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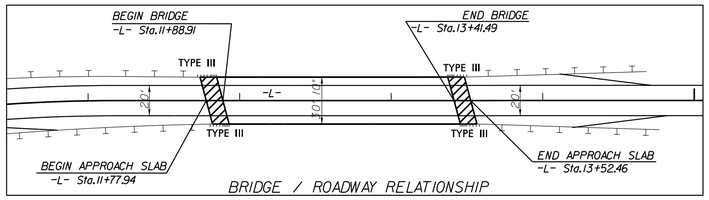
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
17BP.9.R.3	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 024929 ENGINEER CLINTON J. MORGAN — DocuSigned by: Clinton J. Morgan 10/2015 — EC98030461064B6...

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 032721 ENGINEER JOHN F. OGLESBY — DocuSigned by: John F. Oglesby 10/2015 — 4BE6CE44AB9745E...



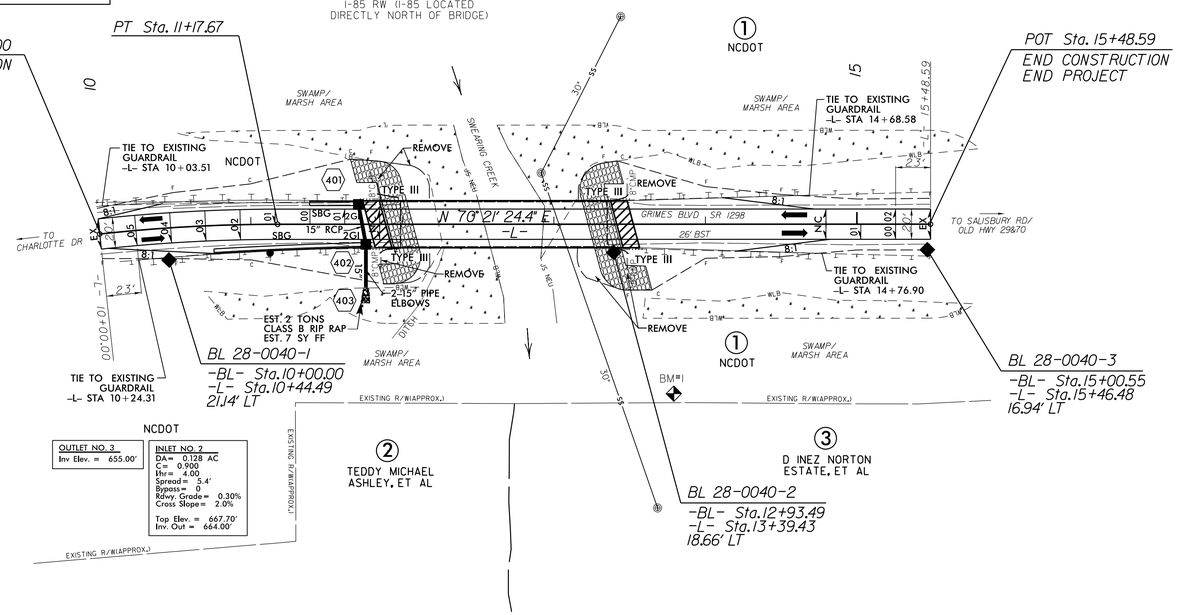
BRIDGE / ROADWAY RELATIONSHIP

INLET NO. 1
DA= 0.071 AC
C= 0.90
Tfnr= 4.0
Spread= 4.3'
Bypass= 0
Rdwy. Grade= 0.30%
Cross Slope= 1.5%

Top Elev. = 667.69'
Inv Out = 664.70'

NOTE: BRIDGE IS INCLUDED WITHIN I-85 RW (I-85 LOCATED DIRECTLY NORTH OF BRIDGE)

NAD 83 / NSRS 2007



SBG LIMITS
-L- STA. 10+75 TO 11+81 RT.
-L- STA. 11+39 TO 11+74 LT.

OUTLET NO. 3
Inv Elev. = 655.00'

INLET NO. 2
DA= 0.128 AC
C= 0.900
Tfnr= 4.00
Spread= 5.4'
Bypass= 0
Rdwy. Grade= 0.30%
Cross Slope= 2.0%

Top Elev. = 667.70'
Inv. Out = 664.00'

DATUM DESCRIPTION

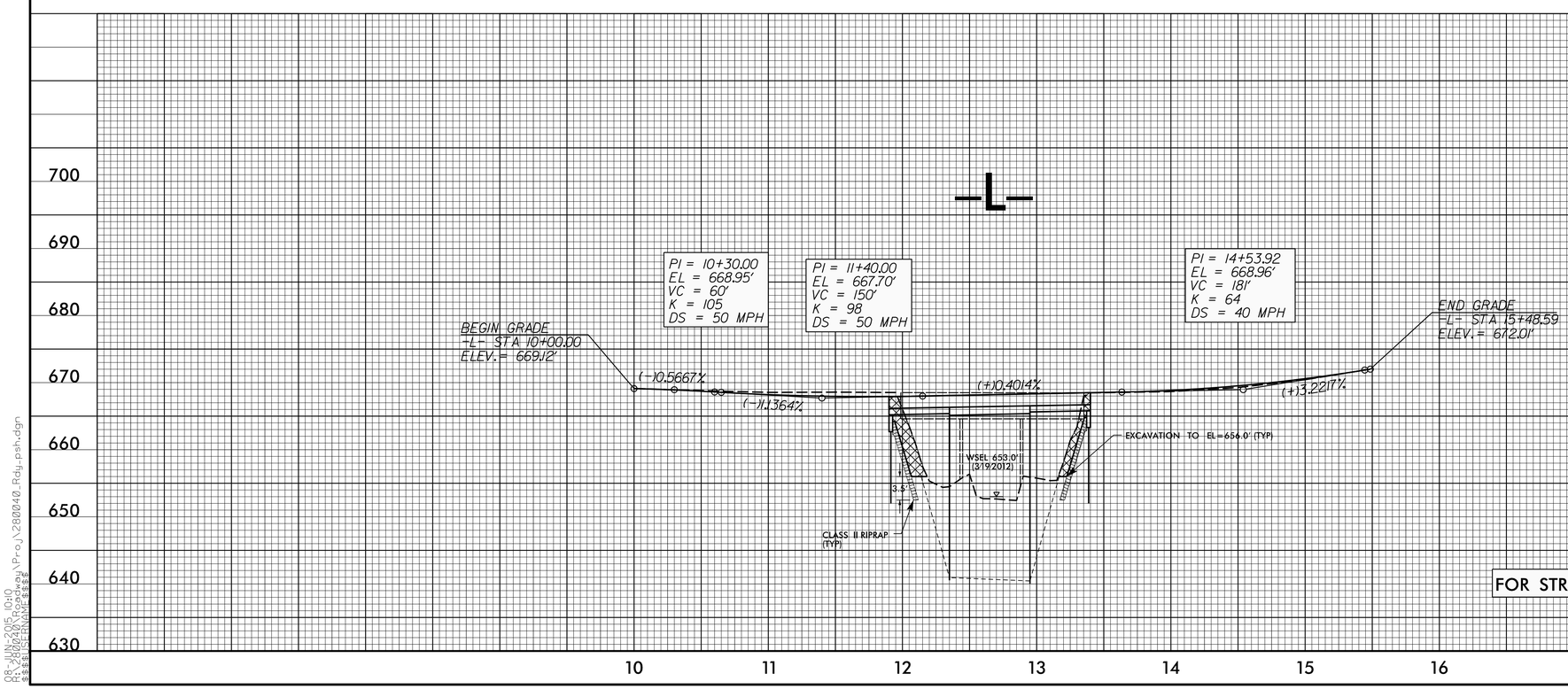
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "28-0040-1"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 746323.260(ft) EASTING: 1615573.933(ft)
ELEVATION: 667.68(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998902682
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "28-0040-1" TO -L- STATION 10+00 IS
N 89°02'58.7" W 48.866'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

-L-

PI Sta 10+58.89
Δ = 6°12' 49.0" (RT)
D = 5°16' 50.6"
L = 117.67'
T = 58.89'
R = 1,085.00'
DS = 55 MPH
SE = 6%

BM #1 (NAVD 88)
RR SPIKE IN NE ROOT OF AN 18" OAK
-L- STA. 13+79.13 (111.83' RT)
N 746352 E 1615917
EL = 656.43'

BM #2 (NAVD 88)
REBAR WITH ALUMINUM CAP STAMPED "28-0040-1". POINT LIES 7.4' SOUTH OF EDGE OF GRIMES BLVD
-L- STA. 10+44.49 (21.14 RT)
N 746323 E 1615574
EL = 667.68'



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 3,900	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 663.3	FT
BASE DISCHARGE	= 6,100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 665.73	FT
OVERTOPPING DISCHARGE	= 8,500	CFS
OVERTOPPING FREQUENCY	= +500	YRS
OVERTOPPING ELEVATION	= 668.0	FT

FOR STRUCTURE PLAN, SEE SHEET S-1 THRU S-22

08-JUN-2015 10:10
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$$$$USERNAME$$$$