Appendix A.
Purpose and Need for the Mountain Corridor Project[1]

Purpose and Need Summary

(from *I-70 Mountain Corridor Tier 1 Draft PEIS, December 2004, Executive Summary*)

Interstate 70 is the only east-west interstate crossing Colorado and is the only continuous east-west highway in the study area. The Corridor serves as the lifeblood of east-west travel in Colorado, providing for the movement of people, goods, and services across the state. It is a major corridor for access to many of Colorado's recreation and tourism destinations. In addition, it is a link in the national interstate highway system, the principal purposes of which are to connect major metropolitan areas and industrial centers by direct routes, and to provide a dependable highway network to serve in national emergencies.

Existing transportation congestion along I-70 is degrading the accessibility of mountain travel for Colorado residents, tourists, and businesses. Congestion is impeding freight-related services and affecting the connectivity of intra- and interstate travel. Tight curves, steep grades, and outmoded interchanges and other safety issues present in various locations along the Corridor contribute to a degradation of mobility. Travel demand in the Corridor is projected to increase over the next 25 years and beyond. Congestion along I-70 is believed to be impeding economic growth in the Corridor communities, which is highly reliant on weekend tourism.

The need to relieve this congestion is especially acute for extended weekend travelers seeking access between the Denver metropolitan area and US 40 (to Grand County), as well as through the Eisenhower-Johnson Memorial Tunnels (EJMT) to the Western Slope. The need primarily results from the number of travelers bound for Corridor destinations from the Denver metropolitan area and from out of state. Motor carriers, which provide freight services necessary to serve mountain residents, businesses, and visitors, as well as interstate commerce, also add to the I-70 traffic.

Weekday commuting traffic into and within the western portions of the Corridor is also becoming congested, particularly in previously more rural Eagle County. In contrast, the portion through Jefferson County is within the greater metropolitan Denver area, where congestion is an acknowledged circumstance.

The underlying **need** represents the transportation challenges of the Corridor:

- Increased capacity
- Improved accessibility and mobility
- Decreased congestion

The overall **purpose** of the proposed action will be to determine the future capacity, mode choice(s), and general location(s) for the future travel demand of the I-70 Mountain Corridor, in a manner that addresses the underlying need, while providing for and accommodating:

- Environmental sensitivity
- Respect for community values
- Improvements to Corridor safety conditions, such as tight curves and lane drops
- Ability to implement – technical feasibility and affordability in terms of capital costs, maintenance and operational costs, user costs, and environmental mitigation costs

These purposes will be considered in the identification of a preferred alternative.

[1] FHWA and CDOT are examining all multimodal alternatives not only for their ability to accommodate the 2025 planning horizon but also for their potential to meet the 50-year vision travel demand. The 50-year vision travel demand represents approximately 45 percent higher volume than the travel demand for 2025, on both the east and west sides of the Continental Divide. The results of this additional examination will be included in the Final PEIS.

Appendix B.
Section 106 Summary and Evaluation of Relative Effects on Historic Properties (updated 03-23-07)

B.1 Introduction

Reference:

Draft PEIS

Revised Reconnaissance Survey (available on the project website at **www.i70mtncorridor.com/documents/recon_report_final.pdf**). The Revised Reconnaissance Survey updates the Reconnaissance Survey included in the Draft PEIS, Appendix N.

The Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) circulated a ***Draft Programmatic Environmental Impact Statement*** (PEIS) for the I-70 Mountain Corridor in December 2004. This Section 106 Summary and Evaluation of Relative Effects on Historic Properties supports the Draft PEIS, providing a review of Section 106 consultation activities associated with the I-70 Mountain Corridor. This document brings together in one place all of the sections of the Draft PEIS that address Section 106 compliance issues, thereby clarifying the merger of the National Environmental Policy Act (NEPA) and Section 106 process. This section includes information for Section 106 consultation with the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officer (SHPO), and consulting parties. This information is being used for Section 106 consultation purposes, as well as documentation for the NEPA process. Pursuant to Section 110 of the National Historic Preservation Act, and 36 CFR 800.10, due to the special requirements for protecting National Historic Landmarks (NHL), the Georgetown-Silver Plume NHL is identified in each discussion that follows. Additional support information is available in the January 2005 Revised Reconnaissance Survey of the I-70 Mountain Corridor Between Glenwood Springs and C-470 in Colorado (Revised Reconnaissance Survey).

Reference:

Additional information is found in the Draft PEIS Chapter 3, Section 3.15.1, Regulations, Coordination and Approach.

The phased nature of the tiered PEIS process requires an approach specifically tailored for the implementation of Section 106 and is the subject of consultations among the federal agencies and consulting parties involved in the project.

As noted during the Section 106 consulting party meetings on August 18, 2004, and September 22, 2004, and in correspondence with the consulting parties, CDOT and FHWA examined, as part of Tier 1 for the I-70 Mountain Corridor PEIS, the relative effects that the various alternatives being evaluated would have on currently known historic properties and properties that may be eligible for the National Register of Historic Places (NRHP). This approach was developed in consultation with the SHPO and the ACHP.

The purpose of the Tier 1 PEIS is to take a broad view of the transportation issues and to identify a mode(s) of transportation and the general location of improvements; the design specifics are yet to be determined. Therefore, it is not possible to evaluate specific effects on specific historic properties at this stage in the NEPA process. For this reason, the evaluation of effects at Tier 1 consists of an analysis of relative visual, noise, physical, land use, and cumulative effects of the different alternatives on known and potential historic properties within the project's area of potential effect (APE) based on current data. This evaluation of relative effects is then used as part of the evaluation of alternatives under Tier 1. Identification of specific historic properties that might be affected by individual Tier 2 actions would be completed in the areas affected by those actions, and the specific effects of each action on historic properties would be evaluated at that time.

Because specific effects on specific historic properties cannot be determined at this stage in the NEPA process, the outcome of Section 106 for Tier 1 is the Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, the US Forest Service (USFS), and the US Bureau of Land Management (BLM) regarding implementation of the Interstate 70 Mountain Corridor Project (referred to in this document as the PA) establishing the process through which FHWA and CDOT would take into account the effects of Tier 2 undertakings on historic properties. This PA was developed in consultation with the Section 106 consulting parties.

Reference:
The Programmatic Agreement (PA) is the main text of this document.

The I-70 Mountain Corridor traverses five counties and includes more than 1,400 known historic properties and historic places that are potentially eligible for listing in the NRHP. A significant portion of these properties is in Clear Creek County, and many are encompassed by the Georgetown-Silver Plume NHL and the town of Idaho Springs (including the Idaho Springs Commercial Historic District). Additional historic areas include the Lawson-Downieville-Dumont area, the Fall River area west of Idaho Springs, and the Hot Springs Historic District in Glenwood Springs (Garfield County). Individual historic properties are also found throughout the five counties traversed by the I-70 Mountain Corridor.

Reference:
Additional information is found in Appendix N of the Draft PEIS and is updated in the Revised Reconnaissance Survey.

B.2 Project Purpose and Need Statement and Summary of Proposed Alternatives

Current travel demand is exceeding capacity in portions of the I-70 Mountain Corridor, causing congestion, which is projected to increase over the next 25 years and beyond. Tight curves, steep grades, and closely spaced interchanges in many locations along this Corridor further decrease mobility and safety for Corridor travelers.

Reference:
Draft PEIS – Executive Summary and Chapter 1, Purpose of and Need for Action

The underlying **need** represents the transportation challenges of the Corridor—to ***increase capacity, improve accessibility and mobility,*** and ***decrease congestion.*** The measure of meeting the underlying need is based on the **2025 Baseline travel demand,** a modeled projection of what the travel conditions would be like if all of the demand for travel on a peak day in 2025 were to be satisfied on the existing highway network without any future changes to the capacity of I-70. Alternatives would meet the underlying need by addressing capacity deficiencies, providing I-70 users with transportation mode choice(s), reducing hours of congestion, and improving travel time from the 2025 Baseline travel demand conditions, particularly during periods of peak use in the Corridor.

The Preferred Alternative would address the underlying need while providing for and accommodating the following purposes:

- Environmental sensitivity
- Respect for community values
- Improvements to Corridor safety conditions, such as tight curves and lane drops
- Ability to implement—technical feasibility and affordability in terms of capital costs, maintenance and operational costs, user costs, and environmental mitigation costs.

The Draft PEIS included an analysis of a range of alternatives. As a result of this analysis, the alternatives were grouped as to whether they are preferred or not preferred as shown below. The Draft PEIS included an analysis of the environmental impacts of these alternatives. This analysis included an evaluation of effects on historic properties and other properties that may be potentially eligible for listing in the NRHP.

Reference:

Draft PEIS –

- Executive Summary
- Chapter 2, Description and Comparison of Alternatives

Preferred Group of Alternatives	Other (Not Preferred) Group of Alternatives
Transit Alternatives	**Minimal Action Alternative**
Dual-Mode Bus in Guideway	Minimal Action (as a stand-alone alternative)
Diesel Bus in Guideway	**Transit Alternatives**
Highway Alternatives	Rail with IMC
Six-Lane Highway 55 mph	AGS
Six-Lane Highway 65 mph	**Combination Alternatives (Build Simultaneously)**
Reversible/HOV/HOT Lanes	Six-Lane Highway with Rail and IMC
Preservation Alternatives	Six-Lane Highway with AGS
Build Six-Lane Highway and Preserve for Rail with IMC	Six-Lane Highway with Dual-Mode Bus in Guideway
Build Six-Lane Highway and Preserve for AGS	Six-Lane Highway with Diesel Bus in Guideway
Build Six-Lane Highway and Preserve for Dual-Mode Bus in Guideway	**Preservation Alternatives**
Build Six-Lane Highway and Preserve for Diesel Bus in Guideway	Build Rail with IMC and Preserve for Highway
	Build AGS and Preserve for Highway
	Build Dual-Mode Bus in Guideway and Preserve for Highway
	Build Diesel Bus in Guideway and Preserve for Highway

B.3 Determination of the Area of Potential Effect

Reference:

- Draft PEIS, Chapter 3, Section 3.15.2, Affected Environment
- Revised Reconnaissance Survey

As defined in 36 CFR 800.16 (d), "area of potential effect" is the "geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effect is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." In many instances, the APE is not simply the project's physical boundaries, or right-of-way. The methods of determining the APE, identifying historic properties, and assessing effects for purposes of the I-70 PEIS are described below.

The APE for Tier 1 was defined in consultation with the Colorado SHPO and other consulting parties. The APE includes areas of direct impact and areas from which I-70 could be seen. The APE runs along the Corridor and extends between the project termini at Glenwood Springs (milepost 116) and C-470 (milepost 260). The width of the APE varies along the Corridor. Between the Glenwood Springs interchange (milepost 116) and approximately 9 miles east of the Garfield/Eagle County line (milepost 139.5), the width of the existing right-of-way is the APE. Except for the interchange itself, minimal changes to the existing I-70 are expected to occur in this location. In other areas, the APE extends up to 3 miles along either side of the interstate, following ridgelines and encompassing the I-70 viewshed (area from which I-70 can be seen).

B.4 Identification of Historic Properties

Types of Historic Properties Within the Area of Potential Effect

The I-70 Mountain Corridor contains numerous National Register-listed historic districts and additional areas that may be potential historic districts. The Corridor also includes numerous individual historic properties, listed and eligible for listing in the NRHP, and some are listed on the Colorado State Register of Historic Places (SRHP). Many sites need additional information before their National Register eligibility can be determined.

Reference:

NRHP criteria are summarized in –

- Draft PEIS, Section 3.15
- Revised Reconnaissance Survey

Process for Identifying Historic Properties within the Area of Potential Effect

Given the phased nature of this undertaking, FHWA and CDOT conducted a phased identification of historic properties within the APE, pursuant to 36 CFR 800.4(b)(2). The evaluation of effects at Tier 1 consists of an analysis of relative physical, noise, visual, land use, and cumulative effects of the different alternatives on known and potential historic properties within the project's APE, based on current data.

The original historic property Reconnaissance Survey (August 2004) included a records and file search conducted at the Colorado Office of Archaeology and Historic Preservation (OAHP), a windshield survey along I-70, and collection of property information from local interested parties, such as historical societies and commissions. The windshield survey (an informal drive-by survey that does not require property access) was conducted along the Corridor to identify properties that may not have been previously recorded. Input by local interested parties has also been used to identify previously unrecorded properties.

Reference:

See Appendix N of the Draft PEIS for complete text of original survey.

Historic property data, initially gathered within a 2-mile-wide study corridor along I-70, were obtained from a file search conducted at the OAHP in 2000. Subsequently, a file search was conducted for historic sites in specific areas within the viewshed of I-70 that are wider than the 2-mile corridor. In fall 2003, the OAHP file search was updated for a 3-mile corridor along either side of I-70.

In addition to the records searches and field surveys described above, some of the consulting parties and local interested parties provided additional information on properties not included in the PEIS and original Reconnaissance Survey (August 2004). This additional information is included in the Revised Reconnaissance Survey.

Reference:

See Revised Reconnaissance Survey at **www.i70mtncorridor.com/documents/recon_report_final.pdf**

Historic and Archaeological Resources

The file search of the OAHP records found 1,477 previously recorded historic properties within 3 miles on either side of I-70 (October 2003). Three existing historic districts are found in the Corridor: Georgetown-Silver Plume NHL (5CC.3), Idaho Springs Commercial District (5CC.201), and Hot Springs Historic District (5GF.1050). No traditional cultural properties of concern to Native Americans have been identified to date. The full file search list is provided in the Revised Reconnaissance Survey. Twenty-nine additional properties were identified based on the windshield survey and information from local interested parties. The 29 properties included 26 individual properties, plus a potential Commercial Historic District in Glenwood Springs, a Silver Mining Heritage Area, and the Lawson-Downieville-Dumont area (a property that includes 38 individual potential historic sites).

Reference:

- Draft PEIS, Section 3.15.2.2
- Revised Reconnaissance Survey

Five portions of I-70 have been identified as NRHP eligible and are exceptions to the recently approved exemption.

National Historic Landmarks

Georgetown-Silver Plume NHL (5CC.3). The Georgetown-Silver Plume NHL represents one of the most scenic and historic of all of Colorado's mining districts. Gold was first discovered along Clear Creek in 1859 and resulted in Georgetown's first boom. Prospectors moved into the area, establishing satellite villages such as Silver Plume. The area also became the center of the silver craze of 1867. The district was listed on the NRHP as a NHL on November 13, 1966, under all four National Register criteria:

Reference:
See Revised Reconnaissance Survey

- It is significant under NRHP Criterion A for its associations with the early mining history of Colorado.
- Some of the elements within the NHL District are also considered significant for associations with persons of note (Criterion B).
- There are architectural values in the Landmark (Criterion C).
- Information contained in other features of the Landmark is important to history (Criterion D).

The Georgetown-Silver Plume NHL includes many contributing and noncontributing properties. To date, 384 individual properties have been recorded within the district boundaries. Most of these, however, have not been formally evaluated regarding their individual eligibility or contributing status within the NHL.

The Georgetown-Silver Plume NHL includes the entire commercial and residential areas of both the Georgetown and Silver Plume communities, as well as the Georgetown Loop Railroad grade located between the two communities. The Victorian homes and buildings represent the peak of the silver mining industry from 1885 to 1905. The Georgetown Loop Railroad was an engineering marvel of the late Nineteenth Century when it was built. After the line was abandoned and the tracks removed before World War II, it sat derelict until the 1970s when the historic rail line was rebuilt as a tourist attraction.

Historic Districts

Hot Springs Historic District (5GF.1050). The hot springs bathhouse, natatorium, and Yampa Spring were developed between the late 1880s and early 1890s on what was at that time an island in the Colorado River, by the Glenwood Hot Springs Company, a combination of local, East Coast, and English investors, led by prominent mining engineer and Glenwood developer, Walter Devereux. With the completion of the Hotel Colorado (5GF.767) to the north of the natatorium in 1893, the resort was visited by many of the business and social elite of Colorado. The historic district also includes the Glenwood Springs Train Station (Denver and Rio Grande Railroad Station, 5GF.1050.3).

Idaho Springs Commercial District (5CC.201). The currently defined Idaho Springs district is located north of I-70. The district contains various late-Nineteenth Century commercial buildings focused on Main Street. Today many of the businesses are service and tourist oriented and rely on both local and visitor traffic. Most of the 36 recorded properties within the Idaho Springs Commercial District have not been evaluated for their NRHP status.

B.5 Analysis of Relative Effects on Historic Properties

Reference:

- The Draft PEIS used the terms **potential damage** or **alteration, potential noise effects,** and **potential visual effects** for historic properties in Section 3.15.3, Environmental Consequences.
- Land use impacts were discussed in Chapter 3, Section 3.10, Land Use.
- Cumulative impacts were addressed in Chapter 4.

As noted above, the purpose of the Tier 1 PEIS is to take a broad view of the transportation issues and to identify a mode(s) of transportation and the general location of improvements; the design specifics are yet to be determined. Therefore, it is not possible to evaluate specific effects on specific properties at this stage in the Section 106 process. For this reason, the evaluation of effects at Tier 1 consists of an analysis of the relative direct (physical destruction or damage) and indirect (noise, visual, land use changes, and cumulative) effects of the different alternatives on known and potential historic properties within the APE based on current data. Methods used for evaluating potential direct and indirect effects on historic properties (except land use changes) were presented and discussed with the Colorado SHPO and other consulting parties at a meeting on September 22, 2004. The following methods were used for this effects evaluation:

- For possible direct effects from alternative footprints and construction disturbance zones, an area 500 feet from the outer edges of each side of the existing pavement of I-70 was examined. For the purposes of this study, a 15-foot zone outside the alternative footprint was assumed for the area that would likely be disturbed by construction activities.
- For potential noise effects, FHWA's standard noise abatement criteria were applied to determine if there would be significant increases based on human noise perceptions. When increases in noise are perceived by the human ear, they may diminish the characteristics that qualify these historic properties for inclusion in the National Register, depending on the nature and function of the properties.
- The analysis of visual effects on historic properties is based on a broad landscape and viewshed approach. This viewshed extends to the boundaries of the APE, which is generally 3 miles from the current corridor. Changes to the visual setting, as with perceptible increases in noise, may diminish the characteristics that qualify these historic properties for inclusion in the National Register.
- The analysis of land use and growth effects is based on the potential for induced growth due to accessibility and availability of infrastructure to support growth. It should be noted that large portions of the I-70 Mountain Corridor (64 to 75 percent of the Corridor counties) are federal land, not available for development. In addition, geographic land use constraints in the mountainous terrain further restrict development potential on remaining privately held properties.
- Cumulative effects analysis examines effects that may diminish the historic setting and sense of place based on past actions, present activities, and future induced growth and direct effects on historic properties and/or communities, as well as noise and visual effects.

Under 36 CFR 800.5, assessment of effects is divided into two findings: adverse effect and no adverse effect. A third finding is possible: that of no historic properties affected. Per 36 CFR 800.5, impact definitions are for adverse effects. For the Tier 1 PEIS, identification of potential effects has been made for both direct and indirect effects as described in the following sections. Only the potential for effect is identified at Tier 1. Because this analysis is for relative effects based on mode choice(s) and general alternative location(s), specific effects on specific properties or districts are not identified. This activity will occur for Tier 2 undertakings with direction provided in the PA.

Direct Effects

36 CFR 800.5(a)(2)(i) refers to physical destruction of or damage to all or part of the property.
36 CFR 800.5(a)(2)(ii) refers to alteration of a property.

36 CFR 800.5(a)(2)(iii) refers to removal of the property from its historic location.
36 CFR 800.5(a)(2)(iv) refers to a change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.

Assessments of these relative effects are based on the overlay of the footprint and construction disturbance zone onto maps of known and potential historic properties.

Potential Direct Effects (Destruction or Alteration)

Fifteen known historic properties may be subject to direct effects as a result of an overlay of alternative footprints or construction effects on maps of known and potential historic properties. Note that, for mines, the direct effects are only on mining-related waste. These properties are:

Reference:
For additional information on these specific properties, see:
- Draft PEIS Section 3.15.3.1
- Revised Reconnaissance Survey

- Hot Springs Historic District (5GF.1050)
- Hot Springs Lodge and Pool (Glenwood Hot Springs Bathhouse, Natatorium, Yampa Spring, 5GF.1050.2) in the Hot Springs Historic District
- Glenwood Springs Viaduct F-07-A (5GF.2717)
- Georgetown-Silver Plume NHL (5CC.3)
- Dunderberg Mine (5CC.3.107) eligible as a contributing element to Georgetown-Silver Plume NHL
- Mendota Mine (5CC.3.217) with associated Burleigh Tunnel and Mine (5CC.3.108) eligible as a contributing element to Georgetown-Silver Plume NHL
- Toll House or Mine Manager's House (Julius G. Pohle House, 5CC.13) property and structures in Georgetown-Silver Plume NHL
- Big Five Mines (5CC.328)
- Darragh Placer (5CC.985)
- Multicomponent site (5CC.389)
- Two Barns in Lawson (identified in Reconnaissance Survey; have not been evaluated in terms of National Register eligibility)
- Loveland Ski Area Lease (identified in Reconnaissance Survey; has not been evaluated for eligibility at this time)
- Eisenhower-Johnson Memorial Tunnels
- Vail Pass Highway Segment
- Twin Tunnels

The comparison of direct effects by alternative reveals only minor differences:

- All alternatives would include components of the Minimal Action alternative and are expected to have an effect on the Hot Springs Historic District (5GF.1050), specifically the Hot Springs Lodge and Pool (5GF.1050.2). The Minimal Action alternative would include improvements to the Glenwood Springs interchange 116 and upgrades to all existing ramps, including widening and lengthening, and signalization of the intersections on SH 82 at the bottom of the I-70 ramps. The Minimal Action alternative could have the potential to affect access to and parking at the Hot Springs Lodge and Pool.
- The Minimal Action alternative would include minor improvements to intersections and roads that provide for the movement of vehicles from I-70 interchange 116 to and from SH 82. Although it is possible that there would be an effect on the Glenwood Springs Viaduct F-07-A (5GF.2717), none is identified at this time. No modifications have been identified for the viaduct as a part of these improvements. This Minimal Action component would be included in all of the alternatives.

- All alternatives may directly affect the Georgetown-Silver Plume NHL (5CC.3). Specifically, the following three properties within the NHL may be affected: the Toll House (5CC.13), the Dunderberg Mine (5CC.3.107), and the Mendota Mine (5CC.3.217) with associated Burleigh Tunnel and Mine (5CC.3.108).
    - The NRHP listed Toll House or Mine Manager's House (Julius G. Pohle House, 5CC.13) is within the I-70 right-of-way. Due to the constraining topography and rockfall hazards along Georgetown Hill, each alternative would involve widening to the south side of I-70 along the eastbound lane, which is adjacent to the Toll House (5CC.13).
    - The Mendota and associated Burleigh Mine tailings would be affected by construction activities for all alternatives, including the Minimal Action alternative.
    - Surface area of the Dunderberg Mine tailings has previously been disturbed by construction of I-70 and reclamation of tailings piles. These tailings may be further affected by the footprint and construction activities of all alternatives.
- Portions of the Big Five Mines (5CC.328) sites are already overlain by the interstate. Small additional encroachments may occur as a result of all alternative and construction activities.
- The two barns located in Lawson (not yet evaluated for National Register eligibility) would be affected by the Reversible HOV/HOT Lanes alternative and all four of the Combination alternatives. Effects would only be construction related.
- The Darragh Placer tailings may be affected by construction activities for all alternatives, including the Minimal Action alternative. For the Rail with IMC and AGS alternatives, the project footprint itself may also affect the tailings.
- The Multicomponent Site (5CC.389) may be directly affected by any highway modifications or disturbance within the I-70 right-of-way associated with alternative footprints or construction.
- The potentially eligible Loveland Ski Area may be directly affected by all alternatives, except the Minimal Action alternative.
- The eligible I-70 Eisenhower-Johnson Memorial Tunnels would be directly affected by all alternatives, except the Minimal Action alternative, due to their proximity to a proposed third bore.
- Although the eligible Vail Pass Highway Segment and related structures would remain, they could be affected by all alternatives, except the Minimal Action alternative, due to modifications to the highway and structures.
- The Twin Tunnels would be directly affected by all alternatives, except the Minimal Action alternative, due to the need for an additional bore.

Indirect Effects

36 CFR 800.5(a)(2)(v) refers to the introduction of visual or audible elements that diminish the integrity of the property's significant historic features. **36 CFR 800.5 (a)(1)** refers to the adverse effects that may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Reference:
Draft PEIS –
- Section 3.15.3.2 and 3.15.3.3
- Section 3.10, Land Use

Noise Analysis – Audible Elements

Under Section 106, when audible elements are introduced, they are evaluated in regard to whether they diminish the integrity of a property's significant historic features. While FHWA noise guidelines and criteria were used for Tier 1 analyses, Section 106 regulations are also taken into account in the discussion that follows.

Reference:
Draft PEIS Section 3.15.3.2

Under Tier 1, noise analyses were not conducted for individual properties identified during the Reconnaissance Survey. Rather, existing noise levels were measured for four historic communities: Silver Plume; Georgetown; Lawson, Downieville, Dumont; and Idaho Springs. No noise analysis was conducted for Glenwood Springs due to the Minimal Action activities proposed for that area. Guidance for analyzing effects on historic properties due to noise for Tier 2 is included in the PA.

Except for one alternative, the Combination Six-Lane Highway with Rail and IMC alternative, all alternatives would have minimal noise increases on Silver Plume and Georgetown (including the NHL District) and for the Lawson-Downieville-Dumont area. Minimal noise increases are defined as increases of between 1 and 3 dB(A), which are generally not perceptible to the human ear. Given that the historic properties within these locations are either residential or commercial, these minimal increases should not diminish those characteristics that qualify these properties for inclusion in the National Register.

The Combination Six-Lane Highway with Rail and IMC alternative may potentially result in a 4 B(A) increase in noise for the Georgetown-Silver Plume NHL. This noise increase would be audible to the human ear and would have the potential to affect the NHL.

The topography and setting for the Idaho Springs area promotes a different situation. Perceived noise effects would range from barely audible (1 to 2 dB(A) increases) to twice as loud as existing conditions (10 dB(A) increases). No perceptible noise increases would be associated with the Minimal Action, Rail with IMC, and AGS alternatives. The remaining alternatives would have the potential to affect historic properties in Idaho Springs. Combination alternatives are expected to result in a 4 to 10 dB(A) increase in noise through the Idaho Springs area.

Visual Elements – Visual Intrusion

Reference:
Draft PEIS Section 3.15.3.3

The first step in completing a visual resource inventory was the development of distinct Scenery Analysis Units (SAUs) across the I-70 Corridor as defined by distinct landform character, vegetative appearance, and community values or place identity. Under Section 106, visual elements that are introduced are evaluated with regard to whether they diminish the integrity of the property's significant historic features. At the Tier 1 level, analysis is not property-specific—rather, it addresses the setting in which a historic property exists. Visual effects are identified by the level of intrusion (low to high) and a contrast range (weak to very strong). Identification of visual intrusion and contrast under Tier 1 suggests a potential for effect. Guidance for evaluating visual effects on historic properties in Tier 2 is included in the PA.

Each alternative considered in the Draft PEIS would include various components that could affect the visual setting along the Corridor. Some components would be more likely to attract attention than others. Elements common to all project alternatives would include cut-and-fill slopes and retaining walls in select locations where terrain changes would be necessary to accommodate the alignment within the mountainous terrain. Vertical elements, such as elevated structures and retaining walls, would tend to attract more attention from views that are inferior (below) or normal (even) to the alternative. Horizontal elements, such as additional pavement and median treatment, would attract attention from views that are superior (above) to the alternative; however, they would not attract attention from views that are inferior (below) or normal (even) to the alternative. Appendix L of the Draft PEIS documented the degree of visual contrast associated with terrain changes and the addition of structural elements.

The Draft PEIS grouped representative historic properties by community. The same communities were included as described for the noise impact analysis discussed above. All action alternatives are anticipated to result in potential visual effects on historic districts and sites ranging from low to high depending on the level of visual contrast anticipated within the setting and the proximity in

which it is viewed. The AGS alternative, which would be a completely elevated system, is anticipated to result in changes that would attract attention and dominate the setting (strong contrast). The AGS and Combination Six-Lane Highway with AGS Preservation alternatives would provide the strongest visual intrusion into all four historic communities: Silver Plume, Georgetown, Lawson-Downieville-Dumont, and Idaho Springs. Changes associated with the Highway alternatives would range from very strong to weak contrast. Areas of large-scale retaining walls and major cut-and-fill slopes would result in changes that attract attention (strong contrast). Areas of elevated structures (Idaho Springs and Floyd Hill) would attract attention and dominate the setting (very strong contrast). The Minimal Action alternative is anticipated to result in the least visual effects.

As with noise, Idaho Springs' topography and setting would result in a strong visual intrusion for all alternatives, except the Minimal Action alternative. All other alternatives would create a moderate level of visual intrusion and contrast for Silver Plume, Georgetown, and Lawson-Downieville-Dumont. Therefore, these alternatives would have the potential to affect the historic properties in these communities, including the Georgetown-Silver Plume NHL.

Land Use Analysis – Induced Growth

Reference:
Draft PEIS Chapter 3, Section 3.10, Land Use

Indirect effects associated with growth and development will be influenced by geographic land use constraints in the mountainous terrain of the Corridor. Additionally, Clear Creek County, the location of many historic properties, has limited available land for development (much of which is not easily accessible and lacks infrastructure). Within the NHL, both the Georgetown comprehensive land use plan and the Silver Plume Planning Commission historic preservation plan include preservation elements. The Clear Creek County 2030 Master Plan (2004) includes the Clear Creek Valley (Twin Tunnels to Empire) as a significant area and includes the following protection notation:

> *Protect environmental, cultural, and historic sensitive areas, and designate future land uses consistent with the preservation of these areas.*

In Glenwood Springs, in the vicinity of the Hot Springs Historic District, there are also minimal growth opportunities. There will be limited potential for land use change and growth opportunities for any privately owned properties in the I-70 Corridor.

Outside Clear Creek County in the Corridor, the No Action and Minimal Action alternatives would have the potential to suppress growth due to congestion and increased travel times. The Transit, Highway, and Combination alternatives would have the potential to induce peak seasonal traffic, to differing degrees, due to increased access and decreased travel times. Unlike the Highway alternatives, Transit alternatives would require local transit feeder systems for travel to off-Corridor locations. The potential for inducement of growth, therefore, would be different between Highway and Transit alternatives. Whereas growth associated with Highway alternatives is anticipated to occur within both rural and urban locations following current trends, growth associated with Transit alternatives is anticipated to be more focused on urban locations. Analysis of the effects of induced growth on potential historic properties or areas focused on areas that were adjacent to I-70. These areas are located in Clear Creek County and Glenwood Springs. Specific growth-induced effects on historic properties outside Clear Creek County and Glenwood Springs would be addressed during Tier 2 analysis. At this time, no effects have been identified.

Cumulative Effects

Reference:
Draft PEIS Chapter 4, Cumulative Impacts

36 CFR 800.5(a)(1) refers to the adverse effects that may include reasonably foreseeable effects caused by the undertaking that may be cumulative.

Tier 1 analysis includes an examination of cumulative effects on historic communities, focusing on direct physical effects and visual and noise effects.

The initial construction of I-70 resulted in property encroachment and the loss of structures. The extent of lost structures and developed lands was documented only for communities in Clear Creek County. A total of approximately 35 acres of developed lands was lost from the original construction of I-70 within the county (based on 1956 and 1957 photography). The following losses were identified for Clear Creek County communities:

- Idaho Springs: approximately 8 acres lost within 161 acres of developed land
- Dumont: approximately 4 acres lost within 45 acres of developed land
- Downieville: approximately 6 acres lost within 16 acres
- Lawson: approximately 2 acres lost within 23 acres
- Georgetown: approximately 3 acres lost within 65 acres
- Silver Plume: approximately 12 acres lost within 65 acres
- Historic structures lost to I-70: approximately 80
- Loss of forest due to the I-70 construction: approximately 175 acres

Additional losses within these historic communities and further alteration to their visual historic setting could result in cumulative effects on the Georgetown-Silver Plume NHL; the Lawson-Downieville-Dumont historic area; and the Idaho Springs historic area.

Ambient noise in Clear Creek County has been increasing over the decades. Mining ushered in noise from steam trains, mills, blasting, and other mining-related activities. Construction of US 6 and ultimately I-70 and associated traffic have created an ambient noise in this portion of the Corridor ranging from 60 to 70 dB(A) as a result of increases in traffic volumes, speeds, and trucks. The result for all Clear Creek County historic communities (including the Georgetown-Silver Plume NHL and the Idaho Springs Commercial District) is that even with a minimal noise increase of between 1 and 3 dB(A), there may be a cumulative effect on historic properties associated with all of the project alternatives.

B.6 Preliminary Findings of Relative Effects

FHWA finds that there will be a potential for effects on NRHP-eligible and listed properties as a result of all of the action alternatives. The following discussions summarize the nature of these potential effects.

Reference:
The Draft PEIS did not use Section 106 terminology but addressed impacts and cited the appropriate references to 36 CFR 800 of the National Historic Preservation Act.

Fifteen known historic properties may be subject to direct effect or damage or alteration associated with alternative footprints or construction effects (see Table 1). Note that some of the historic mine properties are part of Superfund cleanup activities. The Mine-Related Materials Memorandum of Understanding provides the steps that will be followed to characterize and clean up historic mine and mill site wastes. Disturbance of these materials will be avoided and minimized to the extent possible. The Minimal Action alternative would have the least direct effects (8 properties), while the Rail with IMC and AGS alternatives would have the most direct effects (13 properties). The remaining alternatives may potentially affect the same number of historic properties (12 properties).

These same known historic properties are also subject to construction effects (see Table 1). The Minimal Action alternative would have the least construction effects (10 properties). The Rail with IMC, AGS, Dual-Mode and Diesel

Reference:
Draft PEIS, Chapter 3, Section 3.15.3.1 and Table 3.15-3

Bus in Guideway, and Six-Lane Highway alternatives would affect 14 properties. The remaining alternatives (Reversible/HOV/HOT Lanes alternative and all of the Combination Highway/Transit alternatives would affect all 15 known historic properties.

Reference:
Draft PEIS Chapter 3, Section 3.15.3.2

Auditory effects that may diminish the National Register characteristics of historic properties within the APE have been identified. Based on the noise analysis used for Tier 1 relative effects, the Combination Six-Lane Highway with Rail and IMC alternative would have the most potential for affecting historic properties in Clear Creek County. The Idaho Springs Commercial Historic District and other Idaho Springs historic properties may be affected by the Bus in Guideway, Highway, and Combination alternatives. Minimal Action, Rail with IMC, and AGS alternatives would have no noise effects on historic properties.

Reference:
Draft PEIS Chapter 3, Section 3.15.3.3

Visual effects that may diminish the National Register characteristics of historic properties have been identified within the APE. The AGS alternative, which would be a completely elevated system, and the Combination Six-Lane Highway with AGS Preservation alternative may result in the highest level of visual intrusion and contrast within the areas of Georgetown, Silver Plume, Lawson-Downieville-Dumont, and Idaho Springs. Except for the Minimal Action alternative, all remaining alternatives would create a moderate level of visual intrusion and contrast for Silver Plume, Georgetown, and Lawson-Downieville-Dumont. Idaho Springs Commercial Historic District and other Idaho Springs historic properties would have the potential to be affected by the highest level of intrusion and contrast with all alternatives. Therefore, all alternatives would have the potential to affect the historic properties in these communities.

Reference:
Draft PEIS Chapter 3, Section 3.10, Land Use

The undertaking is not expected to induce development or growth that would result in a change in the setting or character or use of historic properties in Clear Creek County or Glenwood Springs in Garfield County. Analysis of the effects of induced growth on potential historic properties or areas focused on areas that were adjacent to I-70. These areas are located in Clear Creek County and Glenwood Springs. Growth effects associated with historic properties in these other locations will be addressed in Tier 2.

Reference:
Draft PEIS Chapter 4, Cumulative Impacts

Cumulative effects on historic properties in Clear Creek County may result from all of the action alternatives.

Georgetown – Silver Plume NHL

Reference:
This information was found throughout the Draft PEIS, Chapter 3, Section 3.15.

Pursuant to Section 110 of the National Historic Preservation Act, and 36 CFR 800.10, there are special requirements for protecting NHLs. Therefore, this document includes an additional section discussing relative effects on the Georgetown-Silver Plume NHL.

The following direct effects have been identified for the Georgetown-Silver Plume NHL:

- **Toll House or Mine Manager's House (Julius G. Pohle House, 5CC.13).** This property is within the I-70 right-of-way and would be potentially affected by all alternatives. Due to the constraining topography and rockfall hazards along Georgetown Hill, each alternative would involve widening to the south side of I-70 along the eastbound lane, which is adjacent to the Toll House (5CC.13).
- **Mendota Mine (5CC.3.217) and associated Burleigh Tunnel and Mine (5CC.3.108), eligible as a contributing element to the NHL.** For all alternatives, mine tailings that overlap the I-70 right-of-way may be disturbed by construction activities only.

- **Dunderberg Mine (5CC.3.107) eligible as a contributing element to the NHL.** Mine tailings that overlap the I-70 right-of-way may be disturbed by project footprints and construction activities for all alternatives.

No additional right-of-way intrusion into the NHL has been identified. Note that due to the close proximity of the two mines, the effects on the Burleigh Tunnel and Mine (5CC.3.108), just east of the Mendota Mine, were included in the discussion for the Mendota Mine in the Draft PEIS.

Indirect effects on the NHL include moderate to high-level visual intrusions and moderate to very strong visual contrast associated with all alternatives, except the Minimal Action alternative. As a result, all of the alternatives, except the Minimal Action alternative, would have the potential to affect the NHL. In addition, all alternatives may have noise- and visual-related cumulative effects on the NHL.

B.7 Conclusion

Reference:
The Programmatic Agreement referenced is the main text of this document.

All of the project alternatives would have the potential to affect historic properties in the I-70 Mountain Corridor. As noted above, specific effects on historic properties cannot be determined at this stage in the NEPA process. Therefore, the outcome of Section 106 for Tier 1 is a Programmatic Agreement (PA). The PA stipulates how adverse effects resulting from individual Tier 2 undertakings may be avoided, minimized, or mitigated. The PA also includes stipulations for identifying and evaluating additional National Register properties within the APEs associated with these future individual undertakings.

Table B-1. Summary of Relative Effects for I-70 Mountain Corridor

	Transit Alternatives										Highway Alternatives						Combination Highway/Transit Alternatives							
	1		2		3		4		5		6		7		8		9		10		11		12	
	Minimal Action		Rail with IMC		AGS		Dual-Mode Bus in Guideway		Diesel Bus in Guideway		6-Lane Highway 55 mph		6-Lane Highway 65 mph		Reversible/HOV/HOT Lanes		6-Lane Highway with Rail and IMC		6-Lane Highway with AGS		6-Lane Highway with Dual-Mode Bus in Guideway		6-Lane Highway with Diesel Bus in Guideway	
Potential Damage or Alteration (number of sites directly affected by each alternative)																								
	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction	Footprint	Construction
Georgetown-Silver Plume NHL (Toll House & mine tailings)	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Lawson-Downieville-Dumont (2 barns only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1
Idaho Springs (mine tailings only)	1	2	2	2	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Hot Springs Historic District, Pool/Lodge, and Glenwood Springs Viaduct	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Loveland Ski Area	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Multicomponent Site	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Eisenhower-Johnson Memorial Tunnels	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vail Pass Highway Segment	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Twin Tunnels	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Properties Affected through Damage or Alteration	8	10	13	14	13	14	12	14	12	14	12	14	12	14	12	15	12	15	12	15	12	15	12	15
Potential Effect Due to Noise Impacts[1]																								
Georgetown-Silver Plume NHL	No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		Potential Effect (4 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)	
Lawson-Downieville-Dumont	No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		Potential Effect (4 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)	
Idaho Springs	No Effect (1-3 dBA)		No Effect (1-3 dBA)		No Effect (1-3 dBA)		Potential Effect (1-7 dBA)		Potential Effect (2-7 dBA)		Potential Effect (3-7 dBA)		Potential Effect (3-7 dBA)		Potential Effect (3-7 dBA)		Potential Effect (4-10 dBA)		Potential Effect (4-10 dBA)		Potential Effect (4-10 dBA)		Potential Effect (4-10 dBA)	
Potential Effect Due to Visual Intrusion[2]																								
Potential Visual Intrusion to Georgetown-Silver Plume NHL	No Effect		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast	
Potential Visual Intrusion to Lawson-Downieville-Dumont	No Effect		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Moderate Level Intrusion and Contrast	
Potential Visual Intrusion to Idaho Springs	Potential Effect - Moderate Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast		Potential Effect - Highest Level Intrusion and Contrast	
Potential Effects Due to Induced Growth[3]																								
Clear Creek County: Georgetown-Silver Plume NHL, Lawson-Downieville-Dumont, Idaho Springs	No Effect		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time	
Hot Springs Historic District, Pool/Lodge, and Glenwood Springs Viaduct	No Effect		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time		No Known Effect at This Time	
Potential Effects Due to Cumulative Impacts[4]																								
Georgetown-Silver Plume NHL	Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects	
Lawson-Downieville-Dumont	Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects	
Idaho Springs	Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects		Potential Noise and Visual Effects	

[1]Potential Noise effects on Glenwood Springs historic properties were not estimated due to the minimal improvements proposed. Noise effects were not estimated for other individual historic properties in the Corridor, including the Loveland Ski Area and Multicomponent Site.

[2] Potential Visual effects on Glenwood Springs were identified as low due to the minimal improvements proposed. Visual analysis was conducted for the entire Corridor and additional information is available in Chapter 3, Section 3.13 of the Draft PEIS, Visual Analysis. Impacts on the Loveland Ski Area have not been evaluated at this time.

[3] Potential induced growth impacts on other historic properties have not been examined at Tier 1.

[4] No cumulative impacts have been identified for historic properties outside Clear Creek County.

Footprint: Impacts associated with the footprint would be considered permanent because the given resource would be covered by the transportation facility (such as additional traffic lanes, rail, or guideways).
Construction: Impacts associated with construction disturbance would be considered temporary because this area could later be reclaimed.

Legend:
- Potential Effects due to Noise Impacts
- Potential Effects due to Highest Visual Intrusion
- Potential Noise and Visual Effects due to Cumulative Impacts

Appendix C.
Parties Informed about the Mountain Corridor Project and Invited to Participate in Section 106 Consultations

Agency Team

Federal Highway Administration (FHWA)
Colorado Department of Transportation (CDOT)
Advisory Council on Historic Preservation (ACHP)
State Historic Preservation Officer (SHPO)

National Park Service (NPS)
Bureau of Land Management (BLM)
United States Forest Service (USFS)
United States Army Corps of Engineers (USCOE)

SRI Foundation
J.F. Sato and Associates

Consulting Parties and Those Invited to Be Consulting Parties

Clear Creek County
Eagle County
City of Glenwood Springs
City of Idaho Springs
Town of Georgetown
Town of Silver Plume
Georgetown Silver Plume Historic District Public Lands Commission

National Trust for Historic Preservation Mountain Plains Office
Colorado Preservation Inc.
Historic Georgetown Inc.
Historical Society of Idaho Springs
Mill Creek Valley Historical Society
Colorado Historical Society

Denver Landmark Preservation Commission
Town of Breckenridge
Jefferson County Historical Commission
Jefferson County Historical Society
Summit County
Summit County Historic Preservation Commission

Consulting Parties Included by Reference

Cheyenne and Arapaho Tribes of Oklahoma
Kiowa Tribe of Oklahoma
Northern Arapaho Tribe
Northern Cheyenne Tribe
Rosebud Sioux Tribe
Southern Ute Indian Tribe
Standing Rock Sioux Tribe
Ute Mountain Ute Tribe
Ute Tribe of the Uintah and Ouray Agency
White Mesa Ute Tribe

Appendix D
Programmatic Agreement for Tribal Consultation for the Mountain Corridor Project

PROGRAMMATIC AGREEMENT

Between

FEDERAL HIGHWAY ADMINISTRATION
COLORADO DEPARTMENT OF TRANSPORTATION
UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE, ROCKY MOUNTAIN REGION
UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT
COLORADO STATE HISTORIC PRESERVATION OFFICE

And the Federally Recognized Tribes

CHEYENNE AND ARAPAHO TRIBES OF OKLAHOMA
KIOWA TRIBE OF OKLAHOMA
NORTHERN ARAPAHO TRIBE
NORTHERN CHEYENNE TRIBE
ROSEBUD SIOUX TRIBE
SOUTHERN UTE INDIAN TRIBE
STANDING ROCK SIOUX TRIBE
UTE MOUNTAIN UTE TRIBE
UTE TRIBE OF THE UINTAH AND OURAY AGENCY
WHITE MESA UTE TRIBE

Regarding the

SECTION 106 TRIBAL CONSULTATION PROCESS FOR THE INTERSTATE 70 MOUNTAIN CORRIDOR PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Whereas 36 CFR Part 800.16, Protection of Historic Properties, provides definitions and procedures for consultation between federal agencies and Native American tribes for federal undertakings; and

Whereas the Federal Highway Administration (FHWA), as lead federal agency, is responsible for compliance with the provisions of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations; and

Whereas FHWA Colorado Division and the Colorado Department of Transportation (CDOT), in cooperation with the United States Department of Agriculture Forest Service (USFS) and the United States Department of the Interior Bureau of Land Management (BLM), are engaged in long-term planning for transportation improvements to the Interstate 70 Mountain Corridor between Denver and Glenwood Springs, Colorado, a distance of approximately 140 miles, to be documented in the Record of Decision (ROD) for the Programmatic Environmental Impact Statement (PEIS); and

Whereas FHWA and CDOT have determined that proposed transportation improvements described in the PEIS and ROD constitute an undertaking that may have an effect upon historic properties included in or eligible for listing in the National Register of Historic Places, and/or upon localities of cultural or religious significance to Native Americans; and

Whereas FHWA and CDOT have established a government-to-government relationship with the above-listed tribes for the purpose of facilitating Section 106 consultation within the Area of Potential Effect (APE) identified in the PEIS and ROD; and

Whereas the consulting tribes and principal agencies have agreed that a Programmatic Agreement (PA) is appropriate and necessary in order to outline specific protocol for tribal consultation within the I-70 Mountain Corridor for all subsequent transportation improvement projects specifically discussed in the PEIS and ROD; now

Therefore FHWA, CDOT, USFS, BLM, State Historic Preservation Officer (SHPO) and the federally recognized signatory Tribes do hereby agree to the following stipulations to satisfy Section 106 responsibilities for all aspects of Native American consultation for future undertakings within the Interstate 70 Mountain Corridor APE:

1. Agreement Period. This agreement becomes effective upon the signature of the Federal and State agencies and any Signatory Tribes, but its provisions will not affect any party until and unless that party signs the PA. The PA shall remain in effect until all transportation improvements within the Mountain Corridor Area of Potential Effect, as discussed in the PEIS, have been successfully completed. The PA will be included as part of the PEIS and the ROD.

2. Consultation. In correspondence dated February 12, 2001, FHWA delegated to CDOT the coordination and facilitation of all Section 106 tribal consultation for federal-aid transportation projects undertaken by CDOT (per 36 CFR Part 800.2(a)). CDOT will provide FHWA with all documentation necessary to fulfill NEPA and Section 106 requirements, as well as those outlined in Executive Order 13007, *Indian Sacred Sites*, as part of its environmental process. Unless otherwise stipulated in this agreement, tribal consultation for lands under the direct administration of USFS, BLM or any other federal land managing agency will be addressed individually by each agency, at its discretion, using internal policies, guidelines and procedures.

CDOT will provide general information to tribal governments for various stages of project development within the PEIS corridor that do not involve localities of cultural and religious significance to a tribe.

Consultation is ongoing between the agencies and the signatory Tribes, and serves to facilitate interaction between the principal parties to ensure that tribal concerns are appropriately and effectively addressed as the consultation process moves forward.

3. Point of Contact.

a. On behalf of FHWA, the Manager of the Cultural Resource Section in the CDOT Environmental Programs Branch will serve as the primary point of contact for all aspects of the tribal consultation process.
b. The FHWA point of contact for correspondence shall be the Colorado Division Environmental Program Manager, located in Lakewood, Colorado. An organizational chart showing pertinent contact information for FHWA and CDOT is included as Attachment 1.
a. All parties to this agreement will be notified in writing should changes to this arrangement take effect.

4. Project Specific Consultation. For each transportation undertaking within the Interstate 70 Mountain Corridor as discussed in the PEIS and ROD, CDOT shall consult with the signatory Tribes as early as practicable in the project planning, design and environmental document development process by notifying the Tribes in writing of the following:

a. The exact location of the undertaking.
b. The nature and extent of the proposed project (i.e., highway widening, new interchange construction) and its proposed impact on the environment.
c. Results obtained from the Section 106 cultural resources inventory, including descriptions of, and National Register eligibility determinations for, sites affiliated with Native American occupation or use.
d. The potential of the project to impact National Register-eligible sites and/or those localities of cultural or religious significance to any of the signatory Tribes.
e. As early in the project planning and development process as possible, the signatory Tribes shall, at their discretion, notify CDOT and FHWA of the presence of specific sites or areas deemed by them as Traditional Cultural Properties (TCPs) and/or Sacred Sites. Such sites will be identified according to Executive Order 13007, *Indian Sacred Sites*, as well as individual Tribes' traditions, processes and procedures, and evaluated for significance by the agencies according to National Register Technical Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties*, and other means, as appropriate.
f. Tribal access to any areas within the APE identified as having cultural or religious significance will be agreed upon as mitigation of adverse effects and specifically addressed in project-specific NEPA documents.
g. To the extent allowed by law, CDOT shall ensure that sensitive information provided by the Tribes will be protected and will not be released in a public forum without the express written consent of the pertinent Tribe(s). Each signatory Tribe also commits to keep the locations of identified sensitive sites or places confidential, even if such places are not considered of importance by that Tribe.

5. Timing. Any signatory Tribe with an interest in a specific undertaking shall provide CDOT with written notification to that effect within sixty (60) days of receipt of CDOT's request for review and comment. Failure of a signatory Tribe to respond within the 60-day period will not prevent the Tribe from entering consultation at a later point. However, if the Tribe enters the consultation process after the initial 60-day period CDOT and FHWA shall continue the consultation without being required to reconsider previous determinations of findings, unless significant new information is introduced.

6. Treatment. CDOT shall provide the signatory Tribes an opportunity to comment on CDOT's treatment plan for any sites with cultural and religious significance to the Tribes, as follows:

a. Wherever feasible, the historic property will be avoided by the proposed transportation activity and preserved in place.
b. Where avoidance is not a feasible alternative and this determination has been documented accordingly, treatment shall be carried out in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, coupled with guidelines established by the Colorado Office of Archaeology and Historic Preservation.
c. For historic properties of cultural and religious significance to signatory tribes located on lands administered by USFS or BLM, Section 106 consultation will be facilitated by the pertinent agency unless otherwise stipulated. All treatment provisions specific to the agency will be followed, as appropriate.

In the event that one or more signatory Tribes objects to the treatment plan within sixty (60) days of receipt of the proposed treatment plan, CDOT shall review the documentation provided by the Tribe to support its objection and make a reasoned response to the Tribe. If the Tribe(s) continues to object,

CDOT shall provide FHWA with a copy of the documentation along with copies of the results of consultation with all parties. FHWA shall review this documentation and:

d. Consult with the Tribe(s) to resolve the objection, or pursue consultation with CDOT, the State Historic Preservation Officer, and, if appropriate, the Advisory Council on Historic Preservation toward the same end; and
e. Notify all consulting parties of the outcome of negotiations.

7. Construction Monitoring and Emergency Discoveries. The lead federal agency (FHWA) shall establish a construction monitoring program for I-70 Mountain Corridor construction projects specifically and only for previously identified areas of cultural and religious significance to the signatory Tribes. The monitoring program will proceed according to the following process:

a. If a Tribal monitor is assigned, that individual will coordinate with the lead agency in assessing the required level of effort. CDOT will coordinate the tribal monitor, including appropriate payments thereto, according to the CDOT compensation policy established for these types of services.
b. Prior to commencement of a monitoring program, the signatory Tribes shall detail in writing the nature of artifacts or objects of cultural and religious significance. Any discoveries of such artifacts or objects made by the monitor shall be reported immediately to the CDOT Engineer and the CDOT Staff Archaeologist/Cultural Resource Manager. Section 107.23 of CDOT's *Standard Specifications for Road and Bridge Construction* (Attachment 2), which outlines CDOT's policies for emergency discoveries during construction, are incorporated into this agreement by reference. These procedures are consistent with the process outlined for emergency situations under 36 CFR 800.12.
c. Construction shall cease in the area of the find until the nature and significance of the discovery has been ascertained by all parties, and appropriate consultation involving the monitoring Tribe(s), CDOT, FHWA, the State Historic Preservation Officer (SHPO), and any other pertinent entities or agencies is completed.
d. Construction will not resume in the area of the discovery until the lead federal agency, in consultation with the signatory Tribes, is satisfied that the find will be avoided or adverse effects mitigated.
e. At the conclusion of this process, the CDOT Cultural Resource Manager/Staff Archaeologist will provide the Engineer with authorization to resume construction.

8. Native American Graves. In the event that Native American burials are anticipated or inadvertently discovered during controlled archaeological excavations or any phase of construction within the I-70 Mountain Corridor APE, CDOT shall seek to avoid direct and indirect impacts to the site(s) as the primary mitigation alternative. Treatment of sites containing human remains, funerary objects, sacred objects or objects of cultural patrimony shall proceed according to applicable law, as follows:

a. Such discovery on lands owned and administered by the State of Colorado (assuming federal transportation funds are involved in the undertaking), USFS, BLM or any other federal agency, in addition to temporary easements acquired by CDOT for construction purposes, shall be subject to the provisions of the Colorado Historical, Prehistorical, and Archaeological Resources Act (CRS 24-80-40) and the Native American Graves Protection and Repatriation Act (NAGPRA; 43 CFR 10), as appropriate, and any agency-specific rules and procedures for handling such matters. In the case of federal lands (excluding dedicated CDOT highway right-of-way not located on lands under federal jurisdiction), CDOT and FHWA will defer all tribal consultation and decisions in this regard to the appropriate agency.

b. The consulting signatory Tribe(s) shall respond to CDOT or the appropriate federal agency in writing within four (4) working days of notification of the discovery regarding the specific nature and extent of their interest in further consultation.

If it is determined that avoidance of a burial site on lands administered by the State of Colorado is not a feasible alternative, CDOT shall:

c. Develop and implement a treatment plan in accord with Article 6 above, following the permitting, excavation and non-destructive analysis procedures stipulated by the Colorado Office of Archaeology and Historic Preservation.
d. Coordinate a mutually agreeable plan with the consulting signatory Tribe(s) for Native American monitoring of the disinterment and the performance of ceremonies, rituals or other observances desired by the consulting Tribes before, during and/or after the excavation.

During the excavation of any Native American graves, CDOT shall take measures to ensure:

e. The respectful, dignified treatment of burials at all times during the disinterment and analysis process.
f. Security for the site and the grave(s) to prevent vandalism when archaeologists and/or Native American representatives are not present.
g. That no photographs are taken of human remains or open graves other than photo-documentation needed for recordation of the excavation.
h. That media exposure to the burial site is minimized, including but not limited to keeping the site location confidential.
i. Off-site security for exhumed burials and funerary objects during and after excavation.

At the completion of the excavations, analysis, and reporting required by the treatment plan and the State of Colorado Archaeological Permit, in accordance with 43 CFR 10, the regulations implementing NAGPRA, CDOT and FHWA shall:

j. Complete an inventory, as per 43 CFR 10.9.
k. Complete a Repatriation Agreement in consultation with the culturally affiliated signatory Tribes.
l. Transfer custody of the objects to the agreed upon, proper recipient.
m. Where feasible and agreed upon by the lead federal agency and the culturally affiliated signatory Tribes, make arrangements for a parcel of land to be used for reburial of the remains in perpetuity by the signatory Tribes.

9. Amendment and Termination. Any party to this consultation agreement may request that it be amended, whereupon the parties shall consult to consider such amendment. Any party to this agreement may terminate its participation by providing sixty (60) days' written notice to the other parties, provided that the parties will consult during the period prior to the termination to seek agreement on amendments or other actions that would avoid termination.

10. Severability. In the event any one or more of the provisions contained in this agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

Nothing in this Agreement shall preclude federal agencies or federal officials from fulfilling their responsibilities under the National Environmental Policy Act (NEPA) as codified in 42 USC Section 4321 et seq., or any of NEPA's implementing regulations.

11. Signatory Warranty. The undersigned signatories represent and warrant that each has full and complete authority to enter into this contract on behalf of their respective organizations. These representations and warranties are made for the purpose of inducing the parties to enter into this contract.

12. BLM Non-Funding Stipulation. This instrument is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement of funds between parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures, including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

13. USDA Forest Service Rider

a. DISPUTE RESOLUTION STIPULATION. Should a SHPO or any other consulting party object within 30 days to any finding or action proposed pursuant to this agreement, the specific Forest shall consult with SHPO and the objecting party to resolve the objection. If the Forest determines that the objection cannot be resolved, the specific Forest shall forward all documentation relevant to the dispute to the Council. Within 30 days after receipt of all pertinent documentation, the Council will either:

1. Provide the Forest with recommendations, which the Forest will take into account in reaching a final decision regarding the dispute; or

2. Notify the Forest that it will comment pursuant to 36 CFR 800.7(c), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the Forest Service in accordance with 36 CFR 800.7(c)(4) with reference to subject of the dispute.

3. Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; the Forest's responsibility to carry out all actions under this agreement that are not the subjects of the dispute will remain unchanged.

b. QUALIFICATIONS. The Forest Service shall follow the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and Professional Qualifications for Archeologists/Historians (48FR190:44716-44742), throughout the implementation of this agreement.

c. TERMINATION. The Regional Forester may terminate this agreement by providing thirty (30) days written notice to the other parties, provided that the parties consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event this agreement is terminated, the Regional Forester will comply with 36 CFR 800 with regard to individual undertakings covered by this agreement.

d. NON-FUND OBLIGATING DOCUMENT. This agreement is neither a fiscal nor a funds obligation document. Any endeavor or transfer of anything of value involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors

will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This agreement does not provide such authority. Specifically, this agreement does not establish authority for non-competitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.

f. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this instrument is subject to the FOIA. However, certain sensitive spatial and non-spatial information will be protected per the NHPA (1966, with revisions).

g. PARTICIPATION IN SIMILAR ACTIVITIES. This instrument in no way restricts the Forest Service or the Cooperators from participating in similar activities with other public or private agencies, organizations, and individuals.

AGENCIES

FEDERAL HIGHWAY ADMINISTRATION

By: _____ Date: 4/22/04
William C. Jones, Division Administrator

COLORADO DEPARTMENT OF TRANSPORTATION

By: _____ Date: 11/11/03
Tom Norton, Executive Director

USDA FOREST SERVICE, ROCKY MOUNTAIN REGION

By: _____ Date: 4/13/2004
for Rick D. Cables, Regional Forester

USDI BUREAU OF LAND MANAGEMENT

By: _____ Date: 2/20/04
Ron Wenker, State Director

STATE HISTORIC PRESERVATION OFFICE

By: _____ Date: 11/17/03
Georgianna Contiguglia, State Historic Preservation Officer

SIGNATORY TRIBE

SOUTHERN UTE INDIAN TRIBE

By: _____ Date: MAY 12, 2004

Howard Richards, Chairman

SIGNATORY TRIBE

CHEYENNE AND ARAPAHO TRIBES OF OKLAHOMA

By: Bill Blind Date: June 14, 2004

Bill Blind, Vice-Chairman

SIGNATORY TRIBE

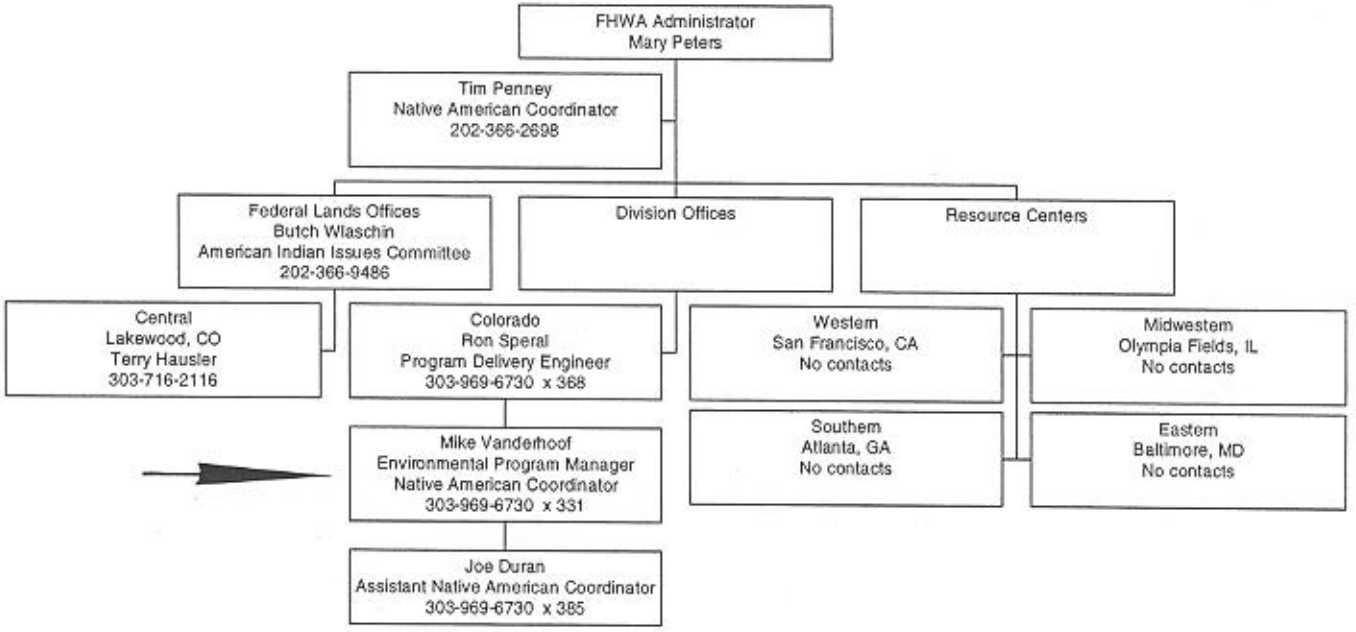
KIOWA TRIBE OF OKLAHOMA

By: Billy Evans Horse Date: Oct. 27, 04

Billy Evans Horse, Chairman

ATTACHMENT 1

Federal Highway Administration
Field Offices
Native American Coordinators



Colorado Department of Transportation
Section 106 Native American Liaison
Dan Jepson, (303)757-9631

ATTACHMENT 2

STANDARD SPECIFICATION 107.23, ARCHAEOLOGICAL AND PALEONTOLOGICAL DISCOVERIES

(Excerpted from Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, 1999)

When the contractor's operations, including materials pits and quarries, encounter plant or animal fossils, remains of prehistoric or historic structures, prehistoric or historic artifacts (bottle dumps, charcoal from subsurface hearths, old pottery, potsherds, stone tools, arrowheads, etc.), the Contractor's affected operations shall immediately cease. The Contractor shall immediately notify the Engineer, or other appropriate agency for contractor source pits or quarries, of the discovery of these materials. When ordered to proceed, the Contractor shall conduct affected operations as directed. Additional work, except that in contractor source materials pits or quarries under subsection 106.02(b), will be paid for by the Department as provided in subsection 104.02 when contract unit prices exist, or as extra work as provided in subsection 104.03 when no unit prices exist. Delays to the Contractor, not associated with work in contractor sources, because of the materials encountered may be cause for extension of contract time in accordance with subsection 108.06. If fossils, prehistoric or historic structures, or prehistoric or historic artifacts are encountered in a contractor source materials pit or quarry, all costs and time delays shall be the responsibility of the Contractor.

Appendix E.
Context Sensitive Solutions and the Mountain Corridor Project

Using Context Sensitive Solutions in the Tier 2 NEPA and Section 106 Processes

The Section 106 process for Tier 2 undertakings, as established in this PA, involves participation by the consulting parties in many aspects of agency decision-making. CDOT is committed to initiating a context sensitive solutions (CSS) program that would engage Mountain Corridor consulting parties and other stakeholders in the process of developing solutions during the Tier 2 NEPA and Section 106 processes and continue throughout the implementation of design and construction phases. Table E-1 illustrates the consultation process interface between the Section 106 and NEPA activities emphasizing CSS.

Measuring Context Sensitive Solutions Performance for Section 106 Issues

By partnering and collaborating with the agencies, consulting parties, and other stakeholders, CDOT will develop effective transportation solutions in a manner that:

- Satisfies the project need and achieves purposes to the extent practicable, while recognizing fiscal constraints
- Fits into the context of the Corridor
- Avoids or minimizes adverse effects on historic properties and other impacts
- Adds value to the communities and environment of the Corridor
- Achieves a level of excellence.

As part of initiating consultation at the beginning of each Tier 2 undertaking, CDOT will convene a charrette-style meeting (collaborative session in which a group of participates explore solutions) among FHWA, CDOT, SHPO and the appropriate consulting parties to develop a vision and historic preservation goals for the project. In this or subsequent meetings, the parties will establish context-sensitive solutions performance measures for the project. The ideal outcome for each Tier 2 undertaking would be a Section 106 finding of "no historic properties affected" or "no adverse effect." For undertakings found to have an "adverse effect on historic properties," a PA supplement for that undertaking will be executed. Subsequent to the PA supplement, the agencies and appropriate consulting parties will meet to evaluate the Section 106 process and outcome for that undertaking in terms of the previously established context-sensitive solutions performance measures.

Sample evaluation measures might include (but are not limited to):

- Project design consistency with and/or enhancement of historic community setting and features of the surrounding area and community.
- Project design consistent with or providing enhancement of the historic integrity of the surrounding community, including historic districts, the national historic landmark district, individual buildings, and their context included within boundaries listed or determined to be eligible for the National Register of Historic Places.
- Project design that promotes preservation of integrity of archaeologically significant structures or sites.

Guidance for development of effectiveness measures might include National Cooperative Highway Research Program (NCHRP) Document 69: *Performance Measures for Context Sensitive Solutions – A Guidebook for State DOTs* (October 2004) or other current NCHRP and USDOT materials available at that time.

Table E-1.
Section 106 and NEPA Process Interface Emphasizing Context Sensitive Solution (CSS) Activities for I-70 Mountain Corridor Tier 2 Projects

Tier 2 Section 106 Consultation Process	Tier 2 NEPA Process	Tier 2 Context Sensitive Solution (CSS) Activities	Tier 1 PA Stipulations
Initiate Section 106 consultation (with interested tribes and parties)	Initiate NEPA study – Scoping • Formulate or refine purpose and need • Develop public involvement plan	Early project consultations with stakeholder/consulting parties Facilitate process of developing project-specific context sensitive solutions Issues identified and tracked by: • stakeholder group and Section 106 consulting parties • type of concern • significance of the outcome to the group Obtain Section 106 consulting parties and stakeholders views on: • purpose and need • Issues that might affect NEPA process, particularly alternative analysis	Stipulations I. A-H, II.B, IV.A, and VI.A
Consultations about: • Identification of Area of Potential Effects (APE) • Information on known or potential historic properties in APE (including properties listed in the National Register of Historic Places (NRHP)) • Level of effort for identifying historic properties in APE	Alternative Analysis – preliminary alternatives development and screening	Obtain consulting party views on: • preliminary alternatives • screening criteria Develop alternatives concepts through collaboration with stakeholder/consulting parties	Stipulations II.C and D, III.A-B, and IV.B-E
Consultations about: • Identification of NRHP eligible and listed properties in APE • Effects on NRHP eligible and listed properties	Analysis of alternatives retained for detailed study	Issues related to: • community values • environmental sensitivity of the project setting (including historic setting) • fiscal constraints	Stipulations II.E and V.A-D
Consultations about: • whether effects on NRHP eligible and listed properties are adverse (includes assessment of indirect, reasonably foreseeable, and cumulative effects)	Impact Analysis – identification of Preferred Alternative Indirect and cumulative effects analysis	Identify impacts in coordination with agency and community stakeholders/consulting parties	Stipulations II.E, II.F and V.A-D
Continued consultations about: • resolution of adverse effects on historic properties (avoid, minimize, or mitigate adverse effects) Develop a project-specific supplement to the PA	Mitigation For project impacts: • avoid and/or minimize • reduce or eliminate • compensate Include PA supplement in the NEPA document	Encourage creative mitigation: • commitment to environmental stewardship • outside the box • better project and historic preservation outcomes • greater public benefit Develop mitigation in coordination with agency and community stakeholder/consulting party participation	Stipulations II.F and VI.A-C

Tier 2 Section 106 Consultation Process	Tier 2 NEPA Process	Tier 2 Context Sensitive Solution (CSS) Activities	Tier 1 PA Stipulations
	After NEPA		
Implement stipulations of PA and project-specific supplemental	Project Design	Continue stakeholder/consulting party involvement through the design process Use design standards and criteria that follow American Association of State Highway and Transportation Officials (AASHTO) policy, which will provide flexibility in design activities to incorporate CSS	Stipulation VI.B
Implement stipulations of PA and project-specific supplemental	Project Construction	Develop construction mitigation strategies for each Tier 2 project with stakeholder/consulting party input Focus strategies on community involvement to minimize disruption (including to minimize/mitigate economic impacts on historic properties/heritage tourism) during construction	Stipulation VI.B

Appendix F.
CDOT Chief Engineer's Policy Memo #26 on Context Sensitive Solutions

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION
Office of the Chief Engineer
4201 East Arkansas Avenue, Room 262
Denver, Colorado 80222
Office 303-757-9206
Facsimile 303-757-9656

Date: October 31, 2005

To: Region Transportation Directors, Professional Engineer II's and III's, Region Environmental & Planning Managers, Maintenance Superintendents

From: Craig Siracusa, Chief Engineer Craig Siracusa

Subject: Chief Engineer's Policy Memo 26, Context Sensitive Solutions (CSS) Vision for CDOT

The philosophy and structure of *Context Sensitive Solutions* (CSS) made their way into state Departments of Transportation in the early- to mid-1990s. At first my reaction was: 'what's new about this, we have been doing this for years - planning, designing, building, and maintaining our projects to fit within the context of the communities we work in'. Take a look at Glenwood Canyon, for example!

But as I learned more, I realized that the principles of CSS did represent a new way of thinking and a good model for doing our business.

CDOT has embraced many of the CSS principles in our Environmental Stewardship Guide - early, collaborative public involvement in project planning and design. We have not, however, adopted the full scope and intent of CSS as a business model for CDOT.

The purpose of this Policy Memo is to take a first step in that direction by explaining CSS to you, offering my vision for implementation of CSS, and giving you some examples of CSS practices already going on at CDOT. Finally, I will outline plans for upcoming training on CSS.

What is CSS?
According to the Maryland Department of Transportation, "*Context Sensitive Solutions* asks questions first about the need and purpose of the transportation project, and then equally addresses safety, mobility, and the preservation of scenic, aesthetic, historic, environmental, and other community values. Context sensitive solutions involves a collaborative, interdisciplinary approach in which citizens are part of the design team." Florida DOT states that CSS "seeks transportation solutions that improve mobility and safety while complementing and enhancing community values and objectives. Context sensitive solutions are reached through joint effort involving all stakeholders."

CSS principles should also be applied to our day-to-day operations and maintenance activities. You may be able to recognize that Context Sensitive Solutions concepts fit in closely with CDOT's Vision, Mission and Values – our philosophy for conducting business. I encourage you to review these again on page 6 of the booklet at:
http://www.dot.state.co.us/TopContent/FactBook2005.pdf

Key Elements of CSS (from NCHRP Report 480):

- The project satisfies the purpose and needs as agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted as the project develops.
- The project is a safe facility both for the user and the community.
- The project is in harmony with the community and preserves environmental, scenic, aesthetic, historic, and natural resource values of the area.
- The project exceeds the expectations of both designers and stakeholders and achieves a level of excellence in people's minds.
- The project involves efficient and effective use of resources (such as time, budget, and community) of all involved parties.
- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

CSS is not just an aesthetic treatment; rather, CSS involves developing a transportation solution to fit into its context. The purpose of the CSS approach is to identify and address both transportation and project area needs during project development. CSS requires the flexibility to consider alternative solutions that can benefit a broad range of stakeholders, while recognizing the fiscal constraints and the limits of CDOT's mission as a transportation agency. Effective transportation solutions that fit the project's context, rather than project enhancements, are the purpose of CSS.

CSS maintains safety and mobility as priorities, yet recognizes that these are achieved in varying degrees with alternative solutions. Utilizing the CSS philosophy, CDOT design professionals determine which safe solution best fits, given the site's conditions and context. CSS is about making good engineering decisions.

CSS can affect all design elements; therefore project costs may increase, decrease or be unchanged when compared to the traditional design approach. Cost issues must still be addressed during project development, as is the case with all technical and environmental constraints. CSS adds value to the process by helping the Department identify and work with stakeholders to develop projects that are sensitive to their context. The CSS approach does not imply that there will always be unanimity among stakeholders, nor does it eliminate the Department's responsibility to exercise engineering judgment in balancing trade-offs.

At the recent AASHTO Annual meeting in Nashville, our Berthoud Pass Mountain Access Project was recognized as a "Notable Practice" in CSS. We were able to submit several projects to AASHTO that were excellent examples of applications of CSS principles.

However, while we have embraced CSS principles on many levels in CDOT, there has never been an Executive Management statement of our agency's vision for implementing CSS. That vision needs to be grounded in our basic understanding of community.

What makes the community you live in special? What is it about where you live that gives you a sense of place, or is a source of local pride for you and your neighbors? You might answer that my community is scenic, it has a unique history, it has many cultural resources, it has physical characteristics I like, et cetera. These community values are important, and you probably feel that they should be preserved and enhanced if possible.

Our state highways traverse virtually every community in Colorado. Our day-to-day work on these roadways, and our projects to improve them, should respect community values and should be sensitive to the unique context of each community. ***By partnering and collaborating on a multi-disciplinary basis with each community, we will find ways to achieve our transportation objectives while at the same time respecting local values. We will often enhance what makes that community special for the people who live there. Our projects should be seen as having added lasting value to the community. Our end result should exceed our expectations and those of community members, and should achieve a level of excellence in people's minds.*** In the very broadest sense that's my vision of CSS, and our success in following this vision, in my view, will be what sustains lasting support by our customers for achievement of our Vision and Mission.

These few examples may help better define *Context Sensitive Solutions* for you:

Day-to-day CDOT Operations
When we do shoulder sweeping on miles of various state highways to accommodate the thousands of bicyclists participating in the annual Ride the Rockies event, we are helping to enhance the values of those communities and groups involved. When our Maintenance crews painted the Colorado Boulevard bridge over Cherry Creek, we worked with the City of Glendale to make sure our efforts meshed with their desire to improve the area. We are being context sensitive when we add a crosswalk near a school and make it safer for children in that community. I'm sure that you can think of many of our other day-to-day activities that are similar to these, which support or enhance community values.

In order to be sensitive to community values as operators and maintainers of Colorado's highways, you have to first know them. That means those responsible for daily operations must spend some time learning what's important to the communities they work in.

CDOT Projects
As we scope, design and construct our projects we need to continue our history of finding *Context Sensitive Solutions.* For example, town and city leaders in our downtowns often feel that wider pavements limit pedestrian circulation. They fear that one side of the community may feel cut off from the other. Intersection "bump-outs" that bring sidewalks out to the edge of parking lanes, and color contrasting cross walks shorten and better define pedestrian movements, and may even allow better Americans with Disabilities (ADA) access. Decoratively paved and landscaped medians often can add aesthetic value to the community. Our designers and construction personnel worked closely with community groups on the US 6 bridge reconstruction and rehabilitation project near the gaming areas to make sure traffic delays were minimized. We worked closely with concerned groups on the Snowmass Canyon project to fit the road in, while preserving the natural beauty of the area to the largest extent possible. Our sensitivity to individual community visions is further evidenced along the Transportation Expansion (T-REX) project, where several local agencies requested different sound wall aesthetics that best fit into their respective communities. The examples go on and on.

Advancing capital projects that provide safe transportation solutions designed in harmony with the community is a bit complex. The first step is the need to identify a range of community stakeholders who can help us quickly understand the community's character before engineering work begins. We need to communicate with them in an open and honest way, early and

continuously throughout the development of each project in order to join our objectives with theirs.

We have a cadre of dedicated professionals experienced in many varied disciplines. Whether you are a designer, maintenance worker, planner, traffic engineer, real estate specialist, environmental manager, or in another discipline, please be assured that your knowledge is vital to what we do at CDOT. Your skills and ingenuity, together with the input received from our customers, helps us make outstanding and lasting contributions to Colorado's quality of life. Let's continue to make *Context Sensitive Solutions* our posture for all of our work.

Training

For the future, training will be set up for CDOT personnel, where much more detail will be provided regarding the CSS process and principles. The National Highway Institute (NHI) offers a three-day long Context Sensitive Solutions training session. CDOT may consider hiring a consultant to prepare and provide a CDOT-specific CSS training course. Our Center for Training and Organizational Development will be soliciting interest, setting up training sessions, and signing people up to attend. The expectation is that CDOT's Resident Engineers and Program Engineers will be the first group to be trained, followed by other planning, design, construction, and maintenance professionals.

Additional information relating to Context Sensitive Solutions is available at: **http://trb.org/news/blurb_detail.asp?id=1373** (National Cooperative Highway Research Program (NCHRP) Report 480: A Guide to Best Practices for Achieving Context-Sensitive Solutions) **http://www.sha.state.md.us/events/oce/thinkingBeyondPavement/tbtp.pdf** (Maryland DOT)

Appendix G.
Additional Signatory Form
Programmatic Agreement
Regarding the Interstate70 Mountain Corridor Project

WHEREAS, [name of agency] proposes to [nature of participation in or assistance to the Mountain Corridor Project]; and

WHEREAS, [name of agency] must take into account the effects of such undertakings on historic properties and provide the Advisory Council on Historic Preservation with an opportunity to comment on those effects as required by Section 106 of the National Historic Preservation Act (16 U.S.C. 470[f]); and

WHEREAS, FHWA, USFS, BLM, Colorado SHPO, CDOT, and ACHP, with participation by and concurrence of other consulting parties, have executed a programmatic agreement governing Section 106 compliance for Tier 2 undertakings that are part of the Mountain Corridor Project;

NOW THEREFORE, [name of agency] has chosen to meet its Section 106 responsibilities for Mountain Corridor Tier 2 undertakings by executing this Agreement as provided in stipulation XVI of the programmatic agreement.

[Name of Agency]

By: _____ Date: _____