US 36 Corridor

Environmental Impact Statement/
Section 4(f) Evaluation

RECORD OF DECISION

DECEMBER 2009

U.S. Department of Transportation

Federal Highway Administration

Federal Transit Administration

Colorado Department of Transportation

Regional Transportation District

Cooperating Agency:

U.S. Army Corps of Engineers

US 36 CORRIDOR

RECORD OF DECISION

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FOR THE

US 36 CORRIDOR

COLORADO

FHWA-CO-EIS-07-01-F

FEDERAL HIGHWAY ADMINISTRATION
and
FEDERAL TRANSIT ADMINISTRATION

December 2009

STATUTE OF LIMITATIONS

This Record of Decision (ROD) will be published in the *Federal Register*, pursuant to 23 United States Code §139(l), indicating that the Federal Highway Administration and the Federal Transit Administration have taken the final action to approve Phase 1 of this transportation project; and future RODs may be published for future phases of the transportation project. Claims seeking judicial review of this Federal action must be filed within 180 days after the date of the notice.

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US 36 CORRIDOR FINAL ENVIRONMENTAL IMPACT STATEMENT AVAILABILITY

The *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (US 36 Mobility Partnership 2009a) is available in electronic or hard copy format. Please contact any of the individuals listed to obtain a copy.

US 36 Corridor
Record of Decision
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ACRONYMS AND ABBREVIATIONS

a.m.	morning
ADT	average daily traffic
APCD	Air Pollution Control Division
BMP	best management practice
BRT	bus rapid transit
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CER	Cost Estimate Review
CFR	Code of Federal Regulations
CLOMR	Conditional Letter of Map Revision
CO	carbon monoxide
CTE	Colorado Tolling Enterprise
DEIS	Draft Environmental Impact Statement
DRCOG	Denver Regional Council of Governments
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HOV	high-occupancy vehicle
I-#	Interstate # (e.g., I-25)
ITS	Intelligent Transportation System
LEDPA	Least Environmentally Damaging Practicable Alternative
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
OAHP	Office of Archaeology and Historic Preservation
O&M	operations and maintenance
PAC	Preferred Alternative Committee
p.m.	evening
PM_{10}	particulate matter less than 10 microns in diameter
ppm	parts per million
ROD	Record of Decision
RTD	Regional Transportation District
SHPO	State Historic Preservation Officer
SOV	single-occupant vehicle
TDM	Transportation Demand Management
TIGER	Transportation Investment Generating Economic Recovery
US #	United States Highway number (e.g., US 36, US 287, etc.)
US 36 Corridor FEIS	*US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation*
USACE	U.S. Army Corps of Engineers

USC	United States Code
USDOI	U.S. Department of Interior
USFWS	U.S. Fish and Wildlife Service
VMS	variable message signage
VMT	vehicle miles traveled

1.0 DECISION

The purpose of this Record of Decision (ROD) is to document the Federal Highway Administration's (FHWA) and Federal Transit Administration's (FTA) decision on the United States Highway 36 (US 36) Corridor Project, Colorado, and to identify funding for the approved action consistent with the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a) (*Fiscally-constrained Element*). This ROD has been prepared in compliance with 23 Code of Federal Regulations (CFR) 771 and 774, Council on Environmental Quality Regulations 40 CFR 1500-1508, and the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended.

The *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (*US 36 Corridor FEIS*) (US 36 Mobility Partnership 2009a) is incorporated by reference in this ROD per 40 CFR 1502.21. The following subsections of this chapter provide a brief summary of the contents of the *US 36 Corridor FEIS*. Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1), provides a summary of the mitigation measures for Phase 1 of the Preferred Alternative.

This project was jointly planned by FHWA and FTA, in cooperation with the Colorado Department of Transportation (CDOT) and the Regional Transportation District (RTD). The U.S. Army Corps of Engineers (USACE) was a cooperating agency. The US 36 Corridor Project includes the reconstruction of US 36 road surface, the addition of one buffer-separated managed lane in each direction from Federal Boulevard to west of Cherryvale Road, bus rapid transit (BRT) ramp stations that provide efficient passenger boarding and alighting, auxiliary lanes between most interchanges, a bikeway the entire length of the project, and alternative transportation strategies. Many bridges and interchanges will be rebuilt or be modified as well to help accommodate these changes and improve structure functionality. The project study area is shown on Figure 1-1, Study Area.

The purpose of improvements in the corridor is to improve mobility along the US 36 corridor from Interstate 25 (I-25) in Adams County to Foothills Parkway/Table Mesa Drive in Boulder, and among intermediate destinations. The transportation needs of the project are:

- Increase trip capacity.
- Expand access.
- Provide congestion relief.
- Expand mode of travel options.
- Increase efficiency of transit service.
- Update outdated highway facilities.

FHWA, FTA, RTD, and CDOT identified a Preferred Alternative (see Figure 1-2, Preferred Alternative — Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit) for the project in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). The Combined Alternative Package (Preferred Alternative) meets the Purpose and Need of the project while being sensitive to the issues raised by public comment. These issues include minimizing cost and environmental impacts of the project from what was presented in the Draft Environmental Impact Statement (DEIS) as well as being supportive of multi-modal solutions in the corridor. With this ROD, FHWA, FTA, RTD, and CDOT are selecting the Proposed Action (Phase 1) (see Figure 1-3, Phase 1 Elements — Proposed Action), which constitute a portion of the Preferred Alternative, for implementation. This Proposed Action best provided transportation improvements to constituents all along the corridor with the funding that was available, while still keeping with operational requirements and safety, which are priorities for FHWA and FTA.

Figure 1-1: Study Area

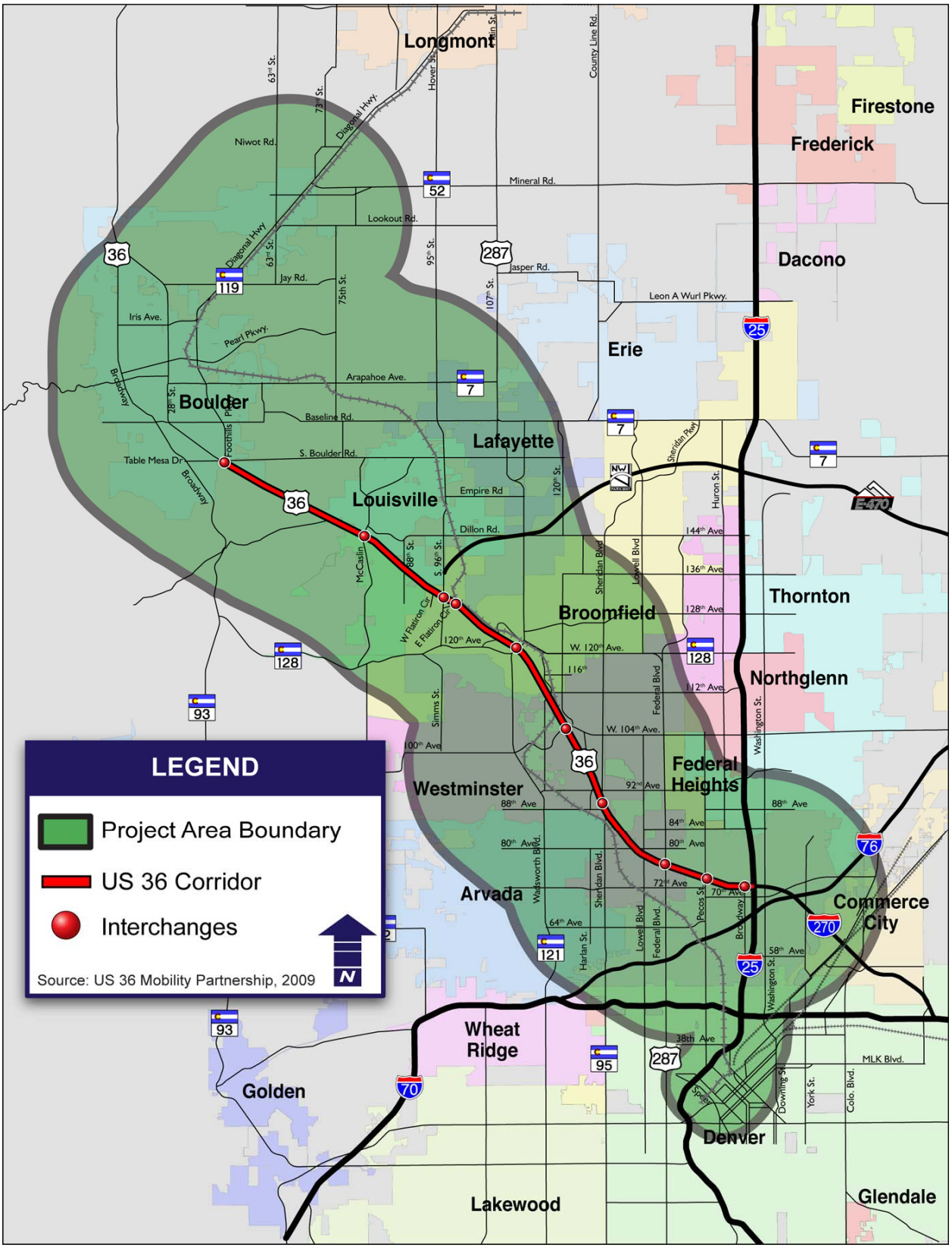

Figure 1-2: Preferred Alternative —
Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit

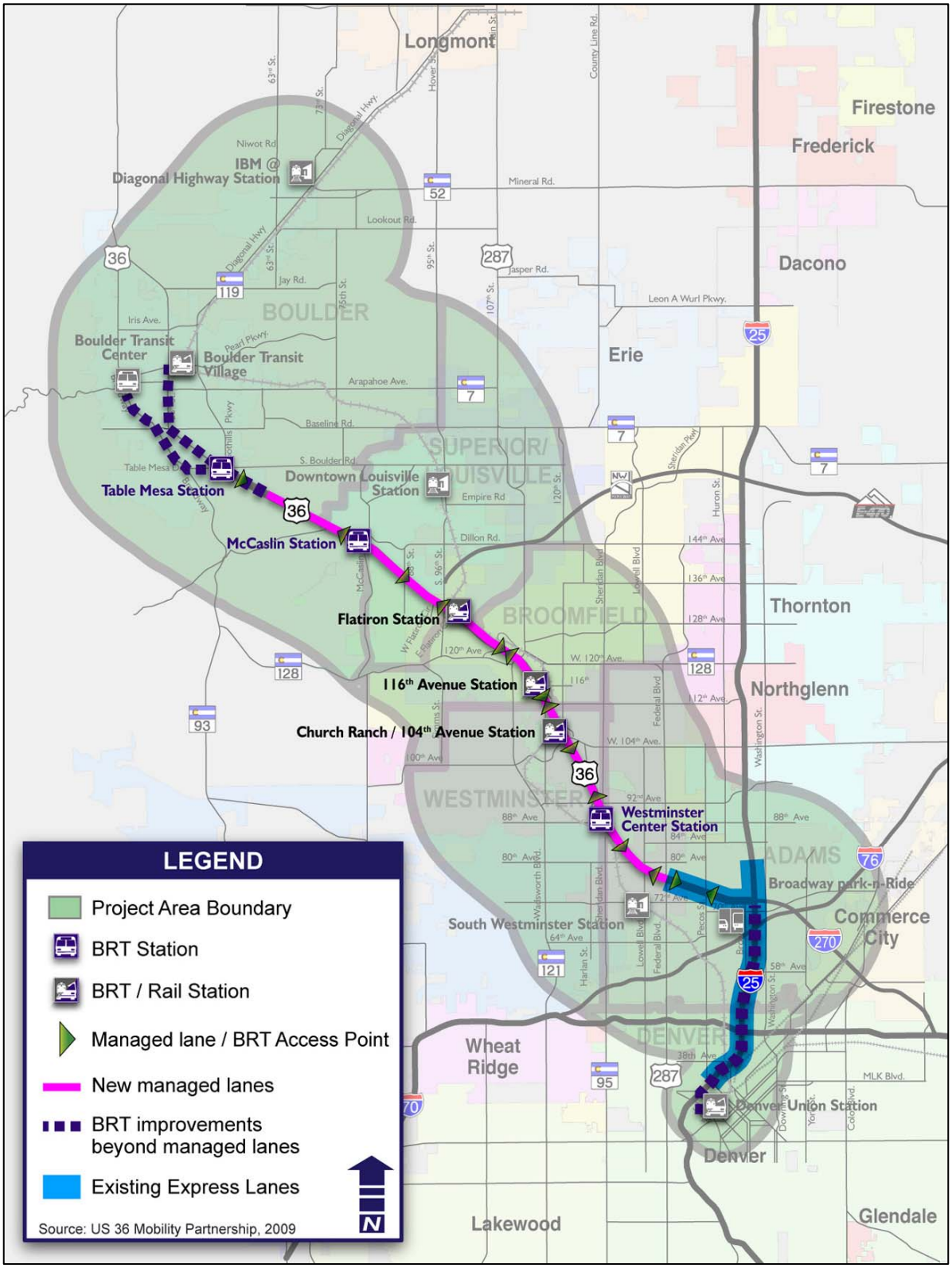

Figure 1-3: Phase 1 Elements — Proposed Action

As described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), FHWA, FTA, RTD, and CDOT intend to work toward implementing the Preferred Alternative in its entirety. Due to current funding limitations and federal requirements that require financing to be identified for the project before a decision document can be signed, only Phase 1 is being selected for implementation in this ROD. Subsequent project phases will be selected and implemented as additional funding becomes available and included in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), enabling FHWA, FTA, RTD, and CDOT to work toward implementation of the entire Preferred Alternative. For each subsequent phase, a ROD may be issued detailing the phase to be implemented. A phase may or may not be consistent with the phasing presented in the *US 36 Corridor FEIS*. However, a phase must be consistent with the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended. FHWA, FTA, RTD, and CDOT will review the information provided in the *US 36 Corridor FEIS* and this ROD in preparing each subsequent ROD.

1.1 Preferred Alternative: Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit (With Bikeway)

The following is a summary of the Preferred Alternative as identified in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). Appendix A, Corridor Reference Maps, of the *US 36 Corridor FEIS* contains maps of the Combined Alternative Package (Preferred Alternative) and Phase 1. A graphic of the alternative elements (otherwise know as a "package" of elements) is shown on Figure 1-2, Preferred Alternative — Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit.

In general, the entire Preferred Alternative would:

- Add one managed lane in each direction on US 36. The managed lanes would connect to, and be an extension of, the existing I-25 express lanes that go to and from downtown Denver. The reversible managed lane between I-25 and Pecos Street would remain and traffic would continue to use the existing I-25/US 36 managed lane ramp. The managed lanes from Pecos Street to west of Cherryvale Road in Boulder would become a single dedicated lane in each direction (not reversible), located in the median of US 36, and separated from the general-purpose lanes by a painted buffer.
- Access to this new managed lane will be provided at separate ingress and egress points located between each interchange.
- Separate the managed lane by a 4-foot wide painted stripe (known as buffer separation).
- Add auxiliary lanes between most interchanges.
- Provide for buses to exit US 36 to pick up and drop off passengers at stations located on ramps and adjacent park-n-Rides.
- Provide for bus bypass lanes at most on-ramps, with the exception of Foothills Parkway eastbound, Federal Boulevard, Pecos Street, and Broadway.
- Include improvements to cross-street intersections and interchanges. Those improvements will include upgrading lane transitions of ramp terminals, widening cross streets at the intersection, lengthening turn-lanes and adding turn-lanes.
- Provide a bikeway facility adjacent to US 36 connecting Boulder and Denver. The bikeway is an off-highway separated multi-use path adjacent to US 36. Where appropriate, the bikeway connects to and makes use of existing on-street and off-street facilities. Maintenance of the US 36 bikeway will be the responsibility of the local jurisdictions through an Intergovernmental Agreement with CDOT.
- Provide Transportation Demand Management (TDM) improvements throughout the corridor, such as strategies designed to make the most efficient use of existing transportation facilities by reducing the actual demand placed on these facilities. Examples include coordinating flexible work schedules to help decrease demand at peak periods, carpooling/vanpooling, encouraging telecommuting, employer and community-based ECO passes (bus passes), an incident management plan and courtesy patrol,

and coordinated land use and transportation planning that increases the convenience of using transit. Additionally, the Preferred Alternative will offer the ability to use Intelligent Transportation System (ITS) messaging to alert drivers to roadway conditions. These ideas are listed in more detail in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

- New and more frequent bus service in the US 36 corridor will be provided. The Preferred Alternative proposed service changes listed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) reflect improvements to operations based on existing service at this time. Bus service plans for BRT will be merged with bus service plans for the Northwest Rail Corridor Project. Bus operations will be phased-in commensurate with service standards and ridership growth. RTD makes schedule changes and adjustments several times a year to respond to demand and improve productivity.

For a full description of the Preferred Alternative elements, please see the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

1.2 PHASED IMPLEMENTATION

A phased approach is being taken because the solution to the identified transportation problems cost more to implement than is available in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a). The Clean Air Act (§176[c]) limits what FHWA and FTA can approve in a ROD to what is included in a conforming, *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended.

The identification of an initial phase for implementation is consistent with FHWA and FTA requirements to have funding for projects identified before final decisions are made. As funds become available, it is the intent of FHWA/CDOT and FTA/RTD to work toward implementation of the Preferred Alternative in its entirety through this phased approach. Adjustments to the level of funding in the fiscally-constrained plan for specific projects may be needed as final cost estimates are developed.

This first phased ROD is consistent with projects and funding currently identified in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a). Projects that will be necessary to complete implementation for the entire Preferred Alternative but that are not included in the first phased ROD may be identified in future RODs, which may be prepared as funding is identified and projects are identified in the fiscally-constrained plan. These future projects will be designed to minimize interim infrastructure those parts of the project that would not have to be built if the entire Preferred Alternative were built in one action, such as a ramp that would be built to enhance function of only part of the Wadsworth Parkway interchange that is being rebuilt in Phase 1 due to funding constraints. These interim pieces come with additional impacts, which would result in irretrievable losses of labor, funding, energy, and materials, but may also come with additional environmental impacts, as is the case with the interim Wadsworth Parkway interchange ramp that would impact additional ditch property and the wetlands it contains. The goal is to build Preferred Alternative project elements to the ultimate configuration in any of the phases as much as possible to avoid these interim impacts.

The following general considerations will be taken into account when determining the scope of future RODs. CDOT and/or RTD will consider equity issues in the corridor and will be cognizant of the need to balance the construction of improvements throughout the corridor. If funding becomes available to local agencies, such as earmarks or private funds, projects may be identified for inclusion in future RODs. Circumstances in the corridor may change such that agreements developed during the Final Environmental Impact Statement (FEIS) process would impact the decision as to which projects to advance. These circumstances could include the realization of triggers as identified in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

If state and/or federal funds become available, CDOT and/or RTD will identify projects to include in future RODs based on the following priorities. The first priority will be given to replacing aging infrastructure and/or addressing safety issues. The replacement of aging infrastructure will be given

priority when the infrastructure deteriorates to such an extent its conditions affect operations of the corridor or safety of the traveling public. Projects arising from safety considerations may be given priority when safety data indicate higher than average crash rates at a particular location or when a substandard area or pinch point has been identified which adversely impacts the public. Second priority will be given to projects that improve traffic operations of the managed lanes and/or the general-purpose lanes. These types of projects will be prioritized based on the degree to which they will positively impact transit and high-occupancy vehicle (HOV)/single-occupant vehicle (SOV) functions, maximize travel time savings, and relieve congestion.

In determining the scope of future phased RODs, stakeholder input will be considered via the standard Denver Regional Council of Governments (DRCOG) planning process. Additionally, as a project is advanced through the design process, input will be sought from those local agencies affected, as is typical in CDOT project planning. Stakeholder input will also be sought in accordance with agreements that were developed during the FEIS process. These agreements are detailed in Chapter 8, Phased Project Implementation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

Once the projects have been identified for the next phase, the ROD will identify impacts and appropriate mitigation measures that are associated with those actions, including confirming air quality conformity for that phase.

1.3 Proposed Action – Phase 1 of the Preferred Alternative

CDOT, RTD, FTA, and FHWA collaborated on a process to determine the overall philosophical approach to phasing. The engineering team developed six scenarios for consideration. These scenarios were evaluated in comparison to the amount of funding in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan,* as amended (DRCOG 2009a), the project Purpose and Need, and input from the local jurisdictions, as described in Chapter 6, Public Involvement Program, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

Using issues identified in the above process, along with other elements highlighted by FHWA and FTA as the Proposed Action (Phase 1) was being developed, the following guiding principles, used in the refinement of the Proposed Action (Phase 1), were prepared.

Meet Purpose and Need

- Provide multi-modal capacity improvements.
- Ensure maintenance of existing infrastructure.

Safety

- Provide bus refuge (in the median in case of breakdowns).
- Meet standards or only have reasonable design exceptions.

Operations

- Ensure reliability of toll lanes (ability to bypass breakdowns).
- Provide enforcement (cruiser locations for managed lanes).

Maximize Investment

- Minimize throwaway or interim pieces.
- Address maintenance needs of the facility.

Preferred Alternative Committee Priorities

- Acknowledge the Preferred Alternative Committee's (PAC) priorities of the managed lane, bikeway, and Wadsworth Parkway interchange.

By combining principles listed above, Phase 1 was developed to provide benefits to the whole corridor which maximized multi-modal functions while improving safety and infrastructure in the corridor. Phase 1 consists of constructing a managed lane in each direction from Federal Boulevard to east of Foothills Parkway/Table Mesa Drive; building improvements to the Sheridan Boulevard and Wadsworth Parkway interchanges (Wadsworth Parkway is the street that crosses at the interchange, also known as the Broomfield interchange); replacement of the Lowell Boulevard and Wadsworth Boulevard bridges (Wadsworth Boulevard crosses US 36 south or east of the interchange and is sometimes called "Old Wadsworth." The Old Wadsworth bridge will be replaced in a new location at 112th Avenue); construction of a bikeway throughout the entire corridor; rehabilitating pavement, including lowering the profile to enhance clearances under bridges; widening shoulders to 12 feet, enhancing BRT stations, and installing ITS elements related to the managed lane and BRT operations.

Bridges, retaining walls, and sound walls built as a part of Phase 1 would generally be built to their ultimate Preferred Alternative size and location. However, some elements of the Preferred Alternative are in an interim location and would need to be reconstructed as future phases are completed, which would result in irretrievable losses of labor, funding, energy, and materials.

Interim pieces of the first phase have been minimized where possible. These interim pieces include:

- The bikeway from Table Mesa Drive to the South Boulder Creek Trail – the Table Mesa Drive interchange is not included in Phase 1.
- The bikeway in the South Boulder Creek floodplain – the bus-only lane is not part of Phase 1; the bikeway will be built adjacent to the road to minimize impacts to the sensitive species and habitats along that portion of the roadway.
- A small portion of bikeway along the westbound McCaslin Boulevard off-ramp – this ramp will not be built in its ultimate location in Phase 1.
- The eastbound off-ramp and on-ramp at the Wadsworth Parkway interchange – these ramps are required in Phase 1 to accommodate the new Wadsworth Parkway bridge and a new northbound Wadsworth Parkway to eastbound US 36 loop-ramp.
- The bikeway along the south side of US 36 through the Wadsworth Parkway interchange – the eastbound off-ramp and on-ramp will not be in their ultimate locations, requiring the bikeway to be reconstructed in a later phase.
- The bikeway just east of 104th Avenue – the eastbound on-ramp in this location will not be built in its ultimate location in Phase 1.

As noted above, the decision to proceed in phases was made due to federal requirements when dealing with existing funding limitations. The decision of what to include in the first phase was based on the project Purpose and Need, funding constraints, recommendations of the local jurisdictions, and the guiding principles of safety, operations, and maximizing the investment. The elements of Phase 1, including managed lanes, intersection improvements, and the bikeway, are anticipated to provide a substantial benefit to corridor users and would offset the irreversible impacts. A list of specific elements in Phase 1 and the cost by segment is provided in Table 1-1, Phase 1 Elements and Cost. Detailed maps for Phase 1 are provided in Appendix A, Maps of the Proposed Action (Phase 1).

Table 1-1: Phase 1 Elements and Cost

Element	Cost (in Millions of 2008 Dollars)
Comment Elements to All Segments Except the Denver Segment	
The managed lanes are extended from Federal Boulevard to just west of Cherryvale Road in Boulder: • Installation of ITS components related to tolling and BRT. • Increased bus service, including new bus service at Interlocken Boulevard to serve ConocoPhillips. • Installation of signal priority as appropriate for buses. • Funding for marketing and branding of buses (costs are separate from those shown in this table). • Twelve-foot inside and outside shoulders, where possible. • Four-foot managed lane buffer, where possible. (Four pinch points with reduced shoulder widths that range from 2 to 11 feet. and buffer reductions at these same points). • Four-foot center barrier. • No additional auxiliary lanes are constructed. • Existing pavement is rehabilitated. • Enhancements to the BRT stations are constructed and a new service plan implemented. • The bikeway is constructed to form a continuous connection from Boulder to Denver, but no new grade-separated underpasses are included. • TDM elements will be implemented during construction for Phase 1.	Cost is included in each segment for these elements.
Denver Segment	
None.	N/A
Adams Segment	
Mainline from Federal Boulevard to Sheridan Boulevard: • Install managed-lane tolling equipment between Pecos Street and Federal Boulevard. • Restripe westbound lanes at Federal Boulevard to extend existing managed lanes. • Replace Lowell Boulevard bridge to meet minimum vertical clearance. • Raise US 36 on both sides of the Lowell Boulevard bridge, therefore a full depth reconstruction of the pavement would occur betweeen Federal Boulevard and 80th Avenue. • Widen US 36 by replacing the thin shoulders and adding pavement to the outside from 80th Avenue to Sheridan Boulevard. Existing full depth pavement would be rehabilitated to provide more service life (hereafter called "widen mainline shoulders and rehabilitate pavement"). • Retaining walls would be constructed in the Preferred Alternative location. • Sound walls would be constructed in the Preferred Alternative location. • Bikeway would be constructed from Bradburn Boulevard to Sheridan Boulevard in the Preferred Alternative location.*	$93 (Construction) $2 (ROW) $95 Total
Westminster Segment	
Sheridan Boulevard interchange: • Widen mainline shoulders and rehabilitate pavement. • Pinch Point Number 1: Keep existing Sheridan Boulevard bridge and interchange. • US 36 needs to be lowered under the Sheridan Boulevard and 92nd Avenue bridges by full reconstruction of the pavement width and depth of the highway. • New/modified eastbound off-ramp and westbound on-ramp bus stations due to new interchange configuration. • Increased parking at existing park-n-Ride. • Retaining walls would be constructed in the Preferred Alternative location. • Bikeway would be constructed in the Preferred Alternative location. Final design will need to accommodate bikeway underpasses at both 92nd Avenue and Sheridan Boulevard.*	$91 (Construction) $26 (ROW) $117 Total

Table 1-1: Phase 1 Elements and Cost

Element	Cost (in Millions of 2008 Dollars)
Westminster Segment (continued)	
Mainline from Sheridan Boulevard to Church Ranch Boulevard/104th Avenue: • Widen mainline shoulders and rehabilitate pavement. • US 36, needs to be lowered under the Westminster Boulevard bridge by full reconstruction of the pavement width and depth of the highway. • Retaining walls would be constructed in the Preferred Alternative location. • Sound walls would be constructed in the Preferred Alternative location. • Bikeway would be constructed, part of which would be in the interim locatiion just east of 104th Avenue.*	$24 (Construction) $3 (ROW) $27 Total
Church Ranch Boulevard/104th Avenue interchange: • Widen mainline shoulders and rehabilitate pavement. • US 36 needs to be lowered under the Church Ranch Boulevard bridge by full reconstruction of the pavement width and depth of highway. • Portions of the bikeway would be constructed.*	$12 (Construction) $4 (ROW) $16 Total
Mainline from Church Ranch Boulevard/104th Avenue to Wadsworth Parkway: • Widen mainline shoulders and rehabilitate pavement. • Pinch Point Number 2: Keep existing BNSF Railway bridge and vertical alignment of US 36 with narrow width. • Pinch Point Number 3: The Old Wadsworth bridge is not replaced by 112th Avenue bridge. • Modify US 36 mainline station at 116th Avenue due to a wider US 36. • Some retaining walls would be constructed. • Portions of the bikeway would be constructed.*	$31 (Construction) $3 (ROW) $34 Total
Broomfield Segment	
Wadsworth Parkway interchange: • Widen mainline shoulders and rehabilitate pavement. • Replace structurally deficient Wadsworth Boulevard bridge at 112th Avenue location. • Construct interim Wadsworth Parkway interchange configuration. • Construct the northeast loop-ramp. • Construct the interim diamond-ramps for eastbound and westbound on- and off-ramps. • Bikeway would be constructed, part of which would be in an interim location.*	$52 (Construction) $21 (ROW) $73 Total
Mainline from Wadsworth Parkway interchange to East Flatiron Circle: • Widen mainline shoulders and rehabilitate pavement. • Some retaining walls would be constructed.	$15 (Construction) $2 (ROW) $17 Total
Superior/Louisville Segment	
Interlocken Loop interchange: • Widen mainline shoulders and rehabilitate pavement. • Widen East Flatiron Circle bridge. • Construct East Flatiron Circle ramps to improve ramp geometry and include ramp stations. • US 36 needs to be lowered under the Interlocken Boulevard bridge by full reconstruction of the pavement width and depth of highway. • Some retaining walls would be constructed. • Portions of the bikeway would be constructed.*	$36 (Construction) $6 (ROW) $42 Total
West Flatiron Circle to McCaslin Boulevard: • Widen mainline/shoulders and rehabilitate pavement. • Some retaining walls would be constructed. • Portions of the bikeway would be constructed.*	$23 (Construction) $2 (ROW) $25 Total

Table 1-1: Phase 1 Elements and Cost

Element	Cost (in Millions of 2008 Dollars)
Boulder Segment	
McCaslin Boulevard interchange: • Widen mainline shoulders and rehabilitate pavement. • Some retaining walls would be constructed. • Portions of the bikeway would be constructed.*	$15 (Construction) $6 (ROW) $21 Total
McCaslin Boulevard to Foothills Parkway/Table Mesa Drive: • Widen mainline shoulders. • Some retaining walls would be constructed. • Bikeway to Table Mesa Drive, most of which would be in an interim location because the Table Mesa Drive interchange and the bus-only lane are not in Phase 1.*	$64 (Construction) $4 (ROW) $68 Total
Totals	$456 (Construction) Total $80 (ROW) Total $536 Grand Total

Source: US 36 Mobility Partnership, 2009b.
Notes:
The totals do not equal the sum of the subtotals due to rounding.
*The bikeway would not have new grade-separated crossings in Phase 1.
BNSF = Burlington Northern Santa Fe
BRT = bus rapid transit
ITS = Intelligent Transportation System
N/A = not applicable
ROW = right-of-way
TDM = Transportation Demand Management
US 36 = United States Highway 36

Purpose and Need

Phase 1 would meet the project Purpose and Need in the following ways:

- **Transportation Need #1: Increase Trip Capacity** – the managed lane would provide additional capacity for up to 1,500 vehicles per hour.
- **Transportation Need #2: Expand Access** – the Sheridan Boulevard and Wadsworth Parkway interchange improvements would improve access to US 36 at these locations.
- **Transportation Need #3**: Provide Congestion Relief – the managed lane would allow HOVs to travel in the lane for no fee. SOVs would have the opportunity to use the lane for a fee. This function of the managed lane would reduce congestion in the general-purpose lanes as existing traffic would have an additional free-flow travel lane option to consider.
- **Transportation Need #4:** Expand Mode of Travel Options – the managed lane would provide a dedicated lane for BRT vehicles. The bikeway would provide an alternative travel mode choice as well. The managed lane would also provide an additional choice for travelers for reliable travel times and level of service.
- **Transportation Need #5:** Increase Efficiency of Transit Service – the managed lane would provide a dedicated lane for BRT vehicles and provide enhanced BRT stations.
- **Transportation Need #6:** Update Outdated Highway Facilities – four bridges would be replaced in Phase 1 that either have aging infrastructure or substandard clearances. Aging roadway surfaces would also be replaced.

Phase 1 was determined to have independent utility for the reasons described here.

The managed lane and the interchange improvements identified at Sheridan Boulevard and Wadsworth Boulevard have logical termini. The east end of the managed lane connects to the existing express lanes. On the west end, the lane ends west of Cherryvale Road, in the same configuration as the Preferred Alternative. The improvements at Sheridan Boulevard and Wadsworth Boulevard include the interchange and associated ramp, street, and intersection improvements that connect into the existing street network.

These improvements are considered to be a feasible and reasonable expenditure of funds and would meet the Purpose and Need of the project, even if no additional transportation improvements are made in the area.

The improvements proposed in Phase 1 would not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. For example, planned improvements along the Northwest Rail corridor as part of the FasTracks Program would be accommodated as part of Phase 1.

1.4 PROJECT FUNDING SCENARIO

The Phase 1 package is a *Fiscally-constrained Element* (that is, it has a probable cost equal to or less than the amount in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended [DRCOG 2009a]). As additional funding becomes available, the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended, will be further amended and the agencies may issue other ROD(s) to implement subsequent phases, working toward implementation of the Preferred Alternative in its entirety. Construction of the bikeway would occur from west to east or as funding is identified for different segments of the bikeway.

Beyond the funding identified in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), for constructing the Phase 1 projects outlined in this Proposed Action (Phase 1) ROD, the collection of tolls generates a revenue stream that is estimated to cover the annual operations and maintenance (O&M) costs, and/or a portion of construction costs for the managed lanes. The Preferred Alternative, as well as the Proposed Action (Phase 1), includes managed lanes in each direction along the entire length of the project corridor.

The cost estimates developed for the Preferred Alternative used standard cost estimating conducted by CDOT and RTD. FHWA performed a Cost Estimate Review (CER), consistent with their major project guidance, for the Preferred Alternative. Table 1-2, Standard Probabilistic, and Year or Expenditure Costs, shows the standard CDOT and RTD cost estimate in addition to the 70 percent probable costs from the CER for 2008 dollars as well as in year of expenditure dollars (consistent with the revenue projections in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended [DRCOG 2009a]).

Table 1-2: Standard, Probabilistic, and Year of Expenditure Costs

	Standard Cost Estimate (2008 dollars, millions)	CER Cost Estimate (2008 dollars, millions)	Year of Expenditure Cost Estimate (millions of dollars)
Proposed Action (Phase 1)	$536.0	$ 552.7	$999.1

Source: US 36 Mobility Partnership, 2009b.

Note:

CER = Cost Estimate Review

The available or planned funding supporting this Proposed Action (Phase 1) ROD is included in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), for US 36 corridor improvements. The plan lists the specific projects for which there is a reasonable expectation that funding will be available to implement.

Table 1-3, US 36 Projects in the Fiscally-constrained Element of the Fiscally-constrained 2035 Regional Transportation Plan, lists these projects and summarizes the estimated costs at the time the plan was developed.

Table 1-3: US 36 Projects in the Fiscally-constrained Element of the Fiscally-constrained 2035 Regional Transportation Plan

Category	US 36 Corridor Project	Cost Estimate[1]
Regional Roadway System: Current Projects Identified in the *2008-2013 TIP/STIP*	Reconstruct interchange at McCaslin Boulevard	$9.2
Regional Roadway System: Other Future Improvements Eligible for Future TIP Funds	Reconstruct interchange at Sheridan Boulevard	$54.0
	Reconstruct interchange at Wadsworth Parkway	$153.5
Regional Roadway System: Other Roadway Projects (Includes $187.4 Million from FasTracks)	Add managed BRT/HOV lanes: Foothills Parkway to I-25	$486.4
Other[2]	US 36 bikeway	$8.0
	Total	$711.1

Source: CDOT, 2008; DRCOG, 2009a; DRCOG, 2009b; RTD, 2008; RTD, 2009.

Notes:

[1]Values are in 2008 dollars – millions of dollars.

[2]Reasonably expected" by DRCOG but not listed as a specific project in the *Fiscally-constrained 2035 Regional Transportation Plan,* as amended (2009a).

The cost estimates provided in this table are the officially adopted values approved by the Denver Regional Council of Governments.

BRT = bus rapid transit
HOV = high-occupancy vehicle
I-25 = Interstate 25
2008-2013 STIP = *2008-2013 State Transportation Improvement Program*
2008-2013 TIP = *2008-2013 Transportation Improvement Program*
US 36 = United States Highway 36

For the Preferred Alternative and Proposed Action (Phase 1), the project costs must also include the cost to purchase tolling equipment and operate and maintain the associated tolling functions. The total estimated annual O&M and debt service costs for the Preferred Alternative and Proposed Action (Phase 1) is presented in Table 1-4, Capital and Annual Operations and Maintenance Cost Estimates for Toll Equipment. Several assumptions were made to prepare these cost estimates:

- The managed lanes in the Preferred Alternative/Proposed Action (Phase 1) would be operated by the Colorado Tolling Enterprise (CTE) recently reformed and renamed the High Performance Transportation Enterprise, the successor entity to the CTE or a similar organization.

The Preferred Alternative is assumed to have seven toll collection sites each direction for a total of 14 locations.

Table 1-4: Capital and Annual Operations and Maintenance Cost Estimates for Toll Equipment

Managed/Toll Lane Component	Preferred Alternative[1]
Number of Transaction Sites	14
Capital Costs for Tolling Equipment	$18.5
Annual Debt Service on Capital Equipment (20 Years at 6%)	$1.6
Managed Lane Operations and Toll Equipment Maintenance ($100,000 per Site)	$1.4
Toll Violation Enforcement	$0.2
Subtotal	*$3.2*
Contingency (5%)	$0.2

Source: CTE, 2009.

Notes:

[1]Values are in millions of dollars.

Total estimated annual O&M costs in addition to the capital costs equals $3.4 million.

A 5 percent contingency was added to all costs.

% = percent
O&M = operations and maintenance

The estimated capital cost for tolling equipment on the corridor is $18.5 million for the Preferred Alternative/Proposed Action (Phase 1). Included in that estimate are the cost for sign bridges, variable message signage (VMS), fiber, cameras, tag readers, and lane controllers. The estimate relies on assumptions and equipment needs outlined for an Urban Partnership Agreement proposal submitted in 2008.

- Enforcement costs of $150,000 per year are estimated for the managed lanes (projected from actual per mile cost of enforcement on I-25 express lanes).
- For each toll transaction site (overhead gantry or similar), $100,000 per year for operations such as toll collection, toll equipment maintenance, and processing (projected based on actual I-25 express lane contract with E-470 for the same services which involves four toll collection sites at $100,000 per year cost for each site).
- Capital tolling equipment would be purchased upfront utilizing a loan from CDOT. The loan would be repaid over 20 years at a 6 percent interest rate resulting in an annual debt service payment of $1.6 million for the Preferred Alternative. Total annual costs for toll equipment and managed lane O&M are estimated to be $3.4 million for the Preferred Alternative. As described below, it is expected that those costs would be fully offset by toll revenues collected.

Managed Lane Revenue

The Preferred Alternative and the Proposed Action (Phase 1) present the opportunity for revenue generation through tolling as well as providing an opportunity for substantial travel time savings within the managed lanes (for more information on operational impacts, see Chapter 3, Transportation Impacts and Mitigation) of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

Toll collection from the managed lanes would generate a revenue stream that could be used toward operating and maintaining the tolling equipment, bonding and, to the extent that there is excess, some portion of the capital construction costs. At this time, toll revenues are proposed only to cover the annual costs of purchasing, operating, and maintaining the toll-related equipment and operations. Beyond that, excess toll revenue, if it occurs, could be used for other programs such as long-term TDM.

Chapter 5, Financial Analysis, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), covers the analysis and assumptions used to determine that the toll revenues expected along this corridor should meet the predictions discussed above.

The managed lanes presented in the Preferred Alternative and Proposed Action (Phase 1) provide long-term reliability in that the pricing mechanism allows CDOT to manage the level of congestion in the managed lanes. By managing the level of congestion in the lanes, the travel time within the managed lanes can be kept at a consistent speed well above the adjacent congested general-purpose lanes. If congestion increases to the point that travel time is reduced, tolls can be raised to effectively reduce demand, easing congestion in those lanes, and again providing a reliable travel time in the managed lanes. This adaptive toll approach can sustain the effectiveness of this package well beyond the 20-year traffic projections used in this analysis.

Bus Operating Costs

Annual bus operating costs were estimated at $61 million, or a $13 million increase over Package 1 (No Action).

Projected Transit Revenue

Transit fare box revenue could be used to offset the annual O&M costs for bus operations. RTD does not directly apply fare box revenue received to each corridor operation; however, some amount of fare box revenue would likely be used to offset the annual O&M costs. Fare box revenues make up approximately 15 to 20 percent of RTD's annual budget. District sales tax and other sources go toward the balance of operating costs for the RTD system.

2.0 ALTERNATIVES CONSIDERED

2.1 ALTERNATIVES EVALUATED IN THE US 36 CORRIDOR FEIS

After determining the project's Purpose and Need, development and evaluation of alternatives were conducted in several phases with more detail used to develop and evaluate alternatives. In the final steps, packages were formed, with three packages (Package 1 [No Action], Package 2, and Package 4) evaluated in detail in the DEIS).

Comments received during the DEIS comment period identified public and agency interest in minimizing community and environmental impacts and reducing project costs, while providing increased mobility improvements throughout the US 36 corridor.

To respond to public and agency comments, a PAC, comprised of agency representatives, elected officials, and technical staff from local jurisdictions, was convened in January 2008. The PAC reviewed and addressed DEIS public comments, evaluated corridor elements, identified a Preferred Alternative, and outlined implementation phases.

In July 2008, the PAC recommended a multi-modal transportation solution known as the Preferred Alternative. The Preferred Alternative includes both transit and highway improvements that are responsive to the public and provide long-term transportation benefits. Figure 2-1, Description of the US 36 Corridor Packages, provides the basic elements of the four packages. For more detail on these packages, see Chapter 2, Alternatives Considered, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

No new transit station locations will be added but all of the park-n-Rides in Package 1 (No Action) become BRT stations for the packages. Interchange improvements along US 36 are key elements in all of the build packages.

2.2 PACKAGE PERFORMANCE

All build packages would provide a greater amount of person-trip capacity, operate at a daily average speed noticeably faster, and provide interchange improvements when compared to Package 1 (No Action). Person-trip capacity would be noticeably greater at the eastern end of the corridor than at the central and western ends of the corridor, and is represented primarily by increased general-purpose and special-lane capacity. Package 4 would provide the highest person-trip capacity, followed by the Preferred Alternative, and then Package 2.

Package 4 and the Preferred Alternative would have consistently higher general-purpose lane volumes than Package 2, because either general-purpose lanes or auxiliary lanes would be added with these packages. More vehicles would use the managed lanes in Package 2 since more managed-lane capacity would be provided. Each build package is forecast to serve noticeably more traffic volume on US 36 than Package 1 (No Action).

Package 2 would provide two access points to the managed lanes in the form of drop-ramps, that would relieve some congestion at the existing Wadsworth Parkway and Sheridan Boulevard interchanges.

Package 2 is projected to operate at a daily average speed of 48.5 miles per hour, while Package 4 would operate at 51.9 miles per hour. This compares to 41.5 miles per hour for Package 1 (No Action). The Preferred Alternative would exhibit a daily average speed of 48.8 miles per hour.

Package 4 would have 4, Package 2 would have 8, and the Preferred Alternative would have 5 a.m. (morning) peak-hour sections operating in a highly congested manner. Package 4 would have 1, Package 2 would have 8, and the Preferred Alternative would have 3 p.m. (evening) peak-hour sections operating in a highly congested manner. The special lanes in all packages would operate at free-flow conditions at all times.

Figure 2-1: Description of the US 36 Corridor Packages

	PACKAGE 1: No Action	PACKAGE 2: Managed Lanes + BRT	PACKAGE 4: General-Purpose Lanes + HOV + BRT	COMBINED ALTERNATIVE PACKAGE (PREFERRED ALTERNATIVE): Managed Lanes + Auxiliary Lanes + BRT
DESCRIPTION	This package includes planned and committed improvements. • Evaluation of the No Action package is required by federal law. • Includes improvements to park-n-Rides. • Includes Northwest Rail commuter line from Denver Union Station to Boulder and Longmont. • Transit service expansions and/ or adjustments as part of the FasTracks Program. • New transit facilities and services as contained in the FasTracks Program. • 120th Avenue extension over US 36. • 80th Avenue bridge replacement. • Queue jumps at selected locations.	This package provides additional capacity in the managed lanes. Through the use of dynamic pricing, these lanes would be used for congestion management. Main elements of this package include: • Two barrier-separated managed lanes in each direction from I-25 to McCaslin Boulevard; one buffer-separated lane in each direction between McCaslin Boulevard and Cherryvale Road. • Median BRT stations that provide rapid passenger boarding and alighting. • No additional general-purpose lanes. • Bikeway. • Alternative transportation strategies.	This package resembles the Locally Preferred Alternative from the *US 36 Major Investment Study* (RTD 2001). Main elements of this package include: • One additional general-purpose lane in each direction from I-25 to McCaslin Boulevard. • One buffer-separated BRT/HOV lane from I-25 to Cherryvale Road. • Median BRT stations that provide rapid passenger boarding and alighting. • Bikeway. • Alternative transportation strategies. • Acceleration or deceleration lanes at some locations.	This package has elements of Package 2 and Package 4. It was developed to maximize transportation operations with reduced environmental impacts. Main elements of this package include: • One buffer-separated managed lane in each direction from Federal Boulevard to west of Cherryvale Road. • BRT ramp stations that provide rapid passenger boarding and alighting. • Auxiliary lanes between most interchanges. • Bikeway. • Alternative transportation Strategies.

LEGEND

Alternative Transportation Strategies – Actions to address transportation needs without constructing significant new capital investments. These may include minor intersection or interchange improvements, bus route structuring, and Intelligent Transportation System (ITS) improvements. This also includes measures to reduce demand on the transportation system, such as telecommuting.

General-Purpose Lanes – A traffic lane open to all types of vehicles. The number of lanes would vary according to travel demand within the corridor.

Bikeway – General term that includes bike lanes, bike routes, and multi-use paths. These can range from a portion of the street reserved for exclusive use by bicycles to physically separated pathways designated for multiple non-motorized users, including pedestrians.

High-Occupancy Vehicle (HOV) Lanes on US 36 – An exclusive traffic lane limited to carrying high-occupancy vehicles.

Managed Lanes – A set of lanes separated from the general-purpose lanes that buses and HOVs use at no cost; any remaining capacity would be used by single-occupant vehicles through dynamic pricing.

Bus Rapid Transit (BRT) Station – A station that provides enhanced bus service and facilities. A BRT station and the associated platforms could be located in the highway median or highway on- and off-ramps.

Auxiliary Lanes – Lanes formed at the addition of a highway on-ramp and terminating at the next interchange off-ramp as an exit-only lane.

Source: US 36 Mobility Partnership, 2009b.

2.3 ENVIRONMENTALLY PREFERRED ALTERNATIVE

The Combined Alternative Package became the environmentally Preferred Alternative as detailed by resource discussion in Chapter 4, Affected Environment and Environmental Consequences, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). The summary of the distinguishing resource impact results and a cost comparison is listed below that support the selection of the environmentally Preferred Alternative. The details of Phase 1 environmental impacts are included in Chapter 8, Phased Project Implementation, of the *US 36 Corridor FEIS*.

- ROW and relocation impacts (and associated minority and/or low-income community impacts) were 137 less residential and 114 less business relocations for the Preferred Alternative than for the other packages (reductions in impacts mostly in the Adams County segment).
- Parks and open space impacts were slightly less for the Preferred Alternative than for the other packages.
- Wetlands and other water impacts were 3 to 6 acres less for the Preferred Alternative than for the other packages. This was important for the Section 404/NEPA merger with the USACE.
- Historic and archaeological resource impacts were less by two for the Preferred Alternative than for the other packages.
- Threatened and endangered species impacts were about 2 to 10 acres of habitat per species less for the Preferred Alternative than for the other packages.

Preliminary cost estimates were prepared for each of the packages. Capital costs, included both transit and roadway costs, as well as pre-construction activities and construction items. The Preferred Alternative cost was estimated to be $1,296 million. In comparison, Package 2 cost $506 million more and Package 4 cost $301 million more to construct. Additional annual O&M costs were also calculated for each of the packages. Both transit and roadway costs were developed. The Preferred Alternative would cost about $7 million less per year to operate than the other packages.

The Proposed Action (Phase 1) is a subset of the Preferred Alternative. Not only will it contain the lesser impacts than the other packages, as described above, but it will also provide corridor-wide multi-modal transportation improvements through the implementation of the managed lane and bikeway the entire length of the corridor. This will benefit communities and commuters all along the corridor. It will also generate toll revenues that will help fund and maintain the managed lane for the future. Impacts will continue to be refined and minimized where possible during final design, further reducing the effect of this project on the environment. The impacts of the Proposed Action (Phase 1) are quantified in Chapter 8, Phased Project Implementation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

2.4 LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE

The Preferred Alternative has fewer impacts to aquatic resources and threatened and endangered species than Packages 2 and 4. The Preferred Alternative would result in an impact of 21.40 acres of wetlands and 2.59 acres of other waters, for a total impact to jurisdictional waters of 23.99 acres. Although the wetland impacts represent approximately 30 percent of the wetlands identified in the study are (71.69 total acres), avoidance and minimization modifications were incorporated into the development of the Preferred Alternative in an effort to reduce wetland and other water impacts compared to Packages 2 and 4.

The Preferred Alternative would result in an impact of 41.71 acres of Preble's meadow jumping mouse habitat, and 35.94 acres of Ute Ladies'-tresses orchid habitat. Similar to wetlands, avoidance and

minimization modifications were incorporated into the development of the Preferred Alternative in an effort to reduce impacts for these two species compared to Packages 2 and 4.

For these reasons, the Preferred Alternative has been identified as the Least Environmentally Damaging Practicable Alternative (LEDPA). The USACE has agreed with this assessment, as shown in correspondence dated May 20, 2009 (see Appendix C, Agency Correspondence). Concurrence from the USACE that the Preferred Alternative is the LEDPA and that the mitigation meets the regulatory requirements will be granted when a Section 404 Permit is issued. The application for the Section 404 Permit will be made before any waters of the U.S. are impacted.

3.0 CLARIFICATIONS TO THE US 36 CORRIDOR FINAL ENVIRONMENTAL IMPACT STATEMENT

Certain issues are detailed below that have been highlighted as being confusing, shown to be in error, or requiring more clarity. Additional clarity can be found in Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation Comment Responses, that provides the comment responses to the public, jurisdictions, agencies, and organized groups comments.

3.1 MAP CORRECTIONS IN APPENDIX A OF THE US 36 CORRIDOR FEIS

During the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) review, it was discovered that the Phase 1 project maps in Appendix A, Corridor Reference Maps, had a labeling error. These maps were prepared to capture all work that was done during the preparation of the FEIS with various working groups and the Preferred Action Committee described in the FEIS. The group had determined where the areas of pavement rehabilitation would occur versus where full depth pavement reconstruction was required. When the engineering drawings were converted to the atlas shown in the FEIS, the dark green shape showing the full depth pavement reconstruction areas was labeled as general-purpose lanes in patchy areas; it should have been labeled as New Full Depth Pavement. This full depth pavement designation, when overlaid over the Phase 1 elements, masks the location and Phase 1 element of the managed-lane designation. This labeling error and layer conflict was corrected. The updated maps can be found in Appendix A, Maps of the Proposed Action (Phase 1), of this ROD.

Additionally, the BRT/rail station in the City and County of Broomfield location was shown in the wrong location in Appendix A, Corridor Reference Maps, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). This station has been moved to the correct location at the Flatiron park-n-Ride in Appendix A, Maps of the Proposed Action (Phase 1), of this ROD.

3.2 RTD COMMITMENT OF SERVICE

There was some question about the clarity of RTD's commitment of service in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). RTD is committed to providing high quality and high frequency express bus service on US 36. A part of this commitment is to make maximum use of the major transit and transportation investment, the managed lanes. Express buses that leave from Boulder heading eastbound will use the managed lanes as much as feasible, subject to the drivers' discretion. This may mean that buses leaving Table Mesa Drive traveling eastbound will get into the managed lanes at Cherryvale Road and stay there all the way to Denver. It may mean that express buses will stop to pick up passengers at McCaslin Boulevard, but then enter the managed lanes as soon as is feasible, and again, stay there all the way to Denver. Other express bus service may be initiated at the McCaslin or Flatiron stations. Then those buses would also enter the managed lanes as soon as feasible and stay there all the way to Denver.

There was also a request to not only have the changes in bus service that are listed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), but to also have a complete list of all planned bus service in the horizon-year. Table 3-1, Bus Service Assumed for the Preferred Alternative, contains this list.

Table 3-1: Bus Service Assumed for the Preferred Alternative

Route	Route Name	Peak Headway	Mid-day Headway	Early/Late Headway	Alignment Change
Regional/Express/skyRide					
AB	Boulder to DIA (via Northwest Parkway)	30	60	60	Use Northwest Parkway
BV	Boulder–Denver (all stop)	15	15	30	
BX	Boulder–Denver (express)	10	30	60	Some buses use managed lanes; some will stop at McCaslin Boulevard
BF	Broomfield–Denver (express)	15	-	-	Use new managed lanes east of Church Ranch Boulevard to DUS
BOLT	Boulder/Longmont	30	60	60	
DD	Boulder–Colorado Boulevard	40	-	-	
DM	Boulder–Fitzsimons	30	-	-	
HV	Boulder Transit Village–CCS (all stop)	15	60	-	New route; will use auxiliary lanes
HX	Boulder Transit Village–CCS (express)	10	-	-	Remove Flatiron Crossing stop; use new managed lanes east of McCaslin Boulevard
J	Longmont/East Boulder/University of Colorado	30	-	-	
L	Longmont–Denver	30	60	180	Use new managed lanes from Broomfield to Denver
S	Denver–East Boulder	Deleted	Deleted	Deleted	
T	Boulder–Greenwood Plaza	3 trips each way	-		Use new auxiliary lanes
31X	North Federal Express	3 trips each way	-	-	Not on US 36
80X	80th Avenue–Denver	3 trips each way	-	-	Use existing managed lanes
86X	Westminster Express	10	-	-	Use new managed lanes from Federal Boulevard Boulevard to Sheridan Boulevard

Source: US 36 Mobility Partnership, 2008.
Notes:
Changes compared to Package 1 (No Action) assumptions are noted in bold.
- = not applicable
CCS = Civic Center Station
DIA = Denver International Airport
DUS = Denver Union Station
US 36 = United States Highway 36

Potential Future FTA Involvement in the US 36 Corridor Project

The following are the transit-related improvements intended for the Proposed Action (Phase 1) as discussed in this ROD, and clarification concerning what was described for the Preferred Alternative in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

BRT Associated Improvements in the Proposed Action (Phase 1):

1. Extension of one managed lane each direction.
2. Increased bus service.

3. At Westminster Center, construction of two new ultimate Sheridan Boulevard bus stations (eastbound off-ramp and westbound on-ramp), and increased parking at the existing park-n-Ride.
4. Modify mainline stations at 116th Avenue.
5. Modify ramp stations at Interlocken Boulevard.
6. New bus service at Interlocken Boulevard to serve ConocoPhillips.
7. Installation of signal priority, as appropriate.
8. Installation of fiber.
9. Funding for marketing and branding.

BRT Associated Improvements in the Preferred Alternative:

1. Extension of one managed lane in each direction from Cherryvale Road to Pecos Street (shared use with HOVs and high-occupancy tolls).
2. If Environmental Impact Statement triggers are reached, bus-only outside eastbound and westbound lanes will be built between McCaslin Boulevard and Foothills Parkway.
3. Bus bypass lanes on all on-ramps except Foothills Parkway eastbound, Federal Boulevard, Pecos Street, and Broadway.
4. US 36 bus stations will be built at Foothills Parkway.
5. US 36 bus stations at Arista will be moved to 120th Avenue ramps.
6. Ramp bus stations are rebuilt at McCaslin Boulevard, Interlocken Boulevard, Church Ranch Boulevard, and Sheridan Boulevard.
7. Queue jump lanes at the following interchanges: McCaslin Boulevard, Interlocken Boulevard, Broomfield, Church Ranch Boulevard, and Sheridan Boulevard. The American Recovery and Reinvestment Act of 2009 funded queue jump lanes at Sheridan Boulevard, Church Ranch Boulevard, 96th Avenue, and McCaslin Boulevard will be reconstructed.
8. Increased bus service on existing routes.
9. New bus service (Activity Center Circulator/Connector).
10. Existing bus station upgrades (vending machines, VMS).
11. Installation of signal priority at intersections, as appropriate.
12. Increased parking at Westminster Center and 16th Avenue (Broomfield).
13. Modification/extension/replacement of pedestrian overpasses at Westminster, Church Ranch Boulevard, 116th Avenue, Flatiron, McCaslin Boulevard, and Table Mesa Drive.
14. Funding for marketing/branding.
15. Low floor buses with various enhancements.
16. Installation of fiber along corridor and to BRT stations.

3.3 Correction to Table 8.4-1, Mitigation Summary — Phase 1, of the US 36 Corridor FEIS

Text in the second bullet of Table 8.4-1, Mitigation Summary — Phase 1, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) under the University of Colorado, Boulder South Campus access entry (page 8.4-2 of the FEIS) should read, “Based on an agreement with CDOT, the University of

Colorado, the City of Boulder, and Boulder County, if access Loop Drive is denied, the Local Streets Option will be used to provide access to the University of Colorado, Boulder South Campus."

Additionally, monitoring of long-term effectiveness of mitigation measures is a good idea and can be part of the contingencies considered during the phasing of a project, as recommended in a letter from Larry Svoboda, Director, NEPA Program, U.S. Environmental Protection Agency (USEPA) (see pages 65 and 66 of Appendix B, Consultation and Coordination, of the *US 36 Corridor FEIS* [US 36 Mobility Partnership 2009a]). The final mitigation rule for wetland mitigation already addresses this to some degree, but looking for other opportunities to apply this kind of monitoring is a sound practice. CDOT would like to request partnering to occur with the local jurisdictions to help gather information over the long-term to ensure lessons learned and best management practice (BMP) improvements can be incorporated as the phased projects progress.

3.4 Corrections or Clarifications to the Traffic Engineering Technical Report Addendum

There was some confusion regarding the *Traffic Engineering Technical Report Addendum* (URS 2009). Specifically, on page 2-1 of the Addendum, there's confusion as to whether the override capacity for managed lanes is 1,500 vehicles per hour or 1,500 vehicles per hour per lane. The override capacity is 1,500 vehicles per hour per lane. On page 5-2 of the Addendum, there was a question regarding Table 5.1-2, Weekday Bus Rapid Transit and Rail Delay Boardings (Year 2035), that discusses BRT ridership. There is an "N/A" in the table which actually means "0," "not applicable."

3.5 Corrections or Clarifications to Open Space Issues

Chapter 4, Affected Environment and Environmental Consequences, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) states, "…of these sites, only those north of US 36, both east and west of Cherryvale Road, currently engage in active agricultural activities." The City of Boulder pointed out in their comments on the FEIS that agricultural activities occur both north and south of US 36, and that all along US 36, open space is leased for livestock grazing. Additionally, the property that is east of Cherryvale Road and south of US 36 is also cut for hay.

The City of Louisville accurately pointed out that the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) did not include the Damyanovich Open Space and Avista Open Space. Impact evaluations during final design often pick up these omissions, which will be addressed at that time. The Preferred Alternative would result in impacts to 1.38 acres of the Damyanovich Open Space property, and 0.45 acre of the Avista Open Space property, as well as 2.13 acres to Park S3. Phase 1 would result in impacts to 1.38 acres of the Damyanovich Open Space property, and 0.43 acre of the Avista Open Space property, as well as 0.85 acre to Park S3. These impacts will be assessed under a re-evaluation when this project goes to final design. The City of Louisville also wished to clarify that dry land agriculture is a land use in their jurisdiction. Any issues or impacts associated with this land use will be evaluated during final design.

3.6 Corrections or Clarifications of Roadway Issues

The City of Louisville requested clarification to the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) page 2.6-38, Table 3.4-2, US 36 Interchange Improvements (Details), and the paragraph on McCaslin Boulevard on page 3.5-4. The two additional lanes on the McCaslin Boulevard bridge are a left-turn on westbound US 36 from northbound McCaslin Boulevard, and a loop-on from southbound McCaslin Boulevard to eastbound US 36.

3.7 CORRECTIONS OR CLARIFICATIONS OF SOUND WALL ISSUES

There was a discrepancy between Figure 4.9-11, Parks and Open Space in the Boulder Segment — Combined Alternative Package (Preferred Alternative), in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) that shows a sound wall adjacent to the Dyer Road neighborhood that is not a recommended mitigation location in Section 4.13, Noise. The discussion on page 4.13-17 is correct; a sound wall is not proposed in this location.

3.8 CORRECTIONS OR CLARIFICATIONS OF CREEK ISSUES

The City and County of Broomfield noted that the 100-year flows for Rock Creek are 4,520 cubic feet per second. The new structure at Rock Creek has been designed to allow for 100-year flows under US 36.

In Table 4.20-2, Major Watercourse Crossings and Designated Beneficial Uses, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), only Segment 4B of the Big Dry Creek is listed. The City of Westminster correctly states that the mainline Segment 1 should also be in this table. Segment 1 is the main stem of Big Dry Creek, including all tributaries and wetland from the source to the confluence with the South Platte River, except for specific listings in Segments 4A, 4B, 5, and 6. It is designated "Use Protected" and classified for Aquatic Life Form 2, Recreation P, and Agriculture uses.

3.9 CORRECTION OR CLARIFICATIONS OF NAME, LOCATION, OR COMMUNITY DETAIL ISSUES

In Table 4.2-3, Summary of Land Use and Compatibility at Bus Rapid Transit Stations, and on pages 4.3-6 and 4.6-7 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), the City of Westminster would like the name changed from Northwest Business Park to Circle Point Corporate Center, and from Business Park at Mandalay to Westminster Promenade.

The City of Westminster, the City of Westminster Swim and Fitness Center, the Westminster Municipal Court, the Irving Street Branch of the Westminster Library System, the recreational park associated with the former Westminster Hills Elementary School, the Advent Lutheran Church, Westminster City Hall, and the Hyland Hills Golf Course are all located in the Adams Segment and not in the Westminster Segment, as incorrectly described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a).

In Table 4.23-2, Past, Present, and Future Projects in the US 36 Cumulative Study Area, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), the City of Westminster would like to note that the Shops at Walnut Creek and Westminster Promenade should be added to the list.

DRCOG would like the plan name *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), to be used instead of the *2035 Metro Vision Regional Transportation Plan*. This change has been made throughout this ROD.

3.10 CORRECTIONS AND CLARIFICATION TO SECTION 106

After the State Historic Preservation Officer (SHPO) reviewed the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), SHPO did not concur with the Finding of Effect for 5AM.1806/Advent Evangelical Lutheran Church. In SHPO's opinion, a Finding of No Adverse Effect (36 CFR 800.5[b]) under Section 106 is more appropriate than the recommended finding of No Historic Properties Affected (36 CFR 800.4[d][1]). The highway is moving closer to the historic property and a new sound wall will be installed. The "pavement creep" and construction of the sound wall will have an impact on the historic property; however, that effect would not be adverse.

3.11 CLARIFICATION TO THE AIR QUALITY ANALYSIS

The USEPA, in their comment letter, asked the project team to clarify road dust emissions in the ROD. CDOT is providing the following explanation for road dust as a particulate matter less than 10 microns in diameter (PM_{10}) emission. Road dust emissions were not included as part of the PM_{10} emissions estimates shown in Tables 4.12-3 through 4.12-5 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The PM_{10} emission estimates referenced in these tables only reflect the emissions burden analysis, which was created to evaluate each package's tailpipe emissions based on differences in vehicle miles traveled (VMT) for each of the packages, not to evaluate PM_{10} emissions against an air quality standard. The comparisons among packages' are still valid (i.e., none of them includes road dust). Furthermore, the packages' emission estimates do not affect the PM_{10} hot-spot analysis; the PM_{10} analysis is qualitative and does not rely on the emissions estimates.

Since there are no requirements to perform this type of air quality burden analysis as part of NEPA air quality analysis, it is difficult to judge whether disregarding road dust emissions as part of an essentially voluntary emissions analysis represents a deficiency. Because the road dust emissions are directly proportional to VMT, the difference in PM_{10} dust emissions among packages is expected to be directly proportional to the differences in VMT among the packages.

The USEPA also asked the team to clarify which traffic volumes were used to compare the estimated PM_{10} concentrations to the measured concentrations at 1050 South Broadway. CDOT is providing the following explanation for additional clarity in this comparison.

The traffic units documented within the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) are average daily traffic (ADT), not VMT, estimates. Upon further review, it appears that the 155,000 ADT represents the average traffic volume over the entire project corridor. However, this information is not important to the conclusions of the hot-spot analysis. The hot-spot analysis was evaluated with the higher volume, 196,000 ADT, at the peak location along the corridor (near the intersection of US 36 and I-25). While this traffic volume is about 10 percent higher than the 180,000 ADT being referenced near the South Broadway monitor, the important detail of this qualitative comparison is that this monitor is recording PM_{10} values that are half of the standard or less.

4.0 FEDERAL AND STATE APPROVALS

4.1 SECTION 4(f) PROPERTIES

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code [USC] Section 303 and 23 USC Section 774) mandates that the Secretary of Transportation shall not approve any transportation project requiring the use of publicly owned parks, recreation areas, wildlife and waterfowl refuges, or significant historic sites, regardless of ownership, unless:

- There is no prudent and feasible alternative to using that land, and
- The program or project includes all possible planning to minimize harm to the public park, recreation area, wildlife or waterfowl refuge, or significant historic site, resulting from that use

A final Section 4(f) Evaluation was included in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) issued by FHWA, FTA, CDOT, and RTD in October 2009. The Final Section 4(f) Evaluation analyzed possible avoidance alternative and presented measures to minimize harm for each Section 4(f) use. It also documents that there are no prudent and feasible alternatives that meet the Purpose and Need of the project and also avoid the use of these resources.

The Preferred Alternative is described in Section 1.1, Preferred Alternative: Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit (With Bikeway), of this ROD. The Proposed Action (Phase 1) is a portion of the Preferred Alternative and is described in Section 1.3, Proposed Action – Phase 1 of the Preferred Alternative, of this ROD. As described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), Final Section 4(f) Evaluation, 26 resources are subject to Section 4(f) use with implementation of the Preferred Alternative and 24 of these resources will be impacted by the Proposed Action (Phase 1). The remaining Section 4(f) uses will occur in subsequent phases.

The U.S. Department of Interior (USDOI) received a copy of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) for review, which identified the Preferred Alternative and contained the Final Section 4(f) Evaluation. The USDOI submitted comments regarding the FEIS on December 17, 2009 (see Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4[f] Evaluation Comment Responses). The USDOI had no comment on the document.

The results of these discussions did not affect the finding made by FHWA in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), Final Section 4(f) Evaluation, but rather served to clarify the basis for a continued cooperative effort by CDOT and Officials with Jurisdiction to implement the measures identified to minimize harm to the resources. For more on letters and comments received on the FEIS, see Appendix C, Agency Correspondence, and Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation Comment Responses.

There will be a use of 24 Section 4(f) resources as a result of the Proposed Action (Phase 1). There are eight recreational resources, 15 historic resources, and one wildlife refuge area as described in Table 4-1, Phase 1 Section 4(f) Resources by Segment.

Table 4-1: Phase 1 Section 4(f) Resources by Segment

Resource Name	Resource Type	Official With Jurisdiction	Use under the Proposed Action (Phase 1)
Adams Segment			
Commissioners Park	Parks and Recreation	Hyland Hills Park and Recreation District	Permanent incorporation of land
Westminster Hills Park	Parks and Recreation	City of Westminster	Permanent incorporation of land
Allen Ditch	Historic	SHPO	Permanent incorporation of land

Table 4-1: Phase 1 Section 4(f) Resources by Segment

Resource Name	Resource Type	Official With Jurisdiction	Use under the Proposed Action (Phase 1)
Westminster Segment			
Big Dry Creek Trail Crossing	Parks and Recreation	City of Westminster	Temporary incorporation of land
Niver Canal	Historic	SHPO	Permanent incorporation of land
Farmers Highline Canal	Historic	SHPO	Permanent incorporation of land
Broomfield Segment			
East Interlocken Park	Parks and Recreation	City of Broomfield	Permanent incorporation of land
East Interlocken Park Trail Crossing	Parks and Recreation	City of Broomfield	Temporary incorporation of land
Residence, 8375 West 120th Avenue	Historic	SHPO	Permanent incorporation of land
Dry Creek Valley Ditch	Historic	SHPO	Permanent incorporation of land
Community Ditch	Historic	SHPO	Permanent incorporation of land
Equity Ditch	Historic	SHPO	Permanent incorporation of land
Superior/Louisville Segment			
Frank Varra Park	Parks and Recreation	City of Broomfield	Permanent incorporation of land
Coal Creek Trail Crossing	Parks and Recreation	City of Louisville/Town of Superior	Temporary incorporation of land
Coal Creek Ditch	Historic	SHPO	Permanent incorporation of land
Boulder Segment			
Davidson Ditch	Historic	SHPO	Permanent incorporation of land
Goodhue Ditch	Historic	SHPO	Permanent incorporation of land
Shearer Ditch	Historic	SHPO	Permanent incorporation of land
Marshallville Ditch	Historic	SHPO	Permanent incorporation of land
South Boulder Canyon Ditch	Historic	SHPO	Permanent incorporation of land
McGinn Ditch	Historic	SHPO	Permanent incorporation of land
US 36	Historic	SHPO	Permanent incorporation of land
South Boulder Creek Trail Crossing	Parks and Recreation	City of Boulder	Temporary incorporation of land
City of Boulder Open Space	Wildlife Refuge	City of Boulder Open Space	Permanent incorporation of land

Source: US 36 Mobility Partnership, 2009b.

Notes:

SHPO = State Historic Preservation Officer

US 36 = United States Highway 36

Minimization of Harm to Section 4(f) Resources

When no prudent and feasible avoidance alternative exists, Section 4(f) requires that harm to protected resources be minimized. Through the process of selection and refinement of the Proposed Action (Phase 1), FHWA and CDOT worked with stakeholders to identify appropriate measures to minimize harm. These have been included in the Proposed Action (Phase 1) and the rest of the Preferred Alternative, as described below.

- Adequate trail detours and advanced notice and signing prior to beginning of construction will be provided.
- Trails will be returned to their existing or comparable state following construction.
- Trailhead and trail connections to residential and commercial developments will be preserved. Alternative trail routes accomplishing a similar connection will be provided, where trails must be adjusted.
- Trails that must be relocated to a public street due to property acquisition will be enhanced with signs.

- In coordination with local jurisdictions, plans will be prepared and implemented defining the BMP for the site's public safety and security. The plan will include all appropriate access, signing, and public information BMPs.
- Disturbed parkland and wildlife refuge areas disturbed during construction will be restored to their previous condition. Options include seeding with native grasses and forbs. Native shrubs will be added to the mix as appropriate. Trees will be replaced at a 1:1 ratio in locations where soils support the highest probability for re-establishment of vegetation, such as near riparian resources.
- During final design, coordination will occur with public land representatives to reasonably address future park, trail, and open space projects included in adopted plans.
- Compensation for parkland acquisition will be negotiated with the public land's representatives. At minimum, compensation will include comparable replacement of parkland and facilities within approximately 2 miles of the affected resource or adequate compensation, based on fair market appraisals. All acquisition mitigation must conform to the Uniform Act.
- Avoidance and minimization of impact to historic properties and structures will be addressed during final design. Relocation of structures will also be considered.
- A Programmatic Agreement with all parties has been executed for the impact of a historic parcel or structure.
- Impacts to archaeological resources or linear features will be avoided and minimized where possible. Data recovery, excavation, and construction monitoring will be provided.
- Construction impacts to historic resources will be minimized where possible. Examples included the avoidance of staging in these areas, temporary shields to reduce dust, contractor training to prevent flying debris, and providing signage and well-marked alternate routes for access.

See Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1), for a more complete list of minimization measures.

Section 4(f) Coordination

Formal consultation for purposes of the Section 4(f) Evaluation has been initiated and is expected to continue through the final design of projects implemented as part of the Proposed Action (Phase 1). The consultation and coordination efforts are summarized into two groups: (1) stakeholders of public park, recreation, and wildlife and waterfowl refuges; and (2) stakeholders of historic resources covered under the Section 106 consultation requirements.

Consultation with public park, recreation, and wildlife refuge stakeholders has consisted of numerous personal meetings and correspondence. Meetings focused on amenities, activities, and management of the resources. The project team worked with the stakeholders to identify potential uses from the US 36 corridor expansion and their severity. Meetings also identified possible measures to minimize harm.

Historic resources consultation included meetings with the State Historic Preservation Officer, City of Louisville, Town of Superior, Historic Boulder, Inc., Broomfield Depot Museum, and Colorado Preservation, Inc. The project team has consulted with the SHPO and the consulting parties since 2004 with regard to the identification of historic properties. Because the US 36 Corridor Project is being documented per 36 CFR 800.8(c), the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) served as the Section 106 consultation document and contained additional information on effect determinations and mitigation for SHPO and consulting party review. Consultation with SHPO for all Section 4(f) historic resources, and written concurrence for *de minimis* uses was obtained to satisfy the requirements of 23 CFR §138 and 49 USC §303. CDOT has also entered into a Programmatic Agreement to address how Section 106 will be conducted as construction projects associated with the Preferred Alternative are undertaken (see Appendix E, Section 106 Programmatic Agreement).

On December 16, 2009, correspondence was received from the USDOI indicating they had no comments on the Final Section 4(f) Evaluation.

4.2 AIR QUALITY

Air quality impacts from transportation projects generally are considered on both a regional and project level basis. Regional impacts generally are examined by the responsible metropolitan planning organization (DRCOG) through transportation planning activities such as Regional Transportation Plans and Transportation Improvement Programs.

Local air quality emissions impacts are assessed through carbon monoxide (CO) "hot-spot" computer emissions dispersion modeling. Modeling is required by the USEPA in order to demonstrate that CO emissions at signalized intersections are below the National Ambient Air Quality Standards (NAAQS).

The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) discussed the air quality impacts of the Preferred Alternative as well as impacts of other alternatives identified. Additionally, the FEIS discussed the air quality implications of phased project implementation. This project is being phased for air quality conformity because the estimated capital costs for each of the build packages exceeds the current available or planned funding contained in the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), for the US 36 corridor. To accommodate these funding limitations, the Preferred Alternative has been separated into various phases.

Throughout the publication of the FEIS and phasing coordination, several agency actions have occurred in order to complete the air quality conformity and concurrence steps that were required before this ROD could be executed. These actions and accompanying conformity steps for fulfilling additional project level CO hot-spot modeling at the worst intersection outside of the Selected Alternative are described below. Relevant correspondence is included in Appendix C, Agency Correspondence.

Project Level Air Quality Conformity for the Proposed Action (Phase 1)

As discussed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), due to the fact that the project area is in attainment/maintenance for CO and PM_{10}, a project level conformity analysis was performed for these two pollutants for the entire Proposed Action (Phase 1). Specifically documented in the FEIS, CO and PM_{10} hot-spot analyses indicated the project would meet the transportation conformity requirements because the Proposed Action (Phase 1) would not cause or contribute to any new localized CO or PM_{10} violations, or increase the frequency or severity of any existing violations, or delay timely attainment of the CO or PM_{10} NAAQS.

As indicated in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) CO hot-spot analysis section, all project level CO hot-spot modeling results for intersections contained within the Preferred Alternative (and also for the Proposed Action [Phase 1], as discussed below) were within the limits of the NAAQS. Additional CO hot-spot modeling and analysis was conducted for the ROD for the worst performing intersection outside of the Proposed Action (Phase 1) (identified as Dillon Road and McCaslin Boulevard) to demonstrate that CO concentrations at the worst intersections outside of Phase 1 would also be in compliance with the NAAQS. Air quality impacts at Dillon Road and McCaslin Boulevard under the Package 1 (No Action) scenario are considered the worst-case emissions scenario to exist throughout the interim years before the Preferred Alternative and other phases are completely built.

The modeled 1-hour and 8-hour CO concentrations for this worst intersection modeled outside of the Proposed Action (Phase 1) improvements (using 2035 traffic volumes and 2005 emission factors) are 13.71 parts per million (ppm) and 7.80 ppm, which are below the NAAQS. These results indicate that the worst performing intersection outside of the Proposed Action (Phase 1) would not produce CO concentrations exceeding the 1-hour and 8-hour NAAQS (35 ppm and 9 ppm, respectively).

In the months of September and October in 2009, CDOT forwarded letters (presented in Appendix C, Agency Correspondence) reporting the results of the CO hot-spot analyses to Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) for the Preferred Alternative and for the Proposed Action (Phase 1). In the letters, CDOT indicated that the project improvements would not cause or contribute to any exceedances of the 8-hour CO NAAQS for the Proposed Action (Phase 1). CDOT also signified the intent to select Phase 1 in this ROD and requested the concurrences of APCD based upon the results of the analyses and conclusions with regards to the project. In September and November of 2009, APCD indicated their concurrences by signing and returning a copy of CDOT's results letters (see Appendix C).

Regional Air Quality Evaluation for the Preferred Alternative

As was described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), an evaluation of the likely regional air quality impacts of the Preferred Alternative was performed. Because only part of the Preferred Alternative (Phase 1, Proposed Action) is included in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended [DRCOG 2009a]), this evaluation does not establish conformity for the Preferred Alternative. Rather it demonstrates that the Preferred Alternative would not jeopardize conformity if placed in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended.

As shown in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), the evaluation for the expected regional air quality impacts of the Preferred Alternative has been completed as follows:

- DRCOG has run the regional transportation model that consists of the latest *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (2009a) transportation system, with the entire Preferred Alternative and forwarded the results from this modeling effort to CDPHE APCD.
- The CDPHE APCD used the DRCOG model output to calculate 2035 regional emissions for the hypothetical transportation system. APCD reported the results in a letter to CDOT dated October 27, 2009 (see Appendix C, Agency Correspondence). CDPHE APCD reported that based on the modeling results, the Preferred Alternative would not result in significant additional air quality emissions.

Based on the analysis by DRCOG and CDPHE APCD, it appears that construction of future phases of the Preferred Alternative will unlikely create problems with regard to regional air quality conformity. As additional funding becomes available and future phases are advanced, this result will be confirmed through inclusion of such future phases in the fiscally-constrained transportation plans that are in effect at the time that a ROD is prepared for that phase.

Project funding relative to the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), was discussed above in Section 1.4, Project Funding Scenario.

Regional Air Quality Conformity for the Proposed Action (Phase 1)

Only Phase 1 (the Proposed Action) of the Preferred Alternative is incorporated into the Draft 2009 Amendment Cycle 1 DRCOG Conformity Determination (CO, PM_{10}, and 1-hour Ozone) for the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), and the amended *2008-2013 Transportation Improvement Program* (*2008-2013 TIP*) (DRCOG 2009b).

In August 2009, the DRCOG board formally adopted the latest (2009 cycle 1) amendments to the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), and *2008-2013 TIP* (DRCOG 2009b). These amendments included changes needed to incorporate the Preferred Alternative in its entirety in the Plan (unconstrained) roadway network, and the Proposed Action (Phase 1) in the fiscally-constrained roadway network. With assistance from DRCOG, 2035 traffic data were sent to APCD containing the unconstrained elements of the

Preferred Alternative. The APCD extracted traffic data for each travel link and segment of roadway to calculate VMT and evaluate regional emissions. APCD then was able to make a determination of whether the Preferred Alternative (while not fiscally constrained) would be a project of air quality concern once all phases of the project are funded and constructed.

The *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended (DRCOG 2009a), within the Proposed Action (Phase 1), as amended, was also found to meet the air quality conformity requirements. Inclusion of the Proposed Action (Phase 1) in the *Fiscally-constrained Element* of the *Fiscally-constrained 2035 Regional Transportation Plan*, as amended, and *2008-2013 TIP* (DRCOG 2009b) establishes that the first funded phase demonstrates regional conformity with respect to the transportation conformity rule and therefore is not expected to cause significant regional air quality impacts.

4.3 SECTION 106 CONSULTATION PROCESS

CDOT has consulted with the SHPO and consulting parties on determinations of effects of the project to historic resources. Pursuant to 36 CFR Section 800.8(c)(1), in December 2003, FHWA and FTA notified the SHPO and the Advisory Council on Historic Preservation of the intention to substitute part of the Section 106 consultation process for this project with the NEPA requirements. CDOT and FHWA formally arranged to substitute the NEPA documents (DEIS and FEIS) in lieu of separate correspondence. Specifically, the document substitution was intended to provide a more complete opportunity for comments on the effects to National Register of Historic Places-eligible or listed historic properties.

A discussion of mitigation measures for impacts to cultural resources is included in Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1). A Programmatic Agreement was executed between FHWA, SHPO, FTA, RTD, and CDOT, to mitigate adverse effects to historic resources from the Preferred Alternative. Mitigation consists of the preparation and distribution of a book on the history of irrigation along the US 36 corridor. The book, titled *Digging the Old West: How Dams and Ditches Sculpted an American Landscape* (In Process) will provide the primary form of mitigation. In addition, CDOT will submit Office of Archaeology and Historic Preservation (OAHP) Level I Documentation, including photographs printed on archival paper, for any properties that will be demolished or otherwise adversely affected. CDOT will also submit OAHP Cultural Resource Re-evaluation forms (Form #1405) for any properties that will be changed or modified in order to document changes in the conditions of the properties for OAHP's site files.

The Programmatic Agreement sets forth a process by which CDOT, on behalf of FHWA and FTA where applicable, will re-evaluate effects to existing and new cultural resources as construction projects are funded and designs are refined. FHWA and CDOT have determined that modifications to the Area of Potential Effects; identifying historic properties that are 45 years or older; determining specific effects on historic properties; and consulting concerning measures to avoid, minimize, or mitigate any adverse effects will be re-evaluated as part of the planning for and prior to the approval of the phased construction projects.

In the event that previously unknown cultural deposits are discovered during construction, work will cease in the area of discovery and the CDOT archaeologist will be notified. The CDOT archaeologist, or designated representative, will evaluate any such discovery and, in consultation with SHPO, complete appropriate mitigation measures before construction activities resume. Further, the construction contractor will be responsible for informing all persons associated with this project that they would be subject to prosecution for knowingly disturbing any historic properties or for collecting artifacts.

Additional comments on Section 106 determinations of effect for historic properties from the agencies were received and addressed as noted below.

- Dennis M. Dempsey, Planner/Historical Commission Staff Liaison, Jefferson County, e-mailed comments to state that none of the historic properties were located within the unincorporated Jefferson County area and that the municipalities would be responsible for comments on properties

within their jurisdiction. Mr. Dempsey requested that the Jefferson County Historical Commission be informed of the progress of the FEIS for the US 36 corridor improvements. His comment was noted and does not require a response. Mr. Dempsey was included in the request for comments on the US 36 corridor Section 106 Programmatic Agreement and he did not submit comments.

- Broomfield County provided comments concerning the property located at 8375 West 120th Avenue. The comments concerned the use of the property as the Broomfield School House. Broomfield requested further coordination to relocate the property and a historic documentation of the property. The current survey form for this property does not have any information pertaining to the property being used as a school house. The form will be updated to reflect this important aspect of local history. CDOT recommends having an assessment done to determine whether the house, made of rusticated concrete blocks, can be successfully relocated. In addition, CDOT will prepare historical documentation of the home, to include photos on archival paper, as part of the mitigation for the property.
- In correspondence dated December 3, 2009, SHPO concurred with the recommended Findings of Effect under Section 106 for the properties listed in Chapter 4, Affected Environment and Environmental Consequences, except for the Finding of Effect for 5AM1806/Advent Evangelical Lutheran Church. CDOT determined the Preferred Alternative would result in a Finding of No Historic Properties Affected, but SHPO determined that because the highway will be closer to the historic property and there will be a new sound wall installed, there would be an effect on the historic property but the effect would not be adverse. CDOT agrees with SHPO's comments and recommends the determination of No Adverse Effect for 5AM1806. No further consultation is required for this property.

4.4 CDOT 1601 PROCESS

Approval of the 1601 process by the Colorado Transportation Commission would also be required prior to construction. To date, the 1601 has been signed by the CDOT Chief Engineer and is being presented to the Commission on January 21, 2010, for approval.

4.5 ISSUANCE OF A SECTION 404 PERMIT

Issuance of a Section 404 permit from the USACE will be required prior to impacting any waters of the U.S. See Appendix E, Section 404(b)(1) Evaluation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), for more information.

4.6 ISSUANCE OF A BIOLOGICAL OPINION

A Biological Opinion was received from the U.S. Fish and Wildlife Service (USFWS) on December 9, 2009, and is included in this ROD as Appendix F, Biological Opinion. The requirements of this Biological Opinion will be followed and the mitigation is included in Appendix D, Measures to Minimize Harm from the Proposed Action (Phase 1), of this ROD. Included in this Biological Opinion is a recent change in habitat status. Critical habitat for the Preble's meadow jumping mouse has been proposed since the Biological Assessment was prepared for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a). In consultation with the USFWS, it was agreed that the Biological Assessment did not need to be amended but that the Biological Opinion would cover this change and include the location, restrictions, and mitigation requirements of this habitat status. Approximately 7 acres of the already assessed habitat that would be impacted is the proposed critical habitat.

4.7 FLOODPLAIN REQUIREMENTS

A Conditional Letter of Map Revision (CLOMR) and Final Letter of Map Revision for 100-year floodplain encroachments from the Federal Emergency Management Agency are required for work in Big Dry Creek being conducted by the Proposed Action (Phase 1), the CLOMR will be prepared during final design. The Final Letter of Map Revision will be prepared after construction is completed.

5.0 MONITORING/ENFORCEMENT PROGRAM

FHWA, FTA, RTD, and CDOT will monitor this project to ensure that mitigation measures contained in the ROD (and subsequent permits) are implemented. Copies of this ROD will be provided to responsible public agencies and CDOT project personnel. Commitments within this document will be implemented through the inclusion of these measures in the construction plans for the project. CDOT will maintain information on the implementation to inform the public and/or interested commenting agencies, upon request, of the progress in carrying out the adopted mitigation measures.

The decision-making process will continue during final design. As the design process continues, more detailed decisions and more specific commitments will be made to minimize both environmental impacts and impacts to adjacent property owners. In coordination with local agencies, the public involvement process will include a public outreach program.

CDOT will continue to coordinate with FHWA, FTA, RTD, the local jurisdictions and associated counties, 36 Commuting Solutions, University of Colorado, Boulder, Save Your Neighborhood Access Committee, and associated school districts/fire districts/sheriff offices/businesses/residences, DRCOG, CDPHE, USACE, USFWS, and the Colorado Division of Wildlife. As well as with the agreements that have been established in the FEIS for the three outstanding issues, including the I-25/Broadway interchange where a separate study will take place prior to action being taken at this interchange, evaluate the need for the auxiliary lane from McCaslin Boulevard to Table Mesa Drive, and to re-evaluate the design of the Table Mesa Drive interchange with University of Colorado and the City and County of Boulder after funding has been identified for this interchange and the South Campus Master Plan is more developed by the University of Colorado, Boulder.

Permits required for the project will be coordinated with the appropriate jurisdiction and obtained prior to construction. Required permits and approvals for Phase 1 are likely to include those shown in Table 5-1, Summary of Permits and Approvals for the Proposed Action (Phase 1). Additional permits may be required in concert with activities such as:

- Erosion control/grading.
- Utility access, relocation, or surveying.
- Construction, slope, and utility easements.
- Access and authorizations.

Additional permits and/or approvals may be needed for future phases; a more comprehensive list is included in the FEIS.

Table 5-1: Summary of Permits and Approvals for the Proposed Action (Phase 1)

Agency	Regulated Activity	Permit/Approval
Federal Highway Administration	Design includes “pinchpoints” to fit managed lane the entire length of the corridor in the first phase	Design Variance Approval
U.S. Army Corps of Engineers	Impacts to jurisdictional wetlands and waters of the U.S.	Clean Water Act Section 404 Permit
U.S. Fish and Wildlife Service	Impacts to threatened and endangered species and their habitat	Site-specific modifications to the Programmatic Biological Assessment/ Biological Opinion
Federal Emergency Management Agency	Floodplain encroachment	Conditional Letter of Map Revision: Letter of Map Revision
State Historic Preservation Officer	Impacts to Historic Resources	Letter of Approval
Colorado Department of Public Health and Environment – Water Quality Control Division	MS4 Phase I and II areas – New Development and Redevelopment Programs	Follow the requirements of the City/County MS4 permits and Colorado Department of Transportation MS4 permit

Table 5-1: Summary of Permits and Approvals for the Proposed Action (Phase 1)

Agency	Regulated Activity	Permit/Approval
Colorado Department of Public Health and Environment – Water Quality Control Division	Required to assess the quality of stormwater runoff during construction	Colorado Department of Public Health and Environment: Colorado Discharge Permit System stormwater permit associated with construction activity
Colorado Department of Public Health and Environment – Water Quality Control Division	Dewatering of construction areas	Clean Water Act Section 402 Construction Dewatering Permit, or Individual Construction Dewatering Permit if contaminated groundwater is expected to be encountered
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Classification of construction waste material and transportation of solid wastes generated	May require facility approval
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Generation of contaminated materials during construction	Coordination and approval for handling and management plan
Colorado Department of Public Health and Environment – Hazardous Materials and Waste Management Division	Generation of hazardous waste	Notification as Resource Conservation and Recovery Act hazardous waste generator
Colorado Department of Public Health and Environment – Air Pollution Division	Emissions from portable unites, such as rock crushers, generator, asphalt plants, and cement plants, used during construction	Stationary Source Air Quality Permit
Colorado Department of Public Health and Environment – Air Pollution Division	Asbestos abatement and bridge and building demolition	Asbestos Abatement Permit Demolition Permit
Colorado Department of Public Health and Environment – Air Pollution Division	Fugitive dust emissions due to construction activities and bridge demolition	Fugitive Dust Permit Bridge Demolition Permit
Colorado Department of Transportation	Generation of contaminated materials during construction	Development of a Materials Handling Plan with approval by the Regional Planning and Environmental Manager
Colorado Division of Wildlife	Impacts to stream banks, stream channels, and riparian areas	Senate Bill 40 Certification
Local City and County	Work in sensitive habitats	Local permits or approvals
Local City and County	Impacts to local floodways	Local permits or approvals
Local City and County	Occupancy of right-of-way	Street Occupancy Permit
Local City and County	Construction of structures	Construction Permit
Local City and County	Traffic control during construction	Construction Access Permits Traffic Control Plan
Local City and County	Noise generation during construction (especially for night time work)	Noise Variance
Local City and County	Generation of contaminated materials during construction	Coordination and approval for handling and management plan
Local City and County	Discharge of wastewater generated during construction activities to the treatment works (if needed)	Wastewater Discharge Permit
Local City and County	Design and construction associated with City-maintained streets, parks, and sewers	Design and construction plan review
Local City and County	Work in dedicated parks and trails	Occupancy Permit
City Forester	Tree removal	Coordination and approval

Source: US 36 Mobility Partnership, 2009b.

Note:

MS4 = Municipal Separate Storm Sewer System

6.0 COMMENTS ON THE US 36 CORRIDOR FINAL ENVIRONMENTAL IMPACT STATEMENT

The notice of Availability for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a) was published in the *Federal Register* on October 30, 2009, with a comment due date of December 14, 2009. Comments were received from three agencies, 13 municipalities, five organizations, and 83 separate comments from members of the public during this period and at the public hearings that were held at the Broomfield Auditorium (3 Community Park Road in Broomfield, Colorado) on November 16th, at Louisville Middle School (1341 Main Street, Louisville, Colorado) on November 18, 2009, and at Global Leadership Academy (7480 Conifer Road, Denver, Colorado) on November 19, 2009. A total of 189 people signed in at the public hearings. Documentation related to the public hearing is presented in Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation Comment Responses.

All comments received have been reviewed and responded to (see Appendix B, US 36 Corridor Final Environmental Impact Statement and Final Section 4[f] Evaluation Comment Responses). None of the comments received required a change to the assessment of impacts, alternatives, or mitigation as presented in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009a), although some corrections and clarifications have been noted in Section 3, Clarifications to the US 36 Corridor Final Environmental Impact Statement, of this ROD. FHWA and FTA have considered all comments received on the FEIS in reaching the decisions documented in this ROD.

7.0 CONCLUSION

Based on the information contained in the *US 36 Corridor FEIS and Section 4(f) Evaluation*, which has been incorporated by reference in this ROD, and information contained in this ROD, we conclude that the decision reached on the US 36 Corridor Project is in the best overall public interest, uses all practicable means to restore and enhance the quality of the human environment and avoids or minimizes any possible adverse effects. Based on the considerations identified in the Section 4(f) Evaluation, we also conclude that there are no feasible and prudent alternatives to the use of Section 4(f) protected lands and that the proposed action includes all possible planning to minimize harm to the identified Section 4(f) properties resulting from such use.

Karla S. Petty, P.E.
Division Administrator, Colorado Division
Federal Highway Administration

12/24/09
Date

Terry J. Rosapep
Regional Administrator, Region 8
Federal Transit Administration

12/22/09
Date

8.0 References

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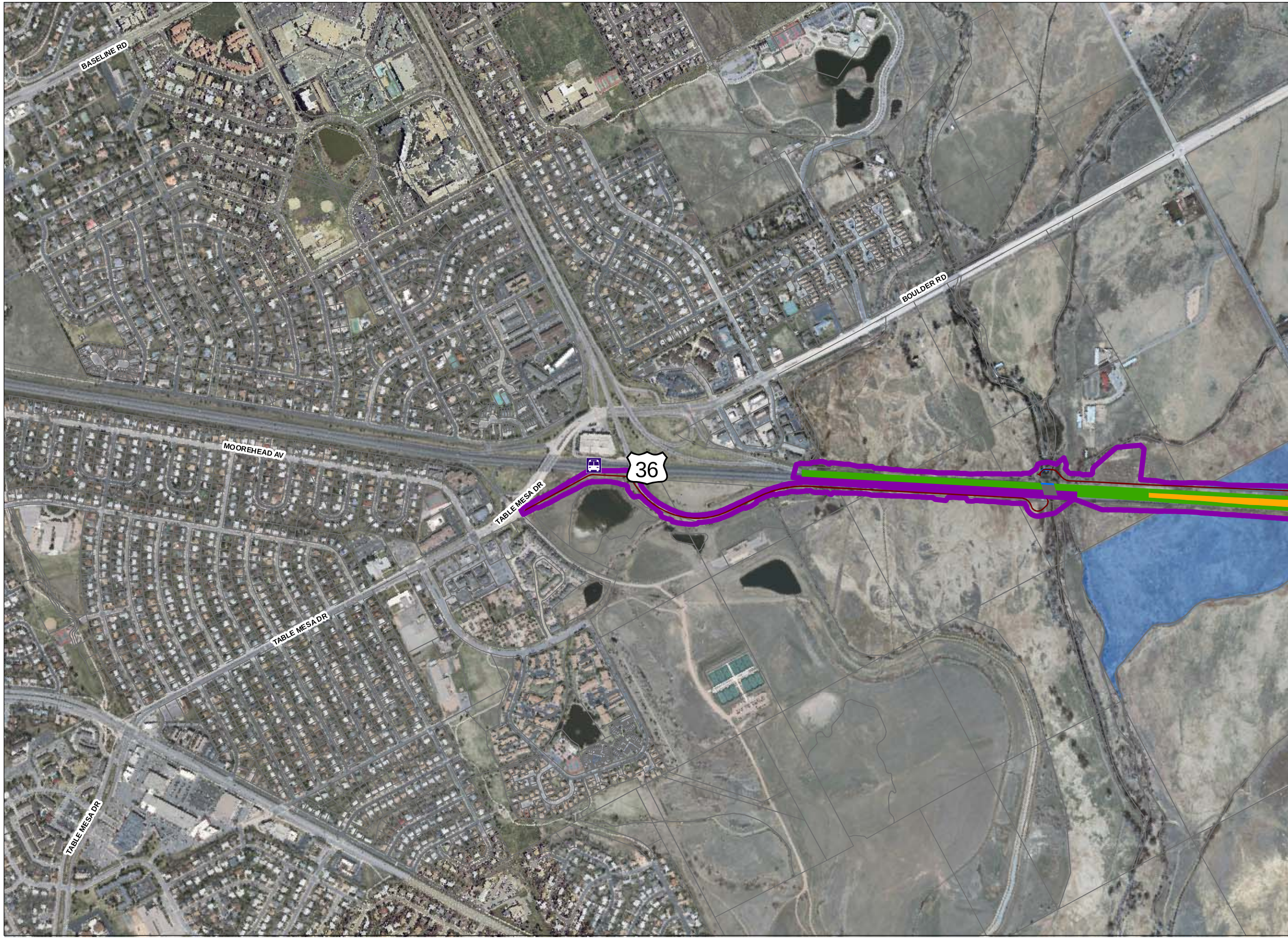
Appendix D	Measures to Minimize Harm from the Proposed Action (Phase 1)
Appendix E	Section 106 Programmatic Agreement
Appendix F	Biological Opinion

APPENDIX A

MAPS OF THE PROPOSED ACTION (PHASE 1)



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Legend
Appendix A -
Corridor Reference Maps
Phase I

- US 36 Combined Alternative Phase I Impact Area (Preferred Alternative)
- Parcel Boundary
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- New Bridges
- Bikeway
- Work by Others
- BRT/Rail Station
- BRT Station

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US 36 CORRIDOR
Environmental Impact Statement

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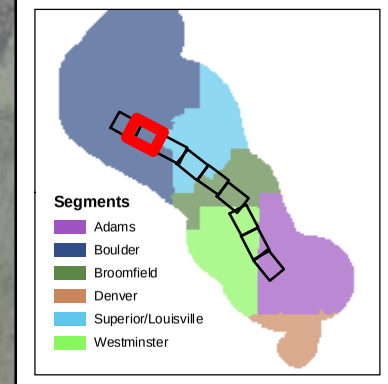

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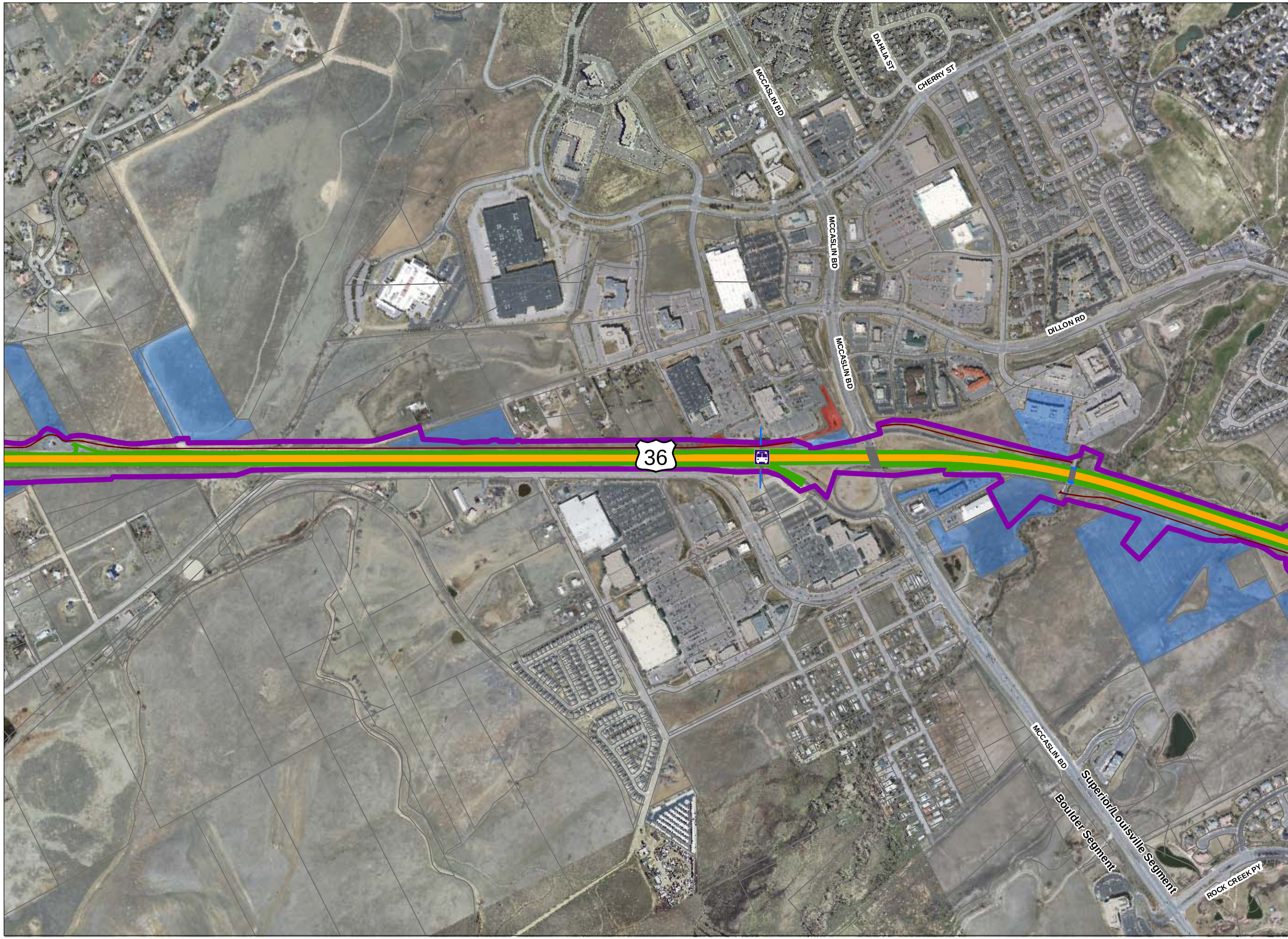

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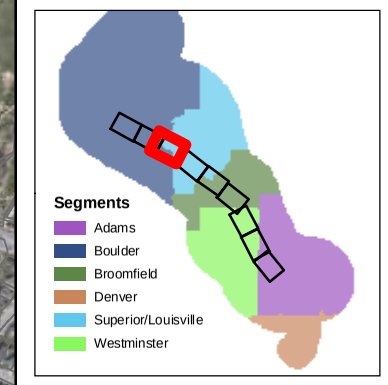

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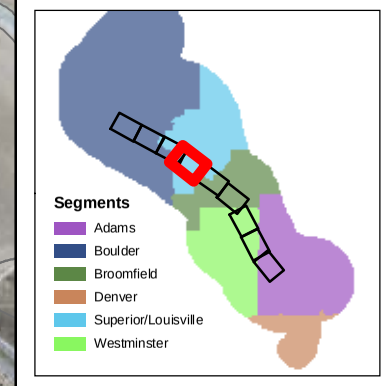

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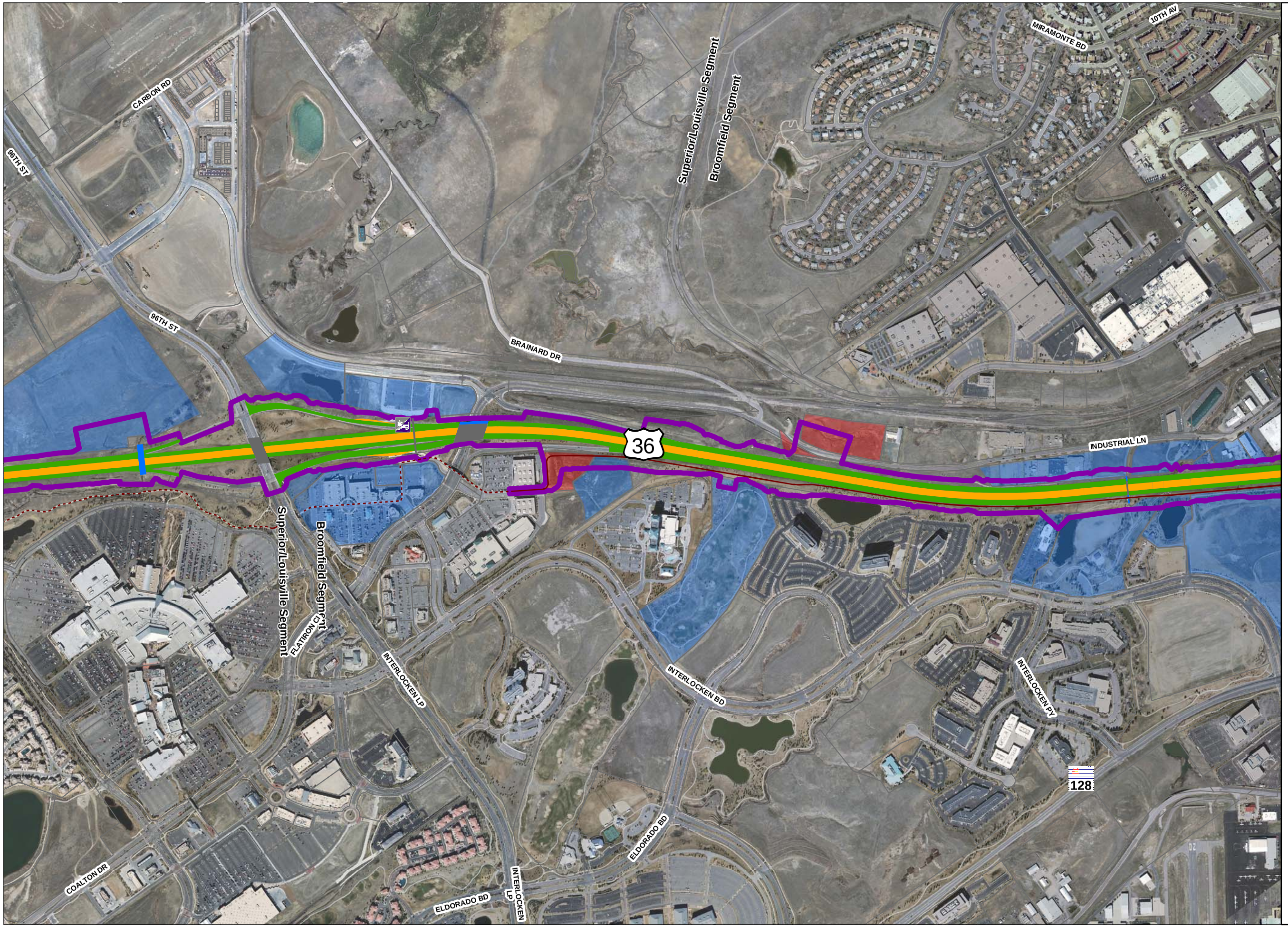

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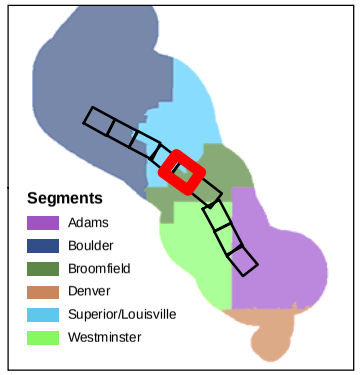

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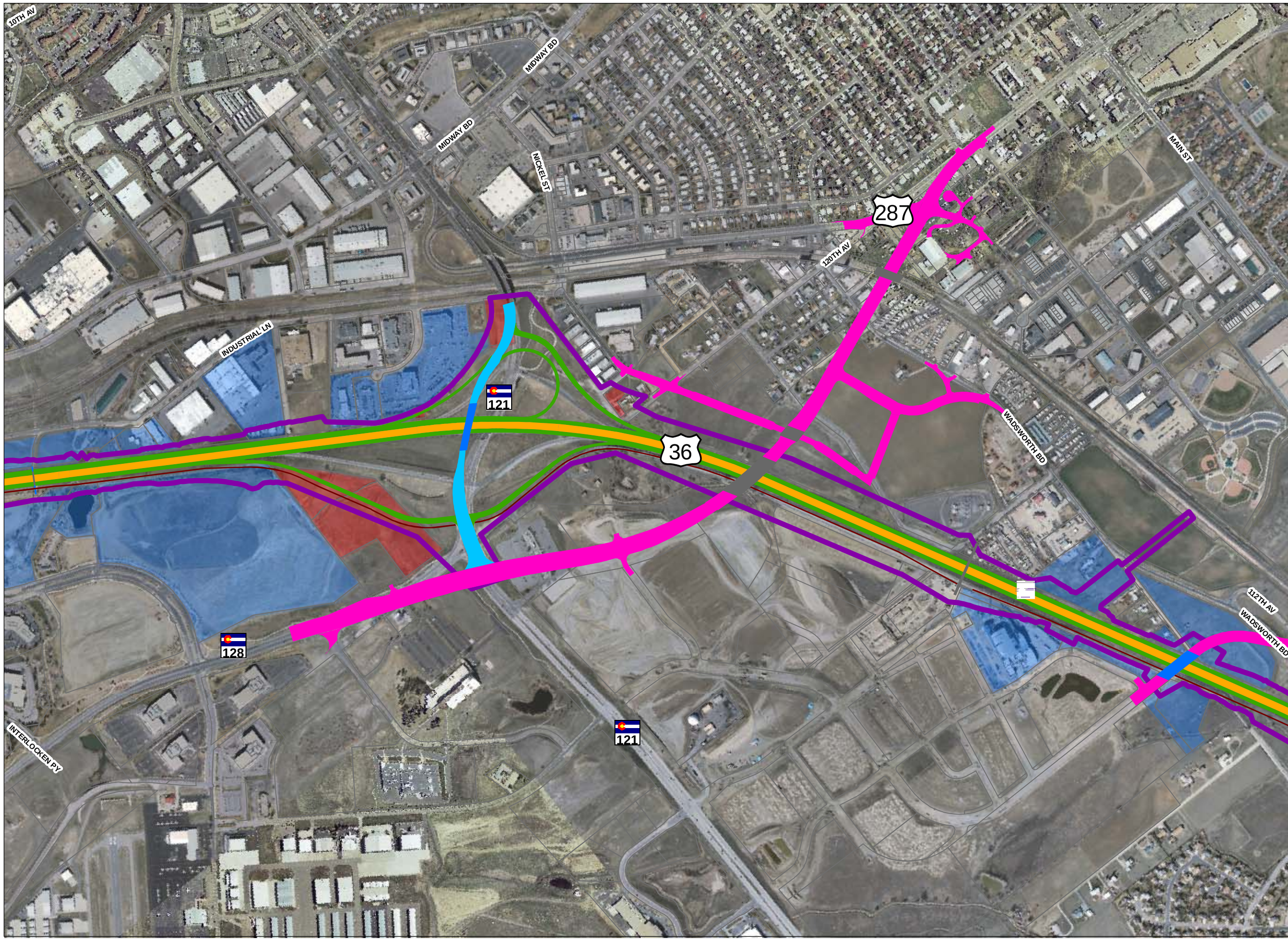

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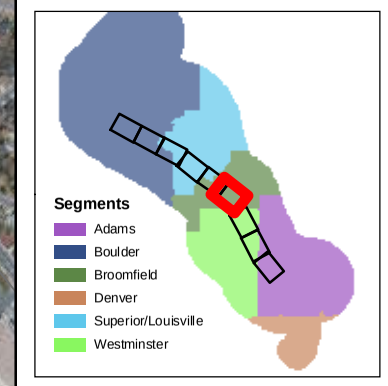

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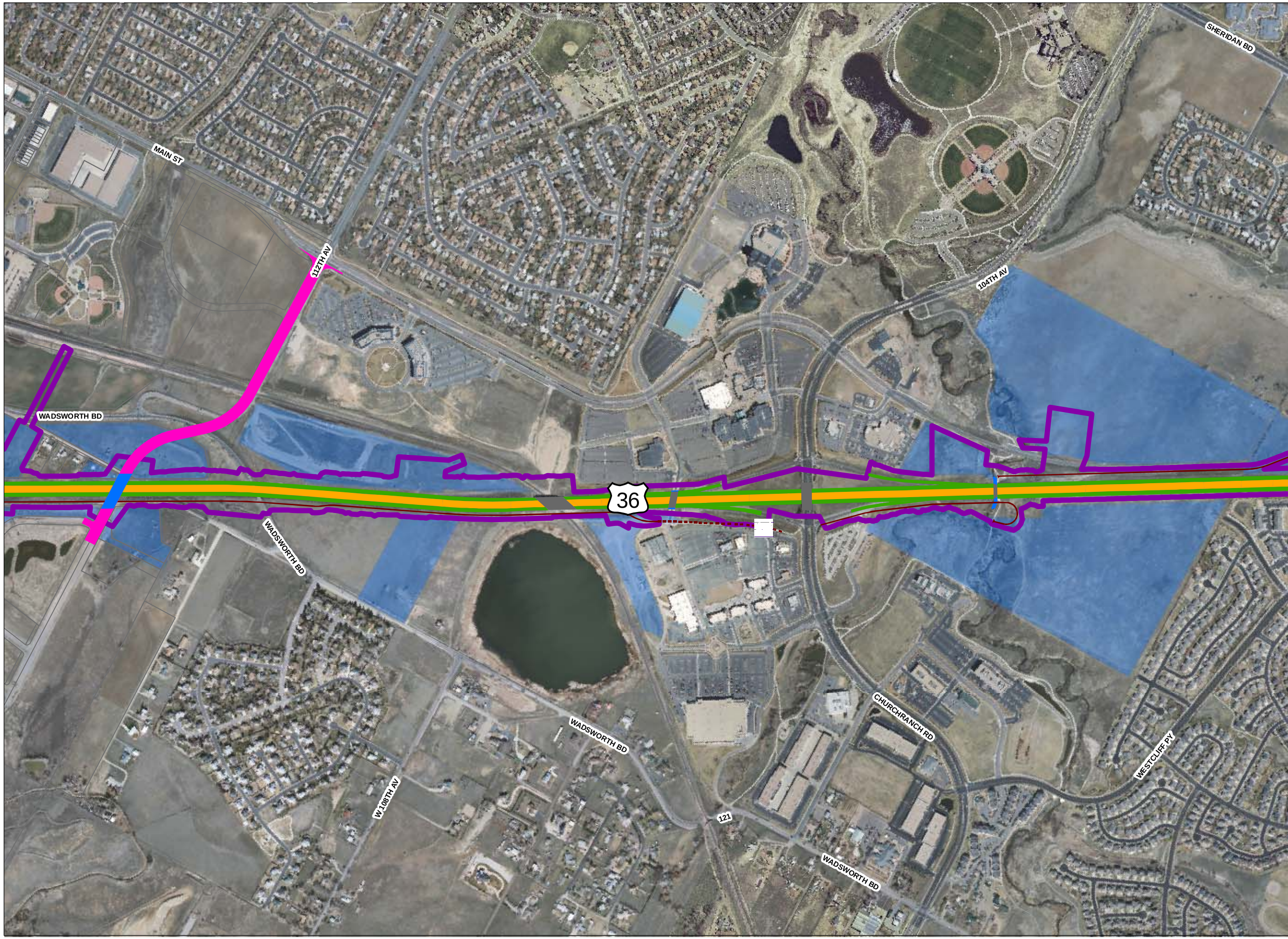

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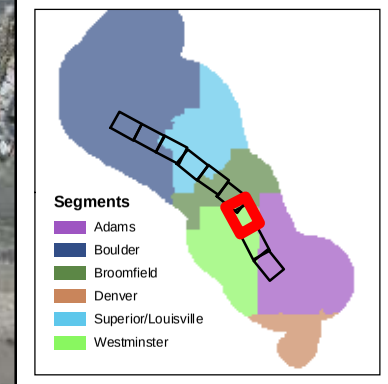

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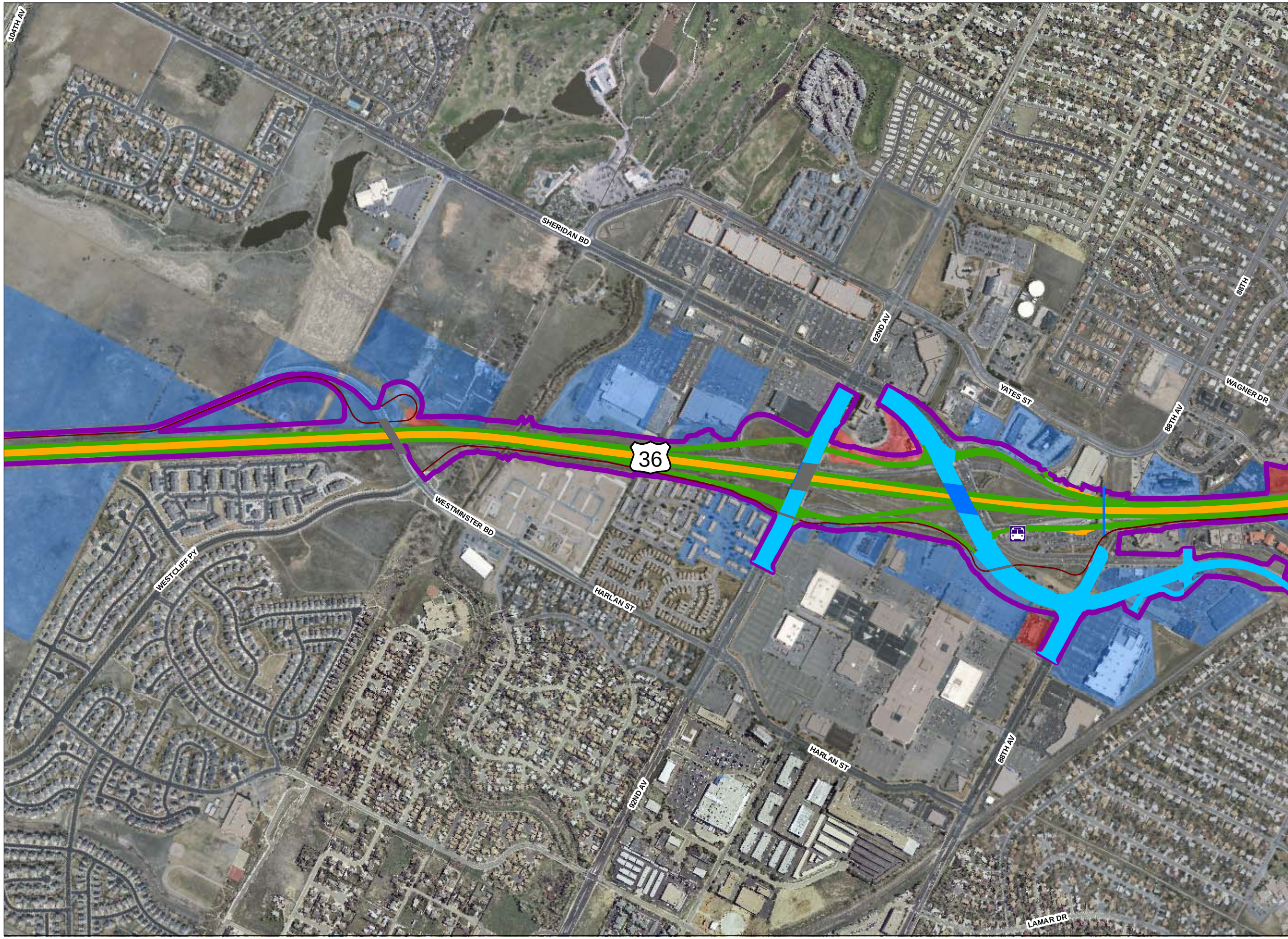

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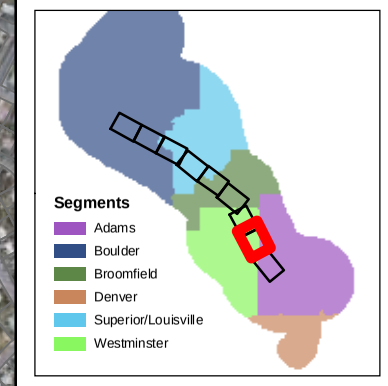

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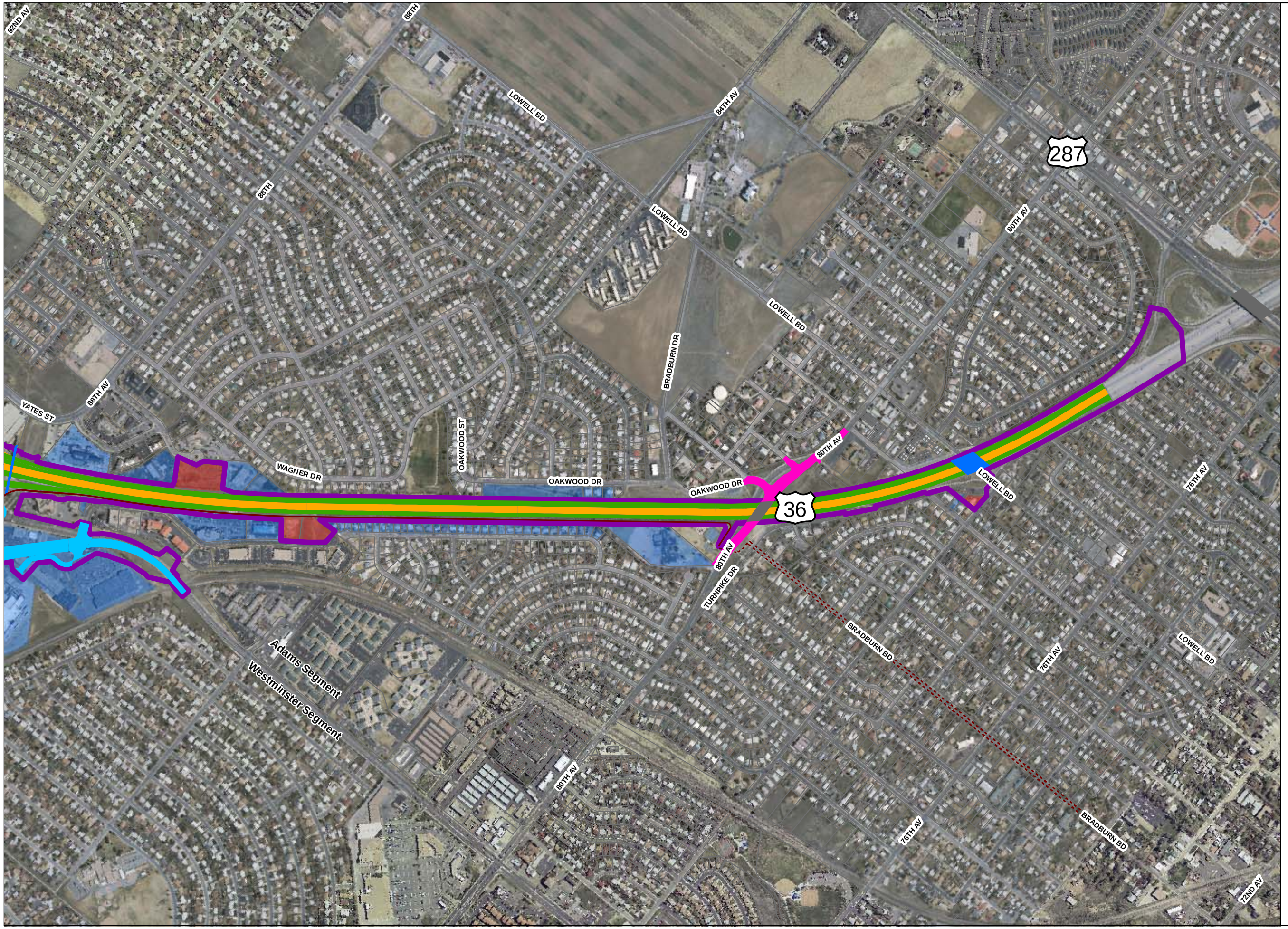

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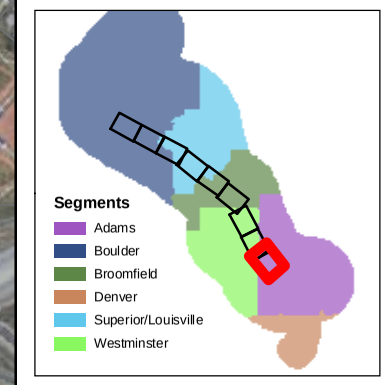

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APPENDIX B

US 36 CORRIDOR FINAL ENVIRONMENTAL IMPACT STATEMENT AND FINAL SECTION 4(F) EVALUATION COMMENT RESPONSES

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ACRONYMS

ADT	average daily traffic
BMP	best management practice
BRT	bus rapid transit
CAA	Clean Air Act
CDOT	Colorado Department of Transportation
CDOW	Colorado Division of Wildlife
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
COPEEN	Colorado People's Environmental Economic Network
dBA	decibel (A-weighted scale)
DEIS	Draft Environmental Impact Statement
DIA	Denver International Airport
DRCOG	Denver Regional Council of Governments
DUS	Denver Union Station
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
HOA	Homeowner's Association
HOV	high-occupancy vehicle
HOT	high-occupancy toll
I-	Interstate # (i.e., I-25, I-70, etc.)
IAR	Interstate Access Request
IGA	Intergovernmental Agreement
Leq	equivalent sound level
LOS	level of service
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act of 1969

OSMP	Open Space and Mountain Parks
PAC	Preferred Alternative Committee
PBA	Programmatic Biological Assessment
PM_{10}	Particulate matter less than 10 microns in size
ROD	Record of Decision
ROW	right-of-way
RTD	Regional Transportation District
SB	Senate Bill
SH	State Highway
SHPO	State Historic Preservation Officer
SOV	single-occupant vehicle
SYNA	Save Your Neighborhood Access
TDM	Transportation Demand Management
TIGER	Transportation Investment Generating Economic Recovery
TOD	transit-oriented development
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
US 36	United States Highway 36
US 36 Corridor DEIS	*US 36 Corridor Draft Environmental Impact Statement and Draft Section 4(f) Evaluation*
US 36 Corridor FEIS	*US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation*
USACE	U.S. Army Corps of Engineers
USDOI	U.S. Department of the Interior
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled

B1
US 36 CORRIDOR FEIS COMMENTS/RESPONSES

B1 US 36 CORRIDOR FEIS COMMENTS/RESPONSES

If you do not see an individual response to your specific comment below, see Section B4, Clarification and Detail for Common Comments.

Comment	Commenter
STATE/FEDERAL	
State-Fed 1	Edward C. Nichols, State Historic Preservation Officer, Colorado Historical Society
State-Fed 2	Steve Cook, Manager, MPO Planning Program, DRCOG
State-Fed 3	Larry Svoboda, Director, NEPA Program, Office of Ecosystems Protection and Remediation, USEPA
State-Fed 4	Steve Yamashita, Northeast Regional Manager, Colorado Division of Wildlife
US 36 CORRIDOR JURISDICTIONS AND MUNICIPALITIES	
Jur-Muni 1	Dennis M. Dempsey, Planner/Historical Commission Staff Liaison, Jefferson County
Jur-Muni 2	Chuck Sisk, Mayor, City of Louisville
Jur-Muni 3	Debra Baskett, Transportation Manager, City and County of Broomfield
Jur-Muni 4	Matt Appelbaum, Councilmember, City of Boulder
Jur-Muni 5	George Gerstle, Director, Boulder County Transportation
Jur-Muni 6	Boulder County Board of County Commissioners
Jur-Muni 7	Town of Superior
Jur-Muni 8	Paul Fetherston, Deputy City Manager, City of Boulder
Jur-Muni 9	Charles Sisk, Mayor, City of Louisville
Jur-Muni 10	Debra A. Baskett, Transportation Manager, City and County of Broomfield
Jur-Muni 11	Adams County Commissioners' Office; Colorado State Representative, District 35; Save Your Neighborhood Access (SYNA) Committee; and Perl Mack Community
Jur-Muni 12	Matt Lutkus, Deputy City Manager for Administration, City of Westminster
Jur-Muni 13	Matt Lutkus, Deputy City Manager for Administration, City of Westminster
Jur-Muni 14	Guillermo Vidal, Manager, Denver Department of Public Works
US 36 ORGANIZATIONS AND STAKEHOLDER GROUPS	
Org-Group 1	Chris McShane, 36 Commuting Solutions
Org-Group 2	Allen Murphy, Meade Manor Homeowner's Association
Org-Group 3	US 36 Mayors and Commissioners Coalition and US 36 Commuting Solutions
Org-Group 4	Anne Haebig, Community Cycles
Org-Group 5	Bill Roettker, Rocky Mountain Chapter Transportation Chair, Sierra Club
PUBLIC – WRITTEN AND E-MAIL COMMENTS	
Public-Written 1	Frank Hage
Public-Written 2	Michael Scott Ramming
Public-Written 3	George Craft
Public-Written 4	Christina Kiffney
Public-Written 5	Doris Turner
Public-Written 6	Cynthia Falbo, Anthony's Splash n Dash
Public-Written 7	M.G.
Public-Written 8	Fred Ecks
Public-Written 9	Wallace H. Campbell
Public-Written 10	Ryan Bentley
Public-Written 11	Elia Fisher
Public-Written 12	Jack Page
Public-Written 13	Merlin Dart, Optimist Club
Public-Written 14	Theresa Lubben
Public-Written 15	Robert Hill

Comment	Commenter
PUBLIC – WRITTEN AND E-MAIL COMMENTS (continued)	
Public-Written 16	Louise Benson
Public-Written 17	Edith Welch
Public-Written 18	David Schlichter
Public-Written 19	Barbara McGregor
Public-Written 20	Andrew Bartlett
Public-Written 21	Mike Schmitt, Aqua Serve
Public-Written 22	Kay Castillo
Public-Written 23	Kevin Purdy
Public-Written 24	Sharon Snow
Public-Written 25	Paul Olivas
Public-Written 26	Beatrice Olivas
Public-Written 27	Robert Rankin
Public-Written 28	Carrol Rankin
Public-Written 29	Sharon M. Albrecht
Public-Written 30	John Danforth
Public-Written 31	Esther Chavez
Public-Written 32	Kay Frank
Public-Written 33	Denise
Public-Written 34	Scott Rose
Public-Written 35	Jesse Kumin
Public-Written 36	Ivy Wood
Public-Written 37	Roger Collier
Public-Written 38	Mike Ingoldby
Public-Written 39	Tom Masterson
Public-Written 40	David Kreutzer
Public-Written 41	Jane Fancher
Public-Written 42	Laura Nokes Lang
Public-Written 43	Nancy D'Ippolito
Public-Written 44	Jeff Buck, Denver Public Schools
Public-Written 45	Susan Karl
Public-Written 46	Jeff Smith
Public-Written 47	Janelle Shaw
Public-Written 48	Dan Schaffer
Public-Written 49	Dan Cohen
Public-Written 50	Darrell Bellert
Public-Written 51	Neal Carbon
Public-Written 52	Robert Hurst
Public-Written 53	Corina Aragon, Summit Seniors
Public-Written 54	Doug Shinkle
Public-Written 55	Lisa Siconolfi
Public-Written 56	Jennifer Hansen
Public-Written 57	Bob Brewster
Public-Written 58	Sandra Quintana
Public-Written 59	Russ Long
Public-Written 60	Robert Brewster
Public-Written 61	Wayne McCreesh, ConocoPhillips
Public-Written 62	Vivian J. Kennedy
Public-Written 63	Doug Grinbergs

Comment	Commenter
PUBLIC-VERBAL COMMENTS	
Public-Verbal 1	Joe Dempsey, Mad Dog Enterprises LLC
Public-Verbal 2	Mark Shotkoski, Northwest Parkway, LLC
Public-Verbal 3	Robert Carbone
Public-Verbal 4	Armando Acosta
Public-Verbal 5	Anonymous 1
Public-Verbal 6	Sarah Greenleaf
Public-Verbal 7	Carl Worthington, Oz Architecture
Public-Verbal 8	Scott Hatfield
Public-Verbal 9	Jesse Kumin
Public-Verbal 10	Andrew Bartlett
Public-Verbal 11	David Cook
Public-Verbal 12	Rob Lathrup
Public-Verbal 13	Jim Kumar
Public-Verbal 14	Mark Karns
Public-Verbal 15	Ivy Wood
Public-Verbal 16	Rick Martinez
Public-Verbal 17	James Williamson
Public-Verbal 18	Karen
Public-Verbal 19	Roberto Corrales
Public-Verbal 20	Scott Rose
Public-Verbal 21	Bryan Gillogly, SRS Real Estate
Public-Verbal 22	David Powell
Public-Verbal 23	Liz Fusco, Blum Rose Corporation

Notes:

DRCOG	=	Denver Regional Council of Governments
LLC	=	Limited Liability Company
MPO	=	Metropolitan Planning Organization
US 36	=	United States Highway 36
USDOI	=	U.S. Department of the Interior
USEPA	=	U.S. Environmental Protection Agency

B2
US 36 CORRIDOR FEIS PUBLIC COMMENT SUMMARY

B2 US 36 CORRIDOR FEIS PUBLIC COMMENT SUMMARY

The following is a major issues summary of *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (*US 36 Corridor FEIS*) (US 36 Mobility Partnership 2009) public and agency comments received during the 45-day comment period from October 30, 2009 to December 14, 2009. Public comment was solicited and received through a variety of sources including the United States Highway 36 (US 36) Environmental Impact Statement website, e-mail, written letters, and comments received during the three corridor-wide public hearings. A total of 109 comments were received. Most comments addressed multiple topics; common issues referenced are summarized below.

Alternative Packages

Members of the public provided overwhelming support for the Combined Alternative Package (Preferred Alternative) elements and phasing strategies. Comments indicated that the Combined Alternative Package (Preferred Alternative) is a sustainable transportation solution and best meets the mobility, safety, and system-quality needs of the corridor while minimizing impacts. Some commenters expressed support for Package 1 (No Action) and one comment expressed preference for Package 2.

Package 1 (No Action)

Those in support of Package 1 (No Action) raised questions about the need, cost, and potential impacts of the project. In terms of need, some suggested that existing bus services and planned improvements, such as the Northwest Rail corridor, are the preferred way to meet regional transportation needs. As for impacts, some suggested that that rail service alone would provide the highest air quality benefits. Finally, support for this package came from some Adams County residents concerned about the impacts of highway widening on property.

Package 2 (Managed Lanes/Bus Rapid Transit [BRT])

One comment favored Package 2, citing a preference for the lane design and configuration when compared to the Combined Alternative Package (Preferred Alternative).

Package 4 (General-purpose Lanes, High-Occupancy Vehicle [HOV], and BRT)

No comments were received regarding Package 4.

Combined Alternative Package (Preferred Alternative) (Managed Lanes, Auxiliary Lanes, and BRT)

Most members of the public expressed strong support for the Combined Alternative Package (Preferred Alternative) due to a reduction in impacts when compared to Packages 2 and 4, lowered costs, anticipated transportation benefits, and the collaborative process used to develop the package.

Specific reasons cited for supporting the Combined Alternative Package (Preferred Alternative) included: implementation of a managed lane with priority for BRT and HOVs; on-going Transportation Demand Management (TDM); increased access to the managed lane as a result of implementing buffer-separation versus barrier-separation; travel time savings in the managed lane; construction of the bikeway from Boulder to Westminster; side-loading BRT stations; implementation of the auxiliary lanes between interchanges; reconstruction of deteriorating infrastructure; the approach taken to address Broadway access in Adams County.

Concern with the Combined Alternative Package (Preferred Alternative) was expressed due to a perception that additional general-purpose lanes and auxiliary lanes will encourage an increase of

single-occupant vehicles (SOVs) which could impact air quality and cause congestion. Other concerns with the Combined Alternative Package (Preferred Alternative) included noise impacts in Boulder and property impacts in Adams County.

Other Comments

Phased Implementation and Funding

Members of the public and local jurisdictions expressed both understanding and support for the phased implementation of the US 36 corridor improvements due to funding limitations. Support was also expressed for the Phase 1 elements included in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), such as the reconstruction of the Wadsworth Parkway interchange in Phase 1.

It was requested that only those improvements necessary to implement each phase of the project be constructed. Support was expressed for building specific mitigations, such as sound walls or retaining walls, in tandem with the phased corridor construction improvements.

Support was expressed for a collaborative pursuit of funds between local, state, and federal agencies to advance the implementation of improvements, similar to the Transportation Investment Generating Economic Recovery (TIGER) grant application.

Final Design/Construction Impacts

Members of the public provided numerous comments related to the final design for the US 36 Corridor Project and identified potential construction impacts. Concern included increased noise, dust, and traffic congestion during construction. A desire for Colorado Department of Transportation (CDOT) and Regional Transportation District (RTD) to work to reduce all construction-related impacts was expressed.

Particular attention in final design was requested to minimize impacts for property acquisitions, environmentally sensitive areas, and areas with high visual and aesthetic value. Additional detail was requested to address construction mitigations such as traffic detours, and design issues such as ramp realignments, the elimination or creation of access points, elevation or grade separations, and the verification of the location and aesthetics of final project elements, such as proposed lighting, retaining walls, and sound walls.

Local corridor jurisdictions expressed an interest in working with CDOT on final design issues. Some public stakeholder groups expressed a desire to provide input during final design.

The corridor jurisdictions submitted numerous detailed comments which will be addressed in final design. Section B3, Summary of Final Design Requests by Segment, summarizes these issues by geographical segment of the corridor.

Bus Rapid Transit

Strong support was expressed for BRT service within the US 36 corridor and increased regional service that would tie into the US 36 BRT. Local jurisdictions supported RTD's commitment in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) to provide high quality and high frequency express BRT service to make maximum use of the major transit and transportation investment, the managed lanes. There was also strong support expressed for the features in the Combined Alternative Package (Preferred Alternative) to enhance BRT service, such as ramp metering bypasses for buses, auxiliary lanes and queue jumps.

Although a majority of comments advocated for buses to use the managed lanes as much as feasible, operational concerns were expressed regarding how buses would access the managed lane from

side-loading stations and whether they would run the risk of "getting stuck in traffic," thus increasing travel times when merging into, or through, the general purpose lanes.

Local elected officials expressed support for the decision to include side-loading (or ramp) BRT stations in the Combined Alternative Package (Preferred Alternative), resulting in greater operational flexibility with a lower capital cost, while reducing the overall right-of-way (ROW) required and impacts to resources such as wetlands, open space, and wildlife habitat due to a smaller footprint. However, some expressed concern over the investment in the US 36 BRT, claiming that it does not represent "true BRT" service, since the buses will not operate in an exclusive lane.

Bikeway

Many comments were received from representatives of local governments and cyclists in favor of the US 36 bikeway, exemplifying it as a needed multi-modal transit option. These comments expressed support for anticipated use of the bikeway and claimed it would allow commuters to make inter-corridor connections in addition to trips the distance of the entire corridor. A few comments questioned the number of potential users of the bikeway, the benefits associated with it, and the rationale for including a bikeway in the US 36 Corridor Project.

Strong support was expressed for the need to make connections to local bikepaths and trail systems and to offer grade-separated crossings at major intersections, providing for continuous flow while ensuring safety. Additional safety features requested included a wide bikeway, separation from traffic, undercrossing lighting, and signage at intersections.

Access and/or connections were requested for the US 36 park-n-Rides where feasible, and to not preclude connections to local streets or bikepaths. Examples include, but are not limited to, Cherryvale Road, 88th Street, 112th Avenue, McCaslin Boulevard, Church Ranch Boulevard, 92nd Avenue and Sheridan Boulevard, and Wadsworth Parkway.

Clarification was requested from most local jurisdictions regarding agreements to address future bikeway maintenance. Design details, bikeway grading, and specific alignment options will be addressed in final design.

Noise

A majority of comments submitted regarding the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) noise impacts originated from Boulder residents along US 36 corridor neighborhoods; specifically those on both sides of the highway from Table Mesa Drive to Baseline Road. Almost all of these comments suggested that sound walls for this area extend west past Bear Creek all the way to Baseline Road. Comments also advocated for a reduction in the speed limit for this section to diminish noise impacts associated with vehicle acceleration.

Noise issues were also cited in other areas along the corridor; in several instances, the concern was from residences and other receptors that were too far from US 36 to benefit from the installation of sound walls. Other comments suggested that sound wall mitigations be increased in areas throughout the corridor.

Property Impacts and Acquisition

Comments received about property impacts and ROW acquisitions were primarily from the Adams County Segment and Westminster Segment. Many of the commenters made it known that they are long-term residents or on fixed incomes, and that the experience of being a potentially impacted party as a result of having ROW impacts identified for their property, without providing a definitive timeframe for, or indication of, the formal initiation of the ROW process, has been difficult.

Those impacted inquired about when and how properties would be acquired as a result of the US 36 Corridor Project. Property owners wanted to know when they could expect some certainty to be determined about property acquisition, and how they would be notified about the property acquisition process or how it would take place. Many encouraged CDOT to keep them informed so that they could make decisions about improving or selling their property.

Most commenters in this category advocated for minimizing property impacts and/or avoiding acquisition. A number of comments noted concern for potential reductions in current property values because of the uncertainty of project impacts on their property.

There was support expressed for the Combined Alternative Package (Preferred Alternative) because of the reduced ROW acquisitions when compared to Packages 2 and 4.

Public Involvement

Many comments throughout the corridor and primarily from elected officials, expressed appreciation for the collaborative process in which the Combined Alternative Package (Preferred Alternative) was developed. Community leaders made it clear that they supported the Combined Alternative Package (Preferred Alternative) and were content with the level of agreement reached with their fellow corridor community representatives.

Other comments regarding the public involvement process came from Adams County residents concerned about potential property impacts. The comments urged CDOT to communicate development about property acquisition decisions at the earliest possible time, and to provide specifics regarding when the acquisition process would begin.

I-25 and US 36 Interchange and Local Access to Broadway

Numerous members of the public expressed satisfaction for the way unresolved issues from the *US 36 Corridor Draft Environmental Impact Statement and Draft Section 4(f) Evaluation (US 36 Corridor DEIS*) (US 36 Mobility Partnership 2007) were addressed, in particular the separate study proposed for the Broadway interchange access in Adams County. Adams County and Broadway area stakeholders and representatives expressed gratitude to the US 36 project team for a positive outcome of the issue to address local access to Broadway. Appreciation was expressed for the willingness of CDOT and Federal Highway Administration to engage in a collaborative effort with Adams County and the community members to commit to a future study to reevaluate this issue before taking action.

RTD FasTracks Northwest Rail Corridor

The majority of other comments made reference to the Northwest Rail Corridor Project and preference for rail service over highway improvements due to concerns with additional highway facilities, and a perception that rail service offers greater regional benefits.

Those who commented were critical of resource allocation between rail service (the Northwest Rail Corridor Project) and the US 36 BRT. There was a similar amount of comments expressing preference for one service over the other.

B3
SUMMARY OF FINAL DESIGN REQUESTS BY SEGMENT

B3 SUMMARY OF FINAL DESIGN REQUESTS BY SEGMENT

Final design issues and requests have been identified in the comments bulleted below which were submitted during the *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation (US 36 Corridor FEIS)* (US 36 Mobility Partnership 2009) comment period. Following this list is a narrative description of the comments on final design issues by each area of the corridor.

Commitments were made in Section B5, US 36 Corridor FEIS Response to Comments, to further address the issues identified in these comments during the final design phase of the United States Highway 36 (US 36) corridor improvements. See Section B5 to review the detailed responses to these final design issues and requests.

The comments listed below were sequenced according to the issue-area location along the US 36 corridor from east to west. Corridor-wide issues are listed last.

Adams County and Westminster

- Public-Written 22A, Kay Castillo
- Public-Written 37A, Roger Collier
- Public-Written 15A, Robert Hill
- Jur-Muni 12B/C/D/E/F/I/K/O/T/U/Y, Matt Lutkus, Deputy City Manager for Administration, City of Westminster

Broomfield

- Jur-Muni 3C, Debra Baskett, Transportation Manager, City and County of Broomfield
- Jur-Muni 10C/E/J/L/P/Q/U/V/X, Debra A. Baskett, Transportation Manager, City and County of Broomfield

Superior and Louisville

- Public-Verbal 7A/B, Carl Worthington, Oz Architecture
- Jur-Muni 7D/E/F/I/J, Town of Superior
- Public-Written 61B/E/F/G, Wayne McCreesh, ConocoPhillips
- Org-Group 4E, Anne Haebig, Community Cycles
- Jur-Muni 9H/I/J/P/R/W/X/AA/AG through AP, Charles Sisk, Mayor, City of Louisville

Boulder

- Public-Written 5C, Doris Turner
- Jur-Muni 8B/F/I/J/M, Paul Fetherston, Deputy City Manager, City of Boulder
- State-Fed 4B/G/H/J, Steve Yamashita, Northeast Regional Manager, Colorado Division of Wildlife
- State-Fed 4D, Steve Yamashita, Northeast Regional Manager, Colorado Division of Wildlife

Corridor-Wide Issues

- Org-Group 3B/J, US 36 Mayors and Commissioners Coalition and US 36 Commuting Solutions
- Org-Group 4G, Anne Haebig, Community Cycles
- Org-Group 5G, Bill Roettker, Rocky Mountain Chapter Transportation Chair, Sierra Club
- State-Fed 4B/G/H/J, Steve Yamashita, Northeast Regional Manager, Colorado Division of Wildlife

Adams County and Westminster

Public Comment

- Kay Castillo (Public Written-22A) claimed that the sound wall on the southwest corner of Federal Boulevard (State Highway [SH] 287) and US 36 is ineffective and requested that it be re-built 5 feet higher and that it cover an additional 100 yards to offer more protection from noise.
- Roger Collier (Public-Written 37A) offered design suggestions for the US 36/Federal Boulevard interchange.
- Robert Hill (Public-Written 15A) from Westminster inquired about the inclusion of building the bikeway when the area around West 112th Avenue is improved.

City of Westminster

- The City of Westminster is adamantly opposed to the proposed closure of 88th Place at Sheridan Boulevard. City representatives have consistently voiced objection to this proposal throughout the course of the preparation of the Environmental Impact Statement (EIS). The City of Westminster feels that it is unnecessary for the westbound off-ramp at the Sheridan Boulevard interchange to be designed in such a manner to preclude the preservation of the 88th Place and Sheridan Boulevard intersection, and strongly believes that the elimination of the 88th Place and Sheridan Boulevard intersection would adversely impact many more business establishments than those few that are currently identified in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).
  (See Comment Jur-Muni 12B.)

  Discussion of this item appears on the following pages of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), at a minimum:

  - Volume I – 2.6-35, 3.5-15, 3.6-2, 4.2-22, 4.3-19, 4.6-15, 4.6-30, and 8.4-3 (Table 8.4-1, Mitigation Summary — Phase 1)
  - Volume III, Response to Comments – 64 (Comment Response #14-10)

- The City of Westminster would like to preserve the opportunity for further consideration of the use of earth berms as noise mitigation measures in lieu of the currently proposed sound walls in those areas where sufficient right-of-way (ROW) for the berms could be acquired at no additional cost to future project sponsors (e.g., adjacent to city-owned parcels). The City understands that the installation of berms requires greater ROW than that needed for walls, and appreciates the desire to control ROW costs. However, the City does not wish to be precluded from the potential use of berms for noise mitigation in those areas where the necessary ROW may be donated to future project sponsors. This same comment would apply to those instances in which retaining walls have been proposed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) as a means of controlling ROW costs. Again, the main concern is that walls or fences tend to attract graffiti, and that problem would be eliminated by the use of berms.
  (See Comment Jur-Muni 12C.)

  Discussion of this item appears on the following pages of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), at a minimum:

  - Volume I – ES-16, 4.4-7, 4.6-31, 4.6-35 (Table 4.6-2, Mitigation Measures — Environmental Justice), 4.7-21 through 4.7-23, 4.9-22 (Figure 4.9-7, Parks and Open Space in the Adams Segment — Combined Alternative Package [Preferred Alternative]), 4.9-23 (Figure 4.9-8, Parks and Open Space in the Westminster Segment — Combined Alternative Package [Preferred Alternative]), 4.9-27, 4.11-8 (Table 4.11-4, Project Elements That May Affect Visual Quality),

4.11-11, 4.11-8 (Figure 4.11-F *[Note to City: this figure does not exist in the FEIS]*), 4.26-5, 8.2-13, 8.4-7 (Table 8.4-1, Mitigation Summary — Phase 1), and 8.4-9 (Table 8.4-1)

– Volume III, Response to Comments –55 (Comment Response #14-21)

- The City of Westminster provided input about the details of the future, final design of the bikepath within the boundaries of the City of Westminster. Some of the "details" of the final design are items that the City considers to be extremely important. Among those critical facets of the bikepath design are:

  a. The pedestrian/bicycle discussion states that a bikeway signal is proposed to enable bicyclists to cross 72nd Avenue. The City opposes this since the spacing will not work relative to the existing traffic signal at Raleigh Street and 72nd Avenue. The City plans to realign Bradburn Boulevard to intersect 72nd Avenue at Raleigh Street. As a part of this, a trail connection would be built directly from the realigned Bradburn Boulevard to the Little Dry Creek Trail north of 72nd Avenue.

  b. The bikeway paragraph on page 2.6-37 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) states that access to the bikeway from Sheridan Boulevard would be provided via 88th Avenue. The City would prefer that ramps be installed both on the east and west sides of Sheridan Boulevard directly to the bikeway.

     The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) states that there would be no direct access to the bikeway from 92nd Avenue. The City believes that access needs to be provided to the bikeway from both the north and south sides of 92nd Avenue to serve the surrounding neighborhood. This same comment applies to the need for access from sidewalks on both sides of Church Ranch Boulevard to the bikeway underpass.

     The bikeway is proposed to be routed over the BNSF Railway tracks. The City is not in favor of this alignment. The City proposes that the trail go <u>under</u> the BNSF tracks and be routed through the City's Lower Church Lake Open Space. This alignment is superior to what is proposed for the following reasons:

     i) The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) design puts the bikeway literally less than 5 feet from US 36. The experience would be unpleasant and noisy. Trail maintenance would be difficult with gravel and snow constantly being pushed onto the trail.

     ii) The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) alignment requires bicyclists to unnecessarily gain and lose elevation going up and over the railroad track overpass.

     iii) The alignment through open space would be quieter, safer, and more pleasant.

     iv) An underpass provides more convenient access to <u>both</u> the bus rapid transit (BRT) station and planned commuter rail station at the Shops at Walnut Creek.

  c. The City advocates separating the bikeway much more than the proposed 12 feet where the bikeway abuts City open space. The City welcomes using its open space as a location for the bikeway.

  d. The City does not support the proposed "clover-leaf" design for the US 36 trail at the southeast corner of US 36 and Westminster Boulevard. This design has significant negative and unnecessary adverse impacts on the abutting Hyland Village Project. The City can provide input on alternative alignments that minimize the adverse impacts.
     (See Comment Jur-Muni 12D.)

Discussion of this item appears on the following pages of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), at a minimum:

– Volume I – 2.6-36, 2.6-37, 4.11-8 (Table 4.11-4, Project Elements That May Affect Visual Quality), and 7.6-29 (Figure 7.4-20, Uses of Farmers Highline Canal [Map Identification Number 5JF250 for the Entire Segment, and 5JF250.4 for the US 36 Crossing])

- The City of Westminster does not endorse the currently proposed alignment of the Church Ranch Boulevard eastbound on-ramp. The City recognizes that the construction of this particular ramp will not be included within Phase 1 of the US 36 corridor improvements. However, the City wishes to reserve the right to continue to provide input into this design detail at such time that the final design of these improvements occur. It is the City's belief that the design outlined in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) would adversely affect City open space and unnecessarily destroy a beautiful stretch of Walnut Creek.
(See Comment Jur-Muni 12E.)

Discussion of this item appears on the following pages of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), at a minimum:

– Volume I – 4.14-27, 4.21-23, 4.21-25, and 7.6-14 (Figure 7.4-5, Uses of Big Dry Creek Trail Crossing [Map Identification Number Trail Crossing 2])

- The City believes that proposed stormwater detention pond locations should be modified, as necessary, to maximize the development potential of the remainder parcels.
(See Comment Jur-Muni 12F.)

- The City requests the inclusion of lighting along the highway and within pedestrian underpasses as part of the scope of improvements to the US 36 corridor.
(See Comment Jur-Muni 12I.)

- The City is concerned about the proposed reduction of the length of storage for vehicles making the eastbound 92nd Avenue to northbound Sheridan Boulevard movement. The City believes a third left-turn lane may be necessary to compensate for the proposed loss of vehicle storage.
(See Comment Jur-Muni 12K.)

- In reference to Table 3.6-1, Mitigation Measures – Transportation Impacts, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the City is unclear about what changes in the striping for eastbound 74th Avenue are proposed. City staff feels that four lanes are needed – two left-turn lanes, one through-lane, and one right-turn lane.
(See Comment Jur-Muni 12O.)

- In reference to Figure 4.20-1, Floodplain Information for Streams and Ditches in the Project Area, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the City indicated details that should be noted for final design are that Standley Lake should be shaded to indicate that it exists. Also, there is no mention in the study of a few water features, Pomonio Branch, Dry Creek Ditch No. 2, and Bear Canyon Creek, that appear to cross US 36.
(See Comment Jur-Muni 12T.)

- In reference to Table 4.20-2, Major Watercourse Crossings and Designated Beneficial Uses, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the City indicated details that should be noted for final design are that Segment 1 of Big Dry Creek should be listed in this table. Segment 1 is the main stem of Big Dry Creek, including all tributaries and wetlands from the source to the confluence with the South Platte River, except for specific listings in Segments 4A, 4B, 5, and 6. It is designated "Use Protected" and classified for Aquatic Life Form 2, Recreation P, and Agriculture.

Table 4.20-2 should also contain the affected water quality segments from Table 4.20-3, Affected Water Quality Segments. The City stated that it is confusing that these two tables contain separate information for Big Dry Creek.
(See Comment Jur-Muni 12U.)

- In reference to Appendix C, Section 404(b)(1) Evaluation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the City indicated details that should be noted for final design are that Table 4-1, Parking and Pedestrian Crossings at Transit Stations, indicates that the existing pedestrian (and vehicular) underpass is to be "replaced." The City presumes this should say that the underpass is to be lengthened.
(See Comment Jur-Muni 12Y.)

Broomfield

City and County of Broomfield

- At the November 16, 2009, US 36 Corridor Public Hearing, Debra Baskett, City and County of Broomfield, provided the following verbal comment:

> It's most important to Broomfield to maintain a balance between transportation improvement and property acquisition. You also heard in the presentation that this alternative requires less right-of-way acquisition.
>
> So Broomfield would like to keep that going as we go into the final design of this we'd like to see the right-of-way further minimized so that we can keep the private and public land that we need to grow our communities.
>
> (See Comment Jur-Muni 3C.)

- It is very important to the City and County of Broomfield that ROW impacts to both public and private lands are minimized in final design. The City attached maps to their comment which illustrate their specific comments.
(See Comment Jur-Muni 10C.)

- The City and County of Broomfield requested that the following be addressed in final design:

> Figure 2.6-11 and Table 2.6.-5 describe the access points to the managed lanes. Access points between each interchange on US 36 should continue to be included in the ROD and final design.
>
> (See Comment Jur-Muni 10E.)
>
> Page 4.14-44. Loss of prairie dog colonies. CDOT should abide by Broomfield's prairie dog policy during construction of areas within Broomfield. Please note this in the ROD.
>
> (See Comment Jur-Muni 10J.)
>
> Page 4.21-29 Table 4.21-9. Mitigation Measures. Broomfield generally prefers on-site mitigation for wetlands. We would prefer wetland creation or enhancement in most cases.
>
> (See Comment Jur-Muni 10L.)

Section 4.18 - Utilities

It appears that a few major utilities (i.e., sanitary sewer, reuse water, storm sewer) within the Broomfield Segment have been omitted from the discussion, Table 4.18-3 and Figure 4.18-3. There are also numerous utilities (water, sanitary sewer, storm sewer, irrigation ditches, and water reuse) within the Broomfield Segment that are not shown (diameters less than 24") which need to be taken into consideration during the design and construction of any transportation improvements.

(See Comment Jur-Muni 10P.)

Section 4.20 Water Resources: Water Quality and Floodplains

Surface Water Classifications (4.20-7) – It is anticipated that Rock Creek may be on the 303(d) list in the near future to include selenium (anticipated Spring 2010) and E. coli (anticipated within the next few years). Broomfield must be included in all reviews associated with the Rock Creek stream crossings.

(See Comment Jur-Muni 10Q.)

Wetlands and Other Waters (Section 4.21)

This section acknowledges Community Ditch and the adjacent Interlocken storm water ponds. The realignment of bikeways (Mitigation) should be taken into consideration during design and construction.

(See Comment Jur-Muni 10U.)

Construction-Related Impacts (Section 4.22)

As part of utility relocation, consideration should be given to the installation of utility sleeves under US 36 for future use.

(See Comment Jur-Muni 10V.)

Map 5, Combined Alternative Package, Preferred Alternative and Map 5, Phase 1, there is a full parcel acquisition shown where the bikeway turns south to connect to the existing Zip pathway. This is a developable parcel. In final design the area of right of way should indicate the need for approximately a 20' impact area to accommodate the bikeway. See note on Page 5 of the attached markup. Please modify this in final design.

(See Comment Jur-Muni 10X.)

Superior and Louisville

Public Comment

- Carl Worthington with Oz Architecture commented at the November 18, 2009, US 36 Corridor Public Hearing. He requested that special attention be given in final design to the proposed Superior Town Center owned by George Menkick and Dick Biella. He asked that special attention also be given to flood mitigation for Coal Creek and how that would impact the property. Additionally, he asked that final design considerations for that property be taken into account when planning for the McCaslin BRT station.
  (See Comment Public-Verbal 7A and 7B.)

- Wayne McCreesh, ConocoPhillips, provided the following comments regarding issues that are to be addressed in final design for the ConocoPhillips property in Louisville:
  - "We are in process to redevelop our property which is impacted by the US 36 corridor in many ways. It is important to us that the proposed improvements are constructed with consideration of the plans and investment of the property owners whose land will be affected by the improvements."
    (See Comment Public-Written 61B.)
  - In regards to site impacts resulting from the reconstruction of the west-bound on-ramp from West Flatirons Circle, grading and slope reconstruction will be required to provide the proposed alignment and widening of the on-ramp. Preliminary plans call for significant grading changes for the majority of the site frontage along US 36. This scope of grading as depicted will not be possible once the realignment of the Xcel Energy and the Farmers Reservoir and Irrigation Company ditch change from their current location to the proposed location and elevation. Because of this, other means of slope transition, such as retaining walls, will need to be employed. ConocoPhillips would prefer that any such retaining walls be incorporated into the roadway design so that the walls become a visual component of the road and not the landscape of the ConocoPhillips campus.
    (See Comment Public-Written 61E.)
  - In regards to the alignment of the US 36 bikeway, ConocoPhillips will provide public land along the US 36 edge of its campus to accommodate this. The preferred location of this trail is at the top of the existing slope. This alignment will allow for a more pleasant trail experience away from the highway corridor. It is anticipated that this trail will transition to the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) proposed locations at 88th Street and West Flatirons Circle.
    (See Comment Public-Written 61F.)
  - In regards to the retaining wall at the south end of ConocoPhillips property, Figure 4.9-10, Parks and Open Space in the Superior/Louisville Segment — Combined Alternative Package (Preferred Alternative), of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), suggests that a retaining wall is required just north of US 36 and east of Interlocken Boulevard. There are wetland considerations in this general area that need to be incorporated into the design. Any grading and or retaining walls in this area need to accommodate the existing and proposed uses of this property.
    (See Comment Public-Written 61G.)

- Anne Haebig, Community Cycles, commented that currently, the bike lane on McCaslin Boulevard is interrupted at the US 36 interchange. She suggested improving McCaslin Boulevard bicycle facilities at the US 36 interchange to improve safety for cyclists in that area.
  (See Comment Org-Group 4E.)

Town of Superior

- The Town of Superior requested that the following be addressed in final design:
  - *McCaslin Boulevard Interchange Design* – The proposed change to the interchange is to widen the bridge to accommodate double left turn lanes and not have a northeast loop to access westbound on US 36. The Town of Superior believes the northeast loop would be the best option since it will be less costly than a bridge widening, would entail less traffic disruption on McCaslin during construction and would significantly enhance operational performance.

    Since the McCaslin interchange improvements are not included in Phase I, we have no objections to moving forward with the Record of Decision (ROD) for Phase I. However prior to consideration of the ROD for Phases II or III, we would propose that the US 36 Project Team reconsider the northeast loop.

    Attached is a diagram showing a configuration design that would improve traffic flow, accommodate all grading and drainage issues and not require the displacement of any businesses. US 36 DEIS Comments/Response, pg. 40 – Response to Comment #12-1 (Town of Superior comment regarding NE Loop) states "*...the proposed McCaslin Boulevard interchange accommodates the projected traffic demand and the northeast loop is not necessary. Additionally, it is geometrically challenging to provide, without significant ROW acquisition ...*"

    1. As stated above, the 2035 turning movement projections may be significantly flawed, with the movement that the NE loop would serve increasing only 13%/21% (AM/PM) while other movements increase 100 to 400%.

    2. While the proposed McCaslin interchange design (Figure 4.8-1) may result in overall LOS "C"/"B", the northbound left-turn movement will operate at LOS "E".

    3. With the Preferred Alternative's mainline design of two general purpose travel lanes and a buffer-separated managed lane in each direction, the Northeast Loop can be designed with minimal ROW acquisition (set-back areas and parking lot). It can be designed (see enclosed design) to meet minimum AASHTO standards, including a 30 mph design speed as desired by CDOT. The new westbound off-ramp will require a new separate bridge over Coal Creek which can be designed to be four feet above the 100-year flood elevation.

4. The Northeast Loop would cost about 7 million (in 2009 dollars) or $5 to 10 million less than improvements shown in the proposed interchange design (Figure 4.8-1).

5. The Northeast Loop would not require widening of the McCaslin Bridge over US 36 while providing good overall 2035 Levels of Service (LOS "C" in AM and PM) at the McCaslin/US 36 WB ramp intersection. All individual movements would operate at LOS "D" or better.

6. The Northeast Loop would provide safer operations at the interchange since a major conflict point (NB to WB left-turn vehicle paths crossing SB vehicle paths) would be eliminated.

7. The Northeast Loop would have relatively minor construction impacts and disruption. The major project elements, including the three new bridges and new ramp could be built without affecting current traffic operations.

8. The Northeast Loop improvements could accommodate the bike/equestrian trail connection of McCaslin to Coal Creek recommended in the US 36 FEIS.

(See Comment Jur-Muni 7D.)

– *Manage Lanes* - Implementation Plan for Managed Lanes, Apex Design, December, 2008. This document was not available during the DEIS or Preferred Alternative Committee meetings. There are several issues of concern in this document.

1. No explanation is given of how SOV's will be charged without charging HOV's. Pg. B-21 mentions "occupancy" as a function of side-fire, microwave, or Doppler radar, and/or Alternative Traffic Recorder. No examples are given where such devices are used for tolling applications.

2. Section B-33 on Page B-10 states *"after reconstruction, these on-ramps may contain HOV bypass lanes"*. Pg. 4-53 (Figure 4.8-1) shows these HOV bypass lanes at the McCaslin interchange. The impacts of these bypass lanes have not been considered by the Town. The eastbound HOV bypass lanes may have some implications for Superior Plaza while the westbound HOV bypass lane may have implications for the existing bus stop.

3. Pg. B-8 describes two options for Managed Lane entry and exit. Option 1, with vehicles crossing a single dotted white pavement marking, is what has been generally represented in the Combined Alternative. Option 2, depicted in Figure B-6 on pg B-13, considers parallel access lanes and requires a lane shift for the managed lane and a shoulder (or buffer) width reduction. This raises significant safety issues, especially during icy or snowy conditions.

(See Comment Jur-Muni 7E.)

– *Technical Report Addendum, October, 2009* - Pg 4-52 to 4-58 contain analysis of the McCaslin Boulevard Interchange. Figure 4.8-2 contains existing traffic volumes. Figure 4.8-4 contains 2035 Combined Alternative Traffic volumes.

1. Comparing Figures 4.8-2 and 4.8-4 (see attached figure) shows a radical change in travel patterns at the interchange with traffic oriented to Boulder (west) growing slightly (23 to 80%) while traffic oriented to the east is growing substantially (156 to 484%). While some of this is due to the inherent inaccuracy of the regional model to predict peak-hour turning movements, some of it may be due to the lack of capacity on US 36 west of McCaslin. These questionable traffic forecasts drive the conceptual design of the McCaslin interchange shown on Figure 4.8-1, which includes a nine-lane bridge (compared to the existing six-lane bridge), a dual lane southwest loop, a four-lane eastbound off-ramp. Since the McCaslin interchange improvements are not included in Phase I, it is recommended that the traffic forecasts be updated (including a forecast scenario that is more in line with existing travel patterns) prior to the Record of Decision for Phase II (which would include the McCaslin interchange improvements.

2. The Operations Summary and Table 4.8-1 on page 4-57 indicate that Package 1 (No Action in 2035) will result in LOS "F" at the McCaslin/Westbound Ramp and LOS "E" at the McCaslin/Eastbound Ramp during the AM peak period. In fact, these poor Levels of Service are occasionally being experienced under existing traffic volumes. Since the McCaslin interchange improvements are not included in Phase I (and Phase I would be constructed with the funding available in the 2035 MVRTP as amended – DRCOG, 2009), the existing six-lane bridge configuration would result in these poor Levels of Service for many years.

(See Comment Jur-Muni 7F.)

– *Utilities* – We support the proposed utility issues and concerns addressed in the FEIS. However, we did find an existing emergency overflow sewer line that runs from Coal Creek in Superior under US 36 is not identified on the utility locates section on page 4.18.2.

(See Comment Jur-Muni 7I.)

– *Flood Plain* – The document mentions there is still on-going study addressing the flood plain issues affecting Coal Creek. We need to know the results of this study or any other information you might have to provide comments on the flood plain issues. Absent such information, it is not possible to opine on the affects of this project on adjacent flood plains and wetlands; however, the flood plain should be managed to preclude the need for off-site storage.

(See Comment Jur-Muni 7J.)

City of Louisville

- The City of Louisville requested that the following issues be considered in final design:

In final design and as a safety enhancement the City would like a minimum six foot high barrier considered along the entire bikeway in order to separate the bikeway from the highway.

The City will require fencing between the bikeway and City owned Open Space to prevent trespassing and social trails. This detail can be included during final design.

Please be aware the contractor will need to coordinate their construction activities with the City in order to avoid conflicts with annual events and projects.

(See Comment Jur-Muni 9H/I/J.)

Transit Station Boardings – Section 3.4

Table 3.4-9 reflects an increase in transit use at the McCaslin Station under the Combined Alternative Package (260 to 480), yet Figure 4.8-4 of the Traffic Report does not reflect increase traffic volumes to the McCaslin Station when compared to the no action volumes shown in Figure 4.8-3. In the ROD, please commit to updating traffic counts at the intersection of Dillon Road and McCaslin Blvd to fully capture the impacts associated with BRT implementation and station improvements as well as the addition of the managed lane – and commit to needed mitigation at the intersection in the future.

(See Comment Jur-Muni 9P.)

During design for Phase 2 (includes McCaslin Interchange improvements) the City would like the traffic forecasts updated and reviewed at the intersection of Dillon Road and McCaslin Blvd prior to the ROD.

(See Comment Jur-Muni 9R.)

Table 4.3-17 shows 365 parking spaces for retail and commercial buildings in the McCaslin Boulevard Interchange area to be displaced under the Combined Alternative Package. Details and actions to minimize displacement and disruption should continue through final design and in coordination with the City of Louisville. Please commit to this mitigation in the ROD.

ROW/Acquisitions

Reducing (avoiding and minimizing) the number of property acquisitions required through design modification during final design should be a high priority wherever possible.

(See Comment Jur-Muni 9W and 9X.)

As the FEIS document was unable to provide detailed design information regarding the height of the retaining walls associated with the Combined Alternative within Louisville. The City wishes to be involved in the final design of the retaining walls and work in partnership with CDOT in identifying alternatives which will minimize the visual and aesthetic impacts of the retaining walls.

(See Comment Jur-Muni 9AA.)

The following comments are included for final design of the Combined Alternative and associated phases. Please add this information as a mitigation commitment in the ROD:

All agricultural fences that are removed must be replaced with four strand high tension smooth wire. All non agricultural fences must be replaced with either post or dowel or wildlife friendly high tension sooth wire at the discretion of the Parks and Recreation Department. Furthermore all gates, latches and fence specifications and locations must be reviewed and approved by the Parks and Recreation Department.

All species list (Vegetation and Landscaping) for reseeding, planting and landscaping within the City's right of way must be reviewed and approved by the City.

"Salvaged" top soil from other municipalities will not be allowed for use within the City right of way. "Salvaged" soil locations within the City right of way (for transfer to other locations within the City of Louisville) must be approved by the Parks and Recreation Department before the donation location is impacted.

Hydro mulching is not permitted within the City of Louisville. Erosion control materials and timing of seeding must be in compliance with the City Reclamation Standards.

Tree replacement stock should be two (2) inch caliper and species should conform to native riparian tree species found along the front range of Colorado. Species include plains cottonwood, peach-leaved willow and box elder. Newly planted tree species should receive supplemental water when needed annually for two (2) years after planting.

The City would like the opportunity for further input when appropriate on possible re-vegetation and selection of tree species to enhance the visual and audible benefits to the Coal Creek Golf Course. The extents of impacts to the Coal Creek Golf Course are not yet determined so specifics related to revegetation are unknown at this time.

All plantings and reseeding shall be under a two year maintenance period where CDOT is responsible for watering, herbicide control and other maintenance.

Herbicide records must be submitted to the City of Louisville.

Herbicide use must be in complacence with the City of Louisville Integrated Weed Management Plan

Slopes must not to exceed a 4:1 slope ratio

Construction-Related Impacts

Please be aware equipment staging, project parking and access across City owned Open Space and Parks will not be allowed during construction of the Combined Alternative.

(See Comment Jur-Muni 9AG/AH/AI/AJ/AK/AL/AM/AN/AO/AP.)

Boulder

Public Comment

- Doris Turner from Boulder requested that safety considerations be given to merge lanes for US 36 from Table Mesa Drive to Baseline Road in final design.
  (See Comment Public-Written 5C.)

City of Boulder

- The City of Boulder requested that the following issues be considered in final design:

With the city's overall support as the foundation for the attached comments, it is important as the project team moves forward to correct errors and work toward final design, implementation and operating plans that are consistent with agreements and intentions as they currently stand. The attached comments identify specific areas that are in need of correction and input regarding final design, implementation and operations.

(See Comment Jur-Muni 8B.)

4. **Design Details** - As design moves forward, please work with the city to address design details that are compatible with local facilities. For example, the city requests that there be no lighting in the South Boulder Creek underpass to be sensitive to the high quality wildlife habitat in the surrounding area and to be consistent with the unlit paths that will access this underpass.

(See Comment Jur-Muni 8F.)

7. **Minimize Impacts to Reflect Phasing Plans** - As design advances in phases, please only impact those public and private property areas that are essential for the initial phase of the project. Please pay particular attention to environmentally sensitive areas and areas that have high visual and aesthetic value. Since funding for future phases is not reasonably expected in the foreseeable future (2085 is noted in the FEIS document), clearing and building significant structures that may never need to be built or used would present costly and unnecessary impacts to environmentally, visually and aesthetically sensitive areas. Also, since performance results of the Phase 1 project will help inform where next increments of investment would be needed, it is not clear where or when investments would occur, if at all. As an example, the city requests that the bikeway be placed adjacent to the Phase 1 footprint, rather than placed adjacent to an ultimate footprint that may never occur, resulting in higher costs and greater impacts.

(See Comment Jur-Muni 8I.)

8. **Retaining and Noise Walls** - The City of Boulder is concerned about the visual impact of the retaining walls and noise walls on the west end of the corridor. We ask that the project team use aesthetically pleasing approaches to these structures during project design and construction and that it work with the community on the best design approach for mitigating impacts. While retaining walls may be needed to protect wetlands and other sensitive environmental resources in the vicinity from Cherryvale to Foothills/Table Mesa, there may be other technical solutions that would be more aesthetically pleasing than retaining walls on Davidson Mesa.

(See Comment Jur-Muni 8J.)

11. **Consistency with Local Policies and Regulations** - As design continues and construction plans are developed, please comply with local ordinances and regulations. For example, please be aware that the city's wetland protection regulations require a 2-for-1 mitigation for wetland impacts. The city also has adopted a local wildlife protection ordinance that governs how activities may affect prairie dogs and birds. Both the wetland and wildlife regulations apply to land within the city limits, land owned by the city and to projects that are funded by the city. There is also an Open Space Board of Trustees policy addressing wetland mitigation associated with the transfer of open space property ownership and interest.

(See Comment Jur-Muni 8M.)

Colorado Division of Wildlife

- The Colorado Division of Wildlife (CDOW) requested that the following issues be addressed in final design:

Wetlands, Riparian and Grassland Habitat

Wetlands provide habitat for many species of wildlife. A number of sites providing wildlife habitat for waterfowl are located along the US 36 corridor, specifically in the Boulder segment of the study area. The Combined Alternative Package would permanently impact approximately 24 acres of wetlands and other water features. Introduction and spread of aquatic invasive species is a risk with any construction in wet areas. In addition, clearing of vegetation and earth moving activities on stream banks, construction in streams, alteration of stream channels, and accidental spills may increase suspended soils and affect sedimentation, water temperature, and water flow or quality.

Mitigation Objective

Minimize loss of, and disruption to, vegetation where possible. If loss of vegetation cannot be avoided, replace and/or enhance wetlands and riparian habitat on-site (preferred), or as close as possible to the project area. Contributing to a wetland bank where improvements will be made offsite is CDOW's least preferred option. CDOW generally recommends replacement of trees and shrubs at a 1:1 ratio, however in wetland/riparian areas we recommend a 3:1 ratio.

Strategy

Avoid riparian, wetland and other sensitive areas as much as possible when determining the final project design.

Strategy

Limit construction, staging, stockpiling to areas that do not qualify as wetland habitat. Limit construction period to the fall and winter months when the ditches do not convey irrigation flows.

Strategy

Enhance or restore equivalent areas of riparian habitat. Replace trees and shrubs on-site at the appropriate ratio. Re-seed disturbed areas with suitable native grasses. A plan should be in place to maintain and irrigate these plantings if necessary until they are fully established.

Mitigation Objective

Minimize erosion and run-off into creeks and ditches adjacent to the study area.

Strategy

Silt fencing, erosion logs and temporary berms should be used to prevent degradation of riparian and aquatic habitats. Construction in waterways should be performed during low-flow or dry periods.

Strategy

Use equipment floats, temporary bridging or other appropriate techniques to minimize impact of heavy equipmen on and adjacent to wetlands.

Mitigation Objective

Control and prevent the spread of noxious weeds in the project area.

Strategy
Develop an integrated Noxious Weed Management Plan. Use appropriate biological, chemical, or mechanical weed control practices recommended by Colorado State University, county weed boards, and other weed experts. Reclaim disturbed areas promptly to discourage weed establishment. Weed control is typically an on-going maintenance issue, so a plan should be in place for continued prevention and control of weeds in the study area. Vehicles to be used at the study area should be inspected prior to arriving at the site, and again prior to leaving each day to ensure they are free of soil and debris capable of transporting noxious weeds or seeds. The FEIS states that only certified weed-free mulch and hay bales will be used on the project.

Mitigation Objective
Minimize the risk of introducing or spreading aquatic nuisance species from one water body to another.

Strategy
If heavy equipment to be used for the project has previously been used in another stream, river, lake, pond, or wetland, one of the following disinfection practices is necessary prior to construction to prevent the spread of New Zealand mud snails, zebra mussels, quagga mussels, whirling disease, and any other aquatic invasive species into this drainage. These practices are also necessary after project completion, prior to this equipment being used in another stream, river, lake, pond, or wetland:

- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment a 1:15 solution of Sparquat institutional cleaner and water. Keep equipment moist for at least 10 minutes **OR**
- Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water greater than 140 degrees F for at least 10 minutes.

Clean hand tools, boots, and any other equipment that will be used in the water with one of the above options as well.

(See Comment State-Fed 4D.)

Corridor-wide Issues

Public Comment

- Anne Haebig, Community Cycles, commented that putting the bikeway outside of sound walls increases cyclist safety by improving cyclists' ability to hear and by decreasing their isolation from the surrounding neighborhood. She felt that cyclists will be more likely to use the route if they are protected from noise.
  (See Comment Org-Group 4G.)
- Bill Roettker, Rocky Mountain Chapter Transportation Chair of the Sierra Club, provided comment advocating for Transportation Demand Management (TDM) to be an on-going commitment by CDOT to the US 36 corridor through all future stages of the project.
  (See Comment Org-Group 5G.)

Colorado Division of Wildlife

- CDOW requested that the following issues be addressed in final design:

  Many of the environmental concerns and mitigation strategies contained within the FEIS are reiterated below, along with some additional points the CDOW would hope to see incorporated into this project. In general, the CDOW is in favor of the package that will impact riparian and wetland habitat the least. The CDOW also prefers that all mitigation and replacement of habitat occur on-site, or as close to the project area as possible, rather than acquisition and/or enhancement of habitat off-site.
  (See Comment State-Fed 4B.)

Preble's Meadow Jumping Mouse

The Boulder segment of the US 36 corridor contains important habitat for Preble's meadow jumping mouse (PMJM), and this species is known to occupy stream and ditch crossings under and adjacent to US 36 in portions of the Boulder segment. PMJM habitat connectivity is dependent on riparian zones, as more than 90 percent of movements are within 300 feet of a stream. The Combined Alternative Package anticipates impacting 41.72 acres of habitat.

Mitigation Objective

Minimize direct impacts (death), as well as loss and fragmentation of habitat.

Strategy

Provide travel passage for small mammal movement by installing high water shelves in culverts under US 36.

Strategy

Enhance or restore equivalent areas of riparian habitat. This restoration should occur on-site or at least within the project area. The FEIS acknowledges that the project will result in loss and disruption of PMJM habitat, though proper mitigation in the way of vegetation plan and updated culvert and bridge designs may eventually improve mouse habitat and connectivity.

Strategy

Use silt fencing or similar visible barriers to discourage the death of mice during construction. Limit construction to the non-active season (November through March) in occupied or potentially occupied habitat, although hibernating animals may be crushed by earth moving activities.

Strategy

Replace habitat in a manner that fills in the gaps between currently fragmented habitat areas.

(See Comment State-Fed 4G.)

Raptors and Other Birds

The area adjacent to US 36 provides raptor habitat, including nesting and hunting sites for birds of prey. The FEIS states that 22 raptor species are known or likely to occur in the project area. Raptors are sensitive to human intrusion, especially at nest sites. The prey base (example black-tailed prairie dogs and other small mammals) for bald eagles, ospreys and other raptors may be impacted by this project. In addition, there may be bald eagle winter night roost sites along the project corridor. The vegetation along the US 36 corridor also provides habitat for a variety of songbirds. Raptors and other birds may face additional risk from vehicle collisions due to a wider highway and higher traffic volume.

Mitigation Objective:

Identify and protect the nests and roost sites of raptors and other birds.

Strategy: Identify known raptor nests and conduct baseline inventories to search for additional nests on a yearly basis. Comply with the Migratory Bird Treaty Act.

Strategy: Identify possible bald eagle winter night roost sites and avoid disturbance to the extent possible. The FEIS states that if individual trees important for raptor perching are removed, they will be replaced in a 1:1 ratio, and/or artificial perches may be erected until newly planted trees mature.

Strategy: At a minimum, use CDOW buffer recommendations around raptor nests. These recommendations are attached to this comment letter. The FEIS states that coordination with CDOW will occur if active nests are found.

Strategy: To the extent possible, avoid vegetation removal or earth-moving activities during the raptor courtship and nesting season, December through August. If these activities must occur during the nesting season for a given species, all vegetation slated for disruption should be carefully inspected prior to construction to ensure that no active bird nests are being disturbed or destroyed. Proactively discourage nesting activities for birds like swallows on bridges slated for demolition. We appreciate the intent to survey for barn owl and bobolink nests in riparian habitats.

(See Comment State-Fed 4H.)

As you move forward with this project please feel free to contact us if we may be of further service. District Wildlife Manager Claire Sechrist will continue to be our primary field person for this project. She may be reached at 303-291-7142 or via email claire.sechrist@state.co.us

(See Comment State-Fed 4J.)

The US 36 Mayors and Commissioners Coalition and 36 Commuting Solutions

- The US 36 Mayors and Commissioners Coalition and 36 Commuting Solutions requested that as design advances, CDOT consider the following:

As design advances in phases, please only impact those public and private property areas that are essential for the initial phase of the project. Please pay particular attention to environmentally sensitive areas and areas that have high visual and aesthetic value. Since funding for future phases is not reasonably expected in the foreseeable future (2085 is noted in the FEIS document), clearing and building significant structures that may never need to be built or used would present costly and unnecessary impacts to environmentally, visually and aesthetically sensitive areas. Also, since performance results of the Phase 1 project will help inform where next increments of investment would be needed, it is not clear where or when investments would occur, if at all. As an example, the U.S. 36 coalition requests that the bikeway be placed adjacent to the Phase 1 footprint, rather than placed adjacent to an ultimate footprint that may never occur, resulting in higher costs and greater impacts.

(See Comment Org-Group 3B.)

Mitigation

In final design, please ensure sound walls and other mitigation efforts will only be built in tandem with the corridor construction improvements. Due to the aesthetic beauty of the adjacent land, vista mountain views surrounding area the corridor, there is a strong desire to maintain the aesthetic character of our corridor.

(See Comment Org-Group 3J.)

B4
CLARIFICATION AND DETAIL FOR COMMON COMMENTS

B4 CLARIFICATION AND DETAIL FOR COMMON COMMENTS

If you do not see a response within the following general response sections below as it relates to your comment, see the individual response provided in the United States Highway 36 (US 36) Corridor Final Environmental Impact Statement (FEIS) Response to Comments section.

General Responses

Air Quality/Emissions/Human Health

Impacts to air quality resulting from the proposed project have been analyzed and documented in Section 4.12, Air Quality, of the *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (*US 36 Corridor FEIS*) (US 36 Mobility Partnership 2009). The air quality analysis shows that operation of the project would not cause significant air quality impacts, and that future emissions would stay within levels that are considered to be acceptable under the U.S. Environmental Protection Agency (USEPA) standards.

Temporary air quality impacts would result during construction. Dust and erosion would occur from earthwork and construction. Increased air emissions from construction would also occur, but would be minor. These temporary impacts are documented in Section 4.22, Construction-related Impacts, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). Colorado Department of Transportation (CDOT) follows practices to mitigate, or lessen, air quality impacts during construction. These mitigation measures are discussed at the end of Section 4.12, Air Quality, and Section 4.22 of the *US 36 Corridor FEIS*.

Construction in the US 36 corridor would be phased due to the size of the project and funding constraints. Construction would be implemented in phases that would occur many years from one another.

Research into the health impacts of Mobile Source Air Toxics (MSATs) is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with negative health outcomes through epidemiological studies (frequently based on emission levels found in occupational settings), or that animals demonstrate negative health outcomes when exposed to large doses. There have been other studies and papers that suggest MSATs have health impacts. However, noting that unresolved issues still remain, the Health Effects Institute, a non-profit organization jointly funded by USEPA and industry, has undertaken a major series of studies to determine whether MSAT hot spots exist, and what the health implications are if they do. The final summary of these studies is not expected to be completed for several more years.

Bikeway

<u>Bikeway Development/Support</u>
The alternative packages for the US 36 Corridor Project were developed in response to the assessment of transportation needs identified in the US 36 corridor as part of the public scoping process. A range of alternatives was considered to address the various transportation needs. Bicycle and pedestrian facilities were identified as a supportive element that would be included in any of the build packages, specifically in response to Need #4, Expand Mode of Travel Options, in the project Purpose and Need.

The alignment of the bikeway was developed through the engineering process and the subsequent evaluation of impacts.

An Alternative Modes Working Group, consisting of representatives from local governments in the corridor and members from the bicycling community, provided input in the development of the bikeway, including the specific bikeway alignment and the need for it to be a continuous bikeway facility.

The US 36 bikeway is envisioned as a regional commuter facility. The design for the bikeway includes grade-separated crossings (underpasses/overpasses) where it crosses over or under major cross-streets for most of the corridor. At Bradburn Boulevard, the bikeway transitions away from US 36 to on-street facilities before it connects to the existing Little Dry Creek Trail. Full access/connections are not provided at every cross-street or existing trail. Connections are provided at the US 36 park-n-Rides, at major interchanges (e.g., Wadsworth Parkway, McCaslin Boulevard, etc.), and at some existing trails where necessary (e.g., trails used to transition from one side of US 36 to the other). Future additional connections to the bikeway would not be precluded.

Bikeway Maintenance

For bikeway maintenance, CDOT's draft procedural directive 1602.1 (August 17, 2009), Bike and Pedestrian, states that "bikeways, which are adjacent to or are an integral part of state highways, including the shoulder area, and which are not separated by a physical barrier from that portion of the highway used by motor vehicles, shall be maintained by the Department of Transportation." This kind of bikeway is not proposed as part of the Combined Alternative Package (Preferred Alternative).

Additionally, the draft procedural directive states that "bikeways within the ROW of controlled-access state highways will be maintained by the Department, except where a maintenance agreement provides otherwise," and that "responsibilities for operation, maintenance, and policing of facilities in CDOT ROW shall be determined and outlined prior to construction of such facilities." For portions of the bikeway located within CDOT right-of-way (ROW), details about maintenance will be negotiated through an Intergovernmental Agreement (IGA) with the various US 36 corridor local jurisdictions.

Finally, "all bikeways other than those defined above shall be the maintenance responsibility of others." The portions of the bikeway located outside of CDOT ROW will be the responsibility of the jurisdictions.

Support for Anticipated Use

Bicycle and pedestrian facilities were identified as a supportive element that would be included in any of the build packages. Representatives from local governments in the corridor and members from the bicycling community provided input in the development of the bikeway.

Trails in the Denver metropolitan area, including the C-470 and Cherry Creek bikepaths, exemplify the need for multi-modal options. This facility would support travelers that would like to make trips along the entire corridor and have inter-corridor connections.

Additional Access to the Bikeway

The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) outlined locations for bikeway connections and crossings (see Table 2.6-6, Bikeway Crossings and Connections of the *US 36 Corridor FEIS*) throughout the corridor. Local jurisdictions can create connections between their facilities and the US 36 bikeway. Where the bikeway may pass near local bikepaths, jurisdictions can apply for federal or other funding, and required permits to complete these connections. Examples include but are not limited to Cherryvale Road, 88th Street, 112th Avenue, McCaslin Boulevard, Church Ranch Boulevard, 92nd Avenue, Sheridan Boulevard, and Wadsworth Parkway.

Safety

The bikeway is intended to be a separate transportation facility along US 36. CDOT is considering safety in all design aspects of the bikeway. This could include bikeway widths, separation from traffic, undercrossing lighting, signage, and crossings. In final design, these safety aspects will continue to be refined.

Combined Alternative Package (Preferred Alternative)

Support for the Combined Alternative Package (Preferred Alternative) and the Preferred Alternative Committee Process

This response pertains to comments or questions about how the Preferred Alternative was developed and advanced from the Draft Environmental Impact Statement (DEIS). It also describes the Preferred Alternative Committee (PAC) process, how public comment and feedback from the DEIS were considered, and the collaborative effort which took place among the corridor jurisdictions to reflect public input.

The Combined Alternative Package (Preferred Alternative) is responsive to comments received during the DEIS comment period, which identified public and agency interest in minimizing community and environmental impacts and reducing project costs, while providing increased mobility improvements throughout the US 36 corridor (see Volume III, Response to DEIS Comments, of the *US 36 Corridor FEIS* [US 36 Mobility Partnership 2009]).

Following the DEIS public comment period, the PAC was formed to respond to public and jurisdiction comments. The PAC, a 21-member group comprised of agency representatives, elected officials, and technical staff from local jurisdictions, first convened in January 2008. The purpose of the PAC was to recommend a Preferred Alternative for inclusion in the FEIS. The PAC members represented the following jurisdictions and agencies:

- Adams County
- Boulder County
- Jefferson County
- City and County of Denver
- City and County of Broomfield
- City of Westminster
- City of Louisville
- City of Superior
- City of Boulder
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- CDOT
- Regional Transportation District (RTD)
- USACE (U.S. Army Corps of Engineers)
- 36 Commuting Solutions

The PAC participated in a collaborative process to consider public comments received, evaluate corridor elements, identify a Preferred Alternative, and outline implementation phases.

In July 2008, the PAC recommended a multi-modal transportation solution known as the Combined Alternative Package to be advanced through the National Environmental Policy Act of 1969 (NEPA) process. This package was recommended as the Preferred Alternative in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).

Construction Phasing

The intent of the US 36 Corridor Project is to build what it can in the ultimate configuration as early phases are prepared and constructed. Sound and retaining walls will be built in conjunction with roadway

improvements. In construction areas, an approach would be to build the sound wall before constructing the roadway elements; to protect the public from additional construction noise.

Another intent would also be to consider building a few extra feet of roadway width, if it is economically feasible to do so and would aid in traffic flow during construction. However, the project will not build the auxiliary lanes widths in the first phase nor any of the bus-only lanes until the triggers are met (as described in the *US 36 Corridor FEIS* [US 36 Mobility Partnership 2009]). Although the project will minimize "throw-away" pieces that are not built at the ultimate locations, the project will consider building retaining walls in interim locations, if the ROW or impact savings (such as business, residence, endangered species, or wetlands impacts) of that action outweigh the cost of those walls.

Pursuit of Future Funding

This response describes CDOT's and RTD's approach to finding funding for the Combined Alternative Package (Preferred Alternative) for Phase 1 and future phases.

CDOT and RTD are committed to working with the corridor jurisdictions and other local partners to pursue funding opportunities for the implementation of project improvements. The Executive Summary (page ES-25) of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) explains the current funding commitment from CDOT and RTD to implement Phase 1, and explains the approach for the implementation of future phases.

Final Design

During the final design process, CDOT coordinates efforts with local jurisdictions to review project plans and provide input. Public stakeholders can stay involved by communicating and coordinating through their local jurisdictions.

During the Environmental Impact Statement (EIS) process, project design is usually only taken to 5 or 10 percent of final design. Refinement of this design occurs after a Record of Decision (ROD) is prepared, signed, and funding is identified. Additional details are developed during final design, such as constructability, traffic detours, elevation resolution, and further minimization of impacts. These refinements include input from the associated jurisdiction during the final design process where ramp realignments, retaining wall use, impacts (such as ROW), avoidance or minimization, and verification of final project element locations can occur.

Retaining Walls

The retaining wall locations may be placed in areas to minimize impacts to adjacent properties or environmental resources and may not be in the ultimate location of the Combined Alternative Package (Preferred Alternative) if the impact savings is more important than the added cost that would be incurred by building a retaining wall twice. It is most favorable to build these walls in their ultimate location but such decisions will be made on a case-by-case basis during final design.

Right-of-way

ROW parcels identified in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) as partial acquisitions (as shown with blue shading in Appendix A, Corridor Reference Maps, of the *US 36 Corridor FEIS*), where the occupant can remain but a small part of the land would be acquired, would be further verified during final design, and in some cases, the acquisition may be avoided altogether. Sometimes these partial acquisitions are for permanent easements where the state would need access to a feature, such as the sound wall, in order to maintain it. Sometimes a partial acquisition is for a temporary easement that would be required during construction but not after construction is complete. The full acquisitions (as shown with red shading in Appendix A of the *US 36 Corridor FEIS*) are more likely to be total property acquisitions, even with project refinement.

I-25/Broadway Interchange

The Interstate 25 (I-25)/Broadway interchange is depicted in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) as having a system-to-system ramp from southbound I-25 to westbound US 36. This would eliminate the existing ramp from southbound I-25 and the westbound US 36 off-ramp to Broadway that currently exist. These improvements are not proposed as part of Phase 1, the proposed action covered in this ROD.

This interchange configuration is based on a 1985 Environmental Assessment, which was updated in 1998, and an Interstate Access Request (IAR) for the I-25/US 36/I-270/I-76 interchange, which was prepared in 1990. During the EIS and PAC process, Adams County and local stakeholders raised concerns about the elimination of local access at Broadway. Impacts associated with the proposed closure are presented in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). Based on public comments, potential impacts, and the length of time that has elapsed between the Finding of No Significant Impact (FONSI) and IAR for this action, the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) recommends that prior to any construction occurring at the I-25/Broadway interchange, a separate study be undertaken. This study would evaluate local access in the area and reevaluate the proposed federal action of closing access, prior to a final determination on local access to the interstate(s) for this area.

<u>Pecos Street Safety</u>
The access to Broadway, and the associated increase in traffic on Pecos Street, will not change until after an additional study has been conducted regarding this and other concerns in the area. Additionally, this action is not anticipated to occur until Phase 3, as described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). However, if vehicular/pedestrian safety is a current concern on Pecos Street, this matter is under Adams County jurisdiction.

NEPA Process and Alternatives Evaluation

<u>Project Study Area</u>
The physical limits of the US 36 FEIS are from I-25 in Adams County to Foothills Parkway/Table Mesa Drive in Boulder. These limits were considered to meet the following criteria:

- Connect logical termini and be of sufficient length to address environment matters on a broad scope.
- Have independent utility or independent significance (i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

While the FEIS focused on the physical limits stated above, improvements and impacts beyond these limits were considered in the FEIS. For example, bus service into Denver Union Station (DUS) and the Boulder Transit Center were evaluated as part of the alternatives analysis. Also, rail improvements in this area are being considered as part of the *Northwest Rail Corridor Environmental Assessment/ Environmental Evaluation* (RTD [In process]).

<u>Multi-modal Alternatives in the US 36 Corridor</u>
The US 36 FEIS provides information about the anticipated air quality impacts, transportation benefits, climate change impacts, and safety impacts. The Combined Alternative Package (Preferred Alternative) includes numerous elements that will encourage travel through modes other than the single-occupant vehicle (SOV). The managed lane will result in express bus and high-occupancy vehicle (HOV) travel times that are as much as 28 minutes faster than general-purpose lane traffic. Also included are increased and enhanced bus service, queue jumps and bus ramp metering bypass lanes, the corridor bikeway, and

measures to reduce travel demand, all of which will serve to provide a competitive alternative to automobile travel.

Alternatives Evaluation

The alternatives evaluation process used for the NEPA process is described in Chapter 2, Alternatives Considered, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The requirements for considering alternatives are defined in Council on Environmental Quality's (CEQ) regulations, as described in 40 Code of Federal Regulations (CFR) 1502.14: "Agencies shall rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." CEQ guidance provides a definition for reasonable alternatives as those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. "Fast" trains were examined and dropped from detailed evaluation because they were not considered practical and feasible, as described on page 2.2-5 of the *US 36 Corridor FEIS*.

Benefits of the Combined Alternative Package (Preferred Alternative)

The Combined Alternative Package (Preferred Alternative) as described in Chapter 2, Alternatives Considered, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) will only marginally increase air pollution compared to Package 1 (No Action). The Combined Alternative Package (Preferred Alternative) increases air pollution the least among the build packages. For more on air quality impacts, see Section 4.12, Air Quality, of the *US 36 Corridor FEIS*.

The Combined Alternative Package (Preferred Alternative) will provide a faster way of commuting between Denver and Boulder for the managed-lane users when compared to the general-purpose lane users and Package 1 (No Action). In addition, due to the 28 minutes in travel time savings in the managed lane, bus rapid transit (BRT) in the Combined Alternative Package (Preferred Alternative) is projected to increase corridor bus boardings by 200 percent when compared to Package 1 (No Action).

Noise

The general noise response addresses common issues, concerns, and questions related to noise issues.

Impacts

Noise impacts resulting from the proposed project have been analyzed and documented in Section 4.13, Noise, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). Noise levels were measured at residences within 200 feet of the US 36 corridor to evaluate the worst-case conditions. Residences located greater than 200 feet from the alignment are generally considered second or third row receivers (i.e., they are blocked by other residences or buildings). It is agreed that noise from US 36 can be heard from long distances; however, noise mitigation, including sound walls, is not effective at such distances.

When future noise levels would exceed CDOT's noise abatement criteria (NAC), mitigation, such as sound walls, will be provided if it is reasonable and feasible to do so, and would depend on the sound wall effectiveness compared to the number of people it would benefit. Many areas of the US 36 corridor have existing sound walls that would be replaced after construction, and new sound walls are proposed in some areas.

Sound Walls/Maintenance

The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) identified several areas as being eligible for noise mitigation. During final design, details such as height, length, placement, end points, wraps, aesthetics, and absorption will be determined. It should be noted that the sound walls are not designed to reduce noise levels to a certain level, such as 66 decibels (A-weighted scale) (dBA). They are designed to provide a 5 to 10 dBA of reduction, which is generally feasible.

In keeping with CDOT procedures regarding agreements for the maintenance of walls, an IGA will be prepared with local agencies during final design regarding the handling of graffiti on walls that are along CDOT ROW. These walls shall be maintained by the state on the highway side, and by the local agency on the local agency side (at no cost to the state). Graffiti on walls and concrete surfaces shall be painted over with paint conforming to approved federal color numbers or removed by power washing (following applicable Colorado Department of Public Health and Environment (CDPHE) or local agency power washing guidelines for how to handle the wastewater and paint chips). Graffiti on control cabinets, poles, signs, etc., shall be removed by power washing or painted over with a paint that matches the color of the original surface.

Boulder Noise Concerns – Table Mesa Drive to Baseline Drive
The US 36 corridor extends between I-25 in Adams County and Foothills Parkway/Table Mesa Drive in Boulder County. The CDOT noise analysis procedures are consistent with FHWA regulations and require the noise analysis to be conducted within a 500-foot study zone in all directions if sensitive receivers are present. Extending the study area 500 feet along US 36 from the end of roadway improvements (west of Foothills Parkway/Table Mesa Drive), allows for noise mitigation for receptors beyond the project limit. Noise studies west of Bear Creek are outside of this 500-foot noise evaluation area and therefore do not meet CDOT criteria for noise mitigation consideration from this project.

Reduce Speed Limits
CDOT Region 4, the City of Boulder, and the Martin Acres Homeowner's Association (HOA) representative are working together to evaluate whether or not the 65 miles per hour speed limit is appropriate for the portion of US 36 between Baseline Road and Table Mesa Drive. This process includes field studies of the current speeds, along with safety data and other items. This study is being done in compliance with the *Manual for Uniform Traffic Control Devices* (FHWA 2009) requirements for setting speed limits. Information from this study is not yet available, but contact can be made with the CDOT Region 4 engineer in charge of this corridor at (303-757-9011), the Martin Acres HOA, or the City of Boulder Transportation Department for more information.

Public Involvement

Ongoing Involvement
This is a general response to address comments regarding how to stay informed about the US 36 corridor improvements through construction.

To stay informed about US 36 corridor design and implementation of improvements now that the FEIS is complete, the following sources are available for the latest information:

- Visit the CDOT website for current information about the project and improvements: www.dot.state.co.us
- Visit the RTD website for current information about the project: www.RTD-FasTracks.com
- Get involved with 36 Commuting Solutions: www.36commutingsolutions.org
- Contact your local government representative
- Contact the CDOT Public Relations Office:
  4201 East Arkansas Avenue
  Denver, CO 80222
  303-757-9228
  info@dot.state.co.us

There is an ongoing commitment from CDOT and RTD to inform the public about Phase 1 design and implementation, as well as subsequent construction phases. A public involvement strategy will be put in place for the project's implementation/construction stages.

Throughout all phases of project implementation, CDOT and RTD will work with local jurisdictions. Following the implementation of Phase 1 improvements, CDOT and RTD will continue to work with the jurisdictions to determine and prioritize what elements of the remaining phases will be implemented.

Notification During the EIS
This response applies to the comments received where people asked how the public was involved, or if they claim to have never been contacted.

To learn about the ways in which corridor stakeholders have been involved in the US 36 EIS, please reference Chapter 6, Public Involvement Program, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), and/or the *Public Involvement Program Technical Report Addendum* (CDR Associates 2009). These resources document how and when the public was contacted, how stakeholders were involved, and what kind of feedback was provided from the public to the project.

Potentially impacted stakeholders were identified and the project team made repeated attempts to contact these stakeholders. Section 6.5, Continuous Outreach and Communication, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) describes the different strategies implemented by the project team to communicate with the public throughout the corridor. Additionally, the public involvement process included early identification and ongoing coordination and communication with property owners along the corridor to inform and update them of project developments.

Right-of-way

Environmental Impact Statement Process: Minimization of Impacts
The project team has worked to minimize and avoid property acquisitions throughout the EIS process. With the design of the Combined Alternative Package (Preferred Alternative), the project team reduced ROW acquisitions by approximately 70 percent compared to Packages 2 and 4; however, some property acquisitions would still be required.

Project Phasing
As described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the project has been divided into three phases (Phase 1, Phase 2, and Phase 3). ROW acquisitions for each phase would be dependent on funding and approval for that phase since property cannot be acquired until there is a ROD.

The US 36 Corridor ROD covers Phase 1 of the project, which has funding identified through 2035 (future RODs will cover later phases). The impact footprints in Appendix A, Corridor Reference Maps, of the *US 36 FEIS* (US 36 Mobility Partnership 2009) should be reviewed to determine if a property would be impacted by Phase 1. The impact footprints in Appendix A are worse-case impacts based on conceptual level design of the Combined Alternative Package (Preferred Alternative). It is possible that some impacts may be further minimized as the design of the Combined Alternative progresses.

As a result of the phasing process, retaining walls built in earlier phases may or may not be built at their final locations. For example, in areas where constructing a retaining wall in its complete build-out location would result in additional impacts to environmental resources (such as wetlands or floodplains), the retaining walls would be constructed for the limits of the respective phase. Retaining walls would be constructed at their complete build-out location in areas where there would not be additional impacts to environmental resources compared to the phased location.

Notification and Timing of Acquisition

Throughout the EIS process, the project team has worked to include project stakeholders on the mailing and distribution lists. Project newsletters, mailings, public meeting information, and other notifications have been sent to stakeholders as documented in Chapter 6, Public Involvement Program, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).

When funding for a project formally materializes and the design of the transportation improvements is advanced to the point where ROW impacts are specifically identified, a written notice of intent to acquire will be delivered or sent to the impacted parties. Such notice will include detailed illustrations of the boundary of each affected ownership and the portion of such ownership that will be acquired. Such notice will also identify CDOT's central point of contact for the acquisition process and an advisement of certain statutory rights afforded to impacted parties. Delivery of this notice will officially start the ROW acquisition and relocation (if applicable) process. Federal and state statutes and regulations require CDOT to allow affected parties a reasonable period of time to constructively work through the ROW acquisition and relocation (if applicable) processes. It is difficult to predict when such formal notices will be delivered.

CDOT understands that it is difficult for impacted parties to have ROW impacts identified in the FEIS without providing a definitive time frame for the formal initiation of the ROW process. In an attempt to address this uncertainty, impacted parties can contact the CDOT Region 6 Right-of-way Manager, a position currently occupied by Greg Jamieson, at 303-757-9917, and inquire as to when formal ROW acquisition process for a certain property is predicted to begin.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

The acquisition of real property interests will comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), and the Fifth Amendment of the United States Constitution. The Uniform Act applies to all acquisitions of real property and displacements of people resulting from federal or federally-assisted programs or projects.

CDOT understands that many of the residents living near the US 36 corridor, especially on the eastern end, are long-term residents or residents on fixed incomes. CDOT recognizes that there is a sensitive population in this community and, as a result, this population may need special relocation assistance through the process.

Property Improvements Prior to Acquisition

If a homeowner invests in remodeling, it will very likely increase the value of the property and increase the amount that CDOT pays for the property when it is acquired, since CDOT pays fair market value. Fair market value is usually increased by remodeling and other upgrades. However, the amount of increase is never dollar for dollar. For example, if a homeowner spends $5,000 to upgrade a bathroom, this action may increase the fair market value $1,000 to $4,000 or so, but it is doubtful that it will increase it $5,000 or more. So, owners considering remodeling need to think about it two ways: (1) from a financial investment perspective (i.e., what will the return be on their investment); and (2) from a quality of life perspective (i.e., if the property would not be acquired for a few years, the homeowner may use and enjoy the remodel in the time frame between the investment and CDOT's acquisition). This intangible benefit may have meaning beyond financial investment depending on the timing of the acquisition. For additional information on timing, please contact the current CDOT Right-of-way Manager, Greg Jamieson, at 303-757-9917.

Transit-related

This general response addresses common issues, concerns, and questions identified in transit-related comments.

Barrier versus Buffer Separation

The comments received from the DEIS indicated that the public wanted more access to the managed lane than what the barrier-separated lane could offer. The bus service plan that RTD is planning to use will result in the need for buses to move from the general-purpose lanes to the managed lane and back, but this would likely occur at the beginning and end of trips, and not between every BRT station. Ultimately, local buses that are planned to stop at every station will likely use the auxiliary lanes which are being added between interchanges as part of the Combined Alternative Package (Preferred Alternative) (Phases 2 and 3), rather than the managed lane.

BRT Service

RTD is committed to providing high quality and high frequency express bus service on US 36. A part of this commitment is to make maximum use of the major transit and transportation investment, the managed lanes. Express buses that leave from Boulder heading eastbound will use the managed lanes as much as feasible, subject to the drivers' discretion. This may mean that buses leaving Table Mesa Drive traveling eastbound will get into the managed lanes at Cherryvale Road and stay there all the way to Denver. It may mean that express buses will stop to pick up passengers at McCaslin Boulevard, but then enter the managed lanes as soon as is feasible, and again, stay there all the way to Denver. Other express bus service may be initiated at the McCaslin or Flatiron stations. Then those buses would also enter the managed lanes as soon as feasible and stay there all the way to Denver. This language has been added to the ROD.

Median versus Ramp Bus Rapid Transit

The project team prepared an analysis of the tradeoffs between median BRT stations and side loading (or ramp) stations. The analysis found that there could be a 1- to 3-minute savings in express bus time traveled for the median stations when compared to the ramp stations. The median stations would, however, cause a much greater ROW requirement, impacting residential and business properties as well as resources (such as wetlands, parks, and wildlife habitat). The ramp stations provide for greater operational flexibility than the median stations and support increased service throughout the corridor (and not just for the end-to-end trips). In addition, the capital cost for median stations is much greater than for the ramp stations. For these reasons, the local elected officials in the corridor and at CDOT and RTD have recommended a package that does not include median stations.

It is anticipated that most buses will not get "stuck in traffic" because of a proposed flexible bus operating plan which designates some buses to run the entire length of the corridor in the new managed lane without stopping (except at the beginning and end of trips), while others will initiate at a particular BRT station and then move into the managed lane. For buses that stop at a particular BRT station, the Combined Alternative Package (Preferred Alternative) will include ramp metering bypasses for buses, and auxiliary lanes and special lanes (called queue jumps) for buses to proceed in front of mixed traffic to avoid a long queue at a traffic signal.

Resource Allocation Between Rail Service and US 36 Bus Rapid Transit

The decision to pursue both rail and BRT in the US 36 corridor was made and documented in the *Major Investment Study* (RTD 2001), and in the public vote on the *FasTracks Plan* (RTD 2004). Rail provides a competitive travel time to automobile travel times in the future, as does BRT. From the Boulder Transit Village, rail passengers will take approximately 43 minutes to get to DUS, BRT passengers will take 36 minutes, and an automobile traveler using the US 36 general-purpose lanes will take 53 minutes. The rail stations will provide opportunities for transit-oriented development (TOD). Rail serves different travel markets than BRT, including travel to and from Longmont, Louisville, East Boulder, Gunbarrel,

and South Westminster. Rail provides an alternative transportation choice for travelers extending beyond the US 36 corridor and depending on its timing, will provide a relief to construction on US 36. Rail also provides an opportunity to extend north to Loveland and Fort Collins, thereby laying the foundation for a statewide rail system.

Northwest Rail Corridor Issues Regarding Speed of Travel

The Northwest Rail Corridor was placed adjacent to the BNSF Railway line, which was constructed to minimize grade climbs and descents so it does not take the most direct route between Denver and Boulder just by virtue of the distance covered.

B5
US 36 CORRIDOR FEIS RESPONSE TO COMMENTS

B5 US 36 CORRIDOR FEIS RESPONSE TO COMMENTS

The responses to comments received during the Final Environmental Impact Statement (FEIS) comment period are provided below.

COMMENT	RESPONSE
STATE/FEDERAL	
State-Fed 1	**Response to Comment State-Fed 1:** **[A]:** Concurrence noted. **[B]:** Colorado Department of Transportation (CDOT) agrees with State Historic Preservation Officer's (SHPO) comments and recommendation. This change is reflected in the Record of Decision (ROD). **[C]:** The undiscovered archaeological measures suggested here have been adopted into CDOT's book of specifications and is included on all projects, including the United States Highway 36 (US 36) Corridor Project. Section 4(f) *de minimis* acknowledgement has been noted. **[D]:** Per Appendix E, Section 106 Programmatic Agreement, of this ROD, CDOT will make sure that SHPO is involved with the project and any undertakings as the project moves forward.

State-Fed 1_SHPO

Date Received:	12/14/2009	Name:	Office of Archaeology and Historic Preservation, Edward Nichols, SHPO
Source:	Mailed Letter		

OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION

December 3, 2009

Jim Paulmeno
Region 6 Planning and Environmental Manager
Colorado Department of Transportation, Region 6
2000 South Holly Street
Denver, CO 80222

Re: Comments on US 36 Final Environmental Impact Statement (FEIS); Section 106 Determinations of Effect for Historic Properties. (CHS #41960)

Dear Mr. Paulmeno,

Thank you for your correspondence dated October 28, 2009 and received by our office on October 30, 2009 regarding the consultation of the above-mentioned project under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (Section 106).

A After review of the provided information, we concur with the recommended findings of effect under Section 106 for the properties included in the Chapter 4 analysis. However, we do not concur with the finding of effect for the property listed below.

B
- 5AM.1806/Advent Evangelical Lutheran Church. In our opinion, a finding of no adverse effect [36 CFR 800.5(b)] under Section 106 is more appropriate than the recommended finding of no historic properties affected [36 CFR 800.4(d)(1)]. The highway is moving closer to the historic property and a new noise wall will be installed. In our opinion, the "pavement creep" and construction of the noise wall will have an affect on the historic property; however, that effect would not be adverse.

C If unidentified archaeological resources are discovered during construction, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CRF 60.4, in consultation with this office. We acknowledge that FHWA intends to make a *de minimis* determination in respect to the requirements of Section 4(f).

D We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. If we may be of further assistance, please contact Amy Pallante, our Section 106 Compliance Manager, at (303) 866-4678.

Sincerely,

Edward C. Nichols
State Historic Preservation Officer

COLORADO HISTORICAL SOCIETY
1300 Broadway Denver Colorado 80203 Tel 303/866-3395 Fax 303/866-2711 www.coloradohistory-oahp.org

COMMENT	RESPONSE
State-Fed 2 **State-Fed 2_DRCOG.doc** Date Received: **12/14/2009** Source: **E-mail** Name: **Denver Regional Council of Governments (DRCOG), Steve Cook, Manager, MPO Planning Program** Memorandum To: Jane Hann, CDOT and Gina McAfee, RTD Re: Comments from DRCOG staff on the US-36 FEIS Thank you for the opportunity to provide comments on the US-36 FEIS. Our comments are as follows: A 1. General overall: There should be a clearer explanation and consistent reference to DRCOG's "Fiscally Constrained 2035 Regional Transportation Plan" (FC 2035 RTP) (suggest using this term in many applicable places throughout the document). Introduce up front in Executive Summary, and at start of other chapters. B 2. Page ES-11: Here and on other maps, some station names are not consistent with current RTD document station names. C 3. Page ES-24, 2nd paragraph (and page 8.3-1): "The first phased ROD will be consistent with projects **and funding** currently identified in the **Fiscally Constrained 2035 RTP** ~~Element of the 2035 MVRTP~~ . . . ." May also want to note in these sections that a plan amendment may be required to reflect changes related to funding level for specific projects. D 4. Page ES-25: Consider breaking up the third full paragraph in two, or with bullet points. E 5. Section 8.1: Here and elsewhere (e.g. 5.3), language should not imply that the $711.1 in the F-C 2035 RTP is designated specifically for the "preferred alternative". The funds are designated to the specific locations and projects identified in the FC 2035 RTP at that rough funding level. The funds listed also include those already programmed in FY 2008-09. The RTP may need to be amended if changes are made to specific projects (as defined in the RTP as regionally significant) or funding levels. In 8.1 It is not correct to say that the "first phase will be constructed with 2035 MVRTP." It would be more appropriate to state something like "The current FC 2035 RTP identifies a level of funds for regionally significant projects within the corridor, which could be used for the first phase . . An amendment to the plan (with associated conformity determination) may be required." F 6. If it is not mentioned in the document (e.g. on page 8.2-8), there should be some reference to the operational impacts (or even if there are not any) of the proposed new US-36 managed lanes on the N. I-25 Express Lanes and on the endpoint along 19th Street in Downtown Denver. It is not clear in Table 8.2-1 G 7. Table 8.2-1: Could this table be rearranged to provide an easier cross-comparison to Table 5.3-1, either in descriptive elements, or funding amounts. Or clearly note that the RTP may need to be amended if projects deviate from those described in Table 5.3-1.	**Response to Comment State-Fed 2:** **[A]:** The clarification of the Denver Regional Council of Government (DRCOG) *Fiscally-constrained 2035 Regional Transportation Plan* (DRCOG 2009) title has been made in the ROD. **[B]:** The US 36 Corridor Project uses the FasTracks station names as identified in the original *FasTracks Plan* (RTD 2004). Since that plan, some station names have been updated. The *Northwest Rail Corridor Environmental Assessment/ Environmental Evaluation* (In Process) now uses the following station names: IBM Diagonal is called Gunbarrel; 116th is called Broomfield/116th; Church Ranch is called Walnut Creek; and South Westminster is called South Westminster/71st. **[C]:** The reference to this document has been noted in the ROD as you have suggested. Funding exists in the *Fiscally-constrained 2035 Regional Transportation Plan* (DRCOG 2009) for the projects identified as Phase 1 for the Combined Alternative Package (Preferred Alternative). As you suggest, adjustments to the level of funding in the fiscally-constrained plan for specific projects may be needed as final cost estimates are developed. **[D]:** This suggestion does not change the meaning of the information in the *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (*US 36 Corridor FEIS)* (US 36 Mobility Partnership 2009), and while your suggestion reads easier than what was in the FEIS, no correction is necessary in the ROD. **[E]:** Funding exists in the *Fiscally-constrained 2035 Regional Transportation Plan* (DRCOG 2009) for the projects identified as Phase 1 for the Combined Alternative Package (Preferred Alternative). As you suggest, adjustments to the level of funding in the fiscally-constrained plan for specific projects may be needed as final cost estimates are developed.

COMMENT	RESPONSE
	Response to Comment State-Fed 2: **[F]:** Section 3.5.7, Impacts of Bus Rapid Transit Operations in Downtown Denver and Central Boulder, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), discusses the operational impacts in these areas. Chapter 2, Alternatives Considered, of the FEIS describes the number of additional buses that would use the Interstate 25 (I-25) express lanes for each package. These additional buses and operational changes are included in Phase 1. **[G]:** As you suggest, adjustments to the level of funding in the fiscally-constrained plan for specific projects may be needed as final cost estimates are developed. In Table 5.3-1, US 36 Projects in 2035 Fiscally-constrained Regional Transportation Plan, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), except for the specified interchanges (McCaslin Boulevard, Sheridan Boulevard, and Wadsworth Parkway) and bikeway funding amounts, the managed bus rapid transit (BRT)/high-occupancy vehicle (HOV) lane estimated cost from Foothills Parkway to I-25 covers the remaining elements of Phase 1.

COMMENT	RESPONSE
State-Fed 3	**Response to Comment State-Fed 3:**

State-Fed 3_EPA_pg1

Date Received: **12/14/2009** Source: **Emailed Letter**	Name: **United States Environmental Protection Agency, Region 8, Larry Svoboda, Director, NEPA Program, Office of Ecosystems Protection and Remediation**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

DEC 14 2009

Ref: 8EPR-N

Federal Highway Administration
Colorado Division
Attention: Monica Pavlik
12300 W. Dakota Ave., Suite 180
Lakewood, CO 80228

Re: Comments on the US 36 Corridor Final Environmental Impact Statement
CEQ # 20090366

Dear Ms. Pavlik:

The U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the United States Highway 36 (US 36) Corridor Final Environmental Impact Statement (EIS), prepared by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) in cooperation with the Colorado Department of Transportation (CDOT) and the Regional Transportation District (RTD). The Final EIS identifies and evaluates impacts of multi-modal transportation improvements in the US 36 Corridor. This corridor follows an existing highway alignment between Interstate 25 (I-25) in Adams County and Foothills Parkway/Table Mesa Drive in Boulder, a distance of approximately 18 miles. Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. It is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project.

A Preferred Alternative Committee (PAC) identified a combined alternative package as the Preferred Alternative for the US 36 Corridor based on comments received on the Draft EIS. The primary elements of the Combined Alternative Package include one buffer-separated managed lane in each direction, Bus Rapid Transit (BRT) ramp stations, and auxiliary lanes between most interchanges. The Final EIS also discusses three alternatives analyzed in the Draft EIS: Package 1, the "no action" alternative; Package 2, which provides two managed lanes in each direction in the median of US 36 with median BRT stations; and Package 4, which provides one median BRT/High Occupancy Vehicle (HOV) lane in each direction with median BRT stations and one additional general-purpose lane in each direction. All three build packages also include a bikeway and alternative transportation strategies.

COMMENT	RESPONSE
State-Fed 3 (continued) **State-Fed 3_EPA_pg2** Date Received: **12/14/2009** Source: **Emailed Letter** Name: **United States Environmental Protection Agency, Region 8, Larry Svoboda, Director, NEPA Program, Office of Ecosystems Protection and Remediation** A EPA appreciates the response to our comments on the Draft EIS provided in Volume III of this Final EIS. We thank you for the clarification to our questions regarding the impacts associated with the US 36 bikeway alignment as well as potential impacts to traffic in Boulder. We also thank you for the explanation of mitigation to replace parking lost at the McCaslin BRT station. However, we note that in Section 3.5.8 Impacts of Transit Patron Parking the mitigation measures are proposed for consideration during final design. We recommend that commitment to mitigate parking losses be included in the Record of Decision (ROD) for the project. B Air Quality In Section 4.12 Air Quality, it is unclear if emissions of re-entrained road dust particulate matter less than 10 microns in diameter (PM_{10}) were included with the tailpipe estimated PM_{10} emissions as presented in Tables 4.12-3, 4.12-4 and 4.12-5. Communications with FHWA and CDOT have confirmed that estimated re-entrained road dust PM_{10} emissions were not included in these tables. For purposes of full public disclosure in the Final EIS, the re-entrained road dust PM_{10} emissions should have been included, as those emissions are typically significantly greater than the tailpipe PM_{10} emissions component. We recommend a clarification of this issue be included in the ROD. The section titled "Comparison to Another Location with Similar Characteristics" on pg. 4.12-17 presents some confusion regarding average daily traffic (ADT) used in the PM_{10} hotspot qualitative analysis. We suggest including in the ROD a clarification of which ADT figure (196,000 peak ADT or 155,000 average ADT) was used to compare estimated PM_{10} concentrations at the US 36 / I-25 intersection to measured concentrations at 1050 South Broadway. We note that it does appear that estimated PM_{10} emissions will be below the National Ambient Air Quality Standard for either ADT figure. EPA is pleased to see the addition of a discussion of Climate Change Cumulative Effects in the Final EIS. We do recommend, however, that Mobile Source Air Toxics and Greenhouse Gas issues are not confused by discussing them both in the same section despite their mutual inclusion in CDOT's Air Quality Policy Directive. We are also interested in engaging in further communication regarding possible additions to this discussion for the purposes of future NEPA documents. C Water Quality Thank you for the explanation that the design of water quality treatment facilities has accounted for needed water quality capture volumes for the entire project. We have reviewed the *Conceptual Drainage Analysis* (CH2M Hill, 2009) and agree that the Tier 1 best management practice (BMP) requirements from the CDOT New Development and Redevelopment Program are met. EPA acknowledges that the Preferred Alternative will likely improve water quality in the project area relative to Package 1, due to implementation of BMPs for reducing water quality impacts. However, long-term improvement in water quality requires that BMPs continue to perform at their design capacity throughout the life of the project. We recommend that monitoring and maintenance for BMP performance be provided for in the ROD. 2	**Response to Comment State-Fed 3:** **[A]:** Comment noted. CDOT and RTD also commit to mitigating impacts to transit patron parking losses in the ROD. **[B]:** 1) In response to your request to clarify road dust emissions in the ROD, CDOT is providing the following explanation for road dust as a particulate matter less than 10 microns in size (PM_{10}) emission. Road dust emissions were not included as part of the PM_{10} emission estimates shown in Tables 4.12-3 through 4.12-5 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The PM_{10} emission estimates referenced in these tables only reflect the emissions burden analysis, which was created to evaluate each package's tailpipe emissions based on differences in vehicle miles traveled (VMT) for each of the packages, not to evaluate PM_{10} emissions against an air quality standard. The comparisons among packages are still valid (i.e., none of them include road dust). Furthermore, the packages' emission estimates do not affect the PM_{10} hot-spot analysis; the PM_{10} analysis is qualitative and does not rely on the emission estimates. Since there are no requirements to perform this type of air quality burden analysis as part of the National Environmental Policy Act of 1969 (NEPA) air quality analysis, it is difficult to judge whether disregarding road dust emissions as part of an essentially voluntary emissions analysis represents a deficiency or not. Because the road dust emissions are directly proportional to VMT, the difference in PM_{10} dust emissions among packages is expected to be directly proportional to the differences in VMT among the packages. 2) In response to your request to clarify which traffic volumes were used to compare the estimated PM_{10} concentrations to the measured concentrations at 1050 South Broadway, CDOT is providing the following explanation for additional clarity in this comparison. The traffic units documented within the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) are average daily traffic (ADT), not VMT, estimates. Upon further review, it appears that the 155,000 ADT represents the average traffic volume over the entire project corridor. However, this information is not important to the conclusions of the hot-spot analysis. The hot-spot analysis was evaluated with the higher volume 196,000 ADT at the peak location along the corridor (near the intersection of US 36 and I-25). While this traffic volume is about 10 percent higher than the 180,000 ADT being referenced near the South Broadway monitor, the important detail of this qualitative comparison is that this monitor is recording PM_{10} values that are half of the standard or less.

COMMENT	RESPONSE
	Response to Comment State-Fed 3: Even if all of the PM_{10} impacts at this monitor came from mobile sources, a 10 percent increase in emissions would not lead to a violation of the standard because of this project being constructed. The PM_{10} hot-spot conclusions were based on the peak 196,000 ADT and not the lower 155,000 average ADT. In reference to page 4.12-17 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) (specifically, the fourth paragraph of "Comparison to another Location with Similar Characteristics" subsection), given the fact that the PM_{10} values at the comparative monitoring station are far below the PM_{10} standard, the small traffic increase would not be expected to lead to a PM_{10} violation. **[C]:** CDOT has developed a new permanent best management practice (BMP) monitoring program that provides maintenance to these features for the life of the project, as required by CDOT's Municipal Separate Storm Sewer System (MS4) permit. As CDOT learns more about these BMPs and how they are performing at certain locations, more about how often these facilities need maintenance will be known. At a minimum, these facilities will be monitored annually. CDOT believes this will meet your request for monitoring and maintenance for BMP performance.

COMMENT	RESPONSE
State-Fed 3 (continued) **State-Fed 3_EPA_pg3** Date Received: **12/14/2009** Source: **Emailed Letter** Name: **United States Environmental Protection Agency, Region 8, Larry Svoboda, Director, NEPA Program, Office of Ecosystems Protection and Remediation** D Preferred Alternative Similar to the concern we presented for Package 4 during the Draft EIS, we are concerned that the Preferred Alternative, with only one additional managed lane in each direction and auxiliary lanes added between most intersections, will not encourage a mode shift from single-occupant vehicle to other forms of transportation such as carpools and BRT. We recognize the number and complexity of issues balanced by the PAC in developing the Combined Alternative Package/Preferred Alternative. We also acknowledge that impacts to many resources have been reduced for the Preferred Alternative relative to those of Package 2 or 4, due to the decreased right-of-way width allowed by selecting ramp and side-loading stations for BRT rather than median stations. However, EPA questions whether the use of BRT stations to the side of the road, rather than median stations, will decrease the appeal of BRT as an option for short trips along the corridor. E EPA remains concerned that, without access to managed lanes as provided in Packages 2 and 4, All Stops buses may not be able to provide adequate time savings over general traffic to attract passengers. The travel time for All Stops buses under the Preferred Alternative will be 35 percent greater than for Package 2 or 4. For most of the US 36 Corridor, All Stops buses will travel in the auxiliary lanes, at the same pace as general traffic. We recognize that Table 3.4-9 *Weekday Bus Rapid Transit Daily Boardings* predicts increased ridership for many intermediate stations for the Preferred Alternative over the other packages, however, it is unclear to what extent the modeled bus ridership depends on other differences in bus service among the alternatives. We are pleased to see the addition of queue jumps and ramp meter bypasses to reduce overall delay for the buses. EPA recommends further consideration be given to additional traffic mitigation measures that will ensure efficient BRT service for passengers travelling only a portion of the US 36 Corridor. EPA appreciates the opportunity to review the Final EIS for the US 36 Corridor. If you have any questions on the comments provided in this letter, please contact me at 303-312-6004, or you may contact Molly Brodin of my staff at 303-312-6577. Sincerely, Larry Svoboda Director, NEPA Program Office of Ecosystems Protection and Remediation 3 Printed on Recycled Paper	**Response to Comment State-Fed 3:** **[D]:** While a mode shift would be desirable, one element of the Purpose and Need is to provide multi-modal options to the travelling public. As fuel prices rise, the shift of riders from single-occupant vehicles (SOVs) to multi-modal options will occur, as was observed in 2007 and 2008 by CDOT and RTD staff. Additionally, during traffic studies conducted for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) after the *US 36 Corridor Draft Environmental Impact Statement and Draft Section 4(f) Evaluation (US 36 Corridor DEIS)* (US 36 Mobility Partnership 2007) was prepared, a propensity for shorter local trips along the corridor was noted. In an attempt to help support this short-trip need and provide for ingress/egress safety of buses and the general public with the general-purpose lanes, the auxiliary lanes were added to the project to facilitate these short trips and transitions, which should make these kinds of short bus trips more appealing. The use of ramp BRT stations instead of median stations does increase travel time by approximately 9 minutes for All Stops (local) buses. However, this is still 17 minutes faster than automobile traffic using the general-purpose lanes in Package 1 (No Action) (see Table 3.4-10, Transit Operations Comparison Eastbound from Boulder to Denver Union Station [Horizon-Year] in the *US 36 Corridor FEIS* [US 36 Mobility Partnership 2009]). While these times are for a trip from Boulder to Denver Union Station (DUS), CDOT and RTD believe the addition of auxiliary lanes will facilitate short trips throughout the corridor, such as those made by All Stops buses. To further improve bus travel time when using the ramp stations, the Combined Alternative Package (Preferred Alternative) includes queue jumps at intersections and HOV bypass lanes at ramp meters. **[E]:** As seen on I-25 auxiliary lanes, the travel in these lanes is usually at a free-flow condition, even when the general-purpose lanes are congested. The short trips in the corridor are better facilitated with a side-ramp station rather than a median station.

COMMENT	RESPONSE
State-Fed 4 **State-Fed 4_ColoradoDivisionofWildlife_pg1** Date Received: **12/14/2009** Source: **Mail** Name: **Division of Wildlife, Steve Yamashita, Northeast Regional Manager** STATE OF COLORADO Bill Ritter, Jr., Governor DEPARTMENT OF NATURAL RESOURCES **DIVISION OF WILDLIFE** AN EQUAL OPPORTUNITY EMPLOYER Thomas E. Remington, Director 6060 Broadway Denver, Colorado 80216 Telephone: (303) 297-1192 wildlife.state.co.us For Wildlife- For People December 14, 2009 US 36 Mobility Partnership c/o CDR Associates 100 Arapahoe Avenue Suite 12 Boulder, Colorado 80302 Re: US 36 CORRIDOR FINAL ENVIRONMENTAL IMPACT STATEMENT COMMENTS To Whom It May Concern: Thank you for forwarding the CD containing the above referenced project to the Colorado Division of Wildlife (CDOW) for review. In this letter you will find our comments and suggestions. United States Highway 36 (US 36) corridor is an existing highway alignment, approximately 18 miles long, between Interstate 25 and Foothills Parkway/Table Mesa Drive in Boulder. The US 36 Corridor Final Environmental Impact Statement (FEIS) indicates a need for improvements and updates to this highway, which include increasing trip capacity, expanding access, relieving congestion, expanding mode of travel options, increasing efficiency of transit service, and updating outdated highway facilities. This project would be phased over time as additional funding becomes available. The FEIS was prepared jointly by the Federal Highway Administration, Federal Transit Administration, Colorado Department of Transportation, and the Regional Transportation District. A The US 36 Corridor FEIS lists four viable alternatives for consideration, described as "Packages". These packages were developed to address goals of the project, which included improving transportation through and within the US 36 corridor, minimizing adverse environmental impacts, supporting future land use and development patterns, cost-effectiveness and efficiency. Three of the Packages involve the widening of the US 36 corridor to varying degrees. **Package 1: No Action** No major widening of the corridor, but includes planned and committed improvements to Park-n-Rides, new transit facilities as contained in the FasTracks Program, a bridge replacement and other extensions and adjustments. **Package 2: Managed Lanes + Bus Rapid Transit** Managed lanes are a set of lanes separated from the general purpose lanes that buses and high occupancy vehicles (HOVs) use at no cost. Single occupant vehicles may use these lanes for a fee. This package proposes two managed lanes in each direction for much of the corridor (I-25 to McCaslin), but no additional general purpose (open to all types of vehicles) lanes. Bus Rapid Transit stations would be constructed in the highway median. A bikeway would also be constructed adjacent to US 36. **Package 4: General Purpose Lanes + High Occupancy Vehicle Lanes + Bus Rapid Transit** One additional general purpose lane would be added in each direction for much of the corridor (I-25 to McCaslin). Additionally, one managed Bus Rapid Transit/HOV land would be added. Bus Rapid Transit stations would be constructed in the highway median. An adjacent bikeway would be built. DEPARTMENT OF NATURAL RESOURCES, James B. Martin, Executive Director WILDLIFE COMMISSION, Brad Coors, Chair • Tim Glenn, Vice Chair • Dennis Buechler, Secretary Members, Jeffrey Crawford • Dorothea Farris • Roy McAnally • John Singletary • Mark Smith • Robert Streeter Ex Officio Members, James B. Martin and John Stulp	**Response to Comment State-Fed 4:** **[A]:** Comment noted.

COMMENT	RESPONSE
State-Fed 4 (continued) State-Fed 4_ColoradoDivisionofWildlife_pg2 Date Received: 12/14/2009 Name: Division of Wildlife, Steve Yamashita, Northeast Regional Manager Source: Mail A **Combined Alternative Package (Preferred Alternative)** This option combines elements of Packages 2 and 4. It was developed in response to Draft EIS comments. The Combined Alternative Package intends to maximize transportation operations while minimizing environmental impacts. One managed lane in each direction would be added from Federal Blvd to Cherryvale. Bus Rapid Transit stations would be constructed. Auxiliary lanes (lanes formed at the addition of a highway on-ramp that terminate at the next interchange off-ramp) would be constructed between most interchanges. A bikeway would be constructed adjacent to US 36. All of the action alternatives will have similar impacts to wildlife and wildlife habitat, and will require permanent acquisition of property from either the north or south side of US 36. The FEIS states that the Combined Alternative Package (Preferred Alternative) will have slightly fewer environmental impacts than would Packages 2 and 4, as less overall land will need to be acquired and converted. The Combined Alternative Package will directly impact 367 acres of wildlife habitat, while Package 2 will impact up to 383 acres, and Package 4 will impact up to 382 acres. Mitigation strategies will be similar for all packages. CDOW appreciates the thorough evaluation of impacts to wildlife contained in this proposal and agrees that mitigation strategies incorporated will adequately address impacts. B Many of the environmental concerns and mitigation strategies contained within the FEIS are reiterated below, along with some additional points the CDOW would hope to see incorporated into this project. In general, the CDOW is in favor of the package that will impact riparian and wetland habitat the least. The CDOW also prefers that all mitigation and replacement of habitat occur on-site, or as close to the project area as possible, rather than acquisition and/or enhancement of habitat off-site. C The FEIS also states that agencies involved with this project recognize the importance of an ongoing monitoring program for both habitat restoration and evaluation of the response of target wildlife species to mitigation measures. CDOW encourages the development of a monitoring program to ensure that mitigation strategies are properly employed and maintained for maximum effectiveness. D ***Wetlands, Riparian and Grassland Habitat*** Wetlands provide habitat for many species of wildlife. A number of sites providing wildlife habitat for waterfowl are located along the US 36 corridor, specifically in the Boulder segment of the study area. The Combined Alternative Package would permanently impact approximately 24 acres of wetlands and other water features. Introduction and spread of aquatic invasive species is a risk with any construction in wet areas. In addition, clearing of vegetation and earth moving activities on stream banks, construction in streams, alteration of stream channels, and accidental spills may increase suspended soils and affect sedimentation, water temperature, and water flow or quality. **Mitigation Objective** Minimize loss of, and disruption to, vegetation where possible. If loss of vegetation cannot be avoided, replace and/or enhance wetlands and riparian habitat on-site (preferred), or as close as possible to the project area. Contributing to a wetland bank where improvements will be made offsite is CDOW's least preferred option. CDOW generally recommends replacement of trees and shrubs at a 1:1 ratio, however in wetland/riparian areas we recommend a 3:1 ratio. **Strategy** Avoid riparian, wetland and other sensitive areas as much as possible when determining the final project design. **Strategy** Limit construction, staging, stockpiling to areas that do not qualify as wetland habitat. Limit construction period to the fall and winter months when the ditches do not convey irrigation flows. **Strategy** Enhance or restore equivalent areas of riparian habitat. Replace trees and shrubs on-site at the appropriate ratio. Re-seed disturbed areas with suitable native grasses. A plan should be in place to maintain and irrigate these plantings if necessary until they are fully established.	**Response to Comment State-Fed 4:** **[B]:** Comment noted. In addition to avoidance and minimization measures identified in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), CDOT and the Regional Transportation District (RTD) commit to avoiding and minimizing impacts as much as possible/practicable during final design. This includes riparian, wetland, and other sensitive areas. Mitigation commitments are contained in the ROD. **[C]:** Monitoring of long-term effectiveness of mitigation measures is a good idea and can be part of the contingencies considered during the phasing of a project as you suggest. The final mitigation rule for wetland mitigation already addresses this to some degree, but looking for other opportunities to apply this kind of monitoring is a sound practice. CDOT would like to request that agencies partner with us to help gather information over the long-term to ensure lessons learned and BMP improvements can be incorporated as the phased projects progress. This kind of commitment, with your partnership, has been included in the ROD as clarification. **[D]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) commits to avoiding and minimizing impacts as much as possible/practicable during final design. This includes riparian, wetland, and other sensitive areas. Riparian habitat replacement would be covered under standard mitigation through the Senate Bill (SB) 40 Certification process with the Colorado Division of Wildlife. A detailed plan for this mitigation would be included in the application for SB 40 Certification. This certification will be applied for during final design. BMPs, such as silt fencing, erosion logs, and temporary berms, are standard CDOT construction/water quality BMPs that would be developed as part of the Storm Water Management Plan during final design. With regard to equipment floats, temporary bridging, and other techniques to minimize the impact of heavy equipment on and adjacent to wetlands, the US 36 Corridor Project will implement all practicable measures to avoid and minimize impacts to wetlands. Specific measures will be developed during final design. A Noxious Weed Management Plan would be developed during final design, and specific measures for controlling the spread of noxious weeds would be included in that plan through the SB 40 process.

COMMENT	RESPONSE
State-Fed 4 (continued) State-Fed 4_ColoradoDivisionofWildlife_pg3 Date Received: 12/14/2009 Name: Division of Wildlife, Steve Yamashita, Northeast Regional Manager Source: Mail D continued **Mitigation Objective** Minimize erosion and run-off into creeks and ditches adjacent to the study area. **Strategy** Silt fencing, erosion logs and temporary berms should be used to prevent degradation of riparian and aquatic habitats. Construction in waterways should be performed during low-flow or dry periods. **Strategy** Use equipment floats, temporary bridging or other appropriate techniques to minimize impact of heavy equipment on and adjacent to wetlands. **Mitigation Objective** Control and prevent the spread of noxious weeds in the project area. **Strategy** Develop an integrated Noxious Weed Management Plan. Use appropriate biological, chemical, or mechanical weed control practices recommended by Colorado State University, county weed boards, and other weed experts. Reclaim disturbed areas promptly to discourage weed establishment. Weed control is typically an on-going maintenance issue, so a plan should be in place for continued prevention and control of weeds in the study area. Vehicles to be used at the study area should be inspected prior to arriving at the site, and again prior to leaving each day to ensure they are free of soil and debris capable of transporting noxious weeds or seeds. The FEIS states that only certified weed-free mulch and hay bales will be used on the project. **Mitigation Objective** Minimize the risk of introducing or spreading aquatic nuisance species from one water body to another. **Strategy** If heavy equipment to be used for the project has previously been used in another stream, river, lake, pond, or wetland, one of the following disinfection practices is necessary prior to construction to prevent the spread of New Zealand mud snails, zebra mussels, quagga mussels, whirling disease, and any other aquatic invasive species into this drainage. These practices are also necessary after project completion, prior to this equipment being used in another stream, river, lake, pond, or wetland: • Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment a 1:15 solution of Sparquat institutional cleaner and water. Keep equipment moist for at least 10 minutes **OR** • Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water greater than 140 degrees F for at least 10 minutes. Clean hand tools, boots, and any other equipment that will be used in the water with one of the above options as well. E ***Black-Tailed Prairie Dog*** Black-tailed prairie dogs are colonial burrowing rodents that occupy grassland habitats in the project area. They are considered to be a "keystone" species, as many raptors and small mammals like foxes and coyotes use them as a food source, and other species (example burrowing owls, mice, snakes, toads) use abandoned burrows to nest or den. Fragmentation of prairie dog colonies will not only adversely affect the prairie dogs, but also the many species that depend on them. The Combined Alternative Package will impact 57 acres of prairie dog habitat. **Mitigation Objective** We would recommend following State and local guidelines for black-tailed prairie dog avoidance and mitigation. **Strategy** This project will follow Colorado Department of Transportation's state-wide policy on black-tailed prairie dog mitigation. This policy involves four progressive steps: 1) Avoidance of impacts 2) Minimization of impacts 3) Relocation 4) Humane removal of prairie dogs from burrows. Prairie dogs will be donated to a black-footed ferret recovery or raptor feeding program. Prairie dogs may be relocated or taken from burrows year-round; however, CDOW discourages capture during March, April, and May, when young are not weaned and are still in burrows.	**Response to Comment State-Fed 4:** **[E]:** Comment noted. These strategies are part of CDOT's Impacted Black-tailed Prairie Dog Policy.

COMMENT	RESPONSE
State-Fed 4 (continued) **State-Fed 4_ColoradoDivisionofWildlife_pg4** Date Received: **12/14/2009** Name: **Division of Wildlife, Steve Yamashita, Northeast Regional Manager** Source: **Mail** E (continued) If capture of adults takes place during these months, it should be followed by euthanasia on the remaining pups to minimize starvation. F ***Burrowing Owl*** The Combined Alternative Package anticipates impacting 63 acres of burrowing owl habitat. Burrowing owls are commonly found in prairie dog towns throughout Colorado. Burrowing owls require prairie dog or other suitable burrows (e.g. badger) for nesting and roosting. Burrowing owls are migratory, breeding throughout the western United States, southern Canada, and northern Mexico and wintering in the southern United States and throughout Mexico. Federal and state laws prohibit the harming or killing of burrowing owls and the destruction of active nests. It is possible to inadvertently kill burrowing owls during prairie dog poisoning projects, removal of prairie dogs, or during earth moving for construction. Because burrowing owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to prairie dog poisoning/removal or construction activity. Because of this, the Colorado Division of Wildlife recommends surveying prairie dog towns for burrowing owl presence before potentially harmful activities are initiated. **Mitigation Objective** Identify and protect the active nests of burrowing owls, and identify and protect burrowing owls that are otherwise utilizing the project area between March 15 and October 31. **Strategy** CDOW recommends that surveys should be conducted to determine if burrowing owls are present between March 15 and October 31. This is an expanded time period from what the FEIS stated, and encompasses the time that burrowing owls are expected to be in Colorado each year. As burrowing owls use prairie dog burrows for nesting, roosting and hiding from potential predators, it should be assumed that these birds could be present in or around burrows outside of the typical nesting season. The standard survey protocol is attached for your use. G ***Preble's Meadow Jumping Mouse*** The Boulder segment of the US 36 corridor contains important habitat for Preble's meadow jumping mouse (PMJM), and this species is known to occupy stream and ditch crossings under and adjacent to US 36 in portions of the Boulder segment. PMJM habitat connectivity is dependent on riparian zones, as more than 90 percent of movements are within 300 feet of a stream. The Combined Alternative Package anticipates impacting 41.72 acres of habitat. **Mitigation Objective** Minimize direct impacts (death), as well as loss and fragmentation of habitat. **Strategy** Provide travel passage for small mammal movement by installing high water shelves in culverts under US 36. **Strategy** Enhance or restore equivalent areas of riparian habitat. This restoration should occur on-site or at least within the project area. The FEIS acknowledges that the project will result in loss and disruption of PMJM habitat, though proper mitigation in the way of vegetation plan and updated culvert and bridge designs may eventually improve mouse habitat and connectivity. **Strategy** Use silt fencing or similar visible barriers to discourage the death of mice during construction. Limit construction to the non-active season (November through March) in occupied or potentially occupied habitat, although hibernating animals may be crushed by earth moving activities. **Strategy** Replace habitat in a manner that fills in the gaps between currently fragmented habitat areas.	**Response to Comment State-Fed 4:** **[F]:** The survey dates in the ROD have been changed to March 1 through October 31, as you suggest. **[G]:** The Biological Opinion (U.S. Fish and Wildlife Service [USFWS]) addresses the mitigation for threatened and endangered species impacts, including the Preble's meadow jumping mouse. Site-specific biological assessments will be submitted to the USFWS during final design to address the specific mitigation for impacts on that project. Specific mitigation measures will be developed during final design through the site-specific biological assessment process.

COMMENT	RESPONSE
State-Fed 4 (continued) State-Fed 4_ColoradoDivisionofWildlife_pg5 Date Received: 12/14/2009 | Name: Division of Wildlife, Steve Yamashita, Northeast Regional Manager Source: Mail H ***Raptors and Other Birds*** The area adjacent to US 36 provides raptor habitat, including nesting and hunting sites for birds of prey. The FEIS states that 22 raptor species are known or likely to occur in the project area. Raptors are sensitive to human intrusion, especially at nest sites. The prey base (example black-tailed prairie dogs and other small mammals) for bald eagles, ospreys and other raptors may be impacted by this project. In addition, there may be bald eagle winter night roost sites along the project corridor. The vegetation along the US 36 corridor also provides habitat for a variety of songbirds. Raptors and other birds may face additional risk from vehicle collisions due to a wider highway and higher traffic volume. **Mitigation Objective:** Identify and protect the nests and roost sites of raptors and other birds. **Strategy:** Identify known raptor nests and conduct baseline inventories to search for additional nests on a yearly basis. Comply with the Migratory Bird Treaty Act. **Strategy:** Identify possible bald eagle winter night roost sites and avoid disturbance to the extent possible. The FEIS states that if individual trees important for raptor perching are removed, they will be replaced in a 1:1 ratio, and/or artificial perches may be erected until newly planted trees mature. **Strategy:** At a minimum, use CDOW buffer recommendations around raptor nests. These recommendations are attached to this comment letter. The FEIS states that coordination with CDOW will occur if active nests are found. **Strategy:** To the extent possible, avoid vegetation removal or earth-moving activities during the raptor courtship and nesting season, December through August. If these activities must occur during the nesting season for a given species, all vegetation slated for disruption should be carefully inspected prior to construction to ensure that no active bird nests are being disturbed or destroyed. Proactively discourage nesting activities for birds like swallows on bridges slated for demolition. We appreciate the intent to survey for barn owl and bobolink nests in riparian habitats. I ***Habitat Fragmentation and Connectivity of Wildlife Corridors*** US 36 is a major barrier to wildlife movement due to traffic, noise, medians, expanse of pavement, and lack of cover. There are currently some bridges and bottomless culverts spanning major creeks that allow passage of wildlife under the highway. Widening US 36 will increase the distance wildlife must travel under or over the highway, which may further deter movement or increase road-kill. Corridors connecting habitat are essential to prevent isolation and local extinction of wildlife populations due to inbreeding, disease, and lack of resources. In addition to direct fragmentation and loss of habitat due to this project, additional disruption of movement corridors would occur temporarily during construction. This may have negative impacts on wildlife, specifically mule deer and white-tailed deer, and the Preble's meadow jumping mouse, which is almost exclusively dependent on riparian habitat. **Mitigation Objective** Promote the improvement of wildlife corridors and connectivity between habitats. **Strategy** Replace box culverts with bottomless box culverts or bridges with natural substrate to promote small animal usage. Install culverts near vegetative cover. **Strategy** Bridge structures should span the largest amount of riparian habitat possible, with supports occurring outside of the riparian zone to allow for dry passage along the water's edge. **Strategy** Construct large animal underpasses where possible to promote connectivity and movement, and to minimize road-kill on US 36.	**Response to Comment State-Fed 4:** **[H]:** Raptor nests will be identified during final design. The project will comply with the Migratory Bird Treaty Act, with specific requirements to be developed during final design. **[I]:** These mitigation strategies are provided in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), in Table 4.14-24, Mitigation Measures — Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species.

COMMENT	RESPONSE
State-Fed 4 (continued) **State-Fed 4_ColoradoDivisionofWildlife_pg6** Date Received: **12/14/2009** Name: **Division of Wildlife, Steve Yamashita, Northeast Regional Manager** Source: **Mail** I **Strategy** Provide a raised shelf on the side of streams, ditches or culverts to allow small animals to have a dry walkway under normal flows. **Strategy** Utilize vegetation, downed wood and brush in underpasses to provide cover for small mammals and amphibians. J As you move forward with this project please feel free to contact us if we may be of further service. District Wildlife Manager Claire Sechrist will continue to be our primary field person for this project. She may be reached at 303-291-7142 or via email claire.sechrist@state.co.us Sincerely, Steve Yamashita Northeast Regional Manager CC: K Green, L Hunholz, L Rogstad, V Vargas-Madrid, C Sechrist	**Response to Comment State-Fed 4:** **[J]:** Comment noted. CDOT and RTD will continue to coordinate with agencies and local jurisdictions during final design.

COMMENT	RESPONSE
US 36 Corridor Jurisdictions and Municipalities	
Jur-Muni 1 Jur-Muni 1_JeffCo Hist Commn Date Received: **11/16/2009** Name: **Jefferson County Historical Commission,** Source: **E-mail** **Dennis Dempsey** A **From:** Dennis Dempsey [mailto:ddempsey@co.jefferson.co.us] **Sent:** Monday, November 16, 2009 4:56 PM **To:** Litvak, Dianna **Cc:** Dennis Dempsey **Subject:** Final EIS for the US 36 Highway Corridor Hello MS. Litvak and thank you for allowing the opportunity to review and comment on the US 36 Corridor Final Environmental Impact Statement. At this time, it does not appear that any of the historic properties that are noted within the Areas of Potential Effects are located within the unincorporated Jefferson County area. The different municipalities where these properties are located would be responsible for determining whether the historic integrity of the structures and/or sites would be impacted by the Highway 36 Corridor proposal. Please keep the Jefferson County Historical Commission informed regarding the progress of the Final EIS for the US 36 Corridor improvements. Thank you, Dennis M. Dempsey Planner / Historical Commission Staff Liaison Jefferson County 303-271-8734	**Response to Comment Jur-Muni 1:** **[A]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 2 Jur-Muni 2_Louisville Mayor Sisk_pg1 Date Received: 11/16/2009 Source: Broomfield Public Hearing Name: City of Louisville, Mayor Chuck Sisk REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Monday, November 16, 2009 A MAYOR SISK: Good evening. My name is Charles Sisk. I'm the mayor of Louisville. And you may say, Why are you here tonight and not attending your own meeting? Well, it's really twofold. No. 1 is that I'm here to show the fact that we are cooperating up and down US 36. And that this is not a Louisville road or a Broomfield road; this is the US 36 road that is coming together as a result of many many fine fine people that have contributed efforts. I would like to thank again the many many people that have contributed efforts. This has been a herculean tasks in terms of the CDOT, RTD, Federal Highway Administration. Certainly we have the mayors and commissioners coalition. And let me specifically tell you that in the six years that we've been working the really unsung heroes to all of us have been our staff members. Here in Broomfield we have Debra Baskett that is just superior, superior. And her equal in Louisville. And these are people that really made things happen. But let me just suggest that as a result of the six years that we were working on this together, and sometimes seeing one another more often than we see brothers and sisters we become like brothers and sisters because that's part of what we looked at. And we also combined the private sector to make sure that the private sector is getting in this. These are not -- Broomfield and Louisville don't agree on everything. But we found a way to come together and make things happen. Westminster and Boulder, Boulder County, we came together to make things happen. Is this a perfect world for any of us? I will tell you not. But we got in a room; we made sure our interests are represented. And we came up with an alternative that I would suggest that after six years really does address the issues for US 36 Corridor. B The fact is we have $1.3 billion, which is an unfathomable amount that we're trying to get funding. We need to get the Record of Decision so that we can continue to go back to Washington and say, Here's something that gives us the authentication to get the funding and go forward.	**Response to Jur-Muni 2:** **[A]:** Comment noted. **[B]:** CDOT and RTD are committed to working with the corridor jurisdictions and other local partners to pursue funding opportunities for the implementation of project improvements. The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) Executive Summary (page ES-25) explains the current funding commitment from CDOT and RTD to implement Phase 1, and the approach for the implementation of future phases.

COMMENT	RESPONSE
Jur-Muni 2 (continued) Jur-Muni 2_Louisville Mayor Sisk_pg2 Date Received: **11/16/2009** Name: **City of Louisville, Mayor Chuck Sisk** Source: **Broomfield Public Hearing** A Con't I can assure you right now that as a group that we have coalesced and we have come together. And this provides the multimodal alternative that I will suggest it will get us beyond the 1950s when this road was built and get us into the 2010 sector where it should be. It will not be the end all to end all but it will get our citizens from Boulder to Denver and vice versa in between in a much more expeditious fashion and will allow us, allow us to continue to develop our area in a way in which it should be developed. I thank you very much for your involvement. I thank you for the support. And thank you for taking the time out tonight.	

COMMENT	RESPONSE
Jur-Muni 3 Jur-Muni 3_Broomfield-Baskett_pg1 Date Received: **11/16/2009** Name: **City and County of Broomfield,** Source: **Broomfield Public Hearing** **Transportation Manager Debra Baskett** REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Monday, November 16, 2009 MS. BASKETT: Hi, everyone. I'm Debra Baskett with the City and County of Broomfield Transportation Manager. It's been a long road, pun intended, to get here tonight. Broomfield supported the Preferred Alternative developed after many years of collaboration. You heard Mayor Sisk talk about that. By including all modes of transportation Preferred Alternative can serve residents and workers along the US 36 Corridor giving you a choice on how you're going to travel. The unit supports the purpose and need for this project, and that's some of the fundamental core elements of the whole plan EIS process. CDOT right now has excellent bus service, bikeway and managed lanes for high occupancy vehicles and single occupancy vehicles choosing to pay a toll. It will facilitate the opportunity for buses and managed lane drivers to exit and enter the lanes between interchanges. And you heard Kelsey talk about that. It's very important to the communities not to just have single points of entries; that we get all our community. It includes bus services that provide people ways to get to jobs, housing, services, and recreation. We see a significant increase in bus services, which are pretty good today in the corridor already. It will provide congestion relief by managing the capacity of the highway with congestion heightened by the new lanes. Congestion heighten lanes are sort of like theater tickets. We pay more at peak hours than we do if we go to the matinee. It will update our badly outdated highway interchange facilities. On my drive home I'm in the bumps of that road and it's terrifying, just like a roller coaster sometimes. The inclusion of construction of the Wadsworth interchange in Phase 1 is a top priority for Broomfield. I hear all the time about our scarey bridge across the highway. When are we going to fix it? This study is an opportunity to get some funding for that. A B	**Response to Jur-Muni 3:** **[A]:** Comment noted. **[B]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) has placed a high priority on the Wadsworth Parkway interchange and this bridge should be replaced early in Phase 1.

COMMENT	RESPONSE
Jur-Muni 3 (continued) Jur-Muni 3_Broomfield-Baskett_pg2 Date Received: 11/16/2009 | Name: City and County of Broomfield, Source: Broomfield Public Hearing | Transportation Manager Debra Baskett C It's most important to Broomfield to maintain a balance between transportation improvement and property acquisition. You also heard in the presentation that this alternative requires less right-of-way acquisition. So Broomfield would like to keep that going as we go into the final design of this we'd like to see the right-of-way further minimized so that we can keep the private and public land that we need to grow our communities. D We appreciate that the phased Record of Decision -- and you heard about that -- they're going to bite off chunks of this elephant, or whatever that saying is, and obtain the financial resources to put forth as soon as possible. We think this Preferred Alternative will provide a sustainable way to look forward in the future. Thank you for the opportunity to comment.	**Response to Jur-Muni 3:** **[C]:** During the Environmental Impact Statement (EIS) process, project design is usually only taken to 5 or 10 percent of final design. Refinement of this design occurs after a ROD is prepared and signed, and funding is identified. Additional details are developed during final design, such as constructability, traffic detours, elevation resolution, and further minimization of impacts. These refinements include input from the associated jurisdictions during the final design process, where ramp realignments, retaining wall use, impacts (such as right-of-way [ROW]) avoidance or minimization, and verification of final project element locations. **[D]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 4 Jur-Muni 4_Boulder-Appelbaum_pg1 Date Received: 11/18/2009 | Name: City of Boulder, Councilmember Matt Appelbaum Source: Boulder County Public Hearing REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 Boulder City Council Matt Appelbaum. MR. APPELBAUM: Thank you. The City of Boulder would like to thank everybody who has worked so long and hard on developing this Preferred Alternative and the selection of the Phase 1 improvements. We particularly applaud the consensus approach that was taken to developing the EIS and the work of the US 36 mayors and commissioners coalition, a group made up of representatives of the cities of Westminster, Broomfield, Superior, Louisville, and Boulder and Boulder County, and also with the great assistance of the public/private partnership of 36 Commuting Solutions. Without this group's willingness to cooperate and collaborate and reach a consensus it's unlikely we could have come to such a successful conclusion. We're particularly supportive of the multimodal solution that's represented by both the Preferred Alternative and specifically the Phase 1 improvements since they provide for one buffer separated managed lane in each direction that prioritizes the Bus Rapid Transit first, HOV second, and then the toll paying single occupant vehicles last. It also provides for a bikeway connecting the communities along the entire length of US 36, which has been a high priority of ours, as well as essential infrastructure repair or replacement. We think this will create a more sustainable approach to long-term mobility and congestion management in a corridor that is providing for a new energy economy while preserving our unique quality of life. As we move forward it's of course critical that we continue to focus on quality and timely implementation. And to that regard it's critical that we secure funding as soon as possible to implement Phase 1 improvements. Obviously we are strong supporters of the TIGER grant application and we're going to need to work collaboratively on other applications like that. A B	**Response to Jur-Muni 4:** **[A]:** Comment noted. **[B]:** CDOT and RTD are committed to working with the corridor jurisdictions and other local partners to pursue funding opportunities for the implementation of project improvements. The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) Executive Summary (page ES-25) explains the current funding commitment from CDOT and RTD to implement Phase 1, and the approach for the implementation of future phases.

COMMENT	RESPONSE
Jur-Muni 4 (continued) Jur-Muni 4_Boulder-Appelbaum_pg2 Date Received: **11/18/2009** Name: **City of Boulder,** Source: **Boulder County Public Hearing** **Councilmember Matt Appelbaum** C It's also important we think that improvements that will be implemented be consistent with our intent, for example assuring that the Bus Rapid Transit design makes the most of the entire length of the managed lanes, and includes timesaving strategies such as pre-paid fares, boarding and alighting at all doors, queue jump facilities, et cetera. We also think it's essential that the HOV is managed to maximize personal travel time savings; that the bikeway connections in communities are all effective; that TDM occurs in concert with infrastructure and service enhancement; and that mitigation of impacts is coordinated with communities and is effective, for example, noise, property, and environmental impacts. The City is still reviewing all of the Final EIS materials. We'll be submitting some specific written comments shortly. But again we very much congratulate all those who made this Final EIS possible. And we're excited with the prospect of implementing an effective and efficient multimodal solution along US 36. Thank you.	**Response to Jur-Muni 4:** **[C]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 5 Jur-Muni 5_Boulder-Gerstle_pg1 Date Received: 11/18/2009 Source: Boulder County Public Hearing Name: Boulder County Transportation Director, George Gerstle REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 MR. GERSTLE: George Gerstle, Boulder County Transportation Director. Boulder County supports selection of the Combined Alternative as the Preferred Alternative of the FEIS and subsequent Record of Decision. A The County also would like to commend CDOT and RTD for working cooperatively with all affected communities in the corridor to develop an alternative for the best use of mobility, safety, and system quality needs of the corridor while respecting the individual priorities and different perspective of the individual communities. Implementation of the managed lanes along the corridor with the priority commitment to Bus Rapid Transit and high occupancy vehicles and ongoing transportation demand management program and a corridor bicycle facility serves the long-term mobility needs for both existing and future users of the corridor by providing a permanent alternative to congested travel in the corridor, reconstructs deteriorating infrastructure and improves safety while minimizing impacts to the community and the environment. The County does have several concerns that we will outline in a subsequent letter as we move into the next stages of design and implementation of the Preferred Alternative infrastructure and transit operation plan. B In summary we believe the operations plan should recognize that express bus service will use the entire managed lane from Table Mesa and not merely past McCaslin park-and-ride. We believe strongly that there should be a bike path connection to the Cherry Hill Road facility. C We do support the general alignment of the bike path and we believe that the bridge was designed to facilitate that connection. And we'd like to see that connection as part of this document. D And we believe that we need to work together with CDOT to come up with a logical and systematic bikeway maintenance plan for the entire facility.	**Response to Jur-Muni 5:** **[A]:** Comment noted. **[B]:** See General Response: Transit-related. **[C]:** See General Response: Bikeway. **[D]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Jur-Muni 5 (continued) Jur-Muni 5_Boulder-Gerstle_pg2 Date Received: 11/18/2009 | Name: Boulder County Transportation Director, George Gerstle Source: Boulder County Public Hearing E Then finally recognizing the magnitude of this project and that it will be built in phases we believe that the project should be constructed, that the construction should only be necessary for each phase, and we shouldn't build too much in anticipation of future phases that may be many years down the line. In order to minimize the visual impact and environmental impact in each phase we believe that a phased approach should be taken. F Finally the County concurs with the resolution of issues as described in Section 2.7 with that clarification regarding the connection to Cherry Hill Road. A cont'd Again we strongly support and we concur with the Combined Alternative as the Preferred Alternative and the Phase 1 Record of Decision. And we thank all of the agencies and parties for working with all of us to find a solution that works. I think this is a model for how planning can occur in the future. Thank you.	**Response to Jur-Muni 5:** **[E]:** See General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative). **[F]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 6 Jur-Muni 6_BoulderCoCommnrs_pg1 Date Received: 11/24/2009 Name: Boulder County Commissioners Source: Mailed Letter Boulder County **Board of County Commissioners** NOV 2 4 2009 November 23, 2009 US36 Final EIS C/O CDR Associates 100 Arapahoe Ave. Suite 12 Boulder, Colorado 80302 Re: Boulder County Comments on US36 Final Environmental Impact Statement To Whom It May Concern: A Boulder County supports selection of the Combined Alternative as the Preferred Alternative in this Final Environmental Impact Statement and subsequent Record of Decision. The County also commends CDOT and RTD for working cooperatively with the affected communities in the corridor to develop an alternative that best meets the mobility, safety and system quality needs of the corridor while respecting the individual priorities and different perspectives of the individual communities. Implementation of managed lanes along the corridor, with a priority commitment to Bus Rapid Transit and high occupancy vehicles, an ongoing transportation demand management program and a corridor bicycle facility serves the long term mobility needs of both existing and future users of the corridor by providing a permanent alternative to congested travel in the corridor, reconstructs deteriorating infrastructure and improves safety while minimizing impacts to the community and environment. The County does have several concerns that should be addressed during the next stages of design and implementation of the preferred alternative infrastructure and transit operations plan: B 1. Express Bus Rapid Transit Service Operations: Clarification that express transit service from Boulder, whether or not it stops at the McCaslin Park-n-Ride, will likely use the managed lanes beginning at Cherryvale if it makes operational sense and results in time savings. C 2. Bike Path Connection to Cherryvale Road: The County supports maintaining the bike path alignment along US36 and connecting to Table Mesa Drive, as indicated in 2.7-1. However the County strongly believes that a connection to the Cherryvale bike shoulders is necessary for mobility, connectivity and safety reasons. The new Cherryvale Bridge, recently Cindy Domenico County Commissioner · Ben Pearlman County Commissioner · Will Toor County Commissioner Boulder County Courthouse · 1325 Pearl Street · Boulder, Colorado 80302 · Tel: 303.441.3500 · Fax: 303.441.4525 Mailing Address: P.O. Box 471 · Boulder, Colorado 80306 · www.bouldercounty.org · commissioners@bouldercounty.org	**Response to Jur-Muni 6:** **[A]:** Comment noted. **[B]:** See General Response: Transit-related. **[C]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) outlined locations for bikeway connections and crossings (see Table 2.6-6, Bikeway Crossings and Connections) throughout the corridor. The bikeway is proposed to underpass Cherryvale Road with a grade separation, with no connection provided to the existing bikepath on Cherryvale Road. This is due to the additional ROW and environmental impacts that would be required to make this connection. However, a connection to the Cherryvale Road bikepath is not precluded by the current design and can be added to by the local jurisdiction. See General Response: Bikeway.

COMMENT	RESPONSE
Jur-Muni 6 (continued) Jur-Muni 6_BoulderCoCommnrs_pg2 Date Received: 11/24/2009 Name: Boulder County Commissioners Source: Mailed Letter Page Two November 23, 2009 C Con't constructed by CDOT, was specifically designed and constructed to accommodate this connection. Furthermore, a goal of the FEIS is to connect the US36 bike path to local bicycle networks. Cherryvale is one of the most used bicycle corridors in the county, and the County has added shoulders to improve safety due to the high number bicyclists along this road. Failure to design for a safe and convenient connection will result in an informal "rogue" connection between the two paths that is likely to be unsafe. A connection from Cherryvale to the US36 bikeway as part of the preferred alternative is critical to the safe operation of both US36 and Cherryvale Road. D 3. Maintenance of the Bikeway: The FEIS states at Page 2.6-31 "Maintenance of the US 36 bikeway would be the responsibility of the local jurisdictions through an Intergovernmental Agreement with CDOT." According to the recently approved Transportation Commission Policy Directive 1602, "It is the policy of the Colorado Transportation Commission to provide transportation infrastructure that accommodates bicycle and pedestrian use of the highways in a manner that is safe and reliable for all highway users. The needs of bicyclists and pedestrians shall be included in the planning, design, and operation of transportation facilities as a matter of routine. A decision to not accommodate them shall be documented based on criteria in the procedural directive." Consistent with this policy direction, maintenance of the bikeway within CDOT rights of way should be treated the same as any other CDOT transportation infrastructure and may be documented through IGA's with appropriate local governments. E 4. Project Phasing: This project is of sufficient magnitude that it will be constructed in phases over an extended time period. In order to minimize environmental and visual impacts, the County encourages CDOT to construct only those improvements necessary to implement each phase of construction, rather than to build to the ultimate cross section during the early phases of the project. F 5. The County concurs with the resolution of issues as described in Section 2.7, with the clarification that the US36 bike path will connect to Cherryvale Road. Again, the County concurs with and supports selection of the Combined Alternative as the preferred alternative in the FEIS and Record of Decision and encourages the resolution of the identified issues in the final design and implementation of the operations planning for the corridor. Sincerely, Will Toor Will Toor, Commissioner For the Boulder County Board of County Commissioners	**Response to Jur-Muni 6:** **[D]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway. **[E]:** See General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative). **[F]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 7 Jur-Muni 7_Superior_pg1 Date Received: **12/1/2009** Name: **Town of Superior** Source: **E-mail** Town of Superior **The Town of Superior comments to the U.S. 36 Final Environmental Impact Statement** **Overview** A The Town of Superior supports the need for major transportation improvements along the U.S. 36 corridor. The existing transportation system operates at a poor level of service during peak periods which adversely affects the environment, mobility, economic development opportunities and overall quality of life. Absent significant improvements, and with projected employment and population growth, the corridor will further exceed system capacity. B The Town of Superior recognizes the significant challenges in identifying the funding necessary to fully implement any solution for this corridor. For this reason, we strongly support the Phase 1 Combined Alternative which includes managed lanes in each direction from Pecos to the Table Mesa/Foothills Parkway interchange and the bikeway along the corridor development. C The following list identifies those elements that the Town of Superior agrees with in the Final Environmental Impact Statement that was adopted with the preferred alternative. ▪ **Managed Lane:** One buffer-separated managed lane in each direction from Pecos to the Table Mesa/Foothills Parkway interchange, and maintain the existing 1-lane reversible managed lane operation from Pecos to I-25. ▪ **Access to Managed Lane**: Separate at-grade buffer openings for entering and exiting traffic between each interchange. ▪ **Auxiliary Lanes:** Ramp-to-ramp auxiliary lanes for most segments from McCaslin to I-25. ▪ **General-purpose Lane:** One new continuous eastbound lane from Sheridan to I-25. ▪ **Climbing Lanes:** One new climbing lane in each direction (westbound from McCaslin and eastbound from Table Mesa) to the top of Davidson Mesa. The Town supports extension of the westbound climbing lane to Foothills Parkway as an auxiliary lane or bus-only lane in order to achieve LOS D on the westbound general purpose lanes. ▪ **BRT Stations**: Side-loading stations with further definition of a high level of premium transit components to support BRT operations. ▪ **Bikeway Alignment:** Bikeway will run along the US 36 Corridor.	**Response to Jur-Muni 7:** **[A]:** Comment noted. **[B]:** Comment noted. **[C]:** Comment noted.

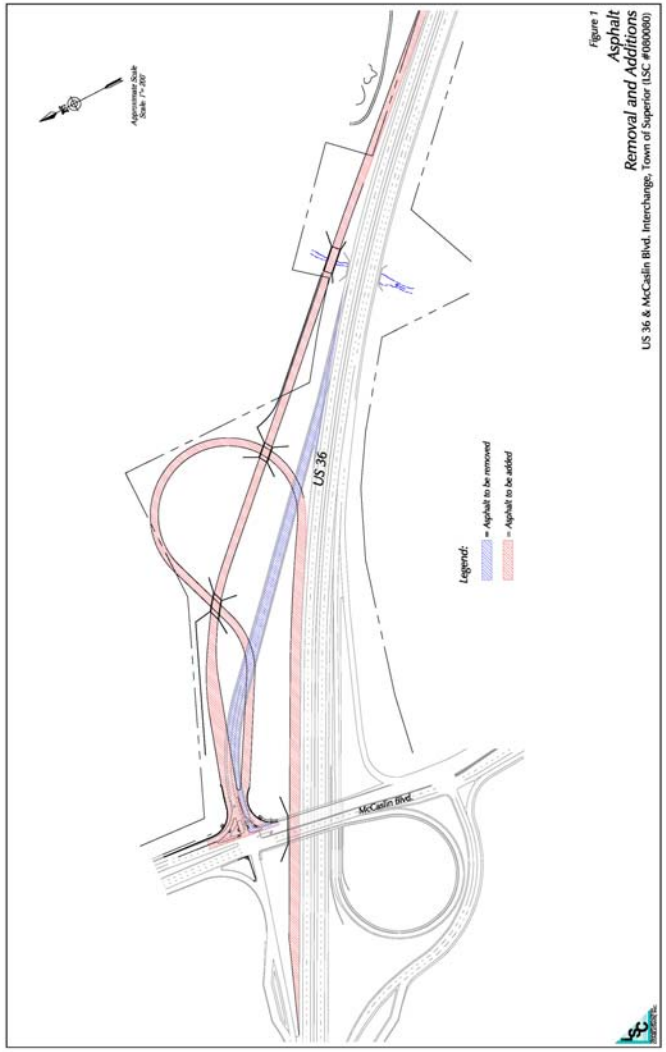
COMMENT	RESPONSE
Jur-Muni 7 (continued) Jur-Muni 7_Superior_pg2 Date Received: **12/1/2009** Source: **E-mail** | Name: **Town of Superior** **General Comments** This is a summary of general comments that relate U.S. 36 Final Environmental Impact Statement. • *McCaslin Boulevard Interchange Design* – The proposed change to the interchange is to widen the bridge to accommodate double left turn lanes and not have a northeast loop to access westbound on US 36. The Town of Superior believes the northeast loop would be the best option since it will be less costly than a bridge widening, would entail less traffic disruption on McCaslin during construction and would significantly enhance operational performance. Since the McCaslin interchange improvements are not included in Phase I, we have no objections to moving forward with the Record of Decision (ROD) for Phase I. However prior to consideration of the ROD for Phases II or III, we would propose that the US 36 Project Team reconsider the northeast loop. Attached is a diagram showing a configuration design that would improve traffic flow, accommodate all grading and drainage issues and not require the displacement of any businesses. US 36 DEIS Comments/Response, pg. 40 – Response to Comment #12-1 (Town of Superior comment regarding NE Loop) states "*…the proposed McCaslin Boulevard interchange accommodates the projected traffic demand and the northeast loop is not necessary. Additionally, it is geometrically challenging to provide, without significant ROW acquisition …*" D 1. As stated above, the 2035 turning movement projections may be significantly flawed, with the movement that the NE loop would serve increasing only 13%/21% (AM/PM) while other movements increase 100 to 400%. 2. While the proposed McCaslin interchange design (Figure 4.8-1) may result in overall LOS "C"/"B", the northbound left-turn movement will operate at LOS "E". 3. With the Preferred Alternative's mainline design of two general purpose travel lanes and a buffer-separated managed lane in each direction, the Northeast Loop can be designed with minimal ROW acquisition (set-back areas and parking lot). It can be designed (see enclosed design) to meet minimum AASHTO standards, including a 30 mph design speed as desired by CDOT. The new westbound off-ramp will require a new separate bridge over Coal Creek which can be designed to be four feet above the 100-year flood elevation.	**Response to Jur-Muni 7:** **[D]:** See General Response: Final Design. A reevaluation will be necessary for this interchange improvement due to the time that will lapse from the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) analysis to when funding would be available to make this improvement, so there will be opportunity to reassess this proposed improvement at that time. However, the proposed improvement at this interchange is attempting to solve numerous issues that, we believe, may not be solved only with your proposed northeast loop. These items are described on a point-by-point discussion of issues that you have listed below. 1. The relatively small increase in northbound to westbound traffic is likely a result of the capacity constraints on westbound US 36. If capacity is constrained, then traffic growth will be limited as drivers find alternative routes with comparable travel times. Overall, northbound volumes on McCaslin Boulevard grow by 45 percent and 25 percent between existing conditions and the 2035 Combined Alternative Package (Preferred Alternative), while southbound volumes grow by 100 percent or more. However, the southbound to westbound movement only grows between 35 percent and 45 percent. This indicates that US 36 available capacity is what limits the growth of the turning movements onto westbound US 36. In addition, employment forecasts in Boulder for 2035 have been reduced compared to previous land use estimates, thus reducing demand into Boulder and increasing demand out of Boulder. These actual employment projections can be reassessed at the time these interchange improvements are being planned to get a better look at what the current and future traffic needs will be. 2. Many locations in the corridor will have individual movements that operate at level of service (LOS) E. The impact criteria were based on overall intersection operations rather than individual movements. The traffic signal at this location may be retimed to provide better service to the northbound left turn, but will degrade service to the southbound direction. Overall intersection LOS may also degrade as a result. The LOS presented is the "optimal" calculation for the overall intersection. 3. The proposed loop design does not take into account the Combined Alternative Package (Preferred Alternative) cross-section of US 36. The design presented in the drawing shows two general-purpose lanes in each direction. The Combined Alternative Package (Preferred Alternative) cross-section includes a full outside shoulder, two general-purpose lanes, a 4-foot buffer, a managed lane, and a full inside shoulder in each direction. The pavement width for this section is 156 feet. It does not appear the proposed loop-ramp will fit within the remaining ROW after US 36 is widened. In addition, the loop-ramp will need to merge with the westbound McCaslin Boulevard on-ramp prior to merging on to US 36. The presented design does not reflect this type of merge configuration.

COMMENT	RESPONSE
Jur-Muni 7 (continued) Jur-Muni 7_Superior_pg3 Date Received: **12/1/2009** Name: **Town of Superior** Source: **E-mail** 4. The Northeast Loop would cost about 7 million (in 2009 dollars) or $5 to 10 million less than improvements shown in the proposed interchange design (Figure 4.8-1). 5. The Northeast Loop would not require widening of the McCaslin Bridge over US 36 while providing good overall 2035 Levels of Service (LOS "C" in AM and PM) at the McCaslin/US 36 WB ramp intersection. All individual movements would operate at LOS "D" or better. 6. The Northeast Loop would provide safer operations at the interchange since a major conflict point (NB to WB left-turn vehicle paths crossing SB vehicle paths) would be eliminated. Con't 7. The Northeast Loop would have relatively minor construction impacts and disruption. The major project elements, including the three new bridges and new ramp could be built without affecting current traffic operations. 8. The Northeast Loop improvements could accommodate the bike/equestrian trail connection of McCaslin to Coal Creek recommended in the US 36 FEIS. • *Manage Lanes* - Implementation Plan for Managed Lanes, Apex Design, December, 2008. This document was not available during the DEIS or Preferred Alternative Committee meetings. There are several issues of concern in this document. 1. No explanation is given of how SOV's will be charged without charging HOV's. Pg. B-21 mentions "occupancy" as a function of side-fire, microwave, or Doppler radar, and/or Alternative Traffic Recorder. No examples are given where such devices are used for tolling applications. 2. Section B-33 on Page B-10 states "*after reconstruction, these on-ramps may contain HOV bypass lanes*". Pg. 4-53 (Figure 4.8-1) shows these HOV bypass lanes at the McCaslin interchange. The impacts of these bypass lanes have not been considered by the Town. The eastbound HOV bypass lanes may have some implications for Superior Plaza while the westbound HOV bypass lane may have implications for the existing bus stop.	**Response to Jur-Muni 7:** 4. Based on intersection operations, the McCaslin Boulevard bridge over US 36 would still need to be widened even with the provision of the northeast loop-ramp. Future traffic demands require four southbound lanes across the bridge and three northbound lanes. As a result, the construction of the northeast loop-ramp would cost $7 million for construction of the ramp PLUS the cost of widening the bridge to provide an additional lane. 5. Based on the proposed geometry at the McCaslin Boulevard and eastbound US 36 ramps intersection, the bridge would require seven lanes of traffic. This would require the widening of the McCaslin Boulevard bridge even with the provision of the northeast loop-ramp. 6. The lack of conflict may create a safer environment for vehicles, but loop-ramps present an increased safety hazard for pedestrians. Under the Combined Alternative Package (Preferred Alternative) configuration, pedestrians can traverse the east side of the bridge without crossing a loop-ramp. 7. The McCaslin Boulevard bridge will still require widening with the addition of the loop-ramp. As a result, construction impacts associated with the loop-ramp will be comparable to the construction impacts of the Combined Alternative Package (Preferred Alternative). 8. A trail connection to Coal Creek is provided in both the proposed design and the Combined Alternative Package (Preferred Alternative) design. **[E]:** 1. The toll/HOV monitoring strategy has not been determined and is not presented in the *Implementation Plan for Managed Lanes* (Apex Design 2008). The *Implementation Plan for Managed Lanes* addresses existing systems of vehicle monitoring and possible implementation strategies for the US 36 corridor. The selected plan will likely include aspects of many different existing methods. 2. HOV bypass lanes are planned on most ramps and these impacts have been taken into account in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). These lanes will continue to be modified in final design to minimize impacts to the surrounding land use. 3. While two options were presented in the *Implementation Plan for Managed Lanes* (Apex Design 2008), the current design is based on Option 1 for reasons including the ones you have highlighted.

COMMENT	RESPONSE
Jur-Muni 7 (continued) Jur-Muni 7_Superior_pg4 Date Received: **12/1/2009** Name: **Town of Superior** Source: **E-mail** E Con't 3. Pg. B-8 describes two options for Managed Lane entry and exit. Option 1, with vehicles crossing a single dotted white pavement marking, is what has been generally represented in the Combined Alternative. Option 2, depicted in Figure B-6 on pg B-13, considers parallel access lanes and requires a lane shift for the managed lane and a shoulder (or buffer) width reduction. This raises significant safety issues, especially during icy or snowy conditions. F • *Technical Report Addendum, October, 2009* - Pg 4-52 to 4-58 contain analysis of the McCaslin Boulevard Interchange. Figure 4.8-2 contains existing traffic volumes. Figure 4.8-4 contains 2035 Combined Alternative Traffic volumes. 1. Comparing Figures 4.8-2 and 4.8-4 (see attached figure) shows a radical change in travel patterns at the interchange with traffic oriented to Boulder (west) growing slightly (23 to 80%) while traffic oriented to the east is growing substantially (156 to 484%). While some of this is due to the inherent inaccuracy of the regional model to predict peak-hour turning movements, some of it may be due to the lack of capacity on US 36 west of McCaslin. These questionable traffic forecasts drive the conceptual design of the McCaslin interchange shown on Figure 4.8-1, which includes a nine-lane bridge (compared to the existing six-lane bridge), a dual lane southwest loop, a four-lane eastbound off-ramp. Since the McCaslin interchange improvements are not included in Phase I, it is recommended that the traffic forecasts be updated (including a forecast scenario that is more in line with existing travel patterns) prior to the Record of Decision for Phase II (which would include the McCaslin interchange improvements. 2. The Operations Summary and Table 4.8-1 on page 4-57 indicate that Package 1 (No Action in 2035) will result in LOS "F" at the McCaslin/Westbound Ramp and LOS "E" at the McCaslin/Eastbound Ramp during the AM peak period. In fact, these poor Levels of Service are occasionally being experienced under existing traffic volumes. Since the McCaslin interchange improvements are not included in Phase I (and Phase I would be constructed with the funding available in the 2035 MVRTP as amended – DRCOG, 2009), the existing six-lane bridge configuration would result in these poor Levels of Service for many years. G • *Pedestrian/Bikeway* – We support the proposed pedestrian and bikeway paths contained in the FEIS. H • *Drainage* – We support the proposed drainage issues and concerns that will be addressed in the FEIS.	**Response to Jur-Muni 7:** **[F]:** 1. See General Response: Final Design. In addition, the changes in demand directionality are a result of more capacity being constructed east of McCaslin Boulevard compared to relatively little capacity being constructed west of McCaslin Boulevard. The travel demands are constraint based; as a result, the model finds additional routes with comparable travel times, rather than assigning more volume to congested segments. This causes the growth in the northbound to westbound direction to be limited. The travel demand model is used to determine future demands since the directionality of demands change over time. It is unrealistic to believe that future travel demands will be consistent with current travel demands, especially given the changes in land use forecasts provided by the City of Boulder for the 2035 forecast year. The project team believes the published forecasts are reasonable for the tools and methodology used. The forecast turning movements are based on existing turning volumes and future traffic flows. The timing of future RODs will require the interchange analysis to be reevaluated prior to approval so that current conditions and then-projected growth can be incorporated into these new traffic numbers to get a better look at the traffic demands at this interchange at that time. The results of this reevaluation will be incorporated into the final design that will involve the Town of Superior in design review. 2. Conditions presented in the report represent average operations during a peak hour. It may be the case that an intersection will occasionally operate at these levels today since traffic volumes vary in intensity throughout a peak hour. However, these occasional "peaks" to LOS E or F are the exception, not the average operations. The analysis does not indicate what year LOS E or F conditions are reached under Package 1 (No Action); rather it documents that these conditions are forecast to exist in the year 2035. In addition, since the interchange experiences time periods of LOS E or F conditions now, it would suggest that poor intersection operations are a result of changing local conditions in the Superior and Louisville areas, rather than changes to the US 36 corridor. These traffic numbers will be updated in the reevaluation that will be required during final design and will take into account any improvements that the local jurisdictions may have implemented in order to address this current traffic problem. We regret that all of the US 36 improvements cannot be built immediately due to funding restrictions. This is why the Preferred Alternative Committee's (PAC) involvement in prioritizing what would be built first was of utmost importance. **[G]:** Comment noted. **[H]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 7 (continued) Jur-Muni 7_Superior_pg5 Date Received: **12/1/2009** Name: **Town of Superior** Source: **E-mail** I • *Utilities* – We support the proposed utility issues and concerns addressed in the FEIS. However, we did find an existing emergency overflow sewer line that runs from Coal Creek in Superior under US 36 is not identified on the utility locates section on page 4.18.2. J • *Flood Plain* – The document mentions there is still on-going study addressing the flood plain issues affecting Coal Creek. We need to know the results of this study or any other information you might have to provide comments on the flood plain issues. Absent such information, it is not possible to opine on the affects of this project on adjacent flood plains and wetlands; however, the flood plain should be managed to preclude the need for off-site storage. K • *Noise* – We take exception to the noise impact analysis for the portion of improvements adjacent to Superior. Specifically, noise measurements were not taken in or near the Saddlebrooke Subdivision in the Town of Superior. Therefore, in the Town's view, the noise analysis is incomplete.	**Response to Jur-Muni 7:** **[I]:** Thank you for bringing this to our attention. This will be noted and considered during final design. CDOT's process during final design entails a detailed review by our utilities specialists who are trained at finding these "hidden" utilities and helping the project team redesign to avoid or negotiate with the utility owner on what needs to be done to minimize impacts to this service. **[J]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) mentions the ongoing study of the South Boulder Creek floodplain. To our knowledge, there are no ongoing studies of the Coal Creek floodplain. The Combined Alternative Package (Preferred Alternative) would encroach on the floodplain at Coal Creek by 4.4 acres, but would lower the floodplain water surface by 2.37 feet. Therefore, off-site storage is not anticipated to be required at this location. These floodplain issues will continue to be addressed during final design with the involvement of the local jurisdictions including the Town of Superior. **[K]:** Several existing noise measurements were taken in and near the Saddlebrooke Subdivision as part of the noise analysis conducted for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) (see the *Highway Noise Analysis Technical Report [Addendum]* [Hankard Environmental 2009], specifically, the discussion on receivers 83, 84, and 85). Both existing and predicted future noise levels at these locations range from 54 to 62 decibels (A-weighted scale) (dBA) and do not qualify for noise mitigation under CDOT guidelines.

COMMENT	RESPONSE
Jur-Muni 7 (continued)	



COMMENT	RESPONSE
Jur-Muni 7 (continued)	

COMMENT	RESPONSE
Jur-Muni 8 Jur-Muni 8_City of Boulder_pg1 Date Received: 12/2/2009 Source: E-mail Name: City of Boulder CITY OF BOULDER OFFICE OF THE CITY MANAGER December 2, 2009 US 36 Final EIS c/o CDR Associates 100 Arapahoe Ave, Suite 12 Boulder CO 80302 Dear U.S. 36 EIS Project Team: A Attached are comments from the City of Boulder on the US 36 Final Environmental Impact Statement (FEIS). As a preface to these comments, it should be understood that the city supports the Combined Alternative as the Preferred Alternative in the FEIS. Furthermore, the city supports the Phase 1 package of improvements which prioritizes multimodal expansion (full length of managed lanes and bikeway) and essential infrastructure replacement. The City of Boulder commends the project team for facilitating a process with the impacted communities that will result in a project that has a smaller footprint than previously considered alternatives and that prioritizes Bus Rapid Transit (BRT) and High Occupancy Vehicle (HOV) travel in a managed lane configuration. B With the city's overall support as the foundation for the attached comments, it is important as the project team moves forward to correct errors and work toward final design, implementation and operating plans that are consistent with agreements and intentions as they currently stand. The attached comments identify specific areas that are in need of correction and input regarding final design, implementation and operations. Sincerely, Paul Fetherston Deputy City Manager cc: Boulder City Council Jane Brautigam, City Manager P.O. Box 791 · Boulder, Colorado 80306-0791 · www.bouldercolorado.gov · (303)441-3090 · Fax (303)441-4478	**Response to Jur-Muni 8:** **[A]:** Comment noted. **[B]:** During the EIS process, project design is usually only taken to 5 or 10 percent of final design. Refinement of this design occurs after a ROD is prepared, and signed, and funding is identified. Additional details are developed during final design, such as constructability, traffic detours, elevation resolution, and further minimization of impacts. These refinements include input from the associated jurisdictions during the final design process where ramp realignments, retaining wall use, impacts (such as ROW) avoidance or minimization, and verification of final project element locations can occur. Also, see General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative).

COMMENT	RESPONSE
Jur-Muni 8 (continued) Jur-Muni 8_City of Boulder_pg2 Date Received: 12/2/2009 Name: City of Boulder Source: E-mail **City of Boulder Comments to US 36 Final Environmental Impact Statement** C 1. **Design and Operation of Managed Lanes** - In the project team's future design and operation of the managed lanes it is important that the following stated and agreed to priorities continue: • BRT first, HOV second and paying Single Occupant Vehicle (SOV) last. • The final BRT Profile and TDM Plan, as developed and approved by the Preferred Alternative Committee (PAC), were high-priority products and need to be included in the final signed documents of the Final EIS. • Full length of bikeway in phase 1 D 2. **Access to CU via Tantra** -Please correct the error on the summary mitigation table, Figure 8.4-1, which mistakenly refers to a final determination of providing access to the CU south campus via Tantra. Other references in the document make correct statements regarding the alternatives developed and the process to be followed when future design and construction is considered in later phases of the US 36 project. E 3. **Bikeway Connection at Cherryvale Bridge** - As design moves forward, it is essential to provide access to the bikeway at the Cherryvale Bridge. The bridge was recently designed and built to accommodate access to the US 36 bikeway. Please include reference to that connection in the FEIS. F 4. **Design Details** - As design moves forward, please work with the city to address design details that are compatible with local facilities. For example, the city requests that there be no lighting in the South Boulder Creek underpass to be sensitive to the high quality wildlife habitat in the surrounding area and to be consistent with the unlit paths that will access this underpass. G 5. **Maintenance of Bikeway** - Section 2.6-31 mentions that maintenance of the U.S. 36 Bikeway will be maintained by local governments through an intergovernmental agreement. From a modal equity standpoint, the city requests that CDOT contract with local governments to cover the cost of ongoing maintenance with their local crews, similar to other contractual relationships for roadway and signal infrastructure. H 6. **Bus Use on Managed Lanes West of 96th Street** - The FEIS errantly refers to US 36 BRT service NOT using the managed lanes west of 96th Street. It is entirely unacceptable for BRT service to not use the managed lanes west of 96th Street. Express BRT service is essential for transit passengers beginning or ending their transit travel in Boulder. Currently, 61 percent (or 27 of 44 passenger service runs) of eastbound BX service is truly express service without stopping at McCaslin or any other stops along the corridor. Transit passengers destined for or leaving Boulder have even greater demand for express service than exists today. Furthermore, the travel-time savings that will occur with making the most of the managed lanes would result in greater demand for BRT service to and from Boulder. The city requests that the project team correct this mistake and provide clarity that express BRT service will use the full length of the managed lanes in both directions, even west of West Flatiron Circle, serving the significant transit ridership generated by Boulder residents, employees, students and visitors. Furthermore, please make it clear in the document that drivers will be able to merge from Table Mesa to the managed lanes (and vice-versa), at their discretion, even for service that stops at McCaslin, if the driver finds it advantageous and safe. 1	**Response to Jur-Muni 8:** **[C]:** These are all elements of the managed lane functionality and the Combined Alternative Package (Preferred Alternative) that will be considered. As mentioned in Chapter 5, Financial Analysis, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), excess toll revenue, if it occurs, could be used for other programs, such as long-term Transportation Demand Management (TDM). CDOT and RTD have agreed that for the first phase of the US 36 Corridor Project, a portion of the construction budget will be set aside for TDM-related construction mitigation. **[D]:** Text in the second bullet under University of Colorado, Boulder South Campus access on page 8.4-2 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), was incorrect. In Section 3, Clarifications to the US 36 Corridor Final Environmental Impact Statement, of this ROD, it has been updated to read: "Based on an agreement with CDOT, the University of Colorado, the City of Boulder, and Boulder County, if access at Loop Drive is denied, the Local Streets Option will be used to provide access to the University of Colorado, Boulder South Campus." **[E]:** See General Response: Bikeway. **[F]:** See General Response: Final Design. **[G]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway. **[H]:** See General Response: Transit-related.

COMMENT	RESPONSE
Jur-Muni 8 (continued) Jur-Muni 8_City of Boulder_pg3 Date Received: 12/2/2009 Name: City of Boulder Source: E-mail City of Boulder Comments to US 36 Final Environmental Impact Statement I 7. **Minimize Impacts to Reflect Phasing Plans** - As design advances in phases, please only impact those public and private property areas that are essential for the initial phase of the project. Please pay particular attention to environmentally sensitive areas and areas that have high visual and aesthetic value. Since funding for future phases is not reasonably expected in the foreseeable future (2085 is noted in the FEIS document), clearing and building significant structures that may never need to be built or used would present costly and unnecessary impacts to environmentally, visually and aesthetically sensitive areas. Also, since performance results of the Phase 1 project will help inform where next increments of investment would be needed, it is not clear where or when investments would occur, if at all. As an example, the city requests that the bikeway be placed adjacent to the Phase 1 footprint, rather than placed adjacent to an ultimate footprint that may never occur, resulting in higher costs and greater impacts. J 8. **Retaining and Noise Walls** - The City of Boulder is concerned about the visual impact of the retaining walls and noise walls on the west end of the corridor. We ask that the project team use aesthetically pleasing approaches to these structures during project design and construction and that it work with the community on the best design approach for mitigating impacts. While retaining walls may be needed to protect wetlands and other sensitive environmental resources in the vicinity from Cherryvale to Foothills/Table Mesa, there may be other technical solutions that would be more aesthetically pleasing than retaining walls on Davidson Mesa. K 9. **Noise and Safety Impacts North of Table Mesa** - There have been prior requests by the City of Boulder staff, elected officials, and residents to address noise impacts to the neighborhoods and safety issues north of Table Mesa. The City continues to support noise mitigation, such as noise walls, being included in the FEIS and supports that those noise walls extend to protect the neighborhoods just south of Baseline Road. Since there is no planned construction of noise walls in Phase 1 of the Preferred Alternative, the city requests that the speed along the segment of US 36 currently marked as 65 mph be reduced to 55 mph. L 10. **Access from Apache and Thunderbird** - It had not been apparent until recently that the project team plans for the ultimate build-out of the preferred alternative beyond phase 1 called for the elimination of access from Apache and Thunderbird to US 36 when the Table Mesa interchange is reconstructed. Given the long-term access and travel patterns that have been established in this neighborhood, the transition of the highway in this vicinity to a local access regional arterial, and the fact these are state roadways connecting to local communities, the city requests that the access from Apache and Thunderbird be maintained. There would otherwise be a four mile, out-of direction travel penalty for the residents of these neighborhoods to go to Baseline to get to US 36 if access was eliminated. M 11. **Consistency with Local Policies and Regulations** - As design continues and construction plans are developed, please comply with local ordinances and regulations. For example, please be aware that the city's wetland protection regulations require a 2-for-1 mitigation for wetland impacts. The city also has adopted a local wildlife protection ordinance that governs how activities may affect prairie dogs and birds. Both the wetland and wildlife regulations apply to land within the city limits, land owned by the city and to projects that are funded by the city. There is also an Open Space Board of Trustees policy addressing wetland mitigation associated with the transfer of open space property ownership and interest. N 12. **Modeling Assumptions** - The city continues to have concerns about the modeling assumptions and results. However, the city is supportive of the overall outcome of the Preferred Alternative and Phase 1 solution. Nevertheless, as future phases of project implementation are considered, the city requests to be 2	**Response to Jur-Muni 8:** **[I]:** See General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative). **[J]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) states that: "Retaining walls will reflect natural appearance in textures, and colors and be graffiti resistant." During final design, CDOT and RTD will coordinate with local jurisdictions on design options and appearance for walls. The retaining wall at Davidson Mesa was identified as a preferred design over a slope/cut, due to the visual impacts this would create and the amount of ROW acquisition required. These decisions will be refined during final design when trade-offs, costs, and design detail are better known. Also, see General Response: Final Design. **[K]:** See General Response: Noise. **[L]:** Direct access from a United States highway interchange ramp to a neighborhood does not meet current Federal Highway Administration (FHWA) design standards. With the proposed improvements, US 36 needs to be brought in compliance with these standards. The existing accesses to the Frasier Meadows neighborhood from Baseline Road and Foothills Parkway would not be affected by the proposed changes to US 36. Prior to implementation of these transportation improvements, this interchange must follow the 1601 application and permit process. At that time, these issues may be revisited.

COMMENT	RESPONSE
	Response to Jur-Muni 8: **[M]:** It is CDOT's intent to work with the local jurisdictions regarding their local policies and regulations. However, there is a water rights issue with actually creating wetland replacement at 2:1. CDOT has met with the City of Boulder to initiate discussions regarding how CDOT can meet the intent of this wetland mitigation without invoking a water rights issue. CDOT is willing to do restoration, enhancement, or buffer mitigation to help compensate for this difference. The City of Boulder has recognized this restriction as well by recently creating a variance that can be applied for that allows for this kind of trade-in compensation. CDOT feels it will be able to comply with these requirements, as discussed above, to keep with the intent to work within these local jurisdiction requirements. CDOT is currently working on a wetland mitigation plan with the City of Boulder Open Space and Mountain Parks (OSMP) Department, and will also work with the City of Boulder when project actions are eminent regarding endangered species and other sensitive habitat impacts (to work out proper mitigation measures that would be compatible with their practices). As the US 36 Corridor Project enters into final design, CDOT will work with the City of Boulder and other jurisdictions that will experience wildlife or habitat impacts to develop acceptable and reasonable mitigation measures for these impacts. **[N]:** CDOT and RTD commit to providing the results to the jurisdictions as any models are updated, including population, employment, mode share, and traffic impact analyses.

COMMENT	RESPONSE
Jur-Muni 8 (continued) Jur-Muni 8_City of Boulder_pg4 Date Received: 12/2/2009 Name: City of Boulder Source: E-mail **City of Boulder Comments to US 36 Final Environmental Impact Statement** Ncon'd involved in any updates to the modeling and model analyses related to population and employment assumptions, mode share, traffic impacts, etc. particularly on the west end of the corridor. O 13. **Monitoring Effectiveness of Mitigation Measures** - The long-term and phased approach to project implementation presents an excellent opportunity to learn about effective mitigation strategies. The city requests a monitoring plan be developed and implemented to track the effectiveness of mitigation measures. The city supports the specific recommendations contained in the letter from EPA NEPA Program Director Svoboda (Appendix B pp. 65-66) P 14. **Floodplain** - As permitting and design of this project continues, full consideration and cooperation should be provided to the status and results of the South Boulder Creek flood mapping study. Information on that study is available at: www.southboildercreek.com. Q 15. **Mitigation for Effects to 4(f) Properties** - While compensatory mitigation on city-owned lands may provide some of the necessary compensation for impacts of the project, additional land and water acquisition may also be necessary. Please clarify in the FEIS that mitigation may include the acquisition of land and water necessary to compensate for the direct use of city "refuges" identified as 4(f) properties. For example, language included in the PBA describing compensatory mitigation for impacts to threatened species habitat (ref. Appendix D pg. 8-8) could be included in section 7.5. **POTENTIAL ERRATA** R S T U 3	**Response to Jur-Muni 8:** **[O]:** Monitoring of long-term effectiveness of mitigation measures is a good idea and can be part of the contingencies considered during the phasing of a project, as you suggest. The final mitigation rule for wetland mitigation already addresses this to some degree, and looking for other opportunities to apply this kind of monitoring is a sound practice. CDOT requests that the local jurisdictions partner with it to help gather information over the long-term to ensure lessons learned and BMP improvements can be incorporated as the phases of the project progress. This kind of commitment, with your partnership, has been included in the ROD as clarification. **[P]:** As design and permitting of the project continues, the project team will include the results of the adopted Federal Emergency Management Agency (FEMA) South Boulder Creek floodplain mapping and analysis. **[Q]:** Mitigation described in the Programmatic Biological Assessment (PBA) for endangered species impacts compensation could include the purchase and preservation of additional lands to add back into the city "refuges." These options will be considered when discussing impact mitigation with the associated jurisdictions. During the ROW process, CDOT will consider whether to compensate the refuge land owner per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act) or by land exchange in consultation with the official with jurisdiction, if the opportunity to replace land is available and land is needed by the refuge. **[R]:** Thank you for clarification on current open space activities. The ROD notes that: "The City of Boulder pointed out in their comments on the FEIS that, agricultural activities occur both north and south of US 36 and that all along US 36, the open space is leased for livestock grazing. Additionally, the property that is east of Cherryvale Road and south of US 36 is also cut for hay." **[S]:** "Federal Railroad Administration" is the correct title. **[T]:** In the future, the correct spelling will be used.

Page/Ref	Description
4.16-6 4.16-7	The document states *"Of these sites, only those north of US36, both east and west of Cherryvale Road, currently engage in active activities."* Agricultural activities occur both north and south of US 36 in the vicinity Cherryvale Rd. In fact, all of the city-owned open space land (both north and south) that borders US 36 is leased for livestock grazing. The property that is east of Cherryvale and south of US 36 is cut for hay and grazed by cattle.
Appendix B Pg. 311	The document identifies the agency as the *Federal Railroad Association.* The letter is from the Federal Railroad *Administration*
Appendix D p. 4-2	Gersham should be Gershnan
Appendix D pp 87 & 95	The illustrations/maps of the specific mitigation opportunities differ from those proposed by the City of Boulder. The areas shown as "South Boulder Creek Wetlands" and the "Straty-Cline-Colorado Open Lands Wetlands" are too large

COMMENT	RESPONSE
	Response to Jur-Muni 8: **[U]:** CDOT will arrange to receive the illustrations/maps that you reference. CDOT does not mean to misrepresent these areas; however, the mitigation measures in the PBA will be refined during site-specific consultation with USFWS and the local jurisdiction when project impacts are planned. These PBA maps only suggest opportunities and do not commit these areas for mitigation at this time; there will be opportunities to refine them and to suggest new areas at a later date.

COMMENT	RESPONSE
Jur-Muni 9 **Jur-Muni 9_Louisville.doc_pg1** Date Received: **12/3/2009** Name: **City of Louisville** Source: **E-mailed Letter** City of Louisville Office of the Mayor December 03, 2009 US-36 Mobility Partnership c/o CDR Associates Attention: Andrea Meneghel 100 Arapahoe Avenue, Suite #12 Boulder, Colorado 80302 RE: Transmittal of City of Louisville comments to the US 36 Corridor Final Environmental Impact Study (FEIS) Dear Mr. Meneghel: A The City of Louisville strongly supports the Preferred Alternative defined in the US-36 FEIS. The existing US-36 Corridor is severely congested, outdated, unreliable and does not provide a safe and efficient travel route. The existing congestion will only get worse as population and employment grows along the Corridor between now and 2035. The City also strongly supports a phased approach for funding of the US-36 Corridor improvements and specifically the improvements outlined in Phase 1 of the US-36 FEIS document. The City appreciates the efforts of FHWA, FTA, CDOT, RTD and all the local governments along the US-36 Corridor that worked to build consensus for the Preferred Alternative since the beginning of the EIS process. The City's comments are found below by category for siniplification purposes. Bikeway B Table 2.6-6 of Section 2.6 does not include a connection from the US 36 Bikeway to either Cherryvale Road or South 88th Street. For the ROD, please add a bikeway facility connecting to Cherryvale Road and South 88th Street. C On page 2.6-31 the last paragraph mentions maintenance of the US 36 Bikeway will be maintained by the local governments through an IGA. Maintenance of the Bikeway was not discussed during the PAC process. In the ROD, please leave the IGA language broad enough without specifying who pays for the maintenance to allow for CDOT and local governments to define the best approach to the bikeway maintenance. D The Combined Alternative should include providing additional parking spaces on the north side of the McCaslin BRT station for future bike commuters and trail users. 1 749 Main Street • Louisville, Colorado 80027 • (303) 335-4533 • FAX (303) 335-4550	**Response to Jur-Muni 9:** **[A]:** Comment noted. **[B]:** The bikeway for this project provides a backbone that connects Boulder to Denver. Opportunities for local agencies to connect to this trail are available and are not precluded by the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) actions, such as those for South 88th Street and Cherryvale Road. Also, see General Response: Bikeway. **[C]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway. **[D]:** The parking at the McCaslin park-n-Ride on the north side of US 36 is under a lease agreement so transit patrons can use theater parking during the day. When this BRT station is being rebuilt, RTD is planning to renegotiate this lease agreement. RTD would be willing to work with the City of Louisville and the property owner at that time to determine the appropriate number of parking spaces for transit and bikeway users.

COMMENT	RESPONSE
Jur-Muni 9 (continued) **Jur-Muni 9_Louisville.doc_pg2** Date Received: **12/3/2009** Name: **City of Louisville** Source: **E-mailed Letter** City of Louisville E The Combined Alternative should include a pedestrian underpass in order to provide connectivity from the southwest corner of Damyanovich to the Marshall Mesa Trail System. F CDOT should contact ConocoPhillips to coordinate the location of the bikeway adjacent to the ConocoPhillips campus as ConocoPhillips is also proposing to construct bikeway paths on their campus in order to avoid parallel bikeways. G The Phase 1 layout sheet for McCaslin Blvd needs to show how the bikeway crosses McCaslin Blvd. H In final design and as a safety enhancement the City would like a minimum six foot high barrier considered along the entire bikeway in order to separate the bikeway from the highway. I The City will require fencing between the bikeway and City owned Open Space to prevent trespassing and social trails. This detail can be included during final design. J Please be aware the contractor will need to coordinate their construction activities with the City in order to avoid conflicts with annual events and projects. Bus Rapid Transit/Managed Lane K Section 3.3 – As CDOT/RTD implements the managed lane, Louisville suggests the following be considered to improve operations: • Continuation of express service between Boulder and Denver (without stopping at the McCaslin park-n-Ride) to utilize the full extent of the managed lane. L • Add expanded bus service that originates at the McCaslin park-n-Ride, offering express service to Denver for both Louisville and Superior residents. M • Access to the managed lane west of McCaslin designed to facilitate the greatest use by HOV, HOT users and transit vehicles. Transit Service N Louisville supports the new routes (Table 2.6-7) that serve Lafayette-Louisville-Interlocken and the Denver–Boulder via ConocoPhillips. O Section 3.5.8, Transit Station Parking and Table 3.6-1 – The City supports the proposed mitigation measures to be considered at the McCaslin station during final design under the combined alternative as outlined in this section and table. 2 749 Main Street • Louisville, Colorado 80027 • (303) 666-6565 • Fax (303) 335-4550 • www.ci.louisville.co.us	**Response to Jur-Muni 9:** **[E]:** See General Response: Bikeway. **[F]:** CDOT is currently in a series of meetings regarding this bikeway with ConocoPhillips. Suggestions to improve the layout of the bikeway are welcome and will be investigated. **[G]:** In Phase 1, the bikeway would connect to the existing bikepath located on both sides of McCaslin Boulevard. It would then cross McCaslin Boulevard at Dillon Road on this existing path. **[H]:** See General Response: Final Design. The safety considerations for the bikeway can be addressed during final design. **[I]:** See General Response: Final Design. The fencing and open space protection considerations for the bikeway can be addressed during final design. **[J]:** See General Response: Final Design. The city will be involved in the final design approval process and such requirements can be requested during final design to ensure they get into the contract documents. **[K]:** New language that has been included in the ROD stating that express buses that leave from Boulder heading eastbound will use the managed lane as much as feasible, subject to the driver's discretion. This may mean that after buses leave Table Mesa Drive they will move into the managed lanes and stay there all the way to Denver. **[L]:** New language has been included in the ROD that states that express bus service may be initiated at the McCaslin or Flatiron stations. Those buses would then also enter the managed lanes as soon as feasible and stay there all the way to Denver.

COMMENT	RESPONSE
	Response to Jur-Muni 9: **[M]:** The managed lane access points west of McCaslin Boulevard will be oriented in a way to provide maximum usage of the managed lane between Foothills Parkway and McCaslin Boulevard. In the eastbound direction, an egress access will be provided to serve traffic destined for McCaslin Boulevard. In the westbound direction, an ingress access will be provided so that vehicles from McCaslin Boulevard can access the managed lane. **[N]:** Comment noted. **[O]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 9 (continued) **Jur-Muni 9_Louisville.doc_pg3** Date Received: **12/3/2009** Name: **City of Louisville** Source: **E-mailed Letter** City of Louisville P Transit Station Boardings – Section 3.4 Table 3.4-9 reflects an increase in transit use at the McCaslin Station under the Combined Alternative Package (260 to 480), yet Figure 4.8-4 of the Traffic Report does not reflect increase traffic volumes to the McCaslin Station when compared to the no action volumes shown in Figure 4.8-3. In the ROD, please commit to updating traffic counts at the intersection of Dillon Road and McCaslin Blvd to fully capture the impacts associated with BRT implementation and station improvements as well as the addition of the managed lane – and commit to needed mitigation at the intersection in the future. Q Roadway - Intersection of Dillon Rd and McCaslin Blvd There are inconsistencies within the FEIS on the need to mitigate traffic impacts of the Combined Alternative Package at the intersection of Dillon Road and McCaslin Blvd. The need to mitigate the intersection is mentioned on pages 2.6-38 and 3.6-1 and supported by the delay increase shown on Table 3.4-3. Yet page 3.5-4 along with Table 3.6-1 says no intersection mitigation is necessary at Dillon Rd and McCaslin Blvd under the Combined Alternative Package. Mitigation will be necessary at the intersection of the Dillon Road and McCaslin Blvd under the Combined Alternative Package. The traffic volumes shown in the Traffic Engineering Technical Report under Figure 4.8-4 when compared to the no Action Volumes of Figure 4.8-3 do not accurately reflect the increase in traffic volumes as a result of the BRT Station and the additional capacity on US 36. Thus, the traffic projections included in the FEIS do not adequately represent the subsequent need for improvements to Dillon Rd. The ROD should include commitment to mitigation during Final Design for Phase 1 and prior to construction of BRT improvements. This mitigation should include the additional left-turn lane from northbound McCaslin Blvd to westbound US-36 and an additional through / loop-on lane from southbound McCaslin Blvd to eastbound US-36. The City also recommends review of the traffic counts, as well as the population and employment figures for the Corridor. R During design for Phase 2 (includes McCaslin Interchange improvements) the City would like the traffic forecasts updated and reviewed at the intersection of Dillon Road and McCaslin Blvd prior to the ROD. S During design and prior to the ROD for Phases 2 and 3 the 2035 population and employment figures and associated resulting impacts should be reviewed and updated. Roadway – McCaslin Blvd Interchange T The third paragraph on page 2.6-38, Table 3.4-2 on page 3.4-8 and the paragraph on McCaslin Blvd on page 3.5-4 should clearly state the additional lanes which will be provided on the McCaslin Blvd Bridge. Specifically, the additional lanes will be a left-turn on westbound US-36 from northbound McCaslin Blvd and a loop-on from southbound McCaslin Blvd to eastbound US-36. 3 749 Main Street • Louisville, Colorado 80027 • (303) 666-6565 • Fax (303) 335-4550 • www.ci.louisville.co.us	**Response to Jur-Muni 9:** **[P]:** See General Response: Final Design. Depending on when these improvements occur at McCaslin Boulevard, the traffic data, if more than a couple of years old, would need to be reevaluated. A reevaluation will be necessary for this interchange improvement in a later phase anyway due to the time that will lapse from the FEIS analysis to when funding would be available to make this improvement, so there will be an opportunity to reassess this proposed improvement at that time. Mitigation was not predicted to be necessary at this interchange with our current data and predictions on population and employment from DRCOG. However, these predictions would be reassessed using current data, and if mitigations are required with the new data, then they would be implemented as part of this action. **[Q]:** The changes in traffic forecasts for the Combined Alternative Package (Preferred Alternative) were not as great for Packages 2 and 4; therefore, the traffic impacts for the Combined Alternative Package (Preferred Alternative) did not require mitigation at this intersection. Additional information on mitigation thresholds is documented in Section 3.5.1, Interchange and Transit Station Traffic Impacts, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). **[R]:** All improvements recommended for US 36 will be reevaluated when the ROD for that area is being prepared. New turning movement counts will be taken and applied to develop the new future year forecasts for intersections. Forecasting tools used in this process will be based on federal analysis requirements and will be applied in a methodology compatible with the methodology used for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The result of the reevaluation will be incorporated into the final design of the improvements, which will be provided to jurisdictions for review. **[S]:** For future RODs, the traffic forecasts will be updated and reevaluated using the approved DRCOG regional model for the selected forecast horizon year. The DRCOG approved employment and population data included in that model will be the basis for the forecasts used in the reevaluation. **[T]:** To clarify, the two additional lanes on the McCaslin Boulevard bridge are a left-turn lane on westbound US 36 from northbound McCaslin Boulevard, and a loop-on lane from southbound McCaslin Boulevard to eastbound US 36. This clarification is noted in Section 3, Clarifications to the US 36 Corridor Final Environmental Impact Statement, of the ROD.

COMMENT	RESPONSE
Jur-Muni 9 (continued) **Jur-Muni 9_Louisville.doc_pg4** Date Received: **12/3/2009** Source: **E-mailed Letter** | Name: **City of Louisville** City of Louisville U The proposed configuration for McCaslin Blvd Interchange as discussed on page 4-52 of the Traffic Engineering Technical Report is not accurate as it includes a discussion on the existing loop-on ramp and does not discuss the additional lanes which will be provided under the Combined Alternative Package. Specifically, there will be a left-turn on westbound US-36 from northbound McCaslin Blvd and a loop-on from southbound McCaslin Blvd to eastbound US-36. Please clarify this issue in the ROD. Parking Impacts V Table 2.6-1 states there will only be 10 parking spaces removed on the northern Park –n Ride at McCaslin which contradicts the layout sheet for the Combined Alternative Package at McCaslin which shows the removal of more than 10 parking spaces. Please clarify this in the ROD. W Table 4.3-17 shows 365 parking spaces for retail and commercial buildings in the McCaslin Boulevard Interchange area to be displaced under the Combined Alternative Package. Details and actions to minimize displacement and disruption should continue through final design and in coordination with the City of Louisville. Please commit to this mitigation in the ROD. ROW/Acquisitions X Reducing (avoiding and minimizing) the number of property acquisitions required through design modification during final design should be a high priority wherever possible. Noise Y Figure 4.9-11 shows a sound wall adjacent to the Dyer Road neighborhood which contradicts the proposed mitigation discussed for Dyer Road on page 4.13-17. Z The City was unable to find information in the Highway Noise Analysis Technical Report for the modeling which concluded noise mitigation is not required adjacent to Avista Hospital. Additionally, the City has concerns regarding the noise impacts of the Combined Alternative at the Coal Creek Golf Course. Please clarify this situation in the ROD and indicate whether or not mitigation is needed. Parks and Open Space AA As the FEIS document was unable to provide detailed design information regarding the height of the retaining walls associated with the Combined Alternative within Louisville. The City wishes to be involved in the final design of the retaining walls and work in partnership with CDOT in identifying alternatives which will minimize the visual and aesthetic impacts of the retaining walls. AB Table 4.9-1 needs to include the Damyanovich Open Space (area around private home and area between US 36 and Dyer Road) and the Open Space property owned by Louisville between the Golf Course and Avista Hospital adjacent to US 36. Please make this correction in the ROD. 4 749 Main Street • Louisville, Colorado 80027 • (303) 666-6565 • Fax (303) 335-4550 • www.ci.louisville.co.us	**Response to Jur-Muni 9:** **[U]:** The *Traffic Engineering Technical Report Addendum* (URS 2009) presents the Existing, Package 1 (No Action), and Combined Alternative Package (Preferred Alternative) configurations. The existing loop on-ramp is appropriately presented in the section discussing the existing configuration. The additional lanes, as noted above, on the McCaslin Boulevard bridge are a left-turn lane on westbound US 36 from northbound McCaslin Boulevard, and a loop-on lane from southbound McCaslin Boulevard to eastbound US 36. **[V]:** Table 2.6-1, Parking and Pedestrian Crossings at Transit Stations, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) shows the number of available parking spaces on the north side of the park-n-Ride as 172 spaces in Package 1 (No Action), and 10 spaces in the Combined Alternative Package (Preferred Alternative). This results in a loss of 162 spaces on the north side of the park-n-Ride, as shown in the last column of Table 2.6-1. Mitigation for these impacts, such as shifting the bikeway, adding a retaining wall, realigning the eastbound off-ramp, renegotiating the parking agreement lease, and redesigning the bus ramps and station platforms, is discussed in the *US 36 Corridor FEIS*. **[W]:** See General Response: Final Design. CDOT is committed to minimizing impacts during final design. Discussions concerning the final design will include the City of Louisville. **[X]:** See General Response: Final Design. CDOT is committed to minimizing ROW impacts during final design, where feasible. **[Y]:** The discussion on page 4.13-17 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) is correct. A sound wall is not proposed in this location. A note has been added to the ROD that the sound wall on Figure 4.9-11, Parks and Open Space in the Boulder Segment — Combined Alternative Package (Preferred Alternative), adjacent to the Dyer Road neighborhood, is not recommended.

COMMENT	RESPONSE
	Response to Jur-Muni 9: **[Z]:** Avista Hospital is not included in the *Highway Noise Analysis Technical Report* (Hankard Environmental et al. 2007) or the *Highway Noise Analysis Technical Report (Addendum)* (Hankard Environmental 2009). As mentioned in Volume III, Response to Comments of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), it was determined at the beginning of the noise analysis that the hospital would not meet the Noise Abatement Criteria (NAC) threshold based on its distance from the highway. This was confirmed during preparation of the FEIS. Coal Creek Golf Course is identified as receptor 86 in the noise analysis. In the note to Table 4-1 of the *Highway Noise Analysis Technical Report* (Hankard Environmental et al. 2007) and the *Highway Noise Analysis Technical Repor*t (A*ddendum)* (Hankard Environmental 2009), it states, "Typically, noise mitigation is not provided for golf courses as while there is active outdoor use, this use is for a short duration of time." **[AA]:** See General Response: Final Design. CDOT is committed to minimizing impacts during final design. CDOT will work with the City of Louisville with regard to these retaining walls and alternatives that can be considered. **[AB]:** You are correct. The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) (specifically response to Comment #13-9) did not include these open space properties. The Damyanovich Open Space and Avista Open Space have been added to the ROD. Impact evaluations during final design often pick up these omissions, which will be addressed at that time.

COMMENT	RESPONSE
Jur-Muni 9 (continued) **Jur-Muni 9_Louisville.doc_pg5** Date Received: **12/3/2009** Source: **E-mailed Letter** Name: **City of Louisville** City of Louisville AC Table 4.9-5 along with Figure 4.9-10 and Figure 4.9-11 need to include the Damyanovich Open Space (area around private home and area between US 36 and Dyer Road) and the Open Space property owned by Louisville between the Golf Course and Avista Hospital adjacent to US 36 which will be impacted under the Combined Alternative Package. Additionally, the text for the Louisville / Superior Segment and the Boulder Segment will need to be revised to address the impacts of the Combined Alternative Package on the Damyanovich Open Space and Open Space property between the Coal Creek Golf Course and Avista Hospital. Please clarify this in the ROD. Biological Resources AD Table 4.14-1 needs to include dry land agriculture under the Superior/Louisville segment for primary upland vegetation types. AE Davidson Mesa is not part of the designated Colorado Tall grass Prairie Natural Area as discussed on page 4.14-10. AF Please provide maps to the City of raptor nests and prairie dog colonies to be impacted as discussed in Section 4.14. AG The following comments are included for final design of the Combined Alternative and associated phases. Please add this information as a mitigation commitment in the ROD: AH All agricultural fences that are removed must be replaced with four strand high tension smooth wire. All non agricultural fences must be replaced with either post or dowel or wildlife friendly high tension sooth wire at the discretion of the Parks and Recreation Department. Furthermore all gates, latches and fence specifications and locations must be reviewed and approved by the Parks and Recreation Department. AI All species list (Vegetation and Landscaping) for reseeding, planting and landscaping within the City's right of way must be reviewed and approved by the City. AJ "Salvaged" top soil from other municipalities will not be allowed for use within the City right of way. "Salvaged" soil locations within the City right of way (for transfer to other locations within the City of Louisville) must be approved by the Parks and Recreation Department before the donation location is impacted. AK Hydro mulching is not permitted within the City of Louisville. Erosion control materials and timing of seeding must be in compliance with the City Reclamation Standards. AL Tree replacement stock should be two (2) inch caliper and species should conform to native riparian tree species found along the front range of Colorado. Species include plains 5 749 Main Street • Louisville, Colorado 80027 • (303) 666-6565 • Fax (303) 335-4550 • www.ci.louisville.co.us	**Response to Jur-Muni 9:** **[AC]:** The Combined Alternative Package (Preferred Alternative) would result in impacts to 1.38 acres of the Damyanovich Open Space property, and 0.45 acre of the Avista Open Space property, as well as 2.13 acres to Park S3. Phase 1 would result in impacts to 1.38 acres of the Damyanovich Open Space property, and 0.43 acre of the Avista Open Space property, as well as 0.85 acre to Park S3. These corrections have been added to the ROD and impacts will be cleared under a reevaluation. **[AD]:** While we acknowledge that dry land agriculture exists in the area, it is not a standard term for vegetation types as a biological description. This land use has been clarified in the ROD. **[AE]:** Lynn Riedel from the City of Boulder OSMP confirmed that Davidson Mesa is a part of the Colorado Tallgrass Prairie Natural Area. Davidson Mesa north of US 36 is developed, but the area south of US 36 has both xeric and mesic tallgrass prairie communities that are part of the natural area. **[AF]:** A map of raptor nests and prairie dog colonies along the corridor is forthcoming. **[AG]:** These local jurisdiction requirements will be addressed during final design. **[AH]:** These local jurisdiction requirements will be addressed during final design. **[AI]:** These local jurisdiction requirements will be addressed during final design. **[AJ]:** These local jurisdiction requirements will be addressed during final design. **[AK]:** These local jurisdiction requirements will be addressed during final design. **[AL]:** These local jurisdiction requirements will be addressed during final design.

COMMENT	RESPONSE
Jur-Muni 9 (continued) **Jur-Muni 9_Louisville.doc_pg6** Date Received: **12/3/2009** Name: **City of Louisville** Source: **E-mailed Letter** City of Louisville AL cont'd cottonwood, peach-leaved willow and box elder. Newly planted tree species should receive supplemental water when needed annually for two (2) years after planting. AM The City would like the opportunity for further input when appropriate on possible re-vegetation and selection of tree species to enhance the visual and audible benefits to the Coal Creek Golf Course. The extents of impacts to the Coal Creek Golf Course are not yet determined so specifics related to revegetation are unknown at this time. AN All plantings and reseeding shall be under a two year maintenance period where CDOT is responsible for watering, herbicide control and other maintenance. Herbicide records must be submitted to the City of Louisville. Herbicide use must be in complacence with the City of Louisville Integrated Weed Management Plan AO Slopes must not to exceed a 4:1 slope ratio Construction-Related Impacts AP Please be aware equipment staging, project parking and access across City owned Open Space and Parks will not be allowed during construction of the Combined Alternative. Thank you for the opportunity to comment. Sincerely, Charles Sisk Mayor, City of Louisville 6 749 Main Street • Louisville, Colorado 80027 • (303) 666-6565 • Fax (303) 335-4550 • www.ci.louisville.co.us	**Response to Jur-Muni 9:** **[AM]:** These local jurisdiction requirements will be addressed during final design. **[AN]:** These local jurisdiction requirements will be addressed during final design. **[AO]:** These local jurisdiction requirements will be addressed during final design. **[AP]:** These local jurisdiction requirements will be addressed during final design.

COMMENT	RESPONSE
Jur-Muni 10 Juri-Muni 10_Broomfield Baskett _pg1 Date Received: 12/09/2009 Source: Emailed Letter Name: City and County of Broomfield, Transportation Manager Debra Baskett City/Zip: Broomfield 80020 CITY AND COUNTY OF BRO One Des Combes Dr • Broomfield, CO 80020 • Phone: (30 US 36 Mobility Partnership c/o CDR Associates Attention: Andrea Meneghel 100 Arapahoe Avenue, Suite #12 Boulder, Colorado 80302 DEC 0 9 2009 RE: Transmittal of City of Broomfield Comments to US 36 Final Environmental Impact Study (FEIS) Dear Mr. Meneghel: A The City of Broomfield strongly supports the Preferred Alternative defined in the US 36 FEIS. The existing US 36 Corridor is severely congested, outdated and unreliable and does not provide a safe and efficient travel route. The existing congestion will only get worse as population and employment grows along the Corridor between now and 2035. B Broomfield also strongly supports a phased approach for funding of the US 36 Corridor improvements and specifically the improvements outlined in Phase 1 of the US 36 FEIS document. Reconstruction of the Wadsworth Interchange along with construction of a managed lane which includes Bus Rapid Transit is of great importance to our jurisdiction. C It is very important that ROW impacts to both public and private lands are minimized in final design. Please see our specific comments noted on the Appendix Maps. D The City appreciates the efforts of FHWA, FTA, CDOT, RTD and all the local governments along the US 36 Corridor that worked to build consensus for the Preferred Alternative since the beginning of the EIS process. Broomfield's comments follow. Chapter 2 E Figure 2.6-11 and Table 2.6.-5 describe the access points to the managed lanes. Access points between each interchange on US 36 should continue to be included in the ROD and final design. F Page 2.6.31 last paragraph: It should not be assumed that maintenance of the US 36 bikeway will be the responsibility of local jurisdictions. Prior to implementation, Broomfield will want to negotiate IGAs related to maintenance.	**Response to Jur-Muni 10:** **[A]:** Comment noted. **[B]:** Comment noted. **[C]:** See General Response: Final Design. **[D]:** Comment noted. **[E]:** See General Response: Final Design. **[F]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Jur-Muni 10 (continued) Juri-Muni 10_Broomfield Baskett _pg2 Date Received: 12/09/2009 Source: Emailed Letter Name: City and County of Broomfield, Transportation Manager Debra Baskett City/Zip: Broomfield 80020 G Table 2.6-6: Bikeway Crossings and Connections During final design, it will important to find a way to tie the bike trail into Wadsworth Parkway to facilitate a north/south crossing of US 36. Page 2.6-37 – Bikeway During final design, a connection of the bikeway to 112th Avenue should be included to facilitate connectivity to the local street system. Chapter 4 H Page 4.4-6 ROW and Relocations. The Broomfield Segment states the "No residences and five businesses would require relocation in the Broomfield Segment. Most of the businesses that would be acquired in this segment are located at the interchange of 120th Avenue and Wadsworth Boulevard". There is no "interchange" of 120th Avenue and Wadsworth Boulevard. The streets, however, do come together at an intersection. The appendix maps show no full property, nor partial property acquisitions at this location. Please clarify this in the ROD. I Page 4.14-10. The Carolyn Holmberg Preserve should be listed under Boulder County, not Broomfield. Please clarify this in the ROD. J Page 4.14-44. Loss of prairie dog colonies. CDOT should abide by Broomfield's prairie dog policy during construction of areas within Broomfield. Please note this in the ROD. Chapter 4.21 Wetlands and Other Waters. K Page 4.21.8. Rock Creek and a Tributary to the West. This area is in Broomfield, not Superior/Louisville. Also on page 4.21-27. Please note this in the ROD. L Page 4.21-29 Table 4.21-9. Mitigation Measures. Broomfield generally prefers on-site mitigation for wetlands. We would prefer wetland creation or enhancement in most cases. M Chapter 4.7- Historic and Archeological Preservation Page 4.7-35, The property located at 8375 West 120th Avenue (commonly referred to as the Broomfield School House) is of historic value to the City and County of Broomfield. In final design and implementation we request that in addition to the recently completed historic survey and inventory, the property be documented for historical purposes. We request further review and coordination with City/county staff as to possible relocation upon the property being acquired by the Department of Transportation. Chapter 4.9 Parks and Open Space N Table 4.9.1: Parks and Open Space Resources Adjacent to US 36 – Frank Varra Park is in Broomfield, not Louisville. Please clarify this in the ROD.	**Response to Jur-Muni 10:** **[G]:** See General Response: Bikeway. **[H]:** This should be the interchange of 120th Avenue and Wadsworth Parkway (rather than Wadsworth Boulevard). This statement is referring to the general area of the US 36 and Wadsworth Parkway interchange, which includes 120th Avenue. **[I]:** See General Response: Combined Alternative Package (Preferred Alternative). **[J]:** During final design, CDOT will work with Broomfield to incorporate Broomfield's prairie dog policy into the project requirements. CDOT has committed to this mitigation in Table 4.14-24, Mitigation Measures — Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). **[K]:** See General Response: Combined Alternative Package (Preferred Alternative). **[L]:** CDOT will conduct on-site planting and slope stabilization along streams as required under SB 40 and CDOT's MS4 permit. Under the TEA-21 federal guidance and the U.S. Army Corps of Engineers (USACE) Final Mitigation Rule, "preference shall be given, to the maximum extent practicable, to the use of the mitigation bank" to compensate for wetland impacts resulting from transportation projects using federal funds. During the permit process and final design, the USACE will determine if using wetland banking in this area is appropriate mitigation. **[M]:** The current survey form for this property does not have any information pertaining to the property being used as a school house and the form will be updated to reflect this important aspect of local history prior to any project action impacting the property. CDOT will conduct an assessment to determine whether the house, made of rusticated concrete blocks, can be successfully relocated. In addition, CDOT will prepare historical documentation of the home, to include photographs on archival paper, as part of the mitigation for the property. **[N]:** See General Response: Combined Alternative Package (Preferred Alternative).

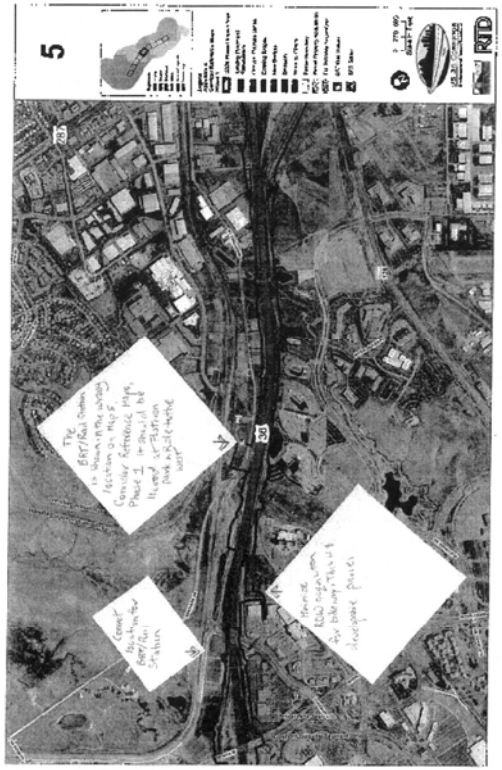
COMMENT	RESPONSE
Jur-Muni 10 (continued) Juri-Muni 10_Broomfield Baskett _pg3 Date Received: 12/09/2009 Source: Emailed Letter Name: City and County of Broomfield, Transportation Manager Debra Baskett City/Zip: Broomfield 80020 N cont'd Table 4.9.3: Impacts to Park/Open Space Resources. Frank Varra Park is in Broomfield. Adjust Area of Impact (acres) on table. Please make this correction in the ROD. Page 4.9-12, Superior/Louisville Segment, paragraph 3 Correct Varra Park to be in Broomfield. Please correct in ROD. O Page 4.9.28, Table 4.9-6: Mitigation Measures – Parks and Open Space Open space acquisition. Upon implementation, Broomfield's policy is that reimbursement for open space is paid even if replacement lands are not immediately available. Park land acquisition. Upon implemen:ation, Broomfield will advocate that mitigation measures should not limit comparable replacement of parkland and facilities to within 2 miles of the affected parkland. P Section 4.18 - Utilities It appears that a few major utilities (i.e., sanitary sewer, reuse water, storm sewer) within the Broomfield Segment have been omitted from the discussion, Table 4.18-3 and Figure 4.18-3. There are also numerous utilities (water, sanitary sewer, storm sewer, irrigation ditches, and water reuse) within the Broomfield Segment that are not shown (diameters less than 24") which need to be taken into consideration during the design and construction of any transportation improvements. Q Section 4.20 Water Resources: Water Quality and Floodplains Surface Water Classifications (4.20-7) – It is anticipated that Rock Creek may be on the 303(d) list in the near future to include selenium (anticipated Spring 2010) and E. coli (anticipated within the next few years). Broomfield must be included in all reviews associated with the Rock Creek stream crossings. R Mitigation (4.20-14) – Consideration shall be given to providing detention to address the 100-year storm water runoff/water quality issues associated with the new imperviousness areas associated with additional lanes along US 36 at the following locations within Broomfield: (1) East bound off-ramp at US 36/SH 121; (2) US 36 culvert crossing approximately 1.5 miles west of SH 121; and (3) Along both sides of US 36 under S. 96th Street. Please note this in the ROD. S Floodplain Impact Evaluation - Methodology (4.20-15) – It appears that the FEMA Q100 for Rock Creek is 4,520 cfs based on the Amendment to Flood Insurance Study, Broomfield Colorado, "Rock Creek Update from Superior Boundary Downstream to U.S. Highway 36" FEMA Contract No. EMW-94-C-4549, Taggart Engineering Associates, April 21, 2001. This should be addressed in final design. T Floodplain Impact Evaluation – All Build Packages/Rock Creek (4.20-18) – It appears that the existing floodplain is contained within the US 36 crossing at Rock Creek and overtops during the 500-Year flood based on the following references: (1) Amendment to Flood Insurance Study, Broomfield Colorado, "Rock Creek Update from Superior	**Response to Jur-Muni 10:** **[O]:** This will be addressed during the ROW process in accordance with the Uniform Act. **[P]:** CDOT's process during final design entails a detailed review by our utilities specialists who are trained at finding these "hidden" utilities and helping the project team redesign to avoid or negotiate with the utility owner what needs to be done to minimize impacts to this service. **[Q]:** Broomfield will be included in all reviews during final design related to Rock Creek. Issues associated with Rock Creek water quality will be addressed at that time. **[R]:** CDOT and RTD will address the additional impervious areas in the water quality design. **[S]:** The new structure at Rock Creek will allow for 100-year flows under US 36; clarification regarding the Rock Creek flows has been included in the ROD. **[T]:** The existing structure is overtopped during the 500-year storm as well as the 100-year storm. The new structure at Rock Creek will allow for 100-year flows under US 36.

COMMENT	RESPONSE
Jur-Muni 10 (continued) Juri-Muni 10_Broomfield Baskett _pg4 Date Received: 12/09/2009 Source: Emailed Letter Name: City and County of Broomfield, Transportation Manager Debra Baskett City/Zip: Broomfield 80020 T Cont'd Boundary Downstream to U.S. Highway 36" FEMA Contract No. EMW-94-C-4549, Taggart Engineering Associates, April 21, 2001; and (2) Flood Insurance Rate Map (FIRM) No. 0850730059F, Federal Emergency Management Agency, Revised August 18, 2004. This should be addressed in final design. U Wetlands and Other Waters (Section 4.21) This section acknowledges Community Ditch and the adjacent Interlocken storm water ponds. The realignment of bikeways (Mitigation) should be taken into consideration during design and construction. V Construction-Related Impacts (Section 4.22) As part of utility relocation, consideration should be given to the installation of utility sleeves under US 36 for future use. Appendix Maps W Map 5, Appendix A- Corridor Reference Maps, Phase 1. The BRT/Rail Station is shown in the wrong location, in the red full parcel take. It should be shown at the Flatiron park n Ride to the west. It is shown correctly on Map 5, Corridor Reference Maps, Combined Alternative Package (Preferred Alternative). See attached markup on map. Please make this correction in the ROD. X Map 5, Combined Alternative Package, Preferred Alternative and Map 5, Phase 1, there is a full parcel acquisition shown where the bikeway turns south to connect to the existing Zip pathway. This is a developable parcel. In final design the area of right of way should indicate the need for approximately a 20' impact area to accommodate the bikeway. See note on Page 5 of the attached markup. Please modify this in final design. Y Map 6, Combined Alternative Package, Preferred Alternative. Why isn't the small triangle of land to the west of the symbol for the BRT/Rail Station acquired? It is an island surrounded by takes on all sides. See attached mark up on map. Please clarify this in the Record of Decision (ROD). Z All Corridor Reference Maps for Phase 1 should indicate a managed lane in addition to general purpose lanes. Thank you your attention to these comments. Sincerely, Debra A. Baskett Debra A. Baskett Transportation Manager cc: George Di Ciero Charles Ozaki Kevin Standbridge	**Response to Jur-Muni 10:** **[U]:** CDOT will work to minimize impacts during final design. Also, see General Response: Final Design. **[V]:** This issue will be considered during final design with input from local jurisdictions and utility companies. **[W]:** As clarified in the ROD, the Phase 1 maps have been appended and the BRT/rail station logo has been moved to the correct location. **[X]:** The existing grading of that parcel is such that the re-grading of most of the parcel is required to accommodate the bikeway. In final design, CDOT will have more information to determine if impacts can be minimized. **[Y]:** The property has already been acquired by RTD. **[Z]:** As clarified in the ROD, the Phase 1 maps have been updated to indicate managed lanes and general-purpose lanes.

COMMENT	RESPONSE
Jur-Muni 10 (continued)	

Juri-Muni 10_Broomfield Baskett _pg5

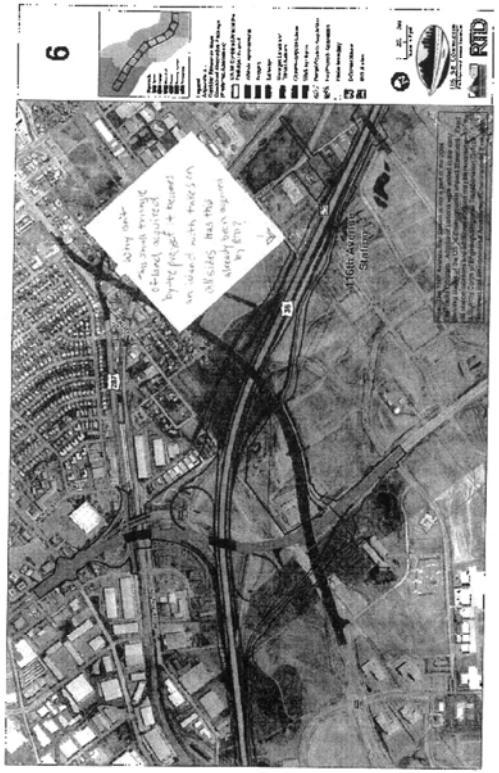
Date Received:	12/09/2009	Name:	City and County of Broomfield, Transportation Manager Debra Baskett
Source:	Emailed Letter	City/Zip:	Broomfield 80020



COMMENT	RESPONSE
Jur-Muni 10 (continued)	

Juri-Muni 10_Broomfield Baskett _pg6

Date Received:	12/09/2009	Name:	City and County of Broomfield, Transportation Manager Debra Baskett
Source:	Emailed Letter	City/Zip:	Broomfield 80020



COMMENT	RESPONSE
Jur-Muni 11 **Jur-Muni 11_Adams.doc_pg1** Date Received: **12/14/2009** Source: **Mailed Letter** Name: **Adams County Commissioners' Office; Colorado State Representative, District 35; Save Your Neighborhood Access (SYNA) Committee; and Perl Mack Community** ADAMS COUNTY COLORADO Commissioners' Office 450 South 4th Avenue Brighton, CO 80601 PHONE 303.654.6100 FAX 303.659.0577 www.co.adams.co.us December 7, 2009 Mr. Russell George, Executive Director, CDOT c/o CDR Associates ATTN: Andrea Meneghel 100 Arapahoe Avenue, Suite 12 Boulder, CO 80302 **RE: Adams County and the Broadway Area Community's Submittal of Impacts Associated with Closing Local Access to Broadway** Dear Mr. George: A On behalf of the Adams County Board of Commissioners, State Representative Cherylin Peniston, Save Your Neighborhood Access (SYNA) Committee, Mapleton School District, North Washington Fire District, Adams County Sheriff's Office and local businesses and residents, we want to thank you and the US 36 project team for moving in a positive direction on the local access to Broadway issue. The State and Federal Highway Administration's (FHWA) openness and efforts to work with the county and community to halt (to the extent possible in the FEIS) the elimination of local access to Broadway from southbound I-25 and westbound I-270/US 36 prior to a separate study being conducted is greatly appreciated. B Per the June 10, 2009 agreement among Adams County, SYNA Committee representatives and the State and FHWA (Broadway-area stakeholders), we are submitting this letter to share our concerns related to any potential closure of our local access to Broadway as part of Adams County's official comments for the US 36 FEIS. Also pertaining to our agreement, we have attached a hard copy of the slides presented by the SYNA committee to the State and FHWA at the April 9, 2009 US 36 public meeting along with the most current list of community members who have attended a meeting, written a letter or signed a petition in opposition to closing local access to Broadway. The county anticipates this letter and attached presentation will be officially responded to in the Record of Decision for the US 36 EIS. Further, as the Broadway-area stakeholders agreed to at the June 2009 meeting, this letter serves as a starting point for any subsequent study that shall take place prior to any changes to our local access to Broadway. BOARD OF COUNTY COMMISSIONERS W. R. "Skip" Fischer, DISTRICT 1 Alice J. Nichol, DISTRICT 2 Larry W. Pace, DISTRICT 3	**Response to Jur-Muni 11:** **[A]:** Comment noted. **[B]:** CDOT and RTD acknowledge the views of the Adams County Board of Commissioners, State Representative Cherylin Peniston, Save Your Neighborhood Access (SYNA) Committee, Mapleton School District, North Washington Fire District, Adams County Sheriff's Office, and local businesses and residents for your knowledge of the area and your concerns associated with the closing of local access to Broadway. CDOT and RTD appreciate your involvement in this process and look forward to a continued partnership when a separate study is conducted. Also, see General Response: I-25/Broadway Interchange.

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Jur-Muni 11_Adams.doc_pg2

Date Received:	12/14/2009	Name:	Adams County Commissioners' Office; Colorado State Representative, District 35; Save Your Neighborhood Access (SYNA) Committee; and Perl Mack Community
Source:	Mailed Letter		

Mr. Russell George
December 7, 2009
Page 2

B CONTINUED

The county and community's concerns about local access to Broadway being eliminated from southbound I-25 and westbound I-270/US 36 include, but are not limited to the following:

- Impacts to our community
- Residential impacts
- Business and economic impacts
- School impacts
- Public safety impacts and emergency services impacts
- Traffic impacts
- Air quality impacts

Thank you once again for working with us to move forward successfully on this important issue. We look forward to a positive and coordinated effort among all Broadway-area stakeholders in the future to examine the effects of any access changes to Broadway.

Sincerely,

Larry W. Pace
Chairman

Alice J. Nichol

W. R. "Skip" Fischer

Colorado State Representative Cherylin Peniston, District 35

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Jur-Muni 11_Adams.doc_pg3

Date Received: 12/14/2009 Source: Mailed Letter	Name:	**Adams County Commissioners' Office; Colorado State Representative, District 35; Save Your Neighborhood Access (SYNA) Committee; and Perl Mack Community**

Save Your Neighborhood Access (SYNA) Committee

Mr. Kevin Beach
Mr. Bob Koelmel
Mr. Damon Brown
Mr. Dan Micek
Ms. Charlotte Ciancio
Mr. Randy Miller
Mr. Mark Cirbo
Fire Marshall Abe Praznik
Mrs. Lynn Cirbo
Ms. Michelle Ramos
Ms. Norma Frank
Ms. Jeanne M. Shreve
Sherriff Deputy David Gabel
Ms. Trina Turner
Ms. Lynn Johnson
Mr. Tim Vanpinsbergen

Perl Mack Community

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

SAVE YOUR NEIGHBORHOOD
LOCAL ACCESS
Community Presentation to the

Colorado Department of Transportation and the Federal Highway Administration

Global Leadership Academy
6:00 PM

April 9, 2009

1

Introduction

- Meet our Broadway Community!
- Traffic Impacts Overview
- Business Perspective
- Residential Perspective
- School Perspective
- Emergency Responders Perspective
- Insurance Perspective

A Community Introduction to CDOT and FHWA.

CDOT and FHWA need to get to know a community before they unilaterally decide to change it.

The Broadway Area is an established community, built around a highway system.

The Highway system is an integral part of the community, without it, we become isolated.

Here's your opportunity to get to know us!

2

Meet Our Community

It takes a lot of different partners to create a community:

Com mu ni ty \kə-myōō'nĭ-tē\ *noun*
From Latin *communis* – common interests
- Living in a particular area
- An interacting population

It takes a lot of different partners to create a community, and we've got all of them!

We want to start off by introducing you to our community , so you better understand the people and businesses you will isolate and cut off from the greater Denver area if our local access to Broadway is eliminated.

3

Meet Our Community

We are local businesses…

…over 570 strong!

Meet our businesses -- Nearly 600 businesses strong within a mile of our local Broadway access!

We say "strong" because many of our businesses – such as Swiss Tire and Automotive, have been there for decades, while many have recently joined our neighborhood in the last several years because they can both serve the community and are accessible to the greater Denver metro area too.

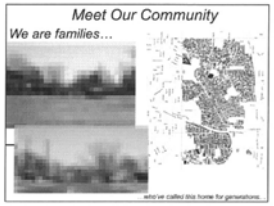
In fact, let's highlight Mickey's Restaurant for a moment.

The Broncucia family has owned the land where the restaurant is for three generations and it started out to be a farm where the grandpa of Mike Broncucia raised fresh vegetables. Well about forty-five years ago, Mickey decided to open an Italian restaurant next to his father's neighbor hood grocery store. It did very well as an Italian restaurant and later Mickey decided to add Mexican Food and Steaks. As it continued to grow and the kids and grandkids got involved, they kind of out grew the old building so in 2005 they built a whole new building on the opposite corner of the property where Mickey's is now.

People have been coming to Mickey's and our other businesses for years from all over the Denver metro area. Businesses are attracted to the area and stay because we are a safe ***and accessible community.***

4

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

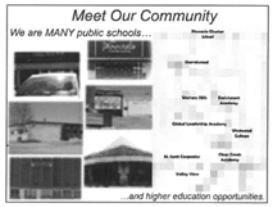


We are multiple generations of families, some with established routes for over 100 years.

This map shows about 4000 homes in an area bounded by Pecos to the west, 84th to the north, I-25 to the east, and about 65th to the south.

What you don't see is that many generations of families call this area home, choosing to both live close to one another and being accessible to the greater Denver area.

5



Just in our area, we are 7 public schools, Westwood College, and many specialized technical schools – such as the Clear Creek Academy of

Jewelry and Metal Arts, which joined our community over 5 years ago.

6

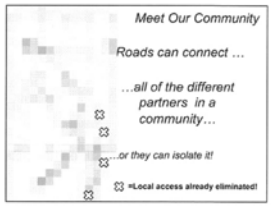
We have libraries, community centers, senior care facilities, emergency response services, and we even host the County's Child and Family Services building, which has over 220 employees and contractors, and serves close to 20,000 customers annually, who come from anywhere in the County.

The reason the county placed the Child and Family Services building here – don't think good highway access was not a crucial reason for moving into our neighborhood!

We also have one of RTD's Park & Ride facilities, with over 300 parking spaces, serving 4 established regional routes, but more importantly, we have special transit services coming into and out of our neighborhood on a daily basis. Why would the District have located a park & ride here if it weren't for the great access?

For instance, during the week of May 11-17, 2008, "868" Access-a-Ride trips started or ended in our community.

7



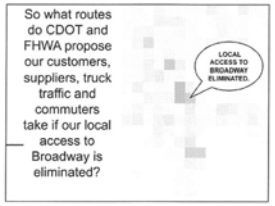
Roads can connect all of the different partners in a community…

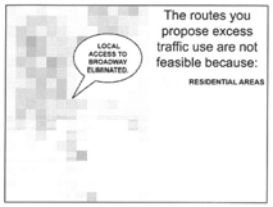
…OR THEY CAN ISOLATE IT!

SUCH AS WHEN WE LOST ACCESS TO I-76 EASTBOUND AND I-25 NORTHBOUND LATE LAST YEAR.

8

COMMENT	RESPONSE
Jur-Muni 11 (continued)	





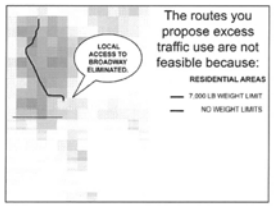
•THE FIRST PROBLEM IS YOUR PROPOSED ALTERNATIVE ROUTES FOR SOUTHBOUND I-25 TRAFFIC ARE RESIDENTIAL AREAS.

•MANY OF OUR RESIDENTS ARE ELDERLY, WITH HEALTH ISSUES.

•OUR COMMUNITY IS CONCERNED WITH INCREASED TRAFFIC, NOISE, SAFETY AND AIR QUALITY THAT WILL OCCUR WITH THE ADDITIONAL TRAFFIC YOU PROPOSE USE OUR RESIDENTIAL STREETS.

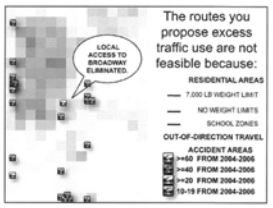
9

10



•THESE RESIDENTIAL AREAS ARE ALSO ENTIRELY WEIGHT LIMITED EXCEPT GREENWOOD BOULEVARD.

•BUT THE PROBLEM WITH GREENWOOD BOULEVARD IS....



•...THERE ARE TWO SCHOOL ZONES ON GREENWOOD BLVD AND ONE ON 84TH AVENUE.

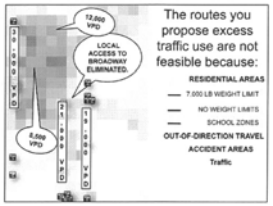
•YOUR SUGGESTED ROUTES ALSO INCREASE OUT-OF-DIRECTION TRAVEL

•AND YOUR PROPOSED ROUTES ARE ALSO HIGH ACCIDENT AREAS.

11

12

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

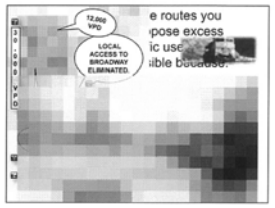


•AND LETS TALK TRAFFIC NOW –

•ALL OF YOUR PROPOSED ROADS ARE ALREADY CONGESTED!

•ADD THAT TO ALL THE ACCIDENTS, SCHOOL ZONES, RESIDENTIAL AREAS WITH HIGH CONCENTRATIONS OF SENIORS AND CHILDREN, AND HIGH TRAFFIC VOLUMES, WE CAN'T SEE WHY YOU WOULD PROPOSED TO ROUTE EVEN MORE TRAFFIC ONTO THESE ALREADY CONGESTED STREETS.

13

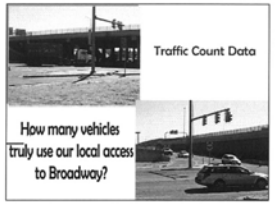


•THE LAST POINT THE COMMUNITY WANTS TO MAKE ON YOUR PROPOSED ALTERNATIVE ROUTES IS ABOUT PEOPLE COMING OFF I-25 TO TH 58TH AVENUE INTERCHANGE TO GO NORTH ON BROADWAY.

•ONE OF THE MAJOR PROBLEMS THERE IS THE TRAIN THAT BLOCKS BROADWAY FOR SIGNIFICANT AMOUNTS OF TIME EVERYDAY SHOULD NOT BE CONSIDERED AN ALTERNATIVE ROUTE, UNLESS THE PROBLEM IS SOLVED WITH A GRADE SEPARATION OF BROADWAY FROM THE RAILROAD TRACKS.

•I JUST TOOK THIS PHOTO YESTERDAY!

14



15

March 2009 Deputy Gabel using a hand counter noted the following number of vehicles using the Broadway exit ramp to access Broadway to the north or south. The vehicles using this exit ramp would have to use an alternative route to reach their destination.

Below are those findings:

March 4, 2009 (Wednesday)	5:00-5:30 pm =	175 Vehicles
March 6 , 2009 (Friday)	8:00-8:30 am =	161 Vehicles
March 11, 2009 (Wednesday)	12:00-12:30 pm =	132 Vehicles
March 11, 2009 (Wednesday)	4:30-5:00 pm =	177 vehicles
Average per 30-minute time frame =		161.25 Vehicles

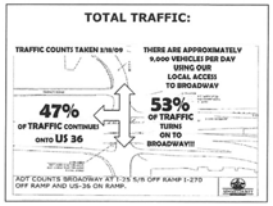
16

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Morning and evening traffic counts turning onto Broadway.
Taken between the hours of:
5:00 AM to 9:00 AM and 4:00 PM to 8:00 PM

DATE	TIMES	TOTAL PEAK HOUR COUNTS
Tues 3/31/09	6:00 AM TO 9:00 AM	736 CARS
	3:30 PM TO 7:00 PM	NORTH ON BROADWAY 733 CARS
		SOUTH ON BROADWAY 306 CARS
Wed 4/1/09	5:00 AM TO 9:00 AM	NORTH ON BROADWAY 256 CARS
		SOUTH ON BROADWAY 520 CARS
	4:00 PM TO 7:00 PM	NORTH ON BROADWAY 510 CARS
		SOUTH ON BROADWAY 167 CARS
		SOUTH ON BROADWAY 306 CARS
Thurs 4/2/09	5:00 AM TO 9:00 AM	NORTH ON BROADWAY 200 CARS
		SOUTH ON BROADWAY 373 CARS
	4:00 PM TO 7:00 PM	NORTH ON BROADWAY 522 CARS
		SOUTH ON BROADWAY 210 CARS

17



THE MAJORITY OF TRAFFIC USING COMING OFF I-25 SOUTHBOUND AND I-270 WESTBOUND IS TURNING ONTO BROADWAY!

IN THESE TOUGH ECONOMIC TIMES, WHEN CDOT'S BUDGET HAS BEEN CUT BY OVER $500 MILLION IN THE PAST TWO YEARS, HOW CAN YOU POSSIBLY WANT TO SPEND MILLIONS OF DOLLARS ON A PROJECT THAT ONLY BENEFITS UNDER 4,500 VEHICLES A DAY!

18

Business Perspective

- Economic impacts to businesses
  - Loss of Jobs
  - Property values
  - Loss of revenue
  - Loss of customers
  - Increased overhead costs (i.e., time ,fuel, etc..)
- Increased commute times for employees

There are almost 600 businesses in this community with hundreds of employees and customers.

We moved here because it's a good location, and access is at the heart of our vibrant community. The State has already eliminated Northbound I25 and Eastbound I76 access.

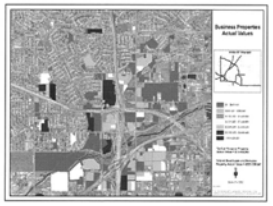
If we lose more access to Broadway, we won't be a good location anymore and WE WILL lose customers, people WILL lose their jobs.

Consider some of the impacts closing local access to Broadway will cause:

1. A lot of our businesses have fleets of cars and trucks. We also have a lot of third-party delivery services. Re-routing these larger vehicles through our residential areas and school zones is not acceptable. It creates unsafe neighborhoods, increases costs for out-of-direction travel to name just two impacts.
2. We are an economically distressed area: The cost of doing business will sky-rocket – we can't afford it.

Eliminating our local access to Broadway from the highway system is an Unfair hardship on the businesses, forcing them to close or relocate to less desirable locations.

19



Over 570 businesses representing $300 M in property value generating over $7M tax revenue.

30% loss of value = $5 M in tax revenue

50% loss of value = $3 M in tax revenue

20

COMMENT	RESPONSE

Jur-Muni 11 (continued)

Property Value Analysis

	CURRENT EST. VALUE	20% LOSS OF LEASES VALUE	50% LOSS OF LEASES VALUE
PROPERTY #1	$ 5,606,144	$ 2,668,464	$ 2,370,678
PROPERTY #2	$22,002,635	$15,286,080	$10,808,376
PROPERTY #3	$10,197,788	$ 6,996,922	$ 4,863,012
PROPERTY #4	$17,492,624	$12,025,307	$ 8,350,429
TOTALS	$55,299,191	$37,976,774	$26,428,496
TAX REVENUE	$ 1,258,765	$ 855,050	$ 615,916

There is a real possibility of these reducing values.

Serious adverse conditions for everyone. On behalf the entire business community, we ask you to reconsider the plans and Save our Broadway Access.

21

Economic Impacts

Average Jobs and Revenue	17.4	$4,352,000.00
Average X 150 Businesses	2610	$652,800,000.00
Actual Total (Raw Data)	**435**	**$108,800,000.00**
Multipler of 2	5220	$1,305,600,000.00

22

Residential Perspective

- You call us an "Environmental Justice Community – we'd rather think of ourselves as an:

  "An Established Neighborhood!"

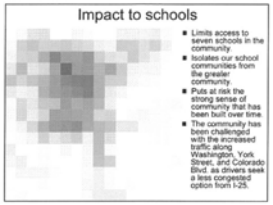
23

Residential Perspective

- US 36 Draft EIS Statement:
  - *"The communities with the possibility of experiencing adverse impacts predominantly borne by minority populations and/or low-income households from the build packages are located in the Adams segment." (Page 4.6-9)*
  - *"Early public involvement efforts are key to addressing environmental justice issues and provide information to the project team about people's perceptions of impacts and benefits…(Page 4.6-8)"*
  - *When did you come and talk to us about losing our local access to Broadway?*

24

COMMENT	RESPONSE
Jur-Muni 11 (continued)	



Closing our local access to Broadway limits both access schools and isolates our communities from one another. In addition, it puts at risk the strong sense of community that has been built over time.

Over the past several years, the community has been challenged with the increased traffic along Pecos, Conifer, Greenwood Blvd, North Washington, York Street, and Colorado Blvd. By closing the Broadway exits, commuters will be further encouraged to use these secondary roads. The increased traffic will directly impact the schools' ability to safely transport students. Additionally, emergency vehicles are becoming increasingly challenged to quickly respond to our calls.

On behalf of the Public Schools in the area, we strongly encourage local, state, and national officials to consider the negative and potentially damaging effects of closing the access to Broadway.

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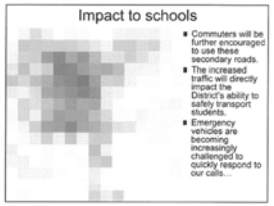

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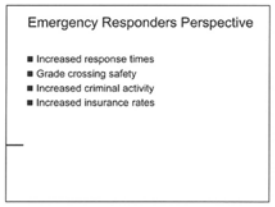

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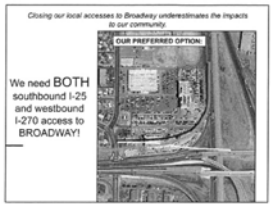
COMMENT	RESPONSE
Jur-Muni 11 (continued)	



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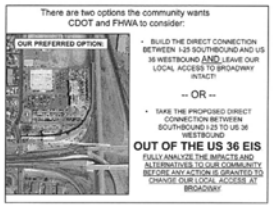

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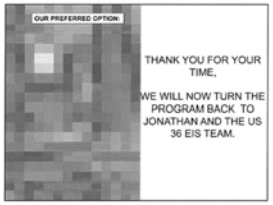

31

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
1000 EAST 73RD AVENUE	2750 QUAIL VALLEY ROAD	SOLVANG	CA	93463
1200 WEST 70TH AVE LLC	13191 LOGAN ST	THORNTON	CO	80241
1345 CORTEZ L.L.C.	PO BOX 21316	DENVER	CO	80221
1401 LLC	1861 E BENDIX DRIVE	TEMPE	AZ	85283
1513 70TH LLC	PO BOX 775835	STEAMBOAT SPRINGS	CO	80477
1605-85 E 69TH AVENUE LIMITED LLLP	8228 EVERETT WAY	ARVADA	CO	80005
6401 BROADWAY PROPERTY LLC C/O COMPTON DANDO INC	12445 E 39TH AVE NO 202	DENVER	CO	80239
6800 BROADWAY BUSINESS CENTER LLC	1512 LARIMER ST SUITE 325	DENVER	CO	80202
6901 BROADWAY LLC	1103 OAK PARK DRIVE SUITE 110	FT COLLINS	CO	80525
7250 GILPIN WAY NO 130 LLC	3578 SOUTH WACO WAY	AURORA	CO	80013
7350 BROADWAY ASSOCIATES LP	910 HARVEST DRIVE SUITE 105	BLUE BELL	PA	19422
7350 BROADWAY ASSOCIATES LP	910 HARVEST DRIVE SUITE 105	BLUE BELL	PA	19422
7K BROADWAY LLC C/O DEAN CALLAN AND CO	1510 28TH STREET	BOULDER	CO	80303
851 HIGHWAY 224 A-5 LLC	6401 N BROADWAY UNIT L	DENVER	CO	80221
851 LLC	12511 E 112TH AVE	HENDERSON	CO	80640
ABITZ ELDON L	6890 HURON ST	DENVER	CO	802217056
ABITZ ELDON L	6890 HURON ST	DENVER	CO	802217056
ACCESS SPORTS LLC	1441 E 96TH PLACE	THORNTON	CO	80229
ACCESS SPORTS LLC	1441 E 96TH PLACE	THORNTON	CO	80229
ACME INDUSTRIAL LLC	5040 ACOMA STREET	DENVER	CO	80216
ACME INDUSTRIAL LLC	5040 ACOMA STREET	DENVER	CO	80216
ADAMS COUNTY	450 S 4TH AVE	BRIGHTON	CO	806013137
ADAMS COUNTY BOARD OF COUNTY COMMISSIONERS	450 S 4TH AVENUE	BRIGHTON	CO	806013137
ADAMS COUNTY HOUSING AUTHORITY	7190 COLORADO BLVD	COMMERCE CITY	CO	80022
ADDUCCI THOMAS A AND ADDUCCI CANDACE S	583 E 76TH AVE	DENVER	CO	802296206
ADUCCI JOSEPH 1/3 AND ENGDAHL RANIE R 1/ PARSONS RANDY 1/6 AND ROTELLO ANGELA 1/6	4505 QUAY	WHEATRIDGE	CO	80033
AJI II RLLP	909 EAST 68TH AVE	DENVER	CO	80229
ALPHA AND BROWN ENTERPRISES LLC	16411 QUAIL RIDGE COURT	MORRISON	CO	80405
AMMCO LLC	899 WHISPERING OAK DRIVE	CASTLE ROCK	CO	80104
ANDERSON BONELESS BEEF INCORPORATED	909 E 75TH AVE	DENVER	CO	802296400
ARTISTIC FLOWERS ADN GIFTS INC	482 W 114TH WAY	NORTHGLENN	CO	80234
BALISTRERI BLOCKS 103 AND 104 PARTNERSHIP	6700 WASHINGTON ST	DENVER	CO	802297017
BALISTRERI JOHN A	1946 E 66TH AVE	DENVER	CO	80229
BANUELOS LEO AND FUENTE TERESITA DELA	7629 CONIFER ROAD	DENVER	CO	80221
BARNES TONY L AND O CONNOR-BARNES EILEEN	7450 WILLIAMS ST	DENVER	CO	802296503
BARRIE RANDY L AND BARRIE SANDRA L	6911 BROADWAY ST	DENVER	CO	80221
BATEMAN LARRY LEROY AND BATEMAN MARY ANN	900 W 70TH AVENUE	DENVER	CO	80221
BAYLON JOSE M SR AND BAYLON MARTHA	6770 GREEN COURT	DENVER	CO	80221
BB-CO 8 LLC 90/178% INT AND BRIDGE CO INVESTMENT FUND I BRIARWOOD LLC 9/822%	5295 SOUTH COMMERCE DRIVE SUITE 175	SALT LAKE CITY	UT	84107
BB-CO 8 LLC 90/178% INT AND BRIDGE CO INVESTMENT FUND I BRIARWOOD LLC 9/822%	5295 SOUTH COMMERCE DRIVE SUITE 175	SALT LAKE CITY	UT	84107
BERGER PROPERTIES LLC	1400 E 69TH AVE	DENVER	CO	80229
BIGGS KEVIN E AND LYNNE M	1715 E 69TH AVE UNIT A	DENVER	CO	80221
BLUE OWL INVESTMENTS LIMITED LIABILITY COMPANY	5000 KINGSTON ST	DENVER	CO	80239
BOISE BUILDING SOLUTIONS DISTRIBUTION LLC	1111 WEST JEFFERSON ST	BOISE	ID	83728
BOOCO LAWRENCE E AND BOOCO LOYOLA A	8228 EVERETT WAY	ARVADA	CO	800052209
BOULDER CAMPGROUNDS INC	2560 49TH STREET	BOULDER	CO	80301
BOYER WILLIAM J IRREVOCABLE TRUST THE ATTN WILLIAM J BOYER TRUSTEE	21528 MOUNTSFIELD DRIVE	GOLDEN	CO	80401
BRITTANY RIDGE AT METRO OWNERS ASSOCIATION INC C/O HOMEOWNERS CONCERNS	1527 E 131ST PLACE	THORNTON	CO	80241

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
BROADWAY NORTH HOMEOWNERS ASSOCIATION	501 E COUNTY RD 70	WELLINGTON	CO	80549
BRONCUCCI BETTY L	140 W 70TH AVE	DENVER	CO	802212912
BRONCUCIA ENTERPRISES LLC	6950 BROADWAY	DENVER	CO	802212902
BRONCUCIA JOSEPH A AND BRONCUCIA PATRICIA A	120 E 70TH AVE	DENVER	CO	802212904
BRONCUCIA MICHAEL AND BRONCUCIA MARLENE	544 SUNDOWN LANE	DENVER	CO	80221
BROWNLEE ROBERT D	12002 MELODY DRIVE	WESTMINSTER	CO	80234
BUMGARDNER JACK L AND BUMGARDNER JILL J	10540 ROSS STREET	BROOMFIELD	CO	80021
BURKEY MANAGEMENT COMPANY INC	12021 PENN STREET NO 102	THORNTON	CO	80241
BUTLER HENRY JR AKA HENRY A JR	9163 W 75TH CIR	ARVADA	CO	80005
C.E.S. ENTERPRISES LLC	1383 S GARFIELD AVE	LOVELAND	CO	80537
CAPITAL ASSET FINANCE CORPORATION C/O LAFF STEIN CAMPBELL TUCKER AND DELAN	7730 E BELLEVIEW AVE SUITE 204	ENGLEWOOD	CO	801112616
CAPITAL AUTOMOTIVE HOLDINGS LLC	8270 GREENSBORO DR STE 950	MC LEAN	VA	221024909
CARJO LLC	5725 OLDE STAGE RD	BOULDER	CO	80302
CARMA WESTMINSTER LLC	188 INVERNESS DRIVE WEST SUITE 150	ENGLEWOOD	CO	80112
CASTRO MANUEL/BEATRIZ AND CASTRO ALMA	1601 S PERRY	DENVER	CO	80219
CDM CAPITAL ASSET GROUP INC	10880 BENSON DRIVE SUITE 2390	OVERLAND PARK	KS	66210
CENTER GREENHOUSE INC	1550 E 73RD AVE	DENVER	CO	802296904
CENTER LAND COMPANY C/O PAUL YANTORNO	7354 N WASHINGTON ST	DENVER	CO	80229
CENTER LAND PROPERTIES	7285 GILPIN WAY SUITE 100	DENVER	CO	80229
CENTRAL LATIN AMERICAN DISTRICT COUNCIL OF THE ASSEMBLIES OF GOD	7510 SHERMAN ST	DENVER	CO	80221
CHAPMAN MAX LEE TRUST DTD 06/09/2005	2111 ALKIRE STREET	GOLDEN	CO	80401
CHARPENTIER PAUL R TRUST AND CHARPENTIER KATHRYN R TRUST THE	1601 GARNET STREET	BROOMFIELD	CO	80020
CHAVEZ MARIO AND CHAVEZ MARGARET	739 WCR 47	HUDSON	CO	80642
CHESROWN CHEVROLET LLC	7320 N BROADWAY	DENVER	CO	80221
CHESROWN COLLISION CENTER INC	7420 N WASHINGTON STREET	DENVER	CO	80229
CHINA BOWL EXPRESS INC	7220 PECOS ST	DENVER	CO	802212762
CIANCIO DON	9555 RALSTON ROAD	ARVADA	CO	80002
CIANCIO FRANK AND IN CONNECTION WITH AN EXCHANGE THE GRANTEE UNDER THE 1031 OF I	155 ALBION STREET	DENVER	CO	80202
CIANCIO FRANK AND IN CONNECTION WITH AN EXCHANGE THE GRANTEE UNDER THE 1031 OF I	155 ALBION STREET	DENVER	CO	80202
CIRBO MARK AND CIRBO LYNN	16670 JASMINE ST	BRIGHTON	CO	806026053
CITY OF THORNTON	9500 CIVIC CENTER DR	THORNTON	CO	80229
CLEAR CREEK BUSINESS CENTER LLC	1512 LARIMER ST SUITE 325	DENVER	CO	80202
CMC STEEL FABRICATORS INC	1 STEEL MILL DRIVE	SEGUIN	TX	78155
COEN DONALD AND COEN FRANCES	6769 JAY ROAD	BOULDER	CO	80301
COEN DONALD AND COEN FRANCES	6769 JAY ROAD	BOULDER	CO	80301
COLORADO AGRICULTURAL DITCH CO AND THE LOWER CLEAR CREEK	NEED ADDRESS			
COLORADO AGRICULTURAL DITCH COMPANY	NEED ADDRESS			
COLORADO AGRICULTURAL DITCH COMPANY	NEED ADDRESS			
COLORADO AGRICULTURAL DITCH COMPANY	NEED ADDRESS			
COLORADO AGRICULTURAL DITCH COMPANY THE	NEED ADDRESS			
COLORADO DEPARTMENT OF TRANSPORTATION	4201 E ARKANSAS AVE	DENVER	CO	80222
COLORADO DEPARTMENT OF TRANSPORTATION	2000 SOUTH HOLLY ST	DENVER	CO	802224818

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
COLORADO INDUSTRIAL POLRTFOLIO LLC	1512 LARIMER ST NO. 325	DENVER	CO	802021618
CONDOMINIUMS AT CITY HORIZON LLC	5800 FRANKLIN SUITE 201	DENVER	CO	80216
CONDON MICHAEL L	2220 LAKE AVENUE BOX 851	EASTLAKE	CO	80614
CONDON MICHAEL L	14482 GARFIELD ST	BRIGHTON	CO	806017738
CONIFER LANDING I LLC	12472 CIRCULA PANORAMA	SANTA ANA	CA	92705
COPTIC CHRISTIAN CREDIT UNION LLC	11 BELLEVUE STREET	WEEHAWKEN	NJ	07086
CORDOVA DEMIS AND CORDOVA SHERRY	4460 MORRISON ROAD	DENVER	CO	80219
CORONADO CROSSING LLC	5275 DTC PARKWAY	GREENWOOD VILLAGE	CO	80111
COVARRUBIAS MANUEL PHILIP	7581 BROADWAY	DENVER	CO	802213659
CRAIG CARL C AND CRAIG THERESA M	13 TAMGLEWOOD DRIVE	DURANGO	CO	81301
CREATIVE ESTATES LLC	6825 BROADWAY	DENVER	CO	802212878
CREATIVE ESTATES LLC	6825 BROADWAY	DENVER	CO	802212878
CRESTVIEW WATER AND SANITATION DISTRICT FKA BAKER METROPOLITAN WATER	P O BOX 21299	DENVER	CO	80221
CUSTOMYZ LLC	13572 HARRISON STREET	THORNTON	CO	80241
D AND D PROPERTIES LLC	15700 WINCHESTER BLVD	LOS GATOS	CA	95030
DAVIS RONALD L	226 W POLARIS PLACE	THORNTON	CO	80260
DEEDS PARTNERSHIP	1831 E 73RD AVE	DENVER	CO	80229
DENVER AND RIO GRANDE WESTERN RR COMPANY THE/C/O PROPERTY TAX DEPARTMENT	1700 FARNAM STREET 10TH FLOOR SOUTH	OMAHA	NE	681022010
DENVER ROCK ISLAND RAILROAD COMPANY ATTN THOMAS MARS	3400 E 56TH AVE	COMMERCE CITY	CO	80022
DEPARTMENT OF TRANSPORTATION	4201 E ARKANSAS AVE	DENVER	CO	80222
DIANNIE STEVEN D	6097 W 84TH AVENUE	ARVADA	CO	80003
DISABLED AMERICAN VETERANS DEPARTMENT OF COLORADO	1485 HOLLAND ST	LAKEWOOD	CO	80215
DOMENICO CAROLYN M	3558 WEST 111TH DRIVE NO. A	WESTMINSTER	CO	80234
DORADO PROPERTIES LLC	2808 CALIFORNIA STREET	DENVER	CO	80205
DOYLE PATRICK T AND DOYLE MARCELLA M	7156 PECOS ST	DENVER	CO	80221
DTML LLC	2498 W 115TH DRIVE	WESTMINSTER	CO	80234
DUGGAN PROPERTIES LLC	4320 S DOWNING	ENGLEWOOD	CO	80113
EHRLICH JOHN AND EHRLICH LYDIA	1001 E 75TH AVE UNIT A	DENVER	CO	80229
ENGDAHL RANIE VECCHIARELLI	4505 QUAY ST	WHEAT RIDGE	CO	800333516
ESCALERA OSCAR	481 DRAKE STREET	DENVER	CO	802214179
EUREKA LAND AND CATTLE COMPANY LLC C/O MARGO L TILTON	PO BOX 351221	WESTMINSTER	CO	80035
FAITH REVIVALS INC C/O VICTORY TEMPLE	14016 W 59TH PL	ARVADA	CO	80004
FANNING REAL ESTATE LIMITED LIABILITY COMPANY	11017 BALSAM ST	BROOMFIELD	CO	80021
FELLOWS STEVE H AND FELLOWS BRIAN T OF S AND B LLC	11377 MARSHALL STREET	BROOMFIELD	CO	80020
FERN LLC C/O UDI BARON	101 E 70TH AVE	DENVER	CO	80221
FERNANDEZ AARON D	420 CAMPO ST	DENVER	CO	802213614
FITTS RONALD W AND FITTS KATHRYN L	851 E HWY 224 NO. A6	THORNTON	CO	80229
FORGE COMPANY LLC	8000 E PRENTICE AVE #82	GREENWOOD VILLAGE	CO	80111
FRANK VICTOR H JR AND FRANK NORMA J	7401 RACE ST	DENVER	CO	802296502
G AND N HOLDINGS LLC	4404 FAIRWAY LANE	BROOMFIELD	CO	80020
GACCETTA BERNICE REVOCABLE LIVING TRUST	1051 E 73RD AVE	DENVER	CO	802296818
GACCETTA BERNICE REVOCABLE LIVING TRUST	1051 E 73RD AVE	DENVER	CO	802296818
GACCETTA ROSE J IRREVOCABLE LIVING TRUST	891 E 71ST AVE	DENVER	CO	80229
GARCIA MARIA ISELA AND GARCIA MANUEL J	12710 YATES STREET	BROOMFIELD	CO	80020
GASKIN FAMILY TRUST C/O JOHN E GASKIN TRUSTEE	2111 E HIGHLAND AVE SUITE NO. 155	PHOENIX	AZ	850164757
GENERAL INDUSTRIAL INVESTORS II LLC	1153 BERGEN PKWY SUITE M454	EVERGREEN	CO	80439
GERMAIN INVESTMENT CO	1825 LAWRENCE ST NO. 112	DENVER	CO	802021817
GILMAR INVESTMENT COMPANY LTD	1900 W 12TH AVE	DENVER	CO	802043416
GOLDEN ARCHES UNINC	7966 ELMWOOD LN	DENVER	CO	802213763

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
GONZALES BILLY P AND GONZALES FLORA I	10027 FRANKLIN ST	THORNTON	CO	80229
GORSKI JOHN M AND GORSKI DELANA K	10022 IRVING STREET	WESTMINSTER	CO	80030
GPA TOWER LLC C/O AXIS COMMERCIAL REALITY	2460 W 26TH AVENUE SUITE 300-C	DENVER	CO	80211
GUTIERREZ MANUEL JAVIER AND GUTIERREZ LAURA	4326 CEYLON STREET	DENVER	CO	80249
GUTIERREZ MIGUEL SR AND OTILIA	4515 HOOKER STREET	DENVER	CO	80211
GUTKNECHT ERIC AND JESSICA LLC	911 E 75TH AVE	DENVER	CO	802296401
HAAS KEITH AND HAAS SHANNON	7148 RUSSELL COURT	ARVADA	CO	80007
HALLIGAN DAN AND HALLIGAN SHERRI	851 US HIWAY 224 NO. B4	DENVER	CO	80229
HALLIGAN DANIEL P AND HALLIGAN SHERRI E	851 E HIGHWAY 224 UNIT A4	DENVER	CO	802296853
HALLIGAN DANIEL P AND HALLIGAN SHERRI E	851 HWY 224 A-3	DENVER	CO	80229
HANEY LEASING LLC	6540 N WASHINGTON STREET	DENVER	CO	80226
HARMAN-MANAGEMENT CORPORATION NO 463	PO BOX 572530	SLC	UT	84157
HARRISON DOUGLAS	1089 N 50 W	OREM	UT	84057
HEFNER LINDA AND ROTHFUSS ROBERT M JR	4803 W 114TH DRIVE	WESTMINSTER	CO	80031
HERTZ REALTY CORPORATION ACCOUNTING 1N	225 BRAE BLVD	PARK RIDGE	NJ	076561888
HIGH NOON ASSOCIATES	2750 QUAIL VALLEY ROAD	SOLVANG	CA	93463
HIGH POINT VILLAGE HOMEOWNERS ASSOC C/O MANAGEMENT SPECIALISTS INC	390 INTERLOCKEN CRESCENT STE 500	BROOMFIELD	CO	800218041
HOFFMAN INVESTMENT COMPANY INC	6825 BROADWAY	DENVER	CO	80221
HYLAND HILLS PARK AND RECREATION DISTRICT	1800 W 89TH AVE	FEDERAL HEIGHTS	CO	80260
INGLE REAL ESTATE LIMITED PARTNERSHIP	200 E BELTLINE DR	COPPELL	TX	75019
INVESTORS PENCHANT ONE LLC	965 PEARL STREET	DENVER	CO	80202
J AND C LLC	7575 W 22ND AVE	LAKEWOOD	CO	802145717
J D STEEL COMPANY INC	PO BOX 18009	PHEONIX	AZ	85005
J H D S LLC	6363 S NETHERLAND WAY	CENTENNIAL	CO	80016
J.A.A.D. LTD LIABILITY CO	10375 RANCHO MONTECITO DRIVE	PARKER	CO	80138
JBTK PARTNERSHIP LLLP ET AL C/O STOCK BUILDING SUPPLY ATTN CLIFF M	3717 S UNIVERSITY DRIVE	FT WORTH	TX	76109
JHDS LLC	6363 S NETHERLAND WAY	CENTENNIAL	CO	80016
JHDS LLC	1445 E 68TH AVENUE	DENVER	CO	80229
JSM INVESTMENTS LLC	2669 E HIGHWAY 224	DENVER	CO	80229
JW HOLDINGS LLC	435 GARLAND STREET	LAKEWOOD	CO	80226
JWBSK INVESTMENT GROUP LLC	6591 WASHINGTON ST	DENVER	CO	80229
K AND C SISTER LLC	9943 DOWNING CIRCLE	THORNTON	CO	80229
K L WERTH LLC	2555 E 70TH AVENUE	DENVER	CO	80229
KB HOME COLORADO INC	5975 S QUEBEC STREET SUITE 300	CENTENNIAL	CO	80111
KING HOWARD G/REED GARY/HOEFFNER RENE L TRUSTEES/CHURCH OF GOD OF PROPHECY	1010 W 69TH AVE	DENVER	CO	80221
KINNICKINNIC REALTY CO	7700 E ARAPAHOE RD SUITE 280	ENGLEWOOD	CO	80112
KOEHLER THOMAS H	21436 INDIAN SPRINGS RD	CONIFER	CO	80433
LA RUSSO DAVID C TRUSTEE FOR CLYDE LA RUSSO FAMILY TRUST	7535 LAFAYETTE	DENVER	CO	802296437
LAMAI PROPERTIES LLC	6955 N BROADWAY	DENVER	CO	80221
LE SON AND LE THUY	132 LOVELAND WAY	GOLDEN	CO	80401
LEE KEN	16411 QUAIL RIDGE COURT	MORRISON	CO	80405
LEMUS MANUEL	3300 DOWNING STREET	DENVER	CO	80205
LEVIN GARY	2750 QUAIL VALLEY ROAD	SOLVANG	CA	93463
LINTHICUM NANCY O BRIEN	7764 SHADOW GLEN LN	ARLINGTON	TN	38002
LMC PROPERTIES INC	PO BOX 8048 BLDG 100 RM U4228	PHILADELPHIA	PA	19101
LOI CHAY AND DO NU TO	1160 HICKORY WY	ERIE	CO	80516
LONE STAR HEAT TREATING CORP	6200 UTSA BLVD BLDG 2	SAN ANTONIO	TX	78249
LOWERY RICK AND LOWERY CYNTHIA	1001 E 75TH AVE UNIT C	DENVER	CO	80229
LOWRY DEVELOPMENT I LTD	741 S WILLIAMS STREET	DENVER	CO	80209
MALMSTROM LARS	3723 W 97TH AVENUE	WESTMINSTER	CO	80031
MANDALAY IRRIGATION COMPANY	NEED ADDRESS			
MARCHESE LAND CO LLC C/O JERRY J MARCHESE	740 DOWNING WAY	THORNTON	CO	80229

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
MARRONE ANTIONETTE 25% /MARRONE KENNET 25% /MARRONE STANLEY J 25% /MARRONE	1041 E 71ST AVE	DENVER	CO	80229
MASERANG WENDE L AND ARAGON EUGENE P	6970 OSAGE STREET	DENVER	CO	80221
MAURER SCOTT AND MAURER KIMBERLEY W	2941 JASMINE STREET	DENVER	CO	80207
MAZZOTTI GEORGE VICTOR ETAL	7340 RACE ST	DENVER	CO	802296909
MAZZOTTI FRED J AND MAZZOTTI BETTY L	1780 W 115TH CIRCLE	WESTMINSTER	CO	80234
MAZZOTTI FRED J AND MAZZOTTI BETTY L	1780 W 115TH CIRCLE	WESTMINSTER	CO	80234
MAZZOTTI GEORGE V AND MAZZOTTI RUTH G	7340 RACE ST	DENVER	CO	802296909
MC DANIEL LARRY E AND NANCY J	13740 BASALT CT	BROOMFIELD	CO	80020
MEASTAS STEVE AND MEASTAS LESLIE L	6800 MARIPOSA ST	DENVER	CO	80221
MENDICINO PARTNERS	8787 TURNPIKE DRIVE NO. 260	WESTMINSTER	CO	80030
METRO WASTEWATER RECLAMATION DISTRICT	NEED ADDRESS			
MHG LLC	10290 W 55TH LANE 3106	ARVADA	CO	80002
MIDAPAD HOLDINGS LLC	5778 S DEPEW CIR	LITTLETON	CO	801230860
MILANO PATRICK R AND MILANO ANTHONY J	7339 RACE ST	DENVER	CO	80229
MILLER JOHN B	16840 E 121ST CIRCLE	BRIGHTON	CO	80603
MMJ INVESTMENTS LLC	8301 E ILIFF AVE	DENVER	CO	802313252
MOLINARO FRANK	4120 S NARCISSUS WAY	DENVER	CO	80237
MORRIS JERRY ET AL	7320 PECOS ST	DENVER	CO	802212764
MT ZION LUTHERAN CHURCH	500 DRAKE ST	DENVER	CO	80221
MUNOZ VANGIE J	4345 ALCOTT STREET	DENVER	CO	80211
MVG TURNPIKE LLC UND 35.0858% INT ET C/O SVN EQUITIES LLC	18831 VON KARMAN SUITE 200	IRVINE	CA	92612
NAIL MICHAEL TIMOTHY AND NAIL ROBERTA LEE	PO BOX 747	BYERS	CO	80103
NELSEN LANCE R AND NELSEN RONNIE W	7601 LAFAYETTE STREET	DENVER	CO	80229
NELSON JOHN E	11388 LAMAR STREET	WESTMINSTER	CO	80020
NEW N WASHINGTON LLC	7000 E BELLEVIEW AVENUE SUITE 300	GREENWOOD VILLAGE	CO	80111
NGR LLC	4404 FAIRWAY LANE	BROOMFIELD	CO	80020
NICHOL FAMILY TRUST THE	891 E 71ST AVE	DENVER	CO	80229
NOREGS LLC	9963 W 86TH AVE	ARVADA	CO	80005
NORTH SIDE GARDENS LLC	1550 EAST 73RD AVE	DENVER	CO	80229
NORTH SIDE GARDENS LLC	7285 GILPIN WAY UNIT 100	DENVER	CO	802296507
NORTH SIDE GARDENS LLC	1550 EAST 73RD AVE	DENVER	CO	80229
NORTH SIDE GARDENS LLC	1550 EAST 73RD AVE	DENVER	CO	80229
NORTH SIDE GARDENS LLC	1550 EAST 73RD AVE	DENVER	CO	80229
NORTH WASHINGTON FIRE PROTECTION DISTRICT	8055 WASHINGTON ST	DENVER	CO	802295818
NORTH WASHINGTON WATER AND SANITATION DISTRICT	3172 E 78TH AVE	DENVER	CO	80229
NOTARY JAMES AND NOTARY LINDA L	6881 NAVAJO ST	DENVER	CO	802217030
O A E PARTNERSHIP	7694 RARITAN ST	DENVER	CO	802214230
OLGUIN JAMES J AND OLGUIN YOLANDA V	6769 BENTON ST	ARVADA	CO	800034242
PALERMO, DOMENICO, PALERMO L.L.C.	2071 E 74TH AVE	DENVER	CO	80229
PEDOTTO JOSEPH J AND PEDOTTO EDWARD M	6946 W 83RD WAY	ARVADA	CO	80003
PEDOTTO JOSEPH J AND PEDOTTO EDWARD M	6946 W 83RD WAY	ARVADA	CO	80003
PENNETTA RANDOLPH G AND PENNETTA SHARRON L	8905 LANDER STREET	WESTMINSTER	CO	80031
PETERSON DONALD O	12055 WELD CO RD NO. 2	BRIGHTON	CO	80601
POLSON CHARLES M AND POLSON SHALON M	1656 E 135TH AVE	DENVER	CO	802411982
PORTALES ROBERTO E C	6920 OSAGE STREET	DENVER	CO	80211
POWELL NANCY M	2150 E 97TH PLACE	THORNTON	CO	80229
PREMIER INTERNATIONAL LLC	1520 W 72ND AVE	DENVER	CO	80221
PRINTSMITH LLC	1187 E 68TH AVE	DENVER	CO	80229
PUBLIC SERVICE COMPANY	PO BOX 840 NO. 400	DENVER	CO	80202
PUGNETTI ANGELO JR AND PUGNETTI ESHTER ELLEN	450 E 76TH AVE	DENVER	CO	802296205

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
R AND R HEATING AND COOLING INC	14217 DOWNING STREET	BRIGHTON	CO	80601
RANGEVIEW LIBRARY LEASING TRUST 2008 C/O WELLS FARGO BANK NA TRUSTEE	1740 BROADWAY MAC C 7300 107	DENVER	CO	80274
REDLING SYLVIA A AND THEODORE F	7555 NILE WAY	ARVADA	CO	80007
REGIONAL TRANSPORTATION DISTRICT	1600 BLAKE ST	DENVER	CO	80202
RETAIL RENTALS LLC	700 COLORADO BLVD NO. 340	DENVER	CO	80206
RIVERDANCE LAND COMPANY LLC	875 W 64TH AVE	DENVER	CO	802212402
ROBERTS KARL D AND ROBERTS DOROTHEA J	15463 QUIVAS STREET	BROOMFIELD	CO	80023
RODAN ENTERPRISES LLC	6995 N BROADWAY	DENVER	CO	80221
ROSS MARKETING AND CONSULTING LLC	1907 E 129TH AVE	THORNTON	CO	80241
ROYBAL JOHN B AND ROYBAL NAE	1401 W 69TH AVE	DENVER	CO	80221
SACCOMANNO FRANKLIN 1/2 INT AND REFFEL MARIE/SAM JR 1/2 C/O AUNT SUES BOAT	AND STORAGE 7500 N WASHINGTON ST	DENVER	CO	80229
SACCOMANO ALBERT L AND BROZOVICH LINETTE MAE	12633 IRVING CIRCLE	BROOMFIELD	CO	80020
SADOWSKI KATHERINE	6850 NAVAJO ST	DENVER	CO	802217031
SALZANO VINCENT	3436 W 62ND AVE	DENVER	CO	80221
SCHOOL DISTRICT 50 CREDIT UNION	1501 DEL NORTE	DENVER	CO	802216907
SCHOOL DISTRICT NO.1	591 E 80TH AVE	DENVER	CO	802295806
SCHOOL DISTRICT NO.50	7200 LOWELL BLVD	WESTMINSTER	CO	800305302
SCHUMACHER KIMBERLY	285 COMMANDER DR	ERIE	CO	805168126
SCOTT MICHAEL AND SCOTT LORI	7150 LAFAYETTE STREET	DENVER	CO	80229
SIEGRIST MICHAEL U AND SANDOVAL MICHELLE L	875 W 64TH AVE BLDG A	WESTMINSTER	CO	80031
SILVER BEVERLY JEAN TRUSTEE OF THE JOE SILVER TRUST	4833 E 6TH AVE	DENVER	CO	802205136
SILVER BEVERLY JEAN TRUSTEE OF THE JOE SILVER TRUST	4833 E 6TH AVE	DENVER	CO	802205136
SIR GEORGE C/O MORRIS RENTAL PROPERTIES	17066 W 61ST PLACE	GOLDEN	CO	80403
SKYLINE INDUSTRIAL INC	501 SOUTH CHERRY ST SUITE 570	DENVER	CO	80246
SKYLINE INDUSTRIAL INC	501 SOUTH CHERRY ST SUITE 570	DENVER	CO	80246
SM5 78TH HOLDINGS LLC	4404 FAIRWAY LANE	BROOMFIELD	CO	80020
SONIC DEVELOPMENT LLC	6415 IDLEWILD RD BLDG 2 SUITE 109	CHARLOTTE	NC	28212
SOUTHWEST SELF-STORAGE - SUN CITY LP C/O VANGUARD LAW GROUP	8910 UNIVERSITY CENTER LANE SUITE 550	SAN DIEGO	CA	92122
SPERA MICHAEL FRANK	4785 EASLEY ROAD	GOLDEN	CO	80403
SPERO JUNE C	6579 XAVIER STREET	ARVADA	CO	80003
SPIGEL ROSLYN R	10710 CARROL LN	DENVER	CO	802334159
SPITZER NORMAN B MARITAL TRUST THE	6601 N WASHINGTON STREET	DENVER	CO	80229
SPORTS WORLD PLUS INC	6841 BROADWAY	DENVER	CO	80221
SPURGEON ENTERPRISES INC	855 E 68TH AVE	DENVER	CO	80229
STANDERSON CORP	PO BOX 8	DUPONT	CO	800240008
STAUTER MICHAEL W AND STAUTER ELIZABETH A	1637 FAIRFAX STREET	DENVER	CO	80220
STEPPING FORWARD LLC	5197 NETHERLAND STREET	DENVER	CO	80249
STEVENSON CALVIN L AND STEVENSON MARY F	13703 JOSEPHINE CT	BRIGHTON	CO	80602
STORAGE TRUST PROPERTIES LP DEPT.-PT-CO-28204	PO BOX 25025	GLENDALE	CA	912015025
SYMONS HOLDING INC C/O SYMONS CORP	7777 WASHINGTON VILLAGE DR SUITE 130	DAYTON	OH	45459
THOMAS LEON E AND THOMAS LOUISE A	PO BOX 460813	AURORA	CO	800460813
THORFINSON MARLOWE AND THORFINSON SHARIAN	901 W 69TH AVE	DENVER	CO	80221
TOLER TROY E AND TOLER FERNANDA N	806 E 78TH AVE	DENVER	CO	802295934
TORRES ROBERTO AND TORRES NORMA A	15925 W BAYAUD DRIVE	GOLDEN	CO	80401
TORRES ROBERTO C	15925 W BAYAUD DRIVE	GOLDEN	CO	80401
TORRES ROBERTO C	7610 CONIFER	DENVER	CO	80221
TORRES ROBERTO C	7610 CONIFER	DENVER	CO	80221
TRAN BANG SI AND NGUYEN LOAN	3770 W 103RD DR	WESTMINSTER	CO	800312450
VALLEY VISTA METHODIST CHURCH	1200 EL PASO BLVD	DENVER	CO	802213799

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

OWNER	ADDRESS	CITY	STATE	ZIPCODE
VALLI-HI ON THE TURNPIKE	7320 PECOS STREET	DENVER	CO	80221
VENEZIA DITCH AND RESERVOIR COMPANY	NEED ADRESS			
VETOS WILLIAM G AND VETOS ROSEMARY L	5473 SECREST COURT	GOLDEN	CO	80403
W W GRAINGER INC	100 GRAINGER PARKWAY	LAKE FOREST	IL	60045
WASHINGTON COMMERCE CENTER LLC	4949 SW MEADOWS RD SUITE 400	LAKE OSWEGO	OR	97035
WASHINGTON COMMERCE CENTER LLC	4949 SW MEADOWS RD SUITE 400	LAKE OSWEGO	OR	97035
WASHINGTON GARDENS BPT LLC UND 50% AND WASHINGTON GARDENS RANDALL LLC UND 50%	4949 MEADOWS RD STE 400	LAKE OSWEGO	OR	970353164
WAYNE78LLC	822 E 78TH AVE	DENVER	CO	802295934
WBJ REVOCABLE TRUST THE	1724 GAYLORD STREET	DENVER	CO	80206
WEDAN FRANCES R AND WEDAN LLOYD H	7699 GILPIN ST	THORNTON	CO	802296520
WELBY BACKYARD LLC	7451 HIGH STREET	DENVER	CO	80229
WELBY GARDENS CO	2761 E 74TH AVENUE	DENVER	CO	80229
WELBY LATERAL DITCH	NO ADDRESS			
WERSHAW ROBERT L AND WERSHAW ESTHER B	1566 WINONA CT	DENVER	CO	802041143
WESTERN HILLS UTILITY CO	NEED ADDRESS			
WESTERN HILLS UTILITY CO	NEED ADDRESS			
WHAT REAL ESTATE LLC	2217 S DEVINNEY ST	LAKEWOOD	CO	80228
WHEELER RICHARD M AND WHEELER RUTH	11632 JASMINE COURT	THORNTON	CO	80233
WORLDWIDE HOLDINGS LLC	2747 CRESTRIDGE COURT	BOULDER	CO	80302
WPC-CORPORATE I LLC	307 LEWERS STREET 6TH FLOOR	HONOLULU	HI	968152357
WRITER KATHERINE WEST TRUST NUMBER TWO ET AL C/O DANA WRITER	1419 S GAYLORD STREET	DENVER	CO	80210
ZAYAC PROPERTIES INC C/O IBG BUSINESS SERVICES INC	6455 S YOSEMITE STREET	GREENWOOD VILLAGE	CO	80111
ZEB PROPERTIES LLC	PO BOX 16777	GOLDEN	CO	804026012
ZIMMERMAN GUYOLA TRUST	951 W 68TH AVE	DENVER	CO	802217038

COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Personal Property Valuation Summary 2009

Business name	Site Address	City	State	Zip
7-ELEVEN INC NO.13157	50 DEL NORTE ST	Denver	CO	80221
7-ELEVEN INC NO.13167	7540 PECOS ST	Denver	CO	80221
84TH STREET HAIR STUDIO	8347 OSAGE WAY	Denver	CO	80221
A A A STEAM AND SAUNA	7301 BROADWAY ST	Denver	CO	80221
A AFFORDABLE	780 W 84TH AVE	Denver	CO	80221
A AND M EXAMS INC	7100 BROADWAY ST	Denver	CO	80221
A E GAS AND FOOD	7490 PECOS ST	Denver	CO	80221
A E L FINANCIAL LLC	7100 BROADWAY ST	Denver	CO	80221
ACCU TECH AUTOMOTIVE	1490 W 70TH AVE	Denver	CO	80221
ADAMS COUNTY	7100 BROADWAY ST	Denver	CO	80221
ADONAI PROFESSIONAL	6931 BROADWAY ST	Denver	CO	80221
ADONAI PROFESSIONAL	6931 BROADWAY ST	Denver	CO	80221
ALAN LUND COMPANY INC	7010 BROADWAY ST	Denver	CO	80221
ALARM DESIGN SOLUTIONS	8391 DELAWARE ST	Denver	CO	80221
ALPHA MILLING CO INC	7100 BROADWAY ST	Denver	CO	80221
ALTERNATIVE HOME	7100 BROADWAY ST	Denver	CO	80221
AMERIMED CORP	6870 BROADWAY ST	Denver	CO	80221
AMMCO LLC	7310 BROADWAY ST	Denver	CO	80221
ARKS INC/KELLER	7010 BROADWAY ST	Denver	CO	80221
ARMY NAVY SURPLUS	7560 PECOS ST	Denver	CO	80221
ARTISTIC FLOWERS AND	6821 BROADWAY	Denver	CO	80221
BANC OF AMER	1400 W 64TH AVE	Denver	CO	80221
BELLAS HAIR HOUSE	500 W 84TH AVE	Denver	CO	80221
BIG ANDYS BAR AND GRILL	7320 PECOS ST	Denver	CO	80221
BIG O TIRES NO.6194	7500 PECOS ST	Denver	CO	80221
BLUE GOOSE INC	7100 BROADWAY ST	Denver	CO	80221
BONNIE GOWNS	8389 CHEROKEE ST	Denver	CO	80221
BRONCUCIA SAND AND	80 E 70TH AVE	Denver	CO	80221
C B S OUTDOOR INC	7082 PECOS ST	Denver	CO	80221
CAFÉ UDI INC	101 E 70TH AVE	Denver	CO	80221
CANON FINANCIAL	6941 BROADWAY ST	Denver	CO	80221
CANON FINANCIAL SVC INC	7100 BROADWAY ST	Denver	CO	80221
CAPITOL CITY MTG	7600 PECOS ST	Denver	CO	80221
CARDTRONICS LP	50 DEL NORTE ST	Denver	CO	80221
CARDTRONICS LP	7540 PECOS ST	Denver	CO	80221
CARNICERIA Y TAQUERIA	7575 BROADWAY ST	Denver	CO	80221
CARQUEST AUTO PARTS	800 W 84TH AVE	Denver	CO	80221
CENTENNIAL RADIATION	7010 BROADWAY ST	Denver	CO	80221
CHECKCARE SYSTEMS	7100 BROADWAY ST	Denver	CO	80221
CHINA BOWL	7220 PECOS ST	Denver	CO	80221
CHIROPRACTIC WORKS	20 W 84TH AVE	Denver	CO	80221
CISCO SYSTEMS CAPITAL	1401 DEL NORTE ST	Denver	CO	80221
CISCO SYSTEMS CAPITAL	800 W 84TH AVE	Denver	CO	80221
CIT COMM FINANCE CORP	1400 W 64TH AVE	Denver	CO	80221
CIT COMM FINANCE CORP	875 W 64TH AVE #A & B	Denver	CO	80221
CIT COMM FINANCE CORP	7100 BROADWAY ST	Denver	CO	80221
CIT TECH FINANCING	7535 HILLTOP CR	Denver	CO	80221
CIT TECH FINANCING	90 W 84TH AVE	Denver	CO	80221
CIT TECH FINANCING	7100 BROADWAY ST	Denver	CO	80221
CIT TECH FINANCING	6870 BROADWAY ST	Denver	CO	80221
COMMUNITY ADVANTAGE	7100 BROADWAY ST	Denver	CO	80221
COMPASS - LOCKHEED DDC	1401 DEL NORTE ST	Denver	CO	80221
COMPASS VENDING -	6 W 83RD PL	Denver	CO	80221
COMPASS VENDING -	7300 BROADWAY ST	Denver	CO	80221
COMPLETE CONTAINER	6515 DELAWARE ST	Denver	CO	80221
COMPLIANCE ADMIN SVC	7100 BROADWAY ST	Denver	CO	80221
CONCEPTION TO REALITY	7100 BROADWAY ST	Denver	CO	80221
COVARRUBIAS CONSTRUCT	7581 BROADWAY ST	Denver	CO	80221
COVELO	7100 BROADWAY ST	Denver	CO	80221
CREATIVE ESTATES LLC	6825 BROADWAY ST	Denver	CO	80221
DAY-LARSEN-PEDERSEN	7010 BROADWAY ST	Denver	CO	80221
DE LAGE LANDEN OPER SVC	1280 W 64TH AVE	Denver	CO	80221
DE LAGE LANDEN OPER SVC	7535 HILLTOP CR	Denver	CO	80221
DE LAGE LANDEN OPER SVC	1401 DEL NORTE ST	Denver	CO	80221
DE LAGE LANDEN OPER SVC	8391 DELAWARE ST	Denver	CO	80221
DEL NORTE LAUNDRY LLC	7609 CONIFER RD	Denver	CO	80221
DELAGE LANDEN	1401 DEL NORTE ST	Denver	CO	80221
DELL FINANCIAL SVC	7100 BROADWAY ST	Denver	CO	80221
DENVER FINE MOTORS	7082 PECOS ST	Denver	CO	80221
DENVER TICKET CO.COM	6955 BROADWAY ST	Denver	CO	80221
DEPENDABLE DRYWALL	7100 BROADWAY ST	Denver	CO	80221
DIGITECH COMPUTER	7100 BROADWAY ST	Denver	CO	80221
DIRECT SIGN WHOLESALE	1100 W 64TH AVE	Denver	CO	80221
DORADO CONSTRUCTION	6921 BROADWAY ST	Denver	CO	80221
DUGGAN PROPERTIES LLC	7170 PECOST ST	Denver	CO	80221

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COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Personal Property Valuation Summary 2009

Business name	Site Address	City	State	Zip
E M S I DRUG TESTING	8333 GREENWOOD BLVD	Denver	CO	80221
E Z PAWN NO.40114 AND E	7250 PECOS ST	Denver	CO	80221
EAS STEEL DETAILING LLC	7100 BROADWAY ST	Denver	CO	80221
ECONO GAS	200 W 84TH AVE	Denver	CO	80221
EL TROMPITO TAQUERIA	1540 W 70TH AVE	Denver	CO	80221
ELECTRICAL RELIABILITY SVC	7100 BROADWAY ST	Denver	CO	80221
EXIT ONE REALTY	20 W 84TH AVE	Denver	CO	80221
F M B CONSTRUCTION INC	6911 BROADWAY ST	Denver	CO	80221
FERN LLC	101 E 70TH AVE	Denver	CO	80221
FREEDOM RV	875 W 64TH AVE #A & B	Denver	CO	80221
FRINGE BENEFIT SERVICES	7010 BROADWAY ST	Denver	CO	80221
FRONT RANGE JOB SVC INC	6841 BROADWAY ST	Denver	CO	80221
FUTURE LINK	7100 BROADWAY ST	Denver	CO	80221
G E C F LOAN/LEASE	7100 BROADWAY ST	Denver	CO	80221
G E CAPITAL INFO TECH	1400 W 64TH AVE	Denver	CO	80221
G E CAPITAL INFO TECH	1401 DEL NORTE ST	Denver	CO	80221
G E CAPITAL INFO TECH	7100 BROADWAY ST	Denver	CO	80221
GADES SALES COMPANY INC	7100 BROADWAY ST	Denver	CO	80221
GAMES EPOPLE PLAY INC	6950 BROADWAY ST	Denver	CO	80221
GECF LOAN/LEASE HOLDING	101 E 70TH AVE	Denver	CO	80221
GENERAL MOTORS CORP	7320 BROADWAY ST	Denver	CO	80221
GLOBAL FOOD	7100 BROADWAY ST	Denver	CO	80221
GO CHEVROLET	7320 BROADWAY ST	Denver	CO	80221
GOETZ INSURORS INC	8333 GREENWOOD BLVD	Denver	CO	80221
GOLD LABEL DOOR	1440 EL PASO BLVD	Denver	CO	80221
GRAINGER EXPRESS NO 221	6935 BROADWAY ST	Denver	CO	80221
GREAT SCOTTS EATERY	1551 CORTEZ ST	Denver	CO	80221
GREATAMERICA LEASING	7350 BROADWAY ST	Denver	CO	80221
GREATAMERICA LEASING	8391 DELAWARE ST	Denver	CO	80221
HASLER FINANCIAL SVC LLC	7010 BROADWAY ST	Denver	CO	80221
HB MANAGEMENT GRP	7100 BROADWAY ST	Denver	CO	80221
HEARTLAND BUSINESS	7590 PECOS ST	Denver	CO	80221
HEATING AND AIR INC	7100 BROADWAY ST	Denver	CO	80221
HELI PORT HOBBIES	1400 W 70TH AVE	Denver	CO	80221
HEWLETT PACKARD FINAN	1401 DEL NORTE ST	Denver	CO	80221
HEWLETT PACKARD FINAN	7100 BROADWAY ST	Denver	CO	80221
HIEBERT CO	7100 BROADWAY ST	Denver	CO	80221
HITACHI DATA SYSTEMS	1401 DEL NORTE ST	Denver	CO	80221
HONNEN EQUIPMENT	7010 BROADWAY ST	Denver	CO	80221
HORIZON INSURANCE	20 W 84TH AVE	Denver	CO	80221
HUNT ELECTRIC CORP	7100 BROADWAY ST	Denver	CO	80221
HYDROGATE	7010 BROADWAY ST	Denver	CO	80221
I A M A W DIST 19	7010 BROADWAY ST	Denver	CO	80221
I B M CREDIT LLC	1400 W 64TH AVE	Denver	CO	80221
INDEPENDENT FINANCIAL	7100 BROADWAY ST	Denver	CO	80221
INNOVATIVE	90 W 84TH AVE	Denver	CO	80221
INTEGRITY AUTO	7100 BROADWAY ST	Denver	CO	80221
J M R OPTICAL INC	6870 BROADWAY ST	Denver	CO	80221
JUMP STREET FUN CENTER	8225 VALLEY HIGHWAY	Denver	CO	80221
JUNIORS SPORTS CAFE	1345 CORTEZ	Denver	CO	80221
KARLS FARM DAIRY	6990 PECOS ST	Denver	CO	80221
KENTUCKY FRIED CHICKEN	7140 PECOS ST	Denver	CO	80221
KEY EQUIPMENT FINANCE	1100 W 64TH AVE	Denver	CO	80221
KEY EQUIPMENT FINANCE	1401 DEL NORTE ST	Denver	CO	80221
KINETIC INTERNATIONAL	7100 BROADWAY ST	Denver	CO	80221
KOKOPELLI PRINTING	7100 BROADWAY ST	Denver	CO	80221
KREST CLEANERS	7072 PECOS	Denver	CO	80221
LA BATES LIQUOR	7570 BROADWAY ST	Denver	CO	80221
LA PAIZA TIRE	7000 PECOS	Denver	CO	80221
LA PREFERIDA LIQUORS	160 W 84TH AVE	Denver	CO	80221
LAS DELICIAS NO.2	7610 CONIFER ST	Denver	CO	80221
LILS PLACE	7575 BROADWAY ST	Denver	CO	80221
LOCKHEED MARTIN CORP	1401 DEL NORTE ST	Denver	CO	80221
LOCKHEED MARTIN CORP	1401 DEL NORTE ST	Denver	CO	80221
LOVESHACK POOL AND PUB	7290 PECOS ST	Denver	CO	80221
MACQUARIE EQUIPMENT	7100 BROADWAY ST	Denver	CO	80221
MAIDS HOME SERVICES	6870 BROADWAY ST	Denver	CO	80221
MAMMOTH STEEL	7100 BROADWAY ST	Denver	CO	80221
MANHATTAN CREATIVE GRP	6870 BROADWAY ST	Denver	CO	80221
MARKET PLACE REALTY	90 W 84TH AVE	Denver	CO	80221
MARLIN LEASING	8333 GREENWOOD BLVD	Denver	CO	80221
MARLIN LEASING	1280 W 64TH AVE	Denver	CO	80221
MARLIN LEASING	7550 PECOS ST	Denver	CO	80221
MARLIN LEASING	7100 BROADWAY ST	Denver	CO	80221
MARLIN LEASING	101 E 70TH AVE	Denver	CO	80221

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COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Personal Property Valuation Summary 2009

Business name	Site Address	City	State	Zip
MARLIN LEASING	7010 BROADWAY ST	Denver	CO	80221
MARLIN LEASING	6811 BROADWAY ST	Denver	CO	80221
MEETING EDGE	7010 BROADWAY ST	Denver	CO	80221
MICKYS TOP SIRLOINE	6950 BROADWAY ST	Denver	CO	80221
MODULAR INTERIORS	7100 BROADWAY ST	Denver	CO	80221
MOTEL 6 OPERATING L P	6 W 83RD PL	Denver	CO	80221
MOUNTAIN STATES TOYOTA	201 W 70TH AVE	Denver	CO	80221
MTECH MECHANICAL TECH	7535 HILLTOP CR	Denver	CO	80221
N T S (USA) INC	7100 BROADWAY ST	Denver	CO	80221
NATIVE AMER	8333 GREENWOOD BLVD	Denver	CO	80221
NAVAJO EXPRESS INC	1400 W 64TH AVE	Denver	CO	80221
NEW WEST PAVING	7100 BROADWAY ST	Denver	CO	80221
OCEAN NAILS	500 W 84TH AVE	Denver	CO	80221
ONE NATION TECH WEST	7100 BROADWAY ST	Denver	CO	80221
ONESOURCE REALTY LLC	90 W 84TH AVE	Denver	CO	80221
OUTDOOR PROMOTIONS	7100 BROADWAY ST	Denver	CO	80221
P S I SEMINARS	6941 BROADWAY ST	Denver	CO	80221
PACIFIC MAINTENANCE	6870 BROADWAY ST	Denver	CO	80221
PACIFIC MOBILE	7100 BROADWAY ST	Denver	CO	80221
PACIFICA CAPITAL	700 W 84TH AVE	Denver	CO	80221
PANADERIA CHAVIRA	7575 BROADWAY ST	Denver	CO	80221
PARAGON CONSULTING	6901 BROADWAY ST	Denver	CO	80221
PARK LANE	7100 BROADWAY ST	Denver	CO	80221
PATTISON SIGN GRP	201 W 70TH AVE	Denver	CO	80221
PEAK PETROLEUM TESTING	7100 BROADWAY ST	Denver	CO	80221
PECOS CAR WASH	1520 DEL NORTE	Denver	CO	80221
POINTE PEST CONTROL	7100 BROADWAY ST	Denver	CO	80221
POPEYES FRIED CHECKEN	550 W 84TH AVE	Denver	CO	80221
POPULAR EQUIP FINANCE	7100 BROADWAY ST	Denver	CO	80221
POSCOMMERCE	7100 BROADWAY ST	Denver	CO	80221
POWER BRAKE OF METRO	8367 CONIFER RD	Denver	CO	80221
PRECISION GAGE INC	8367 CONIFER RD	Denver	CO	80221
PREMIER RECOVERY	1520 W 72ND AVE	Denver	CO	80221
PRIME INC	1100 W 64TH AVE	Denver	CO	80221
PRINT MATTERS LLC	7100 BROADWAY ST	Denver	CO	80221
PROFESSIONAL CONTROL	1540 EL PASO BLVD	Denver	CO	80221
PROTECH COMPUTER	7100 BROADWAY ST	Denver	CO	80221
PROTECTION ONE ALARM	7100 BROADWAY ST	Denver	CO	80221
PSYCH NURSE SPECIALIST	7010 BROADWAY ST	Denver	CO	80221
RAMBLIN EXPRESS INC	875 W 64TH AVE #A & B	Denver	CO	80221
RED DOOR PRINTING	7100 BROADWAY ST	Denver	CO	80221
REFERRAL 2000 LLC	90 W 84TH AVE	Denver	CO	80221
REFLECTION WINDOWS	7100 BROADWAY ST	Denver	CO	80221
ROCKY MOUNTAIN	7100 BROADWAY ST	Denver	CO	80221
ROCKY MOUNTAIN	1540 EL PASO BLVD	Denver	CO	80221
ROYAL PRESTIGE	8333 GREENWOOD BLVD	Denver	CO	80221
SANDERS AND JOHNSON	7100 BROADWAY ST	Denver	CO	80221
SANDWICH MAN	101 E 70TH AVE	Denver	CO	80221
SANTIAGOS MEXICAN	180 W 84TH AVE	Denver	CO	80221
SHERRELWOOD PHILLIPS 66	7590 PECOS ST	Denver	CO	80221
SHOP TOOLS INC	7100 BROADWAY ST	Denver	CO	80221
SIEGRIST CONSTRUCTION	875 W 64TH AVE #A & B	Denver	CO	80221
SOFTWARE SCIENCES INC	8333 GREENWOOD BLVD	Denver	CO	80221
SOMMERLIER JOURNAL	7010 BROADWAY ST	Denver	CO	80221
SOURCEONE DCC SERVICES	7100 BROADWAY ST	Denver	CO	80221
SPECTRUM COMPUTER	6915 BROADWAY ST	Denver	CO	80221
STREETLIGHT ON	7575 BROADWAY ST	Denver	CO	80221
STROM ENVIRONMENTAL	6925 BROADWAY ST	Denver	CO	80221
SUN MART	7170 PECOST ST	Denver	CO	80221
SUPER QWIK STOP	1580 W 84TH AVE	Denver	CO	80221
SUPER QWIK STOP INC	1580 W 84TH AVE	Denver	CO	80221
SVN ASSET MANAGEMENT	7100 BROADWAY ST	Denver	CO	80221
TEAMSTERS LOCAL 17	7010 BROADWAY ST	Denver	CO	80221
TIA MARIA	7260 PECOS	Denver	CO	80221
TOM CALABRESE TRUCKING	875 W 64TH AVE #A & B	Denver	CO	80221
TRUCK CONNECTION INC	7100 BROADWAY ST	Denver	CO	80221
TWISTED IMAGES	6905 BROADWAY ST	Denver	CO	80221
U S BANCORP EQUIP	1400 W 64TH AVE	Denver	CO	80221
U S BANCORP EQUIP	8333 GREENWOOD BLVD	Denver	CO	80221
U S BANCORP EQUIP	101 E 70TH AVE	Denver	CO	80221
U S BANCORP EQUIPMENT	90 W 84TH AVE	Denver	CO	80221
U S BANCORP EQUIPMENT	7100 BROADWAY ST	Denver	CO	80221
U S BANCORP EQUIPMENT	7072 PECOS	Denver	CO	80221
UDIS ON BROADWAY	101 E 70TH AVE	Denver	CO	80221
UNITY PROMOTIONS	7100 BROADWAY ST	Denver	CO	80221

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COMMENT	RESPONSE
Jur-Muni 11 (continued)	

Personal Property Valuation Summary 2009

Business name	Site Address	City	State	Zip
US AUTO FINDER/LEASING	1490 W 70TH AVE	Denver	CO	80221
V F S RESIDUAL HOLDING	7100 BROADWAY ST	Denver	CO	80221
VALLI HI MOTOR HOTEL	7320 PECOS ST	Denver	CO	80221
VETS ANIMAL HOSPITAL	8395 ELATI ST	Denver	CO	80221
VILLAGE INN NO.25	8370 SHERMAN	Denver	CO	80221
VIVA BURRITO COMPANY	7550 PECOS ST	Denver	CO	80221
VOYAGER EXPRESS INC	1280 W 64TH AVE	Denver	CO	80221
WASH N CLEAN	1501 W 72ND AVE	Denver	CO	80221
WASH OFF BROADWAY THE	7550 BROADWAY ST	Denver	CO	80221
WELLS FARGO FINANCIAL	7590 PECOS ST	Denver	CO	80221
WESTWOOD COLLEGE -	7350 BROADWAY ST	Denver	CO	80221
WHITE MOUNTAIN	7100 BROADWAY ST	Denver	CO	80221
YORK ENGINEERING	7010 BROADWAY ST	Denver	CO	80221
ZENTS INC	6811 BROADWAY ST	Denver	CO	80221

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COMMENT	RESPONSE
Jur-Muni 12 **Jur-Muni 12_Westminster (2).doc_pg1** Date Received: **12/14/2009** Source: **E-mailed Letter** Name: **City of Westminster, Matt Lutkus, Deputy City Manager for Administration** December 14, 2009 CDR Associates 100 Arapahoe Avenue, Suite 12 Boulder, CO 80302 Attn.: Mr. Andrea Meneghel Re: US 36 Final Environmental Impact Statement – City of Westminster Comments Dear Andrea: A Enclosed please find the City's comments on the US 36 Final Environmental Impact Statement (FEIS). I previously sent to you a copy of the Resolution from the Westminster City Council indicating the City's support of the document. Please note that all of the enclosed comments relate to items that we feel can be addressed during the final design of improvements to the US 36 Corridor. Thank you for the opportunity to provide these comments. I look forward to the completion of the FEIS and the issuance of a Record of Decision for Phase I of the improvements. Sincerely, Matt Lutkus Deputy City Manager for Administration cc: Dave Downing, City Engineer	**Response to Jur-Muni 12:** **[A]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 12 (continued) Jur-Muni 12_Westminster (2).doc_pg2 Date Received: 12/14/2009 Source: E-mailed Letter Name: City of Westminster, Matt Lutkus, Deputy City Manager for Administration **City of Westminster Comments – US 36 Final Environmental Impact Statement (December 14, 2009)** B 1.) **The City is adamantly opposed to the proposed closure of 88th Place at Sheridan Boulevard.** City representatives have consistently voiced objection to this proposal throughout the course of the preparation of the EIS. We feel that it is unnecessary for the westbound off-ramp at the Sheridan Boulevard interchange to be designed in such a manner to preclude the preservation of the 88th Place intersection onto Sheridan Boulevard, and we strongly believe that the elimination of the 88th Place/Sheridan Boulevard intersection would adversely impact many more business establishments than those few that are currently identified in the FEIS. Discussion of this item appears on, at least, the following pages of the document: Volume I – p. 2.6-35, p.3.5-15, p.3.6-2, p. 4.2-22, p. 4.3-19, p. 4.6-15, p.4.6-30, & p. 8.4-3 (Table 8.4-1) Volume III – p. 64 (Comment #14-10) C 2.) **The City would like preserve the opportunity for further consideration of the use of earth berms as noise mitigation measures in lieu of the currently proposed sound walls in those areas where sufficient rights-of-way for the berms could be acquired at no additional cost to future project sponsors (e.g. adjacent to City-owned parcels).** We understand that the installation of berms requires greater rights-of-way than that needed for walls, and we appreciate the desire to control right-of-way costs. However, the City does not wish to be precluded from the potential use of berms for noise mitigation in those areas where the necessary rights-of-way may be donated to future project sponsors. This same comment would apply to those instances in which retaining walls have been proposed in the FEIS as a means of controlling right-of-way costs. Again, our main concern is that walls or fences tend to attract graffiti, and that major problem would be eliminated by the use of berms. Discussion of this item appears on, at least, the following pages of the document: Volume I – p. ES-16, p.4.4-7, p. 4.6-31, p. 4.6-35 (Table 4.6-2), p.4.7-21 through p. 4.7-23, p.4.9-22 (Figure 4.9-7), p. 4.9-23 (Figure 4.9-8),	**Response to Jur-Muni 12:** **[B]:** The current level of design indicates that closure of the access to Sheridan Boulevard from West 88th Place is needed. As stated in Volume III, Response to Comments, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), (specifically, response to Comment #14-10), some businesses along West 88th Place can be accessed from Yates Street and others can be accessed from the remainder of West 88th Place. During final design, the closure of West 88th Place at Sheridan Boulevard may be reconsidered. **[C]:** Using berms instead of sound walls or retaining walls can be considered in final design. However, in one case in the City of Westminster, the berm would impact additional parkland (Oakwood Park) and would not be approved in this NEPA action because of the requirement to select the least impacting action with regard to Section 4(f) properties. However, the City of Westminster could pursue a berm under a separate action.

COMMENT	RESPONSE
Jur-Muni 12 (continued) Jur-Muni 12_Westminster (2).doc_pg3 Date Received: 12/14/2009 Source: E-mailed Letter Name: City of Westminster, Matt Lutkus, Deputy City Manager for Administration C Continued p. 4.9-27, p.4.11-8 (Table 4.11-4), p. 4.11-11, p. 4.11-8 (Figure 4.11-F), p. 4.26-5, p. 8.2-13, p. 8.4-7 (Table 8.4-1), & p. 8.4-9 (Table 8.4-1) Volume III – p. 55 (Comment #14-21) 3.) **The City will have much input into the details of the future, final design of the bike path within the boundaries of the City of Westminster.** Some of the "details" of the final design are items that we consider to be extremely important. Among those critical facets of the bike path design are: D a. The Pedestrian/Bicycle Section states that a bikeway signal is proposed to enable bikes to cross 72nd Avenue. The City opposes this since the spacing will not work relative to the existing traffic signal at Raleigh Street/72nd Avenue. The City plans to realign Bradburn Boulevard to intersect 72nd Avenue at Raleigh Street. As a part of this, a trail connection would be built directly from realigned Bradburn Boulevard to the Little Dry Creek Trail north of 72nd Avenue. b. The Bikeway paragraph on p. 2.6-37 states that access to the bikeway from Sheridan Boulevard would be provided via 88th Avenue. The City would prefer that ramps be installed both on the east and west sides of Sheridan Boulevard directly to the bikeway. The FEIS states that there would be no direct access to the bikeway from 92nd Avenue. The City believes that access needs to be provided to the bikeway from both the north and south sides of 92nd Avenue to serve the surrounding neighborhood. This same comment applies to the need for access from sidewalks on both sides of Church Ranch Boulevard to the bikeway underpass. The bikeway is proposed to be routed over the BNSF railroad tracks. The City is not in favor of this alignment. The City proposes that the trail go <u>under</u> the BNSF tracks and be routed through the City's Lower Church Lake Open Space. This alignment is far superior to what is proposed for the following reasons: i) The FEIS design puts the bikeway literally less than five feet from US 36. The experience would be very unpleasant	**Response to Jur-Muni 12:** **[D]:** CDOT and RTD will continue to work with the City of Westminster during final design. a. During final design, options of crossing 72nd Avenue or going to the Raleigh Street/72nd Avenue signalized intersection to access the Little Dry Creek Trail will continue to be evaluated. Your proposal for the realignment of Bradburn Boulevard improves the connection from the bikeway alignment down Bradburn Boulevard to the Little Dry Creek Trail. Please let CDOT and RTD know when these plans are forthcoming. b. See General Response: Bikeway. The City of Westminster can provide for these ramps (Sheridan Boulevard and Church Ranch Boulevard) or other connections with local funds, or by applying for federal funds. These features can then be added to the construction phase for that area. Coordinating railroad traffic with the type of construction required for an underpass is difficult because rail traffic would need to be rerouted or stopped during construction. The likelihood of the railroad approving this impact to their facility is remote. Additionally, groundwater levels, due to the nearby lake, could be problematic with an underpass. Therefore, the overpass proposed appears to be the more practical solution and is included in the Combined Alternative Package (Preferred Alternative). Additional consideration can be taken into account during final design. c. CDOT will consider bikeway design improvements as you suggest during the final design process. Also, see General Response: Bikeway. d. CDOT will consider bikeway design improvements for this "clover-leaf" that minimize adverse impacts as you suggest during the final design process.

COMMENT	RESPONSE
Jur-Muni 12 (continued) **Jur-Muni 12_Westminster (2).doc_pg4** Date Received: **12/14/2009** Source: **E-mailed Letter** Name: **City of Westminster, Matt Lutkus, Deputy City Manager for Administration** D Continued and very noisy. Trail maintenance would be difficult with gravel and snow constantly being pushed onto the trail. ii) The FEIS alignment requires bike riders to unnecessarily gain and lose elevation going up and over the railroad track overpass. iii) The alignment through open space would be quieter, safer and much more pleasant. iv) An underpass provides much more convenient access to both the BRT Station and planned Commuter Rail Station at the Shops at Walnut Creek. c. The City advocates separating the bikeway much more than the proposed 12 feet where the bikeway abuts City open space. The City welcomes using its open space as a location for the bikeway. d. The City does not support the proposed "clover leaf" design for the US 36 trail at the southeast corner of US 36 and Westminster Boulevard. This design has significant negative and unnecessary adverse impacts on the abutting Hyland Village project. The City can provide input on alternative alignments that minimize the adverse impacts. Discussion of this item appears on, at least, the following pages of the document: Volume I – p. 2.6-36, p. 2.6-37, p. 4.11-8 (Table 4.11-4), & p. 7.6-29 (Figure 7.4-20) E 4.) **The City does not endorse the currently proposed alignment of the Church Ranch Boulevard eastbound on-ramp.** We recognize that the construction of this particular ramp will not be included within Phase I of US 36 improvements. However, we wish to reserve the right to continue to provide input into this design detail at such time that the final design of these improvements occur. It is our belief that the design outlined in the FEIS would adversely affect City open space and unnecessarily destroy a beautiful stretch of Walnut Creek. Discussion of this item appears on, at least, the following pages of the document: Volume I – p. 4.14-27, p. 4.21-23, p. 4.21-25, & p. 7.6-14 (Figure 7.4-5)	**Response to Jur-Muni 12:** **[E]:** The City of Westminster will be invited to provide input during final design, and at that time, the City of Westminster can suggest a design with less impacts. Regardless, during final design, CDOT will continue to evaluate ways to minimize project impacts.

COMMENT	RESPONSE
Jur-Muni 12 (continued) Jur-Muni 12_Westminster (2).doc_pg5 Date Received: 12/14/2009 Source: E-mailed Letter Name: City of Westminster, Matt Lutkus, Deputy City Manager for Administration F **5.) Proposed storm water detention pond locations should be modified, as necessary, to maximize the development potential of the remainder parcels.** G **6.) The City would strongly prefer that the location of the Church Ranch BRT Station be shifted to the west in order to minimize the distance that commuters would have to walk from the designated parking lots.** Under this scenario, commuters would use a pedestrian walkway under US 36 that would be located adjacent to the Burlington Northern/Santa Fe track. H 7.) **The City requests that adequate rights-of-way be identified and reserved (i.e. not encumbered by other proposed improvements) for a future, potential overpass of US 36 for 88th Avenue.** We understand that this overpass would not be a "project cost" of the sponsors of US 36 improvements. However, the City does not want to be precluded from pursuing the construction of this overpass in the future. H 8.) **The City requests the inclusion of lighting along the highway and within pedestrian underpasses as part of the scope of improvements to the US 36 Corridor.** J 9.) **Access must be provided from realigned 112th Avenue to the City-owned parcel located on the south side of 112th Avenue, immediately east of the highway.** K 10.) **The City is concerned about the proposed reduction of the length of storage for vehicles making the eastbound 92nd Avenue to northbound Sheridan Boulevard movement.** A third left turn lane may be necessary to compensate for the proposed loss of vehicle storage. L 11.) **The City of Westminster endorses the publication of Digging the Old West, the mitigation project proposed by the CDOT Region 6 Historian. The City also requests that bronze signs or interpretive markers be placed at the sites of irrigation ditch crossings of US 36 as further mitigation of adverse impacts to these historic features caused by future highway improvement projects.**	**Response to Jur-Muni 12:** **[F]:** Stormwater detention pond locations will continue to be refined during final design. CDOT will work with the City of Westminster to minimize ROW impacts caused by these ponds. **[G]:** The project team did consider moving the Church Ranch BRT Station to the west to better connect with the planned rail station and existing underpass. However, this change would require a wider bridge at the BNSF Railway overpass and extensive stairs/elevators to go from the elevated US 36 BRT station to the at-grade park-n-Ride/rail station. As a result, this option was removed from consideration at this time. It is highly unlikely that the BNSF Railway would allow a pedestrian underpass adjacent to or near their ROW. In past discussions with BNSF, such as when considering locating the bikeway adjacent to their facility, the BNSF has been adamantly opposed to these types of arrangements. **[H]:** The City of Westminster is welcome to propose a separate project for an overpass at 88th Avenue at any time. Depending on the level of design of the proposed 88th Avenue overpass project at the time that CDOT and RTD are designing this portion of the US 36 project, considerations can be made for the proposed overpass design. **[I]:** Currently, safety lighting (e.g., ramps and trail crossings) is proposed throughout the corridor, and median lighting is proposed from I-25 to Sheridan Boulevard. The exact location of lighting will be refined during final design. **[J]:** If CDOT is affecting access to the property by this project and if access to the local street network cannot be provided for this property to replace the access that was there previously, then the entire parcel would need to be acquired. **[K]:** In the studies conducted for the EIS (i.e., LOS), the 92nd Avenue and Sheridan Boulevard intersection operates acceptably. However, an additional eastbound to northbound left-turn lane at this intersection may be required due to reduced queue length. This evaluation will occur during final design.

COMMENT	RESPONSE
	Response to Jur-Muni 12: **[L]:** Thank you for your support of the publication, *Digging the Old West: How Dams and Ditches Sculpted an American Landscape* (In Process). The interpretive markers would be problematic for a couple of reasons. These ditches are not CDOT's property. These signs might encourage trespassing, and if they were put along US 36, it would encourage people to get out of their cars along the roadway to read them (and that would be a safety issue). The information on these ditches will be in the publication referenced above in context with the historic development of the region. SHPO believes this is adequate mitigation.

COMMENT	RESPONSE
Jur-Muni 12 (continued) **Jur-Muni 12_Westminster (2).doc_pg6** Date Received: **12/14/2009** Source: **E-mailed Letter** Name: **City of Westminster, Matt Lutkus, Deputy City Manager for Administration** Additionally, City staff believes that the following items are clerical in nature and do not pertain to any particular disagreement between the City and the US 36 consulting team: M 12.) Volume I, p. 2.6-35 & p. 3.4-7 – There are two conflicting sentences regarding the disposition of the Federal Boulevard interchange. N 13.) Volume I, p. 2.6-36 – The "South Westminster BRT Station" should read the "Westminster Center BRT Station." O 14.) Volume I, p. 3.6-1 (Table 3.6-1) – It is unclear what changes in the striping for eastbound 74th Avenue are proposed. City staff feels that four lanes are needed – two left turn lanes, one through land and one right turn lane. P 15.) Volume I, p. 4.2-16 (Table 4.2-3) – The "Northwest Business Park" should read the "Circle Point Corporate Center." Q 16.) Volume I, p. 4.5-8 – Several of the Community Facilities noted are actually located in the Adams, not Westminster, Segment. R 17.) Volume I, p. 4.9-23 (Figure 4.9-8) – The numbers on this map are illegible. S 18.) Volume I, p. 4.3-6 & p. 4.6-7 – "Northwest Business Park" and "Business Park at Mandalay" are invalid names. It should read either "Circle Point Corporate Center" or "Westminster Promenade." T 19.) Volume I, p. 4.20-3 (Figure 4.20-1) – Standley Lake should be shaded to indicate that it exists. Also, there is no mention in the study of a few water features – Pomonio Branch, Dry Creek Ditch No. 2 and Bear Canyon Creek – that appear to cross US 36. U 20.) Volume I, p. 4.20-7 (Table 4.20-2) – Segment 1 of Big Dry Creek should be listed in this Table. Segment 1 is the main stem of Big Dry Creek, including all tributaries and wetlands from the source to the confluence with the South Platte River except for specific listings in Segments 4A, 4B, 5 and 6. It is designated "Use Protected" and classified for Aquatic Life Form 2, Recreation P and Agriculture. Table 4.20-2 should also contain the Affected Water Quality Segments from Table 4.20-3. It is confusing that these two tables contain separate information for Big Dry Creek.	**Response to Jur-Muni 12:** **[M]:** While numerous elements of the Federal Boulevard interchange are reconstructed, the Federal Boulevard bridge over US 36 would not be reconstructed. The configuration of the Federal Boulevard interchange would remain as it exists today. **[N]:** The South Westminster BRT station is not the Westminster Center BRT station. There is no South Westminster BRT station. It is the South Westminster rail station. In the second paragraph on page 2.6-36 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), the text should refer to the South Westminster rail station instead of the South Westminster BRT station. Figure 2.6-11, Combined Alternative Package (Preferred Alternative): Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit, in the FEIS, and on Figure 1-2, Combined Alternative Package (Preferred Alternative) — Managed Lanes, Auxiliary Lanes, and Bus Rapid Transit, of the ROD show the South Westminster rail and Westminster Center BRT stations. **[O]:** This approach is currently proposed to have three lanes: two left-turn lanes and a shared through- and right-turn lane as depicted in the *Traffic Engineering Technical Report Addendum* (URS 2009). This configuration can be reconsidered in final design. **[P]:** This correction has been added as a change in the ROD. **[Q]:** You are correct. The City of Westminster, the City of Westminster Swim and Fitness Center, the Westminster Municipal Court, the Irving Street Branch of the Westminster Library System, the recreational park associated with the former Westminster Hills Elementary School, the Advent Lutheran Church, Westminster City Hall, and the Hyland Hills Golf Course are all located in the Adams Segment. This correction has been added as a change in the ROD. **[R]:** Park and open space identification numbers are also shown on Table 4.9-1, Park and Open Space Resources Adjacent to US 36, and Table 4.9-3, Impacts to Park and Open Space Resources — Package 2, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).

COMMENT	RESPONSE
	Response to Jur-Muni 12: **[S]:** These corrections have been added as a change in the ROD. **[T]:** Water features, as they relate to final design issues, will be evaluated for project impacts at that time. This figure is intended to be high level and may not document all water features in the US 36 study area; however, the project team will continue to refine project impacts as more details are known. **[U]:** The clarifications you recommend for Segment 1 of Big Dry Creek have been added to the ROD. Water quality and designated beneficial uses will be further evaluated during final design for any project-related impacts.

COMMENT	RESPONSE
Jur-Muni 12 (continued) **Jur-Muni 12_Westminster (2).doc_pg7** Date Received: **12/14/2009** Source: **E-mailed Letter** Name: **City of Westminster, Matt Lutkus, Deputy City Manager for Administration** V 21.) Volume I, p. 4.23-10 (Table 4.23-2) – Add the "Shops at Walnut Creek" and "Westminster Promenade" to this list. W 22.) Volume I, p. 8.2-3 (Table 8.2-1) – There is a reference to the Sheridan Boulevard Interchange "bikeway (without bridges)." We are unclear about what that means. X 23.) Volume II, Appendix A (Map 8) – The map implies that only certain units will be acquired for right-of-way from the Madison Hill development, located north of 92nd Avenue and east of US 36. Undoubtedly, the entire buildings would need to be acquired. Y 24.) Volume II, Appendix C, Section 404 (b) (1) Evaluation, p. 4-5 (Table 4-1) – The table indicates that the existing pedestrian (and vehicular) underpass is to be "replaced." Presumable, this should say that the underpass is to be lengthened.	**Response to Jur-Muni 12:** **[V]:** These projects have been added as a change in the ROD. **[W]:** In Phase 1, the bikeway would be constructed for the entire length of the corridor, but would not include grade separations as listed for the ultimate build out. This is what is meant by bikeway (without bridges) in Table 8.2-1, Phase 1 Elements and Cost, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). **[X]:** In the Madison Hill development, there are two entire structures that would be acquired that only contain three and four units. In two other instances, the end one or two units is identified as being required. At the time of this evaluation, it was believed that these units would be able to be acquired and that the structure could support the removal of these units. During the ROW process, an evaluation will be conducted regarding the structural integrity of these buildings and will assess whether the taking of only a couple of end units is feasible. If it turns out that this will not be feasible and that the entire building will be required, a reevaluation and coordination with the Madison Hill development will be conducted prior to acquisition. **[Y]:** CDOT will evaluate the details on whether this underpass would be lengthened or replaced in final design.

COMMENT	RESPONSE
Jur-Muni 13 Jur-Muni 13_Westminster.doc_pg1 Date Received: **12/14/2009** Source: **Emailed Letter** Name: **City of Westminster, Matt Lutkus, Deputy City Manager for Administration** WESTMINSTER City of Westminster Department of General Services *City Clerks Office* 4800 West 92nd Avenue Westminster, Colorado 80031 303-430-2400 FAX 303-706-3924 A STATE OF COLORADO)) COUNTIES OF ADAMS AND JEFFERSON) SS.)) CITY OF WESTMINSTER) I, Linda Yeager, duly appointed Clerk of the City of Westminster, do hereby certify that the attached is a true and exact copy of Resolution No. 51, Series 2009, which was unanimously adopted by the Westminster City Council at its regular meeting of December 14, 2009. In witness whereof I have hereunto set my hand and the official seal of the City of Westminster, Colorado, this 15th day of December, 2009. (SEAL) Linda Yeager, City Clerk	**Response to Jur-Muni 13:** **[A]:** Comment noted.

COMMENT	RESPONSE
Jur-Muni 13	

Jur-Muni 13_Westminster.doc_pg2

Date Received:	12/14/2009	Name:	City of Westminster, Matt Lutkus, Deputy City Manager for Administration
Source:	Emailed Letter		

A Cont'd

RESOLUTION

RESOLUTION NO. 51

SERIES OF 2009

INTRODUCED BY COUNCILLORS

Winter - Lindsey

A RESOLUTION SUPPORTING THE PREFERRED ALTERNATIVE IN U.S. 36 FINAL ENVIRONMENTAL IMPACT STATEMENT

WHEREAS, the Colorado Department of Transportation, Regional Transportation District, Federal Highway Administration, Federal Transit Administration and stakeholders have worked collaboratively on the completion of the Final Environmental Impact Statement (FEIS) for transportation improvements for the U.S. 36 Corridor in accordance with National Environmental Policy Act regulations; and

WHEREAS, the US 36 Project Team has selected the Combined Alternative Package as the Preferred Alternative in the FEIS; and

WHEREAS, the Preferred Alternative will minimize community and environmental impacts while providing long-term multi-modal transportation solutions to worsening traffic congestion on US 36; and

WHEREAS, the first phase of the Preferred Alternative includes a managed lane in each direction from unincorporated Adams County to Boulder, much needed improvements to the Sheridan and Wadsworth interchanges, replacement of four deteriorated bridges, installation of electronic signage at Bus/Rapid Transit Stations and adjacent to managed lanes, and the construction of a bikeway that extends much of the length of the highway; and

WHEREAS, City Staff will work closely with the US 36 Project Team to address specific areas of concern with regard to final design details.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WESTMINSTER THAT the Westminster City Council supports the Preferred Alternative described in the FEIS for US 36 reconstruction; and

BE IT FURTHER RESOLVED that City Council fully supports continuing the collaborative engagement among all agencies to achieve the long-term transportation vision for the U.S. 36 corridor.

RESOLVED, PASSED AND ADOPTED this 14th day of December, 2009.

Mayor

ATTEST:

City Clerk

APPROVED AS TO LEGAL FORM:

City Attorney

COMMENT	RESPONSE
Jur-Muni 14 **Jur-Muni 14_DenverPublicWorks** Date Received: **12/8/2009** Source: **Mailed Letter** Name: **Denver Department of Public Works, Guillermo Vidal, Manager** DENVER THE MILE HIGH CITY D_ _ V 8 2009 **Department of Public Works** Office of the Manager 201 W. Colfax Avenue, Dept. 608 Denver, CO 80202 P: 720-865-8630 F: 720-865-8795 www.denvergov.org/PublicWorks November 30, 2009 US 36 Final EIS c/o CDR Associates 100 Arapahoe Ave. Suite 12 Boulder, CO 80302 Dear US 36 EIS Team: A Thank you for the opportunity to comment on the US 36 Final Environmental Impact Statement. The City and County of Denver has participated in this EIS throughout the process and is pleased to support the Preferred Alternative as outlined in the Final EIS. The emphasis on transit and safety improvements, along with the approach by the project team to work with the public and agencies, has helped bring this EIS to a successful conclusion. Please continue to coordinate with CCD's liaison to RTD, Brian Pinkerton, as appropriate. He can be reached at brian.pinkerton@denvergov.org or at 720-865-2524. Sincerely, Guillermo V. Vidal Manager of Public Works C: Brian Pinkerton 311 for City Services Denver gets it done! *Protecting the Present & Building the Future* Accountability, Innovation, Empowerment, Performance, Integrity, Diversity, Teamwork, Respect, Excellence, Safety	**Response to Jur-Muni 14:** **[A]:** Comment noted.

COMMENT	RESPONSE
US 36 ORGANIZATIONS AND STAKEHOLDER GROUPS	
Org-Group 1	**Response to Org-Group 1:** **[A]:** Comment noted. **[B]:** Comment noted.

Org-Group 1_36CommutingSolutions_pg1

Date Received:	11/16/2009	Name:	Chris McShane, 36 Commuting Solutions
Source:	Broomfield Public Hearing	City/Zip:	Louisville, CO 80027

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Monday, November 16, 2009

REPORTER'S TRANSCRIPT OF PUBLIC HEARING
HEARING DATE: Monday, November 16, 2009

A

MR. MC SHANE: Good evening. As Andrea said my name is Chris McShane. I'm representing 36 Community Solutions.

I was also on the Preferred Alternative Committee that helped to craft this Preferred Alternative as a representative from 36 Community Solutions and I also live in the corridor.

I just want to take few moments tonight to echo the thoughts we heard from the two mayors tonight. This is not a perfect solution but we think it's a good project, a good Preferred Alternative.

Our organization, which represents a broad coalition of the public along the US 36 corridor supports the Preferred Alternative. And we support the following things about this project.

We support the consensus, the multimodal solution. And we need to see a continued focus on the quality and timely implementation of the project. I just want to address each of those in a little more specification.

B

As Mayor Sisk just said this was a consensus between all the communities along the corridor, and also with 36 Community Solutions. We believe this is a good solution that will benefit our folks that are residents and the folks that are employees and employers and commuters in the corridor.

We believe this is a good multimodal solution. Specifically we see in the Phase 1 improvements we believe it's important to have the buffer separated managed lanes as well as both the improvement for BRT, Bus Rapid Transit, and also for high occupancy vehicles.

We support the bikeway along the corridor as a means to connect Boulder to Denver for folks who are looking for a bike alternative. And we also believe that it's important and essential to replace the aging infrastructure.

We believe this is a more sustainable approach to

COMMENT	RESPONSE
Org-Group 1 (continued) Org-Group 1_36CommutingSolutions_pg2 Date Received: **11/16/2009** Name: **Chris McShane, 36 Commuting Solutions** Source: **Broomfield Public Hearing** City/Zip: **Louisville, CO 80027** B cont'd long-term mobility than just the management in the corridor, and for helping provide that new energy economy and preserving our unique quality of life. C Personally and also as a member of this group I am extremely pleased with other decreased number of impacts regarding right-of-way as compared to the other alternatives. D So I'll just conclude by saying it's important as we move forward to help secure funding for the implementation of Phase 1 of the improvements similar to efforts such as the type which has been mentioned tonight, and to implement improvements in the system with the intent of improving the BRT, Bus Rapid Transit operation and the family of express services to make the most of the managed lanes, include vehicles brand distinguishment from other express bus services, so forth. E We believe the HOV needs to be managed to maximize personal travel time savings, not just single vehicles, and then also to see the bikeway connection to our communities are effective. F I'll just conclude with thank you for your time.	**Response to Org-Group 1:** **[C]:** Comment noted. **[D]:** Comment noted. **[E]:** CDOT intends to manage the HOV/toll lanes using dynamic pricing, with the goals of optimizing their use, maximizing travel times savings, and keeping traffic flowing in the managed lanes at 45 miles per hour or faster, even when the general-purpose lanes are congested. **[F]:** CDOT will work with local jurisdictions to facilitate other future additional connections to the bikeway, which are the responsibility of the local jurisdictions.

COMMENT	RESPONSE
Org-Group 2 Org-Group 2_MeadeManorHOA-Murphy Date Received: 11/19/2009 Source: Adams County Public Hearing Name: Meade Manor Homeowners Association, Allen Murphy City/Zip: Westminster, CO 80030 REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MR. MURPHY: Thank you very much. I'll be very brief. I represent Meade Manor homeowners, which are 40 condominiums at 79th and Lowell. I think it's fair to say we're delighted by the proposed renovation of the bridge at 79th and Lowell, as well as the sound wall. I think that will be a nice improvement. B Secondly, if you could, and I know you will, be conscious of minimizing detour routes for both motor vehicles and pedestrians. That -- that bridge has a lot of pedestrian traffic as well as having to reroute motor traffic, but that specific area where we live, I think we're very supportive C of the plan and look forward to staying involved.	**Response to Org-Group 2:** **[A]:** Comment noted. **[B]:** CDOT will work to minimize construction impacts on local communities and will provide advance notice to the public regarding detours. **[C]:** Comment noted.

COMMENT	RESPONSE
Org-Group 3 Org-Group 3_MCC_36CommutingSolutions_pg1 Date Received: **12/3/2009** Source: **E-mail Letter** Name: **US 36 Mayors and Commissioners Coalition and 36 Commuting Solutions** **U.S. 36 Mayors and Commissioners Coalition and 36 Commuting Solutions Comments to the U.S. 36 Final Environmental Impact Statement** **Overview** The U.S. 36 Mayors and Commissioners Coalition (MCC) is an elected official coalition representing the City of Boulder, Boulder County, Town of Superior, City of Louisville, City & County of Broomfield and the City of Westminster. The U.S. 36 MCC was created to develop a long term, unified vision for U.S. 36 transportation improvements and to advocate for transportation funding to implement that vision. 36 Commuting Solutions is a public/private partnership whose mission is to enhance the mobility of commuters along the U.S. 36 corridor for today and the future. A complete membership list is attached. The U.S. 36 MCC and 36 Commuting Solutions submit the following comments to the U.S. 36 Final Environmental Impact Statement (FEIS). Individual local governments may also submit separate comments addressing unique local concerns. **General Comments** A The U.S. 36 MCC and 36 Commuting Solutions strongly support the Preferred Alternative defined in the U.S. 36 FEIS. As the FEIS points out, projected employment and population growth along the corridor will dramatically increase between now and 2035 and will place even more demand on the corridor infrastructure. The existing system is outdated, unreliable and does not offer competitive travel options. The U.S. 36 MCC and 36 Commuting Solutions are also supportive of a phasing approach to complete the Preferred Alternative as funding is identified. We are also supportive of the elements included of the Phase 1 included in the FEIS. B As design advances in phases, please only impact those public and private property areas that are essential for the initial phase of the project. Please pay particular attention to environmentally sensitive areas and areas that have high visual and aesthetic value. Since funding for future phases is not reasonably expected in the foreseeable future (2085 is noted in the FEIS document), clearing and building significant structures that may never need to be built or used would present costly and unnecessary impacts to environmentally, visually and aesthetically sensitive areas. Also, since performance results of the Phase 1 project will help inform where next increments of investment would be needed, it is not clear where or when investments would occur, if at all. As an example, the U.S. 36 coalition requests that the bikeway be placed adjacent to the Phase 1 footprint, rather than placed adjacent to an ultimate footprint that may never occur, resulting in higher costs and greater impacts.	**Response to Org-Group 3:** **[A]:** Comment noted. **[B]:** See General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative).

COMMENT	RESPONSE
Org-Group 3 (continued) Org-Group 3_MCC_36CommutingSolutions_pg2 Date Received: **12/3/2009** Source: **E-mail Letter** Name: **US 36 Mayors and Commissioners Coalition and 36 Commuting Solutions** **Topic-Specific Comments** We have organized our comments by topic and have cross referenced FEIS chapters, as appropriate. C **Bikeway** Table 2.6-6 does not include connectivity from the U.S. 36 bikeway to Cherryvale Road, 88th Street or 112th. In final design, please add a facility connecting to Cherryvale Road, 88th Street, 112th, Church Ranch Blvd., 92nd and Sheridan. D **Bikeway Maintenance Plan** In Section 2.6-31, the last paragraph mentions maintenance of the U.S. 36 Bikeway will be maintained by the local governments through an Intergovernmental Agreement (IGA). Maintenance of the U.S. 36 Bikeway was not discussed in the PAC process. In final design, please leave the IGA language broad enough without specifying who pays for the maintenance to allow for CDOT and the local governments to define the best approach to the bikeway maintenance. E The bikeway needs to be added to Table 8.2-1 Phase 1 Elements and Cost under the mainline Wadsworth Parkway Interchange to East Flatiron Circle. F **Bus Rapid Transit** Please add to the ROD the complete list of bus service included in the Final BRT Elements to Table 2.6-7 so all current and proposed bus service is listed. G In Section 3.4, the description of the Express Bus service states express buses will stop and pick-up passengers at the McCaslin park-n-Ride before proceeding into the managed lane. Currently, approximately sixty percent of the BX service does not stop at the McCaslin park-n-Ride which represents truly express service between Boulder and Denver. To make the most of the investment in the managed lanes, we request the BX service not be compromised below today's express service between Boulder and Denver, but increase the level of express service utilizing the managed lanes as much as possible. We encourage RTD to investigate the market potential to add some bus service that originates at the McCaslin park-n-Ride, offering express service for Louisville and Superior residents. H **Transportation Demand Management (TDM)** In final design, please confirm TDM will be part of Phase 1 construction plans and funding will be provided for TDM. It is currently not listed in Table 8.2-1: Phase 1 Elements and Cost.	**Response to Org-Group 3:** **[C]:** See General Response: Bikeway. **[D]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway. **[E]:** This has been added to the ROD for Phase 1. **[F]:** The complete list of bus service has been included in the ROD. **[G]:** RTD is committed to providing high quality and high frequency express bus service on US 36, including for the BX. A part of this commitment is to make maximum use of the major transportation and transit investment for the corridor, the managed lanes. Express buses like the BX, which leave from Boulder heading eastbound, will use the managed lane as much as feasible, subject to the driver's discretion. This may mean that after buses leave the Table Mesa Drive area, they will get immediately into the managed lanes at Cherryvale Road and stay there all the way to Denver. It could also mean that express buses will stop to pick up passengers at McCaslin Boulevard, but then enter the managed lanes as soon as feasible, and again, stay there all the way to Denver. Other express bus service may be initiated at the McCaslin or Flatiron stations. Those buses would also enter the managed lanes as soon as feasible and stay there all the way to Denver. **[H]:** A TDM commitment during construction of Phase 1 elements has been added to the ROD.

COMMENT	RESPONSE
Org-Group 3 (continued) Org-Group 3_MCC_36CommutingSolutions_pg3 Date Received: **12/3/2009** Source: **E-mail Letter** Name: **US 36 Mayors and Commissioners Coalition and 36 Commuting Solutions** I In Table 4.26-1 Mitigation Summary, under Traffic Control, please add TDM to the list of mitigation techniques. TDM efforts such as arranging carpools, vanpools, telework, expanding transit usage, etc. will reduce auto traffic in the construction area. J **Mitigation** In final design, please ensure sound walls and other mitigation efforts will only be built in tandem with the corridor construction improvements. Due to the aesthetic beauty of the adjacent land, vista mountain views surrounding area the corridor, there is a strong desire to maintain the aesthetic character of our corridor.	**Response to Org-Group 3:** **[I]:** As mentioned in Chapter 5, Financial Analysis, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) excess toll revenue, if it occurs, could be used for other programs, such as long-term TDM. CDOT and RTD have agreed that for the first phase of the US 36 Corridor Project, a portion of the construction budget will be set aside for TDM-related construction mitigation. **[J]:** See General Response: Final Design and General Response: Combined Alternative Package (Preferred Alternative).

COMMENT	RESPONSE
Org-Group 4 **Org-Group 4_CommunityCycles.doc_pg1** Date Received: **12/13/2009** Name: **Community Cycles, Anne Haebig** Source: **US 36 Website** City/Zip: **Boulder, CO 80303** A This is part one of a two-part comment: On behalf of Community Cycles members, the Community Cycles Advocacy Committee would like to express our support for the bike path as described in the US 36 EIS. B We favor the alignment that was selected, which follows US 36 directly. The Record of Decision should not be made until a funding mechanism for this bike path is secure. C Cyclists need a connection to Cherryvale. Cherryvale is a popular bike route and connects Boulder with Marshall and popular OSMP mountain bike routes. In general, the better connections to the surrounding community are and the more accessible the bikeway is from transit stops, the more options are available to solve the "last mile" problem for commuters wishing to use transit. D We urge project leads to seek input from local bicyclists along the entire route. E Currently, the bike lane on McCaslin road is interrupted at the US 36 interchange. Improving McCaslin Road bicycle facilities at the US 36 interchange would improve safety for cyclists in that area. F Providing continuity of bike facilities through interchanges along the entirety of US 36 greatly improves cyclist safety. This project will increase traffic speeds. Increased speeds increase danger to cyclists at interchanges - effectively reducing speeds at any offramps where cyclists and pedestrians must cross at grade is critical. G Putting the bikeway outside of sound walls increases cyclist safety by improving cyclists ability to hear and by decreasing their isolation from the surrounding neighborhood. Cyclists will be more likely to use the route if they are protected from noise. H While effects of this project on estimated motor vehicle times are included, estimated travel times for cyclists and pedestrians are not included in this analysis.	**Response to Org-Group 4:** **[A]:** Comment noted. **[B]:** Comment noted. Funding for Phase 1, which includes the bikeway, is identified in the *Fiscally-constrained 2035 Regional Transportation Plan* (DRCOG 2009). **[C]:** See General Response: Bikeway. **[D]:** We encourage you to talk to your local jurisdiction representatives. RTD and CDOT will coordinate with these representatives during final design. Also, see General Response: Public Involvement. **[E]:** The US 36 Corridor Project would not preclude a local bikepath over US 36 on McCaslin Boulevard. During final design, CDOT will coordinate with local jurisdictions on the width of the sidewalks on the bridge. **[F]:** See General Response: Bikeway. **[G]:** It is agreed that locating the bikeway on the outside of sound walls is favorable and this will be considered during final design. **[H]:** Bicycle and pedestrian facilities were identified as a supportive element that would be included in any of the build packages. Travel time is dependent on conditions and ability of cyclists. Travel times were not a factor in the selection of this element of the Combined Alternative Package (Preferred Alternative).

COMMENT	RESPONSE
Org-Group 4 (continued) Org-Group 4_CommunityCycles.doc_pg2 Date Received: 12/13/2009 — Name: Community Cycles, Anne Haebig Source: US 36 Website — City/Zip: Boulder, CO 80303 H This is part two of a two-part comment: The bus facilities in this proposal do not represent true BRT as buses are required to enter and exit the freeway through shared offramps and share a traffic lane with private vehicles. This will slow bus traffic considerably, which is contrary to the stated project goal of using TDM to eliminate the need for a new general purpose lane. J The managed lanes must also be carefully monitored for congestion that slows bus traffic and makes transit an unappealing alternative to private vehicles. K Maintenance of the bikeway must be addressed in a cooperative, collaborative fashion to make sure the path is maintained adequately and consistently throughout its length. We do not support the assumption that local communities will accept responsibility for maintenance because it is "CDOT policy." There are several instances in which CDOT maintains bikeways. To carry out the stated project goal of using TDM, costs of maintaining the pathway should be incorporated into the overall operating budget for US 36. The maintenance language in the FEIS should be replaced with new language saying that CDOT will include bikeway maintenance costs into the operating budget for the US 36, and will work with local communities, as appropriate, to develop and implement a maintenance plan that insures prompt and adequate maintenance of the path, both in terms of capital repairs and day to day maintenance such as sweeping and plowing. L We look forward to giving input on the rest of the project planning process. Thank you for your hard work and openness to public comment!	**Response to Org-Group 4:** **[I]:** The on- and off-ramps are designed with queue jumps and HOV bypass lanes for the buses. Also, see General Response: Transit-related. **[J]:** The managed lanes are designated for use by buses and HOVs for no cost. Any remaining capacity would be available to SOVs through variable or dynamic pricing. The managed lanes will result in express bus and HOV travel times that are 18 to 28 minutes faster than general-purpose lane traffic, with the intent of making transit appealing to users. **[K]:** The ROD allows flexibility related to bikeway maintenance responsibilities. Also, see General Response: Bikeway. **[L]:** See General Response: Public Involvement.

COMMENT	RESPONSE
Org-Group 5 **Org-Group 5_SierraClub.doc_pg1** Date Received: **12/14/2009** Source: **Mailed Letter** Name: **Sierra Club, Rocky Mountain Chapter, Transportation Chair, Bill Roettker** Dec. 14. 2009 4:42PM BATC No. 0258 P. 2 Sierra Club Rocky Mountain Chapter 1536 Wynkoop Street Suite 4B Denver CO 80202 December 14, 2009 US 36 Final EIS c/o CDR Associates 100 Arapahoe Avenue, Suite 12 Boulder, CO 80302 Dear Sir or Madam: A The Rocky Mountain Chapter of the Sierra Club is pleased to submit formal comments on the US 36 Corridor Final Environmental Impact Statement/Final Section 4(f) Evaluation (US36 FEIS) which are included as an attachment to this letter. We appreciate the opportunity to comment, and our comments are intended to assist the Colorado Department of Transportation, the Regional Transportation District, the Federal Highway Administration, the Federal Transit Administration, reviewing agencies, non-governmental organizations and the general public in arriving at the best decisions for the benefit of present and future generations of Colorado citizens. We appreciate the opportunity to participate in US36 Corridor studies leading up this FEIS, and look forward to seeing vital transportation improvements implemented that reduce the environmental impacts of our transportation options in this vital transportation corridor. Sincerely, Bill Roettker RMC Transportation Chair cc: Robyn Fugett, Chapter Director	**Response to Org-Group 5:** **[A]:** Comment noted.

COMMENT	RESPONSE
Org-Group 5 (continued) **Org-Group 5_SierraClub.doc_pg2** Date Received: **12/14/2009** Source: **Mailed Letter** Name: **Sierra Club, Rocky Mountain Chapter, Transportation Chair, Bill Roettker** Dec. 14. 2009 4:43PM BATC No. 0258 P. 3 Comments Submitted by SIERRA CLUB ROCKY MOUNTAIN CHAPTER to COLORADO DEPARTMENT OF TRANSPORTATION and REGIONAL TRANSPORTATION DISTRICT on the **US36 Corridor Final Environmental Impact Statement/Final Section 4(f) Evaluation (US36 FEIS)** December 14, 2009 Rocky Mountain Chapter of the Sierra Club 1536 Wynkoop Street Suite 4B Denver CO 80202 303-861-8819 www.rmc.sierraclub.org Comments are provided on general matters and on specific items regarding the US36 Corridor Final Environmental Impact Statement (US36 FEIS) prepared in accordance with the National Environmental Policy Act (NEPA). B **Sierra Club Transportation Policy** The Sierra Club supports transportation policy and systems that: • minimize the impacts on and use of land, airspace and waterways, minimize the consumption of limited resources, including fuel, and reduce pollutant and noise emissions; • provide everyone, including pedestrians, bicyclists and transit users, with adequate access to jobs, shopping, services and recreation; • provide adequate and efficient goods movement and substitute local goods for those requiring long distance movement, where feasible; • encourage land uses that minimize travel requirements; • strengthen local communities, towns and urban centers, and promote equal opportunity; • eliminate transportation subsidies which handicap achievement of the above goals; and • ensure vigorous and effective public participation in transportation planning. *(Adopted by the Sierra Club Board of Directors, February 19-20, 1994; amended May 7-8, 1994; see http://www.sierraclub.org/policy/conservation/trans.asp)* The Rocky Mountain Chapter of the Sierra Club supports improvements to the US36 corridor that are true to these goals. C **I. General Comments** a) We are pleased that the primary suggestion from our comments on the Draft EIS has been included as Phase 1 of the Preferred Alternative; that is, the elimination of general	**Response to Org-Group 5:** **[B]:** Comment noted. **[C]:** Many factors contribute to decisions made within the NEPA process. Competing issues require that the decision makers find a balance between benefits and impacts. Auxiliary lanes will facilitate short local trips by buses and other vehicles without degrading operations in the general-purpose lanes. This also results in better safety and impact minimization at interchanges.

COMMENT	RESPONSE
Org-Group 5 (continued) Org-Group 5_SierraClub.doc_pg3 Date Received: 12/14/2009 Source: Mailed Letter Name: Sierra Club, Rocky Mountain Chapter, Transportation Chair, Bill Roettker Dec. 14. 2009 4:43PM BATC No. 0258 P. 4 C continued purpose travel lanes and an emphasis on BRT/HOV lanes in each direction. However, we strongly discourage the construction of "auxiliary lanes" in later phases of the project. These will have a significant environmental impact and will only encourage more use of single occupant vehicles (SOVs). D b) The implementation of enhanced BRT elements, including low-floor vehicles, off-vehicle ticketing, and on-board passenger information systems should be included in Phase 1 to make the most effective use of BRT investments. Excluding these elements does not constitute a true BRT system and is deceptive to the public. E c) While it is correct to include all phases of the proposed project when analyzing the impacts of the entire project, the Record of Decision should only be made for the first phase because funding is only established for that phase. The FEIS should also show costs, impacts, and benefits of only building the first phase and not completing the other phases. This parallel analysis has not been clearly delineated, resulting in a lack of precision and clarity. F d) The FEIS and ROD should require that the minimum toll for SOV use of the managed lanes be set no lower than the regional transit fare for the US36 corridor. An SOV toll that is lower than the comparable transit fare will encourage the environmentally impactful use of SOVs and discourage travel via transit or carpool. If SOV tolls are lower than transit fares, environmental and social justice inequity will be introduced as a consequence of this project. G e) A major shortcoming of the proposed improvements is the discontinuation of TDM programs after construction is completed. Ongoing TDM programs, funded by SOV tolls, can shift a significant number of travelers from SOVs into high occupant vehicles, transit (including BRT), and alternative modes of travel, or reduce the need for trips on US36. H f) We do not see any modifications in the travel behavior assumptions for new data showing an earlier onset of peak oil production and the resulting increased price of fuel. We can expect a drastic increase in fuel prices, which will lead to a general reduction of automobile use. For this reasons we believe the model forecasting results for both the congestion predicted under the no-build option or for the toll revenues of the preferred alternative are inaccurate. H g) The biological opinions should be included before the ROD is issued, since those opinions might have an influence on the ROD. The Final Section 4(f) Evaluation from the Department of the Interior should have been finished before the FEIS comment period, not during the comment period. These plans to finish the work after the ROD reveal an attitude that the public comments will not matter. The ROD should not be issued until these studies are complete. J **2. Comments on analysis of impacts** a) We did not find an adequate discussion of where the collected toll revenues would be directed, yet the destination of these funds could strongly influence the impact of the	**Response to Org-Group 5:** **[D]:** Phase 1 of the Combined Alternative Package (Preferred Alternative) includes low-floor buses, ticket vending machines at BRT stations, and bus instrumentation for real-time transit data collection and display, among other BRT design elements. **[E]:** This ROD covers only Phase 1 in compliance with the Clean Air Act (CAA) requirements and FHWA regulations. Chapter 8, Phased Project Implementation, of the *US 36 Corridor FEIS* (US Mobility Partnership 2009) documents the impacts of each phase of the project. The traffic impacts of Phase 1 were also reported in Chapter 8 of the FEIS for 2035, in the event that only Phase 1 is constructed by 2035. **[F]:** Comment noted. RTD fares would be a consideration in setting the toll rates. The travelers' choice of travel modes depends on many factors in addition to tolls and transit fares, such as the total costs of a trip, including parking and gasoline, parking availability, travel time, and convenience. SOV use of the managed lanes is a matter of personal choice, convenience, and need, regardless of income level. **[G]:** CDOT and RTD have agreed that for the first phase of the project, a portion of the budget will be put aside for TDM-related construction mitigation. This will be initiated during final design and will run throughout the first construction phase. Future construction phases will include this program as well. CDOT and RTD are also committed to working with the TDM task force to look for longer-term funding for TDM programs. The TDM task force will continue to work closely with local agencies to create partnerships that promote TDM measures that are supportive of the major highway and transit improvements. This should lead to the implementation of long-term strategies to reduce the need for trips on US 36. **[H]:** The travel demand forecasting for US 36 was based on the DRCOG model which uses a constant value for fuel price. Sensitivity tests that have been completed support the concept that dramatically increasing fuel prices reduces vehicle trips and increases transit ridership (as was seen nationwide in recent years). The Combined Alternative Package (Preferred Alternative) acknowledges this elasticity of future conditions by providing multi-modal options for travel.

COMMENT	RESPONSE
	Response to Org-Group 5: **[I]:** The biological impacts and the draft PBA were included in the *US 36 Corridor Draft Environmental Impact Statement and Draft Section 4(f) Evaluation* (*US 36 Corridor Draft Environmental Assessment*) (US 36 Mobility Partnership 2007), and the final PBA was included in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), for public review. The Biological Opinion is included in this ROD as Appendix F. Consistent with 23 Code of Federal Regulations (CFR) 774.7(f), the Draft Section 4(f) Evaluation was included in the DEIS and the Final Section 4(f) Evaluation was included in the FEIS for public, officials with jurisdiction, and U.S. Department of the Interior (USDOI) review. **[J]:** Pages 5.5-3 and 5.5-4 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) document that toll revenue is proposed to cover the annual costs of purchasing, operating, and maintaining the toll-related equipment and operations. Excess toll revenue, if it occurs, could be used for other programs, such as long-term TDM.

COMMENT	RESPONSE
Org-Group 5 (continued) Org-Group 5_SierraClub.doc_pg4 Date Received: 12/14/2009 Source: Mailed Letter Name: Sierra Club, Rocky Mountain Chapter, Transportation Chair, Bill Roettker Dec. 14. 2009 4:44PM BATC No. 0258 P. 5 J continued proposed project. Toll revenues collected in excess of the cost of toll collection costs should be specifically directed to transit services and transportation demand management in the US36 corridor, and the ROD should establish that as a requirement. K b) We support the bike path alignment along US36. We believe that the FEIS should provide more detail about connections to existing and reasonably foreseeable local bike networks along the corridor, including along major arterials that cross US36. L c) The safety analysis should include more detail on the impacts (including deaths and injuries) that would result due to the projected speeds and volumes under each option. Safety impacts increase dramatically with speed, and the different congestion levels and travel speeds in the various options may have dramatically different impacts. M d) The safety analysis should also include bicyclists who may be riding on the shoulder, regardless of whether bicyclists are currently banned from the shoulder. Many bicycle activists hope to eliminate all such bicycle bans in the future. In particular, the safety analysis should focus on the squeeze zones that are planned for the first phase, where they are planning to add lanes without increasing the total width of the right-of-way. N e) Noise levels might decrease under the no-build option, rather than remain the same. Common sense and experience indicate that if the traffic is slow and congested, then the noise level is lower. This should be corrected before the ROD is issued. O f) Several impacts from the no-build option are not properly represented. For example, the executive summary does not mention that the no-build option would impact 0 historical structures, lead to 0 acres of lost habitat for the endangered species, and the cost of $0 is not shown in the cost tables. The impacts and costs of the no-build option should be presented in full. These corrections should be a condition for finalizing the ROD.	**Response to Org-Group 5:** **[K]:** See General Response: Bikeway. **[L]:** In the safety analysis (CDOT 2006), the overall number of accidents between packages was similar (within 2 percent); however, the injury and fatality rate for the barrier-separated Package 2 was 14 percent less than for a buffer-separated alternative package. **[M]:** A separate, regional bikeway facility is provided in Phase 1 of the US 36 Corridor Project. Bicyclists are currently not allowed on US 36. It is not reasonably foreseeable that this restriction would change. If this restriction changes in the future, cycling use on US 36 would be analyzed as part of a reevaluation. **[N]:** The equivalent sound level (Leq), is the steady sound level that represents the same sound energy as the varying sound levels over a specified time period. Highway noise impact is assessed using the loudest 1-hour Leq. This is the hour of the day when there is a large amount of traffic on a roadway travelling at free-flow speeds. Noise modeling for all packages, including Package 1 (No Action), assumed free-flow conditions, not necessarily peak traffic volumes. Therefore, even though noise levels may be lower in congested conditions, the noise analysis is based on the highest noise levels. **[O]:** If Package 1 (No Action) is selected, there would be no action taken as a result of this document. Impacts of Package 1 (No Action) are presented throughout the Executive Summary of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), and in the various chapters and sections of the FEIS. The FEIS is incorporated by reference to this ROD.

COMMENT	RESPONSE
PUBLIC-WRITTEN AND E-MAIL COMMENTS	
Public-Written 1 Public-Written 1_Hage Date Received: 11/3/2009 Name: Frank Hage Source: US 36 Website City/Zip: Boulder, CO 80305 A Noise impacts west of Bear creek in Boulder are not addressed. B CDOT needs to bring US36 into noise compliance with federal standards. C Significant increases in traffic surrounding the Table Mesa interchange in each option increases the noise in surrounding neighborhoods. These impacts are not addressed and mitigation options are incomplete. D Noise from US36 affects many people in adjoining neighborhoods. The US36 EIS claims highway noise only affects adjacent properties. This is a complete misrepresentation of the facts and misleads the public on the impact of improvements to US36.	**Response to Public-Written 1:** **[A]:** See General Response: Noise. **[B]:** See General Response: Noise. **[C]:** Noise levels at the Table Mesa Drive interchange were measured at residences within 200 feet of the US 36 corridor to evaluate the worst-case conditions. Sound walls were considered feasible and reasonable and are proposed for the Moorhead Avenue homes, Apache Road homes, and Pima Court homes to mitigate for noise impacts. **[D]:** See General Response: Noise.

COMMENT	RESPONSE
Public-Written 2 Public-Written 2_Ramming Date Received: 11/3/2009 Name: Michael Scott Ramming Source: US 36 Website City/Zip: Denver, CO 80205 A The link to the FEIS Abstract produces a Not Found notice. B One customary way of writing phone numbers is to use parentheses around the area code. Your script rejected my phone numbers in this format, and erased all my previous submission. C Traffic Engineering Technical Report Addendum, page 2-1 and following. Is the override capacity for managed lanes 1,500 vehicles per hour or 1,500 vehicles per hour per lane? (See also Appendix C, page 2 of 6.) D Same addendum, page 5-2, Interlocken / ConocoPhillips Stops line of Table 5.1-2, how am I supposed to calculate the BRT ridership of the preferred alternative as 720 plus N/A?	**Response to Public-Written 2:** **[A]:** Upon receiving this comment, the US 36 EIS Public Involvement Team re-posted the Abstract file and tested website functionality. The "not found" notice did not re-appear. The US 36 EIS Public Involvement Team then notified the commenter by e-mail. The e-mail also included a PDF attachment of the Abstract. **[B]:** The US 36 EIS Public Involvement Team tested the commenters' concern regarding the rejected phone number format. The www.us36eis.com website form for submitting comments requires a valid phone number format. The website considers phone numbers with spaces or dots to be invalid and requires the commenter to re-enter the information. Parentheses are accepted but there cannot be a space in between the numbers. The website has been updated to inform commenters that the phone number field accepts no spaces or dots. **[C]:** The override capacity is 1,500 vehicles per hour per lane. A note regarding this was included in Section 3, Clarifications to the US 36 Corridor Final Environmental Impact Statement, of the US 36 Corridor ROD. **[D]:** The "N/A" under Package 1 (No Action) occurs because no routes would serve those stops under Package 1 conditions. For ease of reference, the N/A has been changed to zero (0) as noted in Section 3, Clarifications to the US 36 Corridor Final Environmental Impact Statement, of the US 36 Corridor ROD.

COMMENT	RESPONSE
Public-Written 3 Public-Written 3_Craft Date Received: **11/4/2009** Name: **George Craft** Source: **US 36 Website** City/Zip: **Boulder, CO 80303** A In looking at the maps it appears as though this solution is focused on the route from Table Mesa to the Broadway Park & Ride. What is really needed is a solution from Denver to Boulder and beyond.	**Response to Public-Written 3:** **[A]:** See General Response: NEPA Process and Alternatives Evaluation.

COMMENT	RESPONSE
Public-Written 4 Public-Written 4_Kiffney Date Received: **11/4/2009** Name: **Christina Kiffney** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A I can see the traffic from US 36 through the houses at the end of my street, whizzing by at 65 miles per hour, less than a mile before a stop light. B More impactfully, I hear the highway noise 24 hours a day, seven days a week, 365 days a year. I can hear the noise as I sit here in my office typing this, even while it is not rush hour (8pm) and it's cold so all of the windows, shades and curtains are closed. If I bought a house in between towns, right on the highway, then well, I'd be stuck with it. But half of Boulder lives within earshot of US 36 in the city limits. It's not necessary to force this many residents to live with the noise when there are plenty of solutions to change it. Thank you, Christina	**Response to Public-Written 4:** **[A]:** Comment noted. **[B]:** Noise measurements in this area indicate an existing (2003) noise level ranging from 54 dBA to 73 dBA. Future noise levels (2035) range from 56 dBA to 70 dBA. The CDOT noise analysis procedures require the noise analysis to be conducted within a 500-foot study area in all directions if sensitive receivers are present. Extending the study area 500 feet beyond Foothills Parkway/Table Mesa Drive allowed for the inclusion of receivers up to Bear Creek. Sound walls are considered feasible and reasonable and are proposed for the Moorhead Avenue homes, Apache Road homes, and Pima Court homes to mitigate for noise impacts. Construction of a sound wall west of Bear Creek is not precluded by the US 36 Corridor Project and could be funded by other entities. Other mitigation considered during the EIS process included the use of “quiet” pavements, berms, and speed reduction. Sound walls are considered feasible and reasonable and are proposed for the Moorhead Avenue homes, Apache Road homes, and Pima Court homes to mitigate for noise impacts. Also, see General Response: Noise.

COMMENT	RESPONSE
Public-Written 5 Public-Written 5_Turner Date Received: **11/5/2009** Name: **Doris Turner** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A Regarding the short portion of 36 from Table Mesa/So. Boulder Rd to Baseline where homes are impacted by noise, a speed limit of 50 to 55 as cars come into the city seems reasonable and would eliminate the noise produced by a speed limit of 60 - 65+. There would not be a cost to the government other than reposting of the new speed limit. B The other advantage is in reducing pollution caused by higher speeds. C I don't have accident statistics for that area but I would make the merge lanes safer for all. Thank you	**Response to Public-Written 5:** **[A]:** See General Response: Noise. **[B]:** Air pollution concentrations emitted from the tailpipes of vehicles are the highest when vehicles are stopped or idling for long periods of time. Idle traffic conditions tend to concentrate air pollutants at the idling location. Carbon monoxide (CO) is the primary pollutant of concern when traffic is idle or stopped for a period of time, such as a vehicle stopped at a signalized intersection. The project evaluated CO impacts at several of the worst intersections throughout the project corridor through a series of quantitative modeling analyses. The results of these air quality impact models demonstrated that the National Ambient Air Quality Standard (NAAQS) for CO at all of these intersections is below the thresholds, and therefore, demonstrates project-level conformity for CO. Vehicles operating above 30 miles per hour are more efficient than those that are idling. The emissions seen from a 10 mile per hour speed limit change would be negligible. Also, see General Response: Air Quality/Emissions/Human Health. **[C]:** See General Response: Final Design. Refinements to the merge lanes will occur during final design. The Combined Alternative Package (Preferred Alternative) includes the reconstruction of the US 36/Table Mesa Drive/Foothills Parkway interchange, which will improve the safety of passengers in vehicles merging and making other maneuvers.

COMMENT	RESPONSE
Public-Written 6 Public-Written 6_Falbo Date Received: **11/6/2009** Source: **US 36 Website** Name: **Cynthia Falbo / Anthony's Splash n Dash** City/Zip: **Westminster, CO 80031** A We are concerned about our business that is located at 5051 W 80th Ave and we just opened in Jan, and how it will affect our business. Thanks Cynth	**Response to Public-Written 6:** **[A]:** The property located at 5051 West 80th Avenue, near the intersection of Sheridan Boulevard and 80th Avenue, would not be directly affected by construction of the Combined Alternative Package (Preferred Alternative). During the construction period, there would be temporary disruption to travel paths to businesses and other attractions in the corridor. Detours and other traffic control measures would be used to manage traffic and transit operations, and to direct travelers to destinations.

COMMENT	RESPONSE
Public-Written 7 Public-Written 7_MG Date Received: **11/6/2009** Name: **M.G.** Source: **US 36 Website** City/Zip: **80020** A I'm writing to express my disbelief in how Broomfield continues to negatively affect its neighboring cities and counties and the fact that CDOT and the Regional Transportation District is helping them! They place their waste plant, jail and event center on the edge of their county so other counties have to deal with the smell, danger and traffic. Now they want the subdivisions of Sheridan Green and Arrow Head to deal with the noise, pollution and traffic of an unnecessary rail station. So who did they (influence) this time? I know they will do anything to get their way, heck Broomfield built the North West Corridor Highway to make sure CDOT put 470 where they wanted it. They always seem to get their way!!!!! If they want a Broomfield station it should go where it was originally planned at 120th and Nickel Street. It wouldn't affect residential areas there because Broomfield has already displaced all its residents in that area to build its newest road/highway. Adding a rail station/bus station at 116th Ave is ridiculous. B The ones at Church Ranch are more than sufficient and don't negatively effect residential areas. C Church Ranch is where we were told, during all the public meetings, the station would be. Now at the last minute you change the plan! D Looking at the Corridor Reference Map, no where are the other stations so close together. The train will barely start before it stops again! E If this station is placed where the new plan says: The subdivisions of Sheridan Green and Arrow Head will need a 10 foot privacy wall around their settlements; Down Westminster Blvd/ Main; Down 112th Ave; The East & West borders of both settlements. F We need to be assured about pollution so close to our homes. G Broomfield needs to stop linking 116th Ave directly to 112th Ave it should run East/West and link to Main Street as normally would happen. H Westminster needs a public hearing close to us where we can express our feelings since we are the ones who are being negatively affected by this change. The only one close now is in Broomfield where we will never be heard. (Convenient for Broomfield through, see the pattern) Maybe at the Westminster Recreation Center or the Westminster City Center. Please show me I'm wrong in my suspicions of wrong doing & fix this injustice. M.G. (A third generation Colorado native who was alive when the Boulder/Denver Turnpike was originally built.)	**Response to Public-Written 7:** **[A]:** The noise, pollution, and traffic impacts of a rail station at 116th Avenue described in the *Northwest Rail Corridor Environmental Assessment/Environmental Evaluation*, with a tentative release date of early 2010. A rail station at 116th Avenue has been included in the planning for the Northwest Rail Corridor Project since 2005. A station at 120th Avenue and Nickel Street was considered very early in planning work conducted by the City and County of Broomfield, but was not carried forward into the Broomfield adopted plan. The "Original Broomfield Plan" shows a station at 116th Avenue. **[B]:** Stations at Church Ranch Boulevard have been included in both BRT and rail planning since the *FasTracks Plan* (RTD 2004) was passed in 2004. **[C]:** A station at 116th Avenue has been included in the US 36 corridor plans since 2005 as a joint BRT/rail station. This station has been included on all maps shown in public meetings for the US 36 corridor. **[D]:** The station spacing for BRT (between Church Ranch Boulevard and 116th Avenue) has been analyzed and found to operate efficiently. **[E]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) includes recommendations for sound walls as listed in Table 4.13-4, Length of Sound Wall Anticipated in Each Package, of the FEIS. No sound wall was found to be reasonable and feasible in the vicinity of the 116th Avenue BRT station due to the limited effectiveness of a sound wall at this location and the number of people that would benefit from this type of mitigation. **[F]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) considered air quality impacts throughout the corridor. See General Response: Air Quality/Emissions/ Human Health. The noise, air pollution, and traffic impacts of the Northwest Rail Corridor Project rail stations will be described in the *Northwest Rail Corridor Environmental Assessment/Environmental Evaluation*, which has a tentative release date of early 2010.

COMMENT	RESPONSE
	Response to Public-Written 7: **[G]:** As part of the Combined Alternative Package (Preferred Alternative), the existing Wadsworth Boulevard bridge would be replaced with a new bridge at 112th Avenue. This bridge would connect to an extension of 112th Avenue from the east; this connection would be constructed by the City and County of Broomfield. As part of these improvements, Wadsworth Boulevard would also be reconfigured to connect to the new 112th Avenue bridge. Vehicles on Wadsworth Boulevard would then use the 112th Avenue bridge to cross over US 36. **[H]:** Corridor-wide public meetings and hearings throughout the *US 36 Corridor EIS* (US 36 Mobility Partnership 2009) process have been held at various locations throughout the corridor over the life of the project, rotating among the different jurisdictions to provide balance, corridor-wide equity, and access to all communities and members of the public.

COMMENT	RESPONSE
Public-Written 8 Public-Written 8_Ecks Date Received: **11/12/2009** Name: **Fred Ecks** Source: **US 36 Website** City/Zip: **80303** A Please accept my strong support of the bicycle facilities in the US 36 corridor plans. While the bikeway represents only a tiny portion of the overall project cost, the benefits are tremendous. Up until now, cycling has not been a viable transportation option along the majority of the US 36 corridor, even though it meets our stated goals of improving environmental quality, reducing noise, and offering a better, lower-impact mode of transportation. I'm heartened to see this inclusion in all options for the US 36 corridor. Thank you for listening, - Fred Ecks 785 33rd St. Boulder, CO (303) 800-4604	**Response to Public-Written 8:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 9 **Public-Written 9_Campbell** Date Received: **11/12009** Name: **Wallace Campbell** Source: **Mailed Letter** City/Zip: **Boulder, 80305** www.US36EIS.com A The November 3rd issue of the Daily Camera carried a feature article that described the Boulder County's Director of Transportation, George Gerstle, plans to upgrade the highway US 36 between Boulder and Denver by enlarging the vehicle traffic load along that route. Such use of public funds to increase the local air burden of CO2 is reprehensible in these sad times of increased global warming. Proper application of such funds should only involve the planning for electric trains along that heavily-used route. That direct route to Denver is ideal for a rail line. Rail-line construction questions that may arise because of the steep Davidson Mesa hill could be easily overcome by using a cog-rail system there, or by designing a pathway that traverses the slope (as was done by a steam rail line many years ago). Wallace H. Campbell 3030 Galena Way Boulder, CO 80305 phone: 303-494-1356 e-mail: whcampbell@toast.net	**Response to Public-Written 9:** **[A]:** The Combined Alternative Package (Preferred Alternative) includes numerous elements which will encourage the use of multi-modal travel options. These elements include the managed lanes, which will result in travel times for buses, vanpools, and carpools that are 18 to 28 minutes faster than the travel time for automobile traffic. Also included in the Combined Alternative Package (Preferred Alternative) is increased and enhanced bus service, queue jumps and bus-ramp metering bypass lanes, the corridor bikeway, and measures to reduce travel demand. Electrically-powered rail was considered during the alternatives evaluation process for the *Major Investment Study* (RTD 2001) and during the US 36 NEPA process. It was not advanced, as described on page 2.3-2 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), because of greater capital costs, inability to meet the required travel demand threshold, and potentially significant impacts to sensitive environmental resources such as wetlands and endangered species located in the Boulder valley adjacent to US 36. A cog rail system would likely have similar issues. In addition, a cog rail system would not be compatible with the rest of RTD's transit system of light rail, commuter rail, and BRT. Also, see the General Response: NEPA Process and Alternatives Evaluation.

COMMENT	RESPONSE
Public-Written 10 Public-Written 10_Bentley Date Received: **11/16/2009** Name: **Ryan Bentley** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A The proposed sound mitigation is incomplete and unacceptable! What is the justification of stopping a sound wall at Bear Creek Trail along Moorhead; further, no mention of the ~sixty first row receptors along Moorhead between Bear Creak Trail and Baseline is made, in any context. Obviously the road does not stop at Bear Creek Trail, neither the sound and neither should any sound mitigation. Please provide some analysis, justification or consideration to "the loudest section" of the SH36 corridor.	**Response to Public-Written 10:** **[A]:** See General Response: Noise.

COMMENT	RESPONSE
Public-Written 11 Public-Written 11_Fisher Date Received: **11/16/2009** Name: **Elia Fisher** Source: **US 36 Website** City/Zip: **Denver, CO 80216** A Despite utilizing a direct route through our neighborhood, the project team made little or no effort to involve the Globeville (Denver) neighborhood in the outreach process. B Using the center median of Interstate 25, north from the Denver-Adams county line south to Park Avenue West / Fox Street, the southern length of the US 36 Bus Rapid Transit Corridor will occupy more than a one-mile stretch within Denver's Globeville Neighborhood. Yet, despite this fact, the Colorado Department of Transportation and the Federal Highway Administration made no noticeable attempt to obtain input from residents within this section of the project's transportation corridor. (A cont'd) C Presently, Interstate 25 and Interstate 70 occupy a vast area of Globeville. In the early 1990's the highway interchange serving both of these interstates was reconstructed. During this expansion, highway lanes were added and multiple properties were impacted. The worst result, however, was the increased automobile traffic that has greatly impacted our local air quality. A cont'd I can say with great confidence that many residents in the area would have greatly appreciated an opportunity to share their vision for the project's transportation land use. The Colorado Department of Transportation and Federal Highway Administration has once again failed the residents of Denver's urban core. Sincerely, Elia Fisher Denver	**Response to Public-Written 11:** **[A]:** The US 36 EIS Public Involvement Team implemented a proactive and targeted public involvement approach across the entire project area, including the Globeville neighborhood. Recognizing the multiple transportation initiatives in the north Denver area, including the *I-70 East Corridor FEIS* (CDOT and FHWA 2009), the *Denver Union Station* (*DUS) Master Plan* (Union Station Alliance 2005), and the FasTracks Program, public involvement efforts were coordinated to avoid confusion and to avoid burdening community leaders with multiple contacts, interviews, and requests for assistance. Globeville will have the opportunity to continue to participate in these ongoing initiatives. The following approaches were used: • Key person interviews were held with north Denver elected officials and religious, neighborhood, and business association leaders in 2004. The purpose of the interviews was to understand the existing visions and plans for growth and development for the area and for the context of the US 36 Corridor Project. Interviews were conducted with City of Denver elected officials, Globeville Area Business Association representatives, Globeville Civic Association members, Globeville Neighborhood Association members, Cross Community Coalition staff, Colorado People's Environmental Economic Network (COPEEN) members, and others. • Contact information was solicited and contacts were added to the *US 36 Corridor EIS* (US 36 Mobility Partnership 2009) mailing list. These contacts continue to receive project information unless they have since indicated otherwise. • The I-70 East corridor and US 36 corridor project teams met periodically to share information about the project's public involvement strategies and coordinate efforts, where appropriate. • US 36 corridor project team members participated in the I-70 East corridor public meetings, and coordinated with the DUS public outreach efforts. **[B]:** The only change from the Package 1 (No Action) condition on the high-occupancy toll (HOT)/HOV lane along I-25 south of US 36 as a result of implementation of the Combined Alternative Package (Preferred Alternative) is the addition of 17 buses per hour. No physical improvements would be made to the HOT/HOV lane in this stretch.

COMMENT	RESPONSE
	Response to Public-Written 11: **[C]:** Impacts to air quality resulting from the proposed project have been analyzed and documented in Section 4.12, Air Quality, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The air quality analysis shows that operation of the project would not cause significant air quality impacts, and that future emissions would stay within levels that are considered to be acceptable under the U.S. Environmental Protection Agency (USEPA) standards. Also, see General Response: Air Quality/Emissions/Human Health.

COMMENT	RESPONSE
Public-Written 12 Public-Written 12_Page Date Received: **11/16/2009** Name: **Jack Page** Source: **US 36 Website** City/Zip: **Denver, CO 80221** A How will this affect the ramp system at the I-25, US 36 and Broadway exits? There have been rumors that these would close. If they do this it will put undue strain on the Pecos St. & US 36 ramps in both directions and excess loads of traffic on Pecos St. We currently have an extreme traffic problem with the heavy use for apartment and higher education facilities in the area, not to mention the illegal use of R-1 zoned housing in the neighborhoods. B I would like an answer to this before Wednesday 11/18/09...Thanks	**Response to Public-Written 12:** **[A]:** See General Response: I-25/Broadway Interchange. **[B]:** The US 36 Public Involvement Team contacted Jack Page and provided him with the information that he was looking for.

COMMENT	RESPONSE
Public-Written 13 Public-Written 13_Dart Date Received: **11/12/2009** Source: **US 36 Website** Name: **Merlin Dart, Optimist Club** City/Zip: **Boulder** A We meet on Tuesday nights at The Spice of Life Center at 6 PM for beverages followed by dinner and our business meeting starting at 6:30 PM. We have a short business meeting and introduce our program about 7:30 PM. We like to conclude the meeting about 8:30 PM at the latest. I should tell you that our attendance is generally about 14 to 17 people. We are not a terribly large club and I certainly understand if you would prefer a much larger audience. Currently, I have the dates of January 12,19 and February 2 open. Plan to have dinner with us. Thanks	**Response to Public-Written 13:** **[A]:** The US 36 EIS Public Involvement Team contacted Merlin Dart to inform him that the US 36 Corridor FEIS Public Hearings were scheduled. He responded that he would encourage his group to attend the hearings in order to learn more about the FEIS.

COMMENT	RESPONSE
Public-Written 14 Public-Written 14_Lubben Date Received: **11/16/2009** Name: **Theresa Lubben** Source: **Broomfield Public Hearing** City/Zip: **Westminster, CO 80020** A Comments about Preferred Alternative: Having been to previous meetings and discussion, this is an EXCELLENT plan. This alternative does take the best of the other plans but incorporates money, impact , etc. better. B Comments about Phase 1 of PA: I am very happy that things will be started now and phased in. It's the only way this could work in the current economic situation. C Comments about Proposed Mitigation Measures of PA: Very reasonable. People will be impacted by the expansion no matter what plan but this impacts the fewest. D Additional Comments: Great work and we appreciate the negotiating and compromising used by all entities to come up with the best solution possible. Thanks!	**Response to Public-Written 14:** **[A]:** Comment noted. **[B]:** Comment noted. **[C]:** Comment noted. **[D]:** Comment noted.

COMMENT	RESPONSE
Public-Written 15 Public-Written 15_Hill Date Received: **11/16/2009** Name: **Robert Hill** Source: **Broomfield Public Hearing** City/Zip: **Westminster, CO 80020** A [Comments about Preferred Alternative: Will a bike path be built (or bike lanes) when W. 112th is improved?]	**Response to Public-Written 15:** **[A]:** The US 36 Corridor Project would not preclude a local bikepath at 112th Avenue. Local jurisdictions can evaluate the possibility of a local bike connection in the future. During final design, CDOT will coordinate with the City and County of Broomfield on the width of the sidewalks on the bridge.

COMMENT	RESPONSE
Public-Written 16 Public-Written 16_Benson Date Received: **11/16/2009** Name: **Louise Benson** Source: **Broomfield Public Hearing** City/Zip: **Broomfield, CO 80020** A Additional Comments: The BRT is the only "Fastracks" the Northwest Corridor needs or wants. The NW Rail is a huge boondoggle that will never pay its way at taxpayer subsidized $60 per rider trip! And it will ruin all the neighborhoods along its path. The only people who want NW Rail are mayors and their developer friends.	**Response to Public-Written 16:** **[A]:** The Northwest Rail Corridor project was voted on and approved by taxpayers in 2004, as a part of the *FasTracks Plan* (RTD 2004). Its impacts are disclosed in the *Northwest Rail Corridor Environmental Assessment/Environmental Evaluation*, scheduled for release in early 2010. There has been public support for this project as expressed in public meetings held during the *Northwest Rail Corridor Environmental Assessment/Environmental Evaluation* process.

COMMENT	RESPONSE
Public-Written 17 Public-Written 17_Welch Date Received: **11/16/2009** Name: **Edith Welch** Source: **US 36 Website** City/Zip: **Denver, CO 80221** A Hello, I hope that what final plan is made for this project that there will still be an exit ramp to Broadway from South I 25.	**Response to Public-Written 17:** **[A]:** See General Response: I-25/Broadway Interchange.

COMMENT	RESPONSE
Public-Written 18 Public-Written 18_Schlichter Date Received: **11/17/2009** Name: **David Schlichter** Source: **US 36 Website** City/Zip: **Denver, CO 80218** A I support Denver's efforts to decrease its environmental impact and increase the use of more environmentally friendly methods of transportation. I view bicycle use as a critical way to decrease our environmental impact, improve air quality, alleviate traffic, improve physical fitness, and save money. The environment, the economy, and public health are all three in states of emergency. With these crises in mind, the creation of a bicycle path between Denver and Boulder is a critical component to the US-36 development. B Current bicycle transit between the two cities is unsafe. With both Denver and Boulder's goals of becoming more environmentally friendly, attracting new residents, lowering the alarming recent incidences of pedestrians and bicyclists being hit by motorists, and maintaining our reputations as cities which support highly active lifestyles, the dedicated bike path (not bike lanes or sidewalk-an actual bicycle path) between Denver and Boulder would be a great way to decrease traffic, improve air quality, improve safety, improve public health, save money, attract visitors and new residents, and improve Denver and Boulder's reputations as highly active and green cities.	**Response to Public-Written 18:** **[A]:** Comment noted. **[B]:** See General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 19 Public-Written 19_McGregor Date Received: **11/18/2009** Name: **Barbara McGregor** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A Please lower the speed limit on highway 36 where it goes behind our neighborhood in south Boulder. The noise is just terrible. It would also be a lot easier to merge if the speed limit was 45mph. It was a lot quieter when we moved here. Thanks.	**Response to Public-Written 19:** **[A]:** See General Response: Noise.

COMMENT	RESPONSE
Public-Written 20 Public-Written 20_Bartlett Date Received: **11/18/2009** Name: **Andrew Bartlett** Source: **Boulder County Public Hearing** City/Zip: **Longmont, CO 80501** A The Preferred Alternative is weighed too heavily towards improving vehicular traffic, while making only minor improvements to bus transit. By doubling the car-carrying capacity of the highway, the P. Alternative does nothing to encourage travelers to use public transportation. Why not expand the highway incrementally by one lane each way instead of two each way? (HOV is basically car traffic).	**Response to Public-Written 20:** **[A]:** The Combined Alternative Package (Preferred Alternative) includes numerous elements that will enhance bus transit. The managed lanes (one new lane each direction) will result in express bus travel times that are 18 to 28 minutes faster than general vehicle traffic. In addition, increased bus service is planned; queue jumps and bus-ramp bypass lanes will enhance bus service. Various BRT improvements will also be implemented as described on pages 2.6-33 and 2.6-34 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). All of these improvements are anticipated to increase corridor bus boardings by 200 percent, as indicated in Table 3.4-8, Daily Bus Ridership (Horizon-Year), of the FEIS. The project is actually taking your idea of expanding the highway incrementally by one lane each direction in the first phase. This should provide some HOV and BRT relief early on. The Combined Alternative Package (Preferred Alternative) in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) is responsive to comments received during the DEIS comment period and the subsequent PAC process to consider public comments received, evaluate corridor elements, identify a Combined Alternative Package (Preferred Alternative), and outline implementation phases.

COMMENT	RESPONSE
Public-Written 21 Public-Written 21_Schmitt Date Received: **11/19/2009** Name: **Mike Schmitt, Aqua Serve** Source: **US 36 Website** City/Zip: **Broomfield, CO 80020** A Is my property ROW property? 6991 West 117th Avenue Broomfield, CO 80020	**Response to Public-Written 21:** **[A]:** The Combined Alternative Package (Preferred Alternative), or for that matter, any of the alternatives, shown in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) do not impact your property. Even the project currently under construction, the 120th Avenue Extension, that is also in the area, will not impact your property; your property is over 0.25 mile away.

COMMENT	RESPONSE
Public-Written 22 Public-Written 22_Castillo Date Received: **11/19/2009** Name: **Kay Castillo** Source: **Adams County Public Hearing** City/Zip: **80030** A Comments about Preferred Alternative: The sound barrier wall on the southwest corner of Federal Blvd (Hwy 287) and Hwy 36 (Boulder Turnpike) is totally UNACCEPTABLE. The sound/vibration barrier wall is not high enough nor long enough, the wall needs to be at the very minimum an additional 100 YARDS and an additional 5 feet higher. B There is NO information on the HUMAN Health any proposal including the current highway. Any proposal is adding more poison to the environment. No one has addressed any issue of a human having to breathe in 24/7 the additional pollution. Why are you not taking property that is within FEET of your proposed plans? This is the 4th time I have asked these questions and have yet to get any answers.	**Response to Public-Written 22:** **[A]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) identified several areas as being eligible for noise mitigation. During final design, details such as height, length, placement, end points, wraps, aesthetics, and absorption will be determined. **[B]:** See General Response: Air Quality/Emissions/Human Health and Volume III, Response to Comments of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) for Comments/Responses, Comment Numbers 73 and 74.

COMMENT	RESPONSE
Public-Written 23 Public-Written 23_Purdy Date Received: **11/18/2009** Name: **Kevin Purdy** Source: **Boulder County Public Hearing** City/Zip: **Louisville, CO 80027** A Comments about Preferred Alternative: Thank you for making the bike trail a phase 1 priority. It is the one part of the plan that addresses all of the issues of reducing congestion, reducing pollution, reducing use of fossil fuels, and maintaining cost-effective transportation alternatives. In addition, it provides recreational opportunities and promotes healthy lifestyles. I have traveled on bike trails in most of our wonderful states and have found that such trails already exist throughout our country. These trails are widely used and extremely effective. B Comments about Phase 1: The sooner you get started on this project, the better. I concur with speakers who voiced concerns about promoting car travel over other modes of transportation. Given the demographics of the US 36 Corridor, I believe the priorities should be (in order of importance): (1) bike trail (multiuse); (2) rapid (rail) transit; (3) bus; (4) cars (distant 4th). C Additional comments: I am concerned that all our transportation dollars seem to go: (1) south (by far the most); (2) DIA; (3) Due West; (4) Due East and then if any is left over (which there seldom seems to be much left) a token amount of funding and transportation development goes to the north and northwest metro area. Boulder county is the most supportive of mass transportation but seems to be last on the list of beneficiaries.	**Response to Public-Written 23:** **[A]:** Comment noted. **[B]:** This project is expected to start final design on some of the elements in the Phase 1 in early 2010. The bikeway and bus facilities are also in Phase 1, as well as a facility that allows automobiles with two or more passengers to travel in the managed lane for free. The automobiles with only one occupant would be required to pay a toll to use the new lane that would be built as part of Phase 1. **[C]:** Several required environmental studies have been conducted that encompass Boulder County; including most recently the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), *Northwest Rail Corridor Environmental Assessment/ Environmental Evaluation*, Highway 52 Improvement Environmental Assessment, and the State Highway (SH) 7, Cherryvale to 75th Avenue Environmental Assessment. Boulder County has participated in prioritizing the elements within the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). In addition, Boulder County is also served by extensive RTD resources, including local, regional, and express buses.

COMMENT	RESPONSE
Public-Written 24 Public-Written 24_Snow Date Received: **11/19/2009** Name: **Sharon Snow** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** Comments about the Preferred Alternative: A Do not take our exits and give us a way to get to 78 --and 270 and we have the bridge going from is falling about. I-25 to 36th. B We need to let the college park lot put a light.. Sharon Snow 181 Bowie Ct. Denver, CO 80221	**Response to Public-Written 24:** **[A]:** In the context that this comment was made, we believe that this comment references I-25 access to Broadway. See General Response: I-25/Broadway. **[B]:** Requests for lights in the area are under the jurisdiction of and should be referred to Adams County.

COMMENT	RESPONSE
Public-Written 25 Public-Written 25_Olivas Date Received: **11/19/2009** Name: **Paul Olivas** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: You're going to take our home!!! Where are we supposed to live??? There are history in these houses from family to family. Paul Olivas 1761 Samuel Drive Denver, CO 80221 B Comments about Phase 1: You guys have a HOV lane that doesn't even work now so why make more??? A cont'd Comments about proposed mitigation measures of PA: You can take more land but leave our home!!! A cont'd Additional Comments: Don't take our home!!!	**Response to Public-Written 25:** **[A]:** CDOT understands that it is difficult for affected individuals to have ROW impacts identified in the FEIS. Please feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see General Response: Right-of-way. CDOT understands that many of the residents living near the US 36 corridor, especially on the eastern end, are long-term residents or residents on fixed incomes. CDOT also recognizes there is a sensitive population in this community, and as a result, this population may need special relocation assistance through the process. Federal and state relocation laws require displaced occupants to be given certain minimum timeframes to find, secure, and move into replacement properties. Some financial relocation benefits are also available to assist with some costs associated with moving into the replacement property. In past projects involving residential relocation, such timeframes have been sufficient to allow the displaced residents to secure and move into a replacement home well in advance of the time the initial residence is needed. Based on the current design of the Combined Alternative Package (Preferred Alternative), your property would be a full acquisition as a result of the project. However, please note that transportation improvements in this area are not included as part of Phase 1. **[B]:** Multi-modal options are an integral part of the project Purpose and Need. As a result, a managed lane in each direction is a critical component of the Combined Alternative Package (Preferred Alternative). The managed lane is designated for use by buses and HOVs for no cost. Any remaining capacity would be available to SOVs through variable or dynamic pricing. The managed lanes will result in express bus and HOV travel times that are 18 to 28 minutes faster than general-purpose lane traffic.

COMMENT	RESPONSE
Public-Written 26 Public-Written 26_OlivasB Date Received: **11/19/2009** Name: **Beatrice Olivas** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: Our home is at 1761 Samuel Drive. Please do not take away our home. It is our only home we have ever known. If you take our home away we will be very sad and homeless. Another place won't feel a home. Comments about Phase 1: We don't need no more RTD. All they want is money. They don't care about what we feel. Don't let RTD take our home. Comments about proposed mitigation measures of PA: Take a piece of land. Don't take our home. You have enough road already.	**Response to Public-Written 26:** **[A]:** CDOT understands that it is difficult for affected individuals to have ROW impacts identified in the FEIS. Please feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see General Response: Right-of-way. CDOT understands that many of the residents living near the US 36 corridor, especially on the eastern end, are long-term residents or residents on fixed incomes. CDOT also recognizes there is a sensitive population in this community, and as a result, this population may need special relocation assistance through the process. Federal and state relocation laws require displaced occupants be given certain minimum timeframes to find, secure, and move into replacement properties. Some financial relocation benefits are also available to assist with some costs associated with moving into the replacement property. In past projects involving residential relocation, such timeframes have been sufficient to allow the displaced residents to secure and move into a replacement home well in advance of the time the initial residence is needed. Based on the current design of the Combined Alternative Package (Preferred Alternative), your property would be a full acquisition as a result of the project. However, please note that transportation improvements in this area are not included as part of Phase 1.

COMMENT	RESPONSE
Public-Written 27 Public-Written 27_RankinR Date Received: **11/19/2009** Name: **Robert Rankin** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: I hope they don't close off I-25 going to 36. it would make 84th Avenue and Conifer real busy. You have schools on Conifer. I think it would be very dangerous. B Comments about Phase 1: What I understand about Phase one, it looks like a great way to go.	**Response to Public-Written 27:** **[A]:** As stated in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) (Volume III, Response to Comments, page 85), "…traffic accessing the commercial area at Broadway would not be re-routed through residential neighborhoods on Conifer Street or Greenwood Boulevard. Rather, traffic would be directed to 84th Avenue, Pecos Street, and 70th Avenue when traveling from southbound I-25, and to York Street and 70th Avenue or Pecos Street and 70th Avenue when traveling from westbound US 36/I-270." Per CDOT mitigation, traffic would not be expected to increase on Conifer Street, Greenwood Boulevard, or other neighborhood streets as a result of the access changes at Broadway. However, commuters could choose to use Conifer Street regardless of the suggested routes. Also, see General Response: I-25/Broadway. **[B]:** Comment noted.

COMMENT	RESPONSE
Public-Written 28 Public-Written 28_RankinC Date Received: **11/19/2009** Name: **Carrol Rankin** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about Phase 1: I hope the people being displaced are getting a fair price for their homes and located elsewhere in something just as nice, without any added monthly expense. When people have lived somewhere for a long time it is unfair to be forced into inconvenience. B The 36 improvements seem like a good idea. Don't hide any information from us or make it a toll road again.	**Response to Public-Written 28:** **[A]:** See General Response: Right-of-way, for information on the Uniform Act. **[B]:** Comment noted.

COMMENT	RESPONSE
Public-Written 29 Public-Written 29_Albrecht Date Received: **11/19/2009** Name: **Sharon Albrecht** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** General Comments about Property: (Submitted at Public Hearing and via Website) A I live at 940 Bronco Road. I have resided in my home for 44 years. Just prior to the start of the meetings regarding US 36, I invested substantial funds remodeling my home with the intention of retiring comfortably in it. Having worked for the US government for over forty years, I have now retired. I have attended every one of your meetings regarding the US 36 planned changes. I even canvassed my neighborhood to encourage participation in the process. Previous to the last meeting, I was informed that the EIS had recommended that the highway be expanded from the South side as the impact on the North side of US 36 was too substantial. At the last meeting when I asked what the blue X meant, I was assured that it indicated that construction crews may or may not be physically on a portion of my property during the reconstruction, but everything would be returned to the former state. Now, the blue X is listed as partial property acquisition. I am very angry that a change was made during the time between the last meeting and this one, especially since this is the final plan. Sharon M. Albrecht	**Response to Public-Written 29:** **[A]:** As described in the General Response: Right-of-way, since the release of the DEIS, the Combined Alternative Package (Preferred Alternative) was developed. The selection of this package reduces property impacts by approximately 70 percent. In the General Response: Right-of-way, the timing of the acquisition is discussed. At this point, your property has been identified as partially impacted by the Combined Alternative Package (Preferred Alternative). As the project proceeds through final design, the project team will continue to evaluate ways to avoid and minimize property impacts.

COMMENT	RESPONSE
Public-Written 30 Public-Written 30_Danforth Date Received: **11/19/2009** Name: **John Danforth** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: I like the bikeway idea! B Comments about Phase 1: Maintain Broadway access – Ok! C Comments about the Section 4(f) findings? What is this?	**Response to Public-Written 30:** **[A]:** Comment noted. **[B]:** Comment noted. Also, see General Response: I-25/Broadway Interchange. **[C]:** Section 4(f) refers to federal regulations regarding the preservation of public parks, recreation areas, wildlife and waterfowl refuges, and historic sites. If property from these types of areas may be needed as part of a federal project, a Section 4(f) Evaluation is required. The US 36 Final Section 4(f) Evaluation is contained in Chapter 7, Final Section 4(f) Evaluation, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).

COMMENT	RESPONSE
Public-Written 31 Public-Written 31_Chavez Date Received: **11/19/2009** Name: **Esther Chavez** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: Do not take my home. 1871 Samuel Drive, Denver, CO 80221. I cannot move. No money and they won't pay me enough to move and my husband is an invalid. We can't afford to move, we only live on social security only, no savings. We don't need any more traffic and ten years they will widen it again and take more homes for more traffic.	**Response to Public-Written 31:** **[A]:** A: CDOT understands that it is difficult for affected individuals to have ROW impacts identified in the FEIS. Please feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917 with questions. See also General Response: Right-of-way. CDOT understands that many of the residents living near the US 36 corridor, especially on the eastern end, are long-term residents or residents on fixed incomes. CDOT also recognizes there is a sensitive population in this community, and as a result this population may need special relocation assistance through the process. Based on the current design of the Combined Alternative Package (Preferred Alternative) your property would be an ownership full acquisition as a result of the project. However, please note that transportation improvements in this area are not included as part of Phase 1.

COMMENT	RESPONSE
Public-Written 32 Public-Written 32_Frank Date Received: **11/19/2009** Name: **Kay Frank** Source: **Adams County Public Hearing** City/Zip: **Denver, CO 80221** A Comments about the Preferred Alternative: I am very pleased that the open meeting in April did make a difference. Our middle class area needs the same consideration for travel to work, shopping, schools, and place of worship. Also a safer Boulder Turnpike has been a long time coming. Thank you. Kay.	**Response to Public-Written 32:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 33 Public-Written 33_Denise Date Received: **11/19/2009** Name: **Denise** Source: **US 36 Website** City/Zip: **Westminster, CO 80036** A Tearing down years of established families on Samuel Drive and 72nd would hurt an entire community of senior citizens and families who have lived there many years. Tearing down these homes is ruthless, and would be future crimes waiting to happen. This area has already taken much change for the worse with the bad choices to put up a hotel which has been nothing but trouble with drugs and prostitution and graffiti. The county has already been responsible for making bad decisions by turning part of this well established area into a business section instead of keeping the friendly neighborhood it has been for many years. I will pray you put your heart where the residences hearts are, and consider being more compassionate by spending our money on beautifying the neighborhood it once was instead of using our tax dollars to create something that is not absolutely necessary. There are many other areas you can choose to build on where there are no established longtime neighborhoods. I will pray on this, so God sees to it that you protect our established neighborhoods and seniors instead of kicking them to the curb. If you think about it, that's really what you would be doing in the name of an "I don't care" attitude. What if this was your parents or family?	**Response to Public-Written 33:** **[A]:** CDOT understands that it is difficult for affected individuals to have ROW impacts identified in the FEIS. Please feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see General Response: Right-of-way. CDOT understands that many of the residents living near the US 36 corridor, especially on the eastern end, are long-term residents or residents on fixed incomes. CDOT also recognizes there is a sensitive population in this community, and as a result, this population may need special relocation assistance through the process. Based on the current design of the Combined Alternative Package (Preferred Alternative), some properties along Samuel Drive would be fully acquired as a result of the US 36 Corridor Project. However, please note transportation improvements in this area are not included as part of Phase 1. Property impacts in this area are a result of adding general-purpose lanes and modifying the Pecos Street interchange. Through final design, the project team will continue to work to avoid and minimize property impacts.

COMMENT	RESPONSE
Public-Written 34 Public-Written 34_Rose Date Received: **11/20/2009** Name: **Scott Rose** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A Please Please put up a sound barrier so the deafening sound can be reduced. Please understand this will get very very loud and provide this noise barrier like it is done in Westminster.	**Response to Public-Written 34:** **[A]:** In response to your inquiry, there is no planned sound wall for the area behind your property at 1221 Red Ash Lane in Boulder. The analysis found that the construction of a sound wall would not meet the thresholds required to justify the mitigation. Also, see General Response: Noise.

COMMENT	RESPONSE
Public-Written 35 Public-Written 35_Kumin Date Received: **11/18/2009** Name: **Jesse Kumin** Source: **Boulder County Public Hearing** City/Zip: **Boulder, CO 80304** Jesse Kumin 4395 Snowberry Court • Boulder, CO • 80304 - 0794 303 440-8230 • jesse@kuminmedia.com A **Why do we keep repeating our mistakes over and over again?** Building more highways and improving what we have just creates more traffic and pollution, and makes people even more dependent on cars. **We should research and examine what other cities have done well** to move people around from work to home to shopping and entertainment, **and move beyond what they've done.** The route of adding more highway lanes to Highway 36 will do nothing to provide compelling alternatives to automobiles. It won't reduce pollution, our dependence on automobiles, the huge waste of natural resources for steel, glass, pavement, fossil fuels etc…, our balance of payments shipping billions of $$ out of the country each year to pay for foreign oil, tremendous amount of funds spent on personal transit needs (cars) or get people to and from Denver and Boulder any faster than is currently possible, improving personal productivity, or reduce death and maiming on our highways from auto accidents. It's throwing good money after bad. The EIS requires that you examine ALL the alternatives. The hearings you've conducted never did this. They were a farce from start to finish. There was **never** any examination of fast trains that would be a real alternative to dependence on Highway 36. This EIS process has been a sham to satisfy federal requirements, without actually examining all the alternatives. B CDOT and RTD should have copied and updated the Hong Kong Airport Express, in service since 1997, that would have provided downtown Denver to downtown Boulder service in 20 minutes, with stops at Table Mesa, Lousville/Superior, Broomfield, Westminster and North Denver, at a fraction of the $2.8 billion cost of RTD's absolutely asinine 30 mph zig zag SloTracks rail fraud and CDOT's poorly conceived Hgwy. 36 improvements. It would be a real alternative and cure all the problems I outlined in the second paragraph above. Instead, both agencies have sought to protect their own turf and continue making the same mistakes over again. It's a huge waste of taxpayer money and an incredibly stupid, lost opportunity to bring about a real 21st Century solution. Jesse Kumin	**Response to Public-Written 35:** **[A]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) provides information about the anticipated air quality impacts, transportation benefits, climate change impacts, and safety impacts. The Combined Alternative Package (Preferred Alternative) includes numerous elements that will encourage travel through modes other than the SOV. The managed lanes will result in express bus and HOV travel times that are 18 to 28 minutes faster than the general-purpose lane traffic. Also included are increased and enhanced bus service, queue jumps and bus ramp metering bypass lanes, the corridor bikeway, and measures to reduce travel demand, all of which will serve to provide a competitive alternative to automobile travel. The alternatives evaluation process used for the NEPA process is described in Chapter 2, Alternatives Considered, of the *US 36 Corridor Draft Environmental Impact Statement and Final Section 4(f) Evaluation (US 36 Corridor DEIS) US 36 Corridor DEIS* (US 36 Mobility Partnership 2007) and *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The requirements for considering alternatives are defined in the Council on Environmental Quality's (CEQ) regulations, as described in 40 CFR 1502.14: "Agencies shall rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." CEQ guidance provides a definition for reasonable alternatives: "…those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." "Fast" trains were examined and dropped from detailed evaluation because they were not considered practical and feasible, as described on page 2.2-5 of the *US 36 Corridor FEIS*. For these reasons, "fast" trains were not considered reasonable and were therefore, dropped from further consideration, as allowable per 40 CFR 1502.14. **[B]:** See General Response: NEPA Process and Alternatives Evaluation. The Hong Kong Airport Express is a "fast" train approach which was dropped out in the early screening for the alternatives, as described on page 2.2-5 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). That is, it is not an every day proven transit revenue service; it would not connect to the RTD system of light rail, commuter rail, and BRT; and it would be more costly and logistically complicated.

COMMENT	RESPONSE
Public-Written 36 Public-Written 36_Wood Date Received: **11/26/2009** Name: **Ivy Wood** Source: **E-mail** City/Zip: **Denver, CO 80221** A I'd like to add that I hope that the lite rail will be in place by the time the major construction along the US 36 corridor begins so that commuters will have options and ways to avoid the traffic delays caused by the construction.	**Response to Public-Written 36:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 37 Public-Written 37_Collier Date Received: **11/30/2009** Name: **Roger Collier** Source: **Mailed** City/Zip: Page 1 of 1 **Roger Collier** **From:** Nancy McNally [nmcnally@worldnet.att.net] **Sent:** Friday, November 20, 2009 9:43 PM **To:** Roger Collier **Subject:** Re: HIGHWAY 36 **Thank you for your email. The Final environmental Impact Study is very close to done and this would be a major change in the plans. I don't know if anyone every suggested what you are suggesting over the past seven years of input on this project. The final document will be signed in December by CDOT and the Feds. If you want to add your suggestion you are welcome on the US36 website. Thank you.** Nancy McNally Mayor City of Westminster 303.469.4707 http://nmcnally.home.att.net (NEW) facebook.com/nancy.mcnally1 "Friends are quiet angels who lift us to our feet when our wings have trouble remembering how to fly." ----- Original Message ----- **From:** Roger Collier **To:** 'nmcnally@att.net' **Sent:** Friday, November 20, 2009 6:21 PM **Subject:** HIGHWAY 36 A An idea .... Highway 36 is in the process of reconstruction .... The exit from westbound Highway 36 to northbound Federal and the left turn <westbound> at 80th ave. is always a bottleneck during evening rush hour and on Saturdays .... A good solution to this would be to create a westbound exit on highway 36 just past Lowell boulevard that would exit to 80th ave, to the traffic light at Oakwood ..... this would allow traffic to continue westbound on 80th ave, and bypass the 80th and Federal intersection ... this would take a lot of traffic off Federal, and would be better access to west Westminster and Arvada ... there is currently open space at the location needed, <80th & Oakwood> so the expense would be nominal... and the bridge over Lowell will be rebuilt, so all that would be needed is a extra lane , there would be a sound wall needed for the Lutheran church at Meade and 80th ave .... check it out .... This would eliminate the cars getting off westbound 36 moving across 2 and 3 lanes of traffic <in a short space> in order to turn left at 80th ave . 11/20/2009	**Response to Public-Written 37:** **[A]:** See General Response: Final Design. Interchange designs listed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) took into consideration ROW acquisitions, impacts to local parks, and other impacts to environmental resources. Changes to those footprints would result in additional impacts. However, traffic functions at these interchanges will be evaluated during final design.

COMMENT	RESPONSE
Public-Written 38 Public-Written 38_Ingoldby Date Received: **12/4/2009** Name: **Mike Ingoldby** Source: **US 36 Website** City/Zip: **Superior, CO 80027** A I would like to voice my support for the draft EIS. I support the goals and the implementation of the project. B I commute on 36 daily between boulder and superior. This section is in desperate need of additional lanes for traffic. C I would also be more amenable to riding the bus to and from work, with the improved RTD stops at Table Mesa and McCaslin. A cont'd I look forward to seeing improvements on US36.	**Response to Public-Written 38:** **[A]:** Comment noted. **[B]:** Comment noted. **[C]:** Comment noted.

COMMENT	RESPONSE
Public-Written 39 Public-Written 39_Masterson Date Received: **12/2/2009** Name: **Tom Masterson** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A The EIS and CDOT have done absolutely nothing to resolve the noise issue for residents of south Boulder. The noise here exceeds city and federal mandates, has done so for the past 18 years. CDOT and the EIS have totally and deliberately ignored all the wishes, complaints, suggestions of the affected tens of thousands of people. A significant portion of this noise results from the CDOT-implemented 65 mph speed limit which they obstinately refuse to even consider changing. The rest is caused by the refusal of CDOT to construct (within the lifetimes of those of us who have asked for action since 1980) any sort of sound mitigation for the 1.5 mile stretch of highway between Baseline and Table Mesa/South Boulder Road in Boulder. The repeated refusal to listen the people or do anything to alleviate their suffering has made this entire process a farce: "We will do what we want to do and to h*ll with those impacted by our actions."	**Response to Public-Written 39:** **[A]:** See General Response: Noise. The Combined Alternative Package (Preferred Alternative) has plans for a sound wall from Table Mesa Drive to Bear Creek. CDOT and the City of Boulder have met with the affected community in this area numerous times in the last 10 years, including recently.

COMMENT	RESPONSE
Public-Written 40 Public-Written 40_Kreutzer Date Received: **11/25/2009** Name: **David Kreutzer** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A I think Package 2 is better than the Combined Package / Preferred Alternative because two lanes of BRT / HOV are better than one. RTD must look to the future where more people will bus, and fewer will drive. Only 1 BRT / HOV / managed lane each way won't cut it in 10 years. B I would object to any alternative that adds general purpose lanes, thanks for excluding them from the preferred alternative.	**Response to Public-Written 40:** **[A]:** See General Response: Combined Alternative Package (Preferred Alternative). The traffic analysis done for the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) found that one managed lane in each direction would meet the Purpose and Need for the project for the year 2035. The Combined Alternative Package (Preferred Alternative) met the cost effectiveness criteria and desire for minimization of environmental impacts in response to comments received during the DEIS. **[B]:** Comment noted.

COMMENT	RESPONSE
Public-Written 41 Public-Written 41_Fancher Date Received: **11/27/2009** Name: **Jane Fancher** Source: **US 36 Website** City/Zip: **Westminster, CO 80030** A I am very disturbed, as are many of my friends, that you are going to destroy homes and business along 36 to build a "bike path." Sorry, but I think people should take precedence over bicycles.	**Response to Public-Written 41:** **[A]:** The bikeway has been designed to avoid total acquisition and relocation of homes and businesses. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 42 Public-Written 42_Lang Date Received: **11/28/2009** Source: **US 36 Website** Name: **Laura Nokes Lang** City/Zip: **Westminster, CO 80031** A Because of the way sound waves travel, I hope every possible sound mitigation device/technique will be used in areas where the topography puts residences at higher elevations than the road. My home is situated between the highway and Westminster water tanks at 81st and Osceola, and I sometimes find the noise levels interfere with sleep, and conversations turn into shouting to be heard. There must be something that can be done beyond the sound barrier walls which are totally ineffective for properties higher than the walls, and especially with large hard objects that reflect the sound waves back. I have double pane windows which do help, but I don't live inside my house all the time, and the noise levels interfere with my being able to use my yard. For some reason, the noise levels are especially bad during rush hours in the mornings. B I would welcome some noise level testing to be done here, but would it make any difference? 8150 La Place Ct. Westminster, CO 80031	**Response to Public-Written 42:** **[A]:** The noise evaluation tools used for this project consider the topographic situations where residences are higher than the road. In Section 4.13, Noise, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), various noise mitigation techniques were considered, including quiet pavements, berms, depressing the roadway, and speed reduction. In this location, replacement of the wood sound barrier with a sound wall is proposed. Also, see General Response: Noise. **[B]:** Noise monitoring was completed near your home as shown on Figure 4.13-3, Location of Existing Noise Level Measurements, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009).

COMMENT	RESPONSE
Public-Written 43 Public-Written 43_DIppolito Date Received: **12/4/2009** Name: **Nancy D'Ippolito** Source: **US 36 Website** City/Zip: **80301** A I am very excited about the prospect of adding a separated bike lane on Highway 36 between Boulder and Westminster. This will make commuting between the 2 cities faster and safer. Please keep it in the final plan!	**Response to Public-Written 43:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 44 Public-Written 44_Buck Date Received: **12/4/2009** Name: **Jeff Buck, Denver Public Schools** Source: **US 36 Website** City/Zip: **Denver, 80211** A Thank you for paying attention to the needs of bicycle users in this process. More and more people are choosing this mode of transportation for part or all of their travel needs. Here we have a refreshing example of forward thinking which I believe will prove to be a cost effective benefit for many Coloradoans.	**Response to Public-Written 44:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 45 Public-Written 45_Karl Date Received: **12/4/2009** Name: **Susan Karl** Source: **US 36 Website** City/Zip: **80439** A It would be fantastic to have a bike path along Hwy. 36.	**Response to Public-Written 45:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 46 Public-Written 46_Smith Date Received: **12/4/2009** Name: **Jeff Smith** Source: **US 36 Website** City/Zip: **Westminster, CO 80021** A I would love to ride on a safe bike path to Boulder from Westminster (I work in Boulder). My wife could also use it to get to work. Please include this in the final project.	**Response to Public-Written 46:** **[A]:** See General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 47 Public-Written 47_Shaw Date Received: **12/4/2009** Name: **Janelle Shaw** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A I am writing to show my support for the separate bicycle path between Boulder and Westminster. I wholeheartedly support the route and would use it to commute to work from Boulder to Denver at least once, if not more times a week. Thank you.	**Response to Public-Written 47:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 48 Public-Written 48_Schaffer Date Received: **12/4/2009** Name: **Dan Schaffer** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A I heard that a bike path from Westminster to Boulder is under consideration. I strongly support this. Currently the only ways to travel between these two cities are highly dangerous to bike riders. Thanks, Dan Schaffer	**Response to Public-Written 48:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 49 Public-Written 49_Cohen Date Received: **12/4/2009** Name: **Dan Cohen** Source: **US 36 Website** City/Zip: **Boulder, CO 80301** A [Hi, Great to hear that there will be a bike route all the way from Boulder to Westminster. Dan]	**Response to Public-Written 49:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 50 Public-Written 50_Bellert Date Received: **12/4/2009** Name: **Darrell Bellert** Source: **US 36 Website** City/Zip: **Boulder, CO 80303** A [I fully support the development of a bike path along the US 36 corridor. I encourage this option to remain in the plans.]	**Response to Public-Written 50:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 51 **Public-Written 51_Carbon.doc** Date Received: **12/5/2009** Name: **Neal Carbon** Source: **US 36 Website** City/Zip: **Boulder, CO 80305** A I am strongly in favor of the separate bicycle lane. I would be able to commute and shop in those areas south of Boulder by bicycle; and so I would do so much more often.	**Response to Public-Written 51:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 52 Public-Written 52_Hurst Date Received: **12/5/2009** Name: **Robert Hurst** Source: **US 36 Website** City/Zip: **Denver, CO 80211** A As a Colorado native and taxpayer I fully support the inclusion of a new multi-use path (class I bikeway) in the Highway 36 plan. A path connecting Boulder and Westminster would be extremely positive for the state on many levels. The MUPs of Denver have been a smashing success, let's keep the ball rolling. Thanks, Robert Hurst	**Response to Public-Written 52:** **[A]:** Comment noted.

COMMENT	RESPONSE
Public-Written 53 Public-Written 53_Aragon Date Received: **12/5/2009** Source: **US 36 Website** Name: **Corina Aragon, Summit Seniors** City/Zip: **Dillon, CO 80435** A It is important for cyclist to have alternative routes to ride on other than highways. Even if the Legislature passes laws with the intent to keep cyclist safe, there will always be a motorist who feel rage when they see a cyclist on the road. This puts cyclist in danger. I know there is expense in building bike paths, but if that keeps only one from being injured or killed, the investment is worth it.	**Response to Public-Written 53:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 54 Public-Written 54_Shinkle Date Received: **12/7/2009** Name: **Doug Shinkle** Source: **US 36 Website** City/Zip: **80203** A Please include a separated bike path along this corridor, this is the logical time to add such a facility. Denver and Boulder both have high numbers of utilitarian and recreational cyclists that will benefit from this, and it will help make 36 a more multimodal corridor.	**Response to Public-Written 54:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 55 Public-Written 55_Siconolfi Date Received: **12/7/2009** Name: **Lisa Siconolfi** Source: **US 36 Website** City/Zip: **80234** A Yes, Yes, Yes to the bike path between Westminster and Boulder! I would even pay a toll each way to use it if it was taken care of and well lit. I would use it everyday as well as a ton of people I know who need to commute in these areas!!!	**Response to Public-Written 55:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 56 Public-Written 56_Hansen Date Received: **12/7/2009** Name: **Jennifer Hansen** Source: **US 36 Website** City/Zip: **80211** A Thank you for considering cyclists in your environmental study of Hwy 36. A bike path between Denver and Westminster would be a wonderful thing! With each step of the way, as we improve our roadways in the future, we must continue to include bicycles as a viable means of transportation and commuting -- along with bus, lightrail, carpooling, and motor vehicles.	**Response to Public-Written 56:** **[A]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 57 Public-Written 57_Brewster Date Received: **12/7/2009** Name: **Bob Brewster** Source: **US 36 Website** City/Zip: **80403** A [Jonathan, could you give me a call at 303-642-0555 when you get a chance. I have some financing questions before I write my FEIS comments. Specifically, what are the costs to RTD? For both the bus stops and the general highway]	**Response to Public-Written 57:** **[A]:** The Public Involvement Project Team returned your call and provided you with the information requested which allowed you to submit your comment (listed as Public-Written 60). Please see the response to your comment.

COMMENT	RESPONSE
Public-Written 58 Public-Written 58_Quintana Date Received: **12/8/2009** Name: **Sandra Quintana** Source: **US 36 Website** City/Zip: **Denver, CO 80212** A Please send me information on which properties are affected. I want to remodel my home but if it is affected then I would like to know before I invest anymore money into it. Property Address: 8220 Turnpike Dr. Westminster, Co 80031 Mailing Address: 4703 W. 52nd Ave., Denver, CO 80212	**Response to Public-Written 58:** **[A]:** The backyard of your property would be partially impacted. Your house would not be affected. Feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see also General Response: Right-of-way.

COMMENT	RESPONSE
Public-Written 59 Public-Written 59_Long Date Received: **12/8/2009** Name: **Russ Long** Source: **US 36 Website** City/Zip: **80501** A I would like to voice my support for a separate bike lane along US 36 between Boulder and Westminster. Currently there is not any safe or direct bike route between Boulder and Denver. B This is a bicycling crazy state! I believe the benefits of adding a safe bike route would easily justify the cost. I personally know a number of cyclists who would use this for recreation and commuting. Thanks.	**Response to Public-Written 59:** **[A]:** Comment noted. Also, see General Response: Bikeway. **[B]:** Comment noted. Also, see General Response: Bikeway.

COMMENT	RESPONSE
Public-Written 60 **Public-Written 60_Brewster.doc_pg1** Date Received: **12/14/2009** Name: **Bob Brewster** Source: **E-mail** City/Zip: **Golden, CO 80403** **From:** Robert Brewster <railbob@q.com> **Subject: U.S. 36 Corridor/BRT FEIS comments** The following comments have been prepared by someone who has actually driven regional buses on U.S. 36 since June of 1972 - over 37 years of experience on the road under discussion. GENERAL The Boulder Turnpike (U.S. 36) opened in 1952 with design technology of that era, before interstate highway standards were established. In the interest of safety and maximized traffic flow, parts of the highway should be realigned and rebuilt. Sight lines of motorists are compromised while approaching rises in grade, hills, and curves. Experienced motorists know that there is the possibility of a traffic slowdown just out of sight at these locations, so they slow their speed accordingly, creating a "self- fulfilling prophecy," making matters worse. A Hills should be regraded for the above reasons as well as facilitating more uniform speed of vehicles. Larger vehicles, such as buses and trucks, cannot maintain the speed limit on some grades. And inattentive motorists can allow their vehicle speeds to drop on inclines. Furthermore, motorists tend to slow in traffic lanes while approaching downhill exit ramps, such as eastbound 36 at Church Ranch Road (also impaired by reduced sight line over the BNSF RR bridge). Total reconstruction is warranted in some areas, such as the area near Flatiron Crossing Mall. Serious dips in the pavement around the bridges have plagued the highway for a decade. Blame must be assigned to the contractor and lax oversight by CDOT. The situation at that location is inexcusable - for a decade! Buses experience violent bouncing while traversing this area. B The reconstruction of 36 will take years to accomplish and will undoubtedly cause severe disruption of traffic flow and create safety issues in work zones, where motorists can be counted on to ignore speed restrictions. Such construction should not commence until the parallel NW Rail Corridor is in operation in order to provide an alternative to the traffic congestion. THE CURRENT PLAN C The plan for U.S. 36, the subject of this FEIS, is a reasonable one in that it will reduce traffic slowdowns by providing an additional traffic lane and continuous access and egress lanes between interchanges, where traffic is usually impaired by slowing and accelerating vehicles. (Lane jumping in these areas further exacerbates slowdowns as motorists attempt to avoid slower vehicles.) The continuous lane from FC Mall to Broomfield demonstrates the value of such lanes.	**Response to Public-Written 60:** **[A]:** Transportation Need #6, Update Outdated Highway Facilities from page 1.3-11 of Chapter 1, Purpose and Need, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), acknowledges the US 36 roadway deficiencies, such as grades of 5 percent or greater, inadequate site distance, and aging infrastructure. The Combined Alternative Package (Preferred Alternative) has been designed to address these issues and will meet all current design standards. **[B]:** Maintenance of traffic during construction has been addressed in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), in Table 4.22-2, Mitigation Measures — Construction. The Northwest Rail corridor would provide an alternative transportation choice for travelers extending beyond the US 36 corridor, and depending on its timing, will provide relief to construction on US 36. Construction impacts of US 36 are documented in Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*. **[C]:** Comment noted.

COMMENT	RESPONSE
Public-Written 60 (continued) **Public-Written 60_Brewster.doc_pg2** Date Received: **12/14/2009** Name: **Bob Brewster** Source: **E-mail** City/Zip: **Golden, CO 80403** The "managed lane" will offer bus passengers, as well as those carpooling, an expedited journey - hopefully. That said, there are many aspects of this plan that will compromise expectations, especially since it extolls the "virtues" of so-called "Bus Rapid Transit" (BRT). D 1. First of all, is this really BRT? BRT suggests exclusive right-of- way for buses, unencumbered by the vagaries of other motorists. Pittsburgh, Ottawa, and Los Angeles offer such facilities. Mixing buses into the flow of other vehicles subjects the buses to all the inherent risks associated with general traffic. This plan is merely a highway- widening project with accommodation for buses, carpools, and single-occupant vehicles which will buy access or violate the rules. E 2. Buses will never attract the ridership that trains will. Suggesting otherwise is delusional. It has been proven over and over, even in Denver: when SW LRT commenced, ridership was exponentially greater than the former Santa Fe Corridor express buses (sharing an HOV lane!). Referencing the publications by the late Paul Weyrich and William Lind offers numerous anecdotes comparing bus to rail. F 3. In most of the 36 Corridor (FC Mall to Denver Union Station), the proposed BRT parallels the proposed NW Rail FasTracks Corridor, duplicating service in the immediate region. In fact, from Sheridan Blvd. to DUS, the rail line is more direct, compensating for the diversion eastward at the north end. Is BRT a wise use of increasingly scarce transit dollars when rail is clearly preferred by the public? (Remember, the voters approved FasTRACKS, almost certainly because of the expansion of RAIL services.) The one advantage for bus patrons will be that the buses are convenient to the downtown Boulder and CU campus markets. Those markets have a long history of established, quality bus service. That is not to say that members of those markets will not gravitate east to the rail station, especially in periods of inclement weather, which are often disastrous for traffic flow and bus schedule punctuality on 36. Rubber tire technology is seriously compromised on wet, snowy and icy roadways. G 4. There is a significant flaw in BRT/HOV continuity. From Pecos St. to DUS, the existing Bus/HOV lane is uni-directional. This means that at ALL times other than morning peak hours, Denver-bound buses must enter general traffic, with all of its limitations. For example, in the afternoon hours south- bound I-25 climbs upward to bridge the rail yards - heading directly into the setting sun and causing stop and go traffic, sometimes for miles, and setting the stage for rear-end collisions, making matters worse. This makes a mockery of the term Bus RAPID Transit. This situation exists currently. It also applies during times of special events at the various venues along the central I-25 corridor.	**Response to Public-Written 60:** **[D]:** The definition of BRT includes a variety of running way types, including on-street mixed lanes and off-street mixed lanes. BRT systems which include either on-street mixed lanes or off-street mixed lanes include Albuquerque, Boston's Washington Street, Boston's Waterfront to Airport line, numerous segments in Chicago, Eugene's BRT line, Honolulu's lines, the MAX in Kansas City, the MAX in Las Vegas, lines in San Jose and Sacramento, and many more. If these mixed-lane BRT lines are combined with techniques to maximize BRT running time efficiencies, such as queue jumps (which are planned for the US 36 corridor), these BRT applications can be very competitive with traffic in the general-purpose lanes. **[E]:** Average weekday Northwest Rail corridor ridership for the year 2035 is projected to be 8,400 riders per day, assuming the FasTracks-funded stations, and 12,100 with all stations. In comparison, bus ridership for the US 36 Combined Alternative Package (Preferred Alternative) is projected to be 10,200 riders per day. **[F]:** See General Response: Transit-related. The two different transit lines provide service to two different markets. The Northwest Rail corridor will better serve Longmont, Gunbarrel, East Boulder, downtown Louisville, and South Westminster, while the BRT line will better serve South Boulder, Superior, Broomfield, and Adams County. In addition, multi-modal options, such as BRT, meet the project Purpose and Need. **[G]:** The situation you describe exists now and will continue into the future. Most congestion in the general-purpose lanes occurs during peak periods when the north I-25 express lanes are and will be fully available to buses. Development of the Combined Alternative Package (Preferred Alternative), during the PAC process, did not expand this part of the roadway due to environmental impacts.

COMMENT	RESPONSE
Public-Written 60 (continued) **Public-Written 60_Brewster.doc_pg3** Date Received: **12/14/2009** Source: **E-mail** Name: **Bob Brewster** City/Zip: **Golden, CO 80403** H 5. Another flaw is the supposition that local buses (those stopping along 36) will be able to use the managed lane. They should NOT because traversing all highway lanes separating the managed lane from the slip ramp style stops poses a significant safety hazard. Executing such maneuvers multiple times could have adverse effects on traffic flow in both the general lanes and the managed lane and could even cause high-speed collisions if the lane changes are not done extremely carefully. There will be times that there won't be an opening in the adjoining lane; there will be times that sun glare, even in bus mirrors, will seriously impair vision (sun glare is a big problem on 36 at certain times - usually peak hour); there will be times that variations in speed between the managed lane and the general lanes will be severe, perhaps prohibiting a bus from exiting the managed lane and causing a slowdown or stoppage in the managed lane - not a good idea with vehicles moving at 65 or more mph; there will be times that motorists will speed up to prevent bus lane changes - nobody wants to follow a bus - it happens frequently enough already. So if local buses (the majority of the buses on 36) couldn't use the managed lane, how is that Bus RAPID Transit? That would leave only express buses in the managed lane, questioning its overall value to transit in proportion to transit dollars consumed in construction. I 6. And buses won't be RAPID at all during inclement weather or when crashes occur - which could easily involve the managed lane since there is no barrier. J 7. How well, if at all, will the managed lane be "managed?" The current HOV lanes are not, why should the public expect anything different on 36? It's largely unenforceable and impossible in the dark to determine if there is more than one vehicle occupant. Who will attempt to enforce the rules? Paid by whom? K 8. A loaded bus cannot reach the speed limit climbing Davidson Mesa. How will that affect the following motorists? Will there be excessive exiting and re-entering the managed lane to pass buses by impatient motorists, who are in abundance? Might that cause a safety hazard, especially when climbing into a brilliant sunrise? L 9. It is very disingenuous to permit the comparison of running times of an EXPRESS bus from Table Mesa (on a good day) to a LOCAL train from a farther distance (30th and Pearl) as they head for Denver. Failure to prevent such comparisons leads to suspicion that there is a subtle conspiracy to make bus service appear more favorable than rail, so if a choice must be made, bus wins. But our communities lose because rail has the far greater attraction and ability to stimulate development around station facilities.	**Response to Public-Written 60:** **[H]:** The future bus operating plan for US 36 assumes that a substantial portion of bus trips will start at a particular stop (such as the Table Mesa, McCaslin, Flatiron, or Broomfield stations), fill up with passengers, and then move into the managed-lane for the trip to Denver. Buses that do not follow this pattern will likely not use the managed lanes at all, and will instead use the new auxiliary lanes that will provide a "direct" connection between an on-ramp at one interchange to the off-ramp for the next interchange. Both of these planned bus operations will minimize any effect to traffic flow in the general-purpose lanes. Also, see General Response: Transit-related. **[I]:** To facilitate traffic flow and allow buses to bypass accidents or for snow storage, the Combined Alternative Package (Preferred Alternative) includes a 12-foot inside shoulder and a 4-foot buffer surrounding the managed lane. **[J]:** As part of the operating costs for the managed lanes, the tolls provide for enforcement of the managed lanes. In addition, enforcement areas are included in the design of the managed lanes. CDOT intends to manage the lanes with the goals of optimizing their use, maximizing travel time savings, and keeping traffic flowing in the managed lanes at 45 miles per hour or faster. **[K]:** It is likely that a loaded bus, as it leaves the Table Mesa Drive area, will move into the managed lane or the climbing lane at Cherryvale Road, thus removing itself from the general traffic flow and minimizing any slowing of traffic behind the bus. **[L]:** See General Response: Transit-related.

COMMENT	RESPONSE
Public-Written 60 (continued) Public-Written 60_Brewster.doc_pg4 Date Received: 12/14/2009 Source: E-mail Name: Bob Brewster City/Zip: Golden, CO 80403 M 10. Slip ramp bus stops: These stops, while far more efficient and preferred than off-highway stops (Broomfield being the most grotesque example), must be free of interchange traffic and traffic signals - unlike the poorly designed McCaslin stops, which offer poor and visually-challenged bus access and egress. Not to mention the long wait at the light and improperly banked 90-degree, uncomfortable cornering. These stops must also offer protection for waiting passengers from rain and snow splash and errant motorists. A tour of downed light poles, holes in the concrete median barrier, and impressive skid marks will show the very real dangers of placing people in close proximity of speeding, often careless motorists. And perhaps some sound deadening to soften the cacophony of many lanes of fast cars and trucks is warranted. N 11. While U.S. 36 is in dire need of vast improvements, one must question the real value of so-called BRT. The limitations as expressed above suggest that the real benefits will fall to the motorists in far greater numbers than the bus patrons. Private vehicles will likely outnumber buses exponentially. So this is really a highway expansion project and should be funded accordingly. Are transit dollars flowing to this project disproportionately to their value to transit? Would those funds be better directed to the rail component in this overlapping corridor, especially in view of FasTracks' tenuous funding situation? Transit dollars are necessary for the bus stops but they should be minimal for the highway project. Just how many more bus passengers are likely to ride than at present to justify greatly expanded service? Are the computer models that promise throngs of new bus patrons as reliable as those predicting sales tax revenue for FasTracks? In fact, all the precise numbers quoted in the FEIS are subject to suspicion because of the inability to predict future events and circumstances. O 12. The bike lane. Why would anyone want to ride a bike next to an 8 or more lane freeway, sucking in all those gas and diesel fumes? It is recognized that there is huge political pressure and influence to spend millions on a bikeway in this corridor. But should they be MASS transit dollars for a single-occupant conveyance? And how many people will ACTUALLY commute in this manner? If it is more for recreational riding, why are mass transit funds being diverted to leisure activities and from transit? The bike lane should NOT be a FasTracks expenditure. Perhaps it's a county function. Perhaps a case can be made for a bike lane along the NW Rail Corridor. Not only does it minimize breathing polluting carcinogens, but the rail line actually offers better access to the actual communities in the corridor and might reduce the number of auto/bike interface points, perhaps saving money and contributing to safety. The rail line also has a fairly level grade that might attract more participants. And it passes through less "wilderness" in case of emergencies or other issues. Who will pay for snow removal and other maintenance requirements of this very long bike lane?	**Response to Public-Written 60:** **[M]:** RTD has design standards that will be used to ensure pedestrian/passenger safety while waiting for buses. **[N]:** The RTD contribution to the total cost for the Combined Alternative Package (Preferred Alternative) is $195.4 million (in 2008 dollars), which includes $8 million for the bikeway. This represents approximately 15 percent of the total cost of the Combined Alternative Package (Preferred Alternative). In comparison, the daily traffic volumes predicted on US 36 range from 54,100 to 100,600 vehicles depending on the location, while corridor transit ridership is estimated to be 10,200. Therefore, the RTD financial contribution is proportional to the benefits provided to transit riders. The model used for the US 36 Corridor Project is accepted by DRCOG, FTA, and FHWA, and is used primarily for comparison of packages. **[O]:** The bikeway was included in the *FasTracks Plan* (RTD 2004) that was approved by the voters. Also, see General Response: Bikeway, and General Response: Air Quality/Emissions/Human Health. Currently, the Northwest Rail corridor does not include a bikeway.

COMMENT	RESPONSE
Public-Written 60 (continued) Public-Written 60_Brewster.doc_pg5 Date Received: 12/14/2009 Source: E-mail Name: Bob Brewster City/Zip: Golden, CO 80403 P 13. Due to some serious bus/car collisions in the HOV lane, RTD has had a long-standing policy of not permitting buses to travel more than 10 mph over the general traffic flow in the adjoining lanes in non-barrier-separated sections of the current HOV lane. That translates to buses operating at 10 mph if other traffic is stopped. That's not RAPID! Will that policy be abandoned with the extended non-barrier-separated managed lane? Will those very real safety concerns of differential speeds go away? Q 14. Expectations. Is the demand for bus travel in the 36 corridor to Denver largely at its saturation point? After all, in AM peak there is a bus lane from Sheridan Blvd. all the way to DUS. And frequencies are convenient. So how much additional bus passenger traffic can honestly be expected by extending the bus lane to Boulder? The Boulder- bound AM peak traffic has been very troublesome for decades (the "reverse" commute). While the bus lane will well-serve those passengers headed for the traditional campus and downtown locations, the variety of destinations of the motorists causing the traffic congestion might be problematic in attracting bus riders. Much of that traffic is headed for office parks that might be better served by the rail line. Meandering bus routes draw minimal ridership because of the non-auto-competitive time required to reach multiple destinations along a given route as it wanders about. See RTD's Route 'S." R Conclusion: The additional lanes are needed for U.S. 36, but transit dollars for this highway project should be allocated more in proportion to the actual benefit derived for bus traffic. And BRT should NEVER be considered as a substitute for rail service. There are those who insist that BRT is "just like rail, only cheaper." Well, no it's not. It's NOT like rail and it's not necessarily cheaper, as Mr. Weyrich and Mr. Lind point out. And the politically correct bike lane should not be funded with scarce transit dollars. Robert Brewster 11300 Shimley Road Golden, CO 80403 303-642-0555	**Response to Public-Written 60:** **[P]:** RTD has operating policies that include specific directions related to the use of the eastbound US 36 HOV lane from Sheridan Boulevard to Federal Boulevard. These policies apply because the HOV lane is narrow, with the concrete median barrier immediately adjacent to the lane on the left, and the general-purpose lane on the right, with no buffers. This policy would not apply to the Combined Alternative Package (Preferred Alternative) because the new lanes would be wider with buffers between both the general-purpose lane and the median barrier. This section is much safer and would not need any speed restrictions. **[Q]:** The ridership projections for the Combined Alternative Package (Preferred Alternative) indicate a 200 percent increase over Package 1 (No Action). This is likely to happen because of the efficiencies of the queue jumps and ramp metering bypass lanes included for the ramp stops. "Boulder-bound" buses will be able to use the managed lane until Cherryvale Road, which will substantially improve travel times compared to the existing situation and compared to the people driving in the US 36 general-purpose lanes. There are existing and emerging markets that could be better served by rail, such as the Gunbarrel Office Park. **[R]:** Comment noted. Issues responded to above.

COMMENT	RESPONSE
Public-Written 61 **Public-Written 61_McCreesh.doc** Date Received: **12/14/2009** Source: **US 36 Website & E-mail** Name: **Wayne McCreesh, ConocoPhillips Company** City/Zip: **Commerce City, CO 80022** A ConocoPhillips Company supports the Preferred Alternative defined in the US-36 FEIS. B We are in process to redevelop our property which is impacted by the US-36 corridor in many ways. It is important to us that the proposed improvements are constructed with consideration of the plans and investment of the property owners who's land will be affected by the improvements. C We also request consideration be given to all multimodal transportation solutions which have the best opportunity to achieve the most efficient transportation solutions. In planning our site, we need a safe and efficient transportation system to facilitate movement of our employees and guests to and from this site; transportation is an important element in our current and future development plans. D We also are concerned with funding of this important asset. Development and future growth of the area will occur; therefore commitment for future funding for critical improvements is necessary to keep the US 36 corridor operating as a safe and efficient transportation system. In review of the FEIS we have the following comments as it relates to our property: E 1.Site impact resulting from the reconstruction of the west-bound on-ramp from W. Flatirons Circle: Grading and slope reconstruction will be required to provide the proposed alignment and widening of the on-ramp. Preliminary plans call for significant grading changes for the majority of the site frontage along 36. This scope of grading as depicted will not be possible once the realignment of the XCEL and FRICO ditch change from their current to proposed location and elevation. Because of this, other means of slope transition such as retaining walls will need to be employed. ConocoPhillips would prefer that any such retaining walls be incorporated into the roadway design so that the walls become a visual component of the road and not the landscape of the ConocoPhillips Campus. F 2. Alignment of the 36 Bike Way: ConocoPhillips will provide public land along the US 36 edge of its campus to accommodate the 36 Bike way. The preferred location of this trail is at the top of the existing slope. This alignment will allow for a more pleasant trail experience away from the road corridor. It is anticipated that this trail will transition to the EIS proposed locations at 88th street and W. Flatirons Circle. G 3. Retaining wall at south end of ConocoPhillips property: Figure 4.9-10 suggests that a retaining wall is required just north of 36 and east of Interlocken Blvd. There are wetland considerations in this general area that need to be incorporated into the design. Any grading and or retaining walls in this area need to accommodate the existing and proposed uses of this property.	**Response to Public-Written 61:** **[A]:** Comment noted. **[B]:** CDOT and RTD will work to minimize impacts of the project during final design. ConocoPhillips has been meeting with CDOT to have input into the final design issues already. Early coordination, as you are doing, is the best way to have input into the final design process. **[C]:** CDOT and RTD are supportive of multi-modal transportation solutions and welcome your input regarding how your property and company fit into this plan. CDOT and RTD would consider specific transportation improvements you request that would benefit your site if it is supported through cost sharing or other alternate funding sources. **[D]:** See General Response: Combined Alternative Package (Preferred Alternative). **[E]:** Determination of a slope or retaining wall would be done during final design. Based on the current design, this is proposed as a slope. CDOT and RTD will continue to look for ways to minimize impacts caused by the Combined Alternative Package (Preferred Alternative), and will take into consideration, thoughts you might have to minimize impacts to your property. Mitigation for visual impacts of retaining walls includes natural appearances, textures, and colors. **[F]:** CDOT will consider bikeway design improvements as you suggest during the final design process. Please coordinate with CDOT and your local jurisdiction regarding your bikeway ideas, as the final design develops. Also, see General Response: Final Design, and General Response: Bikeway.

COMMENT	RESPONSE
	Response to Public-Written 61: **[G]:** CDOT and RTD will continue to look for ways to minimize impacts caused by the Combined Alternative Package (Preferred Alternative), and will take into consideration thoughts you might have to minimize impacts to your property. However, ROW is required in some places to implement this project and these project uses of the land might not be compatible with planned uses for the land. CDOT is required to compensate the property owner under the Uniform Act for property acquisitions. Also, see General Response: Right-of-way. The project team worked to avoid, minimize, and mitigate impacts to wetlands and waters of the United States as part of the EIS process (as documented in Section 4.14, Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species, of the *US 36 Corridor FEIS* [US 36 Mobility Partnership 2009]) and will continue to do so during final design.

COMMENT	RESPONSE
Public-Written 62	**Response to Public-Written 62:**

Public-Written 62_Kennedy.doc_pg1

Date Received:	**12/14/2009**	Name:	**Vivian Kennedy**
Source:	**Mailed Letter**	City/Zip:	**Boulder, CO 80303**

Vivian J. Kennedy
4505 Ottawa Place
Boulder, CO 80303

December 6, 2009

U.S. 36 Final EIS c/o CDR Associates
100 Arapahoe Ave, Suite 12
Boulder, CO 80302

Subject: U.S. 36 Final EIS, Failure to Respond to Comment 44 on the Draft EIS – Neighborhood Access at the Table Mesa Interchange.

U.S. 36 Mobility Partnership:

A The US 36 Final EIS fails to adequately respond to the comments in my letter dated September 12, 2007 (Comment #44, See Attached). My letter and the Final EIS response appear on page 210 of Volume III Response to DEIS Comments.

The first failure of the FEIS authors is to characterize my comments as a single comment. My letter includes several comments about substantive impacts and comments about the adequacy of the public process to date.

B I believe there is an error on the first sentence of the FEIS author's response: "*Direct access from a US highway interchange ramp to a neighborhood does meet current FHWA design standards.*" If this is indeed the case then US36 is certainly in compliance with these standards, and no changes to our neighborhood access points need be considered!

The following table summarizes my comments, and the response provided.

	Comment	FEIS Response
C	The Draft EIS figures and text do not adequately explain that the access points serving traffic using Thunderbird and Apache would be closed. The EIS process has failed to adequately describe this component of the project and has failed to adequately notify local residents.	No response
D	The importance of these neighborhood access points should be described along with information about why they were created and how they were allowed previously.	No response
E	The EIS should evaluate and explain the possibility of allowing for the access points using design exceptions.	No response
F	If the potential for accidents is a reason for preventing this access, accident records should be explored at both locations to determine accident rates and whether they constitute sufficient grounds for closing these access points. (Or alternatively, sufficient grounds for design exception.)	No response

[A]:
We apologize if the response to your DEIS comments was not adequate. We are providing more details below to respond to your comments.

[B]:
You are correct. The sentence should read, "Direct access from a US highway interchange ramp to a neighborhood does not meet current FHWA design standards."

[C]:
Access to the Frasier Meadows neighborhood via Apache Road would no longer be permitted under the Combined Alternative Package (Preferred Alternative). The existing access points to this neighborhood from Baseline Road and Foothills Parkway would not be affected by the proposed changes to US 36. Numerous meetings with residents and the City of Boulder were held throughout the course of the project to provide information and discuss issues such as this. Also, see General Response: Public Involvement.

[D]:
CDOT understands the appeal this access has for your neighborhood and the convenience it offers. However, with the proposed improvements, US 36 needs to be brought into compliance with FHWA standards. Often times, this means that previously allowed access points to roadways need to be rerouted or restricted. CDOT is required to provide access to the local street network for properties where the access is changed. Your neighborhood still has access points into and out of the neighborhood even with the closure of the access on the US 36 ramp. The reasons why this access was created and how this access was allowed previously has no bearing on the current FHWA design standard requirements that CDOT needs to follow for improvements using federal money.

[E]:
As US 36 is reconstructed, it is expected that all aspects of the roadway will meet current design standards. Design exceptions are only requested or granted in exceptional circumstances.

COMMENT	RESPONSE
	Response to Public-Written 62: **[F]:** As stated above, in planning for the reconstruction of US 36, it was assumed that all current design deficiencies would be corrected. The access to Apache Road from the on-ramp from Foothills Parkway to westbound US 36 does not meet current design standards and is expected to be removed. This existing situation combines accelerating traffic entering US 36 with decelerating traffic entering the neighborhood; however, design standards support the decision to close this access, not the accident rates.

COMMENT	RESPONSE
Public-Written 62 (continued) **Public-Written 62_Kennedy.doc_pg2** Date Received: **12/14/2009** Name: **Vivian Kennedy** Source: **Mailed Letter** City/Zip: **Boulder, CO 80303** G The EIS should clarify the associated neighborhood traffic impacts of the access closures and the need for mitigation measures. — No response *"The traffic impact of the closures… has not been analyzed in detail."* The neighborhood impact issues raised in my letter have not been analyzed at all… The impacts on remaining intersections should be analyzed. — Inadequate Response *See DEIS Traffic Engineering Technical Report, Section 5 Transit Ridership and Station Areas* This is not a response to a comment. This is a referral to a technical appendix with no response, explanation or clarification. In fact, the section referenced includes no information or analysis pertinent to this issue whatsoever. A Continued The US 36 Final EIS response to Comment #44 is inadequate, indicating the responsibilities required under NEPA are not being properly carried out. Please contact me to inform me how this matter will be resolved. Thank you, Vivian J. Kennedy	**Response to Public-Written 62:** **[G]:** The maximum out-of-direction travel due to this closure (assuming a route along Baseline Road and Foothills Parkway) would be approximately 2 miles. The traffic modeling conducted for the EIS assumed this access closure. The reference in Volume III, Response to Comments, of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009), was incorrect and should have referenced Section 4, Interchange Design Concepts, Impacts, and Mitigation, of the *Traffic Engineering Technical Report Addendum* (URS 2009), which analyzes each interchange and adjacent intersections. Mitigation measures were not determined to be necessary for the Table Mesa Drive/Foothills Parkway interchange intersection as part of the Combined Alternative Package (Preferred Alternative).

COMMENT	RESPONSE
Public-Written 62 (continued)	

Public-Written 62_Kennedy.doc_pg3

Date Received:	**12/14/2009**	Name:	**Vivian Kennedy**
Source:	**Mailed Letter**	City/Zip:	**Boulder, CO 80303**

Vivian J. Kennedy
4505 Ottawa Place
Boulder, CO 80303
303-499-2427

September 12, 2007

U.S. 36 Mobility Partnership
c/o CDR Associates
100 Arapahoe Ave, Suite 12
Boulder, CO 80302

Subject: U.S. 36 Draft EIS, Comments to be Addressed in the Final EIS – Neighborhood Access at the Table Mesa Interchange.

U.S. 36 Mobility Partnership:

I attended the Public Hearing held on September 6, 2007 at the East Boulder Community Center and spoke with at least five different US36 DEIS representatives about my concern for the proposed closure of the two neighborhood accesses at the Table Mesa Interchange. I would like to follow up those conversations by submitting the following written comments that include all of my concerns.

The Draft EIS figures and text do not adequately explain that the access points serving traffic using Thunderbird and Apache would be closed. These access points have been available to neighborhoods north of U.S. 36 and west of Foothills Parkway for years. Neighbors in this area have depended on these access points. The vast majority of the users of these access points do not know that these closures are proposed. If they knew that these closures were proposed, there would be substantial public opposition to this change. The Final EIS should acknowledge this situation and the process should include steps to make this clarification prior to the end of the Draft EIS comment period. A targeted and focused public notice to residences located between U.S. 36, Foothills Parkway, and Baseline Road, and signs posted at these locations indicating a plan to close these access points would be appropriate. This should have occurred prior to the opening of the public comment period and remained in place throughout the public comment period.

These access points were provided when the Table Mesa interchange was first constructed because of neighborhood input. Design standards that may have prevented their construction at that time did not take precedence over the importance of these access points to local residents. This history should be cited in the EIS along with the reasons that this access was allowed when the intersection was constructed.

If these former design standards or newer design standards are still cited as the reason for these closures, the EIS should evaluate and explain the possibility of allowing for the access points using design exceptions.

If the potential for accidents is a reason for preventing this access, accident records should be explored at both locations to determine the accident rates and whether they constitute sufficient grounds for closing these access points. This analysis should separate accidents in front of the park and ride lot from those associated with the access point itself. Accidents involving the signalized intersection are unrelated to the access point. Similarly, accidents involving the ramp to eastbound 36 should be separated from those involving the stop sign. Ramp merging accidents associated with drivers seeking access to the neighborhood and accidents involving the stop sign controlled intersection should be considered at this location.

COMMENT	RESPONSE
Public-Written 62 (continued)	

Public-Written 62_Kennedy.doc_pg4

Date Received:	**12/14/2009**	Name:	**Vivian Kennedy**
Source:	**Mailed Letter**	City/Zip:	**Boulder, CO 80303**

US 36 DEIS Comments/Responses

Commenter	Comment	Response to Comment
Vivian Kennedy **Comment #44** **Comment #44-1**	[illegible]	**Response to Comment #44-1:** Direct access from a US highway interchange ramp to a neighborhood does meet current FHWA design standards. With the proposed improvements, US 36 needs to be brought in compliance with these standards. The traffic impact of the closure of inbound access from the existing Table Mesa Drive westbound on-ramp to Apache Road and from Thunderbird Drive has not been analyzed in detail. The details of the analysis of impacts to Boulder Intersections are contained in Section 5. Transit Ridership and Station Areas, of the DEIS *Traffic Engineering Technical Report*.

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COMMENT	RESPONSE
Public-Written 62 (continued)	

Public-Written 62_Kennedy.doc_pg5

Date Received:	**12/14/2009**	Name:	**Vivian Kennedy**
Source:	**Mailed Letter**	City/Zip:	**Boulder, CO 80303**

Commenter	Comment	Response to Comment
Comment #44-1 (cont.)		

COMMENT	RESPONSE
Public-Written 63 **Public-Written 63_Grinbergs.doc** Date Received: **12/14/2009** Name: **Doug Grinbergs** Source: **US 36 Website** City/Zip: **Boulder, CO 80308** A As both an end user and professional software tester, I think the project documents page user experience is lacking in several areas: * link for "document viewers" silently fails if browser set to block pop-up windows (since so many sites abuse this, I'm glad I can turn this off) * list of viewers seems Microsoft/Windows-only; at least one viewer link is broken, but it seems moot because... * viewer list (link and pop-up window) seems irrelevant and unnecessary, as documents all seem to be PDF - not seeing the other file types shown in the viewer list: .doc, .xls, .ppt, .dwg * re: PDF viewers, Adobe Acrobat is hardly the only PDF viewer in the world; the "P" in PDF stands for "Portable" and there are plenty of other PDF viewers for all computing platforms; my operating system of choice, Mac OS, has PDF capability built-in (Preview, Quick Look) * "click here" is sloppy HTML style; the idea is to use meaningful link text * typo: "availible": <a title="Follow this link for a list of availible document viewers" href="#" * no size listed for individual files - 10K or 100MB? * to get full document would require a maddening 39 file downloads - instead of one complete, fully-searchable file * FTP server would be more efficient for multiple file downloads (drag-and-drop) All in all, an unprofessional presentation, and especially for such a huge taxpayer-funded project. (:-(-- * Doug Grinbergs * saule@pobox.com * PO Box 17455 * Boulder, CO 80308 USA *	**Response to Public-Written 63:** **[A]:** We appreciate your detailed review of the US 36 Corridor Project website. However, with the signature of the ROD, the planning portion of this project will be complete and www.us36eis.com will redirect users to the CDOT website for public information.

COMMENT	RESPONSE
PUBLIC-VERBAL COMMENTS	
Public-Verbal 1 Public-Verbal 1_Dempsey Date Received: **11/3/2009** Name: **Joe Dempsey, Mad Dog Enterprises LLC** Source: **US 36 Voicemail** City/Zip: **80020** A [Broomfield Property Owner: 3050 Industrial Lane (3 acres) 777 Kelly Road (3/4 acre, enclave of 3050 Industrial Lane) Concerned about property impacts from both US 36 highway and RTD Northwest Rail projects. Property near highway (Midway Blvd) and railroad tracks. Would like to view overlays or maps that would show potential impacts to his property.] B [Planning to attend upcoming US 36 FEIS public hearing.]	**Response to Public-Verbal 1:** **[A]:** The Combined Alternative Package (Preferred Alternative) would result in a partial impact to the two properties identified in your comment. Feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917 with questions. Also, see General Response: Right-of-way. For information on the Northwest Rail Corridor Project, please visit the Northwest Rail website at http://www.rtd-fastracks.com/nw_1. **[B]:** Comment noted.

COMMENT	RESPONSE
Public-Verbal 2 Public-Verbal 2_Shotkoski Date Received: **11/9/2009** Name: **Mark Shotkoski, Northwest Parkway, LLC** Source: **US 36 Voicemail** City/Zip: **80020** A [Calling to request CD of US 36 Final EIS by mail.]	**Response to Public-Verbal 2:** **[A]:** On November 10, 2009, the US 36 EIS Public Involvement Team mailed one set of CDs containing the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) to Mark Shotkoski at 3701 Northwest Parkway, Broomfield, Colorado 80020. The US 36 EIS Public Involvement Team then followed-up with the commenter by e-mail.

COMMENT	RESPONSE
Public-Verbal 3 Public-Verbal 3_Carbone Date Received: **11/16/2009** Name: **Robert Carbone** Source: **US 36 Voicemail** City/Zip: **Westminster, CO 80030** A [Called to request minutes and information to be presented at the November 19, 2009 Public Hearing in Adams County. Unable to attend. Resides at 3270 Apple Blossom, Westminster, CO 80030. (303)429-8100.]	**Response to Public-Verbal 3:** **[A]:** The US 36 EIS Public Involvement Team followed-up with Robert Carbone by phone on November 17, 2009, November 20, 2009, and December 4, 2009 to explain that when the public comment summary of the hearings is ready, he will be sent a copy.

COMMENT	RESPONSE
Public-Verbal 4 Public-Verbal 4_Acosta Date Received: **11/17/2009** Name: **Armando Acosta** Source: **US 36 Voicemail** City/Zip: **Westminster, CO 80031** Call regarding US 36 FEIS - Report from Spanish Translator regarding Armando Acosta, 8370 Turnpike Dr, Westminster, CO 80031. Mr. Acosta telephoned both Andrea Meneghel (CDR Associates) and Francisco Miraval (Hispanic/Latino outreach specialist) with some questions about US 36. A Mr. Acosta requested information about the US 36 project timeline and the cost of the project. B Mr. Acosta also wanted information about potential ROW issues related to his property, because he lives in the area known as Westminster Hills, a triangle between US 36, 80th Avenue, and the railroad tracks. C Also, Mr. Acosta received a letter requesting access to his property from CDOT and needed translation. D Mr. Acosta also requested information about noise impact and noise mitigation. He didn't want any technical details (number of impacts, decibels, height of the walls, etc), and he said it was enough for him to know the project is aware of the problem and, if needed, there will be mitigation. E Mr. Acosta said he would attend the meeting at Global Leadership Academy (Nov. 19, 2009). He also said he prefers to receive information in Spanish.	**Response to Public-Verbal 4:** **[ENGLISH]** **[A]:** Francisco Miraval, the project team Hispanic/Latino Outreach Specialist and Translator, provided you an explanation of the timeline of the project since 2003 to 2009 (DEIS and FEIS), and a short explanation about the project's future based on the Combined Alternative Package (Preferred Alternative). He also explained the cost (budget) of the project based on the Combined Alternative Package (Preferred Alternative). **[B]:** Mr. Miraval described the CDOT ROW process and described the Uniform Act booklet, which is available in Spanish upon request from Greg Jamieson, the CDOT Region 6 Right-of-way Manager, at 303-757-9917. **[C]:** Mr. Miraval translated the letter you received from CDOT. The letter was not related to the US 36 property acquisition; it requested access to your property for a project having to do with 80th Avenue. Mr. Miraval also explained that requesting access to your property does not mean the project is to acquire that property. **[D]:** Noise levels were measured at residences within 200 feet of the US 36 corridor to evaluate the worst-case conditions. Residences located greater than 200 feet from the alignment are generally considered second- or third-row receivers (i.e., they are blocked by other residences or buildings). It is agreed that noise from US 36 can be heard from long distances; however, noise mitigation, including sound walls, is not effective at this distance. When future noise levels would exceed CDOT's NAC, mitigation such as sound walls, will be provided if it is reasonable and feasible to do so, and would depend on the sound wall effectiveness compared to the number of people it would benefit. Many areas of the US 36 corridor have existing walls that would be replaced after construction, and new sound walls are proposed in some areas. **[E]:** Comment noted.

COMMENT	RESPONSE
Public-Verbal 4 (continued) **Public-Verbal 4_Acosta_SPANISH.doc** Fecha recibido: **11/17/2009** | Nombre: **Armando Acosta** Fuente: **Casilla de voz US 36** | Ciudad/Código: **Westminster, CO 80031** Llamado con respecto a US 36 FEIS – Reporte del traductor al español con respect a Armando Acosta, 8370 Turnpike Dr, Westminster, CO 80031. Acosta llamó por teléfono tanto a Andrea Meneghel (CDR Associates) como a Francisco Miraval (especialista en alcance hispano) con preguntas sobre la US 36. A Acosta pidió información sobre el calendario y sobre el costo del proyecto de la US 36. B Acosta también pidió información sobre potenciales temas relacionados con derecho de paso en su propiedad, porque vive en la zona conocida como Westminster Hills, un triángulo formado por la US 36, la Avenida 80 y las vías del ferrocarril. C Acosta también recibió una carta de CDOT pidiendo acceso a su propiedad y necesitaba traducirla. D Acosta también pidió información sobre impacto y mitigación de ruido. No quiso detalles técnicos (número de impactos, decibeles, altura de las paredes, etc.) sino que dijo que era suficiente saber que el proyecto estaba consciente del problema y si era necesario se implementarían medidas de mitigación. E Acosta dijo que asistiría a la reunión en Global Leadership Academy (19 de nov. del 2009) y que prefería recibir información en español.	**Response to Public-Verbal 4:** **[SPANISH]** **[A]:** Francisco Miraval, el especialista en alcance hispano y traductor del equipo del proyecto, proveyó una explicación del calendario del proyecto del 2003 al 2009 (Versión inicial y versión final de la Declaración de Impacto Ambiental) y una explicación breve sobre el futuro sobre la base de la Alternativa Preferida. También, sobre esa misma base, explicó el costo (presupuesto). **[B]:** Miraval también describió el proceso de derecho de paso (expropiación) de CDOT y la información en el folleto del Acta Uniforma de Reubicación, que está en español y se lo puede obtener por medio de Greg Jamieson, al 303-757-9917. **[C]:** Miraval tradujo la carta que usted recibió de CDOT. La carta pedía acceso a la propiedad y no estaba relacionada con el proyecto US 36 sino con la intersección de la Avenida 80 y la US 36. Se explicó también que pedir acceso a la propiedad no significa que el proyecto va a adquirir esa propiedad. **[D]:** Los niveles de ruido en las residencias se miden hasta 200 pies del corredor US 36 para evaluar las condiciones de los peores casos. Las residencias a más de 200 pies del corredor generalmente se consideran receptores de segunda o tercera fila (es decir, están bloqueadas por otras casas o edificios). Se está de acuerdo que el ruido de la US 36 se puede escuchar a grandes distancias, sin embargo, la mitigación del ruido, incluyendo las paredes anti-ruido, no son efectivas a esas distancias. Cuando el nivel futuro del ruido excede el criterio de mitigación de CDOT, se provee mitigación, como las paredes anti-ruido, si es posible y razonable hacerlo, dependiendo de la efectividad de esas paredes y del número de personas que se beneficien. Muchas áreas del corredor US 36 ya tienen paredes anti-ruido que podrían ser reemplazadas después de la construcción y en algunas áreas se instalarán nuevas paredes. **[E]:** Comentario notado.

COMMENT	RESPONSE
Public-Verbal 5 Public-Verbal 5_Anonymous Date Received: **11/16/2009** Source: **US 36 Voicemail** Name: **Anonymous 1** City/Zip: **Unincorporated Adams County** A Resident of unincorporated Adams County, north of US36 highway and west of I-25. Received postcard mailing on November 16, 2009, the day of the Broomfield Public Hearing. Unhappy that received postcard day of hearing because unable to change her schedule to attend the Broomfield hearing which is a closer location. Expressed concern that her taxes pay for this and she will be unable to attend. Will try to attend one of the remaining two hearings.	**Response to Public-Verbal 5:** **[A]:** Stakeholders in the US 36 corridor were informed about the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) public hearings in the following ways: • Newspaper advertisements in seven different corridor publications/periodicals. • Press Release/Media Advisory sent to major regional media outlets. • Posted on the project website, www.us36eis.com. • E-mail notifications to the US 36 contact database. • Mail notifications to the US 36 contact database. • Flyers distributed in English and Spanish and posted in community locations throughout the corridor, and as requested by jurisdiction representatives. • Flyers distributed at select meetings attended by the US 36 project team members. Also, see General Response: Public Involvement.

COMMENT	RESPONSE
Public-Verbal 6 Public-Verbal 6_Greenleaf Date Received: **11/18/2009** Name: **Sarah Greenleaf** Source: **US 36 Voicemail** City/Zip: **Lafayette, CO 80026** A Called to request information and materials from Louisville Public Hearing. Cannot attend in person. Mail to: 9071 Davidson Way, Lafayette, CO 80026.	**Response to Public-Verbal 6:** **[A]:** CDR Associates sent Sarah Greenleaf copies of all handouts from the Boulder County Public Hearing along with a copy of the presentation and display boards.

COMMENT	RESPONSE
Public-Verbal 7 Public-Verbal 7_Worthington Date Received: 11/18/2009 | Name: Carl Worthington, Oz Architecture Source: Boulder County Public Hearing | City/Zip: Boulder REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 Carl Worthington from Boulder. MR. WORTHINGTON: I'm Carl Worthington, architect and planner from Oz Architecture. A I'd like to make the request that special attention be given in the detail planning of the 36 Corridor to the potential Superior town center that's basically owned by George Menkick and Dick Biella. They own a majority of it there. And both in terms of flood mitigation with Coal Creek as to how that's handled as well as potential secondary or B alternative BRT stops that might happen to stop there at McCaslin. C But the plan looks very interesting. We'll be looking forward to reviewing it. Thank you.	**Response to Public-Verbal 7:** **[A]:** The project team will continue to work to avoid and minimize property impacts during final design. Similarly, the project team will avoid or minimize impacts to the 100-year floodplain in accordance with all federal, state, and local regulations. The project team will continue working with the Town of Superior during final design. Therefore, please coordinate your ideas with Town of Superior representatives for consideration during final design. **[B]:** Stations at McCaslin Boulevard have been included in both BRT and rail planning since the RTD *FasTracks Plan* was passed in 2004. The project team will continue working with the Town of Superior during final design. Therefore, please coordinate your ideas with Town of Superior representatives for consideration during final design. **[C]:** Comment noted.

COMMENT	RESPONSE
Public-Verbal 8 Public-Verbal 8_Hatfield Date Received: 11/18/2009 | Name: Scott Hatfield Source: Boulder County Public Hearing | City/Zip: Boulder REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 A MR. HATFIELD: Hi. I appreciate all the effort that's been put into this. And efforts to really make the NEPA process a legitimate planning exercise rather than in a lot of cases NEPA is often abused. B Now, I'd like to see carbon reduction prioritized throughout this. Trying to reduce greenhouse emissions certainly is a top priority as well as things like efficiency and mass of vehicles. C One thing that I have some concern about are the proposed bus only lanes compared to, say, managed HOV bus lanes. I'm wondering what type of thoroughness of the flow volume analysis of buses and HOVs, you know, to justify the use of buses only. Is there going to be a lot of empty space in this lane most of the time compared to having HOV eliminate other congestion? D Also I'm wondering if bus only lanes really justify compared to rail. Recently RTD came out in today's paper saying, Well, we don't want to build the rail past Westminster. That could really throw a wrench I think into the planning, the numbers of vehicle trips that are going to be going up and down this corridor every day. Rail uses less carbon dioxide than vehicles. E Having a lot of empty lanes for a lot of the time having bus only may not be as efficient as putting those resources into getting some commuter trains on already existing track. F There's also the issue of the DIA rail being built pretty much regardless. What kind of people, you know, need to fly, are these people normally using public transit. I would expect that the communities involved in US 36 should be pretty accepting that the DIA rail would have greater priority and go to DRCOG and RTD and demand a little higher prioritization for US 36 due to projected numbers of use. MR. HATFIELD: And looking at the public/ private partnership for DIA I think the existing track would outweigh building the new track.	**Response to Public-Verbal 8:** **[A]:** Comment noted. The NEPA process for the US 36 Corridor Project has followed CEQ regulations and guidelines. **[B]:** Throughout the project, the project team has evaluated ways to balance transportation solutions with providing multi-modal options within the corridor. These multi-modal options provide opportunities for carbon reduction by giving priority to BRT and HOVs in the managed lanes. **[C]:** The managed lanes proposed along US 36 from Pecos Street to Cherryvale Road are assumed to be for buses and HOVs, and for SOVs if they choose to pay a toll. Between McCaslin Boulevard and Table Mesa Drive, a potential for a future auxiliary lane to be used for buses only has been included in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) (as described on pages 2.7-3 and 2.7-4 of the FEIS). The project team has not identified that there would be much "empty space" in the managed lanes by 2035. **[D]:** BRT service is anticipated to attract 10,200 riders by 2035. Ridership for the Northwest Rail corridor is anticipated to be 8,400 riders (for FasTracks-funded stations.) The bus service and the rail service provide service to two different travel markets. The RTD Board remains committed to funding all of the FasTracks corridors. The timing for the completion of all corridors will be dependent on available funding. **[E]:** The managed lanes included as a part of the Combined Alternative Package (Preferred Alternative) are assumed to be for buses and HOVs, and SOVs that choose to pay a toll. The traffic analysis that was done for the FEIS did not identify a lot of empty space for the managed lanes.

COMMENT	RESPONSE
	Response to Public-Verbal 8: **[F]:** The FasTracks corridor to the Denver International Airport (DIA) (East corridor) has been identified as the highest priority corridor because of its political support and its relatively high ridership. The ridership projections for the East corridor include riders from Aurora to downtown Denver, riders who are employed at DIA, riders who will come from the projected future development in the vicinity of DIA, and riders who are projected to use the train from DIA to downtown Denver who are travelers. The projected ridership for the East corridor is 43,000 daily riders in 2030. This is the highest of all the FasTracks corridors. The elected officials in the US 36 Corridor and Northwest Rail Corridor Project areas are very involved in discussions at DRCOG about the relative priorities for US 36 and Northwest Rail when compared to other funding priorities at DRCOG.

COMMENT	RESPONSE
Public-Verbal 9 Public-Verbal 9_Kumin Date Received: 11/18/2009 | Name: Jesse Kumin Source: Boulder County Public Hearing | City/Zip: Boulder REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 A MR. KUMIN: Hi. I'm Jesse Kumin, 4395 Snowberry Court, Boulder. I started coming to these hearings in 2005 after FasTrack passed. And so I missed some of the earlier meetings that happened before that. Apparently what happened is a lot of the alternatives were ruled out before the FasTrack passed. And it seemed that everything was already pretty much predetermined. The last four years I've been coming to these hearings. And they are required by federal law. You've presented the alternatives. But basically they are just variation of shades of gray. And they were the slow train to Denver running 30 miles an hour, and more highway. And none of these alternatives were actually getting people off the highway and reducing pollution, and providing a really fast way of getting between Denver and Boulder. B And so what hasn't been addressed has been issues of how to reduce pollution and reduce people's time spent in traffic and to actually make a faster alternative that would get people out of cars. Nothing you're presenting tonight is going to actually get people out of cars. All it's going to do is continue down the same path. So I would suggest that even though you've done a lot of work on this that it's really a waste of taxpayer funds to spend what I'm estimating here, I've heard $200 million for RTD share of the expense for Highway 36, $750 million for a slow train to Denver averaging 30 miles an hour, which isn't fast, and $1.3 billion for improvements on Highway 36. So I want to suggest that comes out to almost $100 million a mile. And the Shanghai Magley was built at $62 million a mile and it runs 330 kilometers (an hour). And that should get people out of cars and reduce pollution, improve productivity, and improve traffic flow. All you're doing is encouraging people to drive more by building better highways, and having a slow train. And I would suggest that the money would be better spent if it were providing an actual alternative to automobiles.	**Response to Public-Verbal 9:** **[A]:** See General Response: NEPA Process and Alternatives Evaluation. **[B]:** See General Response: NEPA Process and Alternatives Evaluation. The Hong Kong Airport Express is a "fast" train which was dropped out in the early screening for the alternatives, as described on page 2.2-5 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). That is, it is not an everyday proven transit revenue service; it would not connect to the RTD system of light rail, commuter rail, and BRT; and it would be more costly and logistically complicated.

COMMENT	RESPONSE
Public-Verbal 10 Public-Verbal 10_Bartlett Date Received: 11/18/2009 | Name: Andrew Bartlett Source: Boulder County Public Hearing | City/Zip: Longmont REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 A MR. BARTLETT: Good evening. As you said, I'm Andy Bartlett. I've lived in Boulder County since 1971, most of it in Longmont. I have to say that I preferred the -- well, I'll conclude with what I prefer. I was disappointed with the BRT improvements. I think there's very little for the bus traveler in this plan. All the stops that will cross at grade, McCaslin, Wadsworth, Sheridan, and so it's going to be pretty much the same experience the bus traveler has these days. On the other hand the single occupant car driver gets all those auxiliary lanes, which is effectively another continuous lane open to everyone from Table Mesa to I-25. And if they pay money they can use the bus transit too. So effectively we have two more lanes each direction for the car and very little for the people who use public transportation. I think it's not a very -- what's the word? It doesn't do anything to encourage people to choose the bus over the car, which as the gas, price of gas goes up in the next 20 years you will realize our mistake in not doing anything to encourage the bus. The bus, a full bus of 50 people can take about a half a mile of cars off the road if you consider at 55 miles an hour how much asphalt one person in the car takes up. And so that is a lot of savings and capital improvements to highways, which you wouldn't have to make if you did more to get people into buses. And the bus in order to work needs to go faster than the general traffic. And this Preferred Alternative seems to be geared towards getting the people in their cars get there faster than the bus, which is just further -- it's an endless soup because then you get more traffic and you'll need to widen it further 20 years down the road to ten lanes in Boulder. Boulder has a hard time parking all the cars that come in as it is on the four-lane roads. I don't know where the extra four lanes of traffic is going to park in Boulder. But I don't think this is a very inspired alternative. So I prefer the No Action Alternative combined with FasTrack's improvements. Thank you.	**Response to Public-Verbal 10:** **[A]:** The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) provides information about the anticipated transportation benefits. The Combined Alternative Package (Preferred Alternative) includes numerous elements that will encourage travel through modes other than the SOV. The managed lane will result in express bus and HOV travel times that are as much as 28 minutes faster than general-purpose lane traffic. Also included are increased and enhanced bus service, queue jumps and bus ramp metering bypass lanes, the corridor bikeway, and measures to reduce travel demand, all of which will serve to provide a competitive alternative to automobile travel. The alternatives evaluation process used for the NEPA process is described in Chapter 2, Alternatives Considered, of the *US 36 Corridor DEIS* (US 36 Mobility Partnership 2007) and *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). The requirements for considering alternatives are defined in the CEQ's regulations as described in 40 CFR 1502.14: "Agencies shall rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." CEQ guidance provides a definition for reasonable alternatives, as those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." "Fast" trains were examined and dropped from detailed evaluation because they were not considered practical and feasible, as described on page 2.2-5 of the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). For these reasons, "fast" trains were not considered reasonable and were therefore dropped from further consideration, as allowable per 40 CFR 1502.14. Also, see General Response: NEPA Process and Alternatives Evaluation.

COMMENT	RESPONSE
Public-Verbal 11 Public-Verbal 11_Cook Date Received: **11/18/2009** Name: **David Cook** Source: **Boulder County Public Hearing** City/Zip: **Boulder** REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 A MR. COOK: Good evening. I'm David Cook from Boulder, Colorado here. Without repeating it all I would offer it's sort of a ditto on the comments from the Boulder City and County representatives. And response to Mr. Bartlett's recent comments I think the real key is to get the funding that we need to build the managed lanes in the US 36 Corridor. So I just wanted to give people a reference to a program that 36 Commuting Solutions has called Help Fix US 36. And if you Google up their website just at 36 Commuting Solutions and look for it it's about how to help encourage local, state, and federal representatives to support funding for this corridor. So that's my contribution for tonight.	**Response to Public-Verbal 11:** **[A]:** Comment noted. CDOT and RTD are committed to working with the jurisdictions in the corridor and other local partners to pursue funding opportunities for the implementation of project improvements. The *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009) Executive Summary explains the current funding commitment from CDOT and RTD to implement Phase 1, and the approach for the implementation of future phases.

COMMENT	RESPONSE
Public-Verbal 12 Public-Verbal 12_Lathrup Date Received: 11/18/2009 | Name: Rob Lathrup Source: Boulder County Public Hearing | City/Zip: REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Wednesday, November 18, 2009 A MR. LATHRUP: My name is Rob Lathrup. I only have a question. I asked the question earlier in the evening about the bike lane. And tried to identify the costs. It appears to be a $19 million expenditure. What was not available, and I'm sure there must be some data, is what the projected usage of that bike lane would be to warrant the $19 million expenditure. I'd just like to see that published somewhere. Thank you.	**Response to Public-Verbal 12:** **[A]:** Traffic models typically do not predict bikeway usage, and a ridership total for the proposed bikeway was not estimated as part of the EIS process. As part of the scoping process, communities in the corridor expressed strong support for a regional bikeway facility that would connect to local facilities, providing a network of bikeways that facilitates traveling by bicycle throughout the northwest metropolitan area. As a result, a bikeway is included as part of the Combined Alternative Package (Preferred Alternative), and is a critical element in meeting the Purpose and Need of providing multi-modal travel options.

COMMENT	RESPONSE
Public-Verbal 13 Public-Verbal 13_Kumar Date Received: 11/19/2009 | Name: Jim Kumar Source: Adams County Public Hearing | City/Zip: Denver, CO 80221 REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MR. KUMAR: My name's Jim Kumar, and I grew up in this area. I live in Perl Mack. I bought the house off of my family that I grew up in in Perl Mack. That's 7051 Ruth Way. During the process of the last meeting we had, I had commented that I'm glad we're going to have another impact study. And I want to thank you for that. That's one the reasons I came up. And I did sign up this time because I had heard that. But I also want everybody to know that impact study needs are so bad because my comments last time were about the high mortality rate between cars and pedestrians along Pecos. 72nd and Pecos is still, after talking to the Adams County Police Department, is still the highest mortality rate, pedestrian/car rate, in the city in the last 20 years. Between 70th Avenue and about 79th Avenue it is -- it's about nine blocks along there. That's one of the highest mortality rates, again, between cars, bicycles, and pedestrians, not so much cars' impact on each other. And so I'm so concerned about closing the Broadway exit because my family still lives in the area and many young families and a lot of us older people won't be as impacted, but our families will. And we're really concerned about that high mortality rate by increasing an additional, I believe they said, 4600 cars that would have to go to the Pecos exit to return to this area or to the industrial areas and the commercial areas on Broadway south of 36th. And I just want to thank you again for listening to us. And I hope everybody will fill out an impact statement so that it will continue to go on. Thank you very much.	**Response to Public-Verbal 13:** **[A]:** See General Response: I-25/Broadway Interchange. The access to Broadway, and the associated increase in traffic on Pecos Street, will not change until after an additional study has been conducted regarding this and other concerns in the area. Additionally, this action is not anticipated to occur until Phase 3, as described in the *US 36 Corridor FEIS* (US 36 Mobility Partnership 2009). However, if vehicular/pedestrian safety is a current concern on Pecos Street, this matter is under Adams County jurisdiction.

COMMENT	RESPONSE
Public-Verbal 14 Public-Verbal 14_Karns Date Received: 11/19/2009 | Name: Mark Karns Source: Adams County Public Hearing | City/Zip: Denver, CO 80221 REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MR. KARNS: My name is Mark Karns, and I've lived here about 35, 40 years right here in this neighborhood. And I would like to thank you and echo what the last gentleman said. But I am B concerned about no barrier like in an HOV lane for head-ons. I don't -- I believe that there's no -- on the combined form, there wasn't a barrier. I'm not sure. And also in the last meeting we were C concerned about the buses, getting off in the middle. The people getting off the buses in the middle could be a safety hazard instead of going on -- getting off on the right side. And I think safety is an important thing to be concerned with.	**Response to Public-Verbal 14:** **[A]:** Comment noted. **[B]:** A concrete barrier separating opposing traffic would be provided in all alternatives. The Combined Alternative Package (Preferred Alternative) has a painted buffer separating the managed lane and general-purpose lanes of traffic. **[C]:** Although median stations were considered, they are not part of the Combined Alternative Package (Preferred Alternative). As a clarification, median stations as part of Package 2 and Package 4 would have been accessed by pedestrian bridges.

COMMENT	RESPONSE
Public-Verbal 15 Public-Verbal 15_Wood Date Received: **11/19/2009** Name: **Ivy Wood** Source: **Adams County Public Hearing** City/Zip: REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MS. WOOD: Hello, my name is Ivy Wood. And I live near Fairview Elementary. That's about Federal and Highway 36, about two blocks north of 36. Anyway, I just put about $20,000 of improvements into my home, all of them environmental and energy efficient. I put in solar panels. And I would like to stay there until I retire. And it looks like perhaps I will. I'm not sure. Anyway, I do work at North Boulder B almost to Niwot. And I just wanted to say I'm really looking forward to putting in the FasTracks and taking the light rail to work. And I hope that happens soon. Thank you.	**Response to Public-Verbal 15:** **[A]:** Your property on Westchester Drive would not be directly impacted by the US 36 Corridor Project. **[B]:** Comment noted.

COMMENT	RESPONSE
Public-Verbal 16 Public-Verbal 16_Martinez Date Received: 11/19/2009 | Name: Rick Martinez Source: Adams County Public Hearing | City/Zip: Denver, CO 80221 REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MR. MARTINEZ: Yeah, I've been in my home for 25 years. And I just want to give you guys some praise. And then I had a question for you, too, and a concern. We had that wood sound barrier wall, and then that went away, and then you guys did a beautiful job on the cinder block wall, a beautiful job, and it really helped my household for sound barrier. B The concern I got and the question I got is, nobody came to the neighborhood to see if there was any damage done when they pounded that 1-inch rebar in the ground with the hammer device that they had. And I got severe damage on the back of my garage and in my driveway and in my garage floor. So I'd like to have somebody come out and take a look at that. And if you could lead me the right way, I'd appreciate it. Rick Martinez 7671 Elmwood Lane Denver, CO 80221	**Response to Public-Verbal 16:** **[A]:** Comment noted. **[B]:** Following the November 19, 2009, Adams County Public Hearing, a CDOT Risk Specialist initiated an investigation of the damage claim asserted by Mr. Martinez. The CDOT Risk Specialist located and shared by telephone the contact information for the contractor who was awarded the sound wall project described by the commenter.

COMMENT	RESPONSE
Public-Verbal 17 Public-Verbal 17_Williamson Date Received: 11/19/2009 | Name: James Williamson Source: Adams County Public Hearing | City/Zip: Westminster, CO 80030 REPORTER'S TRANSCRIPT OF PUBLIC HEARING HEARING DATE: Thursday, November 19, 2009 A MR. WILLIAMSON: My name is James Williamson. We live on Apple Blossom Lane. We lived there about 15 years. And this -- this week, yesterday, we received a registered letter from the State of Colorado telling us that you need access to our property to do a survey on November 2nd, which was 16 days ago. The date on the letter was October -- mid October sometime. And my comment is I'm a little concerned about that kind of efficiency on the part of your operational system, that you write a letter in the middle of October. I get it in the middle of November to tell me that you wanted to be in on my property the first of November. And I come into this meeting tonight because I got that letter, and I found out that my personal property is involved in the acquisition process. And I'm wondering why after six or eight years of this going on that this is the first I've heard about this impacting my personal property directly. B Now, it's one thing for public comment about -- the public comment, the right-of-way, but when it directly impacts the ownership of my property, I would think that the State of Colorado and RTD, which are both government agencies which are directed to serve me, as the public, would do a little better job of keeping me informed about these impacts to me personally and my property. And I know there isn't a hell of a lot I can do about that. I've been following the case of the fellow over there on Wadsworth, I guess it is, on the corner there that's got that business. But I just find it pretty irresponsible that a government agency that's charged with serving the public can't do a better job of keeping their records straight and contacting me. I'm a resident. I live here. I'm not a non -- nonresident, whatever you call it. I live in the house. And I get the mail. And I read it. And this is the first I've heard about this. So I guess that's -- I guess that's my comment. I'd like for the people that are making these decisions about -- you know, whether it's the county commissioners have decided or RTD has decided or the state has decided, and you're going to get the feds involved, and they're going to decide, I think when all these decisions when they affect me or anybody else that's involved in the corridor and you're acquiring our property, I think you ought to make a little more diligent effort to contact us directly and tell us what you're intending to do. I have nothing else to say. James Williamson 7800 Apple Blossom Westminster, CO 80030	**Response to Public-Verbal 17:** **[A]:** As described in the General Response: Right-of-way, the project team has worked throughout the process to include project stakeholders on the mailing lists and to avoid and minimize property acquisitions. The Combined Alternative Package (Preferred Alternative) would result in a partial acquisition of your property. As part of the next phase of work on the US 36 corridor, CDOT mailed letters to potentially-impacted property owners notifying them that survey work would occur on their property. During this process, a mistake was made and the letters were dated incorrectly. Revised letters correcting the error have been sent out. CDOT understands that it is difficult on impacted parties to have ROW impacts identified in the EIS. Feel free to contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see General Response: Right-of-way. **[B]:** In looking at our public involvement records, a letter was sent to your address in 2004 when you were added to the US 36 database based on Right-of-way information provided by the CDOT Right-of-way Group. Several US 36 mailings to 7800 Apple Blossom Lane were sent throughout the project. Between 2004 and 2009, ten mailings were sent to your property address, including project updates, newsletters, and meeting announcements. Also, in response to your comments and concerns, Greg Jamieson, CDOT Region 6 Right-of-way Manager, contacted you on December 9, 2009. Mr. Jamieson left a message with his name, contact information, and reason for the call.

COMMENT	RESPONSE
Public-Verbal 18 Public-Verbal 18_Karen Date Received: **11/18/2009** Name: **Karen** Source: **Boulder County Public Hearing** City/Zip: A [Request for electronic copy of public hearing presentation to be sent to karentravel@gmail.com.]	**Response to Public-Verbal 18:** **[A]:** A copy of the public hearing presentation was e-mailed to Karen as requested on November 19, 2009.

COMMENT	RESPONSE
Public-Verbal 19 Public-Verbal 19_Corrales Date Received: 11/17/2009 | Name: Roberto Corrales Source: Phone (Spanish Translator) | City/Zip: A Mr. Corrales called the Project Team Hispanic/Latino Outreach Specialist and Translator and wanted general information about the project, the cost of the project, the timeline, and how to keep informed. B He wanted information about business and/or employment opportunities, about BRT development, and about the connection between US36 and RTD FasTracks Northwest Rail Corridor. C Mr. Corrales said he is on the project's mailing list and that he prefers to receive information via regular mail.	**Response to Public-Verbal 19:** **[ENGLISH]** **[A]:** Francisco Miraval, the Project Team Hispanic/Latino Outreach Specialist and Translator, provided you with a general outline for the project, the cost (based on the Combined Alternative Package [Preferred Alternative]), the timeline (from 2003 to 2009 and for the three upcoming phases), and the contact information for CDOT, RTD, and 36 Commuting Solutions. **[B]:** Mr. Miraval invited you to contact the US 36 Corridor Project, CDOT or RTD for more specific details about employment opportunities. He also explained what BRT is, including the location of the stations and how BRT works. Regarding the relationship between the US 36 corridor and the Northwest Rail corridor, Mr. Miraval explained that at one point both projects were part of a single evaluation, but became two separate projects in 2006. **[C]:** Comment noted.

COMMENT	RESPONSE
Public-Verbal 19 (continued) **Public-Verbal 19_Corrales_SPANISH.doc** Fecha recibido: **11/17/2009** | Nombre: **Roberto Corrales** Fuente: **Teléfono (traductor al español)** | Ciudad/Código: A Corrales llamó al especialista de alcance latino y traductor del equipo del proyecto para pedir información general del proyecto, incluyendo costo y calendario, y para mantenerse informado. B Corrales quería información sobre negocios y sobre oportunidades de empleo, sobre el servicio de buses rápidos (BRT) y sobre la conexión entre la US 36 y el Corredor Ferroviario del Noroeste de RTD FasTracks. C Corrales dijo que él está en la lista del proyecto y que prefiere recibir la información por correo regular.	**Response to Public-Verbal 19:** **[SPANISH]** **[A]:** Francisco Miraval, el especialista en alcance hispano y traductor del equipo del proyecto, proveyó una explicación en general del calendario del proyecto, el costo (basado en la alternativa preferida), el calendario del 2003 al 2009 y las tres fases siguientes, y la información de contacto de CDOT, RTD y 36 Commuting Solutions. **[B]:** Miraval lo invite a que llamase al proyecto US 36, CDOT o RTD para detalles específicos de oportunidades de empleo. También le explicó sobre los buses rápidos (BRT), incluyendo las propuestas de lugares de estaciones y cómo funciona el BRT. En cuanto a la relación entre la US 36 y el Corredor Ferroviario del Noroeste de RTD FasTracks, Miraval explicó que en su inicio eran un solo proyecto pero que desde el 2006 son proyectos separados. **[C]:** Comentario notado.

COMMENT	RESPONSE
Public-Verbal 20 Public-Verbal 20_Rose Date Received: **11/20/2009** Name: **Scott Rose** Source: **US 36 Phone Call** City/Zip: **Boulder, CO 80303** A Inquiry about noise mitigation between home and U.S. 36. If noise mitigation in the form of a noise wall, then supportive of project, if not, calling to express concerns about noise. 1221 Red Ash Lane Boulder, CO 80303	**Response to Public-Verbal 20:** **[A]:** The following text was e-mailed to Mr. Rose on November 23, 2009: "*Scott,* *Thank you for your call Friday and thank you for your interest in the US 36 EIS study.* *In response to your inquiry, there is no planned sound wall for the area behind your property at 1221 Red Ash Lane in Boulder. The reason being that the analysis done found that the reduction in noise that a sound wall would produce in this location for the residences here did not meet the thresholds required to justify the mitigation.* *Let me explain; there is a ratio used that justifies mitigation actions which measures the amount of noise reduction people would experience by the installation of the sound wall and how many people/residents would benefit from that protection. Once that ratio is obtained, the cost of providing that protection in relation to the amount of noise it would be stopping and amount of people benefitting from it is taken into consideration. In that specific area, it has been determined that a sound wall would not reduce the noise well enough to justify the expense; or that the noise impact is not anticipated to be great enough. This also has to do with the way noise travels – a sound wall in this particular location would not adequately reduce the noise from US 36 because noise does not travel in a straight line: sound "bubbles over" the wall, making a wall ineffective for those that are not immediately adjacent to the structure.* *Also, I wanted to clarify something from our earlier conversation about the amount of lanes that are planned for US 36 in that area. For the first phase of implementation, there will a managed lane (Bus/HOV/toll) in each direction, and two general purpose lanes in each direction – meaning 6 lanes total compared to the 4 total lanes that are there today.* *If you have any additional questions, feel free to call me back any time.* *Andrea Meneghel*"

COMMENT	RESPONSE
Public-Verbal 21 Public-Verbal 21_Gillogly Date Received: 11/30/2009 Source: US 36 phone call Name: Bryan Gillogly, SRS Real Estate A Received a call for information today regarding the interchange at US 36 and Broadway (just west of I-25). The gentlemen's name is Bryan and he is with SRS Real Estate. His phone number is 303-390-5230.	**Response to Public-Verbal 21:** **[A]:** The following text was e-mailed to Mr. Gillogly on November 20, 2009: "*Brian,* *Attached to this e-mail are the documents I described which summarize what has been determined for the Broadway area access near the US 36 and I-25 interchange in Adams County.* *The letter from CDOT to Broadway area stakeholders will be the most helpful. It summarizes the agreement and the process we went through with that community to reach an agreement. The second document is the language that was agreed upon to include in the US 36 Final Environmental Impact Statement. The third document is a handout with graphics of that interchange; this was distributed at our public hearing in Adams County last week.* *Additionally, here is a link on our project website where these documents can be found: http://www.us36eis.com/DOCUMENTS.asp?area=docs.* *If you have any additional questions, feel free to give me a call. My contact information is listed below.* *Thanks for your interest,* *Andrea Meneghel*"

COMMENT	RESPONSE
Public-Verbal 22 Public-Verbal 22_Powell Date Received: **11/30/2009** Name: **David Powell** Source: **US 36 phone call** City/Zip: **Westminster, CO 80031** A [David Powell, 8210 Turnpike Dr., Westminster, CO 80031: David called to find out if there are impacts to his property.]	**Response to Public-Verbal 22:** **[A]:** See General Response: Right-of-way. Your property has been identified as a partial acquisition. Please contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Greg Jamieson called you on December 11, 2009 to explain the proposed impacts to your property and then mailed you copies of the materials he discussed with you. He advised you that current information is to be considered preliminary;, and that the NEPA project approval may be received soon, but that no firm funding source has been identified for the acquisition. Since US 36 applied for Transportation Investment Generating Economic Recovery (TIGER) funding, which may happen in January 2010, “worst-case” impacts have been identified and can change as design is advanced. Mr. Jamieson also explained the acquisition process for the project, if it is approved and funded.

COMMENT	RESPONSE
Public-Verbal 23 Public-Verbal 23_Fusco Date Received: **11/30/2009** Name: **Liz Fusco, Blum Rose Corporation** Source: **US 36 phone call** City/Zip: **Westminster, CO 80031** A [Blum Rose Corporation, owners of 8911 Yates St., Westminster, CO 80031 - Contact: Liz Fusco (315) 735-9918, lizfusco@choiceonemail.com: Liz called today to find out about property impacts to 8911 Yates, recently acquired by her company, Blum Rose Corp.]	**Response to Public-Verbal 23:** **[A]:** Your property has been identified as a partial acquisition. Please contact the CDOT Region 6 Right-of-way Manager, Greg Jamieson, at 303-757-9917, with questions. Also, see General Response: Right-of-way. Greg Jamieson contacted you on December 7, 2009 and on December 9, 2009 and explained the US 36 EIS study, at what stage it was at, efforts being made to pursue funding for the project, and pursuit of the TIGER grant (this property won't be affected by TIGER). Mr. Jamieson e-mailed you illustrations of the proposed acquisition of the property from the Combined Alternative Package (Preferred Alternative).

B6
REFERENCES

B6 REFERENCES

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APPENDIX C

AGENCY CORRESPONDENCE

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 S. WADSWORTH BOULEVARD
LITTLETON, COLORADO 80128-6901

May 20, 2009

Jon Chesser
CDOT- Region 6
Planning & Environmental
2000 South Holly Street
Denver, Colorado 80222

RE: U.S. 36 Corridor EIS

Dear Mr. Chesser:

I'm writing this letter in response to a meeting you had on May 12, 2009 with Ms. Margaret Langworthy of my staff, and subsequent discussions I had with Ms. Langworthy. At the meeting, the U.S. 36 Project Team (Team) presented the results of the detailed analysis of alternatives conducted in the Draft EIS.

Through this analysis, a Preferred Alternative, referred to as the Combined Alternative Package (CAP), was developed. At the conclusion of the meeting, the Team requested that the Corps provide concurrence, in accordance with the NEPA/404 Merger Agreement, that the Preferred Alternative appears to be the Least Environmentally Damaging, Practicable Alternative (LEDPA) that meets the project's purpose and need. In response to the Team's request, the Corps concurs that the Preferred Alternative (CAP) appears to be the LEPDA. Our formal determination of it being the LEDPA would occur if a Section 404 permit is issued.

In accordance with the NEPA/404 Merger Agreement, please send a complete permit application to Ms. Langworthy prior to release of the Final EIS, so that the public review period for the Final EIS and the permit application coincide. To allow sufficient time for preparation of the Corps' public notice, the complete application should be received by the Corps two weeks prior to release of the Final EIS.

Thank you for the opportunity to participate in this collaborative effort. If you have any questions, please call me at (303) 979-4120.

Sincerely,

Timothy T. Carey
Chief, Denver Regulatory Office

CF:

Monica Pavlik
Federal Highway Administration
Colorado Federal Aid Division
12300 W. Dakota Avenue, Suite 180
Lakewood, Colorado 80228

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

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Denver, Colorado 80230-6928
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Colorado Department
of Public Health
and Environment

August 20, 2009

Ms. Jennifer Schaufele
Executive Director
Denver Regional Council of Governments
1290 Broadway St., Suite 700
Denver, CO 80203

Dear Ms. Schaufele:

The Colorado Air Quality Control Commission has reviewed your agency's conformity determination document for Cycle 2 Amendments to the 2035 Regional Transportation Plan and 2008/2013 Transportation Improvement Program. We support the determination, finding that the plan and program presented to us August 20, 2009 conform to the relevant SIP elements.

Air quality analyses indicate that area emissions budgets in current SIPs for carbon monoxide, PM-10, NOx associated with PM-10, and ozone precursors (under the 1-Hour Ozone Standard) would not be exceeded in any of the horizon years. In addition, projected emissions of ozone precursors for the 8-Hour Ozone Standard do not exceed the 2002 base case emissions.

Therefore, the Commission comments favorably on the conformity determination.

Should you have any questions regarding the Commission's action, please contact Mr. Doug Lempke at (303) 692-3478.

Sincerely,

Barbara Roberts, Chair

Cc:
Steve Cook, DRCOG
Michelle Li and Gail Hoffman, CDOT
Lisa Silva, APCD
Tim Russ, EPA
Bill Haas, FHWA

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011

September 29, 2009

Paul Tourangeau
Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222

RE: US 36 FEIS Air Quality Phasing and Conformity

Dear Mr. Tourangeau,

The Colorado Department of Transportation (CDOT) is preparing a Final Environmental Impact Statement (FEIS) to identify and evaluate impacts of multi-modal transportation improvements in the United States Highway 36 (US 36) corridor, an existing highway alignment between Interstate 25 (I-25) in Adams County and Foothills Parkway/Table Mesa Drive in Boulder (a distance of approximately 18 miles). The Preferred Alternative has been identified in the FEIS as the Combined Alternative Package (CAP).

CDOT is seeking concurrence from APCD on the items described below regarding conformity of the CAP and additional air quality modeling for Phase I.

REGIONAL AQ CONFORMITY

To determine regional air quality conformity for the US 36 EIS future design, the responsible metropolitan planning organization (DRCOG) has included the first of 3 phases or Phase I of the CAP transportation system in their modeling network to evaluate air quality impacts and ensure that, in aggregate, the Phase I proposed transportation system will conform with the State Implementation Plans and the National Ambient Air Quality Standards (NAAQS).

Only Phase I of the CAP has undergone full fiscally constrained transportation conformity modeling and is incorporated into the *2009 Amendment Cycle 1 DRCOG Conformity Determination (CO, PM_{10}, and 1-hour Ozone) for the Amended Fiscally Constrained 2035 Regional Transportation Plan* and the *Amended 2008-2013 Transportation Improvement Program*.

Phase I of the CAP includes:

1. A managed lane from Federal Boulevard to east of the Foothills Parkway/Table Mesa Drive interchange. In this project the managed lane is a limited access, uni-directional travel lane that provides a systemic capacity increase for qualifying vehicles, such as a toll or HOV vehicles. The managed lanes will act to siphon off traffic from non-managed through-travel lanes resulting in increased level of service and improved average speeds. For this project the managed lane includes both the BRT (transit) configuration and the HOV lane.
2. Improvements to the Sheridan Boulevard and Wadsworth Parkway interchanges;
3. Replacement of four bridges;
4. Pavement rehabilitation and shoulder widening;
5. BRT station enhancements;
6. Construction of the bikeway;

7. Intelligent transportation system elements (fiber optics system) related to the managed lane and BRT operations. The fiber optic cable is critical for BRT operations providing access to real-time travel information. Managed lanes will include toll rate signs that display the dynamic toll rates, safety information and other messages as needed. Traffic monitoring stations will be required to monitor traffic operating conditions in the lanes. Additionally, the system will include closed circuit television cameras, variable message signs, bus instrumentation to collect real-time transit data, and ramp metering.

Phase I of the project satisfies the regional transportation conformity requirements, thus is not expected to cause significant regional air quality impacts. When funding becomes available, separate conformity modeling of the other Phases would be required for future inclusion in the RTP and TIP.

To demonstrate that this project would not cause significant air quality impacts and would comply with the SIP when it is fully constructed, the entire CAP (Preferred Alternative) with all the proposed improvements was modeled in a separate, *non-fiscally constrained* 2035 regional modeling run conducted by DRCOG. Modeling results indicated that no future air quality issues would be caused by the Preferred Alternative if it were to be constructed in its entirety before 2035. This long-range non-fiscally constrained model was produced to ensure that there would not be any significant regional air quality impacts once all phases of the project are funded and completed.

PROJECT LEVEL CONFORMITY

To determine the localized air quality impacts of the CAP, CDOT analyzed the two most affected intersections in the project area that would operate at Level of Service D, E, or F (after mitigation) in future years, along with the highest traffic volumes and the greatest idle time delays per vehicle. Once the worst two intersections were screened (Exhibit 1), an evaluation of a worst-case emissions scenario was modeled via a CAL3QHC carbon monoxide (CO) hotspot analysis using 2035 traffic volumes and 2005 emissions factors provided by APCD. This modeling methodology is used for the CAP to determine any potential exceedances of carbon monoxide versus the National Ambient Air Quality Standards and ensure that no interim build years emissions levels could be worse than what was modeled.

The highest modeled eight-hour average carbon monoxide concentration was 8.6 ppm for 2035 traffic volumes and existing 2005 conditions emissions factor representative of the CAP. Therefore, this project will not cause or contribute to an exceedance of the federal eight-hour average carbon monoxide standard of 9.0 ppm.

PROJECT PHASING

Due to funding limitations, the CAP will be approved in phases based on the fiscally constrained plan. Only Phase I as described above will be fiscally constrained within the design target of 2035. Phases 2 and 3 will follow conformity regulations at the time funding has been identified and a decision document has been prepared.

In order to demonstrate project-level conformity for areas within the Preferred Alternative, but not directly improved by construction of Phase I, a third CO hotspot analysis was completed for the worst operating intersection remaining in the unimproved portion of the corridor. This analysis represents a scenario where there would be increased future traffic and no associated roadway improvements to alleviate congestion related to partial completion of the Preferred Alternative. This analysis will be documented as part of the Record of Decision. CDOT will submit a request to APCD for final concurrence pursuant to the conformity provisions of the Clean Air Act Amendments of 1990 before the decision document for this study is approved.

CDOT has identified the Dillon-McCaslin intersection for CO hotspot analysis (Exhibit 1) that is considered representative of the worst traffic volumes and operational conditions evidenced by project-wide traffic analyses for intersections located within the remaining project area after Phase I improvements have been completed. This additional intersection was modeled for project-level conformity using worst-case emissions scenario of 2035 un-

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
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(303) 757-9011

improved (No Action) traffic volumes and 2005 emissions factors, resulting in a CO concentration of 7.8 ppm.

CDOT proposes that hotspot analysis of this intersection would adequately evaluate project-level conformity for operations located outside of the Phase I improvements by providing analyses of the worst anticipated emissions years of the entire CAP.

If you concur with the results of the air quality analysis and the conclusions regarding conformity for the CAP up to this point of the project, and proposed methodology for the proposed CO analysis for Phase I, please sign below and return this letter by October 13, 2009.

Thank you.
Very truly yours,

Bradley J. Beckham
Manager
Environmental Programs Branch

I Concur: _____ 10/6/09
Paul Tourangeau Date

Exhibit 1- 2035 Intersection Traffic Analysis

Intersection		2003 Existing		2035 P1 (No Action)		2035 CAP (Preferred Alt)		Conformity
	Peak Hour	LOS	Volume	LOS	Volume	LOS	Volume	Phase
Federal/74th	PM	C	4525	F	6530	F	8145	
Federal/74th	AM	B	3515	D	6140	F	6750	
Federal/74th (mitigated)	PM					E	8145	
Federal/74th (mitigated)	AM					E	6750	
Federal/80th	PM	B	4200	F	7345	F	7375	
Federal/80th	AM	B	3370	F	6850	F	5975	
Federal/80th (mitigated)	PM					F	7375	CAP/*Non-Phase I
Federal/80th (mitigated)	AM					F	5975	CAP/*Non-Phase I
Wadsworth/Midway	PM	C	4450	E	5685	F	7230	
Wadsworth/Midway	AM	C	4040	F	5315	F	6620	
Wadsworth/Midway (mitigated)	PM					C	7230	
Wadsworth/Midway (mitigated)	AM					E	6620	
Dillon/McCaslin	PM	B	2890	F	7055	F	7555	*Non-Phase I
Dillon/McCaslin	AM	A	3380	F	8150	F	6735	*Non-Phase I
Church Ranch/Westminster Blvd	PM	C	4575	F	7215	F	7425	
Church Ranch/Westminster Blvd	AM	C	3280	F	6620	F	6520	
Sheridan/92nd	PM	D	6950	F	8265	E	8615	CAP/Phase I
Sheridan/92nd	AM	C	4080	E	7580	E	8495	CAP/Phase I
Sheridan/88th	AM	C	5560	D	5750	D	7300	
Sheridan/88th	PM	B	4040	D	5415	D	7220	
Pecos/72nd	PM	B	1810	F	4970	E	5355	
Pecos/72nd	AM	B	2970	E	5265	E	5540	
Pecos/76th	PM	A	2535	C	4485	D	4480	
Pecos/76th	AM	B	2330	F	3855	E	4425	
Church Ranch/EB Ramps	PM	B	3930	E	5100	D	5060	
Church Ranch/EB Ramps	AM	B	3045	B	3920	B	4180	

*Non-Phase I – intersections outside of the defined Phase I improvements

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011

October 26, 2009

Paul Tourangeau
Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80222

RE: US 36 FEIS Phase I - Air Quality Conformity Demonstration for Record of Decision

Dear Mr. Tourangeau,

The Colorado Department of Transportation (CDOT) is preparing the Record of Decision (ROD) for the first fiscally constrained phase (Phase I) of the US 36 Environmental Impact Statement. The Preferred Alternative has been identified in the FEIS as the Combined Alternative Package (CAP). CDOT has previously received a September 29, 2009 concurrence memo from APCD concerning regional air quality conformity for the CAP and the evaluation methodology for Phase I project-level conformity. Due to the fact that regional conformity has been demonstrated, CDOT is now seeking final concurrence from APCD on project level conformity for Phase I of the CAP.

PHASE I DESCRIPTION

Phase 1 of this project focuses on the managed lane to be built starting from Federal Boulevard at the end of the existing express lanes and working westward to just east of the Foothills Parkway/Table Mesa Drive interchange. These managed lanes would be built in Phase 1 with certain pinch points affecting shoulder width and buffer width caused by existing bridge limitations that would be brought up to full width in future phases. Then, working east to west, the improvements to the Sheridan Boulevard and Wadsworth Parkway interchanges; replacement of four bridges; pavement rehabilitation; shoulder widening; and BRT station enhancements would occur.

Construction of the bikeway would occur from west to east or as local funding is identified for different segments of the bikeway. Other improvements would occur throughout the corridor earlier in the phased implementation and would include intelligent transportation system elements related to the managed lane and BRT operations. Bridge, retaining wall, and sound wall elements built as a part of Phase 1 would generally be built to their ultimate Combined Alternative Package (Preferred Alternative) size and location.

PROJECT LEVEL CONFORMITY

To determine the localized air quality impacts for Phase I of the CAP, CDOT analyzed the two most affected intersections in the project area that would operate at Level of Service D, E, or F (after mitigation) in future years, along with the highest traffic volumes and the greatest idle time delays per vehicle. Once the worst two intersections were screened, an evaluation of a worst case emissions scenario was modeled via a CAL3QHC carbon monoxide (CO) hotspot analysis using 2035 traffic volumes and 2005 emissions factors provided by APCD. This modeling methodology is used for Phase I of the CAP to determine any potential exceedances of carbon monoxide versus the National Ambient Air Quality Standards and ensure that no interim build years emissions levels could be worse than what was modeled.

The highest modeled eight-hour average carbon monoxide concentration within the Phase I improvement area was 8.6 ppm for 2035. Additionally, CDOT evaluated the worst intersection for carbon monoxide emissions impacts outside of the Phase I improvements in order to show that under no circumstances would air quality outside of the improvement area be out of compliance with the NAAQS. The highest carbon monoxide concentration outside the improvement area was 7.8 ppm.

Therefore, this project will not cause or contribute to an exceedance of the federal eight-hour average carbon monoxide standard of 9.0 ppm within the Phase I improvements or outside the surrounding areas that will not be improved until the later phases become funded.

If you concur with the results of the project level air quality analysis and the conclusions regarding local conformity for Phase I, please sign below and return this letter by November 6, 2009.

Thank you.
Very truly yours,

Bradley J. Beckham
Manager
Environmental Programs Branch

I Concur: _____ 11/17/09
Paul Tourangeau Date

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

COLORADO AIR QUALITY CONTROL COMMISSION
http://www.cdphe.state.co.us

EDO-AQCC-A5
4300 Cherry Creek Drive South
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Colorado Department of Public Health and Environment

October 27, 2009

Mr. James Paulmeno
Planning & Environmental Manager
Colorado Department of Transportation, Region 6
4201 E. Arkansas Ave. Schumate Building
Denver, CO 80222

IN RE: No significant air quality impacts anticipated from US 36 Preferred Alternative

Dear Mr. Paulmeno:

This letter is to verify that Year 2035 emissions from the non-fiscally constrained US 36 Preferred Alternative scenario as modeled by the Air Pollution Control Division are well below those projected for those in 2010, the attainment year for the (8-Hour) Ozone Ozone Action Plan adopted by the Air Quality Control commission in December of 2008. Thus we can project that the 2035 US36 Preferred Network project will be in conformance with the SIP.

Please see the VMT and emissions tables below (next page) for detail.

	2035 US36Preferred		
	POL	DRCOGtons	DRCOGtvmt
VOC	1	58.1736331	121,172,089
CO	2	772.377706	121,172,089
Nox	3	31.471241	121,172,089

2035	Cycle1-09	
POL	DRCOGtons	DRCOGtvmt
1	58.1293001	120,909,520
2	770.7158841	120,909,520
3	31.40038632	120,909,520

2035				2010	
Pollutant	DRCOGtons			Pollutant	DRCOGtons
VOC	57.40		Cycle1-08	VOC	90.68
NOx	30.95			NOx	99.38
VOC	57.3535052		Cycle2-08	VOC	90.84
NOx	31.1901165			NOx	100.21
VOC	58.1293001		Cycle1-09	VOC	90.72
NOx	31.4003863			NOx	99.89
VOC	56.58		Cycle2-09	VOC	83.62
NOx	30.18			NOx	91.47

Sincerely,

Lisa Silva
Planning & Policy
Air Pollution Control Division

Cc:
Jill Schlaefer, CDOT
Dale Wells, APCD

APPENDIX D

MEASURES TO MINIMIZE HARM FROM THE PROPOSED ACTION (PHASE 1)

Appropriate measures to minimize environmental harm from the Proposed Action (Phase 1) have been adopted. Mitigation measures adopted to minimize harm to the environment are discussed in detail in Chapter 4, Affected Environment and Environmental Consequences, and Chapter 8, Phased Project Implementation, of the *US 36 Corridor Final Environmental Impact Statement and Final Section 4(f) Evaluation* (*US 36 Corridor FEIS*) (US 36 Mobility Partnership 2009a), as amended by this Record of Decision. A summary of mitigation measures for the Proposed Action (Phase 1) is presented in Table D-1, Mitigation Summary — Phase 1. Some of these measures have been modified from the *US 36 Corridor FEIS* to truly represent Phase 1 commitments, to incorporate direction given through agency consultation, to update oversights concerning rail stations that were not fully captured in the *US 36 Corridor FEIS*, or to clarify regulatory requirements.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Transportation Impacts and Mitigation		
Delay at the Federal Boulevard and 80th Avenue and 74th Avenue intersections	Operations	West 80th Avenue at Federal Boulevard: • A southbound lane from West 80th Avenue to the westbound US 36 on-ramp will be added. West 74th Avenue at Federal Boulevard: • The eastbound approach to left-turn, left-/through-, and right-turn lanes will be re-striped. • Signal phasing will be adjusted.
Delay at the Wadsworth Parkway and Midway Boulevard intersection	Operations	Wadsworth Parkway at Midway Boulevard: • The westbound approach to two left-turn lanes, two through-lanes, and a separate right-turn lane will be re-striped. • Signal phasing will be adjusted.
Delay at Dillon Road and McCaslin Boulevard	Operations	• Dillon Road east of McCaslin Boulevard will be widened to add one westbound lane. This lane will not extend through the McCaslin Boulevard intersection.
Closure of local access to West 88th Place	Access	• Directional signage and traveler information will be provided to guide users to Yates Street and West 88th Avenue by alternate routes.
Transit Priority	Operations	• Analysis of, and if appropriate, implementation of signal priority at key intersections. The intent is to move buses quickly through intersections. The analysis that will be done will include current and projected delay at key intersections, capital and operating costs, and effects to other signals in the vicinity.
Land Use		
Compatibility and acquisitions	Construction	• Continued coordination with local jurisdictions will occur to ensure compatibility with land use plans and to address any incompatibilities. • Property acquisitions will be reimbursed at fair market value, and if possible and desired, comparable land will be provided to compensate for open space acquisition.
Economic Considerations		
Loss of customers to businesses in activity centers due to access restrictions during construction	Construction	• The contractor will be required to maintain access to businesses during construction. • The local jurisdiction or project sponsor will provide additional signage to enable customers to access businesses during construction.
Loss of property tax	Planning	• Design will be refined at preliminary and final engineering to reduce ROW requirements. • The contractor will consider a variety of ways of structuring ROW/acquisition needs, including securing easements and license agreements.
Modifications to access	Planning/Operations	• A cooperative process will be employed during design to avoid or minimize access changes. • Directional signage and traveler information, where access is substantially changed, will be provided.
Modifications to parking	Planning	• A cooperative process will be employed during design to avoid or minimize disruption or displacement of business parking.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Right-of-way and Relocations		
Acquisition of private and public property, and in some circumstances, displacement of occupants	Construction	Acquisition — For any person(s) whose real property interests may be impacted by this project, the acquisition of those property interests will comply fully with the Uniform Act. The Uniform Act is a federally mandated program that applies to all acquisitions of real property or displacements of persons resulting from federal or federally-assisted programs or projects. It was created to provide for and ensure the fair and equitable treatment of all such persons. To further ensure that the provisions contained within this Act are applied "uniformly," CDOT requires Uniform Act compliance on any project for which it has oversight responsibility, regardless of the funding source. Additionally, the Fifth Amendment of the United States Constitution provides that private property may not be taken for a public use without payment of "just compensation." All impacted owners will be provided notification of the acquiring agency's intent to acquire an interest in their property, including a written offer letter of just compensation, specifically describing those property interests. A ROW Specialist will be assigned to each property owner to assist them with this process.
		Relocation — In certain situations, it may also be necessary to acquire structures/improvements that are located within a proposed acquisition parcel. In those instances where the structures/improvements are occupied, it becomes necessary to "relocate" those individuals from the subject property (residential or business) to a replacement site. The Uniform Act provides for numerous benefits to these individuals to assist them both financially and with advisory services related to relocating their residence or business operation. Although the benefits available under the Uniform Act are far too numerous and complex to discuss in detail in this document, they are available to both owner occupants and tenants of either residential or business properties. In some situations, only personal property must be moved from the real property, and this is also covered under the relocation program. As soon as feasible, any person scheduled to be displaced shall be furnished with a general written description of the displacing agency's relocation program which provides, at a minimum, detailed information related to eligibility requirements, advisory services and assistance, payments, and the appeal process. It shall also provide notification that the displaced person(s) will not be required to move without at least 90 days advance written notice. For residential relocatees, this notice cannot be provided until a written offer to acquire the subject property has been presented, and at least one comparable replacement dwelling has been made available. Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex, or national origin. Benefits under the Uniform Act, to which each eligible owner or tenant may be entitled, will be determined on an individual basis and explained to them in detail by an assigned ROW specialist.
NOAA Geodetic Control Monuments	Construction	• CDOT will provide the required 90-day notice for Geodetic Control Monuments impacted by this project.
Social Impacts and Community Facilities		
Reduced mobility in neighborhoods around transit stations	Construction	• A CMP will be developed during final engineering, in conjunction with local jurisdictions, school districts, emergency services, and affected parties.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Environmental Justice		
Residential and commercial private property acquisitions	Construction	• Refer to Section 4.4, Right-of-Way and Relocations, of the *US 36 Corridor FEIS*. • All acquisitions and relocations will fully comply with the Uniform Act (42 USC 4601 et seq. and 49 CFR 24 et seq.) and other statutes. • Relocation benefits will be provided to all eligible persons regardless of race, color, religion, sex, or national origin. Benefits which eligible owners or tenants may be entitled to will be determined on an individual basis and explained in detail by an assigned ROW specialist. • Design in engineering phases will be refined to reduce ROW requirements. • A variety of ways to structure ROW acquisition needs will be considered, including easements and license agreements. • All residential units that are being displaced will be considered for an RTD program to provide ECO passes for a year.
Loss of parkland and open space	Construction	• CDOT and RTD will coordinate with local jurisdictions to evaluate appropriate replacements or other acceptable mitigation measures. • Compensation for parkland acquisition will be negotiated with the public land's representatives. At a minimum, compensation shall include comparable replacement of parkland and facilities within approximately 2 miles of the affected parkland or adequate compensation, based on fair market appraisals. • All acquisition mitigation measures must conform to the Uniform Act.
Visual impacts related to larger interchanges, wider pavements, sound walls, and retaining walls	Construction/ Operations	• Design meetings will be held with the community during final design to determine the most context-sensitive solutions.
Noise	Construction/ Operations	• Existing and new mitigation sound walls will be reconstructed early in the construction schedule, where possible, to mitigate for construction noise. • Local noise ordinances will be followed or a noise variance will be obtained.
General construction impacts to the community	Construction	• Refer to the construction mitigation outlined in Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*. • During the construction contracting process, goals will be established for the use of small and disadvantaged businesses. • Access to local businesses will be maintained during construction, and signs will be used to enable customers to access businesses during construction. • CDOT and RTD will coordinate to minimize impacts to local and regional bus routes.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Environmental Justice (continued)		
Financial equity of managed lanes on low-income populations	Operations	• Tolling costs will be set to give consideration to not exclude low-income drivers from participating. Transponders are free, but an account must be set up with a reserve balance to pay for each use. In addition, technology changes, such as License Plate Tolling being implemented on E-470, would provide options for low-income drivers that would not require setting up an account. Details of the tolling program are included in Chapter 5, Financial Analysis, of the *US 36 Corridor FEIS*. • During design and after implementation of the project, CDOT and RTD will conduct meetings with low-income and minority communities to assess the operations and equity of the tolling program and managed lanes.
Historic and Archaeological Preservation		
Removal or impact to a resource causing an adverse effect	Permanent	• Avoidance and minimization will be addressed first. • A Programmatic Agreement with all parties has been established for mitigation. • Office of Archaeology and Historic Preservation Level I Documentation will be prepared. • Relocation of structure, if possible, will take place.
Impact to a portion of a parcel	Permanent	• Avoidance and minimization will be addressed first. • A Programmatic Agreement with all parties has been established for mitigation.
Impact to a linear feature	Permanent	• Avoidance and minimization will be addressed first. • Data recovery and excavation will be provided. • Office of Archaeology and Historic Preservation Re-Evaluation Form #1405 will be prepared to record changes to the resource. • Construction monitoring will be provided, as necessary, in areas with archaeological resources.
Impact to archaeological resource	Permanent	• Avoidance and minimization will be addressed first. • Data recovery and excavation will be provided. • Construction monitoring will be provided, as necessary, in areas with archaeological resources.
Direct effects to some or all sites: dust and debris	Temporary/ Construction	• Precautionary measures, such as temporary shields to reduce the impact of dust, will be implemented. • Contractor training to prevent flying debris effects will take place.
Indirect effects to some or all sites: visual, auditory, and decreased access	Temporary/ Construction	• Planned construction staging will be provided to avoid these effects, wherever possible. • Signage and well-marked alternate routes for access will be provided.
Indirect impact to remaining sites: visual and noise	Indirect/ Permanent	• Case-by-case consultation will be performed. • Sound walls or visual barriers will be constructed.
Paleontology		
Disturbance of paleontological resources during construction	Construction	• Construction monitoring by a qualified paleontologist may be necessary for excavation into potentially fossiliferous Laramie, Arapahoe, and Denver Formation outcrops. A final profile check by a specialist will be conducted in final design to determine if and when a paleontological monitor may be required.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Parks and Open Space		
Trail crossings	Construction	• Adequate trail detours (if the trail requires closure) and advanced notice and signing prior to beginning construction will be provided.
Trail relocations	Construction	• Trails will be returned to their existing or comparable state following construction.
Temporary occupancy of parkland during construction	Construction	In coordination with local jurisdictions, plans will be prepared and implemented defining the BMPs for the following: • Public safety and security for the project site will be planned. This plan will include all appropriate access, signing, and public information BMPs. • A traffic, pedestrian, and bicycle access management plan will be provided for the project area during construction.
Loss of vegetation	Construction	• Parklands will be revegetated to mimic existing conditions prior to construction. Disturbed areas in open space will be seeded with native grasses and forbs. Native shrubs will be added to the mix as appropriate. Trees will be replaced at a 1:1 ratio in locations where soils support the highest probability for re-establishment of vegetation. New trees will be planted near areas that naturally receive adequate water, such as near drainage areas or wetlands. Sapling trees may require initial watering for establishment.
Spread of noxious weeds	Construction	• Weed control will use the principles of integrated pest management to treat target weed species efficiently and effectively by using a combination of two or more management techniques (biological, chemical, mechanical, and/or cultural) where possible. Weed control methods will be selected based on the management goal for the species, the nature of the existing environment, and conditions of the project construction, including seasonal timing and the length of construction. The presence of important wildlife habitat or T&E species will be considered when choosing control methods.
Erosion control	Construction	• The following activities will take place: provision of BMPs, in accordance with the CDOT Drainage Design Manual will be used during construction to control erosion in accordance with the CDPS/MS4 permit requirements; protect cultural/paleontological resources; minimize visual degradation; and assure prompt revegetation for protection of surrounding habitats and vegetation.
Future planned park, trail, and open space projects	Construction	• During final design, coordination will occur with public land's representatives to reasonably address future park, trail, and open space projects included in adopted plans.
Parkland acquisition	Operations	• Compensation for parkland acquisition will be negotiated with the public land's representatives. At minimum, compensation will include comparable replacement of parkland and facilities within approximately 2 miles of the affected parkland or adequate compensation, based on fair market appraisals. All acquisition mitigation measures must conform to the Uniform Act.
Open space acquisition	Operations	• Open space acquisition will be reimbursed at fair market value to the owner of the public lands. All acquisition mitigation measures must conform to the Uniform Act.
Impacts to wildlife habitat	Construction/ Operations	• See Section 4.14, Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species, of the *US 36 Corridor FEIS*.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Parks and Open Space (continued)		
Trail crossings	Operations	• Pedestrian underpasses more than 20 feet in length will be lighted to standards for safety and security.
Trail relocations	Operations	• Trailhead and trail connections to residential and commercial developments will be preserved as much as possible. Alternate trail routes accomplishing a similar connection will be provided when possible, where trails must be adjusted. • Trails that must be relocated to a public street due to property acquisition will be enhanced with signs and additional plantings, where possible, commensurate with the impact. Vegetation selection will be determined by the owner of the public land's Parks and Recreation Department.
Visual impacts to parkland and open spaces	Construction	• Disturbed parkland and open space areas due to construction will be returned to their previous condition. Options include seeding with native grasses and forbs. Native shrubs will be added to the mix, as appropriate. Trees will be replaced at a 1:1 ratio in locations where soils support the highest probability for re-establishment of vegetation, such as near riparian resources. Opportunities for minimizing visual impacts during final design will be investigated..
Public Safety and Security		
Crime at transit stations	Operations	• RTD will hire additional transit security personnel to inspect transit station areas as needed.
Fire at transit stations	Operations	• RTD will coordinate with local fire departments to address the special needs of transit fires as needed.
Crime at the Westminster Center and 116th Avenue transit stations	Operations	• RTD will monitor these transit stations and implement more aggressive security measures as needed. • CCTV/video surveillance will be incorporated into the plans at all transit stations if conduit and fiber is available. Surveillance will include both personal and video surveillance. Video surveillance systems will be capable of transmitting real-time video to RTD via a fiber optic transmission backbone or other suitable transmission network. Personal surveillance will include uniformed officers who sporadically inspect transit stations. CPTED strategies have been incorporated in the corridor. The purpose of CPTED is to minimize potential threats and vulnerabilities to the transit system, facilities, and patrons, and maximize safety and security through engineering and design. CPTED strategies that will be included are: • Maximizing the visibility of people, parking areas, patron flow areas, and building/structure areas. • Providing adequate lighting to minimize shadows. • Maintaining maintenance programs that provide for the repair of broken windows, the pick up of litter, and the management streetscapes and public spaces.
Safety issues at transit platforms	Operations	• For Phase 1 platform to be moved or reconstructed, design elements and electronic technology may be used to ensure the transit platform area is safe and free of hazards. A representative measure may include passive warning devices that alert persons of risks and hazards.
Decrease in emergency response times due to roadway closures and detours	Construction	• RTD will coordinate with emergency response groups regarding local closures, changes in circulation, and detour routes, both during and after construction for those projects that are led by RTD. See Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*, for more information.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Visual and Aesthetic Resources		
Construction staging materials	Construction	• Staging areas along US 36 will be fenced and/or screened.
Construction staging areas	Construction	• Staging areas will be rehabilitated to enhance the surrounding setting; vegetation will be replaced with native grass, forbs, shrubs, or trees, as appropriate. Staging area rehabilitation will reflect the original setting. For example, if native grass field areas are disturbed for staging, they will be replaced with similar native vegetation.
Construction lighting and illumination	Construction	• Lighting will be limited to that required for safety and security. Lighting will be shielded and directed at working areas to minimize glare and ambient light conditions in nearby areas, including adjacent travel lanes.
Removal of residences and business	Construction	• Structure removal and area improvements will be expedited to reduce the impact on remaining neighbors. The contractor will be required to adhere to the agreed-upon schedule.
Freeway and transit station visual nuisance to adjacent property owners	Operations	• In coordination with local government entities, visual buffers (such as stamped patterns in sound walls, Boston ivy, trees, or other landscaping) will be provided, whenever possible. Coordination will determine which entity will maintain the improvements.
Retaining walls	Operations	• Retaining walls will reflect natural appearance in textures and colors and be graffiti-resistant. Walls will be tiered, where feasible.
Sound walls	Operations	• Aesthetics of sound walls will be coordinated with local jurisdictions and will be graffiti-resistant.
Landscaping removal	Operations	• All landscaping, such as trees, shrubs, lawn, and perennials, and in some cases, native grasses, will be replaced where removed or where the property owner/public entity selects. • Where tree diameters are greater than 10 inches measured breast height off the ground, the replacement ratio will be two trees, unless tree ordinances direct otherwise. Typical replacement materials will include 4- to 6-foot evergreens, 1.5- to 2-inch deciduous trees, or 5-gallon shrubs. CDOT Region 6 tree replacement policy will be followed in Region 6.
Replacing or adding a new bridge structure	Operations	• Corridor design guidelines will be applied using materials and colors similar to existing structures in the area. It is recommended that the design elements from existing bridge designs located at Interlocken Loop and other similar examples be used. When possible, widenings will match existing aesthetic materials and design elements.
Transit stations	Operations	• Although BRT station designs will be reviewed and approved by the local jurisdictions, it is recommended these sites be integrated into the landscape. Parking at transit stations will adhere to local parking ordinances regarding shading, landscaping, lighting, and visibility. Entries to parking and transit stations will be designed using local materials and colors.
Lighting	Operations	• Lights will be directional and shielded, and timers and sensors will be used to minimize the time that lights are on in areas where lighting is not normally needed for safety, security, or operation. Lights at the transit stations will be directional and shielded to reduce off-site light scatter and glare.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Air Quality		
Criteria Pollutants	Construction	• APEN and an air permit is required for projects over 25 acres and that last more than 6 months in length. APEN will cover APCD-required mitigation measures for active construction. • CDOT will include language in the construction specifications requiring all construction equipment to be equipped to burn ultra-low sulfur diesel fuel. • Water or wetting agents will be used to manage dust. • Wind barriers and wind screens will be used to minimize the spread of dust in areas where large amounts of materials are stored. • A wheel wash station and/or large-diameter cobble apron at egress/ingress areas will be used to minimize dirt being tracked onto public streets. • Street sweepers to control dirt tracked onto streets will be used. • All dump trucks leaving the site will be covered. • Temporary excavated materials will be watered or covered. • A binding agent for long-term excavated materials will be used. • For winter time construction, engine pre-heater devices will be installed to eliminate unnecessary idling. • Tampering with equipment to increase horsepower or to defeat emissions control device effectiveness will be prohibited. • Construction vehicle engines will be required to be properly tuned and maintained. • Construction vehicles and equipment with the minimum practical engine size for the intended jobs will be used. • Active grading and parking areas will be watered as required. • BMPs will be used for stockpiles. • All trucks hauling dirt, sand, or other loose material will be covered or maintain freeboard in accordance with local jurisdiction requirements. CDOT promotes all of the above air quality reduction measures and will apply these mitigations as appropriate.
Visibility/Opacity	Construction	• Refer to the CMP in Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*.
Ozone	Construction/ Operations	• Commitment to any appropriate Regional Air Quality Council adopted mitigation measures for ozone.
MSATs	Construction/ Operations	• Truck routes will be restricted to minimize impacts to sensitive receptor populations. • Pavement durability will be improved to reduce the frequency of repaving. • Ultra-low sulfur diesel will be used in non-road equipment.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Noise		
Noise impacts to local communities during construction	Construction	The following noise control measures will be implemented during construction: • Permanent sound walls will be constructed at the beginning of the project, when feasible. • The contractor will be required to prepare a noise control plan that outlines allowable daytime and nighttime uses, projected noise levels, and locations and types of noise abatement measures that may be required to meet specified noise limits. • The contractor will comply with all applicable local sound control and noise ordinances and regulations, including the use of variances, when appropriate. • The following is a list of construction noise mitigation measures that will be employed where the noise control plan specifies (note that these measures will be implemented only where feasible and needed): – Use low-noise equipment with mufflers, intake silencers, engine enclosures, and acoustically-attenuating shields or shrouds. – Use hydraulically- or electrically-powered equipment. – Stage construction timing or sequencing to avoid sensitive times of the day. Combine noisy operations so they occur in the same time period. The total noise level produced will not be substantially greater than the level produced if the operations were performed separately. – Locate stationary noise sources as far from sensitive receptors as possible. – Use natural and artificial barriers, such as ground elevation and existing buildings, to shield construction noise. Staging areas should be kept as far from sensitive noise receptors as possible. – Limit pile driving and blasting to daytime working hours near land uses with sensitive receptors. – Use sonic or vibratory pile drivers instead of impact pile drivers. – Avoid placing haul routes through residential areas. • Use quieter demolition methods where possible, such as sawing bridge decks into sections that can be loaded onto trucks, resulting in lower cumulative noise levels than impact demolition by pavement breakers.
When noise levels exceed NAC due to traffic and buses	Operations	• Sound walls are the only feasible noise mitigation measure, and will be provided in the following locations (subject to refinement as part of final design): – Locations where existing sound walls will need to be removed to accommodate the proposed improvements. – Madison Hill homes. – Tuscany Trails. – Rock Creek Apartments.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species		
Loss of vegetation, including sensitive habitats	Construction	• During final design, the grading plan will be developed to minimize the removal of riparian vegetation, where possible. • During construction, vehicle operation will be limited to the designated construction area, and the limits of the construction area will be fenced to exclude and protect sensitive habitats, including prairie dog towns, riparian areas, wetlands, and upland trees and shrubs. • Silt fencing, erosion logs, temporary berms, and other BMPs may be used to prevent degradation of habitats adjacent to the construction area by transport of eroded sediment. • Graded areas within the ROW will be seeded with an appropriate mixture of native grasses and forbs; shrubs will be planted, where appropriate. • Restoration of disturbed riparian habitat will include planting of native trees and shrubs, as well as seeding and regrading native grasses, forbs, and shrubs will also be seeded in riparian areas. SB 40 requires replacement of riparian trees at a 1:1 ratio, and shrubs on a square-foot basis. • To compensate for the effects of riparian habitat loss, CDOT will follow its SB 40 Programmatic Agreement with the CDOW or comply with the non-programmatic SB 40 clearance process, which ever is appropriate. • All landscaping, such as trees, shrubs, lawn, perennials, and in some cases, native grasses, will be replaced in the vicinity where it was removed (as appropriate) or compensated for in the ROW process. CDOT Region 6 tree replacement policy will be followed in Region 6. • See also landscaping removal mitigation in Section 4.11, Visual and Aesthetic Resources, of the *US 36 Corridor FEIS*. • Impacts to sensitive areas will be avoided or minimized during final design, including the South Boulder Creek Natural Area, and the Colorado Tallgrass Prairie PCA.
Loss of prairie dog colonies	Construction	CDOT has a state-wide policy on black-tailed prairie dog mitigation that will be implemented for prairie dogs located within the US 36 corridor. This policy identifies a four-step process to be used when black-tailed prairie dogs may be affected by a project: • Avoidance of impacts. • Minimization of impacts. • Relocation. • If relocation is impossible or impractical, impacted black-tailed prairie dogs will be humanely removed from burrows that will be directly affected by the project, and donated for feeding of captive black-footed ferrets or raptors. The remaining individuals to be affected will be humanely euthanized. Additionally, each of the county or city municipalities within the study area has policies for the management of prairie dogs on their property. These policies are generally similar to CDOT's policy in the steps required, and include avoidance, relocation, live-trapping, or lethal control.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Disturbance to nesting raptors that could result in nest failure	Construction	• Trees in the construction footprint will be cleared prior to December 1 or after August 31 to prevent raptors (and other birds) from nesting (including courtship) on site and to avoid the take of or disturbance to active nests during the breeding and courtship season. If construction is planned to begin after December 1 or prior to August 31, nest surveys will be conducted by a qualified biologist prior to construction to determine the absence or presence of nesting migratory birds. The USFWS Colorado Field Office will be contacted for further guidance if the field surveys identify the existence of active bird nests that cannot be avoided by construction activities. • Raptor nest surveys will be conducted annually during an appropriate season (generally May 1 through June 1) to determine the presence of active raptor nests. If an active nest is located, monitoring or seasonal buffers may be established and coordinated with CDOW to prevent disturbance to nesting birds during construction. • Protective buffer zones may be established around active nests during construction to avoid disturbance while nesting, if deemed necessary. • Individual trees important for raptor perching that are to be removed in the ROW will be replaced at a 1:1 ratio, or as specified by state and federal wildlife agencies to ensure raptor perch trees are replaced for future use. New trees may be planted near areas that naturally receive adequate water, such as near drainage areas or wetlands, or as determined by CDOT to ensure survival (if irrigation is available, that would be sufficient as well). Sapling trees planted as mitigation may require initial watering for establishment. • Artificial perches may be erected where important large perch trees are removed to provide perches until newly planted trees have matured.
Potential loss of eggs or young of nesting migratory birds	Construction	• Destruction or disturbance of nests that results in loss of eggs or young is a violation of the MBTA. To comply with the MBTA (USFWS 2004), land-clearing activities will be timed to avoid the breeding season (primarily April 1 through August 31, but differs according to species) to avoid impacts to active bird nests, as described for raptors (see the first bullet above). In addition, some reconstruction of bridge structures may destroy or disturb swallows nesting on the underside of the bridge. Bridge reconstruction and demolition may be scheduled to avoid impacts to these birds, or actions to discourage nesting activities will be taken prior to the nesting season and will be continued through demolition. Birds that establish a nest in an active construction zone do so at their own risk and are not subject to this protection – a final determination of this status would be made by the CDOT wildlife biologist.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Disruption/blockage of existing wildlife corridors and habitat fragmentation	Operations	Specific Recommendations — • Big Dry Creek: the City of Westminster/UDFCD agreement that does not allow modification of the hydraulic capacity of the existing structures should be revisited to allow either a separate dry crossing for wildlife (preferred), or modification of the existing stream culvert to facilitate wildlife movement. • Rock Creek: replace triple box culvert with a bridge in the Preferred Alternative. The bridge will have an opening large enough to facilitate wildlife movement. • Davidson, Goodhue, and Marshallville ditches: the culvert openings may be enlarged to compensate for increased length, and should be modified to facilitate wildlife crossing, or a separate dry crossing provided. • Box culverts will be installed where feasible for small- to medium-sized animal crossings between the unnamed ditch on Davidson Mesa and Davidson Ditch; between South Boulder Creek and Upper Dry Creek Ditch; and west of 88th Street. • Oversized culverts and/or modified culverts or dry culverts will be installed, where feasible, to facilitate wildlife crossing at Allen Ditch, Niver Canal, Farmers Highline Canal, Equity Ditch, Community Ditch, the unnamed tributary of Rock Creek, and the unnamed ditch on Davidson Mesa. General Guidelines for Wildlife Crossings — • Promote the improvement of wildlife corridors and connectivity to the extent practicable. • Where feasible, box culverts will be replaced with bottomless box culverts or bridges with natural substrate to promote animal usage. Where new culverts will be installed, bottomless box culverts or bridges will be used. Culverts will be installed in proximity to tree/shrub cover if possible, and will protect existing trees and shrubs near culverts and bridges from unnecessary encroachment and loss of habitat. Detailed final design will address protection from stormwater scour and sedimentation within proposed bottomless box culverts. • Bridge structures should span the largest amount of riparian habitat possible under a constructed bridge to limit the amount of disturbance to vegetation and to allow for dry passage along the water's edge. Riparian areas with dense vegetation are favored by many species for travel corridors. • Where feasible, large animal underpasses could be utilized to promote connectivity and movement. In general, riparian areas within the corridor would provide the most practical locations for large animal underpasses. Minimum dimensions for a large animal underpass should be 8-feet tall by 24-feet wide, with an openness ratio calculated in meters of 0.9 to 2.0 (height x width/length [meters]). As the width of the roadway increases, the height and width of the underpass structure should be increased proportionately. This openness will prevent a tunneling effect that would discourage animal use. Bridges and culverts will meet an openness ratio greater than 0.9 where it makes engineering sense. • Where feasible, if a stream or ditch conveys water, animals will be provided a shelf or a raised dry ledge on the side of the channel above ordinary high water to use as a dry walkway under the structure under normal flows. Shelves will be at least 1 foot higher than the normal water level and at least 1.3-feet wide to be effective (Forman et al. 2002).

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Disruption/blockage of existing wildlife corridors and habitat fragmentation (continued)	Construction	• Where feasible, vegetative debris, such as old stumps, logs, and small brush will be placed along one edge of the bottom of an underpass (approximately 1-foot wide) as cover for small mammals and amphibians when crossing. Vegetative debris will be anchored in place. • Crossing structures (i.e., culverts) should have natural bottom substrates, such as coarse sand, to facilitate wildlife use. Materials such as riprap and concrete should be avoided at culvert entrances and floors, if feasible. Recommendations for Small Animal Crossings — • Small animals will use small-diameter culverts (less than 3 feet in diameter) more than large culverts. Reptiles prefer circular pipes, while amphibians, rabbits, and domestic animals prefer rectangular vessels. Therefore, a variety of types of small animal crossings would be most effective. • Small animal culvert size would be less than 5 feet in diameter or height. • Where feasible, vegetative debris, such as old stumps, logs, and small brush will be placed along one edge of the bottom of an underpass (approximately 1-foot wide) as cover for small mammals and amphibians when crossing. Vegetative debris will be anchored in place.
Spread of noxious weeds	Construction	An integrated Noxious Weed Management Plan may be developed during final design and in consultation with appropriate land management agencies where designated sensitive habitats occur and project work will extend over several years, or be handled in the plans and specifications as directed by CDOT biologists in consultation with these agencies. This plan will be implemented during construction and may include identification of noxious weeds in the area, weed management goals and objectives, and preventive and control methods. Upon completion of project construction, the area would fall under the control of a local or CDOT maintenance plan. Preventive measures may include, but are not limited to, the following: • Contractor vehicles may be inspected before they are used for construction to ensure that they are free of soil and debris capable of transporting noxious weed seeds or roots. Heavy construction equipment may be cleaned. • Noxious weeds observed in and near the construction area at the start of construction will be treated with herbicides or physically removed to prevent seeds blowing into disturbed areas during construction. • Periodic surveys should occur during the construction period to identify and treat noxious weeds that have developed, depending on how long the project is under construction. • Potential areas of topsoil salvage will be assessed for presence and abundance of noxious weeds prior to salvage. Topsoil from heavily infested areas will either be treated by spraying, taking it off site, or burying it during construction. • Disturbed areas will be reclaimed in phases throughout the project construction and seeded using a permanent native seed mixture. If areas are completed and permanent seeding cannot occur due to the time of year, mulch and mulch tackifier will be used for temporary erosion control until seeding can occur. • Fertilizer will not be used in seeded areas because it can enhance the growth of noxious weeds at the expense of desired vegetation.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Spread of noxious weeds (continued)	Construction	• Only certified weed-free mulch and bales will be used on the project (Title 35, Article 27.5, Forage Crop Certification 35-27.5-101). • Weed control may use the principles of integrated pest management to treat target weed species efficiently and effectively by using a combination of two or more management techniques (biological, chemical, mechanical, and/or cultural). Weed control methods may be selected based on the management goal for the species, the nature of the existing environment, and methods recommended by Colorado State University, county weed boards, and other weed experts, but will keep in mind the applicability of these methods during construction. The presence of important wildlife habitat or T&E species will be considered when choosing control methods.
Potential loss of fisheries and aquatic habitat	Construction/ Operations	• BMPs will be used to control erosion and sedimentation during construction and to protect water quality in streams. BMPs may include berms, brush barriers, check dams, erosion control blankets, filter strips, sandbag barriers, sediment basins, sheet mulching, silt fences, straw-bale barriers, surface roughening, and/or diversion channels. A spill prevention and emergency response plan will be prepared and used during construction for storage, handling, and use of chemicals, fuels, and similar products. • Under Colorado SB 40, any project affecting SB 40 jurisdictional streams, their banks, or tributaries is required to consult with CDOW. Following final design, an application for SB 40 Wildlife Certification may be required if the project does not fall within CDOT's Programmatic Agreement with CDOW, including detailed plans and specifications. CDOW will review the plans to ensure that they are technically adequate to protect and preserve fish and wildlife resources, and provide recommendations or alternative plans if the project would adversely affect a stream. • Streams requiring channelization, realignment, or diversion will be restored equal to or better than pre-construction conditions, and restoration will be addressed in the Section 404 Permit. Stream restoration should create a meandering channel with varying side slopes rather than a straight, trapezoidal channel, and should include pools and other habitat features. To control erosion, bioengineering or the use of plants to control erosion may be used instead of riprap or other unnatural bank stabilization techniques. Banks will be planted with native plant species. • Also refer to Section 4.20, Water Resources: Water Quality and Floodplains, and Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Loss of listed FT and FE species or their habitat	Construction/ Operations	FHWA and FTA have initiated consultation with the USFWS. A PBA was released with the *US 36 Corridor FEIS* for public comment. The USFWS has granted a Section 106 Programmatic Agreement for this project (see Appendix E, Section 106 Programmatic Agreement) that must be followed. Conservation measures for impacts to federally-listed species were developed as part of the PBA. During final design, detailed mitigation measures related to T&E species will be developed in consultation with the USFWS for the impacts associated with each construction stage. The following mitigation measures are proposed: Preble's meadow jumping mouse — • Direct impacts (death) will be avoided or minimized by use of silt fencing or similar visible barriers, restrictions in the area of disturbance, and construction limited to the non-active season (November 1 through April 30) in occupied habitat. • Occupied habitat removed for project construction will be replaced through creation or enhancement of suitable habitat. Mitigation areas should link fragmented habitat patches by restoring areas of non-habitat between zones of occupied habitat. Mitigation for the Preble's meadow jumping mouse could be coordinated with wetlands and riparian mitigation, where possible. A complete list of conservation measures will be developed through formal consultation with the USFWS. • Small mammal ledges should be used in culverts to enhance mouse mobility. Ute ladies'- tresses orchid — • Surveys will be conducted to identify and map Ute ladies'-tresses orchid habitat within and adjacent to the construction footprint in the area from Davidson Ditch to the west edge of Van Vleet Open Space. Surveys should be conducted for 3 years, when feasible, because the number of flowering plants varies widely from year to year, and would be done prior to final design. Surveys will be done during the flowering season by qualified botanists. • Impacts will be avoided or minimized, where possible, by relocation of project components, such as detention ponds, by use of roadside ditches instead of ponds for water quality control, and/or by narrowing of the construction footprint. • Project components within Ute ladies'-tresses orchid habitat will be designed to not adversely effect the hydrology of adjacent Ute ladies'-tresses orchid habitat. Monitoring wells may be needed to assess pre-construction water levels and to monitor changes during and after construction. • In Colorado, the primary mitigation for unavoidable impacts to plants and habitat will be protection or enhancement of other existing populations. The conservation requirements will be commensurate with the level of impact, and will be determined in consultation with the USFWS. • Ute ladies'-tresses orchids that cannot be avoided will be transplanted to a mitigation site or to a botanical garden. Removal and transplant of Ute ladies'-tresses orchids or the topsoil of their habitat will be conducted by botanists after tubers have formed in the fall. Detention ponds may be designed to provide suitable habitat for Ute ladies'-tresses orchids and may serve as transplant sites. Selection of a mitigation site will be coordinated with the mitigation for the Preble's meadow jumping mouse and wetlands, and will consider habitat suitability, benefits to the species, and provisions for long-term management and protection.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Biological Resources: Wildlife, Vegetation, and Threatened and Endangered Species (continued)		
Loss of listed FT and FE species or their habitat (continued)	Construction/ Operations	Colorado Butterfly Plant — • Surveys will be conducted within and adjacent to the construction footprint at Dry Creek and Walnut Creek. If Colorado butterfly plants are found, CDOT will consult with the USFWS regarding appropriate conservation measures.
Potential loss of state-listed threatened or endangered species and other sensitive species	Construction	Burrowing Owl — • Surveys will be conducted between March 15 and October 31 of the construction year to determine the presence of burrowing owls and the locations of occupied nests. • If nests are identified, construction will be avoided within 50 yards (150 feet) of an active nest site from March 15 to October 31, or as determined necessary by a CDOT wildlife biologist. • If a nest becomes occupied after the start of active construction, a seasonal buffer zone will be required to prevent violation of the MBTA. Other Sensitive Animal Species — • Mitigation for nesting ospreys will be the same as for raptors (see above). • Pre-construction nest surveys will be conducted for barn owls in dirt cutbanks in suitable riparian habitat (such as Walnut Creek) prior to construction if land clearing occurs between April 1 and September 30. • Land-clearing activities will be avoided in known bobolink nesting habitat in the Boulder Segment during their nesting season (May 15 through July 30) unless the habitat has been surveyed by a qualified biologist and no nests were found to be present. • To mitigate for impacts to common garter snakes in areas where BMPs will control erosion, coconut-straw erosion blankets with a biodegradable thread will be used rather than TRMs, which can harm snakes. The framework will be manufactured with openings of sufficient size and "give" to allow for safe passage of snakes through the blanket. Use of a netless excelsior blanket (Curlex NetFree brand) combined with a heavy woven coir mat has been found successful (install the coir mat on top of the netless excelsior and anchor down). Other Sensitive Plant Species — • Prior to construction, presence/absence surveys will be conducted for all areas that would be affected by project activities within designated sensitive habitats, including the South Boulder Creek Natural Area, Colorado Tallgrass Prairie Natural Area, and Colorado Tallgrass Prairie PCA. The survey(s) will be conducted by qualified botanists during an appropriate season for best observation and identification of the sensitive species. If found, mitigation for impacts to these sensitive habitats (which includes mesic and xeric tallgrass communities) will be developed based on the relative numbers of plants that would be affected, the potential for avoidance or minimization of impacts, and the potential for transplanting of individuals and seedbeds to suitable habitat on adjoining property. Mitigation measures will be developed in consultation with the land management agencies where the impacts will occur.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Mineral Resources, Geology, and Soils		
Expansive soils	Construction	• Engineering measures, such as installation of deep foundation systems, raft foundations, and floating floor slabs will be considered during final design.
Unstable slopes	Construction	• Engineering measures, such as cantilevered retaining walls, soil nail walls, ground anchors, and MSE walls will be considered during final design.
Expansive subgrade soils	Construction	• Engineering measures, such as soil stabilization with lime treatment, removal and recompaction, or removal and replacement with imported fill material will all be considered during final design.
Collapsible subgrade soils	Construction	• Engineering measures, such as stabilization by flooding, deep dynamic compaction, over-excavation, and pre-loading prior to construction will be considered during final design.
Steeply dipping bedrock	Construction	• Engineering measures, such as stabilization by over-excavation and replacement with imported fill materials will be considered during final design.
Soil erosion	Construction/ Operations	• Refer to Section 4.20, Water Resources: Water Quality and Floodplains, and the CMP discussion in Section 4.22, Construction-Related Impacts, of the *US 36 Corridor FEIS*.
Farmlands		
Impacts to irrigation pipes and ditches	Construction	• All irrigation pipes and ditches will be replaced in-kind. • Irrigation will not be interrupted during construction.
New ROW required	Construction/ Operations	• Mitigation will be provided to agricultural properties, consistent with the ROW policies described in Section 4.4, Right-of-Way and Relocations, of the *US 36 Corridor FEIS*.
Access to property	Construction/ Operations	• Existing, legal access to farm properties will remain available during and after construction. Typically, access rights are demonstrated by easements, license agreements, other legal permits, etc.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Hazardous Materials		
Existing hazardous material sites adjacent to or within the corridor and acquisition of additional ROW or new property	Construction/ Long-term Management	• An individual site-specific Phase I ESA will be conducted on properties before acquiring any ROW. • Site-specific Phase II ESAs will be conducted with subsurface investigation (soil and groundwater) for sites that may affect final design. • A Materials Handling Plan will be prepared to address contaminated soil and groundwater, and a Health and Safety Plan will be developed as required by Section 250.03 of the *CDOT Standard Specifications for Road and Bridge Construction* (CDOT 2005). • Engineering controls will be determined to minimize the quantity of contaminated materials. • Responsible parties will be identified for design, build, and operation of remediation systems. • Cost recovery of hazardous material sites where removal actions and long-term maintenance is required will be determined. • A heavy-metal-based paint survey will be prepared for bridges in the project area that will be affected by construction. • An asbestos survey will be prepared in the event of building and/or bridge acquisition or demolition, or if asbestos is known to be present. • Soil Characterization and Management Plans will be prepared according to CDPHE HMWMD if construction debris is encountered during construction activities and is suspected to contain asbestos.
Utilities		
Adjustment or relocation of irrigation ditches	Construction	• Construction will be scheduled during periods of non-use (November through March), wherever possible. • Design will be modified to avoid/minimize conflict, wherever possible.
Relocation of electric transmission towers	Construction	• Construction will be scheduled during periods of low demand (October through April), wherever possible. • Design will be modified to avoid/minimize conflict, wherever possible.
Adjustment or relocation of high-pressure gas lines	Construction	• Construction will be scheduled during periods of low demand (May through September), wherever possible. • Design will be modified to avoid/minimize conflict, wherever possible.
Adjustment or relocation of buried fiber optic	Construction	• Early coordination with utility owners will take place, wherever possible. • Design will be modified to avoid/minimize conflict, wherever possible.
Adjustment or relocation of water lines and sanitary sewers	Construction	• Design will be modified to avoid conflict, wherever possible. • Disruption of service for low-use period will be scheduled. • Disruption of service will be minimized with wet tie-in, wherever possible.
Relocation of storm sewers	Construction	• Design will be modified to avoid conflict, wherever possible.
New roadway or reduced cover on buried utilities	Construction	• Encasement or protective covers over utilities will be added as appropriate.
Energy		
Increases in bus VMT	Operations	• RTD's policy on sustainability will be implemented.
Use of energy resources during construction	Construction	• CDOT and RTD sustainable practices will be incorporated into the project planning, construction, and maintenance to minimize impacts.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Water Resources: Water Quality and Floodplains		
Destruction of riparian vegetation	Construction	• Temporary BMPs for construction, including re-establishment of native vegetation, will be installed and implemented.
Untreated stormwater runoff entering surface waterway during construction	Construction	• NPDES guidelines for stormwater quality, including obtaining a CDPS stormwater construction permit, will be followed. • All work performed on the project within CDOT ROW will conform to Section 107.25 (Water Quality), and Section 208 (Erosion Control) of the CDOT *Standard Specifications for Road and Bridge Construction* (CDOT 2005). • A Stormwater Management Plan will be developed that will detail the BMPs to be used for construction. Practices from the *Erosion Control and Stormwater Guide* (*ECSQG)* (CDOT 2002 or most current volume) will be followed. • Park-n-Ride areas for transit stations will follow local water quality ordinances of the local jurisdiction where the transit stations are located. Local requirements will require the permanent BMPs to treat runoff from developed areas.
		• Adequate storm drainage systems for the existing and proposed improvements near the interchanges will be developed to prevent high levels of sediment and pollutants from being carried into the wetlands, natural drainageways, and irrigation ditches. Non-structural BMPs, such as pesticide and fertilizer application guidelines and anti-icing and de-icing guidelines, will be employed to improve water quality in conjunction with BMP implementation. Other non-structural BMPs, such as water quality signage adjacent to the receiving streams and irrigation ditches, are examples of other tools that will be considered for implementation. A construction dewatering discharge permit may be required for groundwater dewatering activities. • A Section 404 Permit will be obtained for in-stream work performed to retrofit any bridge and channel improvements, and 401 certification will be required to ensure that water quality standards will not be violated.
Control of storm runoff from new and existing impervious surfaces within CDOT ROW	Construction/ Operations	• Permanent BMPs will be constructed in compliance with the *Urban Drainage Criteria Manual* (UDFCD 2004) and the CDOT New Development and Redevelopment Program, where practical, for use during the construction phase to improve the water quality control at the site. • In the tributary to Big Dry Creek, operational BMPs such as alternative de-icing measures that minimize the use of salts or operational guidelines that more closely manage the application of salts, will be considered. • Permanent BMPs will be designed and constructed in compliance with the CDOT New Development and Redevelopment Program for all highway improvements. – All highway runoff will be collected and treated to the level required by the CDOT New Development and Redevelopment Program. The US 36 corridor improvements fall into Tier 1 BMP requirements under this program. BMPs within the project corridor will need to provide 100% of the required water quality capture volume, or the project needs to provide BMPs designed to remove at least 80% of the average annual total suspended solids loading from the average storm event.
Control of industrial wastes	Operations	• All proposed new connections to CDOT's storm sewer system will be inspected and verified during the construction phase to ensure the connections are constructed as designed and improper connections are avoided.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Water Resources: Water Quality and Floodplains (continued)		
		•
Floodplain encroachment	Construction	• If a CLOMR is required for Big Dry Creek, a LOMR will be prepared by the project sponsors at the completion of project construction.
Wetlands and Other Waters		
Loss of wetlands due to the placement of dredged or fill material	Construction	• Wetland mitigation to include banking, establishment, restoration, enhancement, and/or preservation. Banking, establishment, and restoration is typically at a 1:1 ratio.
Sedimentation and erosion of wetlands and other water features	Construction	• BMPs will be implemented during all phases of construction to reduce impacts from sedimentation and erosion, including the use of berms, brush barriers, check dams, erosion control blankets, filter strips, sandbag barriers, sediment basins, silt fences, straw-bale barriers, surface roughening, and/or diversion channels. • When practicable, construction in waterways will be performed during low-flow or dry periods. • Flowing water will be diverted around active construction areas. • No fill material will be stored in wetlands or other water features. • No unpermitted discharges will be allowed.
Construction-related Impacts		
Direct construction impacts on all resources	Construction	A CMP will be developed during final design as the key mitigation measure for offsetting the construction impacts. The plan will be developed in cooperation with the affected communities, CDOT, and RTD. The CMP will include the following key elements: Communications Plan — to address: • Construction safety issues. • Road closures. • Operating protocols. • Disruption of utility service. • Signage plan to inform the public of lane changes, temporary interchange closures, etc. Community Impact Plan — to address: • Reduction of construction dust, noise, visual degradation, and traffic impacts. • Maintenance of access to local businesses during construction. • Reduction of the duration of construction in residential areas. Visual Protection — to address: • Screening construction staging and storage areas. • Replacement of ground cover over exposed areas in a timely manner. • Removal of unused detour pavements or signage.

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Construction-related Impacts (continued)		
Direct construction impacts on all resources (continued)	Construction	Air Quality Protection — to address: • Control of dust through watering or dust palliatives. • Revegetation of exposed soils where appropriate. • Stabilization of stockpiles. • Control of off-site tracking of mud and debris. • Usage of ultra-low sulfur diesel and bio fuels in equipment, where appropriate, to reduce emissions. CDOT endorses the above air quality mitigations and will apply these air quality reduction strategies where appropriate Noise Control — to address: • Construction of sound walls prior to construction. • Use of noise-reducing equipment, where it is appropriate and where it can be applied. • Minimization of the duration of construction in residential areas to the extent possible. • Minimization of night construction in residential areas to the extent possible, and adherence to all local noise variance terms if night work is required. • Re-routing construction traffic away from residential areas, where possible. • Usage of alternative construction methods, such as sonic or vibratory pile driving. • Performance of high-noise activities during daytime hours when possible (e.g., pile driving). Biological Resource Protection — BMPs and other practices will be reviewed and adopted to address: • Reduction of loss of vegetation in sensitive habitats. • Reduction of loss of prairie dog colonies. • Minimization of disturbances to nesting raptors and songbirds. • Reduction of disruption of wildlife corridors. • Reduction of the amount of road kill. • Minimization and avoidance of habitat fragmentation. • Reduction of the loss of fisheries and aquatic habitat. • Reduction of the loss of T&E habitat and species. • Reduction of the spread of noxious weeds. Hazardous Waste Control — to address: • Identification of hazardous wastes prior to construction through conducting Phase II ESAs. • Preparation of a Hazardous Materials Management Plan prior to construction. • Compliance with Occupational, Safety, and Health Administration requirements, including preparation of Health and Safety Plans prior to construction (if not included above).

Table D-1: Mitigation Summary — Phase 1

Impact	Impact Type	Mitigation Measures
Construction-related Impacts (continued)		
Direct construction impacts on all resources (continued)	Construction	Utilities Relocation — to address: • Notification of citizens of possible utility outages. • Scheduling of construction to reduce outages. • Coordination with local utilities. Water Quality and Wetlands Protection — to address: • Implementation of BMPs for erosion control. • Treatment of contaminated dewatering effluents. • Fulfilling MS4 requirements. • Minimization of impacts to wetlands and riparian areas. • Identification of locations for replacement wetlands. • Usage of wetland replacement to help mitigate wildlife habitat fragmentation. Traffic Control — to address: • Minimization of impacts to emergency services. • Reduction of congestion through development of traffic management plans. • Coordination of bridge demolition and detour routes to avoid overloading local streets with detour traffic. • Limiting ramp closures to low-volume ramps. • Limiting high-volume ramp closures to nights and weekends. • Maintenance of access to local businesses and residences. The detailed elements of the CMP will be developed as a part of the final engineering design for Phase 1 of the Preferred Alternative.

Source: US 36 Mobility Partnership, 2009b.

Notes:

% = percent
APCD = Air Pollution Control Division
APEN = Air Pollution Emissions Notice
BMP = best management practice
BRT = bus rapid transit
CCTV = closed circuit television
CDOT = Colorado Department of Transportation
CDOW = Colorado Department of Wildlife
CDPHE = Colorado Department of Public Health and Environment
CDPS = Colorado Discharge Permit System
CFR = Code of Federal Regulations
CLOMR = Conditional Letter of Map Revision
CMP = Construction Management Plan
CPTED = Crime Prevention through Environmental Design
ESA = Environmental Site Assessment
FE = federally endangered
FHWA = Federal Highway Administration
FT = federally threatened
FTA = Federal Transit Administration
HMWMD = Hazardous Materials and Waste Management Division
LOMR = letter of map revision
MBTA = Migratory Bird Treaty Act
MS4 = Municipal Separate Storm System
MSAT = mobile source air toxics
MSE = mechanically stabilized earth
NAC = noise abatement criteria
NOAA = National Oceanic and Atmospheric Administration
NPDES = National Pollutant Discharge Elimination System
PBA = Programmatic Biological Assessment
PCA = Potential Conservation Area
ROW = right-of-way
RTD = Regional Transportation District
SB = Senate Bill
T&E = threatened and endangered
TRM = turf reinforcement mats
UDFCD = Urban Drainage and Flood Control District
Uniform Act = Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended
US # = United States Highway number
US 36 Corridor FEIS = *US 36 Corridor Final Environmental Impact Statement and Section 4(f) Evaluation*
USC = United States Code
USFWS = U.S. Fish and Wildlife Service
VMT = vehicle miles traveled

APPENDIX E

SECTION 106 PROGRAMMATIC AGREEMENT

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

WHEREAS, Federal Highway Administration (FHWA), in cooperation with Federal Transit Administration (FTA), Colorado Department of Transportation (CDOT), Regional Transportation District (RTD), and the Preferred Alternative Committee (PAC), has determined that improvements on the US Highway 36 corridor between Denver and Boulder are necessary to meet the purposes and needs of the project as described in the Final Environmental Impact Statement (FEIS); and

WHEREAS, the Advisory Council on Historic Preservation (Council), which issues regulations to implement Section 106 and provides comments to agency officials on undertakings and programs that affect historic properties, has been invited to participate in the Section 106 consultations and has declined to participate; and

WHEREAS, FHWA and FTA have determined that the Preferred Alternative improvements as analyzed in the FEIS of which a portion are selected in the ROD may affect properties included on or eligible for inclusion on the National Register of Historic Places (NRHP) and have consulted with the Council and the Colorado State Historic Preservation Officer (SHPO) to develop this Programmatic Agreement (Agreement) pursuant to Sections 800.4(b)(2) and 800.14(b)(3) of the regulation (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and Section 110(f) of the same Act (16 U.S.C. 470h-2[f]); and

WHEREAS, FHWA has agreed to be the lead federal agency for complying with Section 106 of the National Historic Preservation Act and responsible for consultations under 36 CFR 800; and

WHEREAS, CDOT is authorized under a separate Programmatic Agreement with the Colorado Division of FHWA to carry out 36 CFR 800 responsibilities on behalf of FHWA, including consultation under Section 106 of the National Historic Preservation Act and the Council regulations, National Environmental Policy Act (NEPA) analysis, and construction contract administration per FHWA and CDOT Stewardship Agreement; and

WHEREAS, CDOT has agreed to perform consultations under 36 CFR 800 for the US 36 Corridor Preferred Alternative; and

WHEREAS, FHWA and FTA have requested CDOT and RTD to sign this Agreement as invited signatories; and

WHEREAS, FHWA and FTA approved the US 36 Corridor FEIS and Section 4(f) Evaluation to identify an alternative that will meet the purpose and need for the corridor and examine the effects of the alternatives to historic properties; and

WHEREAS, FHWA and FTA approved the US 36 Corridor ROD to select Phase I of the Preferred Alternative consistent with the fiscally constrained plan as required by 23 CFR Part 450; and

WHEREAS, the effect determinations in the FEIS were commented upon by SHPO and consulting parties per the Section 106 process which was substituted in NEPA in lieu of separate correspondence (per FHWA and FTA notification to SHPO and the Council in December 2003 and in accordance with 36 CFR 800.8(c); and

WHEREAS, any projects carried out by CDOT and RTD within the US 36 Corridor during the term of this Agreement that were not analyzed within the FEIS shall be subject to separate consultation and compliance actions as specified in 36 CFR Part 800; and

WHEREAS, FHWA, FTA, CDOT, and RTD have determined that modifications to the Area of Potential Effect (APE) (Appendix A), completion of the identification of historic properties, determinations of specific effects to historic properties, and consultation concerning measures to avoid, minimize, or mitigate any adverse effects shall be re-evaluated as part of the planning for and prior to the approval of any construction project that is part of the Preferred Alternative; and

WHEREAS, FHWA FTA, CDOT, and RTD have consulted with the City of Westminster, the City of Broomfield, Jefferson County Historical Commission, Historic Denver, Inc., City and County of Denver, Town of Superior Historic Designation Commission, Louisville Historic Preservation Commission, Boulder Landmarks Preservation Advisory Board, Historic Boulder, Inc., Colorado Preservation, Inc., and the National Trust for Historic Preservation and these parties have been invited to concur in this Agreement; and

WHEREAS, execution of this Agreement as a concurring party indicates participation as a Section 106 consulting party and acknowledgment that the party's views were taken into consideration; and

WHEREAS, the consulting Native American Tribes listed in Appendix B were provided the opportunity to comment on the FEIS , but none of the tribes submitted comments or otherwise elected to participate; and

WHEREAS, NOW, THEREFORE, FHWA, FTA, and SHPO agree, and CDOT and RTD concur, that the phases of the undertaking shall be administered in accordance with the following principles and stipulations to satisfy FHWA and FTA's Section 106 responsibilities for these undertakings.

PRINCIPLES

FHWA, FTA, CDOT, and RTD shall adhere to the following principles in complying with Section 106 of the National Historic Preservation Act for the undertaking:

1. Consistent with CDOT's Environmental Stewardship Guide and with 36 CFR 800.5(a)(1), FHWA, FTA, CDOT, and RTD shall take into account direct, indirect, and cumulative effects on historic properties and shall consider measures to improve existing conditions affecting historic properties.
2. FHWA and CDOT or FTA and RTD shall seek, discuss, and consider the views of the consulting parties, and where feasible, shall seek agreement with them (800.16[f]) when making decisions under the stipulations of this Agreement.
3. The US 36 Preferred Alternative will have unavoidable adverse effects to historic properties within the APE. These adverse effects must be resolved under the Section 106 regulations 36 CFR 800.6. This Agreement seeks to develop resolution of adverse effects and have high

demonstrable public benefits to the citizens of Colorado. These adverse effects will be resolved through the comprehensive creative mitigation as described in this Agreement and in accordance with the Secretary of the Interior Standards. The mitigation will resolve adverse effects for all historic resource types, including but not limited to linear resources, residential properties, and commercial properties for the whole corridor with the creation of a historical book titled "Digging the Old West," based on the Ditch Project exhibit at the Boulder Public Library (see Appendix C and www.ditchhistory.org) and will feature the numerous historic irrigation ditches and canals that parallel and intersect the US 36 corridor.

STIPULATIONS

FHWA and FTA, in consultation with CDOT and RTD where appropriate, shall ensure that the following measures are carried out:

1. **Consultation Process**
    a. **Delegation of consultation authority**
        i. FHWA authorizes, CDOT, per a separate Programmatic Agreement, to conduct consultation with the SHPO and other consulting parties on their behalf, including identification of consulting parties, determining the level of identification, NRHP eligibility determinations, and determinations of effect.
        ii. FHWA and FTA shall remain ultimately responsible for all findings and determinations and retain responsibility for complying with all federal requirements pertaining to direct government-to-government consultation with Indian tribes and requests to the Council.
    b. **Method of project delivery:** Projects will be contracted as either Design/Bid/Build or Design/Build.
        i. CDOT shall initiate consultation under the terms of this Agreement during the scoping period of construction projects. The consultation will be completed prior to the approval of construction for design/bid/build projects and prior to the Notice to Proceed for design/build projects.
            1. Design/Bid/Build plans are prepared at Field Initial Review (FIR) level (30 percent stage) and Final Office Review (FOR) level (90 percent stage) and Final (100 percent stage) and will be provided as a reference for re-evaluating effects to NRHP eligible or listed properties.
            2. Design/Build submittals are typically prepared at 30 percent level of design and will include re-evaluation of effects to potential and known NRHP eligible or listed properties as well as mitigation strategies and other stipulations written into the contract instructions.

ii. This Agreement will remain in effect unless the way CDOT and/or RTD deliver projects changes from the two methods described above in Stipulation 1(a)(iv). An amendment will be prepared to this Agreement and agreed to among the signatories and invited signatories that that establishes the timing of submittals for the Section 106 consultations.

c. Re-evaluation process:

i. CDOT shall ensure that the work described in this section is conducted by personnel that meet the Secretary of the Interior's Professional Standards, as required in 36 CFR 800.2(a)(1).

ii. Re-evaluation shall be required at the initiation of each construction project. Re-evaluation consists of revisiting the project area to determine whether new or existing historic properties require new determinations of eligibility and shall also consist of re-evaluating determinations of effect to NRHP-eligible or listed properties if eligibility or impacts are different from what was described in the FEIS and concurred upon by the SHPO.

1. APE Modifications:

a. The APE in the FEIS has been attached to this document as Appendix A.

b. Should modifications to the APE be necessary, CDOT shall notify FHWA, SHPO and consulting parties. If the modifications affect an FTA action, FTA shall notify SHPO and consulting parties. The notification can be in an electronic format and can include a meeting request for consultation to review the modifications to the APE.

2. Re-evaluations of eligibility

a. Re-evaluations of eligibility for previously recorded historic properties shall be done after ten years has passed from the date of the initial recording.

b. The passage of time, changing perceptions of significance, changes in the design of the Preferred Alternative or incomplete prior evaluations may require the agencies to re-evaluate properties that were previously determined not eligible; presumed eligible due to inadequate documentation; or newly discovered properties in the APE.

c. Consultation shall include newly discovered historic properties eligible for nomination to the NRHP and a re-evaluation of existing properties to determine their status and whether they retain eligibility. The identification for both new and existing properties shall occur concurrently through correspondence to SHPO from CDOT and/or FTA as appropriate.

d. Properties shall be documented using the suite of Colorado Cultural Resource Survey forms and following the standards in the Colorado Cultural Resource Survey Manual.
e. If an unusual discovery or a large number of historic properties are identified during consultation, CDOT/FTA shall consult with SHPO to determine if an extended review period is necessary.
f. If CDOT/FTA and SHPO are unable to reach a consensus about the eligibility of a property, FHWA or FTA shall seek a determination of eligibility from the Keeper of the National Register of Historic Places, as provided in 36 CFR 800.4(c)(2).

3. Re-evaluations of effects: CDOT/FTA shall re-evaluate effects to known and newly evaluated historic properties within the project APE that are eligible to the NRHP once more detailed project plans have been developed or in light of new information.
4. Resolutions of adverse effects: CDOT/FTA shall apply the criteria of adverse effect (per 800.5) to any new or additional impacts that were not addressed in the FEIS. Should adverse effects occur to these properties, FHWA/FTA and CDOT/RTD shall consult with SHPO and consulting parties to resolve adverse effects per 800.6, including notifying the Council and determining Council participation. All resolutions of adverse effects discovered after the ROD shall be amended to this Agreement.

2. **Creative Mitigation**:
   a. CDOT shall fund the attached proposal prepared by Karmen Lee Franklin, "Digging the Old West: How Dams and Ditches Sculpted an American Landscape," (Appendix C) into a book that can be distributed to agencies and libraries along the US 36 Corridor. Initial consultation with the SHPO regarding resolving adverse effects resulted in the development of one substantial creative mitigation product to resolve all impacts identified in the FEIS. The mitigation will satisfy adverse effects to all resource types within the corridor APE (ditches and their related components, structures, objects, railroads, roads, monuments, and other resource types that become eligible after the Agreement is executed).
   b. CDOT shall submit the mitigation produced for the project to SHPO and the consulting parties for review and comment.
   c. CDOT shall submit OAHP Level I Documentation including photographs printed on archival paper for any properties that will be demolished or otherwise adversely affected.
   d. CDOT shall submit OAHP Cultural Resource Re-evaluation Forms (Form #1405) for any properties that will be changed or modified in order to document changes in the conditions of the properties for OAHP's site files.

3. **Resolving issues or objections:** Should any party to this Agreement object in writing to FHWA and FTA regarding any action carried out or proposed with respect to the implementation of this Agreement, FHWA and FTA shall consult with the objecting party. If, after initiating such consultation, FHWA and FTA determines that the objection cannot be resolved through consultation, they shall forward all documentation relevant to the objection to the Council, including FHWA's/FTA's proposed response to the objection. Within 45 calendar days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

    a. Advise FHWA or FTA that the Council concurs with FHWA's and FTA's proposed response to the objection, whereupon FHWA or FTA shall respond to the objection accordingly; or

    b. Provide FHWA and FTA with recommendations, which FHWA and FTA shall take into account in reaching a final decision regarding their response to the objection; or

    c. Should the Council not exercise one of the above options within 45 calendar days after receipt of the pertinent documentation, FHWA and FTA may assume the Council concurrence in their proposed response to the objection.

    d. At any time during implementation of any stipulation in this Agreement, should an objection to any such stipulation or its manner of implementation be raised by a member of the public, FHWA and/or FTA shall take the objection into account and consult as needed with the objecting party, the Council, and SHPO to address the objection.

4. **Reporting Requirements:** By no later than June 30th of each year the Agreement is in effect, CDOT shall provide a report to SHPO on the status of the Agreement, including the stipulations that have been implemented. The annual report will also include any recommendations to amend this Agreement or improve communication among the parties. The Council shall be provided a copy of the annual report but shall not be required to comment on the report. The SHPO shall have 30 calendar days to review the annual report.
5. **Amendments**: The SHPO, FHWA, FTA, CDOT, or RTD may request that this Agreement be amended, whereupon they shall consult in accordance with 36 CFR 800 to consider such amendment. No amendment shall take effect until it has been executed by all signatories. In the event of an amendment, the Council shall be notified and FHWA/FTA shall file the resulting amendment with this Agreement.
6. **Termination:** The SHPO, FHWA, FTA, CDOT, or RTD may propose to terminate this Agreement by providing thirty (30) calendar days notice to the other parties explaining the reason(s) for the proposed termination pursuant to 36 CFR 800.6(c)(8). The Council, SHPO, FHWA, FTA, CDOT, and RTD shall consult during this period to seek agreement on amendments or other actions that would avoid termination. If the annual report is not received within 90 days of the due date, the agreement may be terminated at the request of the SHPO. In that case any outstanding mitigation must be completed within six months of the termination request.

7. **Failure to Carry Out the Agreement:** In the event FHWA/FTA determines they cannot or will not carry out the terms of this Agreement, they will immediately consult with the other parties to develop an amendment to this Agreement pursuant to 36 CRF 800.6(c)(7) and Stipulation 5 of this Agreement. If the signatories cannot agree to appropriate terms to amend the Agreement, any signatory may terminate the agreement in accordance with Stipulation 6, above.
8. **Duration of Agreement:** This Agreement shall remain in effect for a period of ten (10) years after the date it takes effect, unless it is terminated prior to that time. Ninety days prior to the conclusion of the ten year period, CDOT shall notify all parties in writing. If there are no objections from the signatory parties, the term of the Agreement will automatically be extended for an additional five years. If any party objects to extending the Agreement, or proposes amendments, CDOT shall consult with the parties to consider amendments or other actions to avoid termination.
9. **Meeting Requests:** Whenever necessary, SHPO, FHWA, FTA, CDOT, or RTD shall request a meeting of the other parties to discuss the terms of the Agreement.
10. **FHWA/FTA Coordination:** Prior to submitting mitigation to SHPO and consulting parties under the terms of this Agreement, CDOT/RTD shall coordinate with FHWA/FTA, who have the responsibility of oversight of the implementation of this Agreement.
11. **Coordination with National Environmental Policy Act (NEPA):** FHWA and FTA shall use this agreement as part of their responsibility to meet the requirements of NEPA.

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

Execution of this Programmatic Agreement by FHWA, FTA, and SHPO and the submission of documentation and filing of this document with the Council pursuant to 36 CFR 800.6(b)(1)(iv) prior to FHWA's/FTA's approval of this undertaking and implementation of its terms, is evidence that FHWA and FTA have taken into account the effects of this undertaking on historic properties and afforded the Council an opportunity to comment.

SIGNATORIES:

FEDERAL HIGHWAY ADMINISTRATION

By: _____ 12/11/09

FOR Karla S. Petty, P.E., Colorado Division Administrator — Date

FEDERAL TRANSIT ADMINISTRATION, REGION 8

By: Charmaine Knighton 12/11/09

Terry Rosapep, Regional Administrator, Region 8 — Date

COLORADO STATE HISTORIC PRESERVATION OFFICER

By: _____ 12/14/09

Edward Nichols, SHPO — Date

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

INVITED SIGNATORIES:

COLORADO DEPARTMENT OF TRANSPORTATION

By: _____ 12-11-09

Reza Akhavan, Regional Transportation Director, CDOT Region 6 Date

REGIONAL TRANSPORTATION DISTRICT

By: _____ December 11, 2009

John C. Shonsey, Senior Manager of Engineering, Chief Engineer Date

APPENDIX A: Area of Potential Effect (APE)

APPENDIX B: Consulting Parties Participating in Section 106 Consultation: Native American Tribes, Local Governments, Historic Preservation Groups

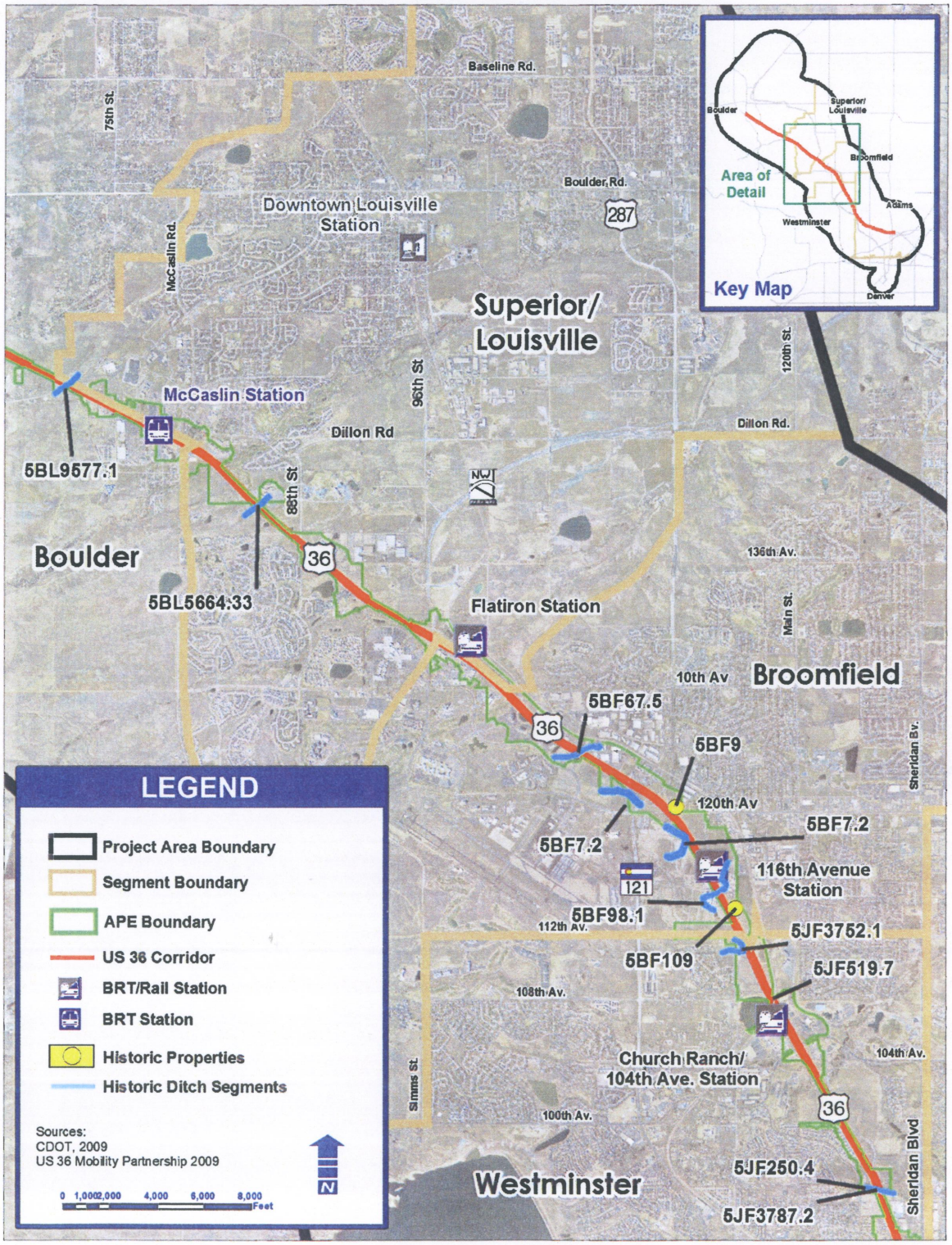
APPENDIX C: "Digging the Old West: How Dams and Ditches Sculpted an American Landscape," Proposal

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

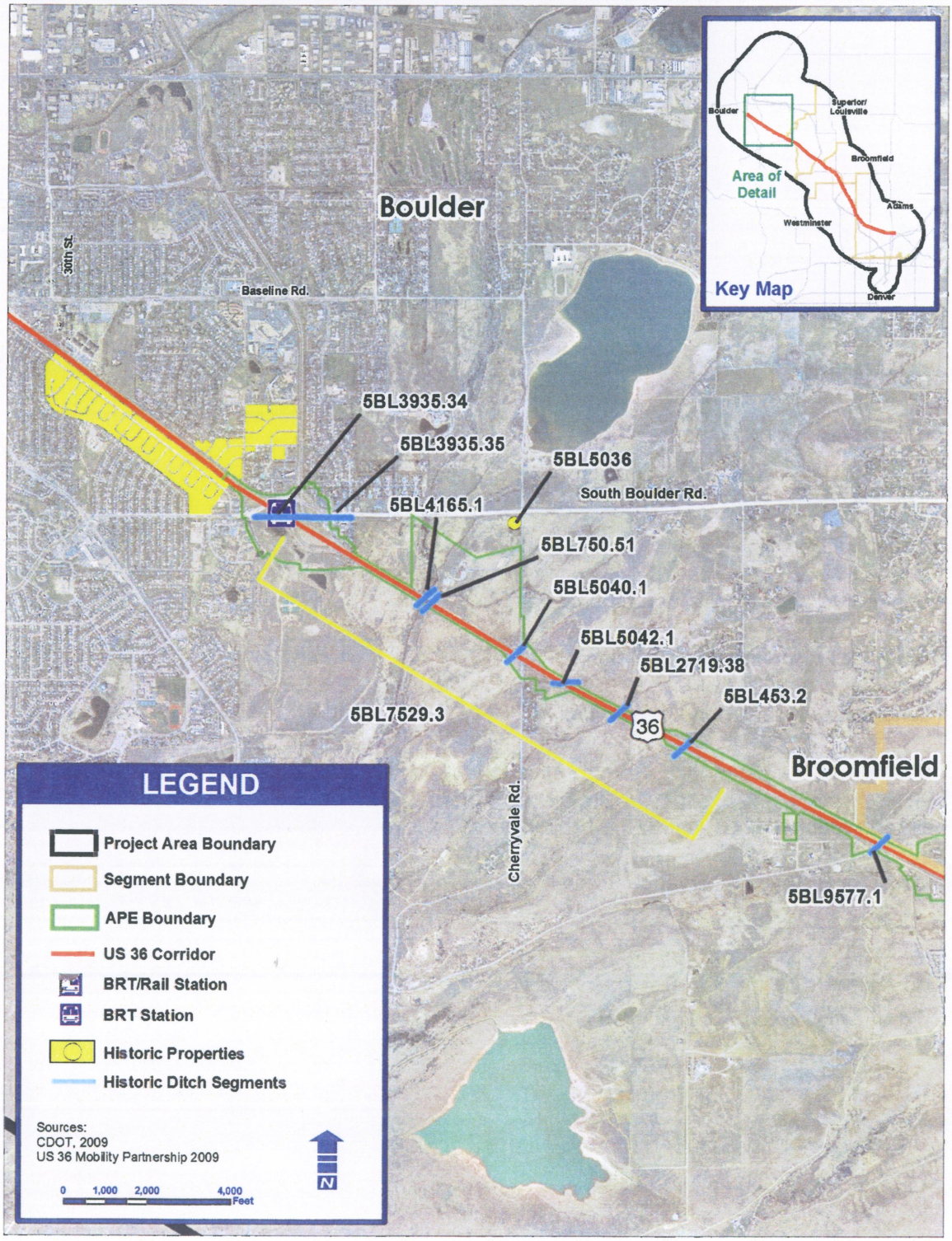
APPENDIX A: Historic Sites and Area of Potential Effect, Adams and Denver Segments

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

Appendix A, cont.: Historic Sites and Area of Potential Effect, Westminster, Broomfield, and Superior/Louisville Segments



Appendix A, cont.: Historic Sites and Area of Potential Effect, Boulder Segment



US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

APPENDIX B: Consulting Parties Participating in Section 106 Consultation: Native American Tribes, Local Governments, Historic Preservation Groups

Cheyenne and Arapaho Tribes of Oklahoma

Northern Cheyenne Tribe

Northern Arapaho Tribe

Northern Ute Tribe

Southern Ute Indian Tribe

City of Westminster

City of Broomfield

Jefferson County Historical Commission

Historic Denver, Inc.

City and County of Denver

Town of Superior Historic Designation Commission

Louisville Historic Preservation Commission

Boulder Landmarks Preservation Advisory Board

Historic Boulder, Inc.

Colorado Preservation, Inc.

National Trust for Historic Preservation

US 36 Corridor Programmatic Agreement
among the Federal Highway Administration, the Federal Transit Administration, the Colorado State Historic Preservation Officer, the Colorado Department of Transportation, and the Regional Transportation District

Appendix C

"Digging the Old West: How Dams and Ditches Sculpted an American Landscape,"

Proposal submitted by Karmen Lee Franklin

Digging the Old West

How Dams and Ditches Sculpted an American Landscape

by Karmen Lee Franklin

With a foreword by Patrica Limerick, PhD

Featuring illustrations by more than 20 artists

A Proposal for:

Digging the Old West

How Dams and Ditches Sculpted an American Landscape

By Karmen Lee Franklin

With a foreword by Patricia Limerick

Featuring art by more than 20 artists

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Introduction

Overview

Zebulon Pike first encountered the rolling plains at the foot of the Rocky Mountains in 1806. The prairie surrounding the gateway into the American West, however beautiful, appeared dreadfully inhospitable. He wrote, "These vast plains of the western hemisphere may become in time as celebrated as the sandy deserts of Africa." Now, over 200 years later, those would-be desert lands support a sprawling metropolis, complete with gardens, lawns, farms and ranches. How did the land transform from an arid wasteland into the colorful landscape of today?

Based on the success of the Ditch Project, *Digging the Old West: How Dams and Ditches Sculpted an American Landscape* will break new ground, combining art, engineering, civics, and ecology into a visual history of a western landscape. The manuscript will contain 280 pages, consisting of 50,000 words, 30 pages of back matter, 40 black and white photographs, 50 color photographs, 30 paintings, 20 maps, and 30 charts and diagrams.

Digging the Old West will:

- Educate readers about the many uses of water, highlighting personal connections to an often underestimated resource.
- Describe the evolution and construction of ditches and dams along the Front Range, featuring multiple sites in and around the cities of Denver and Boulder, Colorado.
- Feature a series of sidebars throughout the text, focusing on different aspects of water use: Water Engineering, Water Wars, Wetlands Ecology, and Influential People.
- Include a series of "then and now" photographs, in the now-classic style of John Fielder and William Henry Jackson.
- Highlight the work of local artisans, each inspired by a ditch or reservoir near their home.
- Share a series of personal anecdotes from the past 150 years, showing how water use has impacted individual lives.
- Use maps, diagrams, and timelines which unite places and events.
- Take a fresh, lighthearted look at so-called "dry" subjects such as water law using humor and visual appeal.

The back matter of the manuscript will include a artist biographies, a resource directory, a bibliography, and an index. A colorful painting of workers on the Silver Lake Ditch by Ann Luce on the cover will stand out on store shelves and catch the reader's eye. If the reader is familiar with literature about the American West, they will be further enticed with foreword by Patty Limerick, Historian and Director of the Center of the American West, titled *A Soft Spot for "Small": Why Little Ditches Have So Much More Charm than Big Ones.*

Markets

Digging the Old West will appeal to a wide audience. The market for the book includes not only those interested in Colorado or the history of the American West, but also anyone interested in the environment or the fine arts. The artistic and environmental aspects will appeal to women, who buy 78% of books sold. When they discover features similar to successful series like "How Stuff Works" and Jackson-Fielder collections, they are likely to share the book with the men in their lives, opening it into a niche of the market that is often difficult to please.

Readers of all ages will enjoy reading about local history in this easy-to-read, visual format. While *Digging the Old West* will fit on multiple shelves in bookstores, it will also provide an invaluable resource for schools and libraries along the Front Range.

Rights

The Colorado Department of Transportation (CDOT) will receive non-exclusive rights upon completion of the manuscript. Exclusive rights may be granted if CDOT agrees to publish the book for the general public. A publication and promotion proposal is detailed on page 7 of this proposal.

Subsidiary Rights

This manuscript is an extension of the Ditch Project, which originally took form as a museum exhibit at the Boulder Public Library and Dairy Center for the Arts. As a result, the book will be connected to the website Ditch Project's website (DitchProject.org) which was designed by the author. A special section of the website will be created specifically for the book, in order to generate revenue and interest. Additionally, this book has the potential to become a television documentary.

Spin-offs

In creating a new style for an environmental history text, there is some potential for future books featuring the same style. Future topics could focus on transportation, mineral resources, and a city's connection to the climate.

A Mission Statement

As a writer, I never expected to spend my time digging up the remains of abandoned dams or pouring over water law cases from the 19th century. Writers, so I thought, did not hunker down over antiquated maps, comparing townships and ranges to satellite photos. Then, I moved away from my home state of Colorado, only to return to a slew of new suburban development. When the initial shock and pain caused by change wore off, I slowly realized that the Western landscape has always been evolving, and necessarily so.

Many aspects of our lives depend on the dynamic aspects of our environment. I have learned how important it was to understand local history, especially if we have any hope for our future. As a result, I've devoted my time and writing to understanding the environmental history of our landscape, and helping others to do the same. The framework for this manuscript arose from that passion. Thus, in *Digging the Old West*, I aim to share my knowledge and love of the curious and wonderful land that I grew up on.

Publication and Promotion Plan

During the production of this manuscript, the author will use a modified version of this proposal to seek out publishing opportunities with literary agents and regional publishing houses. One copy of the text, complete with page layouts, will be presented to historians at CDOT. Once a suitable publisher is established, the author will work with CDOT and the publisher to arrange rights and permissions to publish 5,000 copies of the manuscript for a general audience. If a regional publisher cannot be found, the author may explore self-publishing options for distribution within CDOT and other local organizations.

To assist with communications with publishing companies, obtaining permissions from artists, and other clerical tasks, the author will hire a part-time assistant. The assistant, Mary Catherine de Marigny, a sophomore in Environmental Studies, is seeking a certificate from the Center of the American West at the University of Colorado at Boulder, and looks forward to working on this inter-disciplinary project.

Once published, the author is eager to work with the publishing house to promote the book, and will cooperate in any way possible, including giving talks, distributing press kits, and maintaining websites like the DitchProject.org.

Similar Works

Digging the Old West will be the first book to incorporate both art and science into the history of dam and ditch construction. However, there are a number of other titles on the market which compliment this subject. These include:

- *Cadillac Desert*: The American West and Its Disappearing Water by Marc Reisner. Penguin (Non-Classics); Revised edition, January, 1993. Reisner's look at the history and use of a precious natural resource, originally published in 1986, has grown to become one of the most important books of the environmental movement. The awareness raised by the book rivals Carson's *Silent Spring* and the works of Aldo Leopold. Unfortunately, this dense text lacks any illustrations to accompany the author's strong message.

- *Mayordomo: Chronicle of an Acequia in Northern New Mexico* by Stanley Crawford. University of New Mexico Press, July, 1993. While many books about water talk feature large projects or places like the Grand Canyon or the Hoover Dam, Crawford's book features a single life in the year of a small ditch, and the communities that bring it together. *Mayordomo* explains many aspects of ditch construction and maintenance, but with a narrow focus that fails to include larger canals or reservoirs.

- *A New Era for Irrigation* by the Committee on the Future of Irrigation in the Face of Competing Demands and the National Research Council. National Academies Press, October 22, 1996. Irrigation in the west may have a complex and fascinating history, but the future is likely to be even more tumultuous. This book serves as an excellent guide for resource managers and environmentalists; however the authors did not direct the book at a general audience.

- *Colorado's Water: Science & Management, History & Politics* by Neil S. Grigg. Aquamedia Publishing Company, September 2003. Published during a heavy drought, Colorado's educators have come to rely on Grigg's guide to water management. While the book does include illustrations and diagrams, it serves more as a textbook than a coffee table book.

Resources Needed

Completion of the book will require the following expenses:

Item	Description	Total
Research	25 hours @ $40 per hour	$1000
Writing	100 hours @ $40 per hour	$4000
Layout	250 pages @ $10 ea	$2500
Photography	50 digital photographs	$1500
Diagrams and Maps	50 illustrations; production and/or permissions	$1000
Permissions	40 historical photographs and 30 Paintings	$2000
Clerical Assistance	for obtaining permissions and contacting publishers	$1000
TOTAL		$13000

The manuscript will be ready for publishing by April, 2010.

About the Author

Karmen Lee Franklin is a Colorado native, raised on a suburban offshoot of the historic Church Ranch. After starting a family of her own, Karmen returned to college to pursue a Bachelor's degree in Environmental Studies at the University of Colorado at Boulder. She currently lives outside of Boulder with her husband and son.

A junior with strong academic standing, she is also working towards a certificate from the Center of the American West, where she receives mentorship from directors historian Patty Limerick and law professor Charles Wilkinson. While researching local history, Karmen has worked with various notable figures, such as the Honorable Justice Gregory Hobbs of the Colorado Supreme Court and Bob Crifasi, Director of Natural Resources for the City and County of Boulder Parks and Open Space.

In 2009, Karmen was honored to receive two Thompson Awards for Western American Writing. The first was in poetry, for the poem titled *Chief Niwot Said It First*, and the second for the novella, *Ashes of Meadow*. A short story, *Illusions in Lavender*, was published in an anthology titled *The Open Laboratory: The Best Writing on Science Blogs 2006*, edited by Bora Zivkovic.

Karmen began writing an online column for Seed Media Group in 2006. This column, titled "Chaotic Utopia", was featured on ScienceBlogs.com. Chaotic Utopia focused not only on environmental history, but also aspects of science and philosophy concerned with time and causation. One unusual but popular form of these blogs was the fractal. Between 2005 and 2008, Karmen produced over 50 fractal art pieces, most of which imitated some aspect of nature. A series of Karmen's fractals, each with an environmental theme, will appear in an upcoming series of high school science textbooks, titled BSCS *Science: An Inquiry Approach*. The blog was published regularly through January of 2008, when she took a temporary leave to complete her first full-length work of fiction.

She continues working on that novel, tentatively titled *Coffins and Churches*, which incorporates many of the same themes that will be addressed in *Digging the Old West*. She hopes the two books will complement one another, while reaching out to different markets. When not studying local history or writing, Karmen enjoys Xeriscaping and creating art, including fractals, photography, and folk art sculptures.

Outline

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PART I: The Old West

The opening page of this part includes a timeline beginning with the relatively recent uplift of the Rocky Mountains, 70 million years ago, and ending with the Pikes Peak Gold Rush in 1859.

Chapter 1: How to Build a River Basin

17 pages, 11 illustrations

The book begins with a classic dilemma: change is inevitable, yet we tend to fear change. The typical story: kids grow up and move away from home. A few months or years pass by, until they return home for a visit (or worse, to move back in) only to discover that "home" has changed. The typical reaction: an upset adult child, demanding to know, "What did they do to this place?"

There is hope. This aversion to development can often be cured with a good look around. The opening section is an invitation to look around the surrounding landscape to see the changes in action. This will encourage readers to seek signs of a constructed landscape. They might be surprised. That swampy ditch on the hill might turn out to be an important source of drinking water. The pretty little lake over yonder may be keeping the power on. This is followed by the importance of water management, highlighting the subtle differences between the densely populated (and sufficiently damp) East coast and the semi-arid to arid West. Here, photographic art by Ken Sanville offers visual examples of hidden, treasured scenes along ditches in Boulder, Colorado.

Next, the chapter describes the evolution of the Colorado Piedmont, which lies between the High Plains and the Rocky Mountains. This includes a simple, colorful look at the geologic history of the region, including sedimentary layers, uplift, and erosion. It also explains why the South Platte River and many of its tributaries run from south to north, rather than from west to east, as rivers do on the rest of the plains. Visual features, such as a diagram showing the anatomy of a river basin and a sidebar featuring details about the South Platte River, will entertain readers as well as inform.

This is followed by a look at the last ice age, including the changing climate and ecosystem. A short section looks at the pre-settlement ecology of the river basin, beginning with the extinction of the North American megafauna and ending with the bison herds and wetlands which supported early human populations. A sidebar in this section questions the existence of trees along the prehistoric Front Range, showing the conflicts that arise from limited data. A painting of a heron by Elizabeth Jenny brings softness and warmth to the chapter, while showing an example of a riparian wetland. The chapter closes, setting the stage for the first human settlers in North America.

Chapter 2: Native Life on the Plains

14 Pages, 7 illustrations

The chapter focuses on the prehistoric use of water by humans living on the Great Plains. It begins with the nomadic lifestyle of early hunter-gatherers, focusing on the importance of water. While the

Native Americans followed herds of bison, they always needed to camp near a water source. As a result, many of the first human-made trails followed the courses of streams and rivers.

Eventually, a few tribes find the means to stop wandering the desert. They build the Ancestral Puebloan ruins at Mesa Verde. The section will feature the work of Ken and Ruth Wright, water engineers who discovered a system of canals and reservoirs at Mesa Verde. Photographs and illustrations of the ruins show the ancient city both as it once was and as it stands today. A sidebar here explains the clever construction of the cistern at Mug House in Mesa Verde, which collected water from the top of a wide, flat mesa. The water poured through a notch at the edge of the mesa and into the sealed cistern, providing a reliable source of water in desert-like conditions.

The closing section of the chapter shows that, like us, ancient peoples were not always prepared for change. A period of extended drought may have led to the destruction of the Puebloan culture and the abandonment of Mesa Verde. Not long after, the behavior and range of the nomadic tribes began to change as well, as horses introduced by distant Spanish settlers made their way onto the Great Plains.

Chapter 3: The Early Explorers

16 Pages, 10 Photos

When the famous explorers, such as Pike and Long, arrived on the Great Plains, they were quite unimpressed. Pike named the area the "Great American Desert". The semi-arid landscape didn't seem very hospitable, but the explorers continued on. The first section of the chapter looks at these early expeditions with a series of period maps. *Arrowhead*, a botanical painting by artist Cha Cha, also featured in this section, shows the sort of flora encountered and cataloged by the explorers.

The following section looks at the changes in wetlands caused by the construction of log cabins and the beaver pelt trade. A sidebar shows the beaver's role as a keystone species in wetlands. Pictures of beaver dams along Big Dry Creek in Westminster accompany the section, showing the ecological remnants of the past that live along the Front Range today. Next, Spanish settlers in the San Luis Valley develop systems of *acequias*, systems of ditches which fed early settlements. This section features photographs and stories of the San Luis People's Ditch, which holds the oldest water rights in Colorado.

Chapter 4: Eureka! The Gold Rush

12 pages, 8 illustrations

As the chapter title suggests, here the Gold Rush begins, bringing a new wave of pioneers to the region. Placer miners, panning for gold along the creeks, eventually dug ditches, leading to struggles over the water supply. Their solution, essentially saying "first come, first served" would later become the foundation for water law in the West.

With pioneers flocking to the area to look for gold, boom towns began appearing across the Front Range. The next section highlights some of their struggles, along with excerpts from pioneer diaries. These anecdotes, accompanied by newspaper clippings from the late 1850's, offer a first-hand look at

Colorado's early days. The focus here is not only on water, but the agricultural goods that needed to be shipped at great cost from eastern cities.

The chapter closes showing that these boom towns were not necessarily limited by the amount of gold to be found, but by the potential for irrigation. As more and more settlers arrived from the east, the demand rose for locally produced food. Without sufficient levels of precipitation, the Front Range began looking towards an effective solution: the ditch. A sidebar in this section shows then and now pictures of boom towns. In addition this and the photos and clippings mentioned above, the chapter will also feature abstract paintings of water by Kevin Kransoff.

PART II: Digging Ditches

The opening timeline for this section starts in the year 1859 and ends in the year 1900.

Chapter 5: How to Build a Ditch

15 pages, 12 illustrations

Here begins the earnest development of the old west, as networks of ditches were dug across the Front Range. The chapter focuses on several of these projects, along with diagrams explaining the "Anatomy of a Ditch". This includes the basic engineering aspects of ditches, along with the roles of workers and users in the community. This section includes the profiles of several ditch riders, men who managed and maintained ditches over the course of several decades. These portfolios are accompanied by black-and-white photographs taken by Stephen Collector.

Ditches featured in this section include the Wellman Ditch, one of the earliest ditches dug in Boulder County and the Farmer's Ditch, which holds the oldest water rights in Boulder County. The important distinction between the rights of the two ditches will become apparent in an upcoming chapter. Also featured is the Reno-Juchem Ditch, a ditch dug by early pioneers in Arvada. Artwork in this chapter includes then and now images of early ditches, historical advertisements for ditch digging equipment, and photographs of Bruce Campbell's painted headgates, which show a unique and artful twist on old ditch essentials.

Chapter 6: Taming the Great American Desert

17 pages, 13 illustrations

Using the stories of farmers who maintained ditches in the 19th century, the chapter begins by showing the challenges of living off a semi-arid landscape. This includes a look at the climactic cycles producing long droughts, and the false assumption carried by early farmers that "the rain follows the plow."

A special focus on historic settlements such as the Church Ranch and the Savery Mushroom Farm includes then and now pictures and images of restored buildings. A painting by Teri Gortmaker titled *Bear Creek Feedin' Time* shows life on the ranch as it once was and still is today.

The next section focuses on the impacts of ditches on ecosystem and the creation of wetlands on and below ditches. Colorful diagrams show the different plant communities that live above and below a ditch. A final section focuses on the Hayden Survey, sponsored by the U.S. Geological Survey, which took a detailed look at Colorado's natural resources. This includes a series of maps showing watersheds and mineral belts, as well as a triangulation map revealing the methods used by Hayden and his mapmakers to report such precise details to the government back east.

Chapter 7: Towns and Homesteads

14 pages, 9 illustrations

Here, readers learn that ditches were important not only to farmers and ranchers, but to the homes, businesses, and industries of western towns. Most communities developed first along the river banks, then expanded outward along the network of ditches. The ditches passed through front yards of homes, providing drinking water. Early in the chapter, a map of Boulder County from 1888 shows the details of various towns, as well as homesteaders and landowners. Sections of this map will be enlarged and compared with the pioneer stories later in the chapter.

Early homesteaders often made claim to piece of land, only to discover someone else owned the water flowing through it, and someone else still owned the minerals beneath the land. The next section looks at various uses of resources and the industries created around them. These industries supported the small towns along the Front Range. As an example of this, a sidebar looks at coal mining in the towns of Marshall, Louisville, and Lafayette.

The final section of the chapter examines the network of ditches which sprung around these towns and mines, including the Marshallville Ditch, the Goodhue Ditches, the Anderson Ditch, and the Davidson Ditch. The section will focus on the stories of these early ditches, along with then and now pictures, and artistic impressions such as Buff Elting's birds-eye-view paintings and Carrie Malde's impressions of the Davidson Ditch.

Chapter 8: The Centennial State

15 pages, 9 illustrations

The demand for water in the Old West was so great that by the time Colorado became a state, most of the waters had already been claimed by some farmer or another. Before then, territorial courts had their hands full trying to straighten out disputes over ditches. Most of the chapter focuses on the lively case of Coffin versus the Left Hand Ditch Company, which ended up setting a precedent for nearly all Western water law. Far from being a dry court case, the Coffin scandal began during a long drought, when Rueben Coffin and his neighbors took up shovels and other implements of destruction and destroyed a small diversion deep in the Rockies. This section (parts of which can be previewed in the

"Sample Selections" section following this outline) includes charts and maps explaining the incident, biographies of the parties involved, and the final verdict.

The closing section of the chapter looks at Colorado's landscape as it was at the time of statehood. Maps (Plats) of water districts 5, 6 and 7 show the network of ditches that covered the Front Range at the time. The chapter will end leaving the reader to ponder what might be missing on these turn-of-the-20th-century maps: the lakes. As a final bonus for this chapter, Mary Hey's painting, *Heart of the City*, shows a Colorado ditch as a peaceful and nearly timeless scene.

PART III: Digging Dams

The opening timeline for this section starts in the year 1900 and ends in the year 2000.

Chapter 9: How to Build a Dam

12 pages, 10 illustrations

The first chapter in this part discusses the impacts of electricity on an already changing landscape. With new improvements in technology, ditch owners could measure the amount of water passing through their ditches, and even better, store it for when it might be needed most. The initial section of the chapter will focus on the need for measurement and storage. A 1907 map by the Eastern Colorado Power Company shows the newly constructed reservoirs of Boulder County, as well as proposed developments—many of which were eventually built. Next, a series of diagrams show how measurement devices work, as well as the basic construction of a reservoir. Artistic photographs of gage houses by Bob Crifasi accompany another painting by Teri Gortmaker show that these devices can be as aesthetic as well as functional.

The next section will focus on the construction of a particular reservoir, Standley Lake. Standley Lake provides an interesting example, having been two smaller lakes to begin with, one natural and the other constructed by an early settler. Big dreams led to big plans for the reservoir and its key dam, and as it turns out, big disasters. The earthen dam collapsed shortly after it was finished. This section documents the dam from planning stages to the repairs of the damage with then and now pictures, and a look at the Farmers Highline Canal which fills the lake, even today.

Chapter 10: Water is Big Business

16 pages, 13 illustrations

The chapter continues the story of the Farmer's Highline Canal by focusing on the company which created it. In the early 20th century, groups of farmers began to realize it was more effective to pool their resources and build large canals and ditches to provide water for large projects. The sections in this chapter introduce the two largest of these corporations, the Farmer's Reservoir and Irrigation Compnay (FRICO) and the Colorado-Big Thompson Project. Maps and photographs show the lakes and ditches that compromise these systems. Locations include the Community Ditch and the Croke Canal. The section

includes Michael McCrea's artistic photo, *Community Ditch from Marshall Reservoir* and James Pedersen's series of paintings on the Community Ditch.

Next, the chapter introduces the Silver Lake Ditch. The builders of the ditch arrived too late in the game to get water rights down on the plains, and so constructed an elaborate system of aqueducts to bring water down from a lake near the Arapaho Glacier. The next owners of the ditch tried to use the water to design a subdivision called Wellington Gardens. A large ad for the development shows the high hopes and aspirations of the planners. Unfortunately, there was not enough water to deliver, so the plan was a bust.

The chapter concludes showing the increased capacity for water storage, and the need for new sources of water to fill the reservoirs. A sidebar in this section describes the creation of the US Bureau of Reclamation, hinting at larger scale projects to come.

Chapter 11: Crossing the Divide

16 pages, 14 illustrations

As the demand for water continued to increased, engineers began looking at one of the richest sources of water in the west: the Colorado River Basin. The chapter begins with a look at the Grand Canal, the first project to move water from the western to the eastern slope of the Rockies. Next, the chapter turns to the story of George H. Church and his son John Frank Church, who constructed one of the largest ditches in between Boulder and Denver, multiple reservoirs, and finally a small tunnel across Berthoud Pass. This diversion brought water from the Fraser River (a tributary of the Colorado), into Clear Creek, and finally delivered to the Church Ditch.

The following section discusses the growing demand for municipal water. This includes a look at Denver Water, focusing on the construction of the Moffat Tunnel and Gross Reservoir. A sidebar shows the history of Denver Water, from private business to municipal utility. Next, the Colorado-Big Thompson Project returns, which introduces the largest of transcontinental diversions. Diagrams and photos show the construction of the Alva B. Adams tunnel, which delivers water into the Big Thompson River.

Coloradans weren't the only parties interested in the Colorado River water. The closing section of the chapter discusses the 1922 Colorado River Compact, and the agreements between seven states to divide up the river's supply. Original documents used during the agreements feature prominently in this section, including charts showing the amounts of water discussed and a map showing Colorado as the headwaters state. Blown-up of sections of the map show several planned reservoirs along the Colorado River, including the Glen Canyon and Hoover Dams.

Chapter 12: The Dust Bowl

15 pages, 12 illustrations

With all of the reservoirs, canals, and transcontinental water diversions, the drought of the 1930's still hit the Front Range hard. The boost in supply was virtually useless without effective farming methods. The first section of the chapter describes the state of the landscape at the onset of the dust bowl. The overuse of wells and water storage left many farmers high and dry. A sidebar focuses on the ecological impacts of lakes, while anecdotes from farmers and families shows the impact of the drought on humanity.

In the next section, the Silver Lake Ditch comes back into focus, with a special feature on Ev Long, who bought the ditch in the early 1940's. This includes his biography and portrait, the methods used for repairing and lining the ditch with steel pipes, and a look at Ev's daughter who keeps his gardens and legacy alive today. Paintings by Anne Luce, one of which is featured on the cover of the book, show workers maintaining the Silver Lake Ditch.

Finally, the chapter looks at the technological solutions that helped farmers overcome the dust bowl, focusing on the use of central pivot irrigation. Satellite photos show the widespread use of the method as green circles dot the landscape, while then and now photos show the transformation of the agricultural landscape.

PART IV: The New West

The opening timeline for this section starts in the year 2000 and continues for several decades with planned events and predictions, mostly related to climate.

Chapter 13: How to Build a Metropolis

14 pages, 12 illustrations

As the 20th century progressed, a network of suburbs, highways, and freeways began to develop along the constructed backbone of ditches and lakes. Diagrams show the complicated ways water is managed in the Denver/Boulder region. A visit to a waste water treatment plant gives readers a chance to see what happens after they flush, without having to plug their noses. Actual copies of straight line diagrams used by Boulder and Denver show the way water commissioners look at a city's water supply.

The following section of the chapter looks at the development of cities like Denver and Boulder and the suburbs which surround them. The increase of pressure on municipal water supplies causes cities to buy up old water rights and convert irrigation systems into residential systems. Standley Lake features once again, as cities began to bicker over its vast supply. As residential communities like Westminster collide with industries like Rocky Flats, water quality issues come into play. Anecdotes and photos of a protest over poor water quality in the Kershaw Ditch highlight the struggles between suburban residents and city planners. Here, a sidebar shows the progression of the Clean Water Act and the cleanup of the South Platte River Basin.

Chapter 14: A Constructed Ecosystem

13 pages, 14 illustrations

The chapter, as suggested by the title, looks at human interactions with the ecosystem in suburban settings. The opening section looks at the role of city Open Space programs, including the benefits and challenges of maintaining a so-called "natural" environment. Wetlands, once thought of as swamps, become treasured spots for nature lovers. A network of bike trails graces the once utilitarian ditches. At the South Boulder Canyon Ditch, planners install a fish ladder to mimic a natural creek. Unfortunately, not everything is native in this restored landscape. The next section features the unstoppable growth of invasive species along on Open Space lands. A sidebar shows the conflicts between a community and open space managers, as homeowners, who claim to enjoy the "native" spaces, complain about dust from prairie dog colonies.

Preble's Meadow Jumping mouse offers an example of a species endangered by suburban developments, while a study of the Ute Ladies' Tresses shows how some species, like the delicate orchid, now thrive in irrigated fields. Throughout the chapter, photographs of wildlife and artwork show the beauty of Colorado's open spaces. These include Ann-Marie Kuczun's *East Boulder Ditch* series, landscapes by Elizabeth Black, and Wendy Rochman's graceful painting of cottonwoods, titled *Winter Ditch Matriarchs*.

Chapter 15: Water in the 21st Century

14 pages, 13 illustrations

The detailed look at ditches in cities today continues with a look at agriculture and industry today. The chapter begins with a look at Xcel Energy, focusing on the Cherokee Power Plant (the largest in the area) and the Valmont Power Plant in Boulder. This includes a detailed photo diagram showing the way the Valmont plant uses ditch water. Maps and photographs show the system of ditches and canyons used to bring water to the plants, including profiles of the Dry Creek #2 Canal and the Legget Inlet in Boulder, and the Fisher Ditch in Denver. Artistic photographs by John Matlack show the Valmont plant in a new light.

Next, a section looks at 21st century agriculture, big and small, and the continued dependence on ditches. A recent ad shows the cost of obtaining water rights to water a private farm. In hopes of bypassing old water rights, consumers petition the government to allow rain barrels to collect water for maintaining lawns and suburban landscapes. The law passes, but with a caveat that the rain barrel owner must have rights to the ground water, so only well users can benefit. Then and now pictures accompany the section, showing the changing uses of water at home and on the farm, while a sidebar highlights a 21st century water fight between the cities of Lafayette and Boulder over the Anderson ditch.

The chapter closes with a look at the recreational uses of water today, including a special look at in-stream flows. Here, cities buy water rights in order to keep the water in the creeks and rivers for kayak

courses—overturning century old law which called for the water to be diverted away. Finally, a map-like diagram shows the amounts of water flowing through and out of Colorado in multiple river basins.

Chapter 16: The Future of Western Water

10 pages, 3 illustrations

This brief and final chapter looks at the future of Colorado's lakes and ditches. The first section looks at the potential impacts of climate change on the state's water supply. Gross Reservoir comes back into focus, as Denver proposes to raise the dam in coming years, greatly increasing the reservoir's capacity.

The following section looks at the disappearance of ditches across the landscape. While a few of these disappearing ditches were simply abandoned due to engineering failures or inadequate water rights, many other ditches are going underground, both for efficiency and safety. A sidebar looks at the danger of ditches with an anecdote from a family that nearly lost their child to the raging flow.

Finally, the chapter returns to the point at which the book began, with humanity's reaction to an ever-changing landscape. The book closes with a visual twist: A painting by Chuck Foresman, titled *Aaryn's Fort*, shows an alternative use for a winterized ditch, as homeless persons take shelter in a Silver Lake Ditch pipe. The readers are left to decide for themselves if this is an appropriate use of a ditch, just as they must decide how to feel about changes their own backyard.

Sample Selections

The following selections reflect the style and tone that will be used in *Digging the Old West*. As soon as the production of the book is underway, this section will be replaced with a sample chapter and page layouts to present to potential publishers. For now, two environmental history essays by the author are included: *Where the Bison Roamed* and *Coffin v. The Left Hand Ditch Company*. The contents the latter essay will be incorporated into the book in chapter 8. For additional examples of the author's style, please visit the following links, which lead to environmental history articles from Chaotic Utopia:

- **Taming the Great American Desert** (a 3-part series on the history of Church Ranch)
  - *Part One: Wedding Bells and Wagon Wheels*: http://scienceblogs.com/chaoticutopia/2006/09/wedding_bells_and_wagon_wheels.php
  - *Part Two: Taming the Great American Desert*: http://scienceblogs.com/chaoticutopia/2006/09/taming_the_great_american_dese.php
  - *Part Three: Seasons Change*: http://scienceblogs.com/chaoticutopia/2006/10/seasons_change_development_on.php

- **Climate Change: Predicting Colorado's Future**: http://scienceblogs.com/chaoticutopia/2008/01/climate_change_predicting_colo.php

- **Stone, Steam, and Sand: A Geologic Photo Tour of the Southwest**
  - *Part One*: http://scienceblogs.com/chaoticutopia/2006/09/stone_steam_and_sand_a_geologi.php
  - *Part Two*: http://scienceblogs.com/chaoticutopia/2006/09/stone_steam_and_sand_a_geologi.php

- **West from Westminster Hill, Then and Now**: http://scienceblogs.com/chaoticutopia/2006/10/west_from_westminster_hill_the.php

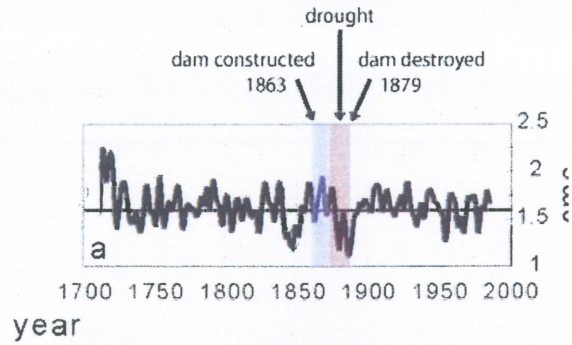
- **Wandering West, Then and Now**: http://scienceblogs.com/chaoticutopia/2006/07/wandering_west.php

Coffin v. the Left Hand Ditch Company

By Karmen Lee Franklin
2009

As suggested by the old western farmer's warning, "You can fool around with my wife, but not my water rights," (Dyni 2005) Coloradans often placed more value on water than marriage or gold. Shortly after Colorado reached statehood in 1876, droughts began to spark violent disputes. One such case, involving both civilian violence and the Colorado Supreme Court, set a precedent for water law which forever set the American West apart from the rest of the nation. Even today, western courts turn to the 130-year-old case, Coffin versus the Left Hand Ditch Company, when settling disputes over water.

The settlers who arrived in Boulder, Colorado from 1858 into the early 1870s established farms and ranches during a relatively wet decade, as the state recovered from one of the worst regional droughts in a century. (Woodhouse, et al, 2002, 1491) By 1879, however, that good fortune had dried up; Boulder's growing agricultural communities faced their first water shortage. By the time summer officially began, many creeks and streambeds in the infant state began to run dry, leaving too little water to go around. All around the state, newspaper editors cried out for water law reform, or clarification of the freshly written Constitution.



Mean flow of Middle Boulder Creek
(reconstructed, measured in cubic feet per second)

This chart shows the relatively wet years (blue) in Boulder following the construction of the dam which diverted water into Left Hand Creek, and the drought (red) which led to the destruction of the dam. Source: Woodhouse, et al., 2002, p. 1486

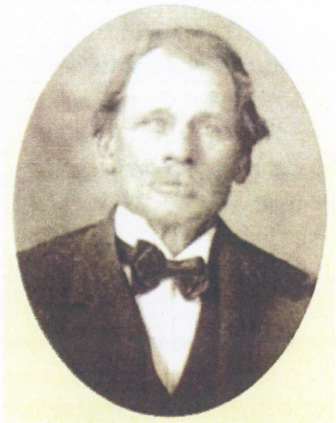
This map, based on an 1884 plat of Boulder County's watershed, shows the plots of land owned by Coffin and Arbuthnot, the St. Vrain and Left Hand Creeks, and the location of Arbuthnot's dam. Source: Justice Gregory J. Hobbs Jr.

"As our country settles up, the water question becomes of more and more interest to the people. [...] What is to be done?" asked a letter to the editors of the Boulder County News in 1878. The message was urgent: "No farmer can live in Colorado without water." (Matthews, 1878, 1) A section of the state's constitution outlined a set of rules for irrigators, but to the average citizen, the law was contradictory and difficult to understand. As the drought of 1879 worsened, the question remained: how should water be distributed if there was not enough to go around? When the courts didn't intervene, some embittered farmers left the state. Others tried to take the law into their own hands.

One sunny June morning in 1879, Reuben Coffin awoke to discover a field of wilting corn. His farm sat near the confluence of Boulder Creek and the St. Vrain Creek, a prime location for riparian

(creek-fed) irrigation. That morning, however, the St. Vrain Creek was as dry as a bone. Angered, Coffin didn't blame Heaven or Nature. Instead, he gathered a few of his neighbors and followed the dry bed some 30 miles upstream to the source of the problem: a dam on the creek.

Originally, Boulder farmers designed the structure to divert part of the St. Vrain Creek into the Left Hand Creek watershed. The earthen dam, built just beneath the Continental Divide, redirected the flow of the St. Vrain into a short ditch leading to nearby James Creek. Winding through a series of canyons, James Creek fed the diverted water into Left Hand Creek. Left Hand Creek meandered around Table Mountain, delivering the water to farms in the Boulder valley. The dam had been built by the Left Hand Ditch Company, a group of farmers living beneath Table Mountain. The company, consisting of Samuel Arbuthnot, Joe Jamison, the Hinman brothers, and founder Lorenzo Dwight, constructed the dam 16 years before the 1879 drought, when the St. Vrain Creek still ran strong.



Samuel Arbuthnot

Reuben Coffin
Source: Elizabeth Black

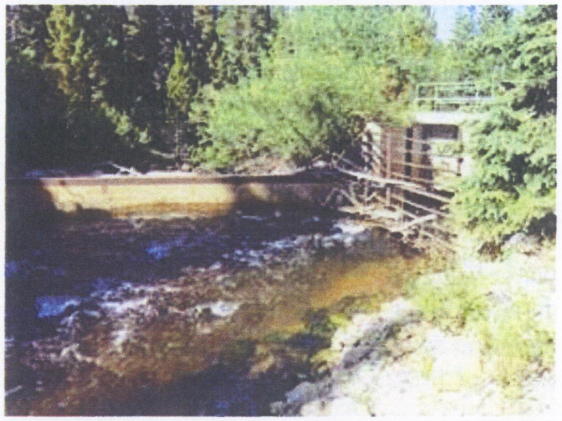
Coffin and his neighbors decided water belonged in what they considered the "natural" course of the creek, or, more importantly, watering their fields. They destroyed the dam by digging out the middle section, allowing water to return to the St. Vrain. (Abstracts, Coffin et al 1882, 18-19) Satisfied, the men returned to their farms to await the return of their water. Later that day, down on the Left Hand Creek, Samuel Arbuthnot and his neighbors noticed a greatly reduced flow of water dribbling onto their lands. Upon investigation, they discovered the damaged dam on the St. Vrain Creek, high in the mountains above. They promptly repaired the dam. Coffin, undeterred, dug it back out. After a few rounds of cat-and-mouse, dam-and-destroy, Arbuthnot and his friends decided to guard the diversionary dam with a gun. Coffin retaliated by taking the Left Hand Ditch Company to court.

Reuben Coffin grew up in Roxbury, New York (Roots Web 2008, 288) where water appropriation was based on riparian rights, a set of principles imported from Europe. According to the riparian code, the people living along the shores of a waterway had a right to use the water as needed, as long as they returned enough flow through groundwater discharge and surface drainage to sustain their neighbors downstream. Farmers from England, old and New, with naturally moist lands, gave little thought to water rights. (Schorr 2006, 319) Since most of the arable land in Colorado was nowhere near a creek, the majority of farmers demanded a more equitable solution. The state's constitution provided such a solution by replacing riparian law with public ownership.

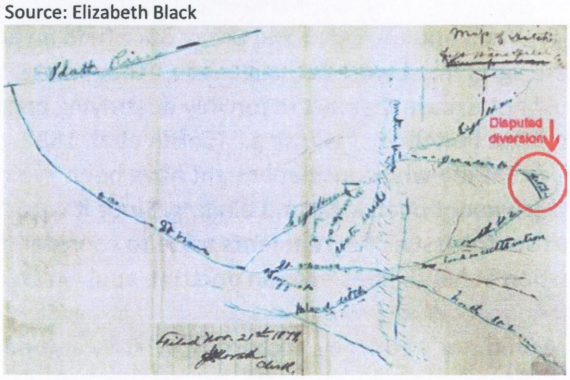
The constitution, drafted in 1876, stated that "the water of every natural stream, not heretofore appropriated, within the State of Colorado, is hereby declared to be the property of the public [...] subject to appropriation." (Constitution of the State of Colorado 1876, sec 5) With this law in place, farmers need not own land adjacent to a creek or river to use the water. Everyone had an equal chance to claim the unused resource, as long as they got to it first. The constitution allowed users the right to

remove the water from its source and transport it across "public, private, or corporate lands" in "ditches, canals and flumes." (Constitution of the State of Colorado 1876, sec 7) In these articles, the state of Colorado declared its public waters to be first come, first serve. Users would be allowed to put any bit of water to good use, as long as no one else claimed it. In the words of the constitution, "the right to *divert the unappropriated waters* of any natural stream to *beneficial uses* shall never be denied." (Constitution of the State of Colorado 1876, sec 6, emphasis added.)

Colorado's founders based these laws, not on arbitrary guesses or corporate bribes, but on territorial acts (laws passed before Colorado became a state) and dry practicality. One territorial act, created in 1861, declared that not only is a person "entitled to the use of the water" but is also "entitled to a right of way through the farms or tracts of land which lie between him and said stream." (An Act to Protect and Regulate the Irrigation of Lands, 1861, sec 2) Another act, passed by the territory's legislative assembly in February of 1864 (An Act to Enable Road, Ditch, Manufacturing and Other Companies to become Bodies Corporate 1864, sec 32) reinforced the concept of "first in time, first in right", a code used by the first gold miners in Colorado at Gregory Gulch in 1859. (Schorr 2005, 16-17) The miners were not the first users of water in Colorado to set a tradition for the state constitution. Even earlier, in the Arkansas Valley in southern Colorado, descendents of Spanish settlers followed an old *acequias* tradition, in which all water belonged to the community, (Hicks 2004, 15) reflected in the public ownership mentioned in the state constitution.



The headgate on the St. Vrain Creek, west of Ward, CO on the Peak to Peak highway.
Source: Elizabeth Black



A map used in the case, showing the diversion from St. Vrain Creek into James Creek.
Source: Flat Files. Coffin, et al.

The constitution covered irrigation law thoroughly, but the interpretation was less than clear. Coffin's case forced the courts to examine the law in detail, asking them to decide for the first time whether or not Colorado's water was first come, first serve. If Reuben Coffin studied history and law, he might have seen the troubles ahead. Arbuthnot and the Left Hand Ditch Company could claim prior appropriation right, since they filed their claim to the ditch in 1869. (Abstracts, Coffin et al 1882, 31) On the other hand, if water was a public resource, it should be freely available to whoever needs it, such as those living along the shores of a creek. In that case, surely Coffin, who held a junior water right on the St. Vrain creek, would be allowed some share of the water.

Once decided, the case would become history. Coffin and the courts headed into uncharted territory with a new, multifaceted water doctrine, rather unlike the riparian doctrine of old. Coffin's attorneys, emphasizing Coffin's "beneficial use", described the water of the St. Vrain Creek as natural and eternal source. They argued that the water "has flowed and when not diverted from its original

channel, still does flow (sic) into, through and upon and across [Coffin's] land." That water, as the attorneys pointed out, "moistens and benefits [...] the crops of grass, grain, and vegetables growing thereupon and supplies the said Coffin with water for his stock and for domestic purposes." (Abstracts, Coffin et al 1882, 19-20)

While Coffin's lawyer used eloquent descriptions of nature to defend riparian rights, the Left Hand Ditch Company relied on history. The plaintiff's side began by calling Porter M. Hinman to the stand. "I am one of the original constructors of the ditch," he claimed. "I think there were 14 original constructors. The ditch was constructed to irrigate a few small patches of ground on Left Hand. [...] We had about 60 or 100 acres in cultivation." (Abstracts, Coffin et al 1882, p 31)

After Hinman detailed the construction of the ditch and the incorporation of the Left Hand Ditch Company, Coffin's lawyer cross-examined him. In the process, he suggested that the Left Hand Ditch Company once had a friendly association with Reuben Coffin. Hinman admitted the identity of the other constructors, including Coffin's neighbor and fellow defendant on the case, John Andrews. According to Hinman, another man, Porter R. Penrock Reuben Coffin's brother-in-law, also helped to build the dam. (Abstracts, Coffin et al 1882, pp. 32-33; Roots Web 2008, 288) What a dilemma. Did Coffin and his neighbors have some sort of relation to the dam they destroyed? No, John Andrews admitted on the stand. "I had an interest on the ditch," he said, "but I never done anything to it since." Without putting any water from the Left Hand Ditch Company's diversion to beneficial use, Coffin's party could not claim a firm right. On the other hand, the ditch company was unable to show they protected public property. The local and appellate courts were baffled. Motions were argued, overruled, and appealed, until December of 1881, when the case went to the Colorado Supreme Court to be decided once and for all.

The Supreme Court reviewed the appellate cases carefully, considering the possibility that the settlers on both the St. Vrain and the Left Hand Creek once held an agreement. "If the agreement were actually made," they wrote, "that fact would not excuse their act in forcibly destroying appellee's dam without notice or warning." (Coffin et al. 1882, 445) They noted that the whole incident might have been avoided had the agreement been legal and binding. Since it wasn't, the court set the issue of agreements aside to consider the major question at hand: does riparian doctrine apply in Colorado?

Arbuthnot's attorney, Richard H. Whitely argued otherwise. "Riparian rights exist only where agriculture is the product of the soil watered by natural causes," he said. "Our water system, being a substitute for nature, must be constructed, so far as agriculture is concerned, as free for all, subject only to prior right." (Abstracts, Coffin et al 1882, 18) The towns and farms of Boulder County, like other developing parts of the American West, were constructed landscapes. The "natural causes" that Whitely referred to—limited rainfall and snowmelt—could never support large populations of farmers, let alone tax-paying citizens who hired lawyers. The Supreme Court agreed with Whitely. Riparian water rights were not suitable for Colorado. "The climate is dry," they

"Houses have been built..., the soil has been cultivated, and thousands of acres have been rendered immensely valuable, with the understanding that appropriations of water would be protected."

Chief Justice Samuel Elbert
Colorado, 1882
Source: Colorado Historical Society, #X-15033

declared, "and the soil, when moistened only by the usual rainfall, is arid and unproductive; except in a few favored sections, artificial irrigation for agriculture is an absolute necessity."(Coffin et al. 1882, 446)

Acknowledging the climactic conditions and the value of water in the west, the court praised and predicted the entrepreneurial and engineering spirit of the American West. According to the court, led by Justice Samuel Elbert, the success and future of a civilized land depended on the protection of prior appropriation doctrine. They decided, "Vast expenditures of time and money have been made in reclaiming and fertilizing by irrigation portions of our unproductive territory." This effort made cultivation and development possible, but only "with the understanding that appropriations of water would be protected." (Coffin et al. 1882, 446)

The justices saw the amount of progress that had occurred in prior decades, and acknowledged the necessity of ditches and dams. Without some diversions of the water, the farms of the Front Range would have since blown into the dust. Furthermore, lacking agricultural support, the cities of Boulder, Denver, and Golden could not exist. A ditch, carrying water to where it was needed most, brought immeasurable value to the entire area. The riparian law, according to the court, was "inapplicable to Colorado." They concluded, "Imperative necessity [...] compels the recognition of another doctrine"—the Colorado doctrine, incorporating public ownership, prior appropriation, beneficial uses, and the right to divert waters. Furthermore, these aspects supported one another, according to the court. The first person to put the public supply of water to beneficial use had rights to that water. (Coffin et al. 1882, 447)

After examining the language in the 1861 and 1864 acts and the pertinent articles in the constitution, the Colorado Supreme Court formed a working model of the state's unique water doctrine. Citizens are entitled to use the water in their neighborhood, even to great distance, as long as they do not harm any previously existing beneficial use. The court found that the territorial act of 1864 which referred to users "who have a priority of right", neatly supported this. (Coffin et al. 1882, 451) Thus, the Supreme Court upheld Colorado's unique, multifaceted water doctrine. In the end, they declared the destruction of the dam was an "action of trespass" and found Coffin's claim to the water to be "insufficient." (Coffin et al. 1882, 451)

Over time, the Coffin vs. Left Hand case became known as the precedent for prior appropriation, even though the verdict was based on older decisions. The multifaceted doctrine determined by the Supreme Court, combining prior appropriation with public ownership, beneficial use, and right-of-way, spread to other parts of the West. Law expert Dale Gobel found echoes of the so-called Colorado Water Doctrine in Arizona, Idaho, Utah, and Wyoming. "Eventually," Gobel wrote, "all of the interior western states adopted the 'pure appropriation' or 'Colorado' doctrine." (Goble 2000, 157)

Over the years, many court cases and history books referred back to Coffin vs. Left Hand as the seminal case in prior appropriation. The verdict, confirming Colorado's multifaceted water doctrine, set the tone for nearly all water rights in the American West. As a result, the citizens of Colorado and other semi-arid lands could spread beyond the moist (and flood-prone) shores of temperamental creeks and rivers.

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Where the Bison Roamed

By Karmen Lee Franklin
2008

Oh give me a home, where the buffalo roam.
"The Western Home" by Brewster Higley

Wild bison, wandering across open space, are an icon of the American West. Yet, after centuries of ecological change and human involvement, the bison, both as a population and a species, have suffered distinctive setbacks. http://scienceblogs.com/chaoticutopia/2008/10/buffalo_bills_defunct.phpThe great herds once covered the plains, shaping the prairie in their nomadic graze. Between 1820 and 1890, however, the bison were hunted to the point of near extinction. This happened for many reasons, yet it is only a footnote in historical texts. Looking closely at these texts, both fiction and non-fiction, presents a striking, dark history of the mass death of bison. The loss of the bison was both vicarious and mysterious, as is shown in historical literature, both in the fictional western novel *Blood Meridian: Or, The Evening Redness in the West* by Cormac McCarthy and actual pioneer memoirs. These accounts suggest the majority of bison were slaughtered in a nonchalant, yet rapid manner. In the end, few herds escaped. In Yellowstone, a small herd roamed unnoticed, while a few other herds were taken up by cattle ranchers. The bison adopted by ranchers were bred with cattle in hopes of making cattle stronger, smarter, and more disease resistant. Instead of improving the cattle, the experiments compromised the genetic integrity of the bison. Eventually, efforts to restore bison populations were successful—to a degree.

The bison were a keystone species, holding the ecology of the plains in a state of equilibrium. They roamed the plains for some 200,000 years before the first European explorers arrived. Before the *Bison bison* (the ones affectionately called the American Buffalo,) there were bigger bison (*Bison antiquus*) and before them, there were wooly mammoths (*Mammuthus primigenius*). With each succession of big game, humans, who used fire and built tools, arrived to kill them. Eventually, the larger mammals *Mammuthus primigenius* and *Bison antiquus* went extinct. The smaller *Bison bison* evolved to take their place. The Native Americans who lived on the plains for the majority of the past 12,000 years depended on the large mammals for survival, using them as a primary source of materials and food. By 4000 B.C., most cultures living on the Great Plains centered around the bison. Hides were used as clothing and shelter; bones were used as weapons, tools, and farming implements. It may have been the healthiest lifestyle on earth at the time, at least nutritionally, if height is a judge of health-- Plains Indians stood several centimeters taller than European settlers (Steckel, 554.)

Bison provided food and supplies for nomadic tribes and agricultural settlements, alike. (For instance, a bison scapula, attached to a long stick, made a handy hoe for tilling tough, clay-thick prairie soils.) Interestingly, the vast open prairie of the Great Plains may not have actually existed when the first humans began arriving in North America. During the Pleistocene, woodlands were common along the Great Plains, with hardwoods like oak and poplars to east, and pine forests to the west (Wishart, 635.) No one is certain what caused the trees to be replaced by grasslands, although climate change, human interactions through the use of fire, and changing distributions of bison migration patterns have all been implicated. It is rather doubtful that the humans alive at the time knew any better. Why waste time wondering about the role of fire in the dynamic equilibriums of an ecosystem, when you're using all your energy just trying to stay warm and fed? Regardless of motivation, if humans were involved in the

development of the prehistoric Great Plains, then the landscape encountered by European explorers in the 18th and 19th century should not have been considered natural. Landscape painter and architect Philip Juras wrote about this complex interplay between human and landscape in his master's thesis on pre-settlement North American savannas:

> "It is recognized that Indians may have been the major cause of fire, though in some cases fire from lightning may have been responsible for maintaining an open landscape. If one considers that by burning, humans were probably the most important agent in shaping the structure and composition of the presettlement landscape, then it might be appropriate to argue that any restoration of such a landscape would, in fact, be a demonstration of a cultural landscape, more so than of a "natural" one. In a way, this aspect of the presettlement condition brings the often diametrically opposed views of culture and nature closer together." (Juras, ch. VIII.)

Change happened--this much we know--but what caused these changes remains an enigma. The bison themselves may be the ones to tell the true story. Their teeth recorded millennia of changes in climate, through the different grasses they chewed (Stricherz). Different types of plants leave different ratios of carbon in tooth enamel. So, by carbon-dating the enamel on bison teeth, paleontologists can determine what herbivore diets and habitats were like thousands of years ago. In any case, with the end of the Pleistocene, the climate of the Great Plains warmed and trees disappeared from the prairie landscape, except along the shores of creeks and rivers, also known as riparian corridors.

When explorers and pioneers of European descent arrived on the plains, some 12,000 years after those early hunters, survival still took priority over ecology. This was a dark period in time, as is illustrated in the violent, yet widely acclaimed novel, *Blood Meridian*. The story took place as the frontier along the Great Plains came to a close in the mid 19th century. Near the end of the novel, there is a gap in time in the narrative, between the 1850s, when the kid rode with the infamous scalp-hunting Glanton gang, and the 1870s, when he, traveling alone, met a bison hunter. Throughout the course of the novel, the gang wrecked havoc across a lawless and unfenced landscape. By the time the kid encountered the hunter, however, the landscape had already changed; the bison were gone. This gap represents a historical discontinuity, echoing the dark disappearance of the bison herds. While the bison are never seen in the novel, McCarthy's description of their mass slaughter, told in a single, long sentence, suggests that it happened quite rapidly:

> "It was an old hunter in camp and the hunter shared tobacco with him and told him of the buffalo and the stands he'd made against them, laid up in a sag on some rise with the dead animals scattered over the grounds and the heard beginning to mill and the riflebarrel so hot the wiping patches sizzled in the bore and the animals by the thousands and tens of thousands and the hides pegged out over actual square miles of ground and the teams of skinners spelling one another around the clock and the shooting and shooting weeks and months till the bore shot slick and stock shot lose at the tang and hundred ton and the meat rotting on the ground and the air whirling with

flies and the buzzards and ravens and the night of a horror of snarling and feeding with the wolves half crazed and wallowing in the carrion" (316-7.)

Without a pause, this lengthy, yet vivid description suggests the drive to kill the bison was an unstoppable force, where the hunters had no time to consider the impacts of their deeds in between shots. The results, on the other hand, are given described in a concise and simple manner. "They're gone," the buffalo hunter tells the kid. "Ever one of them that God ever made is gone as if they'd never been at all." In the following scene, the kid witnessed the aftermath of the destruction with his own eyes, as he encountered fields of bones, stalked by packs of wolves and "bonepickers," groups of men and even families who were collecting the bones in overflowing carts.

One does not need to turn solely to fiction to find the loss of the bison. When pioneer Sarah Church and her husband were driving their first load of cattle to their settlement on the plains of Colorado in 1862, she expected to see herds of bison along the way. But she didn't. "We wished so much to see the great herds of Buffalo we had read of, but only saw one half grown and partly domesticated," she wrote. (Church, 13) It wasn't as if they were traveling through an area unsuitable for bison. Sarah recalled that as they set out on their first trip west, some traveler had suggested they use dried bison chips to fuel their campfires. The dung was common... but what happened to the herds?

Sarah Church would have realized what happened to the bison, eventually. Her husband was friends with one of the most famous of the bison killers of all time, "Buffalo Bill" Cody (shown, right.) According to the foreword of his autobiography, Cody killed 4,280 bison in a period of only 18 months. (*The Adventures of Buffalo Bill Cody,* pg ix.) Despite his namesake, Cody was among those who first realized the bison, as a species, were in danger. By that time, he was more of a showman than a bison killer. Unfortunately, the American government decided it would be in its best interests to let the bison go extinct.

The railroad companies, expanding west, encouraged the mass slaughter of bison. Herds of bison wouldn't move out of the path of an oncoming locomotive, which would be unable to stop in time. So, to clear the railways, men would shoot at the bison from the train as it flew past. The railroads hired sharpshooters to seek out the herds as well. These practiced gunmen knew how to sneak up on a herd and start shooting rapidly, so hundreds of animals would die before the rest realized what was happening and began to stampede.

Not only did the bison herds threaten to harm railroads and compete with cattle ranchers, but they were the pride of the government's perceived enemy: the "dangerous native savages". So, in hopes of forcing the native populations into European lifestyles, conservation efforts were intentionally suppressed:

> "The civilization of the Indian is impossible while the buffalo remains upon the plains," declared secretary of the interior Columbus Delano in 1873. Two years later, Gen. Philip Sheridan told a joint session of Congress that buffalo hunters had done more to settle what he called "the vexed Indian question" than the entire U.S. army. Sheridan urged the politicians to continue to support the hunters. "For the sake of lasting peace," he said, "let them kill, skin and sell until the buffaloes are exterminated." (Geist, 69.)

The results were successful, or tragic, depending on your point of view. By the 1880's, the bison were nearly extinct, with only a few individual herds surviving, Native Americans on plains reservations were forced to use cattle in mock bison hunts. The few remaining herds were fenced in, along with the rest of the plains.

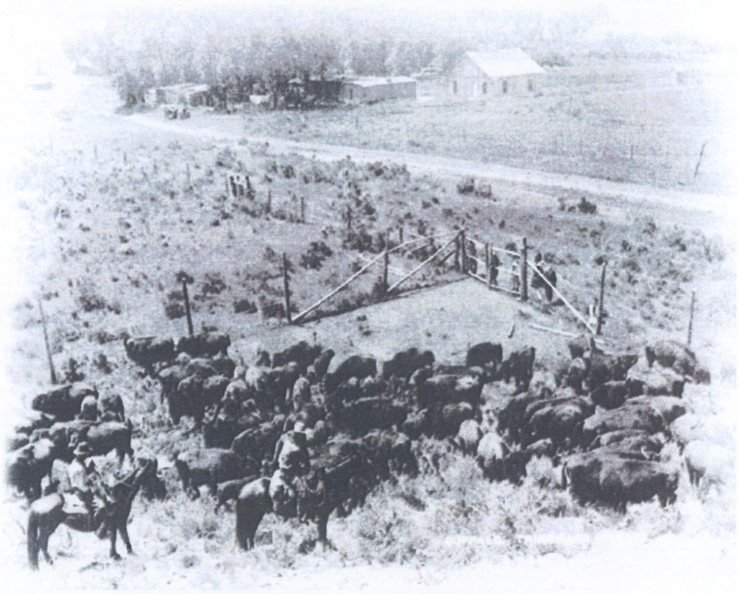
The fencing of the American West and the slaughter of the bison, both of which allowed for the agricultural development of the plains, seem to be inextricably linked. The epilogue of *Blood Meridian*, which closely follows the kid's encounters with the buffalo hunter and bonepickers, may not only encompass the ending of the novel, but the end of open space in the American West. It describes a man "progressing over the plain" using a two-handled "implement" to create a series of holes, as well as other figures that follow him, including "the wanderers in search of bones" and "those who do not search" (McCarthy, 319.) Professor Jay Ellis suggested the epilogue was referring both to the loss of bison and the fencing of the land. He argued that the first figure represented a man digging holes for fence posts, while the second figures were the bison bonepickers, and the final group represented surveyors. "As for fencing, the meridian of the American West—in the sense of its division by fencing—occurred too chronologically close to the killing off of most of the American bison not to associate the two actions" (Ellis, 92.)

By the turn of the 20th century, the free-roaming herds of bison were a thing of the past. However, they continued to symbolize the west, appearing as mascots or patriotic song. A photograph (shown, right) of "Charlford", a fancy manor house south of Denver, shows the importance of bison as a symbol of pride to the residents, even though the animals had long since been removed from the landscape. The photograph was taken sometime after the mansion was built in 1926. The artist wanted to depict the plains surrounding the house as they once were, and so glued a few bison right into the photograph.

This story isn't altogether tragic. The bison did eventually make something of a comeback. There were approximately 500,000 bison alive during the last extensive survey in 2006 (Sanderson, et al. 246.) Most are raised in private herds for consumption, although about 10,000 roam wild in national parks, like Yellowstone. Yet, without their original range, the bison have been unable to regain their role as a keystone species in the plains ecosystem. Cattle, or even fenced bison, make a poor replacement. They tend to overgraze, which leads to erosion, causing excess amounts of sediment to flow into the rivers. Other species which once followed herds of bison have now settled permanently in the suburbs, often with a negative impact. For instance, the cowbird, an obligate brood parasite (it lays its eggs in the nests

of other songbirds, who unwittingly raise the baby cowbird as their own while neglecting their own young) no longer migrates, so the effects of its parasitism are not spread out, but localized.

Perhaps most bizarre is not the loss of the bison to their individual ecosystems, but the loss of identity of the bison themselves. Recent studies have shown that most bison living today carry a small number of cattle genes in their DNA (Halbert and Derr, 8.) In the 18th century, ranchers hybridized cattle and bison, creating beefalo and cattalo. They hoped to take the disease resistance, intelligence, and hardiness of the bison and spread it to the population of cattle. Instead, they ended up spreading cattle genes into the bison population.



Dr. James Derr of the Texas A&M College of Veterinary Medicine has discovered cattle genes in all but a few herds of bison. Particularly, the herds in Yellowstone and Wind Cave National Parks, along with a herd owned by the state of Utah, and a herd owned by Ted Turner, have so far shown no genetic evidence of hybridization. In these cases, fences may actually save the uniqueness of the bison. Dr. Derr emphasized this in his closing remarks at the talk on "the Ecological Future of North American Bison" in Denver, Colorado, in 2006:

> "Given all of this, for bison or any other species, for long-term conservation, one major consideration must be the preservation of their germplasm. If this germplasm is lost through extinction, genetic drift or diluted and contaminated through extensive hybridization it can never be fully recovered." (Derr, slide 38.)

In other words, conservation of a species is meaningless if we are unable to preserve its unique, organic character, which Derr calls the germplasm.

Regardless of our choice to maintain the bison genome, we should accept that changes are inevitable in all aspects of our ecosystems, from individual genomes to entire species and habitats. The changes to the bison genome occurred beyond our notice, just as Sarah Church missed the mass extinction that allowed her to settle on the prairie. The changes were wrought by our own hands, in such a rapid fashion that we were unable to see the impacts until it had already passed, just like the story of the buffalo hunter in *Blood Meridian*. Regardless of the way it happened, the introgression of cattle DNA into the genes of the North American Bison must be considered, if we hope to restore the bison to their previous range. Will it bison roaming the range, or beefalo? In a way, we can't allow the few "purebred" bison to take up their previous range, without threatening their distinctiveness as bison. To maintain that uniqueness, we must keep them divided from the majority of other bison.

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APPENDIX F

BIOLOGICAL OPINION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Colorado Field Office
P.O. Box 25486, DFC (MS 65412)
Denver, Colorado 80225-0486

IN REPLY REFER TO:
ES/CO: ES/LK-6-CO-10-F-003
TAILS: 65412-2010-F-0019

December 9, 2009

Karla S. Petty, Division Administrator
Colorado Federal Aid Division
U.S. Department of Transportation, Federal Highway Administration
12300 West Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Dear Ms. Petty:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological and conference opinions on multi-modal transportation improvements along U.S. Highway 36 (US36) between Interstate 25 (I-25) in Denver and the Table Mesa Drive/Foothills Parkway exit in Boulder, Colorado, and its effects on the federally-threatened Preble's meadow jumping mouse (*Zapus hudsonius preblei*) (Preble's) and it proposed critical habitat, the Ute ladies'-tresses orchid (*Spiranthes diluvialis*) (orchid), and the Colorado butterfly plant (*Gaura neomexicana* ssp. *coloradensis*) (butterfly plant). The proposed project encompasses a number of communities in the northwest Denver metropolitan area including the City and County of Denver, the City of Westminster, the City and County of Broomfield, the City of Louisville, the Town of Superior, the City of Boulder, Boulder County, and portions of unincorporated Adams, Jefferson, and Boulder Counties. These biological and conference opinions are provided in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). They are based on the document "US 36 Corridor, Final Environmental Impact Statement/Final Section 4(f) Evaluation, Programmatic Biological Assessment," (biological assessment) and on subsequent emails and conversations. Your request for formal consultation was received by the Service on October 20, 2009. The proposed project will be constructed by the Colorado Department of Transportation (CDOT) with the participation and funding of the Federal Highway Administration (FHWA). We concur with your conclusion that the proposed work is likely to adversely affect Preble's and the orchid.

Further, the Service finds that the proposed action is not likely to adversely affect the Colorado butterfly plant because although potential habitat occurs within the project area, the butterfly plant is not known to occur there. Because project implementation will not occur for several years, CDOT will conduct surveys for the plant in appropriate habitat prior to construction and formal consultation will occur if necessary. The species will not be considered further in these biological and conference opinions.

CONSULTATION HISTORY

On May 13, 1998, Preble's was listed as threatened under the Endangered Species Act. Full protection for Preble's became effective on June 12, 1998. On June 23, 2003, critical habitat for Preble's was designated, and on October 8, 2009, it was re-proposed and includes South Boulder Creek and its floodplain. On July 10, 2008, Preble's was delisted in the Wyoming portion of its range, but retains its threatened status in Colorado. Trapping surveys have documented Preble's along drainages in the South Boulder Creek floodplain including South Boulder Creek, Goodhue Ditch, and Davidson Ditch.

The Ute ladies'-tresses orchid was listed as threatened in 1992. No critical habitat was designated for the species at the time of listing. In 1995, the Service implemented a recovery plan for delisting the species, and in 2004, we initiated a status review to determine if delisting the Ute ladies'-tresses orchid was warranted based on new information on population sizes, distribution, and increased knowledge of its life history and habitat requirements

On June 17, 2004, CDOT and URS met with the Service to review threatened and endangered species, survey requirements, and mitigation. The group reviewed each riparian crossing within the project area and made conclusions on the need for Preble's meadow jumping mouse trapping surveys at some locations where presence of the species is unknown. None of the riparian crossings along US36 were recommended for trapping.

In July 2006, CDOT, the Service, and URS conducted a field review of habitat conditions at several locations in the vicinity of South Boulder Creek on US36 that are classified as occupied habitat by the Colorado Division of Wildlife's Natural Diversity Information Source (NDIS). Based on the field review, areas between riparian corridors that NDIS classified as unoccupied habitat were determined to be suitable habitat for Preble's, therefore; the impact evaluation in the biological assessment included these areas as potentially occupied habitat. However, a University of Colorado property on the western end of the project area that NDIS classifies as occupied habitat was not considered to be Preble's habitat in the biological assessment based on the field review, as well as negative Preble's trapping records and evaluations.

CDOT, the Service, FHWA, URS, City of Boulder Open Space and Mountain Parks (OSMP), and Boulder County Open Space met on August 23, 2006, to discuss mitigation goals and opportunities for Preble's and the orchid. CDOT asked City of Boulder OSMP and Boulder County Open Space to identify properties in need of enhancement, restoration, creation, or preservation and are located within or adjacent to open space that would provide mitigation by improving linkages within the floodplain (on- and off-site) for populations of Preble's and the orchid.

On October 6, 2006, City of Boulder OSMP provided a memorandum that identified six sites with potential to meet the mitigation needs of the project. City of Boulder OSMP, CDOT, and

URS discussed these six sites in more detail in a telephone conference on September 28, 2006. CDOT, the Service, City of Boulder OSMP, and URS visited the sites on October 11, 2006.

On October 2, 2006, CDOT and URS discussed three additional potential mitigation sites identified on Boulder County Open Space property in a phone conference. On October 23, 2006, CDOT, the Service, Boulder County Open Space, and URS visited the three sites.

In December 2008, CDOT met with the Service to discuss the Service's comments on the draft biological assessment and to move forward to finalize it.

On July 3, 2009, the City of Boulder OSMP made it clear in a telephone conversation with CDOT as well as in their comments on the Draft Environmental Impact Statement that they strongly support an ecological approach to impact mitigation that includes mitigation sites in the South Boulder Creek floodplain where the impact occurs. This comment prompted the addition of a general mitigation "site" that includes other sites not yet identified in the South Boulder Creek floodplain as other possible locations to consider for mitigation. These sites will be negotiated with the various Boulder and regulatory agencies during site-specific consultation.

The programmatic biological assessment was received by the Service on October 20, 2009. On November 4, 2009, the Service wrote an email to you indicating that Critical Habitat had been proposed in the project area, and that Conferencing would also need to occur. As a result, on December 1, 2009, CDOT calculated impacts and conducted an analysis of the project's effect to the proposed critical habitat. These impacts will be re-evaluated during site-specific consultation.

BIOLOGICAL AND CONFERENCE OPINIONS

These biological and conference opinions are based on information regarding Preble's and its proposed critical habitat, the orchid, conditions forming the environmental baseline, the importance of the project area to the survival and recovery of the species, and other sources of information as described below. The data used in this biological opinion constitute the best scientific and commercial information currently available.

DESCRIPTION OF THE PROPOSED ACTION

The proposed project will provide multi-modal transportation improvements along US36 between I-25 in Denver and the Table Mesa/South Boulder Road exit in Boulder. In general, one managed lane will be added in each direction on US36 as well as auxiliary lanes between most interchanges. The managed lanes will connect to and be an extension of the existing I-25 express lanes that go to and from downtown Denver. The reversible managed lane between Sheridan Boulevard and Pecos Street will remain and traffic will continue to use the existing I-25/US36 managed lane ramp. The managed lanes from Pecos Street to west of Cherryvale Road in Boulder will be one lane in each direction, located adjacent to the median of US36, and separated

from the general-purpose lanes by a painted buffer. Buses will exit the highway to pick up and drop off passengers at stations located on ramps and adjacent park-n-Rides. Access to the managed lane will be provided at separate ingress and egress points located between each interchange.

Roadway changes will include improvements to cross-street intersections and interchanges. Those improvements will include upgrading lane transitions of ramp terminals, widening cross-streets at intersections, lengthening turn lanes, and adding turn lanes. The proposed project also includes a bikeway facility adjacent to US36. In general, the bikeway is an off-street, separated, multi-use path adjacent to US36. Where appropriate, the bikeway connects to and makes use of existing on- and off-street facilities. Transportation Demand Management (TDM) improvements throughout the corridor are also proposed, such as strategies designed to make the most efficient use of existing transportation facilities by reducing the actual demand placed on these facilities. Finally, the project will provide bus rapid transit (BRT) improvements, including new and more frequent bus service in the US36 corridor.

In addition to a new managed lane, corridor stakeholders, including the City of Boulder and Boulder County, agreed on the need for one new climbing lane in each direction, extending westbound from McCaslin Boulevard and eastbound from Foothills Parkway/Table Mesa Drive to the top of Davidson Mesa. They also agreed that the extension of these climbing lanes on US36 between McCaslin Boulevard and Table Mesa Drive (i.e., eastbound from the top of Davidson Mesa to McCaslin Boulevard and westbound from the top of Davidson Mesa to Table Mesa Drive) would become bus-only lanes, and would be constructed only if certain "triggers" are met.

While the traffic analysis indicates a need for this lane by 2035, it is unclear at what point in the future the lane would become necessary. Therefore, triggers to assist in establishing the appropriate time for construction of this lane have been established and agreed upon by a committee of stakeholders along the corridor only after a re-analysis process has been completed, and only after the Phase I improvements (one managed lane in each direction and bikeway elements) and climbing lanes have been constructed. The triggers for considering the bus-only auxiliary lane include:

- Degradation of average peak period bus travel times along US36 in the segment between the existing McCaslin park-n-Ride and Table Mesa park-n-Ride due to persistent congestion. This degradation is defined in the PEIS.
- Degradation of average peak period bus travel times resulting from congestion on US36 along South Boulder Road between the Table Mesa park-n-Ride and McCaslin Boulevard. Again, this degradation is defined in the PEIS.
- Degradation of average peak period bus travel times resulting from congestion on US36 for bus Route 228 along McCaslin Boulevard between the McCaslin park-n-Ride at US36 and South Boulder Road due to persistent congestion. This degradation is also defined in the PEIS.

It is expected that the above triggers will be measured during normal monitoring cycles by RTD, CDOT, or the local agencies that have responsibility for these routes or modes so that extra efforts to monitor these triggers will not be necessary. At a minimum, the above triggers will be looked at when traffic numbers require updating during re-evaluation processes. If a trigger is met, a re-analysis process will be initiated and will include all US36 communities along with FHWA, CDOT, and RTD representatives to develop and evaluate methods to improve bus operations.

When a trigger is met, some action will first be taken to improve transit operations. Should actions other than construction of the bus-only auxiliary lane occur and the triggers are met again, re-analysis will be re-initiated as necessary. The most cost-effective and practical alternatives would be implemented. Full public and agency involvement will be included in this re-analysis process. The construction of the bus-only auxiliary lane will not commence until approved. Acquisition of any additional ROW required for the bus-only auxiliary lanes will not take place until the re-analysis is complete and the lanes approved.

Shoulders cannot be used for transit operations or bus travel because FHWA typically does not allow the long-term use of shoulders for buses or other vehicles because they are intended to be used for emergencies.

Funding to implement the entire project is not currently available, however; as funds become available, it is FHWA/CDOT's intent to fully implement the project through a phased approach. If state and/or federal funds become available, CDOT will identify projects to include in future phases based on the following priorities. The first priority will be given to replacing aging infrastructure and/or addressing safety issues. The replacement of aging infrastructure will be given priority when the infrastructure deteriorates to such an extent its conditions affect operations of the corridor or safety of the traveling public. Projects arising from safety considerations may be given priority when safety data indicate higher than average crash rates at a particular location or when a substandard area or pinch point has been identified which adversely impacts the public. Second priority will be given to projects that improve traffic operations of the managed lanes and/or the general-purpose lanes. These types of projects will be prioritized based on the degree to which they will positively impact transit and HOV/SOV functions, maximize travel time savings, and relieve congestion.

Although these proposed improvements will take place along the entire US36 corridor, impacts to federally protected species will likely occur only in the Boulder segment, which is the portion of US36 between approximately McCaslin Boulevard and the Table Mesa Drive/Foothills Parkway intersection. More specifically, impacts to Preble's will occur approximately 600 feet east of US36's intersection with Davidson Ditch to its intersection with Table Mesa Drive/Foothills Parkway, and impacts to the orchid will occur from Davidson Ditch westward to Table Mesa Drive/Foothills Parkway.

In the Boulder segment, the managed lane in each direction will remain adjacent to the median of US36 and will be separated from the general-purpose lanes by a painted buffer. In the westbound direction, the managed lane will become a general-purpose lane west of Cherryvale Road. In the eastbound direction, traffic will enter the added managed lane just west of Cherryvale Road. A new climbing lane in each direction will be provided from McCaslin Boulevard westbound and from Table Mesa Drive/Foothills Parkway eastbound to the top of Davidson Mesa. From Davidson Mesa westbound to Table Mesa Drive/Foothills Parkway and eastbound to McCaslin Boulevard, the climbing lane will be extended to become a bus-only lane if certain triggers are met as described above.

The Foothills Parkway/Table Mesa Drive interchange will be reconfigured slightly to improve geometric conditions. In particular, the existing loop-ramp from westbound Table Mesa Drive to eastbound US36 will be removed. The ramp from Foothills Parkway to eastbound US36 will be relocated to improve the merging operations among the US36, Table Mesa Drive, and Foothills Parkway traffic.

The existing general-purpose lanes in the Superior/Louisville and Boulder segments will need to be rebuilt, as they will be moved outward to accommodate the managed lanes in the median. No additional general-purpose lanes will be constructed. The Interlocken Loop, West Flatiron Circle, Coal Creek, and South Boulder Creek bridges will be reconstructed. Bridge and grade separation construction (aerial structure) will involve site preparation, excavation, installation and construction of support columns and abutments, placement of girders, and bridge deck construction.

Construction staging areas will be needed throughout the alignment to provide adequate space for equipment, construction materials, materials stockpiling, and worker parking. These parcels will be purchased or leased before construction begins. The BRT transit stations may be used for staging, thus offsetting the need to acquire additional staging areas. Haul routes for construction materials will be proposed by the contractor and approved by CDOT and the local jurisdiction.

An off-street, separated, multi-use bikeway facility adjacent to US36 is also part of the proposed project. Where appropriate, the bikeway connects to and makes use of existing on- and off-street facilities. The bikeway planned for this package will parallel US36 from Cherryvale Road to Foothills Parkway/Table Mesa Drive. Crossings of major arterials along US36 would be grade-separated. Grade separation of the bikeway from the major arterials is required due to safety and continuity criteria related to traffic volumes on the major arterials. Maintenance of the US36 bikeway will be the responsibility of the local jurisdictions through an Intergovernmental Agreement with CDOT.

Conservation Measures

Provisions in the project description that you will implement to reduce impacts of the action or further the recovery of threatened and endangered species are known as conservation measures.

As part of the proposed action, the beneficial effects of these conservation measures are taken into consideration in the jeopardy and incidental take analyses. Conservation measures are part of the proposed action and their implementation is required under the terms of this consultation. The proposed action, as described here, entails the entire Preferred Alternative in the FEIS.

CDOT and FHWA will further avoid or minimize impacts to Preble's and orchid habitat during final design and construction. Unavoidable impacts will be offset by various conservation measures including compensatory mitigation in areas near known occupied habitats. Compensatory mitigation for this project is still conceptual and specific mitigation will be determined during project phasing as funding is available; however, its intent is to assist recovery of the species through on- and off-site habitat actions, monitoring, and reporting. If impacts are determined to directly affect the Colorado butterfly plant during the final design process, then consultation will be initiated. Actions to improve or mitigate habitat for Preble's and the orchid will indirectly benefit the Colorado butterfly plant, as all three species are associated with riparian habitats. This would offset any indirect impacts that could occur to the Colorado butterfly plant as a result of the project.

Additional conservation measures identified in the biological assessment that will benefit Preble's or the orchid include the following:

- Construction of retaining walls along US36 in portions of the Boulder Segment to minimize habitat impacts on City of Boulder OSMP property.
- Implementation of permanent water quality BMPs to improve water quality and to ensure that stream flows are not altered by bridge and culvert replacement.
- Extension rather than replacement of existing culverts, where possible.
- Briefing of design engineers and construction staff on the need for further reductions of impact and the use of BMPs.
- Development of a construction schedule and work plan to include the location, type, projected time of completion, and projected timing of various construction activities.
- Development of a Memorandum of Agreement (MOA) between CDOT, the Service, and City of Boulder OSMP during final design of each stage of construction. The MOA will express the parties' intent to implement conservation and management of the listed species affected by construction of the project. It will also describe management of the mitigation property and details of mitigation and monitoring.

In addition, site-specific consultation will occur during final design for each project stage. Site-specific consultation will:

- Provide an updated baseline condition of species' listing status or habitat modifications from unrelated actions.
- Outline any new species commitments.
- Discuss new direct, indirect, or cumulative effects.
- Document construction impacts and detailed mitigation.
- Provide a detailed project description including timing, habitat affected, and project effects.

- Compare site-specific impacts to the incidental take anticipated in the programmatic documents to ensure that it is within the permitted amount.
- Develop a database to track the level of impact, number of individuals of a species taken, and acres of habitat lost. A summary of this information will be submitted annually to the Service.
- Describe the monitoring program to track project effects, level of incidental take, and effectiveness of avoidance/minimization measures and conservation actions.

Detailed conservation measures that you will apply during construction were provided in your biological assessment on pages 8-4 through 8-6 and are part of the project description. The intent of these conservation measures is to further avoid and reduce potential impact to Preble's and orchid populations and habitats. They may be superseded by more stringent or general conditions that are established during site-specific consultation.

You will offset unavoidable impacts to Preble's and orchid habitats and populations through compensatory mitigation. Your approach to compensatory mitigation for the US36 project is to continue consultation with the Service, City of Boulder OSMP, Boulder County, and other applicable federal, state, and local agencies to develop a comprehensive mitigation strategy for the South Boulder Creek floodplain ecosystem. Impacts to Preble's and the orchid from the proposed project are concentrated in the South Boulder Creek floodplain, and you are committed to developing mitigation in this area that will provide a benefit to the system as a whole rather than small isolated improvements. Although the project will be constructed in phases, and mitigation requirements will need to be met for each individual phase, your goal is to mitigate for each phase as part of a larger, comprehensive approach.

In anticipation of mitigation requirements, CDOT has coordinated with City of Boulder OSMP to identify potential mitigation sites that may provide opportunity for habitat improvements. Off-site mitigation may include property acquisition, restoration, monitoring, and possible ownership transfer, and would be focused on creation, enhancement, and restoration of habitat to create habitat linkages and provision of continuous movement corridors. The goal of the mitigation is to compensate for the loss of Preble's and orchid habitat and increase the quantity and quality of habitat for both species within their localized range. Mitigation projects aimed to restore, create, or enhance habitat linkages will be given the highest priority.

Nine potential mitigation sites within the South Boulder Creek floodplain were categorized based on their need for restoration and their vulnerability to development or other threats. Restorable sites have degraded habitat, but are contiguous to known occupied Preble's or orchid habitat and could be restored with an investment of resources for at least a season. Vulnerable sites contain suitable habitat or are occupied by Preble's or the orchid but are not protected through ownership by a public agency or land trust, or are not within a conservation easement. Acquisition of restorable or vulnerable sites for mitigation for the US36 project would need to result in a balance or gain of occupied or potentially occupied habitat, not of potential habitat.

Additionally, acquisition of open space buffers that would enhance the survival and dispersal of the species in occupied habitat would be allowed.

These properties may not be available or may not fit the requirements of the project when CDOT is ready to implement mitigation. If a site is not currently owned by City of Boulder OSMP or Boulder County, CDOT would have to acquire (through purchase or conservation easement), restore, and monitor the property for several seasons to ensure success, and possibly transfer ownership of the site. Funding for property acquisition and mitigation will be determined during the final design process. No contact has been made with the landowners to gather specific information about the current availability of the properties or their cost.

Current potential opportunities of restorable or vulnerable habitat as identified by City of Boulder and Boulder County, listed in order of priority are South Boulder Creek floodplain near Baseline Road, Lafayette Water Treatment Facility, Hogan property, Coal Creek at SH128, Straty-Cline/Colorado Open lands, Dry Creek, Boulder Creek at Jasper Road, South Central Grasslands Open Space on Rock Creek, and the Mayhoffer/Singletree property. Details of each site are provided in the biological assessment including current habitat condition, ownership, location, and type of mitigation possible (i.e., habitat protection, restoration, enhancement, or creation). In addition, the City recently expressed support of other potential, but yet undefined, mitigation sites located within the South Boulder Creek floodplain because these sites would support the ecological system where the project impacts would occur.

At this time, no specific acreages of compensatory mitigation have been identified because a construction schedule for the project has not yet been determined and there is no funding. Therefore, these mitigation opportunities do not reflect final mitigation, but instead provide direction and identify the types of situations that are currently possible.

Action Area

Our regulations define the action area to be all areas directly or indirectly affected by the Federal action, and not merely the immediate area involved in the action (50 CFR 402.02).

The project is located on the Front Range of the Denver metropolitan area, and includes the cities of Boulder, Louisville, Broomfield, and Westminster. The affected streams are in the St. Vrain watershed. The project area includes portions of South Boulder Creek, some associated irrigation ditches, and Coal Creek, Rock Creek, Big Dry Creek, and Walnut Creek. The majority of Preble's and orchid habitats are within the South Boulder Creek floodplain. Preble's are known to occupy Davidson and Goodhue ditches as well as South Boulder Creek within the project area. Rock Creek is occupied upstream of the project area in Rocky Flats and Coal Creek is also occupied on its upper reaches. The action area for the purpose of this consultation is the South Boulder Creek floodplain from the base of Davidson Mesa westward to the intersection of US36 and Table Mesa

Drive/Foothills Parkway. It extends northerly to approximately Baseline Road, and extends to the south to the Lafayette Water Treatment Facility.

STATUS OF THE SPECIES/CRITICAL HABITAT

Preble's meadow jumping mouse

The Preble's meadow jumping mouse is a member of the family Dipodidae (jumping mice) with four living genera, two of which, *Zapus* and *Napaeozapus* are found in North America (Hall 1981). The three living species within the genus *Zapus* are *Z. hudsonius* (the meadow jumping mouse), *Z. princeps* (the western jumping mouse), and *Z. trinotatus* (the Pacific jumping mouse). Edward A. Preble (1899) first documented the meadow jumping mouse from Colorado. Krutzsch (1954) described Preble's as a separate subspecies of meadow jumping mouse limited to Colorado and Wyoming. Preble's is now recognized as one of twelve subspecies of meadow jumping mouse (Hafner *et al.* 1981).

The Preble's meadow jumping mouse is a small rodent with an extremely long tail, large hind feet and long hind legs. The tail is bicolored, lightly-furred and typically twice as long as the body. The large hind feet can be one-third again as large as those of other mice of similar size. Preble's has a distinct, dark, broad stripe on its back that runs from head to tail and is bordered on either side by grey to orange-brown fur. The hair on the back of all jumping mice appears coarse compared to other mice. The underside hair is white and much finer in texture. Total length of adult Preble's mice is approximately 7 to 10 inches and tail length is 4 to 6 inches (Krutzsch 1954, Fitzgerald *et. al.* 1994). The average weight of 120 adult Preble's mice captured early in their active season (prior to June 18) was 0.6 ounces; included were 10 pregnant females weighing more than 0.8 ounces (Meaney *et al.*, 2002).

The Service added the Preble's meadow jumping mouse to the List of Endangered and Threatened Wildlife in 50 CFR 17.11 as a threatened species on May 13, 1998 (63 FR 26517). The Service designated critical habitat for Preble's in 50 CFR 17.68 on June 23, 2003 (68 FR 37275). Critical habitat for Preble's includes approximately 201.3 kilometers (125.1 miles) of rivers and streams and 4,264 hectares (10,542 acres) of lands in Wyoming and approximately 376.8 kilometers (234.1 miles) of rivers and streams and 8,386 hectares (20,680 acres) of lands in Colorado. Lands designated as critical habitat are under Federal, State, local government, and private ownership. No lands designated as critical habitat are under Tribal ownership.

Primary constituent elements are physical and biological features essential to the conservation of the species and that may require special management considerations and protection. For Preble's, primary constituent elements include those habitat components essential for the biological needs of reproducing, rearing of young, foraging, sheltering, hibernation, dispersal, and genetic exchange. The primary constituent elements for Preble's are a pattern of dense riparian vegetation consisting of grasses, forbs, and shrubs, and open water; adjacent floodplains and vegetated uplands with limited human disturbance; areas that provide connectivity between

and within populations, and; dynamic geomorphological and hydrological processes that create and maintain river and stream channels, floodplains, and floodplain benches, and promote patterns of vegetation favorable to Preble's.

Designated critical habitat units include only river and stream reaches, and adjacent floodplains and uplands, that are within the known geographic and elevational range of the Preble's, have the primary constituent elements present, and, based on the best scientific data available, are believed to currently support Preble's.

We considered several qualitative criteria to judge the current status and probable persistence of Preble's populations in the selection and designation of specific areas as critical habitat. These include: the quality, continuity, and extent of habitat components present; the state of natural hydrological processes that maintain and rejuvenate suitable habitat components; the presence of lands devoted to conservation, either public lands such as parks, wildlife management areas, and dedicated open space, or private lands under conservation easements; and the landscape context of the site, including the overall degree of current human disturbance and presence, and likelihood of future development based on local planning and zoning.

Activities with the potential for altering the primary constituent elements are those that result in development or alteration of the landscape within a unit, including land clearing activities associated with construction for urban and industrial development; some agricultural activities; activities resulting in changes in the hydrology of a unit; activities that detrimentally alter natural processes in a unit, and; activities that could lead to the introduction, expansion, or increased density of exotic plant or animal species detrimental to Preble's and its habitat.

The Service used the Recovery Team's Draft Discussion Document of February 27, 2002 (Working Draft), and the concepts described within it as a source of the best scientific and commercial data available on Preble's, and also used it as a starting point for identifying areas that are essential for the conservation of Preble's. To recover Preble's to the point where it can be delisted, the Working Draft identifies the need for a specified number, size, and distribution of wild, self-sustaining Preble's populations across its known range.

The Working Draft identifies recovery criteria for each of the three major river drainages where Preble's occurs (the North Platte River drainage in Wyoming, the South Platte River drainage in Wyoming and Colorado, and the Arkansas River drainage in Colorado) and for each subdrainage judged likely to support Preble's. The Working Draft uses 8-digit HUC boundaries to define subdrainages, and identifies 19 HUCs as occupied or potentially occupied. Of these, five are located in the North Platte River drainage, 11 in the South Platte River drainage, and three in the Arkansas River drainage. Further, the Working Draft defines large populations as maintaining 2,500 mice and usually including at least 50 miles of rivers and streams. Medium populations maintain 500 mice over at least 10 miles of rivers and streams, and small populations maintain 150 mice over 3 miles of stream. In addition, the Working Draft calls for two large and three medium populations in the South Platte River drainage, one large and two medium populations

in the North Platte River drainage, and one large population in the Arkansas River drainage. In each of the remaining ten HUCs, three small populations are called for. One large (Chugwater Creek, Lower Laramie HUC, North Platte River drainage) and one medium (Cottonwood Creek, Glendo HUC, North Platte River drainage) Preble's population in Wyoming, and one large Preble's population in Colorado (North Fork of the Cache La Poudre River, Cache La Poudre HUC, South Platte River drainage) that are designated in the Working Draft as recovery populations, have been designated as critical habitat. We are currently in the process of updating the Working Draft.

Life History

Habitat

Typical habitat for Preble's meadow jumping mouse is comprised of well-developed plains riparian vegetation with adjacent, relatively undisturbed grassland communities and a nearby water source. Well-developed plains riparian vegetation typically includes a dense combination of grasses, forbs, and shrubs; a taller shrub and tree canopy may be present (Bakeman 1997). When present, the shrub canopy is often willow, although other shrub species, including snowberry (*Symphoricarpos* spp.), chokecherry (*Prunus virginiana*), hawthorn (*Crataegus* spp.), Gambel's oak (*Quercus gambelli*), alder (*Alnus incana*), river birch (*Betula fontinalis*), skunkbrush *(Rhus trilobata*), wild plum (*Prunus americana*), lead plant (*Amorpha fruticosa*), dogwood *(Cornus sericea*) and others may also occur (Bakeman 1997, Shenk and Eussen 1998). Preble's have rarely been trapped in uplands adjacent to riparian areas (Dharman 2001). However, Preble's have been found feeding and resting in adjacent uplands (Shenk and Sivert 1999b, Schorr 2001) as far out as 328 feet beyond the 100-year floodplain (Ryon 1999, Tanya Shenk, Colorado Division of Wildlife, in litt., 2002). Preble's can also move considerable distances along streams, as far as 1 mile in one evening (Ryon 1999, Shenk and Sivert 1999a). Adjacent uplands used by the Preble's meadow jumping mouse are extremely variable ranging from open grasslands to ponderosa pine (*Pinus ponderosa*) woodlands (Corn *et al.* 1995, Pague and Gruneau 2000).

Riparian shrub cover, tree cover, and the amount of open water nearby are good predictors of Preble's densities (White and Shenk 2000). Estimates of abundance ranged from 6 to 110 mice per mile and averaged 53 mice per mile of stream. A comparison of habitats at capture locations on the Department of Energy's Rocky Flats Site in Jefferson County, Colorado, and the U.S. Air Force Academy in El Paso County, Colorado revealed that Academy sites had lower plant species richness at capture locations but considerably greater numbers of Preble's (Schorr 2001). However, the Academy sites also had higher densities of both grasses and shrubs. Preble's abundance is likely driven by the density of riparian vegetation rather than the diversity of plant species.

Preble's is a true hibernator, usually entering hibernation in September or October and emerging the following May, after a potential hibernation period of seven or eight months. Adults enter

hibernation earliest because they accumulate the necessary fat stores sooner than young of the year. Similar to other subspecies of meadow jumping mouse, Preble's do not store food, but survive on fat stores accumulated prior to hibernation (Whitaker 1963). Apparent hibernacula (hibernation nests) of Preble's have been located both within and outside of the 100-year floodplain of streams (Shenk and Sivert 1999a, Ryon 2001, Schorr 2001). Those hibernating outside of the 100-year floodplain would likely be less vulnerable to flood-related mortality. Fifteen apparent Preble's hibernacula have been located through radio telemetry, all within 260 feet of a perennial streambed or intermittent tributary (Bakeman and Deans 1997, Shenk and Sivert 1999a, Schorr 2001).

Hibernacula have been located under willow, chokecherry, snowberry, skunkbrush, sumac (*Rhus* spp.), clematis (*Clematis* spp.), cottonwoods (*Populus* spp.), Gambel's oak, thistle (*Cirsium* spp.), and alyssum (*Alyssum* spp.) (Shenk and Sivert 1999a). At the Academy, 4 of 6 likely hibernacula found by radio-telemetry were located in close proximity to coyote willow (*Salix exigua*) (Schorr 2001). The one excavated hibernaculum at Rocky Flats was found 30 feet above the streambed, in a dense patch of chokecherry and snowberry (Bakeman and Deans 1997). The nest was constructed of leaf litter 12 inches below the surface in coarse textured soil.

Preble's construct day nests composed of grasses, forbs, sedges, rushes, and other available plant material. They may be globular in shape or simply raised mats of litter, and are most commonly above ground but can also be below ground. They are typically found under debris at the base of shrubs and trees, or in open grasslands (Ryon 2001). An individual mouse can have multiple day nests in both riparian and grassland communities (Shenk and Sivert 1999a), and may abandon a nest after approximately a week of use (Ryon 2001).

Hydrologic regimes that support Preble's habitat range from large perennial rivers such as the South Platte River to small ephemeral drainages only 3 to 10 feet in width, as at Rocky Flats and in montane habitats. Flooding is a common and natural event in the riparian systems along the Front Range of Colorado. This periodic flooding helps create a dense vegetative community by stimulating resprouting from willow shrubs and allows herbs and grasses to take advantage of newly-deposited soil.

Reproduction

Preble's usually have two litters per year, but there are records of three litters per year. An average of five young are born, but the size of a litter can range from two to eight young (Quimby 1951, Whitaker 1963). Preble's are long-lived for a small mammal, in comparison with many species of mice and voles that seldom live a full year. Along South Boulder Creek, Boulder County, Colorado, seven individuals originally captured as adults were still alive two years later, having attained at least three years of age (Meaney *et al.*, 2002).

Predation

Preble's have a host of known predators including garter snakes (*Thamnophis* spp.), prairie rattlesnake (*Crotalus viridus*), bullfrog (*Rana catesbiana*), foxes (*Vulpes vulpes* and *Urocyon cinereoargenteus*), house cat (*Felis catus*), long-tailed weasel (*Mustela frenata*), and red-tailed hawk (*Buteo jamaicensis*) (Shenk and Sivert 1999a, Schorr 2001). Other mortality factors of Preble's include drowning and vehicle collision (Schorr 2001, Shenk and Sivert 1999a). Mortality factors known for the meadow jumping mouse, such as starvation, exposure, disease, and insufficient fat stores for hibernation (Whitaker 1963) are also likely causes of death for Preble's.

Diet

While fecal analyses have provided the best data on Preble's diet to date, they overestimate the components of the diet that are less digestible. The diet shifts seasonally; it consists primarily of insects and fungus after emerging from hibernation, shifts to fungus, moss, and pollen during mid-summer (July-August), with insects again added in September (Shenk and Sivert 1999a). The shift in diet along with shifts in mouse movements suggests that Preble's may require specific seasonal diets, perhaps related to the physiological constraints imposed by hibernation (Shenk and Sivert 1999a).

Population Dynamics

Preble's annual survival rate is low. Preble's survival rates appear to be lower over the summer than over the winter. Over-summer survival rates ranged from 22 to 78 percent and over-winter survival rates ranged from 56 to 97 percent (Shenk and Sivert 1999b, Schorr 2001, Meaney *et al.* 2002). Additionally, fire is a natural component of the Colorado Front Range and Wyoming foothills and Preble's habitat naturally fluctuates with fire events. Within shrubland and forest, intensive fire may result in adverse impacts to Preble's populations. However, in a review of the effects of grassland fires on small mammals, Kaufman *et al.* (1990) found a positive effect of fire on the meadow jumping mouse in one study and no effect of fire on the species in another study.

Status and Distribution

The Preble's meadow jumping mouse is found along the foothills in southeastern Wyoming, southward along the eastern edge of the Front Range of Colorado to Colorado Springs, El Paso County (Hall 1981, Clark and Stromberg 1987, Fitzgerald *et al.* 1994). Knowledge about the current distribution of the Preble's comes from collected specimens, and live-trapping locations from both range-wide survey efforts and numerous site-specific survey efforts conducted in Wyoming and Colorado since the mid-1990s. Recently collected specimens are housed at the Denver Museum of Nature and Science (DMNS) and survey reports are filed with the Service's Field Offices in Colorado and Wyoming.

In Wyoming, capture locations of mice confirmed as Preble's, and locations of mice identified in the field as Preble's and released, extend in a band from the town of Douglas southward along the Laramie Range to the Colorado border, with captures east to eastern Platte County and Cheyenne, Laramie County. Recently, Preble's have been documented west of the Laramie Range in the Upper Laramie drainage. In Colorado, the distribution of Preble's forms a band along the Front Range from Wyoming southward to Colorado Springs, El Paso County with eastern marginal captures in western Weld County, western Elbert County and north-central El Paso County.

Preble's is likely an Ice Age relict (Hafner *et al.* 1981, Fitzgerald *et al.* 1994). Once the glaciers receded from the Front Range of Colorado and the foothills of Wyoming and the climate became drier, Preble's was confined to the riparian (river) systems where moisture was more plentiful. The semi-arid climate in southeastern Wyoming and eastern Colorado limits the extent of riparian corridors and restricts the range of Preble's in this region. Preble's has not been found east of Cheyenne in Wyoming or on the extreme eastern plains in Colorado. The eastern boundary for the subspecies is likely defined by the dry shortgrass prairie, which may present a barrier to eastward expansion (Beauvais 2001).

The western boundary of Preble's range in both states appears related to elevations along the Laramie Range and Front Range. The Service has used 2,300 meters (7,600 feet) in elevation as the general upward limit of Preble's habitat in Colorado (Service 1998). Recent morphological examination of specimens has confirmed Preble's to an elevation of approximately 7,600 feet in Colorado (Meaney *et al.* 2001) and to 7,750 feet in southeastern Wyoming (Cheri Jones, DMNS, in litt., 2001). In a modeling study of habitat associations in Wyoming, Keinath (2001) found suitable habitat predicted in the Laramie Basin and Snowy Range Mountains (west of known Preble's occurrence) but very little suitable habitat predicted on the plains of Goshen, Niobrara, and eastern Laramie counties (east of known Preble's occurrence).

Preble's is closely associated with riparian ecosystems that are linear in nature and represent a small percentage of the landscape. If Preble's habitat is destroyed or modified, populations in those areas may decline or be extirpated. The decline in the extent and quality of Preble's habitat is considered the main factor threatening the subspecies (Service 1998, Hafner *et al.* 1998, Shenk 1998). Habitat alteration, degradation, loss, and fragmentation resulting from urban development, flood control, water development, intensive agricultural activities, and other human land uses have adversely affected Preble's populations. Habitat destruction may impact individual Preble's directly or by destroying nest sites, food resources, and hibernation sites, by disrupting behavior, or by forming a barrier to movement.

Although there is little information on past distribution or abundance of Preble's, surveys have identified various locations where the subspecies was historically present but is now absent (Ryon 1996). Despite numerous surveys, Preble's has not recently been found in the Denver and Colorado Springs metropolitan areas and is believed to be extirpated from these areas as a result of extensive urban development. Since at least 1991, Preble's has not been found in Denver,

Adams, and Arapahoe counties in Colorado. Its absence in these counties is likely due to urban development, which has altered, reduced, or eliminated riparian habitat (Compton and Hugie 1993, Ryon 1996).

The increasing presence of humans near Preble's habitats may result in increased level of predation that may pose a threat to Preble's. The striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), red fox, and the domestic and feral cat are found in greater densities in and around areas of human activity; all four of these species feed opportunistically on small mammals. Introduction of species such as the bullfrog into waters within Preble's range may result in additional predation. The fact that summer mortality is higher than overwinter mortality underscores the impact that predators can have on Preble's.

Threats

Conversion of native riparian ecosystems to commercial croplands and grazed rangelands was identified as the major threat to Preble's persistence in Wyoming (Clark and Stromberg 1987, Compton and Hugie 1993). Certain grazing and haying management scenarios maintain what appears to be good habitat for Preble's. However, intensive grazing and haying operations may negatively impact Preble's by removing food and shelter. While some Preble's populations coexist with livestock operations, overgrazing can decimate riparian communities on which Preble's depends. Similarly, haying operations (and the associated water development) that allow significant riparian vegetation to remain in place appear to be compatible with persistence of Preble's populations. In fact, the large populations of Preble's occur in grazed and hayed areas along Cottonwood Creek, Chugwater Creek, and Horse Creek in Wyoming.

Recreational trail systems frequently parallel or intersect riparian communities and thus are common throughout Preble's range. Trail development can alter natural communities and may impact Preble's by modifying nest sites, food resources, and hibernation sites; fragmenting its habitat; and increasing predation. Humans and pets using these trails may alter behavior patterns of Preble's and cause a decrease in survival and reproductive success.

Habitat fragmentation limits the extent and abundance of Preble's. In general, as animal populations become fragmented and isolated, it becomes more difficult for them to persist. Small, isolated patches of habitat are unable to support as many Preble's mice as larger patches of habitat. When threats to persistence are similar, larger populations are more secure from extirpation than smaller ones.

The structure and function of riparian ecosystems are determined by the hydrology of the waterway. Water development and management may facilitate development of lush riparian vegetation by maintaining more moisture in the riparian areas for longer periods of time, particularly in times of drought. However, changes in timing and abundance of water may also alter the channel structure, riparian vegetation, and the adjacent floodplain, in a manner that results in changes that are detrimental to the persistence of Preble's. Increased development and

impervious surface within a drainage can result in more frequent and severe flood events and prevent the maintenance of riparian communities. Bank stabilization, channelization, and other measures to address flooding and storm water runoff have increased the rate of stream flow, straightened riparian channels, and narrowed riparian areas (Pague and Grunau 2000). Using riprap and other structural stabilization options to reduce erosion can destroy riparian vegetation, and prevent or prolong its reestablishment. These measures can alter the hydrologic processes and plant communities present to the point where Preble's populations can no longer persist.

Alluvial aggregate extraction may produce long-term changes to Preble's habitat by altering hydrology and removing riparian vegetation. In particular, such extraction removes and often precludes reestablishment of habitat components required by Preble's. Such mining impacts the deposits of alluvial sands and gravels that may be important hibernation locations for the Preble's. Transportation and utility corridors frequently cross Preble's habitat and may negatively affect populations. As new roads are built and old roads are maintained, habitat can be destroyed or fragmented. Roads and bridges also may act as barriers to dispersal. Train and truck accidents within riparian areas may release spills of chemicals, fuels and other substances that may impact the mouse or its habitat. Sewer, water, communications, gas, and electric lines cross Preble's habitat. Their right-of-ways can contribute to habitat disturbance and fragmentation through new construction and periodic maintenance. However, construction-related impacts are often short term when adequate rehabilitation and reclamation actions are implemented.

Invasive, noxious plants can encroach upon a landscape and displace native plant species. This change reduces the abundance and diversity of native plants, and may negatively impact cover and food sources for Preble's. The control of noxious weeds may also impact Preble's where large-scale removal of vegetation occurs through chemical treatments and mechanical mowing operations.

Pesticides and herbicides are used within the range of Preble's. Inappropriate use of these chemicals may harm Preble's directly or when ingested by Preble's with food or water. Overall, an integrated pest management approach (use of biological, chemical, and mechanical control) may help reduce the threat of chemicals, but allow for the control of target species. Fire, particularly catastrophic fires, can alter habitat dramatically and change the structure and composition of the vegetation communities so that Preble's may no longer persist. In addition, precipitation falling in a burned area may degrade Preble's habitat by causing greater levels of erosion and sedimentation along creeks. Controlled use of fire may be one method to maintain appropriate riparian, floodplain, and upland vegetation within Preble's habitat. However, over the past several decades, as human presence has increased through Preble's range, significant effort has been made to suppress fires. Long periods of fire suppression may result in a build-up of fuel and result in a catastrophic fire.

On July 9, 2008, the Service determined that Preble's populations in Wyoming should be removed from protected under the Act, but concluded that Preble's populations in Colorado

comprise a significant portion of its range requiring continued protection and that Colorado populations would remain listed.

On October 8, 2009, Critical Habitat was re-proposed and the South Boulder Creek floodplain was included.

Ute ladies'-tresses orchid

The Ute ladies'-tresses (*Spiranthes diluvialis*) was first described as a species in 1984 by Dr. Charles J. Sheviak from a population discovered near Golden, Colorado (Sheviak 1984). The Ute ladies'-tresses are perennial orchids from the family Orchidaceae. The orchid first appears above ground as a rosette of thickened grass-like leaves that is very difficult to distinguish from other vegetation. Its leaves are up to 1.5 cm wide and 28 cm long; the longest leaves are near the base. The usually solitary flowering stem is 20 to 50 cm tall, terminating in a spike of 3 to 15 white or ivory flowers. Prior to 1992, extant populations of the Ute ladies'-tresses orchid in Colorado were known only in Jefferson and Boulder counties, within the Clear Creek and St. Vrain River watersheds. The largest populations in the region occur in the South Boulder Creek and St. Vrain River watersheds within the US36 corridor. Since that time, they have also been found in Garfield County along the Roaring Fork River, and in Larimer County in the Cache la Poudre River watershed.

Orchid habitats must consist of sufficient hydrology to keep soils moist at the surface throughout the growing season. Soils are generally silty-loam often underlain with cobble and gravel. The habitat settings are early to mid-successional riparian habitats (i.e., well established soils and vegetation) along perennial streams and rivers such as moist stream edges, high flow channels, old oxbows, vegetated point bars, and other fluvial features (USFWS 1992, Fertig 1994; USFWS 1995; Fertig 2000). The orchid may also occur in settings that mimic one of the above habitats, such as moist borrow pits, roadside ditches, reservoir edges, and berms (Ward and Naumann 1998).

Perennial graminoids and forbs and low vegetative cover dominate habitats occupied by Ute ladies'-tresses. A few populations in eastern Utah and Colorado are found in riparian woodlands, but generally the species seems intolerant of shade, preferring open, grass, sedge, and forb-dominated sites. Where colonies occur in more wooded areas, plants are usually found on the edges of small openings and along trails (Ward and Naumann 1998). The orchid is intolerant of crowding and competition. The orchid may persist for some time in the grassy understory of woody riparian shrublands, but does not appear to thrive under these conditions (Ward and Naumann 1998).

Life history and Population dynamics

Flowering of Ute ladies'-tresses generally occurs from mid-July through August, at which point location, identification, and population size estimates are typically determined. However, in

some locations the plant may bloom in early July or may still be in flower as late as early October. Some individuals remain underground or do not flower each year (Arft 1995; Riedel 1992).

Because of the unique anatomy of orchid flowers, only certain insects can accomplish pollination. Reproduction of the orchid is strictly sexual, with bumblebees (*Bombus* spp.) and anthophorans (*Anthophora* spp.) (Sipes and Tepedino 1995; Sipes et. al. 1993) as the primary pollinators. These insects visit the orchids for the nectar and pollination is accomplished incidentally. The number of seeds of the orchid varies greatly between plants. Each orchid fruit can have several hundred or up to 10,000 seeds but generally average around 2,000 (Sipes and Tepedino 1995). These seeds may be dispersed by water or wind (Wells 1981).

Status and Distribution

Ute ladies'-tresses were federally listed as threatened on January 17, 1992 (57 FR 2048) throughout its entire range. No critical habitat has been designated for the species. To date, no recovery plan has been approved for this species. However, a draft recovery plan has been written (USFWS 1995).

Populations of orchids are known from three broad general areas of the interior western United States: near the base of the eastern slope of the Rocky Mountains in southeastern Wyoming and adjacent Nebraska and north-central and central Colorado; in the Upper Colorado River Basin, particularly in the Uinta Basin; and in the Bonneville Basin along the Wasatch Front and westward in the eastern Great Basin, in north-central and western Utah, extreme eastern Nevada, and southeastern Idaho, and central Washington.

At the time of its listing, the total known population size of Ute ladies'-tresses was fewer than 6,000 individuals from 11 populations occurring in Colorado, Utah, and Nevada (57 FR 2048). Several populations on the Wasatch Front, Utah; Great Basin, Utah and Nevada; and the Front Range of Colorado were believed to be extirpated due to activities associated with frontier settlement (urbanization, clearing land for agriculture, water diversion, etc.). Most known populations contained fewer than 1,000 plants when counted in 1990 and 1991. Eastern Utah populations were typically small in size. Since 1993, *S. diluvialis* has been discovered in southeastern Wyoming, southwestern Montana, western Nebraska, southern Idaho, and central Washington (Fertig et al. 2005). Populations are now known to occur in 38 watersheds at elevations ranging from 220 to 558 m (720 to 1,830 feet) in Washington to 2,134 m (7,000 feet) in northern Utah (Fertig et al. 2005). Recovery driven inventory efforts indicate that the number of existing and historical populations is 61, of which 53 are considered extant. Of all extant populations, 60 percent contain over 100 plants and 21 percent have greater than 1,000 individuals.

Population numbers, based on counts of flowering individuals, fluctuate greatly ranging from 23 percent to 79 percent (Ward and Naumann 1998). This is because a varying proportion of the

population may either be dormant underground or in a vegetative (non-flowering) state, thus not easily discerned during population monitoring. Therefore, the number of flowering adults does not give an accurate population size or structure. Monitoring of both flowering and vegetative plants by Arft (1995) indicated that population size may be fairly stable even though the number of flowering individuals demonstrates high variability. The life span of individuals is unknown, but plants studied over a nine year period were used to estimate a life expectancy of more than 50 years (USFWS 1995).

ENVIRONMENTAL BASELINE

The environmental baseline is defined as the past and present effects of all Federal, State, or private actions and other human activities in the action area, the anticipated effects of all proposed Federal actions in the action area that have already undergone formal or early section 7 consultation, and the effects of State or private actions that are contemporaneous with the consultation in progress.

Status of the Preble's meadow jumping mouse/proposed critical habitat within the action area

The project is located on the Front Range of the Denver metropolitan area, and includes the cities of Boulder, Louisville, Broomfield, and Westminster. The affected streams are in the St. Vrain watershed and include portions of South Boulder Creek, some associated irrigation ditches, and Coal Creek, Rock Creek, Big Dry Creek, and Walnut Creek. The majority of Preble's and orchid habitats are within the South Boulder Creek floodplain. Preble's are known to occupy Davidson and Goodhue ditches as well as South Boulder Creek within the project area. Rock Creek is occupied upstream of the project area in Rocky Flats and Coal Creek is also occupied on its upper reaches.

The existing US36 was originally constructed in the 1950s, therefore; disturbance of the vegetation and riparian habitat and changes in stream morphology in areas previously and currently occupied by Preble's has already occurred. The irrigation ditches that cross under US36 in Boulder generally carry water between April and November, which overlaps with the Preble's active season. Therefore, during the active season, Preble's movement is limited at some crossings when water is present in ditches. The existing bridge at South Boulder Creek does not impede Preble's movement under US36 as evidenced by positive trapping records on both sides of the highway.

The easternmost segment of the project corridor, the Denver and Adams segments, extend along US36 from I-25 to Sheridan Boulevard. They are heavily urbanized and do not support habitat for listed species. The Westminster and Broomfield segments are also urbanized, especially at the easternmost portions, and extend from Sheridan Boulevard to just west of SH287. The Colorado butterfly plant occurs in the Westminster segment, though not within the project corridor.

All impacts to listed species and their proposed critical habitat will occur in the Boulder segment, which extends from approximately McCaslin Boulevard to the Table Mesa Drive/Foothills Parkway intersection in Boulder. Primary vegetation types within the South Boulder Creek floodplain include grassland, riparian woodland and shrub, wetlands, and grassland with some irrigated and dryland agriculture. Narrow bands of riparian vegetation are present along a number of streams and some irrigation canals. Adjacent upland areas on OSMP property are irrigated pastures and hayfields and residential. OSMP property has suitable vegetation, hydrology, and soil characters to support both Preble's and orchids. The portion of the bikepath alignment along Cherryvale Road and South Boulder Road is bounded by City of Boulder OSMP property on both sides of the road. A large portion of the area along Cherryvale Road appears to contain wetlands and Cherryvale Road crosses South Boulder Canyon Ditch; South Boulder Road crosses South Boulder Creek. Preble's habitat likely to be affected by the project provides sites for foraging, nesting, and movement.

A portion of the project area lies within proposed Critical Habitat Unit 5, South Boulder Creek, Boulder County, Colorado. It encompasses approximately 856 acres on 8 miles of streams within the South Boulder Creek watershed. It includes South Boulder Creek from Baseline Road upstream to Eldorado Springs, and includes the Spring Brook tributary. This unit is located within the St. Vrain Hydrologic Unit Code (HUC) and is proposed to address the medium recovery population designated for this area in the Working Draft. Portions of the area have been the subject of Preble's research and, in places, high densities of Preble's have been documented. The unit's wide floodplain, complex ditch system, and irrigation of pastures make its habitat unique. Pressure for expanded development is occurring on private lands within the unit, and recreational use of the OSMP lands is considerable.

The project is not anticipated to induce growth due to surrounding land use (City of Boulder Open Space and agriculture) and the nature of the proposed project.

In the time since the listing of the Preble's, May 1998, through December 2009, we have conducted 138 formal consultations pursuant to section 7 of the Act and issued 20 incidental take permits pursuant to section 10(a)(1)(B) of the Act regarding Preble's in Colorado. Through these actions, we have exempted or permitted incidental take of Preble's through over 874 acres of permanent habitat loss and over 1,848 acres of temporary habitat loss.

Status of the Ute ladies'-tresses orchid within the action area

A large population of Ute ladies'-tresses orchids occurs in the South Boulder Creek floodplain within City of Boulder OSMP lands on both sides of US36. Individuals are located primarily in irrigated meadows, but also in more natural habitat along South Boulder Creek and small to large patches in wet meadows adjacent to South Boulder Creek.

Based on surveys conducted by City of Boulder OSMP of their properties since 1999, scattered locations of Ute ladies'-tresses orchids occur between Davidson Ditch and Table Mesa Drive.

The largest concentration of orchids surveyed by City of Boulder OSMP occurs west of South Boulder Creek along both sides of US36 on OSMP property up to the fence line of the CDOT right-of-way. During a site reconnaissance conducted in summer 2004, at least 50 plants were observed in or adjacent to the US36 footprint

Factors affecting the environment of the Preble's meadow jumping mouse/proposed critical habitat and Ute ladies'-tresses orchid within the action area

Development throughout the Denver metropolitan area has increased resulting in a higher population and an associated decrease in habitat, increase in habitat fragmentation, increase in impervious surfaces, increase in invasive weed species, and increased use of the highway system. Much of the land in the project area is publicly owned so is not under a threat of development. Parcels under private ownership also exist near the project area.

EFFECTS OF THE ACTION

Impacts to Preble's and the orchid were assessed by comparing the footprint of the proposed project to the occupied habitats or known ranges of each species. The limits of construction for the US36 project include the toe of slope (the bottom of the slope that falls away from the edge of the highway) plus 15 feet for construction. All water crossings will involve construction in the riparian areas of the streams, causing short-term sedimentation. Due to the small width of these streams, direct construction impacts to the riparian areas would be from 0.1 to 0.2 acre on either side of the crossing. Vegetation that is removed will be replaced immediately after construction is complete. Construction of new, replaced, or widened bridges would require 100 feet on either side of US36 to allow room for cranes and other equipment to place the girders. Bridge and grade separation construction (aerial structure) would involve site preparation, excavation, installation and construction of support columns and abutments, placement of girders, and bridge deck construction.

In general, highway construction projects directly affect wildlife and plants through land use change and habitat loss, as well as disturbance causing changes in behavior or movement, and possibly mortality. Effects may include direct effects that result from the action as well as indirect effects. Direct effects include impacts to individual plants or animals from loss of habitat, displacement from disturbance, and loss of habitat connectivity. Indirect effects include degradation of habitat from increased water runoff, loss of connectivity, and competition from noxious weeds and non-native species. Cumulative effects include impacts of the project combined with past, present, and future projects. Effects may be further defined as temporary or permanent and short-term or long-term. At this time, all impacts are assumed to be permanent because of the early level of design of the project. As design is refined, impacts will be further avoided and minimized, and categorized as temporary or permanent.

Preble's meadow jumping mouse/proposed critical habitat

Preble's occupy stream and ditch crossings within the project area under and adjacent to the US36 alignment in Boulder County. These locations include South Boulder Creek north and south of US36, and all suitable riparian and adjacent upland habitat east to Davidson Ditch. Destruction of riparian habitat directly and indirectly affects Preble's by destroying nest sites, food resources, and hibernation sites; by disrupting behavior; or by forming a barrier to movement. Direct effects were quantified for Preble's by measuring acres of habitat within the footprint of the project alignments using GIS. Indirect effects of connectivity losses (or gains) from extension or replacement of bridges and culverts in Preble's habitat were analyzed by comparing the existing dimensions of crossing structures with the proposed changes and with consideration of existing connectivity conditions. The total project impact area is anticipated to be approximately 41.71 acres.

The proposed project would directly affect Preble's through loss of habitat from widening of the highway and extension of culverts, as well as incidental mortality to individuals from earth moving or crushing during construction. Construction activities that must occur during Preble's active season may affect breeding, feeding, and dispersal. Individual mice would be susceptible to mortality from earth moving and excavation that occurs while individuals are in hibernation or while active. Active individuals may escape construction equipment, though the mice may hide in burrows or nests when construction occurs and still could potentially be crushed.

Permanent, indirect effects to Preble's include degradation of habitat caused by increased noxious weeds, habitat alteration caused by changes in hydrology and drainage patterns from development, and increased water runoff. Increased runoff could reduce water quality and result in increased flow in culverts, which would reduce connectivity for Preble's across the highway. Alteration of habitat from highway construction from hydrology changes could eliminate wetlands adjacent to the highway, which would also have a negative effect on Preble's. Drought conditions and decreased flows may have a short-term positive effect for Preble's movement through culverts, but loss of wetland vegetation caused by decreased hydrology would have a negative effect. Hydrological alterations caused by the US36 project are unknown at this time.

Several of the ditch crossings in the corridor have not yet been fully designed. Although the height of some of these bridges could change, the assumption at this time is that it will not change. According to the biological assessment, for the known occupied crossings, Davidson and Goodhue ditches and South Boulder Creek, crossing length is conservatively anticipated to increase by 330 feet at Davidson Ditch for a total out-to-out width of 440 feet, a conservative increase of 110 feet at Goodhue Ditch for a total out-to-out width of 270 feet, and a conservative increase of 40 feet at South Boulder Creek for a total out-to-out width of 227 feet. The conservative estimates may include the working area around these structures so that the actual structure width may be less. More detail will be determined during final design and will be fully assessed during site-specific consultation.

During construction, replacement or extension of bridges and culverts will temporarily reduce connectivity between occupied habitats on both sides of the highway. Permanent impacts to Preble's habitat connectivity will be affected to some extent by lengthening of crossings under US36. Some of these structures will exceed 300 feet, which is close to the maximum known culvert dispersal distance for the Preble's meadow jumping mouse of 305 feet (Ensight 1999). In many cases, habitat connectivity may be improved by replacing the existing structure with a larger one, especially with the addition of ledges for small mammal passage during periods of flowing water. For structures that are extended rather than replaced without the addition of ledges, movement would still be restricted to low or no flow conditions.

Temporary, direct effects to Preble's will occur during construction. Although these effects are difficult to quantify, disturbances to habitat may affect breeding behavior, dispersal ability, and susceptibility to predation. Temporary impacts will result from staging and use of construction equipment in the riparian corridor. Areas of temporary habitat loss would be restored following construction through vegetation restoration. In addition, lights used for night construction may affect Preble's in the vicinity of construction, causing changes in normal breeding and foraging behaviors for the duration of construction activity. The most common noise sources would be from engine-powered heavy earth-moving equipment (scrapers, bulldozers, etc.), materials handling equipment (cranes), and stationary equipment (generators). The loudest and most disruptive construction noise will result from pile driving and demolition work, which will require the use of jackhammers and hoe rams.

The acreage of impact (41.71) represents a small proportion of available habitat for Preble's. The areas of impact are located primarily along the existing US36 road right-of-way and are therefore not necessarily high quality habitat. However, habitats at the various ditch and creek crossings along US36 are known to be occupied by Preble's. Indirect effects to Preble's from loss of connectivity at riparian corridors may occur in some locations, however, replacement of crossing structures would increase connectivity across the highway.

Although the project will result in alteration and loss of Preble's habitat, with implementation of conservation measures, the project should not cause permanent habitat fragmentation and loss of connectivity within and between populations in the project area once construction and restoration are complete.

The project will affect a total of 7.36 acres, which is approximately 1.2 percent, of proposed critical habitat in Unit 5. Phase I of the proposed action accounts for 6.92 acres, and the remaining 0.44 acres of impact will occur if the bus-only lane is constructed. All primary constituent elements (riparian vegetation, connectivity, geomorphology, and hydrology) will be affected to some degree within that footprint. Despite these alterations, the area should continue to provide the function of the critical habitat by providing sufficient habitat and connectivity for Preble's. The project should not cause permanent habitat fragmentation or loss of connectivity across US36. Because of the small impact, we have concluded that the adverse effects to proposed critical habitat from the project will not diminish the purpose of the critical habitat as

providing for the conservation of the species. After project completion, including the conservation measures, the unit will still be able to provide for the persistence and recovery of Preble's.

Ute ladies'-tresses orchid

Direct impacts to the orchid include habitat loss and removal of individual plants. Areas of occupied habitat were identified based on information provided by City of Boulder OSMP. Additional areas classified as potentially occupied habitat are based on field reconnaissance; these are areas where the orchid has not been found to date, but could occur in the future. Because the orchid may not emerge annually, delineating specific areas of occupied range is difficult. Therefore, impacts are defined for "potentially occupied habitat," as well as "occupied habitat" because plants may be present currently or could become established by the time construction is initiated.

In occupied habitat, individual plants that occur within the construction footprint could be destroyed by crushing, uprooting, or burial during ground-clearing and earth-moving activities. Impacts are most likely to occur where the construction footprint would extend outside of the CDOT right-of-way for road widening, on-ramps, and stormwater detention ponds. The number of plants that would be affected is unknown, but is likely to represent only a very small portion of the South Boulder Creek population, which numbers around 8,500 plants.

Indirect impacts to the orchid from implementation of the proposed action could occur from highway runoff and construction itself. Information on hydrological alterations as a result of the US36 project is not known at this time. However, highway widening will increase the area of impervious surface, which would increase the amount of runoff from the highway to riparian areas and wetlands. Highway storm runoff contains sediments, hydrocarbons (oil, grease, fuel), litter, deicing salts and minerals, and heavy metals. In areas where orchids occupy habitat adjacent to the highway right-of-way, such as the Van Vleet Open Space, it is possible that this increased runoff could enter the riparian habitat, resulting in some amount of degradation and increased flows in streams; resulting in long-term, adverse effects to the plants. However, water would be treated in detention ponds adjacent to the highway.

In your biological assessment, you estimate that 35.94 acres of occupied and potentially occupied habitat will be affected by the proposed action. Proposed conservation measures will minimize impacts.

Cumulative Effects

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Habitat within the vicinity of the project area is protected as open space by the City of Boulder and will continue to be protected. Preble's and orchid habitats are generally in good condition on City of Boulder open space property. The City of Boulder and Boulder County have several land use policies in place that are intended to protect sensitive habitats and manage growth in the vicinity of the action area. Implementation of these policies and regulations would minimize the impact of future developments.

Potential impacts to Preble's from predicted future climate changes are somewhat uncertain. A trend of warming in the mountains of western North America is expected to decrease snowpack, hasten spring runoff, and reduce summer flows (IPCC 2007). Stream-flow reductions or seasonal changes in flow due to climate change will probably cause a greater disruption in those watersheds with a high level of human development (Hurd et al. 1999). The two major river basins that support Preble's in Colorado have heightened vulnerability to the effects of climate change due to the degree of human development, natural variability in stream-flow, ratio of precipitation lost to evapotranspiration, and groundwater depletion (Hurd et al. 1999). Conflicts between human needs for water and maintenance of existing wetland and riparian habitats could be heightened. While fewer cold days and nights could result in increased plant biomass yield in colder environments, increased summer heat may increase the frequency and intensity of wildfires, and areas affected by drought may increase (IPCC 2007). Overall, it appears reasonable to assume that Preble's will be affected negatively by climate change, and that changes in stream flows and resultant effects on riparian habitats may be a key factor. Adverse impacts seem more likely in those drainages where human demand for water resources is greatest; however, we lack sufficient certainty to predict more specifically how climate change will affect Preble's populations.

CONCLUSION

Preble's meadow jumping mouse/proposed critical habitat

After reviewing the current status of Preble's, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological and conference opinions that the action, as proposed, is not likely to jeopardize the continued existence of Preble's, and is also not likely to destroy or adversely modify proposed critical habitat.

Ute ladies'-tresses orchid

After reviewing the current status of the orchid, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the orchid.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent act or omission that creates the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

This incidental take statement is based on full implementation of the proposed action as described in the Description of the Proposed Action section of this biological and conference opinion, including conservation measures that were incorporated into the project design. Relevant aspects of the proposed action (including conservation measures) include, but are not limited to, the following:

1. Avoidance of impacts to Preble's and orchid habitats.
2. Minimization of impacts to Preble's and orchids habitats through implementation of BMPs and further refinement of project design.
3. Implementation of compensatory mitigation plan as described in section 8.4 of the biological assessment.

The measures described below are non-discretionary, and must be undertaken by the FHWA so that they become binding conditions, as appropriate, for the exemption in section 7(o)(2) to apply. The FHWA has a continuing duty to regulate the activity covered by this incidental take statement. If the FHWA (1) fails to assume and implement the terms and conditions or (2) fails to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, FHWA must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]

Sections 7(b)(4) and 7(o)(2) of the Act do not apply to listed plant species. However, limited protection of listed plants from take is provided to the extent that the Act prohibits the removal of federally listed <u>endangered</u> plants or the malicious damage of such plants on areas under federal

jurisdiction, or the destruction of listed plants on non-federal areas in violation of state law or regulation.

Amount or Extent of Take Anticipated

The Service anticipates incidental take of Preble's through direct killing and by loss of food, cover, and other essential habitat elements. This take will be difficult to detect because of their small size and hibernation underground. However, the following level of take can be anticipated by the loss of food, cover, and other essential habitat elements. The Service anticipates that the proposed action will result in incidental take of Preble's through a maximum permanent and temporary loss of no more than 41.71 acres of Preble's habitat, of which 7.36 acres is proposed critical habitat. Habitat in the project area is inhabited year-round by Preble's.

Incidental take may also occur through secondary impacts to Preble's and its habitat, though this take is not expected to be significant because US36 has affected the area for many years, and only insignificant additional secondary threats to Preble's will be introduced through completion of the project. The project area is occupied by Preble's and is also likely used for travel or dispersal. Conservation measures will minimize take.

In the accompanying biological and conference opinions, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of its proposed critical habitat.

Reasonable and Prudent Measures

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the effects of incidental take that might otherwise result from the proposed action.

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of Preble's:

1. The FHWA will monitor the extent of habitat impacted to assure that it does not exceed the authorized area.

2. The FHWA will monitor all aspects of proposed onsite restoration and enhancement to assure project completion and success.

3. The FHWA will ensure that all offsite acreage conserved to offset the projects' impacts are maintained into perpetuity as Preble's habitat, including reestablished linkages. These areas will be monitored to assure project completion and success.

4. The FHWA will ensure that BMPs designed to minimize take are implemented and successful.

5. The FHWA will ensure that site-specific biological assessments are submitted and approved by the Service prior to implementation of any specific action.

6. The FHWA will ensure that offsite fill material will not be obtained from nor disposed of in an area containing a listed species or its habitat without Service approval.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the FHWA must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

The following terms and conditions implement the reasonable and prudent measures:

1. The following terms and conditions implement reasonable and prudent measure number 1. Work will be supervised, inspected, and monitored at all times by an onsite individual from CDOT or by an authorized representative. Staging areas for equipment will be outside habitat areas or in permanently impacted areas.

2. The following terms and conditions implement reasonable and prudent measure number 2. The FHWA will include as a binding condition of project approval that CDOT conduct annual monitoring of onsite revegetation efforts and noxious weeds. Monitoring will extend for at least three growing seasons (or until such time as the FHWA and the Service determine that proposed revegetation has been successfully completed). Success criteria will be established during site-specific consultation.

CDOT shall forward monitoring reports to the FHWA and the Service after each growing season and prior to February 1. CDOT must also provide a report to the FHWA and the Service, which includes photographic documentation of site conditions within identified Preble's habitat prior to construction and at completion of construction.

3. The following terms and conditions implement reasonable and prudent measure number 3. FHWA and CDOT will enter into agreements with property holders to maintain and manage their properties for the benefit of Preble's into perpetuity. This term and condition applies to FHWA/CDOT's commitment to develop a comprehensive mitigation strategy for the South Boulder Creek floodplain ecological system, as stated in the biological assessment. Success criteria will be established when these sites are chosen. CDOT shall forward monitoring reports to the FHWA and the Service after each growing season and prior to February 1.

4. The following terms and conditions implement reasonable and prudent measure number 4. An employee awareness training session will be held prior to construction. Meeting minutes and a list of attendees will be submitted to the Service. During this training, workers will be informed by CDOT as to the reason for and importance of limiting impacts to vegetated habitat outside the fenced work area. BMPs will also be presented and discussed at this time.

5. The following terms and conditions implement reasonable and prudent measure number 5. Site specific biological assessments must contain a complete project description including the location of the actions covered and efforts taken to avoid and minimize project impacts. The project schedule will also be provided. Additionally, the biological assessment must determine whether this project fits into the programmatic consultation by showing the effects of the project. A precise estimate of the expected level of impact, the amount of take, and the amount of habitat affected or lost must be included.

6. The following term and condition implements reasonable and prudent measure number 6. CDOT will include in the project specifications that the contractor shall obtain prior written approval from the Service and/or CDOT's Threatened and Endangered Species staff specialist for all borrow or offsite material sources or for material disposal sites. The contractor and workers will be informed during training that they will be required to submit proof of compliance. This condition will assure that offsite indirect impacts of the project to listed species are minimized.

7. In the unlikely event that a Preble's mouse is encountered (dead, injured, or hibernating) during construction activities, the Colorado Field Office of the Service shall be contacted immediately at 303 236-4773.

The Service believes that no more than 41.71 acres of Preble's habitat and 7.36 acres of proposed critical habitat will be adversely affected as a result of the proposed action. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The FHWA must immediately provide an explanation of the causes of the increased level of taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

The Service has no conservation recommendations at this time.

REINITATION - CLOSING STATEMENT

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

You may ask the Service to confirm the conference opinion as a biological opinion issued through formal consultation if the critical habitat is designated. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.

After designation of critical habitat for Preble's and any subsequent adoption of this conference opinion, the Federal agency shall request reinitiation of consultation if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect the species or critical habitat in a manner or to an extent not considered in this conference opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the species or critical habitat that was not considered in this conference opinion; of (4) a new species is listed or critical habitat designated that may be affected by the action.

The incidental take statement provided in this conference opinion does not become effective until the species is listed and the conference opinion is adopted as the biological opinion issued through formal consultation. At that time, the project will be reviewed to determine whether any take of the habitat has occurred. Modifications of the opinion and incidental take statement may be appropriate to reflect that take. No take of the habitat may occur between the designation and the adoption of the conference through formal consultation, or the completion of a subsequent formal consultation.

If the Service can be of further assistance, please contact Alison Michael at (303) 236-4758.

Sincerely,

Susan C. Linner
Colorado Field Supervisor

ec: FHWA (Monica Pavlik)
CDOT, HQ (Jeff Peterson)
CDOT, R6 (Jane Hann, Jon Chesser)
Michael

Ref: Alison\H:\My Documents\CDOT 2004\Region 6\US36\consultation docs\US36 corridor PBO.doc

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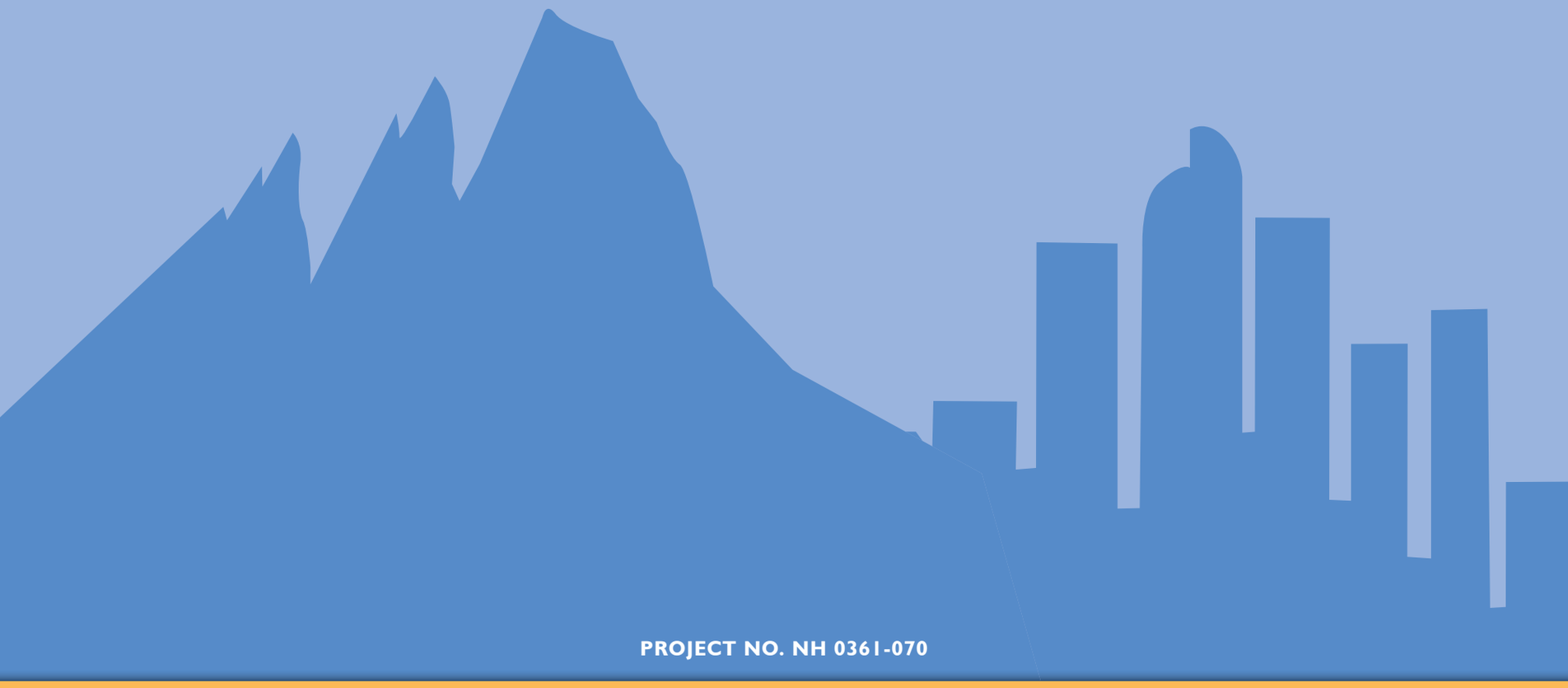

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