



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

DANIEL H. JOHNSON
SECRETARY

January 20, 2026

MEMORANDUM TO: Division Engineers

DocuSigned by:

E9A1CFAC49A2414...

FROM: Ethan J. Caldwell, LG, PE
GeoEnvironmental Supervisor
Geotechnical Engineering Unit

RE: USTs Impacting Future Rural Intersection

Rural intersections with increased Right of Way acquisitions, particularly with the increasing utilization of rural roundabouts at higher traffic intersections has resulted in conflicts with Underground Storage Tanks (USTs). These intersections were prime locations for historical gas stations. USTs located at historical gas stations were not required to be removed when the 1998 regulations required upgrading or replacement of UST systems. Therefore, many UST systems were orphaned near NCDOT ROWs.

Acquisition of expanded right of ways has shown to be impacted by these orphan USTs. Cost to remove USTs can range from \$20,000 - \$200,000 per site depending on the number, location, size and contents. Several projects have been eliminated or required significant redesign due to the presence of orphan USTs.

The GeoEnvironmental Section of the Geotechnical Engineering Unit should be consulted early in the development process to evaluate the potential for UST impacts. The GeoEnvironmental will provide a letter identifying possible UST conflicts for further evaluation or design avoidance. Please contact ejcaldwell@ncdot.gov or (919) 707-6868 if you have any questions or comments. A work request form is available on the Geotechnical Unit connect site. <https://connect.ncdot.gov/resources/Geological/Pages/default.aspx>

cc

Matthew J. Alexander, PE, State Geotechnical Engineer
Katrina Feltes, PE, Project Management Unit Manager
File

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL ENGINEERING UNIT
1589 MAIL SERVICE CENTER
RALEIGH NC 27699-1589

Telephone: 919-707-6850

Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC