

CHAPTER 4

PROJECT DESCRIPTION AND PURPOSE AND NEED

TABLE OF CONTENTS

4-1 OVERVIEW	4-1
4-2 PROCEDURE	4-2
4-2.1 Defining the Project	4-2
4-2.1.1 Development of Project Description	4-2
4-2.1.1.1 Logical Termini	4-3
4-2.1.1.2. Documentation.....	4-4
4-2.2 Purpose and Need.....	4-4
4-2.2.1 Development of Purpose and Need	4-4
4-2.2.1.1 Purpose	4-5
4-2.2.1.2 Need.....	4-5
4-2.2.2 Planning Coordination.....	4-8
4-2.2.3 Purpose and Need for the ETDM Process	4-8
4-2.2.4 Purpose and Need for PD&E	4-9
4-2.2.4.1 Documentation	4-10
4-3 REFERENCES.....	4-10
4-4 HISTORY	4-11

4. PROJECT DESCRIPTION AND PURPOSE AND NEED

4-1 OVERVIEW

This chapter provides guidance on developing and documenting project description and purpose and need information prior to and during the Project Development and Environment (PD&E) phase. This is an iterative process generally resulting in modifications to the purpose and need until a final version is incorporated into the Environmental Document [Type 2 Categorical Exclusion (CE) documentation, Environmental Assessment (EA), or Environmental Impact Statement (EIS)] or State Environmental Impact Report (SEIR). The project description and the purpose and need provide the basis for developing a transportation project. The project description briefly depicts the existing, project limits, location, and the proposed improvements. The purpose and need are the foundation of project decision-making and alternatives development. The purpose and need are essential in establishing a basis for the development of the range of reasonable alternatives required in an EIS, or identification of the build alternative(s) for other classes of action. Moreover, they assist with the identification and eventual selection of a preferred alternative by the lead agency (see **Part 2, Chapter 6, Alternatives**). This chapter was developed for projects where Federal Highway Administration (FHWA) is the Lead Federal Agency; however, through consultation with other Lead Federal Agencies, it may be used to prepare the purpose and need for projects.

The purpose and need in an Environmental Document are where the planning process and the PD&E process [**National Environmental Policy Act (NEPA)** for federal projects] most clearly intersect. The development of the purpose and need begin early in the planning process and evolve into the final purpose and need in the PD&E Study. Planning agencies [e.g., Metropolitan Planning Organizations (MPO), Transportation Planning Organizations (TPO), Florida Department of Transportation (FDOT), local agencies, etc.] identify needs during the development of their respective transportation plans based on preliminary planning data. These needs identify transportation problems which can result in a project's purpose. Generally, these plans identify facilities and corridors where the transportation system requires improvement, and form the basis for further project analysis.

In accordance with the **Title 23 USC** as amended by **Moving Ahead for Progress in the 21st Century (MAP-21)**, the Lead Federal Agency for an EIS develops the purpose and need and provides opportunities for agencies and the public to provide input. FDOT's Efficient Transportation Decision Making (ETDM) process helps FDOT meet this requirement and refine the purpose and need for all projects that are screened through the Environmental Screening Tool (EST). The purpose and need are dynamic and can change until they are finalized in the Environmental Document.

The final purpose and need discussion in the Environmental Document provide details about the transportation-related needs and describes the "what and why" of the project. The purpose and need helps to define the criteria under which transportation

alternatives are evaluated. If proposed alternatives do not fully address the stated purpose and need, then they can be eliminated from further consideration with documentation, coordination and approval from the Lead Federal Agency.

Further guidance regarding the development of the purpose and need can be found in *FHWA Technical Advisory T6640.8A (FHWA, 1987)*, and *FHWA Environmental Review Toolkit*.

4-2 PROCEDURE

4-2.1 Defining the Project

Prior to the PD&E Study, a description of the project is developed through the planning process and documented during the ETDM process. This should be used as the basis of the description used in the PD&E Study.

When developing a transportation project, the project termini are determined both for the improvement itself and for the scope of the environmental analysis. FHWA gives three general principles for defining a project [**23 CFR 771.111(f)**]:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Districts should be cautious not to inappropriately segment projects. Segmentation can lead to inappropriately addressing environmental matters and/or project needs.

4-2.1.1 Development of Project Description

The Project Description must include the following information:

1. A brief description of the existing or general characterization of a new facility;
2. The limits of the proposed project (such as its length and logical termini);
3. The names of the City and County where the project is located; and
4. A description of the proposed improvements (such as the number of lanes, facility type, multi-modal features, and any major structures).

A project location map is included in this section to help illustrate the project limits. The map should display any landmarks mentioned in describing the proposed project or action (i.e. cities, towns, rivers, airports). The EST can be used to generate this map for screened projects. A typical section diagram may also be referenced to illustrate the proposed improvements.

An example of a project description is provided below:

"This project involves a (3.1 mile) segment of SR-XX extending north from SR-YY to SR-ZZ (Figure 1) located in City X, County Y. The highway is to be improved from an existing, rural two (2) lane facility to a rural four (4) lane, divided facility with provisions for future expansion to an ultimate six (6) lane divided section with a curbed median. Bridge structures are not located on this portion of SR-XX; however, bridge widening or replacement is anticipated for side street connections to SR-XX, SR-YY, and SR-ZZ over the Any Drainage District Canal."

4-2.1.1.1 Logical Termini

The establishment of a project's logical termini is a major aspect of the proposed project and serves to define the study area. The identification of logical termini should be completed during the planning process and finalized through the ETDM screening. For federal projects, the determination of logical termini is coordinated with the Lead Federal Agency during the Programming Screen when the purpose and need is accepted.

Logical termini are defined as the rational end points for a transportation project and the basis for the area of potential effect for issues/resources to be evaluated during the PD&E Study. They are often located at major traffic generators, such as an intersecting roadway(s). In most cases traffic generators determine the size and type of facility being proposed. The environmental impact review frequently covers a broader geographic area than the strict limits of the transportation improvements. Consideration should be given to this area as it relates to the potential project impacts. Examples of termini that may not be considered logical without further discussion are county lines, rivers, and city limits.

When describing the logical termini, it is common to describe the termini points broadly, such as "the intersection at SR-XX." However, the limits of analysis for the proposed project may extend past the logical termini. For example in a four-lane widening project where the facility transitions back to two lanes beyond the logical termini, the area of transition should be included in the analysis.

The logical termini presented in an Environmental Document should be consistent with the "project limits" identified in the adopted cost feasible Long Range Transportation Plan (LRTP) of the respective MPO/TPO or other planning documents in

a non MPO area. The logical termini for a project in a “Non-attainment” or “Maintenance” area for air quality need to be consistent with the project limits established by the MPO/TPO. Any inconsistencies need to be resolved in coordination with the FDOT, the MPO/TPO, and FHWA.

4-2.1.1.2 Documentation

The location of the project description in the Environmental Document differs depending on the Class of Action:

Type 2 CE: Project description information is included in the Project Purpose and Need Block (Block 2) of the *Type 2 Categorical Exclusion Determination Form (Part 1, Chapter 5, Type 2 Categorical Exclusion)*.

EA: Project description information is included in a section titled “Project Description and Purpose and Need”.

EIS: Project description information is included in a section titled “Alternatives including the Proposed Action”.

SEIR: Project description information is included in Block 2, “Project Description” of the *Sample Format (Part 1, Chapter 10, Non-Federal Projects)*.

4-2.2 Purpose and Need

A project’s purpose and need should be clearly written in plain language, succinct and well defined to set the framework for the development of alternatives and to address the transportation need. The purpose and need should briefly describe the project context including actions taken to date, other agencies and governmental units involved, actions pending, schedules, etc.

The initial purpose and need developed during the Planning phase may change during the PD&E Study if new information or needs are discovered, or public input provides suggestions for improvement. If the initial purpose and need changes substantially after the beginning of the PD&E Study, the lead agency must be made aware of and agree to, the proposed changes and how those changes could impact the selection and evaluation of alternatives. There should be no substantial changes in the purpose and need after acceptance without coordination with the lead agency.

4-2.2.1 Development of Purpose and Need

Transportation planning data developed for long range plans are the primary source of information used to assist in establishing the purpose and need. These data are drawn from corridor plans, subarea plans, regional models and other sources that help identify corridors and facilities where transportation improvements are needed. This information is summarized in MPO/TPO LRTPs, the Strategic Intermodal System

(SIS) plan, MPO/TPO Transportation Improvement Program (TIP), and the State Transportation Improvement Program (STIP). Specifically, planning staff should be able to identify the proposed project purpose as it appears in the appropriate transportation plans and the need it is intended to meet. District staff preparing the purpose and need for ETDM screening should coordinate with appropriate planning staff.

The purpose and need is the standard against which alternatives are developed, considered, and evaluated. The purpose and need should be clear and understandable to the general public. The discussion should define the problems which the proposed action is to address. Supporting information can be provided as appropriate to justify the purpose and need of the proposed action.

4-2.2.1.1 Purpose

The purpose identifies the transportation problem(s) and guides the range of alternatives that will be developed and considered in response to the established need. The purpose should be broad enough to encompass a reasonable range of alternatives, but not so broad that it encompasses every possible alternative. On the other hand, it should not be so narrow as to preclude a range of alternatives that could reasonably meet the defined objectives or restrict decision-makers' flexibility in resolving conflicting interests.

A primary purpose reflects the fundamental reason why the project is being considered. An alternative that does not achieve the primary purpose would be eliminated as unreasonable. Secondary purposes are additional purposes that are desirable, but are not the main purpose of the project. Secondary purposes do not, by themselves, provide a basis for eliminating alternatives from further study, but could be considered in the selection of a preferred alternative. For example, if a project's primary purpose is to reduce congestion, it may have secondary purposes of improving safety and providing improved bicycle/pedestrian access.

4-2.2.1.2 Need

The need for the project provides the rationale for how the project addresses the problems, issues, and concerns identified in the purpose and explains the underlying causes of those problems. The need serves as the foundation for the proposed project and provides the principal information upon which the "no-action" alternative discussion is based. It establishes the rationale for pursuing the action and explains how the action proposed is consistent with local plans. The need should consist of a factual, objective description of the specific transportation problem with a summary of the data and analysis to justify that an action is required. Quantified data, such as vehicle miles traveled, travel speeds, time of day characteristics, current and projected Levels Of Service (LOS), crash rates, and/or road condition assessments, should be utilized where applicable.

The following is a list of items which may assist in the explanation of the need for the proposed action. It is not all-inclusive or applicable in every situation and is intended only as a guide.

Project Status – Briefly describe the project history including actions taken to date, other agencies and governmental units involved, action spending, schedules, etc. Include the status of the planning requirements. Identify if the project is in an MPO or non-MPO area, is in the LRTP and whether it is consistent with the Cost Feasible Plan or in the Needs Plan, TIP and STIP as appropriate.

System Linkage – Is the proposed project a local, regional, or intraregional “connecting link?”

Discuss how the proposed project fits into the existing and future local, regional and state transportation system (network) and contributes to the movement of people, goods, and services. Include a description of how the proposed action contributes to the multi-modal transportation network.

Capacity – Is the capacity of the present facility inadequate for the present traffic? Projected traffic? What capacity is needed? What is the LOS for existing and proposed facilities?

The capacity of the existing facility, its present and anticipated LOS, and any deficiencies of the system should be described. FDOT has developed LOS standards for SIS facilities (see *Highway Capacity Manual* and *Topic No. 525-000-006, LOS Standards and Highway Capacity Analysis for the State Highway System*). Local governments may have developed LOS standards for non-SIS facilities and local roads. Include a brief explanation of LOS “A” through “F”, as provided in the *Highway Capacity Manual*, to assist the reader in understanding the rating.

Transportation Demand – Will the project accommodate the forecasted demand as shown in adopted state and local plans? Will the project meet future traffic demands based on projected population, employment growth, an increase in freight movement, or other demands on the transportation system?

Discuss the action’s relationship to any statewide plan or adopted urban transportation plan.

Legislation - Is there a federal, state, or local governmental mandate for the action? Document the need to respond to federal, state, or local government requirements.

Social Demands or Economic Development – Describe how the action will foster new employment and benefit schools, land use plans, recreation facilities,

etc. What projected economic development/land use changes indicate the need to improve or add to the transportation network or system?

Discuss the types of social and economic traffic generators, both existing and planned, which exert travel demands on the facility. For example, include businesses, neighborhoods, recreational facilities, shopping centers, new developments, and any other traffic generators which could increase travel demands on the proposed facility.

Modal Interrelationships – How will the proposed project interface with and serve to complement other modes of transportation such as airports, freight facilities, rail and port facilities, mass transit services, etc.?

Identify the need to address different modes of transportation associated with the proposed project and discuss how the proposed action will complement these modes [i.e., airports, rail and port facilities, mass transit services, bicycle accommodations, ridesharing, special use and high occupancy vehicle (HOV) lanes, etc.].

Safety – Is the proposed project necessary to correct an existing or potential safety hazard? Is the existing crash rate high based on FDOT safety criteria and requirements of the Safety Office? Why? How will the proposed project improve it?

Discuss crashes which have occurred in the study area that may indicate a need for improvement. The discussion may include types, frequency, percentage increase or decrease over a period of time, and the rate of crashes when compared with the statewide average for similar facilities. It should also include the identification of existing high-hazard sections of the facility. Discuss any traffic or transportation safety issues which are or could become a problem (i.e., hazardous material transportation).

Roadway Deficiencies – Is the proposed project necessary to correct existing roadway deficiencies? How will the proposed project improve it? Is there a deficient or substandard bridge?

The need and rationale behind reconstructing or replacing a roadway or existing bridge **must** be provided. Provide a detailed description of the existing structure(s) and their deficiencies. Deficiencies may include substandard geometrics, load limits on structures, safety standards, inadequate typical sections, pavement condition, inadequate drainage, not meeting SIS roadway design standards, etc. For bridges, the deficiencies identified may be the result of structural and functional ratings, capacity, LOS, horizontal and vertical clearances, state of repair, weight restrictions or limitations. Other considerations include maintenance records, maintenance schedule, maintenance cost, costs to retrofit or reconstruct, community concerns and

governmental interest, and/or not meeting United States Coast Guard navigational requirements.

4-2-2.2 Planning Coordination

Much of the information required for the Environmental Document may come from previously prepared planning reports such as **Master Plans**, **Action Plans**, **Corridor Reports**, and **Alternative Corridor Evaluation Reports**. Coordinate with the District Planning Office to ensure the planning reports are available and the information contained within is valid prior to being incorporated into the Environmental Document.

In addition, needs for the project might stem from one or more management systems required by **339.177, F.S.** When developing the needs for the proposed project the following management systems categories should be considered:

Highway Pavement Management System – This process systematically provides, analyzes, and summarizes pavement information for use in selecting and implementing cost-effective pavement construction, rehabilitation and maintenance programs.

Bridge Management System – This system’s purpose is to manage and preserve the statewide bridge network and provide safe and efficient transportation to the traveling public.

Highway Safety Management System – This system’s purpose is to provide the safest roadway system possible through the combined efforts of engineering, enforcement, emergency services, and education.

Public Transportation Facilities and Equipment Management System – This system’s purpose is to help ensure that transit vehicles, facilities, and equipment are maintained in a serviceable condition.

Traffic Congestion Management System – This system’s purpose is to improve the mobility of people and goods throughout the state.

Intermodal System Management – This system’s purpose is to identify current connections between highway, aviation, transit, rail, water, and bicycle/pedestrian systems and to determine if deficiencies exist. This system has been replaced by the Freight Stakeholders Task Force which provides recommendations on intermodal system management.

4-2.2.3 Purpose and Need for the ETDM Process

The purpose and need should evolve over time and become more detailed as the project advances through the Planning phase, ETDM process, and into the PD&E phase. A project’s purpose is usually first identified in the transportation plan(s), i.e., MPO LRTPs, the SIS plan and the TIP/STIP. While the purpose of a project does not

change substantially over time, it can change as the project advances and more information becomes available, is gathered, or analyzed.

In accordance with **SAFETEA-LU** (for an EIS only) the Lead Federal Agency must provide opportunities for participating agencies and the public to provide input on the purpose and need. This task is accomplished through the ETDM process for all projects that are screened, not just EISs. The ETDM process has two screening events: the Planning and Programming Screens. While some projects may not complete a Planning Screen, each project is required to complete a Programming Screen prior to advancing to PD&E. See the **ETDM Planning and Programming Manual** for more information on project screening.

The following briefly describes the purpose and need during the screening events:

1. Planning Screen – The Planning Screen may be the first opportunity agencies and other interested parties have to provide input on a project’s purpose and need. It is important to coordinate with the District Planning Office to obtain the project purpose as identified in the transportation plan(s). Information should come from the LRTP, SIS Plan, planning studies, land use information, etc. The purpose and need may be in its most basic form as very limited data may be available at this phase of the project.
2. Programming Screen – The Programming Screen is intended to occur prior to a project’s inclusion in the FDOT Work Program or TIP/STIP, and/or prior to the PD&E phase. This screening helps focus the scope of services for the PD&E Study and can provide the required scoping information for an EIS. The information for the purpose and need should be coordinated with the District Planning Office to ensure consistency. Similar sources of information as listed for the Planning screen can be used. If the project was screened previously, then the purpose and need information from the screening should be refined to reflect the information presented in the **Planning Screen Summary Report** with updated information, as appropriate. If any new information is available it should also be provided. Once the purpose and need has been accepted by FHWA in the EST it can serve as the foundation for the purpose and need for the Environmental Document being prepared for the PD&E Study.

4-2.2.4 Purpose and Need for PD&E

The purpose and need information from the **Final Programming Screen Summary Report** is used to prepare the purpose and need for the Environmental Document. According to **40 CFR 1502.13**, “the statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” Review the most up to date plans and ensure information is still valid, update as needed, and gather new data to fill any information gaps. If any decisions (alternatives elimination, mode choice, etc.) were

made during the Planning phase or EST screenings, that information should be documented and made available throughout the PD&E Study. FHWA must be consulted if the project description or the purpose and need of a project change notably (e.g., logical termini) during the PD&E Study.

Finalization of the purpose and need occurs during PD&E; therefore it is important to provide sufficient detail to provide the basis for the alternatives development, analysis, and decision making. The purpose and need for PD&E:

1. Should be a statement of the transportation problem (not a statement of a solution);
2. Should be based on articulated planning factors and developed through a certified planning process;
3. Should be specific enough so that the range of alternatives developed will offer real potential for solutions to the transportation problem;
4. Must not be so specific as to pre-determine a solution; and
5. May reflect other priorities and limitations in the area, such as environmental resources, growth management, land use planning, and economic development.

4-2.2.4.1 Documentation

The location of the purpose and need in the Environmental Document differs depending on the COA:

Type 2 CE: Purpose and need information is included in the Project Purpose and Need Block (Block 2) of the *Type 2 Categorical Exclusion Determination Form (Part 1, Chapter 5, Type 2 Categorical Exclusion)*.

EA: Purpose and need information is included in a section titled “Project Description and Purpose and Need”.

EIS: Purpose and need information is included in the “Purpose and Need for Action” section.

SEIR: Purpose and Need information is included in Block 2, “Project Description” of the *Sample Format (Part 1, Chapter 10, Non-Federal Projects)*.

4-3 REFERENCES

1. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 6002

2. Council on Environmental Quality, Executive Office of the President, 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. Reprint 43 FR 55978-56007, 40 CFR Parts 1500-1508
3. U.S. Department of Transportation, Federal Highway Administration, October 30, 1987. Guidance for Preparing and Processing Environmental and Section 4(f) Documents, FHWA Technical Advisory T6640.8A
4. FHWA Environmental Review Toolkit: Development of Logical Project Termini and Elements of Purpose and Need. <http://www.environment.fhwa.dot.gov/index.asp>
5. FHWA memorandum “Guidance on Purpose and Need”, to FHWA Division Administrators and FTA Regional Administrators, July 23, 2003
6. American Association of State Highway and Transportation Offices. Practitioner’s Handbook: Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects. August, 2007
7. Transportation Research Board. Highway Capacity Manual. HCM2000
8. 23 USC 134 (Section 134)
9. Florida Department of Transportation, Efficient Transportation Decision Making (ETDM) Planning and Programming Manual, Topic No. 650-000-002 www.dot.state.fl.us/emo/
10. Section 339.177, Florida Statutes

4-4 HISTORY

This update combined two previous chapters: Part 2, Chapter 4, Project Description 12/6/2007 and Part 2, Chapter 5, Purpose of and Need for Action, 1/28/2003.