

EXECUTIVE SUMMARY

Why is an Environmental Assessment being conducted?

The City of Wheat Ridge has identified the area southwest of the Interstate 70 / State Highway 58 (I-70/SH 58) interchange as an urban growth area with potential office, commercial, and retail land use to begin development in the next several years (City of Wheat Ridge 2005). Land use in the area southwest of the I-70/SH 58 interchange is changing from previous aggregate mining to retail and commercial use, as identified in the *City of Wheat Ridge Comprehensive Plan* (City of Wheat Ridge 1999, as amended in 2005). The proposed change in land use, in conjunction with regional growth, will affect traffic operations at this interchange and on the local arterial streets in the vicinity of the interchange.

To address the issue of traffic congestion due to regional growth and the proposed development, improvements to the following transportation facilities are being considered by Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) as part of this I-70/32nd Avenue Interchange Environmental Assessment (EA):

- ▶ I-70/32nd Avenue interchange
- ▶ SH 58 from McIntyre Street to I-70
- ▶ Adjacent portions of 32nd Avenue between Alkire Street and Xenon Street, Youngfield Street between 27th Avenue and 35th Avenue, the Youngfield Street/27th Avenue intersection, and a proposed Cabela Drive from 32nd Avenue to approximately 40th Avenue and from just north of Clear Creek to 44th Avenue.

As part of this EA, compliance with Section 4(f) of the 1966 US Department of Transportation Act, as amended, is being pursued. Public comment on the effects of this action on the Clear Creek Trail and Chester Portsmouth Park are being solicited (see **Chapter 5 Section 4(f) De Minimis Impact Documentation**).

Where is the I-70/32nd Avenue interchange project located?

The I-70/32nd Avenue interchange project is located in the western part of the Denver metropolitan area, as shown on **Figure ES-1**. The study area falls partially within the cities of Wheat Ridge and Lakewood, and partially within unincorporated Jefferson County. The City of Arvada is located north of the study area, and the City of Golden is located west of the study area. The study area is shown on **Figure ES-2**.

What is the history of the I-70/32nd Avenue interchange project?

In the mid-1990s, the City of Wheat Ridge identified an urban growth area west of the city limits that encompassed the study area. The identified urban growth area was generally bounded by West 52nd Avenue to the north, West 32nd Avenue to the south, McIntyre Street to the west, and I-70 to the east (City of Wheat Ridge 2005). In 2005, the City of Wheat Ridge refined their urban growth area by moving the northern boundary from West 52nd Avenue down to 44th Avenue and identifying potential future land use (City of Wheat Ridge 2005). Wheat Ridge annexed two large tracts of land within the study area on the west side of I-70, which are slated

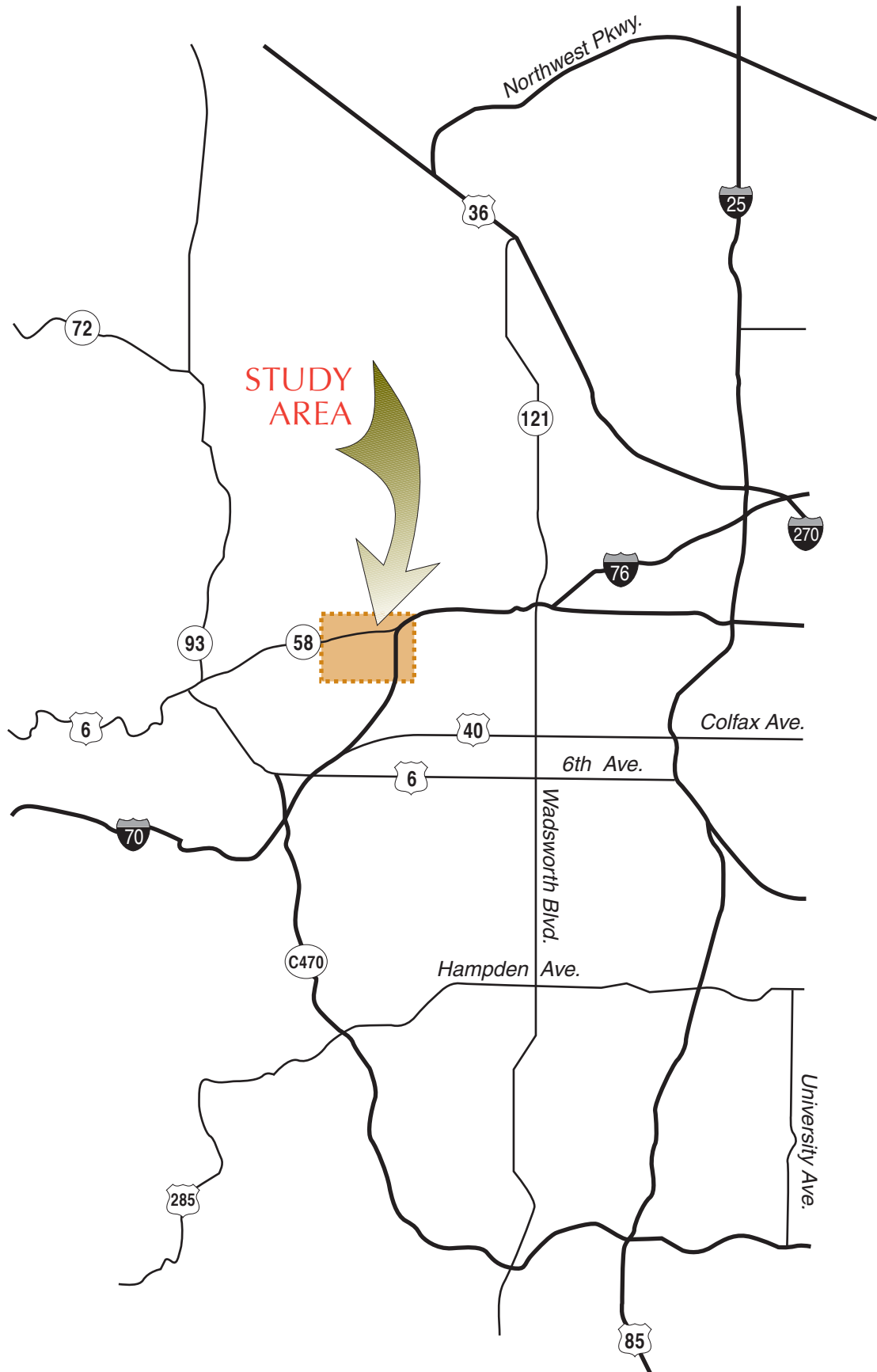


Figure ES-1
Project Location



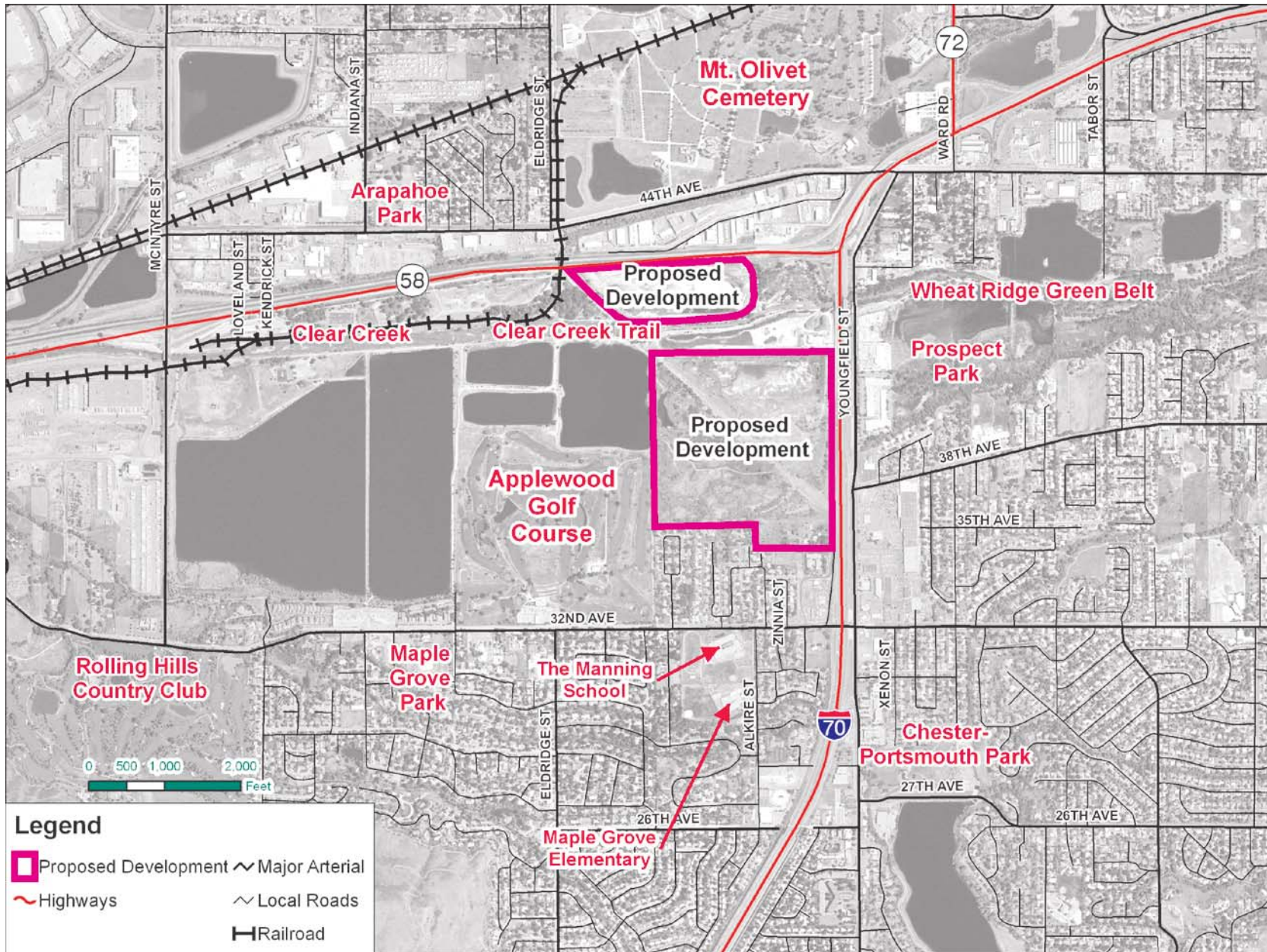


Figure ES-2
Study Area



for development (see **Figure ES-2**). The proposed development area includes approximately 800,000 square feet of commercial and retail use, including the construction of a 225,000 square foot Cabela's store (which has subsequently been reduced to 185,000 square foot store) and an additional 575,000 square feet of retail and commercial development.

All properties within the City of Wheat Ridge are zoned. Zoning regulates what land uses are allowed and establishes rules for how property can be developed. In 1969 when the City of Wheat Ridge was incorporated, the zoning from Jefferson County was adopted for all properties that became a part of Wheat Ridge. The current zoning ordinance became law in the City of Wheat Ridge on February 26, 2001 (City of Wheat Ridge 2001). The zone change process is a City of Wheat Ridge process per Municipal Code Chapter 26 Zoning and Development (City of Wheat Ridge 2001). Approval of the proposed development southwest of the I-70/SH 58 interchange is a separate process from the Categorical Exclusion and EA processes. All proposed commercial, industrial, and residential applications for property exceeding one acre in size must follow the zone change process, in accordance with the City of Wheat Ridge zoning ordinance (City of Wheat Ridge 2001).

On August 14, 2006, the City of Wheat Ridge City Council approved the revised Outline Development Plan (ODP) for the 178-acre proposed development area southwest of the I-70/SH 58 interchange and approved the Final Development Plan (FDP) for the 36-acre Cabela's parcel (City of Wheat Ridge Council 2006). FDPs will be required for the remaining 142 acres of the proposed development area. As part of the approval process, a condition of approval was added to ensure that the I-70 westbound hook ramps, 40th Avenue underpass of I-70, widening of 32nd Avenue, Cabela Drive, and the SH 58/Cabela Drive interchange are constructed prior to issuance of a certificate of occupancy (City of Wheat Ridge Council 2006).

In 2005, the City of Wheat Ridge, in association with CDOT, conducted a System Level Feasibility Study (FHU 2005) for the I-70/32nd Avenue and I-70/Ward Road interchanges, in accordance with CDOT Policy Directive 1601, to address traffic impacts associated with this proposed development, existing system deficiencies, and regional traffic growth. The System Level Feasibility Study evaluated numerous alternatives for improvements to the transportation network. The System Level Feasibility Study was approved by the Colorado Transportation Commission in September 2005.

Other transportation improvements are currently planned or under consideration for the vicinity as separate actions. These include:

- ▶ Improvements to the I-70/SH 58 interchange described in an EA conducted by CDOT (CDOT 2002a) and FONSI (FHWA 2004).
- ▶ Local street improvements being planned by the City of Wheat Ridge, including:
 - Widening of Youngfield Street (from two-lanes to four-lanes) between 38th Avenue and 44th Avenue, which includes restriping along 44th Avenue between Youngfield Street and Ward Road to accommodate a turn lane
 - Construction of a new I-70 underpass at approximately 40th Avenue
 - Construction of a new roadway, Cabela Drive, from 40th Avenue to the proposed development just north of Clear Creek

- ▶ Regional improvements currently being considered in the Northwest Corridor EIS, which was in progress during preparation of this EA. The I-70/32nd Avenue Interchange is located in the southern portion of the larger Northwest Corridor EIS study area
- ▶ Improvements by Jefferson County to McIntyre Street and the McIntyre Street/44th Avenue intersection.

What is the purpose of the Proposed Action?

The purpose of the proposed action is to relieve traffic congestion at the I-70/32nd Avenue interchange and to address future transportation demands on the interchange and local street network due to regional growth and expanding local retail/commercial development.

Why are the Proposed Action improvements needed?

The I-70/32nd Avenue interchange was constructed in 1968 as part of the I-70 interstate system. The current configuration is characterized by a sharp hook ramp, an isolated slip ramp, and several very closely spaced signalized intersections along 32nd Avenue in the vicinity of I-70. The current hook ramps do not have adequate storage lengths to enter and exit I-70. In addition, there is inadequate vehicle storage capacity on the ramps, all of which cause back-ups on I-70 and the local street network.

Intersection and roadway operational characteristics are typically described with a level of service (LOS) measure with values ranging from A to F. LOS A represents the best possible operational conditions, while LOS F is characterized by severe congestion and extremely poor traffic operations (i.e. gridlock). In urbanized areas, LOS D is generally considered to be acceptable for peak hour operations during the morning (AM) and afternoon (PM), which coincide with the morning and evening commute. Existing I-70 mainline and ramp operations are marginally acceptable; however, the eastbound off-ramp intersection with Youngfield Street operates at LOS F (or failing) during the afternoon peak hour.

Operations forecasts with 2030 traffic from projected regional growth only (without traffic from the proposed development) show continued degradation to an unacceptable level of congestion during afternoon peak hours for both the I-70/32nd Avenue interchange ramp intersections and at the Youngfield Street and 32nd Avenue intersection. These projected 2030 traffic volumes show that the I-70/32nd Avenue interchange area will operate at LOS F, resulting in gridlock on the local street network during the afternoon peak hour (FHU 2005, FHU 2006a).

The proposed development, combined with projected regional growth, will place additional traffic demands on the I-70/32nd Avenue interchange that will further degrade operations. Operational forecasts with projected 2030 traffic volumes including the proposed development show that the interchange and local street network would degrade to LOS F, resulting in gridlock during both the morning and afternoon peak hours (FHU 2005, FHU 2006a).

What are the objectives for the Improvements?

The following design and operational objectives have been established for use in evaluating alternatives for improvement of the I-70/32nd Avenue interchange:

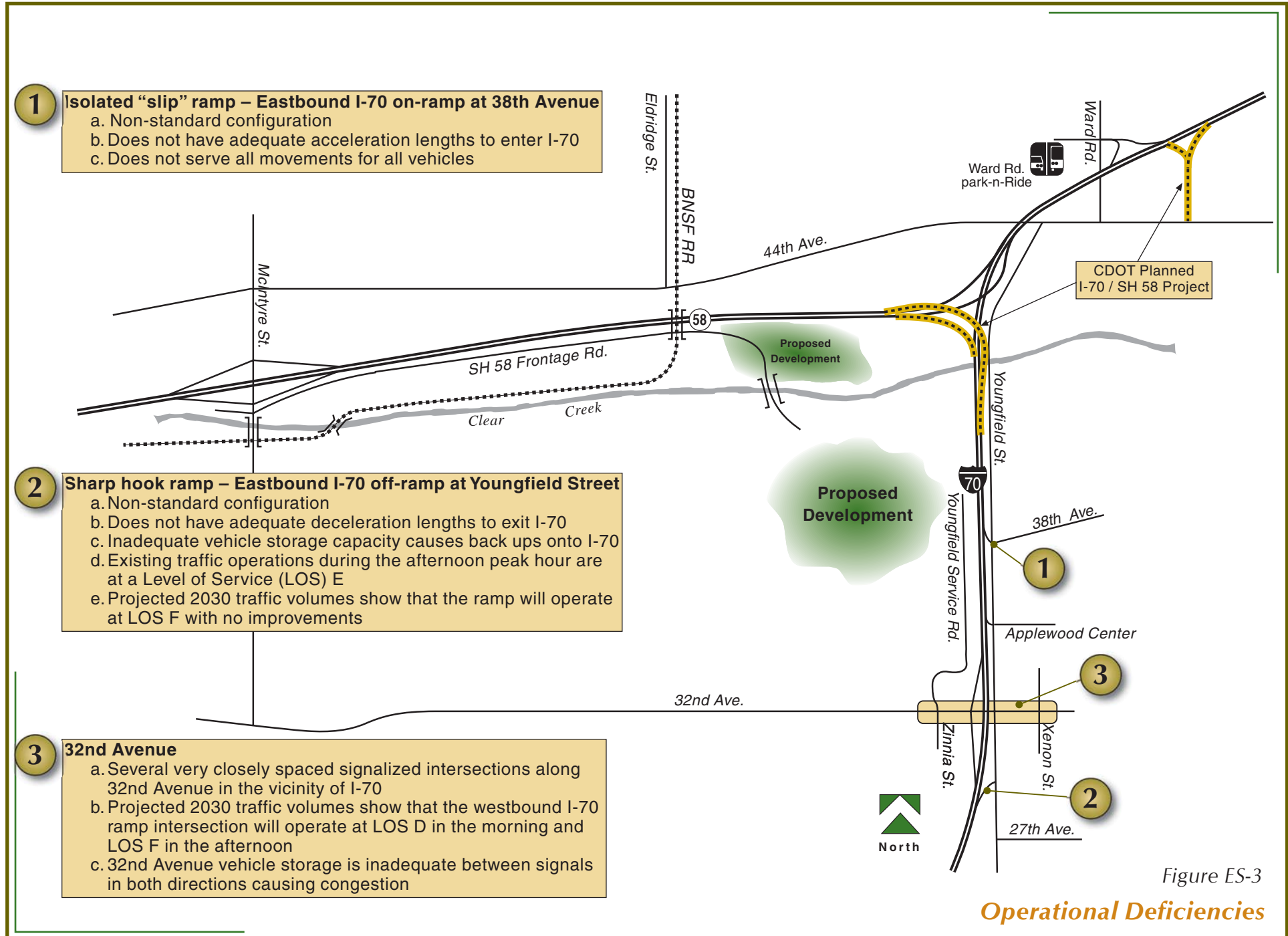
- ▶ Provide adequate acceleration and deceleration lengths along I-70 for the I-70/32nd Avenue interchange eastbound on- and off-ramps to improve traffic weave distance for vehicles entering and exiting I-70
- ▶ Improve vehicle storage for the I-70/32nd Avenue interchange eastbound off-ramp to reduce back-ups onto I-70
- ▶ Reconfigure the I-70/32nd Avenue interchange eastbound on- and off-ramps to reduce driver confusion and meet driver expectancy
- ▶ Reduce future congestion within the I-70/32nd Avenue interchange and at the intersection of Youngfield Street and 32nd Avenue (the primary congested intersection near the interchange)
- ▶ Improve vehicle storage capacity along 32nd Avenue to reduce back-ups through the Xenon, Youngfield, west ramps, and Zinnia Street intersections, which is caused by close proximity of these signalized intersections to each other (see **Figure ES-3**)
- ▶ Provide additional transportation system improvements as necessary to address anticipated regional growth and the proposed development

The goal of these design and operational objectives is to allow the system to operate at a level considered acceptable for major arterial intersections in the Denver metropolitan area. In traffic engineering terms, this equates to a goal of LOS D or better during peak hours given the year 2030 traffic projections with regional growth and planned development. **Figure ES-3** depicts the current operational deficiencies.

How was the Proposed Action identified?

The I-70/32nd Avenue Interchange improvement process began with the development of a broad range of alternatives. The *I-70/32nd Avenue Interchange System Level Feasibility Study* (FHU 2005) examined 21 alternatives and nine sub-alternatives and advanced three alternative packages for further study in the EA. The EA considered those alternatives and further screened them to a Proposed Action.

A four-level screening process was employed to identify the Proposed Action. The initial, second-level, and third-level screenings were conducted during the System Level Feasibility Study. The initial screening was primarily a fatal flaw analysis. The second-level screening focused on the most congested period (2030 evening peak hour) traffic operations using LOS measures for freeway operations and study area intersections. The third-level screening evaluated the remaining alternatives relative to design, traffic, and environmental consequences and incorporated additional public input from the open houses and community presentations in considering specific improvement components.



A fourth-level screening analysis was conducted as part of the EA process to evaluate the remaining alternatives and sub-alternatives. These alternatives were “repackaged” to include beneficial and/or preferred features from those alternatives that did not survive the first three screenings. The intent of the screening was to identify, if possible, a Proposed Action to be evaluated with the No-Action Alternative in the EA. A screening matrix was developed to assist in analyzing and comparing the alternatives.

A range of measures was considered during the screening which included traffic operations, engineering design considerations, environmental consequences, public acceptance, and opinion of probable cost.

The fourth-level screening results indicated that one alternative that included a single point urban interchange at I-70/32nd Avenue (Alternative 1), would be substantially more costly (residence and business relocations, right-of-way acquisition, and construction cost), would create far greater impacts on the surrounding community than the other two that did not include this interchange at I-70/32nd Avenue. This alternative did not receive wide public support either.

Of the two remaining alternatives (Alternatives 2 and 3), one of them (Alternative 2) offered additional benefits:

- ▶ Better emergency vehicle access across SH 58
- ▶ Better maintenance of community access and cohesion

Screening revealed very little other difference between the two alternatives, other than greater public acceptance for one of them. Public comments provided at the various forums displayed a clear public preference for a new interchange onto SH 58 as part of the study area’s transportation system, although there was concern relative to the extension of Cabela Drive north to connect with 44th Avenue. Public comments showed support for the new SH 58/Cabela Drive interchange as a means for drawing regional traffic to that entrance of the proposed development instead of the local street network bearing the burden of the proposed development’s traffic. With only minor differentiation between the two alternatives, public acceptance became a key measure that suggested that the Proposed Action should include a SH 58/Cabela Drive interchange, as included in Alternative Package 2.

Alternative Package 2 was selected as the Proposed Action to be presented in detail with the No-Action Alternative in this EA.

What is the Proposed Action?

The Proposed Action consists of the following elements:

- ▶ **New I-70/32nd Avenue Interchange Hook Ramps**
 - Construction of off-set hook ramps at the I-70/32nd Avenue interchange with the westbound hook ramps located north of 32nd Avenue at approximately 35th Avenue and the eastbound hook ramps located at Youngfield Street and 27th Avenue
 - Construction of a third bridge over 32nd Avenue for the I-70 westbound ramp traffic

- Closure of the existing westbound I-70 off-ramp that exits to 32nd Avenue. The existing westbound I-70 on-ramp would remain open but access would be limited to eastbound 32nd Avenue traffic only
- Partial reconstruction and restriping of Youngfield Street between 27th Avenue and approximately 30th Avenue to achieve a 5 lane roadway section
- ▶ **32nd Avenue Improvements**
 - Widening of 32nd Avenue between approximately Alkire Street and approximately Xenon Street and the widening of Youngfield Street between approximately 35th Avenue and 30th Avenue in the vicinity of the I-70/32nd Avenue interchange
 - Connection of Cabela Drive with 32nd Avenue west of I-70 (40th Avenue to 32nd Avenue)
- ▶ **New SH 58/Cabela Drive Interchange**
 - Construction of a new diamond interchange on SH 58 west of Eldridge Street and connection of Cabela Drive to this interchange
 - Connection of Cabela Drive with 44th Avenue north of the new interchange on SH 58
- ▶ **I-70/Ward Road Interchange**
 - Restriping of the Ward Road and westbound I-70 on-ramp intersection to add an additional southbound left turn lane onto the ramp and widen the ramp to receive this lane
 - Addition of a second right-turn lane for the eastbound I-70/Ward Road off-ramp
- ▶ **Bicycle/Pedestrian Improvements**
 - Relocation of the Jefferson County Clear Creek trail in the vicinity of the new SH 58/Cabela Drive interchange
 - Replacement of the 32nd Avenue trail detached sidewalk along the south side of 32nd Avenue from Alkire Street to Cabela Drive with an attached sidewalk
 - Improvements to pedestrian and school safety along 32nd Avenue
 - Construction of an Americans with Disabilities Act (ADA)-compliant pedestrian bridge at 27th Avenue to replace the existing pedestrian bridge at 26th Avenue as part of the eastbound I-70 hook ramps
 - Provisions for Clear Creek Trail access through the development site from 32nd Avenue
 - Wider sidewalks under I-70 on the south side of 32nd Avenue to better accommodate bicycles and pedestrians

Figure ES-4 depicts the Proposed Action.

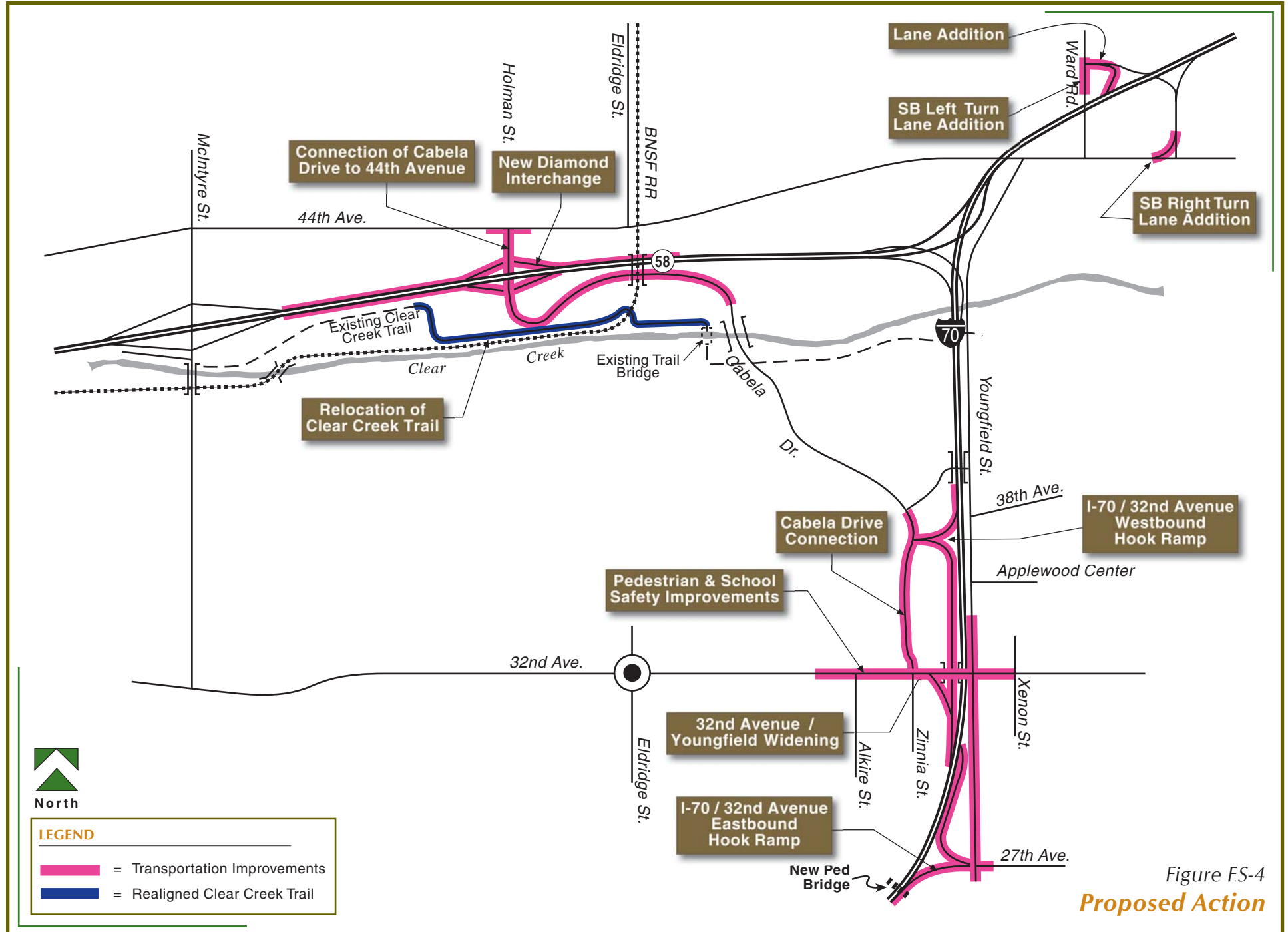


Figure ES-4
Proposed Action

Why were hook ramps identified for the I-70/32nd Avenue interchange?

Hook ramps were identified as part of the Proposed Action because of the location of I-70 and the proximity of Youngfield Street. Hook ramps are used to connect the highway with a local street when the two roadways are generally parallel to each other, such as I-70 and Youngfield Street. The hook ramps were designed to achieve a least a 30 mile per hour (mph) design speed with appropriate acceleration and deceleration lengths for motorists entering and exiting I-70.

The eastbound I-70 on and off-ramps were paired to be consistent with a driver's expectation to return to where they got off the highway to get back on. For example, a motorist getting off eastbound I-70 could get back on eastbound I-70 at the same location.

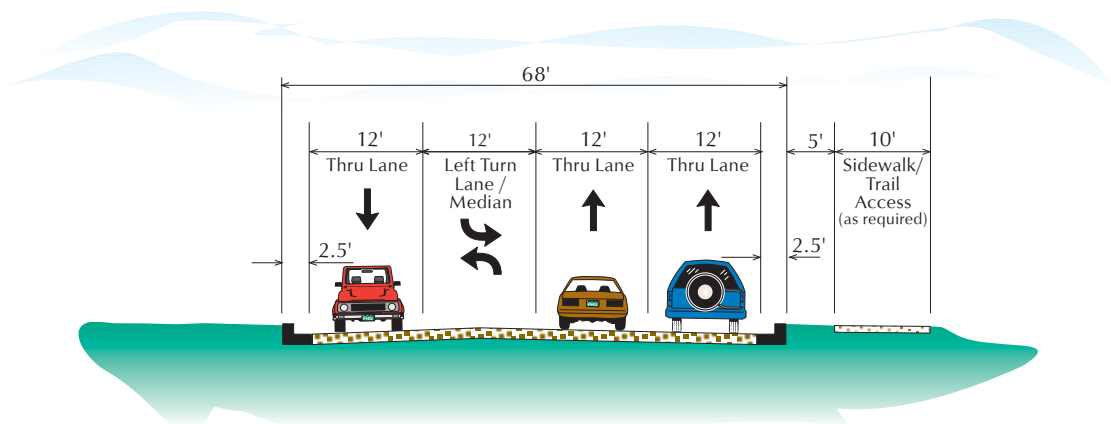
During refinement of the Proposed Action, a series of alternate locations for the eastbound I-70 hook ramps were assessed. The alternate locations were evaluated based on the operational and geometric requirement of a CDOT-required desirable ramp design speed of 35 mph with a minimum acceptable design speed of 30 mph. The alternate locations included the 27th Avenue alignment and two alignments north of 27th Avenue. The other two alignments north of 27th Avenue were eliminated because of the introduction of a second signal on Youngfield Street for each alignment and because one alignment required a major acquisition involving the multi-story office building at 2801 Youngfield Street while the other alignment required a major widening of the eastbound I-70 bridge over 32nd Avenue to provide for an adequate acceleration distance.

Why does Cabela Drive extend to 32nd Avenue?

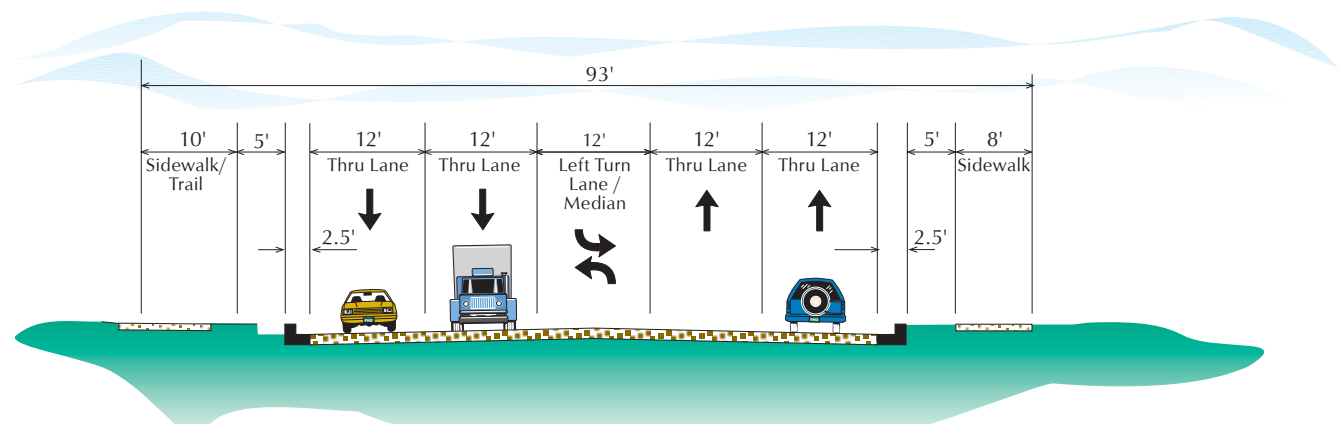
Cabela Drive would extend to 32nd Avenue to provide access to the westbound I-70/32nd Avenue on and off-ramps and for additional access to the proposed development. Cabela Drive's extension to 32nd Avenue is necessary for three primary reasons:

- ▶ **To provide access to/from the new westbound I-70 hook ramps** - A fair amount of traffic uses the existing westbound off- and on-ramps that currently connect to 32nd Avenue directly. With the Proposed Action these ramps would move north of 32nd Avenue.
- ▶ **For emergency vehicle access and mobility** – Cabela Drive would provide an alternate route for emergency vehicles to access the area between 44th and 32nd Avenue, thereby offering greater flexibility and potentially better response time.
- ▶ **For access to the new development** – The westbound hook ramps coupled with a new interchange at SH 58 would provide the vast majority of access to the new development. The 32nd Avenue connection does offer an additional access for those using 32nd Avenue.

Typical sections for Cabela Drive are included in **Figure ES-5**.



4 Lane Section
SH 58 to Clear Creek
 (Traveling South / East from SH 58)



5 Lane Section
32nd Avenue to Clear Creek
 (Looking North)

Figure ES-5
Proposed Cabela Drive Typical Sections

What provisions have been made for school zone safety along 32nd Avenue?

The project team met with The Manning School and Maple Grove Elementary school representatives on November 28, 2005, to discuss school safety issues along 32nd Avenue. Based on this meeting and feedback from the community at the open houses, a series of school zone safety improvements along 32nd Avenue have been included in the Proposed Action. The school zone safety improvements include contiguous sidewalks along 32nd Avenue in the vicinity of the schools, upgraded school safety zone signing, and a pedestrian actuated traffic signal at 32nd Avenue/Alkire Street for children crossing 32nd Avenue. **Figure ES-6** shows these improvements. Minor adjustments to the plan may be made during final design based on input from Jefferson County and others.

How will motorists traveling along I-70 access the proposed development?

To help motorists find their way within the interchange complex, supplemental guide signing is proposed along I-70. These signs would make it clear that the new SH 58/Cabela Drive interchange is the appropriate route for accessing the proposed development southwest of the I-70/SH 58 interchange. This supplemental guide signing concept is consistent with similar applications where two major freeways diverge and advance clarification is required to help motorists find the appropriate route. This would be accomplished through advance signing along both westbound and eastbound I-70 (see **Figure ES-7**).

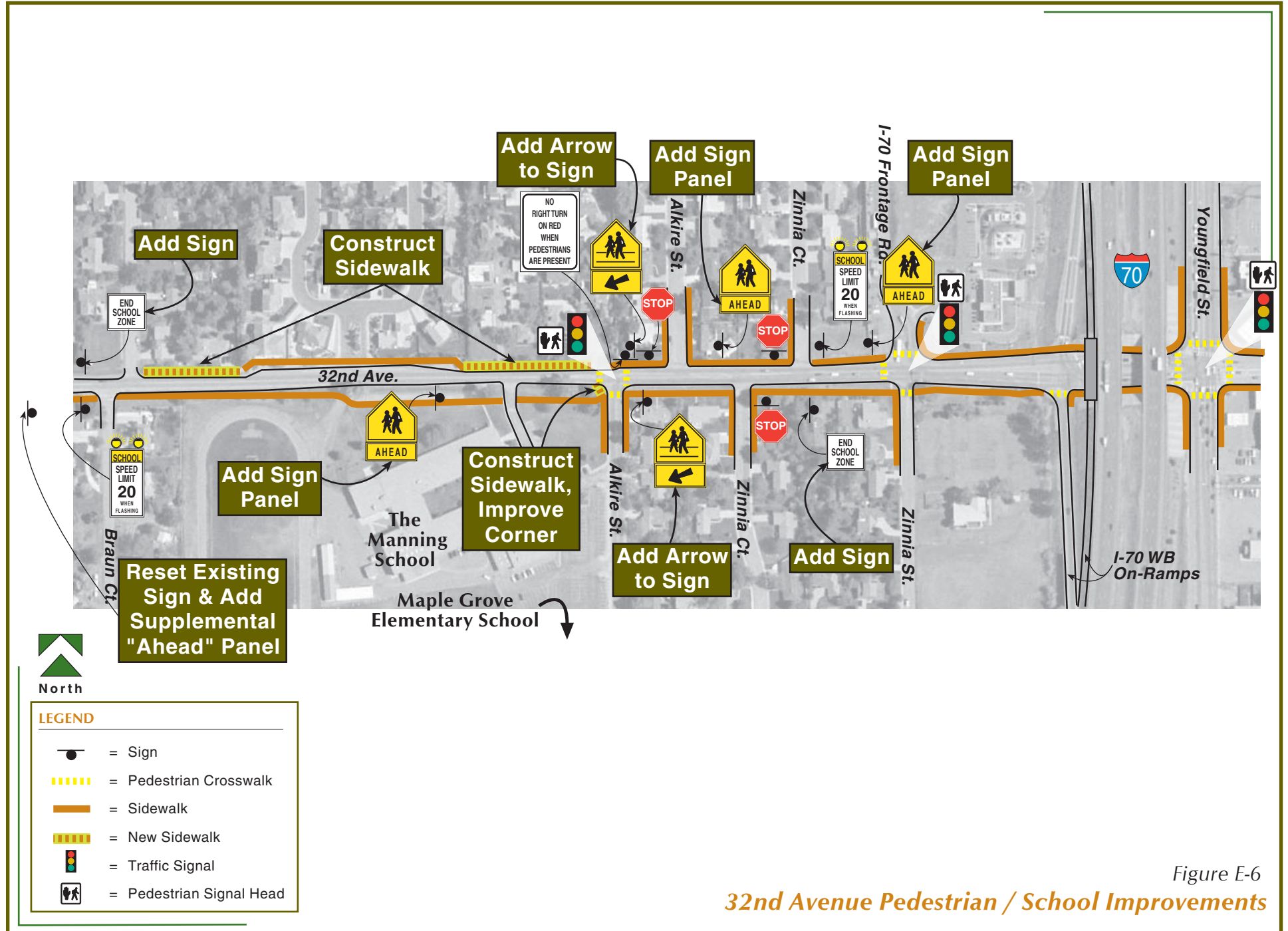


Figure E-6

32nd Avenue Pedestrian / School Improvements

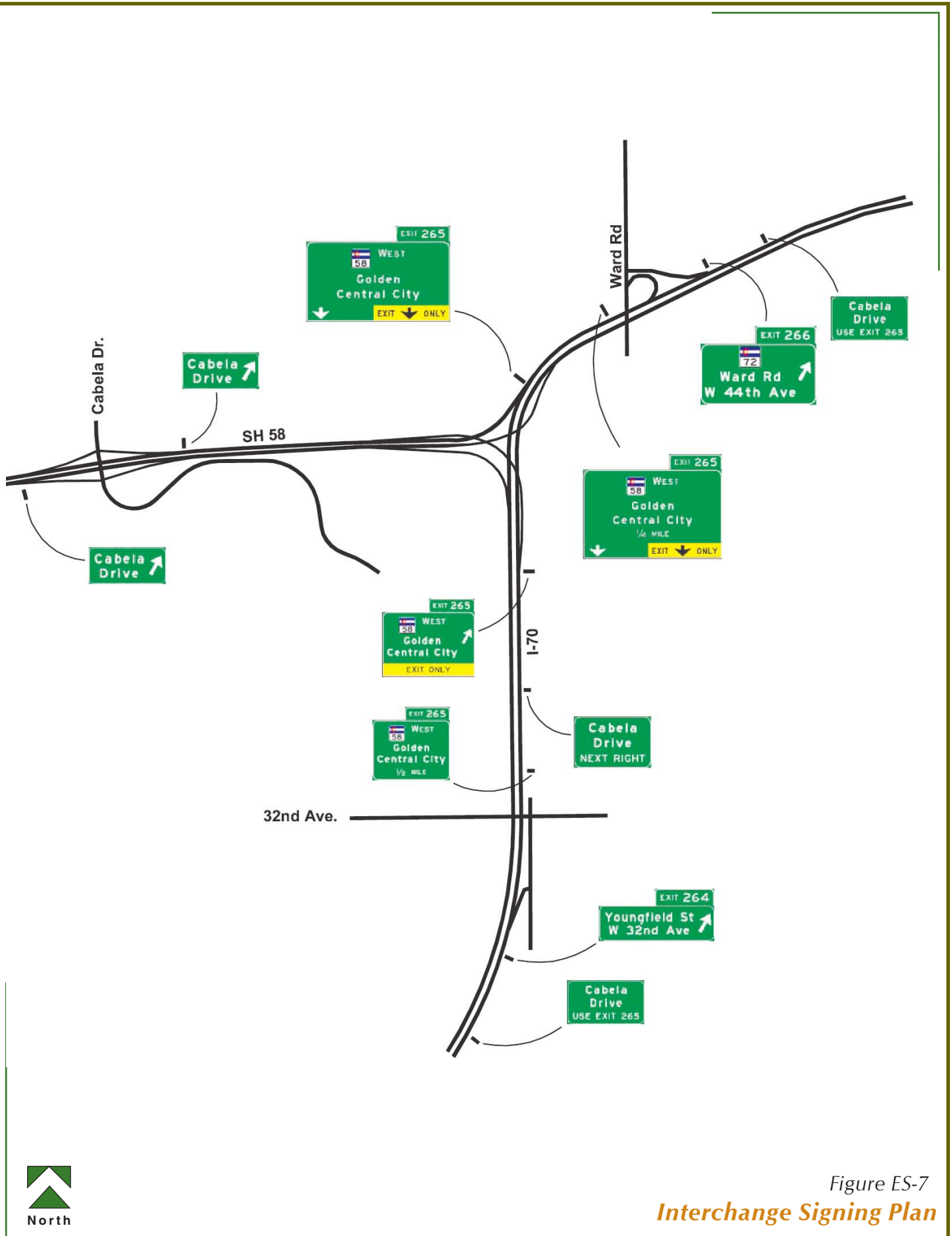


Figure ES-7
Interchange Signing Plan

How will the Proposed Action affect traffic on 27th Avenue?

East of Youngfield Street, 27th Avenue is classified by the City of Lakewood as a major collector. Based on city standards, a major collector can accommodate up to 7,000 vehicles per day. Increases in traffic volumes along 27th Avenue for the Year 2030 for both the Proposed Action and the No-Action Alternative were calculated as part of the EA process. The estimated Year 2030 traffic volumes are those to which the project is designed.

Under the No-Action Alternative, which does not include improvements to the I-70/32nd Avenue interchange, approximately 4,300 vehicles per day were estimated to use 27th Avenue. The traffic volume on 27th Avenue is projected to be 5,400 vehicles per day for the Proposed Action, which includes alignment of the eastbound I-70 hook ramps at 27th Avenue. The hook ramps would increase traffic along 27th Avenue by approximately 20 percent (900 vehicles per day) compared to the No-Action Alternative. This increased traffic volume on 27th Avenue within the limit of City of Lakewood's standard for a major collector as noted above.

Traffic mitigation measures were considered to restrict or limit traffic from directly crossing Youngfield Street from the I-70 off-ramp onto 27th Avenue. The City of Lakewood, who maintains 27th Avenue, does not support such restrictions.

The project team contacted the Consolidated Mutual Water Company, which owns the Maple Grove Reservoir dam, with regard to expanded concern of possible dam safety. The increased traffic volumes will not present safety concerns or damage to the dam embankment. Heavy truck traffic (greater than 7,000 pounds) is currently restricted from using 27th over the dam. This appears to be less due to structural limitations of the dam as it is a desire to keep these vehicles from traveling through residential areas to the east. The Consolidated Mutual Water Company assured project team members that the dam is stable and able to carry the additional traffic.

What are the environmental consequences of the No-Action Alternative and the Proposed Action?

Table ES-1 summarizes the direct and indirect impacts for the No-Action Alternative and the Proposed Action.

Table ES-1 Summary of Direct and Indirect Impacts

No-Action Alternative	Proposed Action
Land Use, Socio-Economics, and Community	
<p>Proposed development with potential office, commercial, and retail land use in the southwest quadrant of the I-70/SH 58 interchange would continue</p> <p>Land use in this area would continue to change from an aggregate mine to retail and commercial use</p> <p>Transportation system not able to function at an operational level of acceptability with proposed development and economic development objectives</p> <p>The substandard, non-ADA compliant pedestrian crossing over I-70 at 26th Avenue would remain</p> <p>Emergency access across SH 58 would be limited to McIntyre Street</p>	<p>Change of use of a limited area from industrial, commercial, and residential land use to highway or transportation right-of-way</p> <p>Proposed development in the southwest quadrant of the I-70/SH 58 interchange would continue and change the area from an aggregate mine to retail and commercial use</p> <p>Improve accessibility to proposed development retail and commercial facilities currently located on Youngfield Street and those proposed west of I-70, such as Cabela's</p> <p>Improve accessibility, safety, and access across SH 58 to the proposed development and also to the Jefferson County Open Space Clear Creek Trail</p> <p>Replace the pedestrian crossing over I-70 at 26th Avenue with an ADA-compliant structure</p> <p>Construction costs associated with the improvements would have beneficial short-term impacts on the local economy</p> <p>Construction workers for the improvements are expected to be drawn from the existing local workforce or outside contractors, resulting in a positive impact</p> <p>No identified direct adverse impacts to low-income or minority populations</p>
Right-of-Way and Displacements	
<p>No right-of-way impacts</p> <p>No business or residential displacements</p>	<p>Requires acquisition of approximately 597,867 ft² (approximately 13.7 acre) of right-of-way</p> <p>Displacement of 2 residences and 7 businesses</p>
Parks and Recreation	
<p>No impacts to parks or recreational resources</p>	<p>Approximately 0.004 acre of the Chester Portsmouth Park would be impacted. Approximately 2,400 ft of the Jefferson County Open Space Clear Creek Trail and approximately 1,100 ft of the 32nd Avenue Trail would be relocated</p>
Air Quality	
<p>Deterioration of air quality due to increased traffic congestion</p>	<p>Improved air quality due to improved traffic flow</p> <p>Temporary increase in air emissions during construction</p>

Table ES-1 Summary of Direct and Indirect Impacts (Continued)

No-Action Alternative	Proposed Action
Noise	
51 residences, 2 churches, Clear Creek Trail, and 18 businesses would exceed noise abatement criteria	50 residences, 2 churches, Clear Creek Trail, and 18 businesses would exceed noise abatement criteria
Historic and Archaeological Resources	
No impacts to historic or archeological sites	Widening of Youngfield Street south of the 32 nd Avenue intersection would require approximately 0.06 acre of right-of-way from the NRHP-eligible Maple Grove Grange property No impacts anticipated to archeological sites, but unknown, buried sites could be encountered
Paleontology	
No impacts to paleontological resources	Scientifically important paleontological resources could be encountered during construction excavation
Soils and Geology	
No impacts to soils and geology	Expansive soils and unsuitable fill may be encountered
Farmlands	
No impacts to farmland	No impacts to farmlands
Water Resources, Floodplains, and Water Quality	
No short-term sediment impacts No change in drainage area Continued discharge of stormwater directly to Clear Creek without benefit of water quality ponds or best management practices	Short-term increase in erosion and sedimentation from construction activities Increase of approximately 20.54 acres of impervious drainage area Improved quality of stormwater discharge due to construction of water quality ponds and best management practices
Vegetation and Wildlife	
No impacts to vegetation Continued potential for animal vehicle collisions on SH 58	Removal of vegetation during construction Short-term disturbance of wildlife and aquatic habitat during construction Permanent impacts to marginal upland habitat near new SH 58/Cabela Drive interchange
Noxious Weeds	
No noxious weeds impacts	Potential spread of noxious weeds into areas disturbed by construction
Special Status Species	
No impacts to special status species	No impacts to federally threatened or endangered animal or plant species would occur
Wetlands	
No impacts to existing wetlands	Approximately 1.29 acre of non-jurisdictional wetlands impacted, and approximately 0.001 acre of jurisdictional wetlands impacted

Table ES-1 Summary of Direct and Indirect Impacts (Continued)

No-Action Alternative	Proposed Action
Hazardous Waste	
No hazardous waste impacts	<p>Three sites with recognized or potential environmental conditions would be acquired as full right-of-way acquisitions. Six sites with recognized or potential environmental conditions would be acquired as partial right-of-way acquisitions</p> <p>Contaminated soil and/or groundwater from existing sources could be encountered during construction</p> <p>Asbestos and/or lead-based paint could be encountered during demolition of structures</p>
Visual	
No visual impacts	<p>Construction of the ADA-compliant pedestrian structure at 27th Avenue would provide positive visual benefit to the surrounding neighborhoods</p> <p>A signalized intersection at Cabela Drive and 44th Avenue would reduce the quality of the view of South Table Mountain for the residences along Hollman Street</p>
Construction	
No short-term construction-related impacts	<p>Short-term and intermittent fugitive dust emissions during construction</p> <p>Short-term and intermittent construction noise</p> <p>Short-term increase in sediment from construction</p> <p>Short-term traffic delays</p> <p>Short-term visual impacts</p> <p>Short-term utility impacts</p>
Utilities	
No impacts to utilities	Relocation of utilities prior to construction

What measures have been identified to mitigate the environmental impacts of the Proposed Action?

Table ES-2 summarizes the mitigation measures for the Proposed Action.

Table ES-2 Summary of Mitigation Measures

Resource	Mitigation Measures
Land Use, Socio-Economics, and Community	<ul style="list-style-type: none"> ▶ Access to the Clear Creek trail across SH 58 from 44th Avenue via the new SH 58/Cabela Drive interchange ▶ Replacement of the bike route access to the Clear Creek trail along the Youngfield Service Road with a 10 ft multi-use sidewalk along Cabela Drive and along 40th Avenue ▶ School safety improvements along 32nd Avenue in the vicinity of The Manning School and Maple Grove Elementary ▶ Replacement of the 26th Avenue pedestrian bridge (ADA-compliant) ▶ Sidewalk improvements along 32nd Avenue and Youngfield Street in the vicinity of the I-70/32nd Avenue interchange ▶ Construct a new sidewalk along the north side of 32nd Avenue from Braun Court to Xenon street to improve pedestrian access to The Manning School and Maple Grove Elementary and to replace the sidewalk affected by reconstruction of 32nd Avenue ▶ Continue public involvement and coordination with local community during design and construction to ensure that final design is compatible with local community and disruption is minimized
Right-of-Way and Displacements	<ul style="list-style-type: none"> ▶ Conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 (as amended) and the Uniform Relocation Act Amendments of 1987 (as amended), each of which contains specific requirements that govern the manner in which a government entity acquires property for public use ▶ Prepare a relocation analysis and provide relocation advisory service
Parks and Recreation	<ul style="list-style-type: none"> ▶ Construct a continuous sidewalk from the Chester Portsmouth Park to the 27th Avenue/Youngfield intersection and north along Youngfield Street ▶ Realign the Jefferson County Open Space Clear Creek trail from the Clear Creek bridge to the west of the new SH 58/Cabela Drive interchange ▶ Modify the trail along the south side of 32nd Avenue from Alkire Street to Cabela Drive with an attached sidewalk with curb and gutter
Air Quality	<ul style="list-style-type: none"> ▶ Maintain construction equipment in good working order ▶ Implement a dust control plan ▶ Ensure no excessive idling of inactive or unnecessary equipment or vehicles ▶ Use higher-grade fuel in construction equipment ▶ Locate stationary equipment as far from sensitive receivers as possible
Noise	<ul style="list-style-type: none"> ▶ Rebuild the existing barrier along I-70 near 27th Avenue that must be removed for the proposed eastbound I-70 hook ramps ▶ Extend the existing noise wall along the Youngfield Service Road (Cabela Drive) another 140 feet to the north
Historic and Archaeological Resources	<ul style="list-style-type: none"> ▶ Instruct construction personnel to stop work and notify the CDOT Staff Archaeologist who will evaluate the discovery if any suspected archeological finds are encountered
Paleontology	<ul style="list-style-type: none"> ▶ Have the CDOT paleontologist examine project design plans as finalized to determine the extent of impact to the Denver Formation, and the scope, if any, of monitoring work required ▶ Instruct construction personnel to stop work and notify the CDOT Staff Paleontologist who will evaluate the discovery if any suspected fossils are encountered

Table ES-2 Summary of Mitigation Measures (Continued)

Resource	Mitigation Measures
Soils and Geology	<ul style="list-style-type: none"> ▶ Perform a detailed geotechnical analysis of the project area during the preliminary/final design process to determine the structural stability and load-bearing capacity of the geologic formation
Water Resources, Floodplains, and Water Quality	<ul style="list-style-type: none"> ▶ Replace any impact to an irrigation facility with an in-kind replacement ▶ Not allow stormwater to co-mingle with irrigation waters ▶ Notify irrigation companies of any potential impacts to their irrigation system ▶ Provide ditch companies the opportunity to review plans that call for impacts to their system ▶ Observe irrigation ditch operational requirements and schedules ▶ Use erosion control measures at irrigation ditch areas during construction and remove these measures once the site has stabilized ▶ Use construction best management practices to reduce temporary impacts ▶ Use best management practices to control stormwater runoff ▶ Convey stormwater through water quality ponds or use other best management practices to settle sediment and improve water quality flow to Clear Creek ▶ Obtain and comply with required permits for temporary dewatering ▶ Install adequate riprap at ends of the stormwater outfalls to reduce erosion potential ▶ Use temporary sedimentation ponds or filtering apparatus to remove sediment from groundwater prior to discharge during dewatering ▶ Construct and use concrete washout basins to protect Clear Creek during construction
Vegetation and Wildlife	<ul style="list-style-type: none"> ▶ Revegetate construction areas in accordance with CDOT revegetation practices ▶ Seed during appropriate seeding seasonal windows ▶ Temporarily protect slopes from erosion with straw crimping, erosion blankets or with mulch and mulch tackifier, if seeding is conducted out of season ▶ Coordinate SB 40 mitigation with CDOW, which will include an appropriate tree replacement ratio and implementation of BMPs ▶ Replace trees in other areas in accordance with CDOT Region 6 and Jefferson County tree replacement policies ▶ Protect trees and shrubs in construction areas that are to remain with temporary orange mesh fencing ▶ Investigate alternative fencing and landscaping plans to deter north-south wildlife movement and minimize animal/vehicle collisions with increased traffic along SH 58 in the vicinity of the new SH 58/Cabela Drive interchange ▶ Avoid vegetation palatable to wildlife in the revegetation of roadway medians and rights-of-way
Noxious Weeds	<ul style="list-style-type: none"> ▶ Implement an integrated weed management plan to target noxious weed populations ▶ Clean all construction vehicles of all soil and plant parts before entering the construction site to avoid the spread of noxious weeds ▶ Limit disturbance to existing vegetation as much as practicable ▶ Treat weeds-infested areas targeted for disturbance with herbicide prior to ground disturbance or the topsoil be hauled off-site or used as roadway fill ▶ Salvage topsoil from the project area for reuse from areas free of noxious weeds or treat with pre- and post-emergent herbicide prior to disturbance. Areas free of weeds will be identified prior to beginning construction. ▶ Install temporary fences to limit construction traffic in an effort to reduce erosion and weed invasion ▶ Seed topsoil stockpiles with annual grasses, if topsoil remains stockpiled for more than one month ▶ Use only certified weed-free mulch. The mulch will be certified under the Colorado Department of Agriculture Weed Free Forage Certification Program and inspected, as regulated by the Weed Free Forage Act, Title 35, Article 27.5, C.R.S.

Table ES-2 Summary of Mitigation Measures (Continued)

Resource	Mitigation Measures
Special Status Species	<ul style="list-style-type: none"> ▶ Conduct a thorough survey of active nests in the project area between April 1 (February for raptors) and August 15, prior to initiation of construction activities ▶ Do not allow construction to begin near active nest areas until all nestlings have fledged, if active nests are found to be present ▶ Prevent all protected birds from achieving an active nest, if construction occurs during the breeding season for migratory birds ▶ Conduct habitat disturbing activities, such as tree removal, grading, scraping, grubbing, etc., during the non-breeding season unless the area has been verified by a qualified biologist that no active nests are present
Wetlands	<ul style="list-style-type: none"> ▶ Mitigate wetlands on a 1:1 basis through the purchase of mitigation credits from a certified wetland bank in the Clear Creek basin ▶ Consult with CDOT Environmental during preliminary/final design to identify possible improvements to riparian habitat near Clear Creek ▶ Minimize culvert lengths and use riprap for stormwater outfalls to reduce permanent impacts ▶ Prevent erosion, using temporary soil stabilization measures and structures to prevent and/or slow run off across disturbed areas and/or divert runoff to sediment basins ▶ Use sediment controls measures, including straw bales, silt fences, sediment traps and/or sediment basins ▶ Use water quality treatment measures to capture and treat runoff and to prevent runoff from entering Clear Creek and associated wetlands ▶ Use designated areas for vehicle staging to minimize disturbance of wetlands and vegetated areas ▶ Revegetate disturbed areas as quickly as possible with native vegetation ▶ Install temporary fencing to prevent construction access to wetland areas ▶ Target dewatering activities to avoid wetland areas ▶ Keep cranes and other heavy equipment for bridge construction out of the river or stream bank area to the greatest extent possible ▶ Construct a crane pad if cranes or other equipment can not be kept out of the creek
Hazardous Materials	<ul style="list-style-type: none"> ▶ Conduct Initial Site Assessments (ISA) CDOT Form 881 for partial acquisitions or individual, site-specific Phase I environmental site assessments for full acquisitions ▶ Perform Preliminary Site Investigations (PSI) of properties to be acquired for right-of-way, if recommended by the ISA or Phase 1 ▶ Prepare a materials handling plan and a health and safety plan, as required by Section 250.03 of the <i>CDOT Standard Specifications for Road and Bridge Construction</i> ▶ Conduct an asbestos and miscellaneous hazardous materials survey of each property prior to demolition ▶ Abate asbestos and miscellaneous hazardous materials, as necessary ▶ Check properties for the presence of methamphetamine lab residues prior to acquisition ▶ Remove and appropriately recycle or dispose of all regulated materials including PCB-containing ballasts, fluorescent bulbs, mercury containing equipment, electronic equipment, containerized regulated liquids (e.g., paints, solvents, oil, grease, chemicals, pesticides, and herbicides), and CFC-containing equipment, prior to building or structure demolition activities
Visual	<ul style="list-style-type: none"> ▶ Incorporate landscaping and other design elements within right-of-way, where space is available to provide a visual transition between the adjacent area and the new signalized intersection at Cabela Drive, 44th Avenue, and Holman Street ▶ Provide for public involvement on aesthetic issues such as bridge design treatments at grade-separated intersections, and retaining walls

Table ES-2 Summary of Mitigation Measures (Continued)

Resource	Mitigation Measures
Construction	<p>Specify construction mitigation measures in final design, which will include the following to the extent practicable:</p> <ul style="list-style-type: none"> ▶ Engines and exhaust systems on equipment in good working order ▶ Equipment maintained on a regular basis, and equipment subject to inspection by the project manager to ensure maintenance ▶ Fugitive dust systematically controlled through diligent implementation of a dust control plan ▶ No excessive idling of inactive or unnecessary equipment or vehicles ▶ Construction equipment and vehicles use higher-grade fuel to reduce pollutant emissions ▶ Stationary equipment located as far from neighbors as possible ▶ Construction of noise walls (determined to be feasible and reasonable during design stages) early in the construction phase, where practicable ▶ Maintain access to local businesses, residences, and trails ▶ Coordinate detour routes to avoid overloading local streets ▶ Minimize construction duration in residential areas ▶ Avoid nighttime activities in residential areas, as much as possible ▶ Re-route truck traffic away from residential streets, where possible ▶ Implement BMPs required by the SWMP including keeping vehicles in good working order to minimize oil/fuel leaks on to the project site. ▶ Combine noisy operations to occur in the same period ▶ Conduct pile driving and other high-noise activities during daytime construction, when possible. Public notification of high-noise activities will be provided as part of public outreach. ▶ Develop traffic management plan to include: <ul style="list-style-type: none"> ● Maintain traffic flow during peak travel times by minimizing lane closures, if possible ● Coordinate with emergency service providers to minimize delays and ensure access to properties ● Use signage, television and radio announcements to inform and advertise timing of road closures ● During peak travel times, keep as many lanes as possible open by temporarily shifting lanes within the existing framework of the roadway ● Develop public outreach and public information plan ● Develop method of handling traffic ● Estimate work zone delays and mitigation strategies ▶ Public information and involvement prior to and during construction. This will include an informational meeting to be held prior to construction to discuss construction details and mitigations measures. During construction, updates will be provided, as needed. ▶ Coordinate Proposed Action construction with local agency construction and local site development activities
Utilities	<ul style="list-style-type: none"> ▶ Coordinate with utility providers during final design and construction to ensure appropriate relocation and avoid interruption of service ▶ Conduct locator services and potholing during preliminary and final design to provide more accurate information on underground utilities ▶ Develop designs to relocate the utility with the utility company or public utility department, if relocation is required ▶ Provide design of utility adjustments to the affected company or public utility department for review ▶ Coordinate proper detours and advance notice with service providers to allow delivery of uninterrupted utility service during construction ▶ Coordinate new facilities with relocation or reconstruction of facilities associated with the Proposed Action

How has the public been involved in the I-70/32nd Avenue interchange project?

An extensive public and agency involvement program has been conducted to provide updates on process, design, and analysis, and to receive input on the development and screening of alternatives. In accordance with CDOT Policy Directive 1601 – Interchange Approval Process (CDOT 2005a), the public and agency involvement programs for the System Level Feasibility Study and the EA process were integrated. The program included community presentations to local neighborhood groups, meetings with local, state, and federal agencies, and a series of open houses with the general public.

Key elements of the public and agency involvement program included:

- ▶ Four open houses were held with the general public at key points in the process to provide information on the alternatives development and screening process. Notification of the meetings was provided through a variety of methods, including invitation letters, a press release to local media outlets in Denver and Jefferson County, direct phone calls, project flyers, and paid advertisements in local media outlets. The August 17, 2005 Open House served as the public scoping meeting for the EA.
- ▶ A series of agency scoping meetings were held with local, state, and federal resource agencies, local municipalities, and CDOT Environmental Programs Branch. A project scoping meeting was held on July 26, 2005, and a supplemental project scoping meeting was held on August 11, 2005. A separate scoping meeting was held on August 29, 2005 with the CDOT Environmental Programs Branch, and a scoping and data gathering meeting with Jefferson County staff was held on September 15, 2005.
- ▶ Numerous community presentations and meetings with local neighborhood associations and business groups were held to address concerns and field questions on the project status.
- ▶ A telephone project hotline at (303) 376-8394 was established in March 2005 to provide individuals and groups with the opportunity to leave a message for the project team. All messages were recorded and responded to with a goal of two working days response time.
- ▶ A website was established on March 29, 2005 to provide public access to information on the project, including questions and answers, alternatives development, screening, refinement, and changes made based on public comment. The website address is www.cabwheatridge.com.
- ▶ Regular coordination/progress meetings were held approximately every four weeks with the Project Committee to provide a forum for discussion and guidance in the decision-making process. The Project Committee included representatives from the FHWA, CDOT Region 6, CDOT Environmental Programs Branch, Colorado Governor's Office, Jefferson County, City of Arvada, City of Lakewood, City of Wheat Ridge, Coors Brewing Company, and Cabela's.
- ▶ Many small group meetings were held with neighborhood groups, school groups, and other interested parties to discuss various aspects of the project.

How will the proposed improvements be funded and when will they be constructed?

Estimates of the probable construction costs for the various transportation improvements have been prepared as part of the EA to evaluate the alternatives considered and to establish project implementation requirements. Unit prices from recent and historical data for similar projects has been used, along with quantity estimates for major work items.

Figure ES-8 illustrates the Proposed Action and other transportation improvements and their associated 2006 construction cost. The total transportation improvements are projected, in 2006 dollars, to cost approximately \$113.7 million.

The City of Wheat Ridge, Jefferson County and CDOT are committed to the funding and implementation of the Proposed Action and other transportation improvements (see **Table ES-3**). This commitment can be demonstrated by the following facts:

- ▶ Some of the improvements have been approved and cleared for construction under separate EA or Categorical Exclusion processes (I-70/SH 58 interchange; access for Youngfield widening, and 40th Avenue underpass in I-70 right-of-way)
- ▶ Funding has been obligated per the current Statewide Transportation Program (STIP) for portions of these improvements (I-70 / SH 58 Interchange)
- ▶ Youngfield Widening is currently under construction
- ▶ I-70 / SH 58 Interchange with the 40th Underpass is currently being advertised for construction bids

In addition, funding commitments have been obtained from the developer(s) by the City of Wheat Ridge to assist the City in the implementation and cost of the Proposed Action improvements.

Table ES-3 Project Implementation Responsibilities

Improvement	Responsibility
SH 58/Cabela Drive Interchange*	Developer(s)
I-70 / 32 nd Interchange*	Wheat Ridge, Jefferson County, Developer(s) and CDOT
Cabela Drive, 32 nd to 40 th Avenue*	Wheat Ridge
I-70 / SH 58 Interchange	CDOT and Jefferson County
I-70 / SH58 Phase IV, 44 th and Ward Road	CDOT
Youngfield widening	Wheat Ridge
40 th Underpass at I-70	Wheat Ridge
Cabela Drive, 40 th Avenue to the proposed development north of Clear Creek	Wheat Ridge

* Proposed Action improvements

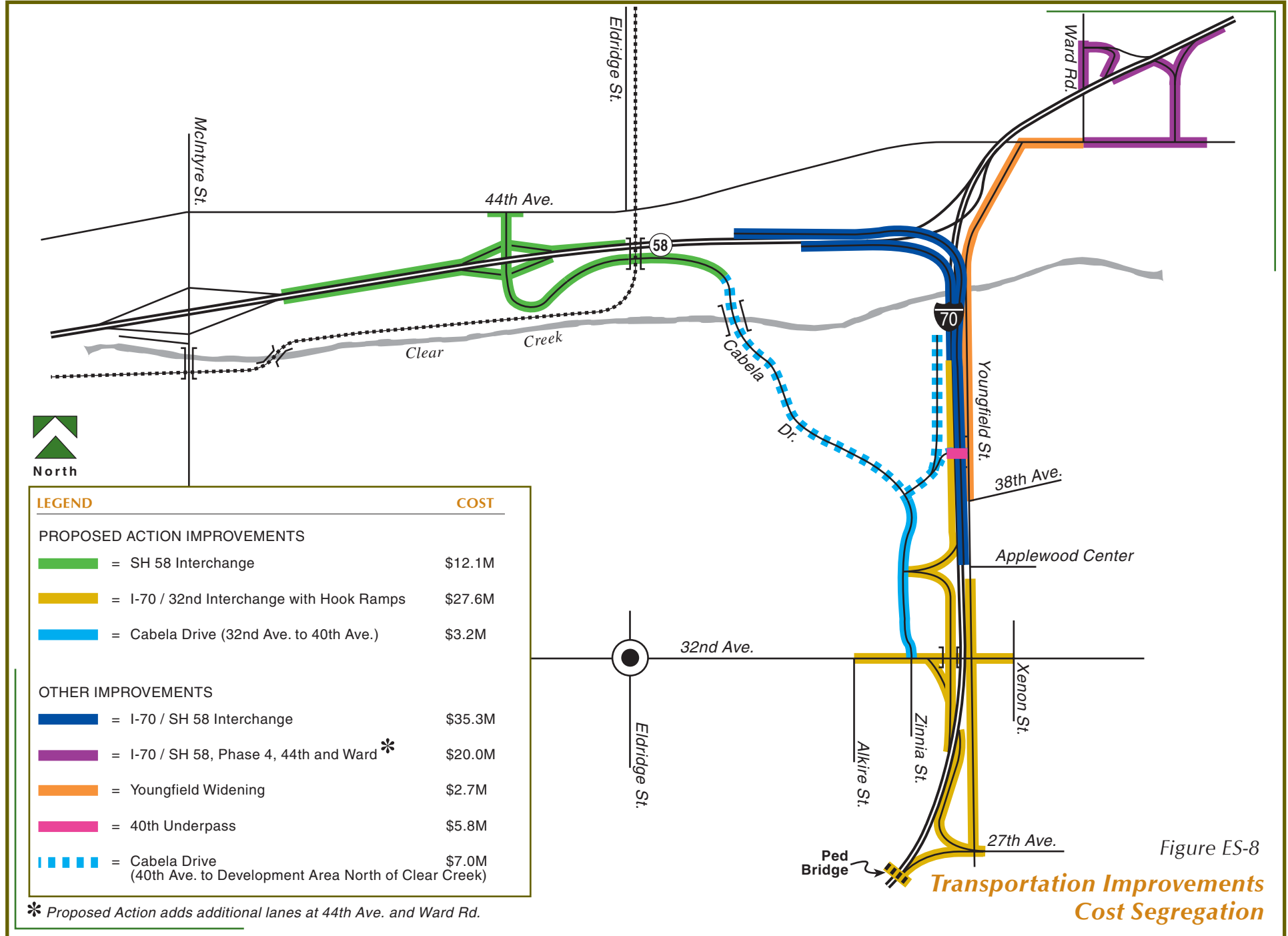


Figure ES-8

**Transportation Improvements
Cost Segregation**

During the EA process, commitments have been made to the public and local agencies that the necessary improvements as required for opening day traffic will be in place prior to the opening of the development. In support of this commitment, the City of Wheat Ridge City Council, as part of the development plan approval process, has stipulated that the I-70 westbound hook ramps, the 40th Underpass, widening of 32nd Avenue, Cabela Drive and the SH58 Interchange improvements must be in constructed prior to Wheat Ridge issuing a Certificate of Occupancy.

Figure ES-9 illustrates the anticipated construction phasing and implementation of the Proposed Action and other transportation improvements. The Youngfield widening project is scheduled for completion by November 2006. The I-70/SH 58 Interchange is anticipated to be under construction by January 2007 and has an estimated 2-year construction schedule. CDOT anticipates that the majority of the work can be completed within 12 months, with the eastbound I-70 to westbound SH 58 flyover ramp requiring up to 2 years to complete. The proposed I-70/SH 58 improvements by CDOT at 44th Avenue and Ward Road (which would include the Proposed Action lane additions at 44th Avenue and Ward Road), and the I-70 Proposed Action eastbound hook ramps at 27th Avenue are not currently required and will be delayed until no later than 2030.

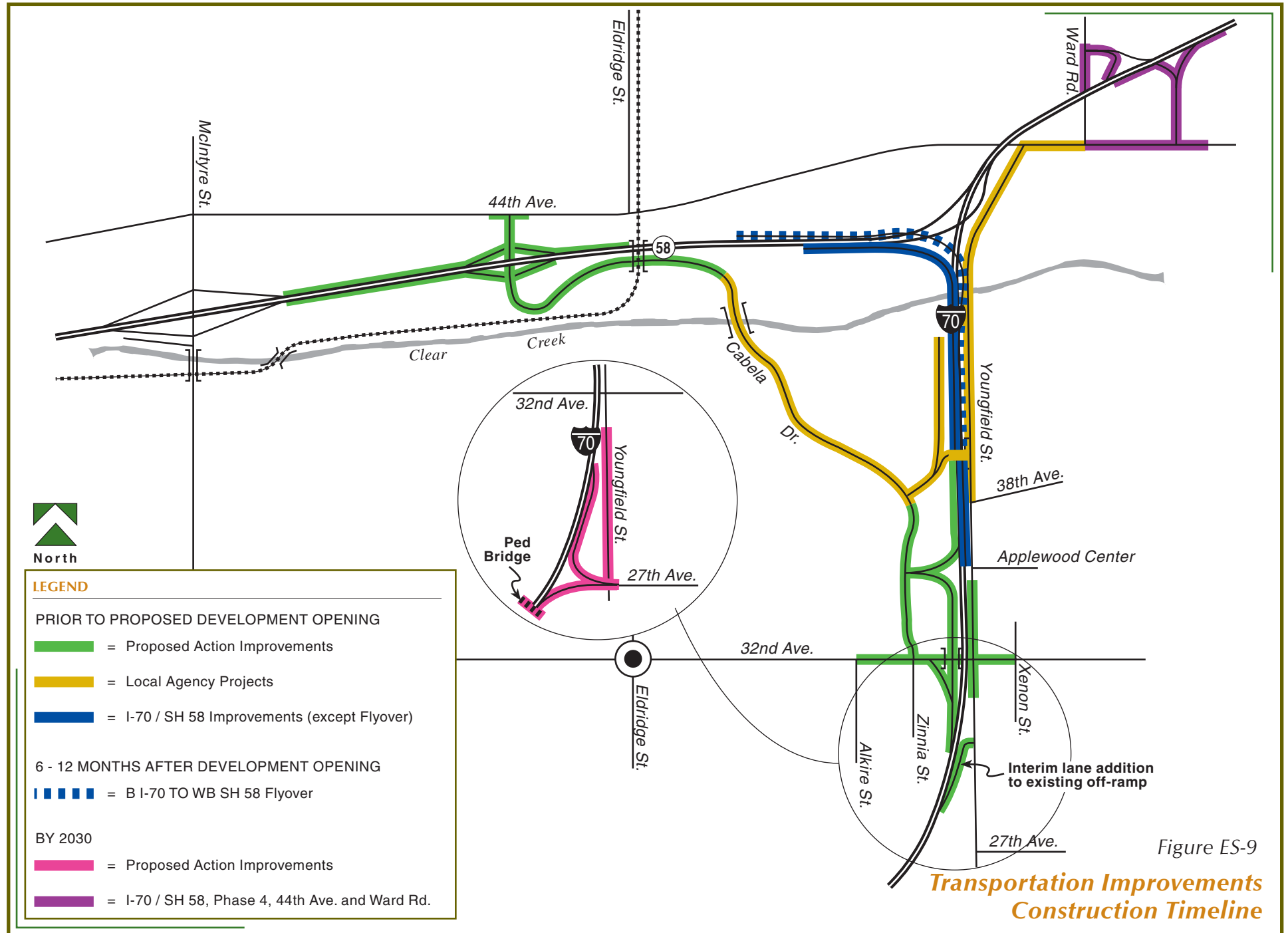


Figure ES-9

Transportation Improvements Construction Timeline