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3.8 VISUAL AND SCENIC CHARACTER

This section describes the potential adverse effects of the No Build Alternative and the Build Alternatives on the visual character of the project area. Hawaiʻi's visual resources are important to native Hawaiian cultural practitioners, traditional navigators, the quality of life enjoyed by local residents, and the state's tourism industry. In the project area, visual resources include ocean views, views of key mountain peaks, and the islands of Lānaʻi and Kahoʻolawe.

Following publication of the Draft Environmental Impact Statement (EIS), the public was afforded an opportunity to review and comment on the effects of the Project with respect to visual and scenic character. As part of this Final EIS, the analysis contained within this section was revised to reflect those comments, or other information gathered after the publication of the Draft EIS.

3.8.1 Regulatory Context

The *County of Maui 2030 General Plan* includes a "Character & Context" map that identifies scenic corridors throughout Maui. The County of Maui rated all corridors as either Exceptional, High, Medium, or Low, with corridors ranking Exceptional or High being classified as Scenic Resource Corridors. The segment of the existing Honoapiʻilani Highway between Launiupoko and Olowalu is categorized as High. The segment of the existing Honoapiʻilani Highway between Olowalu and Māʻalaea is categorized as Exceptional.

A Visual Impact Assessment was prepared for the Honoapiʻilani Highway Improvements Project (the Project). This assessment was consistent with the FHWA *Guidelines for the Visual Impact Assessment of Highway Projects*[1] issued in 2015, which are a broadly accepted approach to analyzing visual impacts—particularly for transportation projects.

3.8.2 Methodology

As described in TABLE 3.8-1 and depicted in FIGURE 3.8-1, the FHWA Visual Impact Assessment process is performed in four phases: establishment, inventory, analysis, and mitigation. In this methodology, visual effects occur as a result of an interaction between viewers and the environment that surrounds them.

[1] https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp.

FIGURE 3.8-1. **Visual Impact Assessment Process Flowchart**

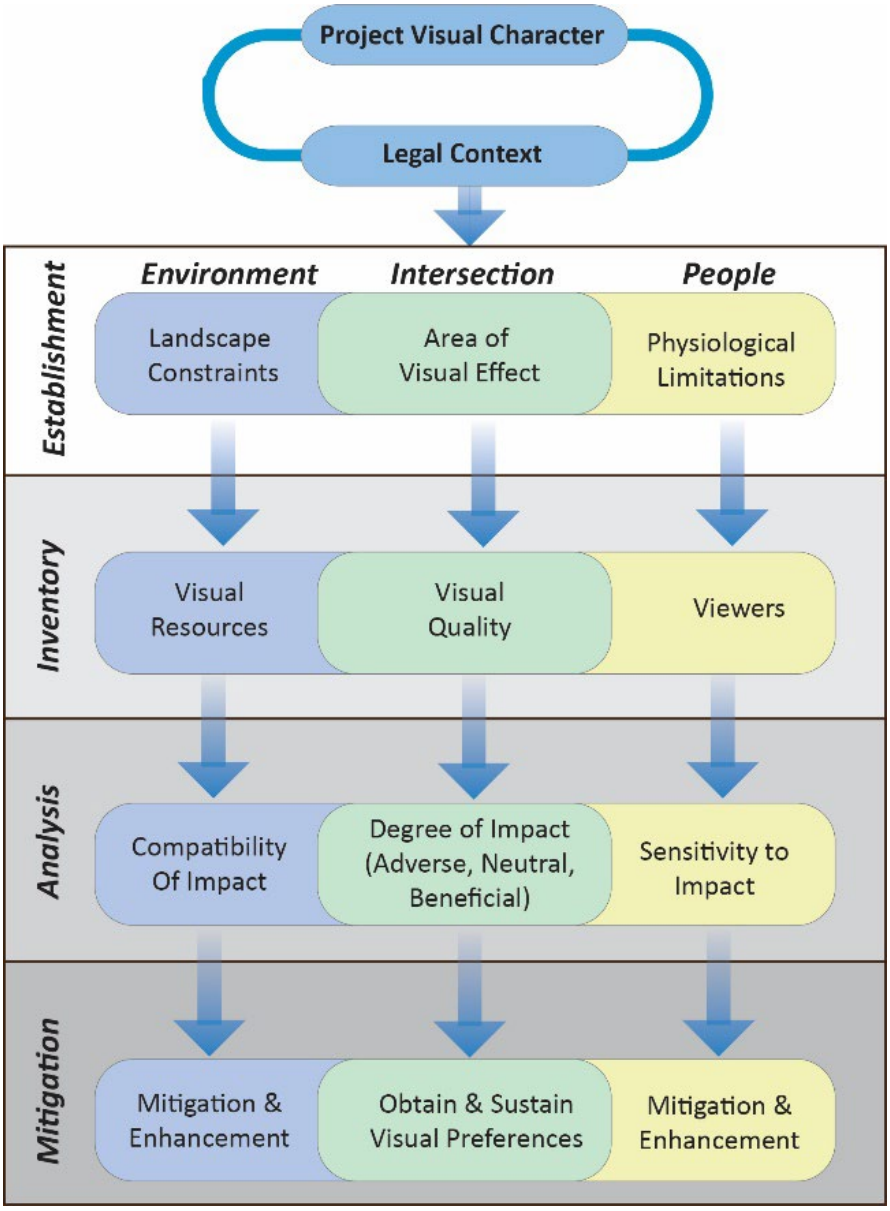


TABLE 3.8-1. **FHWA Visual Impact Assessment Process**

PHASE	DESCRIPTION
Establishment	• Establish a project's regulatory context with respect to visual impacts per Section 4.3 of the FHWA Guidelines for the Visual Impact Assessment of Highway Projects • Identify a project's Area of Visual Effect (AVE), which includes the visual range of proposed alternatives • Map a project's viewshed, accounting for local topography and visual obstructions • Define the visual character of a project's AVE by landscape units, or areas that have the same or similar types of visual character and land use
Inventory	• Inventory and evaluate existing visual resources and viewer groups, and consider the relationship between viewers and their environment • Describe the appearance and compatibility of the visible components of a project • Establish viewer preference • Select key views for visual assessment and determining visual quality
Analysis	• Evaluate potential visibility through visual simulation of proposed components, including design elements being considered for incorporation into a project • Assess changes to visual quality caused by a project's impacts
Mitigation	• Describe measures to be implemented, if necessary, to mitigate adverse visual effects and identify opportunities for visual enhancements in a project area

3.8.3 Affected Environment

3.8.3.1 Establishment Phase

The initial establishment phase of the Visual Impact Assessment defines the AVE through an understanding of its components and an assessment of potential viewsheds.

Components of Area of Visual Effect

The determination of the AVE considers existing physical limitations and visual distances, as described in TABLE 3.8-2 and TABLE 3.8-3, respectively. Some views of the Project are static—that is, what a neighbor would see from a single stationary location. Other views are dynamic, which are defined as views that are available to a traveler as they move through a landscape.

TABLE 3.8-2. **Environmental Constraints**

VISUAL CONSTRAINT	DESCRIPTION
Landform	The coastal plain where the existing highway is located (and where the Build Alternatives would be) is generally 0.25 mile to 0.75 mile wide. Mauka of this area, hills and mountains rising from the coastal plain can be very steep and rise to over 4,000 feet in elevation in the West Maui Natural Area Reserve. The mountains are cut by streams and gulches with steep side slopes. The mountains define views to the north and east of the highway corridor.
Land Cover	Land cover is defined as vegetation and human-made structures that exist on the landform. Land cover often determines the physical constraints and character of the visual environment. It can either obscure views (fences, walls, and trees) or highlight views (decks or viewing platforms). The highway is lined with open grasslands, broadleaf trees, palm trees, and undergrowth typical of the leeward climate of West Maui. Residential areas along Luawai Street above the Olowalu community (as well as the handful of homes that have been built in Ukumehame) are on bluffs above the coastal plain and potentially have more extended views, but landforms and extensive planted landscapes obscure views of the Project.
Atmospheric Conditions	The usual weather patterns in the leeward regions of West Maui are characterized by dry and unobstructed skies. Extensive panoramic vistas have historically been the prevalent feature. Nevertheless, certain atmospheric phenomena, notably the gentle Pāpalaua rain, have the potential to add their own visual effect and obscure or diminish visibility in the area. These atmospheric conditions primarily affect distant objects.

Physiological Constraints

The visual environment is also limited by distance, or proximity, from which viewers can see the Project with any discernible detail. As described in TABLE 3.8-3, proximity can be defined using three distinct zones: foreground, middle-ground, and background. Due to the steep hillsides mauka and the ocean makai, all Build Alternatives would encompass approximately the same topography, development, and visual characteristics within their distance zones. As a result, the visual distance zones would be consistent across all Build Alternatives.

TABLE 3.8-3. **Visual Distance Zones**

VISUAL ZONE	DESCRIPTION
Foreground	The foreground comprises views from 0 miles (project limits) to 0.25 mile. Changes to the visual environment are mostly discernible in this zone. Foreground views tend to be the most affected by changes in visual quality, and views are generally not limited by atmospheric conditions. Views of the Project would consist primarily of views from the foreground zone. Specific foreground views are identified and discussed in the analysis phase.
Middle-Ground	The middle-ground comprises views from 0.25 mile to 3.0 miles. In this zone, most views are greatly reduced by landform (hills and mountains) and land cover (such as buildings, structures, signage, and other physical objects), as well as existing vegetation that limits the line-of-sight for viewers. In the middle-ground, changes in visual details are generally not discernible. A small number of viewers on ridges above the elevation of the highway may have views of the Project from the middle-ground zone; however, viewer numbers would be small and visual details are generally not discernible in this zone due to the distance of the middle-ground zone from the viewers. Atmospheric conditions typical of islands, including low clouds, mist, and precipitation, are visual effects themselves and can further obscure visual elements.
Background	Background comprises views beyond 3.0 miles. Few, if any, viewers in the background distance zone would have unobstructed views of the Project, and project details and changes to visual quality would generally not be discernible from this distance. Landform, land cover, and existing vegetation are expected to completely obscure the Project (including nighttime light emissions, though this might still be visible from a background zone). Furthermore, atmospheric conditions could easily affect or obscure any available views from the background distance zone.

Identification of Viewsheds

Viewsheds are what people would see as they interact with the physical constraints in the environment and the physiological limitations of human perception. Whereas most elements within the AVE could change, landforms are the least likely to change. Landforms are the bare-earth topographic features of the project area and define extent and limitations of viewsheds. FIGURE 3.8-2 highlights how the mountains, hills, valleys, and plains provide a visual perspective from some locations and obscure it from others.

Project Area of Visual Effect

The AVE for the Project refers to the area where viewers generally have sightline views at a close enough proximity that allows them to visually discern the Project's physical characteristics. The natural constraints imposed by the surrounding landform and land cover restrict visual impacts—including potential nighttime light and glare effects—to within the middle-ground distance zone and prevent them from extending beyond it.

Views of the Project may be available throughout the AVE based on landform; however, land cover such as existing trees, vegetation, buildings, fences, signs, and other human-made elements can block or obscure the Project from locations within the foreground and middle-ground distance zones. Therefore, the AVE for the Project includes the area of the foreground and middle-ground distance zones from which the Project would have the potential to be seen (FIGURE 3.8-3).

FIGURE 3.8-2. **Bare-Earth Viewshed Visibility**

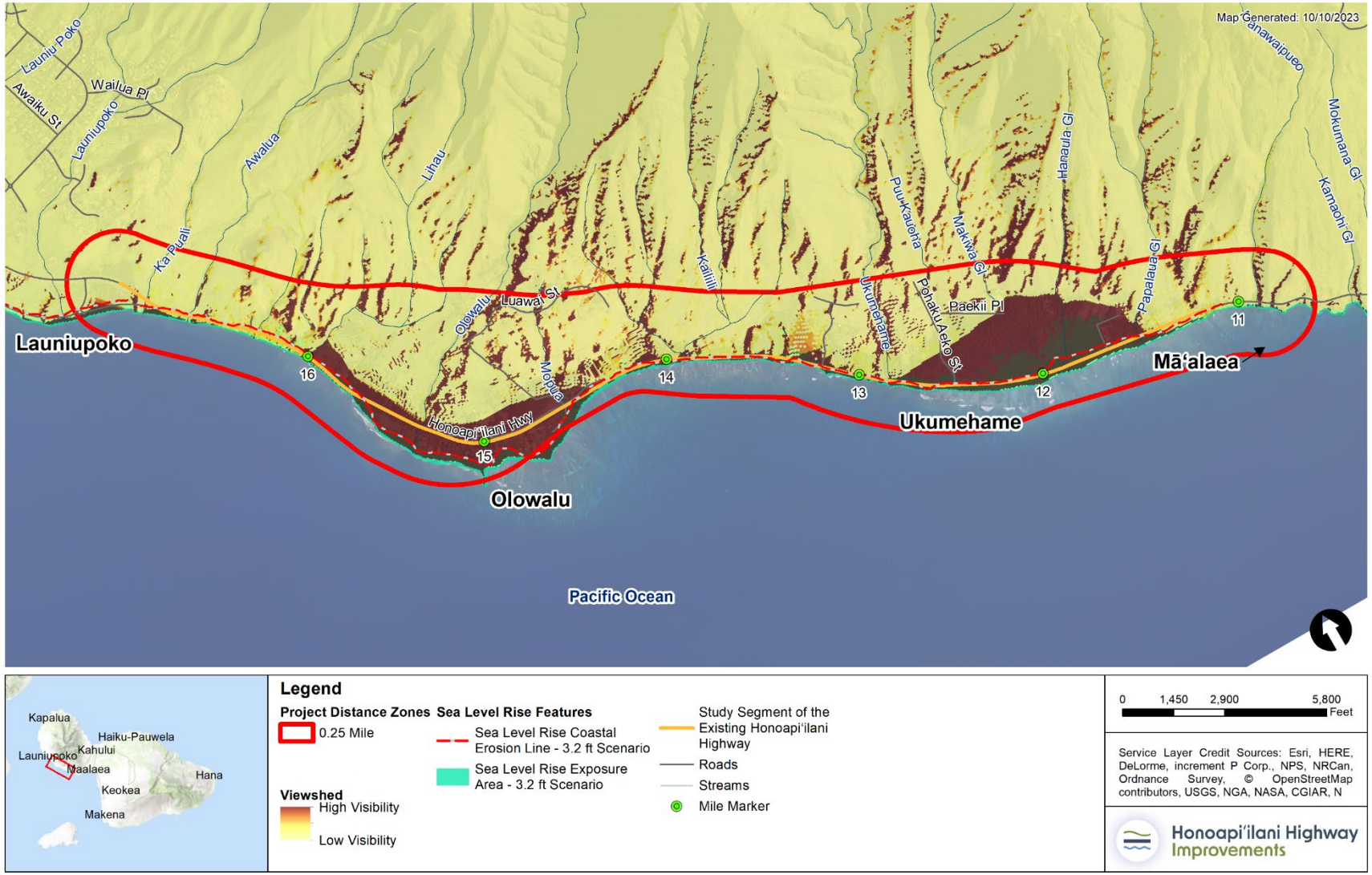
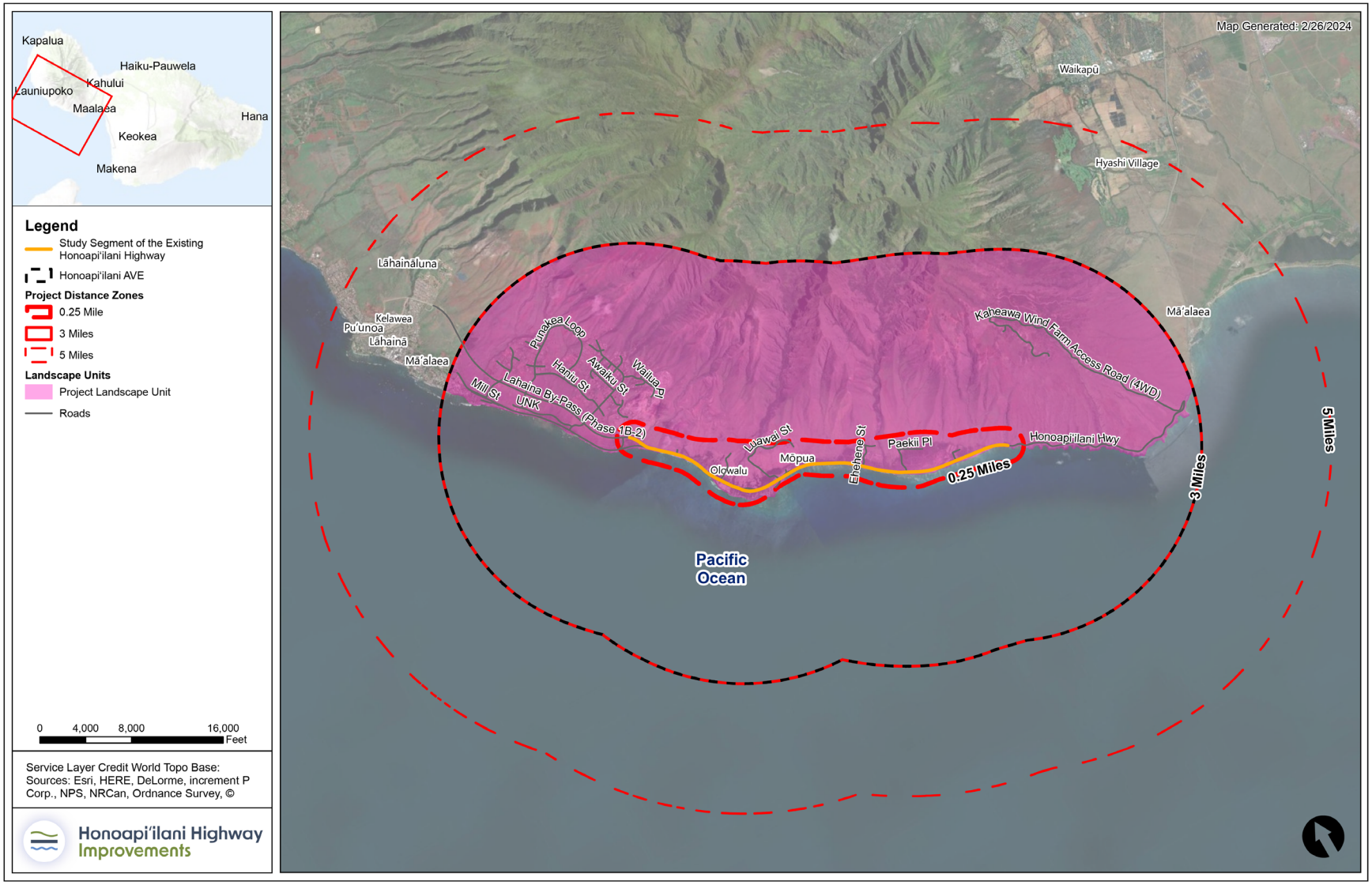


FIGURE 3.8-3. **Honoapi'ilani Highway Landscape Units and Area of Visual Effect**



The FHWA Visual Guidelines methodology establishes guidance to divide the AVE of a project into distinct geographic units called "landscape units" (or "outdoor rooms"), where appropriate. For the Project, the AVE consists of areas with a fairly consistent rural-island landscape and a visual character composed of beaches, open grasslands, farms, and dispersed residential, retail, and agricultural structures. There is a fairly consistent visual quality common throughout the project area; therefore, it is considered as one landscape unit.

The existing highway itself is characterized by two lanes of asphalt pavement and shoulders of varying width, existing bridges over perennial and intermittent streams, signage, and at times heavy vehicular traffic and congested parking on roadway shoulders in areas of public access to beaches and the coastline. Indoor and outdoor electrical lighting is commonly visible from the highway corridor. Overhead utility lines are common within the highway corridor and are observable on both the makai and the mauka sides of the highway.

The Olowalu Petroglyphs are on a culturally sensitive site at the base of the large Olowalu Stream. Large rock outcrops and a small stream running through the valley characterize this area, which provides views extending both north and west into the middle and background distance zones; however, topography and vegetation obscure most views toward the ocean and toward the existing highway (FIGURE 3.8-4).

FIGURE 3.8-4. **Makai Views from Olowalu Petroglyphs**

View of petroglyph site

View looking southwest from the petroglyph area

3.8.3.2 Inventory Phase

The purpose of the inventory phase is to examine the existing visual quality of the affected environment by creating an inventory of its visual components. The existing visual character of the project area environment is assessed based on an inventory of visual resources divided by natural and cultural (built environment) characteristics. The natural realm includes land, water, vegetation, animals, and atmospheric conditions. The cultural realm includes buildings, infrastructure, structures, artifacts, and art. These were assessed for the single landscape unit of the AVE and are summarized in TABLE 3.8-4.

TABLE 3.8-4. **Affected Environment within the Area of Visual Effect**

VISUAL RESOURCES	DESCRIPTION
Natural	Land in the existing highway corridor ranges from 5 feet to 30 feet in elevation above sea level with highest point near the Olowalu Recycling and Refuse Convenience Center. Land within the project area and the 0.25-mile foreground rises steadily from the coastline to elevations generally below 100 feet above sea level, with some elevations reaching about 120 feet in the area of Olowalu just below the mauka residential subdivision. Available views are primarily limited to the coastal plain, with hills limiting views north and west; however, views in some locations are obstructed by trees, palms, coconut trees, and tropical vegetation lining the roadway. Natural elements such as ornamental landscaping are associated with human development in the Olowalu area. Beaches along the highway offer scenic and natural visual elements. Mauka of the highway, the area is also characterized by its open and undeveloped environment with natural vegetation on mountains and hillsides north and west of the highway. Open grasslands and open areas remnant of plantation-era clearing exist throughout the project area. These areas offer longer views but are also limited by the topography. The AVE includes two primary perennial streams (Olowalu and Ukumehame Streams) and other smaller, intermittent streams, with increasing steep slopes toward the mountains. Natural visual elements include trees, palms, understory vegetation, and stone outcroppings. Views are also available of the mountains west of the project area in the middle and background distance zones against the horizon and open skies.
Cultural (Built)	The built environment is very rural in character, with small areas of residential and commercial uses along the existing highway and lower-density residential in newer, large-lot subdivisions. Residential structures on the mauka and makai side are typically one- to two-story structures along the highway. Minor, modern human-made elements such as outbuildings, plantation-era irrigation infrastructure, access roads, and overhead utilities are throughout the AVE. Few roadways are in the built environment. The existing Honoapiʻilani Highway is a two-lane paved highway with variable shoulders. Speed limits along the highway range between 35 and 55 miles per hour, but heavy traffic often reduces the speed of vehicles along the highway. At Awalua and Ukumehame beaches, riprap retains the area under Honoapiʻilani Highway for approximately 24 inches to 36 inches below the road grade and then drops directly onto the beach. Overhead utility lines are on poles on the mauka side, makai side, or on both sides of the highway. Road signs include those displaying the speed limit, “no parking” instructions, or other small-scale signs. Mauka of the existing highway are narrow two-lane paved roads with limited shoulders that access the Olowalu and Ukumehame Subdivisions, as well as remnant cane haul roads and some longer access driveways to homes, which are mostly unpaved.

Affected Population

Viewers can generally be categorized into two distinct groups: neighbors and travelers. Both groups may be further subdivided to establish viewer preference and their sensitivity to changes in visual resources. Although each viewer has individual preferences and sensitivities, the FHWA Visual Guidelines recognize three basic responses to visual environments:

- When viewing the natural environment, viewers evaluate the natural harmony of the existing scene and determine whether the composition is harmonious or inharmonious
- When viewing the cultural environment, viewers evaluate the human order and determine whether the composition is orderly or disorderly
- When viewing the project environment, viewers evaluate the coherence of a project's components and determine whether a project's composition is coherent or incoherent

Types of Neighbors

Neighbors are viewers who typically view a project from a stationary location. The types of neighbors identified in TABLE 3.8-5 generally share common visual preferences, including the maintenance of the existing landscape character, natural harmony, and cultural order. The types of neighbors described in TABLE 3.8-5 are included in the AVEs for the Project.

TABLE 3.8-5. **Types of Neighbors**

TYPE OF NEIGHBOR	DESCRIPTION
Residential	Residential neighbors include single-family residences along the highway and mauka of the existing highway. There are approximately ~~20~~ 24 residences along the existing highway in Olowalu, of which ~~18~~ 21 are located within subdivisions (13 in the Olowalu Subdivision and ~~five~~ 8 in the Ukumehame Subdivision).
Recreational	Recreational neighbors participate in recreation or cultural activities and tend to be transitory. In the Project's AVE, this is primarily characterized by the well-utilized beaches along the shoreline, particularly the Maui County Ukumehame Beach and Pāpalaua Wayside Park.
Commercial/ Retail	Commercial and retail neighbors are merchants and their customers. Commercial and retail businesses in Olowalu include road-front uses that are retail-oriented and based on visits from travelers on the existing highway, as well as destination locations at Camp Olowalu and the Olowalu Plantation House.
Agricultural	Agricultural neighbors are farmers and workers of crops or herd animals. These neighbors often work in fields and pastures and may include permanent and transient workers. There is little active agriculture in the project area, and the existing agriculture is limited to small-scale farming in the northern area of Olowalu and a commercial sod farm in the Ukumehame area. Neither are visually connected with the existing highway corridor.
Cultural/ Institutional	Cultural and institutional neighbors—who provide and receive services from a variety of institutions including schools, hospitals, or Native Hawaiian Organizations—visit or use culturally important locations in the project area, such as heiau and cemeteries within view of the Project. Viewers would be considered as visitors and are transitory. There are two defined cemeteries in Olowalu including Awalua Cemetery (a very lightly visited plantation-era cemetery) and the ruins of the Lanakila Hawaiian Church and its cemetery. There are heiau and other important cultural practices sites throughout the project area (Section 3.6, Archaeological and Architectural Historic Properties).

Types of Travelers

Travelers are those who perceive the view as they move along a corridor, such as a road or a highway. Viewsheds are dynamic and change as a series of views reveals different scenes. TABLE 3.8-6 describes the types of travelers that are included in the AVEs for the Project. These types of travelers generally share common visual preferences, including natural and human harmony, and coherence.

TABLE 3.8-6. **Types of Travelers**

TYPE OF TRAVELER	DESCRIPTION
Pedestrian	Pedestrians use self-propelled means (walking, wheelchair, other mobility aids) to move through a site on roadways, sidewalks, or trails. In the existing highway corridor, there are no pedestrian amenities and only a limited number of pedestrians use the highway shoulders, most notably in and around the Olowalu village business area as well as at local transit stops. Within the Olowalu Subdivision, multiuse paths provide pedestrian amenities.
Bicycling	Bicycles or other similar self-propelled devices travel through a site at a higher speed than pedestrians but much slower than vehicular travel. Few bicyclists use either the existing Honoapiʻilani Highway or other local roads in the project area.
Motoring	Motorists travel in vehicles propelled by engines (cars, trucks, buses, motorcycles). The existing highway corridor is renowned for its picturesque qualities and aesthetic charm, offering extensive vistas of the ocean and mountains. The highway also represents a transition from the largely undeveloped regions to south of the project area, leading into Olowalu and ultimately connecting to the more densely populated Lāhainā area. In contrast to the relatively small neighboring population, which is defined as residents and workers not exceeding 200 people, the existing highway accommodates approximately 20,000 vehicles daily. Consequently, travelers in these vehicles form the overwhelmingly dominant population when it comes to viewing the project area.

Key Viewpoints

A set of key viewpoints (KVPs) were identified and used to generally define the existing visual character and visual quality. KVPs were selected because they either represent a common or typical view from within that different users would experience, or because they are a view of a defining feature of the project area. The KVPs identified for this assessment also consider community feedback received during the early scoping and EIS scoping periods. FIGURE 3.8-5 and FIGURE 3.8-6 show the locations of key viewpoints, and FIGURE 3.8-7 through FIGURE 3.8-20 provide baseline viewshed photographs keyed to the direction of the viewshed.

FIGURE 3.8-21 and FIGURE 3.8-22 provide references to the project area from the ocean looking back to Maui which, in this area, has been a critical location for traditional navigation using the Maui mountains. The first image provides a closer perspective toward the north end of the project area while the second image conveys the more traditional “navigator’s chair” image from Kahoʻolawe Island, indicating that the project area is virtually indistinguishable from this broader perspective.

FIGURE 3.8-5. **Area of Visual Effect Key Viewpoints - Olowalu**

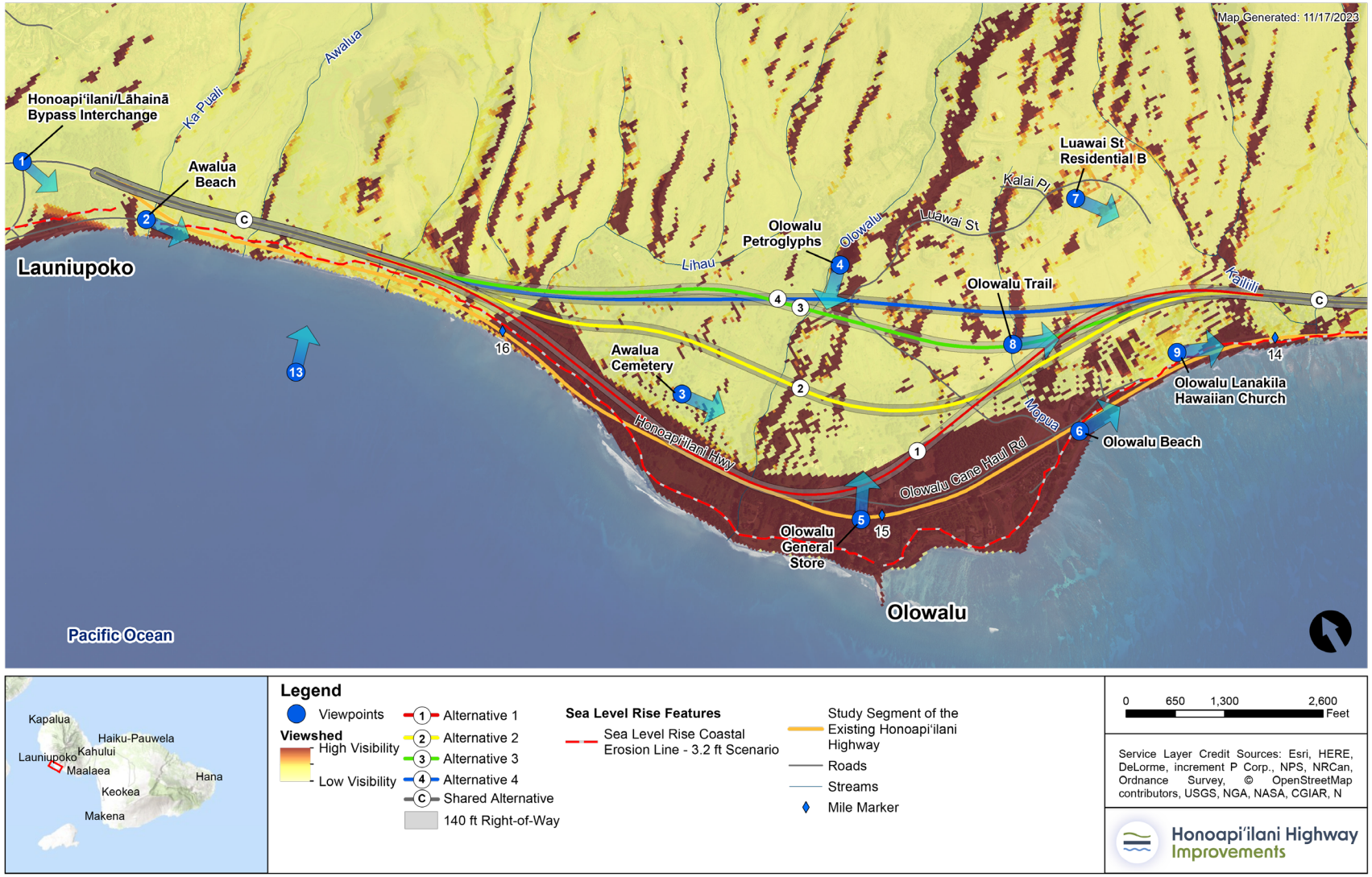


FIGURE 3.8-6. **Area of Visual Effect Key Viewpoints - Ukumehame**

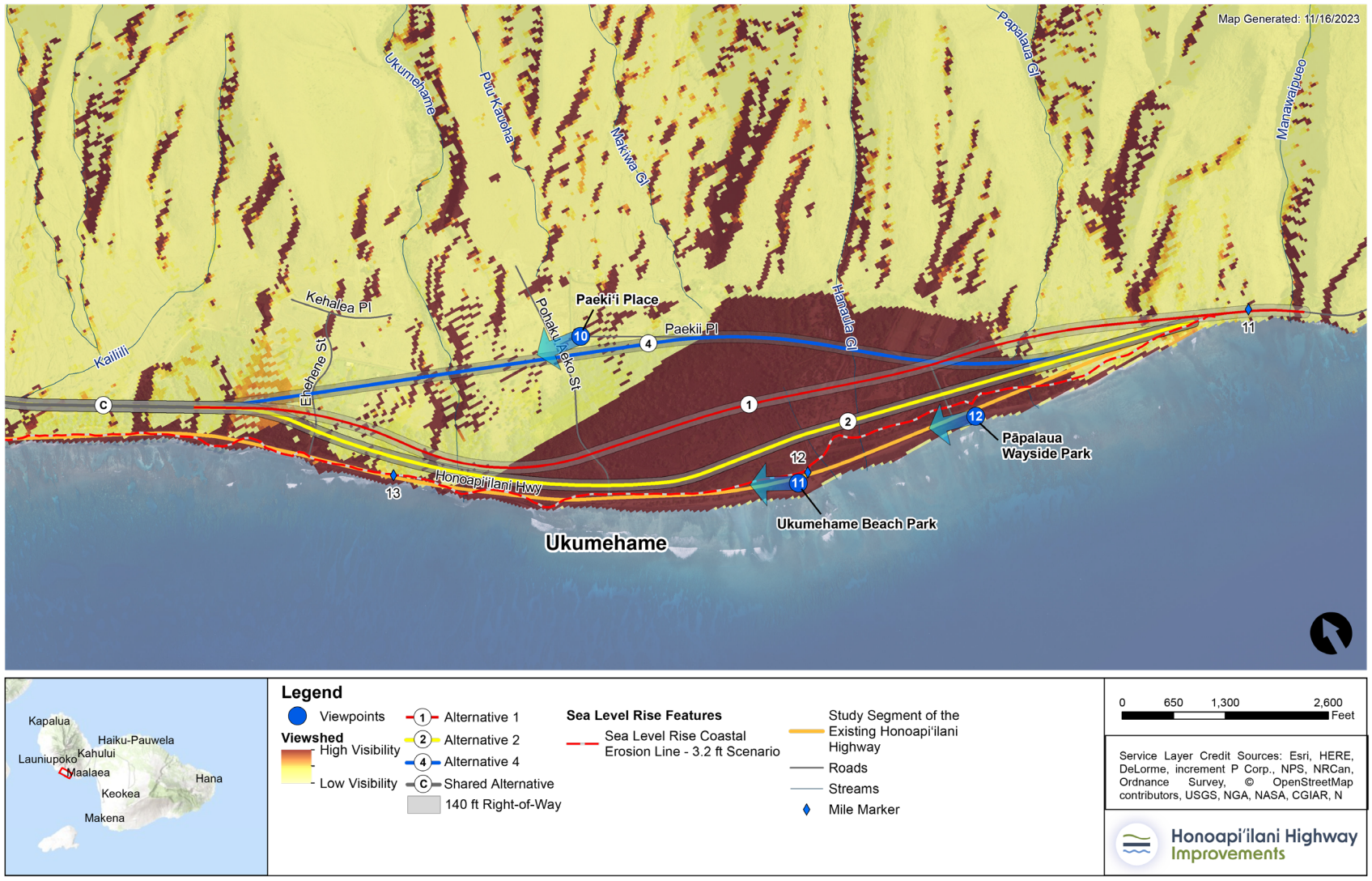


FIGURE 3.8-7. **Key Viewpoint 1: Honoapi'ilani/Lāhainā Bypass Interchange (looking southeast)**

FIGURE 3.8-8. **Key Viewpoint 2: Awalua Beach (looking southeast)**

FIGURE 3.8-9. **Key Viewpoint 3: Awalua Cemetery in Foreground (looking east)**

FIGURE 3.8-10. **Key Viewpoint 4: Olowalu Petroglyphs (looking southwest)**

FIGURE 3.8-11. **Key Viewpoint 5: Olowalu General Store (looking northeast)**

FIGURE 3.8-12. **Key Viewpoint 6: Olowalu Beach (looking east)**

FIGURE 3.8-13. **Key Viewpoint 7: Luawai Street Residential A (looking southeast)**

FIGURE 3.8-14. **Key Viewpoint 7: Luawai Street Residential B (night, looking southeast)**

FIGURE 3.8-15. **Key Viewpoint 8: Olowalu Trail (looking southeast)**

FIGURE 3.8-16. **Key Viewpoint 8: Olowalu Trail (night, looking southeast)**

FIGURE 3.8-17. **Key Viewpoint 9: Olowalu Lanakila Hawaiian Church (looking southeast)**

FIGURE 3.8-18. **Key Viewpoint 10: Paeki'i Place (looking west)**

FIGURE 3.8-19. **Key Viewpoint 11: Ukumehame Beach Park (looking northwest)**

FIGURE 3.8-20. **Key Viewpoint 12: Pāpalaua Wayside Park (looking northwest)**

FIGURE 3.8-21. **Key Viewpoint 13: 'Au'au Channel Offshore (looking northeast)**

Source: Google Maps, 2023

FIGURE 3.8-22. **View from the Navigator's Chair on Kaho'olawe Island (looking at Maui)**

Source: Hofschneider, A. 2014. Honolulu Civil Beat. "Promised Land: 'Where Beauty Is Alongside the Ugliness.'" https://www.civilbeat.org/2014/10/promised-land-where-beauty-is-alongside-the-ugliness/.

TABLE 3.8-7 summarizes key characteristics of these locations. Viewpoints presented with an asterisk are the viewsheds selected for visual simulations as presented in Section 3.8.4, Environmental Consequences. For the purposes of this ~~Draft~~ Final EIS, the viewsheds selected for visual simulations generally represent locations where the distinction between the Build Alternatives would be the most prevalent or observable.

TABLE 3.8-7. **Key Viewpoints by Type and Preference within the Area of Visual Effect**

MAP KEY	LOCATION DESCRIPTION	VIEWER TYPE	VISUAL PREFERENCE
OLOWALU (FIGURE 3.8-5)			
1	Lāhainā Bypass Intersection	Traveler	Coherence
2*	Awalua Beach	Traveler, Recreational	Natural Harmony, Cultural Order
3	Awalua Cemetery	Cultural	Natural Harmony, Cultural Order
4*	Olowalu Petroglyphs	Cultural	Natural Harmony, Cultural Order
5	Olowalu General Store	Traveler, Commercial/Retail	Coherence
6	Olowalu Beach	Traveler, Residential	Coherence, Cultural Order
7*	Luawai Street	Residential	Natural Harmony, Cultural Order
8*	Olowalu Trail	Residential, Recreational	Natural Harmony, Cultural Order
9	Olowalu Lanakila Hawaiian Cemetery	Cultural, Residential, Traveler	Natural Harmony, Cultural Order
13*	ʻAuʻau Channel	Cultural, Recreational, Traveler	Natural Harmony, Cultural Order
UKUMEHAME (FIGURE 3.8-6)			
10	Paekiʻi Place	Residential	Natural Harmony, Cultural Order
11	Ukumehame Beach Park	Traveler, Recreational	Natural Harmony, Cultural Order
12*	Pāpalaua Wayside Park	Traveler, Recreational	Natural Harmony, Cultural Order

Note: Asterisk indicates viewshed selected for visual simulation.

3.8.4 Environmental Consequences

The Project is anticipated to result in changes to physical characteristics of the AVE as a result of the potential highway alignments mauka of the existing Honoapiʻilani Highway where there is less vegetation and more open viewsheds.

While the form and materials of the Build Alternatives would be consistent with the existing highway, all the alternatives would be larger in scale with a wider right-of-way and medians between moving

lanes. Further, all the alternatives would meet modern roadway design standards, including roadway width, shoulders, turning lanes, and other highway elements.

3.8.4.1 Analysis Phase

The analysis phase aims to evaluate the influence of project-related environmental modifications on visual quality. As described in TABLE 3.8-8, this stage entails a qualitative assessment, encompassing changes in the compatibility of these changes, their impact on viewers, the degree of visual quality, and whether they result in positive, negative, or neutral outcomes.

TABLE 3.8-8. **Analysis Phase Elements**

ELEMENT FOR ASSESSMENT	DESCRIPTION
Compatibility	Compatibility is evaluated based on the environment's capacity to absorb the visual attributes introduced by a project. This factor is classified as either compatible or incompatible. Planning documents were examined to establish scenic goals and objectives, against which the Project’s compatibility was measured within the AVE.
Viewer Sensitivity	Viewer sensitivity to potential visual impacts refers to concerns about alterations in the visual environment. Viewer sensitivity was assessed and documented to establish a baseline for analyzing potential visual impacts. Generally, resources closer to viewers hold a more prominent role in their perception and bear greater significance to them. How fast a viewer is moving can also affect viewer sensitivity. The faster a viewer moves, the more dynamic the views are and the smaller the area on which they can focus their attention. Viewers in vehicles move quickly, creating dynamic views that change as they travel through the project area.
Degree of Visual Quality Impact	Degree of visual quality impact is defined as beneficial, adverse, or neutral. The qualitative assessment discusses the degree of change for each of the 13 KVP locations. In addition, photographic simulations and rendered cross sections have been prepared for select KVPs to illustrate visual conditions with the Project and likely variation by Build Alternative.

3.8.4.2 No Build Alternative

The scale, form, materials, and visual character of the existing roadway would remain. However, visual conditions are expected to deteriorate as existing hazards and disruptions—closures, detours, and temporary or longer-term repairs and stabilization measures—create visual changes along the existing roadway. Anticipated growth in traffic would also increase the number of vehicles and the potential for disruptions; the combination would be expected to have an adverse visual effect.

3.8.4.3 Build Alternatives

The roadway improvements would alleviate vehicle congestion and pedestrian conflicts, but vehicles moving at higher speeds would have a different character of visibility. The visual coherence in the project environment would improve as a consistent roadway is identified, avoiding erosion-prone areas and temporary fixes like concrete barriers and improving traffic conditions.

For all the Build Alternatives in both Olowalu and Ukumehame, the Project could be expected to change viewer sensitivities as summarized in TABLE 3.8-9.

TABLE 3.8-9. **Viewer Sensitivity**

VIEWER TYPE	EXPOSURE	AWARENESS	DISTANCE	OVERALL SENSITIVITY
HIGHWAY CORRIDOR				
Residential	• Low numbers of residential structures would be along the new highway. • Existing fences, gates, and vegetation would block most views. • As Build Alternatives move mauka of the existing highway, there would less exposure for residences along existing roadway but more exposure for viewers above Olowalu.	• Attention and focus would change as the highway moves away from most residences. • Views would be of long duration but would become routine. • Awareness would increase for viewers in the mauka Olowalu and Ukumehame Subdivisions, particularly for the most mauka Build Alternatives.	Mauka residential viewers would be closer to the Build Alternatives, particularly Build Alternative 4 in both Ukumehame and Olowalu.	Moderate
Commercial	Most commercial viewers would be adjacent to the existing highway in Olowalu and would be exposed to reduced traffic volumes along the existing highway.	• Commercial viewers would be aware of reduced traffic along the existing highway. • Views would typically be of short duration as viewers focus on shopping, dining, or other activities.	The Build Alternatives would move away from commercial viewers and behind existing vegetation.	Low
Motorist	High numbers of viewers would be exposed to the new alignment and improved traffic conditions.	• Drivers and passengers may be aware of a new alignment and improved traffic conditions. • Views would be of short duration as motorists travel through the site.	Travelers would be in the immediate right-of-way.	Low
Bicycle/ Pedestrian	• Traffic conditions and vehicular conflicts with vehicles would be reduced for bicyclists and pedestrians along the existing highway. • Few pedestrians would be on the new highway. • Touring bicyclists would be more likely to use the existing highway for scenic value and reduced traffic volumes.	• Bicyclists and pedestrians would be aware of improved visual conditions as traffic conditions improve but typically focus on recreational activities. • Views would be of short duration.	Bicyclists and pedestrians would primarily use the existing highway within the project limits.	Low

VIEWER TYPE	EXPOSURE	AWARENESS	DISTANCE	OVERALL SENSITIVITY
CULTURAL SITES				
Recreational	Most viewers from the cultural sites in Olowalu and Ukumehame would not have a direct view of the new alignment (except for Build Alternative 4 at the Olowalu Petroglyphs).	• Views would be scenic but not protected. • Views would be of short duration. • Viewers may be aware of decreased traffic. • Attention and focus on scenic/cultural amenities would likely not change.	Recreational viewers would vary in distance from the existing highway but would be within the foreground distance zone.	Low

Olowalu

Common to All Build Alternatives

All Build Alternatives share a common alignment from the northernmost connection with the Lāhainā Bypass extending through to the area just south of the Olowalu Recycling and Refuse Convenience Center. Therefore, the visual effect on all users would be similar, and the alignment mauka of the existing highway and the visual coherence in the project environment would improve as a consistent roadway is identified.

Bicyclists and pedestrians would likely continue to use the existing highway and potential conflicts with vehicles would be minimized as most vehicles would be on the new Build Alternative. This change would have a positive impact on the visual environment for bicyclists and pedestrians. Similarly, recreational beach users are viewers near the existing highway that would benefit from the reduced volume of traffic adjacent to the shoreline with moderate sensitivity to visual changes (KVPs 2 and 6).

Build Alternative 1

In Olowalu, Build Alternative 1 would be generally just mauka of the existing highway from the north end of the project area to just north of the Olowalu village center. (It would overlap the exiting right-of-way for a small portion, resulting in a partial loss of the monkeypod tree canopy.) Between the village center and the south end of Olowalu, the alignment would move more mauka, behind the commercial center and the existing homes at Kapāiki Place neighborhood along the Olowalu Village Road.

The project environment, which includes roadway geometrics, grading, constructed elements, vegetative cover, and other ancillary visual elements, would be similar to the type, shape, and form of the existing roadway (though much wider) and would benefit from a more resilient location and current standards of design. Visual coherence for the highway users in the project environment would be improved, other than the noticeable gap created by the monkeypod tree loss. The existing viewshed through the tree canopy is important to travelers and recreational uses and the disruption of the canopy would be considered an adverse effect of Build Alternative 1.

Views of the beach and open grasslands would be different, and some existing vegetation would be affected. While cut-and-fill slopes would be revegetated, the overall project would be considered not to be in natural harmony while, overall, the human environment would remain orderly, as the Project would be anticipated to involve only minor changes to existing structures, fencing, or other human-made elements (TABLE 3.8-9). Topography and existing vegetation would obscure views of Build Alternative 1 from the Olowalu Petroglyphs, and the impact on the existing cultural environment is expected to be beneficial for highway neighbors and users. Recreational, commercial, retail, and some residential viewers would benefit from reduced exposure to vehicular traffic and conflicts associated with the highway. Visual coherence in the project environment would be improved.

The scale and extent of the existing form, material, and visual character of the current roadway would likely increase for most viewers with Build Alternative 1; however, existing periodic heavy traffic conditions associated with the existing highway would be reduced or eliminated. These changes to the visual environment would be neutral for traveling motorists for Build Alternative 1.

Visual elements would shift away from most residential observers currently along the existing highway, which would be much less traveled. Existing vegetation would act as a screen in both daytime and nighttime conditions. These changes would have a beneficial impact on these viewers; however, the new roadway would be closer to mauka residents (KVPs 7 and 8), where they would have an increased visual awareness that would be considered an adverse visual effect.

Build Alternative 2

Build Alternative 2 would be mauka of Build Alternative 1, but generally below the open areas of the landscape below residences in the Olowalu Subdivision. This would result in the displacement of fewer trees and woody vegetation and would not affect the iconic monkeypod tree canopy. Build Alternative 2 would generally be at a higher elevation than the existing roadway or Build Alternative 1 and would provide more open views in the Olowalu area.

Build Alternative 2 would have little or no visual effect for commercial/retail viewers because the roadway would be farther setback from the Olowalu village center and would not result in the removal of the monkeypod trees in Olowalu. The human environment would remain orderly because the Project would not be anticipated to involve substantial changes to existing structures, fencing, or other human-made elements. Build Alternative 2 would be largely screened from the Olowalu Petroglyphs area by change in elevation and vegetation.

Build Alternative 2 would be expected to be more visible to the mauka subdivision residences. The scale and extent of roadways, cut-and-fill areas, vehicle lights, and other visual elements associated with Build Alternative 2 would increase visibility for viewers who are typically more sensitive to changes in the visual environment (for example, residential and cultural neighbors). As a result, Build Alternative 2 may have less cultural order for a subset of residential neighbors.

Visual elements would shift away from most residential observers along the existing highway, and existing vegetation would act as a screen in both daytime and nighttime conditions. These changes would have a beneficial impact on these viewers; however, they would move closer to residents on the upper elevation residences of the Olowalu Subdivision (KVPs 7 and 8), where they would have an adverse impact compared to the No Build Alternative.

Build Alternative 3

In Olowalu, Build Alternative 3 would be positioned mauka of and higher in elevation above Olowalu than Build Alternatives 1 and 2. The elevated position would provide extended views of mountains, oceans, and distant islands that are not easily visible from lower elevations because existing vegetation screens the views.

While most areas of Build Alternative 3 would be compatible with the natural environment, the impacts on the grassland and cut-and-fill slopes would be less harmonious with the existing natural surroundings. Impacts to cultural order with Build Alternative 3 would be similar to Build Alternative 2, but its mauka position would place the alignment closer to the mauka residences and the Olowalu Petroglyphs. Nevertheless, topography and existing vegetation would likely obstruct most views of the roadway from this location. The alignment would be more visible to upper elevation residences of the Olowalu Subdivision (KVPs 7 and 8), particularly as the alignment crosses into the central part of the

Olowalu Peninsula in the open area below these residences. This would be considered an adverse visual effect compared to the No Build Alternative.

Build Alternative 4

In Olowalu, Build Alternative 4 would be the most mauka alignment, farther inland and higher in elevation than Build Alternative 3. Build Alternative 4 would result in comparable natural, cultural, and project visual effects as Build Alternative 3, with the only difference being that it would be more visible to sensitive recreational and cultural viewers in the Olowalu Cultural Reserve and at the Olowalu Petroglyphs. Build Alternative 4 would be just makai of the existing homes, and undeveloped lots of the Olowalu Subdivision along Luawai Street. Build Alternative 4 would be anticipated to have an adverse visual effect in Olowalu compared to the No Build Alternative.

Ukumehame

Common to All Build Alternatives

All Build Alternatives share a common alignment through the area just south of Olowalu. As a consequence of moving the roadway inland, some direct views of the beaches would be diminished at various locations. However, the somewhat higher elevation and being above the thickest coastline vegetation would offer more open views of the ocean, distant islands, and mountains. The visual coherence in the project environment would improve as a consistent roadway is identified but would be somewhat more noticeable from higher elevations.

Bicyclists and pedestrians are likely to continue using the existing highway and potential conflicts with vehicles would be minimized as most vehicles would be on a new highway. This change would have a positive impact on the visual environment for bicyclists and pedestrians. Similarly, recreational beach users would be viewers close to the existing roadway—with moderate sensitivity to visual changes (KVPs 11 and 12)—and would benefit from the alterations in the visual environment, with less sustained traffic volumes immediately adjacent to the beach.

Build Alternative 1

In Ukumehame, Build Alternative 1 would be the most mauka alignment at the southernmost end of the project area with its connection to the Pali. This would have a high degree of visibility from the motorist's perspective as it would have the earliest separation from the existing highway. The alignment would be on a viaduct over Ukumehame Firing Range and then would traverse Ukumehame along public lands between the existing road and the mostly undeveloped area of the Ukumehame Subdivision. Build Alternative 1 would bisect one agricultural use in Ukumehame (El Toro Soysia Turf-Maui Grass Farm). While cut-and-fill slopes would be revegetated, the alignment would be considered adverse to natural harmony. Overall, the human environment would remain orderly.

As a consequence of moving the roadway inland, direct views of the beaches would be diminished at various locations. However, the higher elevation would offer extended views of the ocean, distant islands, and mountains. The visual coherence in the project environment would improve as a consistent roadway is identified, avoiding erosion-prone areas. The impact on visual quality would be beneficial for neighboring areas and travelers. Existing landforms, trees, and vegetation would block or obscure potential light sources (for example, vehicle headlights and taillights) for most viewers.

Recreational viewers (KVPs 11 and 12) may experience beneficial impacts like those in the Olowalu area due to changes in the visual environment compared with the No Build Alternative; however, the viaduct would likely have an adverse impact on recreational viewers at the Ukumehame Firing Range. But the number of these viewers would be low as would awareness or sensitivity to the roadway.

Overall, the impact on visual quality would be beneficial for neighboring areas and travelers. Existing landforms, trees, and vegetation would block or obscure proposed light sources (for example, vehicle headlights and taillights) for most viewers.

Build Alternatives 2 and 3

In Ukumehame, Build Alternatives 2 and 3 would be the most makai alignment and at a lower elevation that would minimize visual changes from either the public areas along the coastline or from higher elevations looking down toward the ocean. High traffic volumes would be shifted mauka of the existing public beaches, improving the visual quality from a recreational viewers perspective.

Given the absence of development, the human environment would remain orderly because the Project is not anticipated to involve substantial changes to existing structures, fencing, or other human-made elements. Recreational viewers (KVPs 11 and 12) would experience beneficial impacts based on the reduced volumes on the existing highway. At the firing range, Build Alternatives 2 and 3 would be the most makai and would have little or no viewer effects from users of the firing range (other than a rebuilt driveway entrance).

Overall, the impact on visual quality would be beneficial for neighboring areas and travelers. Existing landforms, trees, and vegetation would block or obscure proposed light sources (for example, vehicle headlights and taillights) for most viewers.

Build Alternative 4

In Ukumehame, Build Alternative 4 would be the most mauka and at the highest elevation. The alternative alignment would traverse the HDOT retention basin, across the parking lot area of the Ukumehame Firing Range, continuing through the Ukumehame Subdivision, and bisecting active agricultural uses before rejoining the common alignment between Ukumehame and Olowalu.

The effects on the natural environment would adversely affect the natural harmony for the handful of houses, the existing sod farms, and undeveloped residential lots of the subdivision based on the new alignment’s proximity to Paeki‘i Place and to existing and undeveloped lots.

3.8.4.4 Selected Simulations

Six KVPs were selected to provide representational simulations of how the Build Alternatives would compare from different vantage points, including areas containing important public realm considerations (beaches and parks) as well as various vantage points where the potential alignments would be newly visible.

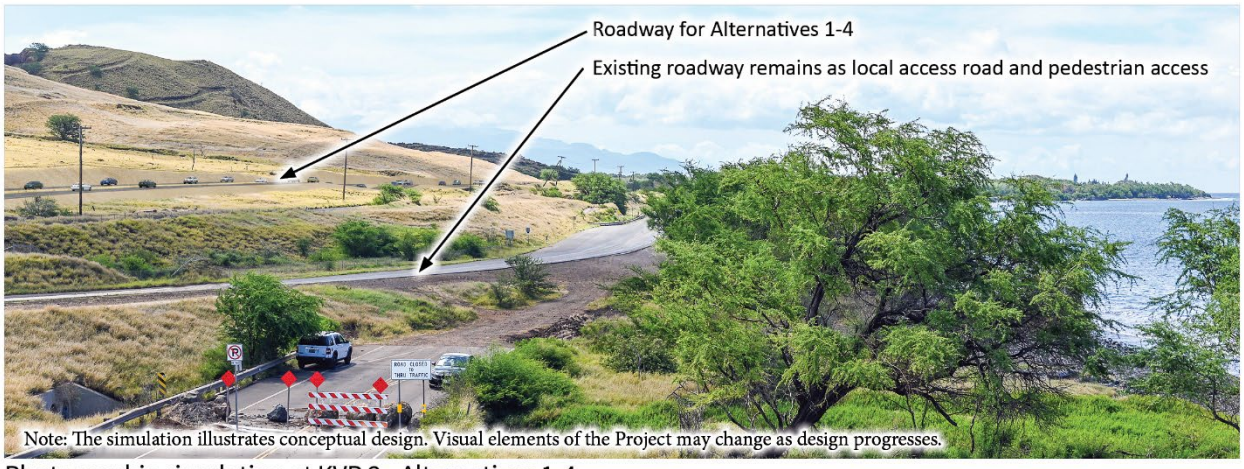
Key Viewpoint 2 – Awalua Beach

This vantage point within Olowalu was selected to observe the point where all the Build Alternatives are in a common alignment coming toward the point of reconnection with the existing Lāhainā Bypass.

As shown in FIGURE 3.8-23, the Project would be visible but somewhat fading into the background in its alignment mauka of the existing highway, which would remain in the foreground.

FIGURE 3.8-23. **Key Viewpoint 2 – Awalua Beach: Existing Conditions/No Build Alternative and Build Alternatives 1 through 4 (looking south)**

Existing Conditions KVP 2



Photographic simulation at KVP 2 - Alternatives 1-4

Key Viewpoint 4 – Olowalu Petroglyphs

This vantage point is south of the Olowalu Petroglyphs where the local access road begins to have an open view toward the ocean. All Build Alternatives would be at different distances from KVP 4, with Build Alternative 1 being the most makai alternative and Build Alternatives 3 and 4 being the most mauka and visually apparent to a viewer looking out from this location. FIGURE 3.8-24 shows this contextual relationship with KVP 4.

Build Alternatives 1 and 2 would generally not be visible because they would be too far, lower in elevation, and obscured by vegetation, which would limit visual access from KVP 4. This is most clearly evident as shown in FIGURE 3.8-25, which shows a cross section of the terrain from KVP 4 to the ocean, and each Build Alternative is shown by its relative location and elevation along this profile.

Key Viewpoint 7 – Luawai Street

This is the most mauka KVP included in the analysis. It is from the upper portions Luawai Street with viewpoints toward the ocean and to the north and south. As presented in FIGURE 3.8-26, all four Build Alternatives would have a slightly different alignment as they join into a common alignment through the area more in the background toward the center of the viewshed and into the middle-ground as the roadway gets closer to the KVP to the viewer's right. All alternatives would generally be similar in its visual effect in the background of the viewshed just mauka of the existing highway.

Key Viewpoint 8 – Multiuse Trail Near Push Piles 3 and 4

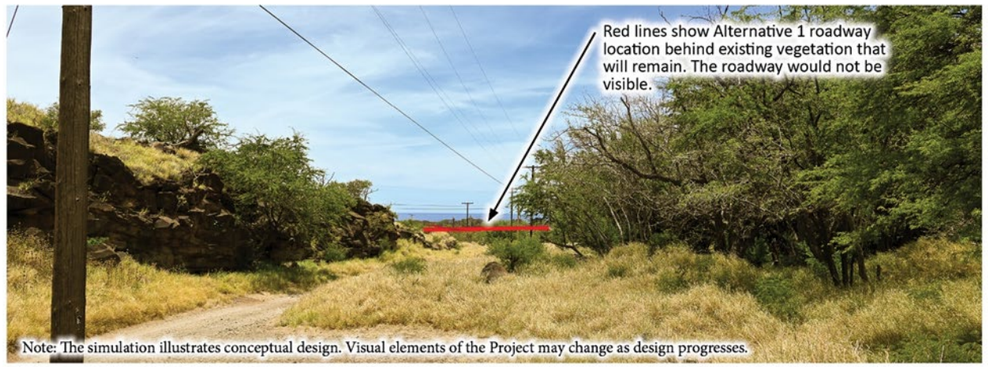
From KVP 8 along the multiuse path within the Olowalu Subdivision, there would be a wide variety of visual change associated with the Build Alternatives (FIGURE 3.8-27). While clearly visible, Build Alternatives 1 and 2 would be mostly off the viewers' right, primarily in the middle-ground. Build Alternative 3 would essentially be directly in the pathway of the KVP with a substantial adverse effect in the viewshed, essentially eliminating the path and the viewpoint itself (Section 3.1, Land Use and Zoning, and Section 3.4, Land Acquisition, Displacement, and Relocation). Build Alternative 4 would largely be to the viewers left or mauka of KVP 8. And while the alternative would be visible, it would be somewhat obscured by grading of the highway. As a result, the paved area would not be visible but vehicles would be.

Key Viewpoint 12 – Pāpalaua Wayside Park

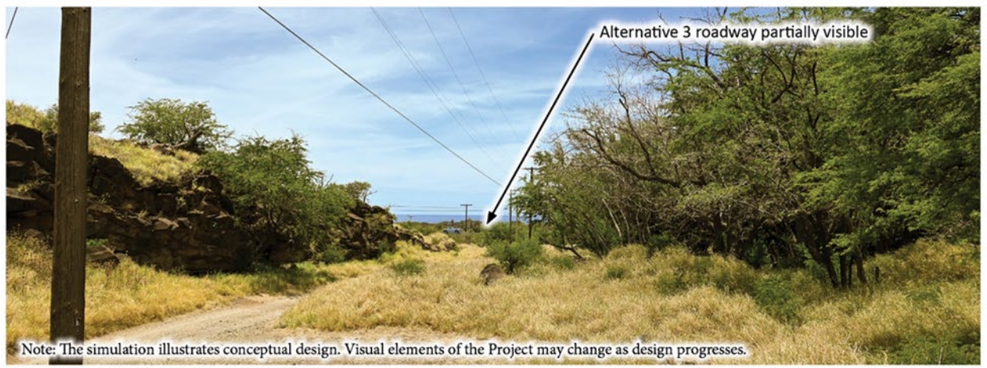
KVP 12 in Ukumehame is important to show the perspective from a public park and beach user's perspective. As shown FIGURE 3.8-28, the Build Alternatives would largely not be visible based on the elevation, distance, and intervening vegetation along the existing highway corridor. FIGURE 3.8-29 provides a section profile of the area from the Ukumehame Beach mauka to Ukumehame Firing Range, and each Build Alternative can be seen relative to its distance and elevation compared to KVP 12.

FIGURE 3.8-24. **Key Viewpoint 4 – Olowalu Petroglyphs: Existing Conditions/No Build Alternative and Build Alternatives 1 through 4 (looking makai)**

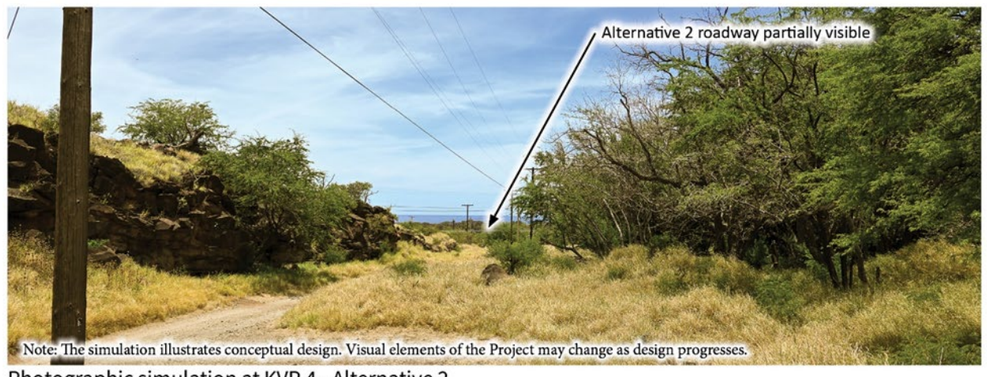
Existing Conditions KVP 4



Photographic simulation at KVP 4 - Alternative 1



Photographic simulation at KVP 4 - Alternative 3



Photographic simulation at KVP 4 - Alternative 2

Photographic simulation at KVP 4 - Alternative 4

FIGURE 3.8-25. **Key Viewpoint 4 – Olowalu Petroglyphs: Sectional Profile of Existing Conditions/No Build Alternative and Build Alternatives 1 through 4**

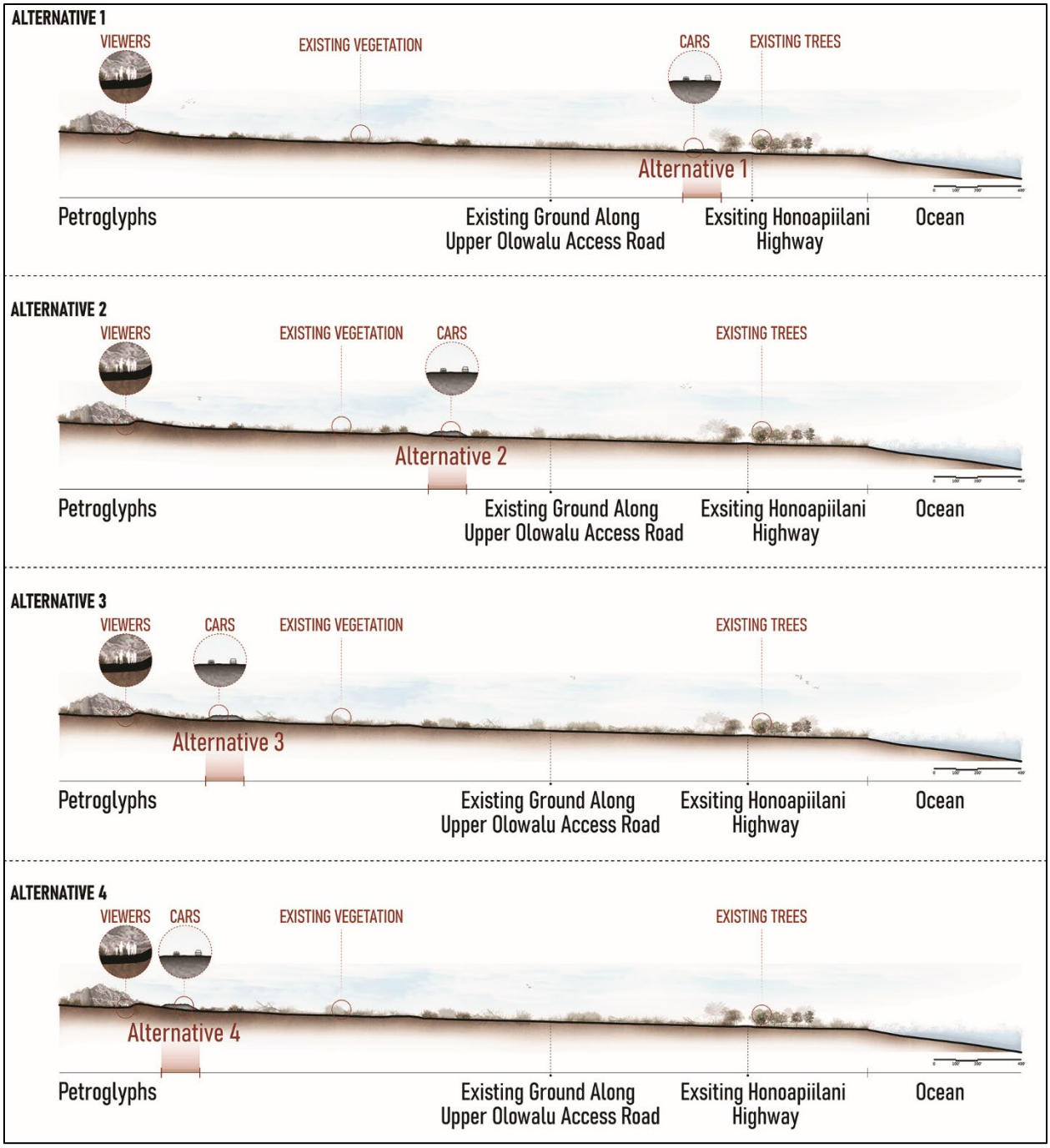


FIGURE 3.8-26. **Key Viewpoint 7 – Luawai Street: Existing Conditions/No Build Alternative and Build Alternatives 1 through 4 (looking south)**

Existing Conditions KVP 7

Photographic simulation at KVP 7 - Alternative 1

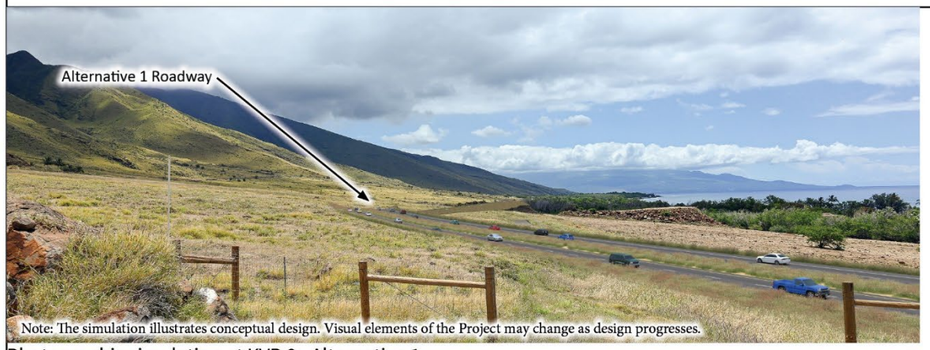
Photographic simulation at KVP 7 - Alternative 3

Photographic simulation at KVP 7 - Alternative 2

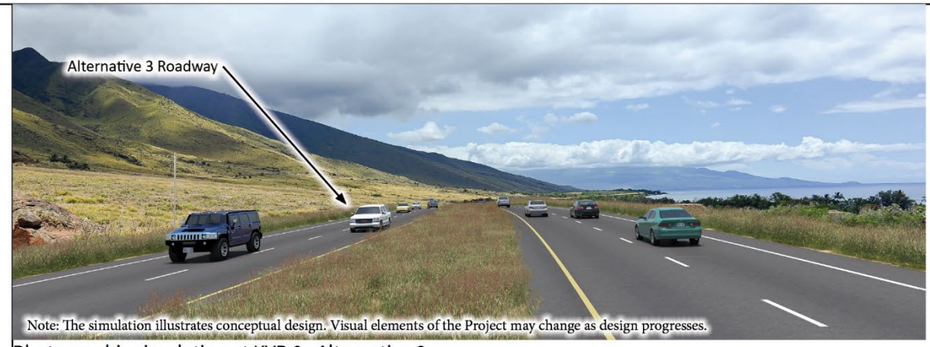
Photographic simulation at KVP 7 - Alternative 4

FIGURE 3.8-27. **Key Viewpoint 8 – Multiuse Trail Near Push Piles 3 and 4: Existing Conditions/No Build Alternative and Build Alternatives 1 through 4 (looking south)**

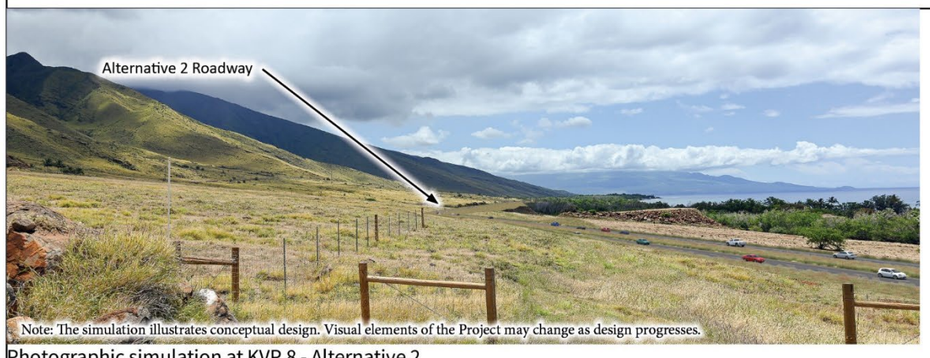
Existing Conditions KVP 8



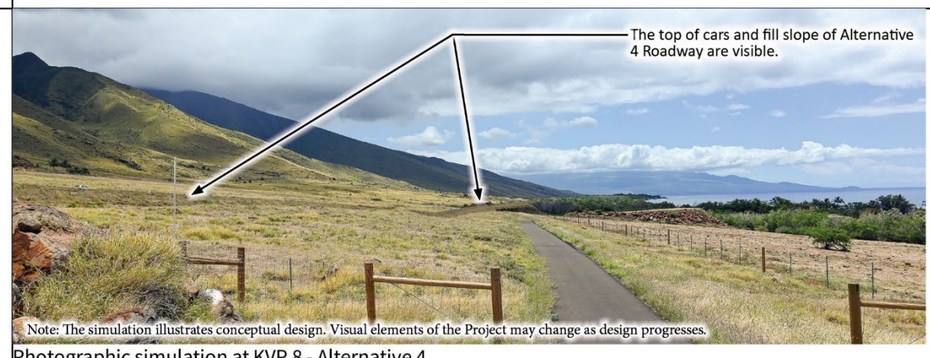
Photographic simulation at KVP 8 - Alternative 1



Photographic simulation at KVP 8 - Alternative 3



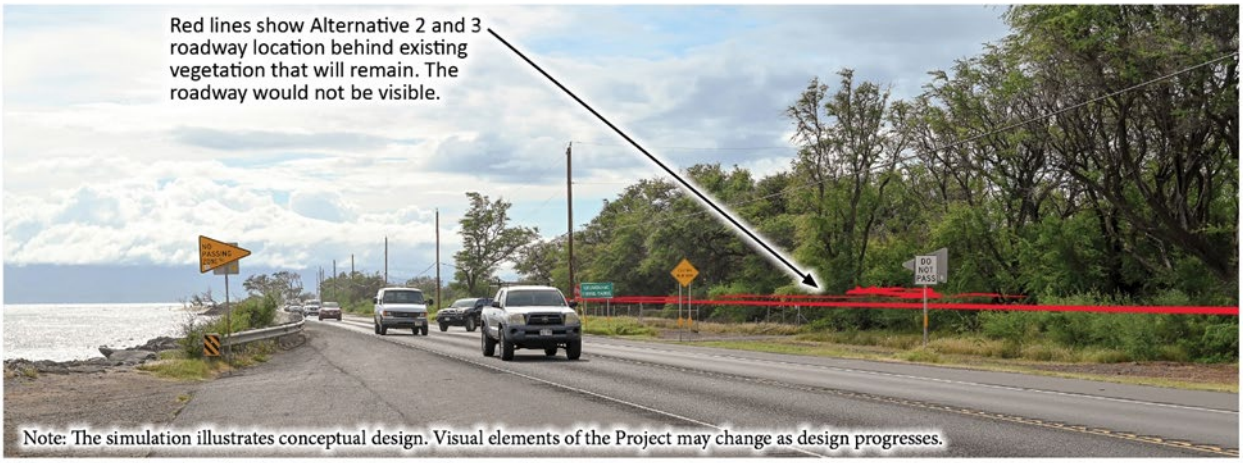
Photographic simulation at KVP 8 - Alternative 2



Photographic simulation at KVP 8 - Alternative 4

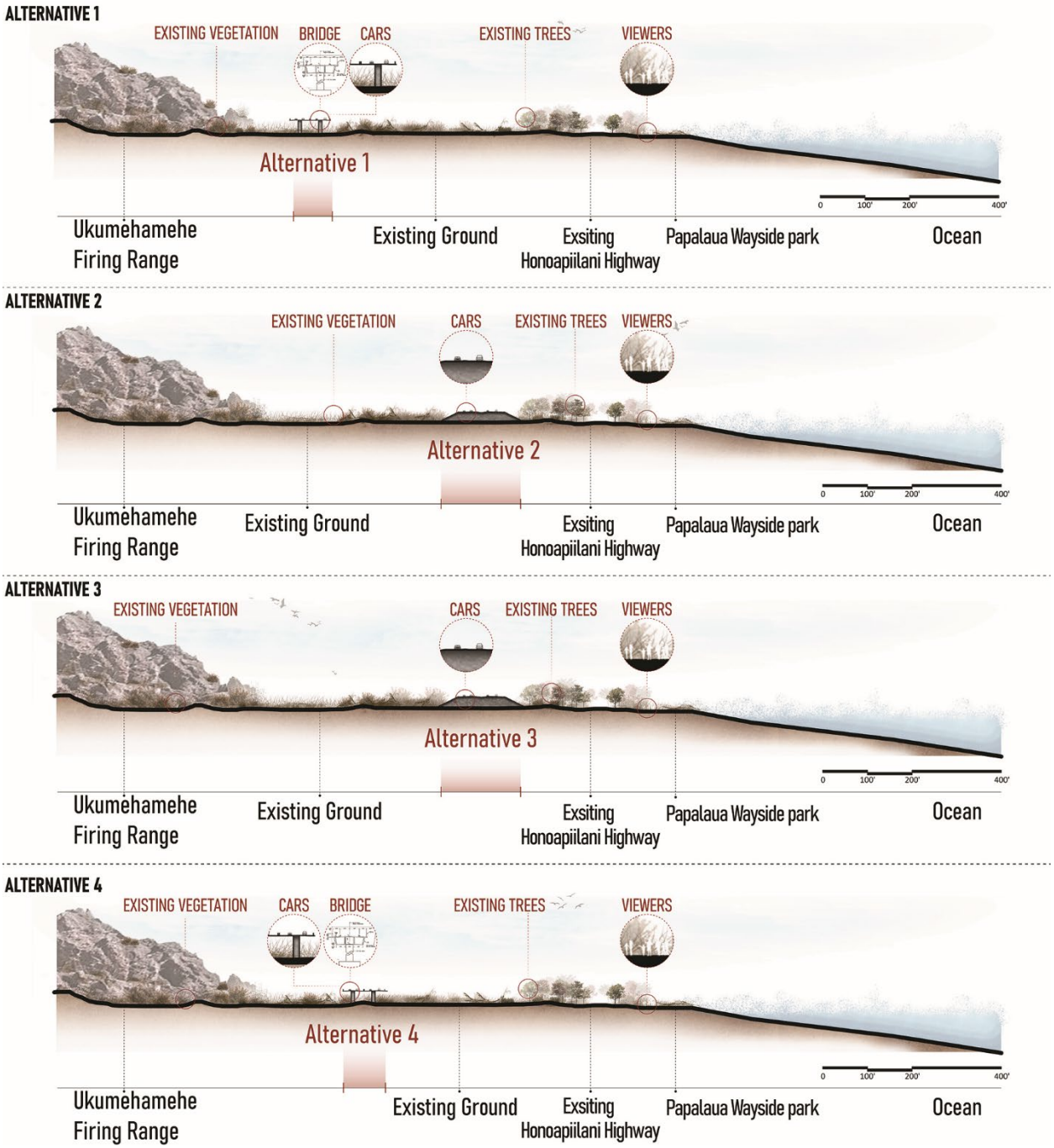
FIGURE 3.8-28. **Key Viewpoint 12 – Pāpalaua Wayside Park: Existing Conditions/No Build Alternative and Build Alternatives 2 and 3 (looking west)**

Existing Conditions KVP 12



Photographic simulation at KVP 12 - Alternatives 2-3

FIGURE 3.8-29. **Key Viewpoint 12 – Pāpalaua Wayside Park: Sectional Profile Relative to Build Alternatives 1 through 4**



Key Viewpoint 13 – ‘Au‘au Channel toward Awalua Beach

From key navigation points offshore, namely from Kaho‘olawe Island, the Build Alternatives would be indistinguishable and would not alter the higher elevation mountain tops essential for navigation (FIGURE 3.8-22). KVP 13 demonstrates the relative effects of the Project from a closer viewpoint by using a publicly available geo-coded photograph from Google Earth. The view is toward the north end of the project area because the Build Alternatives would merge into a common right-of-way before merging with the existing Lāhainā Bypass.

As shown in FIGURE 3.8-30, the common alignment would be visible mauka of the existing roadway, which is seen along hardened shoreline. The most notable feature would be the change in grade necessary to create the “bench” where the road would be built; therefore, the pavement itself would not be visible but the vehicles would be, and the most notable feature would be the new graded roadway. Once stabilized, the alignment would be less visually prominent because fewer cars would be on the existing highway, which would be more directly in the forefront of the view toward land. This would be true at night as well, when the car lights of most traffic would be shielded by the bench cut into the grade for the new alignment.

FIGURE 3.8-30. **Key Viewpoint 13 – 'Au'au Channel: Existing Conditions/No Build Alternative and Build Alternatives 1 through 4 (looking east)**

Existing Conditions KVP 13

Photographic simulation at KVP 13 - Alternatives 1-4

3.8.5 Construction Effects

Construction activities associated with the No Build Alternative would involve recurrent maintenance and would likely include roadway repairs, construction equipment, traffic control devices, and impacts to vehicular, bicycle, and pedestrian congestion.

Construction equipment and activities for all Build Alternatives would be similar. The most notable variation in Ukumehame would be with Build Alternative 1, where the Pali connection would involve grading and slope stabilization that would create a more visible construction area. In Olowalu, the construction effects of Build Alternative 1 would be more visible and intrusive to motorists and local traffic because the new alignment would come close to the village center and would overlap with the existing highway for a small length of roadway north of the Olowalu village center.

Activities and equipment may be noticeable throughout active construction, which is estimated to last approximately four years. Construction equipment is likely to include heavy trucks, earth-moving equipment, cranes, graders, compactors, and other heavy equipment. This equipment is often brightly colored to promote visibility and safety. Other sources of visual changes during construction would include staging areas, material storage, trailers, fencing, vehicular and pedestrian detours, construction signing, flashing safety lights, and work lighting. Visual detractions from construction activities would be removed when the Project is completed.

As presented in Section 3.8.7, Mitigation, the Project would minimize short-term adverse effects during construction by adhering to the FHWA Visual Guidelines.

3.8.6 Indirect Effects

From a visual perspective, the continuing effects of rising sea levels and coastal hazards would continue to be an indirect influence on changes within the project area. These effects would be most noticeable for the No Build Alternative because the highway would be the most likely to experience the adverse effects from chronic erosion, seasonal wave overtopping, flooding, and storm surges that are anticipated to degrade the roadway base and beach slopes. Additional efforts to stabilize the beach and roadway could cause visual and environmental degradation and could include visual impacts.

With the Build Alternatives, the visual degradation noted previously would be seen by fewer motorists or other viewers because the new roadway alignments would be mauka of the most vulnerable areas. In addition, with transfer of the existing highway to the County of Maui and with less demand to function as the key regional arterial, the maintenance of the roadway could incorporate fewer intensive measures and more opportunities to use more environmentally sensitive road maintenance practices.

3.8.7 Mitigation

The mitigation phase of the FHWA Visual Guidelines provides guidance on measures and commitments to avoid, minimize, and mitigate adverse effects. TABLE 3.8-10 summarizes measures to minimize effects, TABLE 3.8-11 summarizes commitments to minimize visual prominence, and TABLE 3.8-12 summarizes project commitments to minimize short-term effects during construction.

TABLE 3.8-10. **Measures to Minimize Potential Visual Effects**

MEASURE	DESCRIPTION
Avoidance	Avoid adverse impacts by not taking a certain action or parts of an action. Avoidance may mean selecting alternatives that do not incur the impact or degree of adverse impact
Minimization	Minimize impacts by limiting the degree or magnitude of the action and its implementation
Rectification	Repair, rehabilitate, or restore the affected environment
Reduction	Reduce or eliminate the impact by preservation and maintenance operations during the life of the action
Compensation	Compensate for the impact by replacing or providing substitute resources or environments

TABLE 3.8-11. **Project Commitments to Minimize Visual Prominence**

PROJECT COMMITMENT	DESCRIPTION
Natural Resources	• Adjust proposed roadway alignments to avoid large trees, native plantings, or visually pleasing features, particularly adjacent to the stream riparian corridors • Plant and revegetate disturbed areas; however, additional plantings, particularly between residential viewers and the proposed roadway, would provide additional screening
Lighting	Shield streetlights to direct light to roadway surfaces, minimize light spill to surrounding areas, and minimize light and glare impacts, particularly where visible from the cultural site
Fencing	Provide or expand opaque fencing and visual screening for adjacent residential and commercial viewers as a part of final design

TABLE 3.8-12. **Project Commitments During Construction**

PROJECT COMMITMENT	DESCRIPTION
Natural Resources	• Preserve existing vegetation and minimize clearing for storage and laydown areas, using existing hard/paved areas for project staging where practical • Restore landscaping disturbed by construction-related activities after completion of work
Lighting	• Limit construction to daylight hours whenever possible • Include directional work and safety lighting and direct lights away from residential areas where nighttime construction is necessary • Reduce temporary construction light and glare impacts by shielding and aiming light sources downward and toward work areas to avoid light spillover
Shielding	Screen views of construction equipment and materials from pedestrians and residential areas, as practical

Overall, while the Project would result in visual changes that would be discernible from specific viewpoints or for specific viewers, the Project would not constitute an adverse effect given the existing and future setting. TABLE 3.8-13 summarizes those instances where adverse effects were noted and identifies potential measures to avoid, minimize, and mitigate effects based on the FHWA Visual Guidelines.

TABLE 3.8-13. **Mitigation Levels for Identified Adverse Effects**

ALTERNATIVE	ADVERSE EFFECT	AVOIDANCE/MINIMIZATION	MITIGATION
OLOWALU			
Build Alternative 1	Loss of tree canopy	Assess final design for ability to refine alignment using identified criteria	Plant and revegetate disturbed areas
	Increased visual awareness for approximately 13 mauka residences	Assess final design for minimization of adverse effects	Plant and revegetate disturbed areas; create visual barriers
Build Alternative 2	Increased visual awareness for mauka residences similar to Build Alternative 1	Assess final design for minimization of adverse effects	Plant and revegetate disturbed areas; create visual barriers
Build Alternative 3	Increased visual awareness for mauka residences with more visual awareness based on proximity	Assess final design for minimization of adverse effects	Plant and revegetate disturbed areas; create visual barriers
Build Alternative 4	Increased visual awareness for mauka residences and from Olowalu Petroglyphs with more visual awareness based on proximity	Assess final design for minimization of adverse effects	Plant and revegetate disturbed areas; create visual barriers
UKUMEHAME			
Build Alternative 4	• High level of visual awareness based on proximity to mauka residences and businesses • Directly disrupts existing subdivision street	Assess final design for minimization of adverse effects	• Plant and revegetate disturbed areas; create visual barriers. • Potentially compensate residents by providing visual screening resources to property owners

3.8.8 Build Alternatives Comparative Assessment

In Olowalu, all the Build Alternatives (except Build Alternative 1) would reflect an overall improved visual condition compared with the No Build Alternative for the residential and commercial areas along the existing highway corridor—primarily by removing the highest traffic flows from the existing highway—as well as for recreational users accessing the public shoreline in Olowalu. The adverse effects are summarized below:

- Build Alternative 1 is the most makai alignment including where it overlaps with the existing highway, which causes an adverse visual effect from the loss of a portion of the monkeypod tree canopy.
- Build Alternative 2 reflects the least amount of adverse change, with an overall modest beneficial effect across the KVPs—although it would be more visible to the mauka residences.
- Build Alternatives 3 and 4 are the most mauka and would increase the adverse visual effects to mauka residents and, in the case of Build Alternative 4, would create adverse visual effects for visitors to the Olowalu Petroglyphs.

In Ukumehame, Build Alternatives 1 and 2/3 would reflect an overall improved visual condition compared with the No Build Alternative—primarily by removing the highest traffic flows from the existing highway—thereby improving the visual environment for beach users. Build Alternative 4 would have this same beneficial effect but results in a noticeable adverse visual effect as it traverses the Ukumehame Subdivision where the alignment would touch or displace portions of Paekiʻi Place, would be substantially closer to mauka residences, and would bisect and potentially displace the active sod farms present in the subdivision north of the Ukumehame Stream.