



Interstate 84/Route 8  
Interchange  
Reconstruction

# PEL Process Framework and Methodology

Prepared for:



Connecticut Department of  
Transportation

Prepared by:



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The Connecticut Department of Transportation may adopt or incorporate Planning Products from this PEL Study into a federal or state environmental review process, pursuant to Title 23 U.S.C. § 168(d)(4).

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# 1 Introduction and Study Area

The Connecticut Department of Transportation (CTDOT) is initiating a Planning and Environmental Linkages (PEL) Study of the Interstate 84 (I-84)/State Route 8 (Route 8) Interchange, known as the Mixmaster Interchange, in Waterbury. CTDOT desires to establish a vision, or master plan, for the interchange that addresses and balances the regional importance of the Mixmaster for commuter traffic and motor freight users, while also improving multi-modal services, local connections and livability within the city of Waterbury to enhance and support social equity and economic vitality. The overarching goal of the PEL Study is to develop this clear and supported plan of action for addressing transportation deficiencies of the Mixmaster Interchange.

In the spirit of cooperation and collaboration and acknowledging the critical role that a number of agencies play in achieving the goals of this transportation vision, this Framework and Methodology Report has been developed to foster proactive working relationships among CTDOT and key agencies, including the Federal Highway Administration (FHWA), the City of Waterbury, and the Naugatuck Valley Council of Governments (NVCOG), the Metropolitan Planning Organization for the project area. CTDOT, in coordination with FHWA, are the lead agencies for the Mixmaster Interchange PEL Study; and NVCOG and the City of Waterbury are project partners. The collaboration among the lead agencies and project partners will be integral to the success of the environmental and transportation planning process for the Mixmaster Interchange, which will identify issues and inform the subsequent National Environmental Policy Act (NEPA) review process.

## 1.1 PURPOSE OF FRAMEWORK AND METHODOLOGY

The purpose of this Framework and Methodology Report is to describe and encourage the use of a PEL Study to meet agency requirements while expediting transportation project delivery for the Mixmaster Interchange. The Framework and Methodology Report formalizes the scope, schedule and expected outcomes for the Mixmaster Interchange PEL process. The lead agencies and project partners are committed to follow a process that encourages:

- Early communication, coordination, and collaboration;
- Input from project stakeholders, including other local, state and federal agencies, tribes, and the public;
- Better informed and strategic transportation decisions; and
- Efficient and cost-effective solutions.

## 1.2 PEL STUDY AREA

The proposed PEL Study Area is generally depicted in **Figure 1**. It extends approximately four miles on I-84 from Exit 17 on the west to Exit 23 on the east, and approximately two miles on Route 8 from just beyond Exit 30 on the south to just beyond Exit 35 on the north. The PEL Study Area also encompasses the surrounding area within these distances, to include and consider city neighborhoods and populations, city streets, city land uses, and environmental and cultural resources. The specific extent of the PEL Study Area may vary depending on the resource being considered.

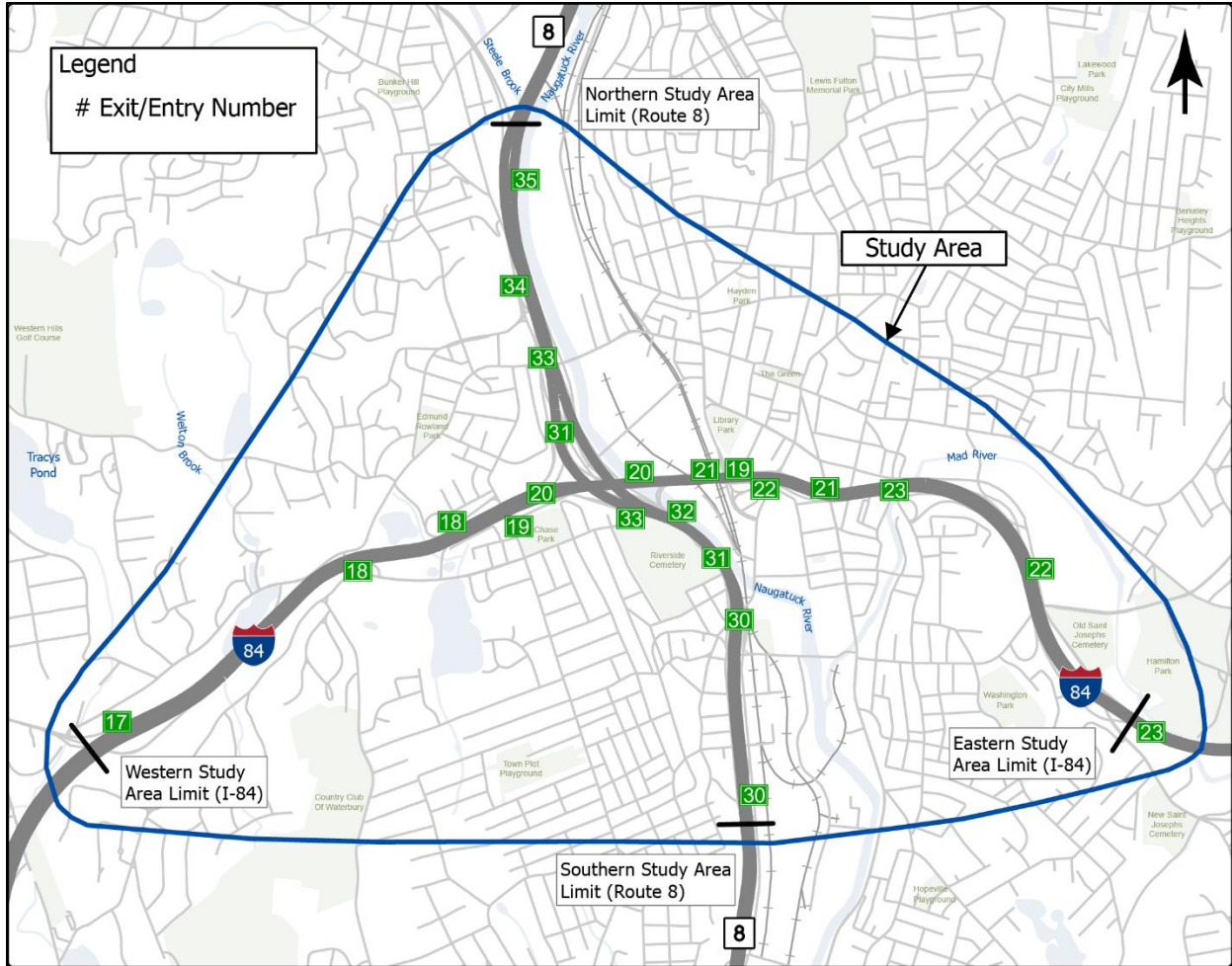


Figure 1 Proposed PEL Study Area

## 2 PEL Process Framework

The PEL process links planning and NEPA. The purpose of PEL is to conduct a project planning process with procedures and documentation that are aligned with and acceptable for use in future NEPA studies. The PEL process avoids duplication and streamlines the NEPA process by conducting preliminary activities and developing project milestones as a precursor and complement to NEPA, including but not limited to:

- Establishing the Preliminary Purpose and Need Statement, including goals and objectives;
- Identifying key environmental and community resources and constraints;
- Developing and screening project alternatives, including localized multimodal considerations; and
- Developing potential mitigation strategies.

These planning and analysis activities, conducted with input from stakeholders and the general public, will produce transportation planning products that effectively serve both CTDOT's and the City of Waterbury's transportation needs, and meet the requirements of NVCOG's regional transportation improvement



planning process. FHWA will review and approve the development of a PEL study and its use in the subsequent NEPA process.

## 2.1 PEL LEGISLATION AND GUIDANCE

### 2.1.1 Federal Legislation and Guidance

The Mixmaster Interchange PEL Study will be completed in accordance with the following legislation and regulatory guidance so that it can be used to inform the NEPA process:

#### Legislation

##### **The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**

This 2005 surface transportation funding and authorization bill includes several provisions intended to enhance the consideration of environmental issues and impacts within the transportation planning process, and it encourages the use of the products from planning in the NEPA process. Specifically, Section 6001, *Environmental Considerations in Planning*, requires certain elements and activities to be included in the development of long-range transportation plans, including:

- Consultations with resource agencies, such as those responsible for land-use management, natural resources, environmental protection, conservation and historic preservation, which shall involve, as appropriate, comparisons of resource maps and inventories;
- Discussion of potential environmental mitigation activities;
- Participation plans that identify a process for stakeholder involvement; and
- Visualization of proposed transportation strategies where practicable.

##### **Statewide and Metropolitan Planning Regulations**

In 2007, FHWA issued new planning regulations that eliminate the requirement for a major investment study and implemented provisions enacted by SAFETEA-LU. In its place, the regulations create a new optional procedure for linking transportation planning and NEPA studies. These procedures are contained in 23 CFR 450.212 (statewide planning) and 23 CFR 450.318 (metropolitan planning). FHWA provided further direction on using corridor and subarea planning to bridge the transportation planning and NEPA processes, as described in 23 CFR 450, in its April 2011 guidance document, *Guidance on Using Corridor and Subarea Planning to Inform NEPA*.

##### **Moving Ahead for Progress in the 21st Century (MAP-21)**

This 2012 funding bill promotes accelerated project delivery and encourages innovation through the increased use of programmatic approaches and planning and environmental linkages.

##### **Fixing America's Surface Transportation (FAST Act)**

This 2015 funding bill amends and refines authority to carry out PEL, which was incorporated into joint FHWA/Federal Transit Administration (FTA) planning regulations in May 2016.



## Guidance

### Every Day Counts Initiatives

The PEL process is part of FHWA's *Every Day Counts (EDC) Initiatives*, intended to identify, develop, and deploy innovation techniques aimed at shortening project delivery. Since FHWA initiated the first EDC group of initiatives in 2011, FHWA has developed EDC Initiatives on a bi-annual basis. The following is a synopsis of the EDC Initiatives that will be addressed as part of the Mixmaster Interchange PEL Study, as best practices that CTDOT can implement now and investigate for future applicability:

- **PEL Initiative** (EDC-1, 2011-2012), which encourages the use of information developed in planning to inform the NEPA process.
- **Implementing Quality Environmental Documents (IQED) Initiative** (EDC-2, 2013-2014), which identifies best practices for project delivery, such as preparing effective summaries and technical reports, developing effective visualization and public presentations, and developing a specific purpose and need that supports the alternatives screening process in selecting the alternatives for further evaluation.
- **Improving Collaboration and Quality Environmental Documentation (IQED) Initiative** (EDC-3, 2015-2016), which builds on EDC-2 through the creation of an online workspace and collaboration forum (eNEPA) for major projects requiring a NEPA Environmental Impact Statement (EIS) or Environmental Assessment (EA). The goal of EDC-3 is to provide tools to enable collaborative, concurrent, timely and transparent interagency reviews.

### 2.1.2 State Guidance

In addition to the federal legislation and guidance, CTDOT's *Project Development Guide* (October 2012) supports the planning process for project delivery and compliance with the Connecticut Environmental Policy Act (CEPA), the State's environmental review process that is comparable to NEPA.

CTDOT's project development process supports a systematic decision-making process, where solutions to a transportation problem reflect technical and non-technical factors, as incorporated in a Context Sensitive Design/Solution (CSD/S) approach to transportation decision-making and design. CTDOT identifies the following CSD/S objectives for its mode of project development, listed in the *Project Development Guide*:

- The project purpose and needs are forged early in the process with ample opportunity for stakeholder input and dialogue.
- The resources (e.g., time, budget) of all involved parties are used efficiently and effectively.
- The selected alternative satisfies the defined purpose and needs.
- The project improves or maintains user and community safety.
- The project is in harmony with the community and preserves environmental, scenic, aesthetic, historic, and natural resource values of the area.
- Attentive design and construction provisions minimize community disruption.
- The completed project is seen as an enduring community enhancement.

CTDOT's description of the project development process, transforming a general need into a specific and well-defined solution, while utilizing the principles of being deliberative, inclusive, objective, proportional, responsive and transparent, compliments the PEL Study approach for the Mixmaster Interchange.





## 2.2 PEL PROCESS COMPONENTS

To meet the legislative requirements and federal and state guidance, the PEL process and Study for the Mixmaster Interchange will be NEPA-like, using similar language and planning steps, and will incorporate the following components:

- Coordination with local, state, tribal, and federal agencies;
- Context Sensitive Design/Solutions (CSD/S), a collaborative approach that involves the public and stakeholders in development of context sensitive design solutions;
- Opportunities for public input and agency comments on the PEL Study;
- Documentation of relevant decisions in a format that is identifiable and available for review during the NEPA scoping process, so that it can be appended or referenced in the NEPA document; and
- Completion of FHWA’s Planning/Environmental Linkages Questionnaire.

With a view towards achieving consistency with federal, regional, local and planning efforts, it is anticipated that the PEL process and its recommendations will inform NVCOG’s Long-Range Transportation Plan, the *Metropolitan Transportation Plan for the Naugatuck Valley Planning Region and Central Naugatuck Valley Metropolitan Planning Area (Metropolitan Transportation Plan)*, and NVCOG’s *Transportation Improvement Program (TIP)*; and CTDOT’s *Statewide Transportation Improvement Program (STIP)*.

## 2.3 PEL PROCESS EXPECTED OUTCOMES

The Mixmaster Interchange PEL process is expected to result in the following outcomes:

- Identifying the transportation need;
- Identifying stakeholders;
- Defining and refining the travel corridor (including logical termini);
- Developing the preliminary purpose and need, and goals and objectives;
- Developing performance measures for project alternatives;
- Developing alternatives and defining modes of travel;
- Screening and evaluating alternatives in an iterative process;
- Identifying potential community benefits and impacts;
- Identifying potential environmental impacts and mitigation strategies/priorities;
- Documenting the PEL process in a PEL Study Report; and
- Establishing and documenting a PEL-NEPA transition process, including implementation scenarios.

The Mixmaster Interchange PEL process and these expected outcomes will be documented in the PEL Study Report.



## 3 Methodology

Section 3 presents an overview of the methodology that the Study Team (CTDOT and its consultants) will follow for the Mixmaster Interchange PEL Study. Section 3.1 highlights key PEL study coordination requirements with FHWA, and Section 3.2 provides an overview of the public involvement and coordination efforts with federal, state, regional and local agencies. The results of the Mixmaster Interchange PEL Study will be documented in a PEL Study Report, as described in Section 3.3. The PEL Study will follow the timelines shown in Figure 2, the PEL Study Process/Product Flow Chart (at the end of this document).

### 3.1 FHWA COORDINATION POINTS

The Study Team will develop the proposed PEL process framework, methodology, planning products, and schedule for the study. The Study Team will meet with FHWA to receive feedback on these items and confirm that the proposed PEL process will satisfy the legislative and regulatory guidance. After FHWA has reviewed the proposed PEL process and concurred that it will produce planning products that meet the conditions for use in NEPA, the Study Team will begin public involvement efforts with elected officials, agencies and the public.

The Study Team will coordinate with FHWA as required throughout the PEL process to obtain input at key coordination points during the PEL Study. The list of local, state, federal, and tribal agencies and the respective coordination responsibilities will be determined in conjunction with FHWA as part of the project's public involvement and agency coordination plans.

### 3.2 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

The Study Team will prepare a Plan for Public Involvement and Agency Coordination. To address public involvement, the Plan will identify the objectives and methods through which CTDOT will engage, communicate with, and solicit feedback from the general public and various stakeholder groups throughout the PEL process, including screening and evaluating alternatives. Public involvement efforts will be completed in accordance with the most current version of CTDOT's *Public Involvement Guidance Manual*. The plan will also include strategies for agency coordination and will detail how federal, state, tribal and local agencies will be engaged in the PEL process.

Meetings with stakeholder groups will begin early in the PEL process to introduce the project and project approach, identify stakeholder concerns, and develop transportation-related goals and objectives. Stakeholder groups will include the City of Waterbury, NVCOG, large employers, immediate abutters, community and neighborhood groups, emergency service providers, and elected officials.

A Project Advisory Committee (PAC) will be formed to provide feedback on the project's Preliminary Purpose and Need, draft goals and objectives, and conceptual alternatives. The PAC will include representation from all stakeholder groups. Two-way communication between the PAC and the Study Team will begin early in the planning and concept development process and continue through alternatives screening and development of the PEL Study Report. The PAC will be inclusive and represent diverse views. In addition to the PAC meetings, agency meetings and briefings with local, state, federal and tribal



staff will be held to solicit technical input and expertise throughout the PEL Study and to address each agency’s jurisdictional concerns.

Public and agency meetings will be held in conjunction with key project milestones. These meetings will be used to share information about the project and to obtain and document feedback on the alternative analysis methodology and the development and screening of alternatives. In addition to public meetings, the project’s website will include information about the PEL process, as well as opportunities for public participation and comment. Materials will be disseminated to the public and updated via the project website, social media, email blasts, and through other means throughout the duration of the PEL Study. The agency meetings also will be used to discuss the transition from the PEL Study to NEPA assessments and develop mitigation strategies.

## 3.3 PEL STUDY TASKS AND PLANNING PRODUCTS

The Study Team has proposed eight PEL Study tasks and associated planning products in accordance with federal and state guidance. Completion of these tasks will address the questions posed by FHWA’s Planning/Environmental Linkages Questionnaire, which will be used as a guide throughout the Mixmaster Interchange PEL Study process. The PEL Study Process/Product Flow Chart (Figure 2) illustrates the points of coordination planned with the stakeholders, PAC, general public, FHWA, and agencies.

### 3.3.1 PEL Study Tasks

#### **Task 1. Identify Transportation Needs/Existing Conditions**

- 1a. Define project limits (logical termini), study limits and scope of the study.
- 1b. Identify existing and proposed conditions and deficiencies, such as: structural, capacity, safety, access, travel demand.
- 1c. Identify high-level community, historic, environmental/natural resources in the PEL Study Area from database and GIS sources, including sensitive resources and concerns. Depending upon the specific resource, the specific resource study area may vary.
- 1d. Document existing conditions and transportation needs in a report, which will serve as the basis for the project’s Preliminary Purpose and Need.

#### **Task 2. Determine Reason for PEL Study and Desired Outcome**

- 2a. Prepare documentation of the reasons for the PEL study and desired outcome (Task 2a is incorporated into this PEL Process Framework and Methodology document).
- 2b. Establish the planning process and outline for the PEL Study Report, including interim deliverables, cognizant of FHWA’s Planning/Environmental Linkages Questionnaire.

#### **Task 3. Identify Stakeholders & Collaboratively Define Opportunities**

- 3a. Prepare a PEL Process Framework and Methodology document (this document) to be used in conjunction with public and agency outreach (Tasks 3b, 3c, and 3f).
- 3b. Identify local-, regional-, state-, tribal-, and federal-level stakeholders.



- 3c. Establish the Project Advisory Committee (PAC) and define its role and responsibilities in the PEL process.
- 3d. Review local, regional, and state transportation, land use, and other applicable planning documents, including the City of Waterbury and State Plans of Conservation and Development (POCDs) and previous documents which incorporate the PEL Study Area. Identify the relationship of the PEL Study with applicable planning documents and review with the PAC.
- 3e. Develop plans for public outreach and agency coordination linked to PEL coordination points.
- 3f. Meet with and identify stakeholders' project-related goals and objectives and related opportunities for the project, and discuss with the PAC.

**Task 4. Develop a Preliminary Purpose and Need Statement, Goals and Objectives**

- 4a. Develop a draft Preliminary Purpose and Need Statement and goals and objectives, incorporating a summary of existing conditions related to transportation need and stakeholder goals and objectives.
- 4b. Present the draft Preliminary Purpose and Need Statement to the PAC for discussion. Incorporate other transportation-related goals and objectives as developed by the PAC and project stakeholders.
- 4c. Finalize the Preliminary Purpose and Need Statement. This will be an appendix to the PEL Study Report identified in Task 8.

**Task 5. Develop Criteria for three phases of evaluation.**

*These criteria will be used in Tasks 6 and 7 where concepts will be identified and evaluated, respectively.*

- 5a. Develop an Alternative Screening Methodology (ASM) to evaluate project alternatives. The ASM will define a decision-making framework that will be used to determine how well each of the alternatives meets the Preliminary Purpose and Need and goals and objectives, relative to transportation criteria, feasibility, costs, the environment, and stakeholder input. The ASM will be followed during evaluation of transportation alternatives and will include a three-tiered screening process (Levels 1 through 3) to identify a Range of Reasonable Alternatives that could best solve the transportation problems in the corridor; this Range of Reasonable Alternatives would progress to further evaluation in subsequent NEPA documents.
- 5b. Level 1 screening will be an engineering-based, qualitative assessment of the Universe of Alternatives (identified in Task 6) at a conceptual (5 percent) level of design. Establish transportation criteria that fulfill the project's Preliminary Purpose and Need. Evaluate the Universe of Alternatives, including alternative modes, relative to "fatal flaw" practicability criteria such as those that do not meet the project's Preliminary Purpose and Need, and fatal flaws related to project cost and feasibility. The results of the Level 1 screening of the Universe of Alternatives will be called the Initial Alternatives that will advance to Level 2.



- 5c. Level 2 screening will be an assessment of the Initial Alternatives relative to selected structural and geometric criteria at a preliminary (10 percent) level of design. Establish more-detailed transportation criteria focusing on structural, geometric, and traffic considerations and evaluate the Initial Alternatives using primarily qualitative assessments supplemented with limited quantitative analyses. Evaluate the Initial Alternatives relative to meeting the project goals and objectives, as established in the Preliminary Purpose and Need, and further developed through discussions with the PAC and project stakeholders. Conduct high-level assessments of alternatives relative to the community, natural, and human environment and other transportation-related goals. Identify differentiators among alternatives criteria needing additional evaluation in the next level of screening and incorporate input from the PAC. The results of the Level 2 screening of the Initial Alternatives will be called the Preliminary Alternatives that will advance to Level 3.
- 5d. Level 3 screening will be a predominately quantitative assessment of Preliminary Alternatives relative to traffic operational analysis, costs, and the community, human and natural environment at a more advanced, but still preliminary (15 percent) level of design. Establish comprehensive transportation criteria focusing on traffic operations and system performance, simulations, and evaluate the Preliminary Alternatives through quantitative analyses. Conduct qualitative and quantitative comparisons of capital and life-cycle costs. Identify and compare Preliminary Alternatives relative to community, human, and natural environmental impact criteria and other transportation-related goals identified as differentiators established in Level 2 screening. Additionally, local benefits as they relate to multimodal conditions within Waterbury, will be identified and evaluated. The results of the Level 3 screening of the Preliminary Alternatives will be a Range of Reasonable Alternatives and PEL recommendations.

**Task 6. Develop the Universe of Alternatives and Define Travel Modes**

- 6a. Identify the universe of transportation alternatives including consideration of other travel modes such as transit.
- 6b. Obtain input from stakeholders, the PAC, the general public, tribes, regulatory agencies, such as CT Department of Energy and Environmental Protection (CTDEEP), the CT State Historic Preservation Office (SHPO), and the U.S. Army Corps of Engineers (USACE), on developing the Universe of Alternatives and defining travel modes.
- 6c. Develop multimodal complementary alternatives and mobility equity opportunities, such as bus rapid transit and pedestrian/bicycle enhancements.

**Task 7. Screen and Evaluate Concepts (Levels 1 through 3)**

- 7a. For Level 1 screening - Evaluate and screen the Universe of Alternatives using criteria established in Task 5b and identify Initial Alternatives for Level 2 screening.
- 7b. Document Level 1 screening in a report. Identify the Universe of Alternatives and explain the methodologies, criteria, and rationale for eliminating any of the conceptual alternatives in Level 1 and for identifying the Initial Alternatives for Level 2 screening. This technical memorandum will be an appendix to the PEL Study Report.
- 7c. Present the findings of the Level 1 screening process to the PAC, stakeholders, and the general public.



- 7d. For Level 2 screening – Evaluate and screen the Initial Alternatives using criteria established in Task 5c and identify Preliminary Alternatives for Level 3 screening.
- 7e. Document Level 2 screening in a report explaining the methodologies, criteria, and rationale for eliminating any of the Initial Alternatives in Level 2 and for identifying the Preliminary Alternatives, including identifying differentiators, for Level 3 screening. This technical memorandum will be an appendix to the PEL Study Report.
- 7f. Present the findings of the Level 2 screening process to the PAC, stakeholders, and the general public.
- 7g. For Level 3 screening – Evaluate and screen the Preliminary Alternatives using criteria established in Task 5d. Complementary multimodal and mobility equity opportunities as identified in Task 6c will be incorporated into the Preliminary Alternatives for evaluation in the Level 3 screening.
- 7h. Document Level 3 screening in a report explaining the methodologies, criteria, and rationale for eliminating any of the Preliminary Alternatives in Level 3 and for identifying a Range of Reasonable Alternatives to be carried forward in subsequent NEPA documents. This technical memorandum will be an appendix to the PEL Study Report.
- 7i. Present the findings of the Level 3 screening process to the PAC, stakeholders, and the general public.
- 7j. Identify general mitigation strategies to be considered in subsequent NEPA documents.
- 7k. Present the findings of the Level 1, Level 2, and Level 3 evaluations to regulatory agencies and FHWA.
- 7l. Present the findings of the Level 1, Level 2, and Level 3 evaluations to FHWA, if deemed necessary depending on FHWA’s involvement in 7k.

**Task 8. Prepare PEL Study Report**

- 8a. Prepare the PEL Study Report which summarizes the PEL process and findings. Include a completed FHWA Planning/Environmental Linkages Questionnaire and a discussion of the transition from PEL to NEPA as appendices. Append other reports.
- 8b. Develop guidelines and identify near term and long-term projects and develop the NEPA timeline, including project phasing.
- 8c. Submit the draft PEL Study Report to CTDOT for review.
- 8d. Finalize the PEL Study Report per CTDOT review for submittal to FHWA.
- 8e. Obtain concurrence from FHWA on the Mixmaster Interchange PEL process and results as documented in the PEL Study Report, as well as the applicability of the PEL Study Report to future Mixmaster Interchange NEPA reviews.



### 3.3.2 PEL Planning Products

Section 3.3.2 summarizes the planning products that will be produced as part of the PEL Process for the Mixmaster Interchange.

#### **PEL Process Framework and Methodology Report**

The PEL Process Framework and Methodology Report (this document) formalizes the scope, schedule and expected outcomes for the Mixmaster Interchange PEL process.

#### **Analysis, Needs, and Deficiencies Report**

The Mixmaster Interchange Analysis, Needs, and Deficiencies Report summarizes the details and results of various studies which have been performed as part of CTDOT’s planning process for the Mixmaster Interchange. The studies consist of data collection efforts and engineering analyses for transportation and context (or environmental) features within the project study area. These studies have collectively been performed to identify the existing (2017) transportation network’s deficiencies and to predict its future (2045) deficiencies in a hypothetical “no build” scenario. The Analysis, Needs, and Deficiencies Report is primarily intended to guide the development of alternative project improvements. The future “no build” scenario will be used as a benchmark condition for comparison and evaluation of improvement alternatives. Additionally, the Analysis, Needs, and Deficiencies Report will serve as a source of information to develop the Preliminary Purpose and Need Statement and will identify early action projects, defined as single, complete projects that are independent of the PEL Study. The Mixmaster Interchange Analysis, Needs, and Deficiencies Report (July 2020) has been completed and submitted to CTDOT.

#### **Technical Memorandum of Environmental and Community Resources**

This technical memorandum will summarize the results of Task 1c, consisting of the identification of high-level community, historic, environmental/natural resources in the PEL Study Area from database and GIS sources, including sensitive resources and concerns. This is documented within the Analysis, Needs, and Deficiencies Report.

#### **Summary of Relevant Local, Regional and State Plans**

This technical memorandum will summarize previous studies and plans relevant to the Mixmaster Interchange PEL Study Area and discuss their relevance to the interchange and PEL process. This is documented within the Analysis, Needs, and Deficiencies Report.

#### **Plan for Public Involvement and Agency Coordination and Report**

The Plan for Public Involvement and Agency Coordination will present a roadmap for public involvement and agency coordination for the Mixmaster Interchange PEL Study. The Mixmaster Interchange PEL Study public involvement and agency coordination process will generate multiple products, including stakeholder lists and PAC lists, outreach letters, and meeting summaries. All comments, feedback, and suggestions from the PAC; stakeholders; general public; and federal, state, tribal and local agencies will be documented for reporting purposes. These products and the public involvement and agency coordination processes in their entirety will be documented in a Plan for Public Involvement and Agency Coordination Report.

#### **Preliminary Purpose and Need Statement**

The Preliminary Purpose and Need Statement is a key step of the Mixmaster Interchange PEL Study. The intent of the Preliminary Purpose and Need Statement is to connect the PEL planning process with, and form the basis for the subsequent, and potentially refined, NEPA project Purpose and Need Statement.



Initially developed as a draft, the Preliminary Purpose and Need Statement will include an overall, high-level project purpose statement and description of project needs, as documented in the Analysis, Needs, and Deficiencies Report. The draft Preliminary Purpose and Need Statement will be refined through coordination with project stakeholders and the PAC. Also, part of the refinement process will be the development of transportation-related and other project goals and objectives. The Preliminary Purpose and Need Statement of the PEL Study will form the basis of future purpose and need statements developed in subsequent NEPA processes.

### **Alternatives Screening Methodology**

As described in Task 5a, this technical memorandum will present a three-tiered framework for evaluating transportation alternatives for the Mixmaster Interchange.

#### **Level 1 Screening Report**

As described in Tasks 6 and 7b, this technical memorandum will present the Universe of Alternatives identified for the Mixmaster Interchange, including consideration of other travel modes such as transit, with input from stakeholders, the PAC, and the public. It will document the Level 1 conceptual alternatives' screening process, resulting in the Initial Alternatives advancing for further assessment.

#### **Level 2 Screening Report**

As described in Task 7e, this technical memorandum will document the Level 2 screening of the Initial Alternatives, resulting in the Preliminary Alternatives for further assessment.

#### **Level 3 Screening Report**

As described in Task 7h, this technical memorandum will document the Level 3 screening of the Preliminary Alternatives, resulting in a Range of Reasonable Alternatives for subsequent NEPA evaluations. This report will also include a Mobility Equity Analysis Technical Memorandum that will describe the mobility equity opportunities and recommendations incorporated into the Preliminary Alternatives and document the process of their identification.

### **PEL Study Report**

The PEL Study Report will be a comprehensive transportation planning document that will incorporate the planning products previously cited as sections within or appendices to the Report. The PEL Study Report will summarize the PEL process and recommendation, as well as potential funding and project phasing opportunities. The PEL Study report also will include a completed FHWA Planning/Environmental Linkages Questionnaire as an appendix.

### **Near-Term Projects Implementation Plan**

The Near-Term Projects Implementation Plan will identify projects emanating from the PEL Study that are independent of the Mixmaster Interchange or common to all Level 3 alternatives that do not bias or preclude alternatives and could be implemented for the project prior to the long-term project improvements. The near-term improvements that are identified in this plan could include projects that address critical issues with reasonable costs using available funds and minimize interim improvement (throwaway) infrastructure that would need to be reconstructed following the selection of a Preferred Alternative in the National Environmental Policy Act (NEPA) process as discussed in the PEL Study. The Plan will establish a schedule for conducting NEPA environmental studies and initiating and constructing near-term projects.





## **FHWA PEL Questionnaire**

The FHWA PEL Questionnaire will summarize the PEL Study Report results and products that will be carried forward to NEPA process. This report will also identify environmental resources that were not reviewed in the PEL Study Report and indicate whether they would be reviewed in a subsequent NEPA review. Additionally, it will identify mitigation issues and/or strategies to be analyzed during the NEPA process. Finally, the FHWA PEL Questionnaire will address any special issues or problems that were identified during the PEL Process that should be addressed during the NEPA review.

