

CDOT Visual Impact Assessment Technical Report

<Insert Project Name>

<Insert Draft or Final Report and Date>

<Insert Project Number and Subaccount Number/Project Code>

August 30, 2019



COLORADO
Department of Transportation

(Delete this entire box, all red text, and all <gray highlighted> placeholder text before submitting the first draft VIA to CDOT)

Background for Visual Impact Assessment (VIA) Standard Template

This VIA Standard Template is organized to facilitate the preparation of reader-friendly and graphically informative VIAs for any level of National Environmental Policy Act (NEPA) documentation, while reducing unnecessary detail. The formatting of this template tracks with the direction and examples included in the Colorado Department of Transportation (CDOT) *2019 VIA Guidelines* (hereinafter referred to as CDOT's Guidelines, available on CDOT's Landscape Architecture (LA) [website](#)).

The goal of this Standard VIA Template is to simplify the documentation of visual impacts and effective mitigation for CDOT transportation projects, in context to Colorado's diverse regions, landscapes, and communities. The details of the VIA should be depicted in tables and figures to the extent practical, with VIA text highlighting key findings pertaining to impacts and mitigation. CDOT's Guidelines serve as a technical reference during the preparation and documentation of the visual analysis. CDOT's Guidelines include sample maps, graphics, and tables for reference, as the Standard VIA Template is used to document VIA analysis.

The template includes preparation tips, along with standardized text, table, and graphic formats that are scalable and adaptable to the scope of individual projects. Standard VIAs will receive the highest level of review and are reserved for projects with the potential to adversely affect the visual quality of sensitive landscape and viewers.

INFORMATION ON USING THIS REPORT TEMPLATE

1. Color-coding throughout this template:
 - a. Red text: Review background information, optional choices, and suggestions/tips provided in red text, and delete any red text before submitting the first draft of the VIA to CDOT.
 - b. <gray content placeholders>: Insert the content requested in text highlighted in gray, and delete gray highlighted text before submitting the first draft of the VIA to CDOT.
2. Complete CDOT's Visual Resource Scoping Documentation and Questionnaire (available on CDOT's LA [website](#)) to establish which, if any, template is appropriate (Standard or Memorandum).
3. If the project has a Preferred Alternative, replace "Proposed Action" with "Preferred Alternative" as appropriate throughout this template. Also incorporate evaluations of Build Alternative(s), if appropriate.
4. Table and/or figure numbers provided in this template may require revisions to adapt to the author's presentation of materials.
5. This file is CDOT's Standard VIA Template for use on projects. If prior approval from the CDOT Region Environmental Project Manager, Landscape Architect, and/or FHWA is obtained, this template does not have to be used.

Appendix B of this Standard VIA includes a summary of the criteria and methods used to conduct this VIA.



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List of Acronyms and Abbreviations <update as appropriate>

APE	Area of Potential Effect
AVE	Area of Visual Effect
Bg	background
BLM	Bureau of Land Management
CDOT	Colorado Department of Transportation
CPW	Colorado Park and Wildlife
Fg	foreground
FHWA	Federal Highway Administration
GIS	geographic information system
HED	Highway Easement Deed
LA	landscape architecture
Mg	middleground
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NPS	National Park Service
USFS	United States Forest Service
VIA	visual impact assessment

EXECUTIVE SUMMARY

<Insert executive summary> Include a brief narrative summary that describes:

- ▶ Methodology and scoping questionnaire score, triggering the preparation of a Standard VIA
- ▶ Landscape character, including dominant visual features and context (natural landscape, rural, suburban, urban)
- ▶ Key viewpoints
- ▶ Scenic features or designations
- ▶ Impacts/mitigation

1. INTRODUCTION

Colorado Department of Transportation (CDOT), in coordination with the Federal Highway Administration (FHWA), is preparing a/an **<insert class of action/modify following text as appropriate>** Categorical Exclusion, Environmental Assessment, Environmental Impact Statement; **may include reevaluation of these classes [see Section 1.1 of CDOT's Guidelines]** for the **<insert name of project>** project. CDOT's 2019 VIA Guidelines (hereinafter referred to as CDOT's Guidelines) apply because the project involves **<insert CDOT involvement>** CDOT sponsorship, local agency sponsorship, or third-party use of CDOT right-of-way [see Section 1.2 of CDOT's Guidelines].

This visual impact assessment (VIA) evaluates the effects of the Proposed Action on visual resources, following criteria set out in CDOT's Guidelines (available on CDOT's Landscape Architecture (LA) [website](#)).

Refer to the Project Description in the NEPA document for details on the scope of the Proposed Action and location. This introduction may be adapted to complement the Project Description.

2. VIA METHODOLOGY AND SCOPING

The VIA methodology is carried out in four phases: Establishment/Scoping, Inventory, Analysis, and Mitigation:

- ▶ **Establishment/Scoping - Section 2 and Appendix A** - Identifies direction for the initial review of the Proposed Action, landscape context, issues and applicable regulations, policies or guidelines; level of VIA documentation; and Area of Visual Effect (AVE)/landscape unit(s)
- ▶ **Inventory - Section 3 and Appendix B** - Characterizes the landscape character, viewers, and visual quality of the AVE
- ▶ **Analysis - Section 4 and Appendix B** - Evaluates the visual compatibility and impacts of the Proposed Action
- ▶ **Mitigation - Section 5 and Appendix B** - Develops visual impact mitigation measures

The VIA Study Team includes **<document the VIA Study Team who prepared this report/modify the following text as needed>**. Descriptions of the VIA Study Team members may include CDOT participation; consulting firm(s); and discipline backgrounds (landscape architects, planners, natural resource specialists, historians, graphic designers, and geographic information system [GIS] specialists.)

Data gathering and scoping approaches for this project included **<modify the following text as needed>**:

- ▶ Desktop reconnaissance and any field observations if a site visit was conducted to aid in VIA scoping and development of the study area
- ▶ Review of guidelines and policies related to visual resources, including federal agencies and federally managed lands, scenic byway coordinators, and local governments
- ▶ Public or stakeholder involvement activities



- ▶ Completion of CDOT’s scoping questionnaire (**Appendix A**) to identify issues and establish the appropriate level of VIA documentation for this project

2.1 Visual Resource Scoping

Refer to Section 2.1 of CDOT’s Guidelines (available on CDOT’s LA [website](#)) for additional information.

Appendix A provides documentation of visual resource scoping, including a summary of:

- ▶ Initial project design review to identify visual characteristics of the Proposed Action **<delete or modify as needed>** and Build Alternative(s)
- ▶ Landscape context (natural, rural, suburban, and/or urban)
- ▶ Historic/cultural resources context
- ▶ Issues and regulatory framework
- ▶ VIA Scoping Questionnaire documentation, leading to a Standard VIA (**Appendix A**)

2.1.1 Visual Attributes of the Proposed Action/Build Alternative(s)

<Include a brief narrative summary of key visual attributes and reference graphics as appropriate for the project and VIA. Modify the subsequent text as appropriate.> Figure _ and Figure _ document perspective and cross section views of the Proposed Action. These graphic illustrations visually communicate the scale and appearance of the project, vertical design elements, and topographic changes. **This information is based on conceptual-level design being evaluated in the NEPA process.**

Graphics may include line drawings, SketchUp or other computer-modeled perspective graphics, including a representative cross section(s) and perspective rendering(s). See CDOT’s Guidelines, Appendix D for examples.

2.1.2 Issues and Context

<Include a brief narrative summary of the biggest issues/most meaningful context.> Document specific issues to address, such as federally managed lands, state parks, scenic byways, or agency policies and guidelines related to visual resources.



Figure __. Proposed Action Perspective(s)

<insert graphic here>

Duplicate for additional Build Alternative(s), if applicable

Figure __. Representative Proposed Action Cross Section(s)

<insert graphic here>

Duplicate for additional Build Alternative(s), if applicable

2.2 Area of Visual Effect and Landscape Unit

Refer to Section 2.2 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional information. Refinement to content in this template is appropriate to reflect the unique nature of each project.

The final step of the scoping phase is to define the AVE based on project visibility and potential influence on surrounding landscapes and viewers. This process incorporated input from **<insert appropriate updates/modify the following text>** the interdisciplinary project team, CDOT, and stakeholders.

This AVE was developed based on **<insert from the following>** geographic information systems (GIS) visibility modeling and field observations; perspective views of the road and from the road; the influence of topography, vegetation, and structures near the project; coordination with the project historian regarding the Section 106 Area of Potential Effect (APE). [Refer to Step E-5 of Section 2.2 of CDOT's Guidelines for more information and elaborate if appropriate for the project.]

If GIS applications were used to define the AVE boundary, document data sources and the resolution of elevation data/contours, building footprints, light detection and ranging (LIDAR) data, and any 3D/viewshed modeling.

A landscape unit is a spatially defined area with a visually distinctive identity or "sense of place" that establishes context for the visual inventory. Through coordination with CDOT, the nature of this AVE has led to the identification of **<name the landscape unit(s)>**. Provide rationale for more than one landscape unit within the AVE, including coordination with CDOT.

Figure _ identifies the AVE and landscape unit(s) associated with the Proposed Action **<delete or modify as needed>** and Build Alternative(s). Document any significant refinements to the AVE between the Scoping and Inventory phases, such as changes in project alignment or major design elements.



Figure __. Proposed Action Area of Visual Effect and Landscape Unit(s)

<insert map here>

Duplicate for additional Build Alternative(s), if applicable

3. AFFECTED ENVIRONMENT

Refer to Chapter 3 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional information. Refinement to content in this template is appropriate to reflect the unique nature of each project.

The inventory is the central phase of the VIA process and provides a foundation for evaluating impacts and developing effective mitigation. This section documents the visual inventory of the AVE and landscape unit(s) by describing:

- ▶ Landscape character, which encompasses the overall visual image and physical appearance of natural, cultural, and existing roadway features
- ▶ Viewers/key viewpoints, including views of the road and views from the road
- ▶ Visual quality, which encompasses the visual harmony and vividness of landscapes and views within the AVE; any scenic designations; and how the roadway influences the surrounding environment

3.1 Landscape Character

See Section 3.2, Step I-1 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional direction.

The character of the landscape is defined by the overall visual image and physical appearance of natural, cultural, and existing roadway features. Landscape features such as landforms, vegetative patterns, and water, combined with development patterns and transportation networks, create the overall visual image and sense of place of a landscape unit.

The landscape character inventory:

- ▶ Describes the existing landscape features and the existing roadway
- ▶ Establishes a baseline for the visual quality inventory
- ▶ Provides a baseline reference to compare any changes that the Proposed Action is expected to cause to the existing natural environment, cultural environment, and roadway features

Figure _ illustrates the visual resources inventory. **Table _** documents the landscape character and composition of the landscape unit(s).



Figure __. Visual Resources Inventory

<insert map here>

Duplicate map for each landscape unit that is part of the AVE.



Table __. *Visual Resources Inventory*

<Name of Landscape Unit>	
Landscape Character	Roadway Character
<p>Natural Environment</p> <ul style="list-style-type: none"> ▪ <insert text> <p>Describe visual characteristics (form, line, color, textures, scale) of features in the AVE:</p> <ul style="list-style-type: none"> ▪ Landforms, geologic formations and outcrops (e.g., Front Range and Rocky Mountain formations) ▪ Vegetation types, scale, and visual characteristics ▪ Presence of water (e.g., rivers, streams, lakes, and ponds) ▪ Presence of wildlife 	<p>Roadway Character</p> <ul style="list-style-type: none"> ▪ <insert text> <p>Describe visual characteristics (form, line, color, textures, scale) of features in the AVE:</p> <ul style="list-style-type: none"> ▪ Alignments, vertical profiles, cross sections ▪ Intersections and interchanges ▪ Retaining walls ▪ Bridges ▪ Lighting, guardrails, signage ▪ Aesthetic elements
<p>Cultural/Developed Environment</p> <ul style="list-style-type: none"> ▪ <insert text> <p>Describe visual characteristics (form, line, color, textures, scale) of features in the AVE:</p> <ul style="list-style-type: none"> ▪ Urban, suburban, and rural development ▪ Historic properties ▪ Parks, trails, and open space areas 	<p>Right-of-Way Characteristics</p> <ul style="list-style-type: none"> ▪ <insert text> <p>Describe visual characteristics (form, line, color, textures, scale) of features in the AVE, including:</p> <ul style="list-style-type: none"> ▪ Grading (cut and fill slopes) ▪ Drainage elements ▪ Rock cuts ▪ Roadside vegetation within right-of-way ▪ Noise walls
Landscape Composition	
<p>Composition Type: <insert text> (Panoramic, Feature, Enclosed, Canopied)</p> <p>Sense of Place: <insert text></p> <p>Describe perception and experience, including:</p> <ul style="list-style-type: none"> ▪ Dominant visual elements ▪ Visual unity ▪ Integrity within composition 	
<p><Insert Representative Composition Photo></p>	<p><Insert Representative Composition Photo></p>





3.2 Viewers and Visual Quality

For additional direction, see Section 3.2, Steps I-2 and I-3 of CDOT’s Guidelines (available on CDOT’s LA [website](#)).

This inventory integrates viewers and visual quality to capture the visual experience of the traveling public and neighbors to the project within the AVE. The inventory includes maps, photos, and descriptions of views from key viewpoints. **Table _** documents the viewer characteristics including distance, visibility, and observer position. It also characterizes the visual quality of landscape composition. **Figure _** shows the locations and visibility from key viewpoints.

Figure __. Viewers and Viewpoints in the AVE

<insert map here>



Table __. Viewers and Visual Quality Summary

Use descriptors in the table legend below, considering both travelers and neighbors, to complete distance zone, visibility, observer position, visual sensitivity, and visual quality fields.

Viewpoint Inventory		Landscape Composition and Visual Quality	Representative Viewpoint Photograph
Travelers (Duplicate traveler fields in this table to correspond with inventory of viewers mapped on Figure __. See Table 3 in CDOT’s Guidelines as an example)			
Viewpoint/View Segment: <insert name of viewpoint segment in coordination with viewer Figure __>			
Distance Zone	<insert from legend>	Landscape Composition: <Describe landscape composition seen from viewpoint> Visual Quality: <Describe the “visual harmony” of the landscape composition> Vividness: <Describe features that create an element of “vividness” of the landscape composition>	<Insert representative photo(s)>
Visibility	<insert from legend>		
Observer Position	<insert from legend>		
Visual Sensitivity	<insert from legend>		
Visual Quality	<insert from legend>		
Notes			
Legend			
Distance Zone: <i>Fg</i> = Foreground, <i>Mg</i> = Middleground, <i>Bg</i> = Background		Visibility: <i>Open, Screened, Not Visible</i>	Visual Quality: <i>Harmonious, Moderate, Inharmonious</i>
Observer Position: <i>Above, Normal, Below</i>		Visual Sensitivity: <i>High, Moderate, Low</i>	



Viewpoint Inventory		Landscape Composition and Visual Quality	Representative Viewpoint Photograph
Neighbors (Duplicate neighbor fields in this table to correspond with each key viewer mapped on Figure __. See Table 3 in CDOT's Guidelines as an example)			
Viewpoint: <insert name of viewpoint segment in coordination with viewer Figure __>			
Distance Zone	<insert from legend>	Landscape Composition: <Describe landscape composition seen from viewpoint> Visual Quality: <Describe the "visual harmony" of the landscape composition> Vividness: <Describe features that create an element of "vividness" of the landscape composition>	<Insert representative photo(s)>
Visibility	<insert from legend>		
Observer Position	<insert from legend>		
Visual Sensitivity	<insert from legend>		
Visual Quality	<insert from legend>		
Notes			
Legend			
Distance Zone: <i>Fg</i> = Foreground, <i>Mg</i> = Middleground, <i>Bg</i> = Background		Visibility: <i>Open, Screened, Not Visible</i>	Visual Quality: <i>Harmonious, Moderate, Inharmonious</i>
Observer Position: <i>Above, Normal, Below</i>		Visual Sensitivity: <i>High, Moderate, Low</i>	

4. IMPACT EVALUATION

Refer to Chapter 4 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional information. Refinement to content in this template is appropriate to reflect the unique nature of each project.

This section evaluates visual impacts of the Proposed Action **<delete or modify as needed>** and Build Alternative(s) to the landscape character, viewers, and visual quality of landscape compositions within the AVE (Sections 3.1 and 3.2).

See Chapter 4, Step A-1 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional direction.

The first step in the assessment process is to evaluate visual compatibility of the Proposed Action **<delete or modify as needed>** and Build Alternative(s) based on the level of change or contrast that project elements would have with the visual character of the natural environment, cultural environment, and roadway.

See Chapter 4, Step A-2 of CDOT's Guidelines (available on CDOT's LA [website](#)) for additional direction.

Table_ identifies the visual contrast of major project elements and highlights the visual compatibility (compatible or incompatible) with natural, cultural, and roadway features. **<Summarize visual compatibility findings.>** **Table_** highlights the findings from the assessment process. **<Summarize visual compatibility findings.>** **Figure _** illustrates potential impacts of the Proposed Action.



Table __. *Landscape Character Compatibility Matrix*

Duplicate this table for each Landscape Unit & Build Alternative, if applicable
Project element examples include roadways, bridges, walls, and rock cuts.

Legend		<p style="text-align: center;"><Insert Project Name> <Insert Landscape Unit Name></p> <p style="text-align: center;">Natural, Cultural, & Roadway Features</p>				
	Visually Compatible					
	Visually Incompatible					
S	Strong Visual Contrast					
M	Moderate Visual Contrast					
W	Weak Visual Contrast					
N	No Visual Contrast					
Visual Attributes	Project Elements	Landforms	Vegetation	Water	Development Patterns & Structures	Roadway Character
	<insert project element>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>
	<insert project element>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>
	<insert project element>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>	<insert contrast rating & color from legend>



Table __. Visual Impact Assessment Summary

Duplicate this table for each Build Alternative (and No Action if EA or EIS level of NEPA warranted), if applicable

<Insert Project Name> <Landscape Unit>															
Viewers and Visual Quality <small>(See Table_ Viewer and Visual Quality Inventory)</small>	Project Elements <small>Duplicate/delete rows as needed</small>											Impact Summary			
	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >	<insert project element type >			<insert project element type >	
Travelers (see Figure_ for viewpoint locations)															
1. <Insert Viewer name > <Insert Viewer Sensitivity (L, M, or H), Distance Zone (Fg, Mg, or Bg), Visual Quality (harmonious, inharmonious, vivid)> <small>Duplicate/delete rows as needed</small>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert summary of impacts to viewer and visual quality of the landscape composition>	
Neighbors (see Figure_ for viewpoint locations)															
1. <Insert Viewer> <Insert Viewer Sensitivity (L, M, or H), Distance Zone (Fg, Mg, or Bg), Visual Quality (harmonious, inharmonious, vivid)> <small>Duplicate/delete rows as needed</small>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert contrast>	<insert summary of impacts to viewer and visual quality of the landscape composition>	
Legend															
Visual Impacts							Visibility and Contrast Levels (See Table_ Landscape Character Compatibility Matrix)								
	Adverse Impact		Beneficial Impact		No Visual Impact		Not Visible	S	Strong	M	Moderate	W	Weak	N	None

Figure __. Proposed Action Visualization of Impacts

<insert graphic here>

Cross-reference Chapter 4, Step A-3, and Appendix D in CDOT's Guidelines for additional information about creating visualizations. Duplicate for additional Build Alternative(s), if applicable.



4.1 Cumulative Impacts

Coordinate with CDOT early in the process to determine if cumulative impact assessment is necessary and work with the NEPA team to include any findings in the overall cumulative impacts assessment. Step A-4 from Chapter 4 of CDOT’s Guidelines provides a narrative summary justifying whether or not cumulative impacts are possible for visual resources.

4.2 Summary of Impacts

Table _ summarizes visual impacts for each alternative, which can be included in the accompanying NEPA document. CatEx assessments may include only Proposed Action impacts, and this section may be omitted if only single contrast and compatibility tables are needed.

Table __. *Visual Resources Impact Summary*

Context/Inventory	No Action Alternative	Proposed Action	Add Build Alternative(s) if applicable
<insert affected environment context>	<insert description>	Permanent Impacts <insert impacts> Temporary Impacts <insert impacts>	



5. MITIGATION

Refer to Chapter 5 of CDOT’s Guidelines (available on CDOT’s LA [website](#)) for additional information. Refinement to content in this template is appropriate to reflect the unique nature of each project.

In consideration of visual impacts identified in Section 4 of this technical report, this section documents visual mitigation measures that have been coordinated among CDOT, the project team, and stakeholders. As an overview, CDOT applies “SMART” criteria to develop effective NEPA mitigation commitments for visual impacts that are financially feasible and can be included in CDOT’s project delivery process.

5.1 Mitigating Visual Impacts

Throughout this project, interdisciplinary coordination has occurred as the potential for adverse visual impacts has been considered. In accordance with Section 5.2 of CDOT’s Guidelines, the team has considered options to **<select appropriate descriptors> avoid, minimize, and/or compensate** for visual impacts. **Elaborate with narrative on how the team has attempted to avoid/minimize, and/or compensate for visual impacts.**

Table _ summarizes visual impacts and mitigation measures for inclusion in the accompanying NEPA document.

Table __. *Visual Resources Impact Mitigation*

Visual Impact	Mitigation Commitment for <Project Name>	Responsible Branch	Timing/Phase That Mitigation Will Be Implemented
<insert update>	<insert update>	<insert update>	<insert update>



6. REFERENCES

<Insert references used in this Visual Impact Assessment Technical Report>



Appendix A. Visual Resource Scoping Documentation

Overview

Visual resource scoping is conducted early in the visual impact assessment (VIA) process to identify issues, determine if a VIA is necessary, and identify the appropriate level of VIA evaluation.

This appendix includes formatted documentation of the following steps to be conducted in the scoping process:

- ▶ **Step 1: Project information and Visual Attributes**
- ▶ **Step 2: Visual Context**
- ▶ **Step 3: Policies, Guidelines, and Feedback**
- ▶ **Step 4: VIA Scoping Questionnaire – Issues and VIA requirements (*Not Required, Memorandum, or Standard*)**

This step-by-step approach should be conducted in coordination with the CDOT environmental team and visual resource specialist assigned to the project. **Chapter 2** of CDOT’s Guidelines (available on CDOT’s LA [website](#)) includes further information about the Establishment/Scoping Phase.

Completion of the visual resource scoping steps and documentation may be accomplished through desktop research and reconnaissance, collaboration with CDOT, and/or field observations.

Project Information and Visual Attributes

Project Name:	<Insert project name>
Project Location:	<Insert project location>
Author:	<Insert author name>
Visual Attributes of Proposed Action and (if applicable) Build Alternative(s):	<Describe how the features would look in terms of form, line, color, texture, and scale> [Refer to Step E-1 in Section 2.1 of CDOT’s Guidelines] Consider project elements, such as proposed roadway width, lanes, medians, shoulders; horizontal alignment and vertical profile; anticipated cut-and-fill slopes, rock cut locations, vertical elements (walls, buildings), and tree/forest clearing.

Visual Context

Landscape Observations:	<Describe general visual observations> Including colors, lines, textures, or water features, and dominant landforms; observations about adjacent land uses and ownership patterns; and land use areas that may be visually sensitive
Influence of Roadway on Natural and Cultural Environment Settings:	<Describe the influence of the existing roadway on the environmental and cultural setting > e.g., How well or not does the existing roadway fit the context of the surrounding environment? Does the roadway flow through the topography or contrast with natural surface relief?
Landscape Context(s) and Development Patterns: See Figure 3 of CDOT’s Guidelines	<input type="checkbox"/> Natural/ Undeveloped <input type="checkbox"/> Rural <input type="checkbox"/> Suburban <input type="checkbox"/> Urban Are development patterns in sync or contrasting with the environment?



Policies, Guidelines, and Feedback

<p>Needs for Federal, State, or Local Agency Consultation:</p>	<p><Document whether the project is influenced by adjacent land ownership, land uses, easements, deeds, or management plans that would require agency consultation during the VIA> (e.g., US Forest Service or BLM visually sensitive areas, community parks, or local agency protected viewsheds)</p>
<p>Involvement with Federal Lands MOU:</p>	<p><Document whether the project involves a HED and requirements of the Federal Lands MOU></p>
<p>Involvement with Scenic, Historic District, or Historic Byways:</p>	<p><Document whether the project involves a scenic or historic byway></p>
<p>Associated Regulations, Policies, or Guidelines:</p>	<p><Describe applicable local, state, regional, tribal, and federal agency regulations, policies, plans, and guidelines that pertain to managing or protecting visual resources></p>
<p>Influence of Agency & Public Feedback:</p>	<p><Document input from public meetings and interviews regarding visual preferences and identify visually sensitive views, scenic places within communities, and special or valued landscape settings></p>
<p>Additional Details:</p>	<p><Document other noteworthy scoping findings></p>



VIA Scoping Questionnaire

Environmental Compatibility

1. Will the project result in a noticeable visual change in the physical characteristics of the existing or future project setting? *(Consider all project components and construction impacts—both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and construction activities.)* **<describe this in the assumptions/issues below>**

- High level of permanent change (3) Low level of permanent or temporary change (1)
 Moderate level of permanent change (2) No noticeable change (0)

Assumptions/issues: **<insert assumptions/issues>**

2. Will the project complement or contrast with the community visual character? *(Evaluate the scale and extent of project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the public will view the change as positive or negative? Research planning documents or talk with local planner/community representatives to understand the type of visual character local residents envision for their community.)* **<describe this in the assumptions/issues below>**

- Low compatibility (3) High compatibility (1)
 Moderate compatibility (2)

Assumptions/issues: **<insert assumptions/issues>**

3. What level of local concern is there for the types of proposed project features (e.g., bridge structures, large excavations, noise barriers, or median planting removal) and construction footprint? *(Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern and requiring a more focused visual analysis.)* **<describe this in the assumptions/issues below>**

- High concern (3) Low concern (1)
 Moderate concern (2) Negligible project features (0)

Assumptions/issues: **<insert assumptions/issues>**

4. Do design changes that could minimize impacts (e.g., landscaping, architectural treatment, color choices) appear to be: **<describe this in the assumptions/issues below>**

- Extensive changes or redesign (3) Few, minimal design options (1)
 Some redesign or minimization measures (2) No minimization likely (0)

Assumptions/issues: **<insert assumptions/issues>**



5. Will this project, when seen collectively with other projects, likely result in cumulative impacts to landscape character, views, or visual quality? *(Identify any projects [both state and local] in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.)* **<describe this in the assumptions/issues below>**

- Cumulative impacts likely: 0-5 years (3)
- Cumulative impacts likely: 6-10 years (2)
- Cumulative impacts unlikely (1)

Assumptions/issues: **<insert assumptions/issues>**

Viewer Sensitivity

6. What is the potential for the project proposal to become controversial within the community or to be opposed by the public or any organized group? *(This can be researched initially by talking with the state DOT and local agency management and local or regional planning staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.)* **<describe this in the assumptions/issues below>**

- High potential (3)
- Moderate potential (2)
- Low potential (1)
- No potential (0)

Assumptions/issues: **<insert assumptions/issues>**

7. How sensitive are viewers likely to be to the scale and character of visible project features? *(Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment and by soliciting information from other DOT staff, local agencies, and community representatives familiar with the affected community's sentiments and demonstrated concerns.)* **<describe this in the assumptions/issues below>**

- High sensitivity (3)
- Moderate sensitivity (2)
- Low sensitivity (1)

Assumptions/issues: **<insert assumptions/issues>**

8. Are there applicable laws, ordinances, regulations, policies, or standards that would affect or influence this project? **<describe this in the assumptions/issues below>**

- Yes, in a complex manner (3)
- Yes, not complex (2)
- No (1)

Assumptions/issues: **<insert assumptions/issues>**



9. Will the project change the views or character of visually sensitive public use areas, historic properties, or scenic designations? *(Identify proximity and potential visual influence of the proposed project to parks, open space, trails, vistas and protected viewsheds, historic properties, Colorado Byways, Wild and Scenic Rivers, and other scenic designations.)* **<describe this in the assumptions/issues below>**

- Yes (3) No (1)
 Maybe (2)

Assumptions/issues: **<insert assumptions/issues>**

10. Will a more detailed visual analysis assist in the screening of alternatives or project design? *(Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.)* **<describe this in the assumptions/issues below>**

- Yes (3) No (1)
 Maybe (2)

Assumptions/issues: **<insert assumptions/issues>**

VIA Requirements

Date of Assessment	<Insert date>
VIA Requirements: Based on initial scoping, collaboration with CDOT, and the VIA Scoping Questionnaire score, this level of analysis and documentation is required:	<input type="checkbox"/> VIA not required (Score 1-9) ¹ <input type="checkbox"/> VIA Memorandum (Score 10-19) <input type="checkbox"/> Standard VIA (Score 20-30)
<input type="checkbox"/> VIA not required (Score 1-9)	Consider this as the visual resource clearance for <insert project name>. If the scope of work changes or additional information warrants further review and analysis, a reevaluation may be required.
<input type="checkbox"/> VIA Memorandum (Score 10-19)	
<input type="checkbox"/> Standard VIA (Score 20-30)	<Follow Standard Template in Appendix A of CDOT's VIA Guidelines>



The level of the VIA can initially be based on the following ranges of total scores:

Score 6 to 9: VIA Not Required

No noticeable visual or physical changes to the environment are proposed; therefore, no further analysis is required. The VIA questionnaire and a project memo may be used to document that there is no effect and to explain the approach used for the determination.

Score 10 to 19: VIA Memorandum

A *VIA Memorandum* addressing minor visual issues, indicating the nature of the limited impacts and identifying any necessary mitigation strategies that should be implemented, would likely be sufficient, along with an explanation of why no further analysis is required.

Score 20 to 30: Standard VIA

A *Standard VIA* is recommended. This technical study will likely receive extensive local, perhaps statewide, public review. It would typically include several visual simulations. It would also include a thorough examination of public planning and policy documents supplemented with a direct public engagement process (usually part of the overall NEPA public scoping and stakeholder involvement) to determine visual preferences.



Appendix B. Visual Impact Assessment Methodology Overview

The following sections summarize the approach and criteria for each phase based on CDOT's Guidelines, available on CDOT's Landscape Architecture (LA) [website](#).

Establishment/Scoping

Chapter 2 of CDOT's Guidelines addresses VIA scoping to create the framework and context for the VIA, including:

- ▶ Defining the visual resources study area, or Area of Visual Effect (AVE), and landscape unit(s)
- ▶ Determining issues
- ▶ Describing the visual attributes of the Proposed Action

Inventory/Affected Environment

Chapter 3 of CDOT's Guidelines addresses the Inventory Phase. The Inventory Phase describes the landscape character, viewers, and visual quality of the landscape unit(s).

Landscape Character

The landscape character inventory includes descriptions of natural and cultural environment features and existing roadway and right-of-way characteristics. The overall landscape composition is also described and illustrated in the Landscape Character Inventory Table.

Viewer Inventory

Viewer inventory includes a characterization of visibility, distance zone, observer position, and visual sensitivity, as presented on the Viewer Inventory Table.

- ▶ **Visibility:** The presence of topography, vegetation, or structures/buildings within viewsheds influences the visibility from key viewpoints. Views may be:
 - Open
 - Screened
 - Not visible
- ▶ **Distance zones:** Distances from viewpoints are categorized into three distance zones:
 - **Foreground (Fg) views** (0.25 to 0.5 mile) allow viewers to see the form, line, color, and texture of individual landscape features.
 - **Middleground (Mg) views** (3 to 5 miles) are those where individual features are viewed in context to the surrounding landscape.
 - **Background (Bg) views** are expansive, where distance typically reduces forms to simple outlines, shapes, and muted colors.



- ▶ The observer's position or location within the landscape (below, normal, or above) also influences visibility:
 - Views from a position *below the horizon line* or within a low point within a valley or a canyon where views are restricted or limited by surrounding topography.
 - Views *at the horizon line* have a level line of sight with the dominant elements of the landscape.
 - Views from ridgeline locations or along slopes *above the horizon line* have opportunities for open or unrestricted views.
- ▶ Viewer sensitivity: The degree of viewer sensitivity is represented by the following hierarchy:
 - *High* level of sensitivity
 - *Moderate* level of sensitivity
 - *Low* level of sensitivity

Visual Quality

The visual quality inventory involves a characterization of the visual harmony and vividness of the landscape unit, as presented on the Viewer Inventory Table.

Visual *harmony* has three levels:

- ▶ *Harmonious* landscape compositions reflect a strong sense of unity and intactness/integrity among the elements of a composition (natural, cultural, and roadway). The roadway fits into the surrounding setting as cohesive elements of the composition. The scale of landscape and roadway appear well-proportioned to the viewer, creating a structured and orderly appearing view.
- ▶ *Moderately harmonious* landscape compositions indicate that there are features within the composition that are out of scale, relative to each other and to the view as a whole; and that the roadway alignment, structures, and footprint are not in unity with the overall composition.
- ▶ *Inharmonious* landscape compositions reflect a disorderly composition, where the roadway does not appear as a cohesive element of the landscape composition. This may result from an imbalance of scale and the lack of unity between the form, line, color, and texture of the roadway and the landscape setting.

Vividness in the landscape is created by visually distinctive or unique focal points and features of interest that attract attention and create a memorable composition. A vivid landscape creates a memorable experience for the viewer.

Analysis Phase/Impact Evaluation

Chapter 4 of CDOT's Guidelines addresses the Analysis Phase. Assessing visual impacts incorporates the visual compatibility and viewer sensitivity assessments to determine the degree of visual impact to visual quality (beneficial or adverse) for each landscape unit, based on evaluations of visual contrast:

- ▶ *Strong*- Proposed Action would attract attention and dominate landscape features.
- ▶ *Moderate* - Proposed Action begins to attract attention but remains subordinate to landscape features.
- ▶ *Weak* - Proposed Action would not attract attention or reduce the diversity and continuity of landscape features.

Determining the visual compatibility of the project with the visual character of the natural environment, cultural environment, and roadway:

- ▶ *Compatible* - Moderate or weak levels of visual contrast to natural environment and cultural environment features are considered compatible with the visual character of the landscape units.
- ▶ *Incompatible* - A strong or moderate-strong levels of contrast to the natural environment and cultural environment features are considered incompatible with the visual character of the landscape units.

The impact assessment determines the degree of impacts to viewers and the visual quality of landscape compositions within the AVE (beneficial, adverse, or cumulative). The process for assessing visual impacts incorporates visual compatibility, viewer sensitivity, distance zones, visibility, and visual quality.

Mitigation

Chapter 5 of CDOT's Guidelines presents visual impact mitigation measures. The visual resource assessment evaluates the visibility and visual contrast of the Proposed Action to the landscape character, viewers, and visual quality of the AVE; and identifies adverse impacts requiring mitigation. The project Mitigation Measures table summarizes visual impacts, mitigation commitments to avoid or reduce the visual contrast of project elements, and temporary construction impacts. For implementation of mitigation commitments, the table identifies the responsible entity and the appropriate timing or project phase (design/construction).

Mitigation should be developed in the context of "SMART" criteria:

- ▶ Focus on mitigation of adverse visual impacts as:
 - **Specific (S)** to the landscape character, viewers, and visual quality of the environment that would be adversely affected, and what is going to be accomplished.
 - **Measurable (M)** compensation for the visual impact, such as replacing or providing substitute resources or environments, in coordination with communities and regulatory agencies.
- ▶ Focus on future potential project design and delivery that is:
 - **Attainable (A)**, meaning technically practical, affordable, and within standard engineering principles.
 - **Realistic (R)** to the community and regulatory agencies, as well as financially feasible.
 - **Timing and Tangible (T)** relative to visual considerations made through design, construction, and maintenance in the transportation project delivery process. The mitigation statement should identify the phase of project delivery at which implementation should occur.