



# ***PURPOSE AND NEED***

# **Guidelines**

August 29, 2000

# ***Purpose and Need Guidelines***

Prepared by the:

Statewide Planning Branch

North Carolina Department of Transportation

In Cooperation with:

NCDOT Project Development and Environmental Analysis  
Branch

The Federal Highway Administration

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## Introduction

The North Carolina Department of Transportation's (NCDOT) Statewide Planning Branch (SWP) is responsible for identifying long range transportation needs through the transportation planning process. The transportation planning process involves identifying deficiencies in the transportation system by using modeling and forecasting techniques that take into account land development patterns, employment and population projections and community values. This analysis results in the development of an overall transportation plan that includes a thoroughfare plan, which is a system of roadway improvements proposed to alleviate identified deficiencies. The development of these recommendations involves consideration of the physical, natural, social and economic environment. The planning process includes extensive input from the local community and results in a plan that is mutually adopted by the local governing body, the Metropolitan Planning Organization (MPO) and the NCDOT Board of Transportation.

Once an improvement recommended on the thoroughfare plan becomes a funded project in the State Transportation Improvement Program (TIP), NCDOT's Project Development and Environmental Analysis Branch (PDEA) begins the project planning stage. Project planning involves conducting a detailed environmental analysis in accordance with the National Environmental Policy Act (NEPA). This environmental analysis includes formal consultation with state and federal environmental resource agencies and results in the production of a NEPA document, such as an Environmental Assessment (EA), a Categorical Exclusion (CE), or an Environmental Impact Statement (EIS). In North Carolina, an interagency agreement called the NEPA/404 Merger Process describes the operating procedures by which NEPA and Section 404 of the Clean Water Act are integrated. Under these procedures, NCDOT and the Federal Highway Administration (FHWA), in cooperation with the U.S. Army Corps of Engineers (Corps), assemble a project team to start the project planning process. The project team's first objective is to review, discuss, and reach concurrence on the "purpose and need" of a given project. The purpose and need ultimately becomes part of the NEPA document.

Purpose and need statements for projects have typically been developed during the project planning stage, based on information from the transportation planning process, as documented in the thoroughfare plan report. In an effort to more efficiently transition from transportation planning to project planning, SWP will now provide

planning level purpose and need statements for projects that are within study areas that have received transportation planning assistance by SWP. Note that planning level purpose and need statements will only include information that is typically generated during the systems planning process. Documentation of planning level purpose and need will be included in new thoroughfare plan reports, as they are updated. Additionally, PDEA may request planning level purpose and need for specific pipeline projects in areas where the thoroughfare plan report has not been updated yet to include planning level purpose and need.

**Planning Level Purpose and Need**

- *Developed by NCDOT's Statewide Planning Branch*
- *Only includes information developed during the systems planning process*

PDEA will use the planning level purpose and need provided by SWP to develop a project level purpose and need. The project level purpose and need will normally include more detailed data not generally developed at the systems planning level, such as additional traffic data and community issues analysis. The project level purpose and need includes all the information to be presented for concurrence, in compliance with the NEPA.

**Project Level Purpose and Need**

- *Developed by NCDOT's PDEA Branch*
- *Includes all information necessary for compliance with NEPA*

These guidelines are intended to facilitate the implementation of this new procedure involving the documentation of **planning level purpose and need**. Contained herein are FHWA guidance on purpose and need statements, an outline and description of the elements that are part of purpose and need, procedures for coordination between SWP and PDEA, and examples of purpose and need statements. The intent of these guidelines is to compile existing references and to document the coordination process within NCDOT. **It is important to note that the documentation necessary for purpose and need will vary greatly based on the specific project.** Thorough coordination within NCDOT, as well as with local governments and other agencies, is essential to successfully document and reach concurrence on the purpose and need for projects.

## Index of Definitions

**Categorical Exclusion (CE)** – A category of actions which do not individually, or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations (Section 1507.3) and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.

**Concurrence** – Written determination by the agency that information to date is adequate to agree that the project can be advanced to the next stage of project development. Agencies agree not to revisit the previous process steps unless conditions change.

**Environmental Assessment (EA)** – A document prepared for Federally funded transportation projects not grouped as categorical exclusions and which do not appear to be of sufficient magnitude to require an EIS. An environmental assessment provides the analysis and documentation to determine if an EIS or a Finding of No Significant Impact (FONSI) should be prepared.

**Environmental Impact Statement (EIS)** – A detailed written document of project environmental effects required by State and/or Federal law. An EIS is prepared in draft form, checked and approved, and circulated for comment. After public comment, it is rewritten in final form.

**Finding of No Significant Impact (FONSI)** – An administrative determination by the Federal Highway Administration based upon studies providing data to support that a project will not have a significant effect on the human environment and for which an environmental impact statement will not be prepared.

**Mutually Adopted Thoroughfare Plan** – A map showing a system of street and highway improvements that will be sufficient to accommodate future travel. The map is mutually adopted both locally and by the North Carolina Department of Transportation.

**NEPA** – The National Environmental Policy Act of 1969 is a mandate for Federal agencies to work together, with State, local and tribal governments, public and private organizations, and the public to achieve and balance national, social, economic, and environmental goals while accomplishing their missions. The Council on Environmental Quality (CEQ) regulations implementing NEPA identifies three classifications of actions: Environmental Impact Statements, Categorical Exclusions, and Environmental Assessments.

**Pipeline Project** – A project that is funded in the current State Transportation Improvement Plan and for which PDEA has initiated project studies.

**Planning Level Purpose and Need**- Information provided from the systems level planning process to document the purpose and need for a particular action.

**Project Development** – A generic term used to refer to the planning that occurs in PDEA once a project becomes funded.

**Project Level Purpose and Need** – Statement developed during the project planning phase that is used to document the purpose and need for a project and is presented for concurrence in accordance to NEPA. It contains more detailed information pertaining to specific traffic data and community issues that the planning level purpose and need statement.

**Transportation Planning** – A generic term used to refer to the planning that occurs during the transportation systems planning process, usually by the Statewide Planning Branch of NCDOT.

# FHWA Guidance<sup>1</sup>

## Overview of Purpose and Need

One of the first, most important steps in identifying what transportation projects should be developed is making an assessment of the transportation needs. This helps identify what action is being pursued. It demonstrates problems that already exist or which will exist if a project is not implemented. In a sense, it can be seen as the justification for action, and it helps to define what constitutes practicable alternatives.

Many different factors can go into shaping a statement of purpose and need for a project. It should clearly demonstrate that a "need" exists and should define the "need" in terms understandable to the general public. This discussion should clearly describe the problems which the proposed action is to correct. Various elements of purpose and need can be explored for any given project, including such concerns as mobility, safety, or economic development.

Project Purpose and Need is often one of the most poorly documented items in the EIS. Documents tend to be weak on this in two ways. First, although the need may be apparent to the State highway agency (SHA), it is not clearly stated in the document. The second weakness is that it may be in the document but scattered throughout its various sections. For example, if there is a capacity problem, it should be stated in this section and referenced in later traffic discussions, not the other way around. Some of the common "needs" we see in EIS's include: transportation demand, safety, legislative direction, urban transportation plan consistency, modal interrelationships, system linkage, and the condition of existing facility. Graphics are particularly helpful in describing the safety and transportation demand problems as well as the conditions which determine the need for the project.

An FHWA memo dated September 18, 1990 provides useful guidance on developing purpose and need statements. (Refer to Appendix A).

<sup>1</sup>[http://www.fhwa.dot.gov/environment/p\\_and\\_n.htm](http://www.fhwa.dot.gov/environment/p_and_n.htm)

## Purpose and Need Format

The goal of the purpose and need is to clearly state the need that exists in the area and the purpose that some solution will serve (what problem it will solve). In most cases, the need will be one or two main issues. Other information may be given, as shown in the outline, but the Summary of Need and Summary of Purpose should focus on the one or two primary needs driving the justification for a project. (Note that using bullets to separate the main points from the text may improve clarity).

Further, the purpose and need statement drives the alternatives phase of the environmental analysis. A clearly defined, well-justified purpose and need will narrow the range of alternatives that are considered reasonable, feasible, prudent and practicable. It is important for the purpose and need statement to be as comprehensive and specific as possible about the existing problem. However, specific solutions, or alternatives, should not be addressed.

The purpose and need may be updated and revised during the project planning process. SWP will provide a planning level purpose and need statement based on the systems level analysis that occurred during the development of the transportation plan and the associated public involvement process. Once PDEA begins the project planning process, a more detailed project level purpose and need will be developed.

NCDOT's SWP Branch has coordinated with PDEA and various environmental resource agencies to determine an appropriate format for purpose and need statements. An outline of elements that may be addressed and a description of the type of information that may be included follows. (Refer to "Outline" on page 9 and "Description of Elements" on page 11-14).

The description of elements primarily includes information that may be part of a planning level purpose and need, to the extent that the information was generated during the systems planning process. *These guidelines do not address all the types of data that may be added to the planning level purpose and need to develop a project level purpose and need.* **Note that this recommended format will be applied differently to individual purpose and need statements based on which issues are relevant in the given situation.**

## **Outline**

### **Proposed PURPOSE & NEED**

- 1.1 Introduction**
- 1.2 Summary of Need**
- 1.3 Summary of Purpose**
- 1.4 Background Information/ Area Description**
- 1.5 Roadway Conditions**
  - 1.5.1 Existing characteristics**
  - 1.5.2 Existing conditions**
  - 1.5.3 Projected conditions**
- 1.6 Safety Analysis**
- 1.7 System Linkages**
  - 1.7.1 Existing road networks**
  - 1.7.2 Transportation Plans**
  - 1.7.3 Modal Interrelationships**
- 1.8 Social & Economic Conditions**
  - 1.8.1 Demographics**
  - 1.8.2 Economic Data**
  - 1.8.3 Land development plan**
  - 1.8.4 Other issues**

## **Description of Elements**

### **1.1 Introduction**

Explain that the document is being prepared in accordance with NEPA and that the content of the document will conform to Council on Environmental Quality (CEQ) and FHWA guidelines. List the lead and cooperating agencies on the project.

### **1.2 Summary of Need**

Summarize the main problem(s) that point to the need for some action. Describe the existing conditions and the projected problems if no action is taken.

### **1.3 Summary of Purpose**

Summarize the purpose that a proposed action should serve. In other words, describe how a potential solution should solve the identified problem or need.

### **1.4 Background Information/ Area Description**

Discuss the history of transportation planning in the area. Describe the actions taken to date and the other governmental units or agencies involved. Provide any existing transportation plans or other relevant studies.

Describe the subject area and provide a location figure. Give details about the area, such as the associated municipalities, counties and regions, geographic information, and general land use characteristics. Including photographs may be beneficial.

### **1.5 Roadway Conditions**

#### **1.5.1 Existing Characteristics**

Describe the facility functional classification, type of travel and areas served, cross-section, posted speed, degree of access control, intersections and signalization, sidewalk or bicycle facilities, and any other significant design features or operational characteristics. Including photographs may be beneficial.

Describe if the primary need for improvement is a design deficiency, such as substandard cross-section or horizontal or vertical alignment, even if crash data does not supply supporting evidence.

#### **1.5.2 Existing Conditions**

Give data for existing average daily traffic (ADT), peak hour characteristics, and truck percentages. Provide the existing capacity, volume-capacity ratios, and Level of Service (LOS). Include a brief explanation of LOS ratings and reference the Highway Capacity Manual.

For identified needs that would not be served by adding capacity to the existing facility give specific data such as volumes and type of trips, desired origin and destination, truck percentages, through trip percentages. Additional information can be given concerning the impact of not having a facility that serves the desired trip origin and destination, such as increased overall vehicle miles traveled (VMT), higher vehicle operating costs, longer trip times, and lower level of service resulting on other facilities.

### 1.5.3 Projected Conditions

Describe projected future conditions for the same categories that are addressed for existing conditions (ADT, peak hour, percent trucks, capacity needed, volume-capacity ratios, LOS, percentages of trip types, origin and destination data, VMT, trip time and operating cost data, impacts on other facilities, etc.). Give data for a future year no build scenario as well as if some type of improvement is made.

## 1.6 Safety Analysis

For areas with high crash rates, provide data on the frequency, type, conditions, severity, cause, and increase or decrease over time in rate of crashes in comparison to average rates. Describe any other type of safety hazard, such as substandard design or geometric deficiencies. Explain what conditions are likely to result in a lower crash rate.

## 1.7 System Linkages

### 1.7.1 Existing road networks

If the primary need is a connecting link in the roadway network, describe the existing lack of connectivity and whether it is between locally or regionally significant roads. Explain how a proposed improvement would address the essential needs of the community and the roadway system as a whole. Supporting data may include LOS and capacity problems on the existing roadway system, origin and destination information, trip time and length data (VMT), and cost analysis.

For purpose and need statements where system linkage is not the primary justification, it may still be beneficial to provide a general overview of the existing road network connectivity. Describe the subject facility's relationship to the overall road network and the function it serves as part of the system.

Discuss the relationship of the subject facility to any other designated systems in the area, such as the National Highway System, Strategic Highway Network (STRAHNET), Intrastate Highway System, National Truck Network, and Hurricane Evacuation Routes. (These maps may be obtained from the Program Development Branch).

### 1.7.2 Transportation Plans

Reference any existing transportation plans relevant to the subject purpose and need. Include background information concerning any thoroughfare plan, long range transportation plan, feasibility or corridor studies, and Transportation Improvement Program (TIP) projects. Discuss the relationship of the subject purpose and need with other planned improvements.

Explain how local input and community goals were considered in the public involvement process during the development of any transportation plans. Include an explanation of how public involvement strategies sought to include minority and low-income populations. Describe any issues generated during the systems planning process and how they relate to the subject facility.

### 1.7.3 Modal Interrelationships

Discuss how the subject facility will interface with and serve to complement airports, rail and port facilities, mass transit services, and bicycle and pedestrian facilities. Reference any local, state, or national modal plans. Address whether the subject facility will assist or preclude any other future multi-modal projects.

## 1.8 Social and Economic Conditions

### 1.8.1 Demographics

Provide relevant demographic data for the area, such as population data, historical growth rates, and projected growth. Identify and address, as appropriate, the impacts to minority and low income populations, in compliance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898. Reference the local area's mapping or databases that identify minority and low-income populations. Describe whether the subject facility may significantly impact any identified groups. Explain how the benefits and adverse impacts to these groups were considered during the transportation planning process.

### 1.8.2 Economic Data

Describe the types of business that form the area's economic base currently and in historical context. Give data on economic growth in the area in comparison with statewide averages. Other relevant data may include unemployment rates, average per capita income, and percentage of employment in the major classification categories. Describe the type of businesses located specifically in the study area or along the subject facility.

### 1.8.3 Land Development Plan

Reference the local area's land use plan and describe how it was considered during the transportation planning process. Give any major assumptions made during the planning process regarding projected growth in the area. Describe existing and future social and economic traffic generators that significantly impact the travel demand on the subject facility (i.e. employment centers, subdivisions, shopping centers, schools, and recreation areas). Explain how the subject facility may impact any major existing or planned development.

For proposed action where the primary purpose is economic development, secondary and cumulative impacts may need to be assessed. For further guidance on this type of assessment, refer to other sources and NCDOT's policy on secondary and cumulative impacts.

### 1.8.4 Other Issues

Any other relevant social and economic issues may be described here. For example, details may need to be given for any major existing or planned economic center. Also, any federal, state or local legislation that mandates action should be described.

## **Coordination Procedures**

Coordination between the SWP and PDEA branches within NCDOT is important in order to smoothly transition a project from transportation planning to project planning. Described herein are the basic procedures for coordination concerning planning level purpose and need requests.

- 1) The request for SWP to provide the planning level purpose and need documentation for a pipeline project is typically initiated by the PDEA project engineer. The request should be in the form of a memo to the SWP Group Manager overseeing purpose and need. The memo should include project and design information, a requested completion date, and a location map of the project. (Refer to the sample request memorandum in Appendix B.)
- 2) When the purpose and need request is received it will be logged by the SWP Group Manager and assigned to the appropriate SWP project engineer. SWP's commitment is to provide purpose and need documentation for all projects that are within study areas that have received transportation planning assistance through the SWP Branch. For those requests in areas without a project engineer, PDEA will be notified via letter.
- 3) After the purpose and need is assigned, the SWP engineer will send PDEA a memo (and cc: the SWP Group Manager) acknowledging receipt of the request and confirming whether the suggested completion date can be met.
- 4) The SWP engineer may schedule a meeting with the PDEA engineer to review the request and identify appropriate issues to be included in the purpose and need documentation. During the development of the purpose and need, the SWP engineer should coordinate with the PDEA engineer, as appropriate.
- 5) The purpose and need documentation should be submitted to the SWP Group Manager and PDEA for review. Once approved, the purpose and need documentation should be distributed to the PDEA engineer, the SWP Group Manager, the SWP Unit Head, and the Thoroughfare Plan file.

**Appendix A**  
**FHWA Guidance on Developing Purpose and Need Statements**

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**Memorandum**

U.S. Department of Transportation  
**Federal Highway Administration**

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"Purpose and Need" in Environmental Documents

September 18, 1990

Acting Director, Office of Environmental Policy  
Washington, D.C. 20590

HEV-11

Regional Federal Highway Administrators  
Federal Lands Highway Program Administrator

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The Project Development Branch (HEV-11) in its review of environmental impact statements has noted a systematic deficiency in the purpose and need section. In our view this deficiency is particularly critical because it helps define what alternatives must be evaluated and, in some cases, selected in order to comply with the myriad of Federal environmental laws, Executive Orders, and regulations. For example, a well-developed project purpose and need demonstrates that the no-build alternative is not prudent for Section 4(f) purposes, and limits what can be considered a "practicable alternative" in complying with the Executive Order on Wetlands and the Section 404(b)(1) guidelines.

To address this deficiency, the attached guidance paper entitled "The Importance of Purpose and Need in Environmental Documents" has been prepared. The paper provides detailed information on: The importance of purpose and need; how it drives the range of alternatives that must be considered; its basic elements; and how it can be used in decisionmaking. Sufficient copies of this guidance paper are attached to provide one each for the Regional Office, each Division Office, and each State highway agency. We suggest you file it under tab 1 of the Environmental Guidebook and it will be incorporated in the next annual update. We welcome your feedback on the content and utility of this paper.

/ Original signed by Richard Torbick /  
for Kevin E. Heanue

Attachment

**The Importance of "Purpose and Need" in Environmental Documents**

Introduction

The purpose and need section is in many ways the most important chapter of an environmental impact statement (EIS). It establishes why the agency is proposing to spend large amounts of taxpayers' money while at the same time causing significant environmental impacts. A clear, well-justified purpose and need section explains to the public and decision makers that the expenditure of funds is necessary and worthwhile and that the priority the project is being given relative to other needed highway projects is warranted. In addition, although significant

environmental impacts are expected to be caused by the project, the purpose and need section should justify why impacts are acceptable based on the project's importance.

As importantly, the project purpose and need drives the process for alternatives consideration, indepth analysis, and ultimate selection. The Council on Environmental Quality (CEQ) regulations require that the EIS address the "no-action" alternative and "rigorously explore and objectively evaluate all reasonable alternatives." Furthermore, a well-justified purpose and need is vital to meeting the requirements of Section 4(f) (49 U.S.C. 303) and the Executive Orders on Wetlands (E.O. 11990) and Floodplains (E.O. 11988) and the Section 404(b)(1) Guidelines. Without a well-defined, well-established and well-justified purpose and need, it will be difficult to determine which alternatives are reasonable, prudent and practicable, and it may be impossible to dismiss the no-build alternative.

The transportation planning process, which includes regional, subarea, and corridor planning, can serve as the primary source of information for establishing purpose and need as well as evaluating alternatives. Information and forecasts of vehicle miles of travel, travel demand, highway and travel speeds, traffic diversion, time of day characteristics, and traffic accident rates can be provided by the planning process. This information can be used to evaluate congestion, air quality, safety, and other environmental issues for various transportation alternatives including the no-build alternative. Planning can also estimate the benefits and costs associated with highway and transit projects that can be used in the development of project "purpose and need."

#### Consideration of Alternatives

In urbanized areas, the urban transportation planning process required by Section 134 of Title 23, should result in plans and programs that are consistent with the comprehensively planned development of an area and that integrate transportation, land use, and environmental considerations. Comprehensive planning, which includes transportation, should establish the basic purpose and need for specific projects and the system wide consequences of operational improvements and the no-build alternative. For example, the planning process should identify the need for a transportation improvement between points x and y at some future date. Further, in a high percentage of cases, a decision on the appropriate mode (highway or transit) and the basic project concept (freeway on new location, upgrade of existing facility, light rail transit, bus/high-occupancy vehicle lanes, approximate travel demand, etc.) can be determined. In other cases, it may not be possible to resolve these issues until the conclusion of the project development process. Scoping meetings early in the environmental process are an excellent means to reach agreement with the participants on the basic purpose and need for the project, the consequences of the no-build alternative, and operational improvements and, where possible, the mode and project concept.

After the basic purpose and need for the project are established, a number of lines can theoretically still be drawn to connect points x and y. If the project's purpose and need are so vague as to only stipulate that a transportation improvement between x and y is needed, then reasonable alternatives would cover a wide range and must be evaluated to comply with the CEQ regulations. As the project's purpose and need is refined, a number of alternatives will drop out, thereby permitting a more focused analysis of those alternatives which truly address the problem to be solved. As alternatives are dropped from consideration, it is recommended that the concurrence of those cooperating agencies with jurisdiction by law be sought in that decision.

In a similar manner, the type of improvement to be considered even after the planning process may be wide ranging: from upgrading an existing facility to multilane freeway on now location. The traffic demands, safety concerns, system continuity considerations, etc., all will help define reasonable alternatives and products from the transportation planning process should serve as a primary source for this information.

Beyond the CEQ regulations requirement of evaluating all, or a reasonable number representative of the full spectrum of reasonable alternatives, there are other more action-limiting requirements for alternatives under Section 4(f), the Executive Orders on Wetlands and Floodplains, and the Section 404(b)(1) guidelines. To address these requirements and conclusively demonstrate that some alternatives are not prudent or practicable, a well-justified purpose and need are vital.

The use of land from a Section 4(f) protected property (significant publicly owned public park, recreation area or wildlife and waterfowl refuge, or any significant historic site) may not be approved unless a determination is made that there is no feasible and prudent alternative to such use. There are numerous factors which could render an alternative "not prudent" because of unique problems, including cost and environmental impacts. If an alternative does not meet the project's purpose or satisfy the needs then the alternative is not prudent provided the purpose and need section can substantiate that unique problems will be caused by not building the project.

If a proposed action is to be located in a wetland or it entails a floodplain encroachment with significant impacts, a finding must be made that there is no practicable alternative to the wetland take or floodplain encroachment. Any alternative which does not meet the need for the project is not practicable. If the project's purpose and need are not adequately addressed, specifically delineated and properly justified, resource agencies, interest groups, the public or others will be able to generate one or possibly several alternatives which avoid or limit the impact and "appear" practicable. Sometimes long, drawn out negotiations or additional analyses are needed to clearly demonstrate that an alternative is not practicable. Where a well-described justification of the project's purpose and need would have clearly established it.

If an alternative does not satisfy the purpose and need for the project, as a rule, it should not be included in the analysis as an apparent reasonable alternative. There are times when an alternative that is not reasonable is included based on the request of another agency or due to public expectation. In such cases, it should be clearly explained why the alternative is not reasonable (or prudent or practicable), why it is being analyzed in detail and that because it is not reasonable that it will not be selected.

#### Basic Ingredients of Purpose and Need

The purpose and need should be as comprehensive and specific as possible. For example, rather than simply stating that additional capacity is needed between two points, information on the adequacy of current facilities to handle the present and projected traffic, (e.g., what capacity is needed and the level of service for the existing and proposed facilities) should be discussed. Other information on factors such as safety, system linkage, social demands, economic development, and modal interrelationships, etc., that the proposed project will attempt to address, should be described as fully as possible. This will assist in pinpointing and refining the alternatives which should be analyzed. Further, it will in a sense "protect" those viable alternatives from sniping by external interests and capricious suggestions to study something else. If the purpose of and need for the proposed project are rigorously defined, the number of "solutions" which will satisfy the conditions can be more readily identified and narrowly limited.

The purpose and need section of the project may, and probably should, evolve as information is developed and more is learned about the project and the corridor. For example, assume that the only known information with regard to purpose and need is that additional capacity is needed between points x and y. At the outset, it may appear that commuter traffic to a downtown area is the problem and only this traffic needs to be served. A wide range of alternatives may meet this need. As the studies progress, it may be learned that a shopping center, university, major suburban employer, and other traffic generators contribute substantially to the problem and require transportation service. In this case, the need is further refined so that not only commuter trips but also student, shopping, and other trips will be

accommodated. These refinements would clearly reduce and limit the number of alternatives which could satisfy the project's purpose and need, thereby reducing the number and range of reasonable, prudent and practicable alternatives. If an alternative is suggested that does not serve the university or other traffic generator, and such service is a vital element of the project, the alternative may be eliminated from future study since it does not meet the need for the project.

In the example above, it should be noted that products of the urban transportation planning process should identify many of the elements which contribute to the transportation problems. To the extent that the planning process develops these products and these products are utilized in project development, it may not be necessary to prepare additional studies.

Some of the elements which may assist in explaining a project's purpose and need (e.g., capacity, safety, system linkage, etc.), are described on page 14 of FHWA Technical Advisory T 6640.8A - "Guidance for Preparing and Processing Environmental and Section 4(f) Documents." This discussion is included here as an appendix. All of the elements which are relevant should be as fully developed as possible and utilize as specific data as possible to compare the present, future no-build, and future build conditions. Data should be presented on such factors as reduction in vehicle hours of travel, improvements in travel speeds on the system, reduction in traffic accidents, injuries and fatalities, savings in cost to the travelling public, enhanced economic development potential, increased tax base, improved access to public facilities, etc. It is not sufficient to state that the project is needed to provide increased capacity and improve safety. Supporting data must be provided.

#### Using Purpose and Need in Decisionmaking

As noted above, the purpose and need define what can be considered reasonable, prudent, and practicable alternatives. The decisionmaking process should first consider those alternatives which meet the purpose and need for the project at an acceptable cost and level of environmental impact relative to the benefits which will be derived from the project.

At times, it is possible that no alternative meets all aspects of the project's purpose and need. In such a case, it must be determined if the alternatives are acceptable and worthwhile pursuing in light of the cost, environmental impact and less than optimal transportation solution. To properly assess this, it is important to determine the elements of the purpose and need which are critical to the project, as opposed to those which may be desirable or simply support it, the critical elements are those which if not met, at least to some minimal level, would lead to a "no-build" decision. Determining critical needs could include policy decisions as well as technical considerations.

Other times, the cost or level of environmental impact are not acceptable and an alternative that only partially meets the purpose and need or the no-build alternative must be considered. If the costs are justified in relation to the transportation benefits, then a less than full-build alternative may be acceptable.

In the vast majority of cases, however, at least one alternative will fully meet the purpose and need at an acceptable cost and level of impact. In cases where more than one alternative fully meets the purpose and need, a number of factors including cost, traffic service, safety, public support, environmental impact, etc., will be considerations in reaching the decision on which is the preferred alternative. The requirements of Section 4(f), the Wetland and Floodplain Executive Orders, and the Section 404(b)(1) guidelines, of course, play an important role in this process.

### Key Points to Remember

In summary, the purpose and need section in the EIS lays out why the proposed action, with its inherent costs and environmental impacts, is being pursued. If properly described, it also limits the range of alternatives which may be considered reasonable, prudent, and practicable in compliance with the CEQ regulations, Section 4(f) the Executive Orders on Wetlands and Floodplains, and the Section 404(b)(1) guidelines. Further, it demonstrates the problems that will result if the project is not implemented.

There are three key points to remember relative to the purpose and need section of an EIS. It should be:

1. justification of why the improvement must be implemented;
2. as comprehensive and specific as possible; and,
3. reexamined and updated as appropriate throughout the project development process.

## **APPENDIX**

The following is a list of items which may assist in the explanation of the need for the proposed action. It is by no means all-inclusive or applicable in every situation and is intended only as a guide.

1. Project Status - Briefly describe the project history including actions taken to date, other agencies and governmental units involved, actions pending, schedules, etc.
2. System Linkage - Is the proposed project a "connecting link?" How does it fit in the transportation system?
3. Capacity - Is the capacity of the present facility inadequate for the present traffic? Projected traffic? What capacity is needed? What is the level(s) of service for existing and proposed facilities.
4. Transportation Demand - Including relationship to any statewide plan or adopted urban transportation plan together with an explanation of the project's traffic forecasts that are substantially different from those estimates from the 23 U.S.C. 134 (Section 134) planning process.
5. Legislation - Is there a Federal, State, or local governmental mandate for the action.
6. Social Demands or Economic Development - New employment, schools, land use plans, recreation, etc.,. What projected economic development/land use changes indicate the need to improve or add to the highway capacity?
7. Modal Interrelationships - How will the proposed facility interface with and serve to complement airports, rail and port facilities, mass transit services, etc.?
8. Safety - Is the proposed project necessary to correct an existing or potential safety hazard? Is the existing accident rate excessively high? Why? How will the proposed project improve it?
9. Roadway Deficiencies - Is the proposed project necessary to correct existing roadway deficiencies (e.g., substandard geometrics, load limits on structures, inadequate cross-section, or high maintenance costs)? How will the proposed project improve it?

## Appendix B: Sample Request Memorandum



### STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.  
GOVERNOR

DAVID MCCOY  
SECRETARY

(Date)

MEMORANDUM TO: Mr. Mike Bruff, P.E., Group Manager  
Statewide Planning Branch

FROM: Project Engineer  
Project Development Environmental Analysis Branch

SUBJECT: Purpose and Need Request for TIP No.  
Project Name & Termini  
Municipality, County

Please provide assistance with the purpose and need for the subject project. Attached is a map showing the project location. Additional information concerning the proposed project is provided below.

#### **Project Information**

TIP Project No  
County  
State Project Number

#### **Design Information**

I am available to meet with you to discuss this project, at your request. I would appreciate receiving any available information by *Month/Day/Year*. If you have any questions or will be unable to meet the requested completion date, please contact me at *Phone Number*.

## Appendix C: Examples of Purpose and Need Statements

For reference, an index of examples of purpose and need statements is given below. Note that these examples are provided for illustrative purposes only. It is not being implied that these examples include all elements necessary for a complete purpose and need statement. In fact, **the necessary elements for purpose and need will vary greatly based on the specific project type and relevant issues.** (This index of examples will be amended as other purpose and need statements are developed which follow the format described herein). Copies of these examples may be obtained by contacting NCDOT's Statewide Planning Branch.

<b>TIP No.</b>	<b>Project Description</b>	<b>Location</b>	<b>Primary Purpose &amp; Need</b>
R-2536	US 64 Improvements	Asheboro, Randolph Co.	congestion, safety, access
U-4007	US 17 New Location	Jacksonville, Onslow Co.	congestion, system linkage
U-3301	NC 23 Widening	Asheville, Buncombe Co.	congestion, safety