

Survey Report

TIP Number:
77-0413 & 77-0414

Project Number:
17BP.6.R.77

Bridges# 413 & 414, Division 6,

Robeson County

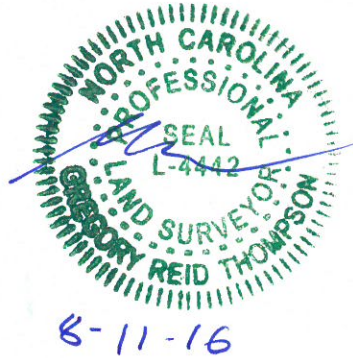
August 11, 2016

Submitted by:



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PROJECT DESCRIPTION

The purpose of this project was to provide survey data for Bridges #413 & #414 over Little Raft Swamp on SR 1323 (Watson Mill Road). The limits for this project are 300' Northeast and Southwest of centerline of each bridge along SR 1323 (Watson Mill Road), and 75' from centerline on each side of road. The hydrographic survey extended 125' upstream and downstream from edge of each bridge. All data was collected and processed electronically following guidelines set forth by Location and Surveys unit.

Dates of survey: June 29, 2016 – August 8, 2016

CONTROL

Horizontal

Control was established on this project utilizing GPS point (77-0413-1 & BL-1) established by NCDOT. The localized coordinate system developed for this project is based on the State Plane Coordinates established by NCDOT for monument 77-0413-1 with NAD 83 NA 2011 State Plane Grid Coordinates of Northing: 393617.616 (ft.) Easting: 1942858.347 (ft.). Site scale factor= 1.0001051500 AVCGF= 0.9998948611. All linear dimensions are localized horizontal distances. A control traverse was run through the project resulting in a raw, unadjusted closure of 1: 294833.

Vertical

- The vertical datum is based on NCDOT monument "77-0413-1" (ELEV. 203.442') NAVD 88, Geoid G12NC (provided).

- All baseline control elevations were established using differential leveling, and found to meet Class A standards per NC General Statutes, Chapter 89C Section 21 NCAC 56.1605.

BASELINE DESCRIPTIONS

- All baselines were established by SEPI Engineering.
- Baseline points set on this project were BL-1, BL-2 and BL-3. These points are numbered 1, 2 and 3 in the submitted GPK file.
- Project direction is based on GPS control provided by NCDOT.

EXISTING ALIGNMENTS

Line -EL-

- Follows the centerline of SR 1323 (Watson Mill Road).
- This is a geometric best-fit representation of the existing roadway.
- No centerline points were set.

UTILITIES

- SEPI Engineering collected all utility poles within the project limits.
- SUE by others.

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, survey plats.

PROPERTY

- All parcels adjoining Little Raft Swamp call for the run of the creek as the property line.
- Property lines along Little Raft Swamp were calculated using the center of main channel as surveyed.

PROPERTY OWNER CONTACTS

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

DTM SETTINGS & NOTES

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

- Some connected breaklines resulted in duplicate points with the same elevation. No errors were found.

FS FILE

- For this project the edge of vegetation/scour line was used for the Jurisdictional Stream line shown in the FS file.

DELIVERABLES

77-0413_NCDOT_FS_160811.DGN

77-0413 _LS_DTM_ 160811.DGN

77-0413 _LS_GPK_ 160811.GPK

77-0413 _LS_TNL_ 160811.TIN

77-0413 _LS_BASELINE_ 160811.TXT

77-0413 _LS_DEEDBOOK_ 160811.PDF

77-0413 _LS_PLATBOOK_ 160811.PDF

77-0413 _LS_POC_ 160811.MDB

77-0413 _LS_PDF_ 160811.TXT

77-0413 _LEAST SQUARES REPORT_ 160811.RPT

77-0413 _LEVEL LOOPS AND GPS CHECKS_ 160811.PDF

77-0413 _LS_SR_ 160811.PDF

77-0413 _LS_SURVEYCERT_ 160811.PDF

Bridge 413



Watson Mill Road (Facing North)



Watson Mill Road (Facing South)



Bridge 413 (on bridge, facing Northerly)



Bridge 413 (on bridge, facing Southerly)



Underside of bridge (facing Southerly)



Underside of bridge (facing Northerly)

Bridge 414



Watson Mill Road (Facing North)



Watson Mill Road (Facing South)



Bridge 414 (on bridge, facing Northerly)



Bridge 414 (on bridge, facing Southerly)



Underside of bridge (facing Southerly)



Underside of bridge (facing Northerly)