

I-3311A Project Synopsis

TIP Project I-3311A is located along Interstate 77 in Mecklenburg County. The project limits begin just south of the interchange with I-85 and ends just south of the Mt. Holly Road grade separation.

The project is approximately 8.8 miles (14.3 Km.) in length.

The general scope of work consists of inside median widening and rehabilitating the existing pavement (4-lane divide facility to 8-lanes). All widening will be to the median with the exception of the auxiliary lanes and ramp gore areas incorporated into this project from the proposed Charlotte Outer Loop Project (TIP Project R-2248D).

Planning studies are currently underway. We expect to have an Environmental Assessment (EA) planning document completed by June 2001; followed up by a Finding of No Significant Impact Document (FONSI) September 1, 2001. We will hold a Public Hearing in August 2001. We have a Final Design Noise Report.

Roadway Design Work:

Rehabilitate the existing pavement. The preliminary pavement design recommendation is to mill off the top 2 ½ inches and overlay the with 6 ¼ inches of asphalt.

Widen I-77 from 4 lanes to 8 lanes from north of I-85 to north of the Proposed Outer Loop. The interchange design at I-85 should be revised to accommodate 3 basic thru lanes in each direction.

Base the design on using interstate standards with 70-mph design speed. Some design exceptions may be necessary.

The inside and outside paved shoulders should both be 12-foot (3.6 meters) full depth. This will help with traffic control and accommodate future Bus Rapid Transit (BRT). To accommodate future BRT the total outside shoulder width should be 15 feet (4.5 meters).

Project R-2248D (The Charlotte Outer Loop) crosses this project north of Reames Road interchange. The auxiliary lanes and the ramp gore areas for R-2248D shall be constructed under this project. The department will provide the final plans for this area to be incorporated into this project. The COL project is

currently scheduled to be let to contract October 2002,
therefore, coordination between contractors will be required.

One noise wall will be required at the Sunset Road interchange entrance ramp. A Design Noise Report will be furnished to the short-listed firms identifying the location.

There will not be any work to the existing overpasses.

All work shall be confined to the existing R/W limits with the exception of the area at the COL. The additional required R/W in this area will be acquired under project R-2248D prior to the construction of the outside lanes.

The Design Build team will develop construction plans in Microstation format with Geopak software.

Structure Design Work:

The project as designed consist of two new structures and three bridge widenings the location of each are as follows:

New Structures

- I-85 Northbound Ramp to I-77 Northbound
- I-77 Northbound over I-77 Southbound

Structure Widenings

- I-77 Southbound over I-85

- Duals on I-77 over Colonial Pipeline north of the COL
- Widen 2 lanes to the inside and 2 lanes to the outside

One bridge removal is currently proposed (I-77 NB over I-77 SB).

Some culvert extensions may be required.

All bridges are to be widened in accordance with the roadway typical section and the current bridge policy.

Hydraulics Work:

There will be some permanent and temporary median drainage required.

Pavement Work:

Rehabilitate existing pavement:
Mill 2 ½" (60mm)

Replace with 6 ¼" (160mm)

New pavement:

Pavement design will be furnished by NCDOT. Any temporary detour pavement designs will be the D/B teams responsibility.

Some subgrade stabilization may be required.

Location and Surveys Work:

Full electronic surveys are available from south of I-85 to the Mt. Holly Road overpass. These surveys will be made available for the short listed firms for the RFP. The existing utilities are located by X and Y dimensions and are included with the survey data. Any SUE work will be the responsibility of the D/B Team. Any structure surveys will be the responsibility of the D/B Team.

Geotechnical Work:

NCDOT will provide geotechnical work for the entire project. This shall include test borings at all bridge locations and soil test data in median and outside paved shoulders.

Right of Way:

All work shall be inside existing R/W. The R/W in the area of the COL will be acquired prior to the construction of the auxiliary lanes and ramp gore areas.

Utility Work:

The D/B Team will handle utility conflicts.

Signing Work:

Existing overhead signs impacted by the project will require replacement. New signing will be required to reflect the revised design.

Traffic Control Work:

A list of parameters such as lane closures, time restrictions, pavement marking and general TCP guidelines will be developed for the short-listed teams in helping them prepare TCP's. All TCP's must have Division Approval.

Roadside Environmental Work:

An Erosion Control Plan prepared using NCDOT Stds. must be reviewed and approved by the Roadside Environmental Unit before land disturbing activities can take place.

Public Information Work

The D/B team will need to work through the Division Office and the Construction Unit located here in Raleigh.