# Welcome to Roadway Design!



# North Carolina Department of Transportation Roadway Design Unit

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### **OUR MISSION**

As our name implies, the Roadway Design Unit is responsible for the preparation of roadway design plans and engineering cost estimates for all centrally let highway construction projects in North Carolina. Our Unit also codevelops and monitors schedules for these projects.

Roadway Design coordinates the overall development of design plans with other NCDOT Branches and Units, local jurisdictions, as well as, state and federal agencies.

All roadway design plans are prepared electronically using the latest Computer Aided Design Drafting technology.

#### **RESPONSIBILITIES**

The Roadway Unit is comprised of nine Project Engineer Groups. Each Project Engineer supervises three design squads, which are typically comprised of two engineers and two technicians.

Six of these groups are primarily responsible for the following plan production activities:

- Development of roadway corridors
- Functional and preliminary designs within the corridors

- Establishment of horizontal and vertical alignments
- Selection of typical sections
- Intersection geometric designs
- Interchange layouts
- Preparation of preliminary engineering quantities and estimates
- Preparation of right of way plans for the acquisition of property
- Coordination with other Units on the preparation of environmental permit applications
- Preparation and assembly of final construction plans
- Computation of final contract quantities
- Coordination of design revisions during project construction

#### **SPECIALTY GROUPS**

In addition to above plan production activities, Roadway Design is also comprised of four specialty groups that manage the following activities:

- Coordination of plans prepared by private engineering firms
- Review roadway plans prepared for municipal projects
- Preparation of lighting plans for highway illumination
- Development of technical support and electronic plan production