

120th Avenue Connection

Finding of No Significant Impact & Final Section 4(f) Evaluation



January 2006



DEMO 0361-067

120th Avenue Connection

FINDING OF NO SIGNIFICANT IMPACT AND SECTION 4(f) EVALUATION

US Department of Transportation
Federal Highway Administration
and
Colorado Department of Transportation

Submitted Pursuant to:

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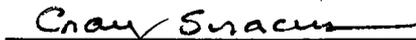
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1-10-06
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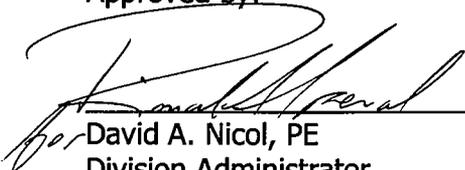
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DEMO 0361-067

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FINDING OF NO SIGNIFICANT IMPACT AND SECTION 4(f) EVALUATION



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A Federal agency may publish a notice in the Federal Register, pursuant to 23 USC §139(l), indicating that one or more Federal agencies have taken final actions on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 180 days after the date of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

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1.0: INTRODUCTION

The City and County of Broomfield (Broomfield) proposes to provide a direct connection across US 36 between the intersection of State Highway (SH) 128 and Wadsworth Parkway (SH 121) on the west and the intersection of 120th Avenue (SH 128/US 287) and Teller Street on the east, a distance of approximately 1.2 miles. Currently, both the SH 128 and 120th Avenue corridors run east-west and converge near the Wadsworth/US 36 Interchange. **Figure 1-1** shows the detailed study area and the Preferred Alternative roadway network.

In March 2005 the 120th Avenue Connection Environmental Assessment (EA) was completed and signed. The EA and this Finding of No Significant Impact (FONSI) were prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 and with other applicable environmental laws, Executive Orders, and related requirements. As required by NEPA, a detailed environmental analysis was conducted and all potential impacts associated with the proposed action were documented and mitigation measures identified. No significant impacts to the environment were identified during the course of this study.

The analysis performed in the EA revealed that there are a limited number of resources that would be impacted by the Preferred Alternative. Environmental impacts and mitigation measures associated with the Preferred Alternative are fully discussed in Chapter 3.0 of the EA. A summary of impacts and mitigation for the Preferred Alternative is included as Appendix A of this FONSI.

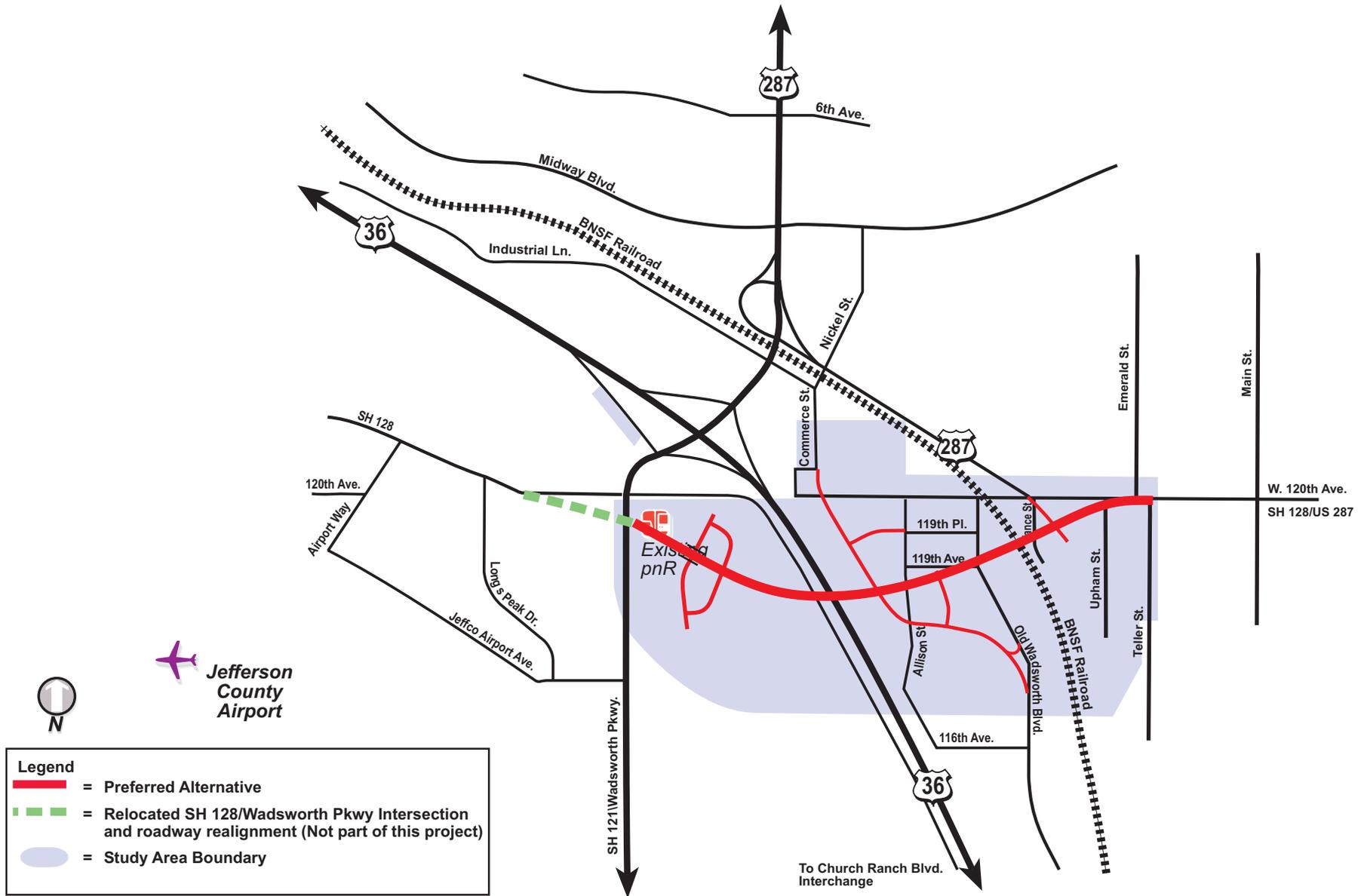
1.1 Purpose and Need

The purpose of the 120th Avenue Connection project is to accommodate existing and forecasted east-west through traffic, reduce out of direction travel, and alleviate congestion along area roadways, including the Wadsworth/US 36 Interchange. In summary, the needs for the proposed improvements include:

- ▶ Correcting the discontinuity of both the SH 128 and 120th Avenue corridors for through traffic crossing US 36 to reduce out-of-direction travel. Those desiring to travel east-west on SH 128/120th Avenue must now travel through the heavily congested Wadsworth/US 36 Interchange.
- ▶ Relieving peak hour congestion along 120th Avenue, SH 128 and through the intersection. Both SH 128 and 120th Avenue are operating at capacity in the peak hours, and will be above their functional capacity during peak hours in the future without the 120th Avenue Connection. Traffic forecasts indicate at least a doubling in traffic over the next 20 years. Traffic volumes are increasing due to regional and local growth and development in the vicinity resulting in congested conditions and greater traffic delays.
- ▶ Providing improved access to proposed RTD park-n-Ride facilities. RTD is planning to relocate the existing Broomfield park-n-Ride to new locations on both sides of US 36 in the vicinity of this project.

120th Avenue Connection

Environmental Assessment



120th Avenue Connection

Figure 1-1

- ▶ Providing congestion relief in the Wadsworth/US 36 Interchange by removing most east-west through traffic, thereby improving north-south traffic on US 287 and Wadsworth Parkway.
- ▶ Reducing accident rates within the study area which are currently above the statewide average for both US 287 and SH 121/Wadsworth Parkway.
- ▶ Providing improved access and safety for pedestrians and bicyclists.

The 120th Avenue Connection project would address the needs listed above by providing a crossing of US 36 for east-west vehicular, transit, pedestrian and bicycle traffic. Completion of this improvement would ease existing and forecasted traffic congestion on SH 128 and 120th Avenue and on other area roadways such as Wadsworth Parkway, Midway Boulevard, Nickel Street, Commerce Street, and US 287, as well as through the Wadsworth/US 36 Interchange.

1.2 Preferred Alternative

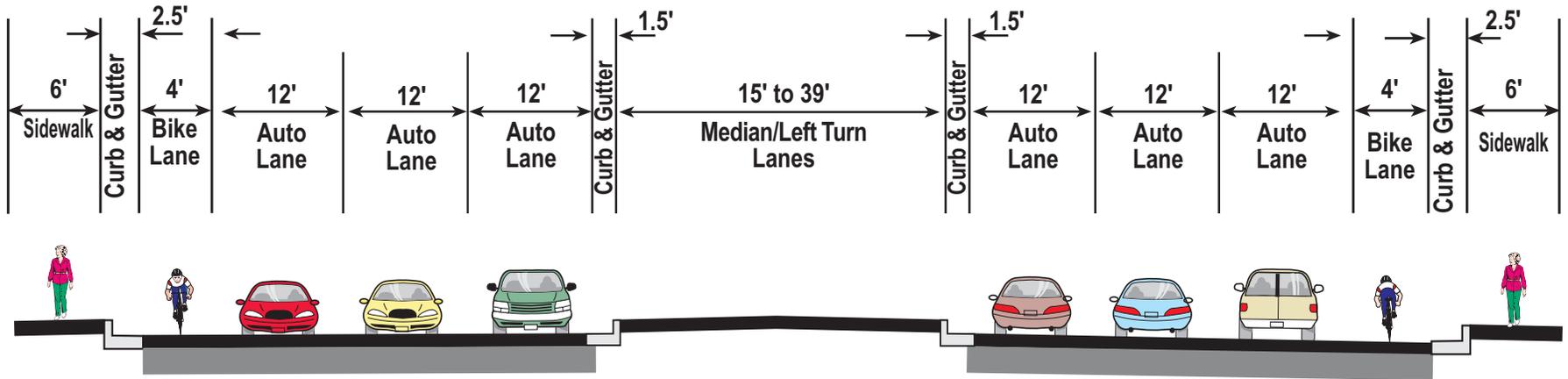
The Preferred Alternative for the connection would consist of a six-lane roadway, plus auxiliary lanes where needed, four-foot on-street bike lanes, six-foot sidewalks on either side, and two access points to the connection. **Figure 1-1** shows the Preferred Alternative roadway network and **Figure 1-2** shows the proposed cross sections for the Preferred Alternative.

1.2.1 Access Options

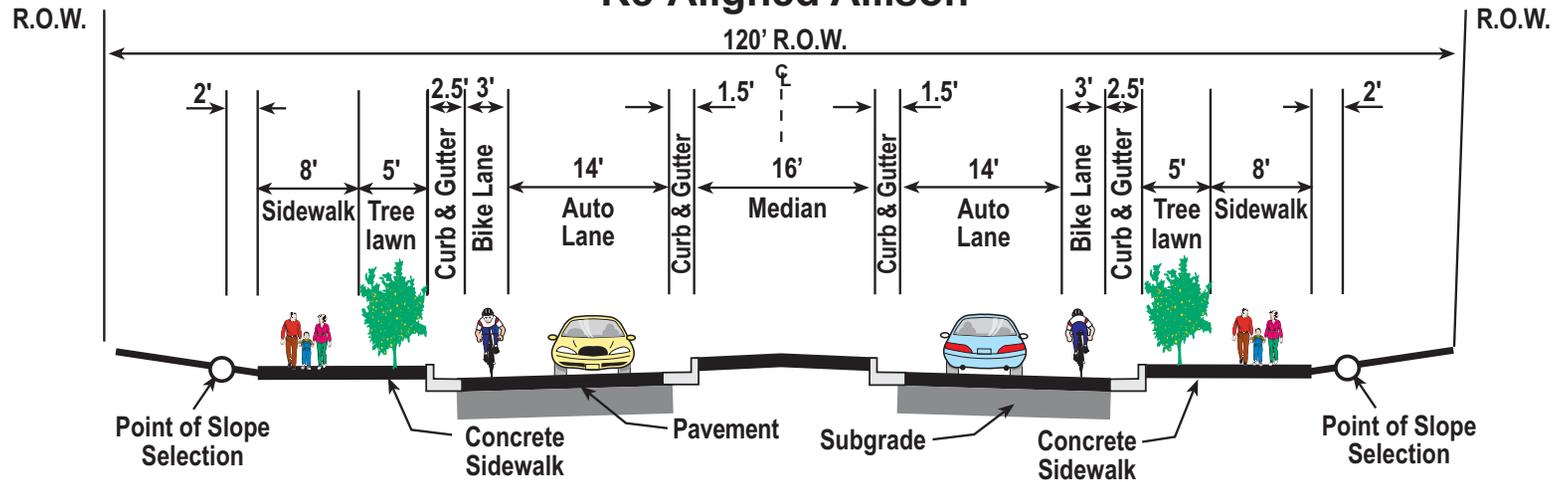
On the west side of this new roadway, at a point between Wadsworth Parkway and US 36, there would be a right-in/right-out (RIRO) access on the north and south with an underpass connecting the two. This would provide access to properties both north and south. The underpass would most favorably be placed west of the RIRO access points, or closer to Wadsworth Parkway, since the profile of 120th Avenue is higher moving west. The restricted movement is the left turn movement from either side. This access also would provide an intermodal connection to the west side RTD park-n-Ride facility. The roadway would continue to the east over US 36 where it would connect to a "T" signalized intersection with the newly aligned Allison Street and continue on to Teller Street.

Allison Street would be the primary intermodal access route for the east-side park-n-Ride lot as planned by RTD. East of that point, the roadway would be depressed so that it can extend under the existing BNSF Railroad tracks. Wadsworth Boulevard, or "Old Wadsworth" would dead-end on either side of this new alignment. North-south movements in the Old Wadsworth area would be accommodated on the re-aligned Allison Street. On the east side of the railroad tracks, the roadway would climb back up to existing grade and tie into 120th Avenue at Teller Street. A new signalized intersection would be constructed to connect the US 287 diagonal to the new 120th Avenue. This new signalized intersection would occur north of 119th Place between Vance and Upham Streets. Some access points to businesses in this area would need to be modified to accommodate this new intersection.

120th Avenue



Re-Aligned Allison



Preferred Alternative Cross-Sections

Figure 1-2

1.2.2 Allison Street

Allison Street south of 119th Avenue would be realigned as part of the Preferred Alternative, so that improved north-south access is provided. This new street would be designed to include two travel lanes, a center median, a three-foot bike lane on each side, and sidewalks. The proposed cross-section for Allison Street is shown in **Figure 1-2**. The new alignment would connect to Wadsworth Boulevard, or "Old Wadsworth," south of 119th Avenue, then would continue in a northwesterly direction, crossing under the new 120th Avenue alignment. The roadway would then proceed northward and tie into Commerce Street, north of 120th Avenue. Two connector streets allowing right-in and right-out movements to and from 120th Avenue would provide the access between 120th Avenue and Allison Street. Access to the proposed park-n-Ride lot on the east side of US 36 would be from the newly re-aligned Allison Street.

1.2.3 Traffic Operations

The Preferred Alternative was developed to provide an optimum balance of improvements along the 120th Avenue Connection and the surrounding roadway network. The through laneage on the 120th Avenue Connection was designed to be consistent with the through lanes at both ends of the realigned roadway. Maintaining consistent laneage throughout is an important component of the proposed improvements due to the regional continuity of both SH 128 and 120th Avenue.

The Preferred Alternative would minimize local access points to facilitate through traffic movements. RIRO access on both sides of 120th Avenue with an underpass is proposed between Wadsworth Parkway and US 36. This access point would serve the properties near the proposed Transit Village and the new RTD park-n-Ride to the south. The Allison Way access is proposed as a "T" intersection on the south side of 120th Avenue and would serve the proposed re-aligned Allison Street, which would be grade separated from 120th Avenue. As part of the Preferred Alternative, Allison would connect to Commerce Street on the north side of the project and Wadsworth Boulevard on the south. The US 287 diagonal would be converted to a Broomfield minor arterial. The intersection of the US 287 diagonal and the 120th Avenue Connection would be signalized. This signal would also serve a realigned Upham Street to the south. Emerald Street near the east end of the project may be signalized in the future, if traffic volumes warrant a signal.

1.2.4 Drainage Plan

Drainage concepts for the 120th Avenue Connection include the development of existing and proposed condition basin maps and a major basin Outfall System Plan (OSP). The drainage concepts for the project are based upon the *Broomfield and Vicinity Outfall Systems Planning Study—Alternatives Development and Evaluation Report*, prepared by the Urban Drainage and Flood Control District (District). The final drainage plan would be developed with input from the City and County of Broomfield as well as from the District. The drainage plan includes outfall systems within the City Park basin. The drainage system for the 120th Avenue Connection will

be designed to include best management practices and be compatible with existing systems or with planned improvements in the area. In general, the existing drainage system would be upgraded to handle a five-year event within a pipe or channel. Flow that exceeds the five-year pipe or channel capacity would be conveyed as overflow in the adjacent street section. The drainage plan generally would follow the concepts developed in the District's master plan for Broomfield and vicinity.

A new grade-separated structure is proposed east of US 36 where the new 120th Avenue Connection crosses under the existing BNSF Railroad tracks. A sump would be formed by the new roadway at this location and would require a storm drainage outfall. A gravity outfall alternative is preferred at this location. Specific alternatives for the outfall alignment would be evaluated during final design.

At the Transit Village undercrossing of the 120th Avenue Connection a sump would be formed requiring a storm drainage outfall. The undercrossing was designed to be west of the RIRO intersection since the profile grade of 120th Avenue rises to the west of the intersection. This allows the sump area to be drained by gravity. The sump, which is just north of 120th Avenue, drains to the infield area bounded by 120th Avenue, the Transit Village road and the North Transit Village road. The stormwater flows from the sump would be routed through sediment basins at two locations, on land currently owned by Jefferson County. The first is at the point of the outfall to the infield area. The second is at a point where the infield flows are collected and pass out of this area under the North Transit Village Road. The existing topography then directs the flows easterly to an existing detention pond, which would be enlarged as part of the project. The detention pond provides 100-year storm detention as well as water quality benefits prior to storm water flows being released into the basin.

The Dry Creek Valley Ditch south and west of US 36 and owned by Broomfield currently meanders across the proposed 120th Avenue Connection limits. Protection of water flow and water quality would consist of enclosing a portion of the ditch under the roadway extension in a four-foot diameter pipe. The ditch would remain as open channel flow both north and south of the roadway extension. Alternative drainage plans for addressing the 120th Avenue cross culvert effects on the open ditch would be evaluated during final design.

1.2.5 Bridge Structures

The 120th Avenue Connection structure over US 36 must span the ultimate cross-section of US 36 as well as potential adjacent collector/distributor roads. A four-span precast girder bridge is proposed. Pier placement must be located such that the future US 36 section and future transit options are accommodated. Precast members allow for quick erection over the highway with minimal disturbance to the flow of traffic during construction. Tiered retaining walls in front of the abutments reduce abutment height and are part of the landscape/aesthetic features. This tiered wall configuration will conform to the landscaping/aesthetics used at other bridges along the US 36 Corridor.

The 120th Avenue Connection structure over the Allison by-pass and the 120th Avenue Connection structure over the Transit Village access road would be single span precast girder bridges. The use of retaining walls in front of the bridge abutments reduces the height of the abutments and reduces the span length by eliminating the need for slope paving. The retaining walls would be designed with aesthetic features that will conform to the overall aesthetic requirements of the corridor and provide for a visually pleasing appearance. The use of the precast girders in combination with the shorter spans provides for cost-effective bridges which meet project design requirements.

The conceptual bridge design for the BNSF Railroad crossing of 120th Avenue is a two-span, prestressed box girder bridge, with a center pier comprised of two oval columns. Side-by-side precast prestressed concrete box girders, with a ballasted deck, have repeatedly been the structure type of choice by the railroads. Due to their cost effectiveness and ease of construction this structure type was chosen for the conceptual design.

1.2.6 Retaining Wall Structures

A number of retaining walls are planned to accommodate the construction of the Preferred Alternative. Retaining walls would range from less than 5-feet in height to over 20-feet in height. Proposed wall types include Mechanically Stabilized Earth (MSE), caisson, or cast-in-place concrete. Panel faced soil nail walls also may be used in certain excavation conditions. Retaining walls proposed for this project include:

- ▶ **120th Avenue under BNSF Railroad:** Caisson walls are proposed to minimize impacts to adjacent commercial and residential properties.
- ▶ **Bridge structures:** Walls are proposed adjacent to certain bridges depending on bridge abutment types and conflicts between adjacent roadway slopes.

1.2.7 Right-of-Way

The 120th Avenue Connection project would require acquisition of approximately 51 acres of new right-of-way for the construction of the Preferred Alternative. This includes full parcel acquisition, partial parcel acquisition and right-of-way that may be required for utility easements.

Based on the current design, right-of-way from 29 parcels would be required in part or in whole to construct the Preferred Alternative. Parcel land uses are divided into commercial, residential, vacant and public lands. The majority of residential and commercial relocations required by right-of-way needs are located along the 120th Avenue Connection east of US 36 and at the intersection proposed between Vance and Upham Streets. The required public land parcels are owned by the Regional Transportation District (RTD) and the Jefferson County Airport. None of the public lands needed for right-of-way are parkland. All right-of-way needs would be updated as design plans are finalized.

1.2.8 Pedestrian and Bike Facilities

The Preferred Alternative would include pedestrian and bicycle facilities along the new 120th Avenue Connection. Improvements include four-foot bike lanes and six-foot sidewalks on both sides of the roadway. The re-aligned Allison Street would include a three-foot on-street bike lane, which is consistent with City and County of Broomfield standards. The Allison Street bike lane also would provide access to the park-n-Ride. **Figure 1-2** illustrates the bike lane configurations.

This project recognizes the possibility for the future development of a regional bikeway adjacent to the US 36 Corridor through the study area. The 120th Avenue Connection project would not preclude a future regional bikeway along US 36.

2.0: EA COMMENTS AND RESPONSES

Following publication of the EA on April 6, 2005 the 45-day public and agency review period began, concluding on May 20, 2005. During the review period no comments were received that required any changes to the proposed action or mitigation measures. A public hearing was held on April 21, 2005 with a transcriber in attendance to record any comments. No comments were submitted to the transcriber at the hearing. Attendees at the hearing submitted a total of four comments into the comment box available. Two comments, one from Lowe Enterprises Real Estate Group – Central, Inc. and one from the Regional Transportation District (RTD) were submitted via email to the City and County of Broomfield. In addition, two federal agencies, the US Department of the Interior and the US Environmental Protection Agency, provided comments on the EA requiring minor revisions to the EA text. No impacts to the environment were identified in the comments received that were not fully addressed in the EA. Copies of all comments received are included in Appendix B.

2.1 Comments Submitted at the Public Hearing

Comment #1: Bruce Mock: Sounds Great! Build it as soon as possible.

Response: Thank you for your support and attending the public hearing. The schedule for the project is dependent upon funding, which at this time is not specifically identified. An estimate for completion assuming full funding is identified includes 18 to 28 months for final design/right-of-way acquisition and 18 months for construction.

Comment #2: Bruce Mock: I would like to receive a set of plan sheets if available.

Response: A set of plan sheets was mailed to Mr. Mock on April 29, 2005.

Comment #3: Anonymous: Very good to see that 120th will have four-foot bicycle lanes. This is a good start. But need to also make sure the bicycle lanes connect to existing bicycle trails/lanes as well. This will improve bicycle access in/around Interlocken.

Response: Thank you for your comment and for attending the public hearing. The proposed bicycle and pedestrian facilities would connect to existing facilities at SH 128 on the east and would be part of the planned Broomfield Trail, portions of which would connect to the west end of this project. They will also tie into future regional trails along US 36 and elsewhere.

Comment #4: Thomas D. Greeno: As a home owner of one of the homes that will be closest to the new road, and after talking with the people at this "public hearing," I have many concerns but after asking questions I come away with the impression that no one actually gives a _____ about the legitimate issues concerning the residents of 119th Place that nobody else in Broomfield will have to deal with on a daily basis.

1. Background noise from 50 db now (quiet neighborhood)
2. Air quality during peak hours not 8-hour average
3. Lack of barrier wall, which would ease several issues
4. Headlight glare through evening hours through windows
5. Loss of property value
6. Etc...

It would have been better to go to and meet with individuals than hold this "public hearing" that less than 20 people attended. Please give me a call if you care.

Response: Thank you for attending the public hearing and sharing your concerns. Noise and air quality analyses were conducted and reports prepared in support of the 120th Avenue Connection EA. The noise analysis was prepared in accordance with the *CDOT Noise Analysis and Abatement Guidelines*, December 2002, which states that if a project results in noise levels at or above 66 decibels for residences or results in a noise increase of 10 decibels or greater over existing noise levels, noise mitigation needs to be considered. If neither of these situations is the case, mitigation is not considered. The *Noise Analysis Technical Memorandum*, 2005, examined 99 locations including along 119th Place. Along 119th Place the noise modeling showed existing noise levels in the range of 57 to 60 decibels. According to the model, the future noise levels with the No-Action Alternative would be in the range of 58 to 61 decibels, an increase of 2 to 3 decibels over existing noise levels. With the Preferred Alternative future noise levels would be in the range of 59 and 64 decibels, an increase in the range of 3 to 7 decibels over existing noise levels.

Although mitigation was not required at 119th Place, a noise wall in your neighborhood was analyzed. A barrier in this location would decrease noise levels by 3 to 4 decibels, which is under the 5 decibel minimum. In order for a noise wall to be considered effective, it must reduce noise by a minimum of 5 decibels for at least one receiver and should not create any unacceptable safety or maintenance problems. In addition, the cost per receiver per decibel of noise reduction and the number of access locations (driveways) does not make a barrier wall reasonable or feasible. The analysis followed CDOT's *Noise Analysis and Abatement Guidelines* to provide a consistent, equitable approach in addressing highway traffic noise and as a rational decision-making process for highway projects within the State of Colorado.

The methodology for the air quality analysis for this project was consistent with the Environmental Protection Agency (EPA) guidance for conducting air quality analysis. Per EPA guidance, receptors were modeled and compared to the National Ambient Air Quality Standards (NAAQS), which are provided for 1-hour and 8-hour concentrations. This incorporates peak periods and provides for a more inclusive determination of air quality impacts. The results of the model showed no violations of the NAAQS. A barrier wall would not be effective in reducing air quality impacts.

We are assuming that your concern regarding headlight glare through windows is associated with the new 120th Avenue Connection roadway. Based on the location of your residence, the surrounding vegetation, and the alignment of the roadway, there should be no headlight glare. Headlight glare from vehicles turning right onto the new 120th Avenue from the new Alison Way could pan your property, but this intersection is over 400 feet away and it would only be as the vehicle is turning and would not directly shine on your property for any length of time.

A loss or increase in property value is difficult to predict or estimate and varies by type of improvement. However, the area around 119th Place is in a prime location for access to future transportation improvements, including the new 120th Avenue, new RTD park-n-Ride, and potential commuter rail and bus rapid transit. The area is planned for transit oriented development including residential. A loss of property value is not an expected impact due to the proposed improvements and future development plans.

2.2 Comments E-mailed During the Review Period

Comment #5: Lowe Enterprises Real Estate Group-Central, Inc., May 10, 2005 (Edward Barsocchi, Vice President):

As regards the proposed new alignment for 120th Avenue adjacent to our Arista project (Broomfield Urban Transit Village), which will be immediately to the south, we are pleased to express our support. In so doing, we would like to call your attention to the proposed "right-in, right-out plus underpass" access and egress for our project. This connection appears well-intended, but the southerly "buttonhook" presently reflected in the preliminary plans to facilitate full movement is actually in conflict with the very purpose it is meant to serve; that being our future development plans for the property.

As you proceed into the design phase of the project, we strongly encourage you to re-evaluate the strategy for this connection by eliminating the buttonhook concept and providing for a full movement signalized intersection.

We look forward to working with Broomfield and CDOT on the final access plan for our project during the design phase, and wish you continued good progress in seeing the new 120th Avenue alignment through to completion.

Thank you for your consideration.

Response: Thank you for your support of the project and your concerns are duly noted. This issue was also a concern for the Regional Transportation District (RTD) (see Comment #6) and was discussed in the EA (see page 2-6 through 2-8). The right-in/right-out plus underpass was the recommended design based on CDOT access requirements, traffic operations on 120th Avenue, and mobility and safety issues. Safety studies and evaluations by CDOT indicated that the number of signalized intersections should be limited to that shown with the Preferred Alternative. However, in the future, the City or a developer can request a signal warrant study for this location.

Comment #6: Regional Transportation District, May 19, 2005 (Dave Shelley, Manager, Corridor and Regional Planning):

This letter is to provide RTD's comments on the proposed 120th Avenue Extension Environmental Assessment and preliminary plans during the public comment period for the 120th Avenue Extension EA. RTD would like to express our support for the development of this project, and we have the following comments on the proposed design.

RTD would like to re-state our strong desire for a full-movement signalized intersection at the Broomfield Transit Village intersection between US 36 and Wadsworth Boulevard. The construction of an underpass for full access to the remaining RTD-owned property between US 36, the 120th Avenue Extension, and Wadsworth Boulevard will have a significant impact on RTD-owned parcels on both sides of the proposed roadway. This impact must be resolved in cooperation with CDOT, the City and County of Broomfield, and RTD.

We request continued coordination with the 120th Avenue project team during completion of plans for the underpass at the BNSF railroad. The proposed profile of 120th Avenue as developed during final design must not preclude the future construction of additional railroad track alignments within the BNSF right-of-way.

RTD appreciates the opportunity to comment on the EA and preliminary plans. We are looking forward to working with CDOT, Broomfield, and the project team on the resolution of these impacts and the successful completion of the 120th Avenue Extension project.

Response: Thank you for your support of the project and your concerns are duly noted. This concern was also expressed in Comment #5 and was discussed in the EA (see page 2-6 through 2-8). The right-in/right-out plus underpass was the recommended design based on CDOT access requirements, traffic operations on 120th Avenue, and mobility and safety issues. Safety studies and evaluations by CDOT indicated that the number of signalized intersections should be limited to that shown with the Preferred Alternative. However, in the future, the City or a developer can request a signal warrant study for this location.

2.3 Comment Letters Received from Federal Agencies

Comment #7: US Department of Interior, June 10, 2005 (Willie R. Taylor, Director, Office of Environmental Policy and Compliance):

Thank you for the opportunity to comment on the draft Environmental Assessment (EA) and the Section 4(f) Evaluation for the **120th Avenue Connection**, City of Broomfield, Colorado. The Department of the Interior (Department) has reviewed the document and submits the following Comments.

General comment: Cited literature could not be found in the document. A bibliography of cited references would be useful.

Specific comment: Section 3.23.4.4, Wildlife (Mitigation), Page 3-119. The draft EA states under section C of the Interim Region 6 Prairie Dog Policy, "Black-tailed prairie dogs in the impacted colonies that cannot be reasonably relocated should be euthanized and donated to the Fish and Wildlife Service (FWS) for use in the black-footed ferret reintroduction program...."

Black-tailed prairie dogs are symbiotic with federally listed, endangered black-footed ferrets, and are preferred alive. The United States Geological Service (USGS) has an active program, in collaboration with the FWS, to research the community structure and relationships between black-tailed prairie dogs and endangered black-footed ferrets (Biggins and Godbey, 2003). Further information on the ecology of prairie dogs and how to work with them is available at the USGS's Fort Collins Science Center web site at <http://www.fort.usgs.gov>. From there, search "prairie dogs," or go directly to the following URLs from that site:

Prairie Dogs as Keystone Species in Prairie Ecosystems

<http://www.fort.usgs.gov/research/0000064.asp>

Survey of Citizen Knowledge and Perception of Black-Tailed Prairie Dog Management

<http://www.fort.usgs.gov/resources/spotlight/prairiedogs/pdog%5Fhome.asp>

Section 4(f) Evaluation: The Department recognizes and appreciates that you have consulted with the Colorado State Historic Preservation Office; they concur on your determination of effect. We also appreciate that you have adequately analyzed avoidance alternatives in the Section 4(f) Evaluation, and are proposing mitigation measures to minimize harm to Section 4(f) properties.

Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources.

Response: Thank you for your review of and comments on the 120th Avenue Connection EA. A Bibliography of works cited in the EA has been added to the end of this FONSI.

Since the EA was written and published, language regarding CDOT's policy on black-tailed prairie dogs has changed. See Section 3.0 of this FONSI for the new language.

Comment #8: U.S. Environmental Protection Agency, June 28, 2005 (Larry Svoboda, Director, NEPA Program):

In the agreement between the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA), dated August 28, 2000, EPA agreed to advise FHWA within 15 days of receipt of an EA whether EPA 1) will have no comments on the document; 2) will have comments within the review period; or 3) has serious objections to the finding of No Significant Impact (FONSI). We received this document on June 22, 2005. This letter is to inform FHWA that EPA has done a preliminary review of the EA for the transportation improvements to 120th Avenue, and we have a comment.

The document contains a section on urban air toxics (Section. 3.8.4.3), which states "The EPA has not yet determined how best to evaluate the impact of future roads and intersections on the ambient concentrations of urban air toxics. There are no standards for MSATs and there are no tools to determine the significance of localized concentrations of MSATs or increases or decreases in emissions." We continue to disagree with this statement. The lack of regulatory standards for air toxics emissions doesn't mean that the impacts of air toxics cannot be evaluated. Trends of emissions levels, a comparison of emission levels for each alternative (which may not be relevant for this project), information on immediate sensitive receptors in close proximity to the project, as well as information on what the scientific research is showing about air toxics and health impacts, is very important information, and should be included in the air quality analysis. A qualitative discussion of expected emissions trends based on composite VOC emissions and/or diesel emissions can be done and is consistent with current FHWA guidance. A quantitative analysis of emission trends of MSATs using EPA's Mobile 6.2 model also can be done to verify whether or not MSAT emissions are actually decreasing, as is usually stated in the analysis, but is not necessary for this project.

As stated in the agreement, we want to ensure open communication, trust, and integrity between our two agencies. In that spirit, your staff is aware that we have this concern, and we will continue to discuss the issue as needed. If you have questions regarding this matter, please contact Deborah Lebow of my staff at 303-312-6223 or Jeffrey Kimes of EPA's air program at 303-312-6445.

Response: Thank you for your review of and comment regarding the 120th Avenue Connection EA. A response letter from FHWA was sent to you on September 30, 2005 (see Appendix C for a copy of this letter). Based on your comment, new language was developed for the air toxics section of the EA and is provided in Section 3.0 of this FONSI.

3.0: CLARIFICATIONS TO THE EA

Based on comments received on the EA, there are a couple of sections that required new text. This section contains the new text.

The following numbered list is text directly from the new CDOT policy regarding black-tailed prairie dogs and replaces the lettered list in Section 3.23.4.4 Wildlife under mitigation on page 3-119 of the EA:

- 1) CDOT projects will be designed and constructed to avoid and minimize impacts to prairie dog colonies greater than two acres in area;
- 2) If a colony is less than two acres, but has the potential to expand into areas that are currently inactive (i.e., not constrained), the available and accessible habitat will be the determining size of the area to be considered;
- 3) In order to foster a heightened sense of CDOT's ecological stewardship by the public, projects involving towns less than two acres in area, will be designed and constructed to avoid and minimize impacts, which may include the relocation of prairie dogs, so long as doing so will not increase the impacts to other resources (e.g. wetlands, historical properties, environmental justice issues, archeological sites, etc.) and is not cost prohibitive;
- 4) The area of prairie dog towns that will be affected by a project will be calculated before construction begins;
- 5) Relocation efforts for prairie dog towns greater than two acres shall be conducted in accordance with CRS 35-7-203, as well as any other applicable laws or regulations;
- 6) If a relocation site cannot be located for towns larger than two acres, the prairie dogs will be captured and donated to raptor rehabilitation facilities, or turned over the FWS for the black-footed ferret reintroduction program;
- 7) At no time will CDOT authorize earth-moving activities that result in the burying of living prairie dogs. If needed, humane techniques for the killing of prairie dogs within a town less than two acres in size, will be obtained from CDOW;
- 8) Coordination with the Colorado Division of Wildlife's District Wildlife Manager whose area the project is in, will be initiated before any manipulation of prairie dogs or their colonies begins;
- 9) Due to the possibility of disease vectoring, until further notice, coordination with the Food and Drug Administration will be initiated if any prairie dogs, dead or alive, are to be transported.

The following text replaces all of the text under Section 3.8.4.3 Urban Air Toxics on pages 3-53 through 3-54 of the EA:

In addition to the National Ambient Air Quality Standards (NAAQS), the EPA also regulates air toxics. The Clean Air Act identifies 188 compounds that mostly originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries). Of these compounds, the EPA has identified 21 that are emitted from motor vehicles and are known or suspected to cause cancer or other serious health effects. These compounds, known as Mobile Source Air Toxics (MSATs) include various volatile organic compounds, such as acetaldehyde, benzene, formaldehyde, acrolein, and 1, 3 butadiene, as well as metals, diesel particulate matter, and diesel exhaust organic gases. Some of these toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics result from engine wear or from impurities in oil or gasoline.

The EPA has existing and newly promulgated mobile source control programs that include the reformulated gasoline program, national low emission vehicle standards, Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and the proposed heavy duty engine and vehicle standards, and on-highway diesel fuel sulfur control requirements. Between 1990 and 2020, the EPA expects that these programs will reduce on-highway emissions of benzene, formaldehyde, 1, 3-butadiene, and acetaldehyde by 67 to 76 percent, and will reduce on-highway diesel particulate matter emissions by 90 percent (16 FR 17229, March 29, 2001).

The analysis of air toxics is an emerging field, however. To date, the EPA – the lead Federal agency responsible for the scientific study of air pollutants and for the development of national air quality standards -- has not developed National Ambient Air Quality Standards for MSATs. The EPA and FHWA have not agreed on national project level guidelines or guidance for studying the highway impacts of MSATs under various climatic and geographic situations. Without standards and guidance for MSATs, accurate and reliable estimates of actual human health or environmental impacts from MSATs that may result is not available for a project level analysis at this time.

However, the U.S. Department of Transportation and FHWA are currently working with the EPA to develop and evaluate the technical tools necessary to perform air toxics analysis, including improvements to emissions models and air quality dispersion models. FHWA's ongoing work in air toxics includes a research program to determine and quantify the contribution of mobile sources to air toxic emissions, the establishment of policies for addressing air toxics in environmental reports, and the assessment of scientific literature on health impacts associated with motor vehicle toxic emissions.

Although FHWA and EPA have not agreed upon reliable quantitative methods to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively

assess future MSAT emissions. Since the amount of MSATs emitted are proportional to the amount of vehicle miles traveled, or VMT and congestion, it is possible to compare the difference in VMT and congestion between the Preferred Alternative and the No-Action Alternative and determine which alternative is likely to produce greater MSAT emissions in the future, assuming that other variables, such as the mix of vehicle types and age, are the same. For the Denver Regional Council of Governments (DRCOG) regional air quality planning area, it is estimated that VMT in 2025 for the No-Action Alternative will be 97,020,326. With the Preferred Alternative the estimated VMT is 97,000,603. Therefore, total MSAT emissions are likely to be the same or lower in the future for the Preferred Alternative than the No-Action Alternative. Furthermore, regardless of the alternative selected, regional MSAT emissions will likely be lower in 2025 than they are today due to the implementation of EPA's national control programs. These programs are projected to reduce MSAT emission by 67 to 90 percent (16 FR 17229, March 29, 2001). Although local conditions, such as the age and type of vehicles in the fleet, VMT growth rates, and local control measures, may differ from those used to derive these national projections, the magnitude of the projected reductions by EPA are so great that MSAT emissions in the region and along the 120th Avenue Connection are likely to be much lower in the future. The Preferred Alternative is likely to cause increased exposure to MSATs to residences and businesses that will be closer to the new alignment of 120th Avenue than under existing conditions. Conversely, it is likely to cause reduced exposure to MSATs to residences and businesses, that will be farther from the new alignment of 120th Avenue than under existing conditions.

Unavailable Information for Project Specific MSAT Impact Analysis

The science and modeling of project specific MSAT impacts has not developed to the point where there is certainty or scientific community acceptance on predicting the impacts from transportation projects. Accordingly, information on MSAT impacts on any of the alternatives in this EA is not available, and the means to obtain this information have not been fully developed. When this is the case, 40 CFR 1502.22(b) requires FHWA to address four provisions: 1) A statement that such information is incomplete or unavailable; 2) A statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; 3) A summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment; and 4) The agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. These provisions are addressed as follows:

1. Project specific MSAT analysis is an emerging field and the science has not been fully developed and is therefore unavailable. FHWA is aware that MSAT releases to the environment may cause some level of pollution. What is not scientifically definable is an accurate level of human health or environmental impacts that will result from the construction of new transportation facilities or modification of existing facilities.

Project-level MSAT risk assessment involves four major steps: emissions modeling, dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions, exposure modeling in order to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is currently encumbered by technical shortcomings that prevent a formal determination of the MSAT impacts of this project. The emissions model (MOBILE6.2) is based on limited data raising concerns over the accuracy of the final estimates. Further the particulate emissions rates from MOBILE6.2 are not sensitive to vehicle speed, which is an important determinant of emissions rates (this is a shortcoming for diesel particulate matter, but not the remaining priority MSATs) or acceleration. Given uncertainties in the emissions estimation process, subsequent calculated concentrations would be equally uncertain. But beyond this, the available dispersion models have not been successfully validated for estimating ambient concentrations of particulate matter or reactive organic MSATs. Available exposure models are not well designed to simulate roadside environments. Finally, the toxicity value of at least one of the priority MSATs, that of diesel particulate matter, has not been nationally established, which would prevent the determination of health impacts of this pollutant even if the other necessary tools were available. Thus, current scientific techniques, tools, and data make it impossible to accurately estimate actual human health or environmental impacts from MSATs that would result from a transportation project.

2. Without this project specific MSATs analysis, it is impossible to quantitatively evaluate the air toxic impacts at the project level. Therefore, this unavailable or incomplete information is very relevant to understanding the "significant adverse impacts on the human environment," since the significance of the likely MSAT levels cannot be assessed.
3. Research into the health impacts of 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 emissions 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 EPA 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.

Recent studies have been reported to show that close proximity to roadways is related to negative health outcomes -- particularly respiratory problems¹. Yet these

¹ South Coast Air Quality Management District, Multiple Air Toxic Exposure Study-II (2000); Highway Health Hazards, The Sierra Club (2004) summarizing 24 Studies on the relationship between health and air quality); NEPA's

studies are often not specific to MSATs. Instead they have encompassed the full spectrum of both criteria pollutants and other pollutants. Thus it is impossible to determine whether MSATs are responsible for the health outcomes or the criteria pollutants.

There is also considerable literature on the uncertainties associated with the emissions modeling process. The most significant of these is an assessment conducted by the National Research Council of the National Academy of Sciences, entitled "Modeling Mobile-Source Emissions" (2000). This review noted numerous problems associated with then current models, including the predecessor to the current MOBILE 6.2 model. The review found that, "significant resources will be needed to improve mobile source emissions modeling." The improvements cited include model evaluation and validation, and uncertainty analysis to raise confidence in the model's output. While the release of MOBILE 6.2 represents an improvement over its predecessor, the MSAT emission factors have not been fully validated due to limits on dispersion modeling and monitoring data. The MOBILE 6.2 model is currently being updated and its results will not be evaluated and validated for several years.

4. Even though there is no accepted model or accepted science for determining the impacts of project specific MSATs, as noted above, EPA predicts that its national control programs will result in meaningful future reductions in MSAT emissions, as measured on both a per vehicle mile and total fleet basis. FHWA believes that these projections are credible, because the control programs are required by statute and regulation. Also, since the Preferred Alternative results in reduced VMT in the study area relative to the No-Action Alternative, FHWA is confident that MSAT emissions will also be lower in the study area in the design year (2025). There could be slightly elevated but unquantifiable increases in MSATs to residents and others in a few localized areas where VMT increase, which may be important particularly to any members of sensitive populations. However, there will likely be decreases in MSAT emissions in locations where VMT are reduced. Because MSAT emissions on a per VMT basis are expected to decline due to EPA's control program, and because the Preferred Alternative would result in a reduction in VMT relative to the No-Action Alternative, FHWA does not believe that there will be significant adverse impacts on the human environment.

Uncertainty in the Federal Legal Scheme Controlling Air Pollution from Motor Vehicles, Environmental Law Institute, 35 ELR 10273 (2005) with health studies cited therein.

4.0: SECTION 4(f) EVALUATION

Section 4(f) was created when the United States Department of Transportation (USDOT) was formed in 1966. It was initially codified at Title 49 United States Code (U.S.C.) Section 1653(f) (Section 4(f) of the USDOT Act of 1966). Later that year, Title 23 U.S.C. Section 138 was added. Section 138 states: "The Secretary shall not approve any program or project (other than any project for a park road or parkway under Section 204 of this title) which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use." In 1983 Section 1653(f) was reworded and recodified at Title 49 U.S.C. Section 303. These two statutes have no real practical distinction and are still commonly referred to as Section 4(f).

Since the Environmental Assessment and Draft 4(f) Evaluation were approved on March 30, 2005, Congress amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) (SAFETEA-LU). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes the FHWA to approve a project that uses Section 4(f) lands that are part of a historic property, without analysis of feasible and prudent avoidance alternatives, if it makes a finding that such uses would have de minimis impacts upon the Section 4(f) resource, with the concurrence of the relevant SHPO. A finding of de minimis impact can be made if the FHWA, in consultation with the SHPO, has made a "no adverse effect" determination for the resource under Section 106 of the National Historic Preservation Act (NHPA). Because Section 106 "no adverse effect" determinations have been made by FHWA and the Colorado SHPO for the historic property impacted by the 120th Avenue Connection Project under EA Preferred Alternative 2A, the FHWA, with the concurrence of the Colorado SHPO, has made a finding that this project qualifies for the "de minimis" exception to the avoidance analysis requirement of Section 4(f) (see Appendix C for a copy of the FHWA's de minimis determination and SHPO concurrence). Accordingly, this Section 4(f) Evaluation does not contain an analysis of avoidance alternatives.

4.1 Project Purpose and Need

The current roadway network in the study area consists of discontinuous routes, generally in the east-west direction. Two primary east-west corridors, SH 128 and 120th Avenue, do not have a direct connection across US 36 which requires out-of-direction travel for east-west through traffic. SH 128 is discontinuous at Wadsworth Parkway where it jogs to the north about 0.62 mile to its intersection with the diagonal segment of US 287, and then follows the diagonal segment southeast to 120th Avenue.

120th Avenue Connection

Finding of No Significant Impact

Currently, the only two crossings of US 36 for east-west travel in this area are W. Midway Boulevard (approximately two miles north of the study area) and the Wadsworth/US 36 Interchange. As Broomfield and the surrounding area have grown, this lack of continuity in the roadway network and the convergence of traffic at the Wadsworth/US 36 Interchange have led to increased congestion, travel delays on surrounding roadways, and safety concerns. The interchange currently serves three major regional corridors: US 36, the east-west 120th Avenue corridor, and the north-south Wadsworth Parkway corridor. Both east-west and north-south travel in the area have become increasingly more difficult with the convergence of through traffic and interchange traffic on the Wadsworth bridge over US 36. All east-west through traffic on SH 128 and 120th Avenue must use the heavily congested Wadsworth/US 36 Interchange to cross US 36 which results in congestion for those wishing to travel north-south through the interchange on SH 121 or SH 287.

The purpose of the 120th Avenue Connection project is to accommodate existing and forecasted east-west through traffic, reduce out of direction travel, and alleviate congestion along area roadways, including the Wadsworth/US 36 interchange. The needs, summarized for the proposed improvement, include:

- ▶ Correcting the discontinuity of both the SH 128 and 120th Avenue corridors for through traffic crossing US 36 to reduce out-of-direction travel. Those desiring to travel east-west on SH 128/120th Avenue must now travel through the heavily congested Wadsworth/US 36 Interchange.
- ▶ Relieving peak hour congestion along 120th Avenue, SH 128 and through the intersection. Both SH 128 and 120th Avenue are operating at capacity in the peak hours, and will be above their functional capacity during peak hours in the future without the 120th Avenue Connection. Traffic forecasts indicate at least a doubling in traffic over the next 20 years. Traffic volumes are increasing due to regional and local growth and development in the vicinity resulting in congested conditions and greater traffic delays.
- ▶ Providing improved access to proposed RTD Park-n-Ride facilities. RTD is planning to relocate the existing Broomfield Park-n-Ride to new locations on both sides of US 36 in the vicinity of this project.
- ▶ Providing congestion relief in the Wadsworth/US 36 Interchange by removing most east-west through traffic, thereby improving north-south traffic on US 287 and Wadsworth Parkway.
- ▶ Reducing accident rates within the study area which are currently above the statewide average for both US 287 and SH 121/Wadsworth Parkway.
- ▶ Providing improved access and safety for pedestrians and bicyclists.

The 120th Avenue Connection project would address the needs listed above by providing a crossing of US 36 for east-west vehicular, transit, pedestrian and bicycle traffic. Completion of this improvement would ease existing and forecasted traffic congestion on SH 128 and 120th

Avenue and on other area roadways such as Wadsworth Parkway, Midway Boulevard, and US 287, as well as through the Wadsworth/US 36 Interchange.

There are no additional roadways planned in the study area in the near future that would provide a connection across US 36, although consideration is being given to extending 112th Avenue across US 36 further to the south. The US 36 Corridor Environmental Impact Statement (EIS), begun in late 2003, will evaluate transportation improvement alternatives along US 36 and interchanges with US 36, including the Wadsworth/US 36 Interchange. The EIS is a multi-year project, and any potential improvements to the Wadsworth/US 36 Interchange would be phased over time. The proposed 120th Avenue Connection would be designed to accommodate any reasonably foreseeable improvements that could be made to the Wadsworth/US 36 Interchange.

In March and April of 2004 a Citizen Survey of Broomfield residents was conducted. The survey compared current results to a baseline survey conducted in 2002. As in the 2002 survey, residents felt that the most serious problem was traffic congestion, particularly on roadways within the study area. Improvements to the Wadsworth/US 36 Interchange and 120th Avenue corridor were two of the top project priorities expressed by area residents. Fire and ambulance services were deemed to be the most important services in Broomfield in both surveys.

4.2 Section 4(f) Resources

There are no publicly-owned lands used for recreation or park purposes that would be affected by the proposed action. There are four historic properties eligible for the National Register of Historic Places (NRHP) in the study area. One property, the Burlington Northern Railroad (5BF47.1 and 5BF47.2) has a use by the Preferred Alternative 2A. The Burlington Northern Railroad (now the BNSF) was initially recorded in 1981 and was determined officially eligible for inclusion on the NRHP on March 14, 1990 under criterion (a) for its importance in the history and development of Colorado. Two segments of the railroad (5BF47.1 and 5BF47.2) were surveyed for this project and contribute to the historical significance of the entire railroad. These railroad segments were built in 1881.

4.3 The Preferred Alternative 2A

The Preferred Alternative 2A was developed based on the transportation needs for this project. The Preferred Alternative 2A includes six lanes, plus auxiliary lanes where needed, along with four-foot on-street bike lanes and six-foot sidewalks. The lane requirements were developed to provide an optimum balance of improvements along the 120th Avenue connection and the surrounding roadway network. The through lanes on the 120th Avenue connection were designed to be consistent with the existing or planned through lanes at both ends of the proposed roadway. Maintaining consistent lanes throughout is an important component of the proposed improvements due to the regional continuity of both SH 128 and 120th Avenue.

The new SH 128/120th Avenue connection would be on a new alignment to the south of the current 119th Avenue in an attempt to limit impacts to existing buildings and the established

neighborhood. The Preferred Alternative 2A would facilitate east-west movements, which are currently forced to go through the heavily congested Wadsworth/US 36 Interchange. 120th Avenue would be extended from Teller Street on the east to connect with the relocated SH 128 and Wadsworth intersection on the west. This alternative would drop below the BNSF Railroad.

4.4 Finding of De Minimis

As previously noted, the SAFETEA-LU was enacted August 10, 2005. Section 6009(a) (1) of SAFETEA-LU added a new subsection to Section 4(f) which authorizes the FHWA to approve a project that uses Section 4(f) lands that are part of a historic property, without preparation of an Avoidance Analysis, if it makes a finding that such uses would have de minimis impacts upon the Section 4(f) resource, with the concurrence of the relevant SHPO.

More specifically, with regard to Section 4(f) resources that are historic resources, Section 6009 of SAFETEA-LU adds the following language to Section 4(f)²:

(b) De Minimis Impacts. --

(1) REQUIREMENTS.--

(A) REQUIREMENTS FOR HISTORIC SITES.--The requirements of this section shall be considered to be satisfied with respect to an area described in paragraph (2) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a de minimis impact on the area.

(C) CRITERIA.--In making any determination under this subsection, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project.

(2) HISTORIC SITES.--With respect to historic sites, the Secretary may make a finding of de minimis impact only if--

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C.470f), that--

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

² This provision will be codified as 23 U.S.C. § 138(b). Section 6009(a)(2) of SAFETEA-LU adds identical language at 49 U.S.C. § 303(d).

FHWA has made a determination, and the Colorado SHPO has concurred with this determination, that the use of the BNSF Railroad that would be affected by the proposed action would result in “no adverse effect” for purposes of Section 106 of the NHPA. This determination, and SHPO’s concurrence, which are documented in Appendix A and described in Section 3.15 of the Environmental Assessment, satisfy the Section 4(f) provisions added by Section 6009 of SAFETEA-LU at 23 U.S. C. §138(b)(2)(A)(i) and 49 U.S.C. § 303(d)(2)(a)(i).

This finding of “no adverse effect” reflects a conclusion that for the BNSF Railroad, these impacts will not “alter, directly or indirectly, any of the characteristics of the historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association” as described in 36 CFR § 800.5(a)(1). Based on this finding, and taking into consideration the harm minimization measures that have been incorporated into the Proposed Action as documented in the Section 4(f) Evaluation for the BNSF Railroad, it is the conclusion of the FHWA that the Proposed Action would have de minimis impacts and that an analysis of feasible and prudent avoidance alternatives under Section 4(f) is not required. FHWA requested and received concurrence of the SHPO on the de minimis determination in November 2005 (see Appendix C).

4.5 Measures to Minimize Harm

The Preferred Alternative 2A would cross the railroad about 400 feet south of the existing at-grade railroad crossing of 120th Avenue. The new roadway would cross under the tracks and a new bridge would be constructed to carry the current double railroad tracks above the depressed 120th Avenue roadway. Temporary relocation of the existing tracks is required during construction, but rail operations would not be interrupted. This alternative would require a permanent easement to go under the railroad and construct the retaining walls. No other historic properties would be affected.

The Preferred Alternative 2A would require a permanent easement across the railroad right-of-way. The railroad would be placed on structure, but rail use will be maintained, and there will be no disruption of service. The railroad will be restored to its original grade and alignment. The railroad will retain its integrity and will continue to convey its historic significance. These impacts were evaluated in consultation with the SHPO in March 2003, and resulted in a “no adverse effect” to the railroad.

4.6 Coordination/Consultation

In August 2004, FHWA/CDOT determined that the project would have “no adverse effect” to the National Register-eligible Burlington Northern Railroad (5BF47.1 and 5BF47.2). An eligibility and effect determination for the 120th Avenue Connection was submitted to the Colorado SHPO for review and concurrence. The SHPO concurred that the project would result in “no adverse effect” to the railroad. As described above, the SHPO also agreed in the finding of de minimis for the railroad (see Appendix C).

In January 2005, FHWA/CDOT also submitted the eligibility and effects determination to the Broomfield Depot Museum, the City and County of Broomfield, and the Jefferson County Historic Preservation Commission for review and comment. Responses were received from the Broomfield Depot Museum and the City and County of Broomfield. The Jefferson County Historic Preservation Commission did not respond.

In addition to coordination with SHPO regarding concurrence on the finding of de minimis, CDOT also requested comments from the City and County of Broomfield as a consulting party, in a letter dated December 6, 2005. In a letter dated December 7, 2005, Broomfield agreed with the finding and had no additional comments. As part of FHWA's coordination with the DOI, a letter was sent to DOI on December 14, 2005 to inform them of the Section 4(f) finding of de minimis. No further coordination is required with DOI. Copies of all of these letters can be found in Appendix C of this FONSI.

5.0: SELECTION OF THE PREFERRED ALTERNATIVE

Based upon the 120th Avenue Connection EA, Public Hearing transcript, and agency and public comments received, the Federal Highway Administration (FHWA) has determined that the alternative described in Section 2.4.2 of the EA is the Preferred Alternative.

The Preferred Alternative includes a new six-lane roadway across US 36, four-foot on street-bike lanes and six-foot sidewalks on either side of the new roadway. Also provided are two new access points: a right in/right out on the west side of US 36, and a signalized T intersection at Allison on the east side. For a detailed description of the Preferred Alternative see Section 2.4.2 of the EA. Appendix A includes a summary of impacts and mitigation measures for the Preferred Alternative.

6.0: FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The FHWA has determined that the Preferred Alternative described in Chapter 2.0 of the EA and summarized above will have no significant impact on the human environment. This FONSI is based on the attached EA, which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an EIS is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached EA.

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**APPENDIX A:
SUMMARY OF IMPACTS AND MITIGATION
FOR THE PREFERRED ALTERNATIVE**

Appendix A Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Land Use and Zoning	<p>Construction would result in a direct conversion of land (approximately 51 acres) to a transportation use.</p> <p>Indirectly, the Preferred Alternative could encourage development in currently undeveloped areas to which access would be improved.</p> <p>Consistent with Broomfield Master, Transportation, and Strategic Plans.</p> <p>Provides improvements to overall accessibility, mobility and safety within the area.</p>	<p>No mitigation is required.</p> <p>Property owners with lands impacted directly by the Preferred Alternative have been contacted by City and County staff and through project newsletters.</p>
Farmland	<p>No direct or indirect impacts to Prime Farmland or Farmland of Statewide Importance.</p>	<p>No mitigation is required.</p>
Social	<p>Would improve traffic flow and connectivity, and would enhance access to school, fire, police and other services through a more direct east-west connection.</p> <p>Would require changes to the local street network, particularly along Old Wadsworth Boulevard and on Allison Street.</p> <p>Out of direction travel would be required in some areas to access 120th Avenue. The slight increase in travel time would not be as substantial as the travel delays that currently exist on study area roadways.</p> <p>Relocation of 5 residences, none are minority or low-income.</p>	<p>Residential and commercial areas that experience a change in access will be provided with alternate access through the 120th Avenue Connection and relocated Allison Street.</p> <p>All residential and business acquisition and relocations will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i>, as amended.</p> <p>During construction, good communication will be maintained with the communities and residents regarding road delays, access and special construction activities.</p> <p>The project will comply with 23 CFR 771.105(f).</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Environmental Justice	<p>Relocation of 2 minority-owned businesses. Acquisition of 6 minority-owned parcels (zoned commercial).</p> <p>Small increase in air pollution, including an 8% increase in CO concentrations.</p> <p>Noise impacts to some residents of the mobile home park.</p> <p>Would improve traffic flow and ease congestion within the study area, benefiting existing businesses in the long-term.</p> <p>Substantial decrease in traffic volumes along the US 287 diagonal, lower noise and air pollution levels in this area.</p>	<p>All right-of-way acquisition and relocation of businesses and residences will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i>, as amended. CDOT will provide assistance to any eligible owner or tenant in relocating their business or residence at the time of displacement. Relocation resources are available to a residents and businesses without discrimination.</p> <p>No mitigation is required for the increase in air pollution, as it does not result in any violations of the NAAQS.</p> <p>A noise wall will be built along the northern edge of the Broomfield Mobile Home Park to reduce noise impacts.</p>
Right-of-Way and Relocations	<p>Approximately 51 acres of right-of-way is required for construction of the Preferred Alternative affecting 29 parcels (6 parcels are minority-owned).</p> <p>Approximately five residences and eight businesses (2 businesses are minority-owned) would need to be relocated.</p>	<p>Right-of-way acquisition and relocation of displaced persons and businesses will comply with the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i>, as amended.</p> <p>The acquisition process will be negotiated in a fair and equitable manner, using market value determined by expert appraisers as required.</p> <p>All qualified relocatees are eligible to receive monetary payments.</p> <p>No person shall be displaced from their residence by this project unless and until adequate replacement housing has been offered to such person regardless of race, color, religion, sex or national origin.</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Economic	<p>Eight business relocations are anticipated.</p> <p>Businesses along 120th Avenue and in the area surrounding the 120th Avenue Connection would experience some negative short-term impacts through a loss of revenue due to temporary changes in travel direction and accessibility.</p> <p>Short and long-term increase in jobs and income.</p> <p>Would improve access and visibility and ease roadway congestion.</p> <p>Would reduce circulation problems and enhance the economic vitality of the community.</p> <p>The US 287 diagonal would experience a substantial decrease in traffic volumes. Businesses located along the diagonal would suffer in the long-term from less drive-by traffic.</p>	<p>Impacts of the Preferred Alternative would not result in substantial adverse economic impacts to the overall community.</p> <p>Relocation of businesses (8) will be completed pursuant to the <i>Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970</i>, as amended.</p>
Transportation	<p>Would provide east-west continuity in the region, would eliminate out-of-direction travel and improve access to the surrounding land uses, and would provide improved access to the planned RTD park-n-Ride lots.</p> <p>Would accommodate east-west travel demand and improve north-south travel, while also allowing future multi-modal improvements anticipated in the US 36 Corridor to occur.</p> <p>Access to transit hubs by all modes would be improved.</p>	<p>No mitigation is required.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Pedestrian and Bicycle Facilities	<p>Four-foot on-street bike lanes and six-foot sidewalks would be included on both sides of the 120th Avenue Connection.</p> <p>The re-aligned Allison Street would include a three-foot on-street bike lane, which is consistent with Broomfield standards.</p> <p>With these proposed improvements, conditions would be safer than at present, and mobility, ease of travel, and direct trail connections would be improved.</p> <p>Safer route to access the RTD park-n-Ride.</p> <p>Existing bicycle routes may be temporarily interrupted during construction of the overpass structure.</p>	<p>The construction contract will include provisions for informing the bicycling community through Broomfield Parks and Recreation and the US 36 TMO, who will provide bike detour and route information.</p>
Air Quality	<p>CO and PM₁₀ concentrations would not exceed current NAAQS.</p> <p>Results of CO dispersion model showed an 8 percent increase in CO concentrations near the mobile home park.</p>	<p>No mitigation is required.</p>
Noise	<p>Four residences would experience noise levels above the approach criteria of 66 dB(A).</p> <p>Twenty-one locations, including a mixture of commercial and residential sites located near existing 120th Avenue and along Old Wadsworth Boulevard, are projected to experience decreases in noise levels.</p>	<p>A noise wall will be included to minimize noise impacts along the north edge of the Broomfield Mobile Home Park. This addresses one of the four impacted residences.</p> <p>Noise mitigation is not reasonable or feasible for the other three residences located at 11910 Allison Street, 8375 120th Avenue, and 8357 120th Avenue (see EA Section 3.9.3, pages 3-61 to 3-63).</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Noise (cont'd.)	<p>Thirty-eight mobile homes in the mobile home park would experience increases in noise levels, one would exceed the NAC.</p> <p>Ten residences just north of the proposed 120th Avenue Connection alignment would experience an increase of 5 to 9 dB(A).</p> <p>Two residences on 120th Avenue near Carr and Commerce Streets would experience noise levels above the NAC impact threshold.</p>	
Water Resources and Water Quality	<p>Impervious surface area would increase by approximately 30 acres due to transportation improvements.</p> <p>A portion of Dry Creek Valley Ditch, southwest of US 36, would need to be moved from the existing channel bed to the west to accommodate the bridge abutment locations for the 120th Avenue Connection.</p> <p>Approximately 300 feet of the Dry Creek Valley Ditch southwest of US 36 would need to be enclosed in a linear pipe and another 520 lineal feet would need to be rerouted on either side of the enclosed ditch. The segments north and south of the pipe enclosure would be within an open channel and would not be enclosed.</p>	<p>The use of standard erosion and sediment control BMPs in accordance with CDOT's <i>Erosion Control and Storm Water Quality Guide</i> will be included in the final design plans. All work on the project will be in conformity with Section 107.25 and Section 208 of the CDOT <i>Standard Specifications for Road and Bridge Construction</i>. Water quality mitigation will adhere to the CDOT MS4 Permit New Development and Redevelopment Program, Phase I and II. The following specific BMPs from the <i>Erosion Control and Storm Water Quality Guide</i> and the <i>CDOT MS4 Permit New Development and Redevelopment Program</i> will be applied during construction to reduce construction-related and/or long-term operation impacts to water resources and water quality as appropriate:</p> <p>All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Water Resources and Water Quality (cont'd.)		<p>Where permanent seeding operations are not feasible due to seasonal constraints (e.g., summer and winter months), disturbed areas will have mulch and mulch tackifier applied to prevent erosion.</p> <p>Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.</p> <p>Temporary erosion control blankets will have flexible natural fibers.</p> <p>Erosion bales, erosion logs, silt fence or other sediment control device will be used as sediment barriers and filters adjacent to wetlands, surface waterways and at inlets where appropriate.</p> <p>To minimize the loss of sand from the road surface during winter sanding operations, permanent sediment catch basins will be constructed and maintained.</p> <p>Where appropriate, slope drains will be used to convey concentrated runoff from top to bottom of the disturbed slopes. Slope and cross-drain outlets will be constructed to trap sediment.</p> <p>Storm drain inlet protection will be used where appropriate to trap sediment before it enters the cross-drain.</p> <p>Check dams will be used where appropriate to slow the velocity of water through roadside ditches and in swales.</p> <p>Disturbance to vegetated areas will be minimized.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Water Resources and Water Quality (cont'd.)		<p>Temporary retention ponds (during construction) will be used to allow sediment to settle out of runoff before it leaves the construction area. These ponds may be combined with permanent detention ponds.</p> <p>Structural BMPs may include extended detention basins with sediment forebays, grass swales, and grass buffers to retain sediment and roadway pollutants resulting from winter sanding, chemical deicing and normal traffic operations.</p> <p>Non-structural BMPs may include litter and debris control, and landscaping and vegetative practices.</p> <p>Settling ponds for effluent from dewatering operations, if needed.</p> <p>Construction of the ditch will be planned during the non-irrigation season. If this is not possible, the hydraulic integrity of the ditch will be maintained through the use of temporary systems.</p> <p>If contaminated groundwater is encountered during the dewatering process, mechanisms will be in place to analyze groundwater for contaminants and effectively treat this groundwater pumped discharge, as necessary per the Phase II requirements.</p>
Floodplains	No impact.	No mitigation is required.

Continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Wetlands	Permanent impacts to approximately 0.07 acre of isolated, non-jurisdictional wetlands. Temporary impacts total <0.01 acre.	<p>The roadway design includes avoidance and minimization of impacts to most study area wetlands. Impacts to wetlands will be avoided and minimized as much as practical during the final design process. The design shall comply with Executive Order 11990. Wetlands as well as their associated functions permanently impacted by the Preferred Alternative will be mitigated at a 1:1 ratio within the study area by wetland creation/restoration at study area sites to be coordinated with the City and County of Broomfield and approved by the CDOT landscape architect and a CDOT wetland biologist, and, if necessary, by purchase of credits at a wetland mitigation bank within the primary service area. Wetland impacts will be reduced as much as possible during final design. Specific strategies include steepening embankment slopes and piping only selected portions of irrigation ditches. Replaced wetland functions and values are anticipated to include bank stabilization, sediment/toxin retention, nutrient removal/transformation, food chain support, wildlife habitat, and visual quality.</p> <p>Final selection of preferred wetland mitigation sites will be determined on the basis of stable hydrology, availability of water rights, construction feasibility, and overall potential for successful wetland creation. Wetland mitigation design will be coordinated with CDOT, Broomfield and local property owners. All wetland mitigation sites will be guaranteed in writing to remain wetland in perpetuity. Wetland mitigation concepts, species lists, and seeding and planting methods will be included in the engineering plans.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Wetlands (cont'd.)		<p>Table 3-19 of the <i>Environmental Assessment (EA)</i> lists wetland plant species suitable for wetland mitigation sites. A tree and shrub wetland buffer zone (see Table 3-20 of the EA) will be planted, as appropriate, on slopes above wetland mitigation sites.</p> <p>Where possible, wetland topsoil will be stockpiled on site for use in wetland creation areas. Only topsoil free from viable noxious weed seeds will be stockpiled. Wetland areas temporarily impacted by construction activities will be replanted as soon as possible following completion of the activity, if needed.</p> <p>Since all wetlands are non-jurisdictional, application to the USACE for a 404 permit would not be necessary.</p> <p>The following specific BMPs from CDOT's <i>Erosion Control and Storm Water Quality Guide</i> will be required during construction to reduce the potential for wetlands to be indirectly affected by sedimentation from accelerated erosion or by hazardous materials (e.g., fuel, equipment lubricants):</p> <p>All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.</p> <p>Where permanent seeding operations are not feasible due to seasonal constraints (e.g., summer and winter months), disturbed areas will have mulch and mulch tackifier would be applied to prevent erosion.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Wetlands (cont'd.)		<p>Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.</p> <p>Temporary erosion control blankets will have flexible natural fibers.</p> <p>Erosion bales, erosion logs, silt fence or other sediment control device will be used as sediment barriers and filters adjacent to wetlands, surface waterways and at inlets where appropriate.</p> <p>To minimize the loss of sand from the road surface during winter sanding operations, sediment catch basins will be included during construction and put in place permanently with continual maintenance.</p> <p>Where appropriate, slope drains will be used to convey concentrated runoff from top to bottom of the disturbed slopes. Slope and cross-drain outlets will be constructed to trap sediment.</p> <p>Storm drain inlet protection will be used where appropriate to trap sediment before it enters the cross-drain.</p> <p>Check dams will be used where appropriate to slow the velocity of water through roadside ditches and in swales.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Wetlands (cont'd.)		<p>Additionally, the following BMPs to minimize wetland impacts during construction will be employed</p> <p>All wetland areas and water bodies not impacted by the project will be protected from unnecessary encroachment by temporary fencing. Sediment control such as silt fence or erosion logs, will also be used where needed to protect the area from sediment. Siltation control devices (e.g., fences) will be placed on the down-gradient side of construction areas to prevent soil from entering wetland areas.</p> <p>No staging of construction equipment, equipment refueling or storage of construction supplies will be allowed within 50 feet of a wetland or any water-related area.</p> <p>Standard erosion control measures will be observed and an erosion control plan will be developed prior to and for inclusion in the construction bid plans. All bare fill or cut slopes adjacent to streams or intermittent drainages will be stabilized as soon as practicable.</p> <p>No fertilizers, hydrofertilizers, hydroseeding or hydromulching will be allowed anywhere on the project.</p> <p>Work areas will be limited as much as possible to minimize construction impacts to wetlands.</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Vegetation, Wildlife and Aquatic Resources	<p>Direct impacts to vegetation would occur from clearing, excavation and grading for the proposed improvements. The Preferred Alternative affects 51 acres of land in the study area. However, there are no conservation sites or sensitive plant communities within the study area. The construction process would remove existing vegetation leaving those areas bare.</p> <p>Impacts to 1.2 acres of prairie dog habitat (see Section 3.14). Of the 51 acres impacted, approximately 32 acres are vacant lands planned for development and 19 acres are developed. Construction activity could result in direct wildlife mortality.</p> <p>No impacts to fisheries would occur, as none are present in the study area.</p> <p>Construction of the Preferred Alternative would disturb areas that are already inhabited by weeds and would disturb areas that are currently weed free, resulting in the potential for the introduction of weeds into those areas. Temporary work areas would also be susceptible to weed invasion. Nearly all of the study area is vegetated by non-native, highly invasive species; however, the listed noxious weed species known in the study area which are most likely to spread to construction sites include redstem filaree, diffuse knapweed, musk thistle, and Scotch thistle.</p>	<p>The following BMPs will be used to mitigate impacts to vegetation associated with the Preferred Alternative.</p> <p>Minimize the amount of disturbance and limit the amount of time that disturbed areas are allowed to be non-vegetated.</p> <p>Implement the project Integrated Weed Management Plan.</p> <p>Avoid existing trees, shrubs and vegetation, to the maximum extent possible, especially wetlands and riparian plant communities.</p> <p>Salvage weed free topsoil for use in revegetation.</p> <p>Implement temporary and permanent erosion control measures to limit erosion and soil loss. Erosion control blankets will be used on steep, newly seeded slopes to control erosion and to promote the establishment of vegetation. Slopes should be roughened at all times and concrete washout contained.</p> <p>Time tree removal for outside of nesting season per the Migratory Bird Treaty Act (MBTA).</p> <p>All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.</p> <p>Removed trees, shrubs and vegetation will be replaced on a 1:1 basis, if practicable, as required by CDOT Region 6.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Vegetation, Wildlife and Aquatic Resources (cont'd.)		<p>Since soil disturbance with accompanying invasion by noxious weed species can be associated with highway construction, the Integrated Weed Management Plan will be incorporated into the project design and implemented during construction.</p> <p>Specific BMPs will be required during construction to reduce the potential for introduction and spread of noxious weed species and include:</p> <p>Mapping will be included in the construction documents along with appropriate control methods for noxious weeds.</p> <p>Highway right-of-way areas will periodically be inspected during construction and during post-construction weed monitoring for invasion of noxious weeds.</p> <p>As detailed in the Integrated Weed Management Plan (Appendix F of the EA), weed management measures will include removal or burial of heavily infested topsoil, chemical treatment of lightly infested topsoil, limiting disturbance areas, phased seeding with native species throughout the project, monitoring during and after construction, other chemical and/or mechanical treatments.</p> <p>Use of herbicides will include selection of appropriate herbicides and timing of herbicide spraying, and use of a backpack sprayer in and adjacent to sensitive areas such as wetlands and riparian areas.</p> <p>Certified weed-free hay and/or mulch will be used in all revegetated areas.</p> <p>No fertilizers will be allowed on the project site.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Vegetation, Wildlife and Aquatic Resources (cont'd.)		<p>Supplemental weed control measures may be added during design and construction planning.</p> <p>The removal of trees will be scheduled to avoid the breeding season of birds from April 1 to August 31.</p> <p>Preventative Control Measures for project design and construction may include:</p> <p>Native Plants: Use of native species in revegetation sites.</p> <p>Weed Free Forage Act: Materials used for the project will be inspected and regulated under the Weed Free Forage Act, Title 35, Article 27.5, CRS.</p> <p>All topsoil, either imported or salvaged on site, shall be treated with an herbicide for noxious weeds, prior to final seeding.</p> <p>All materials for mulching shall consist of certified weed under the the Colorado Department of Agriculture Weed Free Forage Act.</p> <p>Equipment Management: Equipment will remain on designated roadways and stay out of weed- infested areas until the areas are treated. All equipment will be cleaned of all soil and vegetative plant parts prior to arriving on the project site.</p> <p>Several conservation measures will be incorporated with the Preferred Alternative to reduce impacts to wildlife and may include:</p> <p>Minimizing disturbance to native plant communities.</p> <p>Minimizing tree removal.</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Vegetation, Wildlife and Aquatic Resources (cont'd.)		<p>Restricting tree removal during breeding season (April 1 to August 31) in compliance with the MBTA or a depredation permit from USFWS will be obtained. If construction is to commence between April 1 and August 31, a ground nesting survey will be completed by a wildlife biologist.</p> <p>Erosion control techniques such as silt fence or erosion logs will be used to protect surrounding areas from construction related erosion.</p> <p>Noxious weeds will be spot sprayed. In locations where spot application is not practicable a wildlife biologist will inspect the area prior to spraying to ensure crucial habitat will not be impacted.</p> <p>Temporary erosion control blankets will have flexible natural fibers.</p> <p>No mitigation is required for aquatic resources.</p>
Threatened and Endangered Species	<p>No impact to federally listed species.</p> <p>Impact to 1.2 acres of black-tailed prairie dog habitat; a state species of special concern.</p>	<p>Prior to construction, a survey of the impacted prairie dog town will be conducted to determine size and population density. A survey also will be conducted to determine burrowing owl presence in the construction area. Based on that information, CDOT, in cooperation with Broomfield, will identify appropriate relocation sites. Broomfield will identify general potential relocation sites during review of their Prairie Dog policy. CDOT will follow the CDOT Impacted Black-tailed Prairie Dog Policy (2005) and will coordinate with Broomfield and other appropriate entities in the mitigation effort.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Historic and Archaeological Preservation	Determinations of no adverse effect and no historic properties affected.	No mitigation is required. In the event historic or prehistoric cultural remains are exposed during any phase of construction, all work in the vicinity of the finds will cease and the CDOT Senior Staff Archaeologist will be contacted to evaluate the materials. Work will not resume until the archaeologist has completed necessary consultation with the SHPO and any other agencies or entities, as appropriate, and provided the Engineer with clearance to proceed.
Paleontological Resources	No previously documented fossil occurrences were recorded or observed.	<p>Paleontological clearance is recommended only for the surface of the study area. Because of its paleontologic sensitivity, monitoring of all areas where the Denver/Arapahoe Formation would be impacted during construction excavations is recommended. When the project design plans are finalized, the CDOT staff paleontologist will examine them in order to estimate the impact to the Denver Formation and the scope of paleontological monitoring work, if any, which is required.</p> <p>It is possible that fossils could be present in Pleistocene-aged deposits within the study area, and that these could be impacted during ground-disturbance. Because Pleistocene-aged bones may be only partially mineralized and are often superficially similar to modern bones, they can be difficult to distinguish. If any sub-surface bones or other potential fossils are found anywhere within the study area during construction, the CDOT staff paleontologist will be notified immediately to assess their significance and make further recommendations.</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Hazardous Waste	Potential impacts from 8 sites identified in the study area.	<p>Further environmental investigation of potentially contaminated properties is recommended once the final design is completed and the final construction footprint is identified.</p> <p>Contamination will be properly managed in accordance with the requirements set forth in <i>CDOT Colorado Highway Specifications</i>.</p> <p>The implementation of a <i>Materials Management Plan</i> (CDOT Standard Specifications Section 250) will facilitate proper handling of anticipated and unanticipated contaminated materials during the construction phase of the project.</p> <p>The development of a project <i>Health and Safety Plan</i> (CDOT Standard Specifications Section 250) will address the health and safety of all workers involved in construction of the project.</p> <p>Any excavation, pumping and/or dewatering activities of contaminated soils or waters will require proper treatment and disposal.</p>
Visual Resources	Substantial visual impacts are not anticipated, nor would the project disrupt significant feature views or adversely affect any viewscapes of historic properties of national or state significance.	<p>All disturbed areas will be revegetated with native grass and forb species. Seed, mulch and mulch tackifier will be applied in phases throughout construction.</p> <p>Efforts to minimize visual impacts associated with construction will be made.</p>
Parks and Recreation Properties	No impact.	No mitigation is required.
Section 6(f) Coordination	No impact.	No mitigation is required.

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Construction	<p>Potential for decreased mobility during construction, dust, noise, runoff, traffic congestion, temporary restricted access to residences and businesses, and visual intrusions to motorists and residents.</p> <p>Rail operations may be temporarily interrupted.</p>	<p>Mitigation for direct impacts could include implementation of the following measures during construction:</p> <p>Construction of noise walls (determined to be feasible and reasonable during design stages) prior to construction or in an early phase of construction.</p> <p>Maintain access to local businesses and residences, especially along 120th Avenue.</p> <p>Coordinate detour routes to avoid overloading local streets.</p> <p>Minimize construction duration in residential areas, as much as possible.</p> <p>Avoid nighttime activities in residential areas, as much as possible.</p> <p>Re-route truck traffic away from residential streets, where possible.</p> <p>Combine noisy operations to occur in the same period.</p> <p>Conduct pile driving and other high-noise activities during daytime construction, where possible.</p> <p>Develop traffic management plans.</p> <p>Maintain traffic flow during peak travel times by minimizing lane closures, if possible.</p> <p>Coordinate with emergency service providers to minimize delays and ensure access to properties.</p> <p>Use signage, T.V. and radio announcements to announce and advertise timing of road closures.</p>

continued

**Appendix A (continued)
Summary of Impacts and Mitigation for the Preferred Alternative**

Category	Impacts	Mitigation
Construction (cont'd.)		During peak travel times, keep as many lanes as possible open by temporarily shifting lanes within the existing framework of the roadway.
Permits		<p>The following permits or coordination may be required for the Preferred Alternative and will be obtained prior to construction:</p> <p>National Pollutant Discharge Elimination System (NPDES), issued by the Colorado Department of Public Health and Environment (CDPHE). This storm water discharge permit is required to assure the quality of storm water runoff.</p> <ul style="list-style-type: none"> – Municipal Separate Storm Sewer System (MS4) Permit issued by CDPHE. The study area falls within the CDPHE Phase II Storm Water Regulations “Urbanized Areas,” and therefore would follow the requirements of CDOT’s MS4 permit. – Section 402: Construction Dewatering Permit issued by CDPHE-Water Quality Control Division (WQCD) would be required for dewatering of construction areas, if necessary. In addition, if contaminated groundwater is anticipated, an Individual Construction Dewatering Permit would be required wherever construction dewatering could potentially strike contaminated groundwater. <p>Nest Take Permit, issued by the U.S. Fish and Wildlife Service (USFWS) if active nests are to be removed or if the nest is a raptor nest, active or not.</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Permits (continued)		<p>Prairie Dog Relocation or Removal Permit, issued by the Colorado Division of Wildlife (CDOW). This permit will be required for relocation or removal of prairie dogs from private or public land. Prairie dog relocations from private lands also would require a permit issued by the City and County of Broomfield. In conformance with state law, prairie dogs shall not be relocated to other counties without the prior approval of the County Commissioners of that county.</p> <p>Fugitive Dust Permit is required if more than 25 acres of land is impacted and/or project duration is longer than six months.</p> <p>State Access Permit, from CDOT.</p> <p>Construction Access Permits from CDOT and the City and County of Broomfield for detours and lane closures along West 120th Avenue.</p> <p>Access Permits and authorizations as required by CDOT.</p> <p>Other Local Permits, such as railroad, building, utility or survey.</p>
Cumulative Impacts	<p>The incremental impacts of the Preferred Alternative, when added to past, present and reasonably foreseeable projects would not result in a significant cumulative impact.</p> <p>Land development is anticipated to proceed in an around the study area with or without the improvements proposed.</p>	<p>The City and County planning process controls the type and rate of growth through Master Plan and zoning regulations. Broomfield has an adopted policy concerning the amount of open space that is required to be set aside as a public land dedication for new developments. This requirement utilizes a density-based formula. Land obtained from the public land dedication may be used for parks, open space, public facilities such as a fire station, or elementary school sites. The incremental effects of this project when added to the</p>

continued

Appendix A (continued) Summary of Impacts and Mitigation for the Preferred Alternative

Category	Impacts	Mitigation
Cumulative Impacts (cont'd.)	<p>Based on current modeling statistics, air quality is not expected to deteriorate substantially at a regional level as a result of this project.</p> <p>The 120th Avenue Connection project does not add to the cumulative loss of wetlands in the area. Wetland impacts as a result of the proposed project consist of impacts to 0.07 acre of non-jurisdictional wetlands. These wetlands are man-made and are not part of the larger watershed or connected to other area wetlands or major surface water resources.</p> <p>Past and present development occurring in and around the study area has fragmented habitat for wildlife species. The projected 1.2 acre impact to a black-tailed prairie dog colony is relatively small and would not affect populations within the cumulative study area.</p>	<p>baseline that includes the other area projects, is not expected to be substantial and is expected to be consistent with adopted land use plans.</p> <p>This project is currently listed in the fiscally constrained 2030 RTP adopted on January 19, 2005. A conformity analysis was completed on the 2030 RTP. This project would not result in any exceedance of the NAAQS.</p> <p>CDOT is committed to avoidance, minimization, and compensatory wetland mitigation resulting in no net loss and a requirement for mitigation of all impacts, regardless of jurisdiction, at a 1:1 ratio. This project, when added to the baseline that includes past, present and reasonably foreseeable future projects, is not expected to result in a substantial loss of wetlands in this area.</p> <p>The state of Colorado has entered into a Memorandum of Understanding with ten other state and federal agencies for the conservation of black-tailed prairie dogs. In the January 2002 Memorandum "Black-tailed Prairie Dog Relocation Guidelines," CDOT created guidelines for addressing black-tailed prairie dogs affected by department projects and stated the importance of adopting a statewide strategy for prairie dogs. Black-tailed prairie dog mitigation will follow guidelines as directed by CDOT including those developed in the recent Memorandum, "CDOT Impacted Black-tailed Prairie Dog Policy" (2005). CDOT will coordinate with the City and County of Broomfield for mitigation efforts. Relocation is the mitigation option of first choice, if available.</p>

**APPENDIX B:
EA COMMENTS
(INCLUDING PUBLIC HEARING)**

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120TH AVENUE CONNECTION
Environmental Assessment

April 21, 2005
Public Hearing

ORIGINAL

Questions & Comments:

No recorded questions or comments by public

Charts & Graphs:

I. Project Information

- A. Environmental Assessment Process
- B. Next steps
- C. Purpose and Need

II. Funding and Scheduling

- A. Environmental Assessment Schedule
- B. Funding and Schedule

III. Preliminary Alignments

- A. 120th Avenue Connection Alignments

IV. Preferred Alternative

- A. Preferred Alternative
- B. Preferred Alternative Roadway Network
- C. Preferred Alternative Cross-Sections
- D. Comparison Matrix for Six Access Options
- E. 120th Avenue Access

V. Traffic Data

- A. Preferred Alternative 2025

VI. Public Comments

- A. None

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Proposed US 36 Corridor
EIS Packages

Package No. 1

No Action

Package No. 2

Express Toll and Bus Rapid Transit (BRT)

Package No. 3

General Purpose Lanes and Exclusive BRT

Package No. 4

Rail plus General Purpose Lanes and BRT

Package No. 5

Rail plus General Purpose Lanes and HOV

* * * * *

C E R T I F I C A T E

STATE OF COLORADO)
) ss.
COUNTY OF DENVER)

I, Tammy L. Aukema, Notary Public of the State of Colorado, duly appointed to take the record of public hearing proceedings, do hereby certify that said record of public hearing proceedings was stenographically reported by me at the time and place heretofore set forth, and was reduced to typewritten form under my supervision as per the foregoing;

That the foregoing is a true and correct transcript of my shorthand notes then and there taken;

That I am not kin or in anywise associated with any of the parties to said cause of action or their counsel and that I am not interested in the event thereof;

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 21st day of April, 2005.

My Commission Expires: 12-25-2007



Tammy L. Aukema

Tammy L. Aukema
Notary Public
12510 East Iliff
Suite 120
Aurora, Colorado 80014

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
<http://www.epa.gov/region08>

JUN 28 2005

Ref: 8EPR-N

David A. Nicol
Division Administrator, Colorado Division
Federal Highway Administration
12300 W. Dakota Avenue Suite 180
Lakewood, Colorado 80228

Re: Environmental Assessment (EA) for 120th
Avenue Connection, Broomfield, CO

Dear Mr. Nicol:

In the agreement between the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA), dated August 28, 2000, EPA agreed to advise FHWA within 15 days of receipt of an EA whether EPA 1) will have no comments on the document; 2) will have comments within the review period; or 3) has serious objections to the Finding of No Significant Impact (FONSI). We received this document on June 22, 2005. This letter is to inform FHWA that EPA has done a preliminary review of the EA for the transportation improvements to 120th Avenue, and we have a comment.

The document contains a section on urban air toxics (section 3.8.4.3), which states that "The EPA has not yet determined how best to evaluate the impact of future roads and intersections on the ambient concentrations of urban air toxics. There are no standards for MSATs and there are no tools to determine the significance of localized concentrations of MSATs or increases or decreases in emissions." We continue to disagree with this statement. The lack of regulatory standards for air toxics emissions does not mean that the impacts of air toxics cannot be evaluated. Trends of emissions levels, a comparison of emission levels for each alternative (which may not be relevant for this project), information on immediate sensitive receptors in close proximity to the project, as well as information on what the scientific research is showing about air toxics and health impacts, is very important information, and should be included in the air quality analysis. A qualitative discussion of expected emissions trends based on composite VOC emissions and/or diesel emissions can be done and is consistent with current FHWA guidance. A quantitative analysis of emission trends of MSATs using EPA's Mobile 6.2 model also can be done to verify whether or not MSAT emissions are actually decreasing, as is usually stated in the analysis, but is not necessary for this project.



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As stated in the agreement, we want to ensure open communication, trust and integrity between our two agencies. In that spirit, your staff is aware that we have this concern, and we will continue to discuss the issue as needed. If you have questions regarding this matter, please contact Deborah Lebow of my staff at 303 312-6223 or Jeffrey Kimes of EPA's air program at 303 312-6445.

Sincerely,



Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

cc: Brad Beckham, CDOT
Richard Annand, CDOT Region 2



Rec'd 6/22/05
from David Singer



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240



ER 05/360

JUN 10 2005

Ms. Jean Wallace
Senior Operations Engineer
Federal Highway Administration
12300 West Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Dear Ms. Wallace:

Thank you for the opportunity to comment on the draft Environmental Assessment (EA) and Section 4(f) Evaluation for the **120th Avenue Connection**, City of Broomfield, Colorado. The Department of the Interior (Department) has reviewed the document and submits the following comments.

GENERAL COMMENT

Cited literature could not be found in the document. A bibliography of cited references would be useful.

SPECIFIC COMMENT

Section 3.23.4.4, Wildlife (Mitigation), Page 3-119

The draft EA states under section C of the Interim Region 6 Prairie Dog Policy, "Black-tailed prairie dogs in the impacted colonies that cannot be reasonably relocated should be euthanized and donated to the Fish and Wildlife Service (FWS) for use in the black-footed ferret reintroduction program...."

Black-tailed prairie dogs are symbiotic with federally-listed, endangered black-footed ferrets, and are preferred alive. The United States Geological Service (USGS) has an active program, in collaboration with the FWS, to research the community structure and relationships between black-tailed prairie dogs and endangered black-footed ferrets (Biggins and Godbey, 2003). Further information on the ecology of prairie dogs and how to work with them is available at the USGS's Fort Collins Science Center web site at <http://www.fort.usgs.gov>. From there, search "prairie dogs," or go directly to the following URLs from that site:

Prairie Dogs as Keystone Species in Prairie Ecosystems

<http://www.fort.usgs.gov/research/0000064.asp>

Page -2-

Survey of Citizen Knowledge and Perception of Black-tailed Prairie Dog Management

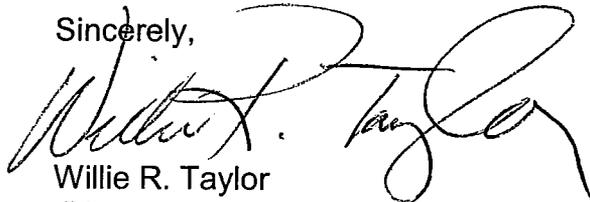
<http://www.fort.usgs.gov/resources/spotlight/prairiedogs/pdog%5Fhome.asp>

SECTION 4(f) EVALUATION

The Department recognizes and appreciates that you have consulted with the Colorado State Historic Preservation Office; they concur on your determination of effect. We also appreciate that you have adequately analyzed avoidance alternatives in the Section 4(f) Evaluation, and are proposing mitigation measures to minimize harm to Section 4(f) properties.

Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document, and that all measures have been taken to minimize harm to these resources.

Sincerely,



Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

REFERENCE

Biggins, D.E., and J.L. Godbey. 2003. Challenges to reestablishment of free-ranging populations of black-footed ferrets. *C. R. Biologies* 326: S104-S111.

May 10, 2005

Burt Knight, PE
City and County of Broomfield
One Descombes Drive
Broomfield, CO 80020

RE: 120th Avenue Connection Environmental Assessment

Dear Burt:

As regards the proposed new alignment for 120th Avenue adjacent to our Arista project (Broomfield Urban Transit Village), which will be immediately to the south, we are pleased to express our support. In so doing, we would like to call your attention to the proposed "right-in, right-out plus underpass" access and egress for our project. This connection appears well-intended, but the southerly "buttonhook" presently reflected in the preliminary plans to facilitate full movement is actually in conflict with the very purpose it is meant to serve; that being our future development plans for the property.

As you proceed into the design phase of the project, we strongly encourage you to re-evaluate the strategy for this connection by eliminating the buttonhook concept and providing for a full movement signalized intersection.

We look forward to working with Broomfield and CDOT on the final access plan for our project during the design phase, and wish you continued good progress in seeing the new 120th Avenue alignment through to completion.

Thank you for your consideration.

Very Truly, Yours,

LOWE ENTERPRISES REAL ESTATE GROUP – CENTRAL, INC.

Edward Barsocchi
Vice President



May 19, 2005

Kim Gambrill
Carter & Burgess, Inc.
707 17th Street, Suite 2300
Denver, CO 80202

Dear Kim:

This letter is to provide RTD's comments on the proposed 120th Avenue Extension Environmental Assessment and preliminary plans during the public comment period for the 120th Avenue Extension EA. RTD would like to express our support for the development of this project, and we have the following comments on the proposed design.

RTD would like to re-state our strong desire for a full-movement signalized intersection at the Broomfield Transit Village intersection between US 36 and Wadsworth Boulevard. The construction of an underpass for full access to the remaining RTD-owned property between US 36, the 120th Avenue Extension, and Wadsworth Boulevard will have a significant impact on RTD-owned parcels on both sides of the proposed roadway. This impact must be resolved in cooperation with CDOT, the City and County of Broomfield, and RTD.

We request continued coordination with the 120th Avenue project team during completion of plans for the underpass at the BNSF railroad. The proposed profile of 120th Avenue as developed during final design must not preclude the future construction of additional railroad track alignments within the BNSF right-of-way.

RTD appreciates the opportunity to comment on the EA and preliminary plans. We are looking forward to working with CDOT, Broomfield, and the project team on the resolution of these impacts and the successful completion of the 120th Avenue Extension project.

Sincerely,

A handwritten signature in black ink that reads "Dave". The signature is written in a cursive, flowing style.

Dave Shelley
Manager, Corridor and Regional Planning

Cc: John Shonsey, P.E. – Regional Transportation District
Burt Knight, P.E. – City and County of Broomfield
Moe Awaznezhad, P.E. – Colorado Department of Transportation
Suzanne Oldham – Lowe Enterprises Real Estate Group

✓
120th Avenue Connection
Environmental Assessment

Public Hearing
Thursday, April 21, 2005
4:00 to 6:30 p.m.
Jeffco Airport
Mount Evans Room

COMMENT SHEET

I have the following comments or questions about the 120th Avenue Connection EA project:

Sounds great!

Build it as soon as possible!

Name: <i>Bruce Mack</i>
Address: <i>2239 Edin, Star Lane Lafayette, CO 80026</i>
Phone: <i>303 493 0670</i> e-mail: <i>bruce@mockpm.ca</i>

(above information is optional)

Mail comments to address on other side or fax to 303-820-2402 or
E-mail to macdonaldTS@c-b.com.

COMMENT SHEET

I have the following comments or questions about the 120th Avenue Connection EA project:

I would like to receive set of plan sheets if available.

Name: <i>Bruce Mock</i>	
Address: <i>2239 Evening Star Lane</i>	
Phone: <i>303 497 0670</i>	e-mail: <i>Bruce@mockpm.com</i>

(above information is optional)

Mail comments to address on other side or fax to 303-820-2402 or
E-mail to macdonaldTS@c-b.com.

COMMENT SHEET

I have the following comments or questions about the 120th Avenue Connection EA project:

1. AS A HOME OWNER OF ONE OF THE HOMES THAT WILL BE THE CLOSEST TO THE NEW ROAD AND AFTER TALKING WITH THE PEOPLE AT THIS "PUBLIC HEARING" I HAVE MANY CONCERNS BUT AFTER ASKING QUESTIONS I COME AWAY WITH THE IMPRESSION THAT NO ONE ACTUALLY GIVE A ABOUT THE LEGITIMATE ISSUES CONCERNING THE RESIDENTS OF 119 PL THAT NOBODY ELSE IN BROOMFIELD WILL HAVE TO DEAL WITH ON A DAILY BASIS.

- ① BACK GROUND NOISE FROM 50 DB NOW (QUIET NEIGHBORHOOD)
- ② AIR QUALITY DURING PEAK HOURS NOT 8HR AV. ←
- ③ LACK OF BARRIER WALL, WHICH WOULD EASE SEVERAL ISSUES
- ④ HEAD LIGHT GLARE THRU EVENING HRS ~~THRU~~ THRU WINDOWS
- ⑤ LOSS OF PROPERTY VALUE
- ⑥ ECT.

IT WOULD HAVE BEEN BETTER TO GO TO AND MEET WITH INDIVIDUALS THAN HOLD THIS "PUBLIC HEARING" THAT LESS THAN 20 PEOPLE ATTENDED. PLEASE GIVE ME A CALL IF YOU CARE

Name: THOMAS D GREENS
Address: 7878 W 119th pl
Phone: 720-341-5925 / 303 635-2080 e-mail: Dusty mech @ AOL.com.

(above information is optional)

Mail comments to address on other side or fax to 303-820-2402 or E-mail to macdonaldTS@c-b.com.

**APPENDIX C:
AGENCY COORDINATION**



U.S. Department
of Transportation
**Federal Highway
Administration**

12300 W. Dakota Ave., Ste. 180
Lakewood, CO 80228

December 14, 2005

Colorado Federal Aid Division

VIA FEDERAL EXPRESS

In Reply Refer To:
HDA-CO

Mr. Willie R. Taylor
Director, Office of Environmental Affairs
Department of the Interior
1849 C Street, N.W., Room 2340
Washington, DC 20240

Dear Mr. Taylor:

Subject: 120th Avenue 4(f) Evaluation

On June 10th, 2005, your office provided comments on the draft Environmental Assessment (EA) and Section 4(f) Evaluation for the 120th Avenue Connection Project, City of Broomfield, Colorado. Since that time, our office has determined that a de minimis impact exists on the project according to recent amendments to the regulations. As a result, Federal Highway Administration (FHWA) will not be pursuing a Final Section 4(f) Evaluation. As a courtesy, this letter will describe the changes to Section 4(f) and how those changes were applied to this project in making a de minimis determination. No response is necessary. In the future, our process for consultation and concurrence may change depending on guidance issued by our agency.

Until recently, Section 4(f), codified at both 49 U.S.C § 303 and 23 U.S.C. § 138, required that any time a proposed federally-approved or federally-funded highway project would result in any "use" of land designated as a Section 4(f) resource, which includes listed or eligible historic properties under the National Historic Preservation Act (NHPA), the FHWA must perform an evaluation ("Avoidance Analysis") to determine whether there is a "feasible and prudent" alternative that would avoid the Section 4(f) resource. With regard to the 120th Avenue Connection Project, the FHWA has determined that the impact to the historic property, the Burlington Northern Santa Fe Railroad, while causing "no adverse effect" for the purposes of Section 106 of the NHPA, would nonetheless be "a use" for purposes of Section 4(f) because it would require the permanent incorporation of a small area of Section 4(f) land and resources, due to a permanent easement for an underpass within the railroad right-of-way and put the historic railroad, which is currently located on a gravel bed, on a structure so that the highway can go beneath the railroad.

Congress recently amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August



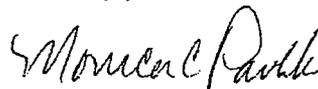
10, 2005) ("SAFETEA-LU"). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes the FHWA to approve a project that uses Section 4(f) lands that are part of a historic property, without preparation of an Avoidance Analysis, if it makes a finding that such uses would have "de minimis" impacts upon the Section 4(f) resource, with the concurrence of the relevant SHPO and consultation with the consulting parties.

De Minimis Determination

The FHWA has made a determination, and the Colorado SHPO has concurred that the use of the historic Section 4(f) property that would be affected by the proposed Project would cause "no adverse effect" for purposes of Section 106 of the NHPA. Broomfield, the consulting party, also agreed. This determination satisfies the identical Section 4(f) provisions added by Section 6009 of SAFETEA-LU at 23 U.S.C. § 138(b)(2)(A)(i) and 49 U.S.C. § 303(d)(2)(A)(i). The concurrence letter from the SHPO has been enclosed as well as the correspondence with the consulting party, the City of Broomfield.

This finding of "no adverse effect" reflects a conclusion that for the Section 4(f) historic resource impacted by the Project, those impacts will not "alter, directly or indirectly, any of the characteristics of [the] historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" as described in 36 CFR § 800.5(a)(1). Based on those findings, and taking into consideration the harm minimization measures that have been incorporated into the proposed Project as documented in the Section 4(f) Evaluation, it is the conclusion of the FHWA that the proposed Project, as it would be implemented under the Preferred Alignment 2A of the EA, would have de minimis impacts on the Section 4(f) historic property and that an Avoidance Analysis under Section 4(f) is therefore not required. If you have any questions or are unable to provide comments on the enclosed document by May 28, please contact Ms. Jean Wallace, of this office, at (720) 963-3015.

Sincerely yours,



DA David A. Nicol, PE
Division Administrator

Enclosures

Concurrence from SHPO (11/25/2005)
Correspondence with Broomfield



CITY AND COUNTY OF BROOMFIELD

One DesCombes Drive • Broomfield, CO 80020 • Phone: (303) 469-3301

December 7, 2005

Mr. Brad Beckham
Environmental Programs Manager
Colorado Department of Transportation
Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222

SUBJECT: Section 4(f) De Minimis Determination, CDOT Project DEMO 0361-067,
- 120th Avenue Connection -

Dear Mr. Beckham:

Thank you for the opportunity to comment on the finding of de minimis impact on historic properties for the proposed 120th Avenue Connection between the intersection of State Highway 128 and Wadsworth Parkway (SH 121). We agree with the finding and agree that there are no adverse affects to historic properties.

Sincerely,

Kevin Standbridge
Assistant City and County Manager
For Community Development

Cc: Lisa Schoch, CDOT
Monica Pavlik, FHWA
Sandi Kohrs, CDOT Region 6
David Singer, CDOT Region 6



STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259



December 6, 2005

Mr. Kevin Standbridge
City of Broomfield
One DesCombes Drive
Broomfield, CO 80020

SUBJECT: Section 4(f) De Minimis Determination, CDOT Project DEMO 0361-067, 120th Avenue Connection

Dear Mr. Standbridge:

This letter and the attached materials constitute the Federal Highway Administration's (FHWA) request for comments on the effects to historic resources resulting from implementation of the proposed connection of 120th Avenue between the intersection of State Highway 128 and Wadsworth Parkway (SH 121). FHWA has established that this action would be "de minimis" for the purposes of Section 4(f) of the Department of Transportation Act, as recently amended by Congress.

In January 2005, FHWA and the Colorado Department of Transportation (CDOT) consulted with your staff pursuant to Section 106 of the National Historic Preservation Act (NHPA), regarding the potential effects to a historic resource as a result of the proposed connection of 120th Avenue between SH 128 and SH 121 in Broomfield. Based on that consultation, you concurred with the agency findings that the proposed connection, as it would be constructed under Preferred Alignment 2A in the Environment Assessment, would impact one property eligible for listing on the National Register of Historic Places (Burlington Northern Railroad. 5BF47.1 and 47.2). However, FHWA and CDOT also determined that these impacts would be sufficiently minor that they would have "no adverse effect" on the property. Copies of the consultation correspondence by which you concurred with the no adverse effect determination are attached. FHWA and CDOT also consulted with the State Historic Preservation Officer (SHPO), the Broomfield Depot Museum, and the Jefferson County Historic Preservation Commission regarding these effect determinations; copies of those letters are also included herewith.

Background

In addition to Section 106 of the NHPA, FHWA must comply with Section 4(f), which is codified at both 49 U.S.C § 303 and 23 U.S.C. § 138. Until recently Section 4(f) required that any time a proposed federally-approved or federally-funded highway project would result in any "use" of land designated as a Section 4(f) resource, which includes listed or eligible historic properties under the NHPA, FHWA must perform an evaluation ("Avoidance Analysis") to determine whether there is a "feasible and prudent" alternative that would avoid the Section 4(f)

Mr. Standbridge
December 6, 2005
Page 2

resource.¹ With regard to the 120th Avenue Connection project, FHWA has determined that the impact to the historic property, while causing "no adverse effect" for purposes of the NHPA, would nonetheless be "a use" for purposes of Section 4(f) because it would require the permanent incorporation of a small area of Section 4(f) land and resources. This will result due to a permanent easement for an underpass within the railroad right-of-way, which will put the historic railroad—which is currently located on a gravel bed—on a structure so that the highway can pass beneath the rail grade.

However, Congress recently amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) ("SAFETEA-LU"). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that uses Section 4(f) lands that are part of a historic property without preparation of an Avoidance Analysis, if it makes a finding that such uses would have "de minimis" impacts upon the Section 4(f) resource, with the concurrence of the relevant SHPO.

More specifically, with regard to Section 4(f) resources that are historic properties (like those that would be affected by the proposed CDOT undertaking), Section 6009(a)(1) of SAFETEA-LU adds the following language to Section 4(f):²

(b) De Minimis Impacts. --

(1) REQUIREMENTS.--

(A) REQUIREMENTS FOR HISTORIC SITES.--The requirements of this section shall be considered to be satisfied with respect to an area described in paragraph (2) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a de minimis impact on the area.

¹ As currently codified, the pertinent language of Section 4(f) reads as follows:

[T]he Secretary shall not approve any program or project . . . which requires the use of any . . . land from an historic site of national, State, or local significance as so determined by such officials unless

- (1) there is no feasible and prudent alternative to the use of such land, and
- (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use.

23 U.S.C. § 138; 49 U.S.C. § 303 (c). This analysis would usually be required under what is referred to as the first prong of Section 4(f). A de minimis determination does not relieve FHWA of its responsibility under the second prong to "minimize harm" to the historic sites.

² This provision will be codified as 23 U.S.C. § 138(b). Section 6009(a)(2) of SAFETEA-LU adds identical language at 49 U.S.C. § 303(d).

Mr. Standbridge
December 6, 2005
Page 3

(C) CRITERIA.--In making any determination under this subsection, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project.

(2) HISTORIC SITES.--With respect to historic sites, the Secretary may make a finding of de minimis impact only if--

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470f), that--

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

This new provision of Section 4(f) is the basis of this letter, and of FHWA's determination of de minimis impacts and request for the City and County of Broomfield to comment on this de minimis finding with respect to the proposed project. We recently consulted with the SHPO and received their concurrence on the de minimis finding. A copy of that concurrence is attached for your review. At this time we are soliciting input from the consulting parties per section 6009(b)(2)(C).

De Minimis Determination

As previously noted, FHWA has already made a determination that the use of a historic Section 4(f) property that would be affected by the proposed project would cause "no adverse effect" for purposes of Section 106 of the NHPA. This determination satisfies the identical Section 4(f) provisions added by Section 6009 of SAFETEA-LU at 23 U.S.C. § 138(b)(2)(A)(i) and 49 U.S.C. § 303(d)(2)(A)(i).

This finding of "no adverse effect" reflects a conclusion that for the Section 4(f) historic resource impacted by the project, those impacts will not "alter, directly or indirectly, any of the

Mr. Standbridge
December 6, 2005
Page 4

characteristics of [the] historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" as described in 36 CFR § 800.5(a)(1). Based on those findings, and taking into consideration the harm minimization measures that have been incorporated into the proposed project as documented in the Section 4(f) Evaluation, it is the conclusion of FHWA that the proposed project, as it would be implemented under the Preferred Alignment 2A of the EA, would have de minimis impacts on the Section 4(f) historic property and that an Avoidance Analysis under Section 4(f) is therefore not required.

Request for Comments

FHWA requests the comments of the City and County of Broomfield in the above-described finding of de minimis impact on historic properties for the proposed project. Your written response will be evidence that the consultation requirements of Section 6009 of SAFETEA-LU, as they will be codified at 23 U.S.C. § 138(b)(2)(B) and (C), and 49 U.S.C. § 303(d)(2)(B) and (C) are satisfied. Your written response can be provided to FHWA, via the CDOT Environmental Programs Branch, at the following address:

Mr. Brad Beckham, Manager
Environmental Programs Branch
Colorado Department of Transportation
4201 East Arkansas Avenue
Denver, Colorado 80222

Sincerely,


Brad Beckham, Manager
Environmental Programs Branch

Enclosures: Section 106 correspondence

cc: Monica Pavlik, FHWA
Sandi Kohrs, CDOT Region 6
David Singer, CDOT Region 6
File/CF/RF

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259



November 29, 2005

Ms. Georgianna Contiguglia
State Historical Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, Colorado 80203

SUBJECT: Section 4(f) De Minimis Determination, CDOT Project DEMO 0361-067, 120th Avenue Connection

Dear Ms. Contiguglia:

This letter and the attached materials constitute the Federal Highway Administration's (FHWA) request for written concurrence from you that the effects to historic resources resulting from implementation of the proposed connection of 120th Avenue between the intersection of State Highway 128 and Wadsworth Parkway (SH 121) would be "de minimis" for the purposes of Section 4(f) of the Department of Transportation Act, as recently amended by Congress.

In August 2004, FHWA and the Colorado Department of Transportation (CDOT) consulted with your staff pursuant to Section 106 of the National Historic Preservation Act (NHPA), regarding the potential effects to a historic resource as a result of the proposed connection of 120th Avenue between SH 128 and SH 121 in Broomfield. Based on that consultation, you concurred with the agency findings that the proposed connection, as it would be constructed under Preferred Alignment 2A in the Environment Assessment, would impact one property eligible for listing on the National Register of Historic Places (Burlington Northern Railroad. 5BF47.1 and 47.2). However, FHWA and CDOT also determined that these impacts would be sufficiently minor that they would have no adverse effect on the property. Copies of the consultation correspondence by which you concurred with the no adverse effect determination are attached. FHWA and CDOT also consulted with the Broomfield Depot Museum, the City and County of Broomfield, and the Jefferson County Historic Preservation Commission regarding these effect determinations; copies of those letters are also included herewith.

In addition to Section 106 of the NHPA, FHWA must comply with Section 4(f), which is codified at both 49 U.S.C § 303 and 23 U.S.C. § 138. Until recently Section 4(f) required that any time a proposed federally-approved or federally-funded highway project would result in any "use" of land designated as a Section 4(f) resource, which includes listed or eligible historic properties under the NHPA, FHWA must perform an evaluation ("Avoidance Analysis") to determine whether there is a "feasible and prudent" alternative that would avoid the Section 4(f)

Ms. Contiguglia
November 29, 2005
Page 2

resource.¹ With regard to the 120th Avenue Connection project, FHWA has determined that the impact to the historic property, while causing “no adverse effect” for purposes of the NHPA, would nonetheless be “a use” for purposes of Section 4(f) because it would require the permanent incorporation of a small area of Section 4(f) land and resources. This will result due to a permanent easement for an underpass within the railroad right-of-way, which will put the historic railroad—which is currently located on a gravel bed—on a structure so that the highway can pass beneath the rail grade.

However, Congress recently amended Section 4(f) when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) (“SAFETEA-LU”). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that uses Section 4(f) lands that are part of a historic property without preparation of an Avoidance Analysis, if it makes a finding that such uses would have “de minimis” impacts upon the Section 4(f) resource, with the concurrence of the relevant SHPO.

More specifically, with regard to Section 4(f) resources that are historic properties (like those that would be affected by the proposed CDOT undertaking), Section 6009(a)(1) of SAFETEA-LU adds the following language to Section 4(f):²

(b) De Minimis Impacts. --

(1) REQUIREMENTS.--

(A) REQUIREMENTS FOR HISTORIC SITES.--The requirements of this section shall be considered to be satisfied with respect to an area described in paragraph (2) if the Secretary determines, in accordance with this subsection, that a transportation program or project will have a de minimis impact on the area.

¹ As currently codified, the pertinent language of Section 4(f) reads as follows:

[T]he Secretary shall not approve any program or project . . . which requires the use of any . . . land from an historic site of national, State, or local significance as so determined by such officials unless

- (1) there is no feasible and prudent alternative to the use of such land, and
- (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use.

23 U.S.C. § 138; 49 U.S.C. § 303 (c). This analysis would usually be required under what is referred to as the first prong of Section 4(f). A de minimis determination does not relieve FHWA of its responsibility under the second prong to “minimize harm” to the historic sites.

² This provision will be codified as 23 U.S.C. § 138(b). Section 6009(a)(2) of SAFETEA-LU adds identical language at 49 U.S.C. § 303(d).

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(C) CRITERIA.--In making any determination under this subsection, the Secretary shall consider to be part of a transportation program or project any avoidance, minimization, mitigation, or enhancement measures that are required to be implemented as a condition of approval of the transportation program or project.

(2) HISTORIC SITES.--With respect to historic sites, the Secretary may make a finding of de minimis impact only if--

(A) the Secretary has determined, in accordance with the consultation process required under section 106 of the National Historic Preservation Act (16 U.S.C. 470f), that--

(i) the transportation program or project will have no adverse effect on the historic site; or

(ii) there will be no historic properties affected by the transportation program or project;

(B) the finding of the Secretary has received written concurrence from the applicable State historic preservation officer or tribal historic preservation officer (and from the Advisory Council on Historic Preservation if the Council is participating in the consultation process); and

(C) the finding of the Secretary has been developed in consultation with parties consulting as part of the process referred to in subparagraph (A).

This new provision of Section 4(f) is the basis of this letter, and of FHWA's determination of de minimis impacts and request for Colorado SHPO concurrence with respect to the proposed project.

De Minimis Determination

As previously noted, FHWA has already made a determination that the use of a historic Section 4(f) property that would be affected by the proposed project would cause "no adverse effect" for purposes of Section 106 of the NHPA. This determination satisfies the identical Section 4(f) provisions added by Section 6009 of SAFETEA-LU at 23 U.S.C. § 138(b)(2)(A)(i) and 49 U.S.C. § 303(d)(2)(A)(i).

This finding of "no adverse effect" reflects a conclusion that for the Section 4(f) historic resource impacted by the project, those impacts will not "alter, directly or indirectly, any of the characteristics of [the] historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" as described in 36 CFR § 800.5(a)(1). Based on

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those findings, and taking into consideration the harm minimization measures that have been incorporated into the proposed project as documented in the Section 4(f) Evaluation, it is the conclusion of FHWA that the proposed project, as it would be implemented under the Preferred Alignment 2A of the EA, would have de minimis impacts on the Section 4(f) historic property and that an Avoidance Analysis under Section 4(f) is therefore not required.

Request for Concurrence

FHWA requests the written concurrence of the Colorado SHPO in the above-described finding of de minimis impact on historic properties for the proposed project. This written concurrence will be evidence that the concurrence and consultation requirements of Section 6009 of SAFETEA-LU, as they will be codified at 23 U.S.C. § 138(b)(2)(B) and (C), and 49 U.S.C. § 303(d)(2)(B) and (C) are satisfied. Concurrence can be provided either by signing and dating the signature block at the end of this letter, or by separate letter from you to FHWA, via the CDOT Environmental Programs Branch, at the following address:

Mr. Brad Beckham, Manager
Environmental Programs Branch
Colorado Department of Transportation
4201 East Arkansas Avenue
Denver, Colorado 80222

Sincerely,



for Brad Beckham, Manager
Environmental Programs Branch

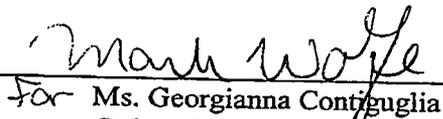
Enclosures: Section 106 correspondence

cc: Monica Pavlik, FHWA
Sandi Kohrs, CDOT Region 6
David Singer, CDOT Region 6
File/CF/RF

Concurrence

The Colorado State Historic Preservation Officer hereby concurs that the Office has consulted with FHWA on the impacts to historic resources for the proposed 120th Avenue Connection project, and that the SHPO concurs with FHWA's finding that the project will have de minimis impacts on historic properties for purposes of Section 6009 of SAFETEA-LU (to be codified at 23 U.S.C. § 138(b) and 49 U.S.C. § 303(d)).

I concur


for Ms. Georgianna Contiguglia

Colorado State Historic Preservation Officer

Date: 12/1/05



U.S. Department
of Transportation
**Federal Highway
Administration**

12300 W. Dakota Ave., Ste. 180
Lakewood, CO 80228

September 30, 2005

In Reply Refer To:
HDA-CO

Colorado Federal Aid Division

Mr. Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation
U.S. Environmental Protection Agency, Region 8
999 18th Street, Suite 300
Denver, CO 80202-2466

Dear Mr. Svoboda:

Subject: Response to EPA Comments on the Environmental Assessment for the
120th Avenue Connection Project in Broomfield, Colorado

I am writing in reference to your June 28, 2005 letter providing comments on the Environmental Assessment for the 120th Avenue Connection project in Broomfield, Colorado. Your comment concerned the qualitative discussion of mobile source air toxic (MSAT) issues contained in that document. We have received similar comments on other documents, so we would like to provide a more comprehensive response in hopes of resolving this issue to your satisfaction.

The MSAT language in the 120th Avenue Connection document includes some very general statements about the limitations in technical tools and lack of standards to enable us to evaluate the significance of localized changes in emissions or concentrations of MSATs. We continue to believe this is the case. That said, we agree with the points you raised in your letter. We do agree that it is possible to use the MOBILE6.2 emissions model to assess trends in MSAT emissions and to evaluate emissions levels associated with different project alternatives, although we do believe this level of analysis should be performed only for large projects, those with the most potential for MSAT-related health impact. We are currently performing this type of analysis for some larger projects in the Denver area, including two I-70 projects and the US36 project. We also agree that it can be valuable to identify the types of locations near projects where sensitive populations may be present. Finally, we agree that it is useful to discuss available scientific information on MSAT emissions and health effects.

We have recently expanded and improved our qualitative discussions of MSATs in environmental documents. For an example of this, you may wish to review the MSAT discussion in the recently released document for the I-15/114th South project in Utah. While this language was developed for that project, we plan to include a similar level of discussion in future Colorado documents where we perform a qualitative MSAT analysis. Jeff Kimes has provided us with comments on this language, and we are working with him to resolve any remaining



concerns he has with this qualitative approach. Also, our Headquarters office is preparing to issue a request for contractor support for a summary of available MSAT literature, to enable us to summarize the many recent MSAT studies in our NEPA documents, and to help us respond to comments we receive from the public that reference these types of studies.

Finally, as you may be aware, we are working with the Federal Transit Administration on an interim MSAT analysis policy for projects in the NEPA process. While many details of this policy remain to be worked out, the general concept behind the policy is to require a detailed quantitative emissions analysis with MOBILE6.2 for very large projects, a qualitative analysis for smaller projects, and no analysis for 'de minimis' projects (for example, certain Categorical Exclusion projects with no air quality impacts). We hope to issue this policy in final form early this fall, and EPA will be invited to review and comment on a draft of the policy. We also should point out that air toxics staff in EPA's Office of Transportation and Air Quality have been briefed on this developing policy document.

We see this policy as a first step in addressing EPA and community concerns regarding the MSAT impacts of highway projects. However, there are still technical obstacles that prevent us from going beyond reporting emissions impacts, and analyzing concentrations or health risk of MSATs. The EPA, the FHWA and others are conducting research to resolve some of these technical issues and improve our understanding of MSAT characteristics and evaluation techniques. For example, OTAQ is currently conducting an evaluation of available dispersion models to determine which model or models is best suited for analyzing ambient concentrations of particulate matter, and the FHWA has issued an RFP for additional model assessment. The FHWA has many research projects planned or underway; including participation in EPA's Supersite studies, the Good Neighbor project in Denver, and the MSAT monitoring studies that will be conducted pursuant to the settlement agreement in the US95 court case. We are hopeful that the results of this work, along with planned improvements in EPA's mobile source emissions models, will enable us to improve our MSAT analysis methodologies for future projects.

Sincerely yours,


for David A. Nicol, P.E.
Division Administrator

cc: Brad Beckham, CDOT Environmental Programs Branch
Sandi Kohrs, CDOT Region 6