



FLORIDA DEPARTMENT
OF TRANSPORTATION

**PROJECT
PLANNING
MANUAL
2026**



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1. Introduction

1.1 Purpose

The Planning phase of project development involves integration and collaboration between statewide and metropolitan transportation planning processes and any project planning decisions, activities, or studies conducted to support future project development. The project planning process begins when transportation agencies identify needs or potential projects that could meet those needs.

The Florida Department of Transportation (FDOT) Project Planning Manual (the Manual) promotes efficiency and consistency for the project development of transportation projects across the state by establishing clear guidance for the project planning phase. Its purpose is to provide an overview of the requirements that must be followed during project planning activities to ensure planning products and decisions can be used as a basis for subsequent project phases, including Project Development and Environment (PD&E) and Design, thereby streamlining overall project delivery. The Manual builds on regulatory requirements and outlines FDOT policies, key principles, best practices, and targeted outcomes for planning products and decisions.

This Manual serves as a reference for all transportation professionals involved in the project planning process. The Manual is organized as follows:

- ◆ **Chapter 1** – Describes the purpose of this manual and gives an overview of project planning.
- ◆ **Chapter 2** – Discusses the project planning process and considerations for determining if a project planning study is needed.
- ◆ **Chapter 3** – Details how to define the transportation problem and develop the project purpose and need.
- ◆ **Chapter 4** – Details how to develop and evaluate potential improvements.
- ◆ **Chapter 5** – Describes the documentation to include in project planning studies and linking the project planning study recommendations to the project programming process.

1.1.1 Applicability

The Manual is primarily intended for projects referred to as “qualifying projects” in [FDOT’s Efficient Transportation Decision Making \(ETDM\) Manual Chapter 2](#) and [FDOT PD&E Manual Part 1, Chapter 2](#) that require ETDM screening and may advance to a PD&E Study. Qualifying projects include select roadway projects, such as new or expanded highways, interchanges, and bridges, that add capacity or provide new access, and major public transportation projects. However, it is important to note that this guidance is primarily intended for roadway and bridge projects and may not be directly applicable to transit, rail, airport, seaport, and spaceport projects. These project types follow separate environmental review processes and involve different lead agencies, regulatory requirements, and review frameworks.

FDOT's Transit Corridor and Project Evaluation Guidance provides information on the planning process for transit projects. This Manual is intended to complement project planning practices developed by FDOT Districts and preserve each District's independent decision-making flexibility.

While “qualifying projects” are the focus, the Manual is built on planning best practices and therefore, the guidance within it is beneficial for all types of planning studies and planning-level analyses. This includes activities such as existing conditions analyses, safety audits, needs assessments, and any planning activities that may inform or support projects not requiring a PD&E Study. Applying the principles and best practices outlined in this Manual to these early or supporting analyses can help improve consistency, documentation quality, and subsequently the ability to efficiently carry the project through the project development phases to implementation.

1.1.2 Relationship to Other Policies

A key goal of the Manual is to support FDOT's Project Development Policy (Document No.: 000-525-055), which establishes that:

- ◆ FDOT will program and fund preliminary engineering, PD&E, and Design phases of transportation projects with the requirement that project funding is available and programmed for construction within eight years from the start of the PD&E phase.
- ◆ PD&E studies for new alignment projects and capacity improvement projects must be completed to the maximum extent possible within 18 months after the date of commencement (Section 334.63, Florida Statutes [F.S.] [*Project Concept Studies and Project Development and Environment Studies*]).

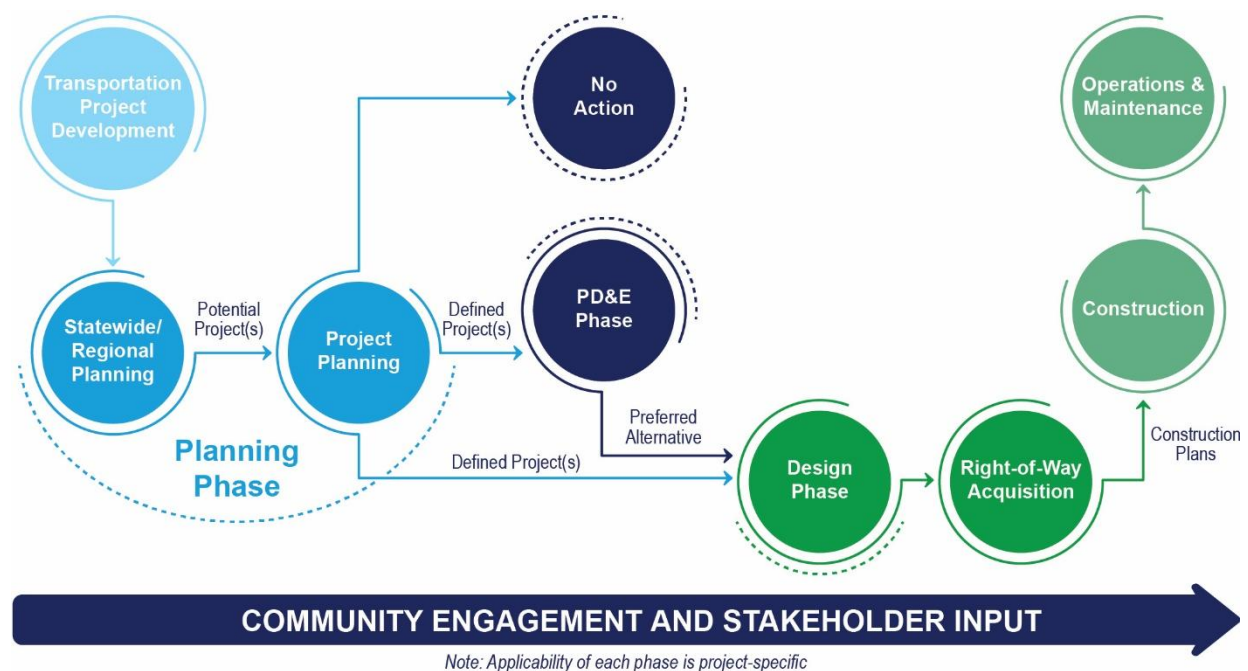
The Manual also reinforces Federal and State Planning and Environment Linkages (PEL) guidance which promotes stronger connections between the planning phase and subsequent National Environmental Protection Act (NEPA) environmental reviews. Both the Manual and PEL guidance serve to streamline project delivery, improve decision-making, and reduce duplication of effort by carrying forward relevant planning information into the environmental review process where appropriate.

1.2 Florida Department of Transportation (FDOT) Project Development Life Cycle

The FDOT project development process is a structured, multi-phase approach used by FDOT and its partners to identify transportation needs and advance projects from initial concepts to construction. As shown in **Figure 1.1 Project Development Process**, the process moves sequentially through Planning, PD&E, Design, Right of Way, Construction, and Operations and Maintenance, with decisions at each phase informing how the project advances.

This process may vary depending on the scale and complexity of a project. Each phase may not be required for all project types, or the phases may be overlapped or streamlined based on the nature of the project. Minor projects, such as resurfacing, safety improvements, or operational enhancements, may advance quickly because they involve limited environmental impacts, minimal design complexity, and no right of way acquisition. In contrast, larger or more complex projects, such as new roadway corridors, major widenings, or interchange reconstructions, typically require more extensive planning studies, consideration of multiple alternatives, and development of PD&E studies to comply with the NEPA when applicable.

Figure 1.1 Project Development Process



1.2.1 Planning Phase

The Planning phase identifies and prioritizes transportation needs based on existing and future conditions and establishes the policy framework for investment decisions. This phase integrates statewide, regional, and metropolitan planning efforts to define problems, set goals, and identify potential projects. Once a project has been identified and prioritized, project planning activities help refine the project's purpose and need, consider preliminary alternatives, and position projects for advancement to subsequent phases of project development.

1.2.1.1 Statewide and Regional Planning

Project planning activities are often initiated after a potential project has been identified as part of statewide and regional transportation planning efforts. In urban areas with populations of 50,000 or more, metropolitan planning organizations (MPOs) develop Long-Range Transportation Plans (LRTPs) that identify regional transportation needs and project priorities to address those needs. FDOT collaborates with MPOs to fund their highest-priority projects through inclusion in the Statewide Transportation Improvement Program (STIP). In non-metropolitan areas outside MPOs, FDOT works directly with local governments to understand and document their transportation needs.

FDOT also uses various statewide transportation planning efforts to identify long-range transportation needs and near-term prioritized projects that may require further evaluation through project planning. FDOT documents statewide long-range transportation planning efforts in the Florida Transportation Plan (FTP), the state's single overarching plan guiding Florida's future transportation vision, goals, and objectives. FDOT also develops statewide plans for various modes, such as seaports, public transportation, aviation, and rail.

1.2.1.2 Project Planning

Project planning serves as the connection between an identified transportation problem and project implementation by building on the priorities established by statewide, metropolitan, and other planning processes. However, while many projects originate from MPOs, local governments, or statewide plans, others may be advanced by FDOT based on observed safety needs or traffic operations studies. In all cases, project planning seeks to move specific projects toward delivery by translating broad transportation goals into a project-specific framework that sets the stage for subsequent phases of project development.

Project planning studies are initiated to better define and create a stronger linkage to the components of future phases, including the PD&E phase. Project planning activities may involve refining the project's purpose and need, analyzing community and environmental data, developing and evaluating preliminary alternatives and associated cost estimates, and conducting outreach and engagement with affected communities, key stakeholders, and partner agencies. To streamline future project development, project

planning may also include technical studies that assess high-level feasibility, define project scope and priorities, and reduce risks in later phases. By evaluating transportation corridors, facilities, and services within their physical, environmental, and community contexts, project planning efforts help produce a defined transportation project with sufficient clarity to advance into the PD&E phase. More information on project planning studies and activities can be found in [Section 2.2: Types of Project Planning Activities](#).

Although this Manual is focused on the FDOT project development process, it can also be used by partner agencies, such as MPOs, city and county governments, expressway authorities, and other entities, to conduct project planning activities that align with FDOT's project development framework. The guidance in this Manual can assist partner agencies in structuring their own planning studies to better define purpose and need, evaluate preliminary alternatives, consider environmental and community context, and document decisions in a manner that facilitates coordination with FDOT and smooth transition into later project development phases. By promoting a shared understanding of expectations, terminology, and level of detail, this Manual helps improve consistency and alignment between locally led planning efforts and FDOT led project development.

1.2.2 Project Development and Environment (PD&E) Phase

The PD&E phase evaluates project alternatives for potential community and environmental impacts to comply with federal and state requirements, including NEPA. During this phase, FDOT refines the project's purpose and need, develops and evaluates alternatives, conducts technical and environmental studies, and engages agencies and the public to identify a preferred alternative. Cost estimates are also updated and refined based on the preferred alternative. The PD&E phase concludes with environmental approval which documents the selected alternative and establishes the project's location, conceptual design, and commitments for future phases.

NEPA requires federal agencies to assess the environmental impacts of qualifying projects, including highway construction. For more information, refer to [1.4.3 National Environmental Policy Act \(NEPA\) Framework](#).

1.2.3 Design Phase

The Design phase translates the approved project alternative into detailed engineering plans, specifications, and cost estimates needed for construction. This phase includes finalizing roadway geometry, drainage, structures, utilities, and other design elements, as well as obtaining required permits and coordinating with right of way acquisition where necessary. For certain types of projects, environmental review may be conducted concurrently with design, allowing projects to move more efficiently toward construction.

1.2.4 Right of Way Phase

The Right of Way phase involves acquiring property interests necessary to construct the project, including full or partial property acquisitions, easements, or relocations. This phase follows established federal and state procedures to ensure fair compensation and to protect property owner rights. Right of Way phase activities may occur concurrently with the Design phase and are not required for projects that can be constructed entirely within existing public right of way.

1.2.5 Construction Phase

The Construction phase is when the transportation improvement is built in accordance with approved plans and specifications. FDOT oversees construction activities to ensure compliance with design standards, environmental commitments, and contract requirements while minimizing impacts to the traveling public. Upon completion, the project transitions to ongoing operations and maintenance, completing the project development process.

1.2.6 Operations and Maintenance Phase

The Operations and Maintenance phase begins once a project is constructed and continues throughout the life of the facility. During this phase, FDOT and/or partner agencies are responsible for operating, monitoring, and maintaining transportation infrastructure to ensure safety, mobility, and asset preservation. Activities include, but are not limited to, routine maintenance of pavement, signage, striping, roadway markings, sidewalks, shared-use paths, and roadsides; inspection and maintenance of bridges, culverts, and other structures; and emergency response during storm events and traffic incidents.

1.3 Benefits of Conducting Project Planning Studies

Project planning serves as a linkage between statewide/regional planning and the next phase of project development. Project planning studies are usually initiated to better define a transportation project prior to the PD&E or Design phase by refining the project's purpose and need, considering preliminary alternatives, and positioning projects for advancement to subsequent phases of project development. The project planning study also informs the next phase of project delivery by establishing a clear foundation for what PD&E and Design will do, investigate, and deliver, as described in [Section 5.4 Scope Recommendations for the Next Phase](#). Several benefits to conducting project planning studies are shown below.

- ◆ Improves project delivery timeframes
- ◆ Reduces duplication of effort
- ◆ Saves time and costs
- ◆ Encourages early public, stakeholder, and agency engagement
- ◆ Provides flexibility in approaches
- ◆ Facilitates project planning and programming

Each of these benefits is discussed in greater detail in the following sections.

Improves Project Delivery Timeframes

Project planning studies collect data, develop methodologies, evaluate alternatives, and document results and decisions made to streamline the next phase of project development (PD&E or Design). Project delivery timeframes can be improved by identifying issues earlier and enhancing coordination as projects move from planning into PD&E or Design and implementation. Project planning studies allow for the evaluation and documentation of a reasonable range of potential solutions (e.g. from incorporating improved signal system technologies to potential new capacity), obtain agency and public stakeholder input which helps steer viable alternatives, and in the process can lead to the efficient elimination of alternatives that are not feasible early in the project development process.

Reduces Duplication of Effort

Project planning serves to streamline project delivery, improve decision-making, and reduce duplication of effort by carrying forward relevant information into the PD&E or Design phase. Using environmental data, analyses, and planning conclusions to inform the NEPA process reduces duplication of effort. When properly conducted and documented, project planning studies improve project delivery by focusing future phase scopes on the key issues and solutions, thereby minimizing rework of prior decisions and analyses. Linking planning and the PD&E Study also provides an opportunity to identify and address project issues early and inform future phases of project development without unnecessary duplication. However, changes in conditions or priorities may prevent some planning products and decisions from

being incorporated into the PD&E phase, due to reasons such as changes in existing or future conditions or outdated data and analyses.

Saves Costs

Conducting project planning studies, particularly when structured to meet the PEL process, can significantly reduce costs throughout project development. By identifying issues early and completing key analyses upfront, agencies can avoid duplicating work in later phases and move more efficiently through PD&E, Design, and ultimately implementation, as described above.

These efficiencies directly support cost savings as future more in-depth study phases can be better focused on fewer alternatives, thus minimizing staff time, consultant effort, and repeated studies, while also reducing the risk of costly project delays or scope changes later. In doing so, well-executed project planning studies advance [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#), promoting more efficient use of public resources (funding) and improving the overall predictability of project delivery (efficient use of time).

Encourages Early Public, Stakeholder, and Agency Engagement

Engaging the public, stakeholders, and agencies during project planning helps to gather input before alternatives are fully developed. By seeking input early in the process on perceived problems and vetting potential solutions with the local community, practitioners can develop tailored transportation solutions that better address stakeholder concerns and can more efficiently coordinate future actions with local agencies and government to deliver those solutions. Conducting meaningful public engagement during project planning studies also builds awareness and trust with the community, agencies, local government, and stakeholders early in the project process. Importantly, obtaining early agency feedback can also avoid the continued development of solutions that could create schedule delays later due to issues with agency managed resources. Further, early agency coordination provides access to agency specific data and early concurrence on analysis and evaluation methodologies that will allow planning decisions to be adopted into future phases. Documenting public engagement activities (as described in [Section 3.5 Public Involvement and Agency Coordination](#) and [Section 4.3 Public Involvement & Agency Coordination](#)) provides the baseline understanding of the project stakeholders and their issues for the next phase of project delivery and provides consistency in outreach.

Provides Flexibility in Approaches

Project planning studies are not a one-size-fits-all approach. They can be scaled and customized to reflect the unique needs, constraints, and priorities of each project and community. This flexibility allows agencies to tailor the level of detail, analytical methods, stakeholder engagement strategies, and schedule to address local conditions while still producing PD&E- or Design-ready products that meet all federal and state requirements. For more details, refer to [Section 2.5 Scoping a Project Planning Study](#).

Because the planning framework is adaptable, and not prescriptive, agencies can:

- ◆ Focus more effort on complex or high-risk issues and streamline less critical elements.
 - The determination of project complexity will vary from project to project. For instance, environmental impacts in an environmentally sensitive area may be more complex or high risk if there is no clear feasible method of avoidance, minimization or mitigation. In a more developed area, existing roadway networks, businesses, community centers, and residences may introduce significant engineering complexity to a project.
- ◆ Integrate local plans, policies, and priorities directly into project concepts.
 - For example, a planned City or County project (such as drainage repairs or lighting improvements) that overlaps the limits of a project planning study could be included in the project to save on future construction costs and reduce impacts to the travelling public.
- ◆ Select tools, data sources, and analysis techniques that best fit the project's scale and context.
- ◆ Adjust timelines and coordination strategies to align with funding cycles, partner agency processes, and community expectations.

This flexibility helps ensure that planning activities remain efficient and well-aligned with project needs, while still producing consistent, reliable information that can be carried forward into the PD&E or Design phase without substantial rework.

Facilitates Planning and Programming

Project planning studies will help FDOT better facilitate the planning and programming of work plan funding and project prioritization. Project planning activities help produce a defined transportation project with sufficient clarity to advance into the PD&E or Design phase. While these project planning activities are not required to follow PEL guidelines, it is highly recommended that they do to align both efforts for future phases. Additionally, project planning studies help define the scope for the next phase (PD&E or Design) by identifying issues early, such as environmental impacts. This allows the PD&E Study scope to focus on the specific concerns that could affect the project's delivery and recommendations. Project planning studies also identify planning-level cost estimates to provide input used for programming the project funding.

1.4 Relevant Regulations and Policies

Several federal and state regulations, Florida statutes, and FDOT policies provide the framework for project planning studies. These are supported by additional federal and state guidance that outlines key considerations and recommended approaches for efficient transportation planning. This section summarizes the primary regulations, policies, and procedures that should guide the development of project planning studies. Integrating this framework early in the project planning process will provide a strong foundation to support future project development.

1.4.1 Planning and Environment Linkages (PEL) Guidance

PEL, in the transportation planning context, is the Federal Highway Administration (FHWA)/Federal Transit Administration (FTA) term for a decision-making approach that allows information, analyses, and, where appropriate, decisions developed during transportation planning to be adopted in subsequent project-level environmental reviews (such as NEPA documents). FHWA describes PEL as a collaborative and integrated approach to transportation decision-making that:

1. considers environmental, community, and economic goals early in the planning process, and
2. uses the information, analysis, and products developed during planning to inform and streamline future environmental studies.

Integrating a PEL approach can improve project development efficiency and accelerate project delivery. FHWA encourages states to use PEL as a flexible and adaptable tool to enhance their existing transportation planning process. In support of this approach, FDOT's Office of Environmental Management (OEM) has developed supplementary PEL guidance for project-level planning studies, titled *Best Practices Guidance for Linking Planning and Environmental Review*.

Several of the following regulations and policies support this PEL approach and encourage streamlined transportation decision-making between planning and PD&E.

1.4.2 Transportation Planning Regulations

[Title 23 United States Code \(USC\) 134](#) (*Metropolitan Transportation Planning*) and [23 USC 135](#) (*Statewide and Nonmetropolitan Transportation Planning*) are the core federal statutes that govern the transportation planning process. FHWA/FTA's PEL guidance is designed to work within the metropolitan and statewide planning processes established by [23 USC 134](#) and [23 USC 135](#), respectively. These two statutory provisions, as implemented through FHWA/FTA joint planning regulations in [23 CFR Part 450](#) (*Planning Assistance and Standards*), encourage early consideration of environmental factors in the project planning process, including consulting with local, state, and federal environmental resource agencies, considering potential environmental mitigation activities, and providing the public early opportunities for involvement and input.

1.4.3 National Environmental Policy Act (NEPA) Framework

NEPA, codified in [42 USC 4321 et. seq.](#) (*National Environmental Policy*), established a national environmental policy and provided a framework for environmental planning. NEPA is the foundational federal environmental law that requires federal agencies to consider, disclose, and document the environmental impacts of their proposed actions and the reasonable alternatives before decisions are made. NEPA statutory requirements, included in [42 USC 4332](#), direct federal agencies to integrate environmental considerations into planning and decision-making.

FDOT's process for complying with NEPA is outlined in the [FDOT PD&E Manual](#). Incorporating PEL in project planning informs and streamlines the NEPA process. Conducting planning-level environmental reviews of social, cultural, natural, and physical environmental impacts during project planning (as further detailed in the [ETDM Manual](#) and in [Chapter 4: Developing and Evaluating Potential Improvements](#)), improves the efficiency of developing subsequent PD&E documents and is intended to reduce or eliminate duplication of work between the planning and NEPA processes. Per FHWA guidance, PEL informs the NEPA process by documenting transportation planning decisions and analyses, such as purpose and need, identification of preliminary alternatives, and elimination of unreasonable alternatives.

This streamlining approach aligns with [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#) as described in [Section 1.1.2 Relationship to Other Policies](#) and further discussed in [Section 2.3: Incorporating Planning into PD&E](#), which addresses efficiency in project development and using planning to inform the PD&E phase.

1.4.4 Federal Statutes Implementing Planning and Environment Linkages (PEL)

Several federal statutes further emphasize the integration of transportation planning and NEPA processes. There are three key federal statutes that support implementing PEL in the planning stage. The primary statutory authority supporting PEL for highways is [23 USC 168](#) (*Integration of Planning and Environmental Review*). It allows certain planning-level analyses and decisions to be adopted or incorporated by reference into NEPA documents without being reconsidered in detail, unless significant new information becomes available or circumstances surrounding the issue have changed substantially.

The other two statutes are [23 USC 139](#) (*Efficient Environmental Reviews for Project Decision-Making and One Federal Decision*), and [23 USC 169](#) (*Development of Programmatic Mitigation Plans*). Section 139 encourages early environmental coordination, concurrent reviews, and issue resolution, and provides the framework for coordinated NEPA reviews of major transportation projects. Section 169 supports planning-level identification of environmental impacts and mitigation strategies that can later be integrated into NEPA documents, consistent with PEL approaches.

These statutes, along with the planning and NEPA implementing regulations in [23 CFR Part 450](#) and [23 CFR Part 771](#) (*Environmental Impact and Related Procedures*) (described in [Section 1.4.3 National](#)

Environmental Policy Act (NEPA) Framework), support early, coordinated environmental review; the initiation of programmatic mitigation planning during the planning stage; and the tiering and adoption of environmental mitigation strategies by reference in later project phases. Together, they provide a mechanism for formally recognizing early decisions and milestones during the planning stage.

1.4.5 United States Department of Transportation (USDOT) Regulations

1.4.5.1 Federal Highway Administration (FHWA) Regulations

Two key regulations are integral for how NEPA is applied and how planning information can be used in the NEPA process.

23 CFR Part 771 is the primary FHWA/FTA regulation implementing NEPA and related environmental laws. It establishes how these agencies carry out environmental review and includes provisions for using planning studies and preliminary activities to support and inform the NEPA process.

23 CFR Part 450 implements the metropolitan and statewide planning requirements in 23 USC 134-135 and 49 USC 5303–5304 (*Metropolitan and Statewide Transportation Planning*) provides a framework for the use of planning products in NEPA, consistent with 23 USC 168, by requiring consultation with state and local resource agencies (e.g., wetlands, wildlife and habitat, and historic preservation) and by encouraging environmental data collection and the development of early mitigation strategies during the planning process.

FHWA also issues agency-specific orders and guidance that supplement these regulations and provide additional direction on how to integrate planning and environmental review.

1.4.5.2 Federal Transit Administration (FTA) Requirements

Federal transit planning statutes in 49 USC 5303–5304 function in parallel with 23 USC 134-135, providing a coordinated planning framework that emphasizes similar environmental and land use considerations. FHWA and FTA often implement PEL through joint planning and NEPA regulations, allowing planning products from states, MPOs, or local jurisdictions to be incorporated into NEPA documents when they meet the applicable regulatory requirements.

1.4.6 Integration of Florida Law with Planning and Environment Linkages (PEL)

In Florida, the planning phase is also governed by **state comprehensive planning laws** and **special provisions for Areas of Critical State Concern (ACSCs)**.

Chapter 163, F.S. (*Required and Optional Elements of Comprehensive Plans*) sets the framework for state and local comprehensive planning. It establishes standards for local comprehensive plans and land development regulations. Per Section 163.3177, F.S., each local comprehensive plan must include

required elements (such as transportation, future land use, and conservation), set **meaningful and predictable standards** for land use and development, and provide clear guidance for land development regulations and development decisions. The comprehensive plan's functional elements must be consistent and support orderly, balanced growth.

During the planning phase, agencies and MPOs/TPOs should ensure that **PEL studies are based on, and consistent with**, the local comprehensive plans adopted under [Chapter 163, F.S.](#), including future land use maps and policies, land use assumptions, growth projections, and environmental protection policies. PEL documentation should indicate how the project's transportation strategies support or implement the comprehensive plan's land use and resource protection goals, and how this information is used to develop the purpose and need, alternatives, and environmental impact analyses.

Regarding ACSC (such as the Florida Keys and certain coastal or other environmentally sensitive or historically/archaeologically significant regions), [Chapter 380, F.S.](#) (*Land and Water Management*) requires close coordination with the **state land planning agency**. Under [Section 380.05, F.S.](#), local governments must submit existing comprehensive plans and land development regulations for designated ACSCs, or prepare new or modified plans, that reflect the **principles guiding development** in those areas.

Any PEL study conducted within one of these ACSCs must align with the state-approved local plans and the principles guiding development in the area. Any potential impacts to environmental resources (e.g., coastal resources, wetlands, wildlife, etc.) and community resilience must be carefully evaluated, and special consideration given to hazard mitigation and resource protection during the planning phase.

1.4.7 Related Environmental Laws to be Addressed via Planning and Environment Linkages (PEL)

PEL does not refer to a specific project type, but rather to an **approach** for using the transportation planning process to inform NEPA and numerous **substantive environmental statutes** that apply to transportation projects. The [FDOT PD&E Manual](#) provides a compilation of environmental procedures and processes for evaluating cultural, natural, social, and physical resources in accordance with these laws. The [ETDM Manual](#) also documents the ETDM process for early identification of potential environmental issues and linkages between the transportation planning process and PD&E, including a summary of environmental considerations evaluated during the ETDM Planning or Programming Screen. The following table lists key environmental laws that are typically addressed, in part, through PEL coordination.

Because project planning studies that incorporate PEL do not need to be at the same level of detail as the subsequent NEPA analysis (discussed in [Chapter 2: Project Planning Process](#)), PEL studies are not intended to fully satisfy the requirements of these laws. Rather, PEL studies conducted during project

planning provide a pathway to satisfy the requirements of these laws more efficiently by starting early decision-making analyses and coordination.

Table 1.1 Environmental Laws Typically Addressed Through PEL Coordination

Resource Areas and Title/Citation of Resources	Notes on PEL Applicability
Protected Species and Habitat: Endangered Species Act (ESA) <u>16 USC 1531–1544</u>	◆ Identify threatened and endangered species that may inhabit or migrate through project corridor, designated critical habitat, wildlife habitat for listed species, and describe the potential involvement ◆ PEL can involve planning-level avoidance/minimization alternatives ◆ Early consultation with U.S. Fish & Wildlife Service/National Marine Fisheries Service (NMFS)
Wetlands and Surface Waters: Clean Water Act (CWA) <u>33 USC 1344 et seq.</u>	◆ Evaluate potential involvement with wetlands and surface water resources ◆ PEL can identify likely wetland/stream impacts early that would require a future permit under the CWA, Section 404 of the CWA and/or Section 10 of the Rivers and Harbors Act and conceptual mitigation ◆ Early coordination with U.S. Army Corps of Engineers, NMFS, Florida Department of Environmental Protection (FDEP) and the Water Management Districts (WMDs), as applicable
Historic and Archaeological Sites: <u>Section 106 of the National Historic Preservation Act</u> , as amended, <u>36 CFR 800</u> , and <u>Chapter 267, F.S.</u>	◆ Identification and evaluation of cultural resources including historic districts, historic sites, historic structures, and potential archaeological involvement ◆ PEL can help identify preservation priorities, and avoidance or minimization options
Section 4(f) of the USDOT Act of 1966, as amended: <u>49 USC 303</u> and <u>23 USC 138</u>	◆ Identify publicly owned parks and recreation areas, wildlife or waterfowl refuges, and National Register of Historic Places (NRHP)-eligible cultural resources potentially protected by Section 4(f) ◆ PEL can identify potential Section 4(f) resources, involvement, and avoidance alternatives

1.4.8 Key Federal and State Requirements

The tables below summarize additional key federal and state laws, regulations, and statutes related to project planning.

Table 1.2 Federal Requirements

Regulation/Policy Guidance	Title	Description
<u>Title VI,</u> <u>42 U.S.C. § 2000d et. seq.</u>	Civil Rights Act of 1964	Prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives federal funds or other federal financial assistance.
<u>23 CFR Part 771</u>	Environmental Impact and Related Procedures	Prescribes the policies and procedures of FHWA and the FTA for implementing NEPA.
<u>23 USC 109(h)</u>	Highways – Economic, Social, and Environmental Effects	Possible adverse economic, social, and environmental effects related to a proposed project on any federal-aid system must be fully considered, and final decisions on the project must be made in the best overall public interest.
<u>23 USC 139</u>	Efficient Environmental Reviews for Project Decision-Making	The environmental review process for transportation projects involving an Environmental Impact Statement (EIS).
<u>23 USC 327</u>	Surface Transportation Project Delivery	Based on the Memorandum of Understanding (MOU), executed on December 14, 2016 and renewed on May 26, 2022 (which will have to be revised prior to the end of calendar year 2026, within the 10-year renew date), FDOT has assumed FHWA's responsibilities under NEPA for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS. This is known as "NEPA Assignment."

Table 1.3 State of Florida Requirements

Regulation/Policy Guidance	Title	Description
<u>Section 337.273, F.S.</u>	Transportation Corridors	Transportation corridors are to be addressed up front in long-range planning, not solely at project development and/or design. Environmental, community, and land use considerations that are built into comprehensive plans are part of the transportation decision-making process.
<u>Section 339.64, F.S.</u>	Strategic Intermodal System (SIS) Plan	Establishes a statewide network of high-priority transportation facilities to direct planning, funding, and coordination of highways, transit, rail, ports, and airports to support economic competitiveness, mobility, and efficient movement of people and freight.
<u>Section 335.065, F.S.</u>	Bicycle and Pedestrian Ways on State Roads	Requires the FDOT and local governments to establish bicycle and pedestrian paths in conjunction with the construction or reconstruction of roadways, where feasible, to promote safe, integrated, and efficient non-motorized transportation facilities throughout Florida. Bicycle and pedestrian ways must be integrated into transportation plans.
<u>Section 339.155, F.S.</u>	Transportation Planning	Establishes Florida's statewide transportation planning process. It requires FDOT to develop the FTP in coordination with MPOs and local governments, support regional and local planning efforts, and provide meaningful opportunities for public participation in transportation decision-making and major project development.
<u>Section 339.175, F.S.</u>	Metropolitan Planning Organizations	Establishes and governs MPOs in urbanized areas. It specifies their composition, powers, and duties for regional transportation planning, requiring coordinated, multimodal plans and programs that guide transportation investments and ensures consistency with state and local goals and federal planning requirements.

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2. Project Planning Process

This chapter identifies the decision-making process used to consider if a project planning study or project planning activities should be conducted prior to the subsequent project development phase. This chapter also outlines considerations for the timing of a project planning study, examples of types of project planning activities and studies, and concludes with the minimum requirements for linking project planning activities to the Project Development and Environment (PD&E) phase.

2.1 Determining the Need for Project Planning

As the first step in project development, project planning activities are initiated to **understand and document** transportation needs, **define** the transportation project to support prioritization and work programming, and **advance** the process for subsequent project development steps. Transportation projects are initially identified as a need or problem derived from a variety of sources including the statewide, metropolitan, and regional planning processes, comprehensive planning efforts, stakeholder input, or Florida Department of Transportation (FDOT) District offices (e.g., Operations). Long-range transportation planning efforts typically confirm that a transportation problem exists and there is an initial understanding of the need.

FDOT Districts collaborate with Metropolitan Planning Organizations (MPOs)/Transportation Planning Organizations (TPOs) and local governments through established metropolitan and statewide planning processes to identify candidate projects that may warrant a project planning study. Project planning is typically conducted after a potential project is identified as part of these long-range transportation planning efforts.

Project planning typically occurs after statewide or metropolitan planning efforts have identified a potential project with a general project location and a transportation problem or need to address.

Project planning is typically initiated to better define a transportation project prior to Efficient Transportation Decision Making (ETDM) screening and the detailed PD&E study and may involve various planning activities such as data collection, needs assessment, development and evaluation of potential improvements, feasibility analysis, identification of implementation strategies, and community engagement. Project planning activities also **support the identification of prioritized, cost-feasible improvements**.

2.1.1 Project Planning Objectives

Project planning activities involve a high-level conceptual analysis of a potential project aimed at determining if a project:

1. Solves a transportation problem,
2. Is locally supported (both in local transportation plans and by the community),
3. Has a feasible funding opportunity (i.e., within eight years), and
4. Is environmentally feasible.

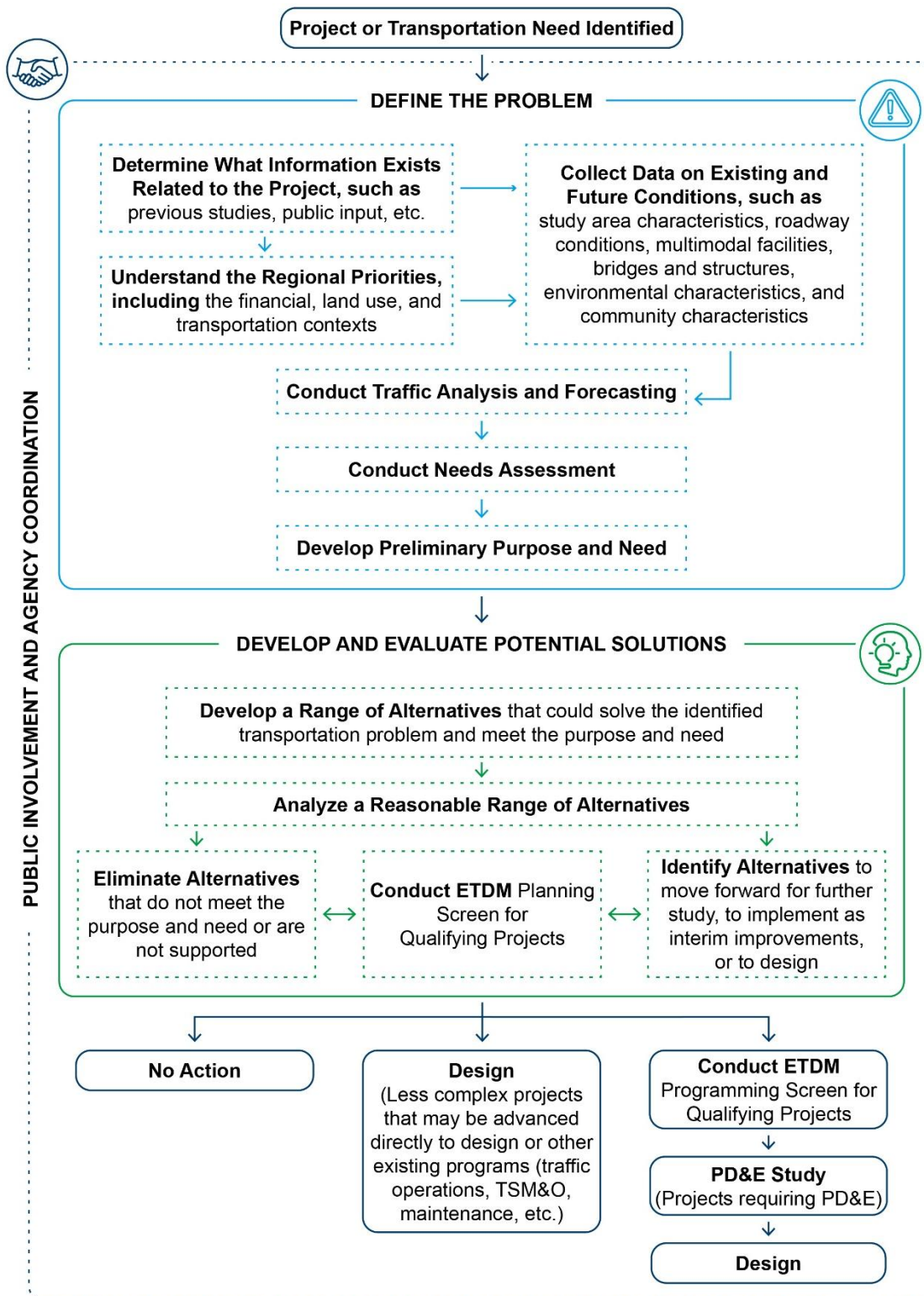
Project planning studies are often desired **to better understand the transportation demand, operational constraints, safety needs, and other deficiencies**. One example of where project planning can lead to a more clearly defined project is when a corridor is initially identified as needing widening to address future capacity. A project planning study can be initiated to confirm the need through data collection, analysis and stakeholder and community input, and to determine the severity of the need. The result of the analysis may find that the need can be met by providing minor improvements, such as intersection improvements or Transportation System Management and Operations (TSM&O) strategies rather than widening. **Project planning can also support the identification of interim or phased improvements** (i.e., segmentation) that are financially feasible. The overall project planning process is shown on [Figure 2.1 Project Planning Process](#). Each step of the process is further defined in [Chapter 3: Defining the Problem](#) and [Chapter 4: Developing and Evaluating Potential Improvements](#).

Project planning activities provide a **linkage** between the long-range transportation **planning** process and the more detailed engineering and **environmental review process** conducted during the PD&E or Design phase. When a project planning study is developed in accordance with the Planning and Environmental Linkages (PEL) requirements, further defined in [Section 2.3 Incorporating Planning into PD&E](#), its planning-level decisions and analyses may be carried forward into the PD&E phase.

Environmental Review Process

FDOT's PD&E Manual defines "environmental review process" as the process of preparing an Environmental Impact Statement (EIS), Environmental Assessment (EA), Categorical Exclusion (CE), or other document prepared under the National Environmental Policy Act (NEPA), and the process of permitting a project under any state or federal law other than NEPA.

Figure 2.1 Project Planning Process



A separate project planning study or phase is not a requirement but can be an effective tool to streamline overall project development and maximize efficiencies in fiscal responsibility for work programming. The outcome of project planning is the identification of defined project(s) that can proceed to the next phase of project development. Generally, a project planning study should be conducted if the planning activities will:

- ◆ Provide a better understanding and definition of the problem and needs of a corridor, as well as potential range of solutions, through data, analysis, and community engagement;
- ◆ Determine that the project is feasible prior to PD&E or Design phases;
- ◆ Maximize efficiencies between project planning and future project development activities while avoiding duplication of scope; and
- ◆ Meet the regulatory requirements for linking planning to the environmental review process.

FDOT prioritizes project planning studies based on factors such as:

- ◆ Documented safety needs
- ◆ Projects included on the MPO/TPO priority list
- ◆ Requests and input from external partners (local agencies, MPOs, TPOs, etc.)
- ◆ Feasibility assessment needed prior to next phase
- ◆ Alternatives analysis during planning could reduce timeframe of future phases
- ◆ Available funds for planning phase
- ◆ Timeframe in which transportation improvements may be required
- ◆ Anticipated schedule for the next phase
- ◆ Evaluation of financial feasibility for future project development and implementation

Project planning decision making should take into account the type of planning activities needed to better define the project, if the project planning study will be incorporated into the PD&E phase, and the timing of the project planning study in relation to future phases of the project development (PD&E or design). The following sections provide more details on these topics.

2.2 Types of Project Planning Activities

2.2.1 Range of Planning Activities

There is a wide range of project planning activities, varying in scale and complexity, that occur at the outset and throughout the project development process of all transportation projects.

These activities are tailored to a project's context and needs, but all planning activities share a common purpose: to answer key questions that allow practitioners to advance a project to the next phase of implementation, or to determine that a project should not move forward. In general, planning activities are intended to address the following fundamental questions:

1. What is the transportation problem?
2. Is there sufficient data and community concurrence to support this problem?
3. What potential solutions could address the problem?
4. How should a solution be advanced to implementation?

Examples of various project planning studies include:

- ◆ *Visioning plans*
- ◆ *Corridor studies or action plans*
- ◆ *Concept reports*
- ◆ *Feasibility assessments or studies*
- ◆ *Safety plans*
- ◆ *Mode-specific planning studies (ex. bicycle/ pedestrian and transit)*
- ◆ *Specific technical reports such as traffic, speed management or access management studies*

This Manual focuses on *project* planning, which comprises planning activities that answer these questions for “qualifying projects” as identified in the ETDM Manual (see [Section 1.1.1 Applicability](#)). For projects considered less complex than “qualifying projects”, those typically advanced through programmatic processes such as maintenance, resurfacing, safety audits, traffic operations “push button” projects; similar planning questions are addressed during a planning step, prior to concept or final design. While planning activities for these less complex projects may be more streamlined, the same principles and best practices apply, and responses to the questions above form the foundation of transportation project development.

2.2.2 Types of Activities within Project Planning

Project planning studies are not a one-size fits all solution, rather they must be considered within the framework of project-specific objectives. Before scoping project planning, practitioners should identify the primary objectives based on available information from prior planning efforts and input from project stakeholders. While the majority of project planning studies are prepared by FDOT Districts, they

may also be conducted by MPOs/TPOs, expressway authorities, local governments, or private developers.

In project planning studies, the same planning questions are asked, but with a stronger **focus on evaluating project feasibility, seeking information to streamline the PD&E process, and potentially resolving issues identified at this stage**. These targeted questions include:

- ◆ What is the purpose of the project?
- ◆ Why is the project needed?
- ◆ What is the project?
- ◆ Is the project supported by the community and stakeholders?
- ◆ What improvements might be included in the project?
- ◆ What is the range of alternatives, or alternative mode(s), that could meet the purpose and need?
- ◆ What concepts might address the purpose and need?
- ◆ What are the anticipated funding needs through construction?

Project planning can also advance decisions that can be incorporated by reference into a PD&E study, such as existing and future conditions analyses, the purpose and need, and/or the comparative evaluation and elimination of alternatives.

Project planning activities for adoption into the PD&E phase can involve either a comprehensive planning study or a more limited, context-specific effort (such as mode selection). A best practice is to identify the critical path, project-specific risks and benefits that could refine the future PD&E scope, schedule, budget, or controversy potential and focus the project planning scope efforts on those critical tasks that will best advance project development efficiently.

As shown in **Table 2.1 Types of Project Planning Activities**, project planning activities can be generalized into several categories based on the study purpose. Transportation agencies determine whether a project planning study is needed to support programming or create efficiencies for project development.

Project planning activities can be conducted as a stand-alone effort to answer specific questions about a project or included as a part of the overall project planning study.

Table 2.1 Types of Project Planning Activities

Component	Purpose of Planning Component
Existing and Future Conditions Analysis	Get an understanding of existing and future traffic operations and transportation, land use, and environmental contexts.
Needs Assessment	Develop or refine the initial purpose and need.
Corridor Vision Plans	Determine corridor vision and potential strategies for addressing the purpose and need.
Concept or Alternatives Development	Identify a reasonable range of alternatives to meet the purpose and need.
Corridor or Feasibility Analysis	Evaluate the engineering, environmental, local support, or financial viability of a proposed project. This analysis examines the transportation needs, potential transportation improvements to meet those needs, and provides cost estimates and benefits to inform whether the project should advance to the PD&E phase. Considers feasibility (engineering, environmental, economic and controversy potential).
Alternatives Evaluation	Conduct planning-level alternatives evaluation (including purpose and need compatibility, engineering feasibility, environmental considerations, public input, and cost) to narrow the range of alternatives for PD&E phase by eliminating any alternative(s) and identifying the alternative(s) recommended for further evaluation in PD&E.
Scoping Reports or Checklists	Planning assessment to identify PD&E or design scoping activities. These reports and checklists typically screen if planning activities such as existing and future conditions, needs assessment, and concept development have been completed.
Transit Corridor and Project Evaluation (TCPE)	For major transit fixed guideway capital investment projects, this study assesses project readiness prior to the FTA Project Development (PD) phase and identifies actions needed before a project is ready to enter PD.

2.3 Incorporating Planning into PD&E

This section of the Manual outlines the minimum requirements that must be documented as part of any project planning study intended to be adopted for compliance with the National Environmental Policy Act (NEPA) of 1969 ([42 USC 4321 et. seq.](#)) and FHWA implementing regulations for NEPA in [23 CFR 771. 23 United States Code \(USC\) 168](#) provides the regulatory framework for the integration of planning and the environmental review process, relating to any NEPA Class of Action, which is often termed “linking planning and NEPA.” The requirements discussed within this section are applicable to projects that are either federally funded by the Federal Highway Administration (FHWA) or involve a federal action through FHWA that will require NEPA compliance (see FDOT’s [NEPA Assignment webpage](#)). FDOT also conducts PD&E Studies for “qualifying projects” that are state-funded and prepares a State Environmental Impact Report (SEIR). The guidance provided in this section can also be used for planning studies that will lead to a SEIR.

The information provided also integrates guidance from FDOT’s ETDM process, FDOT’s PD&E Manual, FHWA PEL guidance, and other resources aimed to better integrate the planning and NEPA phases of a project. This section of the manual does not address additional specific project delivery requirements for transit projects which are further documented in both the [PD&E Manual, Part 1, Chapter 14, Transit Project Delivery](#) and [FDOT’s Transit Development Plan Handbook](#).

PEL uses information, analyses, and products from transportation planning to inform the NEPA environmental review process.

FDOT’s Office of Environmental Management (OEM) has developed a companion resource entitled *Best Practices Guidance for Linking Planning and Environmental Review* (pending) which documents guidance and best practices for planning products to be adopted or incorporated by reference into the environmental review process, as part of a PD&E Study.

2.3.1 Integrating Project Planning with NEPA

2.3.1.1 Applicability of Project Planning

Activities conducted during project planning are essential to project development, as they may be used to **inform the next phase and the NEPA process**. Examples of project planning documentation that supports NEPA transportation decision-making include purpose and need, existing and future conditions considered during alternatives evaluations, alternatives considered and eliminated alternatives, agency input, community engagement, and implementation recommendations. Project planning is intended to support the environmental review process conducted during the PD&E phase.

FDOT initiates a PD&E Study to conduct the environmental review process required to comply with NEPA.

Transportation projects that have a PD&E phase are those that are federally funded or involve a federal

Types of PD&E Studies

- ◆ **Type 2 Categorical Exclusion (CE)**
- ◆ **Environmental Assessment (EA)**
- ◆ **Environmental Impact Statement (EIS)**

action (such as a federal permit or use of Interstate right-of-way (ROW)) and are expected to require either a Type 2 Categorical Exclusion¹ (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS). These federal actions and types of NEPA documents are defined in the [FDOT PD&E Manual, Part 1, Chapter 2, Class of Action Determination for Federal Projects](#). Projects

identified as a Type 1 CE do not typically have a PD&E phase. An example of a Type 1 CE is construction of a bike lane or sidewalk or adding turn lanes within the existing ROW and involving no individual or cumulatively significant environmental impacts. For a Type 1 CE (minor environmental actions), a separate project planning study would not typically be conducted but could be recommended if it is beneficial to better define a project from a larger range of alternatives. For projects on the State Highway System (SHS) or Local Agency Program (LAP) projects off the SHS, FDOT determines whether a project planning study is needed.

The types of projects that normally require a PD&E Study are referred to as “qualifying projects” in FDOT’s ETDM Manual. [FDOT PD&E Manual, Part 1, Chapter 2, Class of Action Determination for Federal Projects](#) provides guidance for multiple project types regarding whether a PD&E phase is typically conducted (i.e., Type 2 CE, EA, and EIS) or not (e.g., [23 CFR 771.117 c and d](#) list projects). If the anticipated project type is not found in this chapter, consultation with the District Environmental Office should occur to confirm whether a PD&E Study is anticipated.

2.3.1.2 Defining a Planning Product

The term “planning product” means a decision, analysis, study, or other documented information that is the result of an evaluation or decision-making process during the planning phase; including those carried out by either a MPO or a state, as appropriate, during metropolitan or statewide transportation planning under [23 USC 134](#), [23 USC 135](#), or [23 USC 168](#), respectively.

[23 USC 168](#) defines the types of **planning decisions** and **planning analyses** that may be adopted or incorporated by reference from a **planning product**. [23 USC 168](#) also details the specific conditions, including planning processes, documentation, and agency and public engagement required to use a planning product in the NEPA phase. During a project planning study, a “planning product,” is defined in federal regulations as a detailed decision, analysis, study, or document that is the result of an evaluation or decision-making process carried out during the planning phase.

¹ Not all Type 2 CEs will have a PD&E phase.

2.3.2 Conditions for NEPA Adoption

According to [23 USC 168](#), a planning product may be adopted into the NEPA environmental review process if certain conditions, or minimum requirements outlined further below, are met. These requirements are also summarized in the [FDOT PD&E Manual, Part 1, Chapter 4, Project Development Process](#) and the [OEM PEL Guidance Checklist](#). The following subsections, include more detail on these specific conditions and requirements for agency consultation, community engagement, documentation requirements, level of detail required, and timeline for integration with the PD&E phase.

For highway projects, FDOT serves as the Lead Agency under the NEPA Assignment Program with OEM providing Environmental Document approvals (except for Type 1 CEs which are signed at the District level). FDOT is the Lead Agency for non-federal FDOT projects with the applicable District providing Environmental Document approvals.

1. The planning product was developed through a planning process conducted pursuant to applicable federal law.
2. The planning product was developed in consultation with appropriate federal and State resource agencies and Indian Tribes (Refer to [Section 2.3.2.3 Agency Consultation Requirements](#)).
3. The planning process included broad multidisciplinary consideration of systems-level or corridor-wide transportation needs and potential effects, including effects on the human and natural environment (Refer to [Section 4.2: Alternatives Analysis](#)).

Best Practice

FDOT's ETDM process was designed to streamline the environmental review and permitting process and involves collaboration between MPO/TPOs, local governments, federal and state resource agencies, Native American Tribes, and the public to ensure that transportation projects consider the effects on environmental resources. Use of the ETDM Planning Screen is encouraged to conduct the required consultation.

4. The planning process included public notice that the planning products produced in the planning process may be adopted during a subsequent environmental review process in accordance with this section. (Refer to [Section 2.3.2.2 Notice Requirements](#)).
5. During the environmental review process, the relevant agency has:
 - ◆ Made the planning documents available for public review and comment by members of the general public and federal, state, local, and tribal governments that may have an interest in the proposed project;
 - ◆ Provided notice of the intent of the relevant agency to adopt or incorporate by reference the planning product; and,
 - ◆ Considered any resulting comments.

(Refer to [Section 2.3.4 Adoption of Planning Study](#))

6. There is no significant new information or new circumstance that has a reasonable likelihood of affecting the continued validity or appropriateness of the planning product.

Example: Land use impacts are a community impact that may change significantly between Planning and PD&E. For the planning product to be adopted, major land use changes may need to be reevaluated prior to adoption.

7. The planning product has a rational basis and is based on reliable and reasonably current data (from within the five years prior to the date the product was approved or completed) and reasonable and scientifically acceptable methodologies. (Refer to [Section 2.3.2.5 Timing of Documentation](#))
8. The planning product is documented in sufficient detail to support the decision or the results of the analysis and to meet requirements for use of the information in the environmental review process (Refer to [Section 2.3.2.4 Level of Detail Required](#)).
9. The planning product is appropriate for adoption or incorporation by reference and use in the environmental review process for the project and is incorporated in accordance with and is sufficient to meet the requirements of NEPA (Refer to [Section 2.3 Incorporating Planning into PD&E](#)).
10. The planning product was approved (or updated and re-adopted) within the 5-year period ending on the date on which the information is adopted or incorporated by reference (Refer to [Section 2.3.2.5 Timing of Documentation](#)).

[2.3.2.1 Community Engagement Requirements](#)

FDOT's [Community Engagement Policy \(Document No.: 000-525-050\)](#) encourages effective community engagement throughout the entire project lifecycle. Therefore, community engagement is a regular part of the planning process. **To meet the PEL regulations for adoption into the NEPA phase, project planning studies must meet certain community engagement requirements.**

Based on the intent of the PEL regulations, the public is provided with an opportunity to participate in the planning process leading to the development of the planning product. Additionally, public notice and an opportunity for public comment and review of the planning product must occur.

There are various community engagement activities that support opportunities for public comment including notice of opportunity for input, websites, direct mailing, webinars, public meetings, and stakeholder meetings. The community engagement techniques should be determined based on project-specific stakeholders and level of controversy anticipated. For more information on benefits of varying engagement activities, refer to FDOT's [Public Involvement Handbook](#).

2.3.2.2 Notice Requirements

During the planning process, public notice must be provided to members of the general public and federal, state, local, and tribal governments that may have an interest in the proposed project. The notice must include mention that the planning products produced in the planning process may be adopted during a subsequent environmental review process in accordance with [23 USC 168](#). Per the FDOT [PD&E Manual, Part 1, Chapter 4, Project Development Process](#), **the following notice must be included on the cover page of planning products that are to be adopted** as well as materials used during community engagement:

The Florida Department of Transportation may adopt this planning product into the environmental review process, pursuant to Title 23 USC § 168 (d) or the state project development process.

2.3.2.3 Agency Consultation Requirements

The FDOT OEM, as the Lead Agency per NEPA assignment must concur the [23 USC 168](#) conditions were met prior to adopting a planning product to support the PD&E phase. If the Lead Agency decides to adopt or incorporate by reference and use a planning product, the agencies that participated in the development of the planning products must also be identified and documented. The agency roles and responsibilities are defined in [42 USC 4336a](#), [PD&E Manual, Part 1, Chapter 3, Preliminary Environmental Discussion, and Advance Notification](#), and [ETDM Manual, Chapter 2, ETDM Process \(Section 2.5\)](#).

2.3.2.4 Level of Detail Required

Project planning studies that comply with PEL are not required to reach the same level of detail as a PD&E Study. The level of detail needed in planning studies should reflect the type of proposed action and the magnitude of anticipated environmental impacts. A comparison of PD&E requirements and planning study considerations is provided in [Table 2.2 Level of Detail Comparison](#).

As stated in the FDOT [PD&E Manual, Part 1, Chapter 4, Project Development Process](#), the extent to which planning information, analyses, or decisions can be adopted or incorporated by reference into the NEPA process depends upon how well the planning products meet NEPA standards and implementing regulations ([23 CFR 771](#)); however, **they do not need to be at the same level of detail as the subsequent NEPA analysis**.

Project planning may advance critical-path PD&E activities (such as detailed traffic studies), helping to reduce overall project development time. Additional guidance on developing and evaluating alternatives, including appropriate levels of detail, is provided in [Chapter 4: Developing and Evaluating Potential Improvements](#).

Table 2.2 Level of Detail Comparison

General NEPA Requirements for PD&E Phase	Project Planning Study Expectations
Purpose and Need Statement	The purpose and need for a project is developed and/or refined during the Planning phase based on measurable evidence, data, and analysis. Input received during the ETDM Planning Screen can be used to further refine the purpose and need. For the ETDM Programming Screen, the purpose and need should be documented to the same level of detail as anticipated for NEPA, as it is the foundation of the alternatives development and evaluation process. The purpose and need is reviewed by resource agencies and the public during the ETDM Planning and/or Programming Screen and may be refined during NEPA if new data or needs are identified. Additional information on the development of the project's purpose and need statement is documented in Section 3.4: Developing and Refining the Project Purpose and Need.
Alternatives Development	Alternatives development may begin during project planning. Planning decisions on alternatives considered or developed can be adopted for NEPA if the PEL conditions outlined in Section 2.3 Incorporating Planning into PD&E are met. Alternatives should be considered that meet the purpose and need. The level of detail of the engineering analysis for alternatives development during planning must be sufficient enough to assess the environmental effects. If multiple alternatives are developed, each alternative must be developed to the same level of detail for alternatives that are compared to each other during alternatives screening.

General NEPA Requirements for PD&E Phase	Project Planning Study Expectations
Alternatives Screening - Assessment of the Community, Economic, and Environmental Impacts of a Proposed Action or Project	The alternatives screening process involves evaluating the alternatives that were developed as described above and narrowing them down to a smaller group that will be analyzed in greater detail in the NEPA phase. Efficient project planning should limit the range of alternatives that must be considered in the NEPA process. Alternatives can be eliminated if they fail to address the purpose and need. If an alternative meets the purpose and need, it can still be eliminated based on the alternatives screening, including environmental impacts, engineering, and cost. All alternatives considered must be evaluated equally during project planning for future NEPA compliance (using the same evaluation factors and considerations for alternatives compared to each other). Either qualitative or quantitative evaluation criteria are sufficient for planning, however, the sole use of qualitative evaluation is not defensible for potential future NEPA decisions. An evaluation matrix of all alternatives considered is required. Logical termini for the project should be established as the determination of land use and environmental context is dependent on study area definition. Desktop GIS analysis (instead of detailed field surveys conducted for NEPA) are appropriate for project planning. Limited field reconnaissance may be conducted to verify land use and resource potential. The ETDM Environmental Screening Tool (EST) is a valuable interactive database and mapping application that provides standardized GIS-based environmental screening and analysis.
Consideration of avoidance, minimization and mitigation	Avoidance and minimization of environmental resources with regulatory protection must be considered for the planning products. However, planning-level evaluations should not reach the level of detail required for NEPA. For example, desktop review of wetlands in GIS are appropriate for planning. However, identifying specific mitigation sites during this phase is not necessary. More detail on existing and future conditions analysis is provided in Section 3.3: Existing and Future Conditions Analysis. Practitioners should also refer to the PD&E Manual, Part 2, Chapters 1-21 for specific understanding of the appropriate level of detail for a PD&E Study to avoid replication of PD&E activities. Any potential mitigation strategies identified during planning should be documented along with any comments received during regulatory agency coordination.
Interagency participation: coordination and consultation	The opportunity for input is required and provided through the ETDM Planning and Programming Screens; however, regulatory agency (such as USFWS or SHPO) concurrence with the proposed action is not requested during the Planning phase.

General NEPA Requirements for PD&E Phase	Project Planning Study Expectations
Public involvement including opportunities to participate and comment	Public involvement and the opportunity for public input is required, but a public hearing is not required. Public involvement can be conducted through various methods including online surveys, small group meetings, or optional public meetings, depending on the community that the project will serve and how they can best receive information and provide input.
Documentation and disclosure	Required to adopt planning products into NEPA as outlined in the OEM PEL Guidance and Questionnaire and the ETDM Manual Chapter 3 .

2.3.2.5 Timing of Documentation

If the planning product to be adopted into the NEPA analysis is **more than five years old** (from the date the product was approved or completed), the information used to develop it must be reviewed to determine whether conditions or the planning context have changed. If conditions have not changed enough to alter the planning context supporting the planning decisions, the PD&E Study may rely on the planning product and must document why that information remains valid for NEPA decision-making. If the data or conditions have changed substantially since the completion of the planning product, even within the standard five-year threshold, the planning product must either be updated, or the agency must document why the information is still valid to the NEPA decision. OEM must be consulted when making this decision (refer to [Section 2.3.4 Adoption of Planning Study](#)). The timing of the planning phase and any resulting planning products should be well-coordinated with the programming of the PD&E phase in consideration of this timeline.

2.3.3 Planning Decisions and Analyses

2.3.3.1 Types of Planning Decisions

[23 USC 168\(c\)\(1\)](#) identifies the planning decisions from a planning product that may be adopted or incorporated into the environmental review process. These types of decisions applicable to transportation projects are also listed in the FDOT [PD&E Manual, Part 1, Chapter 4, Project Development Process](#) and the OEM PEL Guidance. If the PEL requirements documented in [Section 2.3.2 Conditions for NEPA Adoption](#) are met, **the following decisions from a planning product may be adopted into the NEPA process:**

1. Whether tolling, private financial assistance, or other special financial measures are necessary to implement the project;
2. A decision with respect to a general travel corridor or modal choice, including a decision to implement corridor or subarea study recommendations to advance different modal solutions as separate projects with independent utility;

3. The purpose and the need for the proposed action;
4. Preliminary screening of alternatives and elimination of unreasonable alternatives;
5. A basic description of the environmental setting;
6. A decision with respect to methodologies for analysis; and/or,
7. An identification of programmatic level mitigation for potential impacts that the Federal Lead Agency, in consultation with Federal, State, local, and tribal resource agencies, determines are most effectively addressed at a regional or national program level, including:
 - a. Measures to avoid, minimize, and mitigate impacts of proposed transportation investments on environmental resources, including regional ecosystem and water resources; and
 - b. Potential mitigation activities, locations, and investments.

2.3.3.2 Types of Planning Analyses

23 USC 168(c)(2) identifies the planning analyses from a planning product that may be adopted or incorporated into the environmental review process. These types of analyses applicable to transportation projects are also listed in the FDOT [PD&E Manual, Part 1, Chapter 4, Project Development Process](#) and the [OEM PEL Guidance](#). If the Conditions for Adoption documented above are met, **the following types of planning analyses may be adopted into the NEPA process:**

1. Travel demands;
2. Regional development and growth;
3. Local land use, growth management, and development;
4. Population and employment;
5. Natural and built environmental conditions;
6. Environmental resources and environmentally sensitive areas;
7. Potential environmental effects, including the identification of resources of concern and potential direct, indirect, and cumulative effects on those resources;
8. Mitigation needs for a proposed action, or for programmatic level mitigation, for potential effects that the Federal Lead Agency determines are most effectively addressed at a regional or national program level.

2.3.4 Adoption of Planning Study

Upon completion of the planning study or analyses, the *FDOT Questionnaire for Linking Planning and Environmental Review* (pending by OEM) must be submitted to the FDOT District Environmental Administrator for approval. Once approved by the District, the completed questionnaire should be

forwarded to OEM for adoption of the planning products prior to the initiation of the PD&E Study. The questionnaire/checklist for projects that are anticipated to be either a Non-Major State Action (NMSA) or Type 1 CE projects should be approved by the District. Projects that advance to the PD&E phase as a SEIR may still adopt planning study decisions. These may be reviewed and adopted at the FDOT District or Florida's Turnpike Enterprise, as appropriate.

If the planning study is completed by an agency other than FDOT, the planning product will need to be reviewed by the appropriate Lead Agency (FDOT District and/or FDOT OEM). The District is the Lead Agency for State projects and Type 1 CEs. An FDOT State project is a project advanced through the FDOT Work Program using only state funding and/or does not affect the interstate during any phase of project development or implementation.

As the Lead Agency, **FDOT may adopt or incorporate by reference the entire planning product or certain aspects of the planning product.** The information adopted can then be incorporated directly into an environmental document and may be relied upon and used by other Federal agencies for project reviews to create efficiency between planning, NEPA, and permitting.

2.3.5 Summary

Collectively, these PEL requirements establish a **clear framework for developing planning products** that are both compliant with federal regulations and FDOT policy and procedures and positioned for **efficient use in subsequent NEPA reviews.** By ensuring early agency consultation, meaningful community engagement, appropriate levels of detail, and timely documentation, FDOT and its partners can confidently advance planning decisions and analyses into the PD&E phase. When the conditions in [23 USC 168](#) are met, planning products can be adopted or incorporated by reference to support purpose and need, alternatives evaluation, environmental setting, and mitigation strategies, thereby strengthening the technical foundation of NEPA documents and streamlining overall project delivery in accordance with [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#).

2.4 Timing of Project Planning Studies

There is flexibility in the timing of project planning studies, including when they start and end. Project planning activities typically begin after a project is identified through statewide, FDOT District, or metropolitan planning efforts and should end prior to scope development for the subsequent project development phase. If FDOT determines that a project planning study is needed to conduct a feasibility assessment and develop implementation recommendations, the study should be scheduled so that its results inform the optimal timing for programming the PD&E phase, while ensuring that construction is programmed to begin no more than eight years after the start of PD&E. The duration of a project planning study will vary based on the type of study and the level of detail required; but should be planned to promote efficiency over the entire project development lifecycle. Any FDOT planning analyses supporting a future PD&E study must comply with federal regulations and FDOT policies for transportation decision-making between project phases.

Planning Study Age Threshold

Per the ETDM Manual, if the planning product being adopted into the PD&E Study is older than five years (from the date the planning product was approved or completed), the planning product must be reviewed to determine if the existing or future conditions or the planning context have changed to verify the planning decisions are valid for the NEPA decision-making process.

The goal in timing a project planning study is to complete it before scoping for the next phase (PD&E or Design), but not so far in advance that the study becomes outdated. For example, traffic forecasts and analysis may be prepared as part of a project planning study or initiated during the period between the Planning and PD&E phases.

FDOT Districts are encouraged to undertake project planning as needed and consider the timing of the planning project in relation to other project phases.

2.5 Scoping a Project Planning Study

Once the decision has been made to undertake a project planning study, the next step is to develop the scope. Developing an effective scope requires careful consideration of the key elements that contribute to a successful planning effort. These elements can be organized around the project planning objectives described in [Section 2.1 Determining the Need for Project Planning](#). The objectives are below:

1. Solves a transportation problem,
2. Is locally supported (both in local transportation plans and by the community),
3. Has a feasible funding opportunity, and
4. Is environmentally feasible.

The scope should consider prior work and define the remaining analysis needed to identify potential transportation solution(s) that address all four objectives and would likely advance into future project development phases.

2.5.1 Identifying the Needed Planning Activities

Figure 2.1 Project Planning Process provides an overview of the planning process and steps within it. *Error! Reference source not found.* *Table 2.3 Overview of Planning Process Steps* summarizes the objective of each step, with additional detail provided in [Chapter 3: Defining the Problem](#) and [Chapter 4: Developing and Evaluating Potential Solutions](#). The planning process should be scaled to the level of information needed to evaluate, vet, and advance potential solutions. Where documented previous plans and studies have already addressed the objectives of one or more planning steps, a project planning study may skip or significantly reduce the efforts required for those steps. At the start of scoping the project planning study, the objectives of each planning step should be reviewed to determine which have already been satisfied. Scopes are not one-size-fits-all and should be tailored to the specific project, building on prior work and focusing resources on the remaining steps needed to achieve a successful plan.

For example, if the project purpose and need has been explored and defined through previous efforts, including well-documented community engagement and agency coordination, the scope for project planning does not have to include additional existing conditions analysis. Instead, the scope for project planning can focus on additional community engagement to support PEL requirements and the steps outlined in [Chapter 4: Developing and Evaluating Potential Solutions](#).

Table 2.3 Overview of Planning Process Steps

Planning Activity	Objective
Defining the Problem	
Existing and Future Conditions Analysis	Collect information to understand the transportation problem and support sound decisions in identifying and evaluating potential solutions.
Needs Assessment	Use the existing and future conditions analysis to substantiate the need for the project.
Developing and Refining the Project Purpose and Need	Document the reason for the project to be implemented to serve as a benchmark to evaluate project alternatives.
Public Involvement & Agency Coordination	Identify and document issues early, inform decision-making, build a shared understanding of the project, and coordinate across agencies and jurisdictions.
Developing and Evaluating Potential Solutions	
Developing a Range of Solutions	Identify a variety of candidate solutions to address the project purpose and need.
Alternatives Analysis	Evaluate the candidate solutions against the needs identified in the first step.
Elimination of Alternatives	Consider cost, schedule, community acceptance, and engineering fatal flaws to create a short list of alternatives.
Alternatives Recommended for Further Study	Select a recommended alternative(s) collaboratively with project decision-makers.

2.5.2 Determining Level of Complexity

The level of effort required for a project planning study depends on the scale and complexity of the problem. While the problem may not be fully defined at the outset, there is typically enough information to understand its general complexity.

Factors influencing complexity may include the number of partners involved, the potential for competing interests, the size of the study area, and the overall magnitude of the problem. In some cases, a planning effort may begin with a simpler approach and expand as additional analysis needs are identified. **Figure 2.2 Planning Study Scope Complexity** summarizes some of the common factors that drive complexity, though other project specific factors may be important to consider when determining planning complexity.

Figure 2.2 Planning Study Scope Complexity

	Less Complex <i>More Streamlined Planning</i>	More Complex <i>More Detailed Planning</i>
Study Area Size	Intersection; short corridor	Long corridor; area/network study
Facility Type	Existing facility/alignment	New facility/realignment
Communities/Partners Impacted	Single jurisdiction	Multiple jurisdictions
Regional Priority	Already identified by FDOT or MPO/TPO	Not yet prioritized
ETDM Process	Non-Qualifying project	Qualifying project
Corridor Operations	Uniform land uses and simple traffic operations/access needs	Multiple competing needs and complex traffic operations

2.5.3 Understanding the Project Planning Study Purpose

Planning studies can lead to a range of outcomes. Potential solutions may include qualifying projects as identified in the [ETDM Manual Section 2.3.1](#), operational improvements, or routine maintenance projects. In many cases, solutions identified in planning will be advanced through PD&E, before design and construction. Smaller recommendations can be advanced through a traffic operations study, such as a signal warrant analysis, and then move forward to design and implementation. [Chapter 5: Project Planning Study Documentation](#) provides additional guidance on linking project planning study recommendations to subsequent project development activities, including PD&E.

When scoping a project planning study, consider the potential next steps the study may take². As appropriate, involve FDOT team members from planning, PD&E, design, traffic operations, and maintenance in scope development. Project managers should consider how these downstream users may want to be engaged throughout the study and factor those activities into the study scope. Questions to consider when preparing the project planning study scope include:

- ◆ What level of data is needed to advance recommendations to the next phase?
- ◆ What assumptions from prior studies can project planning build on? Which assumptions still need to be validated?

² While this Manual focuses primarily on projects that advance to PD&E, a similar approach can be applied for projects that do not qualify for that process.

- ◆ Are there known constraints that should shape the study approach?
- ◆ What level of analysis and concept development is needed so the next phase can proceed without rework?
- ◆ What analyses can reasonably be deferred to later phases?
- ◆ Is the project likely a qualifying project that may require ETDM screening?
- ◆ Which stakeholders need to be engaged and buy-in established before the next phase?

2.5.4 Creating a Successful Project Planning Scope

Once the required planning activities, the overall complexity of the problem, the likely users of the study, and the products desired are understood, the scope can be developed.

In addition to the planning activities in *Table 2.3 Overview of Planning Process Steps*, the scope should include:

- ◆ Definition of the study area
- ◆ Data collection to support the existing and future conditions analysis
- ◆ Level of anticipated engagement needed to reach consensus for recommendations
- ◆ Clearly defined deliverables
- ◆ Level of documentation required to advance to the next phase

Project planning study scopes should illustrate how planning activities can be tailored to meet the needs of a specific study.

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3. Defining the Problem

3.1 Overview

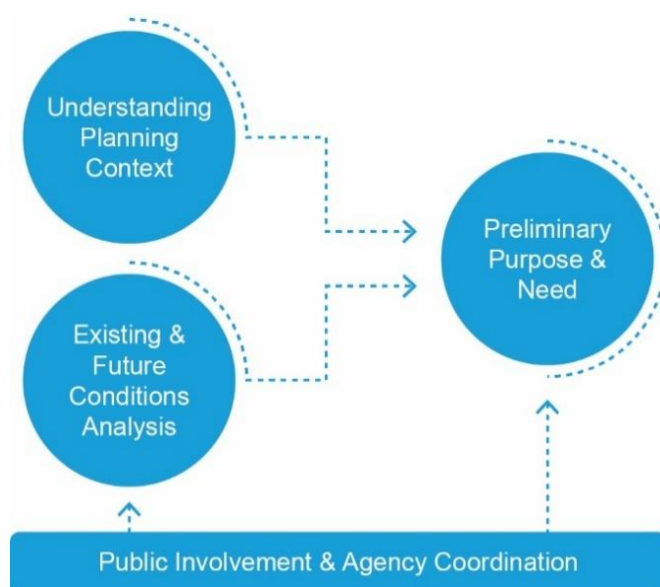
Project planning activities should begin by establishing a shared understanding of the transportation problem among agency stakeholders, the community, and the Florida Department of Transportation (FDOT). Referred to as **defining the problem**, this first step aims both to understand the nature and extent of the transportation issue(s) and confirm that the issue is broadly recognized by community stakeholders as critical and a priority for action. The full definition of the transportation problem should build on the:

- ◆ **Understanding of the Planning Context:** Review and synthesis of previous and ongoing local, regional, or statewide planning efforts that are relevant to, and reference, the potential problem.
- ◆ **Existing and Future Conditions Analysis:** Establish the factual foundation for understanding the study area's issues and opportunities and clarify what transportation needs and potential improvements should be addressed.

There are instances when a transportation project is identified by an agency or documented in a planning document before the underlying transportation problem has been fully defined. Often, this occurs without the assessment of transportation needs or a public discussion of the importance of the problem. There may also be differing perspectives among stakeholders about the actual problem. In these cases, **it is the role of project planning, particularly the problem definition step, to use data-driven existing and future conditions analyses to document a clear understanding of the transportation needs and facilitate consensus among stakeholders on the nature of the transportation problem.**

The general steps for completing problem definition are shown in *Figure 3.1 Steps to Defining the Problem*.

Figure 3.1 Steps to Defining the Problem



3.2 Understanding the Planning Context

The planning context of a transportation project consists of prior plans and studies developed, and in some cases formally adopted, by local, regional, or state agencies. These prior efforts typically incorporate meaningful stakeholder and community engagement. Reviewing a project's planning context helps identify the **level of community understanding** and concurrence regarding the transportation problem and the need for action. In addition, the planning context provides insight into the **relative priority of the transportation problem** and how addressing the problem could **support a community's vision and goals**. The planning context also supports the development of a project's preliminary purpose and need and the project limits.

3.2.1 Statewide, Regional, and Local Plans

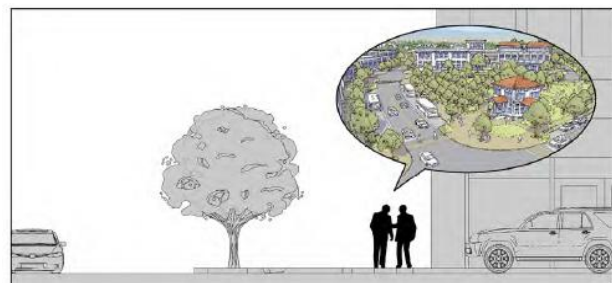
Section 1.3: Benefits of Conducting Project Planning Studies discusses how a project planning study is typically identified through statewide, regional, or local planning efforts. These plans provide the framework and rationale for the project, as well as the regional and local goals and priorities that will inform the planning process.

These transportation plans provide a starting point to understand a study area's current and future land use and transportation conditions and may indicate early community understanding and perception of the project. They also provide direction for, and can sometimes streamline, the existing and future conditions analyses) conducted as part of a project planning study.

Together with the existing and future conditions analyses, these prior plans can provide insights into the community's land use vision. This vision, in turn, informs the anticipated users of a roadway and its desired future role within the transportation system. Collectively, the land use vision, the anticipated users, and the desired role of the roadway, along with other traffic, safety, and engineering considerations, guide the development of the project's preliminary purpose and need and the identification, evaluation, and selection of project alternatives.

- ◆ **Land Use Vision:** Synthesized from regional and local plans, the land use vision **reflects the desired future land use pattern surrounding a roadway**. This may include the intended context (e.g., urban, suburban, rural, small town, etc.), the scale of planned growth, and the nature of future growth (e.g., remain a small town, increase residential density, increase employment opportunities, etc.). This surrounding planning context helps inform the corridor's existing and future function within the

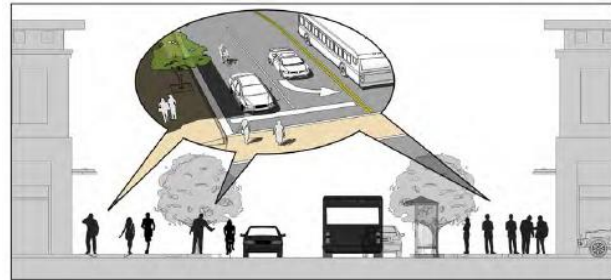
Figure 3.2 Land Use Vision



region, as well as the land uses along the roadway (e.g., employment center, residential enclave, neighborhood retail, regional shopping area, mixed-use development, etc.).

- ◆ **Major Users of the Roadway:** Based on the land use vision, coupled with the existing and future conditions analysis (see [Section 3.3: Existing and Future Conditions Analysis](#)), project planning can help **identify the current and future users of the roadway**. These users may include pedestrians, bicyclists, transit users, freight traffic, and motorists. Users can also be characterized by major land uses and populations along the roadway (residents age 65 and older, students, tourists, businesses, employees, and other distinct populations). **An understanding of the existing and anticipated users helps determine the desired role of the roadway.**

Figure 3.3 Major Users of the Facility



- ◆ **Desired Role of the Roadway:** Based on the synthesized regional and local vision and goals for both the roadway and the broader study area, as well as an understanding of the roadway's primary users, the desired role of the roadway can be defined. For example, a roadway could function as a regional commuting corridor serving longer-distance trips and heavy freight traffic or as a local facility emphasizing shorter trips and multimodal activity, including walking and bicycling.

Figure 3.4 Desired Role of the Roadway



3.2.2 Related Transportation and Development Projects

Other ongoing transportation and land use efforts within and near the project area should be assessed. This includes recent, ongoing, and programmed studies or projects led by FDOT or local agencies. It also includes major planned developments (e.g., significant residential, commercial, or mixed-use projects) that may influence travel demand, access, or multimodal needs. Future traffic from these approved developments, as well as land use considerations for potential new developments, should be considered as part of future traffic analysis (See [Section 3.3.9: Traffic Forecasting](#)).

To support the review of related projects, **coordination with FDOT District planning staff and local agencies should occur to obtain prior studies, data, and documentation**. This coordination helps avoid duplication of prior technical work and supports consistency with other regional efforts.

For each identified project or plan, document at a minimum:

- ◆ Project name and description (including project number, if applicable)
- ◆ Location and limits (or area of influence)
- ◆ Current phase or status (planning, Project Development and Environment [PD&E], design, construction, completed, approved development, adopted plan)
- ◆ Anticipated or actual completion/implementation date
- ◆ Lead agency, owner, and developer

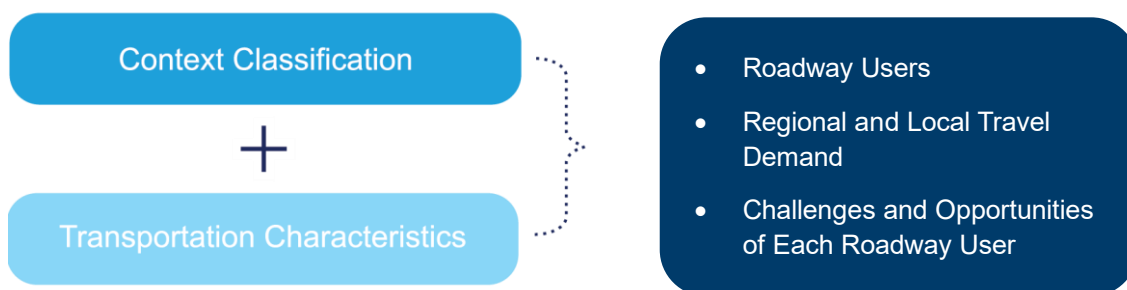
3.2.3 Roadway Context Classification and Identifying Roadway Users

The FDOT context classification system ([Figure 3.5 FDOT Context Classification](#)) identifies the existing (current) and future built environments in Florida. The [FDOT Context Classification Guide](#) provides guidance on how context classification can be used, describes the measures to determine context classification, and explains how context classification relates to concept design. Context classification is referenced throughout the [FDOT Design Manual \(FDM\)](#) and is **used to determine the applicable criteria and standards for all non-limited access state roadways**.

Identifying context classification during early project planning provides both information on the existing land use context and guidance for roadway typical section elements (e.g., lane widths, sidewalk widths, etc.) and parameters (design speed, speed management technique, etc.) during alternatives development. Each FDOT District has preliminary context classifications for state roadways developed through the Geographic Information System (GIS) analysis of a subset of the FDOT prescribed context classification measures (including roadway connectivity, population and employment density, and existing land use). As projects are scoped and/or advanced into Planning, PD&E, or Design, these preliminary context classifications are further refined by FDOT District planning offices using additional context classification measures (including building height, building placement, location of off-street parking, allowed residential and commercial densities, and future population and employment densities) and are updated to reflect the most current data available. For project planning studies, coordination with District planning staff should occur to request evaluation of the roadway's current and future (where available) context classifications, rather than relying on preliminary classifications.

Figure 3.5 FDOT Context Classification

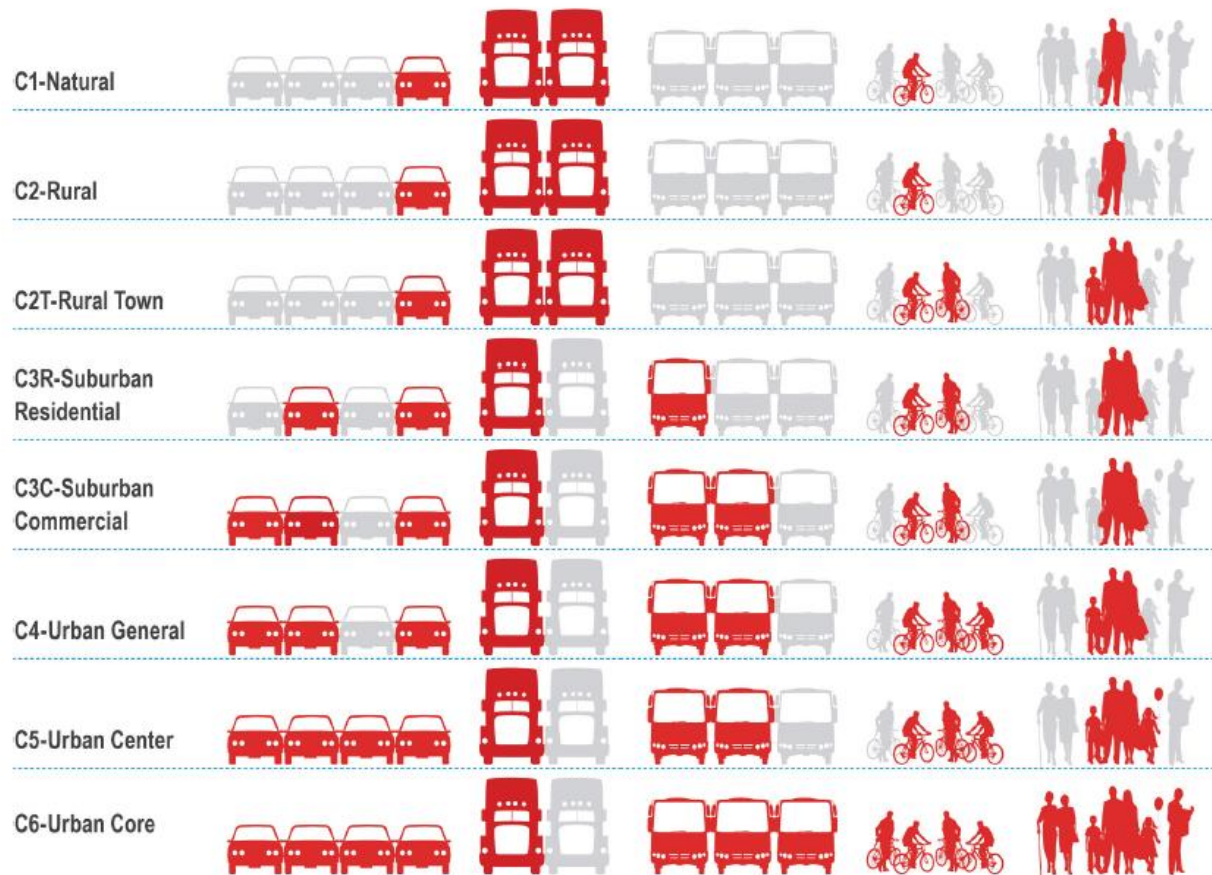
The context classification system can serve as a valuable tool to complement regional and local plans. As illustrated in **Figure 3.6 Context Classification's Role in Existing and Future Conditions Analysis**, a roadway's transportation characteristics (i.e., access management classification, freight activity, public transportation service, etc.) can be evaluated alongside its context classification to better understand how adjacent land uses influence transportation conditions. Together, these two factors provide insight into roadway users, travel demand, and the challenges and opportunities present for each user. These challenges and opportunities can include potential areas of improvement in roadway operations, facility design, site design, and land use integration. **Table 3.2** to **Table 3.6** provides example questions and analysis that leverage context classification and transportation characteristics to assess corridor conditions and identify potential challenges and opportunities.

Figure 3.6 Context Classification's Role in Existing and Future Conditions Analysis

Insights on existing and future users of the roadway and their needs, derived from context classification, can inform the development of project alternatives in subsequent phases of the planning process. For example, in an urban context classification (C4, C5, & C6) where a higher number of pedestrians and bicyclists are expected, slower design speeds, shorter spacing between pedestrian crossings, bicycle facilities, and wider sidewalks should be considered. The **FDOT Context Classification Guide** includes **Figure 3.7 Users by Context Classification**, which summarizes the various users that are typically

observed in each context classification. Context classification combined with other transportation characteristics is helpful in identifying corridor users, which is a critical component of an effective project planning study. Identifying corridor users is described further in [Section 3.3.8: Community Characteristics and Key Stakeholders](#).

Figure 3.7 Users by Context Classification



A comprehensive understanding of a corridor's planning context is informed by previously adopted and completed plans, recent and ongoing transportation and land development activities, and the roadway's context classification. This planning context provides the basis for strategically focusing additional existing and future conditions analyses, as outlined in the following section, to effectively define the transportation problem and determine a project's preliminary purpose and need. Additional guidance on defining the project purpose and need is provided in [Section 3.4.2 Defining Purpose and Need](#).

3.3 Existing and Future Conditions Analysis

The existing and future conditions analysis step is a foundational component of project planning. It involves focused, context-specific planning analyses, including engineering and environmental considerations, to **understand and document a corridor's issues and needs**. In contrast to the PD&E phase existing and future conditions analysis, where methodologies are prescribed by the FDOT PD&E Manual, project planning analyses **are scalable and can be tailored to the specific purpose, context, and complexity of the planning study**. The level of analysis should be sufficient to provide a reliable and defensible understanding of the transportation problem and inform the development and evaluation of potential solutions. For example, a project planning study typically does not need to gather data related to curb radii. However, if the focus of the study is related to freight/truck movements and access, it may be beneficial to collect this data.

The planning-level scale of analysis should provide enough detail to understand the nature and severity of the corridor's transportation problem, while avoiding extra data collection and analytical efforts that are not pertinent to understanding the corridor's context.

This section provides guidance and considerations to help ensure that data collection and analyses are appropriately focused, support more streamlined future project development, and inform decision-making throughout project planning. Analyses performed during project planning should produce information that can be adopted into the PD&E phase and where appropriate, reduce duplication of efforts (refer to [Section 2.3.2 Conditions for NEPA Adoption](#)).

Streamline Future Project Development

The existing and future conditions analysis must meet Planning and Environment Linkages (PEL) requirements for adoption into the PD&E phase if alternatives analysis is completed during project planning and alternatives are eliminated.

3.3.1 Determining the Appropriate Type and Level of Analysis

Project planning analyses should be sufficiently reliable and defensible to:

1. Clearly define the transportation problem and establish the project's purpose and need,
2. Inform the development, screening, and evaluation of potential project alternatives, and
3. Advance analyses typically conducted in PD&E, where practical and beneficial, to expedite project implementation.

Flexible, Right-Sized Approach to Analysis

Analyses should be thoughtfully identified to best inform the project's key questions and to align with the scale and complexity of the project, with the understanding that not all analyses will be needed for every project.

The level of analysis should, at a minimum, be sufficient to achieve the first two of the above goals.

3.3.2 Study Area Characteristics

Building on the plans and project information obtained in [Section 3.2: Understanding the Planning Context](#), the study area characteristics should be outlined to develop the project description, including:

- ◆ County and municipality where the corridor is located; specify if the corridor is in an unincorporated area
- ◆ Project limits and the study area
- ◆ Other roadway classifications: scenic highway, evacuation route, Strategic Intermodal System (SIS) facility, etc.
- ◆ Connectivity to other regional transportation facilities
- ◆ Current and future land uses in the study area

3.3.3 Data Collection

Once the study area is defined, data collection should be initiated to support existing and future conditions analysis. **Data provide the foundation for all project planning level decision-making.**

Together with public and agency input, land use and transportation data inform existing and future conditions analysis, the definition of the preliminary purpose and need, and the development and evaluation of potential improvements. Strategic, efficient, and reliable methodologies, resources, and processes for obtaining information should be identified early in the project planning study, or even during scoping.

FDOT and its partners maintain a number of publicly accessible databases, dashboards, and data sources for use during data collection. These resources streamline data collection and support consistency across projects. FDOT leads statewide efforts to compile readily

available data for project planning. One of these key resources is the [FDOT Source Book](#), an interactive dashboard that provides multi-year historical data on a range of performance measures across Florida's state roadways. Additional resources include existing agency plans and reports, existing agency or publicly available data, field reviews, and information obtained through community and stakeholder engagement (See [Section 3.5 Public Involvement & Agency Coordination](#)).

These resources are summarized in [Table 3.1 Project Planning Data Sources](#).

Efficient Data Collection

Information gathering **should focus on defining the existing, future, and desired conditions of the project area** and on clarifying and justifying the need for, or constraints on, potential transportation improvements.

Regardless of project specifics, the emphasis should be on collecting and analyzing targeted information that addresses key uncertainties, informs critical decisions, and supports advancement to the next phase of project development, rather than accumulating large volumes of extraneous data.

Table 3.1 Project Planning Data Sources

Considerations	Potential Data Sources
Policy Considerations	- Statewide plans/legislative actions - Long range transportation plans/metropolitan transportation plans - Other regional plans and programs - Local plans and policy documents, including comprehensive plans
Financial Considerations	- Metropolitan Planning Organization (MPO) Work Program - FDOT Work Program - Local government capital improvement programs - Other funding programs
Land Use Considerations	- FDOT Aerial photography through https://aplus.fdot.gov/ - Local government GIS mapping and databases - Parcel-level land use - Future land use - Zoning - Local government comprehensive plans - Local government permitted and planned development projects US Census Bureau demographics data (population, population density, age, race, income, etc.) Bureau of Economic and Business Research - Existing and projected population and employment Efficient Transportation Decision Making (ETDM) and Environmental Screening Tool (EST) data, including Area of Interest (AOI) Tool Florida Geographic Data Library
Transportation Considerations	- Aerial photography through https://aplus.fdot.gov/ - FDOT straight line diagrams and as-built documents - Available survey and right-of-way (ROW) maps US Census Bureau American Travel Survey and Longitudinal Employer-Housing Dynamics data (home locations of workers and work locations of residents) FDOT Source Book transportation performance data FDOT ConnectPed pedestrian counts FDOT Florida Traffic Online vehicular counts FDOT Signal4 crash data FDOT GIS Open Data Hub, including Roadway Characteristics Inventory (RCI) - District Safety Assessment Dashboard - Available intersection turning movement and roadway counts - Local government traffic signal timing plans - Transit agency route maps, stop locations, and ridership data - Available bicycle and pedestrian counts - Available micromobility vendor data (bike share and e-scooter) - Available origin-destination data (StreetLight, Replica, or other big data, typically purchased by an MPO or FDOT) - Regional traffic model or project-specific sub-area model

Project planning data collection should begin by clarifying what is already known from reviewing the planning context (see [Section 3.2: Understanding the Planning Context](#)) and what needs to be better understood about the study area. [Table 3.2](#) through [Table 3.6](#) provides information to help identify the appropriate data and analyses needed to **determine or refine the understanding of the transportation problem**. The need for custom, project-specific data collection should be driven by clearly defined data gaps critical to answering questions and informing the project's preliminary purpose and need.

The following sections outline the analysis topics typically included in the existing and future conditions analyses for project planning. [Table 3.2](#) through [Table 3.6](#) presents guiding questions under each topic to explore a corridor's existing and future conditions, along with potential analyses and data needed to answer those questions. Not all of the listed questions and analyses described will be applicable or needed for every project planning study. Sound engineering and planning judgment should be applied to determine the data needs and appropriate level of detail for each project. Additional data collection to support alternatives analysis is documented in [Chapter 4: Developing and Evaluating Potential Improvements](#).

3.3.4 Existing and Future Roadway Conditions

Document existing roadway conditions to establish how the facility is currently configured and operating and understand if there are gaps and challenges that need to be addressed. The existing and future roadway conditions data will also be used in the traffic analysis and forecasting as described in [Section 3.3.9 Traffic Analysis and Forecasting](#) and to evaluate potential alternatives as described in [Chapter 4: Developing and Evaluating Potential Improvements](#).

Table 3.2 Roadway Conditions Analysis and Data

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
Do the existing physical conditions of the roadway meet current FDOT criteria for a safe roadway for all users?	Document existing roadway conditions; Determine if the roadway meets criteria or if improvements or a design exception/variance is needed	- Existing design speed and posted speed limit - Number and width of lanes, medians, shoulders, sidewalks, bike lanes/paths, buffers, curb type, landscaping, on-street parking, roadside protection (border width), and drainage swales or structures - Any atypical or constrained sections
Are there any safety concerns?	- Safety analysis - Identification of high-crash locations, patterns, and contributing factors - Crash rates and comparison to district or statewide averages where available	- Summary of crash history over the most recent five years - Crash frequency and severity by segment and intersection (e.g., heat map or other similar map is beneficial) - Crash types - District safety priorities
What is the role of the roadway within the study area?	Document FDOT or special classifications that influence criteria, standards, and operations	- Roadway context classification - Functional classification - Access management classification/standards - Special classifications - SIS corridor, evacuation route, Scenic Highway, etc.
How much ROW is available if there is a need to reconfigure the roadway?	Document ROW constraints	- Typical ROW widths - ROW limits - Ownership, easement, and type of limited-access control (if appropriate)
Is there a likely maintenance, pavement, or structural condition issue that needs to be addressed?	Document pavement and structural conditions; Document general geotechnical conditions	- Pavement conditions and type - Structural condition (e.g., Florida bridge inventory and quarterly bridge information (bridge conditions), observed distresses) - Operational condition (e.g., friction, ride quality) - Soils map depicting general soil classifications and any notable geotechnical issues affecting performance or constructability
Does existing horizontal and vertical geometry contribute to safety problem?	Document existing roadway geometry and whether design criteria are met or potentially contributing	- Crash data through and on approach to curves - Description of curves, grades, and transitions - Identification of substandard features and constraints (e.g., limited sight distance, sharp curves)
Do existing lighting conditions support safe nighttime operations for all users?	Identify general lighting coverage, known deficiencies or gaps	- Lighting location (example: side of road) - Typical lighting type (high mast, cobra head, decorative), typical spacing, and general condition of lighting - Nighttime crash locations

3.3.5 Multimodal Facilities

Document existing and planned multimodal facilities and services to understand how the system is currently configured and operating across modes (pedestrian, bicycle, transit, freight) and to **identify missing links, safety issues, capacity constraints, redundancy, and opportunities to enhance connectivity or access**. The multimodal conditions data will also be used in the traffic analysis and forecasting as described in [Section 3.3.9 Traffic Analysis and Forecasting](#) and evaluate potential alternatives in [Chapter 4: Developing and Evaluating Potential Improvements](#).

Table 3.3 Multimodal Facilities Analysis Data

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
What is pedestrian, bicycle, public transportation, and freight traffic and infrastructure like currently and in the future? Do existing multimodal facilities meet the future or current needs of users?	- Document and/or map existing multimodal facilities - Level of traffic stress analysis	- Shared use path or sidewalk presence and continuity, width/Americans with Disabilities Act (ADA) accessibility, buffer, and crosswalk locations and type (marked/unmarked, signalized, high-visibility, and school crossings) - Bicycle facility type (bike lane, shared use path, shoulder), width, continuity, and connectivity to local/regional networks - Transit ridership, routes, stops, station locations, shelters, transfer centers, park-and-ride lots, bus bays, and key service characteristics - Designated freight routes, access to intermodal logistics centers, terminals, industrial areas, freight restrictions, loading zones, and truck parking facilities
Are there key destinations not currently served by low-stress multimodal facilities, as defined in the FDOT Multimodal Quality/Level of Service Handbook?	Identify gaps in comfortable, low level of traffic stress multimodal facilities near key destinations	- Key destinations - School walksheds - Pedestrian desire lines (direct path between destinations)
Does the corridor have a railroad and how does it impact corridor operations?	- Document and map railroad locations - Analyze impacts on corridor traffic operations	- Railroad owner, number and location of at-grade and grade-separated crossings - Number of tracks, train frequency, and train speeds - Type of service (passenger, freight, or mixed) - Existing warning devices and control systems
Are there other modes (golf carts, micromobility, emerging vehicle technologies, etc.) that need to be considered in this area?	Document presence and use of emerging or locally significant modes	- Golf cart usage/observed routes - Micromobility usage patterns - Local ordinances or designated facilities

3.3.6 Existing Bridge and Structure Conditions

FDOT Structures Maintenance Office maintains a statewide, quarterly bridge information report summary online, based on annual inspections that provides a list of existing bridge locations and their inspection condition. Additionally, detailed Bridge Inspection Reports (BIR) are available for every public bridge in the State of Florida. The District Maintenance Office should be contacted to obtain the most recent BIR for each bridge on the corridor when detailed bridge conditions are needed to verify the structural condition.

Table 3.4 Existing Bridge and Structure Conditions Analysis and Data

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
Does the corridor have an existing bridge? Does the bridge meet current design standards?	Document typical section of existing bridge	Typical section (lanes, shoulders, sidewalks, bike facilities, railings/barriers)
Does the bridge meet current structural standards? Can it handle additional load?	Document maintenance needs	- Year built and years of major modification or rehabilitation - Inspection ratings, condition assessments, and deficiencies - Load posting and load rating information - Existing borings, pile driving records, and foundation details - Maintenance and repair history relevant to structural integrity
Does the bridge meet the needs of its original function?	Evaluate functional performance of the structure relative to current and projected conditions	- Facility crossed (roadway, waterway, railroad) - Channel alignment, width, depth, and navigation clearance requirements - Vertical and horizontal clearances over and under the structure - Vessel or ship impact considerations - For movable spans: frequency of openings, boat traffic characteristics, mast height data, and special navigation requirements during construction - Normal High Water, Mean High Water (for coastal or tidal facilities), and related design water levels as defined in the FDOT Design Manual and Drainage Manual
Does the bridge have a special designation with additional requirements? Are there known security issues?	Vulnerability screening	- Historic designation or other cultural significance, if known - Known security issues or vulnerabilities that could affect project design, construction staging, or operations

The existing bridge and structures conditions data will be used to inform the project need as described in [Section 3.4.3.3 Step 3 – Compile Data to Support Need](#) and the scope for the next project phase (PD&E or Design).

3.3.7 Environmental Characteristics

In general, the purpose and need should focus on the underlying transportation problem, including the reason(s) the project is being proposed. In limited circumstances, an environmental resource may be integral to the purpose and need. For example, a historic bridge that requires additional capacity may necessitate a purpose and need that explicitly addresses preservation of the historic resource as well as the transportation deficiency. Avoidance and minimization of environmental resources are typically addressed during the alternatives analysis, as described in [Section 4.2: Alternatives Analysis](#).

When defining the problem, the project planning study should briefly summarize the environmental characteristics of the study area, focusing on the environmental context of the surrounding area. Identifying and summarizing environmental features within and near the study area provides sufficient information to identify environmental constraints and the affected environment, determine whether any fatal flaws exist that could support eliminating alternatives, and support environmental screening conducted during alternatives analysis. Early documentation of environmental characteristics also helps identify which environmental issues are applicable and the appropriate level of detail for environmental analysis, based on the understanding of environmental features. These environmental characteristics will be used when evaluating alternatives, as described in [Section 4.2: Alternatives Analysis](#), and to inform ETDM screening and the scope for the next project phase (PD&E or Design). As described in the [ETDM Manual](#), the ETDM AOI tool provides data, summary reports, and analysis of environmental information for use in the planning study and subsequent project phases.

3.3.8 Community Characteristics and Key Stakeholders

Community characteristics should be documented early in the planning process to establish **who the project serves and what community resources may be affected**. Much of the community characteristics data can be obtained from the Sociocultural Data Report provided by the ETDM Planning and/or Programming Screen.

Table 3.5 Community Characteristics and Key Stakeholders Analysis and Data

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
Who are the predominant users of the corridor based on the land uses served?	Identify primary user groups and trip generators influencing corridor demand	- Major employment centers - Schools and institutional uses
Who lives and travels in the study area?	Map demographic characteristics for an appropriate buffer around the planned improvements (e.g., approximately 1 mile in rural areas and ¼ mile in urban areas)	- US Census or American Community Survey (ACS) data: population total and density; age distribution, income, vehicle ownership, disability status, languages spoken, and other factors relevant to transportation needs - Distinct population groups and any notable areas in or near the project corridor where these groups are more highly concentrated.
What type of land uses and communities are being served by the corridor? Are these conditions expected to remain in the future? Are there land uses that require special considerations?	Document and map existing and future land uses within the project area	- Context classification - Existing land use - Future Land Use - Zoning - Planned and permitted development - Local designations (commuter corridor, tourist area, freight-oriented corridor, transit-dependent community, etc.)
What aesthetic or streetscape features identify the community?	Document project area aesthetic features	Landscaping, street trees, decorative lighting, street furniture, specialty paving, and other visual/urban design elements
How do people currently move around the project area?	Document and map modal choices	- Identify available travel modes, including use of personal vehicles, walking, bicycling, micromobility, and other modes. - Current commute mode choice from ACS
What resources are important to daily life and travel?	Document and map community resources	- Schools and major education facilities. - Community and civic facilities (e.g., community centers, libraries). - Parks, recreation areas, and notable cultural or historic destinations. - Hospitals, major clinics, and significant social service facilities. - Government and public safety facilities. - Major employment and commercial centers. - Multimodal facilities (e.g., transit hubs, park-and-ride lots, intermodal facilities).

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
What groups should be engaged throughout the project?	Document special interest groups and key stakeholders	- Neighborhood or homeowner associations - Business groups - Advocacy organizations - Major institutions - Freight or industrial interests
What are the local comprehensive plan policies or other goals and objectives related to this project?	Review and synthesize applicable local plans, policies, and goals	- Local vision, plans, and policies, including comprehensive plans - Local capital improvement programs
What are the regional priorities related to this project? Are there any federal or statewide regulations or policies related to this project?	Identify relevant regional, statewide, and federal policies	- Regional Long Range Transportation Plans - Statewide plans/legislative actions - FDOT Work Program

Documenting community characteristics will help inform how a potential solution may address community needs and the future vision for the community. Community characteristics can help identify user needs, such as improving access to schools or parks, and therefore influence the project's purpose and need, alternatives analysis, and recommendations.

The community characteristics and key stakeholders will also be used to inform public engagement activities as described in [Section 3.5 Public Involvement and Agency Coordination](#) (and particularly [Table 3.9 Key Aspects of Public Involvement When Defining the Problem](#)) and to understand sociocultural effects as part of the alternatives analysis as described in [Section 4.2 Alternatives Analysis](#).

3.3.9 Traffic Analysis and Forecasting

As with the other existing and future conditions analyses, **traffic analysis and forecasting help define the problem and establish the project's purpose and need**, including whether a traffic-related problem exists. During project planning, traffic data and analysis can also support the evaluation of alternatives and selection of a recommended solution.

The level of analysis and forecasting needed in project planning will vary based on the complexity and scale of the planning effort. For a corridor not anticipated to require additional capacity to meet future demands, analyzing segment-level Annual Average Daily Traffic (AADT) may be sufficient to rule out roadway widening as a need, without further analysis of intersection operations and forecasting traffic at the level of intersection turning movements. For more complex projects, where advanced traffic analysis can help clarify a problem and inform alternatives evaluation, typical PD&E-level analyses may

be warranted during project planning. In such cases, these analyses should be adopted into the PD&E phase, reducing duplication and streamlining project development. For example, planning for a fast-growing corridor with known peak-period congestion would benefit from detailed intersection operations analysis under both existing and future conditions.

Data collection for traffic analysis should follow the methodologies outlined in the [FDOT Traffic Analysis Handbook](#). While [Section 3.3.5 Multimodal Facilities](#) focuses on the existing infrastructure for different transportation modes, data collection for traffic analysis should consider how well people are able to travel throughout the study area today and in the future.

Future traffic volumes are necessary to understand if existing vehicular capacity can accommodate anticipated future traffic demands and to evaluate the long-term effectiveness of project alternatives. Traffic forecasts should consider planned and programmed transportation improvements, historic growth estimates, future land use projections and assumptions, and other relevant traffic parameters. When forecasting is included as part of project planning, a project-specific forecasting methodology should be developed in coordination with the FDOT District and based on the [FDOT Traffic Forecasting Handbook](#).

The level of effort for traffic analysis during project planning must account for the PEL requirement that planning information be **based on reliable and reasonably current data and the planning product to be adopted into the National Environmental Policy Act (NEPA) analysis is not more than five years old (from the date the product was approved or completed)** or the information needs to be reviewed to determine if the planning context has changed, as summarized in [Section 2.3 Incorporating Planning into PD&E](#). For future project development that will involve interchange access requests, a re-evaluation of supporting data and analyses is required if the interchange improvement does not progress to the Construction phase within five years of approval, as documented in the [FDOT Interchange Access Request User's Guide](#). Other considerations that may affect the validity of traffic forecasts and analysis include substantial changes in land use, socioeconomic conditions, scope of work, related projects in the surrounding roadway network, or changing traffic conditions reflected in the regional travel demand model. More detail on how these conditions may require updated traffic analysis during PD&E is documented in the [PD&E Manual, Part 2, Chapter 2, Traffic Analysis](#). The level of effort for traffic analysis during project planning should consider these potential risk areas to avoid duplication of effort between project phases.

Table 3.6 Traffic and Travel Analysis and Data

Question to Understand Corridor Need	Analysis to Answer Question	Data to Perform Analysis
What is the existing travel demand for all modes along the corridor? Is traffic different at different times of the day or week?	Document and map existing volumes	- AADT by segment - Directional distribution, where available - Peak-hour turning movement counts at key intersections - Truck percentages and heavy vehicle characteristics - Bicycle and pedestrian counts
How are vehicles operating in the project area? Are there key intersections where congestion is more pronounced?	All day and peak period traffic analyses	- Intersection control/forms (signalized, unsignalized, roundabouts, interchanges) - Lane configurations, including turn lanes, auxiliary lanes, and channelization - Observed operational issues (queues, delays, spillback, weaving problems) - Existing Intelligent Transportation Systems (ITS) and signal technologies (e.g., detection, coordination, transit priority, preemption)
What is the future travel demand?	Travel demand forecast	- Travel demand model - Historic traffic trends - Population projections - Planned developments, zoning, and future land use
What are common vehicle travel patterns? How are people moving (local vs regional)?	Document and map vehicle trip patterns	- Typical trip lengths - Dominant origin-destination pairs
What are the posted speeds, and how fast are vehicles operating currently?	- Document posted speed, design speed, target speed - Speed study	- Design speed, target speed, and posted speed limits - Notable locations where operating speeds differ significantly from design or posted speeds

3.3.10 Documenting the Analysis

Results from the existing and future conditions analysis should be **documented in easy-to-understand formats that can be understood by the public and decision-makers**. Data tables, charts, graphics, maps, and other visualization tools should be used to succinctly convey findings and to clearly document the corridor's transportation needs.

For project planning, base maps can be used to display data collected, illustrate project needs, and frame concepts of project alternatives in later phases (See [Chapter 4: Developing and Evaluating Potential](#)

Improvements. Aerial imagery, topographic mapping, and survey data should be used where available and aligned with FDOT's standards and coordinate system as described in [FDOT Survey and Mapping Handbook](#).

With advances in digital media and visualization tools, base maps, tables, charts, and other data can be shared through online dashboards and platforms to support engagement with stakeholders and the public. Any online summaries of data analysis should be documented in a report or memo format that clearly explains the results, to satisfy PEL requirements.

3.4 Developing and Refining the Project Purpose and Need

Building on the results of the existing and future conditions, the project's purpose and need can be developed. The purpose and need for the project forms the foundation for project development by clearly articulating **why the project is necessary** and **what it is intended to achieve**. The proposed transportation improvements are then developed to address this purpose and need. It serves as a critical planning product to support any PD&E Study by explaining the rationale for the project and establishing a benchmark against which project alternatives are evaluated.

Developing and documenting the purpose and need in a project planning study helps focus the study on the overarching project's goals and objectives while strengthening the link between planning decisions and succeeding project phases. Providing a well-defined purpose and need during project planning can reduce the amount of time spent on purpose and need refinement during the PD&E phase.

The purpose and need also serves to:

- ◆ **Frame the focus** of the Project Planning Study, ETDM screening, and PD&E.
- ◆ Provide the **basis for identifying, developing, evaluating, and eliminating alternatives**.
- ◆ **Connect the project to the transportation planning process**, including Metropolitan/Transportation Planning Organization (MPO/TPO) LRTPs, the Transportation Improvement Program (TIP), the State Transportation Improvement Program (STIP), and other plans.
- ◆ **Link the project to the National Environmental Policy Act (NEPA) of 1969**, consistent with [23 CFR § 450 Appendix A](#) (*Linking the Transportation Planning and NEPA Processes*), which states that the planning document must describe "how the purpose and need was developed and refined" for it to be incorporated into the NEPA process.

Effective Purpose and Need Statements

A good purpose and need statement is project specific and clearly explains why a project is being proposed and is needed.

A well-developed purpose and need can help focus limited resources on **the most significant transportation problems** the project is intended to address and improve the **defensibility** of project decisions in agency review and in any potential legal challenge. This section of the Manual explains how to develop and refine a project-specific purpose and need statement during a project planning study, by using available planning documents, technical analyses, and transportation plans. More details on developing a project purpose and need can be found in the [PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning Consistency](#).

3.4.1 Applicability for Project Development

The preliminary purpose and need for a project begins in the Planning phase (e.g., project planning study) and can be refined during the PD&E phase. During planning, the preliminary purpose and need statement is used in the ETDM Planning and Programming Screens for qualifying projects. FDOT uses the ETDM process to obtain input from resource agencies on the purpose and need for projects that are screened through the EST. This information from the ETDM Programming Screen Summary Report is used to prepare the purpose and need statement for the NEPA environmental document.

During the PD&E phase, the purpose and need is refined, as needed, based on any changes in transportation plans or updated studies. The preliminary purpose and need developed during project planning will be reviewed and accepted by FDOT Office of Environmental Management (OEM) during the ETDM Programming Screen to determine if the data and analyses supporting the need are still valid and if the needs require updates based on current data (traffic, safety, or existing conditions). Under the NEPA Assignment Program, FDOT OEM provides purpose and need acceptance for federal highway projects.

The purpose and need should not change substantially between the ETDM Programming Screen and PD&E phases of a project. If substantial changes to the purpose and need statement occur, FDOT OEM consultation is required. FDOT OEM guidance on preparing the project description and purpose and need for the project, prior to and during the PD&E phase, is summarized in the [PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning Consistency](#).

3.4.2 Defining Purpose and Need

Key characteristics of the purpose and need include:

- ◆ A **statement of the transportation problem**, not a description of a specific solution.
- ◆ Based on agreed upon **data analyses and assessment methodologies** through a recognized planning process.
- ◆ Broad enough to encompass a **range of alternatives**, yet specific enough to focus analysis.
- ◆ Must **not** list specific design criteria or standards.
- ◆ May reflect **other secondary goals and objectives** identified in Federal, state, local, or tribal plans or through data analyses (for example, environmental resources, growth management, land use planning, economic development), as long as it remains focused on the transportation problem.
- ◆ Supports the evaluation of alternatives (including no-action or no-build) and **alternative(s) for analysis in the PD&E phase**.

Federal Highway Administration (FHWA) Guidance on Purpose and Need

FHWA Technical Advisory T6640.8A states the purpose and need will “identify and describe the proposed action and the transportation problem(s) or other needs the project is intended to address.”

3.4.2.1 Defining the Project Purpose

The project purpose identifies the **primary goals of the project** and provides the **reason why** FDOT or a transportation agency is proposing a project. **The purpose is not the statement of solution.** It states what transportation problem(s) the project intends to address and provides the basis for developing and evaluating alternatives.

Acceptable v. Unacceptable Purpose Statements:

- ◆ **Acceptable:** The purpose of the project is to improve safety and reduce the frequency and severity of crashes along State Road 50 while maintaining acceptable traffic operations.
- ◆ **Not acceptable:** The purpose of the project is to widen State Road 50 from four to six lanes. (This improperly embeds a solution.)

3.4.2.2 Defining the Project Need

Based on the results of the existing and future conditions analysis, the project need is the **factual, objective description of the existing or forecasted transportation problem(s)** that support the purpose of the project. Unlike the purpose, which states the overarching goal (what we want to achieve with the project), the project need describes the specific issues driving the project.

The project need arises from **deficiencies, issues, or concerns** that exist, or are expected to occur, in the project area within a specified timeframe (which may vary from one project to another). These existing, or anticipated, issues also form the foundation for the purpose and need and the **no-action (or no-build) discussion** and should be supported by **measurable evidence, data, and analysis**, summarized in plain language.

Transportation needs typically fall into one or more categories as described in [Section 3.4.3.2: Step 2 – Identify Transportation Problems \(Needs Element\)](#) and identified in the [PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning Consistency](#).

Considerations in Determining Needs

- ◆ What are the true “drivers” of the project?
- ◆ How is the need for this project distinct from the need for other similar projects that are being proposed in the same region?
- ◆ What is the justification for this project over other transportation priorities?
- ◆ Are the project purposes achievable?

No-Action or No-Build

The No-Action Alternative (or No-Build Alternative) serves as the baseline or benchmark against which the Build Alternatives are evaluated. The No-Action Alternative is defined as the alternative in which the proposed project activity would not take place.

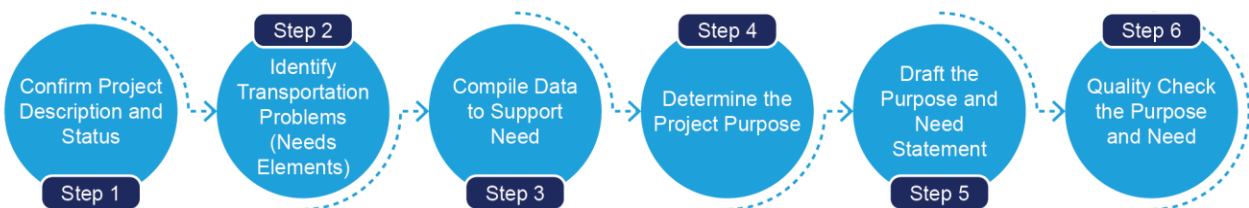
3.4.3 Development of Purpose and Need

Prior to the development of the project planning study, the purpose and need is often conceptual, reflecting regional needs and planning factors and is considered preliminary. While the preliminary purpose and need may be initially defined as a result of statewide/metropolitan planning, the project planning study should confirm and refine the purpose and need based on additional project-specific analyses.

As stated above, the purpose and need statement consists of two parts: the needs section and the purpose statement. The needs section provides the factual basis that supports and justifies the project's purpose. The purpose statement should then clearly and specifically describe the fundamental reasons the project is being proposed, framed as the desired transportation outcome.

The section below presents a practical, repeatable process for developing a project-specific purpose and need statement as part of Project Planning Studies.

Figure 3.8 Steps to Develop a Project Purpose and Need



3.4.3.1 Step 1 – Confirm Project Description and Status

◆ Review planning documents

- Confirm that the project addresses identified needs and is consistent with statewide, regional, and local long-range planning documents.

◆ Develop or confirm project description

- Limits (logical termini), modes, phases, and general scope of the project.
- Any segmentation and implementation strategy.

◆ Summarize project status

- Where the project stands in Long Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), State Transportation Improvement Program (STIP), and MPO/Transportation Planning Organization (TPO) Prioritized Project List
- Funding status for Design, ROW, and Construction.
- Prior actions taken (studies, decisions, analyses).

Key Sources for Planning Documents

- ◆ MPO/TPO LRTP (Cost Feasible Plans)
- ◆ TIP and STIP
- ◆ Florida Transportation Plan (FTP)
- ◆ Strategic Intermodal System (SIS) Cost Feasible Plan
- ◆ Corridor/subarea plans

This information forms the basis of the **project status** portion of the purpose and need statement and demonstrates that the project is a regional and local priority. This general information on project status to support the development of the purpose and need statement is obtained from coordination with the FDOT District Planning Office and other MPO/TPO or local government partners.

3.4.3.2 Step 2 – Identify Transportation Problems (Needs Elements)

Using planning data, analyses, and transportation plans can help identify problems that may explain the need for the proposed project. The following list includes common transportation needs identified in the

PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning

Consistency to be considered. Questions to consider for each need are also included.

- ◆ **System Linkage** - Is this facility a critical connection in the local, regional, or statewide network? Does it connect to SIS facilities, transit hubs, ports, or intermodal centers?
- ◆ **Capacity** - Is the current facility unable to accommodate existing or forecasted traffic? What are existing and projected level of service (LOS)? Are there operational bottlenecks?
- ◆ **Transportation Demand** - Do forecasts (population, employment, freight) indicate a need to modify the facility or network?
- ◆ **Legislation** - Are there federal, state, or local requirements (e.g., ADA, safety performance, environmental regulations) that must be addressed?
- ◆ **Social Demands or Economic Development** - Are new or planned land uses, employment centers, schools, or other traffic generators creating additional demand?
- ◆ **Modal Interrelationships** - Is the project needed to support or integrate with other modes (transit, bicycle/pedestrian, freight, port, rail, airports)?
- ◆ **Safety** - Is there an acute safety problem along the corridor/in the area? Are crash rates higher than statewide averages? Are there patterns (e.g., angle crashes at intersections, run off road, pedestrian injuries)? Are there known high-hazard locations?
- ◆ **Roadway Deficiencies** - Are there substandard geometrics, inadequate typical sections, deficient bridges, poor pavement, or drainage issues?
- ◆ **Access** - Are access point locations, density, or design affecting safety or operations? Are development pressures requiring access management changes?
- ◆ **Maintenance** - Do existing transportation facilities require additional maintenance investment to sustain desired performance levels?

For more detailed guidance regarding these categories, refer to the **PD&E Manual Part 2, Chapter 1**.

3.4.3.3 Step 3 – Compile Data to Support Need

Technical data and analyses must provide the factual basis for the need. For each problem identified during Step 2, relevant documentation from [Section 3.3 Existing and Future Conditions Analysis](#) can justify the stated needs. The following steps and potential data sources are recommended:

- ◆ **Summarize data developed during the existing and future conditions analysis.** Common sources include:
 - **Traffic operations and capacity:** Current and forecast volumes, LOS, delays, and queues.
 - **Safety:** Crash history, crash rates vs. statewide averages, crash patterns and contributing factors, and Highway Safety Improvement Program data.
 - **Asset/condition:** Condition ratings, hazard events, or known maintenance issues. Pavement Management Information System, Bridge Management System, and roadway and structural ratings.
 - **Transportation demand and growth:** Population and employment forecasts, freight trends, and land use changes.
 - **Multimodal/intermodal:** Transit service, bicycle and pedestrian facilities, freight facilities, airports, ports, and rail.
 - **Environmental and resiliency:** Environmental constraints and opportunities, such as wetland and protected species avoidance, flooding events, and hazard mapping.
 - **Community characteristics:** Demographic data, access to jobs and services, and community features.
 - **Stakeholder and Public Input:** Reveal issues not apparent in quantitative data (e.g., perceived safety, access challenges) and confirm the relative importance of problems.
- ◆ **Identify trends:**
 - Worsening safety, increasing congestion, deterioration, or emerging risks.
- ◆ **Describe consequences of not addressing the problem:**
 - Continued or increased crashes.
 - Increased delay and unreliability.
 - Higher life-cycle costs or likelihood of structural failure.
 - Continued or worsening burdens on distinct communities.
 - Noncompliance with legal mandates.

This process is used to transform raw data into a descriptive narrative of the “need” portion of the purpose and need statement.

3.4.3.4 Step 4 – Determine the Project Purpose

The purpose identifies the core transportation problem that must be addressed for the project to be justified and guides the alternatives that will be developed and evaluated. **Alternatives that do not address the project purpose will be eliminated as not viable.** The purpose typically briefly mentions elements like **safety, capacity, system linkage, or deficient infrastructure** which will then be discussed in detail in the needs section.

Secondary purposes may be identified as project goals and are important considerations that influence design, potentially distinguish between alternatives, and inform the preferred alternative. However, **secondary purposes do not, on their own, justify selecting or eliminating alternatives.** Document primary and secondary purposes explicitly—this will help when writing the purpose and need statement and when screening alternatives later.

3.4.3.5 Step 5 – Draft the Purpose and Need Statement

The need section should begin with the project status including project limits, status of phases and funding documenting the progression of the project towards implementation.

Organize the need section with clear subheadings based on categories identified in the [PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning Consistency](#) and the project's primary/secondary needs. For each:

- ◆ Open with a concise problem statement.
- ◆ Provide supporting data and analysis, citing sources and timeframes.
- ◆ Explain implications and consequences of no action.

Example Safety Need

Between 2019 and 2023, the 3.5-mile project segment of SR 25 experienced 210 reported crashes, including 15 serious injuries and 4 fatalities. The crash rate of 3.0 crashes per million vehicle miles traveled (MVMT) exceeds the statewide average of 1.5 crashes per MVMT for similar urban four lane facilities. A review of crash reports indicates that 40 percent of all crashes involve rear end or angle collisions at the signalized intersections, frequently associated with short left turn lanes, limited sight distance, and lack of protected turn phases. Pedestrian and bicycle crashes account for 30 percent of serious injury and fatal crashes, reflecting safety concerns for non-motorized users.

If no improvements are made, crash patterns are expected to persist or worsen due to projected traffic growth and increasing pedestrian activity, preventing FDOT from achieving safety performance targets and Vision Zero goals.

Using the identified **primary purpose**, draft a purpose statement that:

- ◆ States the transportation problem to be solved, not a solution.
- ◆ Is specific enough to guide alternatives, but not so narrow that it predetermines a single solution.
- ◆ Reflects applicable planning factors (economic vitality, safety, mobility, environment, system preservation, multimodal connectivity) where they are relevant and supported by data.

Example Purpose Statement

The primary purpose of the project is to improve safety and reduce the frequency and severity of crashes along the 3.5-mile segment of SR 25 between Milepost (MP) 10.0 and MP 13.5, while addressing existing and projected congestion that contributes to operational delays and unreliable travel times. The project also seeks, where feasible, to enhance multimodal connectivity and support access to adjacent residential, commercial, and institutional land uses.

Note that the purpose does **not** say “widen SR 25,” “add turn lanes,” or specify design criteria.

The example purpose statement below describes the primary purpose for increased capacity and system linkage (connectivity) along with secondary purposes of safety, enhanced efficiency, and increased multimodal improvements.

Example Purpose Statement

The purpose of the project is to increase capacity and improve connectivity on US 98. Other project goals include improved safety, enhanced efficiency, and increased multimodal improvements.

3.4.3.6 Step 6 – Quality Check the Purpose and Need

The purpose and need should be clearly written in plain language, succinct and well-defined to set the framework for the development and evaluation of alternatives.

Before finalizing, check that the purpose and need meets the criteria summarized in FDOT guidance:

Purpose – Quality Check

- ◆ Is the purpose a **statement of the transportation problem**, not a specific solution?
- ◆ Is it based on **articulated planning factors** and a planning process?
- ◆ Is it **specific enough** that alternatives can be evaluated against it?
- ◆ Is it not so narrow that it predetermines a **solution**?
- ◆ Does it avoid listing specific **design standards or criteria**?

- ◆ Does it accurately reflect the **primary needs** identified?

Need – Quality Check

- ◆ Is each need element supported by **objective data and analysis**?
- ◆ Are data sources and timeframes identified or readily referenced?
- ◆ Is **project status** (including planning consistency) briefly summarized?
- ◆ Are system linkage, capacity/demand, safety, and other relevant factors addressed?
- ◆ Are consequences of the **no-build** alternative explicitly described?

If any purpose element lacks a clear, data-supported need, either revise the purpose or strengthen the supporting need statement. *Table 3.7 Common Challenges in Developing Purpose and Need* describes common pitfalls when developing purpose and need and suggested solutions for fixing them.

Table 3.7 Common Challenges in Developing Purpose and Need

Challenge	Example	Solution
Solution Driven Purpose Statements	"The purpose of the project is to construct a new interchange at I-95 and XYZ Road."	Reframe in terms of transportation problems (e.g., safety, congestion, access) rather than as a construction solution. <i>Revised Example: "The primary purpose of the project is to improve safety, reduce congestion, and improve system linkage at the existing intersection of I-95 and XYZ Road by addressing operational deficiencies and inadequate access for regional traffic."</i>
Overly Broad or Vague Purpose	"The purpose of the project is to improve transportation in the area."	Specify the transportation problems based on data (safety, congestion, reliability, access, etc.). <i>Revised Example: "The purpose of the project is to improve safety and reduce recurring peak period congestion along SR 7 between MP 3.0 and MP 7.5, while maintaining access to adjacent land uses and supporting reliable movement of people and freight."</i>
Purpose Not Supported by Need	Purpose includes "improve freight movement," but the need section has no freight data or discussion.	Either (1) add freight data and analysis that demonstrates a freight mobility problem, or (2) remove or downgrade the freight element (e.g., make it a secondary objective if only qualitatively supported).
Omission of Project Status	Need section is silent on project status, LRTP/TIP references, or funding phases.	Summarize project status and planning consistency per PD&E Manual Part 2, Chapter 1 , including: • LRTP and TIP references (or STIP and FTP in non-metropolitan areas). • Project limits, scope, phases, costs, and funding status. • Description of any segmentation and implementation timeline.

3.4.4 Summary

A strong, defensible purpose and need statement:

- ◆ Is **project-specific** and grounded in FDOT's transportation needs framework.
- ◆ Evolves logically from the **planning process** through ETDM and PD&E.
- ◆ Provides a **clear, data-supported description** of the transportation problems to be addressed.
- ◆ Guides the **development and evaluation of alternatives** without prescribing a predetermined solution.

By following the step-by-step approach in this chapter and using FDOT's existing guidance, such as the PD&E Manual, purpose and need statements can be developed that support efficient project development, meet PEL requirements for adoption into the PD&E phase, withstand technical and legal scrutiny, and help maintain consistency across all phases of the project.

3.5 Public Involvement & Agency Coordination

Public involvement and agency coordination should be integrated throughout the project planning process to ensure the planning study is grounded in local context, informed by community values and partner agency considerations, and produces transparent documentation that can be carried forward into subsequent project development phases. Meaningful public and agency engagement is particularly integral to confirming the transportation problem, aligning identified needs and issues based on community values and regional priorities. This section outlines how a planning project's engagement efforts can be structured, supported, and scaled to identify the project's problem and meet PEL requirements, if applicable. It is intended to guide the identification of effective engagement strategies and the application of best practices that are appropriate to a project's context, decision needs, and level of risk. Emphasis is placed on ensuring engagement is strategically aligned with FDOT's Community Engagement Policy located on the [FDOT Community Engagement website](#), as well as applicable documentation and coordination requirements, particularly for studies intended to meet PEL requirements.

Key principles and objectives when conducting public involvement and agency coordination include the following:

- ◆ **Build shared understanding:** Identify and document community concerns, environmental constraints, permitting considerations, ROW risks, and potential approaches for addressing issues as early as practicable.
- ◆ **Inform decision-making:** Gather input that helps define needs, develop purpose and needs, and identify relevant data sources.
- ◆ **Coordinate across agencies and jurisdictions:** Align with partner plans, policies, and projects; confirm roles and responsibilities; and identify decisions that must be made in later phases.

3.5.1 Effective Engagement Strategies

Effective engagement strategies are tailored to the study context, focus on stakeholders who have an interest in or could be affected by the project, and create timely opportunities for input before key decisions are made and throughout the project lifecycle. Proven engagement strategies include:

- ◆ **Individual or small group meetings** with key stakeholders such as local governments, public transportation agencies, freight operators, community organizations, and major landowners.
- ◆ **Coordination with MPOs and other regional planning agencies** to align assumptions, identify overlapping initiatives, and confirm consistency with adopted plans.
- ◆ **Targeted outreach** to communities directly affected by existing and potential conditions (e.g., neighborhoods experiencing cut-through traffic or freight corridors near residential areas) to understand localized concerns and priorities.

- ◆ **Project websites and online information hubs** that provide accessible, up-to-date project information and offer opportunities for public comment outside of scheduled meetings.
- ◆ **Social media and digital communication tools** to increase awareness, direct stakeholders to project information, and reach audiences who may not engage through traditional meetings.
- ◆ **Surveys and polls** (used independently or alongside meetings) to collect feedback on issues, priorities, or alternatives from a broader audience.
- ◆ Participation in **community events, pop-up meetings, or other opportunities to meet people where they already gather** to lower barriers to participation, particularly for communities that may be underrepresented in traditional engagement settings.
- ◆ **Direct notification and outreach, such as mailed notices or targeted communications**, to ensure affected property owners, residents, and stakeholders are aware of opportunities to participate.

Stakeholders and coordination needs vary by context. Community characteristics and key stakeholder identification began during the existing and future conditions analysis as described in [Table 3.5 Community Characteristics and Key Stakeholders Analysis and Data](#). To build on this data and develop engagement strategies, [Table 3.8 Stakeholder Groups and Engagement Outcomes](#) summarizes common stakeholder groups and examples of the types of outcomes engagement can support during project planning. The [FDOT Public Involvement Handbook](#) provides additional details on federal and state public involvement requirements, FDOT procedures, and guidance on identifying stakeholders and conducting outreach through all phases of the project development process.

Table 3.8 Stakeholder Groups and Engagement Outcomes

Stakeholder Group	Intended Engagement Outcomes During Problem Definition
Residents, neighborhood groups, corridor users	Confirm needs and priorities, identify local access and safety concerns, understand community values and context, and inform evaluation criteria.
Business, freight, and economic stakeholders	Identify freight routes and operational needs, understand access and circulation issues, identify construction/operations sensitivities, and support evaluation of travel time reliability and economic vitality considerations.
Local governments and MPOs/TPOs	Confirm consistency with adopted plans and policies, coordinate with land use and development assumptions, and align with local multimodal priorities.
Public transportation providers and operators	Identify service needs and constraints, confirm stop locations and operations, evaluate public transportation priority treatments, and understand passenger access and ADA considerations.
Schools, emergency services, and major institutions	Identify access and safety issues, special event or peak period constraints, evacuation/emergency response considerations, and opportunities for coordination on access management and operations.
Environmental/resource and permitting agencies	Identify known environmental constraints and data sources, discuss likely permits and consultation needs, identify potential avoidance and minimization opportunities, and flag issues requiring more detailed analysis in PD&E.
Utilities and railroads (as applicable)	Identify potential conflicts and coordination needs; clarify data availability; inform feasibility, cost risk, and schedule considerations.

3.5.2 Public Involvement to Define the Problem

Early engagement should focus on confirming the planning context, refining the problem statement, understanding community values, educating the public and stakeholders on the purpose of the study, and identifying stakeholders who may be affected by or have influence over the study outcomes. Rather than presenting solutions, outreach at this stage is most effective when framed around listening and gathering information to understand local concerns, validate the preliminary project purpose and need, and identify issues or constraints that could influence later decisions.

The outcome of this step is a shared understanding of the study context and problem, supported by a clear record of how input informed that understanding. Engagement during problem definition should position the study to move forward with clear goals, an appropriate study area, and an engagement approach that reflects the corridor and communities involved.

Table 3.9 Key Aspects of Public Involvement When Defining the Problem

Outreach Priorities	Participants and/or Agency Coordination	Desired Outcomes	Documentation
• Validate the preliminary purpose and need • Understand key issues (safety, congestion, access, freight, public transportation reliability, context and placemaking, etc.) • Identify environmentally sensitive areas • Identify historic concerns or prior commitments • Confirm desired outcomes	• Community members and corridor users • Local governments • MPO/TPO staff • Public transportation providers • Freight and business interests • Emergency services • Schools and major institutions • Advocacy groups • Resource/permitting agencies as appropriate to the setting (including through ETDM coordination when applicable) • For more information, see the FDOT Public Involvement Handbook Chapter 300: Identifying the Public	• Refined study area and context (as described in Section 3.2 Understanding the Planning Context) • Identification of key issues and/or opportunities • Development of preliminary goals and objectives • Engagement plan tailored to the corridor and communities	• Summaries of outreach methods, meeting materials, and input received • Log of stakeholder contacts • Clear record of how input informed the problem definition

3.5.3 Agency Coordination

During project planning, agency coordination involves working with partner agencies and organizations to ensure that proposed transportation solutions are feasible, aligned with adopted plans and policies, and positioned for implementation. **Effective agency coordination early in the process helps identify project champions, clarify roles and responsibilities, and establish communication channels that will be carried forward into subsequent phases.**

Agency coordination can differ from typical public involvement in both purpose and focus. Public involvement typically emphasizes understanding community priorities and context. While agency coordination can also help understand community context, it is also focused on facilitating implementation and interagency alignment. It supports planning level decision-making by clarifying requirements, dependencies, and risks early.

3.5.3.1 Identifying Agency Partners

Identifying appropriate agency partners is a project-specific task that should consider study purpose, geographic setting, anticipated project impacts, and implementation responsibilities. A review of the planning context, prior studies, known regulatory requirements, and potential funding or delivery mechanisms can help to determine which agencies have authority, responsibility, or influence over future project development. For projects where FDOT partners with MPOs, coordination with FDOT District MPO Liaisons is helpful to gather information on important local agency contacts. Early coordination should prioritize agencies whose input may affect alternatives, funding eligibility, operations, or long-term ownership, with the level of coordination scaled to the study's decision needs and implementation risks.

Depending on the study context, agency partners may include:

- ◆ MPOs and TPOs
- ◆ Counties and municipalities
- ◆ Regional planning councils
- ◆ Public transportation providers/agencies
- ◆ State and federal resources and regulatory agencies
- ◆ Freight, port, rail, and aviation agencies or authorities
- ◆ Emergency management and public safety agencies
- ◆ School districts and major institutional partners
- ◆ Utilities, railroads, and other infrastructure owners
- ◆ Economic development organizations
- ◆ Potential funding partners

The level and timing of coordination with each agency should be scaled to the study's decision needs.

More information on agency coordination during alternatives analysis is included in [Chapter 4 Developing and Evaluating Potential Improvements](#).

3.5.4 Additional FDOT Resources

- ◆ **FDOT Community Engagement Policy**: Establishes FDOT's statewide vision and commitment to effective community engagement throughout the project lifecycle.
- ◆ **FDOT Public Involvement Handbook**: Primary reference for public involvement requirements, methods, documentation practices, and accessibility considerations.
- ◆ **FDOT ETDM Manual**: Reference for ETDM applicability, screening steps (planning and programming screens), and use of the EST to support early and continuous agency coordination.
- ◆ **FDOT PD&E Manual, Part 1, Chapter 11, Public Involvement**: Establishes public involvement requirements and procedures during the PD&E phase, including development of Public Involvement Plans, identification of affected communities and stakeholders, outreach activities, and public involvement expectations based on class of action and environmental document type.

- ◆ **FDOT PD&E Manual, Part 2, Chapter 1, Project Description, Purpose and Need, and Planning Consistency:** Provides guidance on developing and documenting the project description, purpose and need, and planning consistency for the project prior to and during the PD&E phase.
- ◆ **FDOT Design Manual, Part 1, Chapter 104, Public Involvement:** Provides guidance for public involvement during the design phase, focusing on carrying forward commitments made in earlier phases, addressing community impacts identified during design, and developing Community Awareness Plans.

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4. Developing and Evaluating Potential Improvements

During project planning, potential transportation improvements can be developed and evaluated to streamline alternatives development and analysis during subsequent phases of project development and to support efficient project delivery. **The intent of the alternatives development and evaluation process is to identify and screen a reasonable range of alternatives.** If the resulting recommended alternative(s) for further study and/or elimination are intended to be incorporated into the Project Development and Environment (PD&E) phase, the alternatives analyses process must satisfy all applicable requirements outlined in [Section 2.3 Incorporating Planning into PD&E](#) and the Florida Department of Transportation (FDOT) Questionnaire for Linking Planning and Environment Review (PEL Questionnaire) should be completed as described in [Section 2.3.4 Adoption of Planning Study](#).

The process of developing potential improvements begins after the transportation needs are identified as a result of the existing conditions analysis and development of the project purpose and need, as described in [Chapter 3: Defining the Problem](#). This is an iterative process in which data and input from stakeholders continuously inform and help to refine concepts as project planning advances. In subsequent project phases, potential transportation improvements may be further developed and evaluated to inform the identification of a preferred alternative for the project (where applicable).

4.1 Alternatives Development

4.1.1 Identifying Potential Types of Alternatives

The project planning study should analyze a reasonable range of alternatives to meet the project purpose and need and support the role of the roadway, as described in [Section 3.2.3 Roadway Context Classification and Identifying Roadway Users](#), in comparison to the No-Action (No-Build) Alternative.

Based on the FDOT [PD&E Manual](#), there are different types of transportation alternatives to be considered including the No-Action (No-Build) Alternative, Transportation Systems Management and Operations (TSM&O) Alternative, Multimodal Alternative, and Build Alternative(s), as described in [Table 4.1 Types of Alternatives](#) and in the section below.

No-Action (No-Build) Alternative

The No-Action (No-Build) Alternative is defined as the alternative in which a proposed project would not occur. The No-Action Alternative does include programmed improvements already proposed as part of related projects. For example, if an intersection improvement is already programmed in a local Transportation Improvement Program (TIP), it would be included in the No-Action Alternative. **The No-Action Alternative serves as a baseline for comparison to any Build Alternative(s)** and must be

identified during alternatives development and analyzed during alternatives evaluation. The No-Action Alternative is carried forward and remains under consideration throughout the project planning study and PD&E phase.

Table 4.1 Types of Alternatives

Type of Alternative	Description
No-Action (No-Build) Alternative	The alternative in which a proposed project would not occur. Serves as the baseline for comparison to any other alternatives.
TSM&O Alternative	Provides operational improvements that extend the service life of the existing facility.
Multimodal Alternative	Includes motorized (such as transit and rail) and non-motorized (such as pedestrians and bicyclists) facilities to meet the purpose and need for the project.
Build Alternative(s)	Improvements such as widening, new roadway segments, intersection improvements, etc.

TSM&O Alternative

TSM&O alternative(s) should be considered in the Planning phase, prior to evaluating Build Alternatives, and engineering analysis must demonstrate that maximization of the existing system through various TSM&O strategies will not meet the purpose and need for the project. If the TSM&O alternative does not meet the purpose and need for the project, the project planning study must briefly explain why. The TSM&O Alternative should focus on **operational improvements that extend the service life of the existing facility**. TSM&O improvements include strategies that optimize the performance and utilization of existing infrastructure to preserve capacity and enhance the security, safety, and reliability of the transportation system.

TSM&O strategies to be considered may include enhancements to the existing facility, such as ramp metering, traffic management systems, traffic control strategies, traffic incident management, parking management, transit signal priority systems, and other activities identified in the [TSM&O Strategic Plan](#).

Multimodal Alternative

Multimodal alternative(s) may be considered in the Planning phase. The Multimodal Alternative includes motorized (such as transit and rail) and non-motorized modes (such as pedestrian and bicycle facilities) to meet the purpose and need for the project. Any multimodal projects included in the Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP), TIP, or Transit Development Plan should be considered in the project planning study and, if they are consistent with the project's purpose and need, they should be developed and analyzed as Build Alternative(s). Coordination with the District Transit or Modal Office is important when identifying and evaluating multimodal alternatives.

Build Alternative(s)

The Build Alternatives are proposed to meet the purpose and need of the project. Each Build Alternative must include:

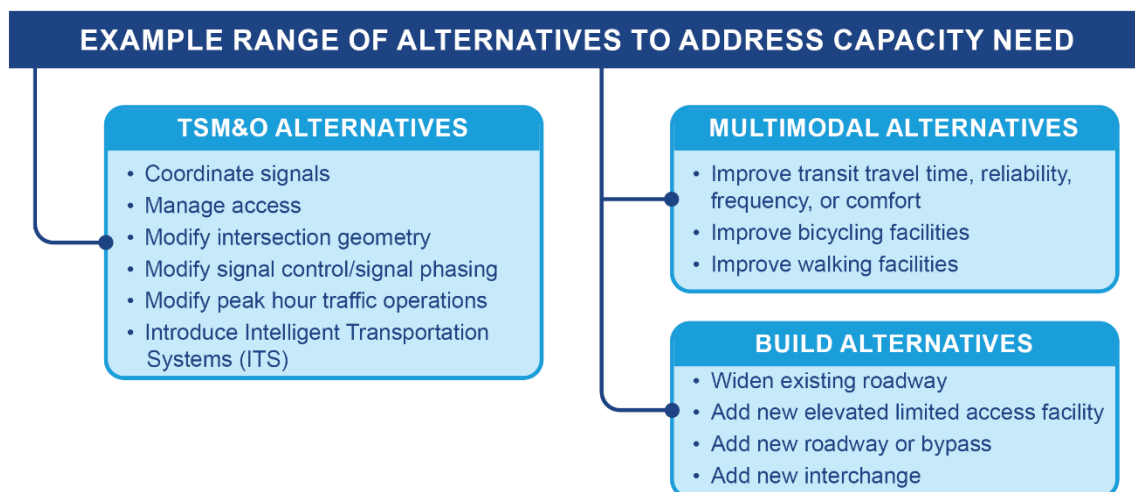
- ◆ Logical termini with sufficient length to meet the purpose and need and address environmental factors on a broad scope
- ◆ Independent utility to function as designed and be a reasonable expenditure if no additional transportation improvements are made in the area
- ◆ Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements

Analysis of Limited Access Facilities

In accordance with [Section 334.63, Florida Statutes \(F.S.\)](#), project planning studies for capacity improvement projects on limited access facilities must include the evaluation of alternative(s) that provide transportation capacity using elevated roadway above existing lanes.

For example, if a project includes capacity as the purpose and need, the range of alternatives may include TSM&O, Multimodal, and/or Build Alternatives (*Figure 4.1 Example Range of Alternatives to Address Capacity Need*).

Figure 4.1 Example Range of Alternatives to Address Capacity Need

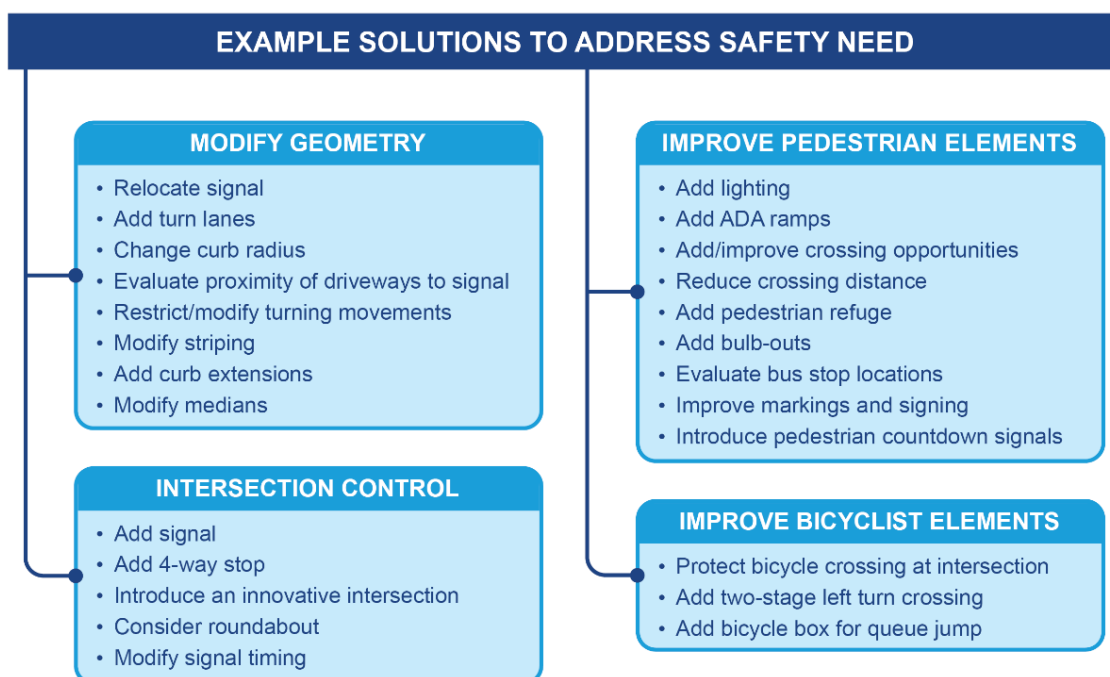


An initial qualitative screening of these types of alternatives can be conducted early in project planning to evaluate how well they meet the project's purpose and need. **If an alternative does not meet the purpose and need, it can be eliminated as unreasonable during the planning phase, and the reason why it was not carried forward should be briefly documented.** See [Section 4.2 Alternatives Analysis](#) for more detail on this initial screening.

4.1.2 Developing a Range of Alternatives

Once the appropriate alternative(s) have been determined, additional detail can be developed for each alternative to be used in the alternatives analysis, as described in [Section 4.2 Alternatives Analysis](#). The number of alternatives to be analyzed during project planning is based on the purpose and need and should be relative to the size and complexity of the project. There may also be opportunities to develop detailed alternatives that incorporate TSM&O strategies and/or multimodal improvements within a Build Alternative to meet the project's purpose and need. During the development of alternatives, there may also be opportunities to identify minor projects that can be implemented in the shorter term (e.g., maintenance projects or traffic operations changes). **Figure 4.2 Example Solutions to Address Safety Need** illustrates typical safety-related improvements that can be considered when developing alternatives. These example improvements may be incorporated into a Build Alternative or into a project for which safety is either the primary purpose and need or a project goal.

Figure 4.2 Example Solutions to Address Safety Need



The No-Action Alternative is retained throughout the alternatives evaluation process as described in [Section 4.2 Alternatives Analysis](#) and used as the baseline for comparison of all other alternatives, even if it does not fully meet the project's purpose and need. The development and refinement of alternatives should be coordinated with agency stakeholders, the public, and FDOT technical staff to ensure input from all relevant parties is considered.

4.1.3 Engineering Considerations

The level of detail needed for alternatives definition will vary based on the project's level of complexity and the type of study. For this manual, "level of complexity" refers to the degree of effort and coordination needed to complete the future National Environmental Policy Act (NEPA) analysis, considering factors such as the number of environmental resources affected, the level of public and agency input, the potential for significant impacts, and the anticipated number of future permitting agencies.

Engineering analyses conducted during project planning are intended to support decision-making, not to reach the level of conceptual design required during the PD&E phase. During project planning, **the engineering analysis should be performed to a level of detail that is sufficient to define and compare the alternatives to one another, in consideration of community effects and the cultural, natural, and physical environment.** For a defensible comparison, each alternative retained for comparative evaluation should be developed to a comparable level of detail for relevant engineering considerations. For example, project planning usually involves the evaluation of typical sections for capacity projects. The engineering analysis for a roadway alternative may address horizontal alignment only, and vertical alignment may be evaluated only if profile or structural considerations are critical to the comparison of alternatives.

When developing alternatives, opportunities to avoid and minimize impacts to environmental resources should be applied consistently to all alternatives compared to each other (as feasible based on each alternative concept).

4.1.4 Traffic Analysis to Inform Alternatives Development

Existing and future project traffic analyses are typically initiated while defining the problem and developing the project's purpose and need, as discussed in [Section 3.3.9: Traffic Analysis and Forecasting](#). As project planning progresses to defining and evaluating project alternatives, additional and iterative traffic analysis may be needed to guide typical section and concept plan development. These analyses involve evaluating which alternatives are likely to address existing and future traffic demands based on how each alternative may perform under existing and future traffic scenarios. Traffic analysis can identify existing and projected vehicular LOS or other performance measures (delay, volume to capacity ratio, travel time, density, and reliability), which are used when comparing alternatives and their ability to meet the purpose and need. Additional analyses may be needed for project-specific conditions. For example, a corridor experiencing increasing freight traffic should include analysis of heavy-vehicle volumes and identification of regional freight routes. The methodology for additional traffic analysis should be developed in coordination with the FDOT District and based on the [FDOT Traffic Analysis Handbook](#). Traffic analysis should be documented so that the methodology, input values, and analysis results are easily understood.

4.1.5 Concept Development

High-level concept plans and conceptual typical sections can be developed to illustrate each alternative and aid in the visualization of project features. **Conceptual typical sections** are prepared to show the geometric features of the existing condition and each project alternative. Common elements of the typical sections developed for a project planning study may include:

- ◆ Existing and proposed right-of-way (ROW) or easements
- ◆ Travel lane widths (total and individual lanes)
- ◆ Median width and type
- ◆ Bicycle lanes
- ◆ Sidewalk, shared use path, and urban side path locations and widths
- ◆ On-street parking

Typical Section

The primary purpose of the typical section is to provide depictions of the roadway, bridge, and other elements that illustrate “typical” conditions within the project limits.

Development of typical sections is based on the roadway’s geometric design and configuration, which are governed by the [FDOT Design Manual](#) (FDM) roadway design criteria, with **design speed serving as a key controlling factor**. Design speed dictates items such as the horizontal alignment, superelevation, stopping sight distance, and lane widths, and influences the location and design of driveways and curb radii, making it an important factor to evaluate during the alternatives development stage of project planning. Design speed should be evaluated in relation to context classification as set forth in the [FDM, Part 2, Chapter 201, Design Controls](#). The FDM also sets out different lane widths, sidewalk widths, turning lane widths, median widths, bike lane configuration, and speed management strategies based on context classification.

Additional information on typical section development can be found in the [FDM, Part 2, Chapter 913, Typical Sections](#) and [FDM, Part 1, Chapter 120, Design Submittals](#).

High-level concept plans can then be developed based on the conceptual typical sections and should build on the existing and future conditions analysis, documented as described in [Section 3.3.10 Documenting the Analysis](#). Previous documentation may include base maps displaying the collected data within the study area, which can serve as the starting point for developing alternative concepts.

4.2 Alternatives Analysis

Once the range of alternatives has been developed, the next step is to conduct alternatives analysis to evaluate each alternative, determine its feasibility, and identify which alternatives should be carried forward for further evaluation or eliminated from consideration. The alternatives analysis supports PEL objectives by narrowing the number of alternatives to be carried forward to future phases and can result in the identification of a recommended alternative(s) for evaluation in the PD&E or Design phases.

During project planning, alternatives analysis is used to:

- ◆ Determine the feasibility of each alternative, based on engineering considerations, potential environmental impacts, and funding opportunities.
- ◆ Evaluate potential involvement with environmental resources.
- ◆ Identify potential avoidance, minimization, and mitigation opportunities.
- ◆ Eliminate unreasonable alternatives and narrow the range of alternatives to be evaluated in future phases.
- ◆ Highlight key issues to be further addressed during the PD&E phase.
- ◆ Determine funding needs and a potential implementation plan for programming future phases through Construction, in compliance with [FDOT's Project Development Policy \(Document No.: 000-525-005\)](#).
- ◆ Develop a planning product and PEL Questionnaire that may be adopted or incorporated by reference into a subsequent environmental review process when applicable requirements and agency determinations are satisfied.

Goal of Alternatives Analysis

At the end of project planning, the goal is to recommend alternative(s) for the next phase (PD&E or Design) that are feasible from an engineering, environmental, and cost standpoint and that are supported by the community.

Reasonable Alternative

Alternatives that are technically and economically feasible and meet the purpose and need for the proposed action.

The alternatives evaluation process should be conducted during project planning to adequately evaluate and compare the alternatives against the project's purpose and need, study area considerations, and public input while maintaining the PEL objectives outlined in [Section 2.3 Incorporating Planning into PD&E](#).

The alternatives analysis process should begin with a high-level screening of the potential improvements to eliminate unreasonable alternatives, such as those that do not meet the project's purpose and need, from further detailed analysis.

Next a screening of the remaining alternatives can be completed to identify and eliminate unreasonable alternatives. Further analysis should evaluate the remaining alternatives based on factors such as community effects, environmental impacts, or project costs of an extraordinary magnitude compared to other reasonable alternatives.

Alternatives that remain after this screening are then evaluated in greater and equal detail to determine the extent to which they perform in satisfying the purpose and need, achieve engineering criteria requirements, avoid and minimize environmental impacts, resolve public controversy, and overall project costs.

The alternatives analysis process should employ a formal evaluation framework using qualitative and/or quantitative methods and may follow a multi-step process. For example, an initial screening may focus solely on evaluating the alternatives' comparative success in meeting purpose and need, followed by additional screening steps based on agreed-upon criteria established using recent, relevant, and accepted data sources. For the planning decisions determined by these analyses to be adopted into future phases, alternatives at each step must be developed to a comparable level of detail to support a defensible comparison. This process should be well-documented and provide an objective, transparent, and reproducible evaluation of the alternatives. Further details on this process are included in the remainder of this chapter and in the [PD&E Manual Part 2, Chapter 3A, Alternatives Analysis](#).

The project planning study must document the analysis process and results in sufficient detail to support decisions made during alternatives analysis, including the rationale for alternatives that are retained or eliminated.

Eliminating Unreasonable Alternatives

Alternatives screening should identify unreasonable alternatives as early as practical in project planning to improve efficiency.

For example, an alternative is considered unreasonable if it is not technically feasible based on engineering criteria or sound engineering judgement.

4.2.1 Development of the Evaluation Criteria

A key factor in the alternatives analysis process is defining the criteria that will be used to evaluate whether an alternative is considered in comparison to the other alternatives and how well each alternative meets the project's purpose and need. Alternatives should be evaluated using a consistent set of criteria that use recent, relevant, and accepted data sources throughout the screening process. To meet PEL requirements, the alternatives must be evaluated in consideration of the balance among environmental impacts, engineering and operational considerations, project costs, and public and stakeholder input. Therefore, potential categories of evaluation criteria are described in the following sections and include:

- ◆ Purpose and Need
- ◆ Engineering Considerations

- ◆ Community Effects
- ◆ Environmental Impacts
- ◆ Traffic Operations and Safety
- ◆ Project Costs

Qualitative and quantitative criteria can be used to compare alternatives. However, potential future permitting requirements and environmental regulations often require quantitative analysis to substantiate recommending an alternative with greater environmental impacts than another or eliminating an alternative with fewer environmental impacts.

The following evaluation criteria provide the foundation for a defensible and adoptable alternatives analysis, must utilize recent, relevant, and approved sources, and may be modified or expanded on a project-by-project basis. Once identified, these evaluation criteria should be documented in an evaluation matrix, as described in [Section 4.2.9 Evaluation Matrix](#), and shared with agencies, the public, and other stakeholders for review and comment.

4.2.2 Purpose & Need Satisfaction

This set of criteria is used to assess how each alternative addresses and/or supports the purpose and need statement and is the foundational basis for the defensibility of the alternatives analysis. Potential alternatives should be evaluated to determine whether each meets the primary purpose and need. **An alternative that does not meet the primary purpose and need is considered unreasonable and must be eliminated.** The remaining alternatives can then be evaluated to determine the extent to which each alternative meets the purpose and need, using qualitative or quantitative measures depending on the project context. Additionally, secondary goals and objectives (as discussed in [Section 3.4.2 Defining Purpose and Need](#)) can be used to compare alternatives that meet the primary purpose and need.

For example, a project is a multi-use trail with the purpose of providing regional connectivity and enhancing the existing trail network, including connections to regional facilities, communities, and features, such as cultural and heritage sites, parks, preserves, wildlife corridors, and agricultural lands. The following criteria could be used to analyze how well the proposed alternatives meet the purpose and need:

- ◆ Provides access to local parks
- ◆ Provides access to state or federal parks, preserves, forests, and/or wildlife management areas
- ◆ Provides access to historic and/or cultural sites
- ◆ Connects to or through existing and/or candidate trail towns

As discussed in [Section 3.4.1 Applicability for Project Development](#), FDOT uses the Efficient Transportation Decision Making (ETDM) process to obtain input from resource agencies and local and regional planning organizations on the purpose and need for projects that are screened through the Environmental Screening Tool (EST). If a project has been screened using ETDM, any comments

received related to purpose and need should be considered for incorporation into this evaluation. For more details on purpose and need, refer to [Section 3.4: Developing and Refining the Project Purpose and Need](#).

4.2.3 Engineering Considerations

The engineering considerations used to evaluate alternatives should be clearly documented and applied consistently for each alternative. The following are key engineering considerations for analyzing and comparing alternatives:

- ◆ **Horizontal and Vertical Geometry:** Provide an appropriate level of geometric detail for comparing alternatives. Vertical geometry is not typically required during project planning unless structural or profile considerations are critical to evaluating the alternatives.
- ◆ **Typical Sections:** Graphic typical sections are recommended to clearly depict the proposed alternative(s) and to compare the alternatives to the existing condition.
- ◆ **Potential ROW Impacts (Residential and Business):** Estimate ROW needs (acres and/or number of impacted parcels), the number of potential residential relocations, and the number of potential business relocations.
- ◆ **Context Classification:** Use to provide the framework for context-based design.
- ◆ **Multimodal Accommodation:** Consider bicycle and pedestrian accommodations and other modes of transportation such as freight, transit, rail, and aviation, as applicable to the project.
- ◆ **Structures:** Identify the number and type of existing structures within the project study area that may be impacted. If applicable, document the condition (structural rating, suitability for widening or retrofitting) of the structure and identify proposed structural improvements.
- ◆ **Access Management:** Evaluate the corridor's existing and proposed access management classification.
- ◆ **Drainage and Floodplain Impacts:** Provide an appropriate level of detail for alternatives comparison. This may range from a high-level discussion of drainage needs for project (such as additional ponds and floodplain compensation) to more detail estimates of the number of acres impacted. Conduct [Watershed Approach to Evaluate Regional Stormwater Solutions \(WATERSS\)](#) analysis to identify potential project stormwater impacts, partners, and stormwater management solutions.
- ◆ **Utility and Railroad Impacts:** Identify the number and type of utilities and/or railroads that may be impacted.
- ◆ **Constructability:** Describe the major constraints or challenges related to construction (such as maintenance of traffic and potential major road closures or detours).
- ◆ **Project Costs:** Evaluate the costs of PD&E, Design, ROW, Construction, and Operations and Maintenance phases.

Additional information on engineering considerations is detailed in the [PD&E Manual Part 2, Chapter 3, Engineering Analysis](#), however the analysis is not expected to reach the level of detail required during the PD&E phase.

4.2.4 Community Effects

Evaluating potential impacts to the community begins with the data collection that was conducted while defining the problem, as described in [Section 3.3.8 Community Characteristics and Key Stakeholders](#). Building from this data, a community impact assessment evaluates how each alternative affects the community and should consider the following elements:

- ◆ Social
- ◆ Economic
- ◆ Land use changes
- ◆ Movement of people and goods
- ◆ Aesthetic effects
- ◆ Relocations (business and residential)
- ◆ Farmlands

The community impact assessment should be closely tied to the public involvement process (see [Section 4.3 Public Involvement and Agency Coordination During Alternatives Analysis](#)) to ensure that community values and concerns are considered and that no population groups are disproportionately affected by the project. For more detailed information regarding the analysis of community impacts, refer to the [PD&E Manual Part 2, Chapter 4, Community Impact Assessment](#).

4.2.5 Environmental Impacts

Environmental analyses conducted during project planning are intended to shape alternatives, identify major constraints, and support decision-making. The environmental analyses during planning are intended to be **comprehensive, defensible, and must utilize recent, relevant, and approved data sources** in order to achieve a repeatable effort that can enable planning decisions to be adopted into future project development phases, when applicable. However, **the environmental analyses in the planning phase are not expected to reach the level of detail required during the PD&E phase**. The project planning study should summarize the environmental characteristics of the study area, focusing on how they influence the project alternatives. Identifying environmental resources during project planning is also beneficial for **identifying constraints that shape avoidance, minimization, and mitigation opportunities** to be considered during the development and evaluation of potential improvements. The presence and general extent of the following environmental resources should be identified, applicable to the study area:

- ◆ **Wetlands and surface waters:** General location and extent of wetlands and other surface waters potentially affected by the project, including proximity to the corridor and any obvious areas where impacts may be difficult to avoid (see the [PD&E Manual, Part 2, Chapter 9, Wetlands and Other Surface Waters](#)).

- ◆ **Floodplains:** Floodplain areas (e.g., Federal Emergency Management Agency (FEMA) mapped flood zones) adjacent to or intersecting the project, especially where improvements may affect flood storage or conveyance (see the [PD&E Manual, Part 2, Chapter 13, Floodplains](#)).
- ◆ **Conservation and mitigation areas:** Publicly or privately managed conservation lands, preserves, or other protected natural areas near the project that may constrain alignment options.
- ◆ **Protected species and habitats:** Known or potential occurrences of listed species and associated habitats, based on mapped data and existing information (see the [PD&E Manual, Part 2, Chapter 16, Protected Species and Habitat](#)).
- ◆ **Cultural and historical resources:** Known historic properties or archaeological resources in or near the study area, including sites with Tribal significance, and sites listed or eligible for listing on the National Register of Historic Places (NRHP), such as historic districts, structures (including bridges), objects, or archaeological remains (see the [PD&E Manual, Part 2, Chapter 8, Archaeological and Historical Resources](#)).
- ◆ **Parks and recreation areas:** Public parks, recreation areas, trails, and similar facilities, including resources that may be subject to special protection (e.g., potential Section 4(f) considerations in later phases). See the [PD&E Manual, Part 2, Chapter 7, Section 4\(f\) Resources](#).
- ◆ **Contamination:** Known or potential contamination sites (e.g., leaking underground storage tanks, hazardous materials sites, landfills) that could affect alignment decisions (see the [PD&E Manual, Part 2, Chapter 20, Contamination](#)).
- ◆ **Noise:** Noise-sensitive land uses (e.g., residential areas, schools, hospitals, parks) located adjacent to or near the corridor (see the [PD&E Manual, Part 2, Chapter 18, Highway Traffic Noise](#)).

Section 4(f) Resources

Protected properties and land from publicly owned parks and recreation areas, wildlife and waterfowl refuges, and publicly or privately owned historic sites as codified in [23 USC 138](#) (*Preservation of Parklands*) and [49 USC 303](#) (*Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites*).

Integrating environmental data from multiple Geographic Information System (GIS) and database sources, (e.g., ETDM EST, agency GIS layers, aerial imagery, limited field reviews, and prior studies) helps provide sufficient information to determine whether there are any fatal flaws and to identify environmental constraints. Data should be compiled and information maintained in a manner that will support later project development phases.

Environmental Screening Tool (EST)

The EST is an internet-based interactive database and mapping application that supports early coordination with agencies and communities through the ETDM Planning and Programming Screens.

Once sufficient detail is available for the proposed alternatives, as described in [Section 4.1: Alternatives Development](#), it may be appropriate to conduct the ETDM Planning Screen for qualifying projects (described in [Section 1.1.1 Applicability](#)). The information needed to enter projects into the ETDM Planning Screen includes a project overview, description, preliminary purpose and need, and a Preliminary Environmental Discussion (PED) that addresses, at a minimum, social and economic conditions, land use, mobility, aesthetic considerations, relocations, farmlands, cultural and tribal resources, natural resources (wetlands, water resources, floodplain, protected species, etc.), and physical resources (such as noise, air quality, contamination, and other categories). The ETDM Planning Screen may employ a focused PED, allowing for the selection of specific topics for review and consideration. As a result, not all items in the PED topic list are required to be addressed for every project.

Streamlining Opportunity – Environmental Data

Early collection of key environmental resource data in the planning phase - aligned with the ETDM and PD&E Manual - can streamline subsequent PD&E activities.

For planning projects that are intended to meet PEL standards the completion of the ETDM Planning Screen is a significant opportunity as it meets the requirement for presenting the project to the national, regional, and local environmental and planning agencies. Additional information about the EST and the ETDM Planning Screen process is documented in the [ETDM Manual](#).

4.2.6 Traffic Operations & Safety

This element focuses on evaluating how each alternative will affect overall transportation performance and safety under both existing and future conditions. The key factors listed below provide a planning-level framework for comparing alternatives in terms of operational efficiency, reliability, and safety outcomes.

- ◆ Existing and future levels of service (LOS)
- ◆ Intersections/signal LOS or delay
- ◆ Multimodal quality of service
- ◆ Safety/crash frequency
- ◆ Traffic volumes/throughput
- ◆ Travel time/travel time savings
- ◆ Speed/percentage speed above target speed
- ◆ Delay
- ◆ Emergency response
- ◆ Hurricane evacuation

For the alternatives analysis, these factors can be used to qualitatively and, where data allows, quantitatively assess the relative benefits and impacts of each alternative. By applying common performance metrics (e.g., LOS, travel time savings, crash trends) across all alternatives, the analysis will identify which concepts best improve operations, enhance safety, support multimodal access, and maintain critical functions such as emergency response and evacuation, thereby informing a more objective and defensible selection of alternatives recommended to move into the next phase of project development.

4.2.7 Project Cost

During project planning, preliminary costs are typically developed to support work program development, compare alternatives, and evaluate cost-feasibility. Each alternative should be evaluated for the full cost to implement the project, including PD&E, design, ROW acquisition, construction, operations, and maintenance. When using cost as a screening factor, clear parameters for comparing alternatives should be established. For example, cost-feasibility can be evaluated in the context of the overall transportation funding available in the state or region, as well as the specific amounts programmed for this project through the transportation planning process.

Planning-level costs are high-level, order-of-magnitude estimates prepared using historical, industry-average costs for major components (such as per-mile roadway construction costs). The construction cost for each Build Alternative may be developed using FDOT's [Long Range Estimate \(LRE\) program](#) tool or another acceptable cost estimation method, however, at a minimum, the LRE should be developed for the recommended alternative if it has been identified. These planning-level costs are used for comparative purposes and feasibility evaluations, and to support programming and phasing of future project development phases. Preliminary costs can help identify phasing strategies needed to implement alternatives, particularly those with higher costs or long-term implementation timeframes.

As the project advances into future project development phases and more detail is known about project components (such as structures, drainage, signals, signing and pavement marking, and landscaping), FDOT's LRE unit costs and detailed cost models are used to refine and update the preliminary costs. The planning-level costs should be documented in the project planning study (or planning product), including a description of the assumptions and limitations and acknowledgment that these preliminary costs will be refined and updated as more detailed concepts are developed in subsequent project development.

4.2.8 Other Considerations

Additional factors may be incorporated as evaluation criteria applied to the alternatives analysis. They may include impacts to economic development, ease of implementation, permitting requirements, and security, among others.

4.2.9 Evaluation Matrix

Comparing alternatives at the planning level helps identify and evaluate the relative advantages and disadvantages of each alternative. The results of the alternatives comparison play a significant role in the selection of alternative(s) to move forward in the project development process; therefore, it is important to have a well-organized and transparent method for illustrating these results. The results of the analyses should be summarized through the use of an evaluation matrix that illustratively compares the proposed alternatives. It is an effective method of documentation and a tool to solicit public feedback and

agency/stakeholder input. An example evaluation matrix is provided in *Figure 4.3 Example Evaluation Matrix*.

The [PD&E Manual, Part 2, Chapter 3A Alternatives Analysis](#) provides more information on developing an alternatives evaluation matrix. This information can be used as a guide when developing the evaluation matrix for planning phase considerations.

Figure 4.3 Example Evaluation Matrix

Evaluation Criteria	PROJECT ALTERNATIVES			
	No Build	Alternative 1	Alternative 2	Alternative 3
Purpose & Need				
Accommodates Future Traffic Demand	No	Yes	Yes	Yes
Safety Improved	No	Yes	Yes	Yes
Community Impacts				
Number of Parcels Impacted				
Residential	0	73	56	49
Commercial	0	16	9	14
Governmental	0	6	6	6
Agricultural	0	1	1	1
Other	0	7	5	5
Total	0	103	77	75
Potential Relocations				
Residential	0	14	8	10
Commercial	0	2	0	3
Governmental	0	0	0	0
Agricultural	0	0	0	0
Other	0	0	0	0
Total	0	16	8	13
Right-of-Way Required (acres)				
Residential	0.000	16.209	16.150	16.065
Commercial	0.000	2.712	2.654	2.813
Governmental	0.000	8.509	8.454	8.767
Agricultural	0.000	1.188	1.210	0.944
Other	0.000	3.379	3.382	3.376
Total	0.000	31.997	31.850	31.964
Utility Impacts (Low/Moderate/High)	None	Moderate	Moderate	Moderate
Potential Historic/Archaeological Impacts (Low/Moderate/High)	None	High	High	High
Environmental Impacts				
Wetlands (Acres)	0	18.254	18.292	18.352
Floodplains (Acres)	0	30.393	30.393	30.393
Threatened & Endangered Species (Low/Medium/High)	None	Medium	Medium	Medium
Potential Contamination Sites (Low/Medium/High)	X	X	X	X
Project Cost				
Final Design ¹	\$ 0	\$ 7M	\$ 7M	\$ 7M
Right-of-Way Acquisition	\$ 0			
Roadway Construction ²	\$ 0	\$ 61.04 M	\$ 61.04 M	\$ 61.04 M
Total Costs	\$ 0			

¹ Amount reflects FDOT Five Year Work Program 2022-2026 Adopted

² Roadway construction cost developed using FDOT's Long Range Estimates (LRE) tool

4.3 Public Involvement and Agency Coordination During Alternatives Analysis

Refer to [Section 3.5 Public Involvement & Agency Coordination](#) for detailed information on key principles and objectives when conducting public involvement and agency coordination as well as effective engagement strategies that apply throughout the project planning study.

4.3.1 Public Involvement

Public engagement during the alternatives analysis phase builds on the shared understanding of the project purpose and need developed during problem definition (see [Section 3.5 Public Involvement and Agency Coordination](#)) and shifts to exploring solutions and inform project decision-making. The overarching goals of engagement activities at this stage are to obtain feedback on the range of viable solutions under consideration, identify constraints and potential fatal flaws early, and support thoughtful evaluation of alternatives based on the project's purpose and need, community values, and agency input.

During alternatives analysis, engagement should invite the public, stakeholders, and agencies to react to draft concepts, suggest additional ideas or refinements, and highlight local conditions and community goals that technical work alone may miss. **Engagement activities should be designed to help participants understand tradeoffs between alternatives, including benefits, impacts, costs, and feasibility, so that feedback is grounded in a realistic picture of what each option can and cannot achieve.** [Table 4.2 Key Aspects of Public Involvement During Alternatives Analysis](#) describes coordination that is useful for specific outreach priorities and the desired outcomes and methods for documentation during the alternatives analysis phase.

Because conclusions at this stage are based on planning-level analysis, the methodologies and assumptions used during evaluations should be communicated clearly and transparently. This clarity helps stakeholders understand what can (and cannot) be recommended at this stage and sets appropriate expectations for subsequent phases. The evaluation of alternatives should result in a documented set of alternatives, a transparent screening process, and a clear rationale for which alternatives are recommended for further consideration or eliminated. The results of the alternative analysis must be documented and made available for public review.

Table 4.2 Key Aspects of Public Involvement During Alternatives Analysis

Outreach Priorities	Participants and Agency Coordination	Desired Outcomes	Documentation
• Confirm points of contact • Confirm consistency with local plans/policies • Generate and refine alternatives (including multimodal, operational, safety, and context sensitive approaches) • Discuss benefits/impacts • Identify environmental constraints, permits and approvals likely needed, and data gaps • Confirm evaluation measures and weighting, where applicable • Describe implementation considerations, risks, and key assumptions • Present findings and recommendations • Confirm next steps (e.g., ETDM Programming Screen, PD&E scope needs, additional technical work, or follow-on planning)	• Community members and corridor users • Local governments • MPO/TPO staff • Public transportation providers • Freight and business interests • Emergency services • Schools and major institutions • Advocacy groups • Resource/permitting agencies as appropriate to the setting (including through ETDM coordination when applicable) • For more information, see the FDOT Public Involvement Handbook Chapter 300: Identifying the Public	• Documented range of alternatives • Screening results • Identification of alternatives recommended for further study • Identify practical design/operations considerations (e.g., access management, public transportation, freight needs). Where applicable, use ETDM process and the Environmental Screening Tool (EST) to support early issue identification and interagency input • Identify anticipated permits and key issues to be addressed in PD&E • Document any agency concurrence or feedback received at a planning level • Information that supports programming and/or scoping of the next phase	• Meeting summaries, comments, and responses • Alternatives decision log that ties key decisions back to input and planning-level analysis • Summary of stakeholder and agency coordination and input, including comment/ response summary (as applicable) • Clear cross references to technical memoranda, mapping, and decision point • Final engagement summary (or equivalent documentation), documenting recommendations and rationale

4.3.2 Agency Coordination

Agency coordination emphasizes early identification of regulatory, technical, operational, and funding considerations that may affect project development and delivery. Engaging partner agencies can provide input on funding, operations, maintenance, or permitting needs, allowing project planning studies to produce recommendations that are more realistic and actionable. The level and timing of coordination with each agency identified, as described in [Section 3.5.3.1 Identifying Agency Partners](#), should be scaled to the study's decision needs and implementation risks, with emphasis on those partners whose involvement is critical to advancing recommendations into subsequent phases.

4.3.2.1 ETDM Considerations

The ETDM Planning Screen can be used to facilitate review of project planning studies by the Environmental Technical Advisory Team (ETAT). The ETAT is a standing group of resource and regulatory agencies with expertise in natural, cultural, and community resources that can provide early technical input on potential constraints, data needs, and issues that may warrant further analysis. At this stage, ETAT input is advisory and planning level in nature, intended to inform alternatives development and issue identification. In addition, when the ETDM Planning Screen Summary is published, interested public are notified that the report is available and have the opportunity to comment through the [ETDM Public Access Site](#). For more information, refer to the [ETDM Manual](#).

4.3.3 Documenting Public Involvement and Agency Coordination to Support PEL

If a project planning study is intended to be adopted or incorporated by reference in a future PD&E study, the public involvement and agency coordination activities should be documented in a way that is transparent, traceable to decisions, and easy for the next phase to reuse. Project planning studies should follow applicable PEL guidance (described in [Section 2.3 Incorporating Planning into PD&E](#)) and coordinate early with the FDOT Office of Environmental Management (OEM) and District environmental teams to confirm expectations for PEL-ready documentation. Additional elements and considerations for documentation include the following:

- ◆ **Engagement summary:** Description of methods used (meetings, workshops, pop-ups, surveys, online engagement). Include dates, locations/formats, materials shared (presentations/handouts), attendance (as appropriate), and summaries of input received.
- ◆ **Stakeholder and agency list:** Identification of stakeholders and agencies contacted, points of contact (as appropriate), and the purpose of coordination.
- ◆ **Comments and responses:** Summary of themes and how comments were considered; where feasible, document responses to substantive comments and how they influenced decisions.
- ◆ **Decision traceability:** Clear linkage between input and key planning decisions (problem statement, purpose and need).
- ◆ **Agency coordination outcomes:** Summary of coordination meetings and feedback, identification of key issues raised, and any written correspondence or planning-level concurrence received. Where the ETDM Planning Screen is used, summarize key ETDM/EST records (e.g., agency comments and applicable summary reports) and clearly describe how they informed planning decisions.
- ◆ **Limitations and next-phase needs:** Statement of planning-level assumptions and known gaps; list of topics requiring further analysis or consultation as the project progresses.

4.4 Elimination of Alternatives

The elimination of alternatives is the decision that has the greatest potential for controversy when moving from planning into future project development phases and must be done with great care. In general, the PD&E phase should result in final determination regarding eliminated and preferred alternatives. When alternatives are eliminated during project planning prior to PD&E, the following steps are required if the results of the alternatives analysis are intended to be adopted into PD&E:

- ◆ **Evaluate all alternatives equally** against a set of criteria that are specific to the project's purpose and need, and also include transportation impacts; capital and operating costs; social, economic, and environmental impacts; and other project-relevant considerations.
- ◆ Utilize data sets from **recent, relevant, and approved sources**.
- ◆ Conduct a **public and stakeholder involvement/engagement** process.
- ◆ **Involve appropriate** federal, state, and local resource agencies.
- ◆ Prepare a **summary and explanation of the rationale** for eliminating each alternative.

As described in [Section 4.2 Alternatives Analysis](#), elimination of alternatives can be conducted in steps starting with a high-level screening of the potential improvements to eliminate unreasonable alternatives, such as those that do not meet the purpose and need. Further analysis of the remaining alternatives may result in elimination of alternatives due to fatal flaws, such as lack of feasibility from an engineering or operations perspective, significant environmental impacts that can be avoided through a different alternative, or financial feasibility concerns. An unreasonable alternative may also be eliminated during project planning if it has one or more deficiencies that prevent it from being successfully implemented. Considerations for screening alternatives include, but are not limited to:

- | | |
|--|--|
| ◆ Project purpose and need | ◆ Safety and emergency response issues |
| ◆ Quantification of environmental impacts | ◆ Limited access highways elevated section (per Section 334.63, F.S.) |
| ◆ Project and environment longevity considerations | ◆ Agency and local government feedback |
| ◆ Environmental controversy based on impacts to social, cultural, natural, or physical environment | ◆ Design constraints |
| ◆ ROW and relocation impacts | ◆ Constructability issues |
| | ◆ Construction costs |
| | ◆ Operational benefits |

It should be noted that an alternative may still be considered reasonable even if it is not desired by the project sponsor or requires legislative change. Alternatives that were eliminated in the planning phase may need to be reconsidered during future project development phases due to reasons such as changes in existing or future conditions, regulatory changes, or changes in priorities. However, if clear coordination is maintained throughout planning and alternatives screening with key federal and state environmental agencies, the likelihood of having to reconsider the planning level determinations will be greatly reduced.

4.5 Alternatives Recommended for Project Programming

The project planning study may result in:

- ◆ **A single alternative** that advances directly into future project development phase,
- ◆ **Multiple alternatives** that require additional evaluation during the next phase of project development, and/or
- ◆ **No improvements** (No-Action Alternative).

In some cases, a recommended alternative can be selected in planning to streamline the PD&E phase once analysis shows clear benefits in comparison to other alternatives. Overall, the recommended alternative(s) identified in project planning provides the framework for the alternatives analysis to be conducted in the PD&E phase or identification of scope activities for the Design phase.

4.5.1 Next Steps

4.5.1.1 Recommended Alternative

Once an alternative is recommended, its implementation can take several years depending on context, scale, scope of the project, prioritization, and funding. Advancement to the PD&E phase depends upon various factors including agency coordination, project scope, design year, schedule, and funding. Therefore, an implementation plan or strategy that meets the [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#) should be developed to support the advancement of project planning recommendations. This includes a schedule, review of funding options, and phasing of alternatives/improvements. A well-defined implementation approach is critical to help ensure a successful transition through the project development process.

General considerations and tasks for developing the implementation plan and identifying future project development activities. (further discussed in [Section 5.2 Linkage to Future Project Development Activities](#)) include:

- ◆ Review results of needs assessment to confirm phasing strategies.
- ◆ Identify key environmental resources or issues that affect the project scope.
- ◆ Document if additional agency coordination is necessary in the subsequent project phase.

Project prioritization and funding availability may result in a delay in programming the next phase of project development. However, the project planning study age threshold (as described in [Section 2.4 Timing of Project Planning Studies](#)) should be considered to allow the planning products to meet PEL requirements and reduce duplication of efforts between the Planning and PD&E phases. The project planning recommendations may also identify near-term and low-cost project planning activities that could support future project delivery. If it is determined that the project recommendations are needed but cannot

be funded within the FDOT Five-Year Work Program, the project should be coordinated with the MPO to inform the statewide, metropolitan and local planning processes and be included in the LRTP Unfunded Needs Plan. The implementation plan should also determine if any amendments or updates are required in local agency planning documents (for example, Comprehensive Plan).

The implementation plan should also identify any recommended activities prior to advancement to the next phase of project development. For example, Districts may choose to complete the Project Traffic Analysis Report (PTAR) through an existing contract prior to the start of the PD&E Phase. If the PTAR meet the PEL requirements as described in [Section 2.3 Incorporating Planning into PD&E](#) this analysis can be incorporated in the PD&E phase.

4.5.1.2 No-Action Alternative

As described in [Section 4.2 Alternatives Analysis](#), the No-Action Alternative is carried forward and remains under consideration throughout the project planning study. If the project planning study results in the recommendation of the No-Action Alternative, the transportation planning process will shift from project development to system monitoring and incremental management. The final decision will be documented in the final planning study documents, the No-Action decision will be communicated to stakeholders and the public, and if necessary, updates will be made to any LRTP or TIP to reflect that the project will not advance.

After this, it is up to the agency with jurisdiction over the project area to monitor traffic operations, safety performance, and land use changes. The agency may decide to implement lower-cost operational or safety strategies as needed. The study area may be periodically re-evaluated in future planning cycles to determine whether changing conditions warrant revisiting the need for a Build Alternative.

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5. Implementing Project Planning

Planning products will ultimately be used to inform the next phase of project development. Advancement to the Project Development and Environment (PD&E) or Design phase depends on various factors including agency coordination, project scope, design year, schedule, and funding. Therefore, an implementation strategy should be developed to support the advancement of project planning recommendations.

5.1 Project Planning Study Documentation

Documentation should result in a complete, well organized planning record that clearly captures engagement, coordination, and decision-making. Project planning documentation supports the progression of transportation projects by:

- ◆ Defining the project purpose and need
- ◆ Identifying and documenting existing and future conditions considered during alternatives evaluations
- ◆ Developing candidate solutions to address the project purpose and need
- ◆ Documenting alternatives considered and eliminated
- ◆ Incorporating public, stakeholder, and agency input
- ◆ Providing recommendations

Final documentation should support handoff to the next phase by clearly identifying recommendations, assumptions, risks, and unresolved issues. Documentation of the alternatives analysis as described in [4.2 Alternatives Analysis](#), should include the items listed below to support alternatives recommended (or eliminated from) further study:

- ◆ Ability of each alternative to satisfy the purpose and need
- ◆ Projected costs of each alternative, and potential funding sources
- ◆ Agency, stakeholder, and public support or lack thereof for alternatives
- ◆ Projected cultural, natural, and social impacts of each alternative, summarized in a matrix
- ◆ Identification of anticipated mitigation needs and opportunities
- ◆ List of project constraints, challenges and/or risks
- ◆ Anticipated PD&E phase needs

If the project planning study is intended to be incorporated into the PD&E phase, it must satisfy all applicable requirements outlined in [Section 2.3 Incorporating Planning into PD&E](#) and the FDOT

Questionnaire for Linking Planning and Environment Review (Planning and Environmental Linkages (PEL) Questionnaire) should be completed as described in [Section 2.3.4 Adoption of Planning Study](#).

Project planning documentation should also provide an **implementation strategy** that includes a project development schedule, review of funding options, and phasing of alternatives/improvements (as applicable). The feasibility of advancing the project development process is ultimately tied to the availability and timing of funding future phases, district priorities, local transportation plans, and regional/local emphasis. A well-defined implementation strategy is critical to address the purpose and need, and to help ensure a successful transition to the next phase of project development.

As the project planning efforts and planning-level recommendations are being completed, the project planning study should identify all activities to be considered in the next phase of project development. The linkage of project planning outcomes and future project development activities should be documented in the project planning study. The sections below describe how the project planning activities can link to future project development activities and work program planning.

5.2 Linkage to Future Project Development Activities

Project planning activities can support the identification of phased improvements that meet the purpose and need for the project through the horizon year and that address interim needs. For example, a short-term intersection improvement project may address the purpose and need for improved interchange operations while an interchange modification is necessary to achieve the purpose and need through the design year. The project phasing strategies, availability of funding, and the Florida Department of Transportation's (FDOT's) project prioritization process may determine the scope of short-, mid-, and long-term recommendations, as described below, for implementation in the FDOT Five-Year Work Program.

- ◆ **Short-term recommendations** or “quick fix” improvements such as signalizing a stop-controlled intersection, fixing a small section of sidewalk, adding crosswalk markings, repairing or adding signage, or other maintenance-type improvements usually done through an existing continuing services contract.
- ◆ **Mid-term recommendations** may require more extensive analysis or additional funding than a “quick fix” option. These recommendations may include adding turn lanes, improving intersections, filling in trail gaps, or pavement resurfacing.
- ◆ **Long-term recommendations**, such as widening or realignments, often include a corridor or area-wide analysis and may require a subsequent PD&E study.

Once recommendations have been determined, an **implementation plan** should be developed to identify how the proposed improvements can link to future project development activities. The implementation plan can be documented in the project planning study as part of the next steps or conclusion to the report.

The implementation plan should describe, in detail, how each proposed solution will be advanced, including specific agreements by FDOT and its partner agencies required during project development (such as easements, joint-use agreements, or maintenance agreements). The plan should consider that the proposed improvements may be implemented over time as part of a series of projects, depending on purpose and need, any project segmentation, and the prioritization process.

For each solution, the implementation plan should summarize the following key information:

- ◆ **Estimated cost of solution:** Summarize each solution and its estimated costs for PD&E (if applicable), Design, Right-of-Way (ROW), and Construction. See [Chapter 4: Developing and Evaluating Potential Improvements](#) for more detail on developing cost estimates.
- ◆ **Next steps in the project development process:** Confirm the phasing strategy of each solution and document if the solution should move into PD&E or Design (whether Design is completed as

an independent project phase, as part of another project or larger contract, or conducted by a local agency) as the next step.

- ◆ **Responsible agency:** Identify which agency and department will be responsible for the next steps. Also, document agency partners identified during the planning process.
- ◆ **Agreements:** Document any agreements made during the planning process, such as local agency agreements to fund or maintain project components that will affect programming future phases.
- ◆ **Timing and constraints:** Based on the projected future operations and timeframe when potential improvements are needed and can be funded (per [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#)), assess the overall project development schedule to identify the timing of each phase.
- ◆ **Planning Consistency:** Document if any amendments or updates are required in the Metropolitan Planning Organization's (MPO's)/Transportation Planning Agency's (TPA's) Long Range Transportation Plan (LRTP) or other local agency planning documents (for example, Comprehensive Plan or Transportation Improvement Program (TIP)).

The implementation plan should be reviewed and updated at least every five years to correspond with LRTP updates, and may be updated as project development advances, existing or future conditions change, funding becomes available, or agency priorities change. If the recommendation is not to move forward with a project, this decision should be communicated with stakeholders and the public, and if necessary, updates made to any LRTP or TIP documents to reflect that the project will not advance.

5.3 Linkage to Work Program Planning

The timeframe in which project improvements are needed is typically based on the projected future operations and analysis described in [Section 3.3 Existing and Future Conditions Analysis](#). For identifying the timing for programming future phases, the following statewide and metropolitan planning horizons should be considered.

- ◆ **FDOT's Five-Year Work Program:** Outlines the transportation projects to be funded in Florida over the upcoming 5-year period
- ◆ **L RTP:** MPO product that addresses future transportation needs over a 20-year period

Minor projects that may advance to Design, Construction, or Operations, including short-term recommendations (such as bicycle/pedestrian improvements, lighting improvements, lengthening turn lanes, traffic signal coordination, or resurfacing) may likely be funded in the Five-Year Work Program. These types of projects are often conducted through existing continuing services contracts. Mid-term recommendations may be included in already programmed projects, such as resurfacing, restoration, and rehabilitation (RRR) projects, or programmed as stand-alone projects.

The next phase (PD&E or Design) for more complex projects may also be funded in the Five-Year Work Program. Although these recommendations are most often programmed as stand-alone projects, there may be opportunities to include a long-term recommendation within another programmed project. Due to the timeframe to complete subsequent phases, construction for more complex or long-term projects, such as those where a PD&E Study is required, will likely be programmed in future years beyond the Five-Year Work Program. In this case, construction funding should be identified as a candidate project in the FDOT Work Program and included in the MPO's/TPO's LRTP. When programming future project phases, it is important to carefully consider the availability of construction funding for a project to ensure the programmed phases are in alignment with [FDOT's Project Development Policy \(Document No.: 000-525-055\)](#).

The outcome of project planning may indicate a project should be an unfunded need in the cost-feasible LRTP timeframe. In that instance, the implementation strategy should inform the statewide, metropolitan, and local planning processes so the project can be identified for inclusion in the MPO/TPO LRTP Unfunded Needs Plan and Cost-Feasible Plan.

Districts should seek opportunities to combine funding opportunities for recommended planning improvements with other planned or programmed projects. For example, when developing an implementation strategy for short- or mid-term recommendations, opportunities may be identified by reviewing the list of planned RRR projects. If an identified planning project improvement falls within the limits of a RRR project, there may be an opportunity to budget for and implement these improvements concurrently with the RRR project, provided the project Design phase has not yet begun and the improvements can be included in the Design scope, enabling Districts to save time and money.

5.4 Scope Recommendations for the Next Phase

The project planning study should be used to inform the next phase of project delivery. The decisions made and analyses conducted during project planning can aid in the development of project scopes by establishing a clear foundation for what PD&E and Design will actually do, investigate, and deliver.

5.4.1 PD&E Scope Development

Project planning studies typically evaluate existing conditions, identify deficiencies (safety, congestion, multimodal gaps, structural issues, etc.), and develop a purpose and need statement supported by data. This information, when documented properly, can be translated almost directly into the PD&E scope: It clarifies what alternatives should be evaluated, what performance measures can be used to further evaluate alternatives, and which design criteria (e.g. [FDOT Design Manual \(FDM\)](#), the American Association of State Highway and Transportation Officials (AASHTO) Green Book, etc.) are most relevant. When the planning phase carefully documents the rationale for the project, PD&E can focus more on refining and comparing solutions.

The task of developing a PD&E scope should begin with reviewing the PEL Questionnaire if one was completed for the project planning study. In addition, the documentation described in [Section 4.5 Alternatives Recommended for Project Programming](#) directly informs the PD&E scope. The PD&E scope defines which alternatives should be carried forward, which alternatives were eliminated and the rationale for elimination, what environmental and engineering analyses are appropriate, and where more detailed information will be needed. The result is a PD&E scope that is tightly aligned with prior decisions and defensible from a planning and environmental perspective.

Project planning studies can also inform the scope for environmental, community, and stakeholder-related tasks. Early identification of sensitive resources (such as wetlands, endangered species habitats, historic properties/communities, schools, and parks) help determine the depth and breadth of environmental studies that will be needed. High-level screening tools, planning-level Geographic Information System (GIS) analysis, and early agency coordination can be used to flag likely permitting issues, mitigation needs, and potential fatal flaws. These findings should be carried forward into the PD&E phase to ensure that previously completed work is not replicated and should also be translated into the PD&E scope as specific tasks such as detailed natural resource surveys, social and cultural resource evaluations, noise analysis, public meetings/hearings, and coordination milestones with regulatory agencies.

5.4.2 Design Scope Development

For projects that advance directly to the Design phase without the need for a PD&E phase, technical analyses conducted during the project planning study can directly inform the level of effort and resources needed for Design. Planning studies often develop preliminary traffic forecasts, conceptual drainage strategies, high-level cost estimates, ROW “footprints,” and constructability and phasing concepts. While

these are not final designs, they provide enough detail to anticipate design complexities, such as retaining walls, utility conflicts, structures, or work-zone traffic control challenges. These insights help define the Design scope in terms of disciplines (roadway, structures, traffic operations, signals/intelligent transportation systems (ITS), drainage, geotechnical, utilities, landscape, etc.), needed subconsultants, expected modeling tools, and schedule risks. When the Design scope builds directly on the planning study, it is more realistic, better aligned with funding and schedule constraints, and less likely to require major revisions once Design is underway.

5.4.3 Scope Development Best Practices

When deliberately structured to feed PD&E and Design, project planning studies become a bridge to the next phase by establishing a clear project definition, more focused alternatives, an informed environmental analysis strategy, a well-grounded stakeholder engagement plan, and a realistic Design effort. Below are some best practices for practitioners to consider when developing the scope for the PD&E and Design phases.

- ◆ **Refer to the PEL Questionnaire:** By utilizing the PEL Checklist as described in [Section 2.3 Incorporating Planning into PD&E](#), project managers can determine which activities have already been conducted as part of the project planning study and which are suitable for incorporating into the PD&E study.
- ◆ **Involve planning staff in scope development:** Planning staff that were involved in developing the project planning study should be involved in developing the PD&E or Design scope to bring continuity and explain why certain decisions were made.
- ◆ **Provide notes to the PD&E or Design team:** Notes on commitments and decisions that were made during the project planning study, locations of documents, information on team members involved such as the FDOT project manager and the consultant can be very useful for the next phase's project manager.
- ◆ **Conduct a pass the torch meeting:** This meeting allows the project planning study team to present the analyses conducted and the decisions made to the PD&E or Design team, giving them a strong understanding of the project.

Providing continuity between the project planning study and the next phase not only improves project delivery efficiency but also leads to better, more context-sensitive outcomes that can withstand scrutiny from decision-makers, regulators, and the public.