

5/28/19



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PROJECT REFERENCE NO. U-3334B	SHEET NO. 19
ROADWAY DESIGN ENGINEER SEAL 022037 STEPHEN T. SMALLWOOD	HYDRAULICS ENGINEER SEAL 032581 BROOK E. ANDERSON
11/28/2017	11/28/2017

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

-L-

**END -L- GRADE
STA. 127+72.65
ELEV. 152.05'**

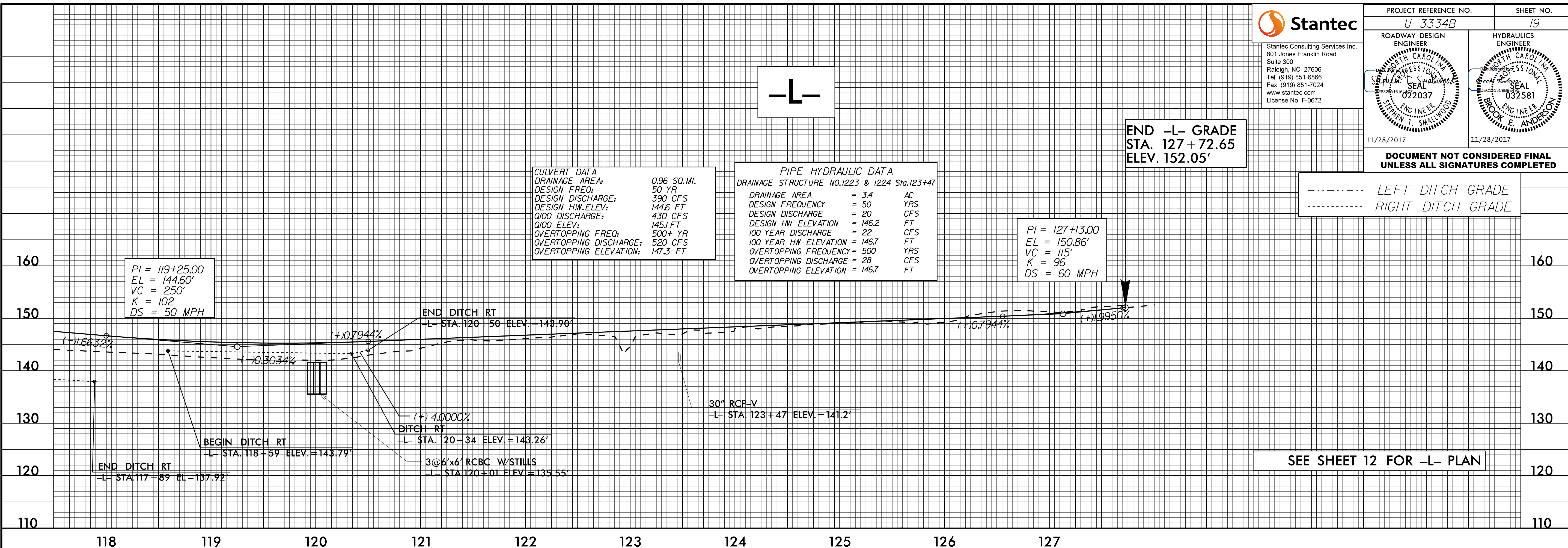
CULVERT DATA
DRAINAGE AREA: 0.96 SQ. MI.
DESIGN FREQ: 50 YR
DESIGN DISCHARGE: 390 CFS
DESIGN HW. ELEV: 144.6 FT
0100 DISCHARGE: 430 CFS
0100 ELEV: 145.1 FT
OVERTOPPING FREQ: 500+ YR
OVERTOPPING DISCHARGE: 520 CFS
OVERTOPPING ELEVATION: 147.3 FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 1223 & 1224 Sta. 123+47
DRAINAGE AREA = 3.4 AC
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 20 CFS
DESIGN HW ELEVATION = 146.2 FT
100 YEAR DISCHARGE = 22 CFS
100 YEAR HW ELEVATION = 146.7 FT
OVERTOPPING FREQUENCY = 500 YRS
OVERTOPPING DISCHARGE = 28 CFS
OVERTOPPING ELEVATION = 146.7 FT

PI = 127+13.00
EL = 150.86'
VC = 115'
K = 96
DS = 60 MPH

PI = 119+25.00
EL = 144.60'
VC = 250'
K = 102
DS = 50 MPH

----- LEFT DITCH GRADE
----- RIGHT DITCH GRADE



-Y-

BM#2 ELEVATION = 145.63'
N 648497 E 2198120
Y STATION 26+02 288' RIGHT
RR SPIKE IN BASE OF 36" OAK

**END -Y- GRADE
STA. 19+57.59
ELEV. 144.10'**

**BEGIN -Y- GRADE
STA. 20+34.23
ELEV. 144.02'**

**END -Y- GRADE
STA. 22+14.82
ELEV. 144.26'**

**END -Y- GRADE
STA. 24+32.46
ELEV. 144.66'**

**BEGIN -Y- GRADE
STA. 18+07.09
ELEV. 142.43'**

PI = 18+82.00
EL = 142.57'
VC = 148'
K = 81
DS = 45 MPH

PI = 20+80.00
EL = 143.94'
VC = 60'
K = 149
DS = 60 MPH

(+10.1900%)

(+2.0210%)

-10.1704%

+10.2329%

+2.7436%

(+10.3387%)

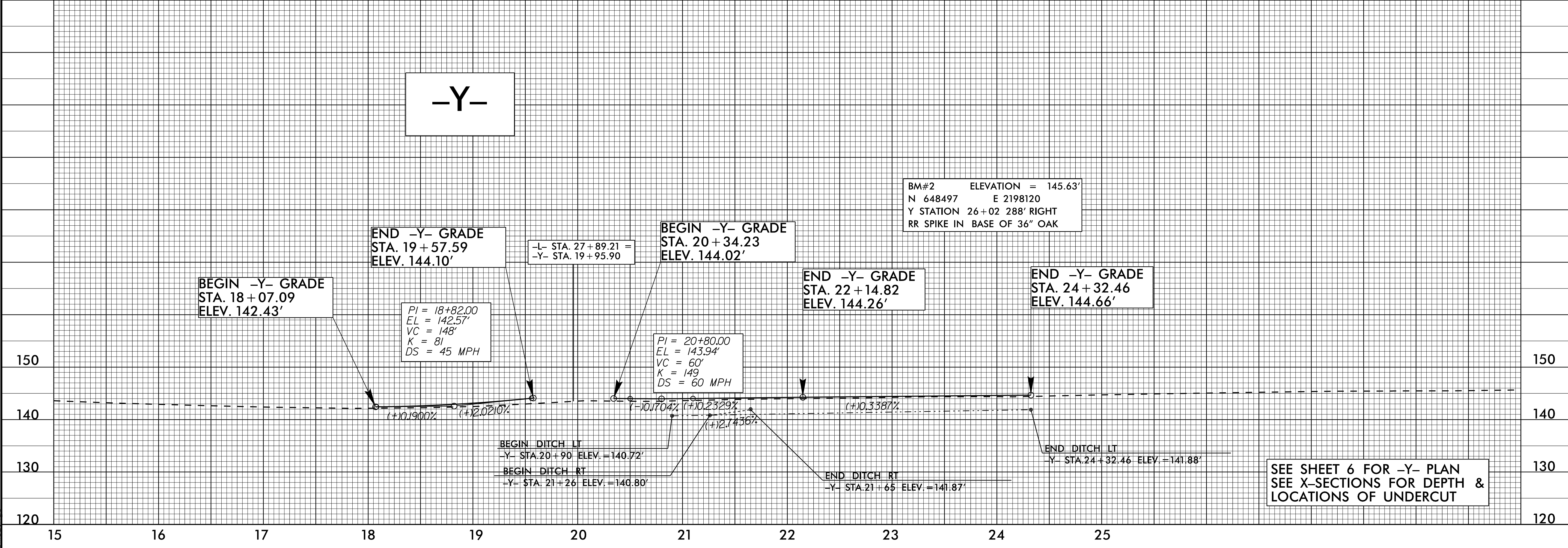
BEGIN DITCH LT
-Y- STA. 20+90 ELEV. = 140.72'

BEGIN DITCH RT
-Y- STA. 21+26 ELEV. = 140.80'

END DITCH RT
-Y- STA. 21+65 ELEV. = 141.87'

END DITCH LT
-Y- STA. 24+32.46 ELEV. = 141.88'

**SEE SHEET 6 FOR -Y- PLAN
SEE X-SECTIONS FOR DEPTH &
LOCATIONS OF UNDERCUT**



11/27/2017
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