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## 1.0 Introduction

This Technical Reports Volume was completed for the State Highway 82/Entrance to Aspen Environmental Reevaluation. The reevaluation was done in 2006 for the Preferred Alternative selected in the 1998 Record of Decision (ROD), based on data contained in the ROD and the Final Environmental Impact Statement published in August, 1997. The Preferred Alternative selected in the ROD is described in detail in Section 2.0 below.

This reevaluation was completed as required by 23 Code of Federal Regulations 771.129 (c) which states, “After approval of the EIS, ...the applicant shall consult with the [Federal Highway] Administration prior to requesting any major approvals or grants to establish whether or not the approved environmental document...remains valid for the requested Administration action. These consultations will be documented when determined necessary by the Administration.” The purpose of the reevaluation is to determine whether:

- The project is substantially different or changed since the 1998 approval, resulting in environmental impacts that were not previously identified and evaluated;
- The affected environment has changed in a manner which will result in an impact occurring that was not previously evaluated; and/or
- Regulations or laws have changed, and there are new requirements that were not previously addressed.

The technical studies documented in this volume were done to assess whether any changes have occurred in the project design concept or scope, the affected environment, or the mitigation measures in the FEIS and ROD. Where changes have occurred, an analysis was done to determine whether those changes require additional environmental documentation, or whether the 1998 ROD remains valid.

## 2.0 Description of the Preferred Alternative Selected in the 1998 Record of Decision

The Preferred Alternative selected in the 1998 ROD for the State Highway 82 Entrance to Aspen is described below. This alternative is a combination of highway and intersection improvements, a transit system, and an incremental transportation management (TM) program. Figures 1a and 1b show a schematic view of the Preferred Alternative alignment, including proposed locations for transit system stations.

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**Figure 1a – State Highway 82 Entrance to Aspen ROD Preferred Alternative Alignment**

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**Figure 1b – State Highway 82 Entrance to Aspen ROD Preferred Alternative Alignment**

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## **2.1 Highway and Intersection Improvements**

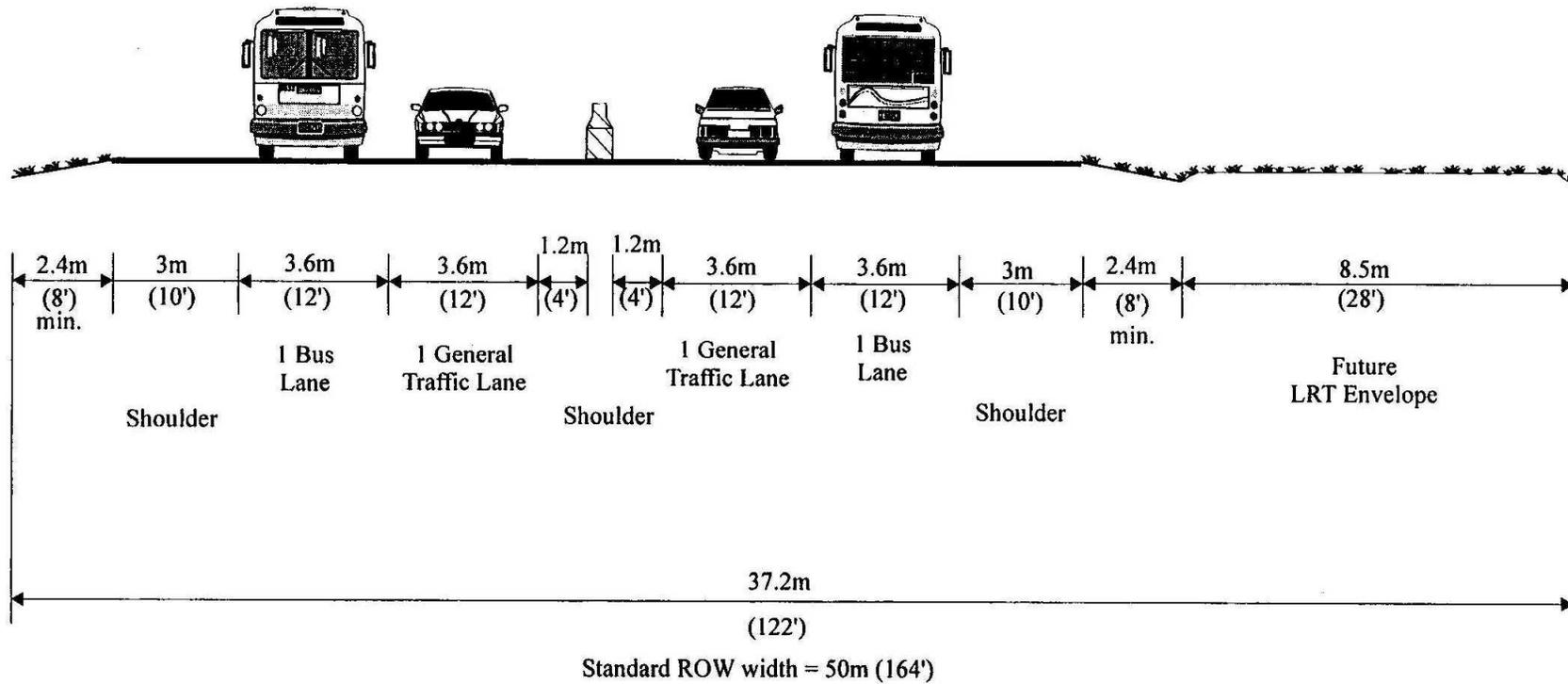
### **2.1.1 Roadway Configuration**

Because the Preferred Alternative allows for phasing of the transit component (initial, exclusive bus lanes with light-rail transit (LRT) phased in later if funding and/or public support is obtained), the design of the highway component will be different during the initial phase than it will be in its ultimate configuration.

The ultimate configuration of the Preferred Alternative will include a wide, grassy median, wide emergency shoulders, two general-purpose lanes (one in each direction), and an LRT system running parallel to the highway. The initial configuration will consist of two general-purpose lanes (one in each direction) and two exclusive bus lanes, one on the outside of the general-purpose lane in either direction. The initial roadway would have either a narrow median and/or a concrete barrier in the center, but the cross-section would include room for the eventual wider median, wider emergency shoulders, and the envelope for the future LRT, as shown in Figure 2. This initial configuration is necessary in order to allow for continued operation of the bus lanes during future LRT construction.

Once the LRT system was completed, the bus lanes would no longer be needed. At that point, the roadway would be re-striped for two general-purpose lanes only (one in each direction), a wider median, and wide emergency shoulders. It is likely that the concrete barrier would be removed from most sections of roadway once the wide median was in place, but specific design details would be determined during final design. The conceptual design across the Marolt-Thomas property, described in the ROD (page 27 of 37), includes a median varying from 12 feet (3.6 meters) in width with grass and landscaping, to a textured concrete median 7 feet (2.1 meters) wide through the cut-and-cover tunnel (described in Section 2.1.2 below).

**Figure 2 – Conceptual Cross-section of Initial Roadway Configuration of Preferred Alternative  
(South Side of State Highway 82, from Service Center Road to Buttermilk LRT Station)**



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### **2.1.2 Roadway Alignment**

The highway alignment of the Preferred Alternative selected in the ROD would follow the existing State Highway 82 alignment from Buttermilk Ski Area to the vicinity of Maroon Creek Bridge, where the alignment would shift to the north. The highway would cross Maroon Creek on a new bridge currently under construction (see Section 2.4), north of the existing bridge. The highway then would return to its existing alignment and continue east to the existing roundabout located at the Maroon Creek Road intersection. (The roundabout was constructed as part of this project; see Section 2.4.) Approximately 750 feet (230 meters) east of the roundabout, the highway alignment would shift to the southeast across the Marolt-Thomas Property and through a cut-and-cover tunnel 400 feet (122 meters) in length, to connect with the intersection of 7<sup>th</sup> Street and Main Street. The alignment would cross a new Castle Creek Bridge between the cut-and-cover tunnel and Main Street. The proposed Main Street roadway alignment would consist of two travel lanes in each direction. The proposed Main Street cross-section would be within the existing curb lines. The Preferred Alternative also included relocating the existing Owl Creek Road and West Buttermilk Road to create a new combined intersection with State Highway 82 near the Buttermilk Ski Area. This relocation has been completed (see Section 2.4.)

## **2.2 Transit System**

The transit system for the Preferred Alternative includes an LRT system from a new LRT Maintenance Facility near Service Center Road to Rubey Park in downtown Aspen. However, the LRT system will be developed initially as exclusive bus lanes if local support and/or funding for LRT are not available. As described previously, the proposed cross-section is of adequate width to allow the exclusive bus lanes to continue in operation during the construction of LRT.

The LRT alignment would leave the maintenance facility on the north side of State Highway 82 (refer to Figure 1a) and cross the highway west of Service Center Road, then turn east toward the Aspen/Pitkin County Airport, heading into the Airport Terminal LRT Station. At this point, the LRT alignment would be parallel to and on the south side of State Highway 82. The LRT would leave the parallel alignment near the new Owl Creek Road intersection to enter the Buttermilk LRT Station and multi-modal facility at grade. The LRT alignment then would return to the south side and parallel to State Highway 82, crossing Maroon Creek on the existing bridge. As the alignment approaches the Maroon Creek Road roundabout, it would shift to the south, bypassing the intersection and crossing Maroon Creek Road and Castle Creek Road. It then would return to the alignment south of and parallel to the highway. The LRT alignment would continue paralleling the proposed highway alignment across the Marolt-Thomas Property, through the cut-and-cover tunnel, to the intersection of 7<sup>th</sup> Street and Main Street. The LRT alignment would then run along the south side of Main Street to Monarch Street, turning south onto the east side of Monarch Street. At Durant Avenue, the LRT would turn east along the north side of Durant Avenue and end at Rubey Park.

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LRT transit stations are proposed at the Airport Terminal, Buttermilk Ski Area, Moore Property, 7<sup>th</sup> Street, 3<sup>rd</sup> Street, Monarch Street, and Rubey Park. For the evaluation done in the 1997 Final EIS, the very conceptual LRT alignment was proposed to be double-tracked (that is, two parallel tracks, each carrying trains in opposite directions) except for the following six areas where a single track would be used for trains going in either direction:

- LRT Maintenance Facility to the Pitkin County Airport
- Maroon Creek Bridge
- Just west of the cut-and-cover tunnel to the intersection of 7<sup>th</sup> Street and Main Street
- 7<sup>th</sup> Street LRT Station
- 3<sup>rd</sup> Street LRT Station
- Intersection of Monarch Street and Main Street to Rubey Park

### **2.3 Incremental Transportation Management Program**

In addition to the highway and intersection improvements and the transit system, the Preferred Alternative includes an incremental TM program. This program is designed to help achieve the city and community goal of maintaining 1993/1994<sup>1</sup> traffic volumes in the year 2015 (see Chapter I, Purpose and Need, page I-1 in the Final EIS). The Preferred Alternative TM program consists of incentives, disincentives, and supporting measures to encourage use of transit, carpools, bicycles, and walking.

The incremental TM program consists of monitoring the traffic volumes to verify that the goal of maintaining 1993/1994 traffic levels is being met. If traffic volumes are at or below the 1993/1994 levels, no action would be taken. If traffic volumes exceed those levels, then one or more TM measures are implemented. The degree to which the traffic volumes exceed the 1993/1994 levels determines the level of TM required for meeting the zero-growth target. The three levels of TM are summarized below:

Level 1 – Measures in this level of TM are starter-level actions that are implemented when the zero-growth level is first exceeded. If the zero-growth target is exceeded after Level 1 is implemented, then the next level of TM is added. Examples of Level 1 measures include ride-matching programs, trip planning programs, and transit literature.

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<sup>1</sup> The stated community goal in the FEIS and ROD is to limit “...the number of vehicles in the year 2015 to levels at or below those in 1994.” However, throughout the FEIS and ROD, traffic volumes are referred to as levels at or below those in 1993. Levels are set at 1993 because the traffic model used for the EIS was based on 1993 volumes. The difference between 1993 and 1994 traffic volumes is minimal (ROD, pages 8 and 9). Therefore, in this Reevaluation, traffic volumes for the base year are referred to as “1993/1994 traffic levels”.

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Level 2 – This level of TM is implemented when the traffic volumes exceed the zero-growth target by 5 percent or less, or if Level 1 measures do not reduce traffic volumes to below the target. Examples of Level 2 measures include improved transit system (shorter headways, increase subsidies), demand responsive transit, and minor increases in internal parking rates.

Level 3 – This level of TM is implemented when the traffic volumes exceed the zero-growth target by between 5 and 10 percent. Examples include limiting the number of internal parking spaces, auto-free zones, and major increases in internal parking rates.

See the System Management Technical Report for additional information on the TM program associated with the Preferred Alternative.

## **2.4 Current Status of the Preferred Alternative**

Two components of the Preferred Alternative have been constructed since the publication of the FEIS and ROD (refer to Figures 1a and 1b): (1) Owl Creek Road and West Buttermilk Road have been relocated to create a new, signalized intersection with State Highway 82 near the Buttermilk Ski Area; and (2) the roundabout at the Maroon Creek Road intersection has been completed.

In addition, the Maroon Creek Bridge Replacement Project is currently under construction, scheduled for completion by spring of 2008. This project is being constructed as a bridge replacement without any increase in roadway capacity. However, it will accommodate the Entrance to Aspen Preferred Alternative in the future by removing the center median and re-striping for two general-purpose lanes and two exclusive bus lanes. (As stated in Section 2.2, the eventual LRT system would run on the existing Maroon Creek Bridge, while the highway will utilize the new bridge just north of the existing bridge.)

The intersection of Truscott Drive and State Highway 82 was completed in 2001. While this intersection is not part of the Entrance to Aspen Project, its configuration accommodates the alignment for the east approach to the Maroon Creek Bridge Replacement Project.

A transportation easement across the Marolt-Thomas Open Space was conveyed from the City of Aspen to CDOT in August of 2002, as part of land exchange and mitigation agreements between CDOT and the City of Aspen and Pitkin County. (Refer to Appendix A and B in the 1998 Record of Decision for details of the open space conveyance agreements and mitigation commitments.)

There have been no additional changes to the Preferred Alternative since the publication of the ROD.

## **3.0 Data Verification and Decision Making**

The National Environmental Policy Act (NEPA) process for the State Highway 82/Entrance to Aspen began in January 1994. Many of the environmental data and original technical reports for the State Highway 82/Entrance to Aspen were compiled in 1994 and 1995. The Draft EIS was published in 1995, a Supplemental Draft EIS in 1996, the Final EIS in 1997, and the ROD was

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issued in 1998. In reviewing environmental data that are over 10 years old, it is not always possible to verify with precision the quantification of impacts reported in the original document(s). Instead, the reevaluation is focused on *whether or not the original project decisions remain valid*, based on current knowledge and conditions.

It must also be acknowledged that the level of engineering design for the Preferred Alternative selected in the 1998 ROD remains very conceptual for the components not yet constructed (see Section 2.4 above for a description of components already completed.) Until and unless these project components are advanced further, precise cross-sections, right-of-way widths, and other specific design elements must be considered estimates based on the best information available during the original studies and as presented in the Final EIS and ROD.

The estimation of project impacts to the Aspen trails system illustrates the way in which the reevaluation must be done based on current conditions and the preliminary design information available, without precise verification of original data (1995-1998) or additional design specifications. The Final EIS estimated linear feet of impacts to the trails systems, but the trails system has changed substantially since publication of the Final EIS and ROD. Trails have been added, extended, relocated and reconstructed. The reevaluation of project-related impacts to trails did not attempt to verify the original estimate of linear feet affected. Rather, the analysis describes and illustrates the current trail system within the study area, describes which of the impacts estimated in the Final EIS have occurred, whether those impacts have been mitigated as outlined in the ROD, and whether new impacts will occur that were not foreseen in the Final EIS. This analysis method allows for a determination of whether the original project decisions remain valid, even when the exact, original quantification of impacts cannot be verified with data available today.

Finally, in a process that produces four major environmental documents (DEIS, DSEIS, FEIS, and ROD), small numeric errors and other inconsistencies are inevitable. The question that must be answered during a reevaluation is whether or not any such errors or inconsistencies are substantive and, if so, whether they have a substantive bearing on the decisions that were made. In the case of the Entrance to Aspen, some inconsistencies were found during the reevaluation, but none are deemed substantive enough to alter the relevant decisions made in the ROD.

Where numerical quantifications of impacts were inconsistent between, for instance, the Final EIS and the ROD, the “worst case” or highest number was assumed to be correct for purposes of this reevaluation. For example, in the Section 4(f) analysis in the FEIS, it is stated that the total Section 4(f) property take from the Aspen City Golf Course and Plum Tree Playing Field is 1.2 acres (for either the FEIS and for the ROD Preferred Alternatives), consisting of 0.7 acre from the playing field and 0.5 acre from the golf course (FEIS, page A-17). In the ROD, it is stated that 1.7 total acres will be taken, because in addition to the 0.7 acre of the playing field and 0.5 acre of the golf course, the ROD identifies another 0.5 acre in the Maroon Creek Basin that is also part of the golf course (ROD, page 26 of 37). It is not feasible to determine precisely which of these

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total acreages is correct, or whether the Maroon Creek Basin portion of the golf course was double-counted. However, the higher total of 1.7 acres was carried forward into the agreement between CDOT and the City of Aspen, and has been compensated for in the land exchanges of open space (see Appendix A of the ROD). Therefore, the reevaluation assumes the higher take of 1.7 total acres is correct. Based on this number, decisions made in consideration of Section 4(f) property takes and the analysis of least-harm alternatives remain valid, regardless of the discrepancy between acreages in the Final EIS and the ROD.

## **4.0 Organization of Reevaluation Reports**

This volume contains technical reports and supporting material compiled during the reevaluation of the Preferred Alternative selected in the 1998 ROD for the State Highway 82/Entrance to Aspen project. These technical reports support the findings and conclusions of the State Highway 82/Entrance to Aspen Environmental Reevaluation, which is a separate document.

The first report, Purpose and Need and Project Objectives, describes the original purpose and objectives outlined for the Entrance to Aspen project, and examines whether the Preferred Alternative selected in the ROD continues to meet those objectives. The System Management and the Traffic Characteristics and Safety report follow the general outline of the original discussions of these topics in the Final EIS. The remaining technical reports address environmental resources that were evaluated in the Final EIS, and focus on changes to information in the Final EIS, including regulations, existing conditions, and potential impacts and mitigation measures.

The reports that follow this Introduction are listed below. The Historic Resources Technical Report is a stand-alone report, and is contained in a separate volume.

- Purpose and Need and Project Objectives
- System Management
- Traffic Characteristics and Safety
- Social Environment and Community Character
- Economics
- Air Quality
- Water Quality
- Upland and Floodplain Vegetation
- Wetlands
- Fisheries
- Wildlife and Threatened and Endangered Species

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- Wild and Scenic Rivers
  - Floodplains
  - Archaeological Resources
  - Paleontological Resources
  - Section 4(f) Resources
  - Farmlands
  - Noise and Vibration
  - Visual Resources
  - Potential Hazardous Waste Sites
  - Capital Costs
  - Historic Resources (separate volume)