



NORTH I-25 RECORD OF DECISION 3



CROSSROADS

B o u l e v a r d

June 2016



STATUTE OF LIMITATIONS

A notice will be published in the Federal Register, pursuant to 23 United States Code §139(I), indicating that the Federal Highway Administration (FHWA) has taken the final action to approve the North I-25 Record of Decision³ for Crossroads Boulevard. Claims seeking judicial review of this federal action must be filed within 150 days after the date of the notice.

INFORMATION AVAILABILITY

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NORTH I-25 RECORD OF DECISION³

The *North-25 Record of Decision³* (CDOT, 2016a) is available electronically at <https://www.codot.gov/projects/north-i-25-eis> or in hard copy format. Please contact either of the individuals listed above to obtain a copy.

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Appendix B.	<i>Final Geotechnical Investigation Report I-25/Crossroads Boulevard Bridge Replacement (Yeh & Associates, 2015)</i>
Appendix C.	<i>I-25 over Crossroads Boulevard Loveland, Colorado, Traffic Noise Technical Report (HDR, 2016)</i>
Appendix D.	CDOT Mitigation Tracking Form
Appendix E.	Agency Correspondence
Appendix F.	Interstate 25 and Crossroads Boulevard Road Improvements Integrated Weed Management Plan (AECOM, 2016)

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ACRONYMS AND ABBREVIATIONS

APEN	Air Pollutant Emission Notice
BMPs	Best management practices
BRT	bus rapid transit
BTPD	black-tailed prairie dog
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CDPS	Colorado Discharge Permit System
CFR	Code of Federal Regulations
CPW	Colorado Parks and Wildlife
DIA	Denver International Airport
DOT	Department of Transportation
DTR	Division of Transit and Rail
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
I-25	Interstate 25
ITS	Intelligent Transportation System
MMP	Materials Management Plan
MOVES	Motor Vehicle Emissions Model
MVRTP	Metro Vision Regional Transportation Plan
NEPA	National Environmental Policy Act
NFRMPO	North Front Range Metropolitan Planning Organization
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OPS	Oil and Public Safety
OSHA	Occupational Health and Safety
PBO	Programmatic Biological Opinion
PEL	Planning and Environmental Linkages
RAMP	Responsible Acceleration of Maintenance and Partnerships
ROD1	Record of Decision1
ROD2	Record of Decision2
ROD3	Record of Decision3
ROW	Right-of-Way
RTD	Regional Transportation District
RTP	Regional Transportation Plan
SH	State Highway
SIP	State Implementation Plan
U.S.	United States
USFWS	U.S. Fish and Wildlife Service

BACKGROUND

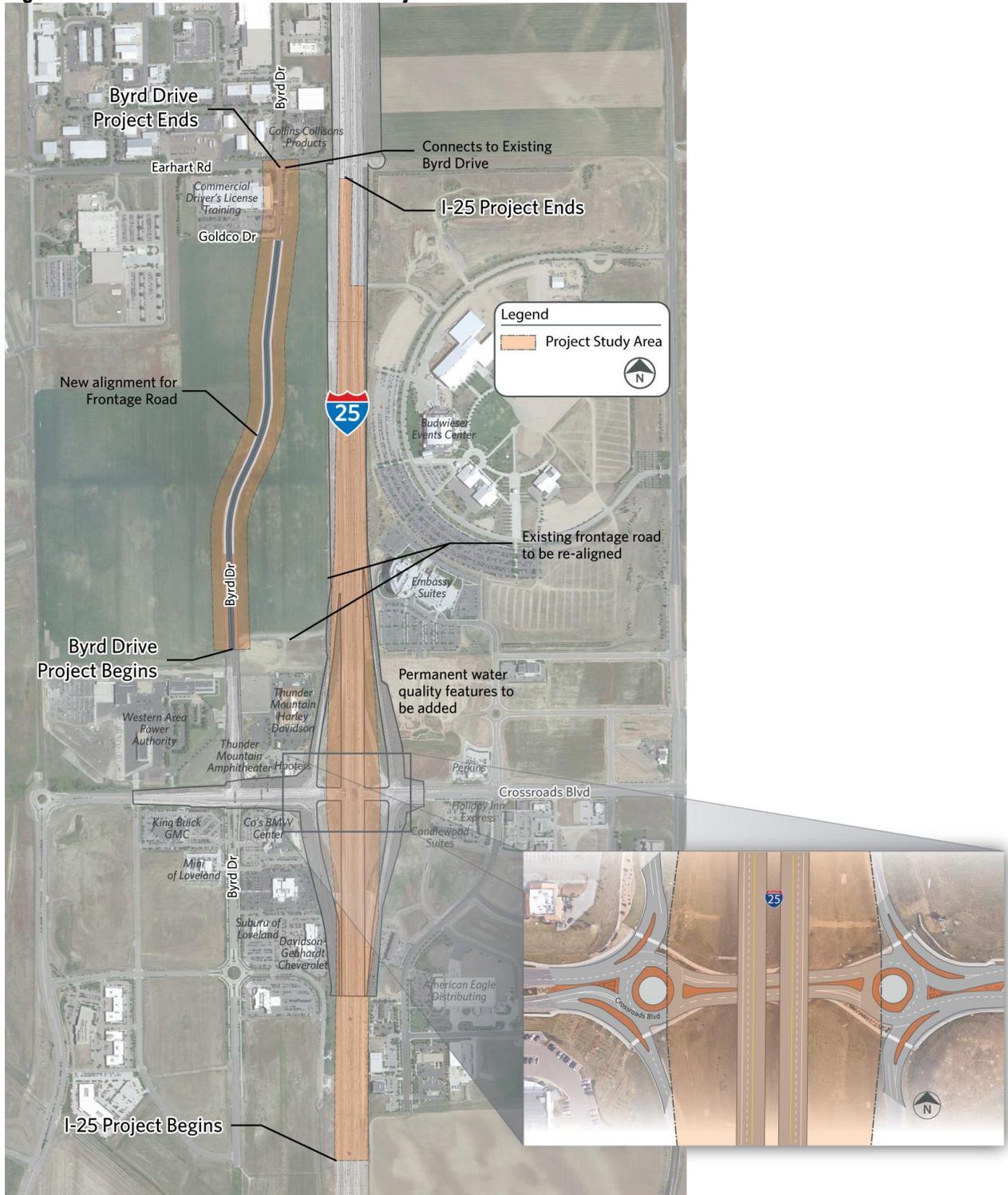
This Record of Decision3 (ROD3) documents the final agency decision for improvements to the I-25 and Crossroads Boulevard interchange and the realignment of the northwest (NW) frontage road extending Byrd Drive to Earhart Road (Figure 1). It is the final step in the National Environmental Policy Act (NEPA) process for this section of Interstate 25 (I-25), which started with a Notice of Intent to prepare an Environmental Impact Statement (EIS) in 2003.

The Selected Alternative discussed in this ROD3 consists of reconstructing approximately 1.5 miles of the existing I-25 mainline and replacing two existing bridges that carry I-25 over Crossroads Boulevard. An additional lane and 5-foot bicycle lanes will be added in each direction on Crossroads Boulevard under I-25 for a distance of 200 feet. The project will also extend Byrd Drive 3,600 feet south from its intersection with Earhart Drive to realign the northwest (NW) I-25 frontage road between Earhart Drive on the north and Byrd Drive on the south. A 3,600-foot section of Byrd Drive would be constructed with two 12-foot travel lanes to replace the frontage road that will be realigned. The Byrd Drive improvements include an upgraded cross-section that would provide 7-foot bike lanes, 6-foot tree lawns, 6-foot sidewalks, and new pavement. The City of Loveland will maintain Byrd Drive, eliminating the need for the Colorado Department of Transportation (CDOT) to invest in ongoing maintenance of the frontage road.

The Selected Alternative will be built in the location shown in the *North I-25 Final Environmental Impact Statement* (FEIS) (CDOT, 2011a) (Figure 1). These improvements are selected at this time because they support the full build-out of the FEIS Preferred Alternative. The horizontal and vertical corrections on I-25 mainline and the reconstructed bridges over Crossroads Boulevard will allow for the future express lanes included in the FEIS Preferred Alternative to be added later.

This ROD3 also reviews information contained in the FEIS and in the *North I-25 Revised Section 4(f) Evaluation* (CDOT, 2011b) and considers the effects of changes in existing or proposed conditions, legislation, regulations, and/or guidance.

Figure 1. ROD3 Selected Elements and Project Location



1.0 INTRODUCTION

The *North I-25 Record of Decision* (ROD1) (CDOT, 2011c) was the final step in the NEPA process for only a portion of the Preferred Alternative identified in the FEIS, referred to as Phase 1. The ROD1 stated a commitment on behalf of the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) (lead agencies) that the lead agencies intend to work toward implementing the FEIS Preferred Alternative in its entirety. As additional funding is identified and included in the fiscally constrained Regional Transportation Plan (RTP), subsequent phases or portions of phases can be implemented.

CDOT prepared this ROD3 to update the findings in the FEIS and to select another portion of the FEIS Preferred Alternative for implementation. The conclusion of the ROD3 is that changes to the existing and future conditions do not cause new significant environmental impacts. This ROD3 has been prepared in compliance with FHWA Regulation 23 Code of Federal Regulations (CFR) 771 and 774, Council on Environmental Quality Regulations 40 CFR 1500-1508, and the requirements of NEPA as amended.

Figure 2 illustrates the context of this ROD3 with other construction projects in ROD1 and ROD2. The ROD3 improvements were included in the FEIS with the exception of the widening of Crossroads Boulevard underneath I-25.

PROJECT COST AND FUNDING

The ROD3 Selected Alternative has a total estimated cost of approximately \$ 33.6 million (YOE). Table 1 shows how CDOT plans to fund the ROD3 Selected Alternative. The project is identified in the North Front Range Metropolitan Planning Organization (NFRMPO) 2040 Long Range Transportation Plan (2015) and the project costs have been included on the Statewide Transportation Improvement Program for FY 16 as 100 percent state Responsible Acceleration of Maintenance and Partnership (RAMP) funds.

The scope of the project is such that it does not need to be placed on the Metro Vision Regional Transportation Plan (MVRTP) or the Fiscally Constrained Element of the Regional Transportation Plan (RTP). It is not a regionally significant project so it does not need to go through a regional conformity analysis.

Figure 2. ROD3 Location In Context of Other RODs

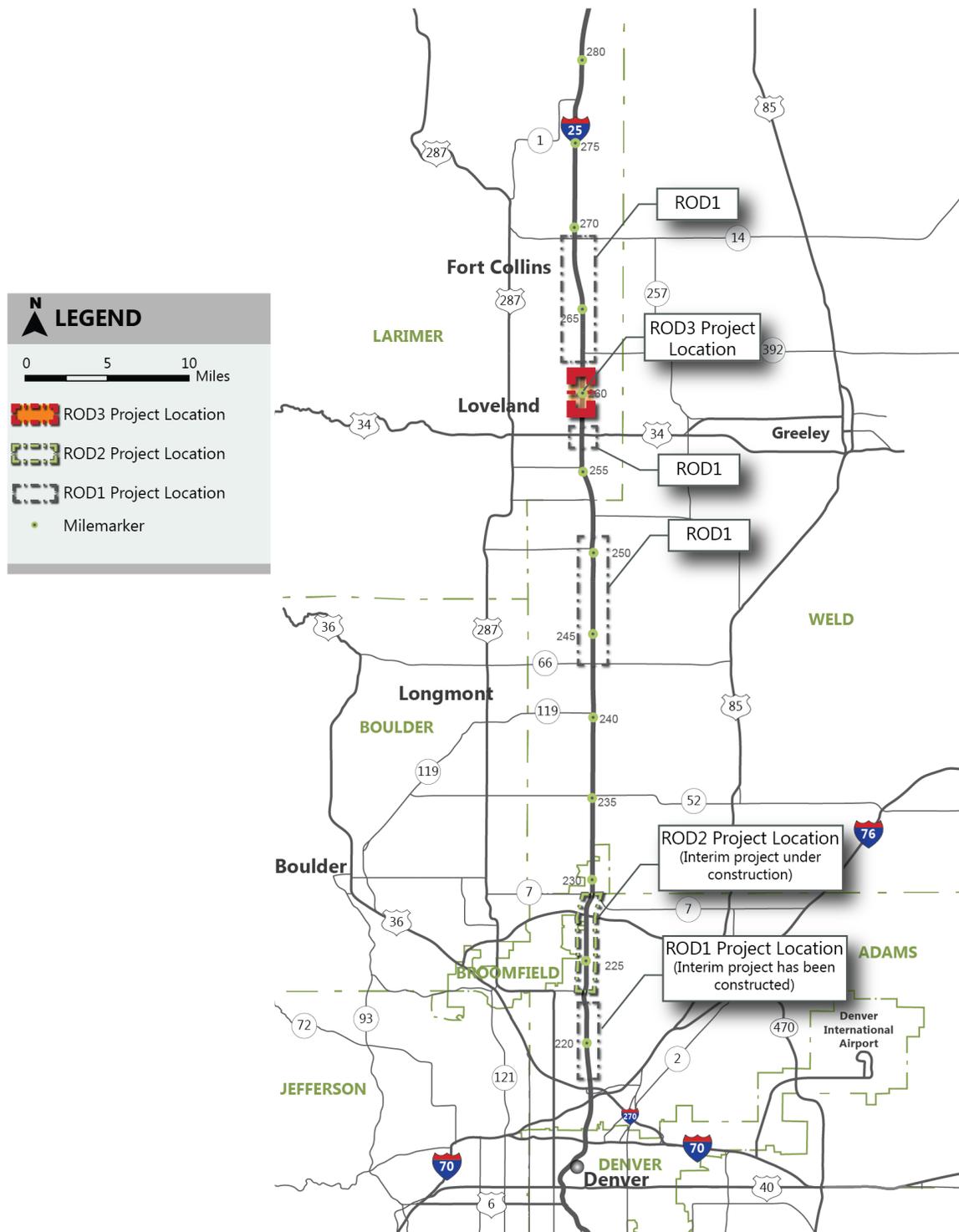


Table 1. Funding Sources for ROD3

Funding Source		Total \$	Expended	Committed	
			FY 2015	FY 2016	FY 2017
Federal	National Highway Performance program	\$4,264,584	\$912,100	\$3,352,484	\$0
	Surface Transportation Program	\$2,000,000	\$0	\$0	\$2,000,000
State		\$25,235,416	\$87,900	\$25,147,516	\$0
Local		\$500,000			\$500,000
Total		\$32,000,000	\$1,000,000	\$28,500,000	\$2,500,000
Element		Total \$	FY 2015	FY 2016	FY 2017
Design		\$2,035,000	\$255,980	\$1,779,020	\$0
ROW		\$65,000	\$0	\$65,000	\$0
Utilities		\$250,000	\$0	\$250,000	\$0
Construction		\$29,650,000	\$0	\$0	\$29,650,000
Total		\$32,000,000	\$255,980	\$2,084,020	\$29,650,000

INDEPENDENT UTILITY AND LOGICAL TERMINI

Independent utility means that a proposed project is a reasonable expenditure and would be usable even if no additional improvements are made in the area. A NEPA proposed action must have rational physical end points and allow for review of environmental impacts on a broad scale. Chapter 8 of the FEIS identified phases for the entire Preferred Alternative. All phases have independent utility and logical termini.

The FEIS includes reconstruction of the two-lane I-25 mainline to allow for one future express lane and one general purpose lane in each direction, reconstruction of the northbound and southbound bridges over Crossroads Boulevard, and realignment of the NW frontage road extending Byrd Drive to Earhart Road. CDOT and FHWA intend to work towards implementation of the FEIS Preferred Alternative in its entirety through a phased approach as funds become available.

The ROD3 Selected Alternative reconstructs 1.5 miles of the existing I-25 mainline, including the replacement of the northbound and southbound bridges that carry I-25 over Crossroads Boulevard. An additional lane will be constructed in each direction on Crossroads Boulevard under I-25. The project also connects two end points for Byrd Drive; at Goldco Drive just south of Earhart Drive and just north of the intersection of existing Byrd Drive with Crossroads Boulevard (Figure 1).

The northern and southern termini of the I-25 reconstruction are logical since the reconstruction only corrects the vertical and horizontal alignment and does not add additional lanes. The project replaces the I25 bridges over Crossroads Boulevard to a configuration that incrementally supports the FEIS Preferred Alternative. To replace the I25 bridges, vertical and horizontal adjustments are needed on the I25 mainline. To accommodate this new template, the frontage road will be realigned. The realigned frontage road will become Byrd Drive between the terminus of the existing Byrd Drive and Earhart Drive. In addition, the reconstructed bridges will accommodate an additional lane in each direction on Crossroads Boulevard under I25.

The northern terminus of Byrd Drive is logical because it connects to a section of Byrd Drive that terminates a half block south of Earhart Drive. The southern terminus of Byrd Drive is logical because it connects to the existing Byrd Drive north of Crossroads Boulevard. The new section of Byrd Drive will provide a safer cross-section and is more consistent with local development plans than the existing NW frontage road.

OTHER TRANSPORTATION PROJECTS

There have been changes in I-25 transportation projects since December 2011 when the ROD1 was signed. These changes include:

- **Lack of funding for FasTracks commuter rail corridors**, which has resulted in a substantial delay for the planned Northwest Corridor, which is to run from Westminster to Boulder to Longmont. This lack of funding has also resulted in a shortened North Metro commuter rail corridor. Instead of ending at 162nd Avenue, the North Metro corridor is now funded to 124th Avenue. Additional funding is not anticipated until after 2040.
- **Completion of the Northwest Area Mobility Study**, which examined options for completion of the FasTracks service in the northwestern Denver metropolitan area. The recommendations from this study included completion of a bus rapid transit (BRT) system on US 36; addition of arterial BRT service on SH 119 from Longmont to Boulder and on US 287 from Longmont to Denver Union Station, and perhaps other corridors, such as SH 7; addressing the existing I-25/US 36 reversible high-occupancy vehicle/high-occupancy toll lanes; and continuing to look for funding opportunities to complete the Northwest Rail Corridor. CDOT has funded a study of bus-on-shoulder applications in the short term on US 36 and I-25 in the vicinity of the US 36/I-25 interchange and on one or more of the arterial BRT corridors.
- **Completion of the North I-25 (US 36 to State Highway 7) Planning and Environmental Linkages (PEL) study**, which recommends a continuous acceleration/deceleration lane on both sides of I-25 from US 36 to north of State Highway (SH) 7. The PEL study recommended new park-n-rides at 128th Avenue, 136th Avenue, 144th Avenue, and SH 7. The PEL study also recommended converting the tunnel at the Wagon Road park-n-ride on the southwest corner of 120th Avenue and I-25 to a bi-directional tunnel for buses, and adding ramp meters at 120th Avenue (northbound and southbound), 136th Avenue (northbound and southbound), 144th Avenue (northbound and southbound) and SH 7 (southbound). This PEL study was completed in December 2014. CDOT has since funded design for portions of the recommendation.

- **Completion of the SH 7 PEL study** (CDOT, 2014), which identified a diverging diamond interchange configuration at SH 7/I-25 as a viable option to the partial cloverleaf configuration that was included in the North I-25 FEIS and the ROD1. This study also recommended widening of SH 7 in the vicinity of I-25 to carry three 12-foot travel lanes in each direction, with a 30-foot raised median, 12-foot shoulders/bike lanes, and a 10-foot shared use path on each side of SH 7.
- **Design and construction of the North I-25 Express Lanes from US 36 to just south of 120th Avenue**, including tolling and intelligent transportation systems (ITS) infrastructure, active traffic management in the southbound direction, resurfacing, reconstructing and restriping I-25, adding four new noise walls, and rehabilitating existing noise walls. This project opened to the public in March 2016. It is an interim version of this section of the Selected Alternative from the ROD1.
- Design and construction of the North I-25 Express Lanes from just south of 120th Avenue to E-470 (ROD2 Reevaluation). The ROD2 had a northern terminus that was just south of SH 7.
- **SH 7/I-25 Interchange ROD 1 Revision** which evaluates impacts using a diverging diamond interchange configuration rather than a partial cloverleaf, which was included in the ROD1. An analysis is anticipated for completion in the Summer of 2016.
- **Completion of the Interregional Connectivity Study**, which examined high-speed rail between Fort Collins and Denver. This was studied during the FEIS/ROD1 but not recommended because it would not respond to the North I-25 FEIS purpose and need because of the lack of stations at most of the communities. It recommended that high-speed rail be located along the east side of I-25 between Fort Collins and a North Suburban Station at E-470/Northwest Parkway.
- **Interregional bus service (called Bustang) on I-25**. CDOT's Division of Transit and Rail (DTR) added express bus service to I-25 with stops at the Harmony Road park-n-ride and US 34/I-25 and service ending in downtown Denver (Denver Union Station and the bus terminal). This service consists of five round trips per weekday (four during the peak period and one during the off-peak period). This service will use the Express Lanes on I-25 when they are completed. Service began in July 2015.
- **North Front Range Commuter Rail Update** is a study undertaken by CDOT's DTR initiated in summer 2014. Goals of the study included updates to the costs, alignment, and operating plans for the commuter rail component of the North I-25 Preferred Alternative. This study, completed in April 2015, recommends a new commuter rail alignment in the I-25 ROW along the east side from Weld County Road 8 to SH 119. It also recommends two alternate station locations and a revised operating plan (CDOT, 2015b). At this time, no changes to the FEIS Preferred Alternative are anticipated as a result of this study.

2.0 DESCRIPTION OF THE ROD3 SELECTED ALTERNATIVE

The ROD3 Selected Alternative is identical to portions of the FEIS Preferred Alternative (PA) located at or near Crossroads Boulevard. This project replaces the I-25 bridges over Crossroads Boulevard to a configuration that incrementally supports the FEIS (PA). Adjustments to the horizontal and vertical alignment on the I-25 mainline will be necessary to construct the bridges to the FEIS PA alignment.

The project is located within the city limits of Loveland, Colorado, in Larimer County. The project limits extend from MP 258.67 to MP 260.16 on I-25. Improvements to Crossroads Boulevard will occur between the I25 ramp roundabouts as depicted on Figure 1.

To be able to accommodate this new template, the frontage road will be realigned. The existing NW frontage road will be removed. Byrd Drive will take the place of the NW frontage road and will serve local traffic. In addition, the lengthening of the I25 bridges over Crossroads Boulevard will accommodate one additional lane in each direction under I-25.

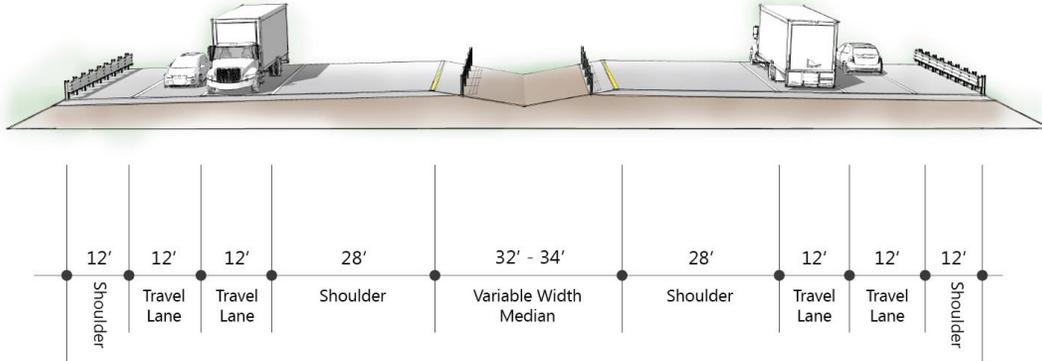
The proposed ROD3 project design elements include vertical and horizontal profile adjustments north and south of the reconstructed I-25 bridges over Crossroads Boulevard. The reconstructed bridges will accommodate an express lane as identified in the FEIS Preferred Alternative.

Additionally, the design includes the realignment of the existing NW frontage road which would extend Byrd Drive south of Earhart Road. Byrd Drive will be built in its ultimate location to serve local traffic as shown in the Preferred Alternative. These infrastructure improvements, including the improvements to Byrd Drive, will support future system wide capacity improvements that can safely and efficiently accommodate the higher traffic volumes projected within the study area. These improvements are detailed further below.

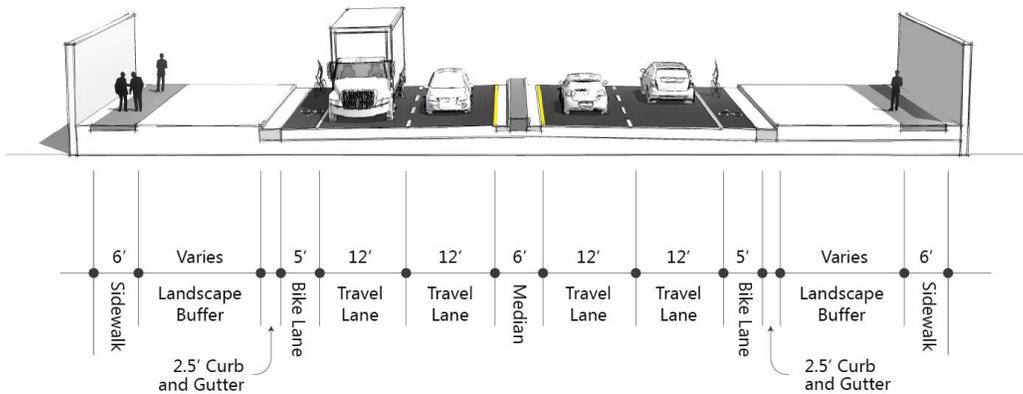
- **I-25 Mainline Reconstruction:** Approximately 1.5 miles of the existing roadway will be reconstructed to the roadway cross section as shown in Figure 3, which includes 12 foot outside shoulders, two 12 foot lanes, two 28 foot inside shoulders, and a variable width median between 32 and 34 feet. The 28 foot shoulders will allow for a future express lane as planned in the FEIS Preferred Alternative.
- **I-25 Bridge Replacement:** The northbound and southbound bridges that carry I-25 over Crossroads Boulevard will be replaced. The new bridges will be widened from 41 feet to 67 feet to accommodate a future express lane.
- **Byrd Drive Mainline Extension.:** A 0.67-mile extension of Byrd Drive will be constructed to connect to Goldco Drive. The roadway cross section as shown in Figure 3 includes two 12-foot lanes, two 7-foot bike lanes, two 6-foot tree lawns, two 6-foot sidewalks, and two 14 foot utility easements.
- **Water Quality Treatment:** The project will incorporate MS4 features as required by CDOT. Four water quality ponds will be constructed in the gores of I-25 and Crossroads. For Byrd Drive, the terms and conditions of the City of Loveland's MS4 are applicable. A Stormwater Management Plan (SWMP) will be developed during design, implemented during construction and updated as needed.
- **Crossroads Boulevard:** The new bridges over I-25 will accommodate a wider cross section on Crossroads Boulevard. Crossroads Boulevard roundabouts carry two lanes of traffic in both direction but merge into a single lane east and west as vehicles travel between the roundabouts and pass under I-25 (Figure 5). Once the I-25 bridges over Crossroads Boulevard are reconstructed it will allow for Crossroads Boulevard to be widened to two lanes in each direction under I-25, improving roadway geometry and channelization to improve safety and driver expectations. Widening on Crossroads Boulevard was not included in the FEIS.

Figure 3. ROD3 Selected Alternative Cross Sections

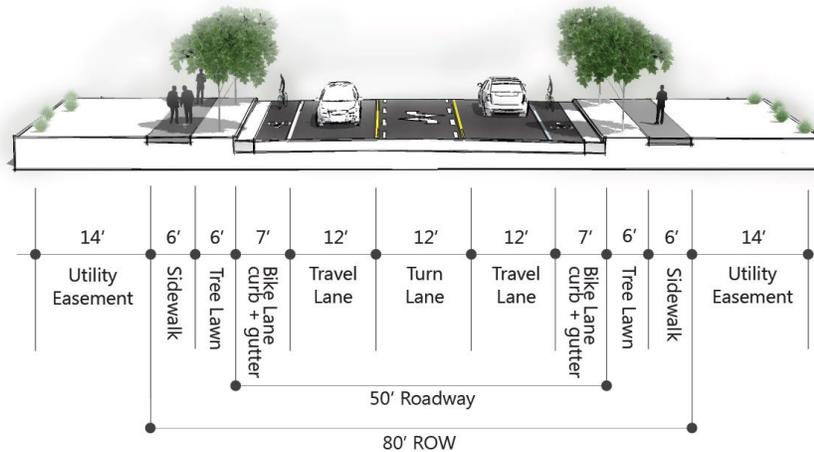
North I-25 Cross Section



Crossroads Boulevard Cross Section



Byrd Drive Cross Section



- **I-25 Frontage Road:** The existing NW frontage road will remain open to traffic while Byrd Drive is being constructed. The frontage road pavement within CDOT right-of-way will be removed once Byrd Drive is constructed. Any remaining pavement that is not within CDOT right-of-way will be abandoned and either removed as a part of the ROD3 project or removed during subsequent development of that parcel.
- **Construction Phasing:** Roadway construction would be broken into three main phases so as to accommodate traffic and minimize disruptions. The phases are described in detail under Section 6.25, Construction.

Figure 3 depicts the cross-sections of the ROD3 Selected Alternative. Figure 1 illustrates these elements of the ROD3 Selected Alternative and shows the limits of the study area used to assess impacts of the ROD3 Selected Alternative.

3.0 PROJECT PURPOSE AND NEED

The purpose of the North I-25 Project is discussed in Chapter 1 of the FEIS and summarized here. It is to meet long-term travel needs between the Denver Metro Area and the rapidly growing population centers along the I-25 corridor north to the Fort Collins-Wellington area. To meet long-term travel needs, the project must improve safety, mobility, and accessibility, and provide modal alternatives and interrelationships. The ROD3 Selected Alternative incrementally addresses the purpose and need in the following ways:

3.1 Increasing Traffic Congestion Leading to Mobility and Accessibility Problems

The ROD3 Selected Alternative supports overall improvements of the Preferred Alternative identified in the FEIS.

The ROD3 Selected Alternative reconstructs 1.5 miles of the existing I-25 mainline to the north and south of Crossroads Boulevard. The reconstructed bridges will accommodate an express lane in the future.

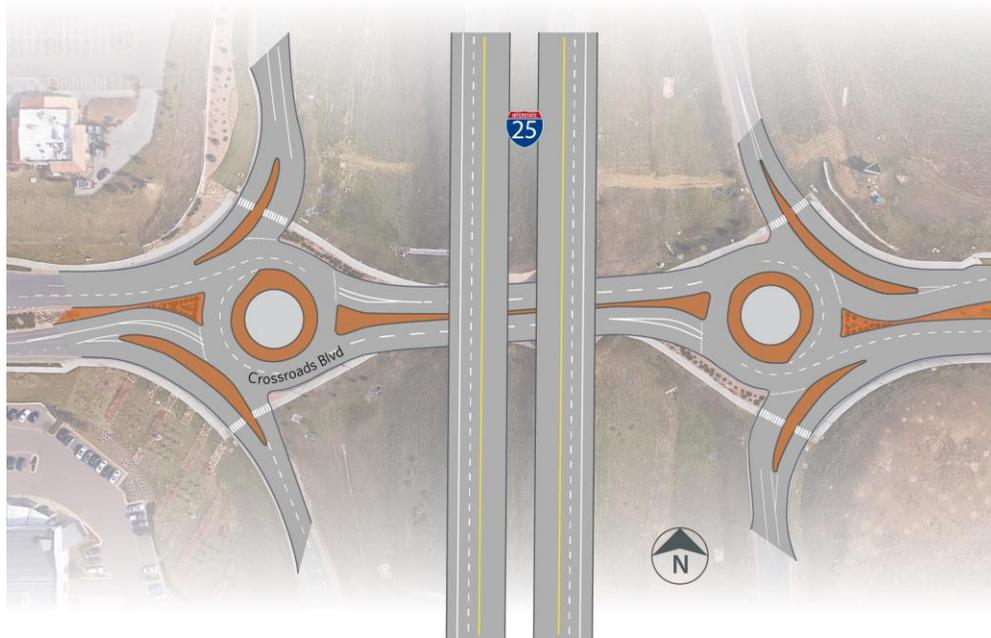
The I-25 and Crossroads Boulevard diamond interchange includes two roundabouts located at the I25 ramps. The roundabouts carry two lanes of traffic in both direction but merge into a single lane east and west as vehicles travel between the roundabouts and pass under I-25 (Figure 4 and Figure 5). Once the I-25 bridges over Crossroads Boulevard are reconstructed, it will allow for Crossroads Boulevard to be widened to two lanes in each direction under I-25, improving roadway geometry and channelization to improve safety and driver expectations. These lanes will tie into the existing two-lane roundabouts located on either side of I-25. This is for safety and consistency purposes and will improve weave and merge operations incrementally.

The existing NW frontage road will be realigned with a new 3,600-foot section of Byrd Drive between Earhart Road and the existing intersection of Byrd Drive with Crossroads Boulevard. Additionally, the design includes the realignment of the NW frontage road extending Byrd Drive south of Earhart Road. Byrd Drive will be built in its ultimate location to serve local traffic as shown in the Preferred Alternative.

Figure 4. Crossroads Boulevard Interchange—Existing Conditions



Figure 5. Crossroads Boulevard Interchange—Future Conditions



Although reconstruction of Crossroads Boulevard was not identified in the FEIS, improving mobility between the two 2-lane roundabouts that merge down to one lane in each direction will help to address the purpose and need by addressing the congestion related to heavy truck movements and traffic volumes.

These infrastructure improvements, including the improvements to Byrd Drive, will support future system wide capacity improvements that can safely and efficiently accommodate the higher traffic volumes projected within the study area.

3.2 Aging and Functionally Obsolete Infrastructure

The improvements selected in this ROD3 include replacement of two functionally obsolete I-25 bridges. The bridges were constructed in 1963; as such, they have reached their 50 year service life and are expected to experience accelerated deterioration moving forward. The northbound (NB) I-25 Bridge (C-17-ES) has a rating of 93.1 and the southbound (SB) I-25 Bridge (C-17-ET) has a rating of 82.1 on the CDOT Structure Inspection and Inventory Report (CDOT, 2015). While these sufficiency ratings are quite high, both structures are rated to be functionally obsolete, due to the narrow road width under the bridges. The functionally obsolete designation indicates that the roadway opening for Crossroads Boulevard does not meet current width standards for the current and projected traffic volumes.

3.3 Safety

The Selected Alternative for ROD3 does not specifically address deficiencies identified in the FEIS.

Byrd Drive will be built in its ultimate location as described in the FEIS, which will better accommodate local traffic. The new roadway will include 7-foot bike lanes, 6-foot tree lawns, and 6-foot sidewalks instead of the 2-foot shoulders which exist on the current frontage road. These additions will improve safety over the existing conditions. The realignment supports the City of Loveland's land use plans.

3.4 Lack of Modal Alternatives

There is little or no intra-regional or inter-regional public transit service along I-25. The FEIS referenced survey data indicating a need for other transportation mode options to connect communities. The FEIS indicated that there was a strong desire by residents to see regional transit options improved. It also indicated there was additional transit demand as an aging population becomes more transit dependent. The FEIS also identified a lack of modal options to meet unmet demand from existing vanpool and carpool options.

The ROD3 Selected Alternative is wide enough to accommodate an express lane in the future. This infrastructure investment will make it easier to accommodate and reduce additional infrastructure improvements at I-25 and Crossroads Boulevard to facilitate express buses, carpools and vanpools and provide a greater choice in modal alternatives.

4.0 ALTERNATIVES CONSIDERED

There were a number of alternatives developed and evaluated during the North I-25 EIS process. These were documented in the *North I-25 Draft Environmental Impact Statement* that was released for public comment in 2008 and in the FEIS that was released for public comment in August 2011. These alternatives included:

No Action Alternative, which included only projects with committed funding. This included the two FasTracks rail corridors (Northwest Rail and North Metro), the bridge over I-25 at 84th Avenue, the I-25/SH 392 interchange reconstruction, interchange improvements at I-25 and Prospect Road, and the replacement of the I-25 frontage road over the Little Thompson River.

Package A, which focused on general purpose lane widening of I-25 (one additional lane in each direction) plus construction of a double-tracked commuter rail line between Fort Collins and Thornton (at the terminus of the FasTracks North Metro commuter rail line). Package A also included commuter bus service along US 85 from Greeley to downtown Denver and along E-470 from US 85 to Denver International Airport (DIA).

Package B, which included one additional tolled Express Lane (now referred to as Express Lane) along I-25 in each direction except north of SH 60, where two tolled Express Lanes (now referred to as Express Lanes) in each direction were assumed. Package B also included bus rapid transit service along I-25 and feeder bus service along several arterial streets.

Preferred Alternative, which combined some elements of Package A with Package B. I-25 would be widened with general purpose lanes and Tolled Express Lanes (now called Express Lanes). Substandard interchanges would be reconstructed or upgraded.

The Preferred Alternative also includes commuter rail transit service from Fort Collins to the anticipated FasTracks North Metro end-of-line. Service to Denver would travel through Longmont and along the FasTracks North Metro Corridor. A connection to Boulder would also be made with a transfer to Northwest Rail at the Sugar Mill Station in Longmont. Nine commuter rail stations and a commuter transit maintenance facility are included in the Preferred Alternative. The commuter rail would consist of a single track with occasional passing tracks at four locations. The BNSF Railway is requiring that commuter rail utilizing BNSF track upgrade BNSF facilities to include a maintenance road where maintenance access is not available. The Preferred Alternative design includes a maintenance road parallel to the BNSF line between Longmont and Fort Collins. Commuter rail track that is not within the BNSF right-of-way does not include a maintenance road.

Express bus service would operate in the Express Lanes to connect northern Colorado communities to downtown Denver and DIA and serve 13 stations along Harmony Road, US 34, and I-25. Commuter bus service along US 85 would connect Greeley with downtown Denver with five stops at the communities along the route. A bus maintenance facility would be constructed to accommodate both express buses and commuter buses.

As documented in the ROD1, the Preferred Alternative:

- Best responds to the project purpose and need (reducing the frequency and severity of crashes, addressing the increasing traffic congestion along I-25, replacing aging and functionally obsolete infrastructure, and providing modal alternatives).
- Best responds to the land use goals of the cities and counties.
- Provides the best regional connectivity.
- Provides the best regional safety.

- Provides the best overall travel reliability into the future.
- Best supports livability goals (energy consumption, land use, environmental factors).

4.1 Environmentally Preferable Alternative

The Council on Environmental Quality regulations (40 CFR 1505.2[b]) require the ROD to identify the environmentally preferable alternative. The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. The Council on Environmental Quality has clarified that the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment, and that best protects, preserves, and enhances historic, cultural, and natural resources. The National Environmental Policy Act (NEPA) does not require an agency to select the environmentally preferable alternative.

Package A requires relocation of the most number of residences and businesses, results in slightly higher total air emissions than the other packages, results in the most acres of vegetation impacts and soil disturbance, the most acreage of impact to potential Preble's meadow jumping mouse habitat, the highest numbers of adverse effects to properties on the National Register of Historic Places (NRHP) and the most number of parcels with potential or recognized hazardous material conditions. Package A also exacerbates an existing freight rail barrier between neighborhoods in some areas and creates a new barrier in other areas. Package A improves transit related mobility on two corridors in the regional study area. The addition of general purpose lanes to I-25 does not provide an opportunity to manage congestion over time, as volumes grow.

Package B results in the largest number of residences and commercial buildings that would be impacted by highway noise, the most acreage of new impervious surface area, the most wetland impact, the most acreage of floodplain impact, the greatest acreage of impact to sensitive wildlife habitat and aquatic habitat, and the most acres of impact to black-tailed prairie dog habitat. Package B concentrates both highway and transit improvements on a single corridor, I-25. It therefore does not have the negative community impacts the other two alternatives have on noise, visual and community cohesion. It requires the least number of residential and business relocations. It could also tend to provide a growth stimulus to areas along I-25, farther away from the downtown areas located along the US 287 corridor.

Air pollutant emissions associated with all three build packages would be slightly greater than those anticipated under the No-Action Alternative because vehicle miles of travel would be expected to increase. These emissions in 2035 would, however, be lower than existing levels for all pollutants and in all alternatives.

In general, the magnitude and severity of the impacts of the three build alternatives to the natural environment are relatively similar taking into account the size of the project. The Preferred Alternative has fewer impacts to the habitat for the Preble's meadow jumping mouse, a federally threatened species. The Preferred Alternative also has the least impacts to aquatic resources. On the other hand, the Preferred Alternative has more impacts than either of the other build alternatives to bald eagle foraging habitat and raptor nests and it has more impervious surface than Package A.

The Preferred Alternative has been determined to cause the least overall harm to Section 4(f) properties. The Preferred Alternative is most responsive to land use goals of stimulating growth around transit stations, because it includes commuter rail along US 287, express bus along I-25 and commuter bus along US 85. Over time, there is a greater potential with the Preferred Alternative to conserve energy and reduce air emissions because of the easier expansion capabilities of transit service provided on more corridors and because of the potential for transit oriented development around commuter rail, express bus and commuter bus stations. The Preferred Alternative also has the least impact to aquatic resources, including wetlands, other jurisdictional waters, aquatic habitat, and impacts to Preble's meadow jumping mouse habitat. For these reasons, the Preferred Alternative is considered to be the Environmentally Preferable Alternative.

4.2 Least Environmentally Damaging Practicable Alternative

The FEIS Preferred Alternative (which includes the ROD3 Selected Alternative) has received a Section 404 permit. There is no difference in wetland or Waters of the US impacts between the FEIS Preferred Alternative in this section and the ROD3 Selected Alternative. CDOT is currently constructing the wetland mitigation which will be completed in advance of wetland impacts. However, there are no wetlands or Waters of the U.S. in the study area. The permit number is NOW-2004-80110-DEN. This permit was issued on May 17, 2013. In issuing this permit, the US Army Corps of Engineers has confirmed that the FEIS Preferred Alternative, which includes the ROD3 Selected Alternative, is the Least Environmentally Damaging Practicable Alternative.

4.3 ROD1 and Phased Implementation

A phased approach to the decision-making process was taken during development of the ROD1 because the solution to the identified transportation problems cost more to implement than is available in the fiscally constrained RTPs. The identification of an initial phase for implementation is consistent with FHWA requirements to have funding identified for projects before final decisions are made.

The ROD1 identified a set of guiding principles that were to be used to develop a phasing plan for the Preferred Alternative. These were related to project purpose and need and include:

1. Replace aging infrastructure.
1. Address safety concerns.
2. Improve mobility.
3. Coordinate with community plans.
4. Consider long-term with near-term implementation.
5. Implement a cost-effective solution.

The improvements identified in this ROD3 meet these guiding principles by:

- Replacing aging infrastructure.
- Addressing safety concerns.
- Considering long-term with near-term implementation.

5.0 COORDINATING WITH COMMUNITY PLANS, TRAFFIC AND TRANSPORTATION

There are no changes in laws, regulation or guidance that affect traffic and transportation analyses. Existing conditions on Crossroads have changed from the stop-controlled ramp intersections described in the FEIS to roundabout intersections. The future traffic and transportation conditions are similar to those as described in the FEIS. The study area is continuing to grow at a rapid rate as the economy improves as expected in the FEIS.

5.1 Impacts of the ROD3 Selected Alternative

The safety improvements provided by the ROD3 Selected Alternative are in accordance with the safety goals of the Loveland 2035 Transportation Plan and the North Front Range Metropolitan Planning Organization (NFRMPO) 2040 Transportation Plan. The Byrd Drive realignment is included in the 2035 Loveland Transportation Plan and the I-25/Crossroads Boulevard reconstruction is included in the NFRMPO 2040 Transportation Plan.

Immediately north of Crossroads Boulevard, Byrd Drive currently carries approximately 14,000 vehicles per day, with the majority of travelers destined to/from the nearby retail and commercial development. Based on 2011 vehicle counts and 2015 field observations an estimated 6,200 vehicles per day travel between Crossroads Boulevard and Earhart Road on the existing frontage road. On Crossroads Boulevard, daily traffic counts are approximately 11,200 vehicles per day and 11,500 vehicles per day to the west and east of the I-25 interchange, respectively.

2040 projected daily volumes on the new alignment of Byrd Drive are 22,000 immediately north of Crossroads Boulevard, while 9,700 vehicles will travel between Earhart Road and Crossroads Boulevard. On Crossroads Boulevard, 2040 daily traffic counts are projected to be approximately 33,500 vehicles per day and 30,500 vehicles per day to the west and east of the I-25 interchange, respectively. (HDR, 2016; NFRMPO, 2015).

The additional lane in each direction that would be added below the I25 bridges would more efficiently serve east and westbound traffic using Crossroads Boulevard. Traffic flow would be smoother since the roundabouts carry two lanes of traffic which would now continue underneath the I-25 bridges.

The updated future volumes are similar to that described in the FEIS, noting that a direct comparison is difficult due to changes in the surrounding local network.

For the Crossroads ramp intersections, updated traffic analysis indicates the ramp terminal level-of-service (LOS) will be similar to those forecast in the FEIS. The FEIS 2035 No-Action indicates that the ramp terminals will operate at LOS E/F during the peak periods. The updated traffic analysis also shows the peak period LOS at these roundabout ramp intersections will operate approach LOS E/F by the year 2040.

Intersections with a LOS E or F rating are considered to be operating at capacity or exceeding capacity levels, respectively. The amount of traffic approaching the intersection is greater than the amount that can be served, leading to congestion and increased risk of accidents. The FEIS 2035 analysis of the final design of a signalized diamond interchange demonstrated that the peak period LOS improves to C/D. Traffic flow is stable and acceptable at an intersection with

LOS C, and may have delays at an intersection with LOS D. LOS C/D are target goals for peak period traffic flow at intersections in urban areas (Highway Capacity Manual, 2010).

The FEIS analysis for the year 2035 indicated that average annual traffic growth rates on the Crossroads Boulevard ramps would range between 3.6 percent and 6.0 percent. The updated 2040 data indicates average annual traffic growth rates on the Crossroads Boulevard ramps in the range of 1.3 percent to 2.3 percent. However, substantial traffic growth has occurred between 2005 and 2015, and so the rate of growth between the base year and the future years is now lower.

The ROD3 Selected Alternative improvements would effectively serve the forecasted traffic, similar as described in the FEIS alternatives but will not improve mobility on the mainline of I-25. The increased shoulder width on Byrd Drive and Crossroads Boulevard would improve safety and serve bicyclists.

During construction, although access would be maintained, there could be short-term alterations or minor disruptions in access and some traffic delays. On the mainline of I-25, the existing southbound bridge will be widened to the west with a temporary bridge to help divert northbound traffic. No detours will be required on the mainline; however the ramps will be detoured off-site at times during the night. During the bridge demolition, Crossroads Boulevard will be closed in both directions for nine nights. For Byrd Drive, disruptions would be minimized because most of the construction on Byrd Drive would be completed while traffic continues to use the frontage road. After construction on Byrd Drive is complete, barricades and signage would be used to switch traffic from the frontage road to Byrd Drive. More information can be found in Section 6.24, Construction.

5.2 Mitigation

Standard construction related mitigation would be required as described in Table 2.

Table 2. Traffic and Transportation Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Construction safety and mobility impact	<ul style="list-style-type: none"> ▪ A Traffic Management Plan will be developed that identifies a construction related traffic control plan, work zone management strategies, and contingency plans.
Construction access disruptions	<ul style="list-style-type: none"> ▪ Access to local businesses and residences will be maintained.

6.0 ENVIRONMENTAL RESOURCES

The ROD3 process included a review of existing conditions, future conditions, changes in legislation, regulations, policies, or guidance, and changes in mitigation for each of the environmental resources examined in the North I-25 FEIS. A summary of major findings of this review is presented in this document. Additional technical information is contained in the following documents:

- *E RecSearch Report for North I-25 ROD3: Crossroads Bridge Replacements* (GeoSearch, 2016; Appendix A)

- *Final Geotechnical Investigation Report I 25/Crossroads Boulevard Bridge Replacement* (Yeh & Associates, 2015; Appendix B)
- *I-25 over Crossroads Boulevard Loveland, Colorado Traffic Noise Technical Report* (HDR, 2016; Appendix D)
- CDOT Mitigation Tracking Form (Appendix D)

Changes in existing conditions, future conditions, legislation, regulations, policies, guidance, or mitigation that would affect the Selected Alternative are summarized in the following resource discussions. Because the design of the ROD3 Selected Alternative is identical to the design used for the FEIS Preferred Alternative, the primary changes in impacts or mitigation are associated with changes in existing or future conditions or legislation, regulations, policies, or guidance. None of the changes are anticipated to result in a new significant impact that was not identified in the FEIS.

6.1 Land Use

Existing land uses have not changed for the study area since they were described in the FEIS. Land surrounding the Crossroads Boulevard interchange and the vacant land that Byrd Drive will traverse is zoned light industrial and commercial. Several auto dealerships are located in the southwest quadrant of the Crossroads Boulevard Interchange, and two hotels, and a strip mall are located in the southeast quadrant. The northeast quadrant is primarily vacant land and the Thunder Mountain Amphitheater is located in the northwest quadrant.

A Harley Davidson store, a Western Area Power Authority office building and the Thunder Mountain amphitheater are located on the southern end of the Byrd Drive corridor and a Commercial Driving License training center on the northern end. These existing land uses in the general area are those associated with the Fort Collins–Loveland Airport, which is located immediately northwest of the study area.

6.1.1 Impacts of the ROD3 Selected Alternative

As described in the FEIS, there would not be any impacts from the ROD3 Selected Alternative as it is compatible with existing and planned land uses. Future land use is consistent with the City of Loveland zoning and planned land use. Byrd Drive will traverse land zoned as “developing industrial.” Zoning surrounding the Crossroads Boulevard interchange is “developing industrial” to the east and northwest and “Planned Unit Development,” to the southwest (City of Loveland Zoning Map, October 2015). The future land use surrounding the Crossroads Boulevard interchange is designated “Regional Activity Center”.

There will not be any impacts to land use from any element of the ROD3 Selected Alternative.

6.1.2 Mitigation

No mitigation is required.

6.2 Social Conditions

There have been new regulations and guidance issued for environmental justice since the FEIS. This analysis considered the following changes in guidance and regulations for environmental justice. *FHWA Guidance on Environmental Justice and NEPA*, signed on December 16, 2011,

supplements FHWA Technical Advisory 6640.8A, and provides guidance on the process for addressing Environmental Justice, Title VI, and Limited English Proficiency. This guidance includes the documentation requirements for NEPA studies and directs the analysis to consider only those adverse effects that remain after mitigation is considered when evaluating disproportionately high and adverse effects. Department of Transportation (DOT) Order 5610.2(a) was issued on May 2, 2012. FHWA Order 6640.23A was issued on June 14, 2012. The most current CDOT NEPA Manual was released in October 2014. Each of these issuances contains updated information on environmental justice analysis.

The FEIS did not identify any populations in the study area for the ROD3 Selected Alternative that are protected by the Environmental Justice Executive Order and DOT order. The new analysis completed for the ROD3 using 2010 Census data did not change this finding.

6.2.1 Impacts of the ROD3 Selected Alternative

The impacts of the ROD3 Selected Alternative are the same as documented in the FEIS. The FEIS indicated that impacts and benefits would be distributed across all communities, including minority and low-income populations, as well as non-minority/non-low-income populations. All segments of the population would benefit from safety and access improvements to businesses, residences, and community facilities, from stronger regional community connections resulting from the ROD3 Selected Alternative; and from mitigation commitments which will, in some cases, improve conditions over existing conditions and over the No-Action Alternative.

Right-of-way (ROW) for Byrd Drive was dedicated to the City of Loveland in 2003 by Rocky Mountain Airport Investments, LLC. The new road provides a more direct connection from commercial uses just north of Crossroads Boulevard to commercial and industrial uses just south of Earhart Drive. Crossroads Boulevard improvements would not extend outside of existing CDOT ROW. No permanent impacts would occur from the ROD3 Selected Alternative. The additional lanes on Crossroads Boulevard provide a beneficial safety improvement..

During construction, detours, traffic delays, and temporary noise and visual impacts may occur. Construction phasing is planned to minimize temporary impacts to the extent possible. Employment and other positive indirect economic effects would occur during construction.

6.2.2 Mitigation

Mitigation measures for the impacts of the ROD3 Selected Alternative to social conditions are presented in Table 3.

Table 3. Social Conditions Impacts and Mitigation of Selected Alternative

Impact	Mitigation
During construction, detours, traffic delays, and temporary noise and visual impacts may occur.	A Traffic Management Plan will be developed that identifies a construction related traffic control plan, work zone management strategies, and contingency plans.

6.3 Economic Conditions

There are no changes in economic conditions and there are no changes in laws, regulation or guidance that affects economic analyses. The study area is continuing to grow at a rapid rate as the economy improves.

6.3.1 Impacts of the ROD3 Selected Alternative

The ROD3 Selected Alternative will improve travel conditions in the study area and will not require the purchase of land that could be otherwise used for commercial activities. The improvements will occur within existing ROW and will not impact existing businesses or potential economic activities. When compared to the existing situation with the frontage road immediately adjacent to I-25, realigning the NW frontage road with Byrd Drive is more consistent with local development plans for an airpark. There will be short-term improvements in the local economy associated with construction related employment. These impacts are not changed from the FEIS.

The I-25 and Crossroads Boulevard interchange is surrounded by commercial and retail development. During construction, access to local businesses may be temporarily disrupted or a minor delay may occur which could negatively impact the performance of some of the businesses. Conditions will return to normal once construction is complete.

6.3.2 Mitigation

Mitigation required is typical for construction impacts (Table 4).

Table 4. Economic Conditions Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Disruption or minor delay to business access during construction	To minimize disruption to traffic and local businesses, construction activities will be staged and work hours varied. Throughout the construction stage, access will be preserved for each affected business.

6.4 Right-of-Way

All right-of-way for the project falls either within CDOT or the City of Loveland ROW. The ROW for Byrd Drive was dedicated to the City of Loveland, by Mountain Air Industrial Center Limited, LLC, on May 27th, 2003.

6.4.1 Impacts of the ROD3 Selected Alternative

No new right-of-way is needed; therefore, there are no permanent impacts to right-of-way. Nine temporary easements will be required for construction totaling 1.28 acres.

6.4.2 Mitigation

Temporary easements required for the project will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the Uniform Act) and other applicable relocation assistance programs (Table 5).

Table 5. Right-of-Way Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Nine temporary easements will be required for construction.	Temporary easements of those property interests required for the project will comply fully with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the Uniform Act) and other applicable relocation assistance programs.

6.5 Air Quality

Changes in air quality laws, policies, and guidance since 2011 include:

- The Motor Vehicle Emissions Model (MOVES) 2014a was released in November 2015 and was a major revision to MOVES2010 and its minor revisions (MOVES2010a and MOVES2010b). MOVES2014 includes three new emission control programs associated with regulations promulgated since the release of MOVES2010b:
 - ▶ Tier 3 emission standards that phase in beginning in 2017 for cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty trucks, and Tier 3 fuel standards that require lower sulfur gasoline beginning in 2017
 - ▶ Heavy-duty engine and vehicle greenhouse gas (GHG) regulations that phase in during model years 2014-2018.
 - ▶ The second phase of light-duty vehicle GHG regulations that phase in for model years 2017-2025 cars and light trucks.

A minor revision, MOVES2014a, was released in November 2015 and incorporates significant improvements in calculating onroad and nonroad equipment emissions.

- FHWA's *Interim Guidance Update on Mobile Source Air Toxics Analysis in NEPA* was updated on December 6, 2012, from the original guidance published in September 2009. The revised guidance reflects changes in methodology for conducting emissions analysis and updates various research topics in mobile source air toxics analyses.
- Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (EPA, November 2013); Ozone National Ambient Air Quality Standard lowered from 75 ppb to 70 ppb in October 2015 (EPA's nonattainment designations will be made in late 2017)
- Transportation Conformity Guidance for 2012 PM_{2.5} Nonattainment Areas (EPA, November 2015); Policy Guidance on the Use of MOVES2014 and Subsequent Minor Revisions for State Implementation Plan Development
- Transportation Conformity, and Other Purposes (PDF) (EPA, July 2014); Carbon Monoxide Categorical Hot-Spot Finding (February 2014)

6.5.1 Impacts of the ROD3 Selected Alternative

The ROD3 Selected Alternative does not add vehicular capacity. Although the bridge reconstruction will allow for a future express lane, it will not be added at this time.

The realignment of the NW frontage road north of Crossroads Boulevard will provide bike lanes and sidewalks but will remain a two-lane road in either direction. This will improve safety for non-motorist travelers but will not add any capacity for vehicles. It is not a regionally significant project. For these reasons, the project is exempt per 40 CFR 93.126 and 127. As such, conformity and MSAT analyses are not required. In addition, because this project is not in a CO or PM10 maintenance area, project level analysis (ie. hotspot analysis) is not required regardless of exemptions pursuant to Section 93.126, Table 2. Because the project is not regionally significant, regional analysis is not necessary and the project does not need to be in a conforming plan.

The bridge reconstruction will also allow for an additional lane underneath I-25 in each direction on Crossroads Boulevard. These lanes will tie into the existing two-lane roundabouts located on either side of I-25. This is for safety and consistency purposes and will improve weave and merge operations. This additional lane fits within the definition of an intersection channelization project as described in 40 CFR 93.127. As such, no conformity analysis is required.

During the construction process, dust and other emissions would cause temporary and localized pollution generated by construction vehicles and earth disturbances. A fugitive dust permit would be required (see Section 10.2.1).

6.5.2 Mitigation

The only mitigation that is required is that related to air pollution during construction (Table 6).

Table 6. Air Quality Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Localized dust and other emissions during construction	<p>An operational water truck will be on site at all times. Water will be applied to control dust as needed to prevent dust impacts off site.</p> <ul style="list-style-type: none"> ▪ Use wetting/chemical inhibitors for dust control. ▪ Stabilize and cover stockpile areas. ▪ Remove soil and other materials from paved streets. ▪ Incorporate recommendations as appropriate from the Regional Air Quality Council (RAQC) report, Reducing Diesel Emissions in the Denver Area (RAQC, 2002). ▪ Operate equipment mainly during off-peak hours. ▪ Limit equipment idling time.

6.6 Noise

Noise levels and associated traffic counts, vehicle type data, and average speeds were measured on December 17, 2015. This data was used as a basis for the development of noise prediction models for the Existing, 2040 No Action, and 2040 Proposed Action traffic scenarios. These models were then used to predict noise levels for all receptor locations. The primary change in noise analysis procedures is due to updated CDOT *Noise Analysis and Abatement Guidelines* in effect dated January 15, 2015. These new guidelines were followed for this ROD3 analysis. See Appendix C for the full analysis done for this ROD3.

A noise sensitive receptor is any location where highway traffic noise may be detrimental to the enjoyment and functional use of the property as defined by the Noise Abatement Criteria (NAC). The NAC are threshold noise levels which are used to determine if receptors are impacted by comparing NACs to future noise levels or the changes in noise levels between existing and future levels. Field reconnaissance and a complete review of all development plans of the area revealed two Category C noise receptors, Thunder Mountain amphitheaters and Larimer County Fairgrounds, and four Category E noise receptors, Embassy Suites outdoor restaurant and Spa, Thunder Mountain Harley outdoor seating, Hooters outdoor seating and Castlewood Suites outdoor grill area with noise sensitive outdoor uses. NAC Activity Category C is a broad category that includes lands such as active sport areas, amphitheaters, hospitals, libraries, places of worship, recreational areas, Section 4(f) sites, schools, and trail crossings. NAC Activity Category E includes lands that are commercial in nature and exhibit characteristics less sensitive to traffic noise such as hotels, vacation rental properties, offices, and restaurants/bars.

6.6.1 Impacts of the ROD3 Selected Alternative

The noise analysis indicated that none of the identified receptors would experience a substantial increase in noise in comparison with existing conditions. Nor would any of the receptors experience a noise level that meets or exceeds CDOT NAC. Therefore, no mitigation analysis was needed.

Noise from construction activities would be perceptible during construction. This includes noise from diesel-powered earth moving equipment, back-up alarms on certain equipment and compressors

Noise at the receptors would not exceed NACs and noise levels would not increase by 10 dBA or more, as a result of the project. Therefore, no receptors on the I-25 corridor equal or exceed CDOT impact criteria.

6.6.2 Mitigation

None of the receptors in the study area equal or exceed CDOT impact criteria. Noise mitigation is not needed at this time (Table 7).

Table 7. Noise Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Temporary increases in noise would occur during construction.	<ul style="list-style-type: none"> ▪ Construction noise would be subject to relevant local regulations and ordinances, and any construction activities would be expected to comply with them. To address the temporary elevated noise levels that may be experienced during construction, standard mitigation measures would be incorporated into construction contracts, where it is feasible to do so. ▪ Stationary equipment would be located as far from sensitive receivers as possible. ▪ Most construction activities in noise-sensitive areas would be conducted during hours that are least disturbing to adjacent and nearby residents.

Table 7. Noise Impacts and Mitigation of Selected Alternative

Impact	Mitigation
	<ul style="list-style-type: none"> ▪ Implement construction best management practices ▪ Limit construction activities to daytime hours as practicable and feasible. ▪ Combine noisy operations to occur in the same time period. ▪ All engines will use commercially available effective mufflers and enclosures, as practicable.

6.7 Water Quality

There are no named or unnamed perennial, intermittent, or ephemeral streams located in the study area; as such, there are no changes in existing water quality conditions.

The primary change in regulations since the 2011 FEIS is that CDOT has negotiated a new MS4 permit with the Colorado Department of Public Health and Environment. If a planned project creates more than one acre of ground disturbance, will increase impervious area by 20percent or more, and is tied to an FEIS, CDOT's New Development Redevelopment Program requires implementing permanent water quality treatment. Per the terms and conditions of the permit, CDOT is required to treat 90 percent of runoff from new impervious surface, such as pavement or concrete. However, the area treated may include existing impervious area within the project limits.

For areas outside of CDOT right-of-way, which includes the area along Byrd Drive, the terms and conditions of the City of Loveland's MS4 would be applicable.

6.7.1 Impacts of the ROD3 Selected Alternative

The ROD3 Selected Alternative would result in an increase of approximately 11.6 acres of impervious surface. The improvements to Crossroads Boulevard would result in an increase of approximately 0.2 acres of additional impervious surface.

There is potential for temporary water quality impacts during construction.

6.7.2 Mitigation

Temporary and permanent water quality impacts and mitigation are summarized in (Table 8).

Table 8. Water Quality Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Increased impervious surface area Potential for temporary water quality impacts during construction Potential to encounter groundwater	A combination of mitigation measures consisting of permanent nonstructural and temporary best management practices (BMPs) will be implemented in the study area, in compliance with the Clean Water Act and the City of Loveland's MS4 permit requirements. <ul style="list-style-type: none"> ▪ Extended detention/retention ponds have been identified as the primary structural BMP for this project. ▪ A Stormwater Management Plan (SWMP) will be developed during

Table 8. Water Quality Impacts and Mitigation of Selected Alternative

Impact	Mitigation
	<p>design, implemented during construction and updated as needed.</p> <ul style="list-style-type: none"> ▪ A Spill Prevention Plan will be prepared. ▪ CDOT's specifications for managing stormwater at a construction site (currently specifications 107.25, 212, 213, 208, and 216) will be followed. ▪ Construction BMPs will be implemented and maintained in compliance with the CDPHE general construction permit. Construction plans must adhere to a stormwater management plan (Section 402, Clean Water Act CDPHE Regulation 61). ▪ Vegetation or other erosion control techniques will be established to prevent sediment loading in compliance with the general stormwater construction permit. ▪ Construction activities will be phased to minimize effects associated with large areas of exposed ground and with soil compaction from heavy machinery use. ▪ If groundwater is encountered during activities associated with excavations for caisson/retaining walls, the discharge of groundwater is authorized when the following conditions are met: <ul style="list-style-type: none"> > Source is groundwater and/or groundwater combined with stormwater that does not contain pollutants in concentrations exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42. > Discharge is in accordance with CDPHE Water Quality Control Division, Water Quality, Policy-27, Low-Risk Discharges, September 2009. > The source is identified in the SWMP. > Dewatering BMPs are included in the SWMP. <p>If these conditions are not met, then a separate Clean Water Act Section 402 Construction Dewatering Permit or Individual Construction Dewatering Permit will be required to be obtained by the City of Loveland contractor from the CDPHE's Water Quality Control Division.</p>

6.8 Wetlands

The new Clean Water Rule: Definition of "Waters of the United States," was published June 29, 2015 and became effective August 28, 2015 (40 CFR 230.3). However, a nationwide stay was issued by the U.S. Court of Appeals for the 6th Circuit on October 9, 2015, which blocked the implementation of the new Rule. Differences between the most recent 2008 guidance (the Rapanos Guidance) pertaining to the 1986 definition of waters of the U.S. (33 CFR 328.3) and the new Rule are difficult to predict without guidance being issued for the new Rule. The United States Army Corps of Engineers has the regulatory authority to issue Preliminary and/or Approved Jurisdictional Determinations based on the regulations in place at the time of their assessment. Therefore, the potential jurisdictional status of features identified in this delineation

and proposed jurisdictional determination reflect that of the Rapanos Guidance, as well as the new Rule.

There are no wetlands or waters of the U.S. in the study area.

6.8.1 Impacts of the ROD3 Selected Alternative

No impacts to wetlands would occur.

6.8.2 Mitigation

No mitigation is needed.

6.9 Floodplains

There are no floodplains in the study area. Nor are there changes in laws, regulations and guidance that affect floodplains.

6.9.1 Impacts of the ROD3 Selected Alternative

No impacts would occur.

6.9.2 Mitigation

No mitigation is needed.

6.10 Vegetation

There are no major changes in existing vegetation and there are no changes in laws, regulation or guidance that affects vegetation analyses. Existing vegetation consists of dryland grasses near Byrd Drive, landscape plants at Crossroads Boulevard, and native vegetation along the interstate.

6.10.1 Impacts of the ROD3 Selected Alternative

Thirty-four acres of vegetation will be permanently impacted by the project.

6.10.2 Mitigation

Mitigation to be provided is the standard mitigation for revegetation (Table 9).

Table 9. Vegetation Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Vegetation removal	<ul style="list-style-type: none"> ▪ CDOT standard specifications for the amount of time that disturbed areas are allowed to be non-vegetated will be followed. ▪ Weed-free topsoil will be salvaged for use in seeding. ▪ Erosion control blankets will be used on steep, newly seeded slopes. Slopes will be roughened at all times. All disturbed areas will be revegetated with native grass and forb species. Seed, mulch, and mulch tackifier will be applied in phases throughout construction.

6.11 Noxious Weeds

There are no changes in noxious weed conditions and there are no changes in laws, regulation or guidance that affects noxious weed analyses.

6.11.1 Impacts of the ROD3 Selected Alternative

As discussed in the FEIS, construction would disturb areas where noxious weeds exist and disturb areas that are currently weed-free. There is a potential for the spread of noxious weeds.

6.11.2 Mitigation

Mitigation to be provided is the standard mitigation for noxious weeds (Table 10). A copy of the *Interstate 25 and Crossroads Boulevard Road Improvements Integrated Weed Management Plan* (AECOM, 2016) is included in this document as Appendix F.

Table 10. Noxious Weeds Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Construction activities would increase the potential for the spread and establishment of noxious weeds.	<p>An integrated weed management plan will be incorporated into the project design and implemented during construction. Specific BMPs will be required during construction to reduce the potential for the introduction and spread of noxious weed species. These include:</p> <ul style="list-style-type: none"> ▪ Noxious weed mapping will be included in the construction documents along with appropriate weed control methods. ▪ Weed management measures will include removal of heavily infested topsoil, herbicide treatment of lightly infested topsoil, as well as other herbicide and/or mechanical treatments, limiting disturbance areas, phased seeding in accordance with CDOT seeding seasons, and monitoring during and after construction ▪ 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. ▪ Certified weed-free hay and/or mulch will be used in all revegetated areas. ▪ Fertilizer shall meet CDOT Standard Specification 212.

6.12 Wildlife

A black-tailed prairie dog (BTPD) colony is present in the south-eastern quadrant of the I-25 and Crossroads Boulevard interchange. BTPD habitat can support burrowing owls. Vegetation exists that can support migratory birds.

6.12.1 Impacts of the ROD3 Selected Alternative

Two BTPD burrows will be impacted by the project.. Ground nesting birds may be impacted by the construction of Byrd Drive and other nesting birds may be impacted by the landscape tree removals at Crossroads Boulevard.

6.12.2 Mitigation

Mitigation is detailed in Table 11.

Table 11. Wildlife Impacts and Mitigation of Selected Alternative

Impact	Mitigation
<p>Two BTPD burrows will be directly impacted by construction.</p> <p>Nests may be impacted with the removal of vegetation.</p>	<ul style="list-style-type: none"> ▪ CDOT biologists will passively relocate any BTPD present in the burrows within the construction site. ▪ Silt fence will be placed to prohibit any additional btpd from entering the construction site. ▪ A burrowing owl survey will be conducted prior to construction following "Recommended Survey Protocol and Action to Protect Burrowing Owls" by Colorado Parks and Wildlife. ▪ The contractor will be required to follow Section 240 of the Protection of Migratory Birds During Structure Work.

6.13 Threatened and Endangered and State Sensitive Species

There are no threatened, endangered or sensitive species in the study area.

6.13.1 Impacts of the ROD3 Selected Alternative

There are no impacts that would occur.

6.13.2 Mitigation

No mitigation is needed.

6.14 Visual Quality

There are no changes in visual quality conditions and there are no changes in laws, regulation or guidance that affect visual analyses. The study area remains a primarily agricultural area with expansive views in all directions.

6.14.1 Impacts of the ROD3 Selected Alternative

After reconstruction of the interchange, the I-25 northbound bridge profile will raise 1 foot and the I-25 southbound bridge profile will raise 10 feet to be at the same elevation. The reconstruction of the bridges would have a moderate visual effect. There would not be a noticeable difference in views from the east or west of the highway once the bridges are rebuilt.

Minor impacts would occur during construction, as travelers may observe construction equipment and materials; however, impacts will be temporary.

Crossroads Boulevard will be widened from one lane in each direction to two lanes in each direction underneath I-25 between the roundabouts. Motorists traveling eastbound and westbound on Crossroads Boulevard would see a wider roadway underneath I-25. There would be no impacts.

6.14.2 Mitigation

The moderate visual effect of the ROD3 Selected Alternative to pedestrians and bicyclists should be off-set by improved infrastructure; as such, no mitigation will be required. No

mitigation is required for visual impacts from construction equipment as these would be temporary. Existing vegetation will be replaced in kind by CDOT during construction, but Centerra Metro District will continue the landscape maintenance at the interchange.

6.15 Historic Properties

As required by the North I-25 EIS Programmatic Agreement for Section 106, a new field survey and file search was completed on December 8, 2015. There were no historic properties found within the study area. The I-25 bridges (structures C-17-ET (5LR12354) and C-17-ES (5LR12346)) at Crossroads Boulevard were documented in CDOT's 2014 Historic Bridge Inventory and were determined Not Eligible and Exempt from Section 106 due to the Interstate Highway Exemption. Clearance to proceed was recommended without further actions. This information was submitted to the State Historic Preservation Officer on April 5, 2016. Concurrence from the State Historic Preservation Officer was received on April 15, 2016 (Appendix E).

6.15.1 Impacts of the ROD3 Selected Alternative

There were no historic properties in the study area for the ROD3 Selected Alternative as documented in the FEIS. This has not changed so no impact would occur.

6.15.2 Mitigation

No mitigation is needed.

6.16 Paleontological Resources

There are no paleontological resources in the study area for the ROD3 Selected Alternative and there are no changes in laws, regulation or guidance that affect paleontological analyses. The paleontological assessment received on February 11, 2016, recommended a paleontological clearance with no attached mitigation stipulations.

6.16.1 Impacts of the ROD3 Selected Alternative

There are no paleontological resources in the study area for the ROD3 Selected Alternative as documented in the FEIS. This has not changed so no impact would occur.

6.16.2 Mitigation

Only standard paleontological mitigation is required to address the situation if resources are encountered during construction (Table 12).

Table 12. Paleontological Resource Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Potential for resources to be uncovered during construction	If any subsurface bones or other potential fossils are found by construction personnel during construction, work in the immediate area will cease immediately, and a paleontologist will be contacted to evaluate the significance of the find.

6.17 Hazardous Materials

In support of this North I-25 Environmental Impact Statement (EIS), a corridor-wide Modified Phase I Environmental Site Assessment (MESA) (FHU, 2008) and MESA Addendum (FHU, 2011) were performed to identify sites in the study area with the presence of potential or recognized soil and groundwater contamination from hazardous materials. There were no sites identified in the study area in the FEIS and there have been no changes to laws, regulations or guidance relative to hazardous materials in the study area.

CDOT requested a GeoSearch Linear Report, which was received on January 11, 2016, to determine if any new hazardous materials sites were identified in the ROD3 Selected Alternative study area. The GeoSearch Radius Report (a.k.a. ASTM database report, environmental database report, regulatory database report) helps to identify sites that have real or potential environmental issues. The Radius Report exceeds ASTM E 1527-13 and the EPA's All Appropriate Inquiry rule.

The GeoSearch Linear Report includes information on the property type, waste materials such as tires or motor oil, hazardous materials including chemicals, spills or identified leaking storage tanks and remedial action and the date the actions were closed.

Within the study area the GeoSearch listed several car dealerships that are considered Solid Waste Facilities (SWF). Besides these facilities there were no additional sites that warranted further documentation.

6.17.1 Impacts of the ROD3 Selected Alternative

During construction hazardous materials may be unearthed that have not been previously identified.

6.17.2 Mitigation

Standard mitigation is required (Table 13).

Table 13. Hazardous Materials Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Potential for hazardous materials to be unearthed during construction	<ul style="list-style-type: none"> <li data-bbox="621 1383 1386 1451">▪ If hazardous materials are unearthed during construction all work will stop and emergency services will be contacted. <li data-bbox="621 1461 1052 1493">▪ Follow CDOT specification 250.03 03. <li data-bbox="621 1503 1386 1633">▪ If dewatering is necessary, groundwater brought to the surface will be managed according to Section 107.25 and 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2005c) and permitted by the CDPHE Water Quality Control Division. <li data-bbox="621 1644 1386 1843">▪ If petroleum-contaminated soil is identified with a concentration less than 1,000 ppm but higher than 500 ppm, CDOT will be responsible for clean-up. A MMP and a Health and Safety plan, as required by Section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2005c), also is recommended for use when oil and gas facilities are encountered. <li data-bbox="621 1854 1365 1881">▪ Prior to demolition of any structures, an asbestos, lead-based paint,

Table 13. Hazardous Materials Impacts and Mitigation of Selected Alternative

Impact	Mitigation
	<p>and miscellaneous hazardous materials survey will be conducted at each parcel, where applicable. Regulated materials abatement will be conducted in accordance with Section 250, Environmental, Health, and Safety Management, of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2005c) and relevant Occupational Health and Safety (OSHA) regulatory details.</p> <ul style="list-style-type: none"> ▪ Prior to demolition, regulated materials must be removed from any structures and appropriately recycled or disposed. ▪ Coordination with the Colorado Department of Labor and Employment Division of Oil and Public Safety (OPS) will be required prior to parcel acquisition of any sites that are identified as having active leaking tanks. If site characterization and/or remediation have not been completed, the OPS may require CDOT to complete these activities after acquisition. During the right-of-way acquisition process, additional properties may require other actions depending on the results of the Initial Site Assessments (ISAs). ▪ By law, all friable asbestos-containing materials (ACM) must be removed from structures (including bridges) prior to demolition, and soils if encountered in excavated landfill or building debris, buried utilities, or other ACM is encountered. The contractor performing the asbestos abatement is required to be licensed to perform such work and obtain permits from the CDPHE. ▪ Lead-based paint may need to be removed prior to demolition if the lead is leachable at concentrations greater than regulatory levels. Where lead-based painted surfaces will be removed via torching, additional health and safety monitoring requirements are applicable. ▪ Prior to construction activities, a Health and Safety Plan, as required by Section 250.03 of the CDOT Standard Specifications for Road and Bridge Construction (CDOT, 2005c), will be developed. Construction specifications shall be written to include review of the Health and Safety Plan by the CDOT Regional Environmental Manager. ▪ Monitoring requirements for hazardous materials concerns during construction activities will be established in the MMP, Health and Safety Plan, and CDOT standard and project-specific specifications.

6.18 Parks and Recreational Resources

CDOT has issued Procedural Directive 1602.1 (CDOT, 2010) that lays out policies relative to pedestrian and bicycle facilities since the publication of the FEIS.

6.18.1 Impacts of the ROD3 Selected Alternative

Larimer County Fairgrounds is considered a recreational resource and is located approximately half a mile north of the Crossroads Boulevard interchange, but would not be impacted by the

project. There are no other parks or recreational resources in the study area. The new Byrd Drive cross-section includes 7-foot bike lanes and 6-foot sidewalks in either direction. A new 5-foot bike lane will be added in each direction on Crossroads Boulevard under I-25. These changes improve mobility for pedestrians and cyclists in the study area.

6.18.2 Mitigation

No mitigation is needed

6.19 Section 6(f)

6.19.1 Impacts of the ROD3 Selected Alternative

There are no Section 6(f) properties in the study area. No impacts would occur.

6.19.2 Mitigation

No mitigation is needed.

6.20 Farmlands

There is no Natural Resources Conservation Service (NRCS) protected farmland in the study area. There have been no changes to laws, regulations or guidance relative to farmlands in the study area.

6.20.1 Impacts of the ROD3 Selected Alternative

No impacts would occur.

6.20.2 Mitigation

No mitigation is needed.

6.21 Energy

There are no changes from the FEIS related to energy. There have been no changes to laws, regulations or guidance related to energy consumption in the study area. The direct impacts of of the daily energy consumption by FEIS alternatives were included in the FEIS and ROD1 on a regional scale. The contributions and differences from the ROD3 Selected Alternative is not at a scale that can be accounted for individually. The mitigation proposed on a regional scale in the FEIS was a focus on a reduction in daily vehicle miles traveled (VMT) by promoting transit and transit oriented development. This ROD3 Selection does not contribute to increased VMT because no additional capacity is being added.

6.21.1 Impacts of the ROD3 Selected Alternative

Construction activities would consume energy.

6.21.2 Mitigation

Construction equipment idling time will be limited (Table 14).

Table 14. Energy Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Consumption of energy during construction	<ul style="list-style-type: none"> ▪ Limit equipment idling time.

6.22 Public Safety and Security

There are no changes to public safety and security impacts from those described in the FEIS.

6.22.1 Impacts of the ROD3 Selected Alternative

The new Byrd Drive cross-section will also enhance safety for the traveling public because of the new bike lanes and sidewalks.

Crossroads Boulevard is currently two lanes in each direction merging into one lane under the I-25 bridges (Figure 4 and Figure 5). When the I-25 bridges are reconstructed it will allow for two lanes in each direction under I-25. Driver expectations and safety will improve as the new laneage under I-25 will be consistent with the laneage in the roundabouts.

6.22.2 Mitigation

No mitigation is needed as there will be only positive improvements to safety.

6.23 Construction

6.23.1 Impacts of the ROD3 Selected Alternative

Construction impacts that would occur are identical to those described in the FEIS. Minor traffic delays and detours would occur. Short-term increases in noise, air pollution, water pollution and visual impacts would be anticipated for the period of construction.

Roadway construction would be broken into three phases so as to accommodate traffic. The phases would consist of the following:

- **Phase 1:** Temporary pavement, crossovers, and a temporary bridge would be constructed over Crossroads Boulevard. All traffic would be maintained on the existing roadway during construction. All on and off ramp accesses would be maintained.
- **Phase 2:** I-25 northbound and southbound traffic would be shifted onto the existing I-25 southbound lanes and temporary pavement via the crossover. The I-25 northbound mainline and ramp pavement would be constructed, with the exception of areas being used as temporary northbound on and off ramps. Only overnight closures would be allowed for Crossroads Boulevard.
 - **Phase 2B:** The northbound ramp traffic would be shifted to new temporary ramps. The remainder of the northbound mainline and ramp pavement would be constructed.
- **Phase 3:** I-25 southbound crossovers would be constructed. The mainline traffic would shift onto the newly constructed I-25 northbound pavement via a crossover. The I-25 southbound

mainline and ramp pavement would be constructed, with the exception of areas being used as temporary southbound on and off ramps.

- ▶ **Phase 3B:** The secondary southbound ramp crossovers would be constructed and southbound ramp traffic would be shifted to new temporary ramps. The remainder of the southbound mainline and ramp pavement would be constructed.

Crossroads Boulevard would be closed for nine nights during the I-25 bridge demolition. This could impact pedestrians and bicyclists who use the existing sidewalk facility for travel.

6.23.2 Mitigation

The following construction related mitigation is required (Table 15).

Table 15. Construction Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Short term effects to noise, access, air pollution and water pollution	<p data-bbox="609 741 678 772">Noise</p> <ul style="list-style-type: none"> <li data-bbox="623 804 1198 835">▪ Implement construction best management practices <li data-bbox="623 846 1318 909">▪ Limit construction activities to daytime hours as practicable and feasible. <li data-bbox="623 919 1279 951">▪ Combine noisy operations to occur in the same time period. <li data-bbox="623 961 1333 1024">▪ All engines will use commercially available effective mufflers and enclosures, as practicable. <p data-bbox="609 1035 695 1066">Access</p> <ul style="list-style-type: none"> <li data-bbox="623 1098 1393 1203">▪ Use enhanced signing. Use advertising/public relations to improve communications about any traffic or access disruptions. <p data-bbox="609 1213 873 1245">Environmental Impacts</p> <ul style="list-style-type: none"> <li data-bbox="623 1276 1149 1308">▪ Use wetting/chemical inhibitors for dust control. <li data-bbox="623 1318 1198 1350">▪ Provide early investigation of subsurface conditions. <li data-bbox="623 1360 1198 1392">▪ Prepare a well-defined materials management plan. <li data-bbox="623 1402 1206 1434">▪ Require prompt and safe disposal of waste products. <li data-bbox="623 1444 979 1476">▪ Implement water quality BMPs. <li data-bbox="623 1486 1385 1549">▪ Prepare well-defined stormwater management plan per Water Quality Section. <li data-bbox="623 1560 1027 1591">▪ Stabilize and cover stockpile areas. <li data-bbox="623 1602 1401 1665">▪ Minimize offsite tracking of mud, debris, hazardous material, and noxious weeds by washing construction equipment in contained areas. <li data-bbox="623 1675 1247 1707">▪ Store equipment and materials in designated areas only. <li data-bbox="623 1717 1328 1812">▪ Follow CDOT Standard Specifications for Road and Bridge Construction (2005c), including sections regarding water quality control, erosion control, and environmental health and safety. <li data-bbox="623 1822 1369 1885">▪ Control and prevent concrete washout and construction wastewater from leaving the project site. As projects are designed, ensure that

Table 15. Construction Impacts and Mitigation of Selected Alternative

Impact	Mitigation
	<p>proper specifications are adhered to and reviewed to ensure adequacy in the prevention of water pollution..</p> <ul style="list-style-type: none"> ▪ Prepare or revegetate exposed areas as soon as possible after construction. ▪ Remove soil and other materials from paved streets. ▪ Incorporate recommendations as appropriate from the Regional Air Quality Council (RAQC) report, Reducing Diesel Emissions in the Denver Area (RAQC, 2002). ▪ Operate equipment mainly during off-peak hours. ▪ Limit equipment idling time. ▪ Use recycled materials for project activities to the extent allowed by good practice and CDOT construction specifications. ▪ Store equipment and materials in designated areas only. ▪ Prepare or revegetate exposed areas as soon as possible after disturbance.

6.24 Short-Term Uses and Long-Term Productivity

The approach this project is using by identifying a Preferred Alternative for the whole North I-25 Corridor provides a systematic approach to minimize Short-Term Uses and gain the most for Long-Term Productivity. By knowing what kinds of improvements are planned, the investment and impacts to resources can be minimized by implementing coordinated solutions for Long Term benefits.

There are no changes to short-term uses of resources and long-term productivity analyses compared to the FEIS. The ROD3 Selected Alternative will have loss of soil, disruption of traffic, disruption to businesses, visual, noise, vibration, and land during construction. In addition natural resources will be incorporated permanently into the project such as aggregate, concrete, asphalt. The Long-Term Productivity includes improved safety, mobility, travel times, access to businesses and improved emergency access. In addition, the improvements selected in ROD3 will operate with our without future improvements on the corridor.

6.25 Irreversible and Irrecoverable Commitments of Resources

Irrecoverable and irreversible commitments of funds, labor, funding, energy, and materials would occur during the construction of the ROD3 Selected Alternative. The ROD3 Selected Alternative will be constructed in a manner that will not need to be reconstructed when future projects associated with the FEIS Preferred Alternative are implemented. Since the bridges would be replaced before the end of their service life, the demolition of the remaining service life is an irreversible and irrecoverable commitment of resources. There are no changes to irreversible and irrecoverable commitments of resources compared to the FEIS.

6.26 Cumulative Impacts

The ROD3 Selected Alternative was included in the Cumulative Impact Analysis that was completed for the FEIS Preferred Alternative. Nothing in ROD3 changes the cumulative impact findings in the FEIS.

6.27 Archaeological Properties

An archaeological survey was conducted on December 8, 2015. Consequently, clearance to proceed is recommended without further actions.

6.27.1 Impacts of the ROD3 Selected Alternative

There were no archaeological properties in the study area for the ROD3 Selected Alternative as documented in the FEIS. This has not changed so no impact would occur. If buried cultural material is encountered during any phase of the project the Senior Staff Archaeologist must be contacted immediately so that the materials can be evaluated in accordance with National Register criteria.

6.27.2 Mitigation

No mitigation is needed.

6.28 Geological Resources

6.28.1 Impacts of the ROD3 Selected Alternative

There are no new geological resources in the study area, and there have been no changes to laws, regulations, or guidance related to geological resources. Additionally, construction of a transportation project does not require any permits related to the geology or soils, nor is any consultation with other state or federal agencies necessary.

Impacts of the ROD3 Selected Alternative Construction activities associated with the ROD3 Selected Alternative will result in disturbances to the subsurface geology of the area; however, no significant impacts to geological resources are anticipated.

6.28.2 Mitigation

If important geological resources are discovered during construction standard geological mitigation is required to address the situation (Table 16). If fill, rock, soil, or groundwater conditions appear to be different from those described in the Final Geotechnical Investigation Report, I-25/Crossroads Boulevard Bridge Replacement (Yeh and Associates, Inc., 2015; Appendix B), the site should be reevaluated.

Table 16. Geological Resource Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Potential for resources to be uncovered during construction	If fill, rock, soil, or groundwater conditions appear to be different from those described in the Geotechnical Investigation Report (Yeh, 2015), the site should be reevaluated.

6.29 Utility Resources

Several utilities, ranging from fiber optic to water/wastewater and electricity, are located near I-25 along the proposed alignment of Byrd Drive between Crossroads Boulevard and Earhart Drive. Construction activities associated with this project have the potential to impact these utilities. Since 2011, no new utilities have been installed in the study area, and there have been no changes to laws, regulations, or guidance related to utility resources.

The following are descriptions of existing utilities and the anticipated impact to each.

The Platte River Power Authority owns an underground fiber optic/communication line that parallels the frontage road to the east. Construction of the roadway would not cause a conflict, and the line would be protected in place.

The City of Loveland traffic division and the Colorado Department of Transportation (CDOT) share a fiber conduit line that crosses under the frontage road. Construction would result in a conflict between the roadway and the utility; therefore, the conduit line would be replaced as needed.

CDOT owns two fiber optic lines that cross under the frontage road. One line is a connection to a camera and would be relocated. The second line is a recently installed Intelligent Transportation Services (ITS) sleeve, which would be protected in place.

The South Fort Collins Sanitation District maintains four sanitary sewer lines that run underground and parallel to the frontage road. Two of the three sewer lines would be protected in place, and the location of the last would be adjusted based on construction activities.

Fort Collins and Loveland Water District maintain two water lines that parallel the frontage road underground. One line would be protected in place while the other would be adjusted based on construction activities.

The City of Loveland power division maintains two buried electrical lines that parallel the frontage road. Of these, one would be protected in place and the other would be relocated as needed. Another electrical line crosses beneath the roadway and would be relocated as needed.

6.29.1 Impacts of the ROD 3 Selected Alternative

Most utilities will be protected in place or relocated as needed. The type of utility, number of utilities, and type of impact are shown in Table 17.

Table 17. Utilities Impacted

Utility Type	Number of Utilities	Impact
Fiber Optic/Communication	3	Utility crosses roadway
Sanitary Sewer	4	Widening roadway may interfere with utility
Water	2	Widening roadway may interfere with utility

Table 17. Utilities Impacted

Utility Type	Number of Utilities	Impact
Electric	1	Utility crosses roadway
Electric	2	Widening roadway may interfere with utility

6.29.2 Mitigation

Impacts to utilities would be mitigated through various methods including protection in place, replacement of the utility line, or adjustments to the location of the line (Table 18). Utilities not impacted by the project would be left in place. Utilities that need to be relocated would be moved before construction by other agencies or by CDOT during construction.

Table 18. Utility Impacts and Mitigation of Selected Alternative

Impact	Mitigation
Construction activities have the potential to impact utilities that cross the roadway or are located within expanded right-of-way.	Mitigation would include protection in place, replacement of the utility line, or adjustments to the location of the line as needed.

7.0 SECTION 4(F)

The ROD3 Selected Alternative does not have any Section 4(f) uses.

8.0 STATUS OF FEDERAL AND STATE APPROVALS

The following presents the status of federal and state approvals for the ROD3 Selected Alternative:

Air Quality Conformity

Since the ROD3 Selected Alternative is exempt from air quality conformity, no additional actions or approvals are required

Section 106 Consultation

The lead agencies signed a Section 106 Programmatic Agreement in December 2011. It is included in Appendix G of the ROD1. The Programmatic Agreement defines a process whereby CDOT will reevaluate effects to existing and new cultural resources as construction projects are funded and designs are refined. The ROD3 Selected Alternative has complied with these measures.

A part of the Programmatic Agreement is also to conduct creative mitigation. CDOT has started the process of proceeding with the creative mitigation identified in the Programmatic Agreement.

Section 404 Permit

Although the ROD3 Selected Alternative does not have any wetland impacts, these improvements were included in the Section 404 permit.

Impacts to wetlands and waters of the U.S. have been submitted to the U.S. Army Corps of Engineers and approval has been granted by receipt of a Section 404 permit. This permit requires certain information to be submitted to the U.S. Army Corps of Engineers prior to construction of an individual project. This will be done during the final design process. All requirements of the Clean Water Act have been met.

Endangered Species Act Consultation

The lead agencies signed a *Programmatic Biological Opinion* (PBO) (USFWS and FHWA, 2011) which is contained in Appendix E of the ROD1. This stipulates that as individual projects are proposed, the lead agencies will provide information to the U.S. Fish and Wildlife Service (USFWS) that describes the proposed action, the species that may be affected, results of habitat assessments, an updated baseline of the study area, a description of how the action may affect the species, a determination of effects, a cumulative total of incidental take that has occurred to date, a description of any additional actions or effects not considered in the programmatic consultation and a description of conservation measures or mitigation activities already implemented and their effectiveness. The lead agencies will also develop revegetation success criteria for revegetated sites.

The information required as part of the PBO for the ROD3 Selected Alternative was submitted to USFWS on February 29, 2016 (CDOT, 2016).

Interchange Modification Approvals

Although the Crossroads Boulevard will be improved, there will be no change to the gore points or access to and from the Interstate. The changes on the Crossroads Boulevard will not adversely impact the operations of I-25 so no Interchange Modification Approvals are necessary for the ROD3 Selected Alternative.

9.0 CLARIFICATIONS AND CORRECTIONS FOR THE FEIS

There are no clarifications or corrections for the FEIS pertaining to the Selected Alternative in ROD3.

10.0 MONITORING AND ENFORCEMENT PROGRAM

Federally funded transportation projects must comply with a wide range of federal and state environmental laws and regulations, permits, reviews, notifications, consultations, and other approvals. This section summarizes the permits that are applicable to the ROD3 Selected Alternative activities. It is not an all-inclusive list nor does it include reviews, consultations, and other types of approval that do not involve granting or denial of a permit. The following permits and coordination activities are required to support the construction of the ROD3 Selected Alternative.

In addition, CDOT and FHWA will ensure the mitigation commitments outlined in this document will be implemented as part of the project design, construction, and post-construction monitoring. These commitments will be incorporated, as appropriate, into the construction plans and specifications for this project. CDOT and FHWA will ensure that these commitments are

implemented through review of the project construction plans and specifications, as well as periodic inspections during construction. Inspections during construction will involve both a review of project construction documentation and observation of construction activities.

CDOT and FHWA will monitor mitigation effectiveness and success through a combination of field reviews, pre-construction and post-construction inspections and post-construction monitoring, as appropriate. CDOT will be preparing annual reports, by agreement with some resource agencies. Reporting of effectiveness will be done by CDOT and FHWA, in accordance with agency requirements. If mitigation is not successful or mitigation commitments are not met, CDOT will rectify as needed.

The mitigation requirements set forth in this ROD3 will be incorporated into the IGA being developed by CDOT and the City of Loveland where Loveland will take on some of the oversight responsibilities related to Byrd Drive and Crossroads Boulevard during construction.

10.1 Water Quality/Water Resources

10.1.1 Colorado Discharge Permit System (CDPS)

A CDPS permit is required by State and Federal regulations for stormwater discharged from any construction activity that disturbs at least one acre of land. This discharge permit is required to ensure the quality of stormwater runoff from the construction site. Under CDPS permit stipulations, a site-specific stormwater management plan would be prepared that outlines in detail specific best management practices (BMPs) for inclusion in project plans and implementation in the field. Included in the stormwater management plan are such aspects as BMP locations, turbidity and monitoring requirements, seed mix, concrete wash-out provisions, and other relevant information. Permits would be obtained from Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division.

10.1.2 Section 404 Permit

Because there are no wetland or waters of the US impacts with the ROD3 Selected Alternative, the coordination during final design with the U.S. Army Corps of Engineers is not necessary.

A Section 401 permit is not applicable because Waters of the U.S. will not be impacted.

A Section 402 permit will be required for pollutant discharge during construction.

10.2 Air Quality

10.2.1 Air Quality Permits

A portable source construction permit would likely need to be obtained from CDPHE for the operation of portable sources (e.g., asphalt plants, generators, rock crushers).

A stationary source permit and APEN requirements stipulate that a construction permit must be obtained from CDPHE for any and all emissions associated with construction activities, including operations of portable sources. CDOT will submit an APEN to the CDPHE Air Pollution Control Division if more than 25 acres of land would be impacted and/or project construction would last longer than 6 months. CDPHE will respond whether or not a permit would be required prior to commencing construction.

A fugitive dust permit and bridge demolition permit will be required for construction projects. Additionally, an asbestos abatement permit from the CDPHE would also be required for demolition of structures that potentially have friable asbestos containing material (see Section 3.17, Hazardous Materials, of the FEIS).

10.3 Other Local Permits.

Other local permits would likely be required by cities and counties as needed, such as construction, grading, erosion control, utility, or survey permits either prior to the beginning or during construction phases.

10.4 Biological Resources

The ROD3 Selected Alternative does not have any Biological Resource impacts that would require a permit.

10.5 Access

No access permits will be required. All ROW necessary for the project falls within CDOT ROW or has been dedicated to the City of Loveland.

11.0 PUBLIC AND AGENCY INVOLVEMENT

11.1 Comments from the FEIS

The *North I-25 Final Environmental Impact Statement/Final Section 4(f) Evaluation* (CDOT, 2011a) was released on August 19, 2011. The notice of availability of the FEIS was published in the Federal Register on August 19, 2011, indicating a 30-day review period ending on September 19, 2011. Subsequently, an extension to this comment period was announced in the Federal Register (September 9, 2011) extending the end of the comment period to October 3, 2011 (i.e., 45 days total). Public comment was solicited and received through a variety of sources, including the North I-25 Environmental Impact Statement website, mail, fax, and verbal and written comments submitted at the three public hearings.

In total, comments were submitted by 301 individuals, two public interest organizations, six agencies (federal, state, tribal or regional) and six local governments. Comments were received via the project website, fax, mail, or as verbal and written comments at the three public hearings. Many of the comment submittals addressed multiple topics. The lead agencies have responded to each comment and topic individually and each comment received is presented next to the corresponding response in Appendix B of the ROD1.

During the FEIS comment period, a total of 301 comments were received from the general public in the following manner:

- 287 comments were submitted through the project Web site or through e-mail.
- 9 written comments were submitted during a public hearing, mailed or faxed to CDOT.
- 5 verbal comments were made at one of the three public hearings.

The public comments received on the FEIS reflected the following community sentiments:

- 21 specifically supported the Preferred Alternative.

- 1 specifically supported Package A.
- 2 specifically supported Package B or an element included only in Package B.
- 213 supported commuter rail or rail transit without mentioning an alternative.
- 171 supported an expedited schedule for completion of improvements.
- 57 expressed support for some other project phasing/prioritization scheme.
- 7 did not support rail transit.
- 22 did not support highway improvements.
- 20 supported only highway improvements.
- 17 supported improving bus transit.
- 2 did not support improving bus transit.
- 3 expressed concern about potential construction impacts.
- 1 expressed concern about entering/exiting tolled express lanes (now called Express Lanes) at Mead.
- 1 expressed displeasure about the public hearing locations and lack of public transportation availability.
- 1 expressed concern about the energy consumption and greenhouse gas emissions associated with all build alternatives.

11.2 Agency, Public and Business Coordination

CDOT coordinated with the NFRMPO, the City of Loveland, Centerra Development, the UFR and DRCOG during design of the project:

- North Front Range Metropolitan Planning Organization Meetings (open to the public)
 - ▶ January 7, 2016
 - ▶ February 4, 2016
 - ▶ March 3, 2016
 - ▶ April 7, 2016
- Upper Front Range Regional Planning Commission
 - ▶ March 3, 2016

Additionally, updates were provided by CDOT to DRCOG communities.

The public has also been afforded a number of opportunities to comment on the ROD3 Selected Alternative as a part of the overall North I-25 EIS process. Involvement has included public meetings, newsletters and the project website. CDOT and FHWA worked with the public and agencies to avoid and minimize impacts. The distribution of the Draft and Final EIS documents provided the primary opportunity to inform the public on the proposed project and the environmental analysis associated with each identified alternative. Following the distribution of each document, a public comment period was provided.

12.0 DECISION

Based on the information provided in the August 2011 *North I-25 Final EIS/Section 4(f) Evaluation* (CDOT, 2011a) and the October 2011 *Revised Section 4(f) Evaluation* (CDOT, 2011b), which have been incorporated by reference into this ROD3, and information contained in this ROD3, the FHWA concludes that selecting the ROD3 Selected Alternative described in this document, for the North I-25 Project, is in the best overall public interest, uses all practicable means to restore and enhance the quality of the human environment, and avoids or minimizes any possible adverse effects.



John M. Cater, P.E.
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Colorado Division
Federal Highway Administration

JUNE 8, 2016

Date

13.0 REFERENCES

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