

SANTA FE DRIVE (C-470 to I-25) ACTION PLAN
A Planning and Environmental Linkages Study
FHWA PEL Questionnaire

Appendix A.

FHWA PEL QUESTIONNAIRE

PEL Questionnaire

This questionnaire is intended to act as a summary of the Planning process and ease the transition from the planning study to a NEPA analysis. Often, there is no overlap in personnel between the planning and NEPA phases of a project, and much (or all) of the history of decisions, etc., is not passed along. Different planning processes take projects through analysis at different levels of detail. Without knowing how far, or in how much detail a planning study went, NEPA project teams often re-do work that has already been done.

Planning teams need to be cautious during the alternative screen process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision cannot be considered viable alternatives, even if they reduce impacts to a particular resource. This questionnaire is consistent with 23 CFR 450 (Planning regulations) and other FHWA policies on Planning and Environmental Linkage process.

Instructions: These questions should be used as a guide throughout the planning process. The questionnaire should be filled out as the study progresses. It is a beneficial tool to keep leadership and program managers up to date on a study's progress. When a PEL study (i.e. corridor study) is started, this questionnaire will be given to the project team. Some of the basic questions to consider are: "What did you do?", "What didn't you do?" and "Why?". When the team submits the study to FHWA for review, the completed questionnaire will be included with the submittal. FHWA will use this questionnaire to assist in determining if an effective PEL process has been applied before NEPA processes are authorized to begin. The questionnaire should be included in the planning document as an executive summary, chapter, or appendix.

1. Background:

A. What is the name of the PEL document and other identifying project information (e.g., subaccount or STIP numbers)?

Santa Fe Drive (C-470 to I-25) Action Plan, A Planning and Environmental Linkages Study
Colorado Department of Transportation (CDOT) Project No: STU 0852-117 CODE: 23143

B. Who is the lead agency for the study? (FHWA, FTA, CDOT, Local Agency)

CDOT is the lead agency for the study.

C. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were conducted. (Include project start date and end date).

- *Santa Fe PEL (C-470 to I-25) Corridor Conditions Report* – November 2020
- *Santa Fe Drive (C-470 to I-25) Action Plan, A Planning and Environmental Linkages Study* – April 2022

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D. Provide a description of the existing transportation corridor, including project limits, length of study corridor, modes, number of lanes, shoulder, access control and surrounding environment (urban vs. rural, residential vs. commercial, etc.)

The study corridor is an 11-mile stretch of Santa Fe Drive (U.S. Highway 85) between Central 470 (C-470) and the junction of Alameda Drive and Interstate 25 (I-25) (Santa Fe Drive corridor) in the south Denver metropolitan area. The corridor traverses Arapahoe County, City and County of Denver, Douglas County, City of Englewood, City of Littleton, and City of Sheridan. Immediate land uses in the corridor are transitioning to mixed-use industrial, commercial, and residential uses at higher densities than seen historically, oriented toward transit stations and downtowns.

The Santa Fe Drive corridor mainly serves vehicles. A light rail transit (LRT) line runs parallel to the corridor. There are sidewalks intermittently spaced along Santa Fe Drive; and the South Platte River Trail/Mary Carter Greenway trail system parallels the corridor.

From C-470 to Florida Avenue, Santa Fe Drive is classified as an Expressway, Major Bypass with numerous individual private driveways and business accesses. From Florida Avenue to I-25, the corridor is classified as a Non-Rural Principal Highway. There are close to 40 intersecting cross streets, and in some segments the spacing between them is less than the required one mile between public road intersections.

The Santa Fe Drive corridor has four typical cross-sections (exclusive of turn lanes and auxiliary lanes): four-lane section from C-470 through the Bowles Avenue intersection (two 12-foot through lanes in each direction); six-lane section from Bowles Avenue to Evans Avenue (two 12-foot through lanes and a 12-foot express lane in each direction) except in the southbound direction, there are three through lanes from Dartmouth Avenue to Hampden Avenue; eight-lane section from Evans Avenue to Florida Avenue (three 12-foot through lanes and an express lane in each direction); and from Florida Avenue to Alameda Avenue, Santa Fe Drive is bifurcated and split by development and the South Platte River and the number of lanes varies due to movements related to the I-25 interchange ramps, auxiliary lanes, and intersection and access configurations (generally between two and three 12-foot through lanes in each direction and an express lane).

E. Who was the sponsor of the PEL study? (CDOT, Local Agency [name the local agency], Other)

Colorado Department of Transportation (CDOT), Region 1. Other funding partners (participating jurisdictions) were Arapahoe County, City and County of Denver, Douglas County, City of Englewood, City of Littleton, and City of Sheridan.

F. Who was included on the study team (Name and title of agency representatives, PMT, TWG, consultants, etc.)?

The Project Management Team (PMT) was made up of representatives from each participating jurisdictions (City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, and Douglas County), FHWA, DRCOG, and the Regional Transportation District (RTD). The Executive Oversight Committee (EOC) had elected officials and executives from each participating jurisdiction, as well as representatives from FHWA, DRCOG and RTD. Task forces were formed specifically to discuss public outreach, traffic, multimodal, and environmental resources. Each participating jurisdiction was invited to send a representative or

technical expert to the meetings. The names and titles of the agency representatives who participated in the study team are included in Attachment A to this questionnaire.

G. List the recent, current or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

Planning studies and plans developed by CDOT, DRCOG, RTD, the participating jurisdictions, and the South Suburban Parks and Recreation District were taken into consideration during development of this Action Plan. The studies include local land use and transportation considerations for Santa Fe Drive. This information provided useful context for developing Santa Fe Drive corridor concepts and assessing potential future improvements along the corridor that fit within the primary function of the highway. The studies are summarized in Chapter 2, Planning Context, of the *Santa Fe PEL (C-470 to I-25) Corridor Conditions Report (Corridor Conditions Report)* (published in November 2020) and an appendix to the Corridor Conditions Report, *Previous Plans Inventory and Analysis*.

2. Methodology used:

A. Did the Study follow the FHWA PEL Process? If the Study was conducted by another US DOT Agency, provide a crosswalk table to demonstrate how the FHWA Process was utilized.

The study followed the FHWA PEL Process.

B. How did the Study meet each of the PEL Coordination Points identified in 23 USC 168?

FHWA and CDOT officials determined that a PEL study was the appropriate planning process for this project.

The Executive Oversight Committee reviewed, commented on and endorsed the Purpose and Need statement, as well as the alternatives development and screening process and decisions made at major milestones. Meeting minutes documented the committee's discussions and endorsements (See 2E for dates).

The public was engaged at two major milestones and informed that the analyses and proposed improvements could be adopted into future NEPA processes. All participating jurisdictions were provided copies of the draft Action Plan in April 2022 to review and comment on. Revisions were made based on those comments and incorporated into the final Action Plan.

C. What NEPA terminology/language was used and how did you define them? (Provide examples or list)

- Purpose and Need Statement. Defined the project intent and the problems to be addressed
- Goals. Broad criteria that further informed the evaluation framework
- No Action Alternative. Alternative that includes projects with reasonably expected funding.
- Concept. Improvements with high-level definitions categorized by cross-section, roadway classification, interchange/intersection types, multimodal treatments, and technologies in Level 1 of the alternatives screening process.
- Option. Improvements considered at specific locations during Level 2A of the alternatives screening process.
- General Element. Improvements packaged together to form corridor themes during Level 2B of the alternatives screening process.

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- Evaluation Criteria. Performance measures derived to assess an alternative's ability to address the Purpose and Need of the project
- Carried Forward. Improvement has the potential to address one or more project needs and will be evaluated further as part of corridor alternative with additional definition and conceptual design
- Eliminated. Improvements that do not meet the Purpose and Need established within this study.
- Project Recommendations. Improvements that provide Safety, Operational Performance, and Multimodal Connectivity benefits along the Santa Fe Drive corridor that can possibly be implemented within an approximately 10-year timeframe.
- Early Action Projects. Project Recommendations that can be accomplished within reasonable budgets that may be funded with available sources and implemented within the next two to five years.
- Future Actions. Improvements that could be implemented beyond the 10-year timeframe for study recommendations due to the need for more detailed study, public and stakeholder coordination, more complicated environmental and design processes, and/or funding levels that are expected to take longer to acquire.
- Not Recommended. Improvements that were not a recommended solution, considering the Purpose and Need and goals developed with the study.
- Mitigation Strategies. Describes the anticipated commitments to address community and environmental resource impacts during project implementation.

D. How do you see these terms being used in NEPA documents?

These terms will be used in NEPA documents as defined in the Action Plan, with the exception of Project Recommendations. Instead, the NEPA processes that follow for a specific project will result in a single Preferred Alternative.

E. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps? For example, for the corridor vision, the decision was made by CDOT and the local agency, with buy-in from FHWA, USACE, and USFWS.

The study's decision-making group, the EOC, met at the milestones listed below to concur on the following deliverables:

- September 2020: Purpose & Need, goals and objectives, and existing conditions
- December 2020: Level 1 Evaluation Results
- June 2021: Level 2a Evaluation Results, Level 2b Corridor Themes
- October 2021: Preliminary Recommendations

F. How should the PEL information below be presented in NEPA?

The information presented below should be presented in NEPA in a similar fashion as it was used in the Action Plan. Additional detail will be developed as the data collection and analyses occur during future NEPA and design for individual projects.

3. Agency coordination:

A. Provide a synopsis of coordination with federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.

Coordination with agencies occurred at PMT, EOC, Elected Officials, task force, and specific issues meetings. Documentation of agency coordination can be found in the Agency Coordination Appendix of the Action Plan, Appendix B. The roles of the agencies were as follows:

FHWA was involved to assure that the PEL study process followed relevant federal guidelines and methodologies.

CDOT staff directed the study and provided staff with specific resource expertise to support technical analyses and provide input.

Staff from the participating jurisdictions (**City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, and Douglas County**) coordinated input from their respective agency departments on all aspects of the study, including endorsement of each milestone as an EOC member.

DRCOG staff provided input on traffic forecasting as well as other aspects of the study, including endorsement of each milestone as an EOC member.

RTD staff provided input on transit forecasting and alternatives development.

B. What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved in the PEL study? This includes all federal agencies if the study is being led by a local agency or transit oriented study seeking to utilize the FHWA PEL Process.

- FHWA, CDOT, City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, Douglas County, RTD, and DRCOG

C. What steps will need to be taken with each agency during NEPA scoping?

CDOT. Will be the lead agency for individual projects developed within the corridor.

FHWA. Will assist CDOT in determining the class of NEPA action that will be developed for the corridor and/or individual projects. FHWA will be the lead agency when there is an FHWA action related to an individual project.

City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, Douglas County. Will assist CDOT as a technical and/or financial partner on projects that will impact infrastructure owned by the jurisdiction. May lead efforts to reconstruct surrounding vehicular or trail assets owned by the jurisdiction.

RTD. Will assist CDOT as a technical and/or financial partner on projects that will impact RTD-owned infrastructure.

DRCOG. May facilitate financing of certain projects if they are awarded regional Transportation Improvement Program (TIP) funding.

4. Public coordination:

A. Provide a synopsis and table of your coordination efforts with the public and stakeholders.

General Public. The general public was engaged through the project website with online comment form and videos; email and hotline; digital survey; two online public events,

newsletters, postcards, and signs for residents and businesses. **Stakeholder Engagement Task Force.** Representatives from the planning and public communications staffs of the participating jurisdictions met three times and promoted the PEL study through their media outlets.

Stakeholder Interviews and Community Ambassadors. Business owners and other key stakeholders provided input on their unique needs. Acting as community ambassadors, they disseminated project information and built project awareness.

Details on the coordination efforts are included in the Public and Stakeholder Engagement Appendix of the Action Plan, Appendix C.

5. Corridor Vision/Purpose and Need:

A. What was the scope of the PEL study and the reason for doing it?

The scope of this Action Plan included:

- Identification of corridor purpose and needs and goals and objectives for the corridor.
- Identify public, environmental, and resource concerns and opportunities in the corridor.
- Examine improvements to address overall congestion on this section of Santa Fe Drive, serve existing and future needs, improve traffic operations, travel time, multimodal person-trip capacity, and safety.
- Evaluation of potential alternatives.
- Development of Early Action projects.

The reasons for doing the study were to give FHWA, CDOT, City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, and Douglas County a clear understanding of the transportation problems and environmental issues in the corridor, to collaboratively develop recommendations that could be implemented within 10 years, including identify early action projects that could be implemented immediately, and document future actions that would likely require longer than 10 years to plan and fund. The study conclusions aid the decision-making process around development of future projects and provide initial background and input to subsequent NEPA and design processes.

B. What is the vision for the corridor?

During the Level 1 screening, the PMT evaluated roadway classifications and decided that Santa Fe Drive should be developed as an expressway, and not as a freeway. Additionally, the PMT agreed that the scope of the study should focus on projects that could be reasonably constructed in a 10-year implementation timeline and not define a longer-term vision for the corridor.

C. What were the goals and objectives?

Goals of the recommended transportation projects for the Santa Fe Drive corridor are to:

- Consider local community surroundings and context
- Support local and regional planning efforts
- Minimize environmental impacts as practicable
- Balance local access and regional travel with consistent application of the defined access category for Santa Fe Drive

- Optimize transit use and multimodal travel opportunities for the travel corridor.
- Enhance connections and wayfinding to adjacent pedestrian and bicycle facilities
- Provide redundancy for the regional transportation system to accommodate traffic when incidents impact other north-south routes such as I-25, Broadway, or Federal.

D. What is the PEL Purpose and Need statement?

The purpose of the recommended transportation improvements from this study is to improve safety for all users, improve operational performance, and enhance multimodal connectivity for the Santa Fe Drive corridor from C-470 to I-25 through Arapahoe County, City and County of Denver, Douglas County, Englewood, Littleton, and Sheridan.

Transportation improvements are needed to address:

- **Safety.** Increase safety on the corridor by congestion and direct access to the corridor from local roads and driveways.
- **Operational Performance.** Increase the operational performance of the corridor that currently results in poor travel-time reliability and congestion.
- **Multimodal Connections.** Enhance multimodal connections, including pedestrian, bicycle, and transit.

E. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?

A Purpose and Need statement will be developed for each project that CDOT or one of the participating jurisdictions advances through NEPA, design, and construction. Projects will follow the appropriate NEPA process depending on project size and potential impacts to address the project-specific Purpose and Need.

6. Range of alternatives considered, screening criteria and screening process:

A. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)

The PEL study process used a three-step alternatives evaluation process. Concepts in Level 1 included options for no action, cross-sections, roadway classification, intersections/interchanges, multimodal treatments, and technology. The same types of options for Level 2A were location specific and then in Level 2B those location specific options were packaged into complete corridor alternatives. Appendix D to the Action Plan includes additional detail on the alternatives, the evaluation and screening process, and the results.

B. How did you select the screening criteria and screening process?

The screening process was developed by the PMT in accordance with guidance provided in CDOT's PEL Handbook, version 2 (2016) and previous project experience of the PMT and consultant team members. The screening criteria for all levels were based on how well the concepts met the three elements of the Purpose and Need: safety, operational performance, and multimodal connections.

The Level 1 evaluation identified a range of corridor improvement concepts that could meet the project Purpose and Need, while eliminating concepts from detailed consideration that had "fatal flaws" (that did not meet the Purpose and Need for the corridor).

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For Level 2A, the options from Level 1 were screened based on qualitative criteria for safety, operational performance, multimodal connections, community/quality of life, environmental resources, and constructability.

For Level 2B, the screening criteria were the same as Level 2A, but were more quantitative. General elements from the themes were selected to be carried forward as the Project Recommendations.

C. For alternative(s) that were screened out, briefly summarize the reasons for eliminating or not recommending the alternative(s). (During the initial screenings, this generally will focus on fatal flaws)

The rationale for the result for each option eliminated is provided in the evaluation matrices for each level in Appendix D to the Action Plan.

In Level 1, four concepts were eliminated from further consideration because they did not meet the Purpose and Need:

- Convert Existing Corridor Lanes/Shoulders for Multimodal.
- Increased Capacity/Widening on Parallel Roadways.
- Non-Rural Arterial Roadway Classification.
- Special Bus Operations.

In Level 2A, the eleven options listed below were not recommended because they had comparatively negligible benefits and higher impacts than other options.

Location	Option
General Corridor Classifications and Cross-Sections	<ul style="list-style-type: none"> • R4. Freeway – Managed Lanes and Existing General-Purpose Lane.
Spot Locations	<ul style="list-style-type: none"> • R7. Aspen Grove Enhanced Access. • R12. Downtown Littleton Arterial. • R16. Improved South Platte River Drive. • R17. Realigned Santa Fe Drive to East of Platte River.: • R18. Arterial North of Florida.
Intersections/Interchanges	<ul style="list-style-type: none"> • Aspen Grove Way Signal – I5. NB Left CFI. • Brewery Lane Signal – I8. NB Left CFI. • Church Avenue Signal – I11. Quadrant Road Intersection with Sumner. • Bowles Avenue Signal – I15. Quadrant Road Intersection with left turns at Prince and Church. • Prince Street Signal – I20.

In Level 2B, the following options eliminated were:

- Channelized T intersections with grade separation not recommended due to added impacts and cost.
- Quadrant Road at Dartmouth not recommended due to Environmental Justice impacts.
- Offset T at Florida and Iowa not recommended due to property impacts.

- SE Quadrant Road at Mississippi not recommended due to short distance between intersections – recommended as future action.

D. How did the team develop Alternatives? Was each alternative screened consistently?

During each level of screening, all of the alternatives were screened consistently against the screening criteria established for that evaluation level.

For Level 1, the alternatives (or concepts) represented a broad range of improvement concepts that recognized the diverse elements of the corridor. These improvement concepts were reasonable options focused on addressing the project Purpose and Need and issues identified in the evaluation of existing and future conditions. They consisted of elements that CDOT and/or the participating jurisdictions have control over and did not expand outside transportation.

Level 2A options were categorized into roadway, intersection/interchange, and multimodal options. Roadway options were further categorized into general classification and cross-section options, spot location options; multimodal infrastructure was further categorized into pedestrian/bicyclist grade separation, improved connections to parallel trail facilities, improved connections to transit, and additional north-south bicycle capacity along corridor.

For Level 2B, options that moved forward from Level 2A were put into four themes: safety and operations focus, corridor access focus, multimodal focus, and adaptability/flexibility. Within each theme, options included auxiliary lanes, frontage roads, intersection/interchange improvements, direct access options, and multimodal improvements.

From Level 2B, final options were recommended, which include projects for the next 10 years, including early action projects which could be implemented immediately, and future actions which are long-term projects to be implemented in 10+ years.

E. Which alternatives were recommended? Which should be brought forward into NEPA and why?

The Project Recommendations are identified for specific locations, rather than a corridor alternative. The types of recommended improvements are intersection improvements, multimodal connections, right-of-way preservation, access consolidation, corridorwide technology and system management elements. The specific improvements are listed in Section 5.0, Alternatives Evaluation and Recommendations, of the Action Plan.

F. Did the public, stakeholders, and agencies have an opportunity to comment during this process? Summarize the amount of public interest in the PEL Study.

The public, stakeholders, and agencies had opportunities to comment with a survey; interviews; online events; community and city council meetings; PMT, EOC, and task force meetings; and through the project website and hotline.

- Project Introduction and Purpose and Need: Website, project email, hotline, digital survey (493 participants), stakeholder interviews (15).
- Level 1 Alternatives (January 18, 2021, to February 8, 2021): Online Public Event 1 that generated 339 visitors, 212 survey responses, and 104 map comments.
- Early Action Projects and Level 2 Themes: Online Public Event 2 generated 497 visitors, 150 survey responses, and 490 comments.

- Study Recommendations: Advertised on social media advertisement, emails blasts to the public and stakeholders, press release, and participating jurisdiction outlets. The website will remain open after the Action Plan is published.

G. Were there unresolved issues with the public, stakeholders and/or agencies?

There were specific locations on the corridor that the PMT asked to review in further detail due to concerns that could not be resolved during the PEL. These included:

- Impacts of the new signalized intersections being constructed (in 2021) at Kentucky Avenue
- Lack of an effective Project Recommendation at Mississippi Avenue
- Concern about property impacts for the Bowles Avenue quadrant road Project Recommendation
- Options for reconfiguration of the existing HOV lanes (though this was studied and resulted in a white paper included as an attachment to the Traffic and Safety Report) in an appendix to the Action Plan, Appendix E
- Future action projects were not originally defined in the study process, but were identified during the Level 2A screening as a way to separate longer term project ideas

7. Planning assumptions and analytical methods:**A. What is the forecast year used in the PEL study?**

2040

B. What method was used for forecasting traffic volumes?

Traffic analysis for the Action Plan was conducted using a combination of travel demand modeling and deterministic, macroscopic corridor and intersection capacity analysis tools. Travel demand modeling was completed using the Denver Regional Council of Governments (DRCOG) regional travel demand model (TDM), also known as FOCUS 2.2. The model meets federal and state planning process requirements, is calibrated and validated by DRCOG, and was used to forecast future travel demand for the PEL's planning horizon year of 2040.

Details about the method are included in the Traffic and Safety Technical Report Appendix of the Action Plan, Appendix E.

8. What pieces of the PEL can transfer directly to the NEPA phase of a project?

Assuming the next NEPA process is conducted in the next 5 years, the following elements can be directly transferred to the NEPA phase:

- Local land use, growth management, and development
- Built environmental and infrastructure conditions
- Purpose and Need Statement
- Stakeholder identification
- Travel demands
- Regional development and growth
- Population and employment
- Natural environmental conditions
- Environmental resources and potential effects

9. Resources (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:

A. In the PEL study, at what level of detail were the resources reviewed and what was the method of review?

Most resources were studied either via desktop or at a resource-agency-specific website. Some records research was done for historic resources with the State Historic Preservation Officer (SHPO). See the table beginning on page 12 for details on other resources.

B. Is this resource present in the area and what is the existing environmental condition for this resource?

The Action Plan documents the existing environmental condition for the resources that were determined to be differentiators between the alternatives under consideration. These were:

- Air Quality
- Environmental Justice
- Floodplains
- Hazardous Materials
- Historic Resources
- Noise
- Recreational Resources (Parks, Trails and Open Space, and Wildlife and Waterfowl Refuges)
- Visual/Aesthetics
- Wetlands and Other Waters of the U.S.

All resources listed in the table beginning on page 12 are present within the environmental study area defined around this corridor.

C. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?

The table beginning on page 12 includes general recommendations for assessing impacts during the NEPA phase for individual projects.

D. How will the data provided need to be supplemented during NEPA?

The table beginning on page 12 summarizes how the data collected for the Corridor Conditions Report and the PEL study for individual environmental resources will need to be supplemented for future NEPA processes.

10. List resources that were not reviewed in the PEL study and why? Indicate whether or not they will need to be reviewed in NEPA and explain why.

Farmlands: A specific farmlands assessment was not conducted. Farmlands were included at a high level as agricultural land use in the Corridor Conditions Report. An assessment of farmlands is not anticipated during NEPA because the land uses are not expected to change.

Energy: An assessment of energy was not completed because (per the CDOT NEPA Manual) it is required only for Environmental Impact Statements or under special circumstances. The recommended projects from the Action Plan are not anticipated to require an Environmental Impact Statement.

11. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where it can be found.

The Action Plan did not consider cumulative impacts.

12. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.

The Action Plan did not discuss mitigation strategies. It did identify critical schedule considerations for NEPA and next steps that need to be taken to identify mitigation strategies for individual projects.

13. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?

This Action Plan was intended to provide the framework for the long-term implementation of improvements along the corridor as funding is available, and to be used as a resource for future NEPA documentation. Published documentation from the PEL study process, such as Purpose and Need, alternatives screening, scoping for environmental resource impact assessments, and public and agency coordination, can be used during future NEPA scoping processes.

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Resource	Data Source Used	NEPA Considerations
Air Quality	EPA on-line Green Book website (based on updates through June 30, 2020)	Any project requiring a future NEPA action should determine the extent of required analysis. Determine whether projects are considered regionally significant projects and what greenhouse gas analysis is required.
Environmental Justice	2014-2018 American Community Survey (ACS) 5-Year Estimates	Coordination with affected populations and agencies early in the project to identify mitigation measures and to reduce any delay to schedule.
Floodplains	FEMA Floodplain Data in Flood Insurance Rate Maps, GIS floodplain/floodway data obtained from CDOT, Flood Hazard Area Delineation studies obtained from the Mile High Flood District, Flood Hazard Area Delineation studies obtained from Mile High Flood District	Avoid and mitigate impacts to floodplains and floodways prior to final design to avoid the need for a Letter of Map Revision, which may have risks to schedule.
Hazardous Materials	GeoSearch, May 2020, EPA Superfund Search Tool, EPA Enforcement and Compliance History, CDPHE Brownfields Program, Colorado Department of Labor and Employment Division of Oil and Public Safety Colorado, Storage Tank Information System website, CDPHE Voluntary Cleanup and Redevelopment Program (VCRP)	An Initial Site Assessment (ISA) Checklist/Form 881, a Modified Environmental Site Assessment (MESA), or a Phase I Environmental Site Assessment (ESA), outline requirements for conducting a more detailed analysis. Additional coordination with regulatory agencies and property owners and remediation activities, if needed, may result in substantial delays to schedule during design development or project construction. CDPHE commented during Agency Coordination activities that as part of the implementation process, CDOT and associated contractors must coordinate with the Solid Waste Permitting Unit of the Hazardous Materials and Waste Management Division, Colorado Department of Public Health and Environment, in the event that historic casual or permitted landfills will be impacted by the proposed changes to the study site. Contact is Jerry Henderson at jerry.henderson@state.co.us .
Historic Resources	Colorado Office of Archaeology and Historic Preservation (2020)	Identification and evaluation surveys of historic resources to determine what historic resources may be potentially affected by the project. Agency coordination and avoidance or minimization of impacts should be conducted as early as possible during NEPA and throughout design to avoid lengthy schedule delays.

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Resource	Data Source Used	NEPA Considerations
Noise	GIS data sets from local municipalities, including Denver County (City and County of Denver, 2020), Arapahoe County (Arapahoe County, 2020), and Douglas County (Douglas County, 2020)	Any future projects that result from this study’s recommendations will be classified as Type I projects that require a noise analysis to determine potential impacts to noise-sensitive receptors as part of the NEPA process. If a noise barrier is included in the project, additional coordination would be required with adjacent property owners, which should be included in the schedule.
Recreational Resources (Parks, Trails and Open Space, and Wildlife and Waterfowl Refuges)	DRCOG Parks and Open Space Layer (2018), DRCOG Bicycle Facility Inventory Layer (2018), Colorado Trail Explorer tool (CDNR with CPW, 2020), South Suburban Parks and Recreation District Parks Locator Tool (South Suburban Parks and Recreation District, 2020), ArapaMap (Arapahoe County Assessor’s Office, 2020)	If a project cannot avoid Section 4(f) and Section 6(f) properties, there is a process for each to demonstrate and document that appropriate steps were taken to avoid the resource, minimize harm to the resource, and mitigate for impacts that would occur; and that coordination with the officials with jurisdiction has occurred. To avoid delays, early coordination with applicable agencies and stakeholders should occur at the onset of NEPA. Project schedules should account for the Section 4(f) and Section 6(f) clearance processes, which have agency and public involvement requirements that can lengthen the project clearance schedule. A “use” of these properties for transportation improvements can trigger the need for a separate approval process. An individual Section 4(f) approval process can take one year or more, and clearance for Section 6(f) resources can take 16 months or more and require National Parks Service approval.
Visual and Aesthetics	Google Earth desktop analysis, Windshield survey	Conduct a CDOT Visual Impact Assessment to determine the necessary steps to document the visual impacts and identify mitigation. Coordination with local agencies and interested stakeholders should occur early in the design process to avoid any delay to the schedule.
Wetlands and Waters of the U.S	Aerial Imagery—Recent and historic imagery from 1993 through 2018, Topographic map—United States Geological Survey, National Wetlands Inventory data (USFWS, 2020), General ecological description of the project area (USDA, 2006).	Determine early if project impacts would trigger the need for an Individual Permit from the USACE (greater than .5 acre of permanent impacts), which requires much more time and effort than authorization under one or more Nationwide Permits. Determine if the project would impact an area that may contain a Senate Bill 40 (SB 40) jurisdictional stream or its banks or tributaries.
Socioeconomic Conditions	DRCOG Traffic Analysis Zones (2020)	Update existing conditions and determine impacts and mitigation based on design for an individual project.

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Resource	Data Source Used	NEPA Considerations
Right of Way	Desktop review of public property records and parcel boundaries in GIS	Additional investigation will be required, particularly in places where preliminary ownership records searches indicate overlap of individual parcels into the perceived public right-of-way for the corridor. Additional records research may be required related to the specific boundary location between CDOT and railroad properties in all areas where the railroad is directly adjacent to the east side of Santa Fe Drive.
Archaeology/ Paleontology	A Compass file search with the Colorado OAHP (May 2020); no Paleontological surveys were conducted.	Determine the need and extent of paleontological surveys based on the project-specific scope and a review of the Potential Fossil Yield Classification.
Geologic Resources and Soils	CDOT Soils and Geotechnical Program archives, field reconnaissance May 2020	Three hazards will require further evaluation and may require some mitigation during design: 1) landfill areas and undocumented fills, 2) swelling/collapse prone soils, and 3) soft clays at the Evans Avenue interchange.
Drainage and Water Quality	CDOT Online Transportation Information System (2020); United States Geological Survey National Hydrographic Dataset (2020); Colorado Department of Public Health and Environment Clean Water GIS Maps (2020)	Confirm MS4 boundaries and 303(d) listings. Permanent water quality control measures can result in increased right-of-way impacts, affecting cost and schedule.
Vegetation and Noxious Weeds	Not included in the Corridor Conditions Report	Complete project-specific site survey to determine impacts and mitigation based the project. Complete necessary assessment for SB 40 certification, as applicable.
Wildlife and Fisheries	Coordination with local agency planning departments to determine what public parks, recreation areas, or wildlife and waterfowl refuges are planned within the study area.	Complete project-specific site survey to determine impacts and mitigation based on the project.

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Resource	Data Source Used	NEPA Considerations
<p>Threatened and Endangered Species</p>	<p>Federal candidate, threatened, and endangered species, as identified by the U.S. Fish and Wildlife Service (USFWS) online Information, Planning and Conservation (IPaC) System (USFWS, 2020); Colorado sensitive, threatened, and endangered species (CPW, 2020); CPW Google Earth Species Maps (CPW, 2020); Colorado Natural Heritage Program (CNHP) species distribution maps and Geographic Information System (GIS) map layers (CNHP, 2020); eBird for recent sightings of federal or state listed birds in the project area (Sullivan et al. 2009)</p>	<p>Prairie dog colonies will need to be mapped. Coordination with the USFWS and CPW will be necessary to determine if other surveys are required for the NEPA process.</p> <p>Outside of the South Platte River Block Clearance Zone for the Ute ladies' tresses orchid, a presence/absence survey may be required to determine if Ute ladies'-tresses orchid are present in suitable habitat such as wetlands and riparian areas.</p>

14. Are there any other issues a future project team should be aware of?

A. Examples: Utility problems, access or ROW issues, encroachments into ROW, problematic landowners and/or groups, contact information for stakeholders, special or unique resources in the area, etc.

Utilities: It is possible that potential improvements would impact existing utility facilities. Where possible, project alternatives should avoid impacts to major utility facilities. Proactive utility company coordination should be implemented during NEPA as a mitigation strategy.

Section 4(f) & Section 6(f): Resources that are adjacent to or cross Santa Fe Drive or major cross streets are likely to require additional analysis during the NEPA process under Section 4(f) and Section 6(f). Project schedules should account for the Section 4(f) and Section 6(f) processes, which have agency and public review requirements and can lengthen the project clearance schedule.

15. Provide a table of identified projects and/or a proposed phasing plan for corridor build out.

The study recommendations are identified with the following timeframes for implementation and further project development.

- **Project Recommendations** are improvements that provide Safety, Operational Performance, and Multimodal Connectivity benefits along the Santa Fe Drive corridor that can possibly be implemented in the near term, within an approximately 10-year timeframe. These also include technology and system management recommendations.
- **Early Action Projects** are Project Recommendations with relatively simple project development requirements (e.g., little to no right-of-way, minimal environmental resource impacts) and the potential for immediately available funding sources. Four of these projects secured funding during this PEL study process and are moving forward.
- **Future Actions** are projects that have the potential to provide notable improvements for the Santa Fe Drive corridor, but they would require further study, more complicated environmental and design processes, or funding levels and schedules that are expected to take longer than the 10-year timeframe to implement.

The recommendations for each category are detailed in the Action Plan in Section 6. Section 6 includes information to aid implementation including project ratings, ease of implementation ratings, cost estimates and funding strategies, and next steps.

16. Provide a list of what funding sources have been identified to fund projects from this PEL?

Funding from Senate Bill 09-108 Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Safety Program has been identified for four Early Action Projects. During subsequent NEPA studies, CDOT intends to seek opportunities for funding partnerships with potential partners including the City and County of Denver, City and County of Denver, City of Englewood, City of Littleton, City of Sheridan, Arapahoe County, and Douglas County, DRCOG, RTD, South Suburban Parks and Recreation District, and the major districts and large property owners along the corridor.

Attachment A

Study Team Members

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Contract Administration Team	
CDOT Steve Sherman, Contract Manager Resident Engineer, Central Program Jacob Southard, Project Manager Engineer	Basil Ryer, Environmental Lead Regional NEPA Program Manager JoAnn Mattson, Planning Lead Planner

Project Management Team*	
CDOT Steve Sherman, Resident Engineer, Region 1 West Program, CDOT Contract Manager Roman Jauregui, Resident Engineer, Region 1 Chuck Attardo, I-25 South Corridor Environmental Project Manager, Region 1 Jacob Southard, Engineer, Region 1, CDOT Project Manager Bruce Naylor, Engineer, Region 1 Central Program Basil Ryer, Regional NEPA Program Manager, Region 1 CDOT Environmental Lead JoAnn Mattson, Planner, Region 1, CDOT Planning Lead Jessica Myklebust, Regional Transportation Director, Region 1 Paul Scherner, Traffic Operations, Region 1, CDOT Traffic Lead	Jay Hendrickson, Program Engineer, Region 1 Central Program Josh Breedlove, Resident Engineer, Region 1 South Program Presley Fowler, CDOT Communications Coordinator Julie George, Local Government Liaison, Regions 1, 2, and 3 Troy Halouska, Environmental Programs Branch, PEL Program Manager FHWA Chris Horn, Senior Area Engineer, Colorado Division City and County of Denver David Pulsipher, Pedestrian and Bicycle Planning Supervisor, Denver Department of Transportation and Infrastructure Jane Board, Senior Planner, Denver Department of Transportation and Infrastructure

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Project Management Team*	
City of Englewood Guy Norris, Former Traffic Engineer, Public Works Janet Lundquist, Former Deputy Director of Public Works, Maintenance and Operations Maria D'Andrea, Director of Public Works	Douglas County Art Griffith, CIP Manager, Public Works Engineering Ben Pierce, Capital Improvements Project Manager, Public Works Engineering
City of Littleton Aaron Heumann, Traffic Engineering Manager, Public Works Keith Reester, Director of Public Works	Denver Regional Council of Governments Steve Cook, Program Manager, MPO Planning Program Robert Spotts, Mobility Analytics Program Manager
City of Sheridan Andrew Rogge, Senior Planner, Planning and Zoning	Regional Transportation District Lee Cryer, Planning Project Manager
Arapahoe County Jim Katzer, Transportation Division Manager, Public Works and Development Jim Fox, Traffic Engineer, Public Works and Development	

Executive Oversight Committee	
CDOT Paul Jesaitis, Former Regional Transportation Director, Region 1 Angie Drumm, Deputy Director, Traffic and Safety Stephanie Alanis,, Program Engineer Roman Jauregui, Resident Engineer, Region 1 Jay Hendrickson, Program Engineer, Region 1 Central Program Steve Sherman, Resident Engineer, Region 1 West Program Jacob Southard, Engineer, Region 1 Jessica Myklebust, Regional Transportation Director, Region 1	FHWA Elizabeth Cramer, Program Delivery Team Leader Chris Horn, Senior Area Engineer, Colorado Division City and County of Denver Jenn Hillhouse, Director of Transportation Planning, Denver Department of Transportation and Infrastructure City of Englewood Maria D'Andrea, Director of Public Works City of Littleton Keith Reester, Director of Public Works

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Executive Oversight Committee	
Troy Halouska, Environmental Programs Branch, PEL Program Manager	City of Sheridan Devin Granbery, City Manager
Julie George, Local Government Liaison, Regions 1, 2, and 3	Denver Regional Council of Governments Ron Papsdorf, Director of Transportation Planning and Operations
Arapahoe County Bryan Weimer, Public Works and Development Director	Regional Transportation District Brian Welch, Senior Manager, Planning Technical Services
Douglas County Art Griffith, CIP Manager, Public Works Engineering	

Elected Officials Committee	
City and County of Denver Councilman Jolon Clark, District 7	Arapahoe County Commissioner Carrie Warren-Gully, District 1
City of Englewood Mayor Linda Olson	Douglas County Commissioner George Teal, District 2
City of Littleton Mayor Pro Tem Scott Melin, Mayor Kyle Schlachter	Roger Partridge Former Douglas County Commissioner, District 2
City of Sheridan Mayor Tara Beiter-Fluhr	Regional Transportation District Doug Tisdale, RTD Director, District H
	Brian Welch, Senior Manager of Planning Technical Services

Traffic Task Force	
CDOT Paul Scherner, Traffic Operations, Region 1	City of Littleton Aaron Heumann, Traffic Engineering Manager, Public Works
Roman Jauregui, Resident Engineer, Region 1	City of Sheridan Andrew Rogge, Senior Planner, Planning and Zoning
Chuck Attardo, I-25 South Corridor Environmental Project Manager	Arapahoe County Jim Katzer, Transportation Division Manager, Public Works and Development
City and County of Denver David Pulsipher, Pedestrian and Bicycle Planning Supervisor, Denver Department of Transportation and Infrastructure	

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Traffic Task Force	
City of Englewood Guy Norris, Former Traffic Engineer, Public Works Janet Lundquist, Former Deputy Director of Public Works, Maintenance and Operations Maria D'Andrea, Director of Public Works	Jim Fox, Traffic Engineer, Public Works and Development
Regional Transportation District Lee Cryer, Planning Project Manager	Douglas County Ben Pierce, Capital Improvements Project Manager, Public Works Engineering Denver Regional Council of Governments Steve Cook, Program Manager, MPO Planning Program Robert Spotts, Mobility Analytics Program Manager

Environmental Task Force	
CDOT Steve Sherman, Resident Engineer, Region 1 West Program Jacob Southard, Engineer, Region 1 Jessica Myklebust, Deputy Director of Program Delivery, Region 1 Basil Ryer, Regional NEPA Program Manager, Region 1 Chuck Attardo, I-25 South Corridor Environmental Project Manager Veronica McCall, Project Manager and Section 4(f) and 6(f) Specialist, Region 1 Troy Halouska, Environmental Programs Branch, PEL Program Manager Austin Curry, Environmental Project Manager Barbara Stocklin-Steely, Historian	City of Englewood John Voboril, Long Range Planner City of Littleton Carolyn Roan, Water Resource Manager, Public Works City of Sheridan Andrew Rogge, Senior Planner, Planning and Zoning Arapahoe County Lisa Knerr, Environmental Manager Jim Katzer, Transportation Division Manager, Public Works and Development Douglas County Ben Pierce, Capital Improvements Project Manager, Public Works Engineering
City and County of Denver Jane Board, Senior Planner, Denver Department of Transportation and Infrastructure	

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Stakeholder Engagement Task Force	
<p>CDOT</p> <p>Steve Sherman, Resident Engineer, Region 1 West Program</p> <p>Jacob Southard, Engineer, Region 1</p> <p>Presley Fowler, CDOT Communications Coordinator</p> <p>JoAnn Mattson, Planner, Region 1</p> <p>Jan Rowe, Planner & Transit Liaison, Region 4</p> <p>Arapahoe County</p> <p>Amanda Denning, Communication Business Partner, Public Works</p> <p>Jim Katzer, Transportation Division Manager, Public Works and Development</p>	<p>City and County of Denver</p> <p>Nancy Kuhn, Communications Director, Denver Department of Transportation and Infrastructure</p> <p>City of Englewood</p> <p>Toni Arnoldy, Event Supervisor</p> <p>City of Littleton</p> <p>Kelli Narde, Director of Cultural & Media Services</p> <p>City of Sheridan</p> <p>Andrew Rogge, Senior Planner, Planning and Zoning</p> <p>Douglas County</p> <p>Ben Pierce, Capital Improvements Project Manager, Public Works Engineering</p>

Multimodal Task Force	
<p>CDOT</p> <p>Jacob Southard, Engineer, Region 1</p> <p>JoAnn Mattson, Planner, Region 1</p> <p>Jan Rowe, Planner & Transit Liaison, Region 4</p> <p>Betsy Jacobsen, Bicycle and Pedestrian Manager</p> <p>Sharon Terranova Former Planning Manager, Division of Transit & Rail</p> <p>City and County of Denver</p> <p>Gaby Serrado, Project Development & Community Design Manager, Denver Department of Transportation and Infrastructure</p> <p>City of Englewood</p> <p>John Voboril, Long Range Planner</p> <p>Guy Norris Former Traffic Engineer, Public Works</p>	<p>Douglas County</p> <p>Ben Pierce, Capital Improvements Project Manager, Public Works Engineering</p> <p>Denver Regional Council of Governments</p> <p>Steve Cook, Program Manager, MPO Planning Program</p> <p>Matthew Helfant, Senior Transportation Planner</p> <p>Beth Doliboa Former Transportation Planner</p> <p>Regional Transportation District</p> <p>Lee Cryer, Planning Project Manager</p> <p>Greenway Foundation</p> <p>Jeff Shoemaker, Executive Director</p> <p>South Suburban Park and Recreation District</p> <p>Melissa Reese-Thacker, Planning Manager</p> <p>Denver Streets Partnership</p>

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Multimodal Task Force	
<p>City of Littleton Aaron Heumann, Traffic Engineering Manager, Public Works Shane Roberts, Transportation Planner, Public Works</p>	<p>Jill Locantore, Executive Director Bicycle Colorado James Waddell (formerly with Bicycle Colorado), Mobility Programs Director Piep Van Heuven Director of Government Relations</p>
<p>City of Sheridan Andrew Rogge, Senior Planner, Planning and Zoning</p>	
<p>Arapahoe County Jim Katzer, Transportation Division Manager, Public Works and Development Brett Collins, Former Open Spaces Grants and Acquisitions Manager</p>	

Consultant Team		
<p>HDR Katie Angell Zachary Bentzler Chad Blackwell Keith Borsheim Meghan Boydston Sirena Brownlee Kenna Davis Lindsey Diekmann Tyler Hopkins Lorena Jones Edward Liebsch Jason Longsdorf David Millar Megan Mueller Michael Parsons</p>	<p>Christopher Primus Michael Sobol Mary Speck Wendy Wallach Todd Wickert David Evans & Associates Sara Ciasto Anna Cohen Molly McCray Hannah Polow Stacy Tschuor Apex Malinda Reese David Murie George Shackil</p>	<p>Arland Arleen Taniwaki Goodbee & Associates, Inc. Mary Keith Floyd Project Vision 21 Francisco Miraval Shannon & Wilson, Inc. Dave Asunskis Dave Vara SurvWest Gary Gable Y2K Engineering Chris Sobie Michelle Beckley Rae Stephani</p>