQA.

Table 3.16-3
Summary of Impacts on KVPs under CEQA and NEPA by HST Alternative

Landscape Unit	BNSF Alternative Alignment	Corcoran Elevated Alternative	Corcoran Bypass Alternative	Allensworth Bypass Alternative	Wasco-Shafter Bypass Alternative	Bakersfield South Alternative
Central Fresno	Less than significant (CEQA) Negligible (NEPA)	NA	NA	NA	NA	NA
South Fresno	Less than significant (CEQA) Negligible (NEPA)	NA	NA	NA	NA	NA
Central Valley Rural/Agricultural	Significant (CEQA) Substantial (NEPA)	NA	Significant (CEQA) Substantial (NEPA)	Less than significant (CEQA) Negligible (NEPA)	Less than Significant (CEQA) Moderate (NEPA)	NA
Small Towns: Corcoran, Wasco, Shafter	Significant (CEQA) Substantial (NEPA)	Significant (CEQA) Substantial (NEPA)	Less than significant (CEQA) Negligible (NEPA)	Less than significant (CEQA) Negligible (NEPA)	Less than significant (CEQA) Negligible (NEPA)	NA
Rosedale (Greenacres)	Significant (CEQA) Substantial (NEPA)	NA	NA	NA	NA	Significant (CEQA) Substantial (NEPA)
Kern River	Significant (CEQA) Substantial (NEPA)	NA	NA	NA	NA	Significant (CEQA) Substantial (NEPA)
Central Bakersfield	–	NA	NA	NA	NA	Less than significant (CEQA) Negligible (NEPA)

NA = Not applicable, because the landscape unit is not associated with this alternative.

Note: These generalized determinations for landscape units do not necessarily mean that all KVPs in the landscape unit would have the same determinations of impacts; however, most KVPs did have the same impact determinations. For specifics, see Table 3.16-4, below.

The following temporary impacts would be common during the construction period for all HST alternatives and result in substantial adverse effects near residences, parks, and areas where people congregate, specifically where viewers are assumed to have high visual sensitivity:

- The project would create new sources of light and glare that may temporarily affect day and nighttime views. Construction lighting, although temporary, would result in an impact on nighttime views in the area surrounding construction activities. Lighting associated with nighttime construction would affect aesthetics and visual resources through an increase in ambient light, which may adversely affect nighttime views. This may be an annoyance not only in urban areas, such as Fresno and Bakersfield, but also in rural residential areas along the alignment, in the towns of Corcoran, Wasco, and Shafter, and at the Colonel Allensworth State Historic Park.

- The project would create visual nuisance in urban areas, primarily adjacent to residential and historical resources. Construction equipment, earthmoving, the construction process, and concrete plant operations may degrade visual aesthetics for adjacent viewers. Construction can cause dust, and material stockpiles can create an untidy appearance, collectively degrading the visual unity and intactness of the surroundings.

- As stated above, construction effects would be temporary, and although potentially significant in some instances, could be reduced to a less-than-significant level with mitigation under CEQA. Although the construction period effects would be similar under all HST alternatives, the visual degradation would be more noticeable in urban areas adjacent to residences and parks. All HST alternatives would substantially affect the Fresno and Bakersfield downtown areas during construction. The BNSF Alternative would also affect Downtown Corcoran, Wasco, and Shafter, and the Colonel Allensworth State Historic Park. The Corcoran Bypass, Wasco-Shafter Bypass, and Allensworth Bypass alternatives would avoid these impacts to the small towns and state park.

Project Impacts

As described in Section 3.16.4(B), analysts assessed aesthetic and visual impacts on each landscape unit and KVP by examining changes to visual quality using the FHWA visual quality analysis system (which is the accepted methodology used by federal and state transportation agencies). Existing views were compared to photo simulations, considering changes in visual quality and character, and taking into account viewer response, which includes viewer sensitivity and exposure. Where the project alternatives would result in a substantial lowering of the visual quality at a key viewpoint (KVP) as seen by viewers of high visual sensitivity and exposure, an impact for that landscape unit would exist. Simulated views show the proposed HST alternative that would be visible in the view, any necessary roadway redesign near the HST alternative(s), and, where applicable, the absence of structures that would be removed as part of the project. This section includes text describing the impacts on aesthetic and visual resources for each KVP within the landscape units. This section also includes photographs from some of the KVPs in each landscape unit along with simulations of the HST project. This section, does not include photographs and simulations of all KVPs, as some are less distinctive and redundant of the photos and simulations that are included in each landscape unit. See the *Fresno to Bakersfield Section: Aesthetics and Visual Resources Technical Report* (Authority and FRA 2011) for photographs and simulations of the HST project from all KVPs.

Common Aesthetics and Visual Quality Impacts

The HST stations in Fresno and Bakersfield would create a beneficial change in visual character when viewed from adjacent downtown locations. Because no officially designated state scenic highways exist near the HST alternatives, no impacts to such resources exist, and they are not

discussed further. Similarly, impacts related to new light and glare sources are not discussed further; the proposed HST stations in Fresno, Kings County, and Bakersfield would be designed to direct lighting downward. No overhead lights on the HST guideway are proposed, and train lights would be directed toward the guideway. This analysis, therefore, focuses on the visual effects caused by project structures, including stations, guideways, noise walls, HMF facilities, and so on, and, generally, on whether the project would adversely change visual quality, which may in turn affect other resources, such as historical or park resources.

The indirect effects of the project would be most noticeable at the HST stations and are expected to result in an overall improvement in visual quality. The HST project would also increase the potential for economic incentives through new development and redevelopment in areas near the HST stations. This would likely influence development patterns near the stations and could result in new project and urban design improvements that would increase the appeal of these areas over time. In residential, railroad, highway, and industrial areas, no indirect effects are anticipated because no new development along the alignment is anticipated.

Visual Effects from Major Project Structures

The operation of the HST and any of the alternatives would result in permanent changes to areas adjacent or within viewing range of the HST. These visual changes would occur through new features introduced in the environment, including HST stations, the HST guideways (both elevated and non-elevated portions), bridges and roadway grade separations, and a variety of HST infrastructure, such as traction power substations, HST alignment fencing, required sound walls up to 14 feet high in some locations, and the HST itself. These features would be incompatible and out-of-scale with the existing visual character in many locations.

All HST alternatives could cause visual intrusion and potential blocking of views from the use of sound walls where these are required. Sound walls used to mitigate impacts from noise (see Section 3.4, Noise and Vibration) may also act as intrusive visual barriers, depending upon their design, height, and location. However, sound barriers at ground level are typically installed in urban areas containing features in the landscape such as buildings, trees, signs, vehicles, overpasses, etc., that already block or intrude on scenic views (which, when present, are often distant views). Existing features also can block views of the ground-level sound barriers. Visual quality impacts from ground-level sound barriers can be avoided or minimized by incorporating aesthetic design features and vegetative screening. Sound barriers may be entirely solid or transparent or a combination of the two. When sound barriers are required on elevated guideways they are installed on top of guideway walls, and are not of such additional height as to block views from the vicinity of the guideway that are already blocked by the other guideway structures. Mitigation related to sound walls is discussed in Section 3.16.6, Mitigation Measures.

Change to Visual Quality

Table 3.16-4 provides viewpoint-specific impact summaries for KVPs within each landscape unit. The table lists the change the HST alternatives would have on the existing visual quality rating at each KVP according to the evaluation methodology, and classifies these impacts on aesthetics and visual resources according to NEPA and CEQA criteria. This table provides details for comparing the relative changes that each alternative would have within each landscape unit and was used to help develop the impact determinations shown in Table 3.16-3.

The following discussion highlights and explains the overall changes (or lack of change) in visual quality rating of each alternative on each landscape unit as well as the resulting NEPA and CEQA impacts. It also provides detailed discussions of impacts of the alternatives at each KVP, and the resulting NEPA and CEQA impacts.

Change to Visual Quality: BNSF Alternative Alignment

The following sections discuss potentially significant impacts to aesthetics and visual resources under the BNSF Alternative Alignment. The discussion is organized by landscape units, described previously in Section 3.16.4. Potential impacts are analyzed from KVPs, representing those situations where potentially substantial impacts to aesthetics and visual resources could occur. Where adverse impacts are not anticipated, no KVPs were identified.

Central Fresno Landscape Unit. In Downtown Fresno, the BNSF Alternative Alignment would be at-grade, adjacent to existing rail lines and to a rail marshaling yard. The at-grade tracks and train would thus blend with the existing rail corridor with minimal visual effect. In contrast, in views from adjacent locations in the downtown area, the proposed Fresno HST station alternatives would be highly prominent and substantially alter the setting's visual character. The visual quality of views within the landscape unit ranges from moderately high in the central business district to low in and around the existing rail corridor. The BNSF Alternative would result in a range of effects within this landscape unit, but in the context of the existing setting these would be primarily neutral or beneficial. The most prominent project feature in the Fresno Central Business District would be the proposed downtown station. Under the BNSF Alternative Alignment, the station would be across the street from Chukchansi Stadium, located at the edge of downtown, and would be large in scale and extent. Similarly, the proposed station would be the principal project feature visible from the Chinatown district.

The proposed Fresno station has not yet been fully designed. However, the overall station footprint, layout, volume, and scale as depicted in the simulations reflect the conceptual design of the station. Two station layout options, centered on Mariposa or Kern streets, respectively, are under consideration. Figure 3.16-13a depicts the existing view of the site of the proposed Mariposa Street option of the downtown HST station from KVP 1, at Tulare and H streets at the entrance to Chukchansi Stadium, looking west. The top image in Figure 3.16-16b depicts the conceptual station design with generic "functional" design treatment. The functional station demonstrates the scale and general architectural appearance of an HST station with minimal local agency involvement in the design process. Through collaboration with the City of Fresno, the station design may be further refined to incorporate additional aesthetic features that would result in a more iconic or architecturally distinct design. The bottom image depicts the same conceptual station design with an enhanced, "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design. The visual assessment for KVPs 1 and 2 is for a functional station at the pedestrian level.

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Sensitivity	NEPA Impact	CEQA Impact
BNSF Alternative Alignment						
Central Fresno Landscape Unit (see Figure 3.16-3 for KVP locations)						
Downtown Tulare and H Streets	KVP 1, 1A	Moderately low	Moderately high	Moderately high	Beneficial	Beneficial
Chinatown Mariposa Street (KVP2); G Street (KVP 2A)	KVP 2, 2A	Low	Moderately high	Moderately high	Beneficial	Beneficial
Central Valley Rural / Agricultural Landscape Unit						
(Typical Valley Agriculture View) (Viewpoint is typical and generic. No specific KVP location.)	KVP 3	Moderate	0.5-mile distance zone: - at-grade: Moderate - elevated: Moderately low 0.25-mile distance zone: - at-grade: Moderately low - elevated: Moderately low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.5-mile distance zone: - (at-grade segments): Moderate - (elevated segments): Substantial Residents in 0.25-mile distance zone: - (at-grade): Substantial - (elevated): Substantial	Residents in 0.5-mile distance zone: - (at-grade segments): Less than significant - (elevated segments): Significant Residents in 0.25-mile distance zone: - (at-grade): Significant - (elevated): Significant
Typical New Rural Road Overcrossing (Floral Avenue)	KVP 4	Moderate	0.5-mile distance zone: - Moderately low	Nearby residents: Moderately high Other viewers: Low	Residents in 0.25-mile distance zone: Substantial Residents outside 0.25-mile distance zone: Moderate	Residents in 0.25-mile distance zone: Significant Residents outside 0.25-mile distance zone: Less than significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Sensitivity	NEPA Impact	CEQA Impact
Kings/Tulare Regional Station Site from SR 43 (see Figure 3.16-4 for KVP location)	KVP 5	Moderate	Moderately low	Adjacent residents: High Motorists: Moderate	Adjacent residents: Substantial Motorists: Moderate	Adjacent residents: Significant Motorists: Less than significant
Small Town (Corcoran, Wasco, Shafter) Landscape Units						
Downtown Corcoran Otis Avenue looking south (see Figure 3.16-5 for KVP location)	KVP 6	Moderate	Moderate Patterson Avenue: Moderately low/ Low	High	Moderate, except: Patterson Avenue: Substantial	Less than significant, except: Patterson Avenue: Significant
Downtown Wasco (see Figure 3.16-6 for KVP location)	KVP 7	Moderate	Moderately low	High	Substantial	Significant
Downtown Shafter (see Figure 3.16-7 for KVP location)	KVP 8	Moderate	Moderately low	High	Substantial	Significant
Colonel Allensworth State Historic Park Landscape Unit						
Colonel Allensworth State Historic Park (see Figure 3.16-8 for KVP location)	KVP 9	Moderately High	Low	High	Substantial	Significant
Rosedale/Greenacres Landscape Unit						
View from Verdugo Lane, Rosedale (at-grade segment) (see Figure 3.16-10 for KVP location)	KVP 10	Moderate	Moderate (at-grade segment)	High	Moderate	Less than Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Sensitivity	NEPA Impact	CEQA Impact
View from Palm Avenue, Rosedale (elevated segment) (see Figure 3.16-10 for KVP location)	KVP 11	Moderate	Moderately low (elevated segment)	High	Substantial	Significant
Kern River Landscape Unit						
Kern River from Parkway Trail (see Figure 3.16-11 for KVP location)	KVP 12	Moderately High	Moderately low	Moderately high	Substantial	Significant
Central Bakersfield Landscape Unit (see Figure 3.16-12 for KVP locations)						
Central Bakersfield Residential	KVP 13	Moderate	Moderately low (0.25-mile distance zone)	High (Residents in 0.25-mile distance zone)	Substantial	Significant
Bakersfield High School	KVP 14	Moderate	Low	High	Substantial	Significant
L Street near Truxtun Avenue looking toward BNSF Alternative guideways	KVP 15	Moderate	Moderately low	Moderately high	Substantial	Significant
Truxtun Avenue, looking toward BNSF Alternative Station	KVP 16	Moderate	Moderately high	Moderately high	Beneficial	Beneficial
Corcoran Elevated Alternative						
Small Town (Corcoran) Landscape Unit						
Downtown Corcoran Whitley Ave. looking east (see Figure 3.16-5 for KVP location)	KVP 17	Moderate	Moderately low	High	Substantial	Significant

Table 3.16-4
Summary of Visual Quality Changes and Impacts at Key Viewpoints

KVP Location	KVP #	Visual Quality Rating–Existing	Visual Quality Rating–With Project	Viewer Sensitivity	NEPA Impact	CEQA Impact
Corcoran Bypass Alternative, Wasco-Shafter Alternative						
Central Valley Rural/Agricultural Landscape Unit						
See KVP 4 (Viewpoint is typical and generic. No specific KVP location.)	Same as KVP 4	Moderate	0.5-mile distance zone (at-grade): Moderate 0.25-mile distance zone (at-grade): Moderately low	Nearby residents, Park visitors: Moderately high/High Other viewers: Low	Residents, park visitors in 0.5-mile distance zone: Moderate Residents, park visitors in 0.25-mile distance zone: Substantial	Residents, park visitors in 0.5-mile distance zone: Less than significant Residents, park visitors in 0.25-mile distance zone: Significant
Allensworth Bypass Alternative						
Colonel Allensworth State Historic Park Landscape Unit						
Colonel Allensworth State Historic Park, looking northwest (see Figure 3.16-8 for KVP location)	KVP 18	High	High	High	Negligible	Less than significant
Bakersfield South Alternative						
Central Bakersfield Landscape Unit (see Figure 3.16-12 for KVP locations)						
S Street near Amtrak Station, looking toward Bakersfield South Station	KVP 19	Moderate	Same as BNSF Alternative (above)	Moderately High	Central Bakersfield residential, Bakersfield High, foreground of guideways: Substantial Station area: Beneficial	Central Bakersfield residential, Bakersfield High, foreground of guideways: Significant Station area: Beneficial

Conceptual Station Design (Functional Design Treatment)
with Tulare Street Underpass

Conceptual Station Design (Iconic Design Treatment)
with Tulare Street Underpass

Figure 3.16-13b
Key viewpoint 1: Downtown Fresno Station – Mariposa Alternative
from downtown (H Street at Tulare Street) looking west – visual simulations

Source: VBN Architects, 2011

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Figure 3.16-14b
Key viewpoint 2: Downtown Fresno Station - Mariposa Alternative from Chinatown (China Alley between F and G Streets) looking north - visual simulations

Source: VBN Architects, 2011

a. Existing View

b. Conceptual Station Design (Functional Design Treatment)

Figure 3.16-15
Key viewpoint 1A: Downtown Fresno Station - Kern Alternative from downtown (H Street at Tulare Street) looking south

Source: VBN Architects, 2011

a. Existing View

b. Conceptual Station Design (Functional Design Treatment)

Figure 3.16-16
Key viewpoint 2A: Downtown Fresno Station - Kern Alternative from Chinatown (G Street near Kern Street) looking north

Source: VBN Architects, 2011

Within the context of Fresno's downtown urban form, the proposed station with either of the depicted design treatments would be larger than most nearby existing development and would be highly prominent, but not out-of-scale or character with its setting. Other existing structures of similar height, or greater, including 10- and 12-story high-rises and 6-story parking structures, are located within a block or two of the site. In the context of the surrounding surface parking and industrial uses, the proposed station would substantially improve visual quality from moderately low to moderately high, introducing well-designed architecture, enhanced street landscaping, and the resulting high degree of visual unity into a visually blighted area. From this KVP, the level of change in visual quality from the project, combined with the level of viewer sensitivity, would result in a beneficial effect under NEPA and no impact under CEQA.

The proposed station under both layout alternatives would retain the historic Southern Pacific train depot west of the bus depot on H Street. A principal difference between the two alternatives is that under the Fresno Station–Kern Alternative, the station would be one block to the southeast, centered on Kern Street, and would leave the existing SP Depot and adjacent bus terminal unchanged. Visual exposure of the Southern Pacific Depot to the public would thus remain limited by the existing bus terminal, as is currently the case. Under the Fresno Station–Mariposa Alternative, depicted in the simulations, the HST station would adjoin the Southern Pacific Depot and remove the existing bus terminal to make way for station parking, opening new views of the depot. The layout of the Mariposa alternative has also been configured to enhance views of the historic railroad depot and associated Pullman car sheds to viewers in the vicinity. This increased public visual access to the distinctive, historic structure would be a beneficial impact. This topic is discussed in detail in Section 3.17, Cultural and Paleontological Resources, . The Mariposa alternative would include a pedestrian bridge to convey passengers from H Street to the HST platform. This bridge would pass between the depot and the adjacent Pullman car sheds, leaving both structures unaffected. The layout of the Mariposa alternative is depicted on Figure 2-35.

Figure 3.16-14a depicts the existing view and Figure 3.6-14b simulates the Fresno Station–Mariposa Alternative and guideway from KVP 2, Mariposa Street between F and G streets near China Alley in Chinatown, facing northeast toward the proposed southwestern station entrance. The proposed station would be the principal project feature visible from this area. The top image in Figure 3.16-14b depicts the conceptual station design with generic "functional" design treatment; the bottom image depicts the same conceptual station design with a possible enhanced, "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design.

As described in the discussion of views of the HST station from downtown to the north, the introduction of the HST station would substantially improve the visual quality of the streetscape as viewed from Chinatown to the south. Vividness and visual unity would be enhanced by unified architectural and streetscape design, replacing the heterogeneous, visually chaotic quality of existing industrial uses. The HST station on the BNSF Alternative Alignment would thus improve the existing visual character and quality of the site, and its surroundings. From this KVP, the level of change in visual quality from the project, combined with the level of viewer sensitivity, would result in a beneficial effect under NEPA and no impact under CEQA.

Figure 3.16-15, Existing View, depicts the existing view of the site of the proposed Fresno Station–Kern Alternative from KVP 1A, at Tulare and H streets at the entrance to Chukchansi Stadium, looking south. Figure 3.16-15, Conceptual Station Design (Functional Design Treatment), depicts a simulated view of the conceptual station design with generic "functional" design treatment. Figure 3.16-16, Exiting View, depicts the existing view of the site of the proposed Kern Alternative of the downtown HST station from KVP 2A in Chinatown at G Street near Kern Street, looking north. Figure 3.16-16, Conceptual Station Design (Functional Design Treatment), depicts a simulated view of the conceptual station design with generic "functional"

design treatment. As suggested in the simulations, effects of the Kern Alternative station would be substantially similar to those under the Mariposa Street Alternative as seen from both downtown and Chinatown. From this KVP, the level of change in visual quality from the project, combined with the level of viewer sensitivity, would result in a beneficial effect under NEPA and no impact under CEQA.

Various options are under consideration for roadway crossings over or under the proposed HST right-of-way in Downtown Fresno. Tulare and Ventura streets, roughly between Fulton Mall and E Street, could be transformed into overcrossings similar to existing ones on nearby Tuolumne and Stanislaus streets. Sensitive receptors and visual sensitivity in the vicinity of Ventura Street are minimal and adverse impacts would not be anticipated. The immediate Tulare Street streetscape, however, includes the main entrance to Chukchansi Stadium and the historic Southern Pacific Depot. A Tulare Street overcrossing would adjoin these sites as well as Fulton Mall, a high-sensitivity location used by high numbers of pedestrian visitors to downtown. As depicted on Figure 3.16-13a, Conceptual Station Design (Functional Design Treatment), a Tulare Street overcrossing would introduce a large-scale concrete structure of utilitarian character into the visual foreground. The overcrossing would intrude into views to and from the stadium entrance, the proposed HST station entrance, and the historic Southern Pacific Depot, with adverse effects on the visual quality of the future streetscape. Though arguably no worse visually than the existing setting, the overcrossing would substantially reduce the potential beneficial effects of station development on this portion of downtown and Chinatown, compromising potential visual intactness and unity.

The road overcrossing is located to the north of the stadium entrance and would thus not cast shadow on the park or park entrance. It would cast shadow on the proposed HST station and Southern Pacific Depot during some hours and seasons of the year. However, as there would be no significant shadow impacts to any nearby recreational or residential uses, there would be no effect under NEPA and no impact under CEQA.

San Joaquin Valley Rural/Agricultural Landscape Unit. As described in Section 3.16.4, the San Joaquin Valley Rural/Agricultural Landscape Unit makes up the great majority of the project, comprising most of the alignment between the cities of Fresno and Bakersfield. This vast area includes riparian corridors, rural cities/towns, and the Colonel Allensworth State Historic Park, which are discussed separately below.

KVP 3 depicts simulations of typical views of the project within the valley agricultural landscape unit. The simulations are not intended to depict a specific location, but rather illustrate the level of the project's visual prominence and effect to viewers at different distances within this landscape. Figure 3.16-17 depicts simulations of typical views of the project at-grade within the rural valley setting at distances of 0.25 mile and 0.50 mile. Figure 3.16-18 simulates the HST on an elevated guideway section in the rural valley setting at distances of 0.25 mile and 0.50 mile.

Visual quality varies from location to location within the rural valley, but is generally moderate. Although intactness and unity can sometimes be moderately high, in general, they are moderate, and vivid features are generally lacking in the level, often monotonous terrain. As described in Section 3.16.4, above, viewers in this landscape consist principally of agricultural workers, rural residents, and motorists on nearby highways. Of these, nearby rural residents constitute the primary high-sensitivity viewer group that would be affected by the project. Affected rural residents range from single, isolated homes to small rural residential settlements. High-sensitivity recreational viewers in the rural valley are discussed separately, below, under the Kings River and Allensworth State Historic Park landscape units. The sensitivity of other viewer groups in this landscape unit ranges from moderate to low.

a. Simulated View - 0.25-mile distance

b. Simulated View - 0.50-mile distance

Figure 3.16-17
Key viewpoint 3: simulations of high-speed train at-grade in rural landscape

Source: William Kanemoto & Associates, 2011.

a. Simulated View - 0.25-mile distance

b. Simulated View - 0.50-mile distance

Figure 3.16-18
Key viewpoint 3: simulations of high-speed train on elevated guideway in rural landscape

Source: William Kanemoto & Associates, 2011.

The height of the at-grade HST rail bed would vary to a maximum of about 12 feet. Within 0.25 mile of the right-of-way, the elevated berm, security fencing, and detail of the OCS poles and wires would be visible and their highly industrial character would contrast with the rural setting. These impacts would be exacerbated if sound walls are constructed in proximity to sensitive viewers. Beyond 0.25 mile, these features would be less prominent. At distance the low horizontal line of the HST would parallel and blend with the dominant horizontal plane of the prevailing terrain, with a moderate or moderately low overall effect on existing visual intactness and unity.

Roadway overcrossings would be constructed where at-grade segments of the HST alignment cross existing roads. These features would alter the area's character from rural to more urban/ More than 50 such overcrossings are anticipated in rural areas under the BNSF Alternative Alignment. A substantial proportion, though not all, of these overcrossings would be adjacent to one or more rural residences. Residents are again assumed to have high viewer sensitivity to these impacts, although their overall numbers would be small. Figure 3.16-19 depicts the existing view from KVP 4 and a simulation of a typical HST rural overcrossing. KVP 4 represents views seen from the vicinity of an adjoining rural residence at close distance. In views from rural residences at distances of under 0.25 mile, the road crossings would be prominent, resulting in a strong decline in visual intactness, unity, and overall visual quality.

Substantial changes to visual character or quality would be experienced primarily by rural residents within 0.5 mile of elevated sections of the HST, within 0.25 mile of at-grade sections of the HST alignment or of new rural roadway overcrossings. Because the HST would create a substantial change in the rural character of the area resulting in a decline in visual quality in the context of the moderately high viewer response of these rural residents, the BNSF Alternative Alignment would substantially degrade the existing visual character or quality of the site and its surroundings, resulting in a substantial effect under NEPA and a significant impact under CEQA. Figure 3.16-20 shows the existing view from KVP 5 and a simulation of the potential Kings/Tulare Regional Station from KVP 5. The view is from the adjoining 8th Avenue (SR 43) at a distance of 0.5 mile, looking northeast. The proposed station, though large and very prominent, would be sufficiently distant from the highway to recede in dominance, paralleling the horizontal lines of the valley topography and horizon. The middle-ground view of the station by passing motorists would be softened by tree canopies and other landscaping. Consequently, vividness of the scene from such nearby public viewpoints could be enhanced. The introduction of the large structure would, however, lower intactness and unity. Overall, the effect on visual quality would be moderate. In the context of moderate viewer response of motorists on SR 43, the project would not substantially degrade the existing visual character or quality of the site and its surroundings. This impact to motorists would thus be a moderate effect under NEPA and a less than significant impact under CEQA.

The impacts of the Kings/Tulare Regional Station to nearby rural residents would be due primarily to the adjacent aerial structure and would be as described above, under KVP 3. Because a substantial decline in visual quality would be experienced by adjoining residential viewers with high sensitivity, this impact would be substantial and significant for residences abutting the right-of-way to the southeast of the proposed station.

Major creeks and rivers, and their accompanying riparian forest canopy, are a highly distinctive and valued feature of the Central Valley landscape. The BNSF Alternative Alignment would cross four of these, the Kings and Tule rivers, and Cross and Poso creeks, within the rural San Joaquin Valley. The Kings River is the most prominent river crossing within the rural valley, and is identified as an important regional scenic resource in the Kings County General Plan. However, the Kings River crossing of the proposed BNSF Alternative Alignment would be located within a setting dominated by fruit tree orchards, which would screen visibility of the HST from all nearby public viewpoints. Consequently, no simulated view of the project is depicted. Effects of the river

a. Existing View

b. Simulated View

Figure 3.16-19
Key Viewpoint 4 – existing view and simulation of typical new rural road overcrossing (Floral Avenue)

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-20
Key viewpoint 5: existing and simulated views of potential Kings/Tulare Regional Station from 8th Avenue (SR 43)

Source: William Kanemoto & Associates, 2010; VBN Architects, 2011.

crossing to viewers on the nearest major roadway, SR 43, would be minor, limited to a momentary elevated view from a short overcrossing of SR 43 above the HST right-of-way. Because this impact would be of limited severity and momentary in character, it would be a negligible effect under NEPA and a less than significant impact under CEQA. River recreationists have higher levels of sensitivity than motorists. However, of the four river crossings, only the Kings River is wide enough in the vicinity of the project crossing to receive any recreational use. At the Kings River, viewer exposure to the alignment crossing would be limited to a very short segment because meanders in the river and the riparian vegetation on its banks would screen most views. Although strong adverse effects to visual quality could be experienced in the immediate vicinity, the project would not substantially degrade the visual character or quality for recreationists beyond a very short distance. Because of the very limited range of effect, this impact would be a moderate, less-than-significant impact. No recreational use occurs at the other three crossings, and the impacts would thus be negligible under NEPA and less than significant under CEQA.

Rural City/Town Landscape Units (Corcoran, Wasco, and Shafter). The BNSF Alternative Alignment would follow the existing BNSF right-of-way through the downtowns of Corcoran, Wasco, and Shafter. The major sensitive viewer groups in these towns are residents, users of nearby local parks, and visitors to the town centers. Figures 3.16-21 through 3.16-23 provide existing views and simulations of the HST in Downtown Corcoran, Wasco, and Shafter, respectively. Figure 3.16-21 depicts the view from KVP 6, from Otis Avenue near Whitley Avenue, Downtown Corcoran's main street, near the Amtrak Station, facing south from a park across the street from the proposed right-of-way. Figure 3.16-22 depicts the view from KVP 7 in Wasco, from the intersection of 7th Avenue and F Street, Wasco's main street and the heart of the old town, at a distance of roughly 600 feet, facing east. Figure 3.16-23 depicts the view from KVP 8, in Shafter, from the intersection of Poso Avenue and SR 43, looking north to the historic Shafter Depot Museum at a distance of approximately 350 feet. The elevated guideway in Wasco would be approximately 50 feet high. In Shafter it would be approximately 68 feet high. The OCS poles would extend about 24 feet above the guideway in all cases.

The BNSF Alternative in Corcoran would be at-grade and require relocation of the existing Amtrak station at Whitley and Otis avenues. The loss of visual interest from removal of this building, however, would be compensated by its replacement elsewhere in the downtown area, with a neutral net effect on the visual quality of the downtown setting. Preservation of the prominent existing row of palm trees, street lights, and other landscaping on the east side of Otis Avenue would retain the most vivid features of that streetscape, maintaining its intactness and unity.

Visual effects of the HST itself would be similar to existing freight trains in the same railroad corridor and would thus be largely neutral. The most prominent anticipated visual effects in Downtown Corcoran would be due to new road overcrossings at Patterson and Flory avenues and to a traction power supply station (TPSS) south of Whitley Avenue. The overcrossings represent a common feature of urban settings with generally moderate visual effects. However, depending on the precise overcrossing design, concrete retaining walls of the proposed crossing at Patterson Avenue could directly abut a number of homes and cast permanent shadow on some portion of these residences on Patterson Avenue resulting in a substantial effect under NEPA and a significant impact under CEQA. The TPSS would be located within an industrial area of relatively low existing visual quality and would thus have less-than-significant effects.

Due to the scale and height of the elevated BNSF Alternative guideway in Wasco and Shafter, the effects of the guideway would strongly intrude into adjacent areas within the foreground distance up to 0.25 mile. The project would be prominent in sight lines down perpendicular streets within foreground distances, and sometimes be visible above nearby rooftops to high numbers of viewers.

a. Existing View

b. Simulated View

Figure 3.16-21
Key viewpoint 6: existing and simulated views of high-speed train in Corcoran from Otis Avenue near Whitley Avenue, looking south

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-22
Key viewpoint 7: existing and simulated views of high-speed train in Wasco from 7th Avenue and F Street, looking east toward the Amtrak Station

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-23
Key viewpoint 8: existing and simulated views of high-speed train in Shafter from Poso Avenue and SR 43 toward the Shafter Depot Museum

Source: William Kanemoto & Associates, 2011.

Strong adverse effects to existing visual intactness and unity would result from the introduction of this visually dominant feature of urban, industrial character into the small agricultural town setting. Because of the central location of the alignment within Wasco and Shafter, the aerial structures would exert a strong influence on the image and character of these towns, altering the prevailing scale and introducing a strongly urban and industrial character into the town centers. In Wasco, the aerial structures would pass directly above the existing Amtrak station. Nearby residents, park users, and visitors to the main streets of these towns would experience strong declines in visual quality. These effects would be exacerbated wherever sound walls are required. In the context of the moderately high to high viewer response of adjacent residents and visitors to the central business districts of these towns, the aerial structures would substantially degrade the existing visual character or quality of the area bordering the BNSF Alternative Alignment in Wasco and Shafter resulting in a substantial effect under NEPA and a significant impact under CEQA.

Colonel Allensworth State Historic Park Landscape Unit. Figure 3.16-24 shows the existing view (top) and the simulated view (bottom) from KVP 9, the Colonel Allensworth State Historic Park, looking east toward the BNSF Alternative Alignment. The centerline of the BNSF Alternative Alignment is just over 100 feet from the eastern boundary of the park at this location. At this distance, the project would be a visually dominant feature, noticeably contrasting with the existing visual character. The 24-foot-high OCS system components and wires, right-of-way fencing, and HSTs would introduce distinctly modern industrial elements into the visual foreground that would alter the character of the site and lower visual quality.

The intact landscape setting is a major component of the attraction of the historic district, which evokes an early-twentieth-century agricultural valley landscape. The integrity of the landscape setting is thus a critical part of the park experience. The prominent, incongruous project elements would intrude into that experience, reducing the integrity of the visual setting. The high-speed trains would pass the park at close distance and their considerable length, bright color, and rapid motion would make them highly visible. From this KVP, the level of change in existing visual character or quality of the highly sensitive site and its surroundings from the project would result in a substantial effect under NEPA and a significant impact under CEQA.

City of Bakersfield: Rosedale/Greenacres Landscape Unit. Figure 3.16-25, Existing View, shows the existing view from KVP 10, and Figure 3.16-25, Simulated View, simulates sound walls at the edge of the HST right-of-way in at-grade segments within the community of Rosedale/Greenacres. The walls would be up to 14 feet high and would primarily be seen at the back property lines of residential parcels adjoining the right-of-way, over lots vacated by removal of homes, and occasionally at the end of adjoining streets as in this simulated view. A large number of homes would be removed for the proposed right-of-way in Rosedale. The specific homes to be relocated are not currently known, and although this could result in a substantial change to the affected neighborhoods, the overall effect on visual character and quality for remaining residents would be moderate. The primary visual project feature in at-grade segments would remain the sound walls at the edge of right-of-way. From this KVP, these features would represent a moderate decline in intactness, unity, and overall visual quality and would result in a negligible effect under NEPA and a less than significant impact under CEQA.

Figure 3.16-26, Existing View, shows the existing view from KVP 11 (Palm Avenue in Rosedale/Greenacres, looking east), and Figure 3.16-26, Simulated View, simulates the view of the HST elevated guideway from KVP 11. Rosedale/Greenacres is an unincorporated suburb northwest of Bakersfield. Although the existing setting lacks vividness, the HST on the BNSF Alternative Alignment would create very strong declines in intactness and unity, thereby substantially reducing the overall visual quality in those areas where the aerial structure is visible at a foreground distance from residences.

a. Existing View

b. Simulated View

Figure 3.16-24
Key viewpoint 9: existing and simulated views of high-speed train from Colonel Allensworth State Historic Park

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-25
Key viewpoint 10: existing and simulated views of high-speed train on BNSF Alternative Alignment at-grade in Rosedale/Greenacres from Verdugo Lane, looking south

Source: Newlands & Co., 2011

a. Existing View

b. Simulated View

Figure 3.16-26
Key viewpoint 11: existing and simulated views of high-speed train on BNSF Alternative Alignment in Rosedale/Greenacres from Palm Avenue, looking east

Source: Newlands & Co., 2011

The aerial structure would introduce a highly dominant concrete guideway structure of up to 80 feet in height that would noticeably contrast with the single-story, low-density setting. The guideway would be a dominant feature in views from or near residences within roughly 0.25-mile of the right-of-way. For single-story residences adjacent to the HST in this segment, the effects of the elevated guideway would be exacerbated by views of right-of-way fencing and support columns.

In the context of moderately high viewer response in this area, the project would substantially degrade the existing visual character or quality of the site and its surroundings and would thus be a substantial effect under NEPA and a significant impact under CEQA.

City of Bakersfield: Kern River Landscape Unit. Figure 3.16-27, Existing View, depicts the existing view from KVP 12, and Figure 3-16-27, Simulated View, simulates the HST on the BNSF Alternative Alignment north of Truxtun Avenue and midway between Coffee Road and SR 99. The bicycle trail in the foreground is within the Kern River Parkway, which is approximately 600 feet from the right-of-way. Sensitive viewer groups in this area include recreational visitors of various types including hikers, bicyclists, picnickers, workers on lunch breaks, and users of nearby tennis courts. The guideway would be up to 80 feet high at this location, with 24-foot OCS poles above. KVP 12 is located toward the northern limit of a highly improved portion of the Kern River Parkway, extending roughly 2 miles east of Coffee Road. The parkway in this reach of the river includes extensive riparian habitat restoration and tree planting, a year-round artificial lake, extensive turfed and landscaped parklands, and bike and walking trails.

As shown in Figure 3.16-27, Simulated View, the project would introduce a highly dominant feature of very urban character into views within the parkway, particularly those within roughly 0.25 mile of the alignment. Scenic elements, including distant views of the river, mountains, and sky, would be partially blocked by intrusion of the structure into the middle ground.

Intactness and unity of views of the river and parkway would also be strongly compromised by intrusion of the urban, industrial structure into the middle ground of views currently dominated by natural features. The HST would thus reduce the overall visual quality of views from within the parkway.

In the context of moderately high viewer response in this area, the project would substantially degrade the existing visual character and quality of the site and its surroundings. From this KVP, this change would thus be a substantial effect under NEPA and a significant impact under CEQA.

The BNSF Alternative Alignment would cross SR 99 immediately east of the Kern River. Because of its location near the primary interchange/off-ramp leading from SR 99 to downtown, project structures spanning the freeway could create a “gateway” effect to southbound motorists entering the city from the north. However, the project overcrossing of SR 99 would be prominent in views from the freeway for only a short distance and brief period of travel, and is thus not expected to strongly lower visual quality from this short affected segment of freeway.

City of Bakersfield: Central Bakersfield Landscape Unit. For approximately 0.5 mile between Oak Street and Mercy Hospital and Bakersfield High School at A Street, the BNSF Alternative Alignment would pass within 650 feet (1/8-mile) of residences on 16th Street to the north; within similar distances of residences south of California Avenue; and within 0.25 mile of Jastro Park and nearby residences in the surrounding neighborhoods (KVP 13; the view of KVP 13 was not simulated). For residential viewers within about 0.25 mile of the project, especially homes on 16th Street and California Avenue, the contrasting scale and character of the elevated concrete guideway and support columns, as well as associated right-of-way clearing and fencing, would result in a moderate to moderately strong decline in the intactness, unity, and overall visual quality of the existing residential setting. (No simulations are depicted for these locations.)

In the context of high viewer response typical of residential neighborhoods near the elevated alignments and from this KVP, the project would thus substantially degrade the existing visual character or quality of the site and its surroundings. This change would be substantial under NEPA and a significant impact under CEQA.

Figure 3.16-28, Existing View, shows the existing view from KVP 14 (on the BNSF Alternative Alignment, looking northeast from the Bakersfield High School stadium bleachers at a distance of approximately 500 feet) and Figure 3.16-28, Simulated View, simulates the HST from KVP 14. The guideway would be in a two-track configuration about 60 feet high at this location.

The HST on the BNSF Alternative Alignment would introduce a highly dominant structure of incompatible industrial character to the Bakersfield High School campus, replacing the existing Industrial Arts Building with a 60-foot-tall guideway, an area of cleared land, and exposing views of rail yard and industrial development to the north, strongly reducing intactness and unity. Together, these effects would represent a strong decline in visual quality of the campus, from moderate to low quality, particularly along 14th Street. In the context of high viewer response of this National Register-eligible site, the project would substantially degrade the existing visual character and quality of the site and its surroundings. Due to the strong adverse effect and high viewer sensitivity, this impact would be a substantial, significant impact. Because the guideway would be located north of the school campus, shadow impacts are not anticipated.

KVP 15 is on L Street near Truxtun Avenue. The view is looking south toward the BNSF Alternative Alignment. Figure 3.16-29, Existing View, shows the existing view from KVP 15, and Figure 3.18-29, Simulated View, provides a simulation of the HST alignment. This view represents a typical foreground view of how the guideway would appear within Downtown Bakersfield.

Due to the height, central location, and presence of the guideway through the entire length of the central city, the project would be visible over a large area of downtown to distances of 0.5 mile or more, and be a prominent feature in the city's skyline. Based on the high concentration and type of use (recreational, visitor-serving, governmental, etc.), and the importance of the downtown/Truxtun corridor image, viewer sensitivity is considered moderately high, and overall viewer response similarly is considered moderately high.

The guideways would exhibit an industrial and utilitarian character that would contrast with the character of the adjacent commercial buildings and detract from the moderately high visual quality of downtown. These effects would increase if sound walls are constructed. Overall, the guideway, without design mitigation, would have a moderate to strong adverse effect on the setting's visual quality. The project would thus substantially degrade the existing visual character and quality of the site and its surroundings. With the high concentration of visitors to the downtown and moderately high viewer response from this KVP, this would be a potentially substantial effect under NEPA and a significant impact under CEQA. These impacts could be reduced by proposed project design measures to be undertaken in coordination with the City of Bakersfield.

a. Existing View

b. Simulated View

Figure 3.16-27
Key viewpoint 12: existing and simulated views of high-speed train on BNSF Alternative Alignment from Kern River Parkway Bicycle Trail, looking north

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-28
Key viewpoint 14: existing and simulated views of high-speed train from Bakersfield High School stadium, looking northeast

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Simulated View

Figure 3.16-29
Key viewpoint 15: existing and simulated views of high-speed train from L Street near Truxtun Avenue in Downtown Bakersfield

Source: William Kanemoto & Associates, 2011.

KVP 16 is on Truxtun Avenue across the street from the Bakersfield Convention Center, looking southeast toward the station. Figure 3.16-30a shows the existing view from KVP 16, and Figure 3.16-30b depicts two conceptual simulations of the Bakersfield Station–North Alternative on the BNSF Alternative Alignment. A portion of the Amtrak station is visible in the background of the photo to the right of the frame. Predominantly low-rise offices and residences south of Truxtun Avenue east of Q Street would be exposed to unobstructed views of the station and guideway from Truxtun Avenue These views would be blocked by taller, large-scale office and government buildings farther to the west toward the center of downtown. The top image in The top image on Figure 3.16-30b depicts the conceptual station design with generic "functional" design treatment. The functional station demonstrates the scale and general architectural appearance of an HST station with minimal local agency involvement in the design process. Through collaboration with the City of Bakersfield, the station design may be further refined to incorporate additional aesthetic features that would result in a more iconic or architecturally distinct design. The bottom image on Figure 3.16-30b depicts the same conceptual station design with an enhanced, "iconic" design treatment. Together, the two simulations represent a range of the possible design treatments that might be employed in the final design. Figure 3.16-31c shows other conceptual simulations of the two levels of possible design treatment. The visual assessment for KVP 16 is for a functional station at the pedestrian level.

As suggested in the simulations, the HST station would be large in scale but would remain compatible with the surrounding mid-rise buildings and predominantly modern architecture in the central downtown area. In addition, the station would substantially enhance the area's vividness. The Authority will work closely with the city to develop and refine architectural, site design and landscape treatments for the station and vicinity that enhance the area's character through coherent, unified design, compatible scale and massing, and surface and façade treatments in keeping with the adjoining commercial and governmental uses. No scenic views or view corridors from downtown in the direction of the project would be adversely affected by the HST station or guideways.

Extensive streetscape landscaping associated with the stations would increase intactness and provide visual coherence as tree canopies mature. The station architecture would increase unity with the surrounding setting and enhance vividness with attractive design. There would be a high degree of consistency between the existing foreground of civic and commercial uses and the proposed form, scale, and character of the station. Existing intactness and unity would thus be increased, and vividness enhanced. Overall, the station would have a beneficial effect on the setting under NEPA and CEQA.

The southern side of the proposed station would face an area that is characterized by industrial land uses that include warehouses, manufacturing, and storage facilities. The existing visual quality of this area is very low. The site of the proposed station and associated guideways, parking structures, intermodal facilities, and access streets are not currently visible from any publicly accessible vantage points within the existing setting, and for that reason have not been depicted in this analysis.

There are currently no moderate or highly sensitive viewer groups south of the proposed station. The city plans to re-zone this area to include various mixed-use developments, converting the existing industrial area into a more mixed-use setting (City of Bakersfield, 2005a, 2005b). This expected long-term trend would represent a substantial improvement to the future visual quality of the area.

Figure 3.16-30a
Key viewpoint 16: Bakersfield Station - North Alternative, existing view

Source: William Kanemoto & Associates, 2010; VBN Architects, 2011

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Figure 3.16-30b
Key viewpoint 16: Bakersfield Station - North Alternative from Truxtun Avenue, visual simulations

Source: William Kanemoto & Associates, 2011; VBN Architects, 2011; Newlands and Company, 2011

Conceptual Station Design (Functional Design Treatment)

Conceptual Station Design (Iconic Design Treatment)

Figure 3.16-30c
Key viewpoint 16: Bakersfield Station - North
Alternative, visual simulations

Source: William Kanemoto & Associates, 2011; VBN Architects, 2011; Newlands and Company, 2011

a. Existing View

b. Simulated View

Figure 3.16-31
Key viewpoint 17: existing and simulated views of Corcoran Elevated Alternative Alignment from Whitley Avenue near Otis Avenue, looking east

Source: William Kanemoto & Associates, 2011.

From east of Union Avenue to the project terminus at Baker Street, the BNSF Alternative Alignment would continue for approximately 0.5 mile over a predominantly industrial area of very low visual quality and sensitivity. However, the alignment would also require removal of a small number of residences on Dolores Street, and would directly adjoin remaining residences in a small residential neighborhood beginning at Kern Street and continuing for approximately 0.75 mile east of the Baker Street project terminus. The change in visual quality and the character of the elevated guideways on adjacent, high-sensitivity residential viewers would be strong. Therefore, effects on these residents would be substantial under NEPA and significant under CEQA.

C*hanges to Visual Quality: Corcoran Elevated Alternative Alignment*

Figure 3.16-31, Existing View, shows the existing view from KVP-17 (on Whitley Avenue near Otis Avenue, looking east), and Figure 3.16-31, Simulated View, shows a visual simulation of the HST on the Corcoran Elevated Alternative Alignment, as seen from KVP-17. Under this alternative the project would be elevated between roughly Niles Avenue in the north to 4th Avenue to the south of downtown Corcoran. Impacts would be similar to those described under the BNSF Alternative Alignment in the towns of Wasco and Shafter. Due to the scale and height of the elevated guideway, the effects of the guideway would strongly intrude into adjacent areas within the foreground distance up to 0.25 mile. The project would be prominent in sight lines down perpendicular streets within foreground distances, and sometimes be visible above nearby rooftops to a high numbers of viewers.

Strong adverse effects to existing visual intactness and unity would result from the introduction of this visually dominant feature of urban, industrial character into the small agricultural town setting. Due to its central location adjacent to the downtown center, the aerial structure would exert a strong influence on the image and character of the town, altering the prevailing scale and introducing a strongly urban, industrial character into the town center. Nearby residents, park users, and visitors to the towns' main streets would experience strong declines in visual quality. These effects would be exacerbated wherever sound walls are required. In the context of moderately high to high viewer response of adjacent residents and visitors to the town's central business district, the aerial structure would strongly degrade the existing visual character or quality of the area within roughly 0.25 mile resulting in a substantial effect under NEPA and a significant impact under CEQA.

Changes to Visual Quality: Corcoran Bypass and Wasco-Shafter Bypass Alternative Alignments

The Corcoran Bypass and Wasco-Shafter Bypass alternatives would both have similar effects. They would both pass entirely through sparely populated agricultural lands and would be entirely at-grade. The effect of this alternative on visual quality would thus be similar to that described for the San Joaquin Valley agricultural landscape unit under the BNSF Alternative Alignment.

A few rural residents would be within 0.25 mile of the alignment. This viewer group would experience strong adverse impacts due to changes in foreground views from new road overcrossings. Because the HST would create a strong decline in visual quality in the context of moderately high viewer response of rural residents, the Corcoran Bypass and Wasco-Shafter Bypass Alternative Alignments would substantially degrade the existing visual character or quality of the site and its surroundings. These impacts would be experienced primarily by rural residents within 0.25 mile of at-grade sections of the HST alignment or of new rural roadway overcrossings. Overall, these strong changes in visual quality to high-sensitivity residential viewers would represent a substantial effect under NEPA and a significant impact under CEQA.

With appropriate landscape screening or similar mitigation, and due to the low number of affected viewers, impacts to rural residents of the Corcoran Bypass and Wasco-Shafter Bypass alternatives could be mitigated to less than significant levels in some instances. However, in many instances under the Corcoran Bypass Alternative, complete mitigation may not be possible. Thus, even with mitigation the Corcoran Bypass Alternative Alignment would substantially degrade the existing visual character or quality of the site and its surroundings for nearby high-sensitivity rural residents in some locations. This impact would represent a substantial, significant impact. The number of residents potentially affected under the Wasco-Shafter Bypass Alternative is very low and with adequate landscape screening measures, could be reduced to a moderate effect under NEPA and a less-than-significant impact under CEQA.

Changes to Visual Quality: Allensworth Bypass Alternative Alignment

Figure 3.16-32, Existing View, shows the existing view from KVP 18, and Figure 3.16-32, Simulated View, is a visual simulation of the HST on the Allensworth Bypass Alternative, as seen from KVP 18 in the Colonel Allensworth State Historic Park, looking west at a distance of about 1 mile, the distance from which users of the park would view this alternative. As depicted in this view, the HST would be visually subordinate to the existing landscape. Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings. Visual impact would be negligible and less than significant. If the BNSF tracks are relocated to be adjacent to the HST tracks in this area, the associated freight traffic would combine with the HST traffic and slightly increase the overall prominence of the resulting new rail corridor. From this KVP, the overall visual change from the State Historic Park would remain a negligible effect under NEPA and the impact would be less than significant under CEQA.

Changes to Visual Quality: Bakersfield South Alternative Alignment

Under the Bakersfield South Alternative, visual impacts of the HST would be similar to those of the BNSF Alternative Alignment in the Greenacres/Rosedale, Kern River landscape units. Impacts would also be similar in the Central Bakersfield landscape unit, except at Bakersfield High School. Under the Bakersfield South Alternative, the project guideway would be approximately 450 feet north of Bakersfield High School. Although the guideway would remain prominent, it would be sufficiently distant to substantially recede in visual dominance, and would remain partially screened by the intervening existing trees and structures, including the Industrial Arts Building north of 14th Street, which would remain under this alternative. Because of the reduced visual exposure due to screening and distance, adverse change to visual intactness and overall visual quality would remain negligible under NEPA and the impact would be less than significant under CEQA.

However, the project would substantially change the existing visual character and degrade the visual quality of the high-sensitivity site and surroundings in the Rosedale/Greenacres, Kern River, and portions of the Central Bakersfield landscape units (due to guideways), as previously described under the BNSF Alternative Alignment. This strong adverse effect on visual quality from elevated guideways would be substantial under NEPA and a significant impact under CEQA.

Figure 3.16-33, Existing View, shows the existing view from KVP 19, and Figure 3.16-33, Conceptual Station Design, is a visual simulation from KVP 19 of the HST station for the Bakersfield Station–South Alternative from S Street south of Truxtun Avenue, in front of the Amtrak Station. The simulation depicts a conceptual design, which would be refined in coordination with the City of Bakersfield. This station site would be 400 to 500 feet south of the BNSF Alternative Alignment station site. Consequently, the station would be less exposed to public viewpoints, including those from Truxtun Avenue. However, overall visual effects would be similar to those of the BNSF Alternative Alignment.

a. Existing View

b. Simulated View

Figure 3.16-32
Key viewpoint 18: existing and simulated views of high-speed train on Allensworth Bypass Alternative, looking west from Colonel Allensworth State Historic Park

Source: William Kanemoto & Associates, 2011.

a. Existing View

b. Conceptual Station Design (Functional Design Treatment)

Figure 3.16-33
Key viewpoint 19: Bakersfield Station - South Alternative from S Street

Source: William Kanemoto & Associates, 2011; VBN Architects, 2011; Newlands and Company, 2011

As described for other HST stations, the proposed HST station in Bakersfield has not yet been fully designed, and is thus shown in the simulation in conceptual form to depict the bulk, massing, and general visual scale only, with generic "functional" fenestration and facade treatment. The final, specific level of design would be developed in coordination with the City of Bakersfield.

As seen from viewpoints near the project right-of-way, the HST would be seen within the existing industrial and rail yard setting, which is of low visual quality. From this KVP, the proposed station and associated streetscape development would improve visual quality, representing a beneficial effect under NEPA and CEQA.

As illustrated by this simulation, the station as seen from the general Truxtun Avenue corridor would be compatible in scale with the surrounding, predominantly modern architecture in the central downtown area, and would greatly enhance vividness. Extensive streetscape landscaping associated with the project would increase the vividness of the station architecture and surrounding setting. Overall, a high degree of consistency would be anticipated between the existing foreground of civic and commercial buildings and the proposed form, scale, and character of the station. Ongoing design coordination with the city would be continued to facilitate that goal. Therefore, the Bakersfield Station – South Alternative would not substantially degrade the existing visual character or quality of the site and its surroundings. There would be no adverse visual impact.

As under the BNSF Alignment Alternative, the Bakersfield Station – South Alternative would also require removal of a small number of residences on Butte Street, and would directly adjoin remaining residences in the small residential neighborhood that begins at Tulare Street and continues for roughly 0.75 mile beyond the Baker Street project terminus. Adverse impacts to visual quality and character of the elevated guideways on the adjacent, high-sensitivity residential viewers would be strong and effects to these residents under NEPA would thus be substantial. These impacts would be significant under CEQA.

Changes to Visual Quality: Heavy Maintenance Facility Site Alternatives

The HMF site alternatives would represent large (approximately 150-acre) facilities of industrial character that would consist of shops, tracks, parking, administration, roadways, power substation, and storage areas. Figure 3.16-34 shows a typical HMF layout. Although large HMF site study areas have been identified, the exact location of the 150-acre facility within each of these large study areas has not yet been determined. For this reason, the determination of specific key viewpoints would be speculative. However, it can be said that an HMF would substantially degrade the existing visual character and quality of the site and its surroundings, as seen from any sensitive receptors, such as rural residences within roughly 0.5 mile of the facility. An HMF at the Kern Council of Governments–Wasco is expected to have a substantial visual effect under NEPA and a significant visual impact under CEQA because of the relatively high number of residences in proximity to the HMF study area.

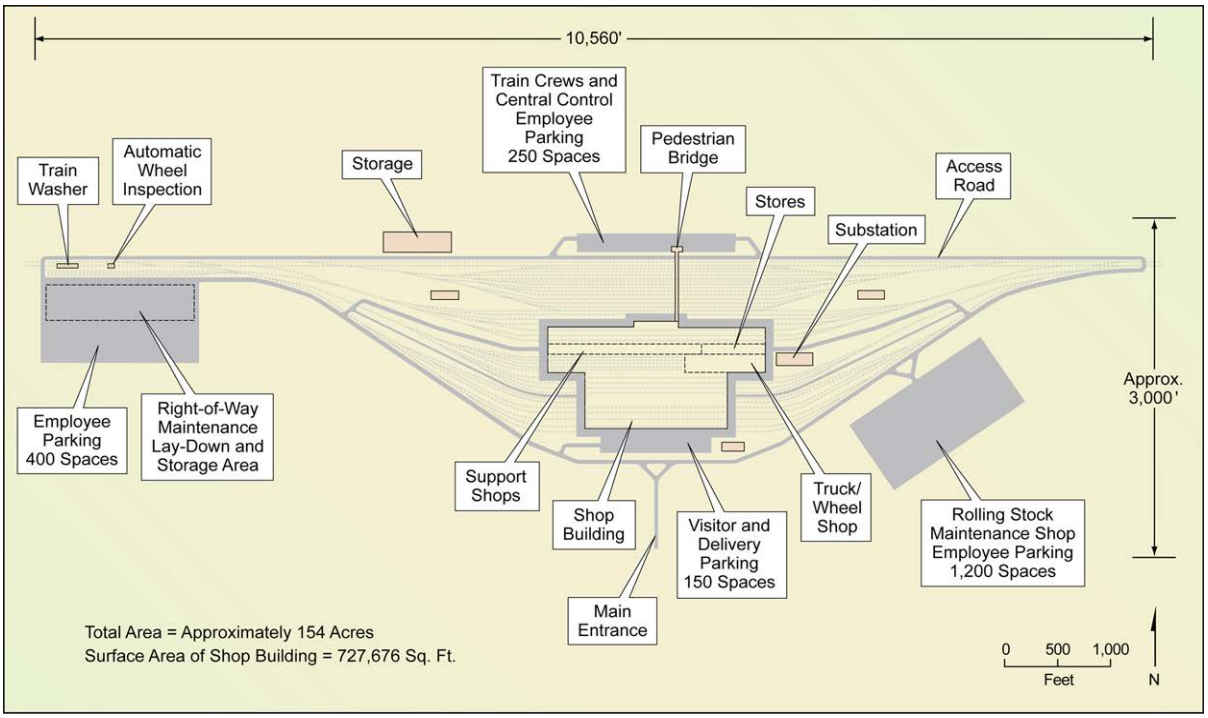


Figure 3.16-34
Typical HMF Layout

3.16.6 Mitigation Measures

The project has considered avoidance and minimization measures consistent with the Statewide and Bay Area to Central Valley Program EIR/EIS commitments, as described in the introduction. Along with a number of more-specific design guidelines and solutions, the EIR/EIS commits to a general mitigation strategy that the proposed facilities be designed so that they are attractive and that they integrate into the landscape to reduce potential view blockage, contrast with existing landscape settings, and minimize light/shadow impacts and other potential visual impacts. Some visual impact mitigation measures are already addressed under park and recreational resources in Section 3.15; therefore, those measures are already assumed and not repeated. The following mitigation measures would reduce the impacts identified above.

A. CONSTRUCTION PERIOD

VQ-MM#1: Minimize Visual Disruption during Construction and from Construction Activities.

Adhere to local jurisdiction construction requirements (if applicable) regarding construction-related visual/aesthetic disruption. Minimize clearing for construction. Limit the removal of buildings to buildings that would contain project components. Revegetate disturbed construction areas to replace vegetation that was removed during construction and attempt to use vegetation that will be aesthetically and functionally compatible with adjacent areas. When possible, preserve existing vegetation (particularly vegetation along the edge of construction areas that may help screen views).

After construction, re-grade all areas disturbed by construction, staging, and storage to original contours and revegetate with appropriate plant material that is similar (in replacement numbers and types) to that which was removed upon completion of construction based upon local

jurisdictional and railroad operational requirements. If there are no local jurisdictional requirements, replace removed vegetation at a reasonable replacement ratio. For example, if 10 mature trees in an area are removed, replant 20 younger trees that would provide similar cover prior to construction, and which may be thinned as they mature.

To the extent feasible, do not locate construction staging sites within foreground distance (0 to 500 feet) of residential, recreational, or other high-sensitivity receptors. Where such siting is unavoidable, screen staging sites from sensitive receptors using appropriate materials such as temporary fencing, walls, etc.

Nighttime construction lighting would be required during nighttime construction. Such lighting would be shielded, directed downward, and restricted to the boundaries of the project site to avoid light trespass resulting from any light sources directed toward areas outside of the project site.

B. PROJECT

VQ-MM#2: Minimize Light Disturbance

Minimize glare impacts on sensitive receptors (i.e., viewers with high visual sensitivity), particularly residences from nighttime operational lighting, and minimize potential night light pollution, to the extent feasible and consistent with safety and security; in rural areas, design and install temporary and permanent exterior lighting so that:

- Lighting does not cause excessive reflected glare.
- Lighting does not illuminate the nighttime sky.
- Project and vicinity illumination is minimized.

Permanent night lighting would comply with applicable standards, practices, and regulations, including local ordinances. These ordinances include the following Illuminating Engineering Society documents: RP-33-99 Lighting for Exterior Environments; DG-13-99 Outdoor Lighting; and TM-10-00 Addressing Obtrusive Light (Urban Sky Glow and Light Trespass) in Conjunction with Roadway Lighting.

VQ-MM#3: Incorporate Design Criteria for Elevated and Station Elements That Can Adapt to Local Context

Consult with local jurisdictions on design issues taking into consideration applicable design guidelines so that these facilities are designed appropriately to fit in with the design context of the areas near them. Actions taken to help achieve integration with the local design context could include the following:

- Design HST stations and associated structures such as elevators, escalators, and walkways to be attractive architectural elements or features that add visual interest to the streetscapes near them.

- Design parking structures and adjacent areas to integrate into the areas where they would be located.

- Consider the potential for elevated guideways and columns to incorporate graceful curved or tapered sculptural forms and decorative surface texturing to provide visual interest. Include decorative texture treatments on large-scale concrete surfaces such as parapets and other portions of elevated guideways. A variety of texture, shadow lines, and other surface articulation would add visual and thematic interest. Closely coordinate the design of

guideway columns and parapets with station and platform architecture to promote unity and coherence where guideways lie adjacent to stations.

- Integrate trees into the station streetscape and plaza plans where possible to soften and buffer the appearance of guideways, columns, and elevated stations.

- Consider design features for the stations, structures, and open spaces that provide interest and reflect the local design context. These features could include landscaping, lighting, and public art.

In developing design criteria during the project design phase, it will be important to consider and balance the project's obligations and constraints related to planning, mitigation, engineering, performance, funding, and operational requirements with design objectives.

VQ-MM#3a: Integrate Elevated Guideway into Affected Cities, Parks, Trail, and Urban Core Designs

During final design, cooperate with the affected cities and towns in developing a project site and landscape design program for the areas disturbed by the project. These plans will consider local design standards and use context-appropriate landscaping to help integrate elevated guideways with nearby areas. Consider developing (where appropriate) pedestrian trails or paths under the elevated guideways. In urbanized areas, consult with the affected cities to determine other appropriate and allowable development or use of areas under the guideways. These areas can be designed to help integrate the HST features into nearby areas, and in some locations can help preserve downtown's historical integrity. Provide financial compensation for purchase and development of equivalent park property where park properties require replacement as a result of the project.

VQ-MM#3b: Screen Elevated Guideways Adjacent to Residential Areas

Plant trees along the edges of the rights-of-way in locations adjacent to residential areas. This will help reduce the visual contrast between the elevated guideway and the residential area. The crowns of trees used should ultimately be tall enough so that upon approaching maturity they will partially, or fully, block or screen views of the elevated guideway from adjacent at-grade areas. Tree species that are selected should be able to allow ground-level views under the crowns (with pruning if necessary) while not interfering with the 15-foot clearance requirement for the guideway.

VQ-MM#4a: Replant Unused Portions of Lands Acquired for the HST

After construction is complete, plant vegetation within lands acquired for the project (e.g., shifting roadways) that are not used for the HST. Allow adequate space between the vegetation and the HST alignment and catenary lines. Replace existing street trees and other visually important vegetation removed in these areas with similar vegetation that, upon maturity, will be similar in size and character to the removed vegetation. Where possible, design vegetative screening for sensitive visual environments and sensitive viewers. Provide perimeter vegetative screening around portions of HMF sites where sensitive foreground receptors could be impacted.

VQ-MM#4b: Provide Offsite Landscape Screening Where Appropriate

Where onsite landscape screening measures as described under MM#4a cannot provide effective screening to significantly impacted high-sensitivity receptors such as nearby rural residential areas, provide offsite screening, as appropriate, if desired by owners.

VQ-MM#5: Landscape Treatments along the HST Project Overcrossings and Retained Fill Elements of the HST

Prior to operation, plant the surface of the ground supporting the overpasses (slope-fill overpasses) with vegetation consistent with the surrounding landscape in terms of vegetative type, color, texture, and form. During final design, cooperate with affected counties in the development of a landscaping program for planting slopes of the overcrossings that uses drought-tolerant vegetation. Where wall structures supporting the overpasses (retained wall overpasses) are proposed, explore a range of architectural details and low-maintenance trees and other vegetation to minimize graffiti and help reduce the effects of large walls.

VQ-MM#6: Provide Sound Barrier Treatments

Provide a range of options for consideration in visually sensitive areas, such as areas where residential views of open landscaped areas would change or in urban areas where walls would affect the character and setting. Sound barriers along elevated guideways may incorporate transparent materials, where sensitive views may be impacted by the elevated guideways, and solid sound barriers. Use surface design enhancements and/or vegetation that are appropriate with the visual context of the area near the walls. Make design considerations during final design stages.

VQ-MM#7: Screen Traction Power Distribution Stations

Screen the traction power stations (which are located at approximately 30-mile intervals along any of the HST alternatives) from public view through the use of landscaping and/or walls/fences. Provide context-appropriate landscaping that does not draw attention to the station. Construct walls of cinder-block or similar material and paint a neutral color to blend in with the surrounding context. If a chain-link or cyclone fence is used, include wood slats in the fencing.

None of the mitigation measure options are anticipated to result in secondary effects.

3.16.7 NEPA Impacts Summary

The No Project Alternative would include changes unrelated to the project, including new or improved roadways and future residential or commercial development, which could also affect aesthetics and visual resources. These foreseeable future developments are discussed further in the cumulative impact discussion (Section 3.19) in this EIR/EIS. Widening transportation corridors does not necessarily degrade a corridor's visual quality, but the indirect effects of opening adjacent lands to freeway-oriented commercial development, to the extent permitted by local agencies, and increasing the number of billboard-type signage could include the incremental degradation of views toward the existing agricultural landscape. Future residential, commercial and industrial development would result in conversion of rural agricultural settings to urbanized ones, with a corresponding decline in visual quality.

The HST alternatives would have adverse effects on visual quality in some areas, either by blocking views or by visual intrusion of the HST, guideways, associated road crossings, and other project structures that would be out of character or scale with the surroundings. These proximity impacts would be most likely where project components would be near historic resources or residential areas with high-sensitivity viewers. The resulting lowered visual quality would be a substantial adverse effect under NEPA. Impact conclusions under both NEPA and CEQA, as summarized in Tables 3.16-3 and 3.16-4, reflect anticipated level of impact *after* application of recommended mitigation measures, as identified in the text of Section 3.16-5, and described in Section 3.16-6, above.

Under the BNSF Alternative Alignment, impacts to existing visual character and quality of the site and its surroundings for the cities of Corcoran, Wasco, Shafter, and Bakersfield, for Allensworth State Historic Park, and for nearby rural residents throughout the agricultural valley segments of the project would be long-term and substantial. In each case, substantial long-term declines in visual quality affecting sensitive viewer groups and/or visual or historic resources would be anticipated under this alternative. Impacts to the city of Fresno under the BNSF Alternative would be mitigated to negligible levels. Impacts to Corcoran, Wasco, Shafter, Bakersfield, and Allensworth State Historic Park under this alternative would not be mitigated to negligible levels. These long-term impacts would remain substantial. Impacts to Corcoran, Wasco, Shafter, and Allensworth Historic Park would be avoided by the Corcoran Bypass, Wasco-Shafter Bypass, and Allensworth Bypass alternatives. Impacts to adjacent rural residences could be reduced by various proposed mitigation measures described below, but could remain substantial in many instances. Under the Corcoran Elevated Alternative Alignment, impacts to site and surroundings of the city of Corcoran would be long-term and substantial. Those impacts would be avoided by the Corcoran Bypass alternative.

3.16.8 CEQA Significance Conclusions

Specific mitigation measures would address the identified impacts to aesthetics and scenic resources. Table 3.16-5 lists impacts by alternative and landscape unit, and identifies appropriate mitigation measures and the impact's level of significance after mitigation. Conclusions apply to all applicable alternatives unless specified otherwise.

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
VQ#1: Visual Disturbance during construction. For all alternatives, construction activities would cause visual impacts in urban areas.	Significant	VQ-MM#1	Less than significant
VQ#2: Nighttime Lighting during construction. Intrusive nighttime lighting could result in adverse impacts in both rural and urban areas.	Significant	VQ-MM#1	Less than significant
VQ#3: Lower visual quality in the Central Fresno Landscape Unit. Impacts to existing visual character or quality of the site and its surroundings in Downtown Fresno due to elevated guideways and sound walls.	Significant	VQ-MM#2 VQ-MM#3 VQ-MM#3a VQ-MM#3b VQ-MM#4a VQ-MM#6	Less than significant

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
VQ#4: Lower visual quality in the Rural Valley/Agricultural Landscape Unit. Impacts to the existing visual character and quality of the site and its surroundings, as seen by nearby rural residents due to at-grade and elevated structures, HST, road overcrossings, or other prominent project features.	Significant	VQ-MM#2 VQ-MM#3 - (Kings/Tulare Regional Station) VQ-MM#3a VQ-MM#3b VQ-MM#4a VQ-MM#4b VQ-MM#5 VQ-MM#6 VQ-MM#7	Significant
VQ#5: Lower visual quality in Corcoran, Wasco, Shafter, and Allensworth State Historic Park Landscape Units. Impacts to the existing visual character and quality of the site and its surroundings due to at-grade and elevated structures, HST, road overcrossings, or other prominent project features.	Significant	VQ-MM#3 VQ-MM#3a VQ-MM#3b VQ-MM#4a VQ-MM#4b VQ-MM#5 VQ-MM#6	Significant (BNSF, Corcoran Elevated, Corcoran Bypass Alternative Alignments) Less than significant (Allensworth State Historic Park Bypass, Wasco-Shafter Bypass Alternatives)
VQ#6: Lower visual quality in the Rosedale, Kern River, and Central Bakersfield Landscape Units. Impacts to the existing visual character and quality of the site and its surroundings in Bakersfield due to elevated guideways and sound walls, HST.	Significant	VQ-MM#2 VQ-MM#3 VQ-MM#3a VQ-MM#3b VQ-MM#4a VQ-MM#6	Significant
VQ#7: The HST project would create a new source of substantial light and glare. Operational night lighting impacts to rural residents in the vicinity of the Kings Tulare Regional Station, HMF facilities, and on commercial viewers in vicinity of Fresno and Bakersfield stations.	Significant	VQ-MM#2	Less than significant
VQ#8: TPSS would alter visual character or block views. All of the alternatives would require the placement of TPSS of varying sizes at approximately 5-mile intervals along the alignment, which would potentially alter the visual character of adjacent lands and/or block views toward areas beyond the alignment.	Significant	VQ-MM#7	Less than significant

Table 3.16-5
Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Impact	Level of Significance before Mitigation	Mitigation Measure	Level of Significance after Mitigation
VQ#9: Lower visual quality due to HMF alternatives. The HMF alternatives would substantially degrade the existing visual character and quality of the sites and their surroundings.	Significant	VQ-MM#1 VQ-MM#2 VQ-MM#4a	Less than significant
VQ#10: Noise wall would block views. All the alternatives would require the use of noise walls along portions of the guideway in urbanized areas, potentially blocking existing views or adding to prominence and incompatible character of guideways.	Significant	VQ-MM#3 VQ-MM#3a VQ-MM#4a VQ-MM#6	Significant