

C.12 VISUAL RESOURCES

C.12.1 ENVIRONMENTAL BASELINE AND REGULATORY SETTING

C.12.1.1 Regional Overview

The Proposed Project is located in Alameda and Contra Costa Counties in a region commonly referred to as the Tri-Valley area. This area is generally comprised of the Livermore, Amador, and San Ramon Valleys and is characterized by a broad alluvial plain that extends 10 miles from the Pleasanton Ridge on the west to the Altamont Hills on the east. This valley landscape is surrounded by a number of smaller subsidiary valleys on the north and south and is bordered on all sides by steeply sloped hillsides. The heavily forested slopes of Pleasanton Ridge and the parallel ridges to the west extend up to over 1,800 feet in elevation and separate the Tri-Valley area from the region around the San Francisco Bay. The hills surrounding the valley on the north are part of the foothills of Mount Diablo. On the east, the hills of the Altamont range extend up to 2,000 feet in elevation and separate the project region from the San Joaquin Valley. The hills that frame the Tri-Valley area on the south are outliers of the high, steep ridges that occupy Alameda County's undeveloped southeast corner.

The Tri-Valley area is a transition zone between the area around the San Francisco Bay on the west, where marine-influenced climatic conditions make for relatively verdant landscapes and the dry landscapes of the San Joaquin Valley to the east. This transition is visible on the slopes of the hills surrounding the valley, which are still primarily natural appearing, exhibiting vestiges of historical agricultural practices. Toward the western end of the valley, a mosaic of natural appearing oak woodlands and grasslands characterizes most of the hillsides. Further to the east, most of the hillsides have the appearance of open grasslands used for cattle ranching. The Altamont Hills on the region's eastern end have a special visual character related to the large infrastructure facilities that coexist with the ranching landscape. Because of the presence of these highly visible facilities that include major railroad corridors, Interstate 580, elements of the California Water Project, the 500 kV Tesla substation, a network of major transmission lines, and over 5,000 wind turbines, the resulting landscape scene is a mix of both rural and technological elements.

The landform of the valley floor is generally level and exhibits the visual characteristics of an environment transitioning from its historical agricultural use to that with a highly urbanized character, primarily defined by high technology industrial, commercial, office, and residential development; infrastructure; and vegetation typical of landscaped urban parks and streetscapes. Residential suburbs are expanding into the lower foothills north and south of Interstate 580 (I-580) while the technology and business uses are generally more concentrated in closer proximity to I-580. While visibility in the region can frequently be obscured due to poor air quality conditions, views are often panoramic, encompassing the entire valley floor and the bordering ridgelines.

C.12.1.2 Environmental Setting

Before addressing the environmental setting, it is important to briefly review the concepts and terminology that are commonly used in characterizing and evaluating existing landscapes and viewsheds.

The visual resources of a given area consist of the landforms, vegetation, water features, and cultural modifications (physical changes caused by human activities) that impart an overall visual impression of the area landscape. There are a number of factors that are considered in the evaluation of a landscape's visual resources in order to assess the potential for one or more visual impacts to occur (visual impact susceptibility), including: visual quality, visual absorption capacity, viewer sensitivity, and viewer exposure. Each of these factors is generally expressed as low, moderate, or high as discussed below.

Visual Quality is a measure of the overall impression or appeal of an area as determined by the particular landscape characteristics such as landforms, rockforms, water features, and vegetation patterns, as well as associated public values. The attributes of variety, vividness, coherence, uniqueness, harmony, and pattern contribute to visual quality classifications of indistinctive (low), common (moderate), and distinctive (high). Visual quality is studied as a point of reference to assess whether a given project would appear compatible with the established features of the setting or would contrast noticeably and unfavorably with them.

Visual Absorption Capacity is a landscape's ability to accept alteration without diminishment of visual quality (or creation of visual contrast). A landscape can accommodate a project more effectively if the existing landforms and vegetation are able to screen the project from view or if the Proposed Project tends to replicate the existing forms, lines, colors, and/or textures of the landscape and not appreciably change the balance of natural and cultural elements. For example, it is possible for new structures to be compatible with predominantly natural settings if such settings already contain structures that are similar to the proposed structures or contain similar visual characteristics.

Viewer Sensitivity addresses the level of interest or concern of viewers regarding an area's visual resources and is closely associated with viewers' expectations for the area. Viewer sensitivity reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rockforms, water features, vegetation patterns, and even cultural features.

Viewer Exposure describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of viewers to the subject landscape), number of viewers, and the duration of view. Landscape visibility can be a function of several interconnected considerations including proximity to viewing point, degree of discernible detail, seasonal variations (snow, fog, and haze can obscure landscapes), time of day, and presence or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors and, thus, have a low degree of viewer exposure. Conversely, a subject landscape or project may be situated in relatively close proximity to a major road or highway utilized by a substantial number of

motorists and yet still result in relatively low viewer exposure if the rate of travel speed on the roadway is high and viewing times are brief, or if the landscape is partially screened by vegetation or other features. Frequently, it is the subject area's proximity to viewers or *distance zone* that is of particular importance in determining viewer exposure. Landscapes are generally subdivided into three or four distance zones based on relative visibility from travel routes or observation points. Distance zones typically include foreground, middleground, and background. The actual number of zones and distance assigned to each zone is dependent on the existing terrain characteristics and public policy and is often determined on a project by project basis.

Visual Impact Susceptibility is a concluding assessment as to the degree of probability that a given landscape will demonstrate a noticeable visual impact with project implementation. Visual impact susceptibility is derived from a comparison of existing visual quality, visual absorption capability, viewer sensitivity, and viewer exposure.

Key Viewpoints (KVPs) are locations from which the visual analysis is focused. KVPs are generally selected to be representative of the most critical locations from which the project will be seen. KVPs are often located in an effort to evaluate existing landscapes and potential impacts on visual resources with various levels of sensitivity, in different landscape types and terrain, and from various vantage points. Typical KVP locations for the present project include (1) along major or significant travel corridors or points of visual access; (2) at key vista points; (3) at significant recreation areas; and (4) at locations that provide good examples of the existing visual context. Figure C.12-1 shows the location of each of Key Viewpoint selected for detailed analysis. At each key viewpoint, the existing landscape was photographed and in some cases, a visual simulation was prepared. (All figures are provided at the end of the Visual Resources section.)

A summary of the visual analysis conducted for this project is presented as a series of foldout tables at the end of the visual resources section.

C.12.1.2.1 Pleasanton Area

In the Pleasanton area, the Proposed Project and alternatives pass through a mosaic of undeveloped rural land, mineral extraction areas, and suburban residential development. Landscape views range from open panoramic vistas of nearby and distant ridgelines with undeveloped natural character to relatively confined view corridors along suburban city streets.

Proposed Route

The proposed overhead transmission line route extends approximately 2.8 miles from its southern terminus tap point at the Tesla-Newark Corridor, north through a small range of hills that lie between the Vallecitos Nuclear Center and Pleasanton. At approximately Milepost M3, the overhead portion of the Proposed Project would transition to an underground conduit that would run beneath City of Pleasanton streets including Benedict, Smallwood, and Bernal. The underground portion of the route would terminate at the existing Vineyard Substation.

Key Viewpoint 1 was established on Vallecitos Road (Route 84), just west of the proposed route's crossing of Route 84, a county-designated scenic route. Viewing to the northeast toward the proposed alignment, this location was selected to generally characterize the existing landscape along the southern portion of the proposed route. Route 84 passes through an open landscape of gently rolling grass-covered hills, punctuated by the numerous electric transmission structures in the foreground of views from the highway. Views encompass a rural setting of limited development to the north of Route 84 and an extensive energy transmission corridor (Tesla-Newark Corridor) to the south of Route 84 (Figure C.12-2A).

Overall visual quality is considered moderate along this portion of the route. Although much of the route is characterized by open undeveloped rolling hills with a distinctly rural character, the extensive energy transmission infrastructure in the Tesla–Newark Corridor is a dominant feature in foreground to middleground views from Route 84. The visual absorption capability (VAC) for this area is considered moderate to high, and reflects the presence of the existing transmission structures south of the highway.

Viewer sensitivity along Route 84 is moderate for motorists that generally anticipate an undeveloped rural landscape of rolling hills, but supporting a significant energy transmission infrastructure corridor. Overall viewer exposure is rated high, as the proposed route would be highly visible in the foreground of views from KVP 1 as it spans the highway. The number of potential viewers is high though the duration of views would be relatively brief due to the high rates of speed along Route 84. The moderate visual quality of the existing rural landscape, moderate viewer sensitivity and overall high viewer exposure are somewhat balanced by the moderate to high visual absorption capability provided by foreground presence of the existing Tesla–Newark transmission line corridor. The resulting overall visual impact susceptibility as experienced from KVP 1 is considered low to moderate.

Near the existing water tank, the route would transition to an underground conduit. **Key Viewpoint 2** was established at the end of Hearst Drive, northwest of the transition structure (Figure C.12-3A). This viewpoint was selected to evaluate the visual setting in proximity to the existing residences along Hearst Drive and from within the Kottinger Ranch residential development. Views toward the proposed transition structure site and underground route encompass predominantly undeveloped oak woodland hillsides. Other visible features in the landscape include the existing water tank and the gate and paved access road leading to the water tank. Overall visual quality of the existing landscape as viewed from KVP 2 is considered moderate to high. The moderate range results from the presence of the existing structures, which introduce forms and lines not consistent with the character of the natural features. Visual absorption capability (VAC) is rated moderate to high because the existing oak trees would provide some screening of the proposed transition structure (moderate VAC) and the existing paved road would completely obscure the route of the buried conduit (high VAC). Viewer sensitivity is high due to the established viewer expectations for views of undeveloped hills from the nearby residences. The high sensitivity reflects the likelihood of substantial viewer concern with the introduction of foreground to middleground features with industrial characteristics.

Foreground to middleground project visibility would be low due to the screening by trees and pavement. The number of viewers would be relatively low though the view duration would be extended from the existing residences overlooking the project area. Given the low visibility of the site/route and low number of potential viewers, overall viewer exposure is considered low. In summary, although the existing visual quality of the landscape is moderate to high and viewer sensitivity to viewshed changes is high, the moderate to high visual absorption capability and low viewer exposure result in an overall low visual impact susceptibility.

The remainder of the route to Vineyard Substation would pass beneath existing paved streets, primarily in residential areas with typical suburban landscape characteristics including residential dwellings, paved streets and sidewalks, landscaping, and overhead lights and utility infrastructure.

S1: Vineyard – Isabel – Stanley Alternative

The S1, S2, and L2 alternative transmission line routes would tap the existing Contra Costa-Newark transmission line in the Tesla-Newark Corridor adjacent to Sycamore Grove Regional Park. The southernmost 2,000 feet of this common segment would pass through the park before passing out of the park and paralleling the southern park boundary. The transmission line would transition underground approximately 100 feet southwest of its intersection with Route 84, which is a county-designated scenic route. From there, the S1/S2/L2 common segment would be installed underground along the south side of Vineyard Avenue to Isabel Avenue. The S1/L2 common segment would then transition to aboveground structures along the west side of Isabel (approximately 40 feet west of the roadway) before turning west (S1 only) to parallel the north side of Stanley Boulevard to Vineyard Substation.

Key Viewpoint 3 was established on Arroyo Road east of the tap with the Contra Costa-Newark line. The view from KVP 3 is somewhat elevated and provides a panoramic view of vineyards, oak woodlands, rolling hills, and the extensive energy transmission infrastructure associated with the Tesla-Newark corridor (Figure C.12-4). From this vantage point, overall visual quality is rated moderate and reflects a mosaic landscape of vineyards, oak woodland habitat, rolling grass-covered hills, occasional estate rural residences, and a profusion of transmission line structures in the Tesla-Newark corridor. Visual absorption capability (VAC) is moderate in that both the screening provided by foreground oak trees and the backdrop provided by the wooded and grass-covered slopes beyond will help to obscure the tower structures. Also, the existing transmission line structures have established form and line characteristics similar to those of the Proposed Project. Viewer sensitivity for the motorists on Arroyo Road is considered moderate in that viewer expectations are for a predominantly rural setting of vineyards and oak woodlands but with a substantial presence of energy transmission infrastructure.

Project visibility would be moderate as a foreground landscape feature and the number of viewers (motorists on Arroyo Road) would be moderate. The duration of view would be somewhat brief due to rates of speed on Arroyo Road and driver focus on the road and other vehicles. Therefore, overall viewer exposure is rated low to moderate, as is the overall susceptibility of the existing landscape to

visual impact. This is due to the balancing of moderate visual quality and viewer sensitivity with moderate visual absorption capability and low to moderate viewer exposure.

Within Sycamore Grove Regional Park, views from Sycamore Grove Trail encompass primarily natural features including oak woodland, grass-covered hillsides, and vineyards. An existing 60 kV wood pole powerline is also visible from the trail. Visual quality is considered moderate while visual absorption capability is low to moderate with existing trees providing only partial screening at points along the trail. The existing line would also provide an existing context of linear, vertical features though at a smaller scale. Viewer sensitivity is considered high as park and trail users anticipate unobstructed views of natural forms and character, with minimal industrial influences.

Site visibility would be high in the foreground of views from the trail. Although the number of viewers would be low to moderate, views would be extended and overall viewer exposure would be moderate to high. Given the moderate visual quality, low to moderate VAC, high viewer sensitivity, and moderate to high viewer exposure, overall visual impact susceptibility of the host landscape is considered moderate to high.

Key Viewpoint 4 was established at the intersection of Concannon Boulevard and Isabel Avenue (Figure C.12-5A). This location captures the views of the S1/L2 common segment that would be available to both motorists along Isabel Avenue as well as the residences along the east side of Isabel Avenue. Viewing to the south and southwest, toward the S1 Alternative, foreground views are dominated by roadside utility poles and the paved road infrastructure. However, the background hills to the south comprise the most prominent feature in the landscape. The geometric block forms of residences in the Ruby Hill development are also visible along the lower foothills down to the valley floor. Visual quality is low to moderate, reflecting the open panoramic views to the south and west that encompass not only residential development and rolling hillside landscapes, but the foreground quarry and utility poles as well. Visual absorption capability is rated low to moderate based on the openness of the landscape to the west of Isabel Avenue (low VAC) which is somewhat balanced by presence of utility poles along the east side of Isabel, which establish linear vertical elements in the existing landscape (moderate VAC).

Viewer sensitivity is considered moderate for both the residents along the east side of Isabel Avenue and motorists on Isabel Avenue. Although residential views are typically considered to have high viewer sensitivity, the residences along the east side of Isabel Avenue, actually back on to Isabel and are separated from the roadway by backyard block walls. The wall blocks views from the lower floors of these residences. Only views from the rear of the upper floors have views to the west toward the S1 Alternative and the hills beyond. Motorists along Isabel Avenue generally anticipate suburban views of roadside utility infrastructure, paved surfaces, fences and structures.

Project visibility is high due to the alignment's foreground proximity and absence of screening. The number of viewers is moderate to high owing to the number of motor vehicles on Isabel Avenue. View duration would be extended for the residents as well as for the motorists due to the "in-line" view of the project available the length of Isabel Avenue. Therefore, overall viewer exposure is considered

high. As a result, the low to moderate visual quality, moderate viewer sensitivity, and high viewer exposure, combined with a low to moderate visual absorption capability, lead to a moderate visual impact susceptibility as viewed from KVP 4.

Key Viewpoint 5 was established at the swimming beach of Shadow Cliffs Regional Recreation Area in order to characterize the typical view of those users with the most direct and unobstructed view of the S1 Alternative (Figure C.12-6A). From the beach, which is located immediately south and below the grade of Stanley Boulevard, views encompass the recreational lake to the east and Stanley Boulevard to the north. Also visible along Stanley Boulevard are existing utility and transmission lines, railcars (when they are parked on the siding), and mineral extraction facilities (to the north and also to the east). Visual quality is considered moderate and results from open panoramic views across the lake (considered high visual quality) and the visual variety created by the lake and park landscape. However, those positive visual attributes are somewhat offset by the existing energy and transportation infrastructure along Stanley Boulevard. Visual Absorption Capability is low to moderate and reflects the openness of views that generally lack significant screening opportunities (low VAC) and the presence of existing utility poles, transmission line structures, railcars, and mineral extraction equipment (moderate VAC) all of which provides a context of existing structures, some of which have forms and lines (utility poles and transmission line structures) similar to that of the Proposed Project.

Viewer sensitivity is considered moderate to high reflecting the typical recreationist's desire for park settings absent industrial character. Generally, viewer sensitivity at facilities such as the swimming area at Shadow Cliffs Recreation Area would be rated high. However, in this instance, because the lake is below the grade of the adjacent roadway and surrounding terrain, viewer attention is generally focussed within the confines of the lake area, reducing sensitivity to visual changes above and outside of the recreation area. Also, the linear and vertical forms and lines of the S1 Alternative are already established in viewer expectations as a result of the presence of the existing utility poles and transmission line that parallel Stanley Boulevard. Thus, viewer sensitivity is reduced from the expected high rating to a moderate to high rating.

Project visibility would be high due to the foreground to middleground proximity of the S1 Alternative and the general lack of screening. The number of viewers would be moderate (for the lake) to high (for Stanley Boulevard) and the duration of view would be extended. Overall viewer exposure would be high. The moderate visual quality, moderate to high viewer sensitivity, and high viewer exposure are partially offset by the moderate range for visual absorption capability. The resulting visual impact susceptibility would be moderate.

S2: Vineyard Avenue Alternative

The S2 Vineyard Avenue Alternative shares a common segment with the S1 and L2 Alternatives from the tap point in the Tesla-Newark Corridor to the intersection of Vineyard Avenue and Isabel Avenue. At that intersection, the S2 Alternative diverges from the S1/L2 common segment and continues underground along Vineyard Avenue to Bernal Avenue where it turns north to follow Bernal Avenue to

the Vineyard Substation. Vineyard Avenue is both a county-designated and City of Livermore-designated scenic route.

Key Viewpoint 6 was selected to evaluate the landscape in proximity to the Ruby Hill residential development and along Vineyard Avenue. KVP 6 is located on westbound Vineyard Avenue, just west of Isabel Avenue. Views toward the S2 route from KVP 6 would encompass foreground rural vineyard scenes backdropped by oak woodland rolling hills. The S2 route would be located in an unpaved frontage road to the left of the wood fence shown in Figure C.12-7. Overall visual quality is moderate for this landscape, which harmoniously transitions from vineyards to residential development to undeveloped rolling hills. Visual absorption capability is high since the minimally visible unpaved road within which the conduit would be buried would show no visible signs of the project's presence. Viewer sensitivity is high given viewer expectations along Vineyard for open suburban-rural landscapes with minimal infrastructure of industrial character. As previously stated, project visibility would be low even at this foreground distance due to screening by vegetation and the existing wood fence while the number of viewers along Vineyard would be moderate. View duration would be brief for motorists driving along Vineyard Avenue and which with the low visibility results in an overall low viewer exposure potential. Although visual quality is moderate and viewer sensitivity is high, the high visual absorption capability and low viewer exposure to the route alignment dictates an overall low visual impact susceptibility.

Key Viewpoint 7 was selected to evaluate the western-most portion of the S2 route through Pleasanton. KVP 7 is located on westbound Vineyard Avenue east of Bernal Avenue (Figure C.12-8). Vineyard Avenue is both a county-designated and City of Livermore-designated scenic route. Looking west from this viewpoint, views encompass a foreground suburban setting with well maintained median and street frontage landscaping, broad boulevard, and a background of oak woodland covered hills. Visual quality is considered moderate. Visual absorption capability is high because the S2 Alternative would be buried beneath the center median and would not be visible following restoration. Viewer sensitivity is high, reflecting the high level of attention to landscape design and residential expectations of a suburban landscape with minimal evidence of infrastructure. Visual access to the S2 route is high. The number of potential viewers would be moderate, as would the duration of view since the route parallels vineyard down the center median. Overall viewer exposure is high. Although visual quality is moderate and viewer sensitivity and exposure are high, overall visual impact susceptibility is low because the visual absorption capability of the central median location is high for an underground conduit.

S4: Eastern Open Space Alternative

The S4 Eastern Open Space Alternative would diverge from the proposed route approximately 2.2 miles north of the tap point in the Tesla-Newark Corridor. The S4 Alternative would continue northeasterly for approximately 1.2 miles before transitioning to an underground alignment and descending to Vineyard Avenue, west of Ruby Hill Boulevard. At vineyard, the S4 Alternative would turn west to follow the same route as the S2 Alternative previously discussed.

Key Viewpoint 8 was established on East Ruby Hill Drive, just east of Ruby Hill Boulevard in order to capture the viewshed of both golfers and residents when viewing to the west and southwest toward the S4 Alternative (Figure C.12-9). From this vantage point, foreground views encompass the green landscaped golf course and newly constructed residences, which are backdropped by oak woodland-covered hills. The Ruby Hill development exhibits a high level of attention to landscape and structure aesthetics. Overall visual quality as viewed from KVP 8 is moderate to high. Visual absorption capability is considered low to moderate in that the undeveloped natural appearing rolling hills along the S2 alignment contain no features with similar visual characteristics as those of the project (low VAC). However, variation in topography and existing oak trees along ridgelines could provide partial screening of the project (moderate VAC). Viewer sensitivity is high as residents and recreational golfers alike anticipate viewsheds that encompass landscapes of natural and designed vegetative forms and colors lacking features of industrial character.

Route visibility is moderate to high in that while topographic variation along the route would help to obscure portions of the route, views toward the hills from the Ruby Hill development are generally open and unobstructed. The route would be located in the middleground of views and the number of potential viewers would be moderate. View duration would be extended and viewer exposure would be moderate to high. Overall visual impact susceptibility is considered moderate to high with the moderate range for visual absorption capability provided by existing topographic variation being the one factor that reduces what would otherwise be considered a high rating for visual impact susceptibility.

C.12.1.2.2 *Dublin Area*

The Proposed Project and alternatives pass through primarily undeveloped land that is in transition from historical agricultural/grazing uses to residential and commercial suburban development. Views are typically open and expansive across rolling to level grass-covered terrain to distant ridgelines.

Proposed Project – Dublin Substation

The proposed **Dublin Substation** would be located on approximately five acres on an existing ranch approximately one mile east of Tassajara Road. The project site would be situated on the floor of a small canyon near existing ranch facilities as shown in Figure C.12-10. Visual quality would be moderate to high reflecting the undeveloped rural nature of a landscape comprised of rolling hills that are utilized as rangeland for cattle. Visual absorption capability is low to moderate as a result of open panoramic views of the project area with minimal vegetative screening, but which is partially shielded from view by the variation in the surrounding topography. Viewer sensitivity is considered low since the project is to be located on private land with no public access.

Project visibility would be low due to the screening provided by the surrounding terrain and lack of public access, which would also result in a low number of viewers. Overall viewer exposure would therefore be low as would be the resulting impact susceptibility of the existing landscape.

D1: South Dublin Alternative

The South Dublin Substation Alternative site would be located between Fallon and Tassajara Roads, north of Interstate 580. The site would be approximately 2,600 feet west of Fallon Road, and about 1,000 feet north of I-580 on level terrain in a commercially zoned portion of the Dublin Ranch development (Figure C.12-11).

Key Viewpoint 9 is located on Fallon Road, just north of the westbound I-580 on-ramp and was selected to capture a general view of the substation site that would be representative of views from Fallon Road, I-580, and development north of the site. Views of the substation site from KVP 9 encompass foreground panoramic scenes of a broad valley floor undergoing rapid development and ringed by undeveloped, oak woodland hills and ridgelines. I-580 and residential buildings are visible to the south, commercial and office development are visible to the west, and open hillsides border to the north. Visual quality is considered low to moderate reflecting the dominance of infrastructure and development as it encroaches upon remaining vestiges of historical agricultural lands and uses. Visual absorption capability is rated low to moderate. The low range for VAC is attributed to the level open site with no screening potential. The moderate range for VAC reflects the near-term situation in which the substation would soon be surrounded by commercial development as part of the Dublin Ranch development plan, construction of which is visible in Figure C.12-11. Viewer sensitivity is considered low to moderate for motorists on I-580 (presently the primary point of public visual access) due to viewer expectations for a landscape in transition throughout the I-580 corridor.

Project foreground visibility would be moderate. Although present views to the site are open and unobstructed, the angle of view is 90 degrees off (north) the primary view directions, which are east, and west along I-580. However, once Dublin Ranch is fully developed project visibility will be further reduced due to screening by adjacent commercial development. The number of potential viewers presently is high but the duration of view is low given the relatively high rates of travel speed along I-580. With future structure screening, the number of potential viewers will drop to moderate. Moderate visibility as a result of indirect foreground views combined with brief duration of view somewhat balance the currently high number of potential viewers, resulting in an overall moderate degree of viewer exposure. The resulting visual impact susceptibility would be low to moderate when also considering the low to moderate visual quality and viewer sensitivity.

Key Viewpoint 10 is located on southbound El Charro Road, just south of I-580. This viewpoint was selected to evaluate the D1 Alternative's crossing of the valley floor as it connects the South Dublin Alternative Substation site with the existing Vineyard Substation via El Charro Road and the existing mineral extraction areas south of I-580 (Figure C.12-12). Visual quality along this portion of the route is considered low to moderate, reflecting the open, panoramic views across the valley floor to the southern hills (contributors to a moderate rating), yet tempered by the prominence of the mineral extraction activities, equipment, and land modifications (low visual quality). Visual absorption capability is low due to the level terrain with minimal screening opportunities, although the southern hills and mineral extraction facilities to the south would provide some backdrop to the facilities along El

Charro Road. Viewer sensitivity would be low as the primary viewing population would be the drivers hauling the mineral extraction products to and from the quarry facilities.

Project visibility would be high given the foreground proximity of the project to El Charro Road though the number of viewers would be low. View duration would be extended as the project parallels the entire length of El Charro Road, affording viewers a considerable “in-line” view of the transmission line. Overall viewer exposure would be moderate to high but visual impact susceptibility would be low to moderate, reflecting the offsetting factors of low visual quality and low viewer sensitivity.

D2: Dublin-San Ramon Alternative, San Ramon Substation

Under the Dublin-San Ramon Alternative, the transmission line leaving the proposed Dublin Substation to the west would be overhead for the approximately four miles, and then underground for approximately the last one mile into the San Ramon Substation. The line would go underground at the ridgeline to the east of San Ramon Substation and would enter San Ramon Substation underground. This alternative may also require the reconductoring of the San Ramon-Pittsburg line out of San Ramon and relatively minor upgrades to San Ramon Substation.

Key Viewpoint 11 was established on Del Mar Street immediately west of San Ramon Substation in order to assess the existing visual conditions of the San Ramon Substation and immediate surroundings (Figure C.12-13). Visual quality is considered low due to the prominence of the substation infrastructure with industrial characteristics and the profusion of transmission line structures that lead into the substation. Visual absorption capability is high because the existing substation and transmission line facilities provide a developed context for the changes that would occur under the D2 Alternative. Also, the existing grass-covered hills would recover rapidly after installation of the underground facility. Viewer sensitivity is high because of the close proximity of the surrounding residential population. At a foreground to middleground viewing distance, visibility of the project site is moderate to high and the number of viewers (adjacent residents) is moderate with extended viewing opportunity. Visual exposure would be moderate to high and overall visual impact susceptibility would be low to moderate due to the existing low visual quality and high visual absorption capability for the types of proposed changes (undergrounding, reconductoring, and modification of existing facilities).

Key Viewpoint 12 is located on southbound Tassajara Road just north of the D2 span of Tassajara Road. This viewpoint was selected to characterize the visual conditions in the vicinity of the Tassajara Road crossing. (Figure C.12-14A) Visual quality is considered moderate due to the open, panoramic views of the Tassajara Valley and grass-covered hills beyond. While the area exhibits rural characteristics, there is substantial development occurring within the southern portion of the Tassajara Valley and the landscape is host to utility structures and powerlines. The D2 Alternative would parallel the existing PG&E transmission line corridor that is currently occupied by a wood pole distribution line. Visual absorption capability is low to moderate reflecting the open, unobstructed viewshed with minimal screening opportunities except immediately adjacent to Tassajara Road. However, the various utility and powerline poles adjacent to Tassajara Road and crossing the Tassajara Valley provide linear

vertical features that would be similar in form though not in scale to the D2 Alternative facilities. Viewer sensitivity is considered moderate as motorists on Tassajara Road anticipate rural agricultural landscapes and undeveloped hillsides generally lacking features with industrial character.

Visibility is moderate to high with the proposed facilities transitioning from foreground to background in the viewshed from Tassajara Road. The number of viewers is moderate as is the duration of view because, though travel speed is relatively high on Tassajara Road, openings in roadside vegetation provide extended views of the project. Viewer exposure is considered moderate as is overall visual impact susceptibility.

C.12.1.2.3 North Livermore Area

The existing landscapes of the North Livermore project area are primarily composed of level to rolling grasslands of the upper Las Positas Valley and the bordering hills, with dispersed residential properties and agricultural uses. Views tend to be panoramic, encompassing valley vistas and the hills and ridges that ring the larger Livermore Valley. Much of the area retains its historical agricultural character. North Livermore Avenue and Manning Road are county-designated scenic routes.

Proposed Project

The proposed overhead transmission line route would extend from the tap point at the Contra Costa-Newark transmission line, due west across the upper valley and foothills to the proposed Dublin Substation site. At North Livermore Avenue and Manning Road, a connector from the east-west route would extend one mile down the west side of North Livermore Avenue to the proposed five-acre North Livermore substation site at the intersection with May School Road. Structures along the eastern portion of the route to just west of the north turn in Manning Road would be single pole tubular in design. West of Manning Road, the structures would be lattice.

Key Viewpoint 13 is located on Manning Road, just east of the intersection with Carneal Road (Figure C.12-15A). Looking south, this viewpoint captures a picturesque, rural pastoral landscape of a small valley, rural residence, and surrounding low rolling hills upon which cattle graze. The residence and adjacent shade trees present a vivid color contrast to the monotone coloration of the valley floor and hills which is changeable with the seasons. In the distant background are the lavender colored ridges bordering the south side of the greater Livermore Valley. Visual quality is considered high, reflecting the coherence and harmony of the existing landscape features. The openness of the landscape and absence of screening potential result in a low visual absorption capability. Viewer sensitivity is rated high due to the close foreground proximity of two rural residences. Travelers on Manning Road are also considered highly sensitive as this road is popular with bicyclists, joggers, and recreational drivers who enjoy Manning Road for its picturesque, rural qualities.

Project visibility would be high as a foreground to middleground feature in the landscape. The number of potential viewers is low but the duration of view would be moderate to extended due to the close proximity of two rural residences and the lack of screening along Manning Road. Overall viewer

exposure is rated moderate to high, which when combined with high visual quality and viewer sensitivity and low visual absorption capability, leads to a high rating for visual impact susceptibility.

Key Viewpoint 14 is located on Manning Road at the intersection with Morgan Territory Road. The view to the west along Manning Road is constrained to a foreground to middleground view by the crest of the hill due west of the viewpoint (Figure C.12-16A). The view to the south from either Manning Road or Morgan Territory Road provides sweeping panoramic views across Las Positas Valley. Viewing to the west, visual quality is moderate to high. Visual absorption capability is low to moderate due to the openness of the terrain and low growing vegetation lacking screening potential, but with some existing infrastructure similar in form and line to that as the Proposed Project. Viewer sensitivity is rated high due to the close foreground proximity of rural residences. Travelers on Manning Road are also considered highly sensitive as this road is popular with bicyclists, joggers, and recreational drivers who enjoy Manning Road for its picturesque rural qualities. Both Manning Road and North Livermore Avenue are county-designated scenic routes.

Project site visibility is high due to its close foreground to middleground proximity to roads and residences. The number of viewers along this portion of Manning Road would be low but the duration of view would be extended. Overall viewer exposure would be moderate to high and the visual impact susceptibility of the existing landscape is moderate.

Key Viewpoint 15 is also located on Manning Road at the intersection with Morgan Territory Road. The view to the east and south along Manning Road encompasses panoramic vistas across the undeveloped grazing lands of Las Positas Valley to the Altamont Hills to the east and the ranges to the south of the greater Livermore Valley (Figure C.12-17A). Visual quality is considered high. Visual absorption capability is low due to the openness of the terrain, low growing vegetation lacking screening potential, and minimal extent of infrastructure similar to that as the Proposed Project. Viewer sensitivity is rated high due to the close foreground proximity of rural residences. Travelers on Manning Road are also considered highly sensitive as this road is popular with bicyclists, joggers, and recreational drivers who enjoy Manning Road for its picturesque rural qualities. Both Manning Road and North Livermore Avenue are county-designated scenic routes.

Project site visibility is high due to its close foreground to middleground proximity to roads and residences. The number of viewers along this portion of Manning Road would be low but the duration of view would be extended. Overall viewer exposure would be high and the visual impact susceptibility of the existing landscape is high.

Key Viewpoint 16 is located on North Livermore Avenue north of the intersection with May School Road and the proposed North Livermore Substation site. The view to the south and west from North Livermore Avenue provides open, panoramic vista views of the flat agricultural lands and farm residences of Las Positas Valley and the rolling hills beyond (Figure C.12-18A).

Visual quality is considered moderate to high and is affected by the presence of roadside utility lines. Visual absorption capability is low due to the openness of the terrain, and low growing vegetation

lacking screening potential, though there is some infrastructure with visual characteristics similar to that of some of the Proposed Project components. Viewer sensitivity is rated high due to the close foreground proximity of rural residences along North Livermore Avenue and Manning Road. Travelers on North Livermore Avenue are also considered highly sensitive as this road is popular with bicyclists, joggers, and recreational drivers who enjoy North Livermore Avenue for its picturesque rural qualities. North Livermore Avenue is a county-designated scenic route.

Project site visibility is high due to its close foreground proximity to North Livermore Avenue. The number of viewers along this portion of North Livermore Avenue is low but the duration of view would be extended. Overall viewer exposure would be high as is the visual impact susceptibility of the existing landscape.

East of North Livermore Avenue, the Proposed Project extends due east from Manning Road, crossing the north valley foothills to the Contra Costa-Newark transmission line (Figure C.12-19). Visual quality along this portion of the route is moderate to high, reflecting the available open, panoramic views to the rolling hills north and east of the valley. Visual absorption capability is low to moderate as there are minimal screening opportunities but, if viewed from the south (such as from May School Road), the northern hills would provide a solid textured backdrop which would help to reduce the prominence of the transmission line structures. Viewer sensitivity is high as residents in the vicinity of this portion of the project (along North Livermore Avenue, Manning Road, May School Road, Bel Roma Road, Dagnino Road, and Raymond Road) as well as travelers on the local roads, anticipate open unobstructed views of the rural, pastoral landscapes of the north valley area. Project visibility would be high as a foreground to middleground landscape feature though the number of viewers would be low. View duration would be extended and overall viewer exposure would be moderate. In summary, the overall visual impact susceptibility for this north valley landscape is moderate to high.

Proposed Project Variant P-1

This variant is identical to the Proposed Project, except that the one-mile of north-south 230 kV transmission line along North Livermore Road would be installed underground. The existing visual setting for this variant is the same as discussed above under KVPs 13 through 16 and East of North Livermore Avenue.

Proposed Project Variant P-2

This variant is identical to the Proposed Project, except that the one mile of north-south 230 kV transmission line along North Livermore Avenue and the east-west portion of the route extending from the tap point to approximately 2.8 miles west of the tap point would be installed underground. The existing visual setting for this variant is the same as discussed above under KVPs 13 through 16 and East of North Livermore Avenue.

L1: Raymond Road Alternative

The Raymond Road Alternative would tap the existing Contra Costa-Newark transmission line at the northeast corner of Ames Street and Raymond Road. A transition structure would take the line underground at that corner, and the line would run underground along the north side of Raymond Road to the west for one mile to the intersection of Raymond Road and Lorraine Road. Figure C.12-20 presents the view to the west along Raymond Road from near the tap point. At the intersection of Raymond Road and Lorraine Road, a substation would be located on the northeast corner, immediately east of an existing farm residence. The viewshed along the Raymond Road Alternative encompasses a landscape comprised of scattered, rural residences, broad level agricultural fields, and grazing lands surrounded by low rolling grass-covered hills. Such rural scenes are typical of the north valley area.

Key Viewpoint 17 is located on westbound Raymond Road, just west of the intersection with Dagnino Road (Figure C.12-21). The view encompasses the vacant field to the north of Raymond where the substation would be constructed, as well the adjacent residences to the west and south. Figure C.12-22 presents the view from northbound Lorraine Road, toward the intersection with Raymond Road. Visual quality is considered moderate and is based on the availability of open panoramic views of the distinctly rural agricultural landscapes that are typical of the north valley area. While there are a few wood pole utility lines in the area, there is little development with industrial characteristics. Visual absorption capability is considered moderate because of the number of structures, trees, and utility poles in the immediate vicinity of the substation site. These existing features would screen, or provide a backdrop for, the proposed facility. Viewer sensitivity is high for the adjacent residents and travelers on Raymond, Dagnino, and Lorraine Roads due to viewer expectations for open, unobstructed views of rural landscapes lacking features of industrial character.

Project visibility would be high as a foreground landscape feature. The number of potential viewers of the project would be relatively low though duration of view would be extended. Overall viewer exposure would be moderate. The moderate visual quality, high viewer sensitivity and moderate viewer exposure are somewhat balanced by the moderate visual absorption capability of the project area, leading to an overall moderate visual impact susceptibility.

L2: Hartman Road Alternative

The Hartman Road Alternative would be the same as the S1 Alternative described above except that at the intersection of Stanley Boulevard and Isabel, rather than turning west, the L2 Hartman Road Alternative would continue north for an additional 1.7 miles along the new Highway 84 corridor to the I-580 junction. Between Stanley Boulevard and East Jack London Boulevard, the line would be installed overhead west of the future Highway 84. The line would turn west at E. Jack London and then northeast to cross just to the east of the Livermore Airport runway. The line would be bored under I-580 and continue underground approximately 1 to 1.3 miles north of I-580 to a substation site near, and to the east of, Las Positas College. The substation site would be located in the vicinity of the future Highway 84 alignment.

Key Viewpoint 18 is located at the intersection of Kitty Hawk Road and E. Jack London Boulevard, viewing south along the future Highway 84 alignment (Figure C.12-23A). Visual quality is moderate, reflecting the open, panoramic valley views to the southern and western hills. Residences are apparent to the east of the Highway 84 alignment but are generally screened from view by an existing berm and vegetation. To the west are the open lands of the mineral reserve areas and operating quarries. Highway 84 will be a prominent foreground feature as viewed from KVP 18. Visual absorption capability is moderate due to the presence of suburban development features such as structures, roads, fences, road lights, and utility poles (in the background). Viewer sensitivity is considered moderate because although the residents to the immediate east of Isabel Avenue (Highway 84) would normally be considered highly sensitive, these residential views are directed to the east away from the alternative. Motorists on this portion of Isabel Avenue/Highway 84 would view this alternative within the context of the urban development to the north (Livermore Airport, wastewater treatment plant, and I-580) and the industrial development to the south (mineral extraction facilities and equipment, transmission lines along Stanley, and the existing rail line and siding along Stanley Boulevard).

Site visibility is High due to the foreground proximity to Route 84. The number of viewers will be moderate to high once the highway is completed and view duration will be extended. Overall viewer exposure will be high and the resulting visual impact susceptibility of the existing landscape is considered to be moderate when factoring in moderate visual quality and viewer sensitivity, as partially balanced by moderate visual absorption capability.

C.12.1.2.4 Tesla Connection

Proposed Project – Phase 2

Phase 2 of the Proposed Project would entail the construction of approximately 10 miles of single pole tubular structure 230 kV transmission line diagonally along the northern foothills between the Contra Costa-Newark line and Tesla Substation.

Key Viewpoint 19 is located on eastbound Interstate 580 near Altamont Pass. (Figure C.12-24A) Visual quality in the vicinity of the I-580 span is considered low to moderate with foreground to middleground views being dominated by I-580 and the adjacent windfarms along the north and south ridgelines. Visual absorption capability is also low to moderate in that although there are open foreground views with minimal screening, there are also substantial linear vertical elements (wind turbine structures) in the middleground of views from I-580. Viewer sensitivity is considered low to moderate. In general motorists driving over Altamont Pass anticipate a profusion of vertical wind turbine structures and both eastbound and westbound motorists on I-580 would view the Phase 2 span within the context of the windfarm development. Also, eastbound motorists tend to focus on the extensive windfarm development while westbound motorists typically focus on the expansive Livermore Valley.

Route visibility would be high in the foreground views from I-580 as would the number of viewers on I-580. Duration of view would be brief for westbound traffic having just come over the summit before

encountering the route span. Duration of view for eastbound motorists would be extended as the route and span would be visible for a longer period of time during the climb up to the pass from the valley below. Overall visual exposure would be high. The low to moderate visual quality and viewer sensitivity combined with high viewer exposure result in a moderate visual impact susceptibility, when also factoring in the low to moderate visual absorption capability.

From **I-580 to the Contra Costa-Newark Transmission Line**, the route would cross open rolling grass-covered hills, lacking similar structures of industrial character. Views of this portion of the route would be available from residential areas and roads in the north valley vicinity including Springtown, Vasco Road, Laughlin Road, Altamont Pass Road, Goecken Road, and Interstate 580. Visual quality is moderate to high while visual absorption capability is moderate. Although views to the route are open and unobstructed with minimal screening potential, the north hills provide a textured backdrop along portions of the route, which would help to reduce the project's prominence. Viewer sensitivity is considered moderate to high as residents and travelers in the area generally anticipate the undeveloped natural character of the rolling grass-covered hills with minimal industrial character.

Route visibility would be moderate to high, at a foreground to middleground distance, with a moderate number of potential viewers and extended duration of view. Overall viewer exposure would be moderate to high while the visual impact susceptibility of the host landscape is considered moderate.

Brushy Peak Alternative

The Brushy Peak Alternative provides an alternative route south of the Brushy Peak Preserve. This alternative would move a portion of the Phase 2 transmission line south to a point near the future entrance to the Brushy Peak Preserve so as not to obstruct views north to the Peak from within the Preserve.

Key Viewpoint 20 was established on Laughlin Road, south of the future entrance to the Preserve. The view to the north encompasses a rural landscape of rolling, grass-covered hills and scattered oak woodlands. (Figure C.12-25) Also present in the viewshed are two rural residences. Visual quality is considered moderate. Visual absorption capability is low as the terrain is generally open with minimal screening of the route. Although the north-south segment of the alternative route is partially screened from northbound views on Laughlin Road by a small stand of eucalyptus trees, this same north-south segment would not be screened from views from within the Preserve. Viewer sensitivity is considered high as most current viewers are local residents and future viewers will include recreational visitors to the Brushy Peak Preserve.

Route visibility is high at a foreground to middleground viewing distance from both Laughlin Road and from within the Preserve. The number of potential viewers is low but the duration of view would be extended. Overall viewer exposure would be moderate. When considering the moderate visual quality, low visual absorption capability and high viewer sensitivity in combination with moderate viewer exposure, overall visual impact susceptibility is considered moderate to high.

Stanislaus Corridor Alternative

The Stanislaus Corridor Alternative would involve the construction of a single pole tubular structure 230 kV transmission line within the existing Stanislaus Corridor between Tesla Substation and the tap points for either the S1/S2/L2 Alternatives or proposed route/S4 Alternative (if selected). The Stanislaus Alternative would also result in the removal of the two existing lattice structure transmission lines within the Stanislaus Corridor.

Key Viewpoint 21 is located on eastbound Tesla Road, west of Vasco Road with the view to the southeast. The panoramic view from this location encompasses broad vineyards in the foreground with the southern hills in the background adding variety and interest to this picturesque agricultural scene within the Livermore Valley wine region. Visual quality is considered moderate to high and is only slightly diminished by the presence of the twin lattice tower transmission lines within the Stanislaus Corridor (Figure C.12-26A). Visual absorption capability is moderate, for although the landscape is open and views to the route are unobstructed, the existing lattice structures have established industrial forms and lines similar to that of the proposed alternative. Viewer sensitivity is considered high since most viewers are local residents or visitors to the Livermore wine region and anticipate a rural agricultural wine country scene that generally would be inconsistent with features of industrial character.

Route visibility is high in the foreground to middleground views from Tesla Road and other viewing opportunities in the vicinity of the route. The number of potential viewers is moderate and the duration of view would be moderate to extended. Overall viewer exposure would be moderate and the visual impact susceptibility of the existing landscape is also considered to be moderate given the moderate to high visual quality.

C.12.1.3 Applicable Regulations, Plans, and Standards

Public agencies and planning policy establish visual resource management objectives in order to protect and enhance public scenic resources. Goals, objectives, policies, and implementation strategies and guidance are typically contained in resource management plans, comprehensive plans and elements, and local specific plans. Section C.7 of this Environmental Impact Report (Land Use and Public Recreation) presents a comprehensive discussion of regulations, plans, and standards that pertain to the Proposed Project and alternatives. There are ten jurisdictional planning documents containing 28 policies, objectives, designations, or guidance pertinent to visual resources for the Proposed Project. These planning directives are listed in Table C.12-1. The Proposed Project's consistency with each of these relevant planning directives is discussed in Section C.12.2.4.

Table C.12-1 Regulations, Plans and Standards Applicable to Visual Resources

Jurisdiction / Document	Planning Guidance
East Bay Regional Park District Master Plan	Planning and Acquisition Policy
Alameda County General Plan	Open Space Element Principal
	Scenic Route Element Principles (5 principles)
East County Area Plan (Alameda County)	Land Use Policy 113
	Land Use Policy 117
	Public Services and Facilities Policy 262
Contra Costa County General Plan	Open Space Element Scenic Resources Policy 9-17
	Open Space Element Scenic Resources Policy 9-24
City of Pleasanton General Plan	Land Use Element Policy 1
	Land Use Element Program 6.5
	Land Use Element Policy 12
	Public Facilities Element Program 8.4
	Conservation and Open Space Element Policy 1
Eastern Dublin Specific Plan	Resource Management Policy 6-30
San Ramon General Plan	Public Facilities and Utilities Element Implementing Policy B
	Public Facilities and Utilities Element Implementing Policy C
	Resource Conservation Overlay Implementing Policy E
City of Livermore Community General Plan 1976-2000	Visual Resources Policy (d)
	Visual Resources Policy (j)
	Visual Resources Policy (k)
	Scenic Route Element Policy II.C
South Livermore Valley Specific Plan	Public Utilities Policy 8-31
North Livermore Specific Plan	Rural Area Infrastructure Policy 6.5.1
	Rural Area Standards & Design Guidelines Policy 7.5.4

C.12.2 ENVIRONMENTAL IMPACT ANALYSIS AND APPLICANT PROPOSED MEASURES

C.12.2.1 Introduction

This first section of the impact analysis describes the methodology employed to identify visual impacts as well as the significance criteria that are used to determine the degree of significance of that impact. This section will also identify measures proposed by the project Applicant to avoid or reduce impacts, as well as consistency with the applicable regulations, plans, and standards. Also discussed are the general short-term construction impacts that would result from construction of either the project as proposed or any of the alternatives put forward in this document. The subsequent sections of the impact analysis will address the operation and maintenance of the Proposed Project and alternatives by geographic area. But before proceeding further, it is important to review the concepts and terminology that underpin a visual resources impact analysis.

An *adverse visual impact* occurs within public view when: (1) an action perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality or region; (2) an action introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or locale; or (3) aesthetic features of the landscape become less

visible (e.g., partially or totally blocked from view) or are removed. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting. The degree of the visual impact depends upon how noticeable the adverse change may be. The noticeability of a visual impact is a function of project features, context, and viewing conditions (angle of view, distance, and primary viewing directions). The key factors for consideration in determining the degree of visual impact or *Visual Impact Severity* are visual contrast, project dominance, and view impairment:

Visual Contrast evaluates a potential project's or activity's consistency with the visual elements of form, line, color, and texture already established in the landscape. Other elements that are considered in evaluating visual contrast include the degree of natural screening by vegetation and landforms, placement of structures relative to existing vegetation and landforms, distance from the point of observation, and relative size or scale. Generally, visual contrast inversely correlates with visual absorption capability (discussed in Section C.12.1.2.1).

Project Dominance refers to the project's relationship to other visible landscape components in terms of vertical and horizontal extent. A project's scale and spatial relationship to the existing landscape can be categorized as subordinate, co-dominant, or dominant.

View Impairment refers to the extent to which a project's scale and position result in the blockage of higher quality visual elements by lower quality elements.

Visual Impact Severity characterizes the degree of impact caused by a project on a given landscape or viewshed, typically, as experienced from key viewpoints. The assessment of visual impact severity is based on an analysis of visual contrast, project dominance, and the impairment (or blockage) of views from key viewpoints.

C.12.2.2 Visual Impact Analysis Methodology and Definition and Use of Significance Criteria

Assessment of the likely visual impacts that would occur as a result of operation of the Proposed Project and alternatives was accomplished by establishing representative viewpoints from which to conduct a detailed analysis of the project. At each of these Key Viewpoints (KVPs), field analysis included assessment of visual contrast, project dominance, and view impairment. Subsequently, a conclusion was made regarding the severity of the probable impact, and taken together with the existing landscape's visual impact susceptibility (discussed previously in the Environmental Baseline and Regulatory Setting above), the level of probable visual impact significance was determined. In some instances a visual simulation was also prepared with which to further evaluate the preliminary impact determination. A conclusion on initial impact significance was then arrived at. If a determination was made that the resulting impact would be significant, the impact situation was further evaluated against the application of feasible mitigation measures in an effort to reduce the visual impact to a level of non-significance if possible. A final conclusion on impact significance was then reached. The results of the visual analysis conducted for the Proposed Project and each of the alternatives is presented in Table C.12-6, **Visual Analysis Summary** at the end of this section, followed by Key Viewpoint **Existing Setting Photographs** and **Visual Simulations**.

The criteria used to assess the significance of visual impacts resulting from a project take into consideration the factors described above, as well as federal, state, and local policies and guidelines pertaining to visual resources. Appendix G of the CEQA Guidelines identifies the following four circumstances that can lead to a determination of significant visual impact:

- 1) The project has a substantial adverse effect on a scenic vista;
- 2) The project substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- 3) The project substantially degrades the existing visual character or quality of the site and its surroundings; and
- 4) The project creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

A fifth circumstance potentially leading to a significant visual impact would be:

- 5) The project results in an inconsistency with regulations, plans, and standards applicable to the protection of visual resources.

In the present methodology, the degree of impact significance is generally arrived at as a function of impact susceptibility and impact severity. Table C.12-2 illustrates the interrelationship between impact susceptibility and impact severity leading to the determination of impact significance.

Table C.12-2 General Guidance for Determination of Impact Significance

IMPACT SUSCEPTIBILITY	IMPACT SEVERITY		
	Low	Moderate	High
Low	Insignificant ¹ to Adverse but Not Significant	Insignificant ¹ to Adverse but Not Significant	Adverse but Not Significant ²
Moderate	Insignificant ¹ to Adverse but Not Significant	Adverse but Not Significant	Significant ³
High	Insignificant ¹ to Adverse but Not Significant	Adverse but Not Significant	Significant

1 Insignificant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

2 Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.

3 Significant impacts can be mitigated to a level that is not significant or can be avoided all together with feasible mitigation. Without mitigation, the impact would exceed environmental thresholds.

The interrelationships presented in Table C.12-2 are intended as guidance only, recognizing that site-specific circumstances may warrant a different outcome. However, it is reasonable to conclude that lower impact susceptibility ratings paired with lower impact severity ratings will generally correlate

well with lower degrees of impact significance when viewed on site. Conversely, higher impact susceptibility ratings paired with higher impact severity ratings will tend to result in higher degrees of visual impact occurring at the site.

Implicit in this rating methodology is the acknowledgment that, for a visual impact to be considered significant, two conditions generally exist: (1) the existing landscape is of reasonably high quality and is highly valued by the public; and (2) the perceived incompatibility of one or more Proposed Project elements or characteristics tends toward the high extreme, leading to a substantial reduction in visual quality. Furthermore, to aid in the assessment of project impacts, visual simulations were prepared for several of the key viewpoints to illustrate the anticipated long-term appearance of the Proposed Project in the existing landscape.

Visual impacts are classified as defined in Section C.1.4: Class I (significant, cannot be mitigated to a level that is not significant), Class II (significant, can be mitigated to a level that is not significant), or Class III (adverse, but less than significant).

It should be noted that there are occasions when a reduction in structure heights or the installation of vegetative screening (in close proximity to a viewpoint) may accomplish some level of impact reduction. However, for a transmission project of this scale (80- to 150-foot structure heights), there is relatively little opportunity, aside from route relocation, undergrounding, or selection of an alternative to mitigate significant visual impacts to a level of non-significance. In most cases, either significant and unavoidable (Class I) or adverse but not significant (Class III) visual impacts will occur unless a re-route or alternative route (which may or may not be underground) are recommended.

C.12.2.3 Applicant Proposed Measures

Table C.12-3 lists the Applicant's nine visual resource measures presented in the Proponent's Environmental Assessment (PG&E 1999).

C.12.2.4 Consistency with Applicable Regulations, Plans, and Standards

The policies and planning guidance pertinent to visual resources is summarized in Table C.12-4. As indicated in the table, overall, the Proposed Project and/or alternatives were found to be consistent with applicable policy in 17 instances. In four instances, they were found to be partially consistent. In one case they were found to be potentially consistent, and in six instances the Proposed Project and/or alternatives were deemed inconsistent with applicable policies. A brief discussion of policy consistency is provided for each policy applicable to either the Proposed Project or alternatives. The impact significance of specific project inconsistencies with applicable regulations, plans, and standards is presented in the relevant key viewpoint discussions in subsequent impact sections.

Table C.12-3 Applicant Proposed Measures for Visual Resources

Mitigation Measure*	Description
Construction	
6.1	PG&E will keep construction-related activity as clean and inconspicuous as practical by generally storing building materials and equipment away from public view and removing construction debris promptly at regular levels
Operation	
6.2	To reduce the amount of perceived visual clutter (between Mileposts B12 and B13), PG&E will eliminate the existing distribution line located on the north side of, and adjacent to, Manning Road by placing it underground. The underground line will be placed within the existing PG&E easement parallel to Manning Road. Modifications to the current easement language to incorporate undergrounding may be necessary.
6.3	To reduce the amount of perceived visual clutter (between Mileposts V0 and V1), PG&E will eliminate the existing distribution line located adjacent to North Livermore Avenue by undergrounding it. The underground line will be placed in the easement that PG&E will acquire for the proposed new transmission line to the North Livermore Substation. To improve the project's overall integration with its surroundings, PG&E will participate in future aesthetic enhancement measures for North Livermore Avenue. Proposed plans call for widening North Livermore Avenue from two lanes to four lanes. To the extent that specific aesthetic design information is available regarding these roadway improvements, PG&E will coordinate design themes for the substation using appropriate tree species, lighting fixtures, and wall treatments with approved plans for the roadway improvements.
6.4	To reduce the project's skylining effects (between Mileposts B13 and B14), PG&E will site individual poles at the ridgeline crossing by selecting locations that result in the towers appearing against at least a partial backdrop of existing landform and vegetation when seen from Manning Road and North Livermore Avenue.
6.5	To visually integrate the North Livermore Substation with its surroundings, PG&E will install a perimeter fence and landscaping treatment, including trees and shrubs, that is appropriate to the surrounding community's appearance. Plant material will be consistent with recommendations contained in local ordinances and guidelines. Final landscape design treatment for the substation will be developed in consultation with the City of Livermore (or Alameda County, depending on the jurisdiction at the time).
6.6	To minimize potential glare from the substations and transition structure, all proposed structures at these sites, including fences, will be painted or finished with a non-reflective treatment. Exterior lighting at substations will include the use of non-glare light bulbs. Lighting fixtures will be located and designed to avoid casting light or glare on off-site locations.
6.7	To minimize potential visual impacts from the Dublin Substation on views from future residential areas, PG&E will create setbacks for future landscaping. Trees will be planted as soon as practicable after the property is acquired and landscape plans are approved. When landscaping is installed, the selected plant material will be consistent with recommendations contained in local ordinances and guidelines.
6.8	Between Mileposts W2.5 to B10.4, PG&E will carefully site individual poles that are located in close proximity to residences so as to minimize their visibility.
6.9	To reduce the visibility of the transition structure (Milepost M3) as seen from the Kottinger Ranch residential area, a combination of trees and earth berms will be installed along the northern side of the facility. Recontouring of disturbed, graded areas will be implemented to provide a natural appearing landform upon completion of construction.

* Source: Section 6.4, pages 6-48 and 6-49 of the Proponent's Environmental Assessment

Table C.12-4 Consistency with Applicable Regulations, Plans, and Standards

Section/ Policy #	Policy Statement	Consistency Determination
EAST BAY REGIONAL PARK DISTRICT MASTER PLAN		
Planning and Acquisition Policy	Undergrounding of Utilities. New utility lines will be placed underground on land owned, operated, or managed by the District to retain the optimal visual qualities of the area. Rights-of-way and easements for utilities will not be granted without undergrounding. The District will work in cooperation with the utility companies to place existing overhead utilities underground (unless doing so conflicts with applicable codes) as soon as practical and will work with other agencies and neighbors to reduce visual impacts on adjacent lands. The District will seek to avoid the construction of high voltage powerlines within the parklands, particularly in areas of sensitive or aesthetically important resources and in preserve areas.	Inconsistent. The <u>Phase II alignment</u> passes through property recently acquired by the East Bay Regional Park District (EBRPD) to expand the Brushy Peak Regional Preserve. Following the completion of a planning and CEQA review process, the District intends to open this area to appropriate public use. It is intended for this property to become the access point and visual gateway into the Preserve. It is also an area of sensitive resources, including wetlands and a number of endangered and threatened wildlife species. The proposed overhead alignment through this property would conflict with this policy. Potential impacts to EBRPD lands are addressed in Section C.7.6.
ALAMEDA COUNTY GENERAL PLAN		
Open Space Element Principle	Utility Lines to be Consolidated and Located to Avoid Scenic Areas. Wherever feasible, power and pipe utility lines should be consolidated to prevent further severance of open space lands. Utility lines and aqueducts in open space areas should be located so as to avoid areas of outstanding beauty.	Inconsistent. The <u>south alignment</u> has been designed so as to conceal the conductors and towers from public view as the line heads north into Pleasanton from the Tesla-Newark transmission corridor. Once the transmission line reaches the top of the hills to the south of Pleasanton at about Milepost M2.8, the transmission line would be converted to an underground line so as to remain invisible to Pleasanton residents. The south alignment would therefore be <u>consistent</u> with this principle. The <u>north alignment</u> would traverse open space and be highly visible from the North Livermore area. The transmission line would stand out against the hillsides that form the northern backdrop to the valley and constitute an important component of the beauty of the area. The <u>north alignment</u> would therefore be <u>inconsistent</u> with this principle.
Scenic Route Element Principle	Locate Transmission Towers and Lines Outside of Scenic Route Corridors When Feasible. New overhead transmission towers and lines should not be located within scenic corridors when it is feasible to locate them elsewhere.	Inconsistent. North Livermore Avenue is designated a scenic route by Alameda County. The <u>proposed</u> overhead transmission line between Milepost V0 and V1 (<u>north alignment</u>) would <u>conflict</u> with this policy. In addition, Highway 84 is designated a scenic route, so the transition structure adjacent to the highway for Alternatives <u>S1, S2, and L2</u> would <u>conflict</u> with this policy.
Scenic Route Element Principle	Use Landscaping to Increase Scenic Qualities of Scenic Route Corridors. Landscaping should be designed and maintained in scenic route corridors to provide added visual interest, to frame scenic views, and to screen unsightly views.	Consistent. The <u>North Livermore substation</u> , which would be located within a scenic route corridor, would be surrounded by an earthen berm, enclosed behind a concrete block wall, and ringed by trees and other landscaping that would serve to screen the substation from view along North Livermore Avenue.
Scenic Route Element Principle	Retain Public Easements for Recreation Trails. All public easements should remain free and clear of any structure or improvements other than planting, unless required by public necessity, as a means of providing unobstructed areas for future recreation trails.	Consistent. This policy applies to County scenic routes, including North Livermore Avenue, where the north alignment would be located. A recreational trail is planned for the west side of this roadway. The Proponent's Environmental Assessment states that no tower structures would be placed within existing or proposed trail right-of-ways.
Scenic Route Element Principle	Preserve and Enhance Natural Scenic Qualities in Areas Beyond the Scenic Corridor. Views from scenic routes will comprise essentially all of the remainder of the county beyond the limits of the scenic corridor: The corridor is intended to establish a framework for the observation of the views beyond. Therefore, in all areas in the county extending beyond the scenic route corridors, scenic qualities should be preserved through retaining the general character of natural slopes and natural formations, and through preservation and enhancement of water areas, watercourses,	Inconsistent. The transmission lines and support towers of the <u>north alignment</u> would be highly visible from North Livermore Avenue, a county-designated scenic route. These project components would not be considered visually compatible with the natural hillsides that lie to the north of the proposed alignment.

Section/ Policy #	Policy Statement	Consistency Determination
	vegetation and wildlife habitats. Development of lands adjacent to scenic route corridors should not obstruct views of scenic areas and development should be visually compatible with the natural scenic qualities.	
Scenic Route Element Principle	Provide for Normal Uses of Land but Limit Overhead Utilities and Outdoor Advertising Structures. In both developed and undeveloped areas, outdoor advertising structures, utility and communication towers, poles and wires should be located only where they will not detract from significant scenic views. All other structures and use of land should be permitted as specified in the local zoning ordinance as supplemented by special height regulations (see General Scenic Development Standards, page 20).	Inconsistent. Views from the North Livermore area to the north constitute significant scenic views, which would be degraded by the placement of the north alignment approximately <u>between Mileposts B10.4 and B13.</u>
EAST COUNTY AREA PLAN (ALAMEDA COUNTY)		
Land Use Policy 113	The County shall require the use of landscaping in both rural and urban areas to enhance the scenic quality of the area and to screen undesirable views. Choice of plants should be based on compatibility with surrounding vegetation, drought-tolerance, and suitability to site conditions; and in rural areas, habitat value and fire retardance.	Consistent. The North Livermore substation would be surrounded by appropriate landscaping to screen the site from public view.
Land Use Policy 117	The County shall require that utility lines be placed underground whenever feasible. When located above ground, utility lines and supporting structures shall be sited to minimize their visual impact.	Inconsistent. While the <u>south alignment</u> would be <u>consistent</u> with this policy, the <u>north alignment</u> would not be placed underground and would be highly visible in the North Livermore area.
Public Services and Facilities Policy 262	The County shall facilitate the provision of adequate gas and electric service and facilities to serve existing and future needs while minimizing noise, electromagnetic, and visual impacts on existing and future residents.	Consistent. The <u>Proposed Project</u> is intended to provide facilities to meet the needs of existing and planned or anticipated growth in the Tri-Valley area. This EIR recommends mitigation measures and alternatives to meet the objectives of the project while minimizing noise, electromagnetic, visual, and other impacts.
CONTRA COSTA COUNTY GENERAL PLAN		
Open Space Element Scenic Resources Policy 9-17	New powerlines shall be located parallel to existing lines in order to minimize their visual impact.	Partially Consistent. While the proposed <u>north alignment</u> in Contra Costa County would not be located parallel to existing transmission lines, there are no existing transmission lines in the vicinity of the alignment. Construction of the proposed Dublin substation, and the north area transmission line, is required to meet the projected growth in demand in the Dublin/San Ramon area.
Open Space Element Scenic Resources Policy 9-24	The appearance of the County shall be improved by eliminating negative features such as non-conforming signs and overhead utility lines, and by encouraging aesthetically designed facilities with adequate setbacks and landscaping.	Partially consistent. The portion of the alignment within Contra Costa County is within grazing land, with no residences in the vicinity. Though not underground, the transmission line would not be visible to the general public.
CITY OF PLEASANTON GENERAL PLAN		
Land Use Element Policy 1	Preserve the character of existing residential neighborhoods.	Consistent. The transmission line would be buried underground throughout the alignment within and adjacent to residential neighborhoods in Pleasanton, and would not alter the existing character of those neighborhoods.
Land Use Element Program 6.5	Require non-residential projects to provide a landscape buffer between new non-residential development and areas designated for residential use	Consistent. The existing <u>Vineyard Substation</u> is located in proximity to the senior housing residential development located to the south. A new transformer bank, circuit switches, a circuit breaker, and other equipment would be installed within the existing footprint of the substation. This property is currently screened from view in the senior housing development by an earthen berm, landscape buffer, and riparian vegetation growing along the Arroyo Del Valle.
Land Use Element Policy 12	Preserve scenic hillside and ridge views of the Pleasanton, Main, and Southeast Hills ridges.	Consistent. The southern portion of the <u>south area alignment</u> passes through the area designated Southeast Hills by the City and referenced in Policy 12. Views of these hills from the adjacent residential areas in Pleasanton would be unaffected by the

C.12 VISUAL RESOURCES

Section/ Policy #	Policy Statement	Consistency Determination
		Proposed Project.
Public Facilities Element Program 8.4	Design utility substations in a visually appealing structure, and minimize their impact on nearby residential areas.	Consistent. The proposed substation improvements within Pleasanton would be located at the existing Vineyard Substation, within the existing footprint of the property. This property is currently screened from Stanley Boulevard and from the nearby residential development to the south. The Proposed Project would not appreciably alter the appearance of the existing substation.
Conservation and Open Space Element Policy 1	Preserve and enhance the natural resources of the Planning Area, including plant and wildlife habitats, heritage trees, scenic resources, and water courses.	Consistent. The Proposed Project has been designed so as to minimize intrusion into natural habitats and watercourses and to minimize adverse effects on the scenic resources in the project area.
EASTERN DUBLIN SPECIFIC PLAN		
Resource Management Policy 6-30	Structures built near designated scenic corridors shall be located so that views of the backdrop ridge (identified in Figure 6.3 as "visually sensitive ridgelands—no development") are generally maintained when view from the scenic corridors	Consistent. The Alternative D1 substation would be located about 1,000 feet north of Interstate 580, which is designated a scenic corridor by Alameda County. Due to the 1,000-foot distance from the scenic route and the low profile of the substation, it would not block views of the ridgelands from I-580.
SAN RAMON GENERAL PLAN		
Public Facilities and Utilities Element Implementing Policy B	Cooperate with Pacific Gas and Electric Company (PG&E) to monitor future utility expansion to ensure that facilities are designed and planned with minimal impact on existing and future residents.	Consistent. Alternative D2, the only alternative within the City of San Ramon, was carefully developed in consultation with the City to minimize impacts on the existing residents. The alignment would be underground from the top of the ridge at the eastern edge of the City to the substation so that it would not be visible to the residents flanking Alcosta Boulevard and to the west of Alcosta Boulevard.
Public Facilities and Utilities Element Implementing Policy C	Work with PG&E to improve transmission line corridors with attractive, community-serving uses. Ornamental planting and recreational uses, including trails and playing fields, should be encouraged.	Consistent. PG&E will cooperate with the City of San Ramon if it desires to place appropriate linear landscaping or other appropriate and compatible uses within its right-of-way, provided the City does not require PG&E, and by extension the ratepayers, to pay for such improvements.
Resource Conservation Overlay Implementing Policy E	Structures within areas subject to this section of the Conservation Element shall be limited to a maximum height of 32 feet from the lowest to the highest points of the structure which are above the ground.	Consistent. The portion of the Alternative D2 alignment within the City of San Ramon would cross a Minor Ridgeline, which is within the Resource Conservation Overlay District addressed by this policy. This segment of the alternative alignment would be underground, and thus consistent with this policy.
CITY OF LIVERMORE COMMUNITY GENERAL PLAN 1976-2000		
Visual Resources Policy (d)	The City shall permit not structure or appurtenance to exceed the height of the tree canopy in woodland areas.	Consistent. While a portion of the Alternative S1 and Alternative S2 alignments would be within the General Plan planning area, this portion of the City is essentially treeless and devoted to viticulture or gravel mining.
Visual Resources Policy (j)	The City shall protect and enhance public views within and from established scenic corridors, including the arroyos, and development shall not be allowed to obscure, detract from, or negatively effect [sic] the quality of these views.	Partially consistent. The City's Scenic Route Element identifies Vineyard Avenue as an existing scenic route and Isabel Avenue as a proposed scenic route. Alternatives S1 and L2 would be placed overhead on Isabel Avenue, which would adversely affect views along this roadway. The overhead lines and towers would also be visible from Vineyard Avenue. However, Isabel Avenue is not particularly scenic, and the negative impact on the existing views would not be significant. The Proposed Project and all other alternatives would be consistent with this policy.
Visual Resources Policy (k)	The City shall permit no development to wholly obstruct or significantly detract from views of any scenic area as viewed from a scenic corridor.	Consistent. The placement of Alternatives S1 and L2 along Isabel Avenue would not significantly detract from views from the Vineyard Avenue scenic corridor. (Refer to the discussion on Visual Resources Policy (j), above.)
Scenic Route Element Policy II.C	Location of transmission towers and lines outside of scenic route corridors. New overhead transmission towers and lines should not be located within Scenic Corridors.	Consistent. While Isabel Avenue is a proposed scenic route, it has not been officially designated as such by the City of Livermore. Therefore, placement of the Alternative S1 or L2 transmission lines overhead along this roadway would not conflict with this policy. No other scenic routes within Livermore's jurisdiction would be adversely affected by the project or alternatives.
SOUTH LIVERMORE VALLEY SPECIFIC PLAN		
Public Utilities Policy 8-31	In order to minimize the visual impact on the area's open, rural character, all new utilities will be placed	Potentially consistent. The Specific Plan recognizes existing transmission lines in the planning area and appears to

Section/ Policy #	Policy Statement	Consistency Determination
	underground.	acknowledge the distinction between local distribution utilities and these regional facilities. Policy 8-31 appears to apply to the former category. Therefore, while <u>Alternatives S1, S2, and L2 would not be consistent</u> with the explicit language of this policy, <u>it is inferred that they would be consistent</u> with the intent of the policy.
NORTH LIVERMORE SPECIFIC PLAN		
Rural Area Infrastructure Policy 6.5.1	Pacific Gas & Electric High Voltage Transmission Lines and Substations. The County shall consult with Pacific Gas & Electric regarding appropriate locations and design of any proposed high voltage transmission lines and/or substation within Zones B, C, or D. It shall be County policy that any such lines or substations be located to minimize visual impacts to the area. a) The transmission of power from the substation to the Urban Area should be in underground conduits. b) A substation, if required, should be adequately screened from all adjacent public right-of-ways. c) Overhead 230 kV lines visible from the central portion of the Project Area shall be strongly discouraged.	Partially consistent. PG&E has consulted with the County during the development of the project and alternatives, and additional consultation has occurred between the County and the CPUC during development of alternatives evaluated in this EIR and preparation of the EIR. Alternatives have been selected that would minimize visual impacts to the Specific Plan area. While the Proposed Project does not include distributing power from the North Livermore substation to the planned urban development in Zone A, it is anticipated that such distribution lines would be placed underground. The proposed substation would be screened from public view by earthen berms and vegetation. However, if the proposed northern alignment is implemented, the support towers and overhead lines would be visible from some locations within Zone A, the central project area.
Rural Area Standards & Design Guidelines Policy 7.5.4	Landscaping Around Buildings. Landscaping should be used in all development envelopes (residential and non-residential) to protect the visual quality and character of the area by integrating development with its setting. Given the openness of the landscape, particular attention should be paid to plantings that will screen views of buildings from public roadways and adjacent development. In this context, "screening" views does not mean completely obstructing views of new development. Instead, landscape screening should achieve a "filtering" of views and a "softening" of the development profile.	Consistent. The North Livermore substation site would be surrounded by a landscaped earthen berm that would appropriately screen the facility.

C.12.2.5 Short-Term Construction Impacts for the Proposed Project and Alternatives – All Areas

Construction impacts on visual resources would result from the presence of equipment, materials, and work force at the substation sites and staging areas and along the route, and from the temporary alteration of landforms and vegetation along the right of way (ROW). Vehicles, heavy equipment, facility components, and workers would be visible during site clearing, grading, substation construction, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the sites and ROW including adjacent and nearby residents, recreationists on trails and roads, motorists, and workers in industrial, commercial, and business facilities. View durations would vary from brief to extended. Construction activities would be most visible for those elements of the Proposed Project or alternatives through residential neighborhoods and adjacent to major travel corridors (such as Interstate-580 and SR 84).

The construction of the transmission line and substations, modification of existing substations, and use of construction staging areas would result in the visual intrusion of construction vehicles, equipment, storage materials, and workers. Due to the relatively short duration of project construction, project construction impacts would generally constitute adverse, but not significant (**Class III**) visual impacts

of the Proposed Project, and no mitigation measures are recommended beyond the Applicant's proposed mitigation measure 6.1 described in Table C.12-3 previously. The following impact discussions (for both the Proposed Project and alternatives) address operation and maintenance impacts.

C.12.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: PLEASANTON AREA

C.12.3.1 Proposed Project

C.12.3.1.1 *Key Viewpoint 1 – Route 84*

Figure C.12-2A presents the existing view to the northeast from Key Viewpoint 1 on Route 84 (Vallecitos Road). Figure C.12-2B (the lower image on the same page) presents a visual simulation that depicts the common segment of the Proposed Project and Eastern Open Space Alternative, as it would appear once constructed. Most obvious in the visual simulation are the conductor spans of Route 84 from the tap point south of Route 84 to the north side of the road. The first tower structure to the south of the road is less conspicuous due to the numerous existing structures in the Tesla-Newark corridor visible in the right portion of the image. The project would result in minimal change to the existing landscape features and would result in a low to moderate degree of visual contrast, primarily associated with the curvilinear lines of the conductor span of the highway and the vertical form of the first tower structure to the north of the highway (out of the frame of view in Figure C.12-2B). The project is rated co-dominant in comparison to the existing transmission structures and the rolling landforms of the surrounding terrain and view impairment would be low. Overall visual impact severity is rated low to moderate and in the context of the existing landscape's low to moderate visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). As discussed in Table C.12-4 above, no policy inconsistencies would occur for this portion of the Proposed Project and no mitigation measures are recommended.

After ascending the hillside north of Route 84, the Proposed Project/S4 common segment would cross through an undeveloped range of hills and valleys for approximately three miles north. There is minimal public visual access to this area and no visual impacts are anticipated.

C.12.3.1.2 *Key Viewpoint 2 – Pleasanton Transition Structure*

Figure C.12-3A presents the existing view to the southeast from Key Viewpoint 2 at the end of Hearst Drive. Figure C.12-3B presents a visual simulation that depicts the proposed transition structure as it would appear once constructed near milepost 3.0. As is apparent in the visual simulation, the transition structure would be barely visible, if at all, along the upper ridgeline. The project would result in minimal change to the existing landscape features and would result in a low degree of visual contrast. The project is rated subordinate in comparison to the existing landforms and vegetation. Overall visual impact severity is rated low and in the context of the existing landscape's low visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). No additional mitigation measures are recommended beyond the Applicant's proposed measure 6.9 described in Table C.12-3 above. As discussed in Table C.12-4 above, no policy inconsistencies would occur for this portion of the Proposed Project. Between the transition structure and Vineyard

Substation, the remainder of the route would be underground beneath city streets and medians and no additional long-term visual impacts would occur from project operation.

C.12.3.2 Alternative S1: Vineyard-Isabel-Stanley

C.12.3.2.1 Key Viewpoint 3 – Arroyo Road

Figure C.12-4 presents the existing view to the west from Key Viewpoint 3 on Arroyo Road. The common segment for the S1/S2/L2 Alternatives would tap into the existing Contra Costa-Newark line visible as one of the several transmission lines in the Tesla-Newark corridor shown in the left side of the photograph. The S1/S2/L2 common segment would pass through the oak woodland and grassland of Sycamore Grove Regional Park, visible in the middleground beyond the foreground vineyard (from left to right in the photograph). The structures of the common segment would result in minimal change to the existing landscape features and would appear similar to the other transmission structures visible in the viewshed. From the KVP 3 vantage point, the S1/S2/L2 common segment would result in a moderate degree of visual contrast which would be associated with the introduction of additional vertical structures into a landscape dominated by natural appearing vegetative forms. The S1/S2/L2 common segment is rated co-dominant in comparison to the existing transmission structures and the rolling landforms of the surrounding terrain. View impairment would be low. Overall visual impact severity is rated moderate and in the context of the existing landscape's low to moderate visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). As discussed in Table C.12-4 above, no policy inconsistencies would occur for this portion of the S1/S2/L2 common segment and no mitigation measures are recommended.

C.12.3.2.2 Sycamore Grove Trail and Route 84 Transition Structure

Within Sycamore Regional Park, Sycamore Trail parallels the south side of Arroyo Del Valle. The S1/S2/L2 common segment would be moderately visible to the south of the trail. The structures with their industrial characteristics would moderately to highly contrast with the natural forms and lines of the existing landscape. The transmission line would appear as a dominant feature in the foreground landscape and view impairment would be moderate. Overall visual impact severity is rated moderate to high and in the context of the existing landscape's moderate to high visual impact susceptibility, the resulting visual impact would be significant but mitigable (**Class II**). Further to the northwest, after passing out of the park, the overhead transmission line would transition to an underground facility by means of a transition structure to be located approximately 100 feet to the west of Route 84 at Vineyard Avenue. This portion of Route 84 is a county-designated scenic corridor. As discussed in Table C.12-4, the visibility of the transition structure from Route 84 would result in an inconsistency with Alameda County General Plan Scenic Route Element Principle which states: "*Locate transmission towers and lines outside of scenic route corridors when feasible.*" The resulting impact is considered significant but mitigable (**Class II**).

Mitigation Measure for Visual Impacts Along Sycamore Grove Trail and Route 84

Mitigation Measure V-1 would eliminate the potentially significant (**Class II**) visual impact of the S1/S2/L2 common segment on views along Sycamore Grove Trail, as well as the impact of the transition structures on views from the Route 84 scenic route.

V-1 If the S1, S2, or L2 Alternatives are selected, the underground portion of these routes should be extended southeast so the overhead/underground transition structure is located immediately adjacent to the tap point in the Tesla-Newark corridor.

C.12.3.2.3 Key Viewpoint 4 – Isabel Avenue and Concannon Boulevard

Figure C.12-5A presents the existing view to the south from Key Viewpoint 4 at the intersection of Isabel Avenue and Concannon Boulevard. Figure C.12-5B (the lower image on the same page) presents a visual simulation that depicts the S1/L2 common segment as it would appear once constructed. The transmission line structures are prominent features along the west side of Isabel Avenue between Vineyard Avenue and Stanley Boulevard. Although there are no other similar built facilities to the west of Isabel Avenue, there are existing utility poles on the east side of Isabel Avenue, though they are of a smaller scale and made of wood. The resulting visual contrast when viewed from KVP 4 is moderate and is primarily a result of the strong vertical form and linear line of the structures and horizontal lines of the conductors when viewed against a landscape to the west and south that is generally lacking those visual characteristics. The visual contrast of the project is somewhat reduced by the presence of the strong horizontal line of the Isabel Avenue west side road barrier and the vertical forms and lines of the east side utility poles. The project is rated co-dominant to dominant in comparison to the existing built features and the prominence of the natural landform and line of the southern hills. View impairment would be moderate as would the overall severity of the visual impact which, when considering the landscape's moderate rating for visual impact susceptibility, leads to an adverse but not significant (**Class III**) visual impact.

As discussed in Table C.12-4 above, the portion of the S1/L2 common segment visible from Vineyard (including the transition structure) would be inconsistent with Alameda County's General Plan Scenic Route Element Principle and the City of Livermore's Visual Resources Policy (j) requiring the protection of established scenic corridors, as is the case for Vineyard Avenue. However, in the vicinity of Vineyard Avenue and Isabel Avenue, existing visual quality north of Vineyard Avenue is considered low to moderate due to the substantial landform modification that has occurred west of Isabel Avenue, and the presence of existing overhead utility poles and residential development to the east of Isabel Avenue. Also, views along Vineyard Avenue tend to be drawn to the hills and vineyards to the east, south, and west, and less so to the north. Therefore, the resulting visual impact is considered adverse but not significant (**Class III**) and no mitigation measures are recommended.

C.12.3.2.4 Key Viewpoint 5 – Shadow Cliffs Regional Recreation Area – Stanley Boulevard

At the intersection of Isabel Avenue and Stanley Boulevard, the S1 Alternative diverges from the L2 Alternative (which continues north along Isabel Avenue) and turns west along Stanley Boulevard.

Figure C.12-6A presents the existing view to the northeast from Key Viewpoint 5 at the swimming beach of Shadow Cliffs Regional Recreation Area. Figure C.12-6B (the lower image on the same page) presents a visual simulation that depicts the S1 Alternative as it would appear once constructed along the north side of Stanley Boulevard. The tubular structures would be placed adjacent to the existing rail lines along the north side of Stanley Boulevard between Isabel Avenue and the Vineyard Substation. The transmission line structures would appear as prominent foreground vertical elements in the viewshed from KVP 5, but would diminish in prominence as the line recedes to the middleground, due to the presence of other utility poles and built structures. Also prominent in the landscape are an existing 60 kV transmission line, a wood pole utility line, the complex forms and lines of mineral extraction facilities, and the geometric forms and strong horizontal lines of the numerous rail cars that are frequently parked on a rail siding, all of which occur along the north side of Stanley Boulevard.

However, the S1 transmission line would be substantially larger in vertical scale and present prominent linear, vertical forms and lines compared to the other features in the landscape, particularly the horizontal line of the rail cars and Shadow Cliffs swimming lake water line. The resulting visual contrast would be moderate. The project is rated co-dominant to dominant in comparison to the existing built features and the natural waterform of the Shadow Cliffs swimming lake and attendant vegetation. View impairment would be low to moderate, with the moderate range due to the “skylining” (extending above the horizon line) of the transmission structures. Overall visual impact severity is rated moderate and in the context of the existing landscape’s moderate visual impact susceptibility, the resulting visual impact would be adverse but not significant (**Class III**). As discussed in Table C.12-4 above, no policy inconsistencies would occur for this portion of the S1 Alternative and no mitigation measures are recommended.

C.12.3.3 Alternative S2: Vineyard Avenue

The S2 Alternative shares a common segment with Alternatives S1 and L2 from the tap point to the intersection of Vineyard Avenue and Isabel Avenue. A discussion of the visual impacts associated with the portion of the common segment extending from the tap point to Route 84 has been presented in sections C.12.3.2.1 and C.12.3.2.2 above and will not be repeated here. At Vineyard Avenue and Route 84, the S1/S2/L2 common segment would continue west along Vineyard Avenue to Isabel Avenue as an underground facility. At Isabel Avenue, the S2 Alternative would diverge from the S1/L2 common segment (which turns north along Isabel Avenue) and continue west along the south side of Vineyard Avenue.

C.12.3.3.1 Key Viewpoint 6 – Vineyard Avenue - East

Figure C.12-7 presents the existing view to the west from Key Viewpoint 6 on westbound Vineyard Avenue, just west of Isabel Avenue. The S2 underground route would be located in the frontage road adjacent to the vineyard, to the left of the wooden fence shown in the photograph. As an underground facility in an unpaved frontage road, the project would result in no perceptible change to the existing landscape and would result in no discernible visual contrast. No view impairment would occur and overall visual impact severity is rated low. In the context of the existing landscape’s low visual impact

susceptibility, the resulting visual impact is anticipated to be insignificant (**Class III**). As discussed in Section C.12.3.2.3 above, Vineyard Avenue is a county-designated scenic route. Although the construction of the S2 Alternative along Vineyard Avenue would result in a short-term inconsistency with Alameda County's General Plan Scenic Route Element Principle requiring protection of scenic corridors, no long-term inconsistency would result due to the underground nature of the project. Therefore, the resulting policy inconsistency is not considered a significant visual impact (**Class III**). No mitigation measures are recommended.

C.12.3.3.2 Key Viewpoint 7 – Vineyard Avenue - West

Figure C.12-8 presents the existing view to the west from Key Viewpoint 7 on westbound Vineyard Avenue, east of Bernal Avenue. The S2/S4 common underground route segment would be located in the center median along this portion of Vineyard Avenue. As an underground facility, the project would result in no perceptible change to the existing landscape and would result in no discernible visual contrast following project installation and restoration of the median. No view impairment would occur and overall visual impact severity would be low. In the context of the existing landscape's low visual impact susceptibility, the resulting visual impact is anticipated to be insignificant. No policy inconsistencies would occur for the S2/S4 common underground segment and no mitigation measures are recommended.

The remainder of the S2/S4 common segment would remain underground to the west along Vineyard Avenue and then to the north along Bernal Avenue to the Vineyard Substation. Modifications at Vineyard substation would not be noticeable to either pedestrians or motorists on Bernal Avenue. No visual impacts are anticipated along Bernal Avenue or at Vineyard Substation, and no mitigation measures are recommended. As discussed in Section C.12.3.3.1 above, Vineyard Avenue is a county-designated scenic route. Although the construction of the S2/S4 common segment along Vineyard Avenue would result in a short-term inconsistency with Alameda County's General Plan Scenic Route Element Principle requiring protection of scenic corridors, no long-term inconsistency would result due to the underground nature of the project. Therefore, the resulting policy inconsistency is not considered a significant visual impact (**Class III**).

C.12.3.4 Alternative S4: Eastern Open Space Alternative

The S4 Alternative shares a common segment with the Proposed Project from the tap point to approximately milepost 2.2. At that point, the S4 Alternative would turn northeasterly for approximately 1.2 miles then transition to underground for the last approximately 0.7 miles north to Vineyard Avenue. The S4 Alternative would then turn westerly along the S2 route along Vineyard Avenue and Bernal Avenue to Vineyard Substation. A discussion of the visual impacts associated with the Proposed Project/S4 Alternative common segment extending from the tap point to approximately milepost 2.2 has been presented in section C.12.3.1.1 above. A discussion of the visual impacts associated with the S2/S4 common segment along Vineyard Avenue and Bernal Avenue has been presented in section C.12.3.3.2 above. Those impact discussions will not be repeated here.

Figure C.12-9A presents the existing view to the southwest from **Key Viewpoint 8** on East Ruby Hill Drive, just east of Ruby Hill Boulevard. Figure C.12-9B (the lower image on the same page) presents a visual simulation of the S4 Alternative as it would appear once constructed along the range of hills to the west of the Ruby Hill development. The upper portions of the lattice structures and conductors would be visible from the Ruby Hill golf course and numerous residences. As shown in the simulation, the transmission line structures would appear as noticeable middleground features of industrial character in a landscape lacking similar characteristics and being comprised of natural appearing forms, lines, and colors. The resulting visual contrast would be moderate to high. The project is rated co-dominant in comparison with the landforms of the surrounding hills. View impairment would be moderate due to the “skylining” (extending above the horizon line) of the transmission structures. These factors, in combination, lead to an overall visual impact severity rating of moderate to high. In the context of the existing landscape’s moderate to high visual impact susceptibility, the resulting visual impact would be significant but mitigable (**Class II**). As discussed in Table C.12-4 above, no policy inconsistencies would occur for this portion of the S4 Alternative.

Mitigation Measure for S4 Visual Impacts to the Ruby Hill Development

Mitigation Measure V-2 would eliminate the potentially significant (**Class II**) visual impact of the S4 Alternative transmission line on views from the Ruby Hill golf course and residential development.

V-2 If Alternative S4 is approved by the CPUC, reduce transmission line structure heights as sufficient to eliminate views of the structures and conductors from the Ruby Hill development. If necessary to accomplish this objective, move the underground transition structure further south to reduce the number of aboveground structures. The design to comply with these conditions will be submitted to the CPUC for approval at least 30 days prior to construction start.

If Mitigation Measure V-2 proves to be infeasible due to engineering or construction constraints, the S4 Alternative would result in a significant and unmitigable (**Class I**) visual impact to the Ruby Hill development.

C.12.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: DUBLIN AREA

C.12.4.1 Proposed Project

Within the Dublin area, the Proposed Project includes the construction of the proposed Dublin Substation and that portion of the 230 kV transmission line between Dublin Substation and North Livermore Substation that falls within the Dublin area.

The proposed Dublin Substation would be located on approximately five acres on an existing ranch approximately one mile east of Tassajara Road. The project site would be situated on the floor of a small canyon near existing ranch facilities. Figure C.12-10 presents an existing east view of the substation site. The substation would be constructed in the vicinity of the corral shown in the photograph. The rural landscape consists of rolling, grass-covered hills used for cattle grazing. The

highly industrial character of the proposed substation would result in moderate to high visual contrast in comparison to the existing landscape character. The substation would appear co-dominant in relation to the prominent landforms of the rolling hills. View impairment would be moderate and the overall visual impact severity would be moderate to high. In spite of the moderate to high rating for impact severity, within the context of low visual impact susceptibility (due to the lack of public visual access), the resulting impact would be adverse but not significant (**Class III**). Further, no policy inconsistencies would occur for this portion of the Proposed Project and no additional mitigation measures are recommended beyond Applicant proposed measures 6.6 and 6.7 as discussed in Table C.12-3 above.

C.12.4.2 Alternative D1: South Dublin

The D1 Alternative would include the construction of a South Dublin Substation just west of the intersection of Fallon Road and Interstate 580, on the north side of I-580 in the Dublin Ranch development. This alternative would also include the construction of an overhead 230 kV transmission line along El Charro Road between Vineyard Substation and South Dublin Substation.

C.12.4.2.1 Key Viewpoint 9 – South Dublin Substation

Figure C.12-11 presents the existing view to the west from Key Viewpoint 9 on Fallon Road, just north of I-580. The South Dublin Substation would be located approximately 2,600 feet due west (directly in front) of the viewer at this location. This location is within the Dublin Ranch development area, which is currently under construction. Eventually, this site would be surrounded by commercial and office development. From the KVP 9 vantage point, the substation would result in a moderate degree of visual contrast which would be associated with the introduction of additional complex, industrial features into a landscape undergoing rapid transition from historic agricultural character to that of a modern suburban office/commercial development. The substation would appear co-dominant with other existing and developing features in the landscape (including I-580 and office and commercial buildings). View impairment would be low to moderate as would the overall visual impact severity. In the context of the existing landscape's low to moderate visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). Further, no policy inconsistencies would occur for this portion of the D1 Alternative and no additional mitigation measures are recommended beyond Applicant proposed measure 6.6 as discussed in Table C.12-3 above.

C.12.4.2.2 Key Viewpoint 10 – El Charro Road

Figure C.12-12 presents the existing view to the south from Key Viewpoint 10 on El Charro Road, just south of I-580. The D1 route would be located adjacent and to the west (right in the photograph) of El Charro Road. El Charro Road is principally an access road to the quarry operations in the area and is not considered a public access road.

From the KVP 10, the transmission line would result in a moderate degree of visual contrast which would be associated with the introduction of dominant vertical, linear forms of industrial character in a foreground to middleground landscape that is presently dominated by more natural appearing (though undergoing modification) forms, lines, and textures. View impairment would be moderate with the

transmission line structures affecting views to the southern hills and extending above the southern horizon line. Overall visual impact severity would be moderate, but in the context of the existing landscape's low to moderate visual impact susceptibility (partially due to lack of public access), the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). Further, no policy inconsistencies would occur for this portion of the D1 Alternative and no additional mitigation measures are recommended.

Further south, the D1 Alternative passes through a landscape highly modified by mineral extraction activities and dominated by the complex, industrial character of mineral extraction and transport equipment and facilities. No adverse visual impacts are anticipated as the D1 Alternative passes through this environment to Vineyard Substation, directly across from the quarry facilities on Stanley Boulevard.

C.12.4.3 Alternative D2: Dublin-San Ramon

The D2 Alternative would include the construction of an extension of the 230 kV aboveground transmission line from the proposed Dublin Substation, west to San Ramon Substation. At the ridgeline east of San Ramon Substation, the line would transition to an underground conduit into the Substation in order to reduce visibility of the transmission line in the vicinity of the substation. This alternative may also require the re-conductoring of the San Ramon-Pittsburg line out of San Ramon and relatively minor upgrades to San Ramon Substation.

C.12.4.3.1 Key Viewpoint 11 – San Ramon Substation

Figure C.12-13 presents the existing view to the west from Key Viewpoint 11 on Del Mar Street, just west of San Ramon Substation. The 230 kV transmission line would be underground adjacent to the transmission line on the far right of the photograph. The San Ramon-Pittsburg line (structures on the left side along the ridge) would be upgraded as well with new conductors. From the KVP 11 vantagepoint, the underground transmission line, re-conducted existing transmission line, and substation modifications would generally not be noticeable. The resulting visual contrast would be low and any perceptible changes would appear subordinate in the landscape. View impairment would be low as would the overall visual impact severity. In the context of the existing landscape's low to moderate visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). Further, no policy inconsistencies would occur for this portion of the D2 Alternative and no additional mitigation measures are recommended beyond Applicant proposed measure 6.6 as discussed in Table C.12-3 above.

C.12.4.3.2 Key Viewpoint 12 – Tassajara Road

Figure C.12-14A presents the existing view to the south from Key Viewpoint 12 on southbound Tassajara Road, just north of the D2 alignment. Figure C.12-14B presents a simulation of the D2 Alternative as it would appear following construction. As illustrated in the simulation, the transmission line would cross the Tassajara Valley from east to west, adjacent to an existing wood pole line, across

rolling hills, open, grassland and rural agricultural landscapes. The tubular transmission structures would result in a low to moderate degree of visual contrast, as a result of the introduction of additional prominent vertical, linear features into the viewshed of KVP 12. The structures would appear co-dominant with the existing developed features in the landscape and the landforms of the valley and adjacent hills. View impairment would be moderate as would the overall visual impact severity. In the context of the existing landscape's moderate visual impact susceptibility, the resulting visual impact is anticipated to be adverse, but not significant (**Class III**). Further, no policy inconsistencies would occur for this portion of the D2 Alternative and no additional mitigation measures are recommended.

C.12.5 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: NORTH LIVERMORE AREA

C.12.5.1 Proposed Project

Within the North Livermore area, the proposed overhead transmission line route would extend from the tap point at the Contra Costa-Newark transmission line, due west across the upper valley and foothills to the proposed Dublin Substation site. At North Livermore Avenue and Manning Road, a connector from the east-west route would extend one mile down the west side of North Livermore Avenue to the proposed five-acre North Livermore substation site at the intersection with May School Road. Structures along the eastern portion of the route to just west of the north turn in Manning Road would be single pole tubular in design. West of Manning Road, the structures would be lattice.

C.12.5.1.1 Key Viewpoint 13 – Manning Road/Carneal Road

Figure C.12-15A presents the existing view to the south from Key Viewpoint 13 on Manning Road, just east of the intersection with Carneal Road. Figure C.12-15B (the lower image on the same page) presents a visual simulation of the Proposed Project as it would appear once constructed across the range of hills and valley south of Manning Road. As shown in the simulation, the transmission line structures and conductors would appear as noticeable middleground features of industrial character in a landscape lacking similar characteristics and being comprised of natural appearing forms, lines, and colors. The resulting visual contrast would be high. The project is rated co-dominant in comparison with the landforms of the surrounding hills. View impairment would be moderate to high due to the "skylining" (extending above the horizon line) of the transmission structures and the span of conductors across the valley. These factors, in combination, lead to an overall visual impact severity rating of moderate to high.

In the context of the existing landscape's high visual impact susceptibility, the visual impact of the Proposed Project in the area of Manning/Carneal Road would be significant but mitigable (**Class II**). As discussed in Table C.12-4 above, this portion of the Proposed Project would be inconsistent with the Alameda County General Plan Open Space Element Principle that states: *"Wherever feasible, power and pipe utility lines should be consolidated to prevent further severance of open space lands. Utility lines and aqueducts in open space areas should be located so as to avoid areas of outstanding beauty."* The resulting policy conflict would result in a significant but mitigable (**Class II**) visual impact. This impact would also be avoided by implementation of the L2 Alternative.

Mitigation Measures for Proposed Project Visual Impacts On Manning Road/Carneal Road

Mitigation Measure V-3 would eliminate the potentially significant (**Class II**) visual impact of the proposed transmission line on views from Manning Road and adjacent residences. Two options for reduction of impact are presented in this measure. Both would eliminate the significant impact, but the first option (A) is preferred.

V-3 If the proposed transmission line route to the Dublin Substation is selected, the visual impact of the line east of Milepost B14.5 shall be reduced by one of the following methods (the first is preferred):

Option A: Install the line underground from the tap to the Contra Costa-Newark line to approximately Milepost B14.5 to eliminate an overhead crossing of the scenic valley and hills visible from Key Viewpoint 13 on Manning Road.

Option B: Relocate the overhead portion of the proposed route between Mileposts B13 and B14.5 further south such that the overhead line is not visible from Manning Road in the vicinity of Key Viewpoint 13 (see Figure C.12-15-C).

C.12.5.1.2 Key Viewpoint 14 – Manning Road (West)

Figure C.12-16A presents the existing view to the west from Key Viewpoint 14 on Manning Road at the intersection with Morgan Territory Road. Figure C.12-16B presents a visual simulation of the Proposed Project as it would appear once constructed along the south side of Manning Road. As shown in the simulation, the transmission line structures and conductors would appear as dominant foreground to midground features of industrial character in a landscape that is presently dominated by natural appearing forms, lines, and colors. As shown in Figure C.12-16A an existing distribution line is located on the north side of Manning Road. This wood pole line has less of an industrial appearance than would the Proposed Project and does not impair views to the east, west, or south to the extent that the Proposed Project would. As part of the Proposed Project, and as shown in Figure C.12-16B, the existing distribution line would be undergrounded. Even given the context of the existing distribution line, the resulting visual contrast would be moderate to high. The project is rated co-dominant in comparison with the landforms of the surrounding hills. View impairment would be moderate to high due to the “skylining” (extending above the horizon line) of the transmission structures and the impairment of views to the south across the Las Positas Valley from Manning Road, which is a county-designated scenic route. The factors discussed above, in combination, lead to an overall visual impact severity rating of moderate to high.

In the context of the existing landscape’s high visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). As discussed in Table C.12-4 above, this portion of the Proposed Project would be inconsistent with one Alameda County General Plan Open Space Element principle and two Alameda County General Plan Scenic Route Element principles. The resulting policy conflict is considered a significant (**Class I**) visual impact. The visual impact and the resulting policy

conflict would be eliminated with implementation of Alternative P2, which would require the line to be constructed underground through this area.

Mitigation Measures for Proposed Project Visual Impacts Along Manning Road (West)

The Applicant's proposed Mitigation Measures 6.2 and 6.4 (as discussed above in Table C.12-3) would not reduce the visual impact along Manning Road to a level that is not significant. A significant and unavoidable (**Class I**) visual impact will result in this area. No mitigation is proposed; however, Alternative P2 (underground through this area) would eliminate the impact.

C.12.5.1.3 Key Viewpoint 15 – Manning Road to North Livermore Avenue

Figure C.12-17A presents the existing view to the east from Key Viewpoint 15 on Manning Road at the intersection with Morgan Territory Road. Figure C.12-17B (the lower image on the same page) presents a visual simulation of the Proposed Project as it would appear once constructed along the south side of Manning Road and the west side of North Livermore Avenue (both county-designated scenic routes). As shown in the simulation, the transmission line structures and conductors would appear as dominant foreground to middleground features of industrial character in a landscape that is presently dominated by natural appearing forms, lines, and colors. The resulting visual contrast would be high. The project is considered dominant over the other features in the landscape due to its foreground proximity to the viewing public along Manning Road and North Livermore Avenue. View impairment would be high due to the "skylining" (extending above the horizon line) of the transmission structures and the impairment of views across Las Positas Valley. These factors, in combination, lead to an overall high visual impact severity rating.

In the context of the existing landscape's high visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). As discussed in Table C.12-4 above, this portion of the Proposed Project would be inconsistent with one Alameda County General Plan Open Space Element principle and three Alameda County General Plan Scenic Route Element principles. The resulting policy conflict is considered a significant and unavoidable (**Class I**) visual impact.

Mitigation Measures for Proposed Project Visual Impacts–Manning Road to North Livermore Avenue

The Applicant's proposed Mitigation Measures 6.2, 6.3 and 6.4 (as discussed above in Table C.12-3) would not reduce the visual impact along Manning Road to a level that is not significant. A significant and unavoidable (**Class I**) visual impact will result in this area. No mitigation is proposed; however, implementation of Alternative P2 (underground through this area) would eliminate the impact.

C.12.5.1.4 Key Viewpoint 16 – North Livermore Avenue

Figure C.12-18A presents the existing view to the south toward the proposed North Livermore Substation site from Key Viewpoint 16 on North Livermore Avenue, just north of the intersection with May School Road. Figure C.12-18B presents a visual simulation of the proposed substation as it would appear once constructed along the west side of North Livermore Avenue, and following installation of

vegetative screening. As shown in the simulation, foreground views from North Livermore Avenue would be dominated by the industrial character of the transmission line and substation structures. While obscuring the lower portion of the substation, the prominent dark green screening vegetation would also obscure views across Las Positas Valley, as well as appear inconsistent in form and color with the existing open, pastoral landscape of the valley. The substation components would appear more visible above the screening vegetation from viewpoints further away along North Livermore Avenue and Manning Road. The resulting visual contrast would be moderate to high. The project is considered dominant over the other features in the landscape due to its foreground proximity to the viewing public along North Livermore Avenue. View impairment would be moderate to high due to the “skylining” (extending above the horizon line) of the transmission and substation structures and the blockage of views to the west and south across Las Positas Valley. These factors, in combination, lead to an overall moderate to high visual impact severity rating.

In the context of the existing landscape’s high visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). As discussed in Table C.12-4 above, this portion of the Proposed Project would be inconsistent with one Alameda County General Plan Open Space Element principle and three Alameda County General Plan Scenic Route Element principles. The resulting policy conflict is considered a significant and unavoidable (**Class I**) visual impact.

Mitigation Measures for Proposed Project Visual Impacts - North Livermore Avenue

The Applicant’s proposed Mitigation Measures 6.3, 6.5, and 6.6 (as discussed above in Table C.12-3) would not reduce the visual impact along North Livermore Avenue to a level that is not significant. A significant and unavoidable (**Class I**) visual impact will result in this area. No mitigation is proposed; however, implementation of Alternative P2 (underground through this area) would eliminate the impact.

C.12.5.1.5 *North Livermore Avenue to Contra Costa-Newark Tap Point*

East of North Livermore Avenue, the Proposed Project extends due east from Manning Road, crossing the north valley foothills to the Contra Costa-Newark transmission line. Figure C.12-19 presents the existing view to the east from the intersection of North Livermore Avenue and Manning Road. Foreground to middleground views from North Livermore Avenue and Manning Road would be dominated by the industrial character of the transmission line. The project would also be visible to residents and travelers on May School Road, Bel Roma Road, Dagnino Road, and Raymond Road. The resulting visual contrast would be moderate to high and would appear co-dominant with the rolling landforms of the North Valley hills. View impairment would be moderate due to the “skylining” (extending above the horizon line) of the transmission structures and the blockage of views of the hills to the east and north. These factors, in combination, lead to an overall moderate to high visual impact severity rating.

In the context of the existing landscape’s moderate to high visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). As discussed in Table C.12-4 above, this

portion of the Proposed Project would be inconsistent with one Alameda County General Plan Open Space Element principle and three Alameda County General Plan Scenic Route Element principles. The resulting policy conflict is considered a significant and unavoidable (**Class I**) visual impact.

Mitigation Measures for Proposed Project Visual Impacts East of North Livermore Avenue

The Applicant's proposed Mitigation Measure 6.2 (as discussed above in Table C.12-3) would not reduce the visual impact east of North Livermore Avenue to a level that is not significant. A significant and unavoidable (**Class I**) impact will result. No mitigation is proposed; however, implementation of Alternative P2 would eliminate the visual impact in this area.

C.12.5.2 P-1 Variant Alternative

This variant is identical to the Proposed Project, except that the one-mile of north-south 230 kV transmission line along North Livermore Road would be installed underground. This variant would not eliminate the significant (**Class I**) visual impacts that would occur along the east-west alignment (see Sections C.12.5.1.1, C.12.5.1.2, C.12.5.1.3, and C.12.5.1.5 above for impact discussions), nor would it eliminate the significant visual impacts that would result from the proposed North Livermore Substation (see Section C.12.5.1.4 above for impact discussion).

Mitigation Measures for P-1 Variant Visual Impacts

The Applicant's proposed Mitigation Measures 6.2 through 6.6 (as discussed above in Table C.12-3) would not reduce the visual impacts of Proposed Project Variant P-1 to levels that are not significant. No additional mitigation is proposed; however Alternative P2 would eliminate the visual impact of the transmission line by requiring the east-west portion of the transmission line to be installed underground. However, the substation would still remain as a significant (Class I) visual impact. This impact would be eliminated if Alternative L2 were selected.

C.12.5.3 P-2 Variant Alternative

This variant is identical to the Proposed Project, except that the one mile of north-south 230 kV transmission line along North Livermore Avenue and the east-west portion of the route extending from the tap point to approximately 2.8 miles west of the tap point would be installed underground. This variant would eliminate the significant visual impact associated with the transmission line through the North Livermore area. However, it would not eliminate the significant visual impacts that would occur in the segment between North Livermore and Dublin, along the east-west alignment west of the Milepost 13.2, where the line would transition to aboveground (see Section C.12.5.1.1, C.12.5.1.2, C.12.5.1.3, and C.12.5.1.5 above for impact discussions). This alternative would not eliminate the significant visual impacts that would result from the proposed North Livermore Substation (see Section C.12.5.1.4 above for impact discussion).

Mitigation Measures for P-2 Variant Visual Impacts

The Applicant's proposed Mitigation Measures 6.4 through 6.6 (as discussed above in Table C.12-3) would not reduce the visual impacts of Proposed Project Variant P-2 to levels that are not significant. This alternative would eliminate the significant (**Class I**) impacts associated with the transmission lines in the North Livermore area, but it would not eliminate the significant impact of the proposed North Livermore substation itself. *In order to eliminate all significant visual impacts in the North Livermore area, Alternative L2 would have to be implemented.*

C.12.5.4 Alternative L1: Raymond Road

The Raymond Road Alternative would tap the existing Contra Costa-Newark transmission line at the northeast corner of Ames Street and Raymond Road. A transition structure would take the line underground at that corner, and the line would run underground along the north side of Raymond Road to the west for one mile to the intersection of Raymond Road and Lorraine Road. Figure C.12-20 presents the view to the west along Raymond Road from near the tap point. Figure C.12-21 shows the view to the west from Key Viewpoint 17, located on westbound Raymond Road, just west of the intersection with Dagnino Road. Figure C.12-22 presents the view from northbound Lorraine Road, toward substation site at the intersection with Raymond Road.

As viewed from **Key Viewpoint 17** (Figure C.12-21) the industrial character of the substation components would result in a moderate to high level of visual contrast. The project would be co-dominant with the existing ranching/farming structures and trees in the immediate vicinity of the substation site. View impairment would be moderate to high due to the "skylining" (extending above the horizon line) of the substation structures and the blockage of views to the surrounding rural landscape. These factors, in combination, lead to an overall moderate to high visual impact severity rating. In the context of the existing landscape's moderate visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). No policy inconsistencies would occur as a result of implementation of the L1 Alternative.

Mitigation Measures for Proposed Project Visual Impacts – Alternative L1, Raymond Road

Applicant Proposed Mitigation Measure 6.6 (as discussed above in Table C.12-3) would not reduce the visual impact from the Raymond Road Substation to a level that is not significant. No mitigation is proposed; however, Alternative L2 would eliminate the visual impact of this substation site.

C.12.5.5 Alternative L2: Hartman Road

The Hartman Road Alternative would be the same as the S1 Alternative described up to the intersection of Stanley Boulevard and Isabel Avenue. From that point, rather than turning west, the Hartman Road Alternative would continue north for an additional 1.7 miles along Isabel Avenue (the new Highway 84 corridor) to the I-580 junction. Between Stanley Boulevard and East Jack London Boulevard, the line would be installed overhead west of the future Highway 84. The line would turn west at E. Jack London and then northeast to cross just to the east of the Livermore Airport runway. The line would

be bored under I-580 and continue underground approximately 1 to 1.3 miles north of I-580 to a substation site near, and to the east of, Las Positas College. The substation site would be located in the vicinity of the future Highway 84 alignment.

From the tap point to the intersection of Isabel Avenue and Stanley Boulevard, the visual impacts of the L2 Alternative would be as previously discussed for the S1 Alternative (Sections C.12.3.2.1, C.12.3.2.2, and C.12.3.2.3) and will not be repeated here. Figure C.12-23A presents the existing view to the south from Key Viewpoint 18 at the intersection of Kitty Hawk Road and East Jack London Boulevard. Figure C.12-23B (the lower image on the same page) presents a visual simulation that depicts the L2 Alternative, as it would appear once constructed. As illustrated in the simulation, the transmission line structures are prominent features along the west side of Isabel Avenue/Route 84 between Stanley Boulevard and East Jack London Boulevard. With the exception of street lights, there are no other vertical, linear facilities to the west of Isabel Avenue. The resulting visual contrast when viewed from KVP 18 is moderate and is primarily a result of the strong vertical form and linear line of the structures and horizontal lines of the conductors when viewed against a predominantly open landscape to the west and south that is generally dominated by horizontal landforms. The visual contrast of the project is somewhat reduced by the presence of the strong diagonal to curvilinear line of Isabel Avenue/Route 84. The project is rated dominant in comparison to the existing built features and foreground to middleground landscape features, as well as the natural landform and line of the southern hills. View impairment would be moderate as would the overall severity of the visual impact which, when considering the landscape's moderate rating for visual impact susceptibility, leads to an adverse but not significant (**Class III**) visual impact. This portion of the L2 Alternative would not result in policy inconsistencies and no mitigation measures are recommended.

C.12.6 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES: TESLA CONNECTION (PHASE 2)

C.12.6.1 Proposed Project – Phase 2

Phase 2 of the Proposed Project would entail the construction of approximately 10 miles of single pole tubular structure 230 kV transmission line diagonally along the northern foothills of the Livermore Valley between the Contra Costa-Newark line and Tesla Substation.

C.12.6.1.1 Key Viewpoint 19 – Interstate 580

Figure C.12-24A presents the existing view to the east from Key Viewpoint 19 on eastbound Interstate 580 near Altamont Pass. Figure C.12-24B presents a visual simulation of the Proposed Project as it would appear once constructed as it spans I-580. As shown in the simulation, the transmission line structures would appear as prominent foreground to middleground features of industrial character in a landscape that is presently dominated by natural appearing landforms and the industrial character of numerous windfarms. Given the context of the existing windfarm facilities, the resulting visual contrast would be moderate. The project is rated co-dominant in comparison with the landform of the Altamont Hills and surrounding windfarm facilities. View impairment would be low and the overall visual impact severity would be moderate. In the context of the existing landscape's moderate visual impact susceptibility, the resulting visual impact would be adverse but not significant (**Class III**). In addition

to being a county-designated scenic corridor, Interstate 580 has been designated “Eligible” for state scenic route status. As discussed in Table C.12-4 above, this portion of the Proposed Project would be inconsistent with one Alameda County General Plan Open Space Element principle and two Alameda County General Plan Scenic Route Element principles. However, in the area of the span, the existing landscape is already highly modified by the proliferation of windfarm facilities. Therefore, the resulting policy/visual impact is considered adverse but not significant (**Class III**). No mitigation measures are recommended.

C.12.6.1.2 Interstate 580 to the Contra Costa-Newark Transmission Line

From I-580 to the Contra Costa-Newark Transmission Line, the route would cross a landscape dominated by open rolling grass-covered hills, lacking similar structures of industrial character. Views of this portion of the route would be available from residential areas and roads in the north valley vicinity including Springtown, Vasco Road, Laughlin Road, Altamont Pass Road, Goecken Road, and Interstate 580. The resulting visual contrast created by the transmission line structures and conductors of the new corridor would be moderate to high. The project is rated co-dominant in comparison with the landforms of the northern hills. View impairment would be moderate and the overall visual impact severity would be moderate to high. In the context of the existing landscape’s moderate visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). As stated in the previous section, in addition to being a county-designated scenic corridor, Interstate 580 has been designated “Eligible” for state scenic route status. As discussed in Table C.12-4 above, the portion of the Proposed Project extending across the north foothills would be inconsistent with one East Bay Regional Park District Master Plan Planning and Acquisition Policy (in the Brushy Peak area), one Alameda County General Plan Open Space Element principle and three Alameda County General Plan Scenic Route Element principles. The resulting policy inconsistencies are considered significant and unavoidable (**Class I**) visual impacts.

Mitigation Measures for Proposed Project Phase II Visual Impacts – I-580 to Contra Costa-Newark

The Applicant’s proposed Mitigation Measure 6.8 (as discussed above in Table C.12-3) would not reduce the visual impact along the I-580 to Contra Costa-Newark portion of the Phase II route to a level that is not significant. No mitigation is suggested for this area; however, implementation of the Stanislaus Corridor Alternative would eliminate the significant impacts associated with the proposed Phase 2 route.

C.12.6.2 Brushy Peak Alternative

The Brushy Peak Alternative provides an alternative route south of the Brushy Peak Preserve. This alternative would move a portion of the Phase 2 transmission line south to a point near the future entrance to the Brushy Peak Preserve so as not to obstruct views north to the Peak from within the Preserve.

Figure C.12-25A presents the existing view to the north from Key Viewpoint 20 on Laughlin Road, south of the future entrance to the Preserve. The view to the north encompasses a rural landscape of rolling, grass-covered hills and scattered oak woodlands. Also present in the viewshed are two rural residences. Figure C.12-25B (the lower image on the same page) presents a visual simulation of the Brushy Peak Alternative, as it would appear once constructed. As shown in the simulation, the transmission line structures would appear as prominent foreground to middleground features of industrial character in a landscape that is presently dominated by natural appearing landforms and features of rural character. Although there is a wood pole utility line adjacent to a portion of the Brushy Peak alignment, the existing facilities are considerably smaller in scale. The resulting visual contrast created by the transmission line structures and conductors would be moderate to high. The project is rated co-dominant in comparison with the landforms of the northern hills and existing structures. View impairment would be moderate and the overall visual impact severity would be moderate to high. In the context of the existing landscape's moderate to high visual impact susceptibility, the resulting visual impact would be significant and unavoidable (**Class I**). The Brushy Peak Alternative would be inconsistent with one Alameda County General Plan Open Space Element principle (see Table C.12-3). The resulting policy inconsistency is contributory to the significant and unavoidable (**Class I**) visual impact identified above.

Mitigation Measure for Brushy Peak Alternative

No mitigation is proposed for this alternative because any new transmission line in this area would impose new visual elements inconsistent with the existing landscape. Implementation of the Stanislaus Corridor Alternative would eliminate the route in this area.

C.12.6.3 Stanislaus Corridor Alternative

The Stanislaus Corridor Alternative would involve the construction of a single pole tubular structure 230 kV transmission line within the existing Stanislaus Corridor between Tesla Substation and the tap points for either the S1/S2/L2 Alternatives or S4 Alternative (if selected). The Stanislaus Alternative would also result in the removal of the two existing lattice structure transmission lines within the Stanislaus Corridor.

Key Viewpoint 21 is located on eastbound Tesla Road, west of Vasco Road with the view to the southeast. The panoramic view from this location encompasses broad vineyards in the foreground with the southern hills adding variety and interest to this picturesque agricultural scene within the Livermore Valley wine region.

Figure C.12-26A presents the existing view to the southeast from Key Viewpoint 21 on Tesla Road, west of Vasco Road. Figure C.12-26B (the lower image on the same page) presents a visual simulation that depicts the Stanislaus Alternative as it would appear once constructed. Although the tubular transmission structures would be prominent features with industrial character in the rural wine country landscape, conductor spans would be greater than for the existing structures and the two existing lattice structure transmission lines would be removed from the Stanislaus Corridor. The result would be a net

reduction of transmission structures and impacted acreage in the South Livermore wine region. The associated visual contrast would be low to moderate as a result of the structure context established by the existing transmission line structures. The new structures would appear co-dominant with the existing valley landform and rolling hills to the south. View impairment would be moderate from Tesla Road and overall visual impact severity would be low to moderate. In the context of the existing landscape's moderate visual impact susceptibility, the resulting visual impact would be adverse but not significant (**Class III**). The Stanislaus Corridor Alternative would not result in any policy inconsistencies (Table C.12-3) and no mitigation measures are recommended.

C.12.7 MITIGATION MONITORING PROGRAM

Table C.12-5 presents the mitigation monitoring program for visual resources.

Table C.12-5 Mitigation Monitoring Plan

Impact	Mitigation Measure	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
PLEASANTON AREA						
Alternatives S1/S2/L2 Common Segment						
Adverse visual impact to a valued landscape resulting from the placement of new structures of the Alternative S1/S2/L2 common segment near Sycamore Grove Park in Sycamore Grove Regional Park and near Route 84 county-designated scenic route.	V-1 Relocate the S1/S2/L2 underground transition structure to immediately adjacent to the tap point in the Tesla-Newark corridor and begin undergrounding the S1/S2/L2 common segment at that point.	S1/S2/L2 common segment within Sycamore Grove Regional Park and near Route 84 at Vineyard.	CPUC to verify project redesign prior to construction and implementation following construction.	Visibility of transmission structures will be significantly reduced as viewed from Sycamore Grove Regional Park and county-designated scenic Route 84.	CPUC	Confirm redesign prior to project construction. Confirm implementation following project construction.
Alternative S4: Eastern Open Space						
Adverse visual impact resulting from the visibility of the upper portions of the S4 Alternative from the Ruby Hill golf course and residential development.	V-2 Reduce transmission line structure heights as necessary to eliminate views of the structures and conductors from the Ruby Hill development. If necessary, move the underground transition structure further south to eliminate additional aboveground structures.	S4 Alternative route through the open space immediately west of the Ruby Hill development.	CPUC to verify project redesign prior to construction and implementation following construction.	Visibility of transmission structures will be eliminated as viewed from the Ruby Hill golf course and residential development.	CPUC	Confirm redesign prior to project construction. Confirm implementation following project construction.
NORTH LIVERMORE AREA						
Proposed Project						
Adverse visual impact on a scenic landscape resulting from the placement of Proposed Project structures across a scenic valley south of Manning Road in North Livermore.	V-3 If the proposed transmission line route to the Dublin Substation is selected, the visual impact of the line east of Milepost B14.5 shall be reduced by one of the following methods (the first is preferred): Option A: Install the line underground from the tap to the Contra Costa-Newark line to approximately Milepost B14.5 to eliminate an overhead crossing of the scenic valley and hills visible from Key Viewpoint 13 on Manning Road. Option B: Relocate the overhead portion of the proposed route between Mileposts B13 and B14.5 further south such that the overhead line is not visible from Manning Road in the vicinity of Key Viewpoint 13 (see Figure C.12-15-C).	Proposed Project between approximately Mileposts B13 and B14.5.	CPUC to verify project redesign prior to construction and implementation following construction.	Visibility of transmission structures will be eliminated as viewed from Manning Road east of Carneal Road in North Livermore.	CPUC	Confirm redesign prior to project construction. Confirm implementation following project construction.

C.12.8 REFERENCES

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Table C.12-6 Visual Analysis Summary

VIEWPOINT DESCRIPTION		EXISTING VISUAL SETTING									VISUAL IMPACT				IMPACT SIGNIFICANCE		
Key Viewpoint	Description	Visual Quality	Visual Absorption Capability	Viewer Sensitivity	Viewer Exposure					Visual Impact Susceptibility	Visual Contrast	Project Dominance	View Impairment	Visual Impact Severity	Initial Impact Significance	Mitigation	Final Impact Significance
					Visibility	Distance Zone	Number of Viewers	Duration of View	Overall Viewer Exposure								
PLEASANTON AREA		PLEASANTON AREA															
KVP 1 Proposed Project S4 Eastern Open Space Alternative	View to the northeast from Vallecitos Road (Route 84).	Moderate Predominantly undeveloped rolling hills though with considerable energy infrastructure to the south.	Moderate to High Moderate north of Route 84, High south of Route 84 due to presence of existing power lines.	Moderate Motorists on Route 84 anticipate undeveloped rural scene but with extensive transmission infrastructure.	High	Foreground	High	Brief	High	Low to Moderate	Low to Moderate	Co-Dominant	Low	Low to Moderate	Adverse but Not Significant	None	Adverse but Not Significant
KVP 2 Proposed Project	View to the southeast from Hearst Drive toward the location of the proposed transition structure.	Moderate to High Predominantly undeveloped oak woodland hillsides with some infrastructure.	Moderate to High Oak trees provide screening of transition structure. Paved road would obscure buried conduit.	High Nearby residents with direct views of the project area anticipate natural appearing hillsides, generally lacking industrial infrastructure.	Low	Foreground to Middleground	Low	Extended	Low	Low	Low	Subordinate	Low	Low	Adverse but Not Significant	None	Adverse but Not Significant
KVP 3 S1 Vineyard-Isabel-Stanley Alternative S2 Vineyard Alternative L2 Hartman Road Alternative	View to the west from Arroyo Road captures tap point and passage through Sycamore Grove Regional Park.	Moderate Mosaic of vineyards, oak woodlands, rolling hills, estate residential, and transmission line structures.	Moderate Oak trees provide some screening, hills backdrop line, and existing structures provide similar visual characteristics.	Moderate Motorists on Arroyo Road anticipate rural setting of vineyards and oak woodlands but with extensive transmission infrastructure.	Moderate	Foreground	Moderate	Brief	Low to Moderate	Low to Moderate	Moderate	Co-Dominant	Low	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
S1, S2, L2 Alternatives Sycamore Grove Regional Park	View to the south from the Sycamore Grove Trail.	Moderate Views from the trail encompass primarily natural features. Powerline is also present.	Low to Moderate Trees will provide partial screening at points along the trail. Existing Powerline provides some industrial context.	High Park and Trail users anticipate unobstructed views of natural forms and character, with minimal industrial influences.	High	Foreground	Low to Moderate	Extended	Moderate to High	Moderate to High	Moderate to High	Dominant	Moderate	Moderate to High	Significant but Mitigable	V-1 (requires under-grounding)	Adverse but Not Significant
KVP 4 S1 Vineyard-Isabel-Stanley Alternative L2 Hartman Road Alternative	View to the south from Concannon and Isabel captures views of motorists on Isabel and adjacent residences.	Low to Moderate Open panoramic views to south and west encompass hills, quarry areas, and residential development.	Low to Moderate Existing utility poles with similar forms and lines, offset by structure skylining and lack of available screening.	Moderate Residents adjacent to, and motorists on, Isabel Avenue anticipate suburban landscape with open views to hills. Residential views are focussed away from project.	High	Foreground	Moderate to High	Extended	High	Moderate	Moderate	Co-Dominant to Dominant	Moderate	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
KVP 5 S1 Vineyard-Isabel-Stanley Alternative	View to the northeast from the swimming beach at Shadow Cliffs Regional Recreation Area.	Moderate Open panoramic view across the lake to Stanley Blvd. (north) and quarry operations (north and east).	Low to Moderate Existing utility poles with similar forms and lines, offset by structure skylining and lack of available screening.	Moderate to High Users of the Recreation Area focus visual attention on immediate lake and beach environs, and currently anticipate utility structures along Stanley.	High	Foreground to Middleground	Moderate to High	Extended	High	Moderate	Moderate	Co-Dominant to Dominant	Low to Moderate	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
KVP 6 S2 Vineyard Alternative	View to the west from westbound Vineyard Avenue, just west of Isabel Avenue.	Moderate Landscape that smoothly transitions from vineyards to residential to open undeveloped rolling oak covered hills.	High The underground route would be located in the unpaved vineyard frontage road.	High Viewer expectations along Vineyard Avenue include landscapes of vineyards and suburban estate development with open views to undeveloped hillsides with minimal infrastructure.	Low	Foreground	Moderate	Brief	Low	Low	None	Not Apparent	None	Low	Insignificant	None	Insignificant
KVP 7 S2 Vineyard Alternative S4 Eastern Open Space Alternative	View to the west from westbound Vineyard Avenue, east of Bernal Avenue.	Moderate Suburban landscape with well maintained median and frontage trees and landscaping, backdropped by oak woodland hillsides.	High The underground route would be located within the landscaped median.	High Viewer expectations along Vineyard Avenue anticipate a suburban scene comprised of considerable landscaping and open boulevard with minimal evidence of infrastructure.	High	Foreground	Moderate	Moderate	High	Low	None	Not Apparent	None	Low	Insignificant	None	Insignificant

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VIEWPOINT DESCRIPTION		EXISTING VISUAL SETTING									VISUAL IMPACT				IMPACT SIGNIFICANCE		
Key Viewpoint	Description	Visual Quality	Visual Absorption Capability	Viewer Sensitivity	Viewer Exposure					Visual Impact Susceptibility	Visual Contrast	Project Dominance	View Impairment	Visual Impact Severity	Initial Impact Significance	Mitigation	Final Impact Significance
					Visibility	Distance Zone	Number of Viewers	Duration of View	Overall Viewer Exposure								
KVP 8 S4 Eastern Open Space Alternative	View to the southwest from East Ruby Hill Drive, just east of Ruby Hill Boulevard.	Moderate to High Suburban landscape with high level of attention to landscape and structure aesthetics, transitioning to undeveloped hills.	Low to Moderate Undeveloped natural appearing hills lacking built structures but with some topographic variation.	High Residents and recreational golfers anticipate landscapes of natural and designed vegetative forms and colors lacking features with industrial character.	Moderate to High	Middleground	Moderate	Extended	Moderate to High	Moderate to High	Moderate to High	Co-Dominant	Moderate	Moderate to High	Significant but Mitigable	V-2 (reduce structure heights)	Adverse but Not Significant
DUBLIN AREA															DUBLIN AREA		
Proposed Project Dublin Substation Site	View to the west toward the proposed Dublin Substation site.	Moderate to High Undeveloped rural landscape of rolling grass-covered hills utilized as rangeland for cattle.	Low to Moderate Open panoramic views of the project area with little vegetative screening.	Low Project is to be located one mile east of Tassajara Road on a 5-acre private parcel on an existing ranch with no public access.	Low	Foreground	Low	Extended	Low	Low	Moderate to High	Co-Dominant	Moderate	Moderate to High	Adverse but Not Significant	None	Adverse but Not Significant
KVP 9 D1 South Dublin Alternative	View to the west from Fallon Road, just north of the westbound I-580 on-ramp.	Low to Moderate Open, panoramic views across graded, level landscape, adjacent to I-580.	Low to Moderate Existing, level terrain with minimal screening potential, soon to be developed with commercial uses.	Low to Moderate Motorists on I-580 anticipate a landscape in transition throughout I-580 corridor. In the future, site will be surrounded by commercial development.	Moderate Indirect angle of view.	Foreground	High	Brief	Moderate	Low to Moderate	Moderate	Co-Dominant	Low to Moderate	Low to Moderate	Adverse but Not Significant	None	Adverse but Not Significant
KVP 10 D1 South Dublin Alternative	View to the south on southbound El Charro Road, just south of I-580.	Low to Moderate Open, panoramic views across valley floor to southern hills with prominent mineral extraction activities and equipment.	Low Level terrain with minimal screening opportunities. Southern hills and mineral extraction facilities provide some backdrop.	Low Project located in a mineral extraction area, primary viewers are drivers hauling extraction products.	High	Foreground	Low	Extended	Moderate to High	Low to Moderate	Moderate	Dominant	Moderate	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
KVP 11 D2 Dublin-San Ramon Alternative San Ramon Substation	View to the east from Del Mar Street, immediately west of San Ramon Substation.	Low Site is fully developed as an existing substation with industrial characteristics.	High The existing substation and transmission line facilities provided developed context with similar characteristics.	High The surrounding residential population is considered sensitive to modifications of the substation and connecting transmission line corridor.	Moderate to High	Foreground to Middleground	Moderate	Extended	Moderate to High	Low to Moderate	Low	Subordinate	Low	Low	Adverse but Not Significant	None	Adverse but Not Significant
KVP 12 D2 Dublin-San Ramon Alternative Tassajara Road	View to the south from southbound Tassajara Road, just north of the D2 alignment.	Moderate Open, panoramic views of minimally developed agricultural lands and limited infrastructure.	Low to Moderate Open, unobstructed viewshed with minimal screening opportunities, but with existing utilities and powerlines.	Moderate Motorists on Tassajara Road anticipate rural agricultural landscapes and undeveloped hillsides lacking features of industrial character.	Moderate to High	Foreground to Background	Moderate	Moderate	Moderate	Moderate	Low to Moderate	Co-Dominant	Moderate	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
NORTH LIVERMORE AREA															NORTH LIVERMORE AREA		
KVP 13 Proposed Project Manning Road / Carneal Road	View to the south from Manning Road, just east of Carneal Road.	High Open, panoramic vista views of undeveloped rolling grass-covered hills used for cattle grazing.	Low Open, unobstructed viewshed with minimal screening opportunities, lacking similar structure context.	High Manning Road is popular with bicyclists, joggers, and recreational drivers. Adjacent rural residences and viewers on Manning Road anticipate open undeveloped rural landscapes.	High	Foreground to Middleground	Low	Moderate to Extended	Moderate to High	High	High	Co-Dominant	Moderate to High	Moderate to High	Significant but Mitigable	V-3 (re-route and/or underground-ing)	Adverse but Not Significant
KVP 14 Proposed Project Manning Road West	View to the west from Manning Road at the junction with Morgan Territory Road.	Moderate to High Open views of undeveloped rolling, grass-covered hills absent developed structures, viewshed encompasses minimal utilities.	Low to Moderate Open, unobstructed viewshed with minimal screening opportunities, existing utility poles with similar visual characteristics.	High Manning Road is popular with bicyclists, joggers, and recreational drivers. Nearby rural residences and viewers on Manning Road anticipate open undeveloped rural landscapes.	High	Foreground to Middleground	Low	Extended	Moderate to High	Moderate	Moderate to High	Co-Dominant	Moderate to High	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable

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VIEWPOINT DESCRIPTION		EXISTING VISUAL SETTING									VISUAL IMPACT				IMPACT SIGNIFICANCE		
Key Viewpoint	Description	Visual Quality	Visual Absorption Capability	Viewer Sensitivity	Viewer Exposure					Visual Impact Susceptibility	Visual Contrast	Project Dominance	View Impairment	Visual Impact Severity	Initial Impact Significance	Mitigation	Final Impact Significance
					Visibility	Distance Zone	Number of Viewers	Duration of View	Overall Viewer Exposure								
NORTH LIVERMORE AREA (cont'd)		NORTH LIVERMORE AREA (cont'd)															
KVP 15 Proposed Project Manning Road to North Livermore Avenue	View to the east and southeast from Manning Road at the intersection with Morgan Territory Road.	High Open, panoramic vista views across undeveloped grazing lands of Las Positas Valley, to the Altamont Hills to the east.	Low Open, unobstructed viewshed with minimal screening opportunities, lacking similar structure context.	High Manning Road is popular with bicyclists, joggers, and recreational drivers. Residents to the north of Manning Road and travelers on Manning Road anticipate open, unobstructed views across Las Positas Valley.	High	Foreground to Middleground	Low	Extended	High	High	High	Dominant	High	High	Significant and Unavoidable	None	Significant and Unavoidable
KVP 16 Proposed Project North Livermore Substation	View to the south from North Livermore Avenue, toward the substation site at the intersection with May School Road.	Moderate to High Open, panoramic vista views to the south and west encompassing agricultural and grazing lands and farm residences.	Low Open, unobstructed viewshed with minimal screening opportunities, with minimal similar structure context.	High North Livermore Avenue is popular with bicyclists, joggers, and recreational drivers. Residents to the north and east of North Livermore Avenue and travelers on North Livermore Avenue anticipate open, unobstructed views across Las Positas Valley.	High	Foreground	Low	Extended	High	High	Moderate to High	Dominant	Moderate to High	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable
Proposed Project North Livermore Avenue to Contra Costa – Newark Tap Point	View to the east from the intersection of North Livermore Avenue and Manning Road	Moderate to High Open, panoramic vista views to the east encompassing agricultural and grazing lands, farm residences, and the rolling hills along the north side of Livermore Valley.	Low Open, unobstructed viewshed with minimal screening opportunities, with minimal similar structure context.	High Residents in the vicinity of North Livermore Avenue, Manning Road, May School Road, Bel Roma Road, Dagnino Road, and Raymond Road, as well as travelers on these roads anticipate open, unobstructed views of the rural landscapes of the north valley area.	High	Foreground to Middleground	Low	Extended	Moderate	Moderate to High	Moderate to High	Co-Dominant	Moderate	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable
Proposed Project Variant P-1 Underground Along North Livermore Ave.	View to the south from North Livermore Avenue, toward the substation site at the intersection with May School Road.	Moderate to High Open, panoramic vista views to the south and west encompassing agricultural and grazing lands and farm residences.	Low Open, unobstructed viewshed with minimal screening opportunities, with minimal similar structure context.	High North Livermore Avenue and Manning Road are popular with bicyclists, joggers, and recreational drivers. Residents to the north of Manning Road and east of North Livermore Avenue and travelers on Manning Road and North Livermore Avenue anticipate open, unobstructed views across Las Positas Valley.	High	Foreground to Middleground	Low	Extended	High	Moderate to High	Moderate to High Along east-west alignment and at North Livermore Substation	Co-Dominant to Dominant Along east-west alignment and at North Livermore Substation	Moderate to High Along east-west alignment and at North Livermore Substation	Moderate to High Along east-west alignment and at North Livermore Substation	Significant and Unavoidable Along east-west alignment and at North Livermore Substation	None	Significant and Unavoidable
Proposed Project Variant P-2 Underground Along Manning Road and North Livermore Ave.	Views to the east and south from Manning Road and North Livermore Avenue	Moderate to High Open, panoramic vista views to the east and south encompassing agricultural and grazing lands, farm residences, and the rolling hills along the north side of Livermore Valley.	Low Open, unobstructed viewshed with minimal screening opportunities, with minimal similar structure context.	High North Livermore Avenue and Manning Road are popular with bicyclists, joggers, and recreational drivers. Residents to the north of Manning Road and east of North Livermore Avenue and travelers on Manning Road and North Livermore Avenue anticipate open, unobstructed views across Las Positas Valley.	High	Foreground to Middleground	Low	Extended	High	Moderate to High	Moderate to High West of above-ground transition and at North Livermore Substation	Co-Dominant to Dominant West of above-ground transition and at North Livermore Substation	Moderate to High West of above-ground transition and at North Livermore Substation	Moderate to High West of above-ground transition and at North Livermore Substation	Significant and Unavoidable West of above-ground transition and at North Livermore Substation	None	Significant and Unavoidable
KVP 17 L1 Raymond Road Alternative	View to the west from westbound Raymond Road, just west of the intersection with Dagnino Road.	Moderate Panoramic view typical of north valley agricultural areas, level agricultural fields surrounded by rolling grass-covered hills.	Moderate Site is open but development on two sides of the site (south and west) would partially screen the facilities. Also, presence of roadside utility poles.	High Residents adjacent to the site and in the vicinity of Raymond Road and Dagnino Road, as well as travelers on these roads anticipate open, unobstructed views of the rural landscapes lacking features with significant industrial character.	High	Foreground	Low	Extended	Moderate	Moderate	Moderate to High	Co-Dominant	Moderate to High	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable

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					Visibility	Distance Zone	Number of Viewers	Duration of View	Overall Viewer Exposure								
NORTH LIVERMORE AREA (cont'd)		NORTH LIVERMORE AREA (cont'd)															
KVP 18 L2 Hartman Road Alternative	View to the south along Isabel Avenue at the intersection of Kitty Hawk Road and East Jack London Boulevard	Moderate Open panoramic view to the south across the valley floor to the southern hills.	Moderate Open suburban landscape with minimal screening. Some utility infrastructure with similar characteristics.	Moderate Residents to the east of Isabel Avenue are considered highly sensitive though residential views are directed east away from alternative. Kitty hawk passes airport with industrial features.	High	Foreground	Moderate to High	Extended	High	Moderate	Moderate	Dominant	Moderate	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
TESLA CONNECTION		TESLA CONNECTION															
KVP 19 North Area Proposed Phase 2 Interstate 580 Span	View to the east from eastbound I-580 near Altamont Pass	Low to Moderate Foreground to middleground views dominated by I-580 and windfarms along the north and south ridgelines.	Low to Moderate Open foreground views with minimal screening though substantial vertical linear elements present in middleground.	Low to Moderate Westbound motorists on I-580 focus on more distant views of Livermore Valley while eastbound motorists tend to focus on windfarms. Both directions of travel view project site in context of windfarm development.	High	Foreground	High	Brief to Extended	High	Moderate	Moderate	Co-Dominant	Low	Moderate	Adverse but Not Significant	None	Adverse but Not Significant
North Area Proposed Phase 2 I-580 to Contra Costa-Newark Transmission Line	Views to the north from Springtown, Vasco Road, Laughlin Road, Altamont Pass Road, Goecken Road, and I-580.	Moderate to High Views generally encompass rolling grass-covered hills bordering the north side of the valley with minimal structures with industrial character.	Moderate Open, unobstructed views with minimal screening potential. North hills provide a textured backdrop along portions of this segment.	Moderate to High Residents and travelers in the area generally anticipate the undeveloped natural character of the rolling grass-covered north hills with minimal industrial features.	Moderate to High	Foreground to Middleground	Moderate	Extended	Moderate to High	Moderate	Moderate to High	Co-Dominant	Moderate	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable
KVP 20 North Area Brushy Peak Alternative	View to the north from northbound Laughlin Road.	Moderate Rural landscape of rolling, grass covered hills and scattered oak woodland. Occasional rural residences.	Low Generally open terrain with minimal screening. North-south segment is partially screened from views from Laughlin Road. Some utility structures present.	High Most current viewers are local residents. Future viewers will include recreational visitors to the Brushy Peak Preserve.	High	Foreground to Middleground	Low	Extended	Moderate	Moderate to High	Moderate to High	Co-Dominant	Moderate	Moderate to High	Significant and Unavoidable	None	Significant and Unavoidable
KVP 21 South Area Stanislaus Corridor Alternative	View to the southeast from eastbound Tesla Road, west of Vasco Road.	Moderate to High Panoramic vista views across expansive vineyards to the rolling grass-and oak woodland-covered southern hills.	Moderate Although open, unobstructed views of the route are available, located in an existing corridor of lattice towers.	High Most viewers are local residents or visitors to the Livermore wine region and anticipate rural, agricultural, wine-country scenes, generally absent industrial characteristics.	High	Foreground to Middleground	Moderate	Moderate to Extended	Moderate	Moderate	Low to Moderate	Co-Dominant	Moderate	Low to Moderate	Adverse but Not Significant	None	Adverse but Not Significant