DocuSign Envelope ID: FD632E5D-8235-488C-B6FC-5DAE7693805D

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
Liscense No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
DF15803.20100016	5
R/W SHEET NO.	

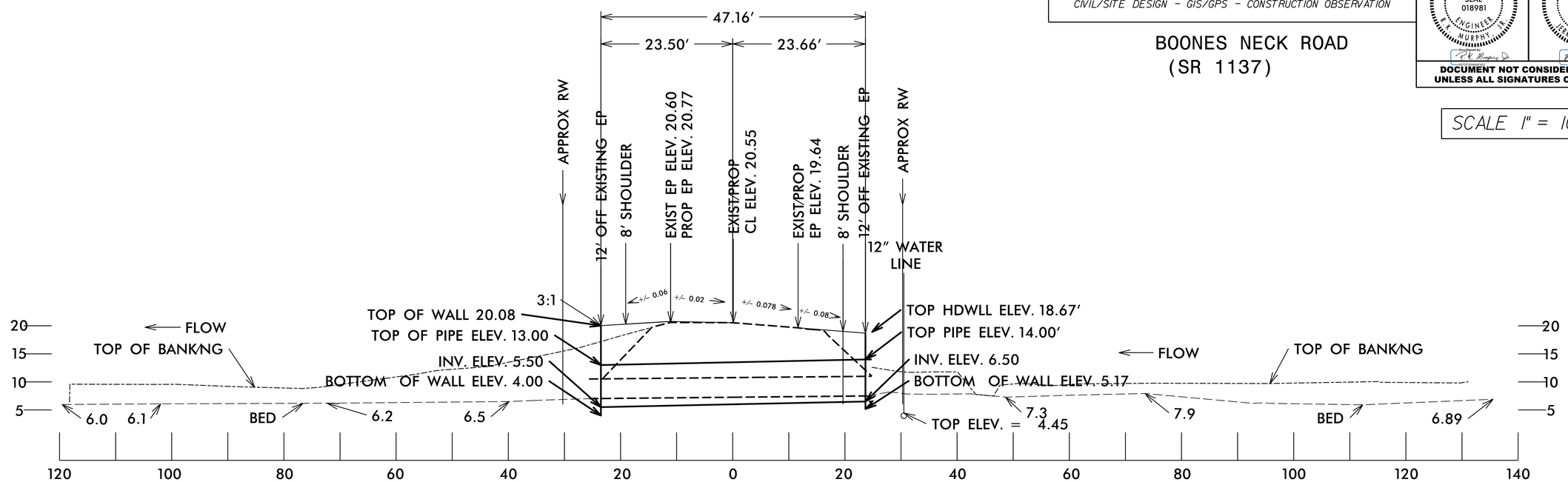
ROADWAY DESIGN ENGINEER 4/14/2021
NORTH CAROLINA PROFESSIONAL SEAL 018981 ENGINEER R. K. WURPHY, JR.

HYDRAULICS ENGINEER 4/14/2021
NORTH CAROLINA PROFESSIONAL SEAL 15833 ENGINEER JERRY L. LINDSEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BOONES NECK ROAD (SR 1137)

SCALE 1" = 10'



CENTERLINE PROFILE ACROSS PIPE
90" CAAP
98 Degree Skew

PROPOSED ELEVATIONS:

CENTERLIINE ROADWAY OVER PIPE
ELEVATION = +/- 20.6

INLET:
TOP OF HEADWALL = +/-18.7'
TOP OF PIPE = +/- 14.0'
STREAM BED = +/- 7.7'
INVERT PIPE = +/- 6.5'
BOTTOM HEADWALL = +/- 5.2'

OUTLET:
TOP OF HEADWALL = +/- 20.08'
TOP OF PIPE = +/- 13.0'
STREAM BED = +/- 6.5
INVERT PIPE = +/-5.5'
BOTTOM HEADWALL = +/- 4.0'

CENTERLINE LENGTH = 47.16' OF 90" CAAP

UPSTREAM HEADWALL 36'-0" WIDE BY 13'-6" TALL FULLY WELDED 0.200" THICK ALUMINUM STRUCTURAL PLATE HEADWALL W/1 SECTION OF 90"CAAP 10 GAGE CAAP STUBED OUT, WHICH SHALL BE FULLY WELDED TO ALUMINUM STRUCTURAL PLATE HEADWALL

DOWNSTREAM HEADWALL 36'-0" WIDE BY 16'-1" TALL FULLY WELDED 0.250" THICK ALUMINUM STRUCTURAL PLATE HEADWALL W/1 SECTION OF 90"CAAP 10 GAGE CAAP STUBED OUT, WHICH SHALL BE FULLY WELDED TO ALUMINUM STRUCTURAL PLATE HEADWALL

MINIMUM COVER = 7.7' AT US HEADWALL;
6.9' AT CENTERLINE.
MAXIMUM COVER OVER PIPE = 7.5'

REVISIONS

8/17/99

4/7/202
DF15803.2010016_Boones Neck Rd_rdy.psh05.dgn
USER:Bakenedi