

## Roadway Improvements within FEMA Regulated Floodplains

This guidance applies to proposed **roadway improvements** in areas where a Federal Emergency Management Agency (FEMA) effective Flood Insurance Rate Map (FIRM) for any associated stream crossing indicates that the roadway is within the 100-year flood event. **Roadway improvements** include, but not limited to, **resurfacing, roadway cross section modification(s)** (such as shoulder widening, addition of guardrail, sidewalk or curb and gutter systems, etc.) and/or **hydraulic structure modification(s)** (such as extension, replacement, rehabilitation through relining, etc.).

In such areas, a qualified hydraulics engineer must review the project and prepare any required documents to ensure compliance with the June 25, 1982 Memorandum of Understanding between the Federal Highway Administration (FHWA) and FEMA, and with *Federal Aid Policy Guide, 23 CFR Part 650, Location and Hydraulic Design of Encroachments on Flood Plains*, and thereby also in compliance with National Flood Insurance Program (NFIP) regulations. The Hydraulics Unit can assist in the review and facilitate in the preparation of any required documents.

To facilitate identification of such areas, a map tool has been developed which depicts all “Flood Zones” (Special Flood Hazard Areas, or SFHAs) in the state. Link to map tool: [Flood Risk Information System](#)\*.

Any questions regarding implementation of this guidance should be directed to the Hydraulics Unit at (919)-707-6700 or using the Hydraulics [Contact Form](#)\*\* . Failure to follow this guidance could result in considerable liability consequences to the Department.

\* <http://fris.ncem.org/fris/Home.aspx?ST=NC>

\*\* <https://apps.dot.state.nc.us/ContactUS/PostComment.aspx?Unit=Hydraulics>