DocuSign Envelope ID: 6E50FC0D-46AB-445C-8F78-568FDC832EE4

8/17/99

REVISIONS

LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
NC License Number F-0159

ECOLOGICAL ENGINEERING, LLP
1151 SE CARY PARKWAY
CARY, NC 27518
NC License Number F-1148

PROJECT REFERENCE NO.	SHEET NO.
R-5523	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 25523 ENGINEER BRIAN K. EASON
DocuSigned by: Brian K. Eason
9AF015AD7ACC48F...
9/2/2014

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 20147 ENGINEER FRANK P. HEMMING
DocuSigned by: Frank P. Hemming
51A8D7A5C281424...
9/2/2014

NAD 83/11

-Y1- (US 401)

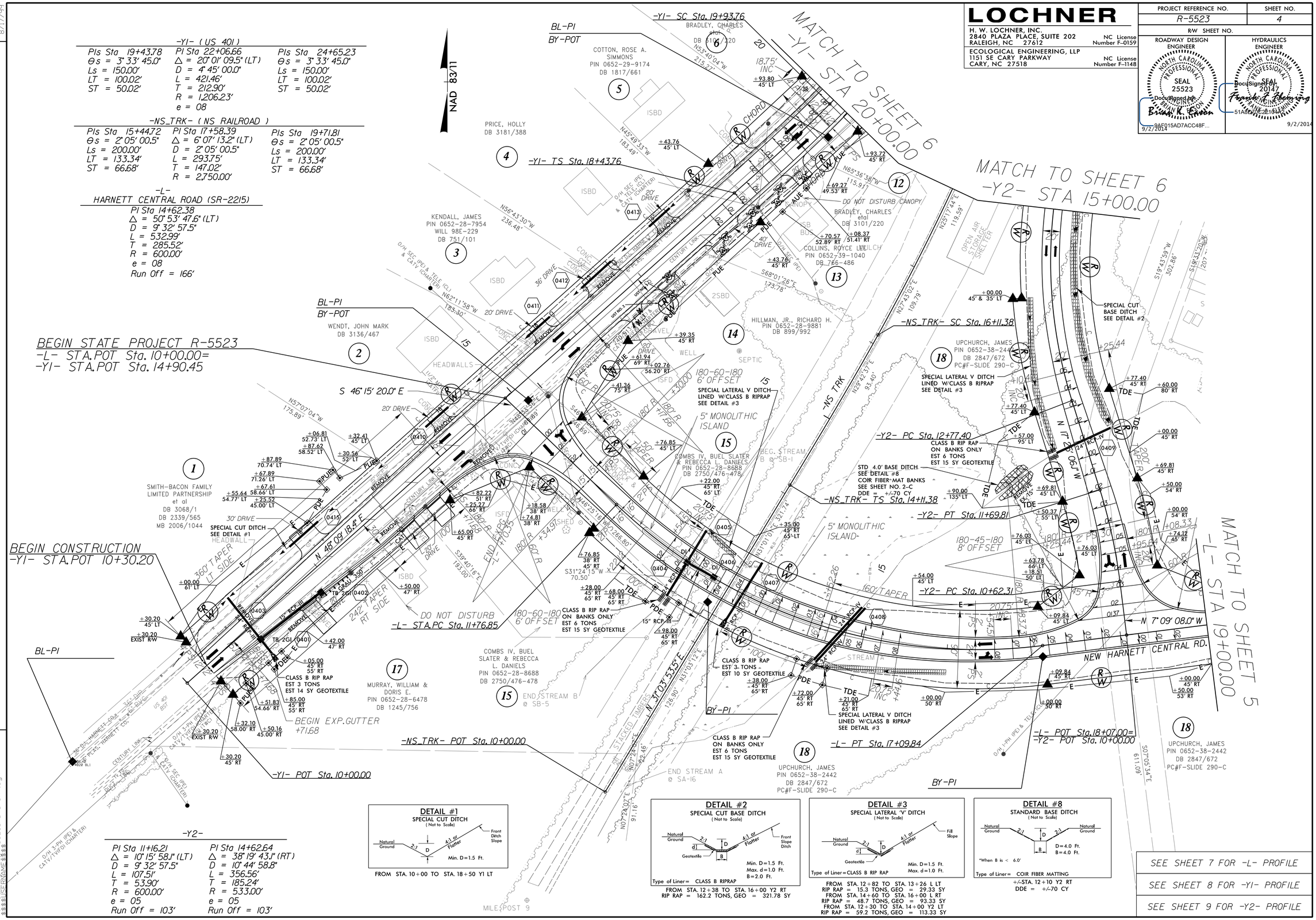
PIs Sta 19+43.78	PI Sta 22+06.66	PIs Sta 24+65.23
Θs = 3° 33' 45.0"	Δ = 20° 01' 09.5" (LT)	Θs = 3° 33' 45.0"
Ls = 150.00'	D = 4° 45' 00.0"	Ls = 150.00'
LT = 100.02'	L = 421.46'	LT = 100.02'
ST = 50.02'	T = 212.90'	ST = 50.02'
	R = 1,206.23'	
	e = 08	

-NS_TRK- (NS RAILROAD)

PIs Sta 15+44.72	PI Sta 17+58.39	PIs Sta 19+71.81
Θs = 2° 05' 00.5"	Δ = 6° 07' 13.2" (LT)	Θs = 2° 05' 00.5"
Ls = 200.00'	D = 2° 05' 00.5"	Ls = 200.00'
LT = 133.34'	L = 293.75'	LT = 133.34'
ST = 66.68'	T = 147.02'	ST = 66.68'
	R = 2,750.00'	

-L-
HARNETT CENTRAL ROAD (SR-2215)

PI Sta 14+62.38
Δ = 50° 53' 47.6" (LT)
D = 9° 32' 57.5"
L = 532.99'
T = 285.52'
R = 600.00'
e = 08
Run Off = 166'



-Y2-

PI Sta 11+16.21	PI Sta 14+62.64
Δ = 10° 15' 58.1" (LT)	Δ = 38° 19' 43.1" (RT)
D = 9° 32' 57.5"	D = 10° 44' 58.8"
L = 107.51'	L = 356.56'
T = 53.90'	T = 185.24'
R = 600.00'	R = 533.00'
e = 05	e = 05
Run Off = 103'	Run Off = 103'

DETAIL #1
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground, 2:1, D, 4:1 or Flatter, Front Ditch Slope
Min. D=1.5 Ft.
FROM STA. 10+00 TO STA. 18+50 Y1 LT

DETAIL #2
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground, 2:1, d, D, 4:1 or Flatter, Front Slope Ditch, Geotextile, B
Min. D=1.5 Ft.
Max. d=1.0 Ft.
B=2.0 Ft.
Type of Liner= CLASS B RIPRAP
FROM STA. 12+38 TO STA. 16+00 Y2 RT
RIP RAP = 162.2 TONS, GEO = 321.78 SY

DETAIL #3
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground, 2:1, d, D, 4:1 or Flatter, Fill Slope, Geotextile
Min. D=1.5 Ft.
Max. d=1.0 Ft.
Type of Liner=CLASS B RIP RAP
FROM STA. 12+82 TO STA. 13+26 L LT
RIP RAP = 15.3 TONS, GEO = 29.33 SY
FROM STA. 14+60 TO STA. 16+00 L RT
RIP RAP = 48.7 TONS, GEO = 93.33 SY
FROM STA. 12+30 TO STA. 14+00 Y2 LT
RIP RAP = 59.2 TONS, GEO = 113.33 SY

DETAIL #8
STANDARD BASE DITCH
(Not to Scale)
Natural Ground, 2:1, D, 2:1, Natural Ground, B
D=4.0 Ft.
B=4.0 Ft.
*When B is < 6.0'
Type of Liner= COIR FIBER MATTING
+/-STA. 12+10 Y2 RT
DDE = +/-70 CY

SEE SHEET 7 FOR -L- PROFILE
SEE SHEET 8 FOR -Y1- PROFILE
SEE SHEET 9 FOR -Y2- PROFILE

SYTIME
R:\Roadway\Proj\R5523_RDY_PSH4.dgn
$$$$USERNAME$$$$