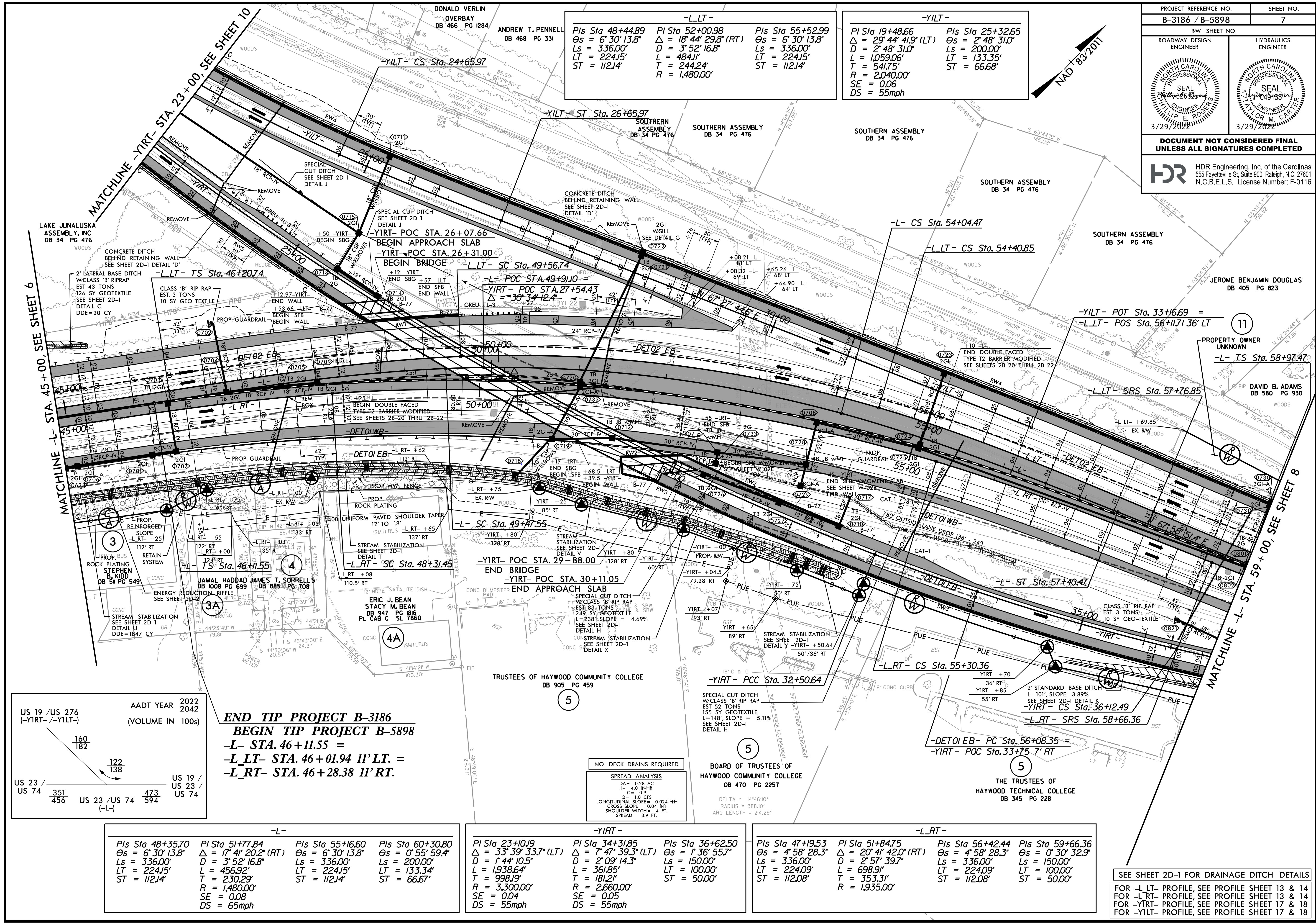


| | |
|--|------------------------|
| PROJECT REFERENCE NO. B-3186 / B-5898 | SHEET NO. 7 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

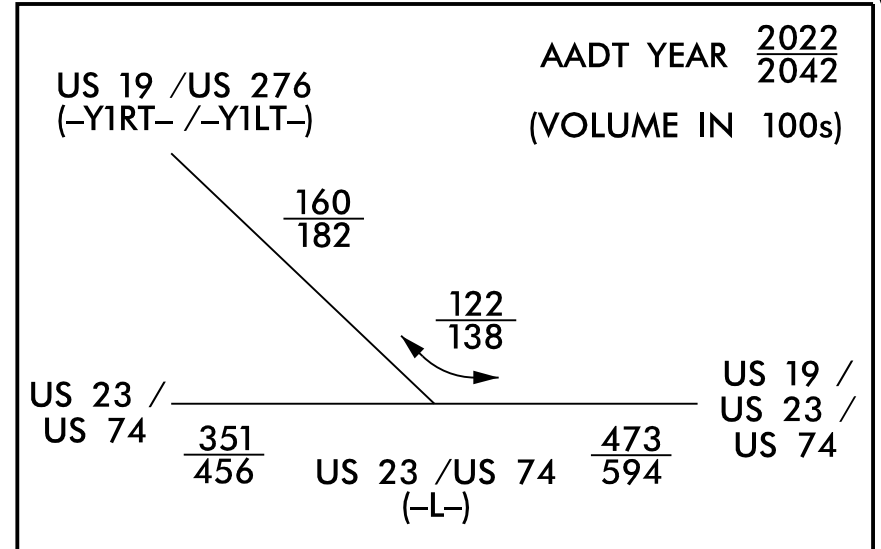


-LLT-

| | | |
|-------------------|------------------------|-------------------|
| Pls Sta 48+44.89 | Pls Sta 52+00.98 | Pls Sta 55+52.99 |
| Os = 6' 30" 13.8" | Δ = 18' 44" 29.8" (RT) | Os = 6' 30" 13.8" |
| Ls = 336.00' | D = 3' 52" 16.8" | Ls = 336.00' |
| LT = 224J5' | L = 484J1' | LT = 224J5' |
| ST = 112J4' | T = 244.24' | ST = 112J4' |
| | R = 1,480.00' | |

-YILT-

| | |
|------------------------|-------------------|
| Pls Sta 19+48.66 | Pls Sta 25+32.65 |
| Δ = 29' 44" 41.9" (LT) | Os = 2' 48" 31.0" |
| D = 2' 48" 31.0" | Ls = 200.00' |
| L = 1,059.06' | LT = 133.35' |
| T = 541.75' | ST = 66.68' |
| R = 2,040.00' | |
| SE = 0.06 | |
| DS = 55mph | |



**END TIP PROJECT B-3186
BEGIN TIP PROJECT B-5898**
-L- STA. 46+11.55 =
-L-LT- STA. 46+01.94 11' LT. =
-L-RT- STA. 46+28.38 11' RT.

NO DECK DRAINS REQUIRED

SPREAD ANALYSIS
DA = 0.28 AC
I = 4.0 IN/HR
C = 0.9
Q = 1.0 CFS
LONGITUDINAL SLOPE = 0.024 HH
CROSS SLOPE = 0.04 HH
SHOULDER WIDTH = 4 FT.
SPREAD = 3.9 FT.

-L-

| | | | |
|-------------------|------------------------|-------------------|-------------------|
| Pls Sta 48+35.70 | Pls Sta 51+77.84 | Pls Sta 55+16.60 | Pls Sta 60+30.80 |
| Os = 6' 30" 13.8" | Δ = 17' 41" 20.2" (RT) | Os = 6' 30" 13.8" | Os = 0' 55" 59.4" |
| Ls = 336.00' | D = 3' 52" 16.8" | Ls = 336.00' | Ls = 200.00' |
| LT = 224J5' | L = 456.92' | LT = 224J5' | LT = 133.34' |
| ST = 112J4' | T = 230.29' | ST = 112J4' | ST = 66.67' |
| | R = 1,480.00' | | |
| | SE = 0.08 | | |
| | DS = 65mph | | |

-YIRT-

| | | |
|------------------------|-----------------------|-------------------|
| Pls Sta 23+10J9 | Pls Sta 34+31.85 | Pls Sta 36+62.50 |
| Δ = 33' 39" 33.7" (LT) | Δ = 7' 47" 39.3" (LT) | Os = 1' 36" 55.7" |
| D = 1' 44" 10.5" | D = 2' 09" 14.3" | Ls = 150.00' |
| L = 1,938.64' | L = 361.85' | LT = 100.00' |
| T = 998.19' | T = 181.21' | ST = 50.00' |
| R = 3,300.00' | R = 2,660.00' | |
| SE = 0.04 | SE = 0.05 | |
| DS = 55mph | DS = 55mph | |

-L-RT-

| | | | |
|-------------------|------------------------|-------------------|-------------------|
| Pls Sta 47+19.53 | Pls Sta 51+84.75 | Pls Sta 56+42.44 | Pls Sta 59+66.36 |
| Os = 4' 58" 28.3" | Δ = 20' 41" 42.0" (RT) | Os = 4' 58" 28.3" | Os = 0' 30" 32.9" |
| Ls = 336.00' | D = 2' 57" 39.7" | Ls = 336.00' | Ls = 150.00' |
| LT = 224.09' | L = 698.91' | LT = 224.09' | LT = 100.00' |
| ST = 112.08' | T = 353.31' | ST = 112.08' | ST = 50.00' |
| | R = 1,935.00' | | |

SEE SHEET 2D-1 FOR DRAINAGE DITCH DETAILS

FOR -L-LT- PROFILE, SEE PROFILE SHEET 13 & 14
FOR -L-RT- PROFILE, SEE PROFILE SHEET 13 & 14
FOR -YIRT- PROFILE, SEE PROFILE SHEET 17 & 18
FOR -YILT- PROFILE, SEE PROFILE SHEET 17 & 18

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
PENTABLE: NCDOT_dshp.plt
DATE: 3/29/2022
TIME: 11:03:20 AM
USER: HBARE
FILE: NCDOT\NCDOT-B3186-2022\Work_In_Progress\B-3186-B-5898\Roadway\PO\B3186-B5898-RDY_PSH07.dgn