

Survey Report

TIP Number: 17BP.7.R.74

Project Number: 67-0075

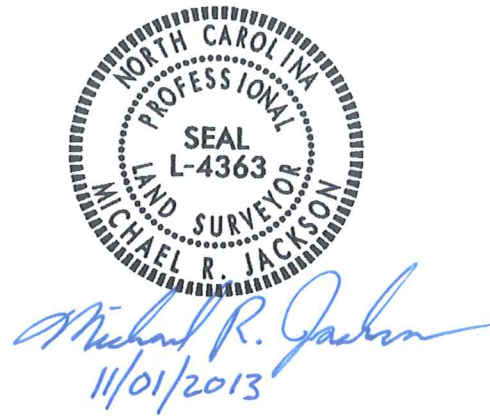
Bridge 75, Division 7, Orange County

November 1, 2013

Submitted by:



1025 Wade Ave. Raleigh, NC 27605



Job Description

The purpose of this project was to provide survey data for Bridge #75 on SR 1127 (Borland Rd.) in Orange County. The limits for this project extend 300 ft. from each end of the bridge along SR 1127, and 200 ft. upstream and downstream from centerline SR 1127 along New Hope Creek. All data was collected and processed electronically following guidelines set forth by Location and Surveys unit.

This project was prepared in English units.

Dates of survey: October 29, 2013

Control

Horizontal:

Control was established on this project utilizing GPS points (670075-1 and 670075-2) provided by SEPI Engineering & Construction. The localized coordinate system developed for this project is based on the State Plane Coordinates established by SEPI Engineering & Construction for monument "670075-2" with NAD 83 (2011) State Plane Grid Coordinates of Northing: 820437.56 (ft) Easting: 1962495.36 (ft). The average combined grid factor used on this project (ground to grid) is: (.99993499). All linear dimensions are localized horizontal distances. A control traverse was run through the project resulting in a raw, unadjusted closure of 1/254830.

Vertical:

The vertical datum is based on SEPI monument "670075-2" (ELEV. 536.25') NAVD 88, Geoid G12NC.

All baseline control elevations were established and verified using differential leveling.

Baseline Descriptions

Baselines were established along the project corridor by Sepi Engineering & Construction. Baseline points set on this project were BL-1, 670075-2, BL-2, and BL-3. These points are numbered BL1, GPS2, BL2, and BL3 in the submitted GPK file.

Existing Alignments

Line -EL-

- Follows the centerline of SR 1127 (Borland Rd.).
- This is a geometric best-fit representation of the existing roadway.
- No centerline points were set.

Utilities

Sepi Engineering personnel collected the underground utility data using NC 811 utility markings as provided by ticket #A132550944, dated 09/12/2013. The following utility owners were notified:

Utility

Phone

Power

Owner

ATT

Piedmont Electrical Membership Corp.

- No utilities were attached to the bridge at time of survey.
- No NC 811 utility markings were found on site at time of survey.

Existing Right of way

Existing Right-of-way as shown in FS file was determined by Sepi Engineering using the most current retrievable deed descriptions and survey plats.

Property Owner Contacts

Property owners affected by this project were contacted via mailed letter, produced using Procon Reporter. (Bridge Replacement Letter) No comments were received from any of the property owners contacted.

DTM SETTINGS

Curve stroke tolerance: 0.15
Minimum linear distance: 30
Dissolve option: SIDE
Side length: 100

Deliverables

Below is a list of files submitted for this project.

67-0075_LS_FS_131101.DGN
67-0075_LS_DTL_131101.DGN
67-0075_LS_GPK_131101.GPK
67-0075_LS_TNL_131101.TIN
67-0075_LS_PDF_131101.TXT
67-0075_LS_POC_131101.MDB
67-0075_LS_SR_131101.PDF
67-0075_LS_SURVEYCERT_131101.PDF
67-0075_LS_DEEDBOOK_131101.PDF
67-0075_LS_PLATBOOK_131101.PDF



Northwest End of Bridge (Facing Southeast)



Southeast End of Bridge (Facing Northwest)



New Hope Creek (on bridge, facing Northeast)



New Hope Creek (on bridge, facing Southwest)



Side View (in creek, facing Northeast)



Side View (in creek, facing Southwest)