

US 36 CLARIFICATION AND DETAIL FOR COMMON COMMENTS

GENERAL BIKEWAY RESPONSE

The general bikeway response addresses common issues, concerns, or questions identified in the following comments: 2-1, 2-5, 13-8, 13-26, 14-8, 14-68, 15-22, 16-11, 17-1, 17-6, 17-44, 17-113, 18-1, 18-9, 21-6, 23-6, 24-3, 24-4, 25-19, 32-6, 36-2, 38-3, 41-2, 42-2, 43-2, 47-2, 53-1, 55-4, 74-9, 105-3, 107-4, 111-1, 121-5, 134-1, 137-4, 142-3, 145-1, 149-3, 156-2, 156-2, 156-4, 190-1, 194-3, 196-5, 199-2, 201-1, and 212-1. The commenters assigned comment number and corresponding page number for detailed responses are provided in the table at the front of this volume.

The project alternatives were developed in response to the assessment of transportation needs identified in the United States Highway 36 (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 alternatives, 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 was envisioned as a regional commuter facility. The design for the bikeway does include fully grade-separated crossings (under passes/over passes) where it crosses over or under cross-streets for most of the corridor, with the exception of the segment of the bikeway on the east end. At this point, the bikeway transitions away from US 36 to on-street facilities before it connects to the existing Little Dry Creek Trail. However, full access/connections are not currently 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.

On the west end of the corridor (where sensitive natural environment is present), two distinct options (Cherryvale Road/South Boulder Road and US 36 adjacent) were considered for the bikeway alignment between Cherryvale Road and Table Mesa Drive. These two options are an attempt to present the trade-offs between the impacts to those sensitive environments and the need for a direct and continuous bikeway facility.

It was noted in the Draft Environmental Impact Statement (DEIS) that the bikeway, if adjacent to US 36 in this section, could serve a dual purpose and also provide Colorado Department of Transportation (CDOT) with access to maintain the proposed retaining wall in that section. CDOT does not require that access to retaining walls be provided via a paved surface for maintenance purposes. However, it was determined that CDOT could access the retaining wall in this section via the bicycle facility, which is intended to be a 12-foot wide paved surface.

While the Cherryvale Road/South Boulder Road alignment does present different environmental impacts than the US 36 adjacent alignment, the US 36 alignment was selected as part of the Combined Alternative Package (Preferred Alternative) because it best meets the project Purpose and Need for a direct multi-modal commuting facility. Also, it received greater support from the public and the city of Boulder

(see specifically Comment #17-6). (Refer to the information presented in the Final Environmental Impact Statement (FEIS) Chapter 2, Alternatives Considered, for additional information.)

In addition, as part of the Combined Alternative Package (Preferred Alternative) process that took place subsequent to the release of the DEIS, the bikeway alignment on the east end was reviewed and modified to address concerns about the termination of the bikeway.

Based on field review, engineering, and environmental analysis, the Bradburn Boulevard alignment was selected as the preferred alignment in this section for the bikeway. Several alternatives were considered and evaluated but dismissed due to the impacts. Alternatives that were considered included the Tennyson Street alignment proposed by the city of Westminster, continuing the grade-separated bikeway, east to Broadway, and sharing railroad right-of-way (ROW) along the existing BNSF Railway tracks. The Bradburn Boulevard alignment is more consistent with the project Purpose and Need in that it is more direct compared to the Tennyson Street alignment, and equivalent in terms of safety. Additionally, the Tennyson Street alignment would result in additional Section 4(f) impacts with the construction of the bikeway through Kennedy Park. Continuing the bikeway to Broadway would require a substantial amount of additional ROW and property acquisitions above the Bradburn Boulevard alignment. Lastly, the BNSF Railway has indicated that they would not permit a bikeway within their ROW.

Per the city of Westminster request, additional analysis was done to evaluate the Bradburn Boulevard alignment connection to the Little Dry Creek Trail at 72nd Avenue. The modified design proposes the addition of a bicycle/pedestrian signal and striping that would facilitate crossing of 72nd Avenue in this location, and from there, a connection would be made to the Little Dry Creek Trail.

CDOT current practice identifies maintenance of bikeways as a responsibility of the local jurisdiction. Details about maintenance are negotiated through an Intergovernmental Agreement (IGA). An IGA will be negotiated with the various US 36 corridor local jurisdictions for maintenance of the US 36 bikeway. The text in Chapter 2, Alternatives Considered, has been revised to clarify this arrangement.

GENERAL COMBINED ALTERNATIVE PACKAGE (PREFERRED ALTERNATIVE): MANAGED LANES, AUXILIARY LANES AND BUS RAPID TRANSIT

The general Combined Alternative Package (Preferred Alternative) response addresses common issues, concerns, or questions identified in the following comments: 2-2, 2-4, 10-1, 11-2, 12-1, 13-8, 13-12, 14-7, 14-15, 14-23, 15-1, 15-25, 16-1, 17-1, 17-14, 17-46, 18-1, 18-2, 20-2, 21-2, 22-1, 23-2, 26-2, 34-1, 41-1, 53-1, 67-1, 74-1, 78-1, 83-1, 86-1, 94-1, 99-2, 102-1, 104-1, 105-1, 105-5, 106-1, 107-1, 112-1, 112-2, 116-2, 118-1, 119-1, 121-2, 121-4, 123-1, 136-1, 132-1, 136-1, 137-2, 139-1, 140-1, 141-1, 146-1, 149-1, 150-1, 151-1, 154-1, 162-1, 166-1, 170-3, 173-1, 177-1, 178-1, 181-1, 182-4, 194-1, 196-3, 203-1, and 208-4. The commenters assigned comment number and corresponding page number for detailed responses are provided in the table at the front of this volume.

Following the publication of the DEIS, it was apparent that there was overwhelming agency and community support for a hybrid alternative. This hybrid alternative would contain characteristics of both of the DEIS build packages (Package 2 and Package 4). It would have fewer lanes to reduce environmental impacts and costs, while maximizing the transportation benefits.

In late 2007 a Preferred Alternative Committee (PAC) was formed to develop this alternative, called the Combined Alternative Package (Preferred Alternative). The committee initially considered the major elements of the alternative, which included one managed lane in each direction, no additional general-purpose lanes, interchange improvements, and the bikeway. Working groups were held to discuss and evaluate specific technical elements, such as auxiliary lanes throughout the corridor, and other unresolved issues from the DEIS. This effort resulted in the Combined Alternative Package (Preferred Alternative) being evaluated in this FEIS. This package is recommended as the Preferred Alternative because it has overall public support, less environmental impacts, and best meets the Purpose and Need.

In general, the Combined Alternative Package (Preferred Alternative) would add one managed lane in each direction on US 36 and auxiliary lanes between most interchanges. The managed lanes would connect to and be an extension of the existing Interstate 25 (I-25) express lanes that go to and from downtown Denver. The reversible managed lane between Sheridan Boulevard 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 be bi-directional, located in the median of US 36, and separated from the general-purpose lanes by a painted buffer. Buses would exit the highway to pick up and drop off passengers at bus rapid transit (BRT) stations located on ramps adjacent to existing park-n-Rides. Access to the managed lane would be provided at separate ingress and egress points located between each interchange.

The Combined Alternative Package (Preferred Alternative) would include a bikeway facility adjacent to US 36. In general, the bikeway is an off-street 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 would be the responsibility of the local jurisdictions through an IGA with CDOT.

The Combined Alternative Package (Preferred Alternative) would also include Transportation Demand Management 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.

Improvements and changes to transit stations would be made throughout the corridor as part of the Combined Alternative Package (Preferred Alternative). The Combined Alternative Package (Preferred Alternative) would also provide BRT improvements, including new and more frequent bus service in the US 36 corridor.

Design Options A and B

Two design options were considered for the western terminus of the corridor improvements for BRT service. In Option A, the managed lanes or BRT/high-occupancy vehicle (HOV) lanes would merge into the general-purpose lanes just west of Cherryvale Road. Traffic could exit to Foothills Parkway or South Boulder Road, or could continue on to 28th Street.

In Option B, a bus-only lane would be provided directly to Table Mesa Station via a new bridge to and from the managed lanes or BRT/HOV lanes in the median. All westbound vehicles in the managed lanes or BRT/HOV lanes, except for buses, would be required to exit the lanes just west of Cherryvale Road and merge into the general-purpose lanes.

As part of the PAC process to develop the Combined Alternative Package (Preferred Alternative), Option A was selected for inclusion in the Combined Alternative Package (Preferred Alternative). While Option B provided improved transit travel time, it was more expensive and had more environmental impacts.

Auxiliary Lane between McCaslin Boulevard and Foothills Parkway/Table Mesa Drive

During the planning process, corridor stakeholders, including the City of Boulder and Boulder County, requested that the project team consider two variations of Package 4 that would modify the westbound auxiliary lane between McCaslin Boulevard and the Foothills Parkway/Table Mesa Drive interchange. The stakeholders were concerned that the amount of westbound capacity, provided by Package 4, would be greater than the amount of traffic the intersections in Boulder could reasonably accommodate.

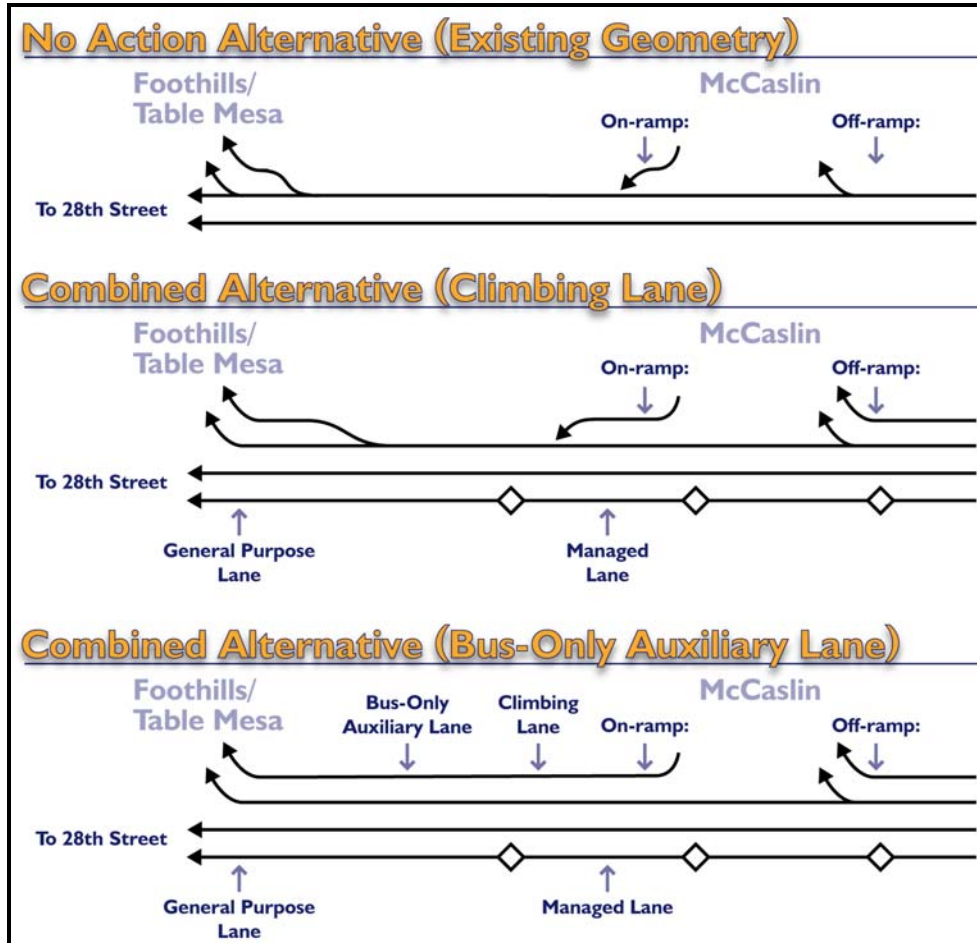
In response to this request, one variation of Package 4 was developed that would shorten the auxiliary lane between McCaslin Boulevard and the Foothills Parkway/Table Mesa Drive interchange. Another variation of Package 4 was developed that would eliminate the auxiliary lane altogether. These two variations of Package 4, referred to as the “Reduce Auxiliary Lane Variation,” and the “Eliminated Auxiliary Lane Variation,” were not carried forward based on the results from the traffic impact analysis.

This issue was discussed at length as part of the PAC process to develop the Combined Alternative Package (Preferred Alternative). For the Combined Alternative Package (Preferred Alternative) agreement in July 2008, 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, was agreed upon for inclusion in the Combined Alternative Package (Preferred Alternative). At that time, the PAC also agreed to evaluate the extension of climbing lanes on US 36 between McCaslin Boulevard and Table Mesa Drive to bus-only lanes, as well as the use of shoulders for transit during peak travel periods.

Further traffic analysis indicated that the general-purpose lanes between McCaslin Boulevard and Foothills Parkway/Table Mesa Drive would operate at level of service (LOS) E with the climbing lane as described above. With the climbing lane extended as a general-purpose lane (westbound to Foothills Parkway/Table Mesa Drive and eastbound to McCaslin Boulevard), it was estimated that the general-purpose lanes would operate at LOS D. Therefore, the extension of the lane was determined to be a necessary element of the Combined Alternative Package (Preferred Alternative). However, only buses would be permitted to use this portion of the lanes. While the traffic analysis indicates a need for this lane by 2035, it is unclear at what point in the future the lane will become necessary. This lane is not included in Phase 1. Therefore, “triggers” for the implementation of this lane have been established and agreed upon by the PAC. The construction of this lane will not commence until approved.

Figure 1, Lanes between McCaslin Boulevard and Foothills Parkway/Table Mesa Drive, shows the existing configuration, the initial configuration with the climbing lanes, and the final configuration with the bus-only auxiliary lane, for the westbound direction.

Figure 1: Lanes between McCaslin Boulevard and Foothills Parkway/Table Mesa Drive



Source: US 36 Mobility Partnership, 2009.

Interstate-25/Broadway Interchange

The I-25/Broadway interchange is depicted in this FEIS 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. 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 DEIS and the PAC process, Adams County and local stakeholders raised concerns about the elimination of local access at Broadway. 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 FEIS 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 re-evaluate the proposed federal action prior to a final determination on local access to the interstate(s).

Foothills Parkway/Table Mesa Drive Interchange

The Combined Alternative Package (Preferred Alternative) includes improvements at the Foothills Parkway/Table Mesa Drive interchange. In particular, the existing loop-ramp from westbound Table Mesa Drive to eastbound US 36 would be removed. The ramp from Foothills Parkway to eastbound US 36 would be relocated to improve the merging operations among the US 36, Table Mesa Drive, and Foothills Parkway traffic.

At the Table Mesa Drive interchange, access to the University of Colorado, Boulder South Campus property was to be provided through a new connection to the local street network. Objections to this proposal have been made by the City of Boulder and the University of Colorado due to future development ideas for the area. As a result, two alternatives are being considered. Both the Preferred Alternative and a Local Streets Option are shown on the Combined Alternative Package (Preferred Alternative) maps in Appendix A, Corridor Reference Maps. Approval of these alternatives through CDOT's 1601 process and participation in cost sharing for the Preferred Alternative would be required prior to these alternatives being constructed. In the future, when the Record of Decision (ROD) for this phase of the improvements is being prepared and the Boulder South Campus Master Plan (to be prepared by the University of Colorado) is more fully developed, these alternatives will be re-evaluated. A Memorandum of Understanding (MOU) among CDOT, the City of Boulder, Boulder County, and the University of Colorado will be developed to document the process and participation in cost sharing. This MOU will be developed when funding for this phase has been identified and prior to a ROD.

Additional details on the design and the MOU are presented in Chapter 2, Alternatives Considered. Reference maps that depict the design are presented in Appendix A, Corridor Reference Maps.

GENERAL FUNDING RESPONSE

The general funding response addresses common issues, concerns, or questions identified in the following comments: 4-23, 13-14, 17-5, 17-102, 18-4, 25-20, 40-7, 56-2, 62-2, 67-1, 78-2, 86-1, 125-1, 156-2, 170-3, 172-1, and 177-4. The commenters assigned comment number and corresponding page number for detailed responses are provided in the table at the front of this volume.

CDOT, as the steward of the state highway system, has to strike a balance in spending that addresses safety, system quality, and mobility of the traveling public. Reaching that balance is difficult, especially when funding isn't enough to meet the desired goals for any one of those needs. Annually, the CDOT Transportation Commission sets performance goals on the state highway system that it will try to reach through investing in improvements. Those goals always reflect the need to invest in a mix of improvements to the system.

Some transportation funding is specifically targeted to capacity-type improvements and cannot be spent on certain types of facilities, or on maintenance or other activities. In preparing this FEIS for US 36, CDOT is poising itself to be competitive for future federal funding for this corridor.

CDOT and the Regional Transportation District (RTD) are working on a number of fronts to raise money for this project in particular, and also for transportation investments generally.

At the federal level, CDOT has been working with the State's Congressional representatives and U.S. Department of Transportation (USDOT) to identify a more sustainable stream of revenue for future transportation improvements than the current gas tax. The gas tax is a flat per gallon tax – meaning it does not vary as the price of gasoline increases or decreases. The gas tax was last increased in the early 1990s, and is losing purchasing power every year. Additionally, Americans are driving more fuel efficient cars and therefore buying less gas. All of these factors combined indicate that the gas tax is not a reliable means of funding critical transportation projects. The President's recently approved American Recovery and Reinvestment Act will provide much needed transportation funding to the state, but a long-term solution for sustainable funding for transportation is still needed.

CDOT worked closely with a Blue Ribbon Advisory Panel, established by Governor Ritter, to make recommendations at the state level on the future of transportation financing. Many of the recommendations from that effort are embodied in the FASTER bill (Senate Bill [SB] 09-208) which was signed into law by the Governor in early March 2009. CDOT has and will continue to team with the local entities and businesses in the US 36 corridor to request discretionary funding from the federal government. While those proposals have not yet been funded, USDOT will continue to work with the

coalition of forces involved in this project to fund critical improvements to the region's transportation network.

US 36 Project Cost

The Combined Alternative Package (Preferred Alternative) for the US 36 project, estimated to cost \$1.3 billion (2008 year dollars), is included in the Denver Regional Council of Government's (DRCOG) *Metro Vision 2035 Regional Transportation Plan (2035 MVRTP)*, as amended (DRCOG 2009). Neither Package 2 nor Package 4, presented in the DEIS, was fully funded with revenues anticipated to be available. Likewise, the Preferred Alternative presented in the FEIS is only partially funded with revenues in the fiscally constrained element of the plan. Therefore, the US 36 corridor project will need to be phased over time as additional funding becomes available. At this time, a total of \$515.7 million (2008 dollars) is identified from DRCOG, CDOT, and local funding sources, as well as an additional \$195.4 million (2008 dollars) contribution from RTD. Local funding is responsible for approximately 5 percent of the currently identified revenues.

There is no plan to increase taxes to pay for US 36 improvements at present. Pursuant to TABOR, also known as Article X, Section 20 of the Colorado Constitution, any tax increase requires voter approval. This would require a statewide vote. There are two ways a ballot issue to increase the statewide gas tax could go to the voters. First, the General Assembly could pass a bill establishing the tax rate increase and refer it to the voters for approval. This is called a referendum. Second, a citizens group could initiate a ballot measure by getting signatures to put a tax increase on the ballot. This is called an initiative. Currently, CDOT does not have the authority to raise gas taxes.

Project Phasing

In July of 2008, the US 36 PAC, consisting of members from the project team as well as the US 36 corridor jurisdictions, came to an agreement on phasing the project improvements which emphasizes completing the new managed lanes (one in each direction) for the entire US 36 corridor from Federal Boulevard to Foothills Parkway as a first priority.

Consistent with the proposed project phasing, the following elements are deemed to be fundable between now and 2035, and therefore are included in the *2035 MVRTP*, as amended (DRCOG 2009):

- Reconstruction of the Sheridan Boulevard and US 36 interchange.
- Reconstruction of the Wadsworth Parkway and US 36 interchange.
- Addition of managed lanes on US 36 from Foothills Parkway to I-25.
- Addition of BRT lanes on US 36 and a bikeway parallel to US 36 (FasTracks).

Funding for this project is anticipated to be available at different times over the course of the planning period. In rough terms: \$222 million is anticipated to be available between now and 2015; \$36 million between 2016 and 2020; \$259 million between 2021 and 2030; and \$185 million between 2031 and 2035, with the balance of funding needed beyond 2035. What this means is that discreet, usable pieces of the funded improvements can be completed in the near term, while other funded elements won't be built until nearly 2035. The currently unfunded pieces of the Preferred Alternative would be constructed beyond 2035.

Currently, the fiscally constrained transportation plan includes \$8 million for bikeway improvements along the corridor.

Tolling Authority

Until passage of SB 09-108 (FASTER) in March 2009, tolling in Colorado was allowed only on new capacity (i.e., new lanes). The US 36 managed lanes would be new capacity, and only those new lanes would be subject to a toll. The FASTER bill does allow tolling on existing capacity, but the US 36 Corridor FEIS does not propose tolling of the existing lanes.

At the time that the Transportation Expansion (TREX) project was authorized in 1999, Colorado did not have the authority to charge tolls on the state highway system. The Colorado Tolling Enterprise, recently reformed and renamed the High Performance Transportation Enterprise, came into existence in 2002, well after the plan of finance and design-build contract for TREX was complete. Since granted the ability to toll in 2002, CDOT has examined tolling as an alternative for highway projects. In some cases, due to local opposition, minimal revenue potential, minimal congestion relief benefits, and other reasons, tolling has not been pursued.

Congestion Pricing

Tolling creates an opportunity to improve how a transportation facility operates. By varying the toll amount at different times of the day, we can influence choices as to how and when people travel. For example, if a roadway is heavily congested from 7:00 a.m. to 9:00 a.m., but has free-flow conditions the remainder of the day, charging a toll only during the 7:00 a.m. to 9:00 a.m. period and/or for single-occupant vehicles (SOV) only, may encourage some drivers to delay their trip until after the 9:00 a.m. rush hour or to consider carpooling instead of driving alone. If enough people change their travel patterns based on cost, then congestion may be lessened as a result of charging the toll. The idea of charging a toll for congestion management benefit is often referred to as “congestion pricing.”

The purpose for tolling on this project is primarily to improve congestion management and to provide greater choices to the traveling public. There are both financial and operational reasons that tolling a transportation facility may be beneficial. Collecting tolls generates a revenue stream that can be used to offset the cost of maintaining the facility. This is a financial benefit that tolling can provide. Charging a toll is also a way to discourage SOV travel during the most congested times of day when traffic congestion and pollution are highest. In the proposed managed lanes, HOVs and transit vehicles would be allowed to use the lanes for free, but excess capacity in those lanes would be sold to SOVs who choose to pay a toll.

The higher tolls charged during peak travel periods should encourage some SOV drivers to carpool, take transit, or change the time of their trip. When they absolutely have to make the trip at that time, alone and/or arrive on a particular schedule, they may choose to pay the toll for a more reliable travel time that can be provided by the managed lane. Tolling on US 36 is proposed primarily for congestion management benefits, not in order to raise revenue.

CDOT intends to operate the managed lanes along the US 36 corridor with the goals of optimizing the use of the lanes, maximizing travel time savings, and keeping managed lane traffic flowing at 45 miles per hour or faster. To accomplish this goal, CDOT will employ dynamic pricing, in which the toll rate is increased or decreased depending on the levels of congestions necessary to meet the operation goals. Technology is currently available to collect tolls under Package 2. The geometric configuration of the managed lanes provides for more efficient enforcement

The current definition of HOV is a vehicle with 2+ occupants. In the future, adjustments of the definition of HOV from 2+ to 3+ or 4+ passengers may also be made to maintain the desired operating conditions in the managed lanes.

Motorcycles will be permitted in the managed lanes. Colorado state law, Colorado Revised Statutes 42-4-1012(d)(2) provides that “a motorcycle may be operated upon HOV lanes pursuant to section 163 of Public Law 97-424 or upon HOV toll lanes, unless prohibited by official traffic control devices.”

Variable and dynamic pricing are both forms of congestion pricing. Currently, CDOT operates the I-25 express lanes as a variable toll facility, but the hope is to transition to a dynamic pricing system for that facility and future facilities like this one. “Variable” pricing is where toll rates vary according to specific parameters of the toll-paying customer (e.g., by time of day and day of week of travel), but on a fixed schedule based on typical traffic patterns. In “dynamic” pricing, tolls are also varied according to specific parameters, but they vary in real-time based on actual data (e.g., levels of congestion). Ongoing assessment of the traffic conditions would be used to adjust the toll price as often as every few minutes to manage the current congestion. Automated message signs posted at the entrance points to the managed lanes would alert SOV drivers to the current toll. In both variable and dynamic pricing systems, tolls are set at levels needed to achieve a specified performance standard (e.g., LOS).

Social Equity of Managed Lanes

In the United States, growing interest in managed lanes and the fairness issues implicit in them has prompted research on the equity of tolled facilities. Equity concerns about managed lanes in general include their impact on low-income drivers, and that any new toll facility may present a new cost burden that will further limit travel options. Various studies of the very few, tolled express lane projects in the United States (I-15 in San Diego County, California; SR 91 in Orange County, California; and the Quick Ride Program on I-10 in Houston, Texas) have focused on the use of managed lanes by low-income populations.

These evaluations found that low-income drivers use the managed lanes and approve of these lanes as much as high-income drivers. The majority of commuters who use the toll lanes, even those from high-income households, do not use the tolled lanes for every trip, but selectively use the tolled lanes for those trips where arriving at their destination at a particular time is critical. For example, if a low-income person is running late and must get to a job or wants to avoid paying a late fee when picking up a child at daycare, paying a toll to arrive on time may be the best choice for that trip. These studies support the idea that managed lanes provide more efficient choices for all users (transit, carpooling, paying a toll for a congestion-free trip)—and that people make the right choice for each trip.

In addition, even if individuals choose not to pay a toll to use the managed lanes as an SOV, they may experience benefits from the additional lane by traveling via BRT or HOV. For example, based on 2035 traffic forecasting, BRT and HOVs using the new managed lanes between Boulder’s Table Mesa Station and the Denver Union Station for the a.m. peak hours are expected to experience time savings over the general-purpose lanes depending on direction and route times.

Use of US 36 Toll Revenues

Toll revenues would be used to purchase and maintain the toll-related equipment (toll readers, gantries, signs, etc.), and to pay for toll enforcement, collection, and processing activities. Current estimates of toll revenue to be collected would be sufficient to cover those costs, but is not likely to result in a significant amount of excess to spend on other parts of the project, such as, construction of new lanes or to repay bonds. If additional toll revenue is left after covering these costs, it would be used to help pay for the cost of operating, maintaining, and improving the multi-modal corridor.

All proposed toll improvements on US 36 would be fully inter-operable with other existing toll facilities. Thus, the same transponder that is currently used for travel on the E-470, Northwest Parkway, and I-25 express lanes would also work on the US 36 managed lanes.

GENERAL HUMAN HEALTH RESPONSE

The general human health response addresses common issues, concerns, or questions identified in the following comments: 28-1, 33-3, 73-1, 73-2, 73-4, 74-5, 87-1, 89-1, 92-1, 149-4, 150-1, and 173-2. The commenters assigned comment number and corresponding page number for detailed responses are provided in the table at the front of this volume.

Concerns about noise and air pollution, both during construction and during permanent operation of the highway, have been voiced in several comments received on the DEIS.

Noise impacts resulting from the proposed project have been analyzed and documented in Section 4.13, Noise, of the FEIS. When future noise levels would exceed CDOT's noise abatement criteria, mitigation such as noise walls will be provided if it is reasonable and feasible to do so. Many areas of the US 36 corridor have noise walls that would be replaced after construction, and new noise walls are proposed in some areas.

Noise and vibration levels would increase temporarily during construction activity. Noise from construction activity would be dependent on the equipment operating at any given moment, and these noise levels are documented in Section 4.22, Construction-Related Impacts. CDOT follows a variety of practices to mitigate, or lessen, the impact of increased noise and vibration during construction. These mitigation measures are discussed at the end of Sections 4.13 and 4.22 in the FEIS.

Impacts to air quality resulting from the proposed project have been analyzed and documented in Section 4.12, Air Quality, of the FEIS. 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 U.S. Environmental Protection Agency 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. CDOT follows practices to mitigate, or lessen, air quality impacts during construction. These mitigation measures are discussed at the end of Sections 4.12 and 4.22 in the 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.

Studies do indicate that residents living next to highways experience higher levels of noise and air pollution and have a higher risk of developing illnesses related to air pollution. Regional air quality regulations address air pollution at regional levels but not at the micro-level of populations living within several hundred feet of highways. Additional studies and policy discussions are needed to better define the risks and address them appropriately through policy decisions.