



2.0 SCREENING MEASURES

All of the preliminary alternatives developed for the US 31 Plymouth to South Bend project were evaluated to determine if they would be carried forward for evaluation in the Draft Environmental Impact Statement (DEIS). A two-phase process was used to screen each alternative. Phase 1 screened alternatives with respect to purpose and need, while Phase 2 screened alternatives with respect to potential social and environmental impacts. **If an alternative clearly did not satisfy the purpose and need, it was not advanced to Phase 2.** This screening process is described below.

2.1 Phase 1: Purpose and Need Measures

The first phase of the screening process analyzed the alternatives with respect to the *Draft Purpose and Need Statement* for this project. The *Draft Purpose and Need Statement* is a fluid document that is updated as information becomes available. However, the foundation and three fundamental purposes/needs for the project have remained the same since the *Draft Purpose and Need Statement* was first published April 2003. To meet the purpose and need for this project, an alternative would have to meet all three purposes/needs for the project.

Specific objectives and performance measures have been developed for each of the three identified purposes/needs and are discussed in length in the *Draft Purpose and Need Statement*. The three purposes/needs of the project and the performance measures for each are listed below.

Purpose 1 (Congestion): Reduce congestion on US 31 by providing the capacity to meet the forecasted travel demand for 2030 at an acceptable level-of-service (LOS).

Performance Measures:

- Achievement of a desirable level-of-service (LOS) in rural and suburban areas of C (B is preferable) and in intermediate/built-up areas of no less than D (C is preferable) on US 31 between US 30 and US 20.
- Reduction in the amount of congested vehicle-miles of travel and congested vehicle-hours of travel in the South Bend metropolitan area.

Purpose 2 (Safety): Improve safety on US 31 between US 30 and US 20.

Performance Measures:

- Reduction in number of fatal, injury, and property damage only (PDO) accidents to crash rate levels at or below statewide averages for this type of facility associated with travel on US 31 between US 30 and US 20.
- Reduction in fatal, injury, and PDO accidents to crash rate levels at or below statewide averages for this type of facility in the South Bend metropolitan area.

Purpose 3 (Consistency with Transportation Plans): Determine consistency with the statewide (INDOT) and regional (MACOG) transportation plans.



Performance Measures:

- Determine consistency with the INDOT 2000-2025 Long Range Plan for Statewide Mobility Corridors and consistency with the MACOG Transportation Plan. Project alternatives will not be required to meet this criteria in order to satisfy the project's meeting purpose and need.

The screening process involves testing each alternative to determine to what degree each meets the *Draft Purpose and Need Statement* with respect to its associated objectives and performance measures.

2.2 Phase 2: Social and Environmental Measures

Environmental information used in the screening process was collected from existing sources and preliminary windshield and field surveys. A 300 – 500- foot wide “working alignment” (using the approximate centerline of each 2000-foot wide corridor) was used to determine potential impacts to social and environmental resources for each alternative. The working alignment width varied due to location (rural or urban) and to the number and necessity of local service roads or frontage roads in an area. Potential interchange locations were also included in the “working alignment”. Depending on the expected type of interchange, a 500- or 1000- foot radius circle was incorporated into the working alignment at the potential interchange location.

The majority of the environmental screening was done using GIS (Geographic Information System) data. Preliminary windshield and field surveys were also used to collect information.

The following environmental resources and/or issues are considered in the screening analysis.

- **Preliminary Cost Estimates**
- **Estimated New Right-of-Way**
- **Forest**
- **Wetlands**
- **Floodplains**
- **Stream Impacts**
- **Section 4 (f) Properties**
- **Managed Lands**
- **Unique Geological/Ecological Area (Maxinkukee Moraine)**
- **Farmland**
- **Notable Wildlife Habitat**
- **Residential Relocations**
- **Business Relocations**
- **Environmental Justice Issues**
- **Well-Head Protection Area Impacts**
- **Archaeology Impacts**
- **Historic Property Impacts**
- **Potential Residential Noise Impacts**
- **Hazardous Material Impacts**