APPENDIX A17

VISUAL IMPACT ASSESSMENT

APPENDIX A17

VISUAL IMPACT ASSESSMENT

March 2020
By David Evans and Associates, Inc.

INTRODUCTION

The Interstate 70 (I-70) West Vail Pass Auxiliary Lanes project is located in Eagle and Summit Counties, with the eastern terminus just east of the Vail Pass Rest Area and the western terminus in the Town of Vail. The project study limits include eastbound (EB) and westbound (WB) I-70 from mile post (MP) 179.5 to MP 191.5. The project location and approximate study area are shown in **Figure 1**.

As part of the initial National Environmental Policy Act (NEPA) analysis, a Tier 1 Environmental Impact Statement (EIS) for the I-70 Mountain Corridor (C-470 to Glenwood Springs) was completed in 2011. This EIS, the *I-70 Mountain Corridor Programmatic Final Environmental Impact Statement* (PEIS), recommended the addition of auxiliary lanes EB and WB on the west side of Vail Pass from MP 180 to MP 190 as part of the Preferred Alternative's Minimum Program of Improvements. The PEIS also identified the potential for an elevated Advanced Guideway System (AGS) for transit along the I-70 corridor, including the West Vail Pass project corridor. A follow-up AGS Feasibility Study in 2014 analyzed potential alignments and costs for an AGS system and determined there were three feasible alignments for future AGS. While AGS is not part of the West Vail Pass Auxiliary Lanes project, the AGS Feasibility Study was used to ensure the project did not preclude the favored alignment of the three, which would be partially within CDOT right-of-way (ROW).

A Tier 2 NEPA analysis is the next step required to move highway improvements forward. The project is following the Colorado Department of Transportation (CDOT) and Federal Highway Administration (FHWA) NEPA process to confirm the needs for improvements to the West Vail Pass, identify a Proposed Action, investigate the anticipated benefits and impacts of the proposed improvements (through an Environmental Assessment), produce conceptual design plans, and make funding, scheduling, and phasing recommendations.

I-70 FINAL PEIS AND RECORD OF DECISION VISUAL ANALYSIS

The PEIS identified two landscape units, Vail (MP 172-182) and Vail Pass/Black Gore Creek (MP 182-190) that include the current Project. These landscape units identified Vail Pass's existing visual condition, scenic attractiveness, and numerous key viewpoints used to analyze potential impacts during the alternatives analysis.

VIEW DISRUPTION

The Preferred Alternative (including the Minimum and Maximum Programs in this discussion) included transit within the median between the existing EB and WB lanes. While the median through Vail is relatively wide, the transit alternative would contribute to a more urbanized driving experience. The Preferred Alternative included elevated structures that would transition from the north, to the south, and back to the north side of the I-70 highway and would result in multiple disruptions of roadway views along Vail Pass.

The highway components of the Preferred Alternative, included a wider highway footprint through this area with the addition of EB and WB auxiliary lanes. Views along the interstate would change moderately as a result.

Analysis found that the Preferred Alternative, including the EB and WB auxiliary lanes and transit (Rail with Intermountain Connection or Advanced Guideway System), would result in disruption of views and change in driving experience along Vail Pass.

Mitigation measures within the assessment considered efforts to minimize impacts related to both landform and structures and included:

- Review and consideration of all United States Forest Service, Bureau of Land Management and other jurisdictions' visual standards
- Non-obstructed views of items like narrow canyons to valleys, rivers, etc.
- Adopt rock fall mitigation measures
- Minimal use of signage, light poles, guard rails, or other infrastructure elements
- Use of vertical and horizontal alignments to preserve views of items such as rivers, canyons, etc.
- Use minimum amount of road cuts, fills, turnarounds, etc.

Legislation and Guidance

A number of important pieces of federal legislation serve as foundational elements for Visual Impact Assessments (VIA), including the *Highway Beautification* Act (1965) and the *National Environmental Policy Act* (1969). Federal agency guidance is equally important in the development and execution of a VIA. As such, the Federal Highway Administration's (FHWA) *Guidelines for the Visual Impact Assessment of Highway Projects* (2015) served as a primary guiding document in the development of this assessment. Another important foundational document is the *Memorandum of Understanding (MOU) Between the Bureau of Land Management, The Colorado Department of Transportation, The Federal Highway Administration and the USDA, Forest Service Rocky Mountain Region* (2016) [1] (Federal Lands MOU). This coordination document outlines roles and responsibilities for public agencies relative to the design and construction of transportation facilities on public lands. This document also offers specific coordination and guidance regarding aesthetics and visual guidance. The project team is also aware that CDOT is in the process of developing a *CDOT VIA User's Guide for Implementing FHWA's 2015 Visual Impact Assessment (VIA) Guidelines for Highway Projects in the State of Colorado.* The West Vail Pass Auxiliary Lanes VIA was completed prior to the formalization of this guidance; however the project team included information and guidance from draft versions of this guidance wherever possible. Also important, particularly during development of the mitigation measures, were guidance and standards presented in CDOT's *Landscape Architecture Manual* (2014).

Background

Previous visual and aesthetic work on West Vail Pass was completed as part of the I-70 Mountain Corridor Final PEIS/Record of Decision. Specific aesthetic guidance developed as part of the PEIS can be found within the PEIS Appendix A, Context Sensitive Solutions (CSS) (March 2011). During

[1] FS Agreement No. 16-MU-11020000-029 | BLM Agreement No. BLM-MOU-CO-2016-005 | CDOT Agreement No. SRM351001288 | CDOT Routing No. 16-HTB-XE-00077

this multi-disciplinary corridor planning process, Core Values, decision-making processes, stakeholder involvement, maps, plans, and commitments were developed to implement CSS throughout the corridor. Core Values for I-70 Mountain Corridor PEIS CSS component were developed in collaboration with key stakeholders and include:

- Sustainability as an overarching value that creates solutions for today that do not diminish resources for future generations.
- Methods for decision making must be fair, open, equitable, and inclusive.
- Enhancing safety for all is paramount in all decisions.
- The broad historic context is foundational to the corridor's character and must be a part of every conversation.
- Mobility and accessibility must address local, regional, and national travel.
- Aesthetics will be inspired by the surroundings, protect scenic integrity, and incorporate the context of place.

Establishing CSS Core Values was the initial step in assuring that the context of the corridors special environment was incorporated into future planning and engineering efforts. Within the report Aesthetics Principles were identified and serve as a foundation for this assessment. Principles include:

- Connect to the setting; harmonize with the surroundings; and be a light touch on the land,
- Subservient to the landscape.
- Reflect the I-70 highway as a major regional and national transportation Corridor.
- Celebrate crossing the Rocky Mountains with a high-country travel experience.
- Respect urban, rural, and natural settings.
- Draw upon and regenerate the context of place.
- Aesthetic design treatments shall:
  - Support safety and mobility.
  - Support communities and regional destinations by providing direct and subliminal messaging for gateways, connections, access, and identification.
  - Maintain a sense of the greater whole.
  - Respect the current time and place.
  - Integrate with functional elements.
  - Borrow materials from the landscape.
  - Showcase key views while buffering inconsistent views.
  - Include maintenance considerations and responsibilities.

Additional aesthetic guidance can also be found at CDOT's *I-70 Mountain Corridor Context Sensitive Solutions Aesthetic Guidance* website. Specific aesthetic guidance related to West Vail Pass is found in the *Crest of the Rockies Design Segment*. This critical document outlines guidance related to a wide-range of aesthetic and visual elements and interventions. This document is a critical resource that should be consulted during future design and construction activities related to West Vail Pass transportation improvements.

Design guidance is provided related to the following:

- Structures
- Interchanges
- Barriers
- Color selection
- Earthwork
- Hydrologic features
- Planting & revegetation
- Wildlife corridors
- Community interactions
- Noise
- Recreational & cultural resource access
- Lighting
- Signage
- Utilities
- Construction management

As part of the *Crest of the Rockies Design Segment*, the Top of Vail Pass was specifically identified as an Area of Special Attention due to its unique visual and aesthetic environment. The Crest of the Rockies Design Segment provides further aesthetic guidance related to Vail Pass and should be consulted during future design and construction phases for West Vail Pass.

> The I-70 Mountain Corridor CSS report categorized the Top of Vail Pass as part of its Crest of the Rockies design segment. The report describes this segment as:
>
> ***"Areas of Special Attention are locations or stretches along the Interstate 70 (I-70) Mountain Corridor that have been identified with multiple or unique issues. These areas were identified by stakeholders during the Aesthetic Working Group."***
>
> I-70 Mountain Corridor CSS, Top of Vail Pass Special Attention Report

Extensive outreach was conducted for the *Top of Vail Pass - Area of Special Attention* effort and included input from citizens, business owners, property owners, organizations, and regulatory agencies. The group identified goals and objectives as well as future processes. Goals and objectives identified by the stakeholders included:

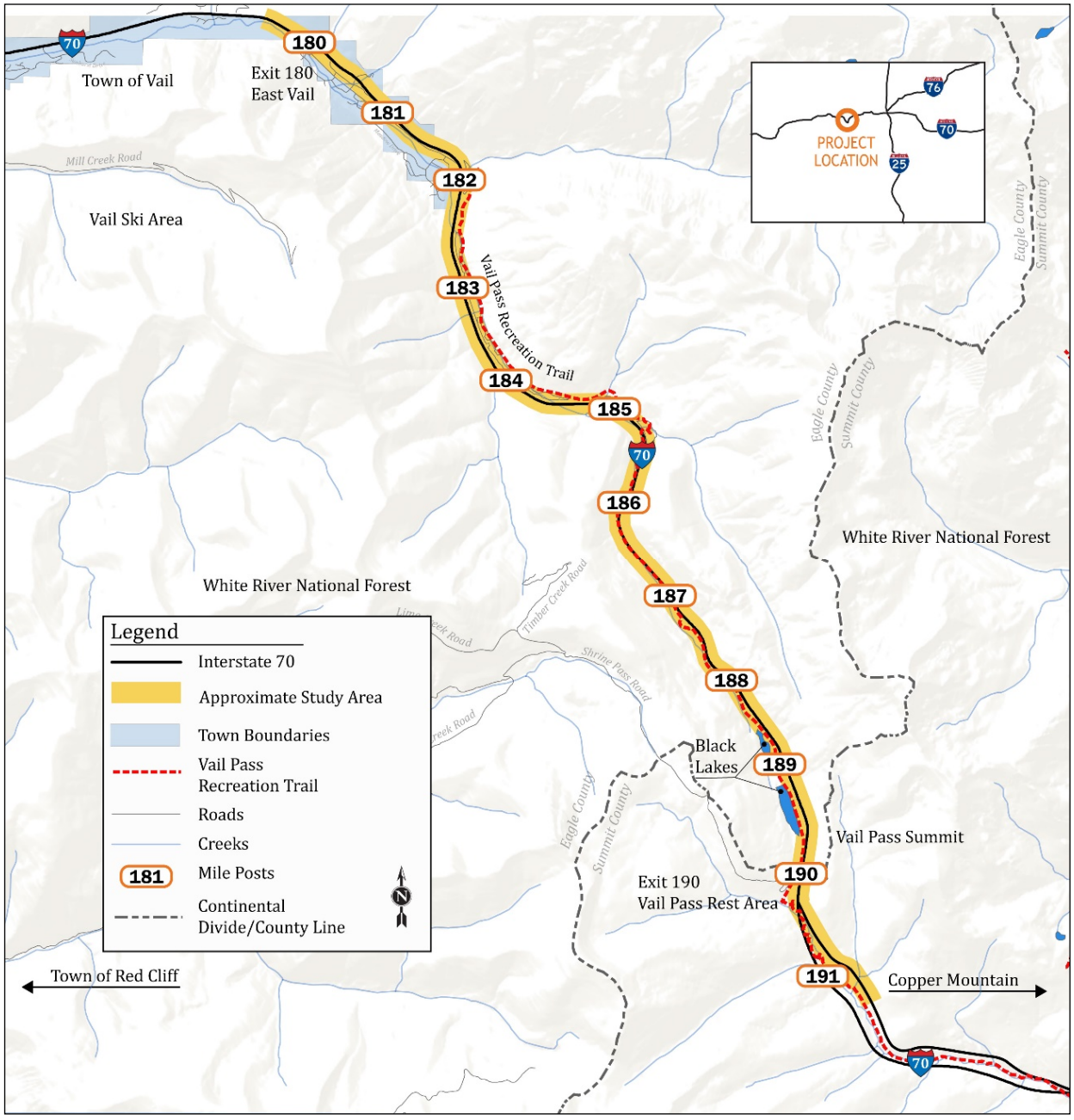
- Defining points of cultural history, recreation, natural history, or landmarks for travelers
- Ensure that relocation of the CDOT's maintenance facility does not inhibit access to recreation
- Use land cover and landform to buffer the maintenance facility
- Focus on pedestrian scale lighting at recreation access portals
- Improve safety by minimizing conflict between users
- Preserve areas of high visual or recreational value by restricting the stockpiling of materials at these locations
- Provide wildlife movement corridors
- Preserve and restore stands of vegetation, especially along riparian corridors
- Utilize strategies to restore disturbed areas to a naturalized appearance
- Improve consistency in design
- Improve the water quality of adjacent waterways including aesthetic restoration
- Preserve major site resources and features

In addition to these goals and objectives a number of design criteria were developed to guide future improvements. Many of these strategies improve upon the project's original context sensitive design features, delineating best practices for roadway alignment, structure design, sound and visual buffering, and cut/fill activities. It should also be noted that I70 from Mile Post 180 to 195.2 was recently identified as a National Register of Historic Places-eligible historic district and includes features considered "contributing" and "non-contributing" that will be affected by the project. These recommendations and conditions should be considered in future project phases. The *Top of Vail Pass - Area of Special Attention* report, in partnership with the interstate's original context sensitive solutions design approach, set the foundation for this VIA and will assist in identifying implementable solutions that meet these collaborative goals.

Study Area

The area reviewed for this visual memo includes the Study Area (**Figure 1**), which extends from the Town of Vail (MP 179.5) east to the top of Vail Pass (MP 191.5) in Eagle and Summit Counties, Colorado. The study area was established early in the planning process and extends approximately 200 feet on both sides of I-70.) This overarching study area was then augmented by this visual assessment's Area of Visual Effect (AVE). The AVE encompasses land areas visible from the interstate. The establishment and definition of the AVE is described in further detail starting on page 10 and is shown on page 11 of this document.

Figure 1. West Vail Pass Auxiliary Lanes Study Area



Source: DEA Project Team

Given the capabilities of human sight, the establishment of the Area of Visual Effect (AVE) is larger than the overall project's environmental study area. Methodology used and the identification and delineation of the West Vail Pass Auxiliary Lanes project's AVE is described in the section titled "Define the Project's AVE," and may be found on page 11 of this document.

Purpose and Need

The purpose of the project is to improve safety and operations on EB and WB I-70 on West Vail Pass. This project is needed to address safety concerns and operational issues due to geometric conditions (steep grades and tight curves) and slow-moving vehicle and passenger vehicle interactions that result in inconsistent and slow travel times along the corridor. The I-70 Mountain Corridor PEIS identified safety and mobility issues on West Vail Pass related to speed differentials due to slow-moving vehicles. *(Mobility is defined as the ability to travel along the I-70 Mountain Corridor safely and efficiently in a reasonable amount of time.)*

- Safety Concerns: A high number of crashes occur along the corridor related to speed, tight curves, narrow roadway area, and inclement weather/poor road conditions. Speed differentials between passenger vehicles and slow-moving vehicles cause erratic lane changes and braking maneuvers resulting in crashes and spin outs. Emergency response is hampered by vehicular speeds and lack of roadway width to provide room for emergency vehicles to pass.
- Operational Issues: The steep grades and resulting speed differentials causes slow and unreliable travel times through the corridor. Tight curves also cause drivers to slow down. The corridor is frequently closed by vehicle incidents, due to lack of width to maintain a single lane of traffic adjacent to emergency responders, resulting in substantial traffic backups and delays. During winter months, the travel lanes and shoulders are severely impacted by snow accumulation, impacting the overall capacity of the corridor. *(Operations is intended to describe the flow of traffic at desirable speeds given the geometric and prevailing weather conditions.)*

No Action Alternative

The No Action Alternative is included as a baseline for comparison to the action alternative. Under the No Action Alternative, only programmed projects that are planned and funded by CDOT or other entities would be completed. Currently, there are no large-scale transportation projects to add safety improvements, operational improvements, vehicular capacity, and multimodal facilities along I-70 within the project area. The No Action Alternative would leave West Vail Pass as it currently is configured and would not provide substantial improvements beyond typical current maintenance (e.g. resurfacing and plowing) activities. The roadway would remain the same, with 2 EB and 2 WB lanes (each 12 feet in width), an inside shoulder typically 4 feet in width, and an outside shoulder typically 10 feet in width.

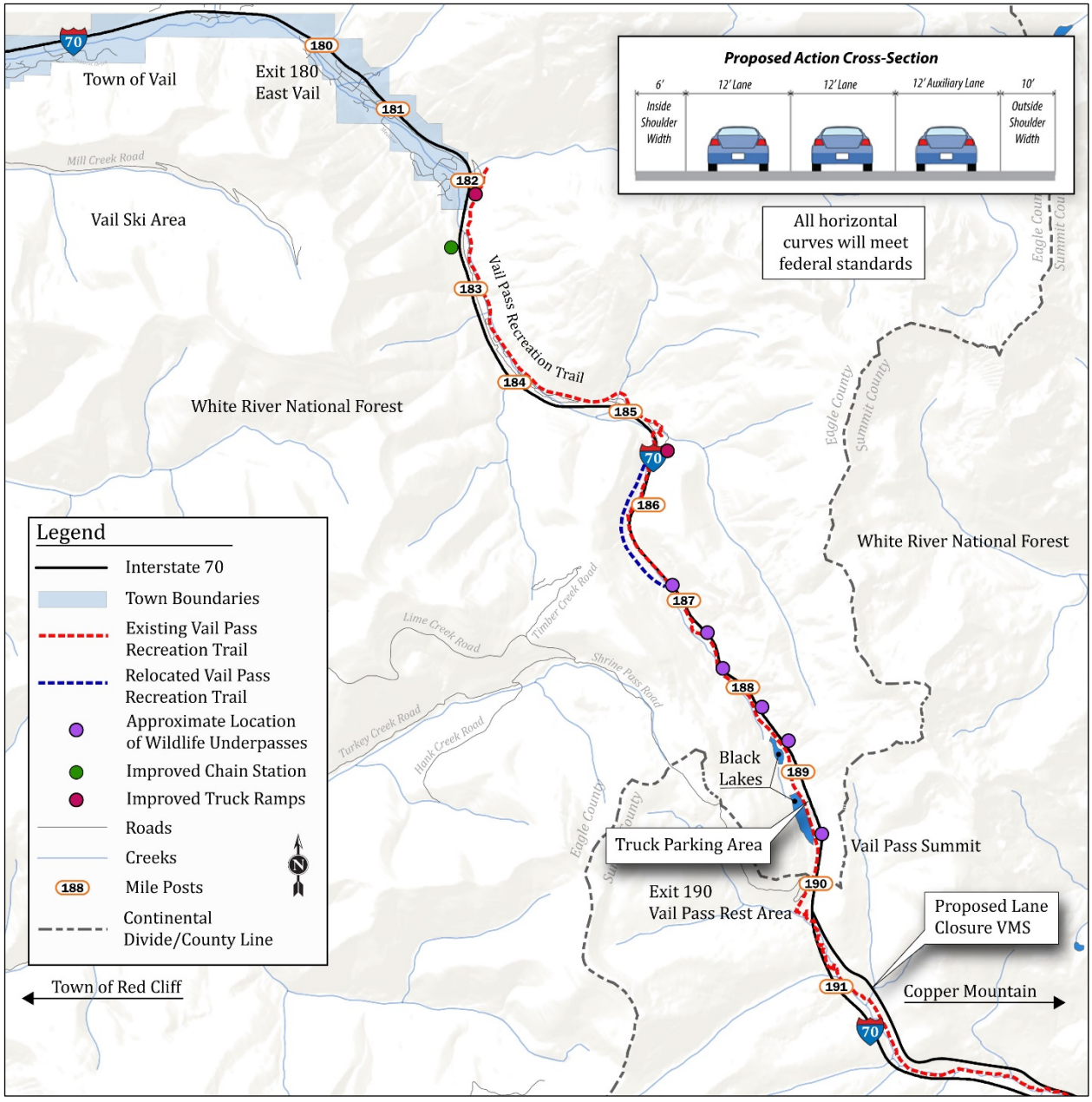
Proposed Action Alternative

The Proposed Action (**Figure 2**) will add a 12-foot auxiliary lane, both EB and WB, for 10 miles from approximately the East Vail exit(MP 180) to the Vail Pass Rest Area exit (MP 190). Existing lanes will be maintained at 12 feet and the shoulders would be widened to a minimum of 6 feet for inside shoulders and maintained at 10 feet for outside shoulders. All existing curves will be modified as needed to meet current federal design standards.

Intelligent Transportation System (ITS) equipment will also be installed along the I-70 project corridor, consistent with recent study recommendations. Additional variable message signs (VMSs) will be installed at key locations to warn drivers of upcoming curves, grades, and incidents.

Additional variable speed limit signs will be installed to manage driver speeds to conditions. Automated lane closure signage will be installed approaching the East Vail exit on EB I-70 and approaching the WB I-70 Vail Pass Rest Area exit to quickly and efficiently close lanes when needed.

Figure 2. I-70 West Vail Pass Auxiliary Lanes Proposed Action Alternative



Source: DEA Project Team

Additional elements of the Proposed Action include:

- The Vail Pass Recreation Trail will be directly impacted by the addition of the I-70 auxiliary lane and therefore relocated for approximately two miles from MP 185 to MP 187.
- Existing emergency truck ramps, located at approximately MP 182.2 and 185.5, will be upgraded to current design standards.
- Six wildlife underpasses and wildlife fencing will be constructed throughout the corridor.
- Additional capacity will be added to the existing commercial truck parking area at the top of Vail Pass.
- Widened shoulders (minimum of eight feet of additional width beyond the 10' shoulder) at multiple locations to accommodate emergency pull-offs, emergency truck parking, and staging for tow trucks.
- Improved median emergency turnaround locations to accommodate emergency and maintenance vehicle turnaround maneuvers.
- Improved chain station located at approximately MP 182.5 with additional parking, signage, lighting, and separation from the I-70 mainline.
- Avalanche protection located at approximately MP 186.

VIA: Establishment and Inventory Phases

Level of VIA Documentation

To identify the type of VIA necessary for the EA, the project team took into consideration the context sensitive design of the original highway, previous work found within the Crest of the Rockies the designation of the Top of Vail Pass as an Area of Special Attention within the I-70 Mountain Corridor CSS process, and the project's score of 25 on FHWA's VIA Scoping Questionnaire (Appendix A). The combination of these important elements lead the project team to determine that the project necessitated an expanded VIA.

The following information is represented within a combined Establishment and Inventory format in order to concisely communicate a complete picture of the project's visual environment. Impacts and mitigation measures follow this combined Establishment and Inventory section.

Building on Past Visual Investigations

Development of the West Vail Pass Establishment and Inventory Phases commenced with a detailed investigation of preceding aesthetic processes and reports. Of particular importance was examination of the Crest of the Rockies Visual Context Maps. These earlier investigations identified view sheds, points of interest, cut and fill slopes, gateways, land forms, and land cover elements located on West Vail Pass. Context maps were used as a guide as well as reference point to confirm visual findings identified within this report. Of equal importance were observations and information gleaned from the Crest of the Rockies design segment from the I-70 Mountain Corridor Context Sensitive Solutions report. This report was also used to assist in confirming contextual observations of the pass's visual environment (land forms, land cover, and ecosystems) and to confirm and identify user groups; including neighbors of I-70 (people living/recreating/present in the landscape unit) and the wide-range of travelers using I-70 on West Vail Pass. Historical documents that documented the original CSS-based design and construction of the original roadway were extremely useful in

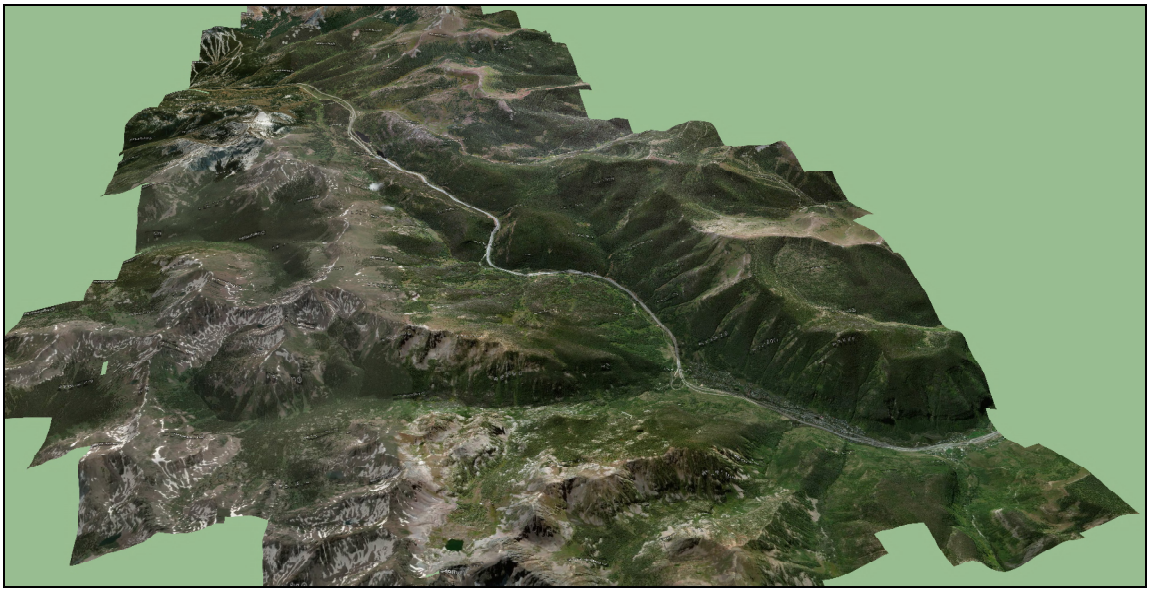
uncovering purposeful visual interventions utilized when the roadway was originally constructed. The Top of the Pass – Area of Special Attention Report was useful in confirming the current visual investigation as well. However this document was most useful in ascertaining the visual values of West Vail Pass neighbors, jurisdictions, and visitors.

Define the Area of Visual Effects (AVE)

Methodology

The AVE was initially defined through a desktop investigation. As part of this investigation, a digital terrain model (DTM) was developed as the basis for identifying the dynamic views of travelers moving both east and west along I-70 on West Vail Pass (**Figure 3**).

Figure 3. Digital Terrain Model

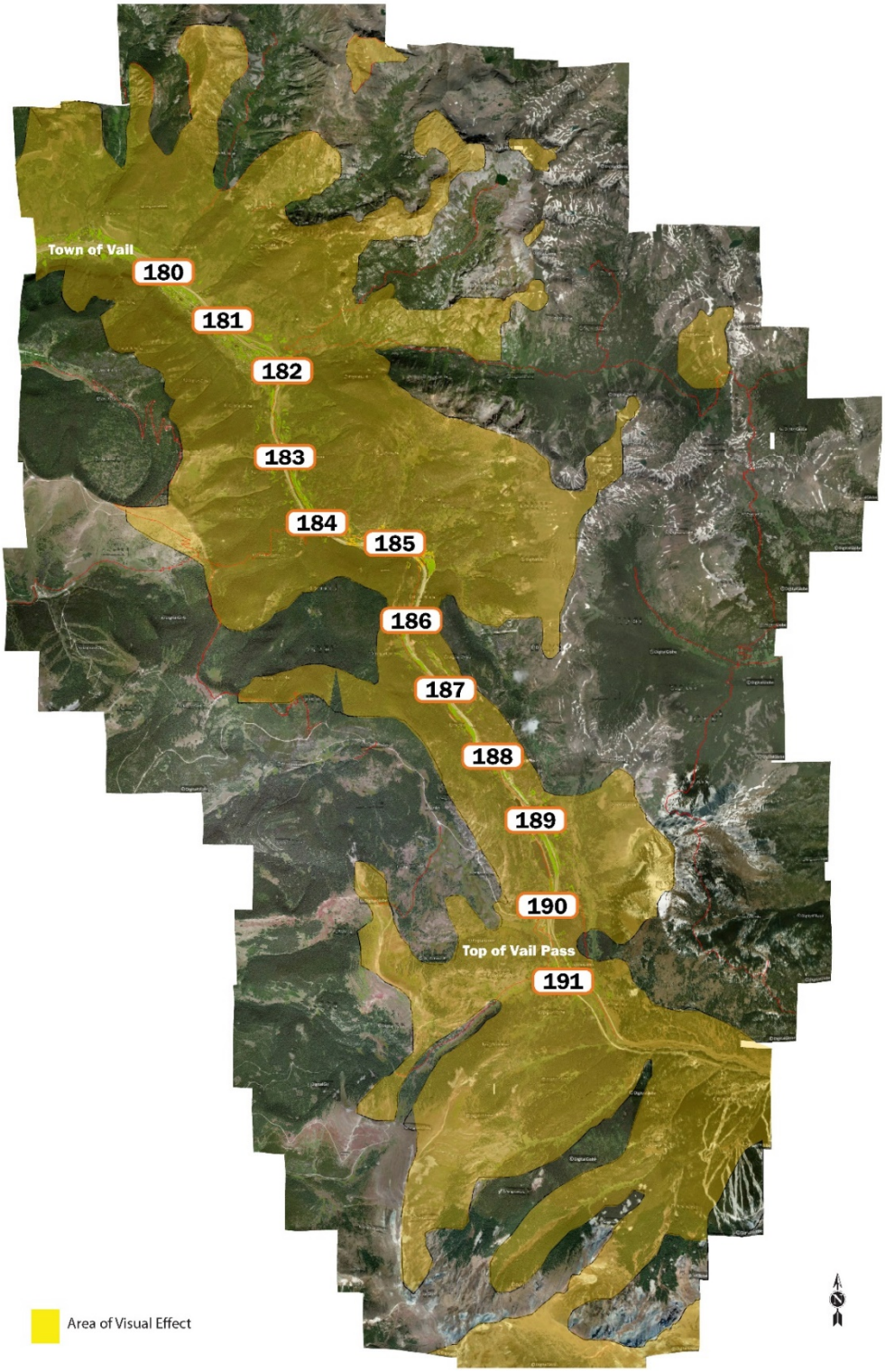


The DTM surface and vertical profile were imported from GIS into SketchUp allowing the development of accurate landform elevations. Once in SketchUp, 35 static viewpoints were identified along the highway. Each point's static view profile (limit of view pursuant to the terrain) was then applied to the DTM. After application of the static view profiles, the 35 profiles were combined and their overall boundary was delineated to produce the virtual dynamic AVE (**Figure 4**). This virtual assessment allowed for early and accurate identification of the AVE during the desktop investigation. The DTM was then used to provide a digital "on-the-ground" perspective that identified landforms both in the fore, middle, and background for diverse viewers and viewsheds. Additional information from a range of digital sources was then inserted to fully leverage the DTM's full capabilities, providing as much preliminary analysis as possible before the field visit. Additional information included:

- Vegetation and tree cover adjacent to I-70
- Trails and recreational facilities found in the study area
- Mile posts
- Surface water features
- Transportation structures (walls, bridges, and culverts)

This preliminary AVE and its associated information was then field-verified to establish the final AVE for the study. After completion of both the desktop investigation as well as the field verification, a refined AVE was identified.

Figure 4. Area of Visual Effect



EXISTING CONDITIONS

DOCUMENT THE AVE

WEST VAIL PASS WITHIN THE LARGER I-70 CORRIDOR

I-70 on West Vail Pass traverses a diverse and dynamic landscape that encompasses a mix of wilderness, national forest, state land, recreational facilities, private land, and urban landscapes. This landscape includes expansive views of the Rocky Mountains (including the Ten Mile and Gore Ranges), multiple ski resorts, deep valleys, mountain rivers, lakes, roadway structures (bridges, walls, and culverts), water quality best management practices (BMPs), cut and fill slopes, avalanche paths, open meadow, sage brush, dense coniferous forests and aspen groves. The original design of the roadway recognized the special visual environment of West Vail Pass and used context sensitive design approaches to highlight the surrounding environment. Vail Pass' natural environment is an exceptional representation of the Southern Rocky Mountain ecological zone and offers travelers the ability to experience an impressive and grand landscape that is representative of the diverse landscapes and ecological zones of Central Colorado. It should be noted that I-70, including West Vail Pass is the only Federal interstate highway traversing Colorado longitudinally. As such the facility is a critical component to the economic health of the State of Colorado.

The character of West Vail Pass is seasonally dynamic due to the meteorological climate of its high mountain environment. During the short summer growing season, flora and fauna move, grow, and reproduce, creating a visual context that is active, alive, and dynamic. Diverse scales of flora from small lichen to massive communal aspen groves are visible. As fall temperatures decrease, the environment begins to prepare for the winter. Aspen trees turn yellow and orange, fauna begin their migration, and summer green is replaced by warmer fall tones. The visual environment of fall is one of transition and change and is visually intense. As winter begins, the visual character of West Vail Pass is beautifully stark. Most wildlife have moved on, visible vegetation is composed of dark trees draped in snow and bright white aspen trunks. West Vail Pass in the spring is a season of change and transition. Snow lasts on upper portions of the pass into June or later. Lower reaches of the pass begin to thaw earlier, filling the streams and tributaries of Black Gore Creek. In spring the visual environment of the pass moves from snow white to mud-season grey to summer green.

West Vail Pass is also temporally dynamic. I-70 from Denver to Vail has become more urbanized as Colorado's population increases, and has resulted in increased development along the corridor. West Vail Pass represents a unique section of this urbanizing corridor in that it is relatively devoid of permanent development. Between Copper Mountain and Vail the only visible human intrusions are I-70, recreational trails, campgrounds, frontage roads, a rest area, and CDOT's maintenance facility. The lack of human habitation has created a nighttime visual environment that is relatively free of artificial lighting. This visual context allows visitors traveling and recreating along the corridor to experience the solitude of a night sky. This contextual visual environment combined with the findings outlined in past investigations, reinforces the special natural context of the pass and its unique visual features. These overarching findings are foundational elements of this VIA and serve as an important starting point for the assessment.

The landscape of West Vail Pass is composed of varied geology, built forms, flora, and fauna. Much of this variation can be attributed to the change in elevation. From the Town of Vail to the top of Vail Pass there is over 2,516 feet of elevation change with the Top of Vail pass being at 10,666' and the

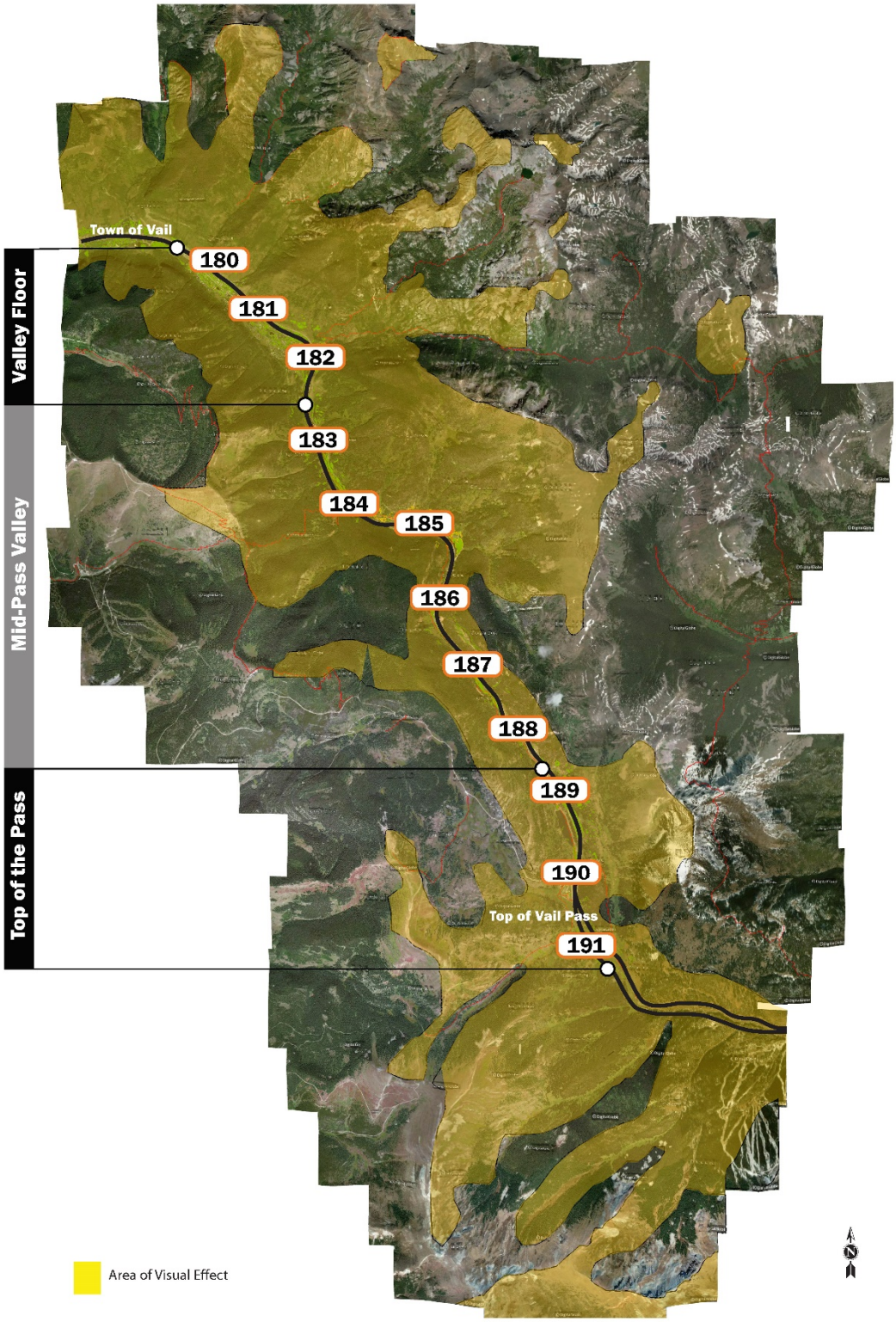
Town of Vail at 8,150'. This variation imparts a varied geologic, meteorological, human, and ecological visual contexts.

These contexts are important determinates of West Vail Pass' visual environment and informed the identification of three different visual landscape units (**Figure 5**):

- The Valley Floor Landscape Unit
- The Mid-Pass Valley Landscape Unit
- The Top of the Pass Landscape Unit

Each of these landscape units are organized primarily around their specific elevation range, land forms, land cover, and natural features that typically predominate within each landscape unit. Each landscape unit also incorporates unique and different patterns of human development/use and substantial recreational opportunities.

Figure 5. Landscape Units



Landscape Unit: The Valley Floor

Valley Floor Landscape Unit

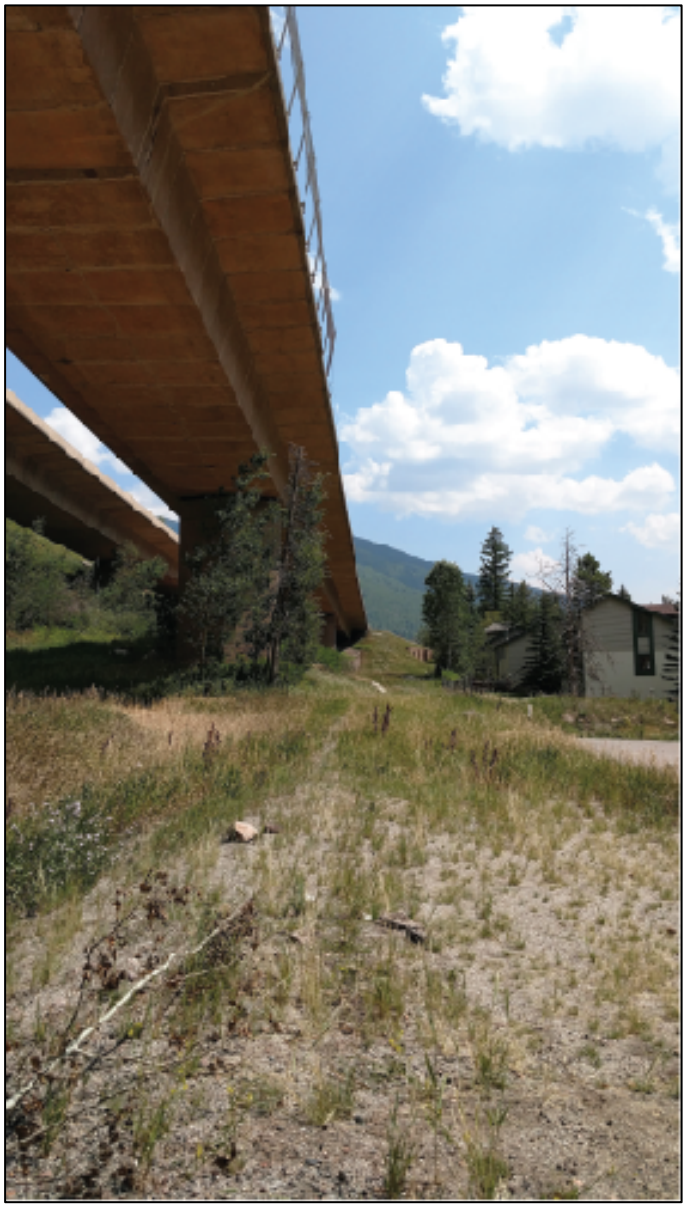
General Context

This landscape unit stretches from MP 180 on the west to one-half mile east of MP 182 on the east, and encompasses the most visible human presence. The Town of Vail sits at 8,000 feet on the west end of the landscape unit. Due to its location at the east end of the Vail Valley, the Valley Floor Landscape Unit gradually gains elevation when moving from west to east. This transitional zone results in sagebrush and grass lands found west of Vail, shifting into the forested montane. The Valley Floor Landscape Unit is found at the extreme east end of the Vail Valley and encompasses a multitude of jurisdictional entities including the Town of Vail, Eagle County, and the U.S. Forest Service.

Transportation Context

I-70 continually rises from the western limit of the Valley Floor Landscape Unit to its eastern limits at the foot of West Vail Pass. At MP 180 I-70 is near-grade with the surrounding topography. At MP

182, I-70 sits almost 50-feet above the Vail Valley either on bridge structures or on bench cuts. As I-70 begins its ascent, east and WB lanes vertically separate in response to elevation changes. Separation, combined with uneven terrain, required the use of cut and fill slopes, scalloped retaining walls, and long bridge structures. The design and construction of these elements were critical in creating a contextually sensitive roadway. Structural elements predominate the foreground view of travelers in the Valley Floor Landscape Unit, illustrating the importance of constructing structures that respond to both natural and human contexts.



Just west of MP 180 is the East Vail exit, which is the last exit before the top of the Pass for EB travelers. This exit provides access to adjoining frontage roads that access the Town of Vail and the East Vail Neighborhood. The road runs along the south side of I-70 for the length of the landscape unit. At its western end, the road is visible to I-70 travelers, when moving from west to east the road falls further from the grade of the interstate.

Land Use Context

The Valley Floor Landscape Unit has the most diverse land use context of the three landscape units. A number of recreational and residential uses can be found adjacent to the roadway. The Gore Creek Campground is located just west of MP 182. This important recreation activity center not only accommodates campers but is also a trailhead for the Vail Pass Recreation Trail and a number of other Gore Range single-track trails. Users of the Vail Pass Recreation Trail have substantial fore- and middle-ground views of I-70 as they ascend/descend the former US 6 alignment.

Residential Neighbors

The Valley Floor Landscape Unit has numerous types of resident viewers including, year-round homeowners, seasonal residents, second home owners, short duration vacationers, and long-term vacationers. Seasonal visitors (depending on the season of occupancy) may have different viewing perspectives based on the time of year they spend in the valley.

Recreational Neighbors

Winter users of recreation facilities within the study area include:

- Cross country skiers who use the Vail Golf Course
- Backcountry users leaving Vail Ski Resort
- Ice climbers
- Other backcountry users accessing Eagles Nest Wilderness via the Gore Creek Campground trailhead(s)

Summer users of recreation facilities within the study area include:

- Golfers
- Hikers using Pitkin Creek, Bighorn Creek, Deluge Lake, and Gore Creek Trails
- Cyclists, runners, and walkers accessing the Vail Pass Recreation Trail both in East Vail (along local roads and paths) and at the landscape unit's east end where the facility begins at the Gore Creek Campground Trailhead
- Campers staying at the Gore Creek Campground

All recreational users in the landscape unit have a different visual relationship to I-70 due to the facility's prominence in the Vail Valley. Summer users of the Vail Pass Recreation Trail have the strongest visual relationship with I-70 and are more visually affected than other recreationists due to expanded summer recreational opportunities.

Travelers

Due to the importance of I-70 regionally and locally, a wide-range of travelers utilize the study area. Travelers include:

- *Commuter Travelers.* Commuters using I-70 through the study area may travel daily between Vail and Summit County, or may travel weekly between the Front Range and Eagle County.
- *Touring Travelers.* Touring travelers utilize the pass for trips that tend to be more adventuresome, cover long distances, and take more time than commuting trips. Travelers use the pass to access Vail from the Front Range, or while moving east to destinations like Denver International Airport. Touring travelers may also use I-70 to access recreational amenities and services found at the top of the pass. These travelers are an important component of the local economy and are attracted by the pass's visual environment.
- *Shipping Travelers.* Limited east-west interstate connections are available through the Rocky Mountains. Due to this, truck traffic is ubiquitous on West Vail Pass and in the landscape unit. A chain-up area is located just west of the western limits of the study area for truckers.
- *Pedestrian Travelers.* Of the three landscape units the Valley Floor has the highest number of pedestrians due to the wide range of land uses. Pedestrians can be found walking local streets and pedestrian paths. At this location the Vail Pass Recreation Trail is in close proximity/directly adjacent to I-70, and has a high number of pedestrians due to its proximity to East Vail residences and the Gore Creek Campground. The Vail Pass Recreation Trail in this location is set above the current I-70 alignment and buffered by additional vegetation, providing expansive background views of the Vail Valley to the west.

- *Bicycling Travelers.* In summer months, cyclists from the Vail Valley traverse the Landscape Unit's local streets to reach the Vail Pass Recreation Trail. Cyclists pass under the I-70 bridge at MP 182. Cyclists moving from east to west, (from Copper Mountain to Vail) also get their first glimpse of the Vail Valley as they descend the pass and into the Gore Creek Campground area. While the interstate is ever present to cyclists, they are buffered by grade changes, development, vegetation, and other land forms, providing for a pleasant recreational experience.

Buildings

A large number of multi-family and single family structures are located on the south side of I-70 within the unit. Because I-70 rises from west to east, many of the residential structures are below the grade of I-70 and have intermittent views of the highway. Ancillary roadway structures and associated landforms are visible to East Vail residents, including substantial fill slopes, bridge structures, and walls. A small number of residential structures are located north of I-70. These residents' visual environment is dominated by the interstate due to their close proximity to I-70.

One, two, and three story residential structures dominate the built visual environment in East Vail. Development is suburban in density and structures are more noticeable from the interstate at the unit's western end due to its relatively consistent and flat topography. As the Landscape Unit progresses to the east and as the highway rises, adjacent structures drop below grade of I-70. A limited number of structures are located north of the highway where Pitkin Creek and Big Horn Creek intersect with the interstate. The homes are well screened by vegetation but are in close proximity to the interstate and are visible within the foreground.

INFRASTRUCTURE

Adjacent Infrastructure:

North and south frontage roads, as well as local roads within the East Vail neighborhood, are visible from the roadway. As the roadway moves east, local infrastructure moves into the middle ground and background due to topographic difference. The East Vail exit (Exit 180) is the only location outside of the Vail Pass Rest Area exit (Exit 190) that is connected to local vehicular transportation infrastructure. Local street and community lights contribute to the nighttime visual environment, welcoming nighttime travelers traveling west into the Vail Valley.

Highway Geometrics

I-70 is relatively straight due to the linear shape of the valley. The vertical profile of the roadway begins to gradually rise just east of the East Vail Exit (Exit 180). This gentle rise ends just west of the curvilinear bridge and the Gore Creek Campground, where the interstate rises sharply to begin its ascent. The roadway alignment is primarily located on the lower slopes of the northern valley wall. Near the East Vail Exit (Exit 180) both east and west directions of the roadway are immediately adjacent and separated by vertical barriers. For the majority of the landscape unit the roadway is separated by a median due to the steep side slopes of the northern valley wall. Where present, the interstate median is landscaped to match the visual context of the valley slope. Where slopes are too steep for landscaping, retaining walls occupy the median.

Constructed Elements

Two major bridges can be found within the Valley Floor Landscape Unit. The eastern most pair of bridges is located at MP 182. This curvilinear structure uses warm colored concrete to emulate the

distinct red hues of the areas' sandstone geology. This bridge serves as a visual gateway/exit to the Vail Valley and is visible to travelers as well as neighbors. The bridge is especially evident to users of the Vail Pass Recreation Trail and the Gore Creek Campground as they pass under the structure to access these amenities. The second bridge sits just west of MP 182 where the highway crosses Pitkin Creek. This bridge is largely invisible to travelers as it allows the roadway to pass over a small draw. However, the bridge is a prominent landmark visible from the East Vail frontage road and from other points in East Vail. A large number of scalloped retaining walls are located in the highway median, along the side of the interstate, and between the interstate and East Vail. The red/brown structures are the same as those found throughout the study area and emulate local geology.

LANDFORM

The Valley Floor Landscape Unit is defined by unobstructed views to the east and west. Background views to the west terminate on the mountains directly across (looking north) from the Vail Ski Resort. This view terminates one mile west of the western study area limits. The middle ground is dominated by human development: residential neighborhoods, streets, the Vail Golf Course, and I-70. The foreground for travelers is dominated by I-70. When looking west, distinct differences between vegetated north facing slopes and sparser south facing slopes is evident. Views terminate at the base of Vail Pass when looking to the East.

The Gore Range's granite peaks are visible north and east of the unit and are covered in snow for much of the year. North and south sides of the Valley Floor are dominated by rapidly rising slopes, emphasizing middle ground and near ground views. Where perpendicular valleys intersect the unit's north side sporadic background views of distant mountains are present.

The landscape adjacent to I-70's south side is relatively flat and occupied by homes, Gore Creek, and open spaces. The southern valley wall abruptly protrudes sky-ward beyond these elements. North-facing mountains are heavily forested with sandstone cliffs dominating middle and top portions. In the winter slopes are covered by snow. In the summer these steep mountain aspects are punctuated by waterfalls and cascades that descend the steep gullies and folds of the slopes. Views to the south are fully constrained by these steep valley walls, framing and emphasizing near and middle ground views. On the north side of I-70 the lower reaches of slopes are wide-open with intermittent stands of trees,

brush, and short grass. Breaks in the valley walls are created by perpendicular side valleys, allowing viewers brief windows into expansive mountain backdrops. Many views reach the lofty heights of the Gore Mountain Range and its hanging mountain valleys and smaller sub-summits. Constructing a highway on the lower slopes of the northern valley wall necessitated extensive cut and fill slopes and retaining walls, which are visible to the interstate's neighbors. Intersecting northern sides of the valley contain a number of tributaries of Gore Creek. Each of these waterways are difficult to see from the highway due to vegetative cover and differing topography.

Land Cover

The Valley Floor Landscape Unit is a transitional zone where sage, grasses, and spaced trees begin to give way to forested montane slopes. Land cover in the unit is heavily impacted by slope aspect and associated sun exposure. North and east facing slopes/aspects receive less sun and retain more moisture. These aspects tend to be heavily forested with land forms buffered by vegetative cover. Only very prominent land forms break through the tree canopy. On west and south facing slopes land is more open and considerably dryer. Lower elevations of these southern mountain aspects are dominated by brush and short grass, with intermittent aspen groves and small stands of coniferous trees. Dense riparian vegetation traces creeks and streams descending the Gore Range. Higher elevations along these south and west aspects are dominated by large stands of aspen and sporadic coniferous trees. As you move from west to east (lower to higher elevation) slope aspect plays less of a roll in defining land cover. At the eastern terminus of this landscape unit both sides of the valley are heavily forested and squarely within the montane zone, marking a transition from the Valley Floor Landscape Unit to the Mid-Pass Valley Landscape Unit.

Landscaping within the neighborhood provides for ample tree cover and vegetation in the community. Black Gore Creek threads through the East Vail neighborhood before reaching the Vail Golf Course. Black Gore Creek enters the valley at MP 182, flowing from east to west and passing under I-70 and into the East Vail neighborhood. Gore Creek is only visible to travelers along I-70 for

brief portions of the Valley Floor Landscape Unit due to the ever-rising vertical profile of I-70 as it begins to ascend the pass.

Homes are almost at-grade with I-70 at MP 180. However, as I-70 moves east, homes are at lower elevations relative to I-70's grade, making them s invisible to I-70 travelers. As I-70 rises, foreground views are dominated by retaining walls, bridges, jersey barriers, and roadside vegetation. Eventually the foreground completely drops away on the south side with only middle and background views of the surrounding landscape visible from the roadway. The north side of I-70 is less dense due to limited space between the interstate and valley slopes. Human development is sporadic along the north side of the roadway with institutional, civic, and limited residential structures. Tree cover is less dense and allows unobstructed views of high ridgelines above. In some places artificial land forms and human interventions, such as earthen berms and landscaping, have been created to mitigate the visual and noise impacts of I-70. In these locations structures are largely invisible from I-70 even though they are in close proximity.

ATMOSPHERE

Major seasonal differences impact the visible atmospheric environment due to the elevation of the roadway. These dynamic atmospheric conditions create distinct visual differences during the year. During the late spring and summer growing season the unit is green, during the winter and early spring the unit is cloaked in snow, and during the fall the unit's vegetation exude warm red, orange, and yellow hues. Atmospheric changes can also occur from moment-to-moment and it is not uncommon for snow to fall in early June and then again in late August. Snow also provides contrast and variable visibility during winter months. During winter months snow reflects the light of the high altitude sun, creating an extremely bright visual environment.

VISUAL QUALITY

The visual quality of the Valley Floor Landscape Unit can be characterized as a large, relatively untouched natural setting that surrounds a low-density neighborhood bisected by a typical four-lane interstate highway. The following text examines the natural harmony, cultural order, and project coherence of the landscape unit.

NATURAL HARMONY

The Valley Floor Landscape Unit can be considered harmonious because of its location in a high-mountain valley surrounded by a visually stimulating natural environment. The natural environment is visually accessible from almost any location within the unit and is evident to all types of viewers, travelers, and neighbors. The majority of human development is contained by the interstate to the north and the steep valley walls to the south. This condition provides a distinct natural/cultural transition and interface, allowing the high-mountain natural environment to directly abut permanent human habitation. The longitudinal shape of the Vail Valley and its steep walls also serve to prevent sprawl and copious local road building, two elements that could have a substantial impact on the landscape unit's natural harmony.

CULTURAL ORDER

The Valley Floor Landscape Unit is the largest cultural environment of the three identified landscape units. Within the Landscape Unit, buildings, structures, land uses, and local infrastructure work in concert to develop a cohesive and well organized cultural environment that is ordered and predictable. Land uses are primarily residential and hospitality focused with a few supportive commercial uses. Structures are similar in form, exhibiting a maximum building height of three to

four stories. Materials include wood, stucco, and rock. Large, visually impactful structures are visually absent from interstate. Local roads are similar in section and scale with no facilities exceeding two lanes in width. Open spaces and private landscaping in the East Vail community mimic the natural flora found in the adjacent natural environment, allowing the community to blend with the natural environment. One major disruption to the natural environment is the interstate. The interstate runs along and above the northern edge of the community. The high-speed facility visually contradicts the orderly and cohesive cultural environment with its sloped embankments, numerous bridge structures, walls, barriers and the East Vail exit.

PROJECT COHERENCE

As I-70 moves through East Vail, it exhibits materials, structures, and designs similar to the other landscape units. Scalloped retaining walls, minimalist bridge structures, and similar roadside vegetation strategies create a logical and coherent project environment. The interstate within this landscape unit notifies interstate travelers moving from west to east they are entering a distinctly different area of I-70. Visual repetition of project elements imparts a visually coherent aesthetic that continues as travelers move up the pass. As travelers approach East Vail (moving from east to west) the coherence of project elements denotes a visual sense of arrival in the Vail Valley. The absence of these coherent elements after exiting the project area (west of the East Vail exit) communicates to travelers that they have left West Vail Pass's unique visual environment.

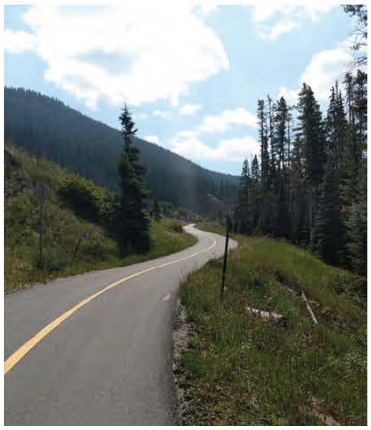
SYNTHESIS

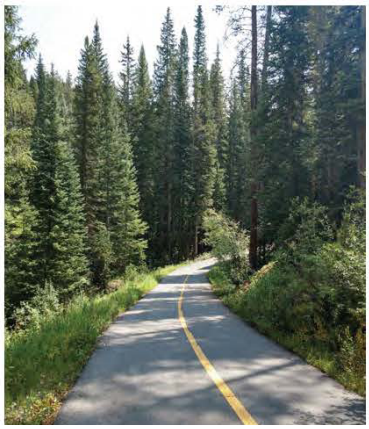
In the Valley Floor Landscape Unit the interplay between natural and cultural visual qualities have contributed to an overall visual environment that neatly navigates conflicting human and natural environments. The natural and cultural visual environments work together to create a community that fits into the context of its spectacular natural environment. I-70 and its visual elements exhibit substantial visual coherence. However, when juxtaposed to the natural and cultural environment, the interstate impacts the entire visual landscape and can be considered an intrusion upon the overall visual environment.

See ***Appendix A: Valley Floor Landscape Unit Key Views and Photo Inventory*** for a description of the landscape unit's visual environment and a cataloguing of key views.

LANDSCAPE UNIT: MID-PASS VALLEY

Mid Pass Valley Landscape Unit





GENERAL CONTEXT

The Mid-Pass Valley Landscape Unit stretches from just east of MP 182 to MP 187 and is the longest of the three landscape units. This is a transitional landscape unit that connects the Valley Floor to the Top of the Pass Landscape Unit. Within the Landscape Unit I-70 achieves some of its steepest grades and encompasses some of its tightest curvatures.

Ridge lines found along the corridor are not as high as those found within the Valley Floor Landscape Unit. However, because of the proximity of the valley walls to the roadway, background views are limited. As a result, foreground and middle ground views dominate the visual environment. Limited views of the Gore Range and the Ten Mile Range can be found where the Landscape Unit intersects with adjoining units. The montane forest dominates, with steep slopes populated by a wide-range of

coniferous trees and stands of aspen. While forests are in the majority, open meadows occur intermittently. Small, medium, and large red sandstone cliffs are numerous within the Landscape Unit. These red geologic formations form nodes of interest in both the foreground and middle ground, particularly in the winter when white snow blankets Vail Pass. Primary jurisdictions found here include Eagle County and the U.S. Forest Service, tasked with managing the Eagles Nest Wilderness on the north side of the I-70 corridor and the White River National Forest on the south side.

Transportation Context

For portions of the Mid-Pass Landscape Unit both directions of I-70 are immediately adjacent to each other. In other sections of I-70, the directions diverge, allowing the facility to respond to land contours. Structures, including walls and bridges, are prominent in the Mid-Pass Valley Landscape Unit due to its steep grades, multiple drainages, and tight curves. Due to the steep terrain and substantial vertical profile of the roadway, most views along the road terminate where the roadway makes sharp turns relative to the valley's landforms. In eastern reaches of the Landscape Unit the Vail Pass Recreation Trail (Trail) follows the old US 6 highway alignment, providing substantial separation from I-70, creating a visually serene experience for users. However, at MP 185 the Trail transitions from the old US 6 alignment to a dedicated trail. In some cases the Trail is immediately adjacent to the roadway, establishing a visual context for users that is impacted by I-70. East of MP 187, as the Mid-Pass Valley Landscape Unit transitions into the Top of the Pass Landscape Unit, the Trail falls away from I-70 and toward Black Gore Creek, creating a visually quiet experience for users, separate from I-70. A runaway truck ramp that is only visible to EB travelers is also located within the Landscape Unit.

Land Use Context

The Mid-Pass Valley Landscape Unit encompasses the least amount of human development of the defined landscape units and can be considered the

most pristine. As travelers move east and west, the only visible sign of human intervention is I-70. The Eagles Nest Wildness area is located just north and east; this designation is the most protected of federal land designations. Its proximity is a significant contributor to the undisturbed visual environment of the unit.

Other land uses primarily consist of winter and summer recreational activities, occurring on the south and west side of the roadway. In the winter occasional backcountry user tracks may be visible from I-70, in the summer cyclists adjacent to the roadway may be seen.

Recreational Neighbors

A distinct lack of human intervention and presence in the Landscape Unit has created an environment with few human residents. Vail Pass Recreation Trail users are the most numerous and thus the most visually impacted of neighbors within the unit. These summer time user users have a strong relationship with the interstate and are more visually impacted than winter users. Other recreationalists (depending on the season of their visit) have different perspectives based on the time of year they are visiting. Winter visitors may only see the interstate from select remote locations in the surrounding mountains. These users access amenities from the top of Vail Pass and tend to be further removed from the interstate and only see it at select locations.

Commercial Neighbors

Agricultural neighbors are largely unseen and are represented by sheep herding and grazing operations active during summer months. These operations use surrounding public lands and are sometimes visible when transporting livestock to market in the fall via truck or when recreating within trails on public lands.

Travelers

Similar to the Valley Floor Landscape Unit, a wide-range of travelers traverse the Landscape Unit including commuter, touring, shipping, bicycling, and vehicular travelers. While the viewshed and viewer experience in the Mid-Pass Valley Landscape Unit is unique, the travel purpose and mode of transportation is consistent with the traveler types previously described in the Valley Floor Landscape Unit. One difference from the Valley Floor Landscape Unit is the low numbers of pedestrian travelers within the Mid-Pass Valley Landscape Unit. With the exception of the Vail Pass Recreation Trail, opportunities for pedestrian travel are non-existent as a result of the Mid-Pass Valley Landscape Unit consisting of open land and an absence of development. Similarly for motorists, little infrastructure exists in the unit outside of the interstate.

INFRASTRUCTURE

Adjacent Infrastructure

Due to its remote location, visible local infrastructure is limited within the Landscape Unit. In some locations the Vail Pass Recreation Trail is visible to roadway travelers as it is located directly adjacent to the interstate.

Highway Geometrics

For portions of the Landscape Unit, both directions of I-70 are immediately adjacent to each other. In other sections, the EB and WB lanes diverge, allowing the facility to blend with the contours of the land. These conditions are driven by topography and the constraints of roadway design. The constrained valley necessitates a number of sharp curves and turns. Due to the steep terrain and the

substantial vertical profile of the roadway, most views along the road terminate where the roadway makes sharp turns following valley contours and landforms.

Grading

Extensive cut and fill slopes can be found throughout the Landscape Unit. However, because the roadway was designed to blend with the surrounding context, many of these slopes have been designed to look natural or have been revegetated so that they meld with the surrounding landscape. Interstate cut and fill slopes are most visible to recreationists on the Vail Pass Recreation Trail and some slopes have been revegetated. These interstate fill slopes are visible and noticeable to trail users, particularly near the eastern end of the Landscape Unit. Where there is limited space, the Trail is located immediately adjacent to the interstate, creating an impacted visual environment for users.

Constructed Elements

A large number of bridge structures (six locations) are found throughout the Landscape Unit. While minimalist in presentation, they are character-defining visual elements for both highway travelers as well as for recreational users of the Trail. Most bridge structures incorporate a warm red concrete to match surrounding geology. Highway barriers are found on the facility throughout, and incorporate red colored concrete matching bridge structures and surrounding sandstone geology. In some cases barriers have been replaced with gray barriers. Scalloped retaining walls can be found throughout, with major instances occurring near the Landscape Unit's western end. Walls match the visual form of the highway barriers and bridges, combining to form a recognizable visual aesthetic. The largest structure can be found between MPs 182 and 183. The wall is very long and runs for a substantial distance between the two directions of the interstate. A runaway truck ramp is located between MPs 185 and 186 and is a prominent visual element for WB travelers and trail users. A large rock cut is located just east of MP 186. While not natural, the rock cut incorporates terracing and revegetation strategies that visually blend it into the surrounding natural environment. A variable message sign (VMS) is located near MP 187. This sign is one of two VMSs found within the West Vail Pass study area and is painted U.S. Forest Service brown.

LANDFORM

Due to the vertical constraints of the valley, travelers have limited background views. This is particularly evident when examining the AVE's hourglass shape. A few locations provide background views. However, most views are middle ground views of valley walls parallel to I-70 and foreground views of interstate-adjacent land forms. A few minor drainages intersect the Landscape Unit but primarily occur outside of the view of travelers.

The original construction of I-70 West Vail Pass mostly avoided impacting Black Gore Creek by constructing the highway primarily along the north slope of the valley (in select locations Black Gore Creek was relocated). Due to this condition, travelers moving from west to east have intermittent views of the foreground immediately adjacent to the road. In these cases the first landforms visible are often middle ground views that look to the opposite side of the valley (south side). Travelers moving from east to west have an uninterrupted foreground view of manmade and natural landforms immediately adjacent to I-70. These include foreground views of the forest, sandstone cliffs, jersey barriers, and man-made drainage features along the interstate. In select locations, landforms offer travelers opportunities for middle and background views of ridgelines high above the roadway. Longitudinal views typically terminate when the interstate follows the curves of the valley. I-70 throughout the unit sits above and north of Black Gore Creek, making it largely invisible for interstate travelers. The Black Lakes are located at the Landscape Unit's intersection with the Top of the Pass Landscape Unit and have limited visual accessibility from the roadway.

Due to their slower speeds resulting from the grade of the Trail, cyclists and pedestrians have a close visual relationship with Black Gore Creek, its tributaries, and the Black Lakes.

Land Cover

Land cover within the Mid-Pass Valley Landscape Unit primarily consists of flora found in montane forests including lodgepole pine, blue spruce, Douglas fir, Engelmann spruce, sub-alpine fir, white fir, and quaking aspen. In riparian zones, Rocky Mountain maple, thinleaf alder, and chokecherry maybe be found. While coniferous tree species provide year-round color, deciduous tree species contribute a dynamic visual element. The western end of the Landscape Unit encompasses large groves of quaking aspen and open sub-alpine meadows. Coniferous tree species are predominate as the interstates moves to the east, rising in elevation. Higher elevation locations

incorporate smaller sub-alpine meadows than those found further to the west. On northern facing slopes various species of spruce dominate. On southern facing slopes, pine species dominate. Red Sandstone formations can be found throughout the Landscape Unit, and in some cases are immediately adjacent to the road. The bright reds and oranges of the formations stand in sharp visual contrast to the green of summer and the white of the winter. Man-made landscaping cover is limited. Jersey barriers, extreme cut and fill slopes, earthen berms, a VMS, bridge structures, water quality features, and scalloped retaining walls constitute the totality of human interventions. Deadfall is a ubiquitous visual element of the Mid-Pass Valley Landscape Unit. Much of the deadfall is a result of natural processes. Some of this deadfall was placed during the construction of I-70 West Vail Pass in the 1960's as mitigation for construction impacts.

ATMOSPHERE

Major seasonal differences impact the visible atmospheric environment due to the elevation of the roadway. During the late spring and summer growing season the Landscape Unit is green, during the winter and early spring the unit is cloaked in snow, and during the fall the unit's vegetation exude warm red, orange, and yellow hues. Atmospheric changes can also occur from moment-to-moment and it is not uncommon for snow to fall in early June and then again in late August. Snow also provides contrast and variable visibility during winter months. During winter months snow reflects the light of the high altitude sun, creating an extremely bright visual environment.

VISUAL QUALITY

The visual quality of the Mid-Pass Landscape Unit is a constrained, longitudinal valley within a pristine, visually rich high-alpine environment traversed by a critical and busy interstate highway. The landscape unit encompasses numerous recreational amenities within natural environment.

NATURAL HARMONY

The Mid-Pass Valley Landscape Unit can be considered naturally harmonious. When on the interstate or recreating in proximity to it, travelers and neighbors can access exceptional foreground, middle ground, and background views that invigorate a sense of awe and encourage visual exploration. This natural context provides an opportunity to engage nature for those who visit West Vail Pass. This situation is born of the relatively untouched, but accessible, natural environment found in the unit. This natural environment is visually accessible from almost any location within the unit and is evident to all types of viewers, travelers, and neighbors. Lack of permanent human settlement is a key element of this dynamic. The original context sensitive design of West Vail Pass recognized the importance of the natural environment and created an interstate segment that moves in visual rhythm to the natural environment.

CULTURAL ORDER

The Mid-Pass Valley Landscape Unit has limited human development. In this condition the Vail Pass Recreation Trail represents the most prominent human built element in the landscape unit (aside from L-70). The popularity of the Trail, its accessible design, and its proximity to key tourism centers highlights the importance of minimizing visual impacts to the natural environment in the unit to support continued use. The Trail, in conjunction with the interstate, compose the primary cultural environment of the Landscape Unit. In a few notable instances the Trail and the highway are in close proximity, creating a cultural environment that is momentarily disorderly for trail users. In other areas buffering strategies have ameliorated this condition, allowing the cultural environment to function in an orderly fashion.

PROJECT COHERENCE

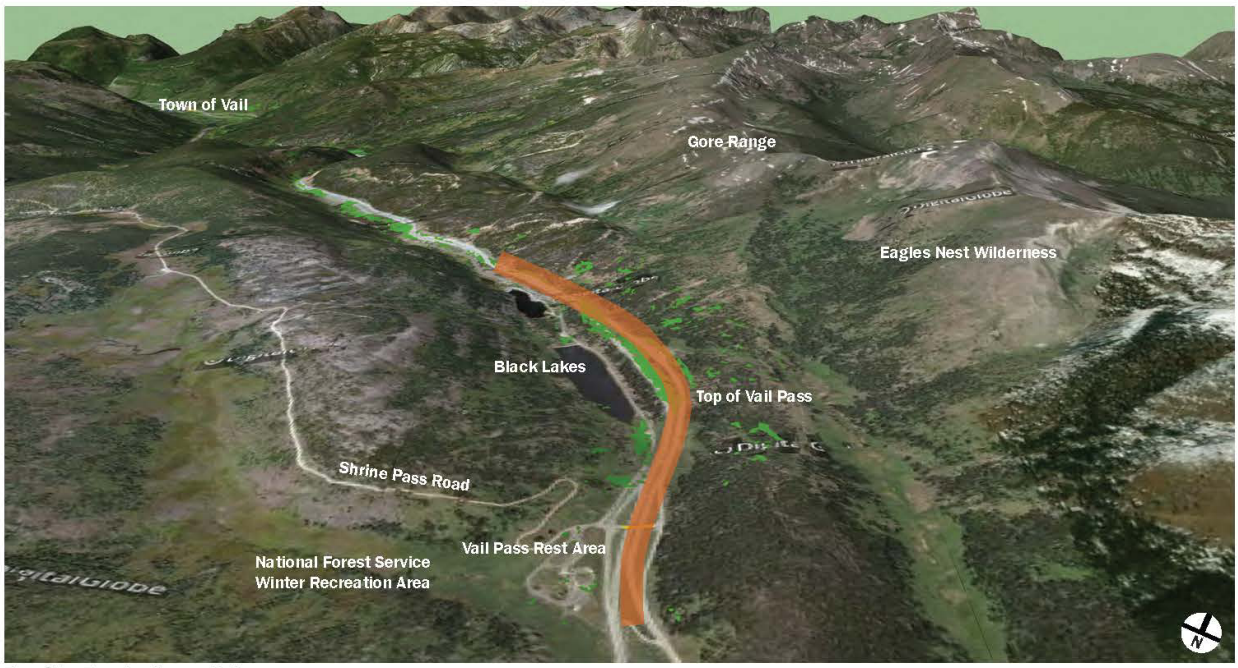
As the interstate moves through the unit it exhibits materials, structures, and designs similar to the other units. Scalloped retaining walls, minimalist bridge structures, and roadside vegetation strategies create a logical and coherent project environment. The interstate, utilizing these commonalities notifies interstate travelers that they have moved into a separate and special natural place. The visual repetition of project elements imparts a visually coherent roadway that continues up and down the pass. The absence of coherent elements after exiting the project area (west of the East Vail exit) communicates to travelers that they have left West Vail Pass's unique visual environment.

SYNTHESIS

The Mid-Pass Valley Landscape Unit's natural, cultural, and project environment is dominated by its natural setting. The natural environment is impacted by the interstate, however its context sensitive design minimized the visual impacts of the highway on the natural environment. Thus, the natural and cultural visual environments work together to allow the interstate to fit the context of its spectacular natural environment. Within the unit, I-70 and its visual elements exhibit substantial visual coherence with the surrounding visual environment.

See ***Appendix B: Mid-Pass Valley Landscape Unit Key Views and Photo Inventory*** for a description of the Landscape Unit's visual environment and a cataloguing of key views.

LANDSCAPE UNIT: TOP OF THE PASS



Top of the Pass Landscape Unit

GENERAL CONTEXT

The Top of the Pass Landscape Unit is located from MP 187 to 190. The unit has the highest elevation of the three landscape units and encompasses more human interventions than the Mid-Pass Valley. The Top of the Pass unit offers generous background views of both the Ten Mile and Gore Mountain Ranges. Views are accessible to travelers moving both east and west, with many stopping at the Vail Pass Rest Area to take in the scenery. The Top of the Pass also encompasses portions of both Summit and Eagle Counties as well as numerous federal land designations.

TRANSPORTATION CONTEXT

Connections to a wide-range of destinations are accessible within the Landscape Unit. Shrine Pass and Resolution Road provide opportunities to reach Camp Hale and the Town of Red Cliff. South and west sides of the pass offer multiple connections for diverse modes, many of which are visible from the roadway. North and eastern sides of the pass have limited transportation amenities due to the

presence of steeper slopes and the Eagles Nest Wilderness Area. The wilderness is closed to motorized travel, however backcountry skiers, equestrians, and hikers can accesses the wilderness from the Vail Pass exit.

LAND USE CONTEXT

Primary land uses found in the unit are primarily recreationally oriented. A combination of trails, dirt roads, and the National Forest Service's Winter Recreation Area create a recreational center that is used during all seasons. The majority of recreational use occurs south and west of the Vail Pass Rest Area. A number of winter and summer guide operations use the pass. These commercial users are an important visual component of the landscape and have a symbiotic relationship to the aesthetic and visual values of the pass. Aside from being a recreational gateway the Vail Pass Rest Area greets travelers on the interstate by providing restroom facilities, view opportunities, and shelter. Agricultural uses are also a component of land uses in the unit. Grazing operations are active in the summer and consist of shepherds and their flocks. CDOT's large maintenance facility is also located in the unit and is visually prominent to viewers just west of the Vail Pass Rest Area.

Recreational Neighbors

Neighbors within the unit are primarily recreational. Travelers using the interstate also exit and use the Vail Pass Rest Area. In the winter, backcountry skiers and snowboarders can use both sides of the roadway and have multiple vantage points of the interstate. In the summer, campers, hikers, mountain bikers, Vail Pass Recreation Trail users, equestrians, and anglers may be found throughout. Recreational viewers are dynamic in their perception of the roadway due to the pass's seasonal changes and their chosen recreational activity.

Commercial Neighbors

While all land within the unit is federally managed, a number of commercial operations use the Top of the Pass Landscape Unit. During winter months snowmobile and snow cat tours use the pass. In the summer a wide range of guide services use the pass. These services include bike shuttles, jeep tours, fishing guides, mountain bike guides, horseback tours, and other guiding services. These commercial neighbors rely on the pristine visual environment to support their businesses.

Agricultural Neighbors

Similar to the Mid-Pass Valley landscape unit, agricultural neighbors are a presence in the unit, consisting primarily of sheep herding and grazing operations.

Travelers

Travelers within the Top of the Pass Landscape Unit include commuters, tourists, interstate shipping, bicycling recreationists, and pedestrians. Supportive infrastructure for travelers in this unit is limited to the interstate, Vail Pass Recreation Trail, and the Vail Pass Rest Area.

INFRASTRUCTURE

Buildings

Permanent buildings visible from the interstate include those at the Vail Pass Rest Area (restroom facilities, portable toilets, and storage structures) and the white tented CDOT maintenance buildings located further to the west at the formal top of the pass location.

Adjacent Infrastructure

Vail Pass Rest Area's exit bridge is the most visible infrastructure element. The bridge spans the roadway providing access to the rest area and to recreational amenities. The bridge also frames views for interstate travelers, providing views of both the Gore and Ten Mile Ranges. The bridge incorporates the pass's typical warm-toned concrete. Shrine Pass Road is visible to travelers as they go by the rest area. Shrine Pass Road is a well-maintained dirt road that provides connections from the top of Vail Pass to the Town of Red Cliff and historic Camp Hale. Aa number of terraced parking lots are visible at the rest area. The Vail Pass Recreation Trail also intersects the rest area. The trail utilizes the old US 6 alignment near the top of the pass within a standard two-lane section. The roadway provides vehicular access to the Black Lakes parking lot (located between Black Lakes 1 and 2). This roadway/trail is visible to interstate travelers as they pass it near the exit bridge.

Highway Geometrics

For the majority of the Top of the Pass Landscape Unit I-70 is a divided two lane highway. Both directions join just before the unit transitions to the Mid-Pass Valley Landscape Unit near MP 189 where they are separated by a standard highway barrier. A visually pleasing curvature is experienced by travelers as they pass under the bridge and towards the CDOT maintenance facility. The gently rising curvature frames background views down the valley and provides windows of interest into the Gore Range. The unit incorporates two exits, one at the Vail Pass Rest Area and one near the CDOT maintenance facility. The Vail Pass Rest Area is a standard diamond interchange with an EB off-ramp for rest area users and a WB truck pull-off and

rest area access. The CDOT maintenance facility provides short pull-off frontages for trucks and vehicles.

Grading

Topography near the Vail Pass Rest Area is relatively flat in comparison to the pass's eastern and western approaches. When moving from east to west, I-70 rises until it meets CDOT's maintenance facility, at which point the grade transitions to the steep declines/inclines typical of West Vail Pass. Due to the mountainous environment of the Top of the Pass Landscape Unit, cut and fill slopes can be found throughout the unit but aesthetic treatment of vegetation have been used to mitigate visual interference.

Constructed Elements

The most visibly noticeable constructed elements within the landscape unit are the Vail Pass Rest Area bridge and CDOT maintenance facilities. Highway barriers are found throughout the unit; in many cases these barriers incorporate the warm red colored concrete found on the pass. In some locations new gray barriers have replaced older colored barriers. Unlike other landscape units, scalloped retaining walls are absent within the unit. The second VMS sign on West Vail Pass is located just west of CDOT's maintenance facility. The sign is a standard steel color and not painted the brown tone of the other VMS sign. A wooden sign notifying travelers that they are entering Eagle County is located just east of the bridge in one of the diamond interchange medians. The sign's wooden material and font fit the natural environment of the pass and visually contrasts the typical metal roadway signs.

LANDFORM

The Landscape Unit's expansive views are made possible by the wide and open valleys to the west and the south. Western background views terminate at the distant peaks of the Gore Range and southern background views terminate at the ridgeline connecting Ptarmigan Pass and Shrine Mountain. Background views to the east terminate with views of Copper Mountain and the Ten Mile Range beyond. Landforms to the south and west of the Vail Pass Rest Area are setback from I-70, revealing background views that terminate at the ridgeline adjacent to Ptarmigan Pass. This configuration affords middle ground and foreground views of expansive sub-alpine meadows that abut the rest area and I-70. For a large portion of the unit a steep but relatively short north facing slope mirrors the south side of I-70. This slope is moderately forested and intermixed with sandstone cliffs. In the summer the moderate tree cover provides ample views of the forest floor, illuminating

the colorful understory. In the winter, when white snow blankets the area, the simplified contours of white are broken by the red tones of sandstone cliffs.

Two lakes are located within the landscape unit. Black Lakes 1 and 2 sit to the south and west of I-70 and are significantly lower than the alignment of the roadway. These features are difficult to see from the highway. The lakes are popular with anglers and provide drinking water for the Town of Vail. During the spring melt alluvial streams and water courses appear as the land begins its transition into the spring growing season.

Land Cover

The Top of the Pass Landscape Unit is located in the sub-alpine montane environment. This forested environment is located just below tree line, with trees typically not reaching the heights of trees found at lower elevations. In many cases trees are stunted and twisted by elevation and exposure to extreme weather. This slow and low growth forest is referred to as "Krummholz." The Krummholz forest is visually distinct from the taller montane forest found further down the slopes of West Vail Pass. Large open sub-alpine meadows also predominate, allowing visual access to a large and expansive mountain environment.

Atmosphere

Major seasonal differences impact the visible atmospheric environment due to the high elevation of the roadway. During the late spring and summer growing season the unit is a verdant green, during the winter and early spring the unit is cloaked in snow, and during the fall the pass is coated in the warm red, orange, and yellow hues. Atmospheric changes can also occur from moment-to-moment and it's not uncommon for snow to fall in late June and then again in early August. During winter months snow reflects the light of the bright, high altitude sun, creating an extremely bright visual environment.

Visual Quality

The visual quality of the Top of the Pass Landscape Unit can be characterized as a pristine high-alpine setting that is a supreme representation of central Colorado's natural environment. Foreground, middle ground, and background views provide expansive visual interest for viewers and encourages neighbors and travelers alike to explore and engage the natural environment. This unique landscape unit is bisected by a large and busy interstate highway that was intentionally designed to tread lightly on the landscape.

Natural Harmony

The Top of the Pass Landscape Unit can be considered harmonious due to the absence of excessive visible human intervention. The unit's popularity as a recreational center has minimally impacted the natural harmony due to the scenic beauty encouraging visits. Continued visits and use demonstrate that viewers consider the landscape visually harmonious. The unit's natural harmony is interrupted by the interstate and the Vail Pass Rest Area. Due to the grand scale of the natural visual environment these interruptions exert minimal impact and only at select locations within the unit.

Cultural Order

The Top of the Pass Landscape Unit has no permanent human residents. In this condition, West Vail Pass's recreational amenities, the Vail Pass Rest Area, CDOT's maintenance facility, and I-70 represent the most important cultural elements found in the landscape unit. These cultural elements

are geared towards either transportation or recreation; creating a limited visual cultural environment that is well organized around these elements and their purpose. In some locations I-70 visually impacts the Vail Pass Recreation Trail and surrounding recreational areas. However, impacts and conflicts are minimal and visually fleeting due to the grand visual scale of the natural environment, intentional human mitigation strategies, and dynamic topography.

PROJECT COHERENCE

As the interstate moves through the unit, it exhibits materials, structures, and designs similar to other landscape units within the study. Similar materials, roadside vegetation strategies, and roadway geometry create a logical and coherent project environment. The interstate design unity notifies interstate travelers that they have moved into a separate and special place. The visual repetition of project elements imparts a coherent roadway that continues up and down the pass. The absence of coherent elements after exiting the project area (west of the East Vail exit and east of Copper Mountain) communicates to travelers that they have left West Vail Pass's unique visual environment.

SYNTHESIS

The Top of the Pass Landscape Unit's natural, cultural, and project environment is dominated by its natural setting. The natural environment is impacted by I-70 and its accessories (Vail Pass Rest Area and CDOT's maintenance facility), however its original context sensitive design purposely minimized visual impacts of the highway on the natural environment. Thus, the natural, cultural, and project visual environments work together to compose a vivid and visually inviting landscape unit. Within the unit, I-70 and its visual elements exhibit substantial visual coherence with limited exceptions at specific locations such as the CDOT maintenance facility.

See ***Appendix C: Top of the Pass Landscape Unit Key Views and Photo Inventory*** for a description of the landscape unit's visual environment and a cataloguing of key views.

VISUAL ANALYSIS IMPACTS AND MITIGATION

FOUNDATIONAL AESTHETIC GUIDANCE REQUIRED DURING FINAL DESIGN

Important considerations such as context sensitive design approaches and the original design's attention to the natural environment are critical foundational elements in realizing a safer roadway that doesn't depart from the success of the original design's aesthetic composition. Central to this approach is an understanding of how the design could impact the unique visual environment of West Vail Pass.

It is important to note that a number of existing documents and practices preceded this visual analysis. Mitigations outlined and documented in these reports are important resources when final design of West Vail Pass commences. During final design, consultation of these foundational documents is imperative and should be augmented by the inclusion of visual resource specialist and/or a landscape architect as part of the design and construction team. This professional should work in close coordination with an historic resource specialist to develop design-specific solutions that meet the needs the requirements of both or these important resources. Below is a synopsis of each of these documents and references to corresponding mitigation sections that should be considered during final design and construction of West Vail Pass.

I-70 in a Mountain Environment: The entire I-70 West Vail Pass Auxiliary Lanes project area is considered a contributing historic resource due to the original roadway's context sensitive design. When reconstructed, bridges, barriers, rock cuts, cut and fill slopes, walls, and other elements will need to be designed to match as close as possible these existing historic design practices. Doing so will assist the future roadway to maintain the exceptional visual environment of West Vail Pass that the original design sought to protect. Because many of these original design interventions are strongly linked to the project's visual environment the I-70 in a Mountain Environment document provides critical background information that should be integrated into design practices for the future roadway. Items of particular importance include:

- Earthwork practices and guidance
- Rock cut sculpting
- Vegetation clearing techniques
- Revegetation practices
- Retaining wall design
- Bridging and spanning practices
- Trails and bike paths

In their work with other design professionals, visual specialist involved in final design should consult these original design practices in order to replicate the successes of the original design relative to the visual environment and its close relationship with historic resources.

I-70 Mountain Corridor Context Sensitive Solutions: The I-70 Mountain Corridor Context Sensitive Solutions process was developed by a multi-disciplinary, multi-interest stakeholder group charged with identifying Core Values relative to I-70 as it passes through Colorado's Rocky Mountains. As part of this process the Top of Vail Pass was identified as an area of "special attention." With this special designation, values, needs, and design guidance was developed relative to the pass's unique

aesthetic values. Areas of particular interest during final design within the document include the I-70 Mountain Corridor Design Criteria guidance. The Top of the Pass - Area of Special Attention Report includes important aesthetic-related guidance relative to:

- Alignment
- Slope cut and fill
- Disturbance
- Rock cuts
- Bridge structures
- Sound attenuation

Guidance found in these documents, combined with design practices instituted during the roadway's original construction should be consulted and used during final design phases to insure that the future roadway is responsive to its historic past and that successful past aesthetic design strategies are incorporated into its final future design.

Memorandum Of Understanding Between the Bureau of Land Management, the Colorado Department of Transportation, the Federal Highway Administration and the USDA, Forest Service Rocky Mountain Region: This important memorandum of understanding between the Bureau of Land Management, CDOT, FHWA, and the USFS provides details information regarding agreed upon inter-agency coordination regarding highway aesthetics for the I-70 Corridor. The document also provides detailed information and expectations regarding visually-associated design practices. Consultation expectations include:

- Develop a VIA on all projects involving an Environmental Assessment or EIS in accordance with FHWA Visual Guidelines for Highway Projects.
- USFS Scenic Integrity Objectives (also known as USFS Visual Quality Objectives according to some Forest Plans) defined in the Revised Management and Resource Management Plan must also be considered when performing a VIA.
- Permanent facilities such as drainage structures or bridge abutments should be reviewed and coordinated to ensure they meet visual and scenery standards.
- Apply common best management practices for visual resource mitigation such as colored concrete barrier and painted posts and structures to achieve low contrast with the surrounding environment.

These objectives and resources should be consulted during the final design of West Vail Pass to meet the expectations of the MOU. Within the document's appendices (*A-3, A-4, & A-5*) specific design aesthetic guidance is presented:

- *Appendix 3: Supplemental Visual And Scenic Resources Guide for CDOT Maintenance and Operations* Includes specific information regarding: Reflectivity, Guardrail Design, Bridges, Steel Sign-Posts, Road-Closure Gates, Fences, ITS Equipment, Tunnel Structures, Rock Cuts, Rock Fall Mitigation, Earthwork and Embankments, Boulders, Riprap, Talus, Lighting, Native Plan Revegetation, and Avalanche Control Equipment. Information found in this section should be consulted and used during final design.

- *Appendix 4: Landscape, Aesthetics, and Visual References* Includes important links to additional visual resources that will be important to consider during the projects final design.
- *Appendix 5: Typical Signs:* Includes guidance and aesthetic expectation for federal land-associated roadway signage. During final design, signage tasks should consult this information.

Corridor-Wide Assessment of Impacts and Corresponding Mitigation

Mitigation Measures and Best Management Strategies

The following table outlines project visual impacts, actions, and corresponding mitigation relative to the Proposed Action for West Vail Pass (*Page 7*). Due to the limited amount of design completed for the Proposed Action, CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass, as described in the Vail Pass Historic Context Study. In addition to including CDOT, FHWA, and USFS staff, the ITF will include multidisciplinary experts in the following disciplines: historic resources, landscape architecture, and roadway, structural, and geotechnical engineering. Due to the fact that this portion of I70 is considered a historic district it will be important in future phases to consult with historic resource specialists for visually-associated mitigations.

Table. 1. Resource Mitigation Measures

CONTEXT
The West Vail Pass Study area and the Area of Visual Effect are organized into three separate landscape units: The *Valley Floor*, The *Mid-Pass Valley*, and the *Top of the Pass*. Each of the units exhibit distinctly different natural visual characteristics primarily based on vegetation, landforms, and elevation. Units also encompass diverse viewer types including: interstate travelers, local residents, visitors, and recreationalists. Different viewer types and populations also contribute to distinct visual differences between landscape units. Unifying features of the study area and the AVE encompass a visual composition that well represents Colorado's natural Rocky Mountain Environment. The original construction of I-70 used context sensitive design and construction of a facility that minimized impacts on the natural visual environment. Minimization was achieved by selecting colors, materials, and alignments that blended with the surrounding context. Subsequent visual investigations developed additional aesthetic and visual guidance for West Vail Pass. Created as part of the I-70 Mountain Corridor Context Sensitive Solutions documents, the Crest of the Rockies design segment designated Vail Pass as an Area of Special Attention. Within the Area of Special Attentions report, a number of mitigation items were identified across a range of areas including: alignment, slope cut and fill, disturbance, rock cuts, bridge structures, and sound attenuation. Additional strategies and guidance may also be found in the Federal Lands MOU. This document provides specific aesthetic related design guidance agreed upon by multiple federal agencies and CDOT.

IMPACT TYPE	NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE	MITIGATION
Retaining Walls	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: New walls will impact the natural harmony of West Vail Pass, detracting from the experience of all users. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None

IMPACT TYPE	NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE	MITIGATION
Bridge Structures **(Roadway and Recreational Trail)**	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: New bridge structures will be wider than current bridge structures and will impact the natural harmony of West Vail Pass, detracting from the experience of all users. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None
New Barriers and Guard Rails	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: New alignments of the roadway will necessitate new roadway barriers and guardrail. If not constructed to match historic norms then barriers and rails will detract from project coherence and natural harmony. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None

IMPACT TYPE	NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE	MITIGATION
New ITS Signs and Supporting Infrastructure	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: ITS equipment, including VMS signs, will be required when the new facility is constructed. If left un-treated this could significantly impact the views of travelers and neighbors. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None
Rock Cuts and Rockfall	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: For roadway widening additional rock cuts may be required. If not designed in accordance with historic practices and if not implemented with aesthetics in mind, rock cuts would have an impact on the natural harmony of the project area. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None

IMPACT TYPE	NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE	MITIGATION
Earthwork and Embankments	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: For roadway widening it can be assumed that new earthwork and embankments will be required. If not performed to historic norms or if not performed in a way that mimics natural land forms the natural harmony of the visual environment will be impacted. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None
Boulders, Riprap and Talus Slopes	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: During its original construction geologic features such as boulders, riprap, and Talus slopes were created to blend into the natural environment. If not repeated, the expanded roadway will depart visually from the established natural harmony of the area. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	**Permanent:** CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations. **Temporary:** None

IMPACT TYPE	NO ACTION ALTERNATIVE	PROPOSED ACTION ALTERNATIVE	MITIGATION
Native Plant Revegetation	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: All disturbed areas, if not restored to their pre-project condition, will impact the natural harmony and project coherence of West Vail Pass. Emulation of the extensive revegetation practices initiated during its original design and construction will insure a natural and visually congruent environment for travelers and neighbors alike. **Temporary Impacts:** Temporary impacts to all viewer types would occur during construction.	CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations.

Impact Type	No Action Alternative	Proposed Action Alternative	Mitigation
Avalanche Mitigation	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: In some areas avalanche mitigation measures may be required. If not constructed in accordance with the projects overarching visual aesthetic, avalanche infrastructure could disrupt the natural harmony and project coherence of the project visual environment. **Temporary Impacts:** None	CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations.
Night-Skies / Lighting	**Permanent Impacts:** None – no change to project aesthetics would occur.	**Permanent Impacts:** It may be necessary to include new/ additional lights during final design and construction. If designed improperly these elements could have an impact on the pristine and natural character of the pass's night sky. **Temporary Impacts:** None	CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations.
Alignment	**Permanent Impacts**: None – no change to project aesthetics would occur.	**Permanent Impacts**: During its original design EB and WB lanes were intentionally separated to minimize impacts on the natural visual environment. Reduction of this separation, in combination with widening from four to six lanes, will have a impact on the existing visual character of the roadway and the natural environment. **Temporary Impacts:** None	CDOT has committed to creating an Aesthetics Issue Task Force (ITF) during final design of the project. This ITF will be responsible for developing project-specific aesthetic guidance that builds on the MOU and Crest of the Rockies Aesthetic Guidance and incorporates the historic context of West Vail Pass. The guidance will include, but is not limited to aesthetic treatments for structures, materials, colors, planting, site grading forms, and maintenance recommendations.

REFERENCES

Colorado Department of Highways, FHWA, 1978. I-70 in a Mountain Environment. Colorado. (http://hermes.cde.state.co.us/drupal/islandora/object/co:21141/datastream/OBJ/view)

CDOT, 2014. Landscape Architecture Manual. Colorado. (https://www.coloradodot.info/programs/environmental/landscape-architecture/cdot-landscape-architecture-manual-8-18-14/view)

CDOT, I-70 Mountain Corridor Context Sensitive Solutions Aesthetic Guidance (https://www.codot.gov/projects/contextsensitivesolutions/design/i-70-mountain-corridor-aesthetics-guidance)

CDOT, 2019. VIA User's Guide for Implementing FHWA's 2015 Visual Impact Assessment (VIA) Guidelines for Highway Projects in the State of Colorado. (https://www.codot.gov/programs/environmental/visual-resources/visual-impact-assessment)

CDOT, BLM, FHWA, USFS, USDA, 2016. Memorandum of Understanding (MOU) Between the Bureau of Land Management, The Colorado Department of Transportation, The Federal Highway Administration and the USDA, Forest Service Rocky Mountain Region. Colorado

FHWA, CDOT, 2011. I-70 Mountain Corridor Programmatic Final Environmental Impact Statement. Colorado. (https://www.codot.gov/projects/i-70-old-mountaincorridor/final-peis/final-peis-file-download.html)

FHWA, 2015. Guidelines for the Visual Impact Assessment of Highway Projects. Washington, D.C. (https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx).

Mead & Hunt, 2018. Glenwood Springs Vail Pass Context 2761800-170241.01: APE Maps and Vail Pass/US 6 Features Summary. Colorado

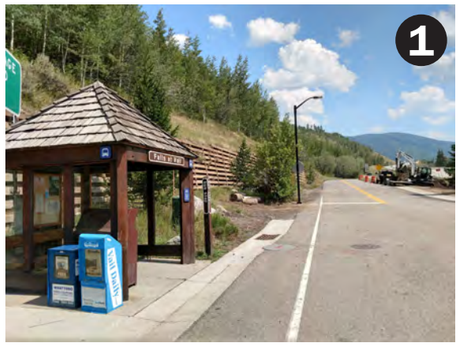
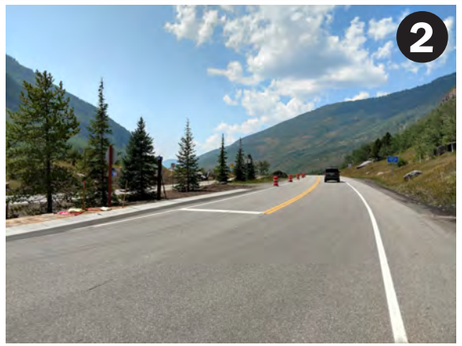
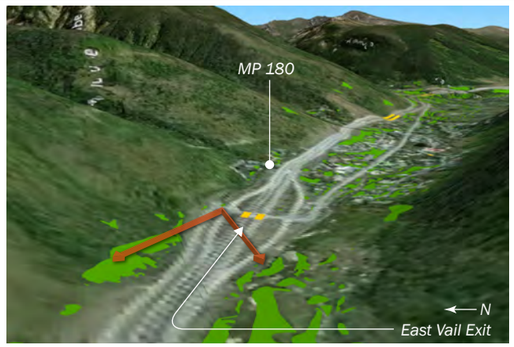
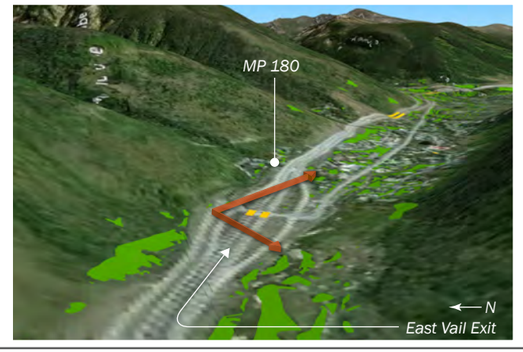
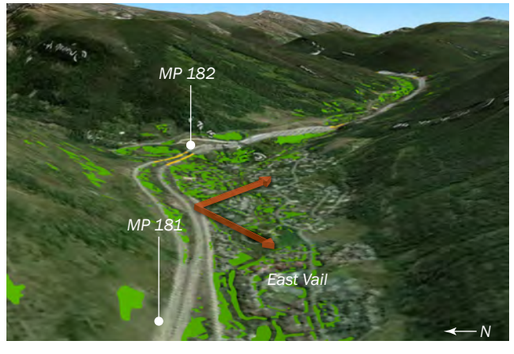
Mead & Hunt. I-70 West Vail Pass Safety/Auxiliary Lanes Environmental Assessment, Draft Area of Potential Effects and Results of Windshield. Prepared for the Colorado Department of Transportation, February 2018.

Mead & Hunt, 2019. Historic Resources Inventory Report I-70 West Vail Pass Auxiliary Lanes Environmental Assessment, Appendix B: Inventory Forms. Colorado

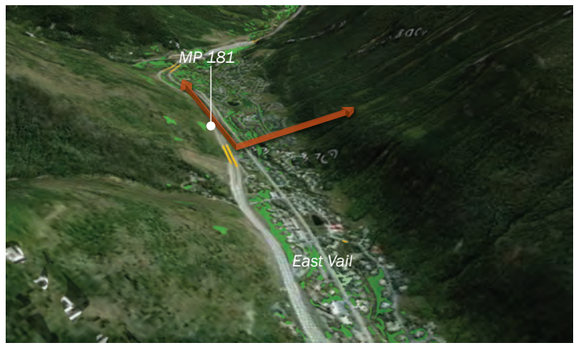
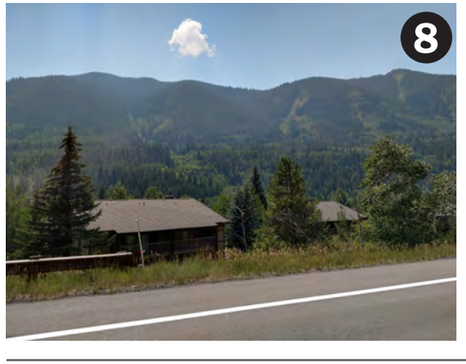
APPENDIX A

VALLEY FLOOR LANDSCAPE UNIT KEY VIEWS AND PHOTO INVENTORY

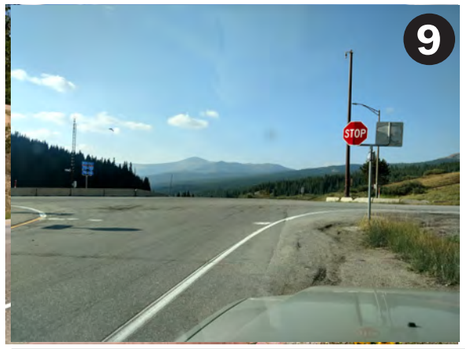
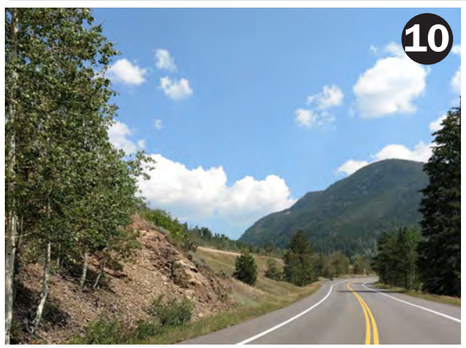
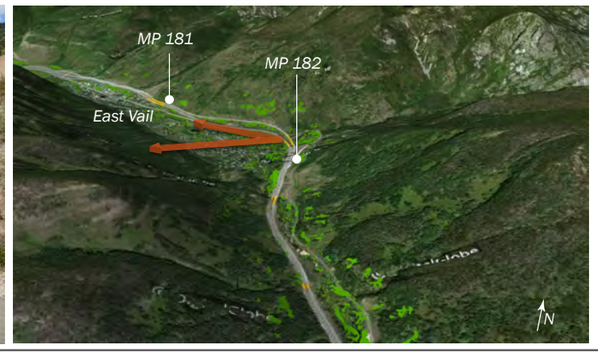
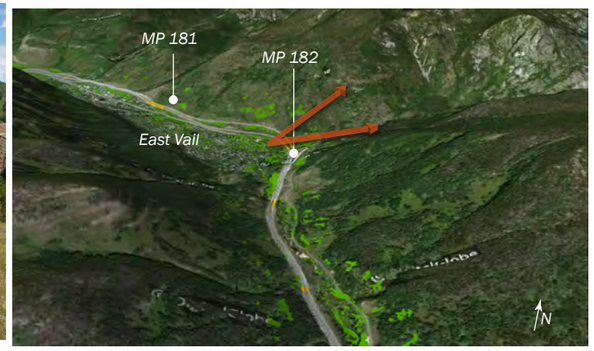
Inventory of Valley Floor Landscape Unit: Key Views

Photo	Location	
		Photos 1, 2, and 3 are representative of what a motorist, pedestrian or cyclist experience near the East Vail exit. Views include background, middle ground, and foreground views of interstate bridge structures, ramps, and frontage roads. Views of southern valley walls, the western base of Vail Pass and points west can be viewed. Photo 1 illustrates a retaining wall that was not built with the same visual aesthetic as the interstate's retaining walls and is an instance of a retaining wall within the project area that does not match the interstate's scalloped walls. The bus stop's wooden structure is representative of typical architectural forms in the area.
		Photo 2 illustrates vegetation planted to visually buffer the interstate from the north frontage road. These elements continue to the east and buffer the limited number of residential uses that exist north of the highway in the landscape unit.
		Photo 3 shows how the bridge, ramps, and ultimately the interstate impact views and interrupt the cultural and natural visual environment.
		Photo 4 illustrates new construction directly adjacent to the south frontage road and in close proximity to the interstate. This condition shows how homes in the East Vail neighborhood exist near the interstate . Views from the south frontage road in this location include foreground and middle ground views of the neighborhood as well as views of to the valley's southern slopes. Foreground views to the north terminate at the steep embankments leading up to I-70.

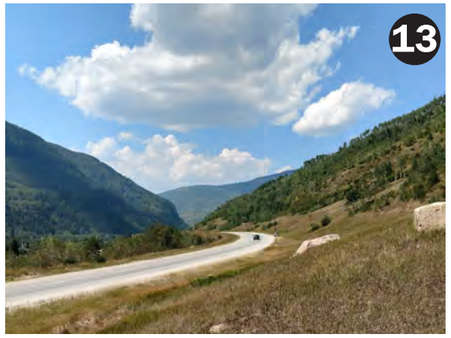
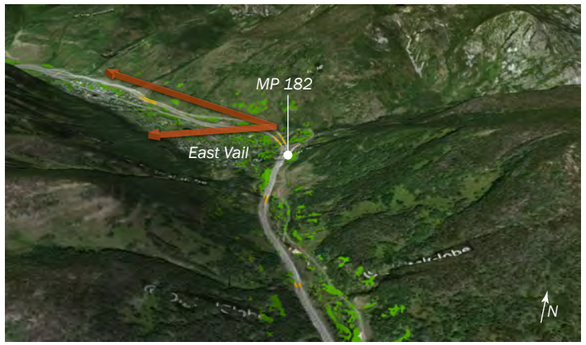
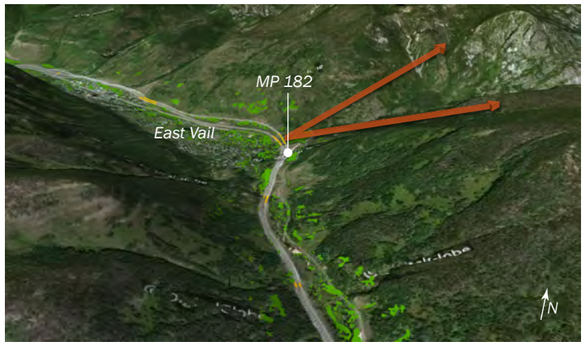
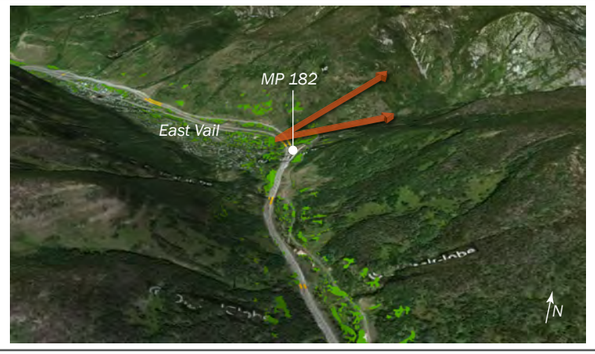
Inventory of Valley Floor Landscape Unit: Key Views

Photo	Location	
		Photo 5 shows how the elevated interstate sits above the East Vail neighborhood. The visual environment of homes near the roadway is dominated by the interstate. In this location, the south frontage road does not provide a visual buffer. In this case, the visual aesthetic of I-70 is more pertinent to the neighbors than travelers because of their static condition.
		Photo 6 illustrates a traveler's view towards the East Vail exit. Expansive background views down valley are an important element in this location. In the middle ground and foreground vegetation has been planted adjacent to the interstate to visually buffer residential uses located on the north side of the highway. The sparse grass slopes of the interstate are indicative of the typical roadside condition found through the landscape unit. Background views in this location are limited by the steep slopes of the valley to the north and south. The flat topography of the facility found on the western end of the landscape unit is highlighted by the roadway's limited vertical profile.
		Photos 7 and 8 illustrate how the East Vail neighborhood directly abuts I-70. Photo 7 shows how development below the grade of the highway can visually coexist with the facility due to grade changes. The split condition of the bridge structure allows light to reach the ground and neighborhood, and break up the structure's mass. Photo 8 shows how development can visually coexist adjacent to the highway if buffered by horizontal and vertical distance, local roads, and vegetation.
		

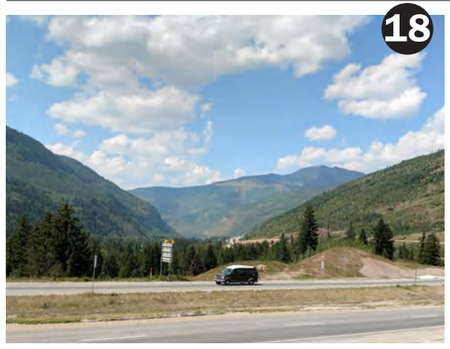
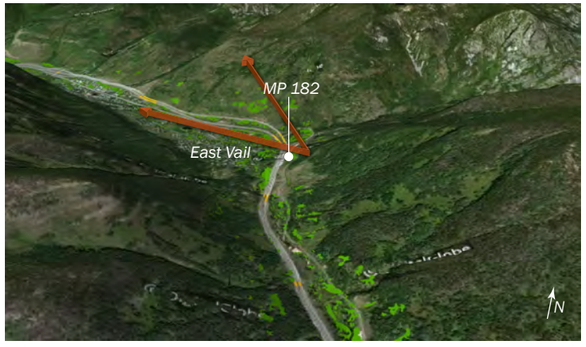
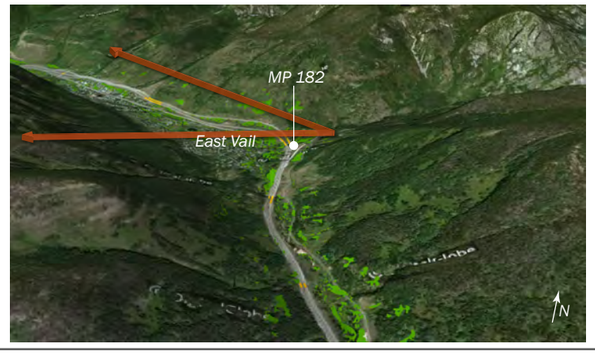
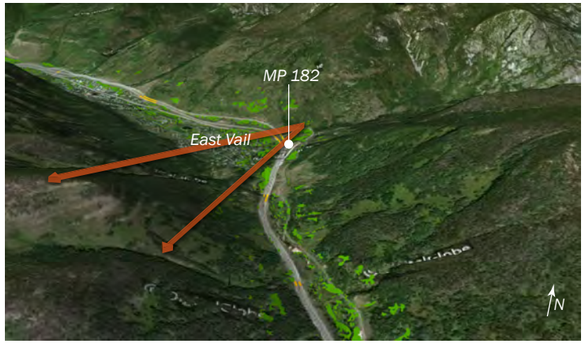
Inventory of Valley Floor Landscape Unit: Key Views

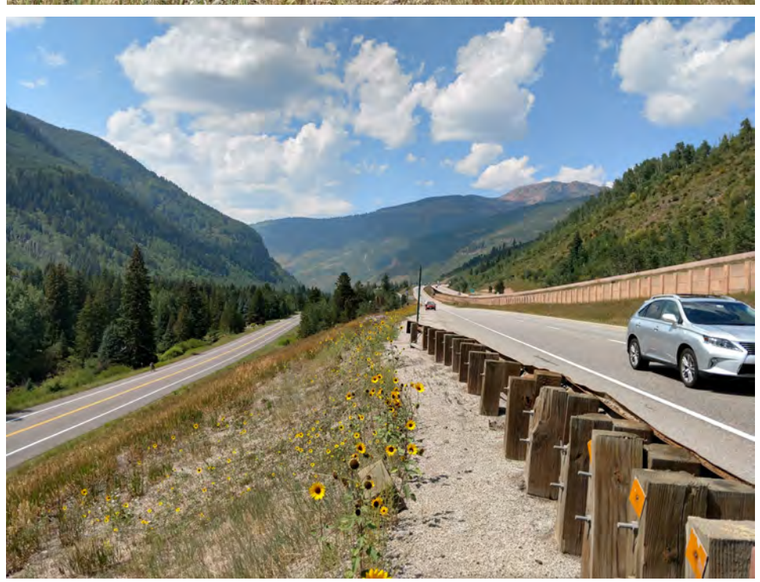
Photo	Location	
		Photo 9 illustrates a typical condition found throughout middle portions of the landscape unit. The interstate's place on the lower slopes of the northern valley wall creates a horizontally and vertically separated roadway that minimizes the visual width of the roadway and provides locations for vegetation and retaining walls that contribute to a pleasing project aesthetic. Additional vertical and horizontal separation provides a visual buffer for local road users including motorists as well as for pedestrians and cyclist accessing the Vail Pass Trail Recreational via the frontage road. This condition also provides a visual buffer to residential neighbors of the facility in the area. While the condition does provide an visual separation for the community, extensive slopes visually impact neighbor's views.
		Photo 10 shows how the original design ameliorated visual impact in a select locations. The grass slope of the highway has been sculpted and planted to mimic the landforms and vegetation found on northern valley slopes. In this condition, cyclists and pedestrians traveling along the south frontage road are visually buffered from the interstate.
		Photo 11 shows the first scalloped retaining wall that cyclists and pedestrians see as they approach the Gore Creek Campground and the western trail head of the Vail Pass trail. The grass slope to the right leads to I-70 and extensive vegetation has been planted near residential structures adjacent to the frontage road as a buffer.
		Photo 12 illustrates a view of the curvilinear bridge found at the base of West Vail Pass near the East Vail neighborhood. This view is accessible to a number of single family homes that sit south and west of the structure. The bridge substantially impacts middle ground and background views from the rear of these residences. This is the same bridge that motorists, pedestrians, and cyclists pass under to access the Gore Creek Campground and the Vail Pass Recreational Trail. The bridge is also located near the confluence of Black Gore Creek and Gore Creek. The location offers views up the Gore Creek Valley and the lower summits of the Gore Range.

Inventory of Valley Floor Landscape Unit: Key Views

Photo	Location	
		Photo 13 illustrates the distinct visual difference between the northern and southern slopes of the Vail Valley. Northern aspects encompass more vegetation and land cover, while southern aspects are less vegetated. This condition is primarily the result of sun exposure. This is also a critical view for travelers arriving from the east and serves as the first substantial background view of the long valley. Views of the East Vail Neighborhood are limited due to differences in elevation, producing a visual environment that encompass foreground, middle ground, and background views to the west and north and middle ground views to the south.
		Photo 14 is a critical view that looks up the Gore Creek Valley from the northern edge of the interstate. This view is limited for eastbound travelers and more accessible to westbound travelers due to the separated form of the interstate in this location. This is an important view for local motorist, cyclists, and pedestrians as they pass under the interstate to access the Gore Creek Campground and the Vail Pass Recreational Trail.
		Photo 15 articulates how local motorist, cyclists, and pedestrians' view of the Gore Creek Valley is impacted by the interstate bridge as they approach the Gore Creek Campground and Vail Pass Recreation Trail trail head via the frontage road. Note how the split structure allows light to reach the local road. This condition reduces the mass of the structure and allows it to better visually fit the natural context.
		Photo 16 shows the long background view eastbound travelers see when reaching the curvilinear bridge at the base of Vail Pass. This long background view terminates on the high ridges above the Mid Pass Valley Landscape Unit.

Inventory of Valley Floor Landscape Unit: Key Views

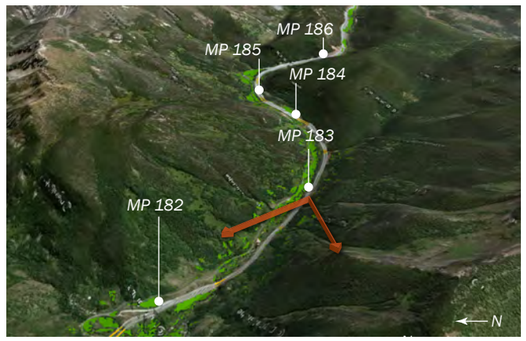
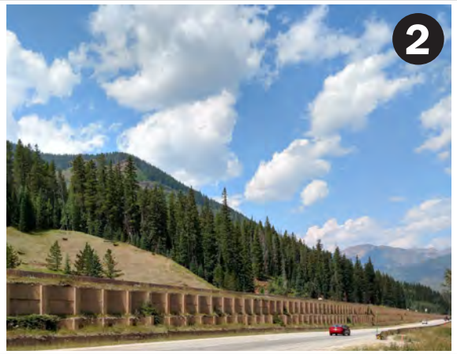
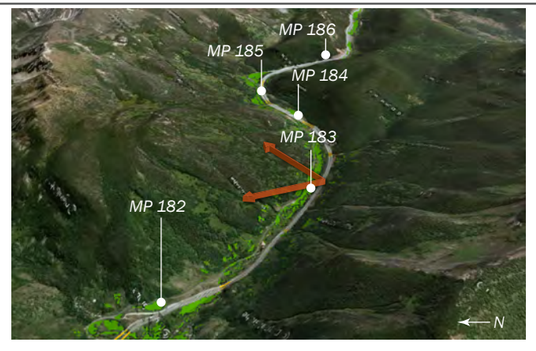
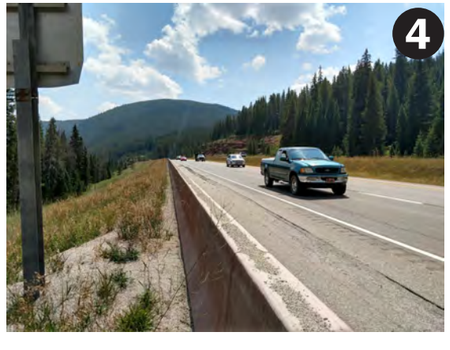
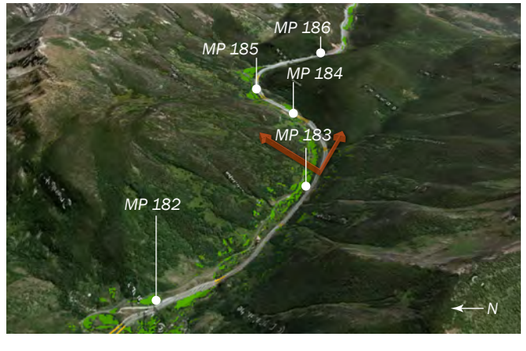
Photo	Location	
		Photo 17 illustrates the visual environment of pedestrians and cyclists as they reach the western terminus of the Vail Pass Recreation trail at the Gore Creek Campground. In this location the trail sits high above the interstate and is further buffered by extensive land cover and vegetation. This condition creates a harmonious natural environment for these critical neighbors and serves as a welcoming visual gateway into the Vail Valley.
		Photo 18 is the most important view for highway travelers in the Valley Floor Landscape Unit. The views appears when descending the final steep hill into the valley (westbound travelers) and allows viewers to access the entire cultural, natural, and project visual environment of the landscape unit. The view is the primary visual gateway for the Vail Valley.
		Photo 19 is the most important view for pedestrians and cyclists using the Vail Pass Recreation Trail and the Gore Creek Campground. Due to their slower speed, both east and westbound cyclists and pedestrians have ample access to this gateway view. In this location, the highway sits far below the trail alignment. However, the curvilinear bridge of the interstate is still visible in the middle ground, and serves as a graceful visual cue, reminding trail users they have arrived or are leaving in the Vail Valley.
		Photo 20 shows the views local motorists, cyclists, and pedestrians see when leaving the the Gore Creek Campground and Vail Pass RecreationTrail trail head area via the frontage road. In this location, background views up the pass and to southern valley walls are found. This bridge serves as a notification that users are leaving the natural visual environment and progressing into a more intense cultural visual environment.


CLEARANCE 15FT 4IN

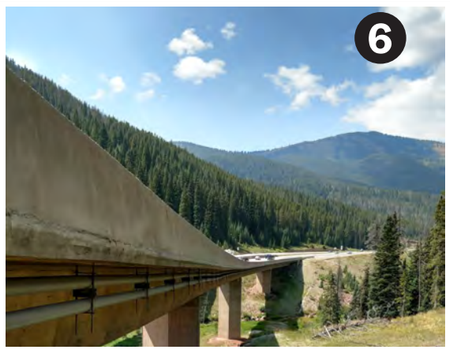
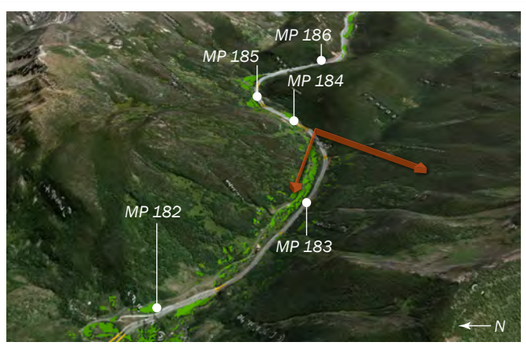
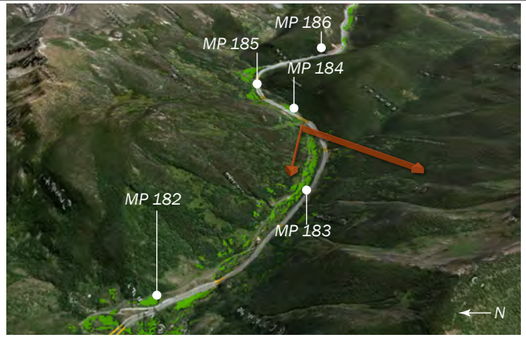
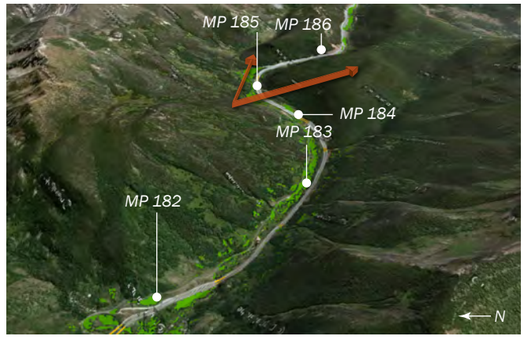
APPENDIX B

MID-PASS VALLEY LANDSCAPE UNIT KEY VIEWS AND PHOTO INVENTORY

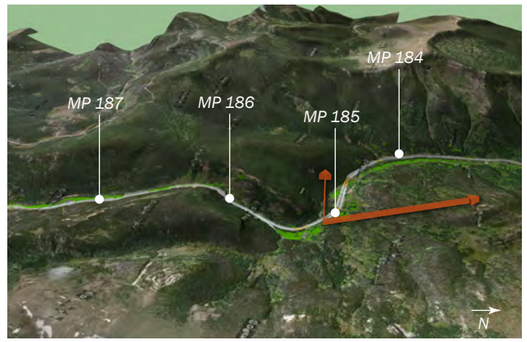
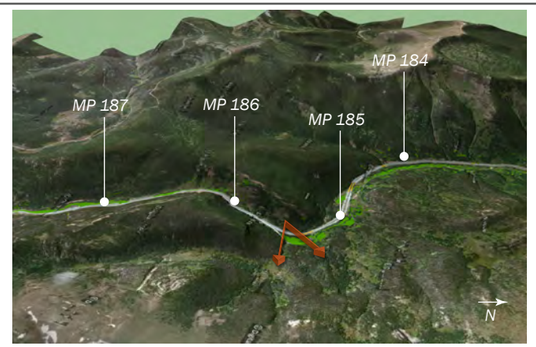
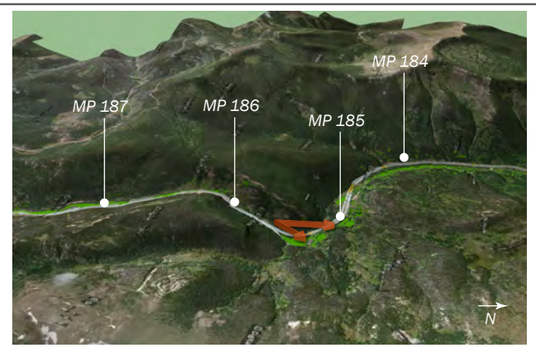
Inventory of Mid-Pass Valley Landscape Unit: Key Views

Photo	Location	
		Photo 1 illustrates the long background view towards the Vail Valley with the Gore Range above it. This view is the transition point between the Valley Floor and the Mid-Pass Valley Landscape Units and represents one of the only long background views within the landscape unit. The roadway is both horizontally and vertically separated and illustrates the warm, red colored sandstone that predominates the landscape unit. Highway barriers incorporate color to match the surrounding geological context.
		Photo 2 shows how original roadway designers looked to visually integrate roadway elements into the design. This terraced scalloped wall is the largest retaining wall visible to travelers across all three units. Designers added color to match surrounding geology and added terraces for vegetation to break up the wall mass. The intention of the original design can be seen when comparing the red sandstone of Photo 1 with the design of the retaining wall in Photo 2.
		Photo 3 shows the Vail Pass Recreation Trail on the opposite side of Black Gore Creek across from the interstate. In this location, roadway travelers would have no inclination of the presence of the trail due to buffering. This condition is supported by ample horizontal separation from the roadway and extensive vegetation. This is a typical condition of the trail until it passes under the interstate near mile post 185.
		Photo 4 shows a view roadway travelers see when moving from the Valley Floor Landscape Unit to the Mid-Pass Valley Landscape Unit (west to east). This is one of the longest background views within the unit and alludes to a visual and physical tightening of the valley as the interstate moves east. Diverse roadside vegetation progresses in height as it moves away from the roadway and frames views for eastbound travelers.

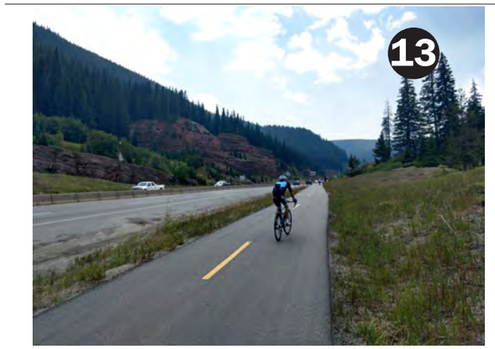
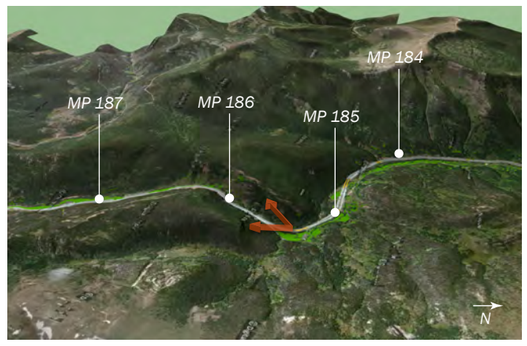
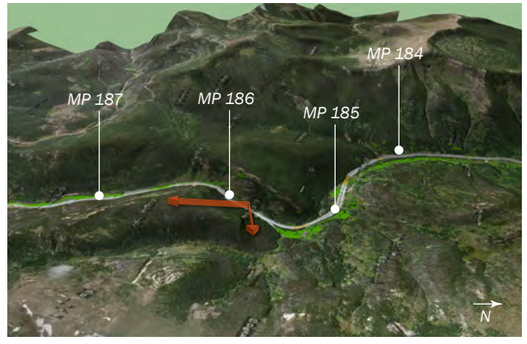
Inventory of Mid-Pass Valley Landscape Unit: Key Views

Photo	Location	
		Photo 5 shows a typical view seen by roadway travelers as they reach the western end of the landscape unit. The Vail Pass Recreation Trail is well hidden from the roadway and is located in the top left corner, situated slightly above the interstate. In this location, the interstate visually intrudes upon the trail users due to the lack of vegetation. However, horizontal separation does provide some relief. Intermittent exposure to the interstate is due to stands of Aspen that periodically break up the large alpine meadow. This land cover pattern predominates northern slopes of the landscape unit's western end.
		Photo 6 shows a view of a bridge as it passes over Black Gore Creek near a large sub-alpine meadow. In this location, it is difficult for travelers to know they are on a bridge, which shows how designers intended for the roadway to blend with the natural context. The photo also illustrates how original land forms and cover were preserved for their aesthetic value. This is especially valuable for users of the recreation trail, which is located to the right, just outside of the photograph.
		Photo 7 is a picture of the same sub-alpine meadow shown in Photos 5 and 6. In this iteration the photo illustrates an optimal visual conversation between the trail and the roadway. The trail is located on the lower reaches of the valley slope to the right and is buffered by stands of aspen. The roadway is well separated from the trail and slight elevation differences between the two facilities provides further relief. In this location, designers were cognizant of the visual value of the meadow, the ecological importance of Black Gore Creek, and the experiences of trail users. This photo is a prime representation of the interstate's contextual design.
		Photo 8 was taken from the Vail Pass Recreation trail and illustrates how the roadway can impact foreground, middle ground and background views for trail users when located close to the interstate. The trail's location slightly above the roadway creates an inharmonious natural environment for trail users. Conversely, due to speed and elevation differences the trail is relatively unseen by interstate travelers.

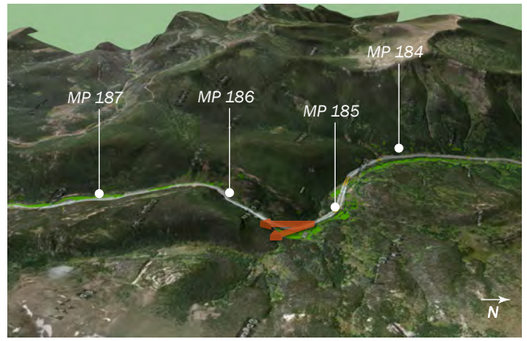
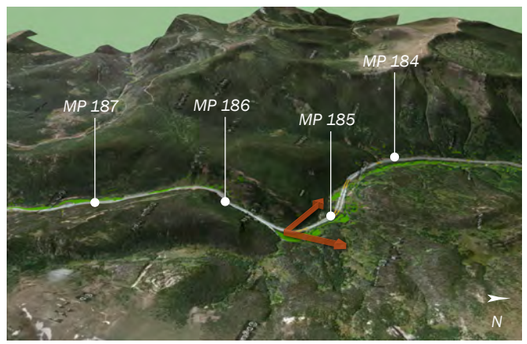
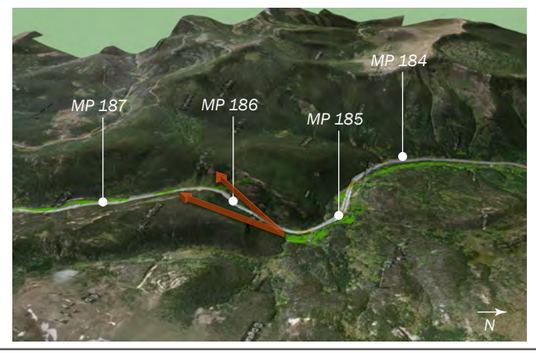
Inventory of Mid-Pass Valley Landscape Unit: Key Views

Photo	Location	
		Photo 9 illustrates a view roadway travelers see when moving down the pass toward the Town of Vail. At this location high-speeds and tight corners make the view difficult to access for interstate travelers but does allow travelers their first glimpse of the Vail Ski Resort (located at the top of the furthest ridge line). The Vail Pass Trail crosses under the bridge seen in the immediate foreground of the photograph.
		Photo 10 shows the location where the trail crosses under the interstate between mile posts 186 and 185. Extensive vegetation provides a visual buffer for trail users, screening them from the bridge structure and fast moving vehicles on the roadway, and reduces noise impacts. Extension of the natural landscape to the edge of the roadway helps to blend both facilities into the natural visual context.
		Photo 11 looks in the opposite direction of Photo 10 and illustrates the visual landscape found under the bridge crossing. Separated bridge structures are a critical design element of West Vail Pass. Separation not only lets light reach the trail, it also provides sun for low lying grasses and vegetation, creating a visually interesting environment at one of the landscape unit's most visually conflicting locations.
		Photo 12 shows the Vail Pass Recreation Trail as it emerges from under the bridge. The existing retaining wall does not incorporate the scalloped design of the roadway and is visually disparate, detracting from the otherwise consistent visual form found in the area. A diverse, naturally vegetated fill slope is located between the trail and the roadway and is reflective of nearby natural landscapes. Extensive grade differences provide for visual relief even though both facilities are close horizontally.

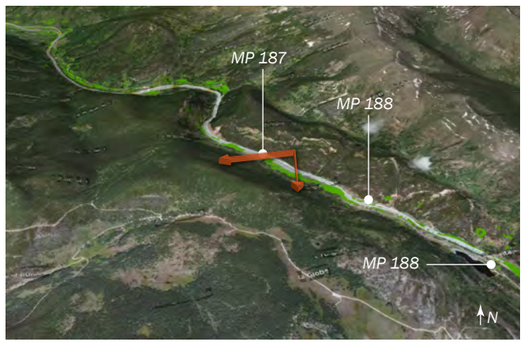
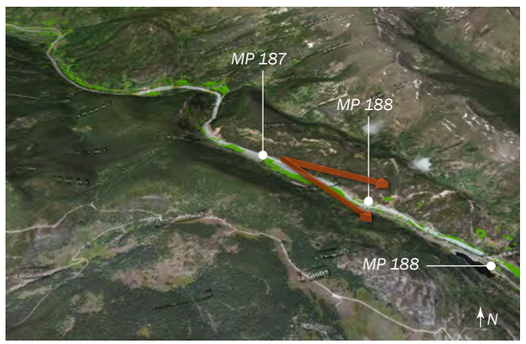
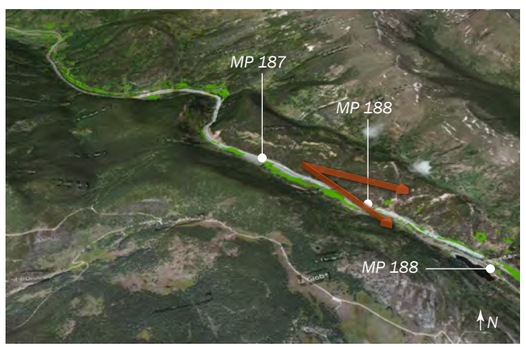
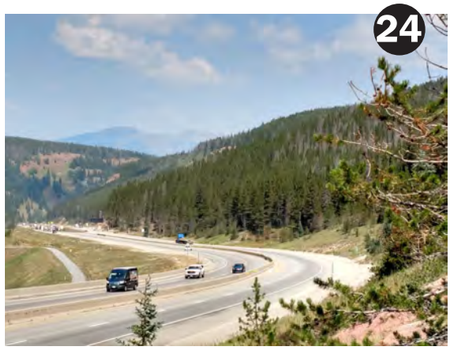
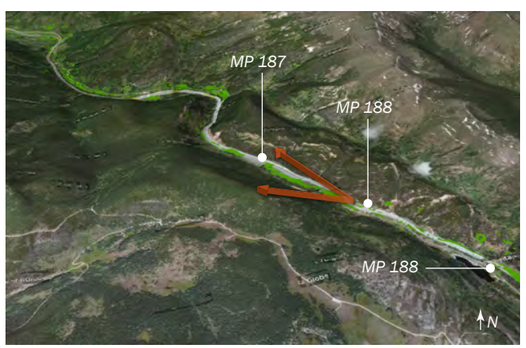
Inventory of Mid-Pass Valley Landscape Unit: Key Views

Photo	Location	
		Photo 13 shows the trail in close proximity to the interstate near mile post 186. Horizontal and vertical separation between the two facilities is negligible. At this location the visual aesthetic as well as the safety of trail users is heavily impacted by the interstate.
		Photo 14 shows a brief departure of the trail from the interstate. In this location, existing landforms were re-contoured and native vegetation was planted to provide both land cover and land forms, buffering trail users. This strategy not only contributes to a better visual environment for trail users but also a more appealing roadside environment for interstate travelers.
		Photo 15 is taken in the opposite direction from photo picture 12 and shows how a fill slope can be re-vegetated to provide a natural landscape that is attractive to recreational users. The pleasing curvature of the trail as it follows the contours of the fill slope invites more exploration and use than a linear alignment. If not for the sounds of the highway, trail users would have little idea the interstate is near.
		Photo 16 shows how natural land form contouring during construction contributed to a blended and pleasing natural visual environment. Rather than blasting through rock to create a vertical wall, designers terraced and contoured the rock cut and then included re-vegetation measures to create a seemingly natural sand stone cliff. This design created a recognizable landmark that visually expresses the contextual natural environment for viewers of all types.

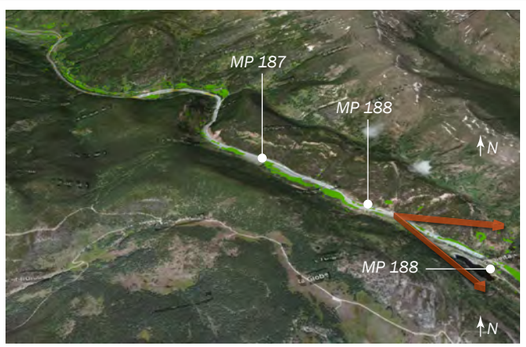
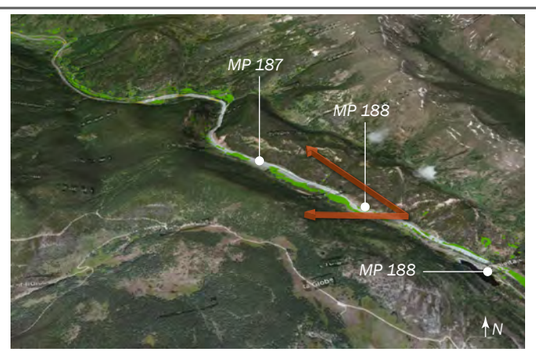
Inventory of Mid-Pass Valley Landscape Unit: Key Views

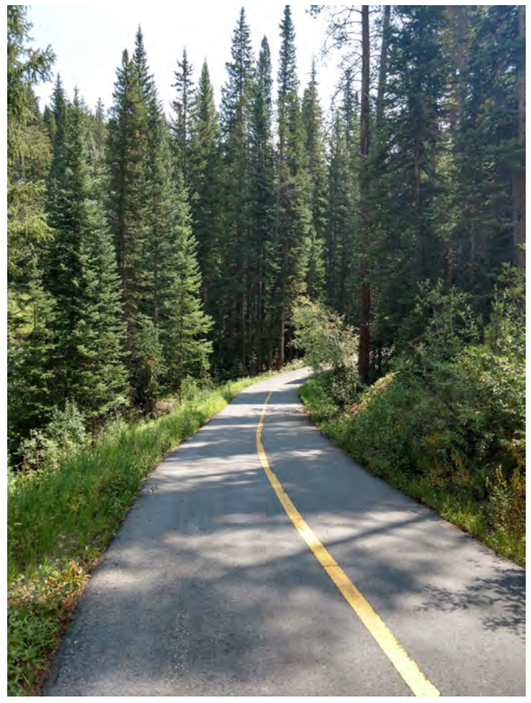
Photo	Location	
		Photos 17 and 18 show how native trees were planted near the roadway or avoided during construction. Trees directly adjacent to bridges visually buffer interstate travelers, implying the absence of a bridge, showing evidence of the original designs context sensitive approach. These trees bring the natural environment to the edge of the roadway, highlighting the pristine and natural visual environment of the landscape unit.
		
		Photo 19 shows one of the many water quality features found on the north side of the roadway. These man made features are relatively new but illustrate re-vegetation's importance in blending them with the natural context. When completely re-vegetated, these features will blend into the environment, contributing to a roadway experience that is visually responsive to the natural environment.
		Photo 20 was taken just east of the large sandstone feature identified in Photo 16 and illustrates the warm hues of the landscapes units' geology. It also illustrates the tight and constricted nature of the valley and of the landscape unit in general. While much of the landscape unit is forested; open meadows and slopes directly adjacent to the roadway can be found in select locations, providing visual interest and diversity for travelers and trail users.

Inventory of Mid-Pass Valley Landscape Unit: Key Views

Photo	Location	
		Photo 21 shows the Vail Pass Recreation Trail finally exiting its adjoining interstate alignment near mile post 187. The trail west of this location travels along or near the highway for almost two miles. The well-forested environment of the trail in this location visually buffers users from the externalities of the interstate and signals an alignment that is mostly separated from the interstate until it reaches Copper Mountain.
		Photo 22 shows one of two variable message signs located on West Vail Pass. The sign and its mast arm have been painted to match the existing environment and are in the same visual vernacular as other project elements. Photo 23 shows how the forest was brought to roadside in order to blend it with surrounding land cover. In this instance colored concrete barriers were not used. Note the dead-fall and stumps in the foreground. During construction designers placed stumps and dead-fall adjacent to the roadway to blend with the adjacent forest.
		
		Photo 24 is one of the first views travelers see when entering the landscape unit (from east to west). At this location, the thirteen thousand foot peaks of the Gore Range can be seen in the distance. In the middle ground the alignment of the Vail Pass Recreation Trail can be seen to the left of the interstate. Roadside re-vegetation practices used on the north side of the roadway were not continued on the south side of the roadway, creating a less than optimal visual environment for recreational trail users in this location.

Inventory of Mid-Pass Valley Landscape Unit: Key Views

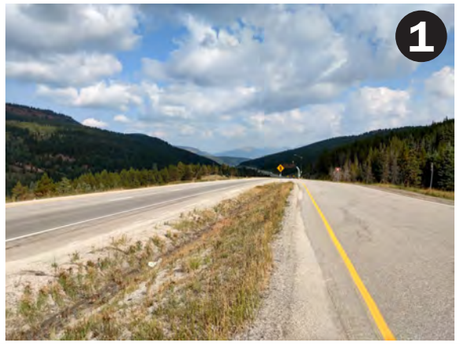
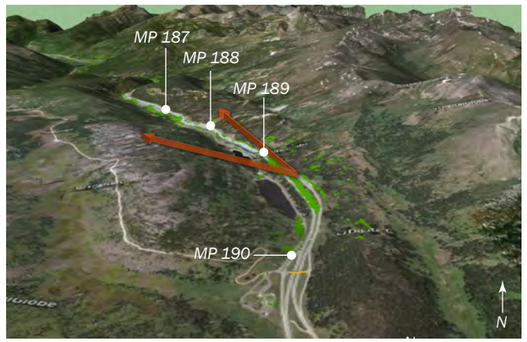
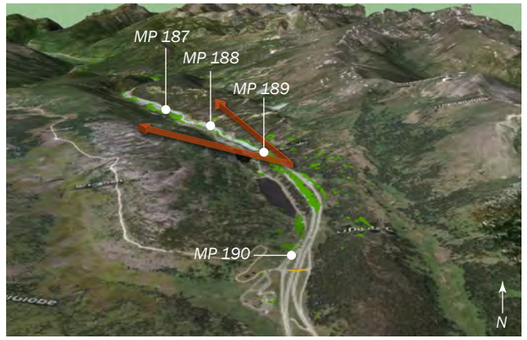
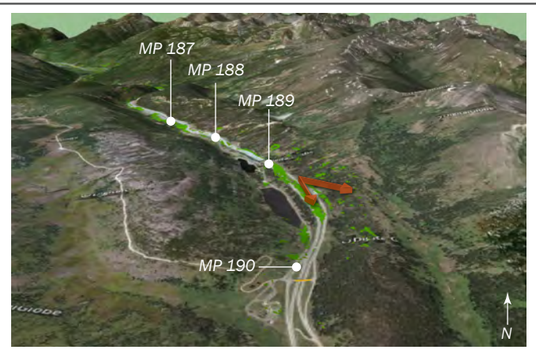
Photo	Location	
		Photo 25 shows the view travelers see when exiting the landscape unit as they enter the Top of the Pass Landscape Unit. The fourteen thousand foot peaks of the Ten Mile range can be seen in the distance. In the middle ground Vail Pass Recreation Tail begins its approach to the Black Lakes. This is an important transition for the trail as it leaves the un-buffered interstate alignment and enters the well buffered natural landscape of the Top of the Pass Landscape Unit. The alignment of the interstate in this location is un-separated, creating an extensive roadway cross section that is less inviting than separated sections found elsewhere on the pass.
		Photo 26 looks in the opposite direction of Photo 25 and shows how the interstate hugs the northern slopes of the valley. This condition allows for foreground and middle ground views to the north and background views to the west and south. When moving west along the alignment, this configuration persists until the unit crosses Black Gore Creek at mile post 185.



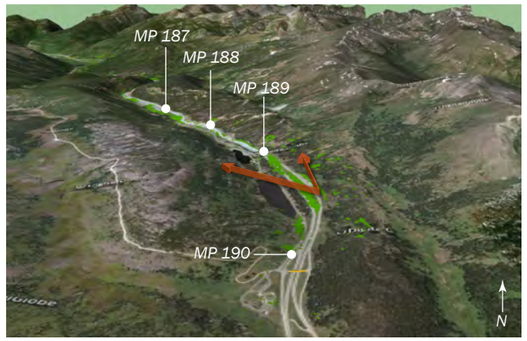
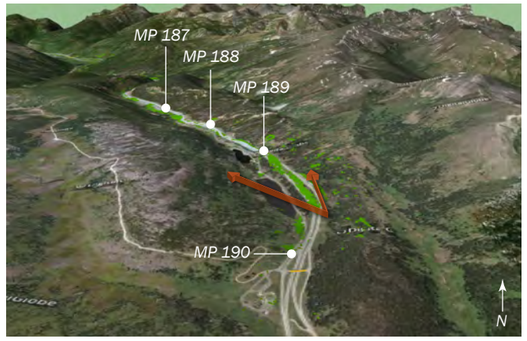
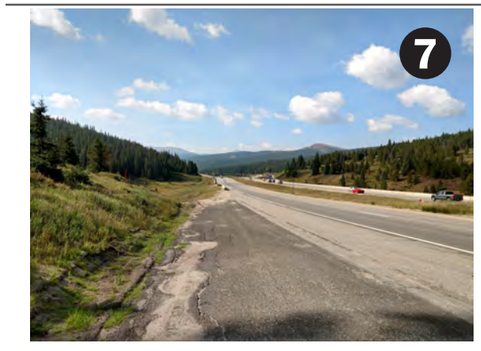
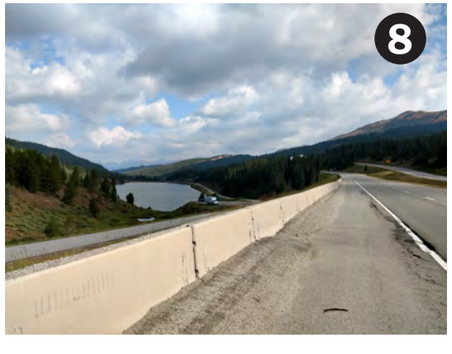
APPENDIX C

TOP OF THE PASS LANDSCAPE UNIT KEY VIEWS AND PHOTO INVENTORY

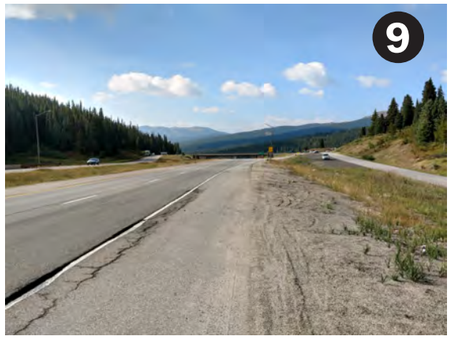
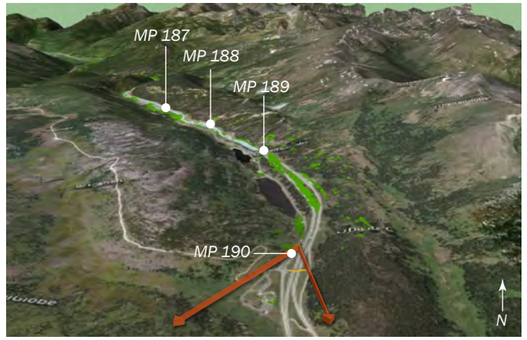
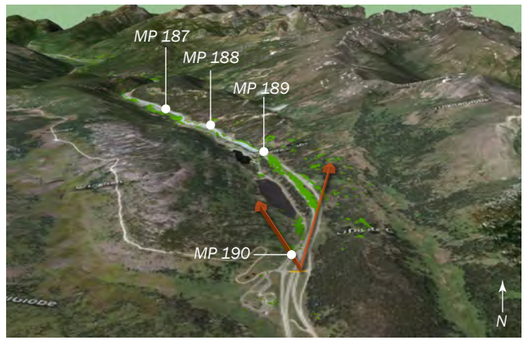
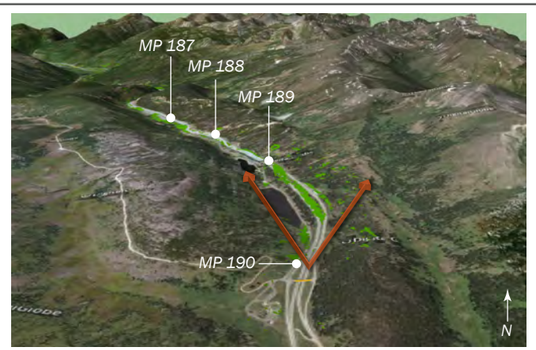
Top of the Pass Landscape Unit: Key Views

Photo	Location	
		Photo 1 shows the long background view travelers see when reaching the top of the pass near the CDOT maintenance facility. The distant peak is Bald Mountain sitting above the Town of Vail. The forested slopes of the valley's northern slopes reach the edge of the interstate, alluding to the slope on which the roadway travels. To the left the unit's topography drops towards the Black Lakes, with the Vail Pass Recreation Trail running between the lakes and the interstate. Note the ridge line to the left that separates the interstate from Shrine Pass Road and the National Forest's Winter Recreation Area. The Shrine Pass Huts are located just over the ridge line.
		Photo 2 shows one of two Variable Message signs located within the West Vail Pass project area. The picture shows the on-ramp from the CDOT maintenance facility located at the top of the pass. Just beyond the VMS sign is the transition point to the Mid-Pass Valley Landscape Unit. The constrained and narrow valley of the Mid-Pass Valley Landscape Unit stands in contrast to the relatively wide-open vistas of the Top of the Pass Landscape Unit.
		Photo 3 looks in the reverse direction of Photo 2 and shows one of the permanent structures at the CDOT maintinance facility. This pull-out is also used as a rest area for semi-trucks, a common visual element found on both sides of the interstate at this location. Mature vegetation to the right occupies the highway divider, mitigating the scale of the interstate by visually dividing the two directions of the interstate.
		Photo 4 was taken from the northern roadway edge of westbound lanes. Note the ridge line in the background that separates the interstate from Shrine Pass Road. This ridge-line continues for the length of the landscape unit and progresses into the Mid-Pass Valley Landscape Unit. This landform offers travelers and neighbors views of the passe's sand stone geology intermixed with a diverse forest. Topographic difference between east and westbound directions, in combination with vegetated screening minimizes the visual footprint of the interstate's roadway section. Beyond and below the divider lies eastbound lanes, the Vail Pass Recreation Trail, and the Black Lakes at the bottom of the valley.

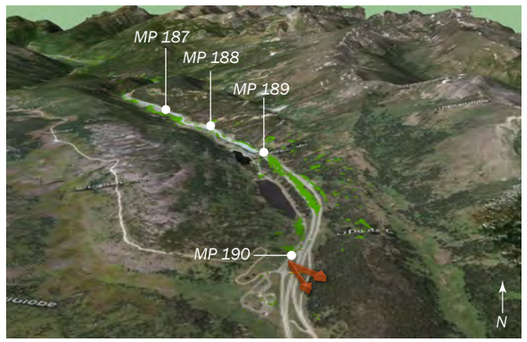
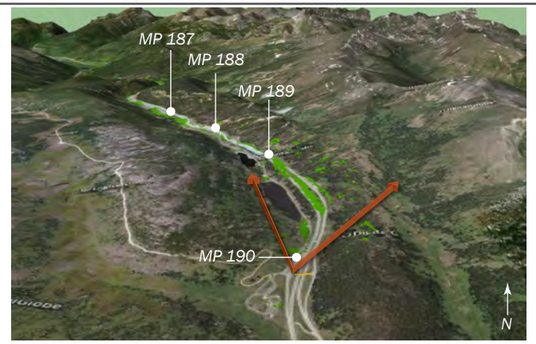
Top of the Pass Landscape Unit: Key Views

Photo	Location	
		Photo 5 shows a view of the CDOT maintenance facility from the pull-off at the top of Vail Pass. Note the westbound lanes of the pass in the middle ground. While substantial visual screening exists between the directions, little horizontal or vertical distance separates the facility from westbound lanes.
		Photo 6 illustrates the substantial revegetation/preservation techniques used when the interstate was originally constructed. These screening strategies used in combination with a separated facility and topographic differences create a visually pleasing view that blends the facility with its spectacular natural context.
		Photo 7 looks east from the CDOT maintinance facility toward the Vail Pass Rest Area. Eastbound travelers have substantial background views of the Ten Mile range that sits east of Copper Mountain. These long and expansive background views define the landscape unit.
		Photo 8 shows one of the few locations that the Black Lakes are visible from the interstate. For travelers to see the lake, eastbound travelers would need to look down and backwards due to elevation differences, vegetated screening, and roadway barriers. Note the warm tone used in the barriers to blend with surrounding geology. The old US 6 alignment is used to access the Black Lakes from the top of the pass. This alignment is shared with the Vail Pass Recreational Trail near the lakes and at the Vail Pass Rest Area exit.

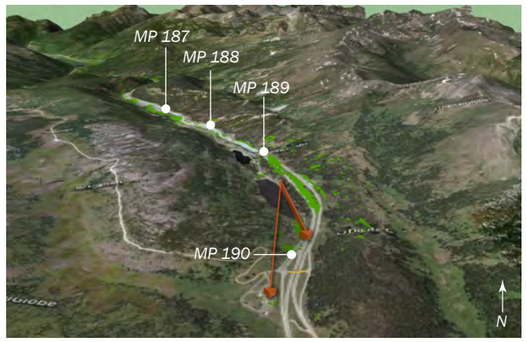
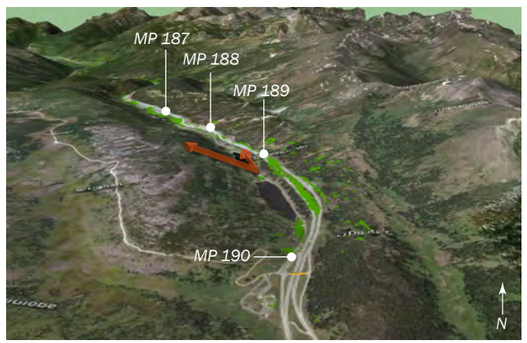
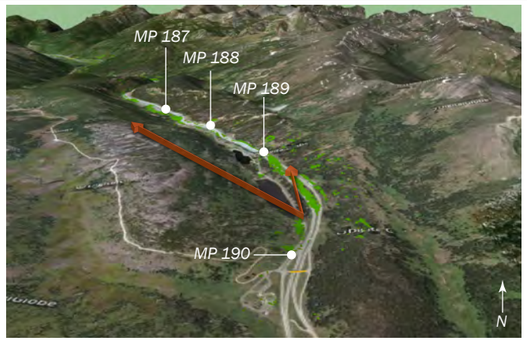
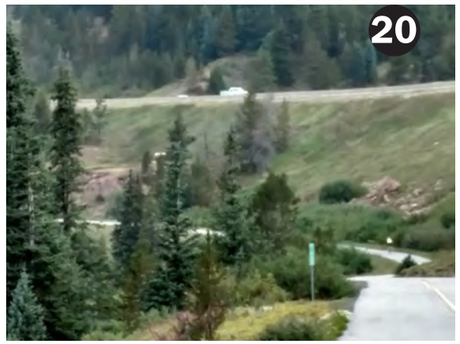
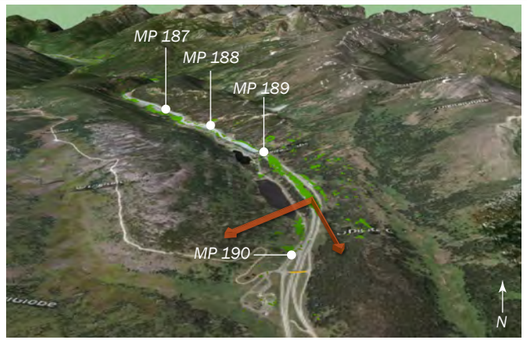
Top of the Pass Landscape Unit: Key Views

Photo	Location	
		Photo 9 represents the long background views eastbound travelers see when approaching the Vail Pass Rest Area. On clear days the top of Copper Mountain is visible. Note the old US 6 alignment to the right. This is one of the few locations in the unit where the combined trail/vehicular facility can be seen from the interstate. To the right of this alignment lies the lower reaches of the ridgeline that divides Shrine Pass Road from the interstate.
		Photo 10 is taken from the Vail Pass Rest Area towards the CDOT maintenance facility. The high ridge lines of the Gore Range compose the background. The visually pleasing curvature of the interstate can be seen in the middle ground as it approaches the top of the pass. In the foreground, native vegetation occupies the interchange's median, buffering the wide roadway section. Note how the forest meets the edge of the roadway as the landscape unit progresses to the west.
		Photo 11 looks down onto the east side of Vail Pass (towards Copper Mountain) at the upper parking lot of the Vail Pass Rest Area. Travelers and truckers using the exit is a common visual element at this location. The rest area has been landscaped to blend with the high-alpine meadow it occupies using terracing techniques to minimize cut and fill slopes.
		Photo 12 looks from Vail Pass Rest Area exit toward the Town of Vail along the westbound alignment. The heavily forested slopes of the valley's northern slopes can be seen in the distance. The white roof of the CDOT maintinance facility stands in visual contrast to the natural roadside environment. In the foreground, the open median of the interchange matches the high alpine meadows that surround the area.

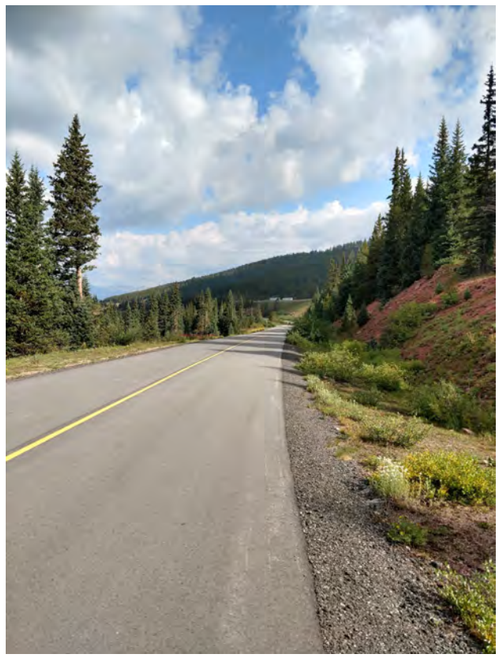
Top of the Pass Landscape Unit: Key Views

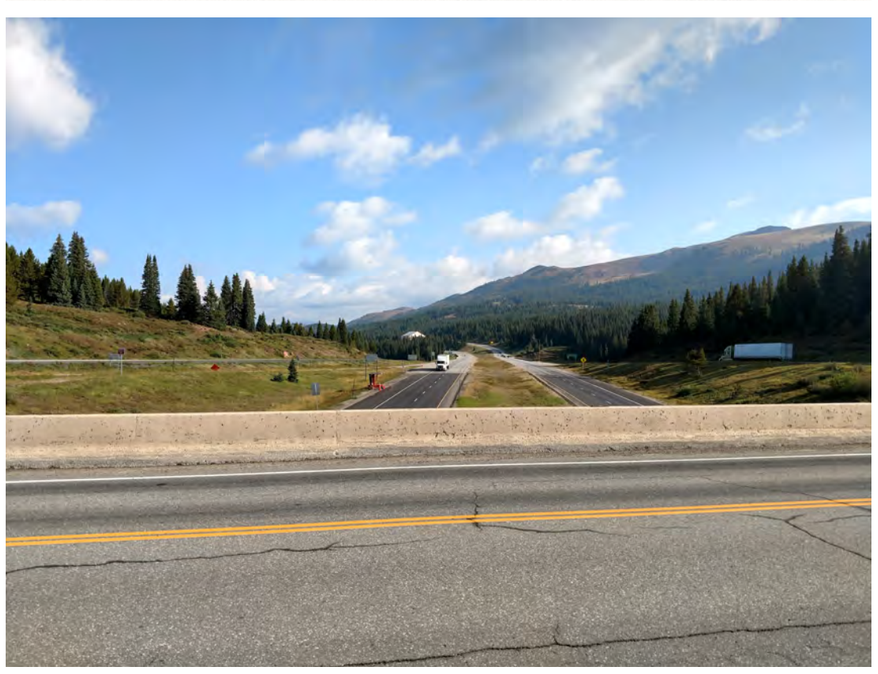
Photo	Location	
		Photo 13 shows the view of eastbound travelers as they pass the rest area exit. The bridge's low-profile frames views of the Ten Mile Range in the distance for travelers. Note how the northern slopes work with the interstate and the bridge to frame the view. Roadside vegetation that matches the natural environment can be seen to the left.
		Photo 14 shows how the low profile design and colors of the bridge blend with the natural visual landscape. Note how the dense forest of northern slopes restrict background views at the edge of the facility. This condition persists for the length of the landscape unit's northern roadway edge.
		Photo 15 looks from the Vail Pass Rest Area bridge towards the Gore Range and the top of the pass. Extensive roadside vegetation along the roadway's northern edge restricts the view of westbound travelers. Numerous permanent and temporary signs are visible at this location and impact the visual experience of viewers.
		Photo 16 shows Shrine Pass Road climbing the lower reaches of the ridgeline that divides Shrine Pass from the interstate. Note the well-spaced trees and alpine meadows that compose the highway's south-side visual environment. On the right side, a small shed used by the National Forest to help manage the winter recreation area during colder months can be seen. Note the high ridgeline in the background that sits above tree line. This ridgeline terminates background views at this location.

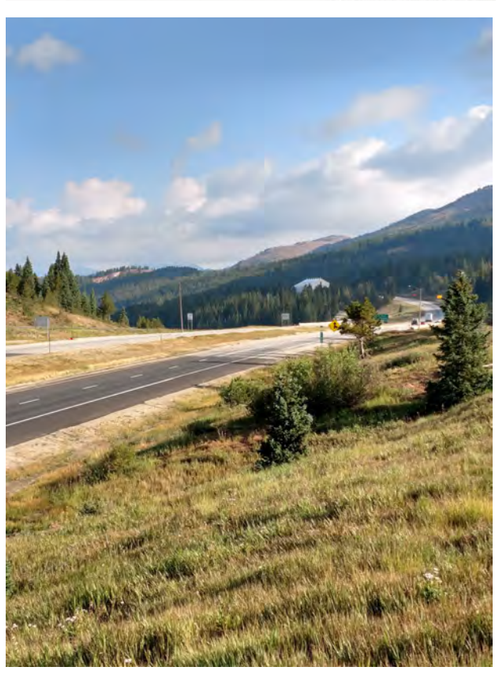
Top of the Pass Landscape Unit: Key Views

Photo	Location	
		Photo 17 shows a view toward the Vail Pass Rest Area from the trail and roadway adjacent to the Black Lakes. The high peaks of the Ten Mile Range can be seen in the background. Sub-alpine meadows sprinkled with trees can be seen in the distance and are indicative of the roadside environment seen south of the roadway. The interstate can be seen just below the forested slopes of the north side of the interstate. In the foreground, the ubiquitous sandstone formations of the pass can be seen. These formations in combination with elevation difference and vegetation visually buffer both the lakes and the trail from the interstate. Photo 18 looks in the opposite direction towards the Town of Vail. Vegetation and landforms to the right provide substantial visual screening for trial users in this location.
		
		Photo 19 shows the extent of visual screening incorporated at the Black Lakes. A combination of land cover and land form has buffered the trail and lakes to create a relatively serene environment in close proximity to the interstate. Large vertical separation between the facilities is present.
		Photo 20 shows how screening for the trail changes as the Top of the Pass Landscape Unit transitions into the Mid-Pass Valley Landscape Unit. Note how limited screening between the interstate and trail creates visual impacts to the trail and its users.

Top of the Pass Landscape Unit: Key Views







APPENDIX D

VISUALIZATIONS

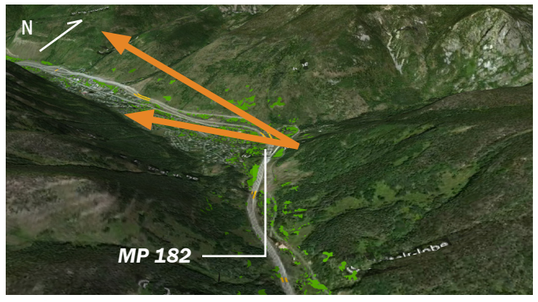
Valley Floor Landscape Unit View 3

Visual Impacts and Visualizations

Existing

Potential Treatment

Location



Location:

Valley Floor Landscape Unit.

Taken from the western terminus of the Vail Pass Recreation Trail where it meets the Gore Creek Campground.

Viewers: Recreational Neighbors, Pedestrian Travelers, and Bicycle Travelers.

Context:

- Located on the lower slopes of northern valley walls.
- Bridges serve as a visual landmark for recreationalist when entering or leaving the Vail Valley.
- The existing dual bridge configuration treads lightly on the land by minimizing the size of a combined structure, conveying a sense of visual harmony with the natural environment.

Views:

Neighbors: In this location WB recreationalist have extensive background views west into the Vail Valley as well as middle ground and foreground views of both the north side and south sides of the Valley. The bridge is partially obstructed due to land cover and land forms.

Impacts

Natural Harmony (Neutral): Widening of I-70 and bridges to six lanes will have an adverse impact upon the natural environment due to additional width needs, requiring the construction of larger structures. Larger bridges will be placed south and west of their existing location, the Gore Creek Campground, and the Vail Pass Recreational Trail. However, movement of the bridges to the south and west of this location will lessen visual impacts due to their increased distance from this location.

Cultural Order (Neutral): Changes to I-70 at this location will have a beneficial effect on cultural order. Movement of the bridges to the south and west will separate them further from the Vail Pass Recreational Trail and the Gore Creek Campground. However the larger structures will make I-70 more visually apparent and intrusive when in the East Vail neighborhood.

Project Coherence (Beneficial): If roadway improvement utilize consistent and historically-appropriate designs in the construction of new bridges there will be beneficial impacts on project coherence. The current structure exhibits the textures and colors of other roadway structural elements. However, repair and maintenance activities have degraded the original visual composition of the bridges by replacing some components with visually incompatible barriers, piers, and material colors.

Visual Quality (Neutral): Proposed widening could have an adverse effect on the overall visual quality of the location and within the Valley Floor Landscape Unit. However, because the proposed design will mimic original structures, incorporate project-wide visual elements, and will lessen visual impacts on the Gore Creek Campground and the Vail Pass Recreational Trail the impacts to visual quality can be considered neutral.

Potential Treatments

High-level aesthetics concepts shown in potential treatment renderings are based on recommendations outlined in the following documents:

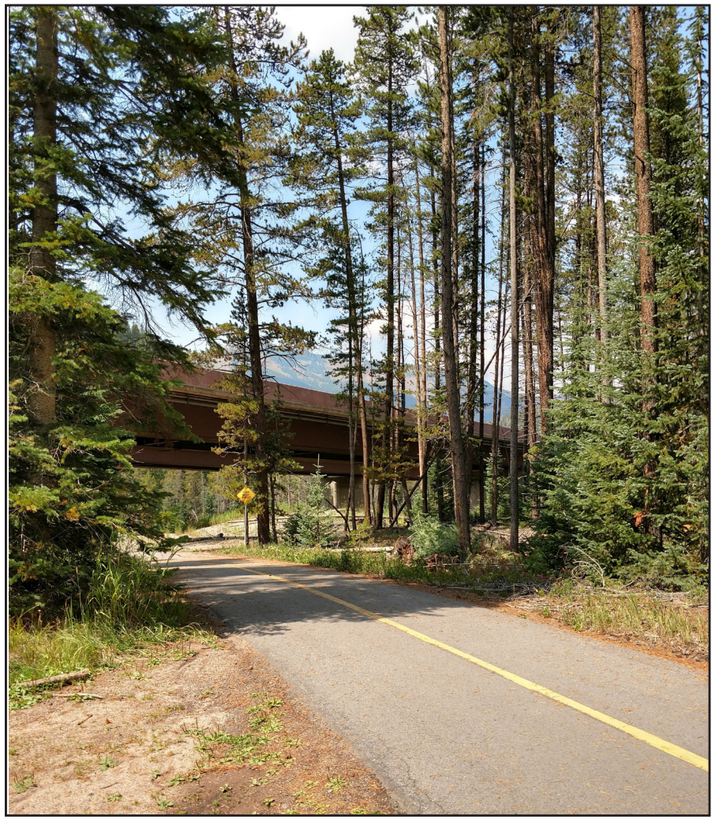
- *Memorandum of Understanding between the Bureau of Land Management, the Colorado Department of Transportation, Federal Highway Administration, and the USDA Forest Service Rocky Mountain Region. 2016*
- *I-70 in a Mountain Environment*
- *I-70 Mountain Corridor Context Sensitive Solutions*

More detailed aesthetic guidance and recommendations will be developed by the Aesthetic Issues Task Force during final design of the West Vail Pass project. The Aesthetics Issues Task Force will use a combination of the documents listed above and formalized mitigations defined in later project phases to detailed visual mitigations.

Mid-Pass Valley Landscape Unit View 4

Visual Impacts and Visualizations

Existing



Potential Treatment

Location

Location:

Mid-Pass Valley Landscape Unit.

Taken from the Vail Pass Recreational Trail as it passes under I-70 (looking south).

Viewers: Residential Neighbors, Recreational Neighbors, Commuter Travelers, Touring Travelers, Shipping Travelers, Pedestrian Travelers, and Bicycle Travelers.

Context:

- The trail in this location is crossing from the forested slopes of the north side of the valley to the forested slopes of the south side of the valley under two large steel bridges.
- The current bridges serve as one of the largest human-constructed visual elements for recreational neighbors using the Vail Pass Recreational Trail.
- The dual bridge configuration treads lightly on the land conveying a sense of visual harmony with the natural visual environment.

Views:

In this location both EB and WB recreationalist's foreground views are dominated by the structures. Middle and background views are almost completely obstructed due to the bridges and vegetation.

Due to mature vegetation travelers on I-70 have little knowledge that they are on a bridge. The structures location above surrounding landforms and land cover combined with I-70's descending grades afford rare Mid-Pass Valley background views to the west. Middle and foreground views to the east are terminated by the sharp curves of the steeply rising roadway.

Impacts

Natural Harmony (Neutral): Widening of I-70 and bridges to six lanes will have an adverse impact upon the natural environment due to additional width needs, requiring the construction of larger structures. However, the new bridges are planned to be constructed further apart. Lessening their combined visual intensity for all users and for recreational neighbors in particular.

Cultural Order (Neutral): Proposed changes to I-70 and bridges at this location will have a neutral effect on cultural order at this location due to the natural visual context of the location.

Project Coherence (Beneficial): If roadway improvement utilize consistent and historically-appropriate designs in the construction of new elements their will be beneficial impacts on project coherence. The current structure exhibits the textures and colors of other roadway structural elements. However, repair and maintenance activities have degraded the original visual composition of the bridges by replacing some components with visually incompatible barriers, piers, and material colors.

Visual Quality (Beneficial): Proposed widening could have an adverse effect on the overall visual quality of the location and within the Mid-Pass Valley Landscape Unit. However, because the proposed design will increase the distance between the two structures the overall impact of changes at this location can be considered beneficial.

Potential Treatments

High-level aesthetics concepts shown in potential treatment renderings are based on recommendations outlined in the following documents:

- *Memorandum of Understanding between the Bureau of Land Management, the Colorado Department of Transportation, Federal Highway Administration, and the USDA Forest Service Rocky Mountain Region. 2016*
- *I-70 in a Mountain Environment*
- *I-70 Mountain Corridor Context Sensitive Solutions*

More detailed aesthetic guidance and recommendations will be developed by the Aesthetic Issues Task Force during final design of the West Vail Pass project. The Aesthetics Issues Task Force will use a combination of the documents listed above and formalized mitigations defined in later project phases to detailed visual mitigations.

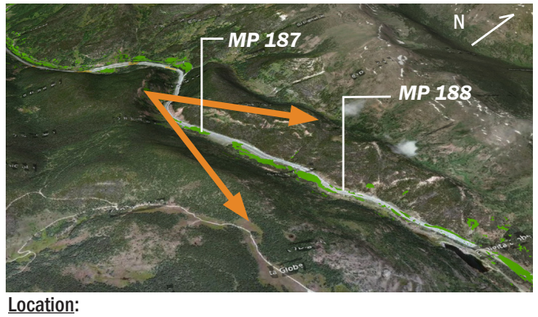
Top of the Pass & Mid-Pass Valley Landscape Units View 5

Visual Impacts and Visualizations

Existing

Potential Treatment

Location



Location:

Mid-Pass Valley Landscape Unit.

Taken from the ridge-line located south of and above I-70 looking to the East and the Top of the Pass Landscape Unit.

Viewers: Residential Neighbors, Recreational Neighbors, Commuter Travelers, Touring Travelers, Shipping Travelers, Pedestrian Travelers, and Bicycle Travelers.

Context:

- This location illustrates the direct adjacency of the Vail Pass Recreational Trail to EB lanes of I-70.
- The Vail Pass Recreational Trail joins I-70 just east of MP 186 and departs its adjacency at approximately MP 188.
- Confined valley walls and close proximity to Black Gore Creek contributed to the original placement of the trail directly adjacent to I-70.

Views:

In this location the views of EB and WB recreationalists of the Vail Pass Recreation Trail are dominated by the busy and chaotic visual environment of I-70. Trails user's middle ground views extend to either side of the valley and down towards Black Gore Creek. To the east and west background views for recreationalist terminate where curves or topographic changes occur. Interstate travelers of both directions experience the same visual environment due to the unseparated roadway.

Impacts

Natural Harmony (Beneficial): Recreational neighbors within the current built condition experience a disjointed and unharmonious visual environment due to the proximity of the trail to I-70's EB travel lanes. Movement of the trail away from I-70 will create a visual composition that is better integrated into the natural context. For travelers, relocation of the trail will have a neutral impact on their perception of visual natural harmony.

Cultural Order (Beneficial): The direct adjacency of the Vail Pass Recreation Trail to I-70 in this area is uncommon within the project area. For both travelers and recreational neighbors this close visual relationship is a departure from the established cultural order of the project area. Movement of the trail away from I-70 will alleviate this configuration and benefit the visual cultural order in this location as well as corridor-wide.

Project Coherence (Beneficial): Separation of I-70 and the trail will be beneficial to project coherence by removing this singular instance of direct adjacency.

Visual Quality (Beneficial): Movement of the trail at this location will enhance the overall visual quality of the Mid-Pass Valley Landscape Unit for travelers and neighbors alike. Roadway travelers will no longer be distracted by recreational users and will have unimpeded views into the surrounding landscape. Recreationalist will experience the visual solitude and separation experiences found in other trail locations within the study area.

Potential Treatments

High-level aesthetics concepts shown in potential treatment renderings are based on recommendations outlined in the following documents:

- *Memorandum of Understanding between the Bureau of Land Management, the Colorado Department of Transportation, Federal Highway Administration, and the USDA Forest Service Rocky Mountain Region. 2016*
- *I-70 in a Mountain Environment*
- *I-70 Mountain Corridor Context Sensitive Solutions*

More detailed aesthetic guidance and recommendations will be developed by the Aesthetic Issues Task Force during final design of the West Vail Pass project. The Aesthetics Issues Task Force will use a combination of the documents listed above and formalized mitigations defined in later project phases to detailed visual mitigations.

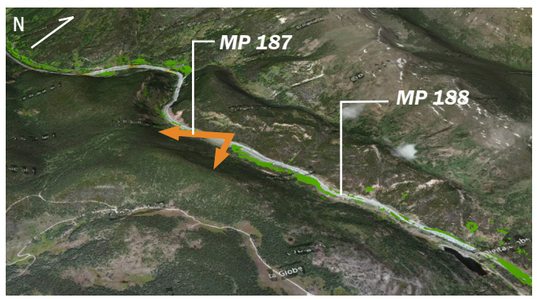
Mid-Pass Valley Landscape Unit View 6

Visual Impacts and Visualizations

Existing

Potential Treatment

Location



Location:

Mid-Pass Valley Landscape Unit.

Taken from the ridge-line located north and slightly above I-70 looking to the west and the opposite side of the valley.

Viewers: Residential Neighbors, Recreational Neighbors, Commuter Travelers, Touring Travelers, Shipping Travelers, Pedestrian Travelers, and Bicycle Travelers.

Context:

- This location illustrates the direct adjacency of the Vail Pass Recreational Trail to EB lanes of I-70. In this location the only buffering is horizontal distance between the trail and the EB lanes of I-70.
- The Vail Pass Recreational Trail joins I-70 just east of MP 186 and departs its adjacency at approximately MP 188.
- Confined valley walls and close proximity to Black Gore Creek contributed to the original placement of the trail directly adjacent to I-70.

Views:

In this location the views of EB and WB recreationalists of the Vail Pass Recreation Trail are dominated by the busy and chaotic visual environment of I-70. Trail users' middle ground views extend to either side of the valley and down towards Black Gore Creek. East and west background views for recreationalist terminate where curves or topographic changes occur. Interstate travelers of both directions experience the same visual environment due to the unseparated horizontal roadway. However, a retaining wall located in the highway median does provide for limited vertical separation between EB and WB lanes.

Impacts

Natural Harmony (Beneficial): Recreational neighbors within the current built condition experience a disjointed and unharmonious visual environment due to the proximity of the trail to I-70's EB travel lanes. Movement of the trail away from I-70 and to the other side of the valley create a visual composition that is better integrated into the natural context. For travelers, relocation of the trail will have a neutral impact on their perception of visual natural harmony.

Cultural Order (Beneficial): The direct adjacency of the Vail Pass Recreation Trail to I-70 in this area is uncommon within the project area. For both travelers and recreational neighbors this close visual relationship is a departure from the established cultural order of the project area. Movement of the trail away from I-70 and to the opposite side of the valley will alleviate this configuration and benefit the visual cultural order in this location and corridor-wide.

Project Coherence (Beneficial): Separation of I-70 and the trail will be beneficial to project coherence by removing this singular instance of direct adjacency of the trail and the highway.

Visual Quality (Beneficial): Movement of the trail at this location will enhance the overall visual quality of the Mid-Pass Valley Landscape Unit for travelers and neighbors alike. Roadway travelers will no longer be distracted by recreational users and will have unimpeded views into the surrounding landscape. Recreationalists will experience the visual solitude and separation experiences found in other trail locations within the study area because of increased vertical and horizontal separation. This condition will be further enhanced by the trail's proximity to Black Gore Creek. A closer relationship with Black Gore Creek will enhance the visual environment for trail users and blend their visual experience into the natural composition of the valley.

Potential Treatments

High-level aesthetics concepts shown in potential treatment renderings are based on recommendations outlined in the following documents:

- *Memorandum of Understanding between the Bureau of Land Management, the Colorado Department of Transportation, Federal Highway Administration, and the USDA Forest Service Rocky Mountain Region. 2016*
- *I-70 in a Mountain Environment*
- *I-70 Mountain Corridor Context Sensitive Solutions*

More detailed aesthetic guidance and recommendations will be developed by the Aesthetic Issues Task Force during final design of the West Vail Pass project. The Aesthetics Issues Task Force will use a combination of the documents listed above and formalized mitigations defined in later project phases to detailed visual mitigations.