



NORTH CAROLINA
Department of Transportation

Using AI to improve Workplace Safety

Robin M Barfield, SMP

2025

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina

OSHA Compliance use at NCDOT



Hazards and Controls



✦ Hazards identified by FYLD Site Intelligence: 3

Slips, trips & falls

- Check your route, weather and ground conditions, stop when conditions deteriorate
- Maintain three points of contact on access equipment, keep boots, steps and ladders free of mud
- Remove snow from work area
- Work area/vehicle must be kept tidy and free of clutter

✓ All applicable controls have been applied.

Excavations

⚠ Major Hazard

- Barrier off excavation and install cover plates if left unattended
- Ensure access/egress ladder within 25 feet of lateral travel of any employee within a trench greater than 4 feet deep
- Ensure excavation is completed inline with temporary works design
- Ensure permit is in place
- Ensure proper slope and or shore prior to accessing an excavation deeper than 4 feet 6 inches deep

✓ All applicable controls have been applied.

Safety Briefing NCDOT



Hazards and Controls



✦ Hazards identified by FYLD Site Intelligence: 4

Open job timeline



Moving vehicles

- Be aware of proximity alert devices
- Ensure Traffic Management is installed as per design before starting work, maintain safety zones
- Work towards oncoming traffic where possible

✓ All applicable controls have been applied.

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Pilot Program use at NCDOT



2040247

Map

Satellite

Keyboard shortcuts Map data ©2025 Terms

2040247

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Completed

Created: 08:28 • 04/09/2025

Team members (3)

JE James FYLD Ens
Manager

TS Timmy Stallings
Fieldworker

HW Heidi Worten
Manager

Edit

Job details

Edit

Task / Contract number
2040247

Job type:
Maintenance

Job subtype
3127 / 3127C – Install Driveway Pipes

Filter timeline

Clear

11:01 • 04/09/2025

James FYLD Ens joined the job
15:47 • 04/09/2025

TS Timmy Stallings
Fieldworker

Hi Heidi, as discussed... not necessarily with this job but trying to create new and different jobs there aren't enough func codes e.i. 2800,2900 to cover other work done by maintenance.

11:39 • 08/09/2025

JE James FYLD Ens
Manager

Hey Tim I am working with the team to have the job subtypes updated to include all of the work the teams do!

12:58 • 08/09/2025

HW Heidi Worten
Manager

Thanks Tim and James, Good to hear that more codes will be added. Do you know when they will added?

14:19 • 08/09/2025

Add me to this job

4

Recent Video of Worksite Pothole Paving Operation



Post Incident Review September 2025



Post Incident

- Operator buckled seat belt then sat on it
- Dozer ran over employee, broken pelvis and leg
- Dozer struck 2 POVs and 1 house
- The real compartment with the starting battery, does not turn off the machine
- Share information in real time
- If a picture is worth a 1,000 words a video is worth a million.
- Future risk mitigation
- Tort claims
- Evidence and teaching moments



Thank you!

