Executive Summary

The Executive Summary of the Supplemental Draft Environmental Impact Statement (EIS) provides an overview of the project, including the project purpose and need, project description, evaluated alternatives, project benefits, and major findings. The Executive Summary does not include a detailed analysis since it is presented in the document and the technical reports. For details on the information provided in this Executive Summary, refer to the corresponding chapter.

ES.1 What is the I-70 East EIS project and where is it located?

The I-70 East EIS is a joint effort between the Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT). This EIS identifies potential highway improvements along I-70 in the Denver metropolitan area between I-25 and Tower Road and assesses their potential effects on the human and natural environment. The National Environmental Policy Act of 1969 (NEPA) requires projects that have a federal nexus and may have an impact on the environment to be analyzed through a rigorous process that allows the public to understand and comment on the benefits and impacts of the project.

As shown in Exhibit ES-1, the project limits extend along I-70 between I-25 and Tower Road. The project area covers neighborhoods within Denver, Commerce City, and Aurora. However, the Supplemental Draft EIS mostly focuses on the neighborhoods of Globeville, Elyria and Swansea, Northeast Park Hill, Stapleton, Montbello, Gateway, and a portion of Aurora.

Each resource has a specific study area that is discussed in Chapter 5, Affected Environment, Environmental Consequences, and Mitigation.

What is a federal nexus?

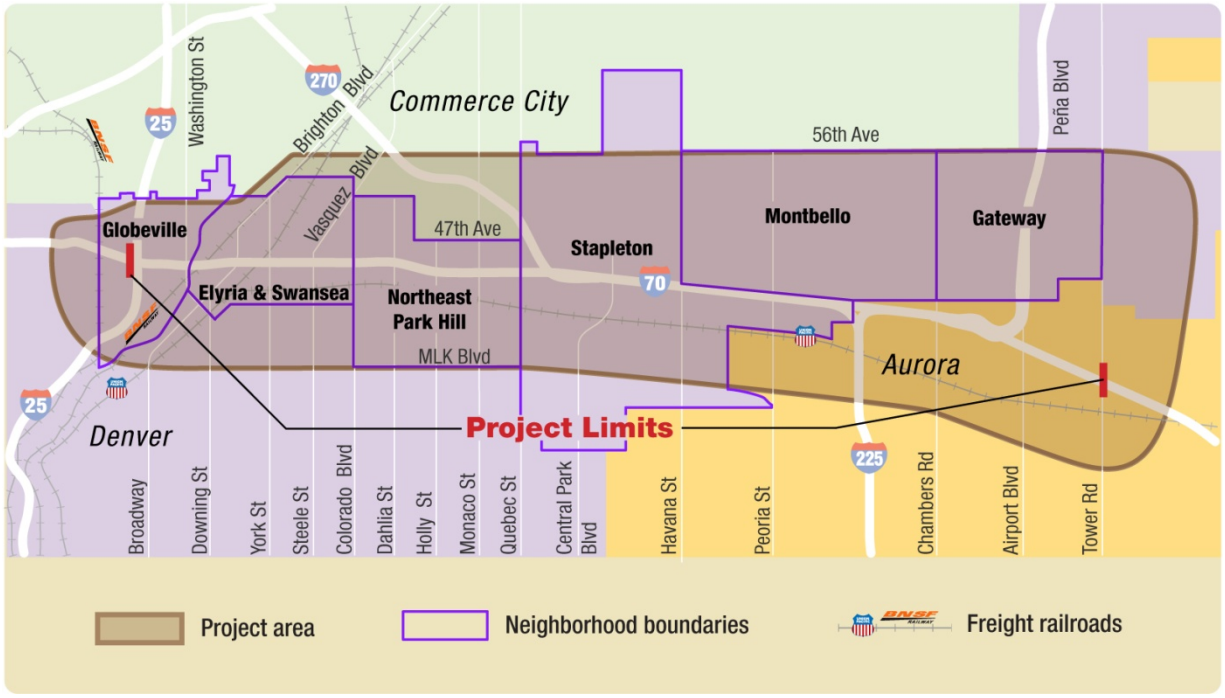
Under federal law, NEPA applies to any proposed action or transportation project that has a federal nexus, including, but not limited to, instances where:

- Federal funds are involved
- Federal permits or approvals are required
- New or revised access to the interstate system is included

Logical termini

Using NEPA terminology, project limits are the same as logical termini. Logical termini for project development are defined as rational end points for both a transportation improvement and a review of the environmental impacts.

Exhibit ES-1. I-70 East project limits



ES.2 What is the background of the I-70 East EIS project?

The I-70 East project began in 2003 as part of the I-70 East Corridor EIS, which was a combination of highway and transit improvements. In 2006, the transit and highway components of the project were separated because it was determined that they addressed different corridors, travel markets, and funding sources. The Regional Transportation District (RTD) and the Federal Transit Administration (FTA) completed the EIS for the transit elements (East Corridor EIS) in 2009. Completion of construction on the transit line is anticipated in 2016.

The *I-70 East Draft Environmental Impact Statement* and the *Section 4(f) Evaluation* for highway improvements were published in 2008. None of the alternatives analyzed in the 2008 Draft EIS received overwhelming support from the public and stakeholders because of associated impacts to the built, natural, and social environment.

Because of the lack of support, CDOT and FHWA decided not to identify a preferred alternative at that time and initiated a rigorous collaboration process to recommend a preferred alternative. This collaboration process, subsequently named the

Preferred Alternative Collaborative Team (PACT), consisted of federal, state, and local agencies; advocacy groups; and stakeholders, including neighborhood representatives from Adams County, Aurora, Commerce City, and Denver.

After approximately one year of collaboration and additional analysis, the PACT members were not able to reach consensus on a preferred alternative. Consequently, CDOT and FHWA decided to review prior decisions in the process, including the previously eliminated alternatives. As a result, a new alternative was developed that addressed the public and stakeholder concerns while satisfying the project's purpose and need.

ES.2.1 What is the purpose of the Supplemental Draft EIS?

In accordance with NEPA regulations, a Supplemental Draft EIS for I-70 East was prepared to address the substantial changes in the proposed alternatives, along with any new or revised regulations since the release of the 2008 Draft EIS for environmental resources required to ensure compliance.

This document only includes changes and updates to the Draft EIS published in 2008, such as revised analysis and modifications to the project area and the project alternatives. It does not repeat any of the valid analysis and actions performed previously.

NEPA Regulations for Supplemental Draft EIS

According to NEPA, an agency must prepare a Supplemental Draft EIS when one of the following occurs:

- The agency makes substantial changes in the proposed action that are relevant to environmental concerns
- There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts (40 Code of Federal Regulations [CFR] §1502.9[c][1])

ES.3 What is the project's purpose and need?

Currently, I-70 between I-25 and Tower Road is one of the most heavily traveled and congested highway corridors, both in the region and in the state. The corridor provides a number of important transportation functions, including interstate and intrastate travel along I-70; regional access from downtown Denver and the metropolitan area to Denver International Airport (DIA); linkage as an inner beltway between I-225 and I-270; and access to adjacent employment areas, neighborhoods, and new development centers. Using input from scoping, data gathering, and technical analysis, the project purpose and need was developed as part of the 2008 Draft EIS process. The project purpose has not changed since the 2008 Draft EIS, although some of the data used to describe why the project is needed have been updated.

The purpose of the I-70 East EIS project is to implement a transportation solution that improves safety, access, and mobility and addresses congestion on I-70 in the project area.

The need for this project results from the following issues:

- **Transportation infrastructure deficiencies**

  I-70 was constructed in the early 1960s with bridge and drainage structures designed to last for 30 years. Nine structures on the corridor are now past their anticipated life spans and are classified as either structurally deficient or functionally obsolete. This means they are in need of replacement, rehabilitation, or repair.

- **Increased transportation demand**

  The project area is experiencing rapid growth and development. This includes areas of new development and redevelopment, with substantial residential populations and business activity. Population growth estimates show a 41 percent increase and employment is expected to increase 59 percent from 2010 to 2035. The land use and development trends within the corridor will result in additional demands on the transportation system. Providing access and maximizing travel to, through, and within the corridor are critical to maintaining the economy. This includes maintaining and enhancing connections between major activity centers near the corridor.

- **Limited transportation capacity**

  I-70 serves a growing number of users, ranging from commuters and tourists from outlying areas and DIA to regional trucking and local traffic. The demand from these users is exceeding the current design capacity of I-70 and associated interchanges.

What qualifies a bridge as "structurally deficient"?

Federal guidelines classify bridges as "structurally deficient" if the components are rated at poor or worse on inspection. This means that engineers have identified a major defect in the bridge's support structure or deck. If a bridge is rated "structurally deficient," the bridge needs substantial maintenance or rehabilitation, or it needs to be replaced.

When is a bridge "functionally obsolete"?

A bridge is functionally obsolete when it cannot properly accommodate traffic due to poor roadway alignment or out-of-date design standards.

Falling pieces of concrete show a structurally deficient viaduct. The photo was taken on 46th Avenue under the viaduct.

Within the project area, I-70 carries between 47,000 and 205,000 vehicles per day (average daily traffic), depending on the location along the corridor. Forecasts for the year 2035 show that traffic volume on I-70 will increase substantially. The forecast ranges from 117,000 to 285,000 vehicles per day depending on the location in the corridor. This increase in traffic will result in more hours of congestion, longer delays, and increased potential for crashes.

- Safety concerns

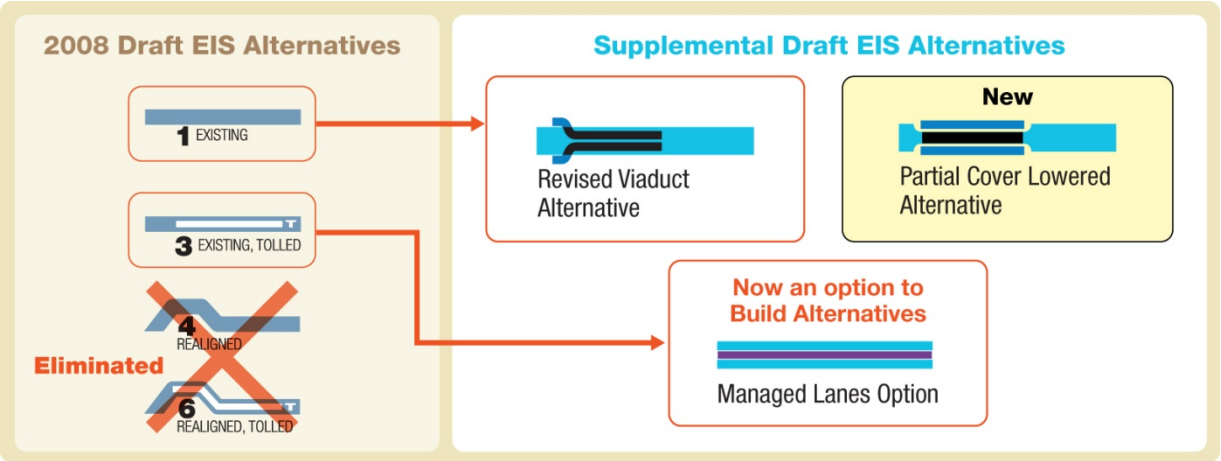
  Based on CDOT's safety evaluation conducted in 2013, some sections of I-70 have higher-than-average crash rates. Higher-than-average crash rates often can be attributed to roadway conditions that do not meet current design standards. Crashes on I-70 cause unpredictable and unavoidable traffic congestion, which adds to or worsens the already existing congestion from travel demand that exceeds the normal roadway capacity. The unpredictable nature of traffic congestion on I-70 increases safety concerns for freight carriers, employers, manufacturers, and business interests in the region, as well as commuters and residents who depend on reliability for their daily travel.

These issues are discussed in more detail in Chapter 2, Purpose and Need.

ES.4 Which alternatives are analyzed in this Supplemental Draft EIS?

Based on the outcome of the 2008 Draft EIS comments, PACT process, and additional outreach, the Current Alignment Alternative (2008 Draft EIS Alternatives 1 and 3) was revised to reduce impacts, the Realignment Alternatives were eliminated from further consideration, and a new alternative (the Partial Cover Lowered Alternative) was developed (see Exhibit ES-2). The No-Action Alternative also was adjusted to be consistent with the criteria used to design new and updated Build Alternatives and options.

Exhibit ES-2. Alternatives evolution since 2008 Draft EIS



This document fully evaluates the No-Action, Revised Viaduct, and Partial Cover Lowered Alternatives with several design options. These alternatives and their associated options are discussed briefly in the following subsections and are summarized with their key features in Exhibit ES-3.

Exhibit ES-3. Summary of project alternatives and options

Alternative		Expansion Options	Connectivity Options	Operational Options
No-Action		• North • South	N/A	N/A
Build Alternatives	Revised Viaduct	• North • South	N/A	• General-Purpose Lanes • Managed Lanes
	Partial Cover Lowered	N/A	• Basic • Modified	• General-Purpose Lanes • Managed Lanes

ES.4.1 No-Action Alternative

What is a viaduct?

A viaduct is a long, elevated roadway consisting of a series of shorter bridge spans supported on arches, piers, or columns.

The No-Action Alternative includes planned and programmed roadway and transit improvements in the project area and the replacement of the existing I-70 viaduct between Brighton Boulevard and Colorado Boulevard without adding capacity.

Due to the age and deteriorating condition of the viaduct, replacing it is necessary to maintain the safety and operation of I-70. The width of the structure also will be increased to meet current highway standards. However, the No-Action Alternative does not add additional lanes to the existing highway configuration. Instead, reconstruction of the existing viaduct with the No-Action Alternative includes two Expansion Options,

North and South. Each option, respectively, widens the highway to the north or to the south. Both options require additional right-of-way acquisition to maintain the traffic flow on I-70 during construction.

ES.4.2 Build Alternatives

The Build Alternatives add capacity to I-70 between I-25 and Tower Road by widening I-70 from Brighton Boulevard to Tower Road to accommodate additional lanes and by restriping from I-25 to Brighton Boulevard.

To address safety issues associated with the aging viaduct between Brighton Boulevard and Colorado Boulevard, the Build Alternatives replace the existing viaduct or remove it completely. The Build Alternatives will reconstruct bridges and interchanges affected by the widening improvements between Brighton Boulevard and Tower Road. The Central Park Boulevard, I-70 bridge over Sand Creek, I-225, I-270, Chambers Road, Airport Road, and Tower Road interchanges will remain and be modified as needed.

Safety concerns caused by deficient geometrics will necessitate elimination of the York Street interchange. Additionally, access at Steele Street/Vasquez Boulevard and Colorado Boulevard will be provided through a split diamond interchange (eastbound off ramp and westbound on ramp at Steele Street/Vasquez Boulevard and eastbound on ramp and westbound off ramp at Colorado Boulevard).

There are two Build Alternatives proposed for improvements between Brighton Boulevard and Colorado Boulevard: the Revised Viaduct Alternative and the Partial Cover Lowered Alternative. The Revised Viaduct Alternative includes Expansion Options that shift the highway to the north or to the south. The Partial Cover Lowered Alternative includes Connectivity Options, Basic and Modified, between Brighton Boulevard and Colorado Boulevard, which are explained later in this section.

The Build Alternatives also offer the chance to consider Operational Options to manage the added capacity of the highway. This is important for better mobility and reliability between I-25 and Tower Road. The General-Purpose Lanes Option will allow all vehicles to use all the lanes on the highway, while the Managed Lanes Option implements operational strategies using tolls or vehicle occupancy restrictions.

The Managed Lanes Option allows for a reliable travel-time option for the users of the managed lanes because vehicles can

travel at higher speeds than in the adjacent general-purpose lanes.

Revised Viaduct Alternative

The Revised Viaduct Alternative replaces the viaduct between Brighton Boulevard and Colorado Boulevard. The Revised Viaduct Alternative, North Option expands the north edge of the highway up to 160 feet north from the existing highway edge in some areas. The Revised Viaduct Alternative, South Option extends the south edge of the highway up to 140 feet south of the existing highway edge. Local east-west access is available along 46th Avenue, a four-lane road located underneath the south side of I-70.

Partial Cover Lowered Alternative

The Partial Cover Lowered Alternative removes the viaduct between Brighton Boulevard and Colorado Boulevard and reconstructs I-70 below the existing ground level. The location of 46th Avenue will be adjacent to I-70. The Partial Cover Lowered Alternative includes two Connectivity Options: Basic and Modified. With the Basic Option, a highway cover is designed over I-70 between Clayton Street and Columbine Street, adjacent to Swansea Elementary School. Urban landscape is proposed on the cover, with the potential to include playgrounds, plazas, outdoor classrooms, and community gardens. The Modified Option includes a second cover between St. Paul Street and Cook Street to create a potential for redevelopment in that vicinity. To accommodate the second cover, highway access at Steele Street/Vasquez Boulevard is moved to Colorado Boulevard. These options are discussed in more detail in Chapter 3, Summary of Project Alternatives.

Design variations for the Basic and Modified Options are considered in this document, but not fully evaluated and remain as unresolved issues. The variations under consideration relate to the following elements:

- Access to I-70 at Steele Street/Vasquez Boulevard
- Highway cover
- Frontage roads
- North-south connectivity

Additional analysis will be performed prior to completion of the Final EIS. The Partial Cover Lowered Alternative could include some or none of these variations.

ES.5 What is the project's preliminarily identified Preferred Alternative and why?

FHWA and CDOT have preliminarily identified the Partial Cover Lowered Alternative with Managed Lanes Option as the Preferred Alternative for I-70 East. This alternative and associated option is the preliminarily identified Preferred Alternative because it meets the project purpose and need, best addresses community concerns, has the most community and agency support, and—with the proposed mitigations—appears to cause the least overall impact.

FHWA and CDOT will consider feedback provided during the Supplemental Draft EIS public review process before identifying the Preferred Alternative in the Final EIS. The two Connectivity Options (Basic and Modified) for the Partial Cover Lowered Alternative are being evaluated in more detail, and the selected Preferred Alternative may include elements of the Basic and/or Modified Options.

The recommended Preferred Alternative is evaluated fully in this document, along with the other reasonable alternatives, and is compared to the No-Action Alternative.

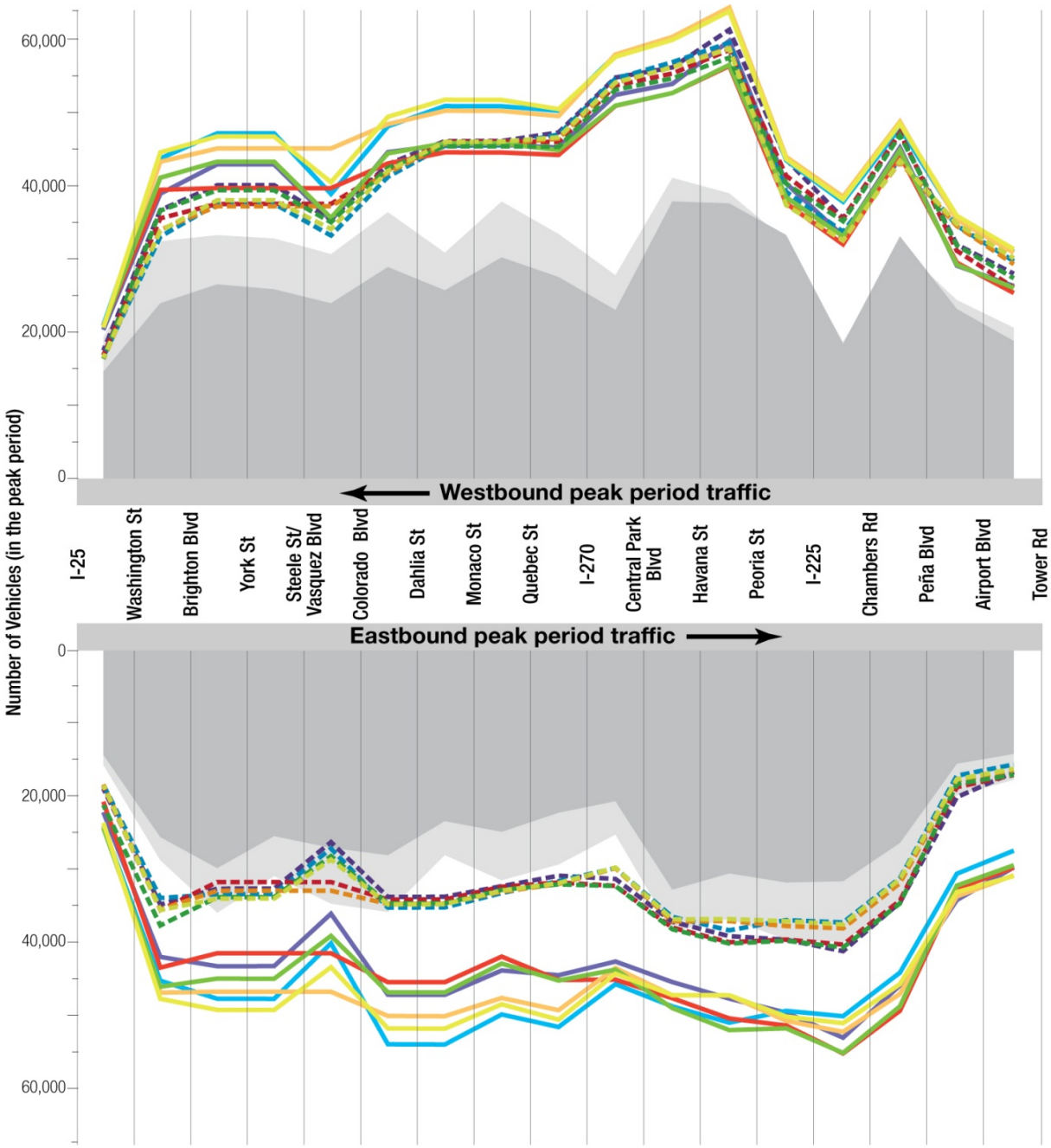
ES.6 What are the project's transportation impacts?

Based on the population and employment projections for 2035, access to activity centers, residential areas, and employment will become more difficult without improvements. The benefit of increased connectivity and mobility will be most important for people who use I-70 regularly.

Consistent with federal regulations, this document fully evaluates potential effects to the transportation facilities that might result from a No-Action Alternative and the Build Alternatives.

Exhibit ES-4 displays the I-70 peak-period traffic volumes and Exhibit ES-5 shows the average daily traffic on I-70 for the Supplemental Draft EIS alternatives forecasted for 2035. The data for the Managed Lanes Option represents the total volume included in all lanes of I-70 (general-purpose lanes plus managed lanes). In general, due to the added capacity, daily traffic volumes on I-70 will increase between 30 percent and 50 percent for the Build Alternatives compared to the No-Action Alternative. The peak-period volumes display similar growth trends as the daily volumes. Overall, both of the Build Alternatives have similar volumes throughout the day.

Exhibit ES-4. 2035 Peak period traffic on I-70

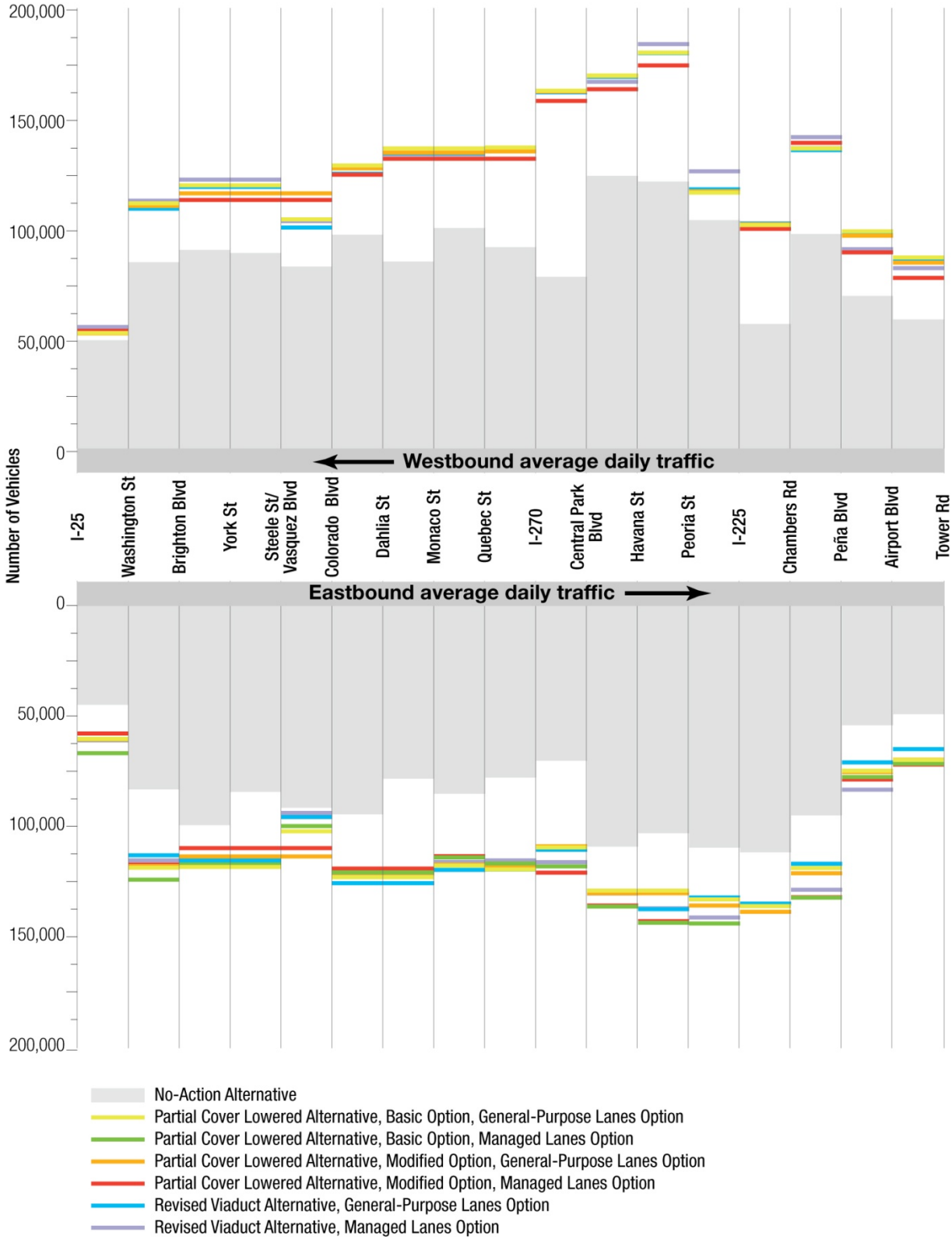


AM peak period = 6:00 a.m. to 11:00 a.m.; PM peak period = 2:00 p.m. to 8:00 p.m.

AM PM No-Action Alternative
AM PM Partial Cover Lowered Alternative, Basic Option, General-Purpose Lanes Option
AM PM Partial Cover Lowered Alternative, Basic Option, Managed Lanes Option
AM PM Partial Cover Lowered Alternative, Modified Option, General-Purpose Lanes Option
AM PM Partial Cover Lowered Alternative, Modified Option, Managed Lanes Option
AM PM Revised Viaduct Alternative, General-Purpose Lanes Option
AM PM Revised Viaduct Alternative, Managed Lanes Option

Source: 2035 DynusT models

Exhibit ES-5. 2035 Average daily traffic on I-70



Source: 2035 DynusT models

Evaluation of the impacts of the No-Action Alternative and the Build Alternatives on mobility and access needs of the study area has considered:

- The effectiveness of the improvements on traffic operations and safety on I-70
- The impact to access and circulation needs on the local streets in the vicinity of I-70
- The impact on the other transportation facilities in the study area (transit, freight, and bicycle/pedestrian)

Generally, either of the Build Alternatives will improve I-70 operations compared to the No-Action Alternative, due to the proposed roadway improvements, including the addition of new lanes, improvement to ramps, addition of auxiliary lanes, and modification of interchanges to facilitate traffic movements. Implementation of managed lanes will provide additional benefits to the operation of I-70 as a whole, will preserve capacity on I-70 into the future, and will provide reliable travel times for users of the managed lanes. The general-purpose lanes will operate slightly less efficiently than the managed lanes.

The removal of the York Street interchange in both Build Alternatives and changes to the Steele Street/Vasquez Boulevard and Colorado Boulevard interchanges also will have impacts on circulation. These changes might cause an increase in traffic on some of the local streets and reduce traffic on other streets.

Freight service within and through the study area via rail will be unaffected, as none of the existing rail lines will be severed by I-70 improvements. Through-truck freight movements will be improved by the added capacity and improved safety of both Build Alternatives. Local truck traffic along surface streets will increase slightly due to changes in interchanges at York Street, Steele Street/Vasquez Boulevard, and Colorado Boulevard.

Neither of the Build Alternatives will adversely affect any of the existing or planned transit or bicycle/pedestrian facilities in the study area. Both of the Build Alternatives provide for improved pedestrian/bicycle facilities through the construction of sidewalks, accessible features such as ramps at intersections, and the addition of the cover(s) over I-70 in the Partial Cover Lowered Alternative. Access to the managed lanes will improve some of the operations and reliability of bus transit along I-70, especially the express routes.

ES.7 What resources are evaluated for impacts and benefits in the project area?

Detailed studies were conducted to determine the effects of the project alternatives on the following built, natural, and social environmental resources:

- Social and economic conditions
- Environmental justice
- Land use
- Relocations and displacements
- Historic preservation
- Paleontological resources
- Visual resources and aesthetic qualities
- Parks and recreation
- Air quality
- Energy
- Noise
- Biological resources
- Floodplains and drainage/hydrology
- Wetlands and other waters of the U.S.
- Water quality
- Geology and soils
- Hazardous materials
- Utilities
- Irreversible and irretrievable commitment of resources
- Short-term use and long-term productivity

The project alternatives and design options benefit or impact each environmental resource differently. For example, while all the design options for the Build Alternatives improve transportation conditions, individual design options impact more properties than others or benefit visual resources more than others.

ES.7.1 What types of environmental impacts are causing the greatest concern?

Of the environmental resources listed above, those shown to be of greatest concern to the public and stakeholders include social and economic conditions, environmental justice, relocations and displacements, historic preservation, visual resources and aesthetic qualities, parks and recreation, air quality, noise, and hazardous materials. The following subsections summarize impacts to these resources.

Chapter 5, Affected Environment, Environmental Consequences, and Mitigation, discusses in more detail the existing conditions in the corridor; effects of the project alternatives on the various

social, environmental, and economic resources; and mitigation strategies.

How will social and economic conditions be affected?

All alternatives affect the local economies and social conditions of the area. Many social and economic effects relate to property acquisition that results in the relocation of residential units and businesses serving either the local neighborhood or regional interests. Property acquisition also reduces property tax revenue for local taxing authorities.

In general, the improved mobility on I-70 from the Build Alternatives will bolster the economic and social success of developing urban centers in the Stapleton and Gateway Neighborhoods, as well as redevelopment opportunities in existing neighborhoods, such as the Elyria and Swansea Neighborhood. This is in contrast to the No-Action Alternative, which will not add capacity and, therefore, does not have the beneficial effect of improved travel time on I-70.

A variety of mitigation measures, such as providing additional relocation assistance and maintaining connectivity throughout construction, are available for potential impacts to social and economic resources. Mitigation measures will continue to be developed throughout the public comment and review period.

How will low-income and minority populations (environmental justice considerations) be impacted?

The majority of the neighborhoods along the project corridor have notable concentrations of minority and low-income populations. The total population of the study area is 48.0 percent Hispanic or Latino and 23.0 percent Black or African American. The total low-income population of the study area is 22.8 percent. These percentages are considerably higher than the Denver and Adams Counties averages.

Without mitigation, the construction of the project alternatives has disproportionately high and adverse impacts that are predominantly borne by the low-income or minority populations of the Elyria and Swansea Neighborhood because all of the residences and most of the businesses impacted by the project are located within this neighborhood. When all the mitigation measures are implemented and benefits realized with the Build Alternatives, there will be no disproportionately high and adverse impacts to the low-income and minority populations. Since no mitigation measures have been identified for the No-Action Alternative other than the relocation-related benefits, the

impacts from the No-Action Alternative remain disproportionately high and adverse.

What type of relocations will be required?

Property acquisition is an important element in all of the project alternatives because additional right of way is required for each of them. In the case of occupied buildings, it is necessary to "relocate" or "displace" individuals from those properties (residential, business, or non-profit) to a replacement site.

The total number of residential relocations estimated for each alternative ranges from 13 residences (No-Action Alternative, South Option) to 53 residences (Partial Cover Lowered Alternative, Basic Option). More than half of the residential relocations are tenant occupied instead of owner occupied. All of the residential relocations are located in the Elyria and Swansea Neighborhood. Current market conditions indicate that an adequate supply of decent, safe, and sanitary replacement housing is available to support the residential displacements that result from any of the project alternatives.

The project alternatives will relocate between five (No-Action Alternative, North Option) and 24 businesses (Revised Viaduct Alternative, South Option). All of the alternatives and options—except the No-Action Alternative, South Option—require the relocation of the Ministry Outreach Center, which is part of the Denver Rescue Mission, a 501(c)3 non-profit organization.

All eligible persons will be provided with relocation benefits regardless of race, color, religion, sex, or national origin. Benefits under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act)—to which each eligible owner or tenant may be entitled—will be determined on an individual basis and explained to them in detail by an assigned right-of-way specialist (CDOT, 2011b).

How will historic properties be affected?

Historic properties include several nationally significant locations, including the National Western Historic District, the Alfred R. Wessel Historic District, and the Nestlé Purina PetCare Company building. A survey determined that 126 resources within the Area of Potential Effect (APE) are either officially eligible for listing in the National Register of Historic Places (NRHP) as individual properties, are supporting segments of eligible linear resources, or are contributing properties of historic districts within the APE.

Potential adverse effects to historic properties include direct or indirect alteration of any characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The No-Action Alternative adversely affects from one to seven historic resources, while the Revised Viaduct Alternative adversely affects seven to eight historic resources and the Partial Cover Lowered Alternative adversely affects 12 historic resources. CDOT will discuss potential mitigation projects with the Colorado State Historic Preservation Office (SHPO) and consulting parties as part of the Final EIS and Section 106 Programmatic Agreement or Memorandum of Agreement processes to mitigate adverse effects. At a minimum, Level II archival documentation will be provided.

How will visual resources and aesthetic qualities be affected?

Effects to visual resources caused by the project alternatives focus on the changes to the aesthetic quality of the area. The greatest visual impacts occur from Brighton Boulevard to Colorado Boulevard. The No-Action Alternative will not change the overall visual character of the corridor or project area.

Bird's-eye view simulation of Partial Cover Lowered Alternative, looking west from Fillmore Street (Basic Option)

Views of the highway are a big concern for the local residential communities. The greatest impacts of the project alternatives occur where a physical widening of the highway results in acquisition of homes within the established neighborhoods.

The new facility will improve the overall character and quality of this area under all the alternatives. The No-Action and Revised Viaduct Alternatives improve the visual quality by replacing the old viaduct with a new structure. The Partial Cover Lowered Alternative improves the visual quality more than the other alternatives, since it introduces public space to the area and reduces the viaduct's visual domination.

Although the Partial Cover Lowered Alternative increases the highway surface similar to the Revised Viaduct Alternative, it does not increase the highway visible mass because a large portion of the highway in this area is below ground level. With

the Partial Cover Lowered Alternative, the area becomes less visually dominated by the highway.

How will parks and recreation resources be affected?

Parks and recreational areas in the study area include various existing and proposed resources, including: parks, recreation centers, golf courses, open space/nature areas, a multi-use special events center, regional trails/greenways, and school playgrounds/ball fields. The South Platte River Greenway Trail, Globeville Landing Park, Swansea Elementary School playground, and Sand Creek Greenway Trail each will be affected by one or more of the project alternatives.

All of the alternatives will require an easement over the South Platte River Greenway Trail for a storm drain on the north side of I-70. The trail will remain open during construction via a detour route and be returned to its pre-construction condition.

The Partial Cover Lowered Alternative requires a permanent easement across Globeville Landing Park to facilitate storm drain pipe construction and permanently converts approximately 0.06 acre of the park into a spillway. Conversion of the park would be mitigated in-kind, and temporary disturbance within the 52-foot easement would be returned to pre-construction conditions.

The No-Action Alternative, North Option requires 0.16 acre of right-of-way acquisition from the Swansea Elementary School playground, compared to 0.53 acre under the Revised Viaduct Alternative, North Option, and 0.52 acre to 0.88 acre under the Partial Cover Lowered Alternative. An additional 0.23 acre buffer is also required for these alternatives to maintain a safe environment for children. The South Option of the No-Action and Revised Viaduct Alternatives will avoid the school.

Lastly, the Build Alternatives require minor realignment of the Sand Creek Greenway Trail to facilitate eastbound ramp bridge construction at Quebec Street.

Mitigation measures will be implemented during and immediately following construction of the alternatives to avoid and minimize long-term effects to the Swansea Elementary School playground, Globeville Landing Park, Sand Creek Greenway Trail, and South Platte River Greenway Trail. For example, the redesign of the school property for the Partial Cover Lowered Alternative, Modified Option will increase the school playground from 1.4 acres to up to 2.9 acres and provide a safe recreation area.

How will air quality be affected?

The I-70 East project will be a very significant congestion-reducing transportation improvement for the Denver region. As big as it is, however, the project's vehicular travel and associated emissions are relatively small in comparison to those of the greater Denver region. The project's vehicle miles of travel (VMT) ranges from 10.3 percent to 10.7 percent of the regional VMT, depending on the alternative. The Build Alternatives have between 1.2 percent and 4.3 percent higher VMT than the No-Action Alternative. However, these increases only amount to between 0.1 percent and 0.4 percent of regional on-road mobile emissions. Since the No-Action Alternative is consistent with the most recent conformity analysis for the regional transportation plan, it does not increase regional on-road mobile source emissions.

Specific analyses for carbon monoxide, volatile organic compounds, and nitrogen oxides were conducted and analyses show that the No-Action and Build Alternatives meet the National Ambient Air Quality Standards (NAAQS) and Statewide Improvement Plan budget.

The results of the hotspot analysis for particulate matter up to 10 micrometers in size (PM_{10}) demonstrates that the No-Action Alternative and the Partial Cover Lowered Alternative (with Basic and Managed Lanes Options) will be in compliance with the applicable NAAQS standard for PM_{10} at the I-25 hotspot location. All calculated design values are less than or equal to the PM_{10} NAAQS of 150 $\mu g/m^3$ at I-225 and I-70. The other alternatives examined in this analysis, if implemented, would exceed the NAAQS standard for PM_{10} at the I-25 hotspot location.

How will noise levels be affected?

Noise levels vary between A-weighted decibels (dBA) in the high 50s to low 70s depending on how close the noise receptor is to the highway. CDOT considers a noise impact to occur when the loudest hour of noise is at or above 66 dBA (for residential dwelling units) or when there is an increase of 10 dBA or more affecting a noise receptor. Noise levels above the loudest hour, as well as substantial noise increases above 10 dBA, are expected without the construction of noise walls. The Partial Cover Lowered Alternative impacts 234 to 257 fewer dwelling units than the Revised Viaduct Alternative because of the lowered profile of the highway. To alleviate noise impacts, noise walls are recommended for all alternatives in the Elyria and Swansea Neighborhood and for the Build Alternatives in the Montbello Neighborhood.

How will hazardous materials sites be affected?

Construction of the proposed alternatives will likely affect sites contaminated by hazardous materials. Construction activities associated with the alternatives have the potential to release hazardous materials at these sites into soil or groundwater, or lead to hazardous materials exposure of workers or the public if proper health, safety, and remediation efforts are not applied.

The No-Action Alternative will potentially affect seven hazardous material sites and disturb approximately 41 acres of land assumed to be contaminated. The Build Alternatives have the potential to affect 21 to 26 hazardous material sites and disturb 575 to 616 acres of land assumed to be contaminated. Compared to the Revised Viaduct Alternative, the Partial Cover Lowered Alternative impacts approximately 21 percent more sites, increasing the work within land assumed to be contaminated by approximately 7 percent. Lowering the highway below street level impacts soil and/or groundwater at greater depths than the No-Action and Revised Viaduct Alternatives. Disturbing greater volumes of soil and/or groundwater increases the potential to affect hazardous materials. The Managed Lanes Option increases ground disturbance by an additional 65 acres; however, it does not increase the potential to impact hazardous material sites.

Any contamination encountered during the construction of the project will be cleaned up in compliance with applicable state and federal regulations, which will benefit the area in the future.

ES.8 How are the public and stakeholders involved in the I-70 East EIS project?

The I-70 East EIS has followed an extensive community and agency involvement process since the project began in 2003. The overall goal of the community outreach and agency involvement process has been to solicit input through a transparent, open, and dynamic process that includes community members; businesses; federal, state, and local agencies; stakeholders; and community groups within the project area. This process helped the project team identify and document any issues and incorporate them in the planning and decision-making process.

After publishing the Draft EIS in 2008, CDOT and FHWA started a more focused outreach process to better understand some of the issues that were brought up during the public comment period and develop solutions to address the public concerns and eventually select a preferred alternative. The project team used innovative public outreach techniques along

with traditional methods to reach out to the community and stakeholders for their input. Some of these outreach techniques were corridor-wide meetings, one-on-one meetings, website updates, monthly community meetings, and telephone town-hall meetings. Detailed information on community and agency involvement is in Chapter 7, Community Outreach and Agency Involvement.

Corridor-wide meetings and community leaders meetings will continue to keep the public informed about the project's progress through the ROD and, after that, through project final design and construction phases. In addition, the project team members will continue to participate in neighborhood-related activities, such as festivals and picnics, to interact with community members, inform them about the upcoming project activities, and answer questions.

ES.9 What are the project impacts to Section 4(f) resources?

Section 4(f) of the U.S. Department of Transportation Act of 1966 stipulates that FHWA and other U.S. Department of Transportation agencies cannot approve the use of land from publicly owned parks or recreational areas, wildlife or waterfowl refuges, or public or private historic sites unless the following conditions apply:

- A determination is made that there is no feasible and prudent alternative to the use of land from the property, and the action includes all possible planning to minimize harm to the property resulting from such use; or

- The use of property, including any measures to minimize harm, will have a *de minimis* impact on the property.

The project area has 243 historic properties, parks, or other recreational resources that are considered Section 4(f) resources. Chapter 8, Section 4(f) Evaluation, discusses the Section 4(f) resources in the project area and the use of those resources.

Because there are no feasible or prudent alternatives that avoid the use of all Section 4(f) resources, an analysis is required to determine which alternative causes the least overall harm. Based on this analysis, the Partial Cover Lowered Alternative causes relatively equal or less overall harm when compared to other alternatives. While it has greater right-of-way needs, and therefore has greater initial impacts, its ability to mitigate for those impacts lessens the magnitude of remaining harm for both Section 4(f) properties and non-Section 4(f) resources.

ES.10 What are the next steps after the Supplemental Draft EIS?

After publishing this document with a 45-day public comment period, CDOT and FHWA will proceed with preparation of the Final EIS. The comments received during the public and agency comment period will be addressed in the Final EIS. The preliminary identification of the Preferred Alternative will be confirmed or revised and identified as the Preferred Alternative in the Final EIS based on the public comments and more detailed analysis.

After issuing the Final EIS with a public review period, a ROD will be prepared. A Preferred Alternative will be selected in the ROD. The ROD will discuss plans for implementation of the project and identify mitigation commitments in compliance with NEPA regulations.

The ROD concludes the NEPA process and sets the project up for further engineering design and implementation. Funding constraints limit the ability to fully construct the Preferred Alternative at one time. Pending the results of the Final EIS and ROD, the construction for the highway between Brighton Boulevard and Colorado Boulevard could begin in 2016, after project permits are received. The highway is anticipated to open to traffic in 2020. If full funding is available, the rest of the project could be completed by the same date or, if not, by 2030.

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