PROJ. REFERENCE NO.	SHEET NO.
R-2250	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	Minges Building Account, LLC
2	4,5	Town of Ayden
3	5	Carolina Catfish Classics
4	5	Tripp Farms, LLC
5	5	Gregory Stewart
6	5,49	Dan Stewart Heirs
7	5,49	Monica Stewart Living Trust
8	5	Marvin Strickland Sr
9	5	Dan Stewart Heirs
10	5,49	Ray Edwards et al
11	5,49	Ruben Hassell, Jr
12	5	Lucy Mae Stewart
13	5,49	Martin Van Buren Stewart Heirs
14	5,49	Richard Hardy Heirs
15	5,49	Delores King Hector Heirs
16	5	Curcelia Collins Heirs
17	5	Curcelia Collins Heirs
18	6.49,50	Gregory Anderson
19	6.49,50	Levi Worthington Heirs
20	6,7,50	CORFAC Industries, LLC
21	6	Tripp Farms, LLC
22	6	Farmville Real Estate Company
23	7	Burney Laverne Hawkins
24	10	Irene Tripp
25	10,11	Nelson E Cannon, Life Estate
26	6,7	Joe Lane Graham
27	7,51	Billy P. McLawhorn
28	7,51	Happy Trail Farms LLC (Woody Whichard)
29	7,8	Billy P. McLawhorn
30	8	Ann B Macgill
31	8	S&K Properties, LLC
32	8	Cox Brothers
33	8,9	Cox Farm Properties LLC
34	7,8	Matthew Cole Wade
35	8	Elizabeth Spivey, Life Estate
36	8	Yadkin Bank
37	8,52	Hillco LTD
38	10,11	Pitt County Farms, LLC
39	11	Camilla Sumrell Spencer
40	11,12	Charles Hugh Allen
41	10	Sumrell Properties
42	12	Robert D Parrott
43	12,13	Ferrall Sumrell Jr
44	54	Bulow Inc
45	54	Hardee Family Holdings
46	54,55	Michael and William Bulow
47	54,55	Walmart Real Estate Business Trust
48	55	Ralph C Worthington, Jr
49	55	Walgreens of North Carolina
50	55,52C	The Rosemyr Corporation
51	55,52C	Redco Properties
52	55,52C	Judson Pope, LLC
53	12,13,14,53	Sydney P. Britt
54	14,15,16	Hayden Stevan Thompson
55	15,16	Bobby J. Tripp
56	16,17	Bobby J. Tripp
57	61	Littles Nursery of Greenville Inc
58	17	Steven W. Stox, Jr.
59	17	JGC Holdings, LLC
60	17	Janet G. Mintern et vir

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
61	17,18,19	Carolina Agribusiness
62	19	Brownie D McLawhorn
63	19,20,21	Fork Swamp Land LLC
64	20	Ernest Averette III
65	20,21,22	Ernest Averette III
66	22,23	Catherine Dews Nelson, et vir
67	23,24	Carolina Agribusiness
68	24,25	Jean Senn
69	25	Charles V. Wilkerson, Jr.
70	25,26	Catherine Dews Nelson
71	25,26	Paul E. Castelloe
72	26,27	Charles V. Wilkerson, Jr.
73	26	Joseph A, Nelson, et ux
74	26,27,28	Adam & Casey Beaman
75	27,28	Carl W. Blackwood/John B. Lewis, Jr
76	63	American Builders, Inc.
77	28,29	Keith E, Wainright, et ux
78	29,30,31,56	Worthington Farms
79	29,30,31	Eastern ACME Inc
80	31	Jack A. Fisher et.ux, Janice Livingston
81	31,32,58	Jeanette Davis Trustees
82	31,57,58	NG Family LLC
83	57	Hui So Yin
84	57	John Milton May Jr
85	57	Antoinette Darden
86	57	Jordan Chapel Church
87	57	Ernest Credle
88	31,32,57	Pitt County Farms, LLC
89	2,33,34,35,59,64,65	Robert Smith
90	32,65,66	Edwin Crawford
91	66	Nannie Sue Fields
92	33,34,35	Robert Smith
93	35,59,60,67	Rebecca Gay
94	35,36,37,67	Lewis Tripp
95	67	AMA Holdings LLC
96	67	Melissa Thorne
97	67	Richard L. Hill, et ux
98	35	Mary Carr Maebry Heirs
99	35,36	Dorothy Frizzell Forbes
100	60	Usha Lee Carr, etal
101	60	Piney Grove FWB Church
102	60	Town of Farmville
103	60	Jessie Kilpatrick, et ux
104	60,61	Gayle Wainwright
105	60,61,62	Daphne Richardson
106	61,62	Gayle Wainwright
107	62	Littles Nursery of Greenville Inc.
108	62	Signature Automotive
109	62	Mary Burney
110	62	Foss Enterprises Inc
111	62	Charles Brinkley Moore Jr
112	62	Connolly P. Branch/Wm. Clark
113	62	Foss Enterprises Inc
114	62	Nancy A. Beardsworth
115	62,63	William H. Watson Jr. etal
116	62	Landmark Missionary Baptist Church Inc.
117	62,63	Philip E. Trull
118	63	Charles Brinkley Moore
119	63	Gail Porter Nichols Co-Executrix
120	63	The Jerry L. Price Family LLC

PROJ. REFERENCE NO.	SHEET NO.
R-2250	3P-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
121	63	Charles L. Warters
122	63	Archie Lee Oakley Jr.
123	63	City of Greenville
124	63	Foss Enterprises, Inc.
125	63	Foss Enterprises, Inc.
126	63	Anne Wehman Meeks, Trustee
127	63	Gail Porter Nichols Co-Executrix
128	36	Charlie Thigpen/Amos Thigpen Heirs
129	36,37	Worthington Farms Inc.
130	37,38	Charles Sylvester Baker
131	37,38	Alice Delores Bullie
132	38	James Berinard Baker
133	38	Allice Delores Bullie
134	38	Audrey Lane
135	38	James H. Lane Jr.
136	38	Viola T.. Knox Heirs
137	38,39	William T. Turnage Jr. Heirs
138	39,68	Estella Wright Heirs
139	68	Jasper L. Wright
140	39	Kevin A. Wright
141	39	Gayle Wainwright
142	39,40	Weyerhaeuser Company
143	39	Jesucita Garcia Cerino
144	39,40	Calvary Mobile Homes Inc.
145	40,41	Wyatt Livingstone Brown Jr.
146	41,42	Edwards Timber Co Inc
147	42,43	Edith Lee Braudwell
148	42,43	Happy Trail Farms LLC (Woody Whichard)
150	43,44,45	Happy Trail Farms LLC (Woody Whichard)
153	43,45,46	Pitt County
154	69	City of Greenville
155	69	LMS Drywall & Plaster
156	46	Herbert Lewis Heirs
157	46	Hoover E. Taft III Etal
158	46	John Shields Harvey
159	47,48,70	Medical Foundation of ECU Inc.
160	46,47	Mrs. P.E. Britt Heirs
161	47	Teresa Manning Butts etals
162	47,48	Stantonsburg Road, LLC
163	56	Johnny A. Pittman et ux
164	50	MES & JBS LLC
165	50,51	Good Buddy LLC/JD Walker Properties
166	63	Archie L. Oakley Jr.
167	64	Derek L. Best
168	56	Alicia S. Hawk etal
169	56	David A. Rushing
170	59	Robert E. Jones
171	10	Clifton H. Cahoon et ux
172	50,51	Bluemax Rentals LLC
173	55	Dixie Wayne Harris
174	39, 68	Thomas Turnage

PARCEL No.	SHEET No.	PROPERTY OWNER NAME

PROJECT REFERENCE NO.	SHEET NO.
R-2250	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

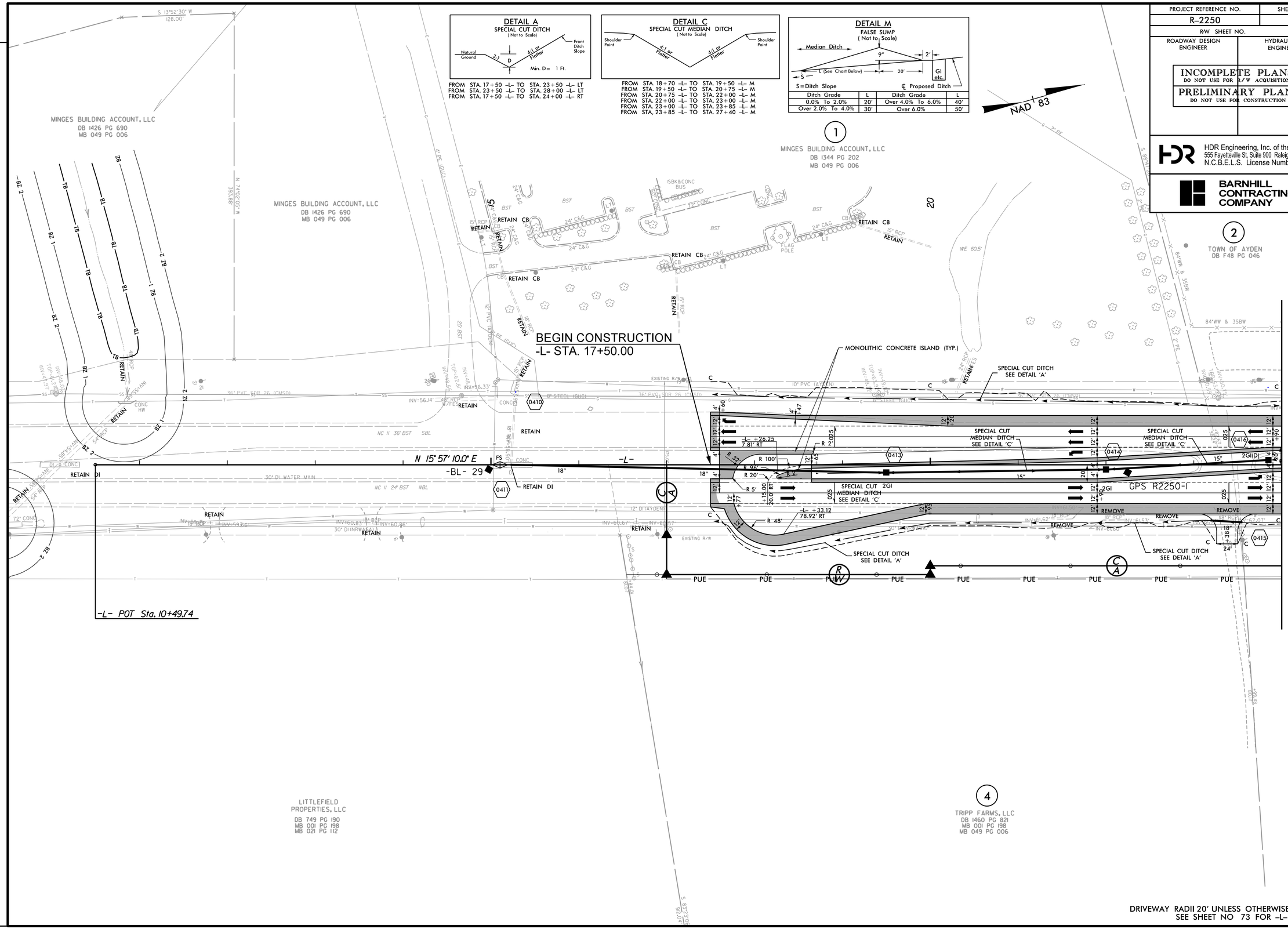
FROM STA. 17+50 -L- TO STA. 23+50 -L- LT
FROM STA. 23+50 -L- TO STA. 28+00 -L- LT
FROM STA. 17+50 -L- TO STA. 24+00 -L- RT

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

FROM STA. 18+70 -L- TO STA. 19+50 -L- M
FROM STA. 19+50 -L- TO STA. 20+75 -L- M
FROM STA. 20+75 -L- TO STA. 22+00 -L- M
FROM STA. 22+00 -L- TO STA. 23+00 -L- M
FROM STA. 23+00 -L- TO STA. 23+85 -L- M
FROM STA, 23+85 -L- TO STA. 27+40 -L- M

DETAIL M
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO 73 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:03:35 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-04.dgn

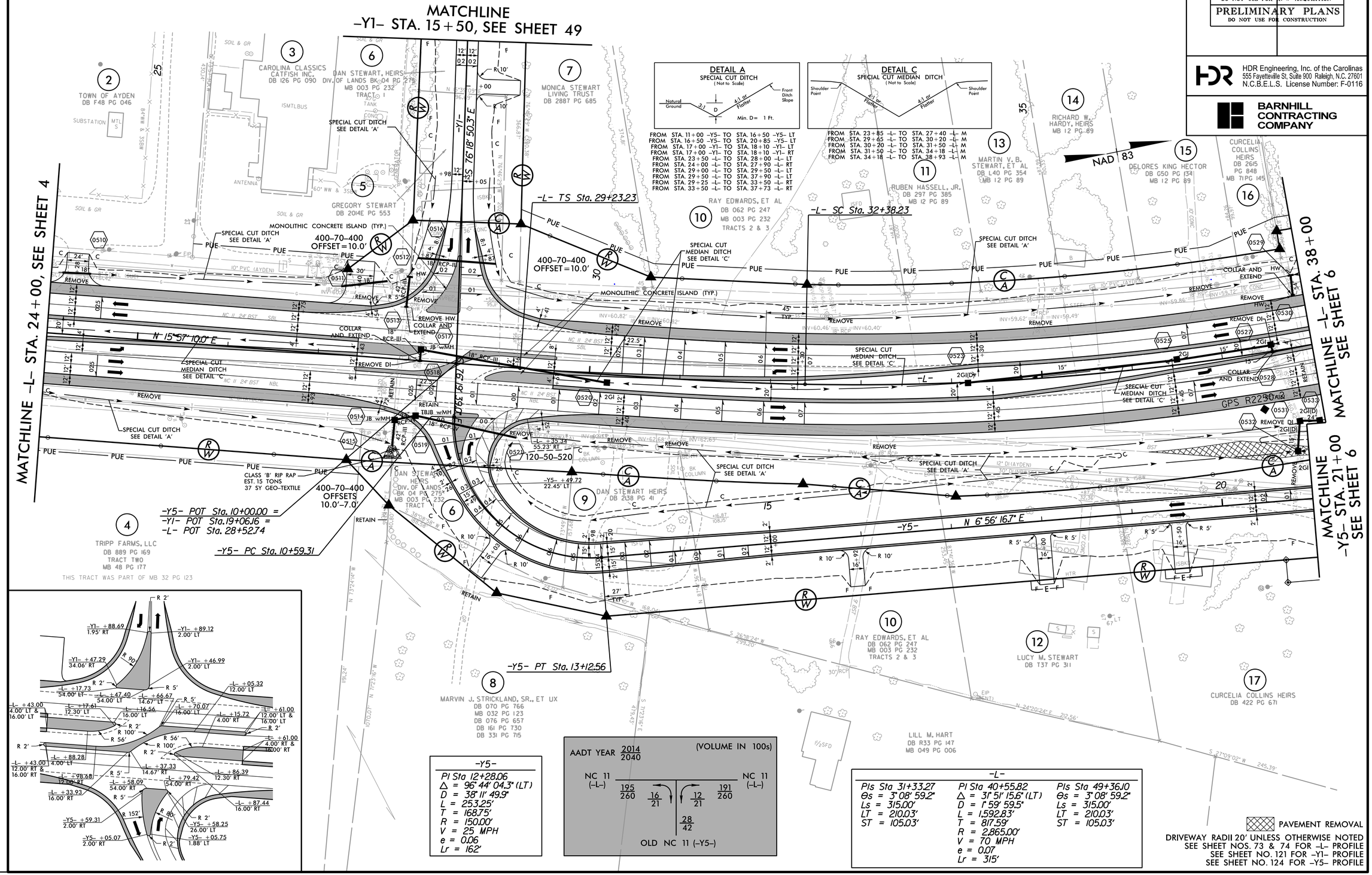
PROJECT REFERENCE NO.	SHEET NO.
R-2250	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwalnwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:03:44 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-05.dgn

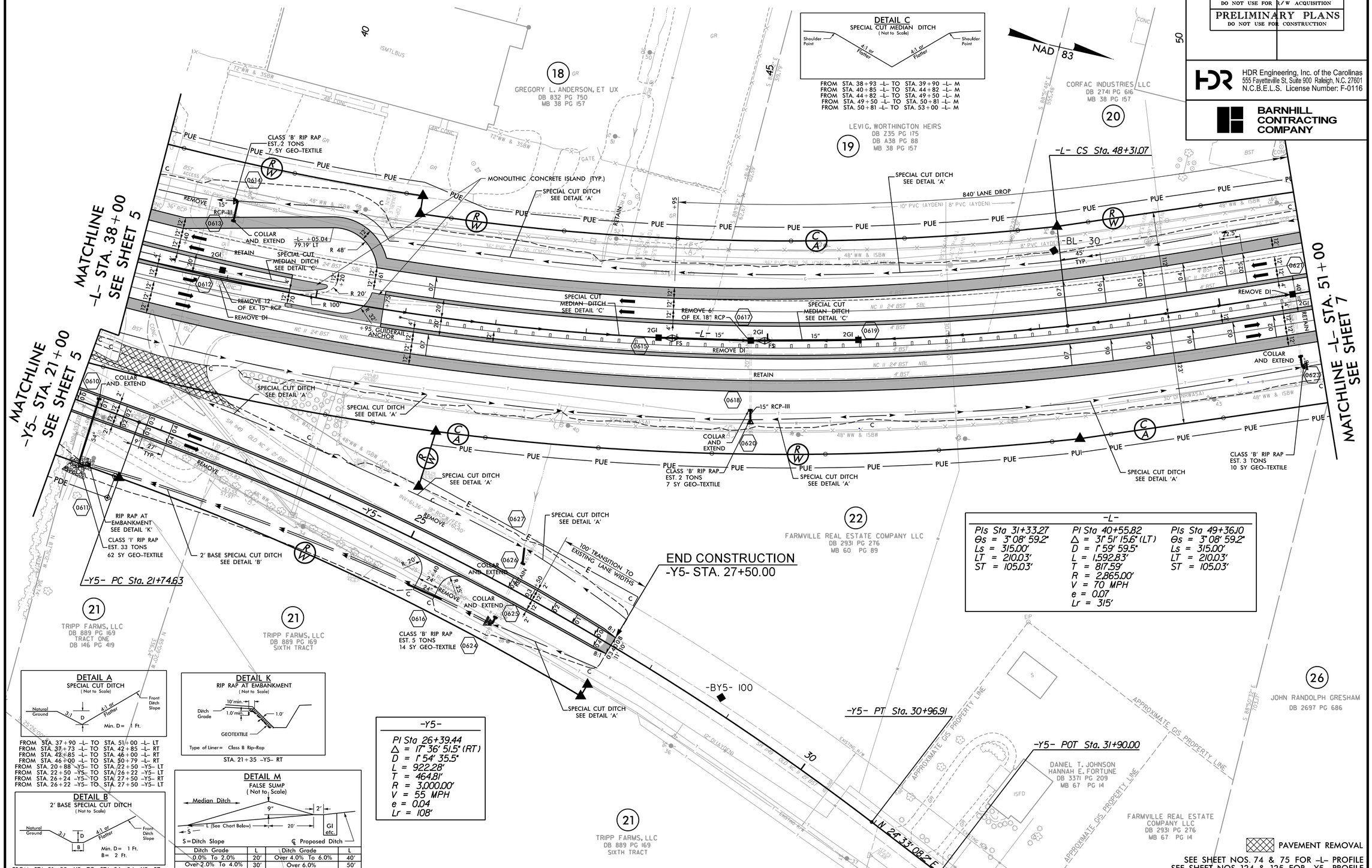
PROJECT REFERENCE NO.	SHEET NO.
R-2250	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



-L-		
PIs Sta 31+33.27	PI Sta 40+55.82	PIs Sta 49+36.10
Θs = 3° 08' 59.2"	Δ = 31° 51' 15.6" (LT)	Θs = 3° 08' 59.2"
Ls = 315.00'	D = 1° 59' 59.5"	Ls = 315.00'
LT = 210.03'	L = 1,592.83'	LT = 210.03'
ST = 105.03'	T = 817.59'	ST = 105.03'
	R = 2,865.00'	
	V = 70 MPH	
	e = 0.07	
	Lr = 315'	

-Y5-
PI Sta 26+39.44
Δ = 17° 36' 51.5" (RT)
D = 1° 54' 35.5"
L = 922.28'
T = 464.81'
R = 3,000.00'
V = 55 MPH
e = 0.04
Lr = 108'

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

Shoulder Point — 4:1 or Flatter — 4:1 or Flatter — Shoulder Point

FROM STA. 38+93 -L- TO STA. 39+90 -L- M
FROM STA. 40+85 -L- TO STA. 44+82 -L- M
FROM STA. 44+82 -L- TO STA. 49+50 -L- M
FROM STA. 49+50 -L- TO STA. 50+81 -L- M
FROM STA. 50+81 -L- TO STA. 53+00 -L- M

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 37+90 -L- TO STA. 51+00 -L- LT
FROM STA. 37+73 -L- TO STA. 42+85 -L- RT
FROM STA. 42+85 -L- TO STA. 46+00 -L- RT
FROM STA. 46+00 -L- TO STA. 50+79 -L- RT
FROM STA. 20+88 -Y5- TO STA. 22+50 -Y5- LT
FROM STA. 22+50 -Y5- TO STA. 26+22 -Y5- LT
FROM STA. 26+24 -Y5- TO STA. 27+50 -Y5- RT
FROM STA. 26+22 -Y5- TO STA. 27+50 -Y5- LT

DETAIL B
2' BASE SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope — B
Min. D = 1 Ft.
B = 2 Ft.

FROM STA. 21+28 -Y5- TO STA. 26+24 -Y5- RT

DETAIL K
RIP RAP AT EMBANKMENT
(Not to Scale)

10' min. — Ditch Grade — 1.0' min. — 1.0' — GEOTEXTILE
Type of Liner = Class B Rip-Rap

STA. 21+35 -Y5- RT

DETAIL M
FALSE SUMP
(Not to Scale)

Median Ditch — 9" — 2' — L (See Chart Below) — 20' — S — GI etc. — ℄ Proposed Ditch
S = Ditch Slope

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

SEE SHEET NOS. 74 & 75 FOR -L- PROFILE
SEE SHEET NOS. 124 & 125 FOR -Y5- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:03:52 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_PSH-06.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

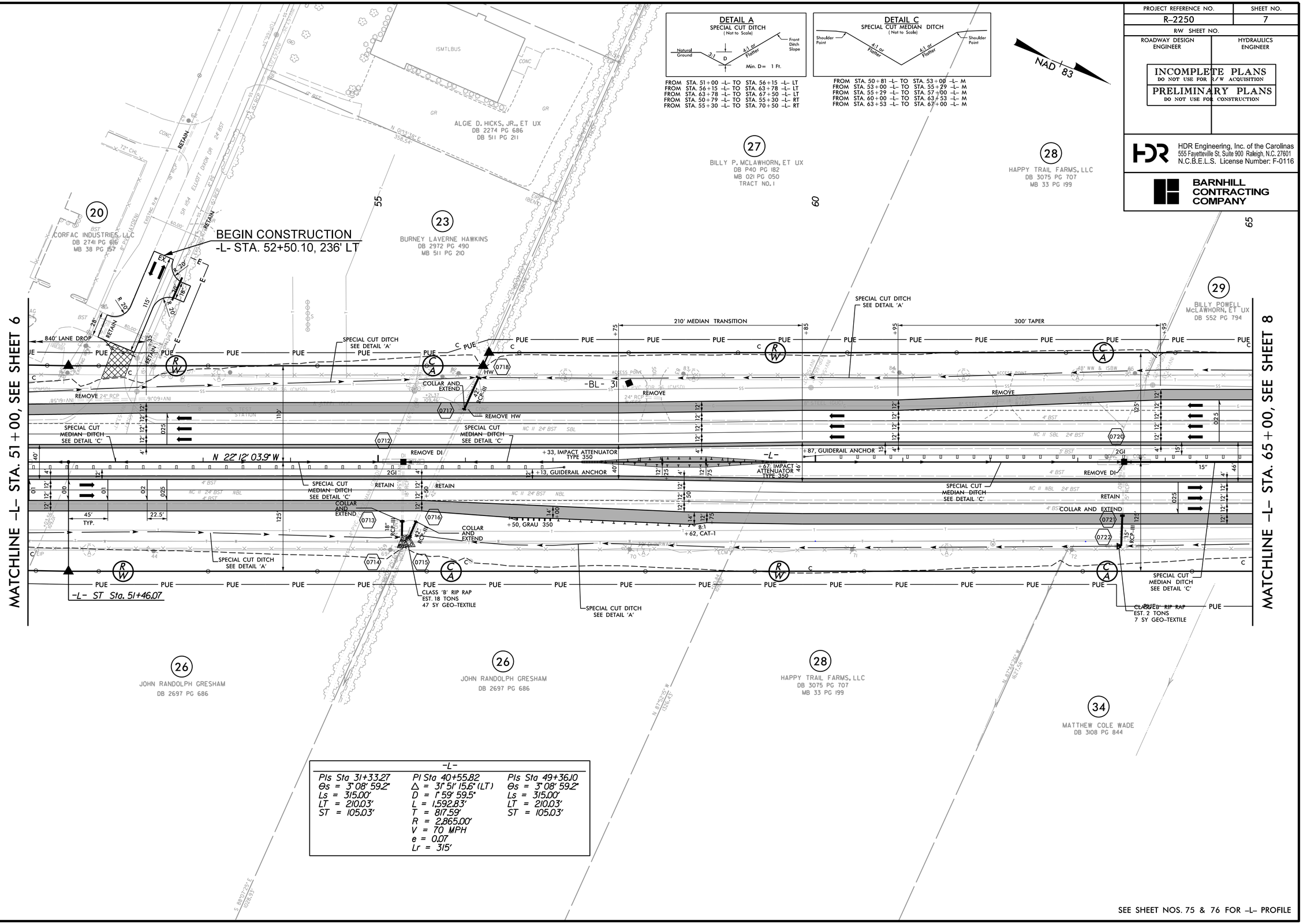
Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope
Min. D= 1 Ft.

FROM STA. 51+00 -L- TO STA. 56+15 -L- LT
FROM STA. 56+15 -L- TO STA. 63+78 -L- LT
FROM STA. 63+78 -L- TO STA. 67+50 -L- LT
FROM STA. 50+79 -L- TO STA. 55+30 -L- RT
FROM STA. 55+30 -L- TO STA. 70+50 -L- RT

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

Shoulder Point — 4:1 or Flatter — 4:1 or Flatter — Shoulder Point

FROM STA. 50+81 -L- TO STA. 53+00 -L- M
FROM STA. 53+00 -L- TO STA. 55+29 -L- M
FROM STA. 55+29 -L- TO STA. 57+00 -L- M
FROM STA. 60+00 -L- TO STA. 63+53 -L- M
FROM STA. 63+53 -L- TO STA. 67+00 -L- M



-L-		
PIs Sta 31+33.27	PI Sta 40+55.82	PIs Sta 49+36.10
Θs = 3° 08' 59.2"	Δ = 31° 51' 15.6" (LT)	Θs = 3° 08' 59.2"
Ls = 315.00'	D = 1° 59' 59.5"	Ls = 315.00'
LT = 210.03'	L = 1,592.83'	LT = 210.03'
ST = 105.03'	T = 817.59'	ST = 105.03'
	R = 2,865.00'	
	V = 70 MPH	
	e = 0.07	
	Lr = 315'	

SEE SHEET NOS. 75 & 76 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:02 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-07.dgn

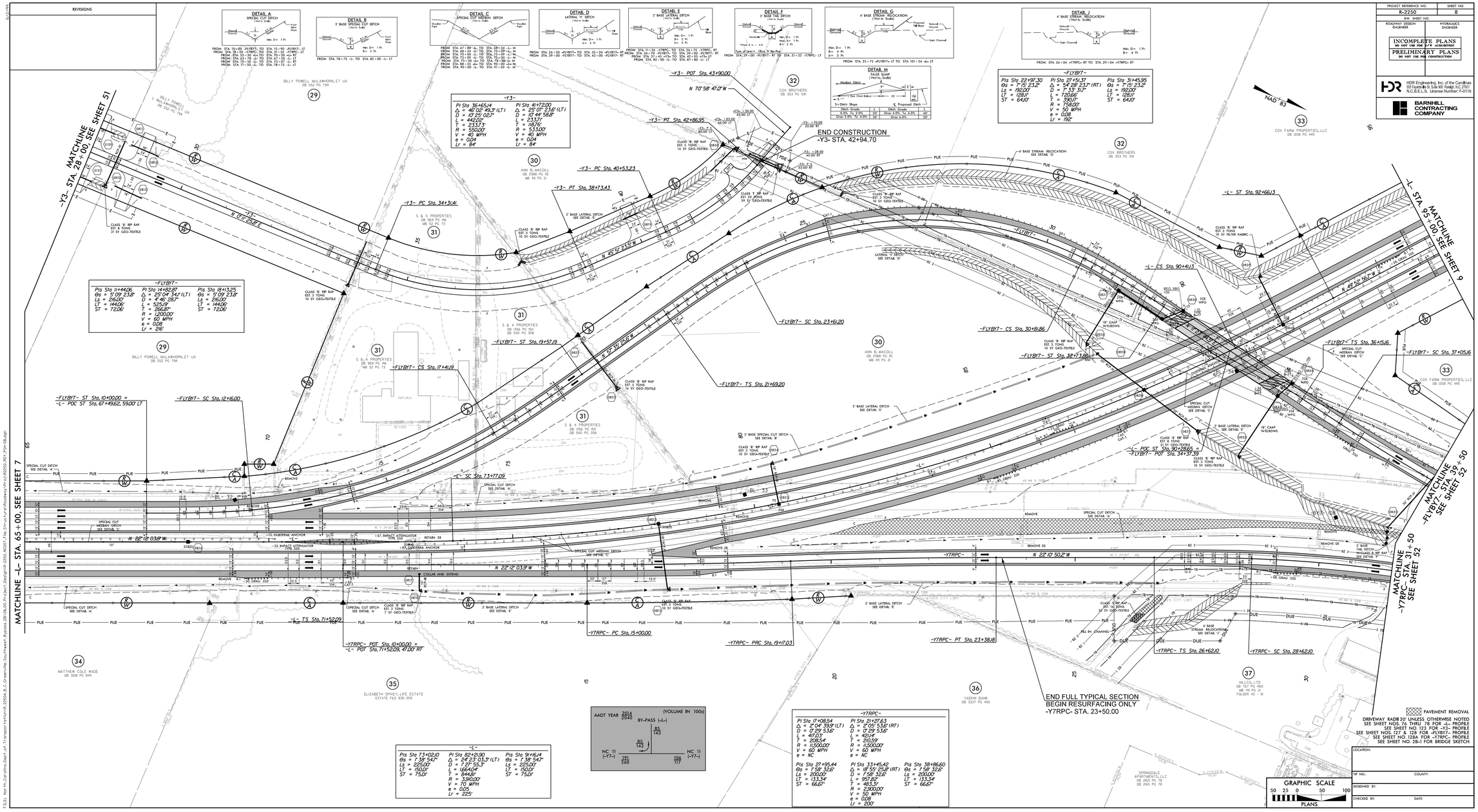
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



PROJECT REFERENCE NO.	SHEET NO.
R-2250	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

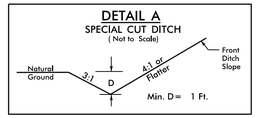
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

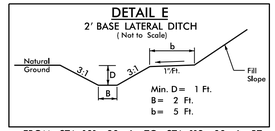
BARNHILL CONTRACTING COMPANY

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



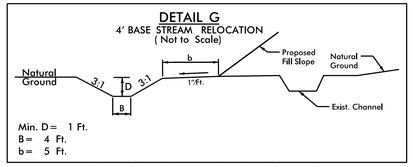
FROM STA. 10+20 -DRI- TO STA. 12+80 -DRI- RT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)



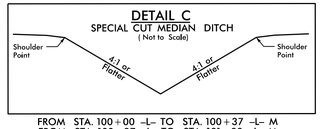
FROM STA. 101+90 -L- TO STA. 112+00 -L- RT

DETAIL G
4' BASE STREAM RELOCATION
(Not to Scale)



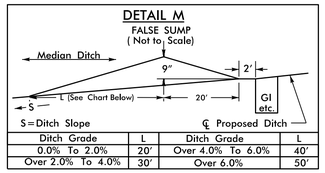
FROM STA. 91+50 -L- TO STA. 101+34 -L- LT

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

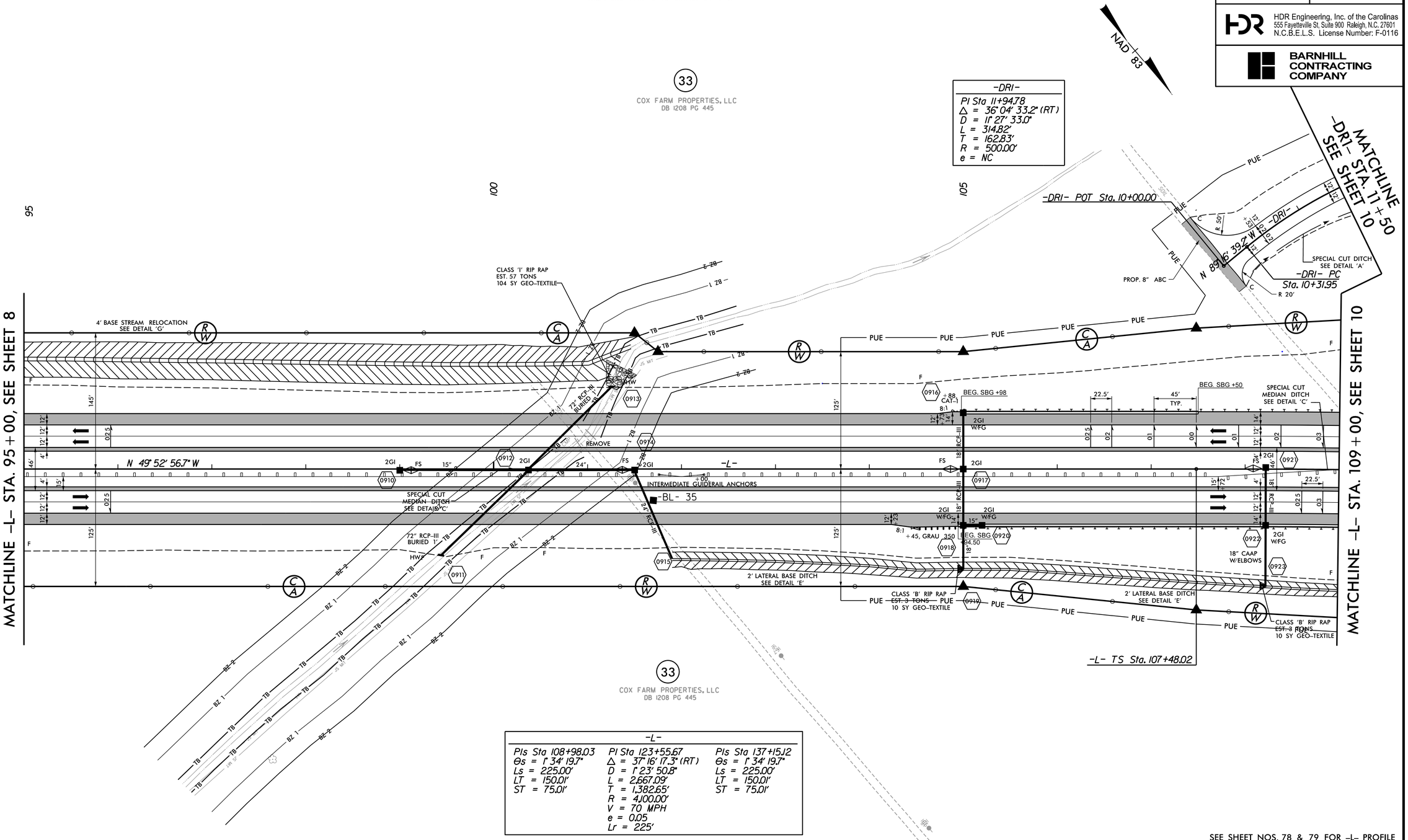


FROM STA. 100+00 -L- TO STA. 100+37 -L- M
FROM STA. 100+37 -L- TO STA. 101+00 -L- M
FROM STA. 109+56 -L- TO STA. 110+76 -L- M

DETAIL M
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



-L-

PIs Sta 108+98.03	PI Sta 123+55.67	PIs Sta 137+15.12
Θs = 1° 34' 19.7"	Δ = 37° 16' 17.3" (RT)	Θs = 1° 34' 19.7"
Ls = 225.00'	D = 1° 23' 50.8"	Ls = 225.00'
LT = 150.01'	L = 2,667.09'	LT = 150.01'
ST = 75.01'	T = 1,382.65'	ST = 75.01'
	R = 4,100.00'	
	V = 70 MPH	
	e = 0.05	
	Lr = 225'	

SEE SHEET NOS. 78 & 79 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:10 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-09.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL M
FALSE SUMP
(Not to Scale)

S=Ditch Slope ℄ Proposed Ditch

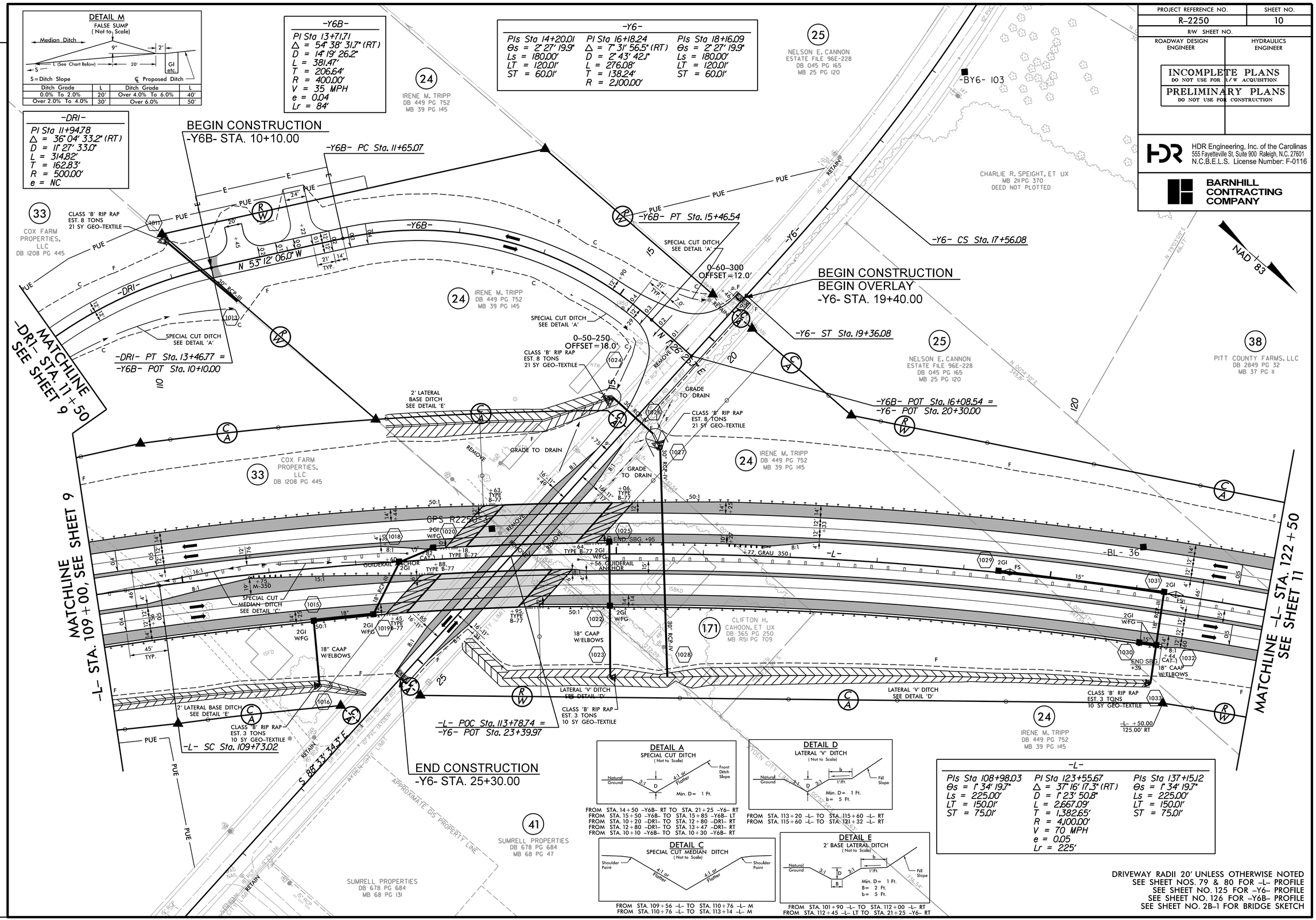
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-Y6B-
PI Sta 13+71.71
Δ = 54° 38' 31.7" (RT)
D = 14° 19' 26.2"
L = 381.47'
T = 206.64'
R = 400.00'
V = 35 MPH
e = 0.04
Lr = 84'

-Y6-

PIs Sta 14+20.01	PI Sta 16+18.24	PIs Sta 18+16.09
Θs = 2° 27' 19.9"	Δ = 7° 31' 56.5" (RT)	Θs = 2° 27' 19.9"
Ls = 180.00'	D = 2° 43' 42.1"	Ls = 180.00'
LT = 120.01'	L = 276.08'	LT = 120.01'
ST = 60.01'	T = 138.24'	ST = 60.01'
	R = 2,100.00'	

-DRI-
PI Sta 11+94.78
Δ = 36° 04' 33.2" (RT)
D = 11° 27' 33.0"
L = 314.82'
T = 162.83'
R = 500.00'
e = NC



DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 3:1, D, 4:1 or Flatter, Front Ditch Slope
Min. D= 1 Ft.

FROM STA. 14+50 -Y6B- RT TO STA. 21+25 -Y6- RT
FROM STA. 15+50 -Y6B- TO STA. 15+85 -Y6B- LT
FROM STA. 10+20 -DRI- TO STA. 12+80 -DRI- RT
FROM STA. 12+80 -DRI- TO STA. 13+47 -DRI- RT
FROM STA. 10+10 -Y6B- TO STA. 10+30 -Y6B- RT

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 3:1, D, 3:1, b, 1'/ft., Fill Slope
Min. D= 1 Ft.
b= 5 Ft.

FROM STA. 113+20 -L- TO STA. 115+60 -L- RT
FROM STA. 115+60 -L- TO STA. 121+32 -L- RT

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

Shoulder Point, 4:1 or Flatter, 4:1 or Flatter, Shoulder Point

FROM STA. 109+56 -L- TO STA. 110+76 -L- M
FROM STA. 110+76 -L- TO STA. 113+14 -L- M

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

Natural Ground, 3:1, D, 3:1, b, 1'/ft., Fill Slope, B
Min. D= 1 Ft.
B= 2 Ft.
b= 5 Ft.

FROM STA. 101+90 -L- TO STA. 112+00 -L- RT
FROM STA. 112+45 -L- LT TO STA. 21+25 -Y6- RT

-L-

PIs Sta 108+98.03	PI Sta 123+55.67	PIs Sta 137+15.12
Θs = 1° 34' 19.7"	Δ = 37° 16' 17.3" (RT)	Θs = 1° 34' 19.7"
Ls = 225.00'	D = 1° 23' 50.8"	Ls = 225.00'
LT = 150.01'	L = 2,667.09'	LT = 150.01'
ST = 75.01'	T = 1,382.65'	ST = 75.01'
	R = 4,100.00'	
	V = 70 MPH	
	e = 0.05	
	Lr = 225'	

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 79 & 80 FOR -L- PROFILE
SEE SHEET NO. 125 FOR -Y6- PROFILE
SEE SHEET NO. 126 FOR -Y6B- PROFILE
SEE SHEET NO. 2B-1 FOR BRIDGE SKETCH

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:20 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-10.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

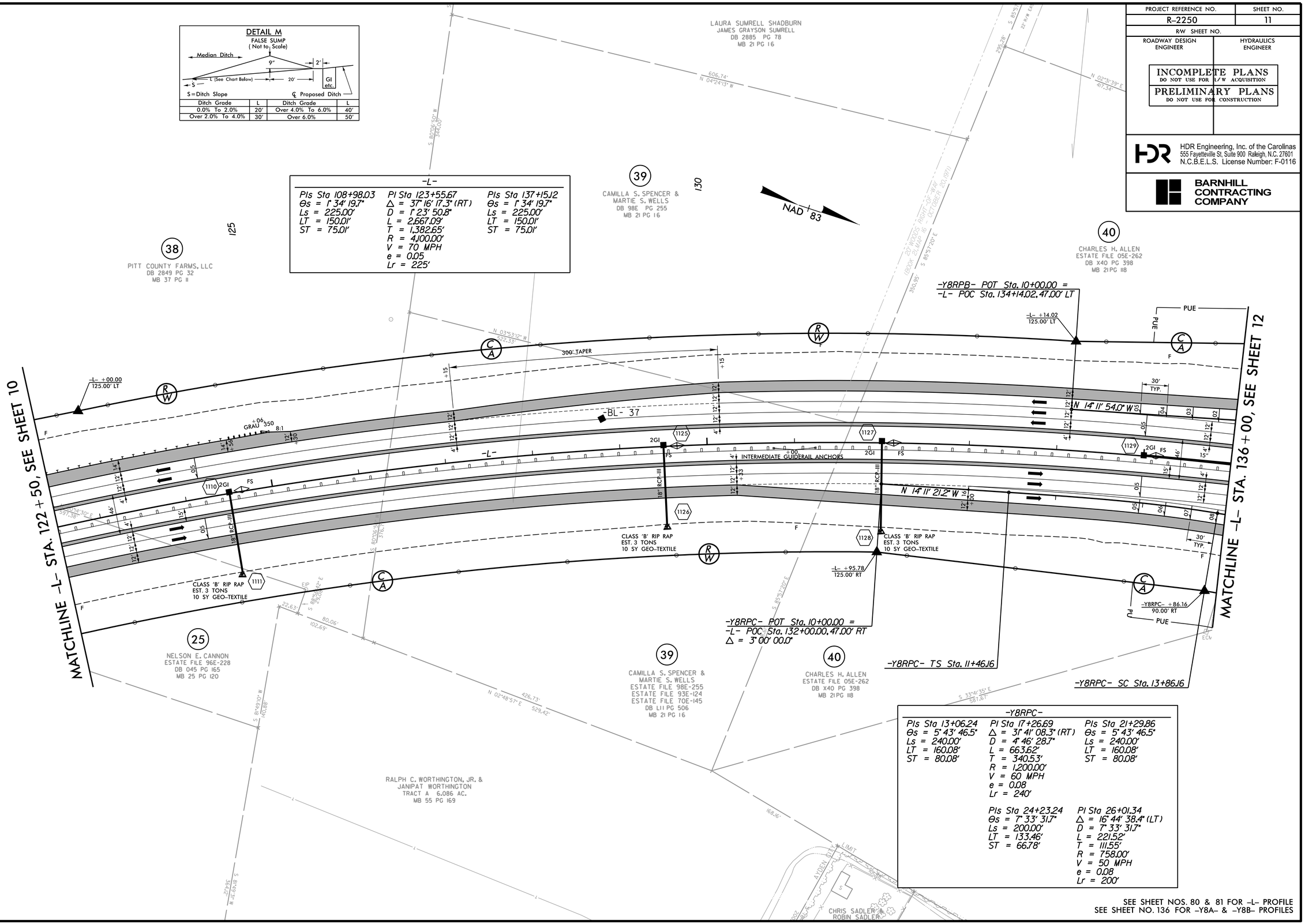
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

BARNHILL CONTRACTING COMPANY

DETAIL M
FALSE SUMP
(Not to Scale)

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



-L-

PIs Sta 108+98.03	PI Sta 123+55.67	PIs Sta 137+15.12
Θs = 1° 34' 19.7"	Δ = 37° 16' 17.3" (RT)	Θs = 1° 34' 19.7"
Ls = 225.00'	D = 1° 23' 50.8"	Ls = 225.00'
LT = 150.01'	L = 2,667.09'	LT = 150.01'
ST = 75.01'	T = 1,382.65'	ST = 75.01'
	R = 4,100.00'	
	V = 70 MPH	
	e = 0.05	
	Lr = 225'	

-Y8RPC-

PIs Sta 13+06.24	PI Sta 17+26.69	PIs Sta 21+29.86
Θs = 5° 43' 46.5"	Δ = 31° 41' 08.3" (RT)	Θs = 5° 43' 46.5"
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'
LT = 160.08'	L = 663.62'	LT = 160.08'
ST = 80.08'	T = 340.53'	ST = 80.08'
	R = 1,200.00'	
	V = 60 MPH	
	e = 0.08	
	Lr = 240'	
PIs Sta 24+23.24	PI Sta 26+01.34	
Θs = 7° 33' 31.7"	Δ = 16° 44' 38.4" (LT)	
Ls = 200.00'	D = 7° 33' 31.7"	
LT = 133.46'	L = 221.52'	
ST = 66.78'	T = 111.55'	
	R = 758.00'	
	V = 50 MPH	
	e = 0.08	
	Lr = 200'	

SEE SHEET NOS. 80 & 81 FOR -L- PROFILE
SEE SHEET NO. 136 FOR -Y8A- & -Y8B- PROFILES

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:29 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_RDY_PSH-11.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	12
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-Y8RPB-			
PIs Sta 13+89.00	PI Sta 17+05.16	PI Sta 20+15.52	PI Sta 23+08.89
Θs = 5°43'46.5"	Δ = 22°16'29.6" (LT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	D = 7°33'31.7"
LT = 160.08'	L = 466.52'	LT = 160.08'	L = 451.49'
ST = 80.08'	T = 236.25'	ST = 80.08'	T = 232.67'
	R = 1,200.00'		R = 758.00'
	V = 60 MPH		V = 50 MPH
	e = 0.08		e = 0.08
	Lr = 240'		Lr = 200'

-Y8-
PI Sta 24+48.47
Δ = 4°30'19.0" (RT)
D = 0°49'06.6"
L = 550.49'
T = 275.35'
R = 7,000.00'
V > 60 MPH
e = 0.03
Lr = 120'

-Y8RPA-				
PIs Sta 13+59.22	PI Sta 16+56.89	PI Sta 19+50.04	PI Sta 22+43.42	PI Sta 24+14.38
Θs = 5°43'46.5"	Δ = 20°34'14.4" (RT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"	Δ = 15°41'12.5" (LT)
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'	D = 7°33'31.7"
LT = 160.08'	L = 430.83'	LT = 160.08'	LT = 133.46'	L = 207.53'
ST = 80.08'	T = 217.76'	ST = 80.08'	ST = 66.78'	T = 104.42'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.06			e = 0.08
	Lr = 240'			Lr = 200'

-Y8LPB-	
PIs Sta 20+29.28	PIs Sta 19+06.70
Δ = 146°26'51.3" (RT)	Θs = 22°55'05.9"
D = 22°55'05.9"	Ls = 200.00'
L = 639.00'	LT = 134.47'
T = 829.28'	ST = 67.70'
R = 250.00'
V = 30 MPH
e = 0.08
Lr = 200'

-Y8RPC-		
PIs Sta 10+34.47	PI Sta 13+05.16	PI Sta 15+45.67
Θs = 22°55'05.9"	Δ = 37°16'17.3" (RT)	Θs = 7°34'19.7"
Ls = 200.00'	D = 1°23'50.8"	Ls = 225.00'
LT = 134.47'	L = 266.09'	LT = 150.07'
ST = 67.70'	T = 136.65'	ST = 75.01'
	R = 4,100.00'	
	V = 70 MPH	
	e = 0.05	
	Lr = 225'	

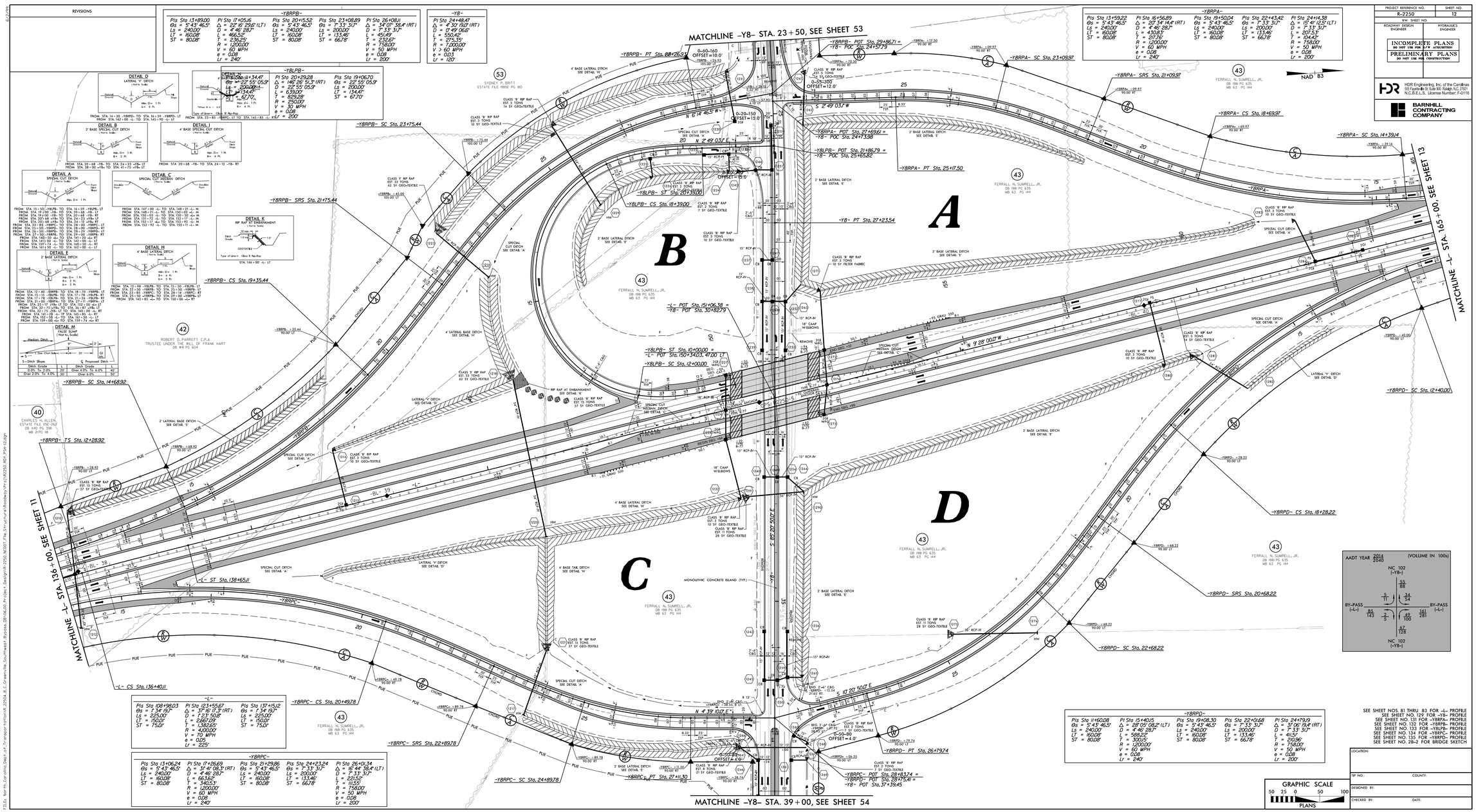
-Y8RPD-				
PIs Sta 11+60.08	PI Sta 15+40.15	PI Sta 19+08.30	PI Sta 22+01.68	PI Sta 24+79.19
Θs = 5°43'46.5"	Δ = 28°05'08.2" (LT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"	Δ = 37°06'19.4" (RT)
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'	D = 7°33'31.7"
LT = 160.08'	L = 588.22'	LT = 160.08'	LT = 133.46'	L = 411.51'
ST = 80.08'	T = 300.15'	ST = 80.08'	ST = 66.78'	T = 210.96'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'

-Y8RPC-			
PIs Sta 13+06.24	PI Sta 17+26.69	PIs Sta 21+29.86	PIs Sta 24+23.24
Θs = 5°43'46.5"	Δ = 37°41'08.3" (RT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'
LT = 160.08'	L = 663.62'	LT = 160.08'	LT = 133.46'
ST = 80.08'	T = 340.53'	ST = 80.08'	ST = 66.78'
	R = 1,200.00'		
	V = 60 MPH		
	e = 0.08		
	Lr = 240'		

-Y8RPC-		
PI Sta 26+10.34		
Δ = 16°44'39.4" (LT)		
D = 7°33'31.7"		
L = 220.55'		
T = 111.55'		
R = 758.00'		
V = 50 MPH		
e = 0.08		
Lr = 200'		

-L-		
PIs Sta 108+98.03	PI Sta 123+55.67	PIs Sta 137+15.12
Θs = 1°34'19.7"	Δ = 37°16'17.3" (RT)	Θs = 1°34'19.7"
Ls = 225.00'	D = 1°23'50.8"	Ls = 225.00'
LT = 150.07'	L = 2,867.09'	LT = 150.07'
ST = 75.01'	T = 1,382.65'	ST = 75.01'
	R = 4,100.00'	
	V = 70 MPH	
	e = 0.05	
	Lr = 225'	

-Y8RPA-				
PIs Sta 13+59.22	PI Sta 16+56.89	PI Sta 19+50.04	PI Sta 22+43.42	PI Sta 24+14.38
Θs = 5°43'46.5"	Δ = 20°34'14.4" (RT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"	Δ = 15°41'12.5" (LT)
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'	D = 7°33'31.7"
LT = 160.08'	L = 430.83'	LT = 160.08'	LT = 133.46'	L = 207.53'
ST = 80.08'	T = 217.76'	ST = 80.08'	ST = 66.78'	T = 104.42'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.06			e = 0.08
	Lr = 240'			Lr = 200'



SEE SHEET NOS. 81 THRU. 83 FOR -L- PROFILE
SEE SHEET NO. 129 FOR -Y8- PROFILE
SEE SHEET NO. 131 FOR -Y8RPA- PROFILE
SEE SHEET NO. 132 FOR -Y8RPB- PROFILE
SEE SHEET NO. 133 FOR -Y8LPB- PROFILE
SEE SHEET NO. 134 FOR -Y8RPC- PROFILE
SEE SHEET NO. 135 FOR -Y8RPD- PROFILE
SEE SHEET NO. 26-2 FOR BRIDGE SKETCH

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:
TIP NO.: COUNTY:
DESIGNED BY:
CHECKED BY: DATE:

PLOT DRIVEN: NCDOT.pdf.color.eng.100.pltPENTABLES: NCDOT.pdmp(ft.tbl)
USER: dwalthour1 TIME: 14:29:44 PM
DATE: 11/11/2015
FILE: N:\Preconstruction\Dept_of_Transportation\R-2250A-B\C-Corridor\Div-Southwest_Bypass\DB\06.00_Project_Design\B-2250_NCDOT_Site_Structure\Roadway\B-2250_R01_PS12.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

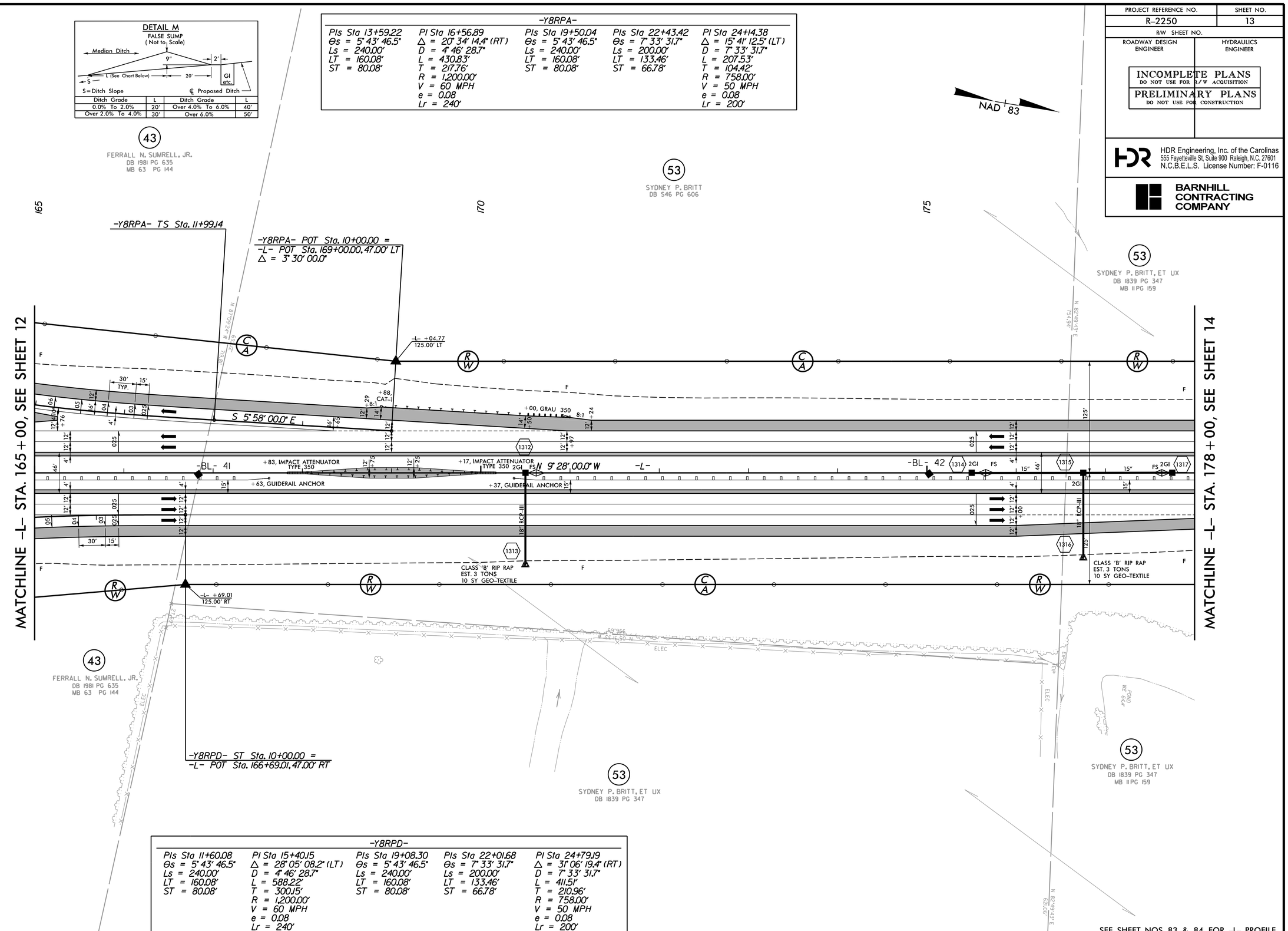
BARNHILL CONTRACTING COMPANY

DETAIL M
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-Y8RPA-

PIs Sta 13+59.22	PI Sta 16+56.89	PIs Sta 19+50.04	PIs Sta 22+43.42	PI Sta 24+14.38
Θs = 5° 43' 46.5"	Δ = 20° 34' 14.4" (RT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 15° 41' 12.5" (LT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 430.83'	LT = 160.08'	LT = 133.46'	L = 207.53'
ST = 80.08'	T = 217.76'	ST = 80.08'	ST = 66.78'	T = 104.42'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'



-Y8RPD-

PIs Sta 11+60.08	PI Sta 15+40.15	PIs Sta 19+08.30	PIs Sta 22+01.68	PI Sta 24+79.19
Θs = 5° 43' 46.5"	Δ = 28° 05' 08.2" (LT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 31° 06' 19.4" (RT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 588.22'	LT = 160.08'	LT = 133.46'	L = 411.51'
ST = 80.08'	T = 300.15'	ST = 80.08'	ST = 66.78'	T = 210.96'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'

SEE SHEET NOS. 83 & 84 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:38 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-13.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

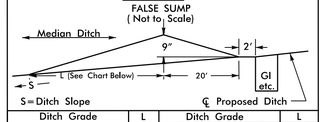
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

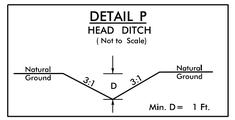
DETAIL M
FALSE SUMP
(Not to Scale)



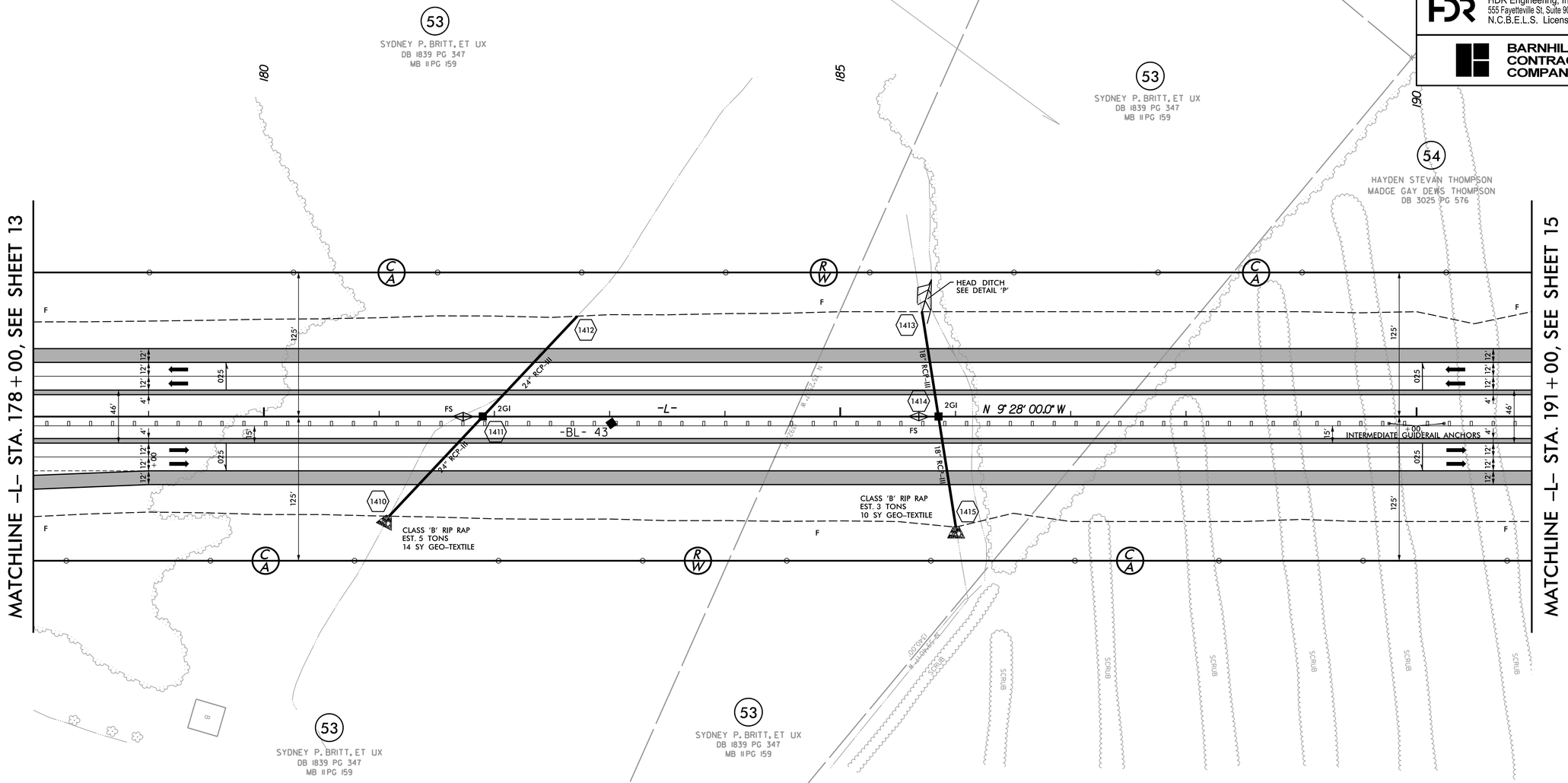
S = Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

DETAIL P
HEAD DITCH
(Not to Scale)



FROM STA. 185+71 -L- TO STA. 185+79 -L- LT



SEE SHEET NOS. 84 & 85 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:04:50 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-14.dgn

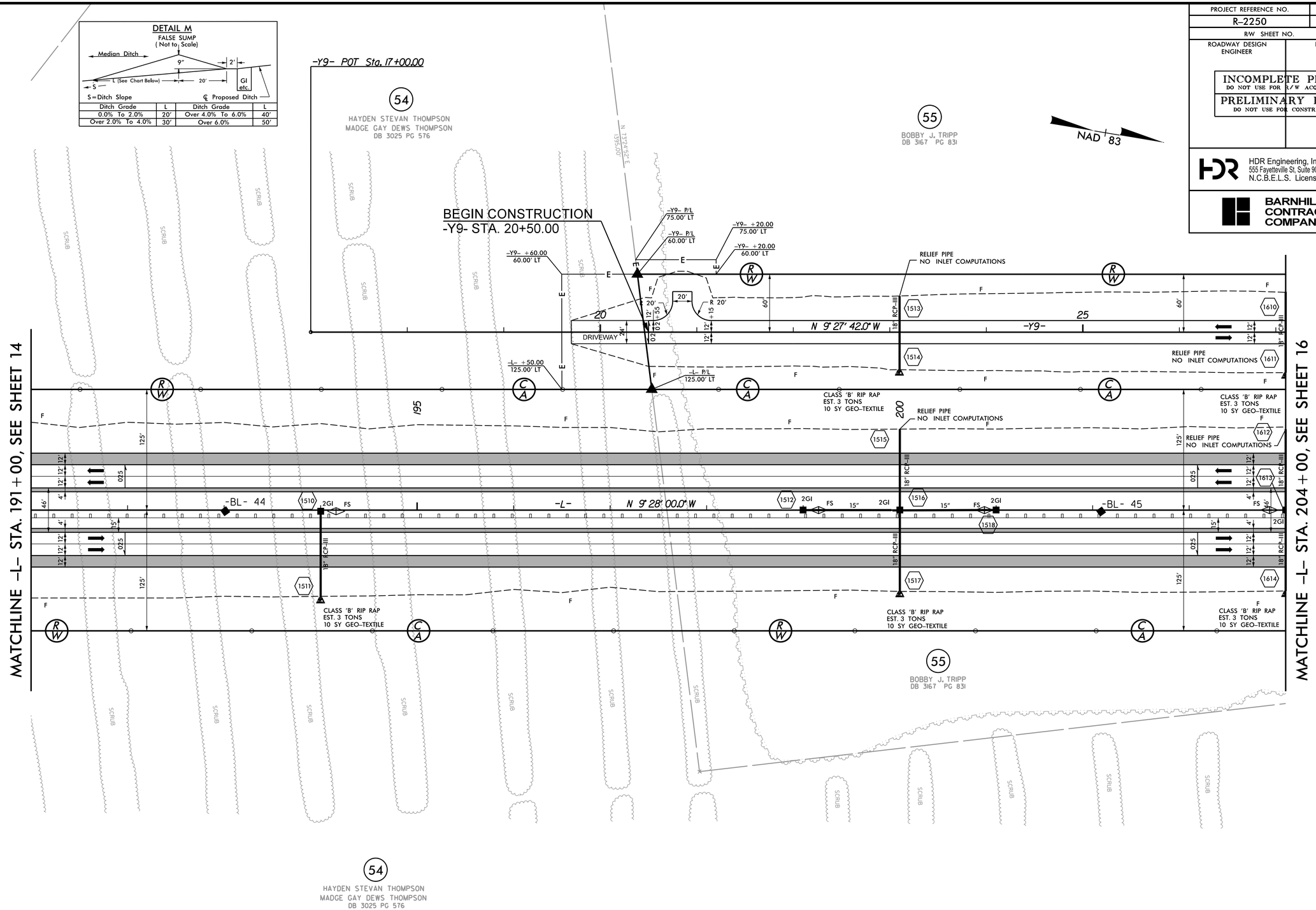
PROJECT REFERENCE NO.	SHEET NO.
R-2250	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 85 & 86 FOR -L- PROFILE
SEE SHEET NO. 138 FOR -Y9- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:05:02 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-15.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

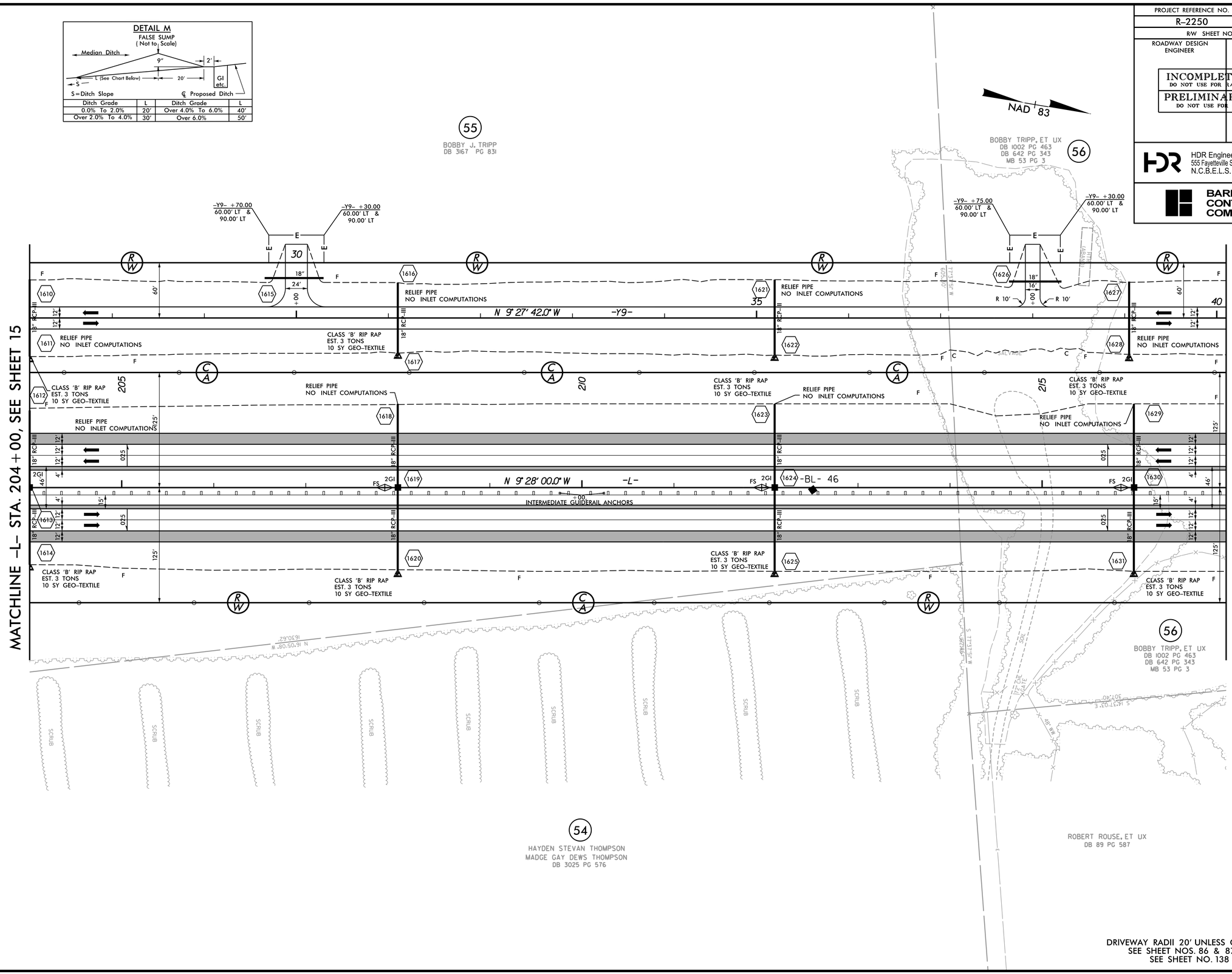
BARNHILL CONTRACTING COMPANY

DETAIL M

FALSE SUMP
(Not to Scale)

S = Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 86 & 87 FOR -L- PROFILE
SEE SHEET NO. 138 FOR -Y9- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:05:14 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-16.dgn

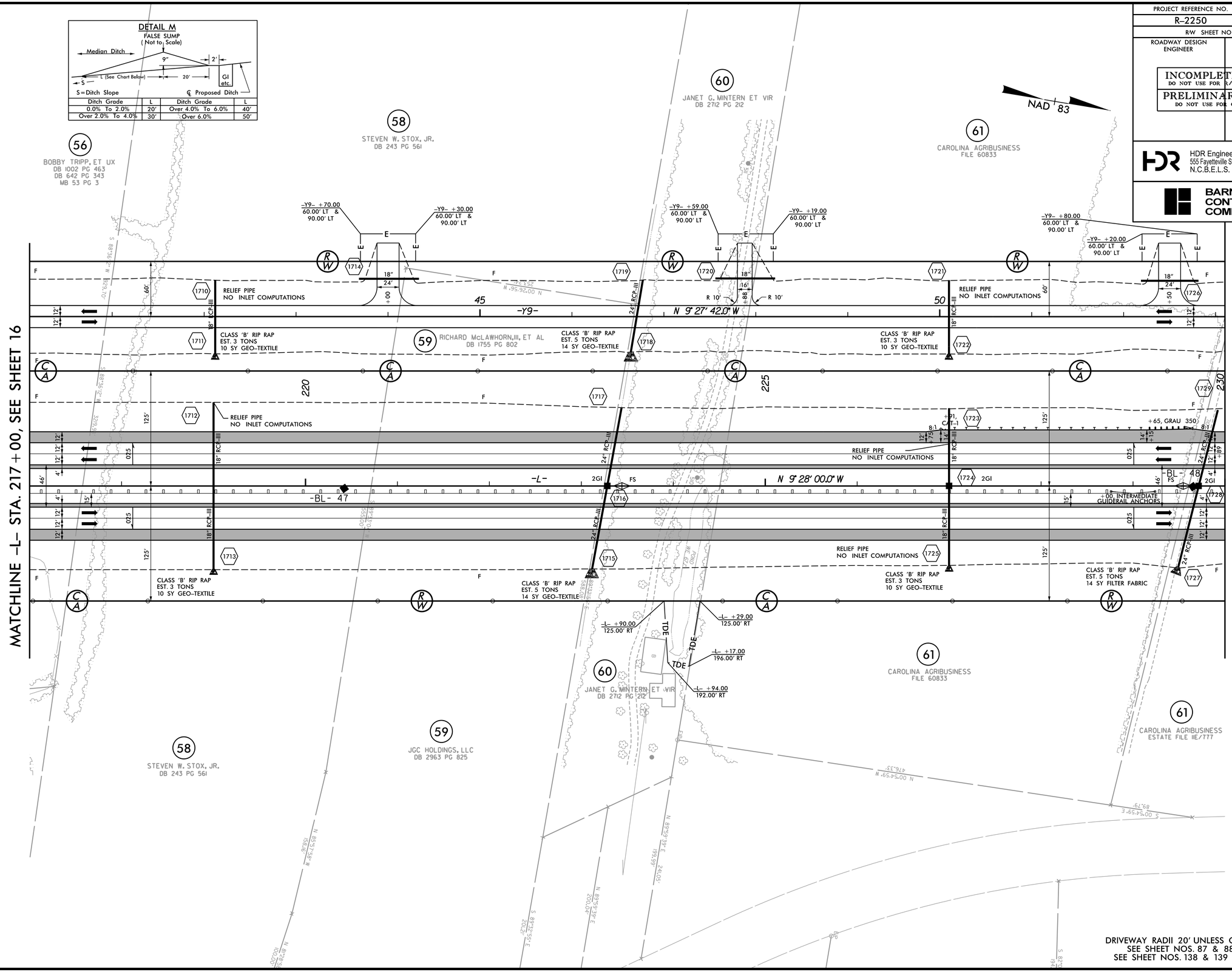
PROJECT REFERENCE NO.	SHEET NO.
R-2250	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 87 & 88 FOR -L- PROFILE
SEE SHEET NOS. 138 & 139 FOR -Y9- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:05:25 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-17.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

Min. D= 1 Ft.
B= 2 Ft.
b= 5 Ft.

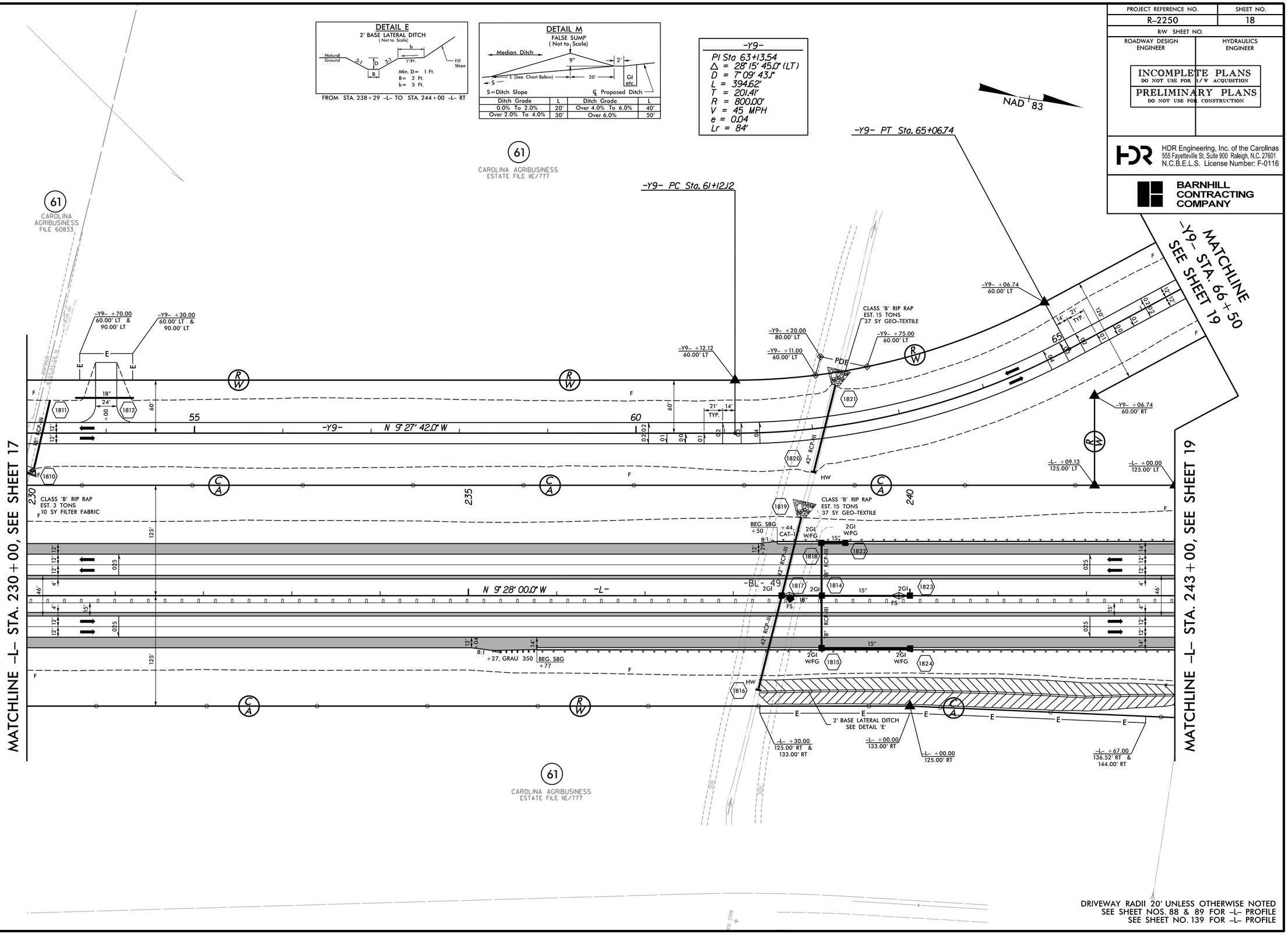
FROM STA. 238+29 -L- TO STA. 244+00 -L- RT

DETAIL M
FALSE SUMP
(Not to Scale)

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-Y9-
PI Sta 63+13.54
Δ = 28° 15' 45.0" (LT)
D = 7° 09' 43.1"
L = 394.62'
T = 201.41'
R = 800.00'
V = 45 MPH
e = 0.04
Lr = 84'



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 88 & 89 FOR -L- PROFILE
SEE SHEET NO. 139 FOR -L- PROFILE

REVISIONS

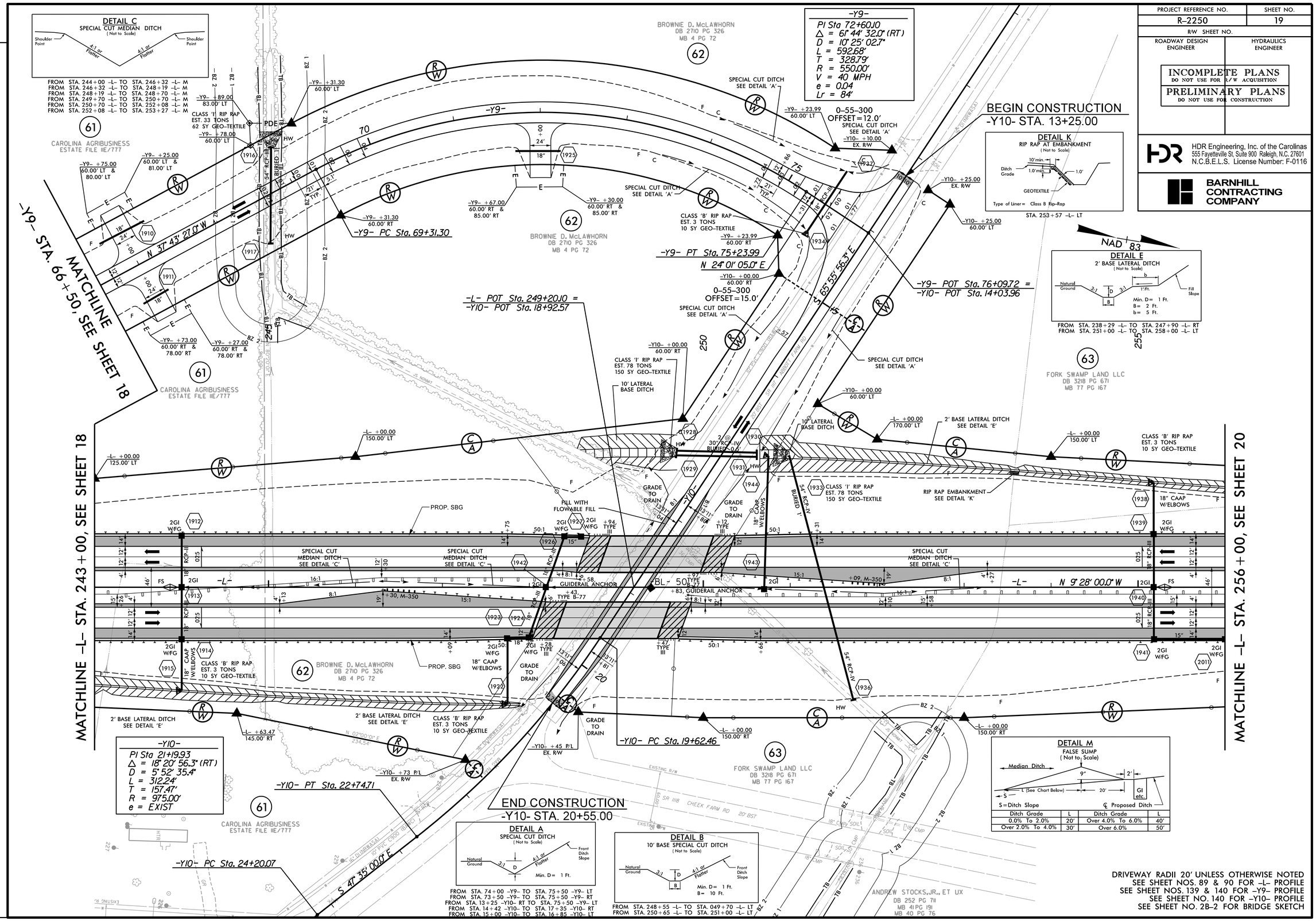
PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:05:37 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B.C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-18.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwr1
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-19.dgn
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:05:48 PM

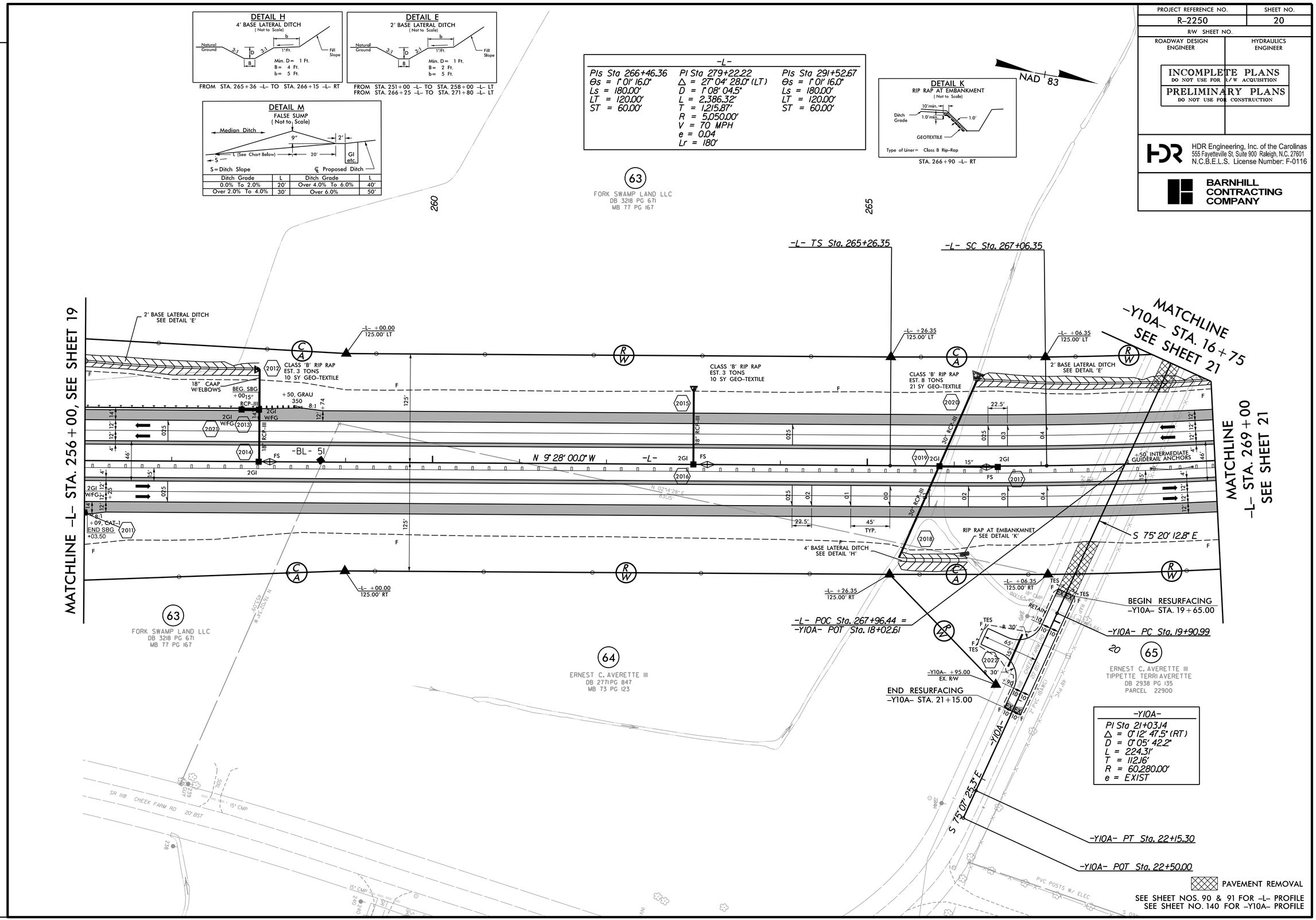
PROJECT REFERENCE NO.	SHEET NO.
R-2250	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:06:01 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-20.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-L-

PIs Sta 266+46.36	PI Sta 279+22.22	PIs Sta 291+52.67
Θs = 1° 01' 16.0"	Δ = 27° 04' 28.0" (LT)	Θs = 1° 01' 16.0"
Ls = 180.00'	D = 1° 08' 04.5"	Ls = 180.00'
LT = 120.00'	L = 2,386.32'	LT = 120.00'
ST = 60.00'	T = 1,215.87'	ST = 60.00'
	R = 5,050.00'	
	V = 70 MPH	
	e = 0.04	
	Lr = 180'	

-Y10A-

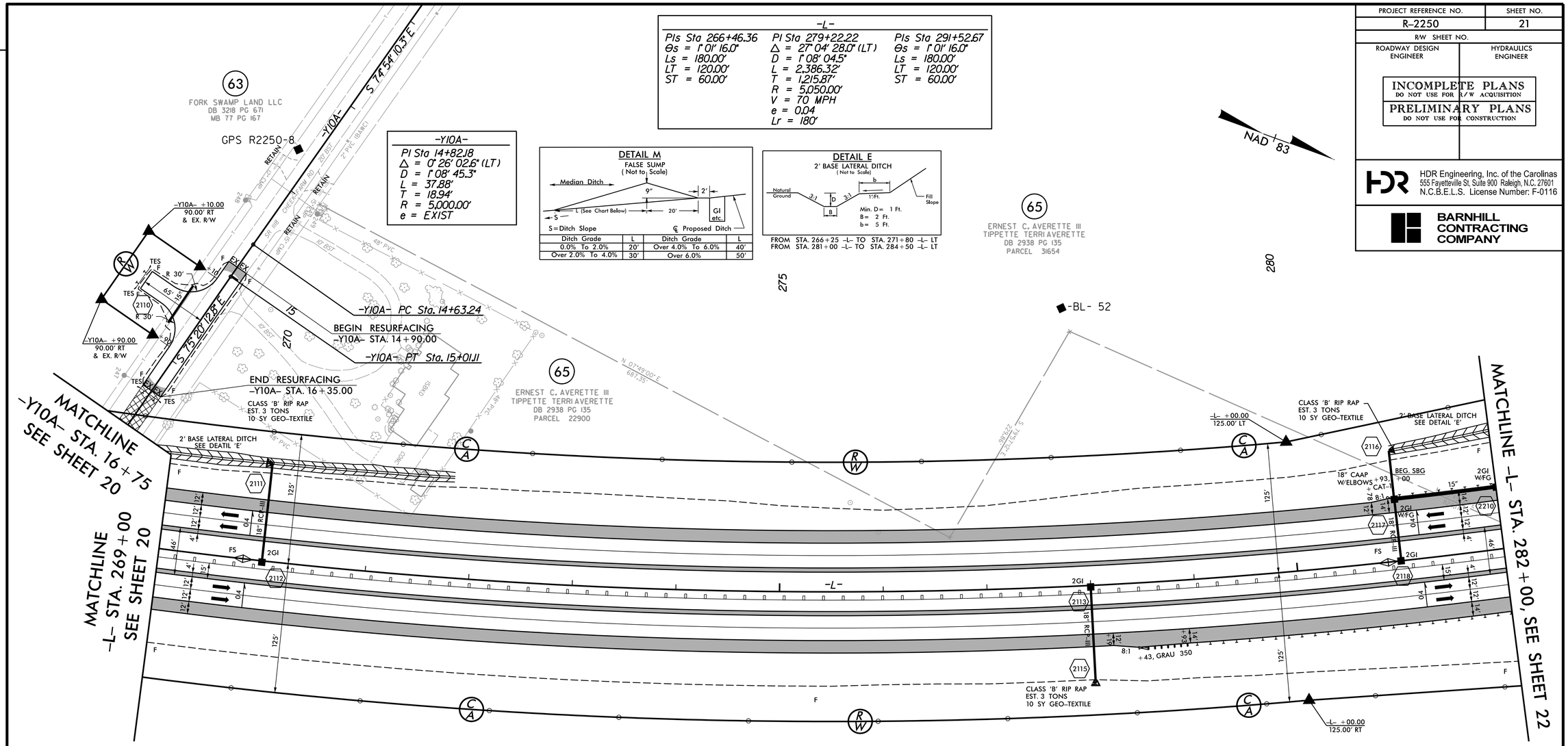
PI Sta 14+82.18
Δ = 0° 26' 02.6" (LT)
D = 1° 08' 45.3"
L = 37.88'
T = 18.94'
R = 5,000.00'
e = EXIST

DETAIL M
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

FROM STA. 266+25 -L- TO STA. 271+80 -L- LT
FROM STA. 281+00 -L- TO STA. 284+50 -L- LT



65
ERNEST C. AVERETTE III
TIPPETTE TERRI AVERETTE
DB 2938 PG 135
PARCEL 22900

PAVEMENT REMOVAL

SEE SHEET NO. 91 FOR -L- PROFILE
SEE SHEET NO. 140 FOR -Y10A- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:06:14 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-21.dgn

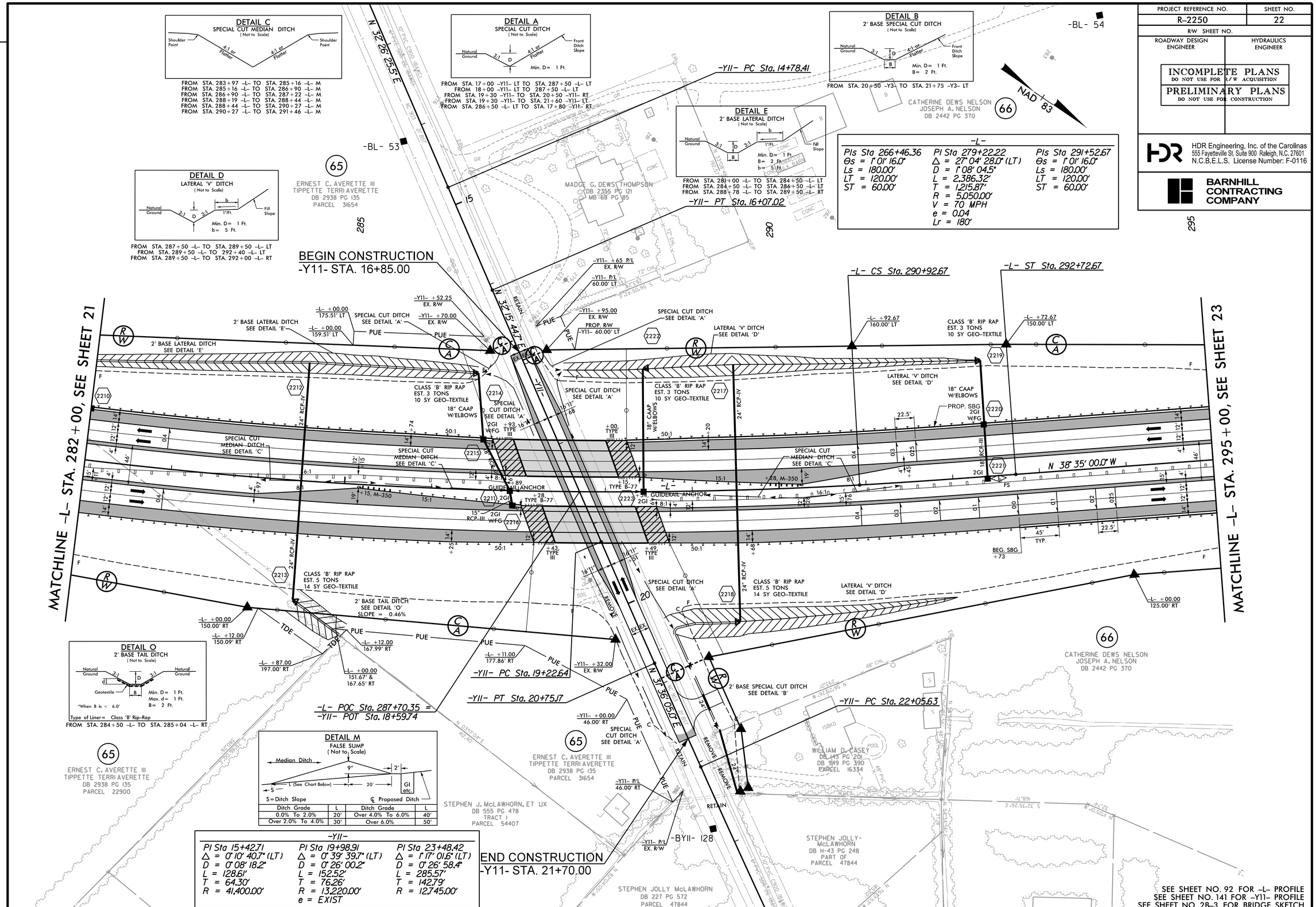
PROJECT REFERENCE NO.	SHEET NO.
R-2250	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NO. 92 FOR -L- PROFILE
SEE SHEET NO. 141 FOR -Y11- PROFILE
SEE SHEET NO. 2B-3 FOR BRIDGE SKETCH

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:06:26 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-22.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

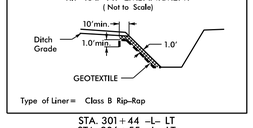
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

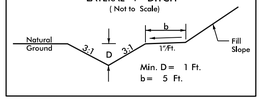
BARNHILL CONTRACTING COMPANY

DETAIL K
RIP RAP AT EMBANKMENT
(Not to Scale)



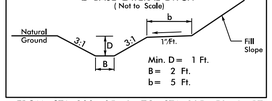
STA. 301+44 –L– LT
STA. 306+55 –L– LT
STA. 305+55 –L– RT

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



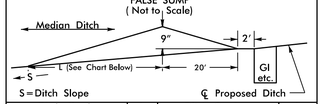
FROM STA. 295+40 –L– TO STA. 298+85 –L– RT
FROM STA. 305+50 –L– TO STA. 310+25 –L– RT
FROM STA. 301+22 –L– TO STA. 311+50 –L– LT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

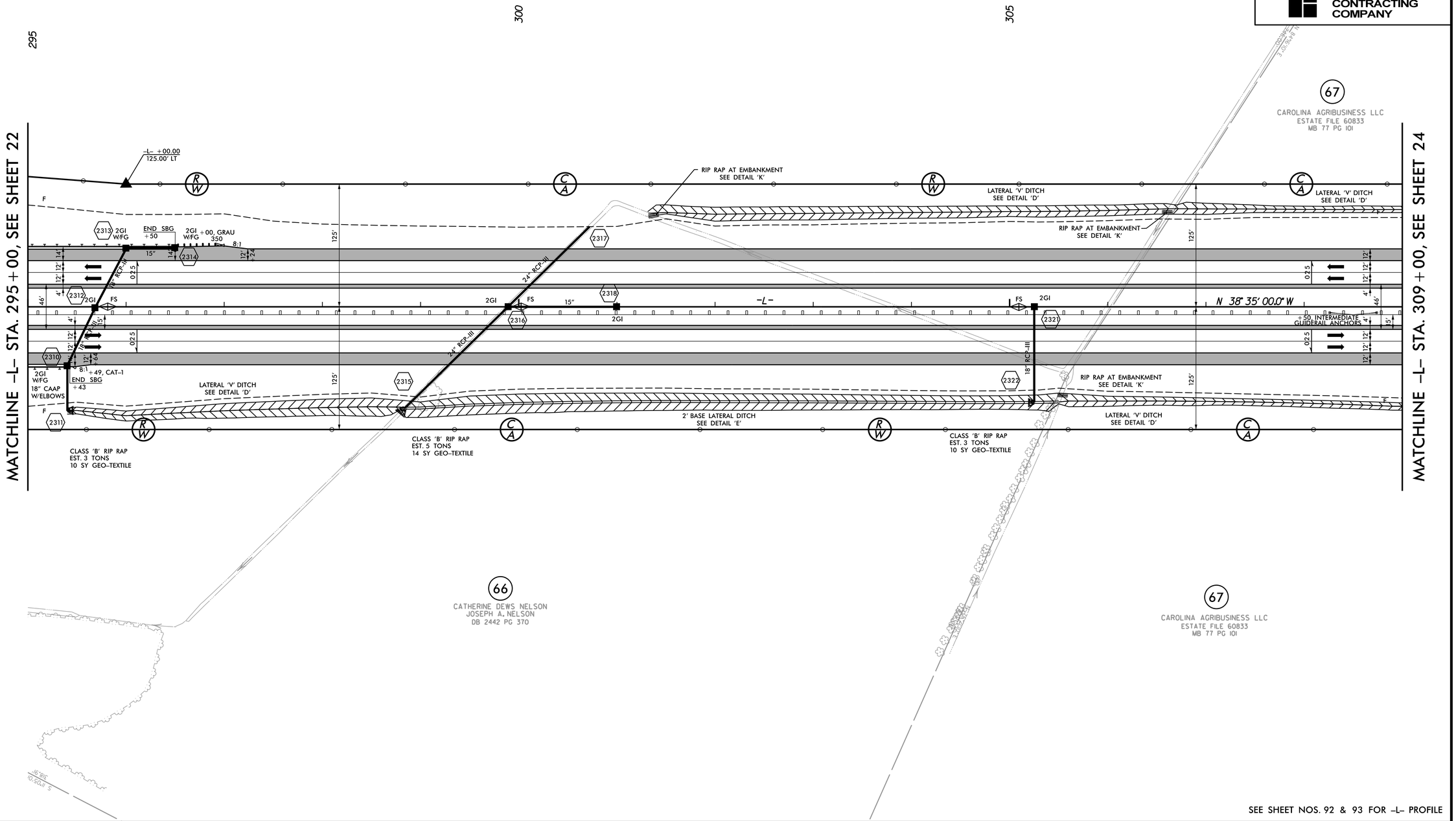


FROM STA. 298+85 –L– TO STA. 305+50 –L– RT

DETAIL M
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



SEE SHEET NOS. 92 & 93 FOR –L– PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:06:38 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-23.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

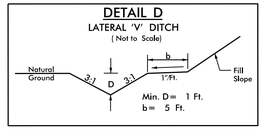
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

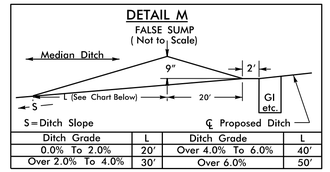
BARNHILL CONTRACTING COMPANY

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)

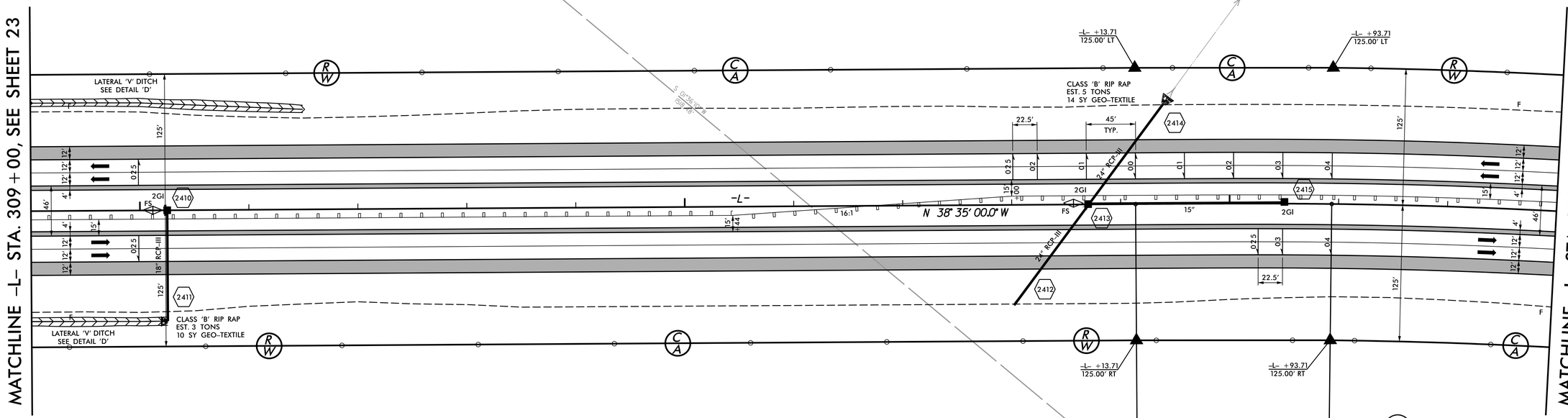


FROM STA. 305+50 -L- TO STA. 310+25 -L- RT
FROM STA. 301+22 -L- TO STA. 311+50 -L- LT

DETAIL M
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



-L-		
PIs Sta 320+33.71	PI Sta 341+15.31	PIs Sta 359+99.58
Θs = 1° 01' 16.0"	Δ = 43° 38' 02.6" (RT)	Θs = 1° 01' 16.0"
Ls = 180.00'	D = 1° 08' 04.5"	Ls = 180.00'
LT = 120.00'	L = 3,845.87'	LT = 120.00'
ST = 60.00'	T = 2,021.60'	ST = 60.00'
	R = 5,050.00'	
	V = 70 MPH	
	e = 0.04	
	Lr = 180'	

SEE SHEET NOS. 93 & 94 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:06:49 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-24.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

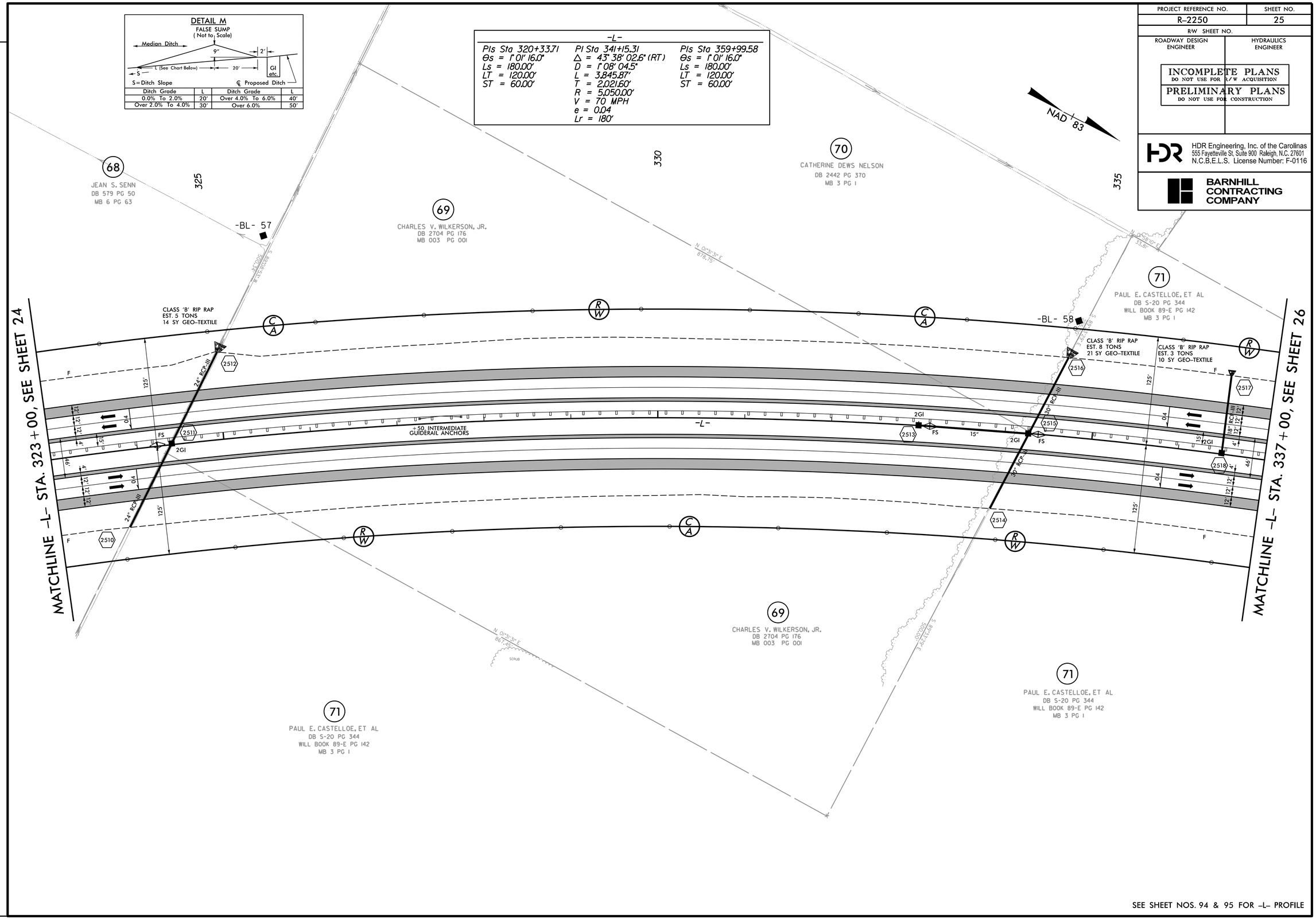
DETAIL M
FALSE SUMP
(Not to Scale)

S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

-L-

PIs Sta 320+33.71	PI Sta 341+15.31	PIs Sta 359+99.58
Θs = 1° 01' 16.0"	Δ = 43° 38' 02.6" (RT)	Θs = 1° 01' 16.0"
Ls = 180.00'	D = 1° 08' 04.5"	Ls = 180.00'
LT = 120.00'	L = 3,845.87'	LT = 120.00'
ST = 60.00'	T = 2,021.60'	ST = 60.00'
	R = 5,050.00'	
	V = 70 MPH	
	e = 0.04	
	Lr = 180'	



SEE SHEET NOS. 94 & 95 FOR -L- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:07:01 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-25.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

REVISIONS

-L-

PIs Sta 320+33.71	PI Sta 341+15.31	PIs Sta 359+99.58
Θs = 1° 01' 16.0"	Δ = 43° 38' 02.6" (RT)	Θs = 1° 01' 16.0"
Ls = 180.00'	D = 1° 08' 04.5"	Ls = 180.00'
LT = 120.00'	L = 3,845.87'	LT = 120.00'
ST = 60.00'	T = 2,021.60'	ST = 60.00'
	R = 5,050.00'	
	V = 70 MPH	
	e = 0.04	
	Lr = 180'	

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Min. D = 1 Ft.

FROM STA. 10+85 -Y12- TO STA. 12+00 -Y12- RT
FROM STA. 11+00 -Y12- TO STA. 12+00 -Y12- LT
FROM STA. 13+31 -Y12- TO STA. 14+38 -Y12- LT
FROM STA. 13+32 -Y12- TO STA. 14+29 -Y12- RT

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

FROM STA. 344+88 -L- TO STA. 345+67 -L- M
FROM STA. 345+67 -L- TO STA. 347+45 -L- M
FROM STA. 347+45 -L- TO STA. 347+80 -L- M
FROM STA. 348+65 -L- TO STA. 349+00 -L- M
FROM STA. 349+00 -L- TO STA. 350+78 -L- M
FROM STA. 350+78 -L- TO STA. 351+97 -L- M

DETAIL M
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

DETAIL N
4' BASE TAIL DITCH
(Not to Scale)

Min. D = 1 Ft.
Max. d = 1 Ft.
B = 4 Ft.

*When B is < 6.0'

Type of Liner = Class 'B' Rip-Rap

FROM STA. 349+04 -L- TO STA. 349+04 -L- RT

DETAIL H
4' BASE LATERAL DITCH
(Not to Scale)

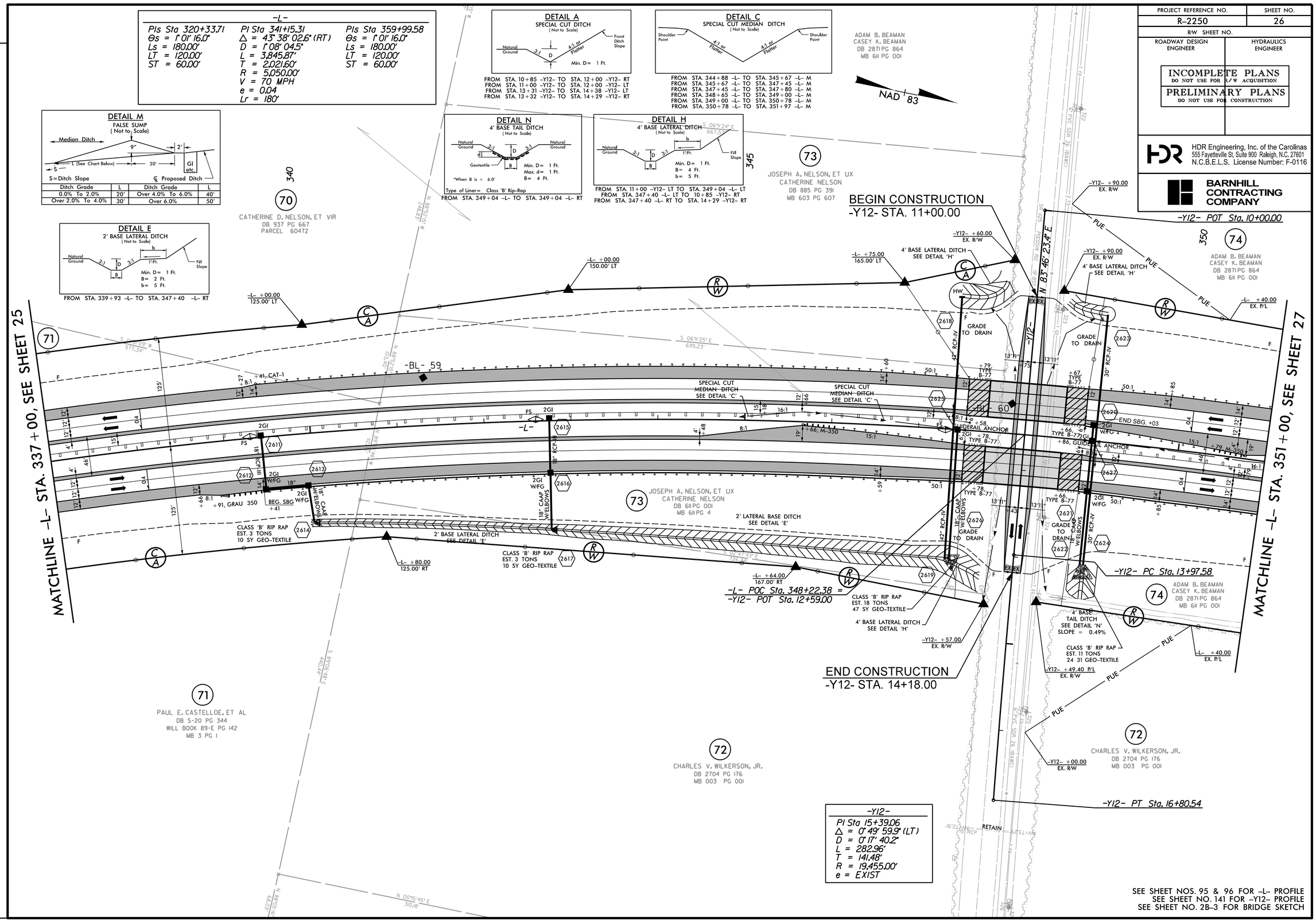
Min. D = 1 Ft.
B = 4 Ft.
b = 5 Ft.

FROM STA. 11+00 -Y12- LT TO STA. 349+04 -L- LT
FROM STA. 347+40 -L- LT TO 10+85 -Y12- RT
FROM STA. 347+40 -L- RT TO STA. 14+29 -Y12- RT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

Min. D = 1 Ft.
B = 2 Ft.
b = 5 Ft.

FROM STA. 339+93 -L- TO STA. 347+40 -L- RT



-Y12-

PI Sta 15+39.06
Δ = 0° 49' 59.9" (LT)
D = 0° 17' 40.2"
L = 282.96'
T = 141.48'
R = 19,455.00'
e = EXIST

SEE SHEET NOS. 95 & 96 FOR -L- PROFILE
SEE SHEET NO. 141 FOR -Y12- PROFILE
SEE SHEET NO. 2B-3 FOR BRIDGE SKETCH

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:07:11 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-26.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

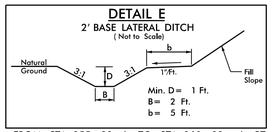
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

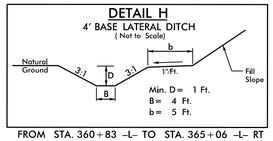
BARNHILL CONTRACTING COMPANY

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)



FROM STA. 355+33 -L- TO STA. 360+83 -L- RT

DETAIL H
4' BASE LATERAL DITCH
(Not to Scale)



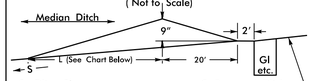
FROM STA. 360+83 -L- TO STA. 365+06 -L- RT

-L-

PIs Sta 320+33.71	PI Sta 341+15.31	PIs Sta 359+99.58
Θs = 1° 01' 16.0"	Δ = 43° 38' 02.6" (RT)	Θs = 1° 01' 16.0"
Ls = 180.00'	D = 1° 08' 04.5"	Ls = 180.00'
LT = 120.00'	L = 3,845.87'	LT = 120.00'
ST = 60.00'	T = 2,021.60'	ST = 60.00'
	R = 5,050.00'	
	V = 70 MPH	
	e = 0.04	
	Lr = 180'	

NAD 83

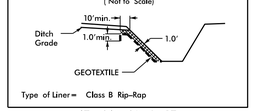
DETAIL M
FALSE SUMP
(Not to Scale)



S = Ditch Slope ℄ Proposed Ditch

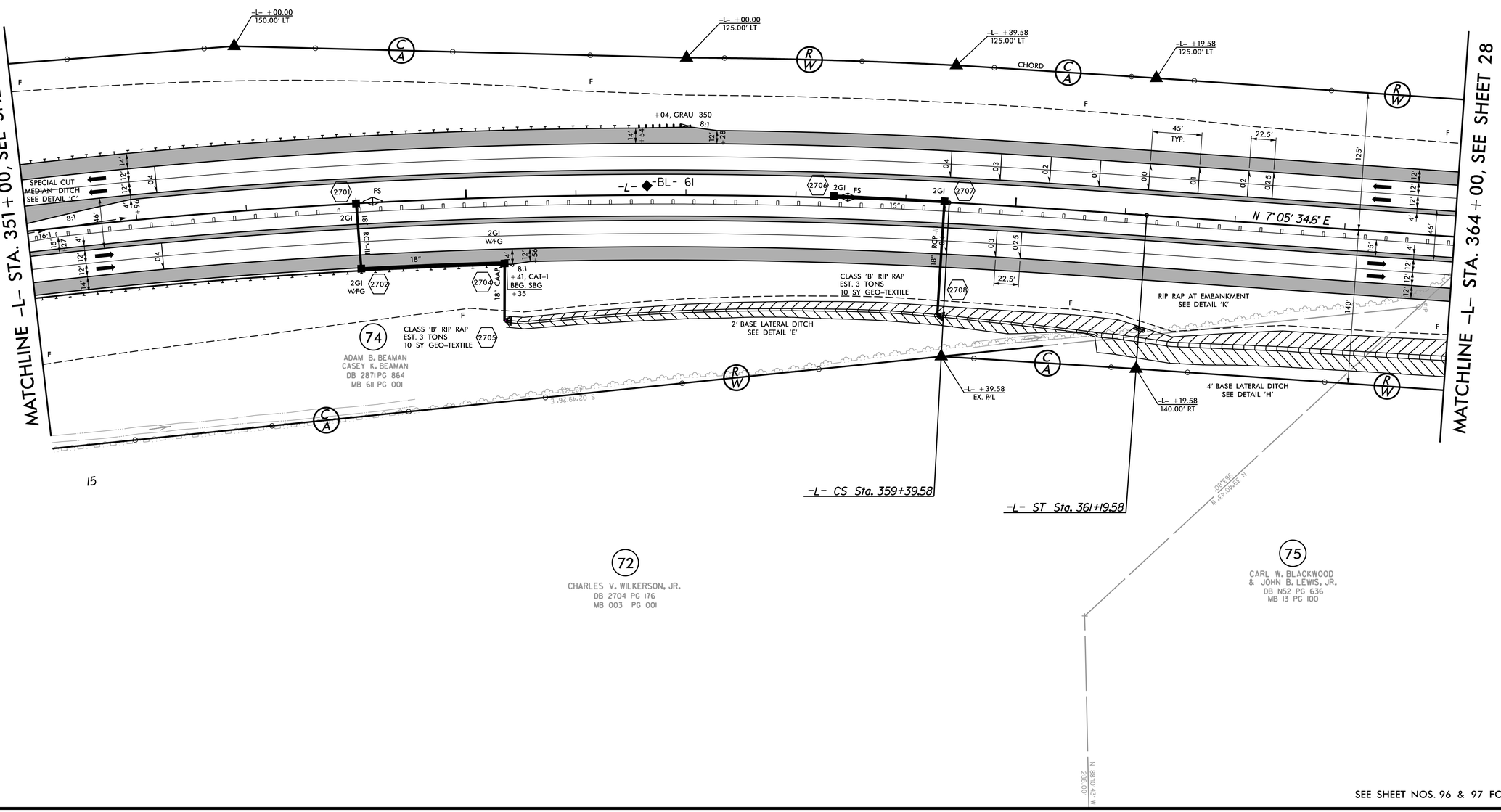
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

DETAIL K
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = Class B Rip-Rap

STA. 361+30 -L- RT



SEE SHEET NOS. 96 & 97 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:07:24 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-27.dgn

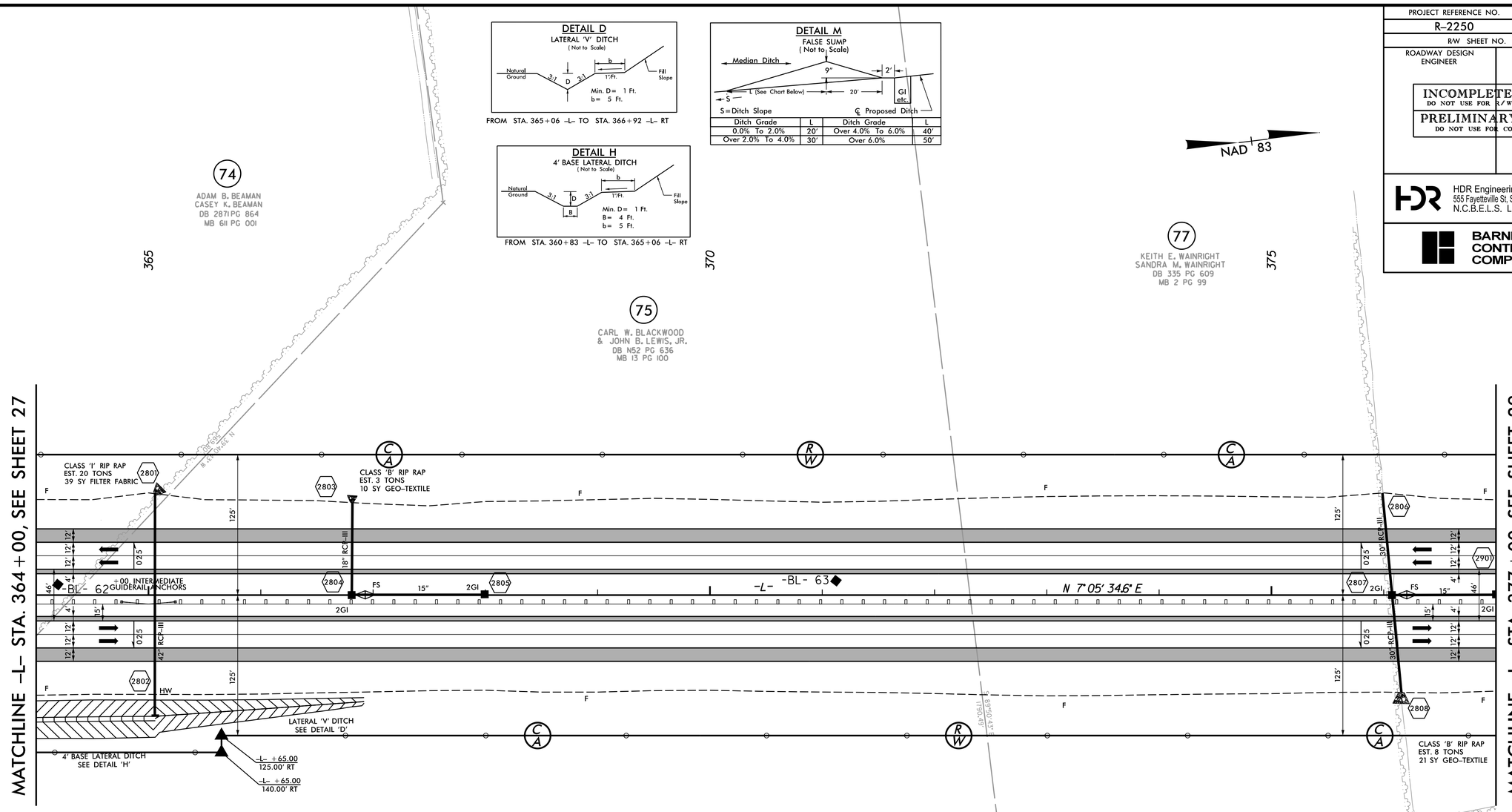
PROJECT REFERENCE NO.	SHEET NO.
R-2250	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 97 & 98 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:07:36 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-28.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

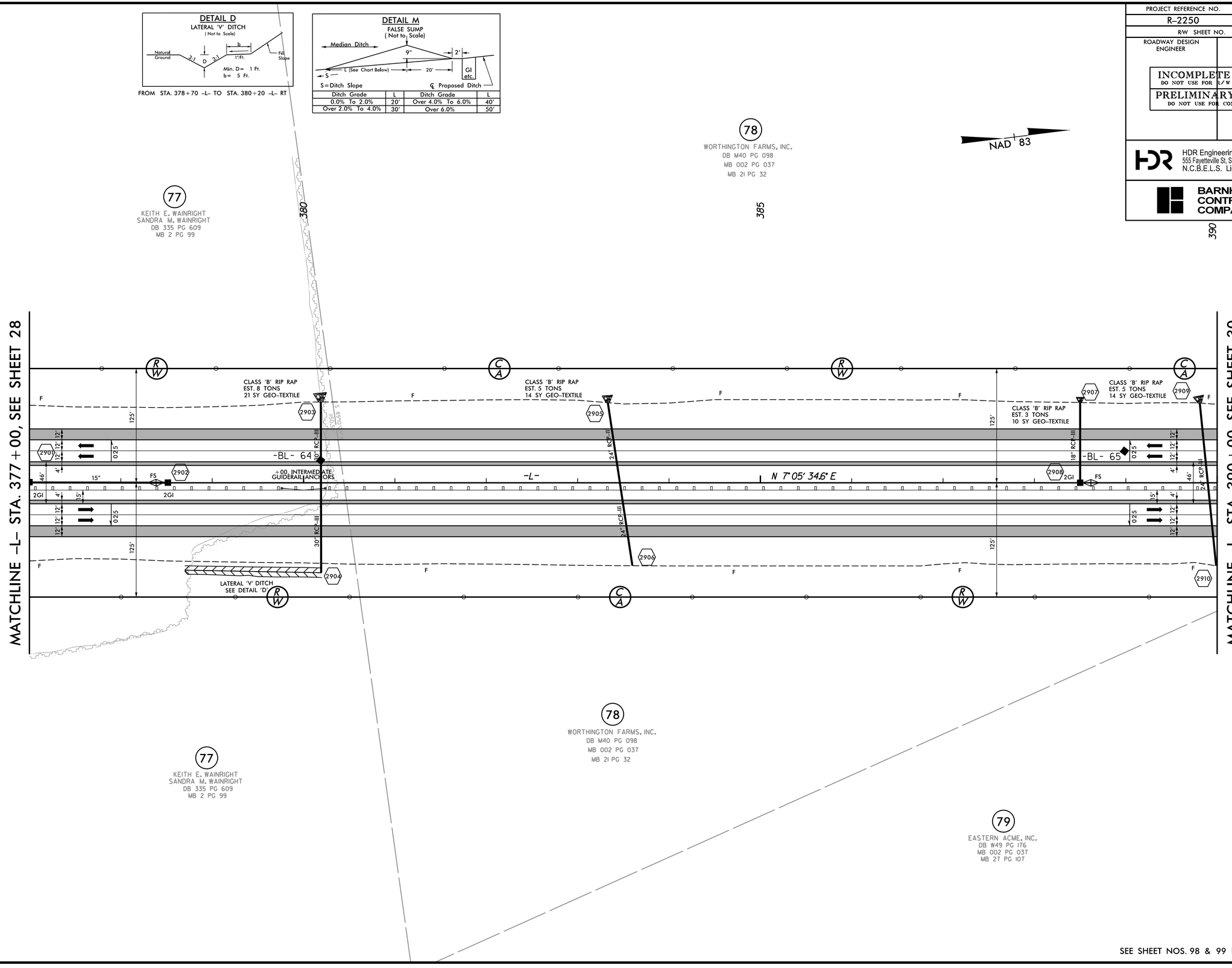
DETAIL D
LATERAL 'V' DITCH
(Not to Scale)

FROM STA. 378+70 -L- TO STA. 380+20 -L- RT

DETAIL M
FALSE SUMP
(Not to Scale)

S = Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'



SEE SHEET NOS. 98 & 99 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:07:49 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-29.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

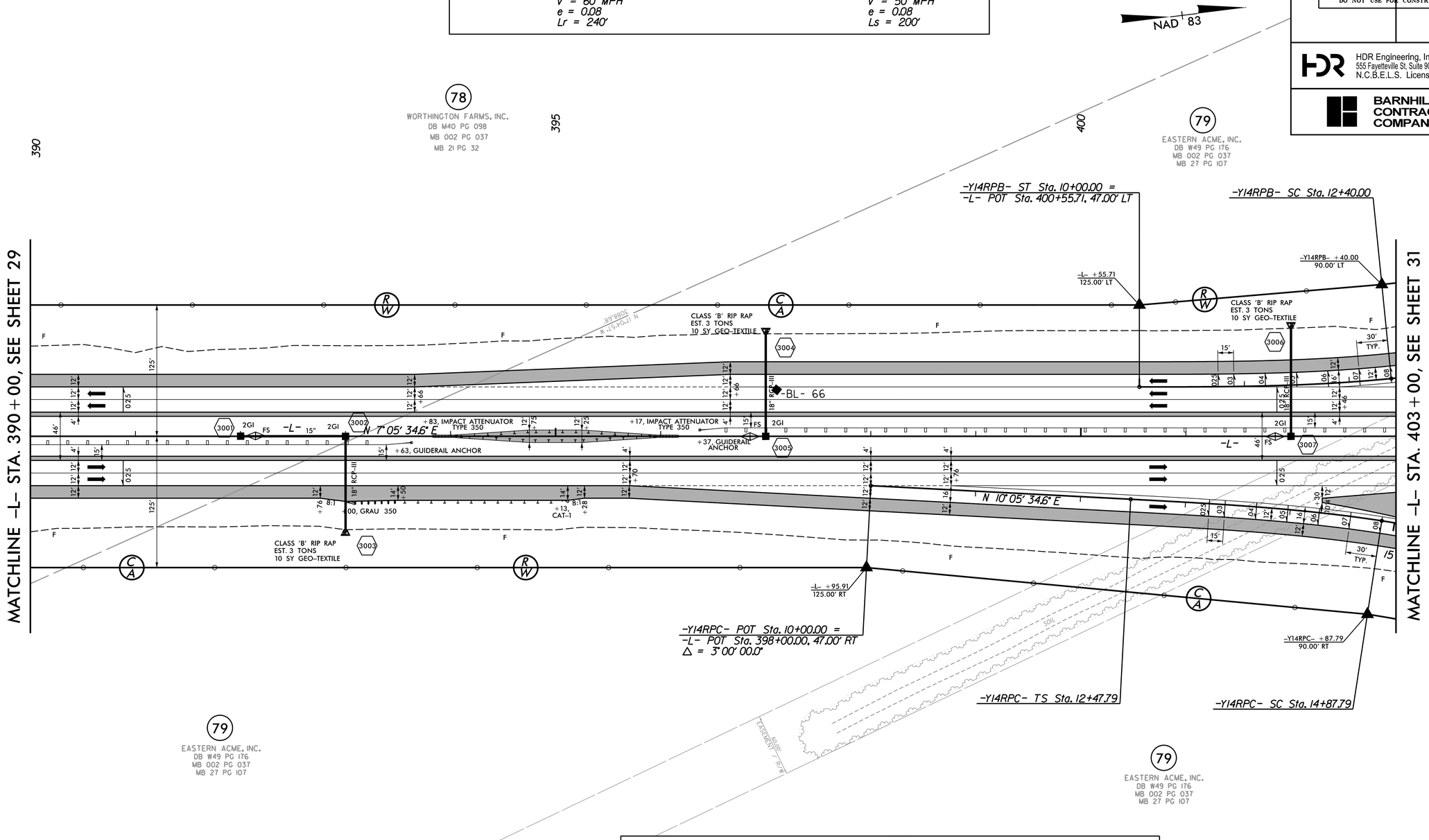
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-Y14RPB-

PIs Sta 11+60.08	PI Sta 15+22.93	PIs Sta 18+75.80	PIs Sta 21+69.17	PI Sta 24+43.16
Θs = 5° 43' 46.5"	Δ = 26° 32' 01.2" (LT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 30° 36' 37.3" (RT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 555.72'	LT = 160.08'	LT = 133.46'	L = 404.96'
ST = 80.08'	T = 282.93'	ST = 80.08'	ST = 66.78'	T = 207.44'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Ls = 200'



-Y14RPC-

PIs Sta 14+07.87	PI Sta 17+18.60	PIs Sta 20+23.92	PIs Sta 23+17.30	PI Sta 25+07.28
Θs = 5° 43' 46.5"	Δ = 21° 46' 29.8" (RT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 18° 29' 56.3" (LT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 456.05'	LT = 160.08'	LT = 133.46'	L = 244.73'
ST = 80.08'	T = 230.81'	ST = 80.08'	ST = 66.78'	T = 123.44'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Ls = 200'

SEE SHEET NOS. 99 & 100 FOR -L- PROFILE
SEE SHEET NO. 145 FOR -Y14RPB- PROFILE
SEE SHEET NO. 146 FOR -Y14RPC- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:08:02 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-30.dgn

REVISIONS

-Y14RPB-			
PI Sta 11+60.08	PI Sta 15+22.93	PI Sta 18+75.80	PI Sta 21+59.17
Θs = 5°43'46.5"	Δ = 26°32'01.2" (LT)	Θs = 7°33'31.7"	Θs = 7°33'31.7"
Ls = 240.00'	D = 4°46'28.7"	Ls = 200.00'	Ls = 200.00'
LT = 160.08'	L = 555.72'	LT = 133.46'	LT = 133.46'
ST = 80.08'	T = 282.93'	ST = 66.78'	ST = 66.78'
	R = 1,200.00'		
	V = 60 MPH		
	e = 0.08		
	Lr = 240'		

-Y14RPB-			
PI Sta 24+43.16	PI Sta 27+87.80	PI Sta 30+23.92	PI Sta 33+17.30
Δ = 37°36'37.3" (RT)	Θs = 5°43'46.5"	Θs = 5°43'46.5"	Θs = 7°33'31.7"
D = 7°33'31.7"	Ls = 240.00'	Ls = 240.00'	Ls = 200.00'
L = 404.96'	LT = 160.08'	LT = 160.08'	LT = 133.46'
T = 207.44'	ST = 80.08'	ST = 80.08'	ST = 66.78'
R = 758.00'			
V = 50 MPH			
e = 0.08			
Ls = 200'			

-Y14RPC-			
PI Sta 14+07.87	PI Sta 17+18.60	PI Sta 20+23.92	PI Sta 23+17.30
Θs = 5°43'46.5"	Δ = 21°46'29.8" (RT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'
LT = 160.08'	L = 456.05'	LT = 160.08'	LT = 133.46'
ST = 80.08'	T = 230.86'	ST = 80.08'	ST = 66.78'
	R = 1,200.00'		
	V = 60 MPH		
	e = 0.08		
	Lr = 240'		

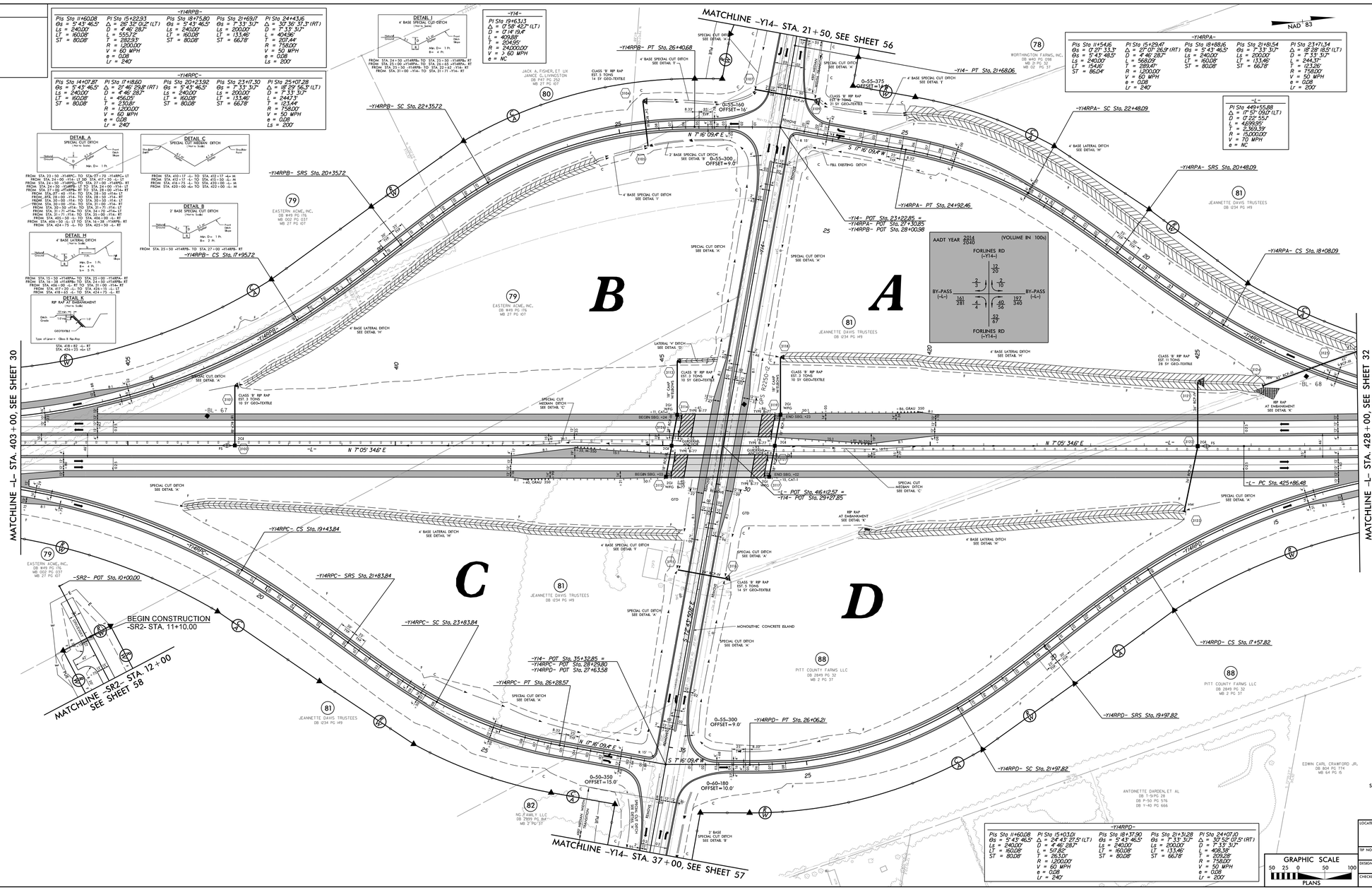
-Y14RPC-	
PI Sta 25+07.28	
Δ = 18°29'56.3" (LT)	
D = 7°33'31.7"	
L = 244.73'	
T = 123.44'	
R = 758.00'	
V = 50 MPH	
e = 0.08	
Ls = 200'	

-Y14-
PI Sta 19+63.13
Δ = 0°58'42.7" (LT)
D = 0°14'19.4"
L = 409.88'
T = 204.95'
R = 24,000.00'
V = > 60 MPH
e = NC

-Y14RPA-				
PI Sta 11+54.16	PI Sta 15+29.47	PI Sta 18+88.16	PI Sta 21+81.54	PI Sta 23+71.34
Θs = 0°27'33.3"	Δ = 27°07'26.9" (RT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"	Δ = 18°28'18.5" (LT)
Θs = 5°43'48.5"	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'	D = 7°33'31.7"
Ls = 240.00'	L = 568.09'	LT = 160.08'	LT = 133.46'	L = 244.37'
LT = 154.16'	T = 289.47'	ST = 80.08'	ST = 66.78'	T = 123.26'
ST = 86.04'	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'

-L-
PI Sta 449+55.88
Δ = 17°57'09.7" (LT)
D = 0°22'55.1"
L = 4,699.95'
T = 2,369.39'
R = 15,000.00'
V = 70 MPH
e = NC

-Y14RPD-				
PI Sta 11+60.08	PI Sta 15+03.01	PI Sta 18+37.90	PI Sta 21+31.28	PI Sta 24+07.10
Θs = 5°43'46.5"	Δ = 24°43'21.5" (LT)	Θs = 5°43'46.5"	Θs = 7°33'31.7"	Δ = 30°52'07.5" (RT)
Ls = 240.00'	D = 4°46'28.7"	Ls = 240.00'	Ls = 200.00'	D = 7°33'31.7"
LT = 160.08'	L = 517.82'	LT = 160.08'	LT = 133.46'	L = 408.36'
ST = 80.08'	T = 263.01'	ST = 80.08'	ST = 66.78'	T = 209.28'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'



PROJECT REFERENCE NO.	SHEET NO.
R-2250	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

SEE SHEET NOS. 100 THRU 102 FOR -L- PROFILE
SEE SHEET NO. 142 FOR -Y14- PROFILE
SEE SHEET NO. 144 FOR -Y14RPA- PROFILE
SEE SHEET NO. 145 FOR -Y14RPB- PROFILE
SEE SHEET NO. 146 FOR -Y14RPC- PROFILE
SEE SHEET NO. 147 FOR -Y14RPD- PROFILE
SEE SHEET NO. 2B-4 FOR BRIDGE SKETCH

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION:
TIP NO.: COUNTY:
DESIGNED BY:
CHECKED BY: DATE:

PLOT DRIVEN: NCDOT.pdf.color.pmp.100.pt
USER: smcfarl
FILE: N:\Projects\R2250 Southwest Bypass DB\06.00 Project Design\R-2250_NCDOT File Structure\Roadway\Plans\R2250_B31_Sht31.dgn
PENTABLE: NCDOT.pmp\PLTbl
DATE: 11/17/2015
TIME: 4:49:55 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2250	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

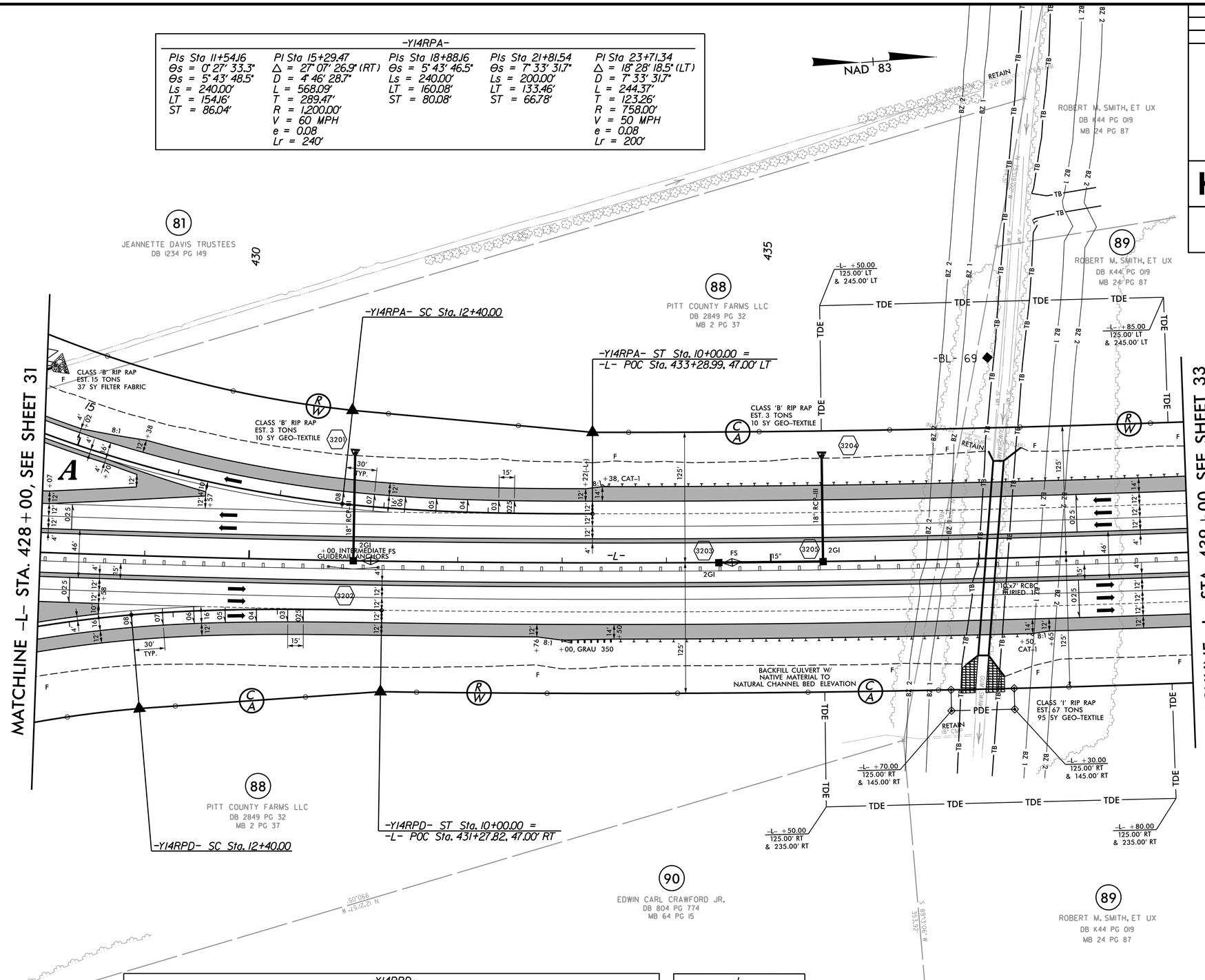
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-Y14RPA-

PIs Sta 11+54.16	PI Sta 15+29.47	PIs Sta 18+88.16	PIs Sta 21+81.54	PI Sta 23+71.34
Θs = 0° 27' 33.3"	Δ = 27° 07' 26.9" (RT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 18° 28' 18.5" (LT)
Θs = 5° 43' 48.5"	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
Ls = 240.00'	L = 568.09'	LT = 160.08'	LT = 133.46'	L = 244.37'
LT = 154.16'	T = 289.47'	ST = 80.08'	ST = 66.78'	T = 123.26'
ST = 86.04'	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'



-Y14RPD-

PIs Sta 11+60.08	PI Sta 15+03.01	PIs Sta 18+37.90	PIs Sta 21+31.28	PI Sta 24+07.10
Θs = 5° 43' 46.5"	Δ = 24° 43' 27.5" (LT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 30° 52' 07.5" (RT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 517.82'	LT = 160.08'	LT = 133.46'	L = 408.38'
ST = 80.08'	T = 263.01'	ST = 80.08'	ST = 66.78'	T = 209.28'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'

-L-

PI Sta 449+55.88
Δ = 17° 57' 09.0" (LT)
D = 0° 22' 55.1"
L = 4,699.95'
T = 2,369.39'
R = 15,000.00'
V = 70 MPH
e = NC

SEE SHEET NOS. 102 & 103 FOR -L- PROFILE
SEE SHEET NO. 144 FOR -Y14RPA- PROFILE
SEE SHEET NO. 147 FOR -Y14RPD- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_psnpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:08:15 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_FILE_Structure\Roadway\Proj\R2250_RDY_PSH-32.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

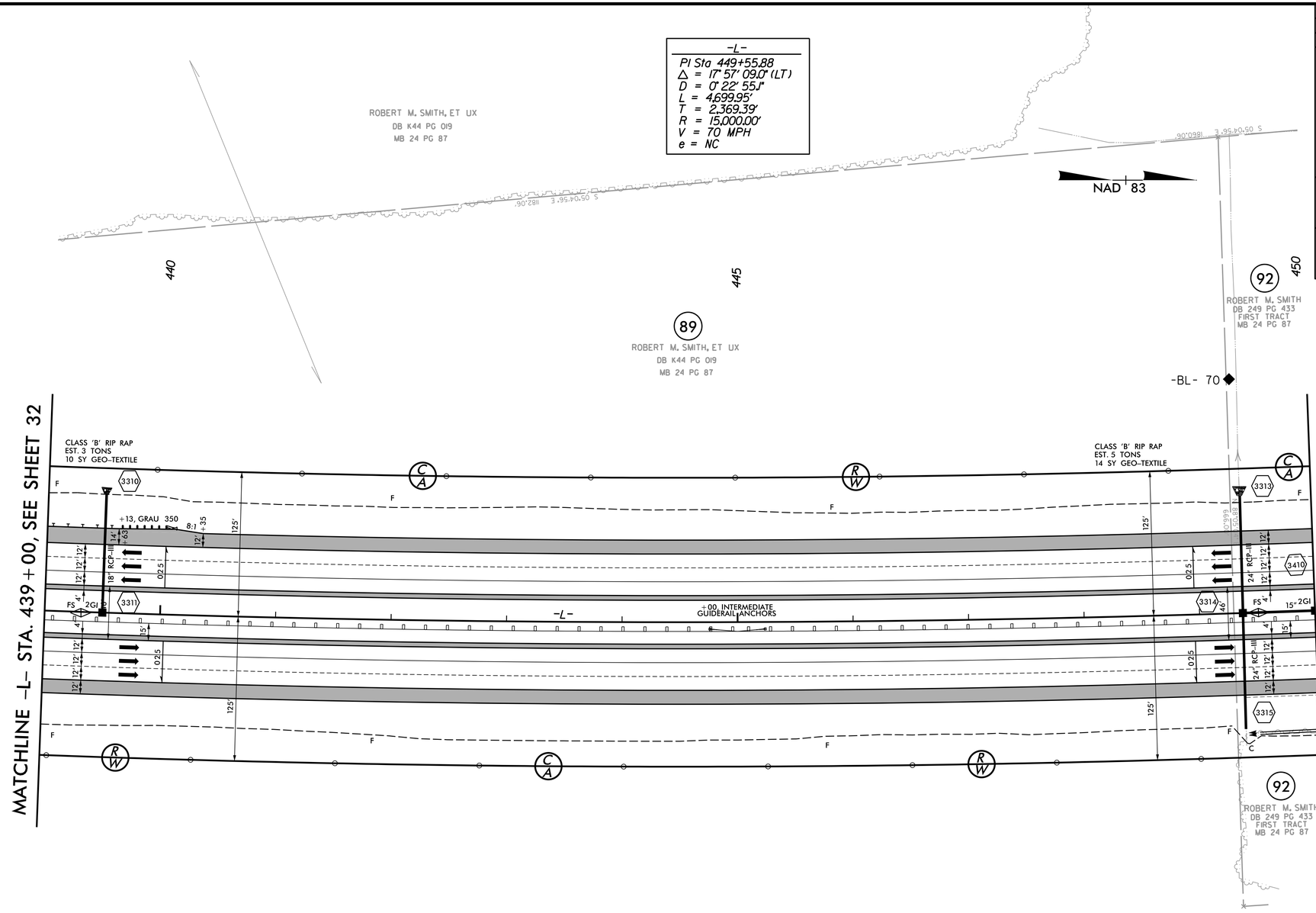
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-L-
PI Sta 449+55.88
Δ = 17° 57' 09.0" (LT)
D = 0° 22' 55.1"
L = 4,699.95'
T = 2,369.39'
R = 15,000.00'
V = 70 MPH
e = NC



SEE SHEET NO. 103 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:08:27 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-33.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

-L-

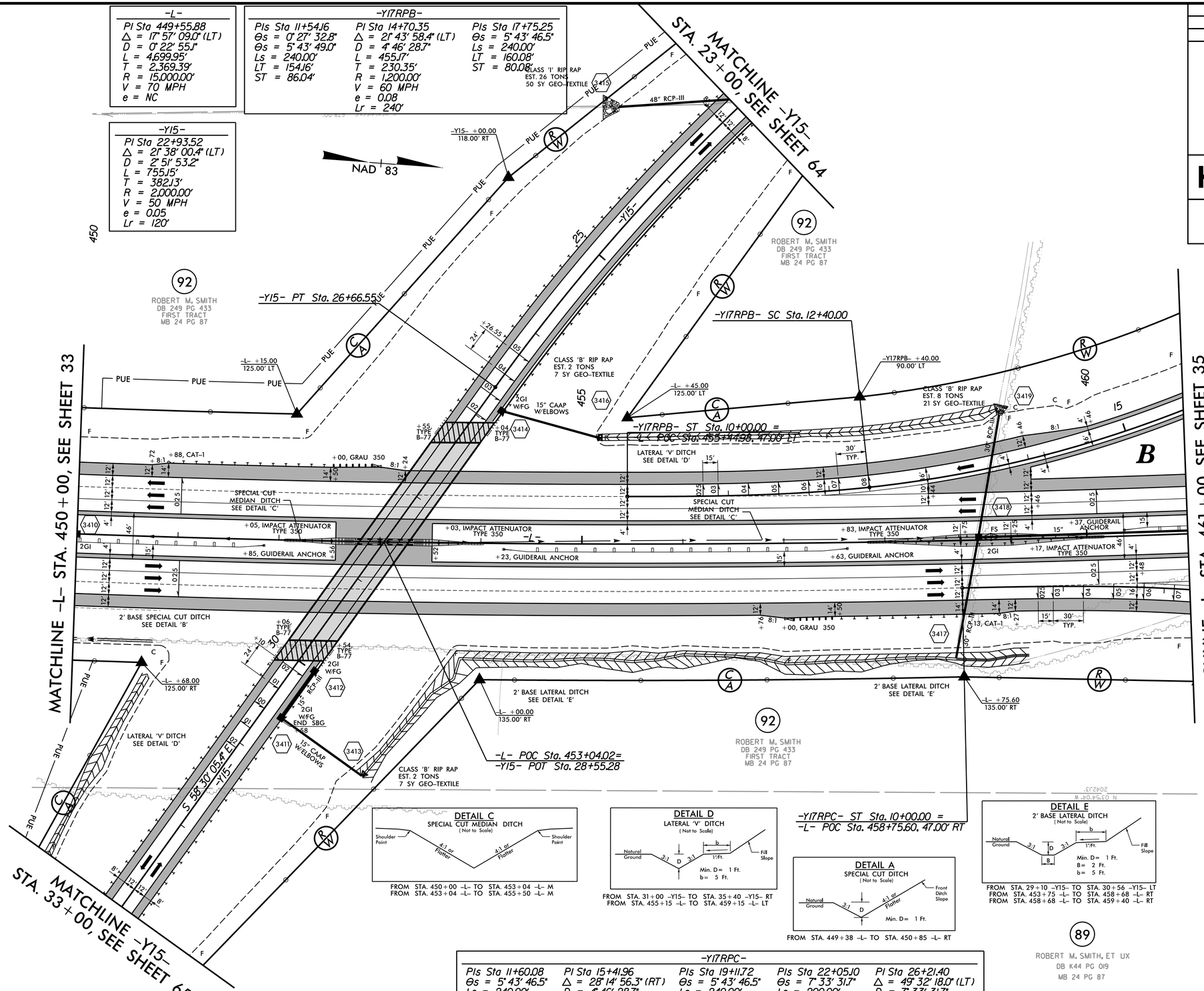
PI Sta 449+55.88
Δ = 17° 57' 09.0" (LT)
D = 0° 22' 55.1"
L = 4,699.95'
T = 2,369.39'
R = 15,000.00'
V = 70 MPH
e = NC

-Y17RPB-

PIs Sta 11+54.16	PI Sta 14+70.35	PIs Sta 17+75.25
Θs = 0° 27' 32.8"	Δ = 21° 43' 58.4" (LT)	Θs = 5° 43' 46.5"
Θs = 5° 43' 49.0"	D = 4° 46' 28.7"	Ls = 240.00'
Ls = 240.00'	L = 455.17'	LT = 160.08'
LT = 154.16'	T = 230.35'	ST = 80.08'
ST = 86.04'	R = 1,200.00'	
	V = 60 MPH	
	e = 0.08	
	Lr = 240'	

-Y15-

PI Sta 22+93.52
Δ = 21° 38' 00.4" (LT)
D = 2° 51' 53.2"
L = 755.15'
T = 382.13'
R = 2,000.00'
V = 50 MPH
e = 0.05
Lr = 120'



DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)
Shoulder Point — 4:1 or Flatter — 4:1 or Flatter — Shoulder Point

FROM STA. 450+00 -L- TO STA. 453+04 -L- M
FROM STA. 453+04 -L- TO STA. 455+50 -L- M

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)
Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope
Min. D = 1 Ft.
b = 5 Ft.

FROM STA. 31+00 -Y15- TO STA. 35+40 -Y15- RT
FROM STA. 455+15 -L- TO STA. 459+15 -L- LT

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground — 3:1 — D — 4:1 or Flatter — Front Ditch Slope
Min. D = 1 Ft.

FROM STA. 449+38 -L- TO STA. 450+85 -L- RT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)
Natural Ground — 3:1 — D — B — 3:1 — b — 1'/Ft. — Fill Slope
Min. D = 1 Ft.
B = 2 Ft.
b = 5 Ft.

FROM STA. 29+10 -Y15- TO STA. 30+56 -Y15- LT
FROM STA. 453+75 -L- TO STA. 458+68 -L- RT
FROM STA. 458+68 -L- TO STA. 459+40 -L- RT

-Y17RPC-

PIs Sta 11+60.08	PI Sta 15+41.96	PIs Sta 19+11.72	PIs Sta 22+05.10	PI Sta 26+21.40
Θs = 5° 43' 46.5"	Δ = 28° 14' 56.3" (RT)	Θs = 5° 43' 46.5"	Θs = 7° 33' 31.7"	Δ = 49° 32' 18.0" (LT)
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'	Ls = 200.00'	D = 7° 33' 31.7"
LT = 160.08'	L = 591.65'	LT = 160.08'	LT = 133.46'	L = 655.37'
ST = 80.08'	T = 301.96'	ST = 80.08'	ST = 66.78'	T = 349.75'
	R = 1,200.00'			R = 758.00'
	V = 60 MPH			V = 50 MPH
	e = 0.08			e = 0.08
	Lr = 240'			Lr = 200'

SEE SHEET NO. 104 FOR -L- PROFILE
SEE SHEET NO. 148 FOR -Y15- PROFILE
SEE SHEET NO. 155 FOR -Y17RPB- PROFILE
SEE SHEET NO. 156 FOR -Y17RPC- PROFILE
SEE SHEET NO. 2B-6 FOR BRIDGE SKETCH

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:08:39 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-34.dgn
REVISIONS

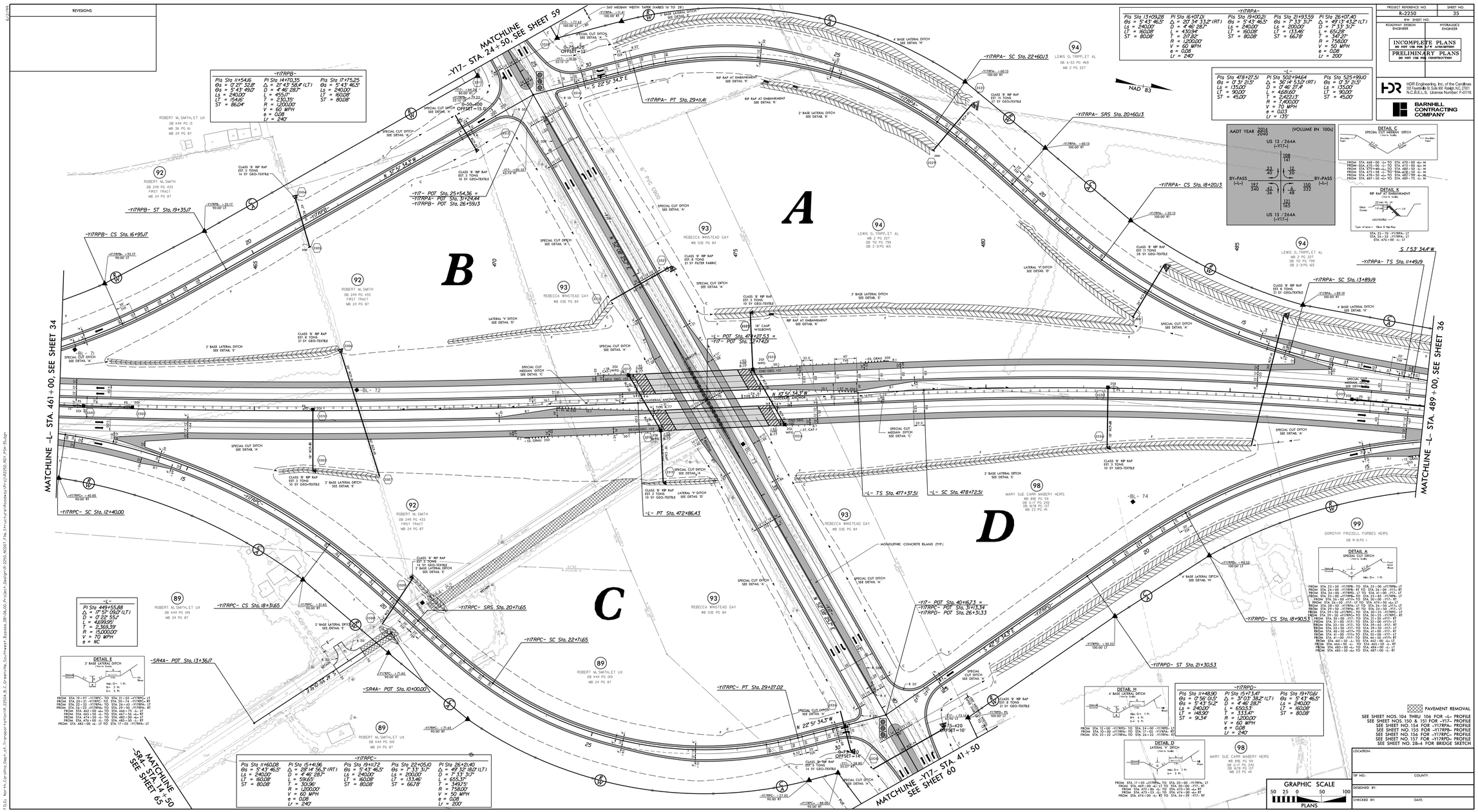
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



PLOT DRIVER: ncdot.pdf.color.eng.100.pdf
USER: swshaw1
FILE: Y:\Corporate\Dept of Transport\R-2250A R-5 Fayetteville Southwest Bypass (R9106.00) Project Design\R-2250A NCDOT Files\Structure\Roadway\Plans\R2250A_RDY_PSH_35.dgn
DATE: 11/17/2015
TIME: 4:50:08 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2250	36
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

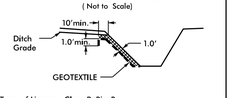
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL K
RIP RAP AT EMBANKMENT
(Not to Scale)



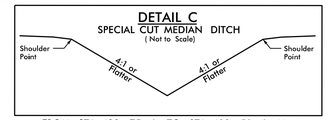
Type of Liner= Class B Rip-Rap

STA. 494+90 -L- RT

-L-

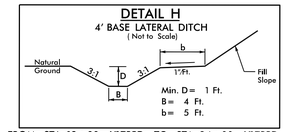
Pls Sta 478+27.51	Pl Sta 502+94.64	Pls Sta 525+99.10
Θs = 0° 31' 21.5"	Δ = 36° 14' 53.0" (RT)	Θs = 0° 31' 21.5"
Ls = 135.00'	D = 0° 46' 27.4"	Ls = 135.00'
LT = 90.00'	L = 4,681.60'	LT = 90.00'
ST = 45.00'	T = 2,422.13'	ST = 45.00'
	R = 7,400.00'	
	V = 70 MPH	
	e = 0.03	
	Lr = 135'	

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)



FROM STA. 489+75 -L- TO STA. 493+50 -L- M
FROM STA. 493+50 -L- TO STA. 505+00 -L- M

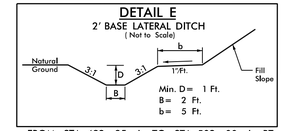
DETAIL H
4' BASE LATERAL DITCH
(Not to Scale)



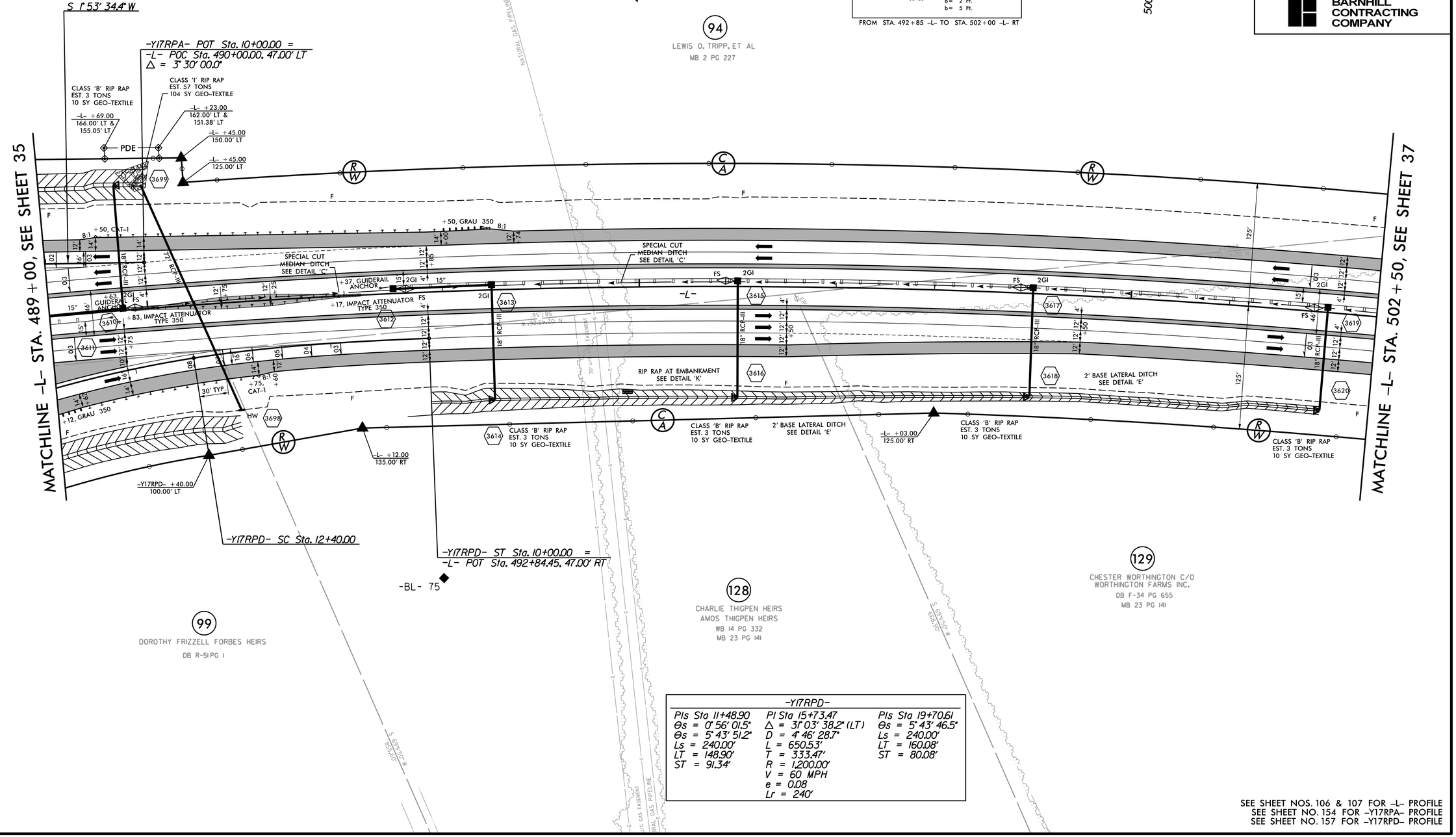
FROM STA. 12+00 -Y17RPD- TO STA. 24+00 -Y17RPD- LT
FROM STA. 10+00 -Y17RPA- TO STA. 17+05 -Y17RPA- RT

NAD 83

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)



FROM STA. 492+85 -L- TO STA. 502+00 -L- RT



-Y17RPD-

Pls Sta 11+48.90	Pl Sta 15+73.47	Pls Sta 19+70.61
Θs = 0° 56' 01.5"	Δ = 31° 03' 38.2" (LT)	Θs = 5° 43' 46.5"
Θs = 5° 43' 51.2"	D = 4° 46' 28.7"	Ls = 240.00'
Ls = 240.00'	L = 650.53'	LT = 160.08'
LT = 148.90'	T = 333.47'	ST = 80.08'
ST = 91.34'	R = 1,200.00'	
	V = 60 MPH	
	e = 0.08	
	Lr = 240'	

SEE SHEET NOS. 106 & 107 FOR -L- PROFILE
SEE SHEET NO. 154 FOR -Y17RPA- PROFILE
SEE SHEET NO. 157 FOR -Y17RPD- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:08:51 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_RDY_PSH-36.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	37
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

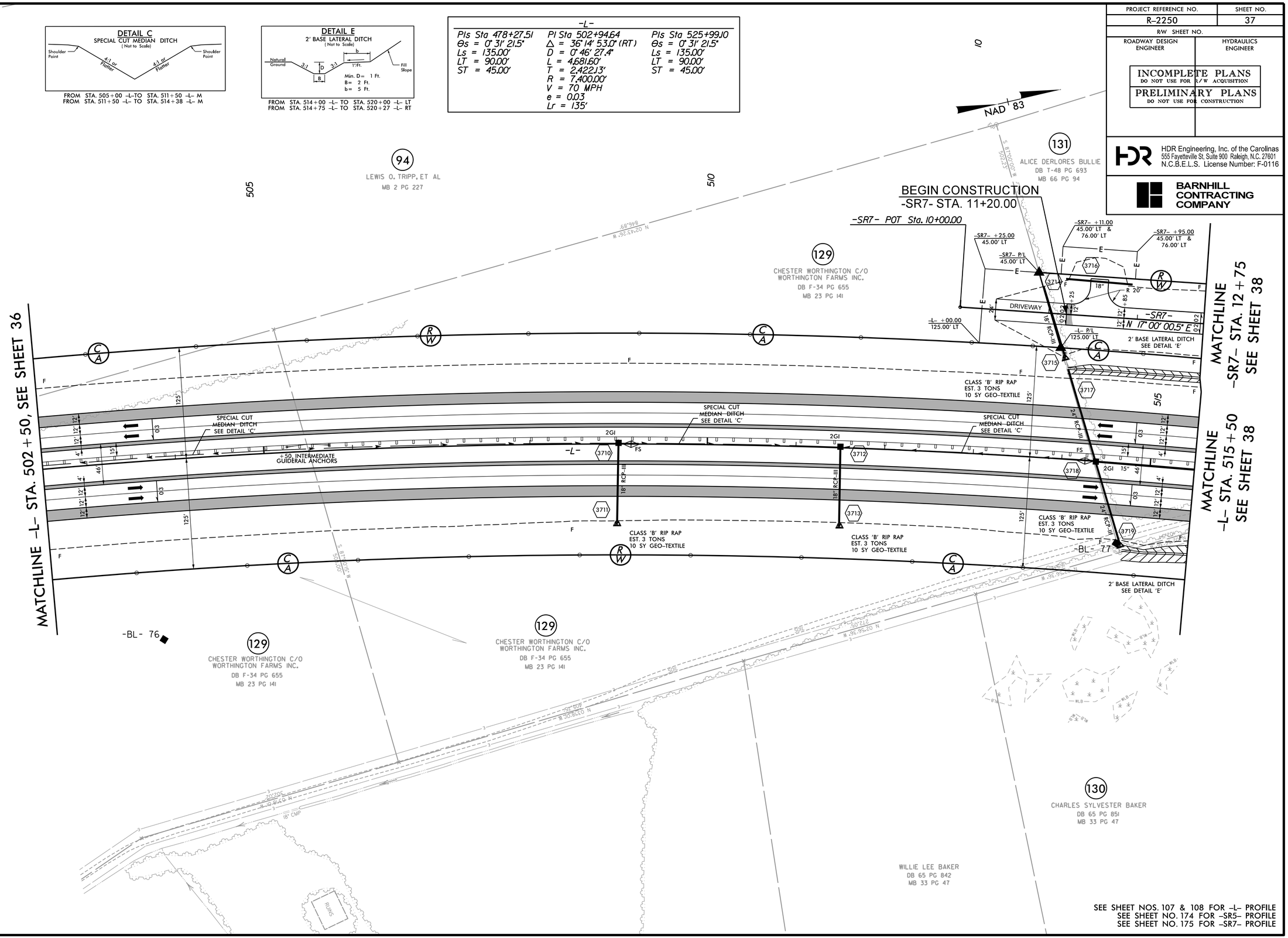
DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

FROM STA. 505+00 -L- TO STA. 511+50 -L- M
FROM STA. 511+50 -L- TO STA. 514+38 -L- M

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

FROM STA. 514+00 -L- TO STA. 520+00 -L- LT
FROM STA. 514+75 -L- TO STA. 520+27 -L- RT

-L-		
PIs Sta 478+27.51	PI Sta 502+94.64	PIs Sta 525+99.10
Θs = 0° 31' 21.5"	Δ = 36° 14' 53.0" (RT)	Θs = 0° 31' 21.5"
Ls = 135.00'	D = 0° 46' 27.4"	Ls = 135.00'
LT = 90.00'	L = 4,681.60'	LT = 90.00'
ST = 45.00'	T = 2,422.13'	ST = 45.00'
	R = 7,400.00'	
	V = 70 MPH	
	e = 0.03	
	Lr = 135'	



SEE SHEET NOS. 107 & 108 FOR -L- PROFILE
SEE SHEET NO. 174 FOR -SR5- PROFILE
SEE SHEET NO. 175 FOR -SR7- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:09:03 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_FRS

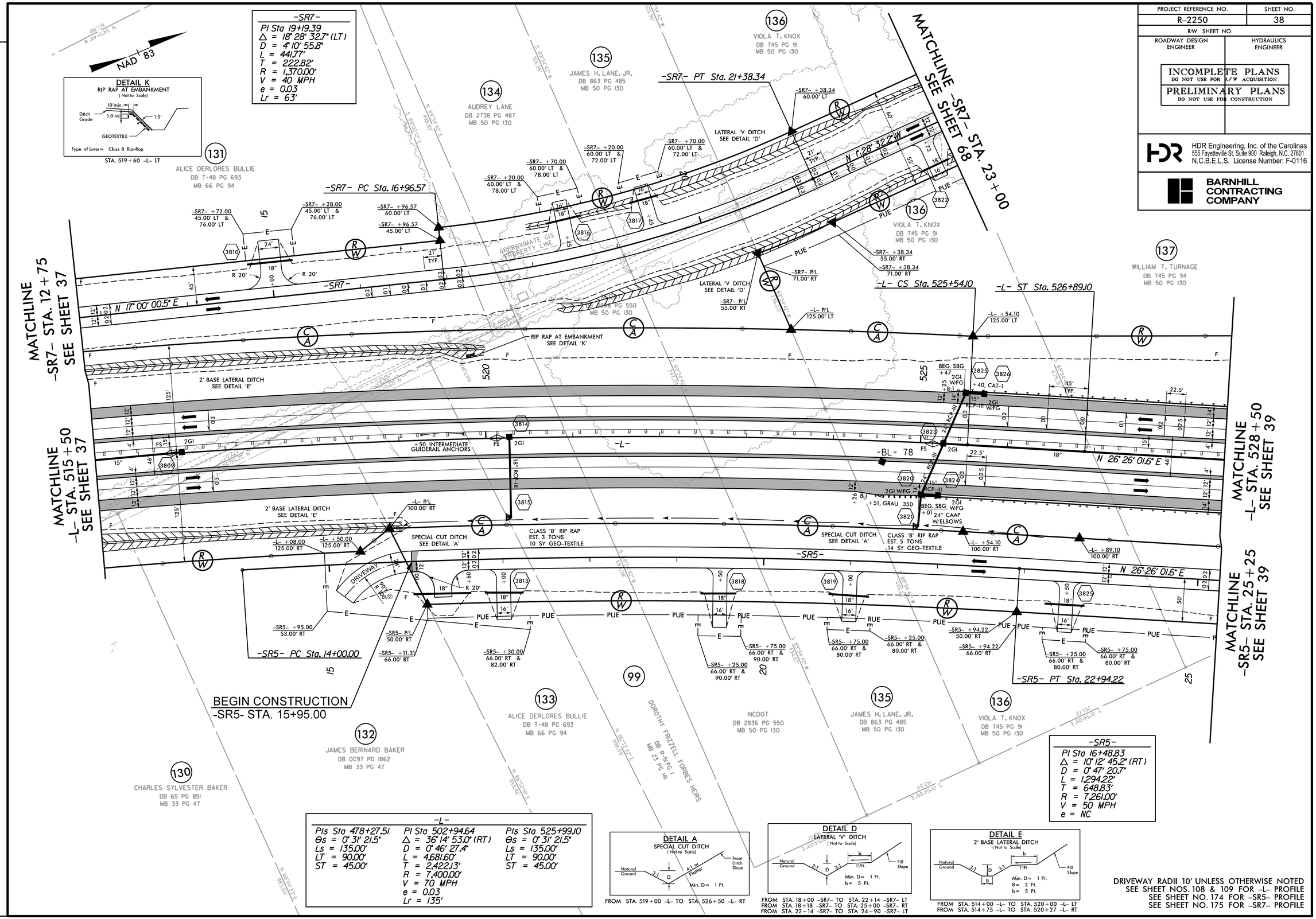
PROJECT REFERENCE NO.	SHEET NO.
R-2250	38
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 10' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 108 & 109 FOR -L- PROFILE
SEE SHEET NO. 174 FOR -SR5- PROFILE
SEE SHEET NO. 175 FOR -SR7- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:09:16 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_RDY_PSH-38.dgn

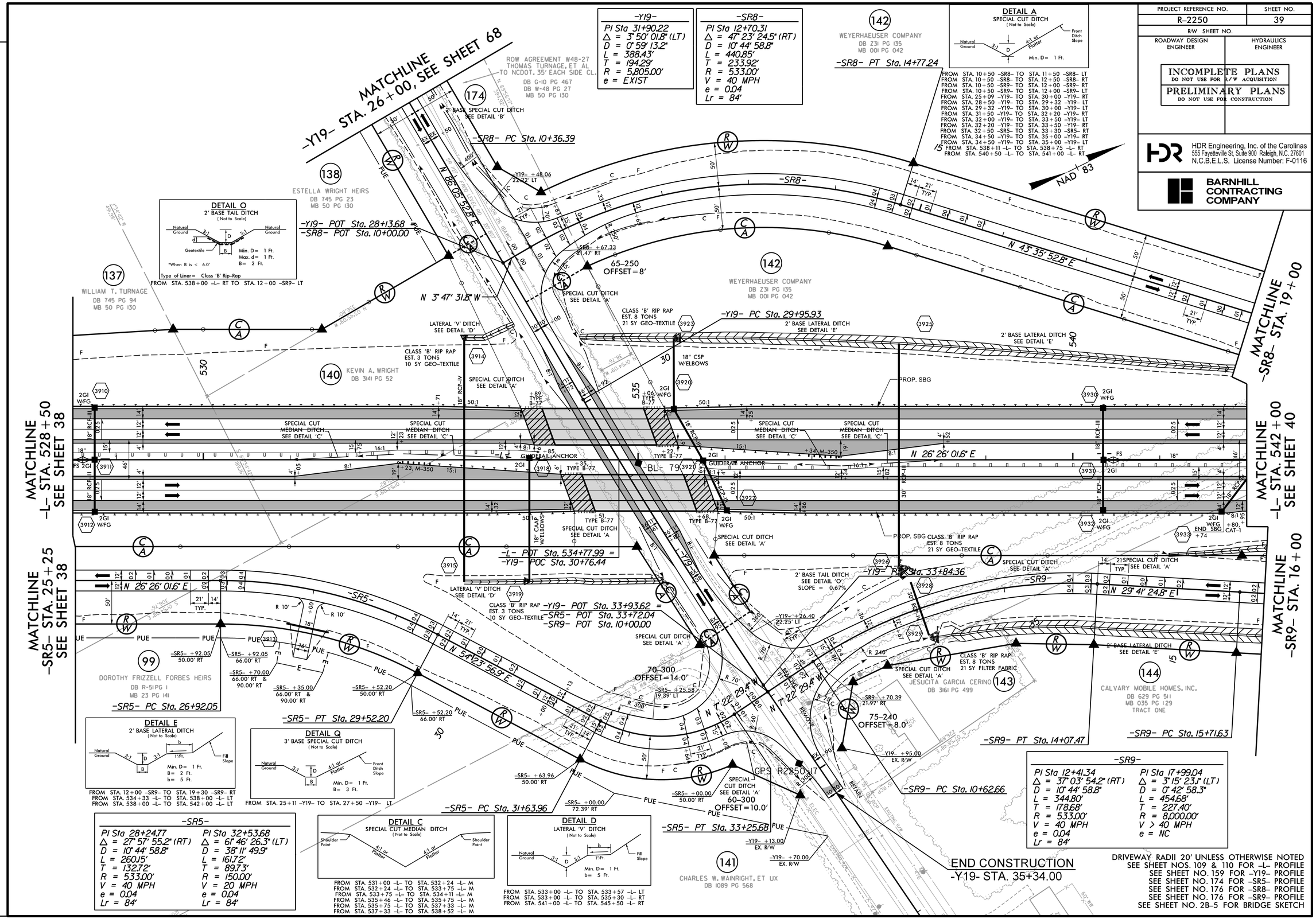
PROJECT REFERENCE NO.	SHEET NO.
R-2250	39
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:09:29 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-39.dgn

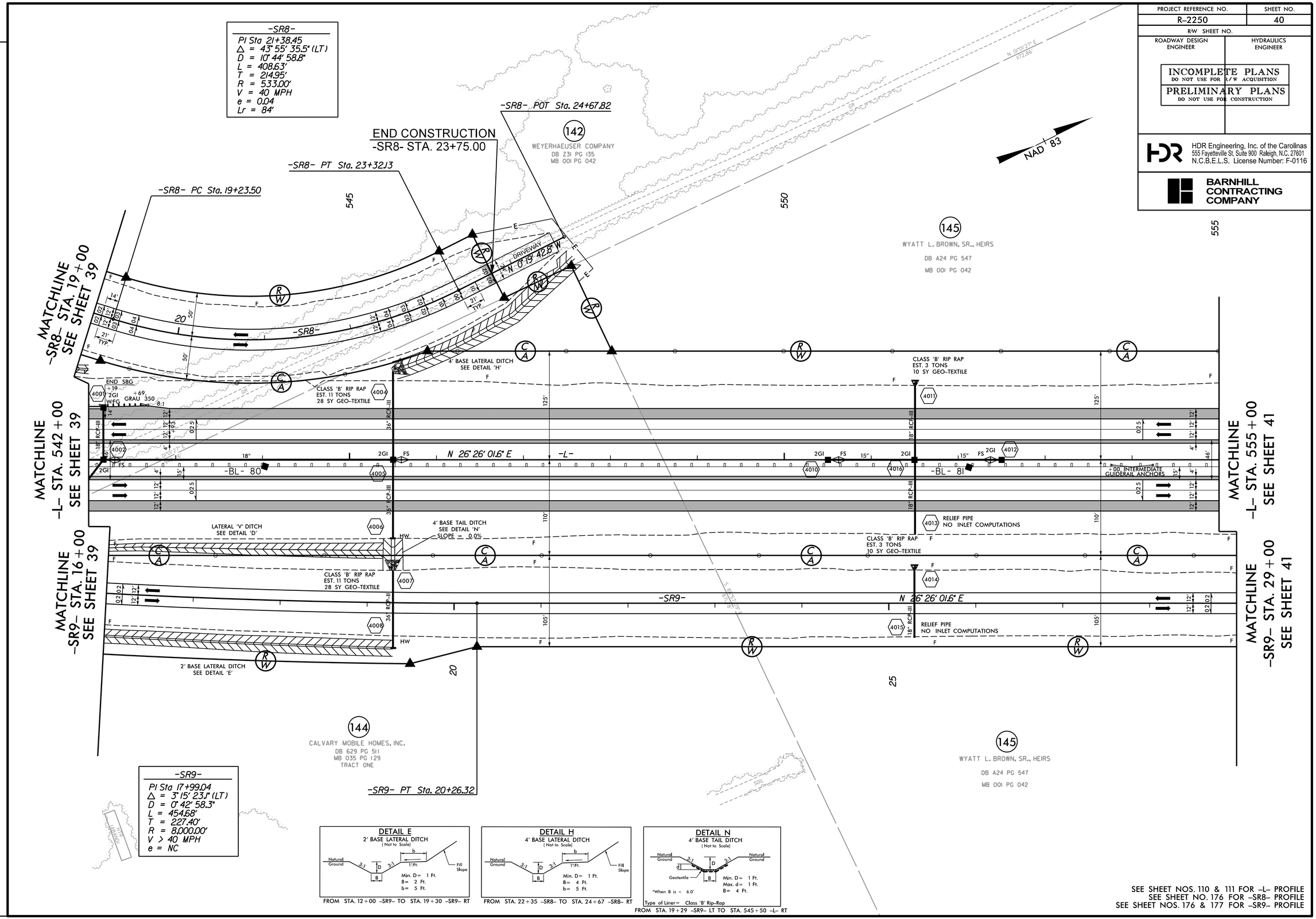
PROJECT REFERENCE NO.	SHEET NO.
R-2250	40
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:09:43 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_RDY_PSH-40.dgn

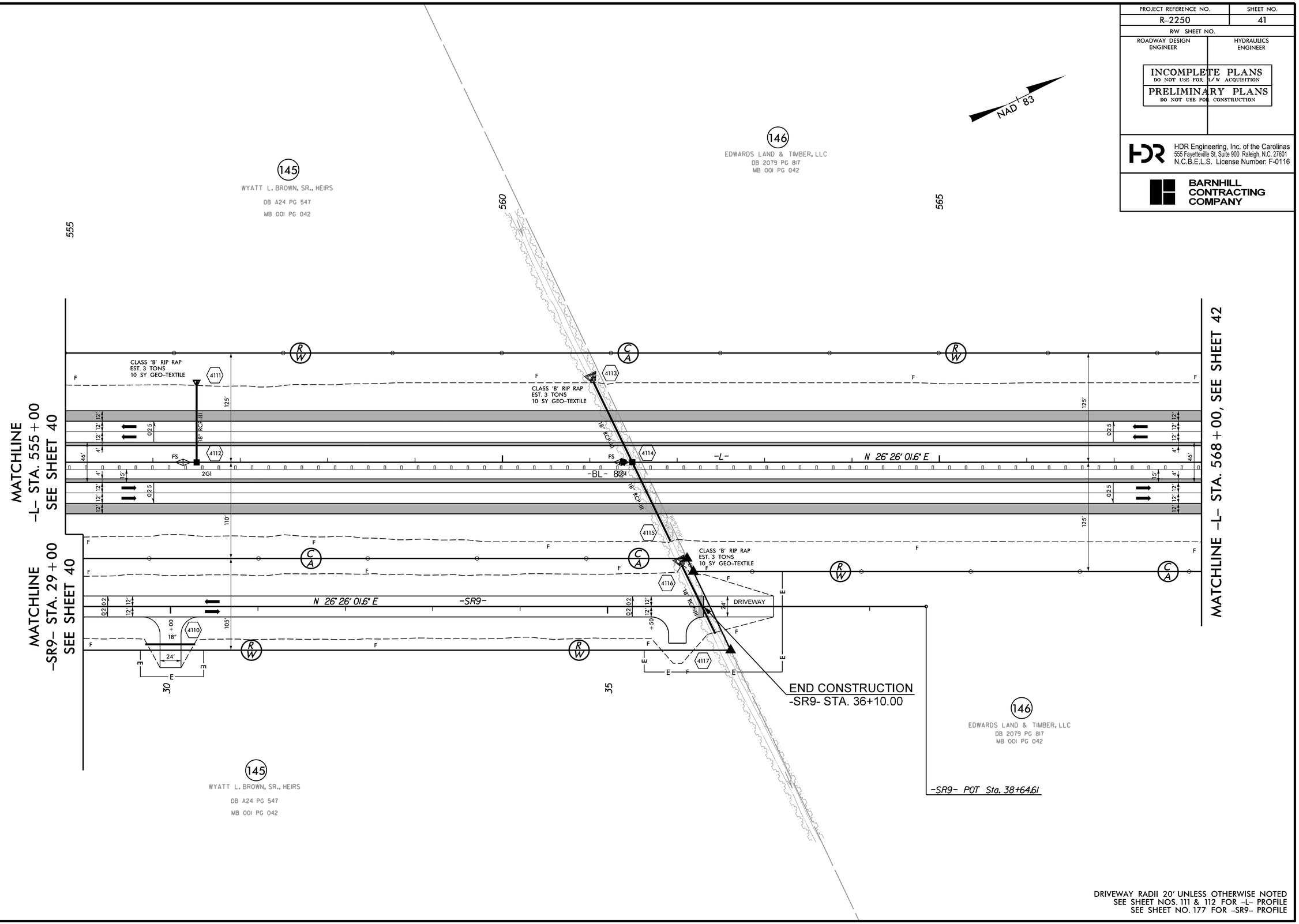
PROJECT REFERENCE NO.	SHEET NO.
R-2250	41
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 111 & 112 FOR -L- PROFILE
SEE SHEET NO. 177 FOR -SR9- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:09:55 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-41.dgn

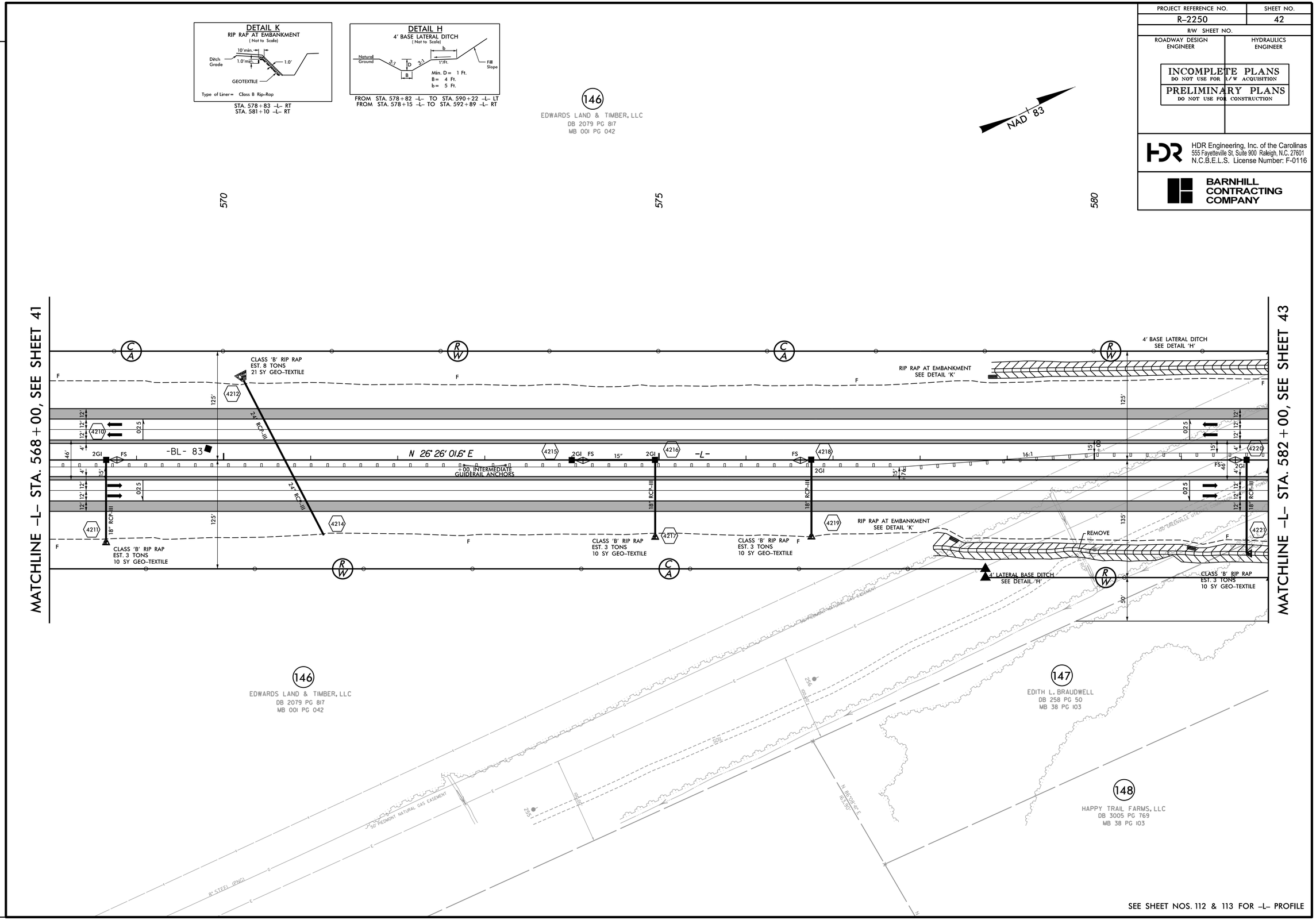
PROJECT REFERENCE NO.	SHEET NO.
R-2250	42
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:10:07 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-42.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	43
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

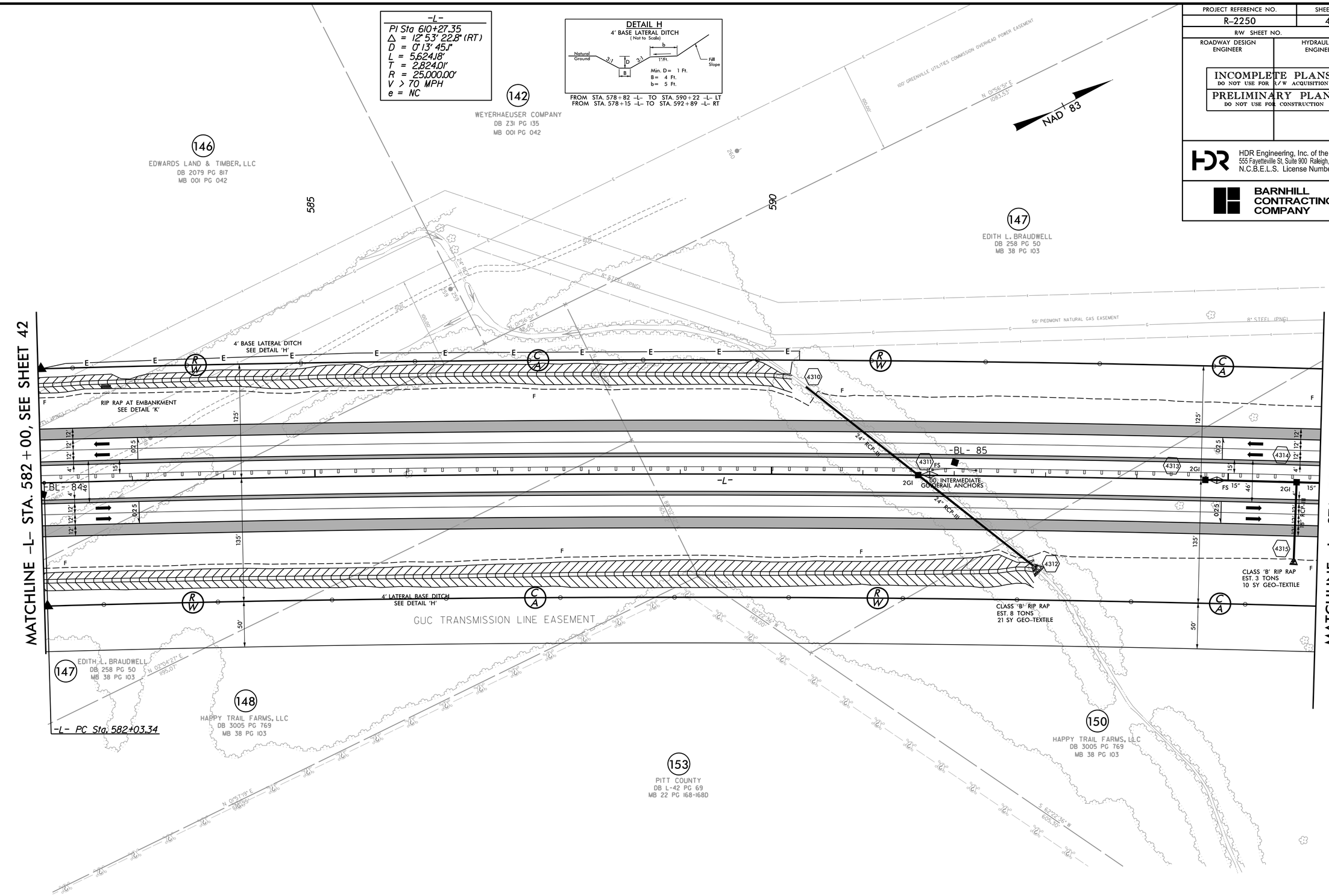
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

BARNHILL CONTRACTING COMPANY

-L-
PI Sta 610+27.35
Δ = 12° 53' 22.8" (RT)
D = 0° 13' 45.1"
L = 5,624.18'
T = 2,824.01'
R = 25,000.00'
V > 70 MPH
e = NC

DETAIL H
4' BASE LATERAL DITCH
(Not to Scale)

FROM STA. 578+82 -L- TO STA. 590+22 -L- LT
FROM STA. 578+15 -L- TO STA. 592+89 -L- RT



SEE SHEET NOS. 113 & 114 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:10:21 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-43.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	44
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)

Shoulder Point — 4:1 or Flatter — 4:1 or Flatter — Shoulder Point

FROM STA. 608+50 -L- TO STA. 609+69 -L- M
FROM STA. 609+69 -L- TO STA. 611+45 -L- M

-L-

PI Sta 610+27.35
Δ = 12° 53' 22.8" (RT)
D = 0° 13' 45.1"
L = 5,624.18'
T = 2,824.01'
R = 25,000.00'
V > 70 MPH
e = NC

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope — B

Min. D = 1 Ft.
B = 2 Ft.
b = 5 Ft.

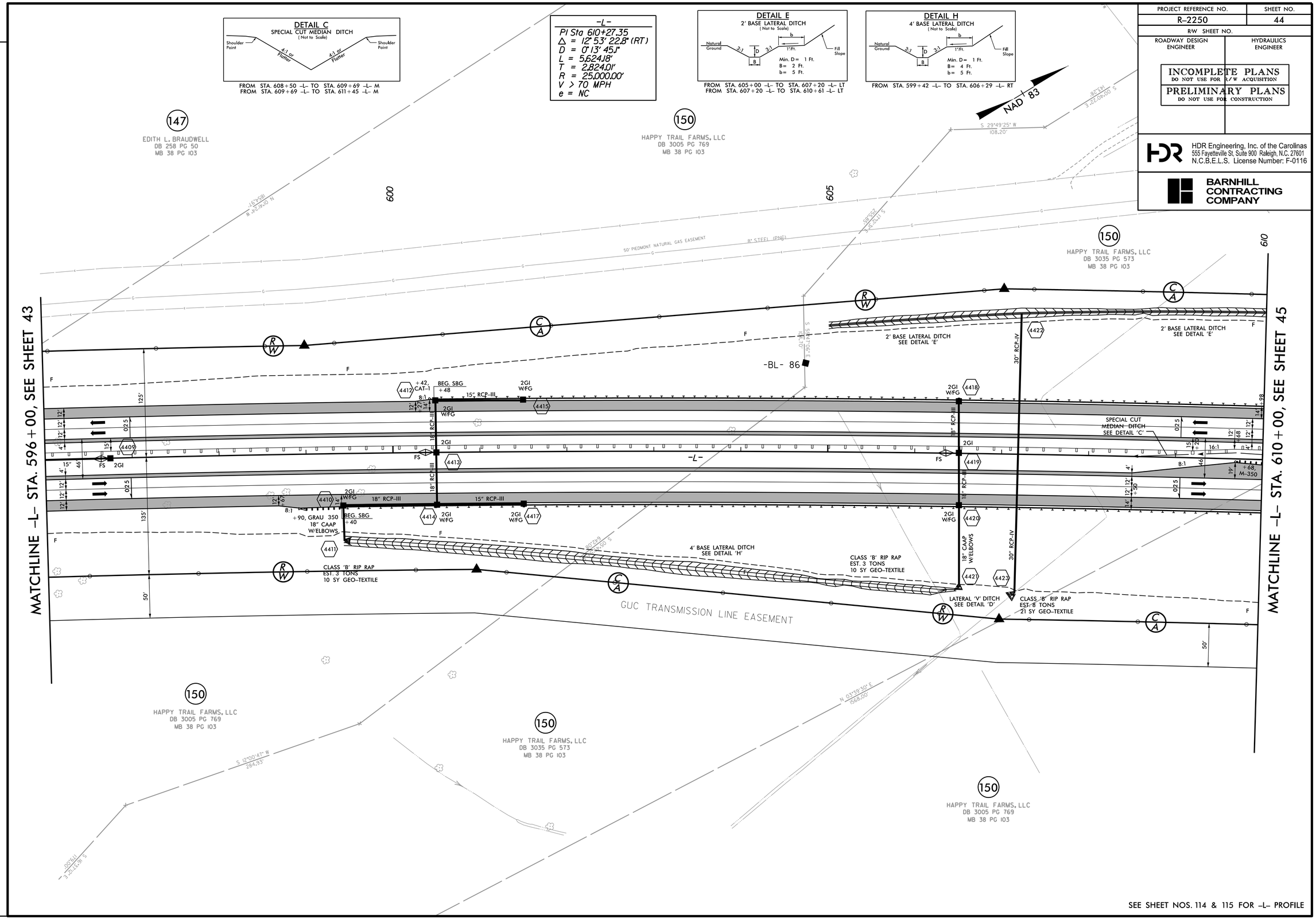
FROM STA. 605+00 -L- TO STA. 607+20 -L- LT
FROM STA. 607+20 -L- TO STA. 610+61 -L- LT

DETAIL H
4' BASE LATERAL DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — b — 1'/Ft. — Fill Slope — B

Min. D = 1 Ft.
B = 4 Ft.
b = 5 Ft.

FROM STA. 599+42 -L- TO STA. 606+29 -L- RT



SEE SHEET NOS. 114 & 115 FOR -L- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwrl DATE: 11/11/2015 TIME: 6:10:32 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-44.dgn

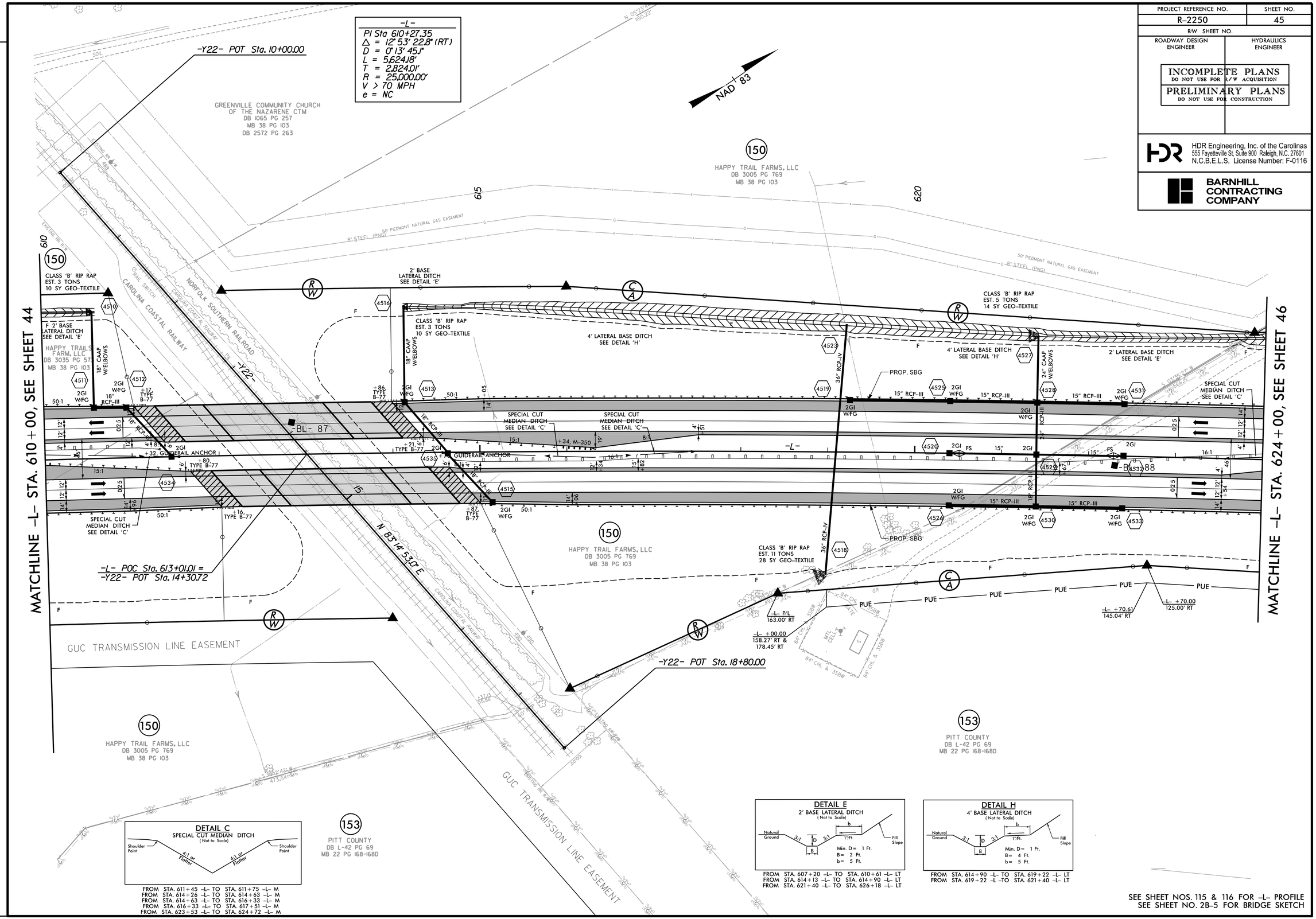
PROJECT REFERENCE NO.	SHEET NO.
R-2250	45
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 115 & 116 FOR -L- PROFILE
SEE SHEET NO. 2B-5 FOR BRIDGE SKETCH

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:10:45 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-45.dgn

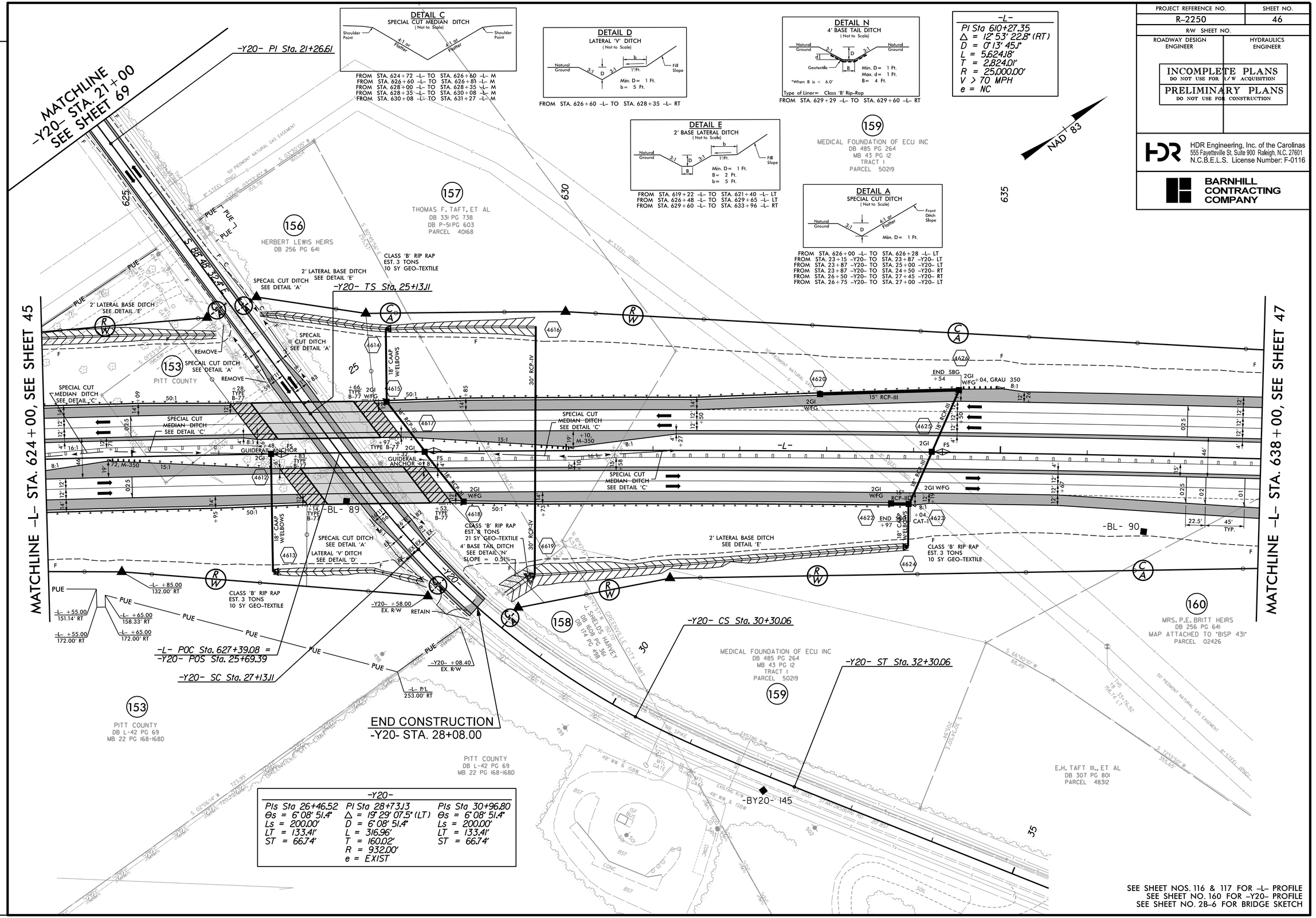
PROJECT REFERENCE NO.	SHEET NO.
R-2250	46
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:10:57 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_RDY_PSH-46.dgn

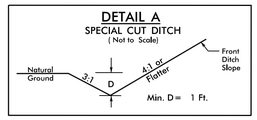
PROJECT REFERENCE NO.	SHEET NO.
R-2250	47
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

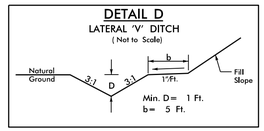
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



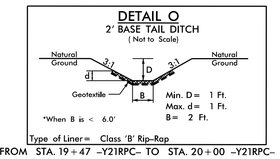
FROM STA. 646+00 -L- TO STA. 647+00 -L- LT



FROM STA. 647+00 -L- TO STA. 648+04 -L- LT

FROM STA. 648+04 -L- TO STA. 650+50 -L- LT

FROM STA. 12+50 -Y21RPC- TO STA. 15+65 -Y21RPC- RT



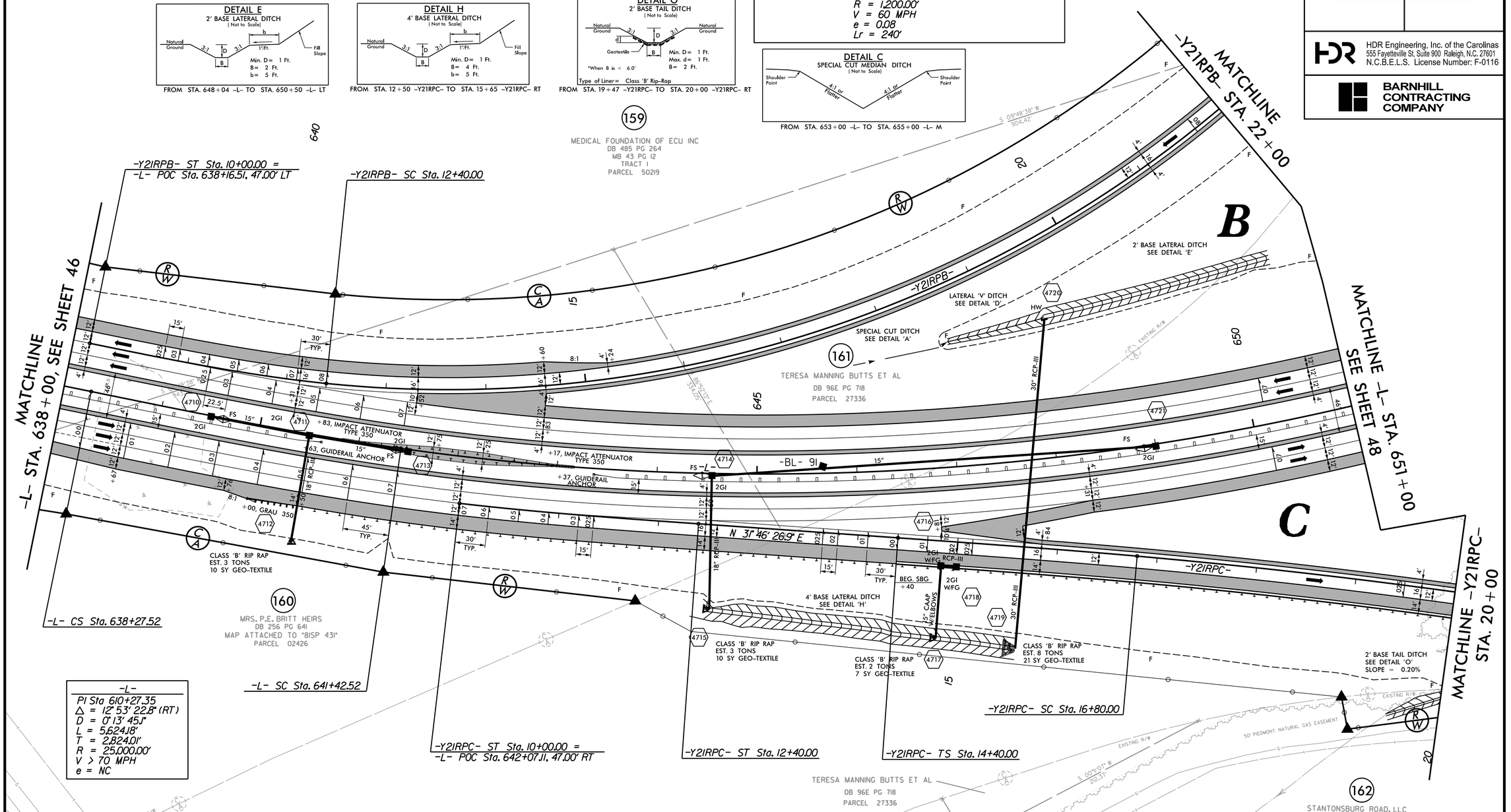
FROM STA. 19+47 -Y21RPC- TO STA. 20+00 -Y21RPC- RT

NAD 83

-Y21RPB-

PIs Sta 11+60.08	PI Sta 28+18.24	PIs Sta 35+29.78
Θs = 5° 43' 46.5"	Δ = 105° 30' 20.6" (LT)	Θs = 5° 43' 46.5"
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'
LT = 160.08'	L = 2,209.71'	LT = 160.08'
ST = 80.08'	T = 1,578.24'	ST = 80.08'
	R = 1,200.00'	
	V = 60 MPH	
	e = 0.08	
	Lr = 240'	

FROM STA. 653+00 -L- TO STA. 655+00 -L- M



-L-

PI Sta 610+27.35		
Δ = 12° 53' 22.8" (RT)		
D = 0° 13' 45.1"		
L = 5,624.18'		
T = 2,824.01'		
R = 25,000.00'		
V > 70 MPH		
e = NC		

-L-

PIs Sta 640+37.57	PI Sta 647+87.27	PIs Sta 655+11.18
Θs = 3° 29' 51.7"	Δ = 28° 03' 43.2" (LT)	Θs = 3° 29' 51.7"
Ls = 315.00'	D = 2° 13' 14.8"	Ls = 315.00'
LT = 210.04'	L = 1,263.62'	LT = 210.04'
ST = 105.04'	T = 644.75'	ST = 105.04'
	R = 2,580.00'	
	V = 70 MPH	
	e = 0.07	
	Lr = 315'	

-Y21RPC-

PIs Sta 10+80.02	PIs Sta 16+00.00	PI Sta 21+44.32	PIs Sta 27+55.48	PI Sta 31+93.93	PIs Sta 36+00.86
Θs = 2° 37' 02.1"	Θs = 1° 02' 02.1"	Δ = 7° 59' 17.1" (RT)	Θs = 1° 01' 57.6"	Δ = 33° 33' 45.1" (RT)	Θs = 5° 58' 43.3"
Ls = 240.00'	Ls = 240.00'	D = 0° 51' 41.7"	Θs = 5° 58' 47.8"	D = 4° 58' 56.1"	Ls = 240.00'
LT = 160.02'	LT = 160.00'	L = 927.13'	Ls = 240.00'	L = 673.64'	LT = 160.09'
ST = 80.02'	ST = 80.00'	T = 464.32'	LT = 148.35'	T = 346.80'	ST = 80.08'
		R = 6,650.00'	ST = 91.92'	R = 1,150.00'	
		V = 60 MPH		V = 55 MPH	
		e = 0.025		e = 0.08	
		Lr = 75'		Lr = 240'	

SEE SHEET NOS. 117 & 118 FOR -L- PROFILE
SEE SHEET NO. 166 FOR -Y21RPB- PROFILE
SEE SHEET NO. 169 FOR -Y21RPC- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:11:08 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-47.dgn
REVISIONS

REVISIONS

SEE SHEET 70

SEE SHEET 47

SEE SHEET 71

MATCHLINE -Y21- STA. 29+00

MATCHLINE -Y21RPB- STA. 21+00

MATCHLINE -Y21RPC- STA. 20+00

MATCHLINE -L- STA. 651+00

MATCHLINE -Y21RPC- STA. 30+00

MATCHLINE -Y21- STA. 43+00

MATCHLINE -Y21RPD- STA. 23+50

MATCHLINE -L- STA. 679+00, SEE INSET

-Y21RPB- STA. 29+00

-Y21RPA- STA. 26+00

-Y21RPB-		
Pls Sta 11+60.08 Gs = 5°43'46.5" Ls = 240.00' LT = 160.08' ST = 80.08'	Pi Sta 28+18.24 Δ = 105°30'20.8" (LT) D = 4°46'28.7" L = 2,209.17' T = 1,578.24' R = 1,200.00' V = 60 MPH R = 1,200.00' e = 0.08 Lr = 240'	Pls Sta 35+29.78 Gs = 5°43'46.5" Ls = 240.00' LT = 160.08' ST = 80.08'

-Y21RPA-					
Pls Sta 13+53.39 Gs = 5°12'31.3" Ls = 200.00' LT = 133.39' ST = 66.72'	Pi Sta 16+87.47 Δ = 27°20'00.0" (RT) D = 5°12'31.3" L = 524.76' T = 267.47' R = 1,100.00' V = 55 MPH e = 0.08 Lr = 200'	Pls Sta 20+20.56 Gs = 5°49'03.5" Ls = 200.00' LT = 124.37' ST = 75.80'	Pi Sta 22+43.37 Δ = 1°36'51.1" (RT) D = 5°49'06.8" L = 197.21' T = 98.66' R = 1,000.00' V = 60 MPH e = 0.025	Pls Sta 24+67.34 Gs = 5°49'03.5" Ls = 200.00' LT = 125.36' ST = 74.84'	Pi Sta 28+72.96 Δ = 37°57'45.7" (RT) D = 5°56'14.5" L = 637.70' T = 330.98' R = 965.00' V = 55 MPH e = 0.08 Lr = 200'	Pls Sta 32+53.94 Gs = 5°45'05.3" Gs = 5°56'18.0" Ls = 200.00' LT = 125.93' ST = 74.27'

-Y21LPA-		
Pls Sta 11+62.64 Gs = 31°41'03.5" Ls = 240.00' LT = 162.64' ST = 82.41'	Pi Sta 19+54.04 Δ = 213°48'31.5" (LT) D = 26°24'12.9" L = 809.77' T = 714.04' R = 217.00' V = 30 MPH e = 0.08 Lr = 240'	Pls Sta 21+27.15 Gs = 0°48'05.9" Gs = 25°04'15.8" Ls = 220.00' LT = 146.83' ST = 77.37'

-Y21-			
Pls Sta 19+70.53 Gs = 0°33'42.2" Ls = 200.00' LT = 100.00' ST = 50.00'	Pls Sta 27+92.41 Δ = 17°31'23.6" (LT) D = 0°44'56.3" L = 1,538.55' T = 771.88' R = 7,650.00' V = 70 MPH e = 0.03 Lr = 150'	Pls Sta 36+09.08 Gs = 0°33'42.2" Ls = 150.00' LT = 100.00' ST = 50.00'	

NAD 83

AADT YEAR 2014 2040 (VOLUME IN 100s)

US 264 (-Y21-): 241 / 468

BY-PASS (-L-): 150 / 332 — 42 / 74 — 43 / 100 — 105 / 195 — 56 / 97 — 194 / 370

US 264 (-L-): 221 / 424

STANTONSBURG RD (-Y21-)

CULVERT #1
TWO BARRELS

	NORTH	EAST	ELEV.
CUL1	681886.55	2464476.68	53.76
CUL2	681894.43	2464477.00	53.82
CUL3	681895.44	2464477.01	53.74
CUL4	681903.00	2464477.54	53.76
CE1	681896.27	2464476.46	58.80
HW1	681894.95	2464476.41	60.68
CUL5	681847.96	2464294.71	54.45
CUL6	681859.23	2464292.53	54.42
CUL7	681860.84	2464292.51	54.45
CUL8	681871.58	2464289.98	54.41
CE2	681859.23	2464293.47	59.51
HW2	681859.81	2464293.43	61.38

-Y21LPB-			
Pls Sta 11+62.34 Gs = 29°53'36.4" Ls = 240.00' LT = 162.34' ST = 82.13'	Pi Sta 27+53.56 Δ = 109°16'51.9" (RT) D = 24°54'40.4" L = 719.94' T = 1,513.56' R = 230.00' V = 30 MPH e = 0.08 Lr = 240'	Pls Sta 21+36.17 Gs = 37°22'00.5" Ls = 300.00' LT = 209.65' ST = 104.24'	Pls Sta 23+81.94 Gs = 17°16'43.5" Ls = 75.00' LT = 50.00' ST = 25.00'

-Y21LPC-		
Pls Sta 11+76.77 Gs = 34°38'38.3" Ls = 260.00' LT = 176.77' ST = 89.80'	Pi Sta 21+34.50 Δ = 207°37'30.0" (LT) D = 26°38'57.1" L = 779.69' T = 874.50' R = 215.00' e = EXIST	Pls Sta 21+28.91 Gs = 34°38'38.3" Ls = 260.00' LT = 176.77' ST = 89.80'

-Y21RPC-				
Pls Sta 16+00.00 Gs = 1°02'02.2" Ls = 240.00' LT = 160.00' ST = 80.00'	Pi Sta 21+44.32 Δ = 7°59'17.2" (RT) D = 0°51'41.7" L = 927.13' T = 464.32' R = 6,650.00' V = 60 MPH e = 0.025 Lr = 75'	Pls Sta 27+55.48 Gs = 1°01'57.8" Gs = 5°58'41.8" Ls = 240.00' LT = 148.35' ST = 91.92'	Pi Sta 31+93.93 Δ = 33°33'45.4" (RT) D = 4°58'56.4" L = 673.64' T = 346.82' R = 1,150.00' V = 55 MPH e = 0.08 Lr = 240'	Pls Sta 36+00.86 Gs = 5°58'43.3" Ls = 240.00' LT = 160.09' ST = 80.08'

-Y21RPD-					
Pls Sta 11+33.41 Gs = 5°59'58.4" Ls = 200.00' LT = 133.41' ST = 66.74'	Pi Sta 14+48.88 Δ = 29°15'48" (LT) D = 5°59'58.4" L = 486.93' T = 248.88' R = 955.00' V = 55 MPH e = 0.08 Lr = 200'	Pls Sta 19+40.96 Δ = 24°48'30.2" (LT) D = 4°57'36.4" L = 500.10' T = 254.03' R = 1,155.00' V = 55 MPH e = 0.08	Pi Sta 24+24.21 Δ = 87°53'42.6" (LT) D = 5°59'58.4" L = 464.95' T = 237.18' R = 955.00' V = 55 MPH e = 0.08 Lr = 200'	Pls Sta 27+18.72 Gs = 5°59'58.4" Ls = 200.00' LT = 133.41' ST = 66.74'	

-L-		
Pls Sta 640+37.57 Gs = 3°29'51.7" Ls = 315.00' LT = 210.04' ST = 105.04'	Pi Sta 647+87.27 Δ = 28°03'43.2" (LT) D = 9°13'14.8" L = 1,263.62' T = 644.75' R = 621.50' V = 70 MPH e = 0.07 Lr = 315'	Pls Sta 655+11.18 Gs = 3°29'51.7" Ls = 315.00' LT = 210.04' ST = 105.04'

-Y21LPD-		
Pls Sta 11+53.01 Gs = 34°50'31.3" Ls = 225.00' LT = 153.01' ST = 77.75'	Pi Sta 27+99.85 Δ = 103°23'59.4" (RT) D = 30°58'14.5" L = 624.46' T = 1,574.85' R = 185.00' V = 25 MPH e = 0.08 Lr = 240'	Pls Sta 19+27.21 Gs = 34°50'31.3" Ls = 225.00' LT = 153.01' ST = 77.75'

-Y21LPA-		
Pls Sta 11+62.64 Gs = 31°41'03.5" Ls = 240.00' LT = 162.64' ST = 82.41'	Pi Sta 19+54.04 Δ = 213°48'31.5" (LT) D = 26°24'12.9" L = 809.77' T = 714.04' R = 217.00' V = 30 MPH e = 0.08 Lr = 240'	Pls Sta 21+27.15 Gs = 0°48'05.9" Gs = 25°04'15.8" Ls = 220.00' LT = 146.83' ST = 77.37'

DETAIL A — SPECIAL CUT DITCH (Not to Scale)

FROM STA 19+75 -Y21LPD- TO STA 20+39 -Y21LPD-
FROM STA 23+70 -Y21RPC- TO STA 23+00 -Y21RPC- LT
FROM STA 23+70 -Y21RPA- TO STA 23+00 -Y21RPA- LT
FROM STA 27+00 -Y21RPA- TO STA 31+05 -Y21RPA- RT
FROM STA 27+00 -Y21RPB- TO STA 31+05 -Y21RPB- RT
FROM STA 667+23 -L- TO STA 669+00 -L- RT
FROM STA 668+00 -L- TO STA 671+50 -L- LT

DETAIL C — SPECIAL CUT MEDIAN DITCH (Not to Scale)

FROM STA 656+31 -L- TO STA 657+32 -L-M
FROM STA 657+32 -L- TO STA 659+00 -L-M
FROM STA 659+00 -L- TO STA 661+62 -L-M
FROM STA 661+62 -L- TO STA 662+00 -L-M
FROM STA 662+00 -L- TO STA 663+67 -L-M
FROM STA 663+67 -L- TO STA 664+00 -L-M
FROM STA 664+00 -L- TO STA 667+75 -L-M
FROM STA 672+00 -L- TO STA 672+79 -L-M
FROM STA 672+79 -L- TO STA 674+50 -L-M
FROM STA 679+00 -L- TO STA 680+80 -L-M

DETAIL D — LATERAL "V" DITCH (Not to Scale)

FROM STA 17+73 -Y21LPD- TO STA 19+75 -Y21LPD- RT
FROM STA 19+75 -Y21LPD- TO STA 20+39 -Y21LPD- RT
FROM STA 22+50 -Y21RPC- TO STA 23+75 -Y21RPC- LT
FROM STA 653+90 -L- TO STA 655+00 -L- RT
FROM STA 660+50 -L- TO STA 666+76 -L- LT

DETAIL E — 2' BASE LATERAL DITCH (Not to Scale)

FROM STA 20+00 -Y21RPC- TO STA 23+10 -Y21RPC- RT
FROM STA 666+76 -L- TO STA 668+00 -L- LT

DETAIL L — TAIL DITCH (Not to Scale)

FROM STA 21+50 -Y21RPC- TO STA 22+16 -Y21RPC- LT
FROM STA 22+16 -Y21RPC- TO STA 22+55 -Y21RPC- LT

DETAIL P — SPECIAL CUT DITCH (Not to Scale)

Type of Grass = Class 'B' Rip-Rap

FROM STA 656+00 -L- TO STA 655+50 -L- LT
FROM STA 655+50 -L- TO STA 655+00 -L- LT
FROM STA 664+50 -L- TO STA 665+50 -L- LT

SEE SHEET NOS. 118 THRU 120 FOR -L- PROFILE
SEE SHEET NOS. 162 & 163 FOR -Y21- PROFILE
SEE SHEET NO. 165 FOR -Y21RPA- PROFILE
SEE SHEET NO. 166 FOR -Y21LPA- PROFILE
SEE SHEET NOS. 166 & 167 FOR -Y21RPB- PROFILE
SEE SHEET NO. 168 FOR -Y21LPB- PROFILE
SEE SHEET NO. 169 FOR -Y21RPC- PROFILE
SEE SHEET NO. 170 FOR -Y21LPC- PROFILE
SEE SHEET NO. 171 FOR -Y21RPD- PROFILE
SEE SHEET NO. 172 FOR -Y21LPD- PROFILE

PAVEMENT REMOVAL

END CONSTRUCTION
-L- STA. 679+51.08 (SBL)

-L- POT Sta. 683+50.00

MATCHLINE -L- STA. 679+00, SEE THIS SHEET

N 4°15'57.8" E

END CONSTRUCTION
-L- STA. 682+46.77 (NBL)

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	4B
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

LOCATION:
TIP NO.: COUNTY:
DESIGNED BY:
CHECKED BY: DATE:

PLOT DRIVEN: NCDOT_left_color*.ctb
USER: cwalker1
FILE: Z:\Projects\Rural_Div\R-2250_Southeast_Bypass_Wilson_Co\Roadway\Prelim\R2250_RDY_PSH-4B.dgn

PENTABLE: NCDOT_pdmod*.tbl
TIME: 4:06:11 PM
DATE: 11/17/2015

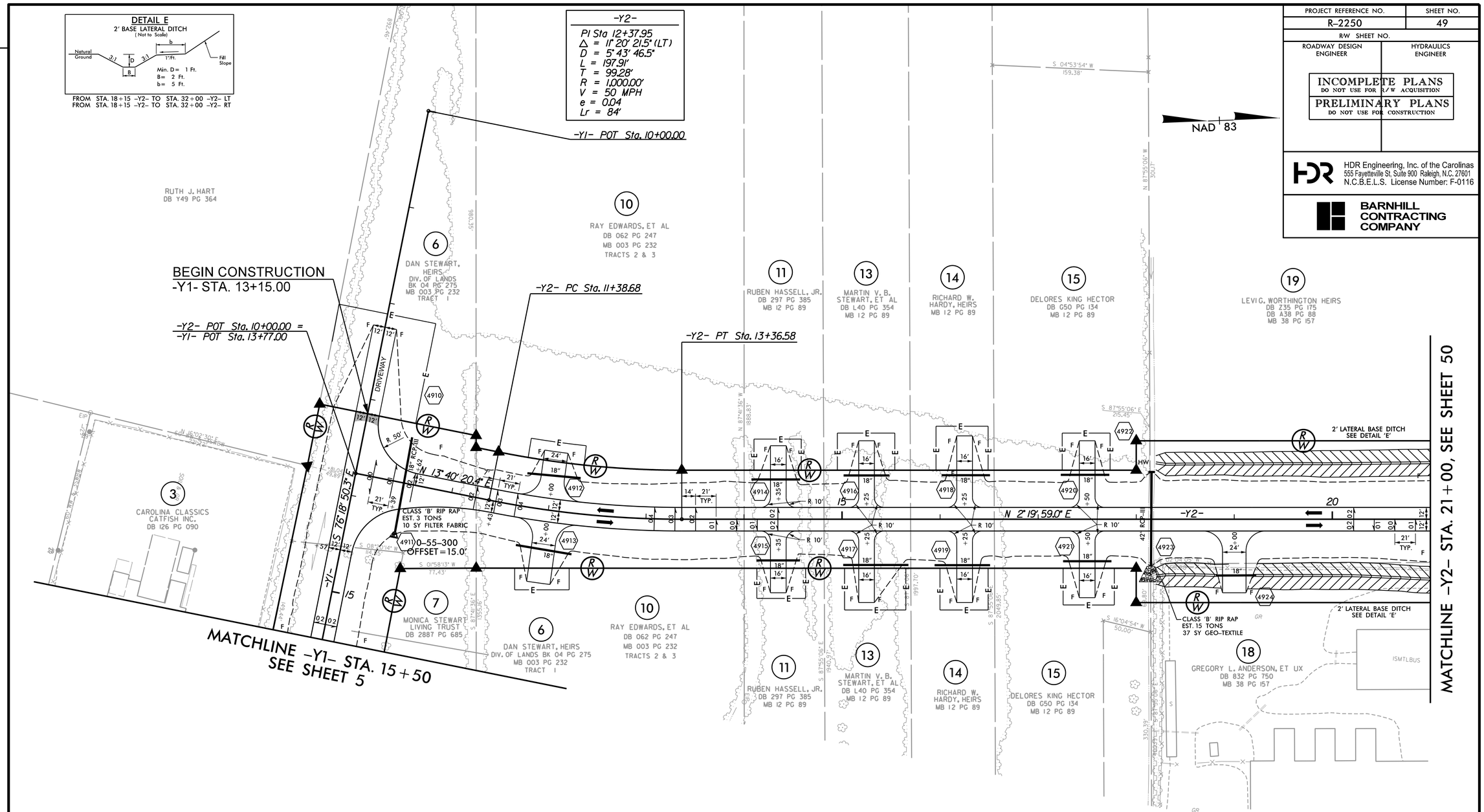
PROJECT REFERENCE NO.	SHEET NO.
R-2250	49
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 121 FOR -Y1- PROFILE
SEE SHEET NO. 121 FOR -Y2- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:11:22 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-49.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	50
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

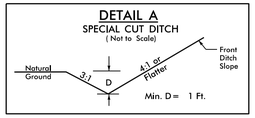
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

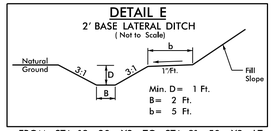
NAD 83

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 11+00 -Y3- TO STA. 12+44 -Y3- RT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)

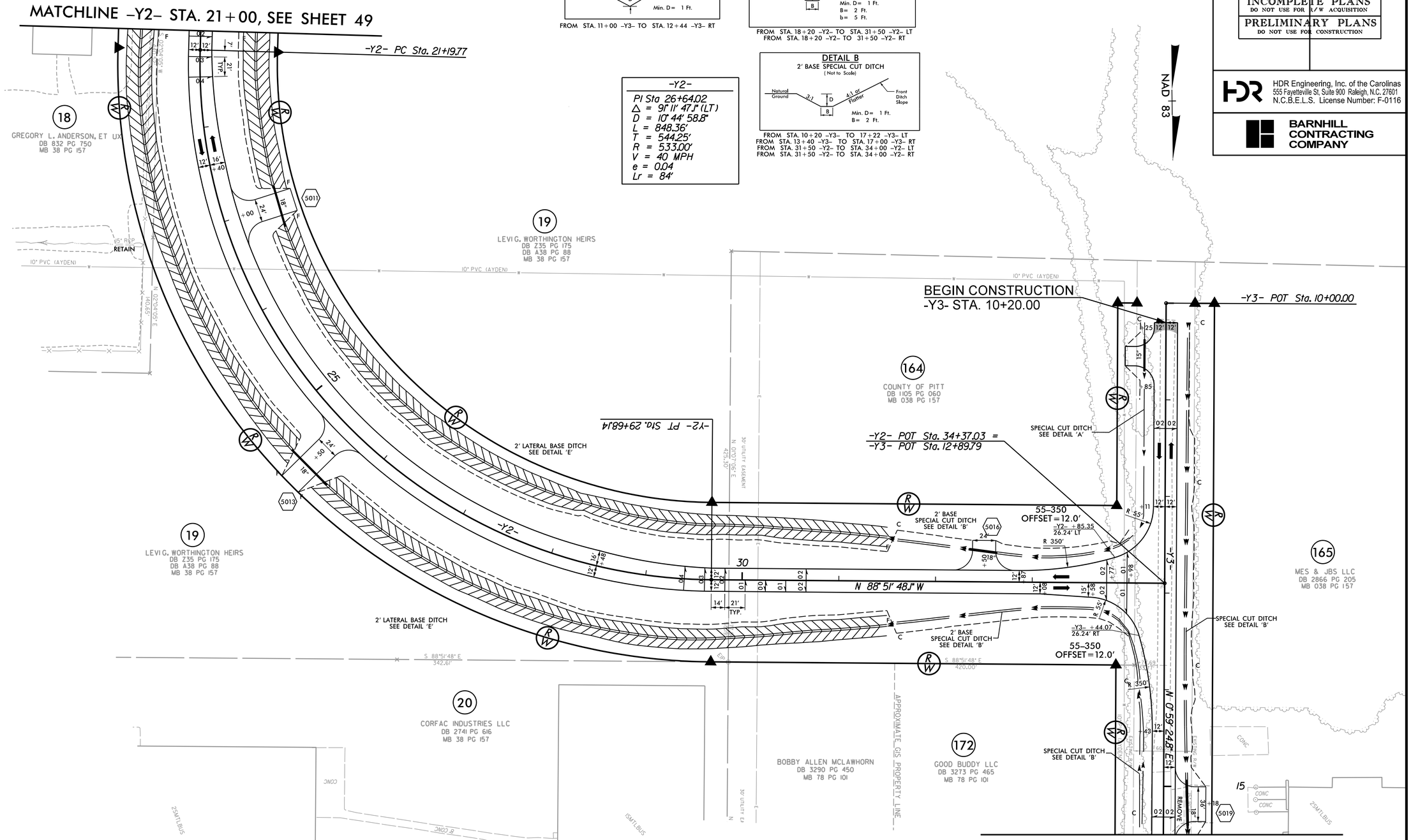


FROM STA. 18+20 -Y2- TO STA. 31+50 -Y2- LT
FROM STA. 18+20 -Y2- TO 31+50 -Y2- RT

DETAIL B
2' BASE SPECIAL CUT DITCH
(Not to Scale)

FROM STA. 10+20 -Y3- TO 17+22 -Y3- LT
FROM STA. 13+40 -Y3- TO STA. 17+00 -Y3- RT
FROM STA. 31+50 -Y2- TO STA. 34+00 -Y2- LT
FROM STA. 31+50 -Y2- TO STA. 34+00 -Y2- RT

-Y2-
PI Sta 26+64.02
Δ = 91° 11' 47.1" (LT)
D = 10° 44' 58.8"
L = 848.36'
T = 544.25'
R = 533.00'
V = 40 MPH
e = 0.04
Lr = 84'



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 121 & 122 FOR -Y2- PROFILE
SEE SHEET NO. 122 FOR -Y3- PROFILE

REVISIONS

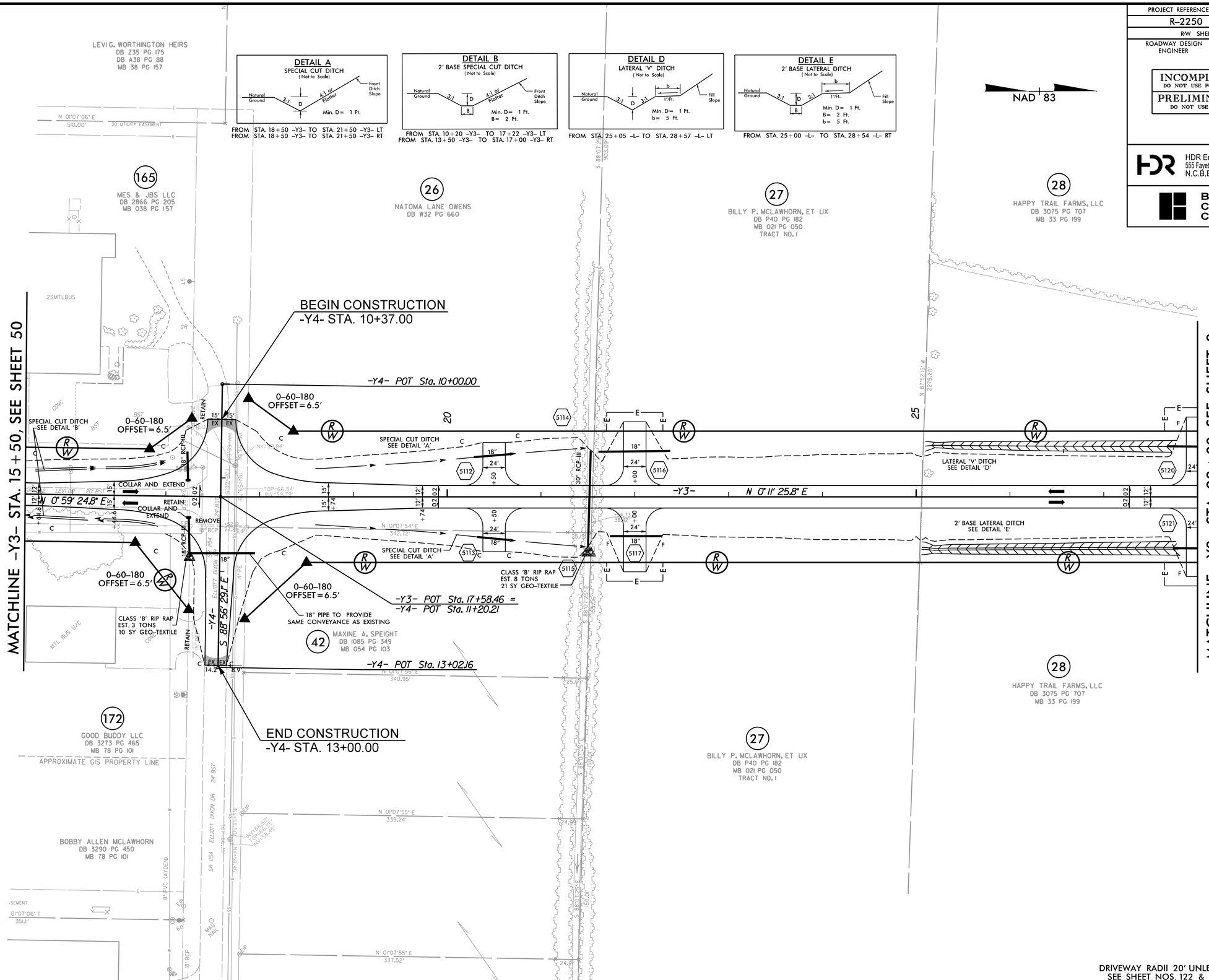
PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:11:36 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-50.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	51
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 122 & 123 FOR -Y3- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:11:48 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-51.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	52
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

NAD 83

-Y6-

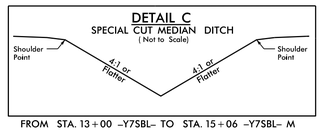
PI Sta 35+99.77	PI Sta 37+90.67
Δ = 3° 57' 04.2" (RT)	Δ = 5° 46' 04.6" (RT)
D = 1° 47' 25.8"	D = 3° 34' 51.6"
L = 220.67'	L = 161.07'
T = 110.38'	T = 80.60'
R = 3,200.00'	R = 1,600.00'

-Y6- PT Sta. 38+71.13

-FLYBY7-

PIs Sta 36+75.16	PI Sta 40+90.84	PIs Sta 45+04.71
Θs = 0° 33' 46.6"	Δ = 9° 37' 37.6" (LT)	Θs = 0° 33' 46.6"
Ls = 90.00'	D = 1° 15' 03.6"	Ls = 90.00'
LT = 60.00'	L = 769.55'	LT = 60.00'
ST = 30.00'	T = 385.68'	ST = 30.00'
	R = 4,580.00'	
	V = 55 MPH	
	e = 0.03	
	Lr = 90'	

DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)



FROM STA. 13+00 -Y7SBL- TO STA. 15+06 -Y7SBL- M

-FLYBY7- POT Sta. 48+47.92 =
-Y7SBL- POT Sta. 10+00.00 =
-Y6- POT Sta. 42+60.64

-FLYBY7- ST Sta. 45+64.71

-FLYBY7- CS Sta. 44+74.71

BEGIN CONSTRUCTION
-Y6- STA. 41+75.00

MATCHLINE -FLYBY7- STA. 39+50 SEE SHEET 8

MATCHLINE -Y7RPC- STA. 31+50 SEE SHEET 8

MATCHLINE -Y7SBL- STA. 14+00, SEE SHEET 52A

-Y7RPC- POT Sta. 40+78.31 =
-Y7NBL- POT Sta. 10+00.00

-Y6A- POT Sta. 10+00.00 =
-Y7RPC- ST Sta. 40+65.44

-Y7RPC- ST Sta. 40+19.92

END CONSTRUCTION
-Y6A- STA. 11+10.00

-Y7RPC- CS Sta. 38+19.92

CLASS 'B' RIP RAP
EST. 11 TONS
28 SY GEO-TEXTILE

2' LATERAL BASE DITCH
SEE DETAIL 'E'

CLASS 'I' RIP RAP
EST. 40 TONS
75 SY GEO-TEXTILE

2' BASE LATERAL DITCH
SEE DETAIL 'E'

MONOLITHIC CONCRETE ISLAND (TYP.)

LATERAL 'V' DITCH
SEE DETAIL 'D'

4' BASE SPECIAL CUT DITCH
SEE DETAIL 'I'

CLASS 'B' RIP RAP
EST. 3 TONS
10 SY GEO-TEXTILE

SPECIAL CUT MEDIAN DITCH
SEE DETAIL 'C'

COX FARM PROPERTIES, LLC
DB 1208 PG 445

KENNETH H. SMITH, ET UX
DB 1366 PG 211

HILLCO, LTD
DB 767 PG 460
MB 49 PG 21
FOLDER 42 - 91

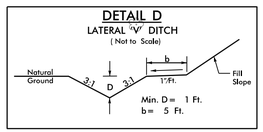
JANET A. JOHNSON HOUSE
DB 116 PG 714
MB 34 PG 81

"NRWASA"
NEUSE REGIONAL WATER AND SEWER AUTHORITY
DB 2102 PG 669

CLIFTON E. WOOTEN, ET UX
DB 385 PG 34

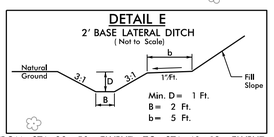
AYDEN CITY LIMIT

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



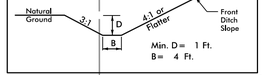
FROM STA. 31+32 -Y7RPC- TO STA. 35+35 -Y7RPC- LT

DETAIL E
2' BASE LATERAL DITCH
(Not to Scale)



FROM STA. 39+50 -FLYBY7- TO STA. 40+12 -FLYBY7- LT
FROM STA. 40+12 -FLYBY7- TO STA. 45+00 -FLYBY7- LT

DETAIL I
4' BASE SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 33+80 -Y7RPC- TO STA. 38+30 -Y7RPC- RT

-Y7RPC-

PIs Sta 27+95.44	PI Sta 33+45.42	PIs Sta 38+86.60
Θs = 1° 58' 32.6"	Δ = 18° 55' 25.8" (RT)	Θs = 1° 58' 32.6"
Ls = 200.00'	D = 1° 58' 32.6"	Ls = 200.00'
LT = 133.34'	L = 957.82'	LT = 133.34'
ST = 66.67'	T = 483.31'	ST = 66.67'
	R = 2,900.00'	
	V = 50 MPH	
	e = 0.08	
	Lr = 200'	

AADT YEAR 2014/2040 (VOLUME IN 100s)

OLD SNOW HILL RD (-Y6-)

NC 11 (-Y7-): 106/117, 3/5, 4/7, 4/4, 8/19, 111/128

NC 11 (-Y7-): 17/29, 20/42

SNOW HILL ST (-Y6A-)

PAVEMENT REMOVAL

SEE SHEET NO. 128 FOR -FLYBY7- PROFILE
SEE SHEET NO. 128A FOR -Y7RPC- PROFILE
SEE SHEET NO. 128B FOR -Y7SBL- & -Y7NBL- PROFILES

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:11:58 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-52.dgn

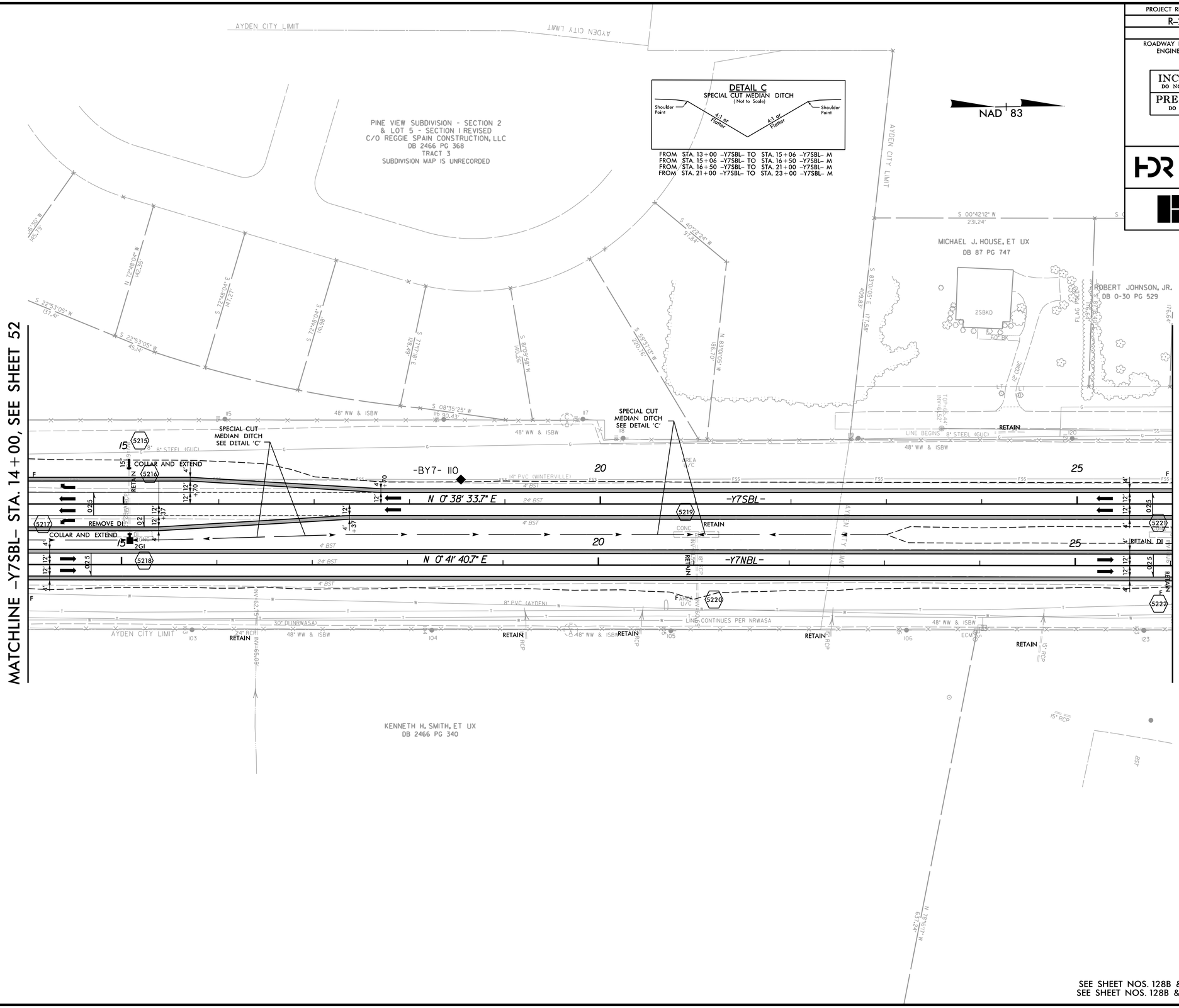
PROJECT REFERENCE NO.	SHEET NO.
R-2250	52A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 128B & 128C FOR -Y7SBL- PROFILE
SEE SHEET NOS. 128B & 128C FOR -Y7NBL- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:12:07 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-52A.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	52B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

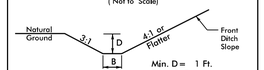
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

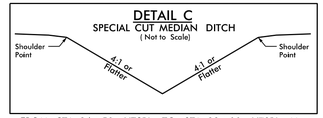
BARNHILL CONTRACTING COMPANY

DETAIL B
2' BASE SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 35+50 -Y7SBL- TO STA. 41+50 -Y7SBL- RT
FROM STA. 41+50 -Y7SBL- TO STA. 42+43 -Y7SBL- RT

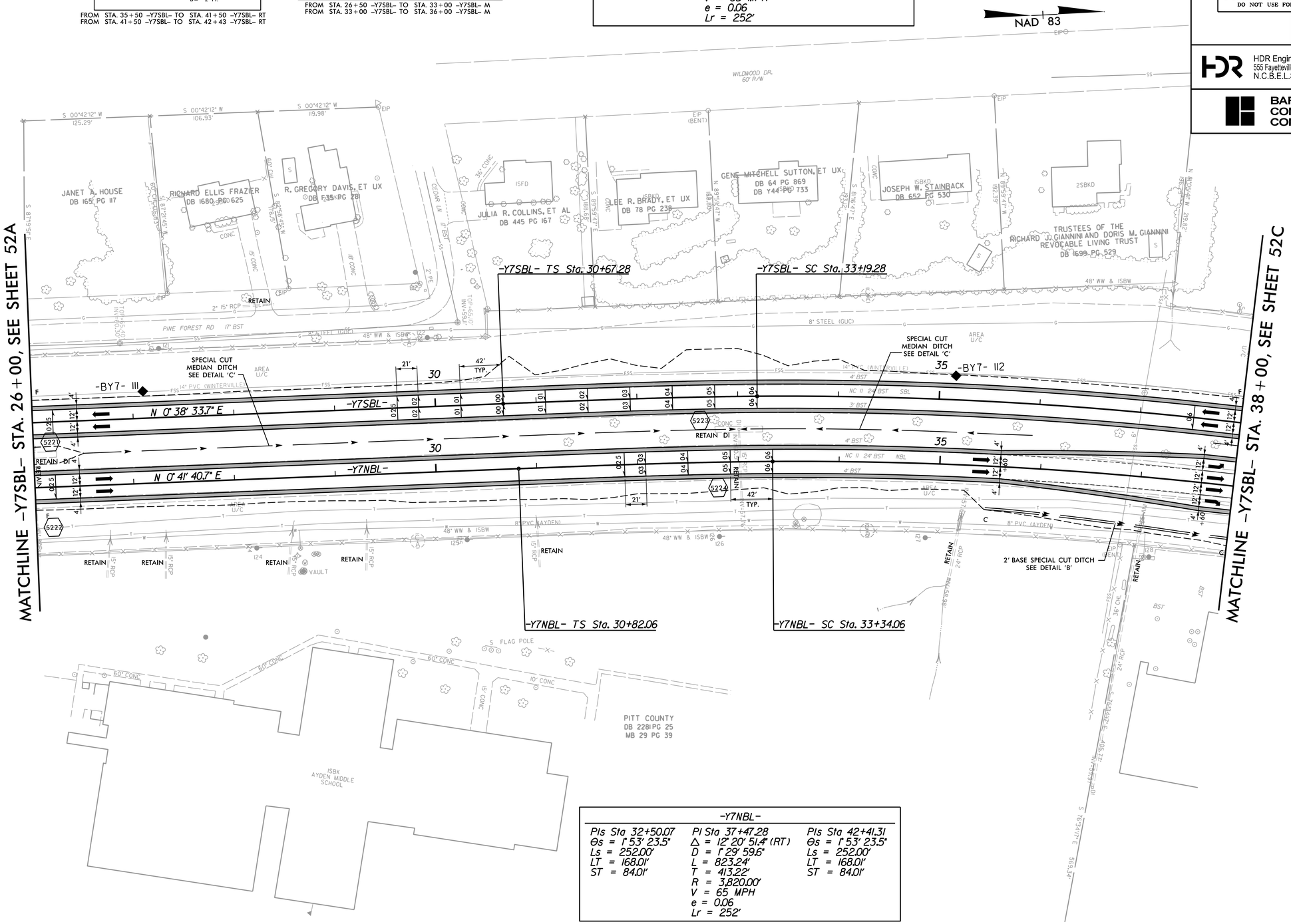
DETAIL C
SPECIAL CUT MEDIAN DITCH
(Not to Scale)



FROM STA. 26+50 -Y7SBL- TO STA. 33+00 -Y7SBL- M
FROM STA. 33+00 -Y7SBL- TO STA. 36+00 -Y7SBL- M

-Y7SBL-

PIs Sta 32+35.29	PI Sta 37+29.84	PIs Sta 42+21.32
Θs = 1° 52' 30.5"	Δ = 12° 10' 26.5" (RT)	Θs = 1° 52' 30.5"
Ls = 252.00'	D = 1° 29' 17.5"	Ls = 252.00'
LT = 168.01'	L = 818.04'	LT = 168.01'
ST = 84.01'	T = 410.56'	ST = 84.01'
	R = 3,850.00'	
	V = 65 MPH	
	e = 0.06	
	Lr = 252'	



-Y7NBL-

PIs Sta 32+50.07	PI Sta 37+47.28	PIs Sta 42+41.31
Θs = 1° 53' 23.5"	Δ = 12° 20' 51.4" (RT)	Θs = 1° 53' 23.5"
Ls = 252.00'	D = 1° 29' 59.6"	Ls = 252.00'
LT = 168.01'	L = 823.24'	LT = 168.01'
ST = 84.01'	T = 413.22'	ST = 84.01'
	R = 3,820.00'	
	V = 65 MPH	
	e = 0.06	
	Lr = 252'	

SEE SHEET NO. 128C FOR -Y7SBL- PROFILE
SEE SHEET NO. 128C FOR -Y7NBL- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:12:17 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-52B.dgn

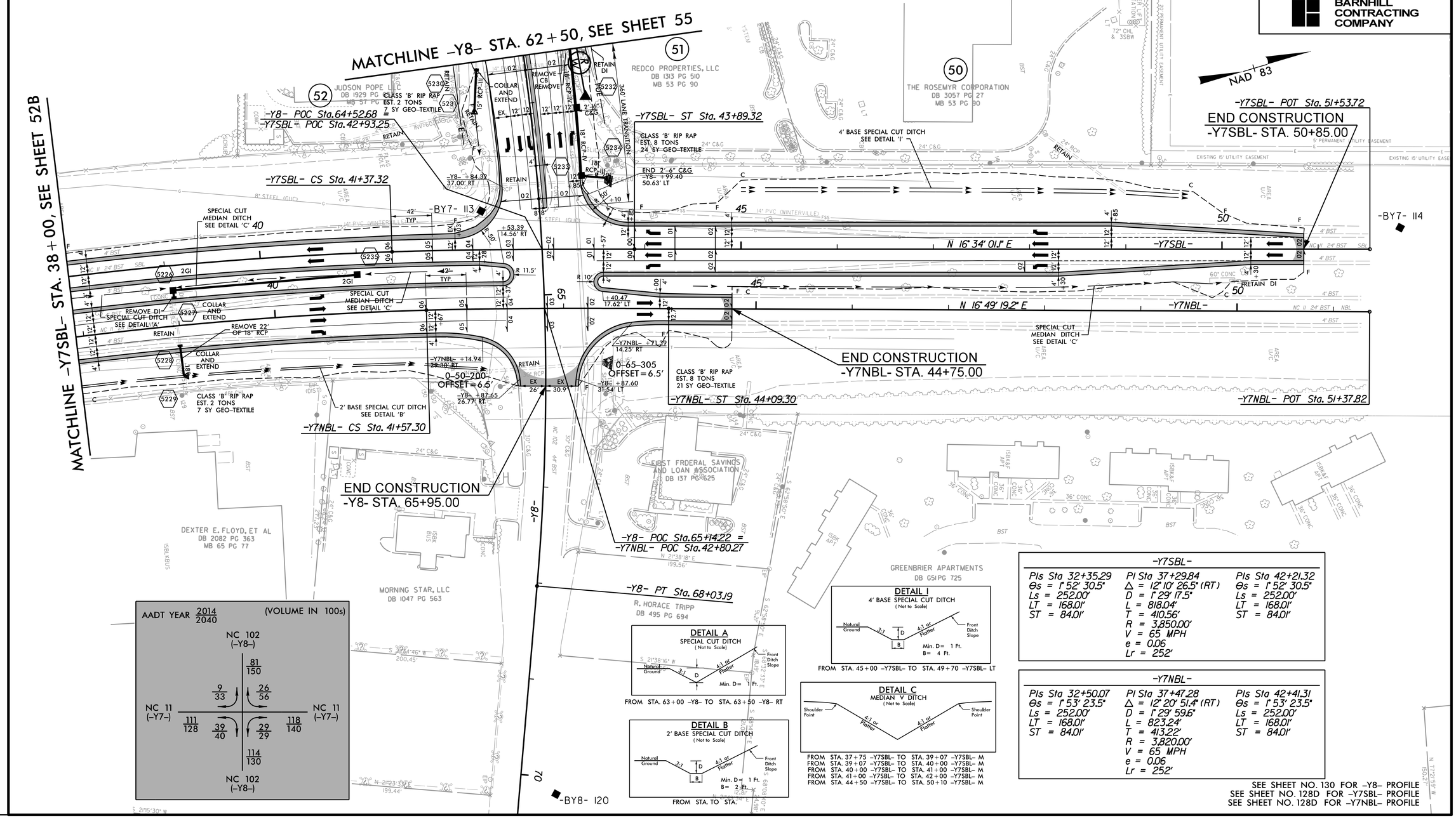
PROJECT REFERENCE NO.	SHEET NO.
R-2250	52C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



-Y7SBL-

PIs Sta 32+35.29	PI Sta 37+29.84	PIs Sta 42+21.32
Θs = 1° 52' 30.5"	Δ = 12° 10' 26.5" (RT)	Θs = 1° 52' 30.5"
Ls = 252.00'	D = 1° 29' 17.5"	Ls = 252.00'
LT = 168.01'	L = 818.04'	LT = 168.01'
ST = 84.01'	T = 410.56'	ST = 84.01'
	R = 3,850.00'	
	V = 65 MPH	
	e = 0.06	
	Lr = 252'	

-Y7NBL-

PIs Sta 32+50.07	PI Sta 37+47.28	PIs Sta 42+41.31
Θs = 1° 53' 23.5"	Δ = 12° 20' 51.4" (RT)	Θs = 1° 53' 23.5"
Ls = 252.00'	D = 1° 29' 59.6"	Ls = 252.00'
LT = 168.01'	L = 823.24'	LT = 168.01'
ST = 84.01'	T = 413.22'	ST = 84.01'
	R = 3,820.00'	
	V = 65 MPH	
	e = 0.06	
	Lr = 252'	

SEE SHEET NO. 130 FOR -Y8- PROFILE
SEE SHEET NO. 128D FOR -Y7SBL- PROFILE
SEE SHEET NO. 128D FOR -Y7NBL- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
TIME: 6:12:26 PM
PENTABLE: NCDOT_pshpfl.tbl
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-52C.dgn

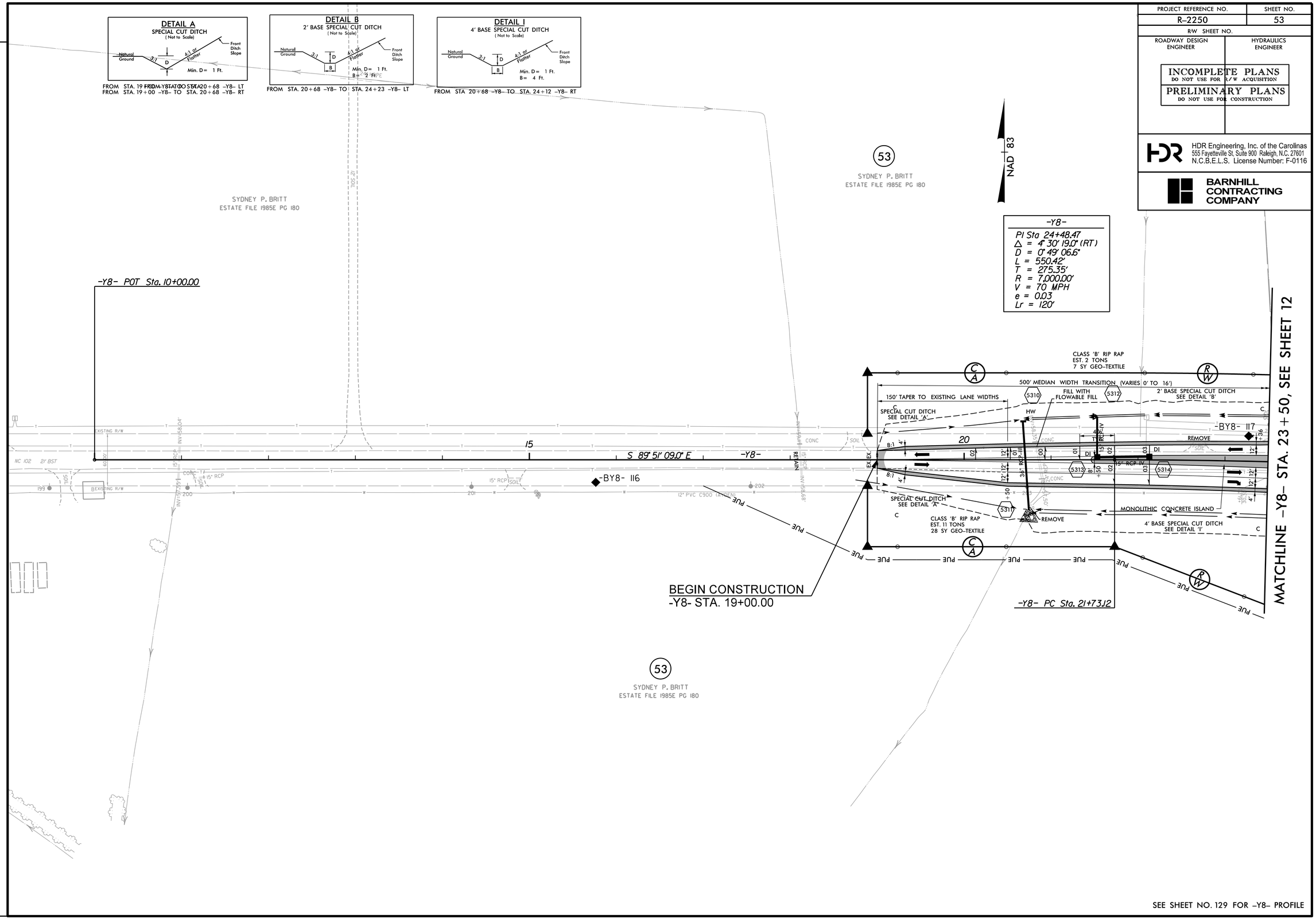
PROJECT REFERENCE NO.	SHEET NO.
R-2250	53
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

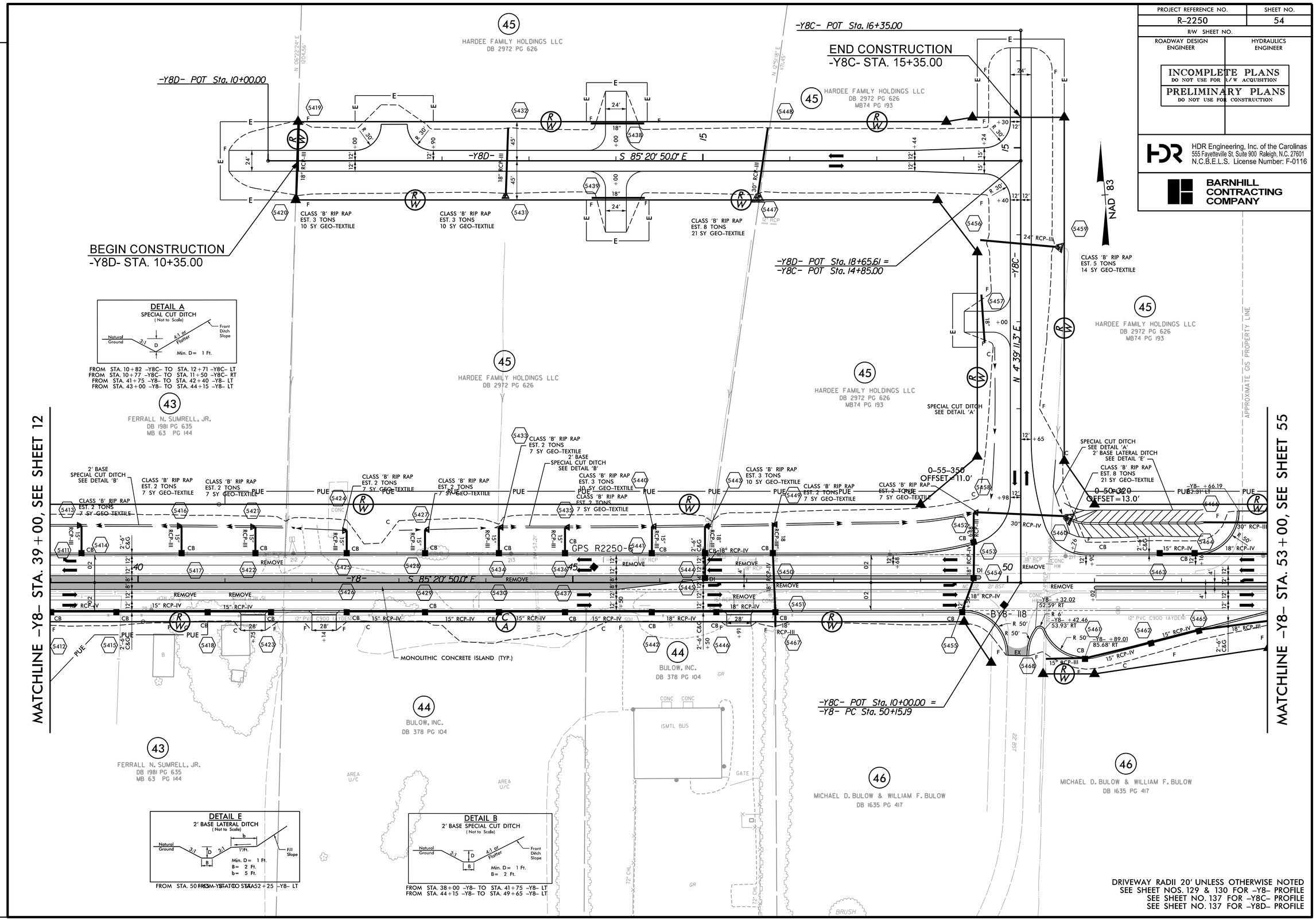
PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:12:37 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-53.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	54
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 129 & 130 FOR -Y8- PROFILE
SEE SHEET NO. 137 FOR -Y8C- PROFILE
SEE SHEET NO. 137 FOR -Y8D- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwrl DATE: 11/11/2015 TIME: 6:12:46 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-54.dgn

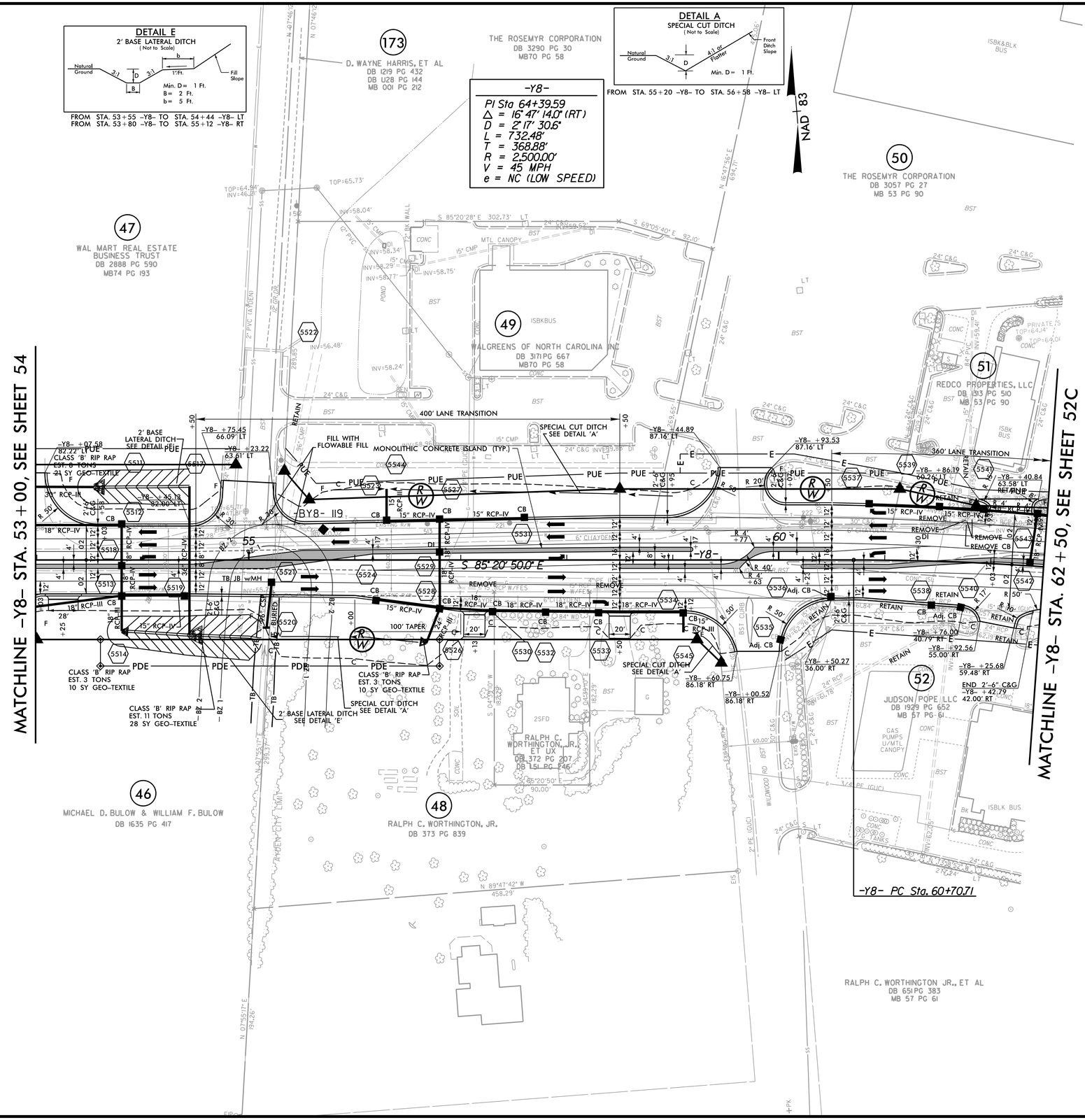
PROJECT REFERENCE NO.	SHEET NO.
R-2250	55
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:12:56 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\RoadwayProj\R2250_RDY_PSH-55.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2250	56
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

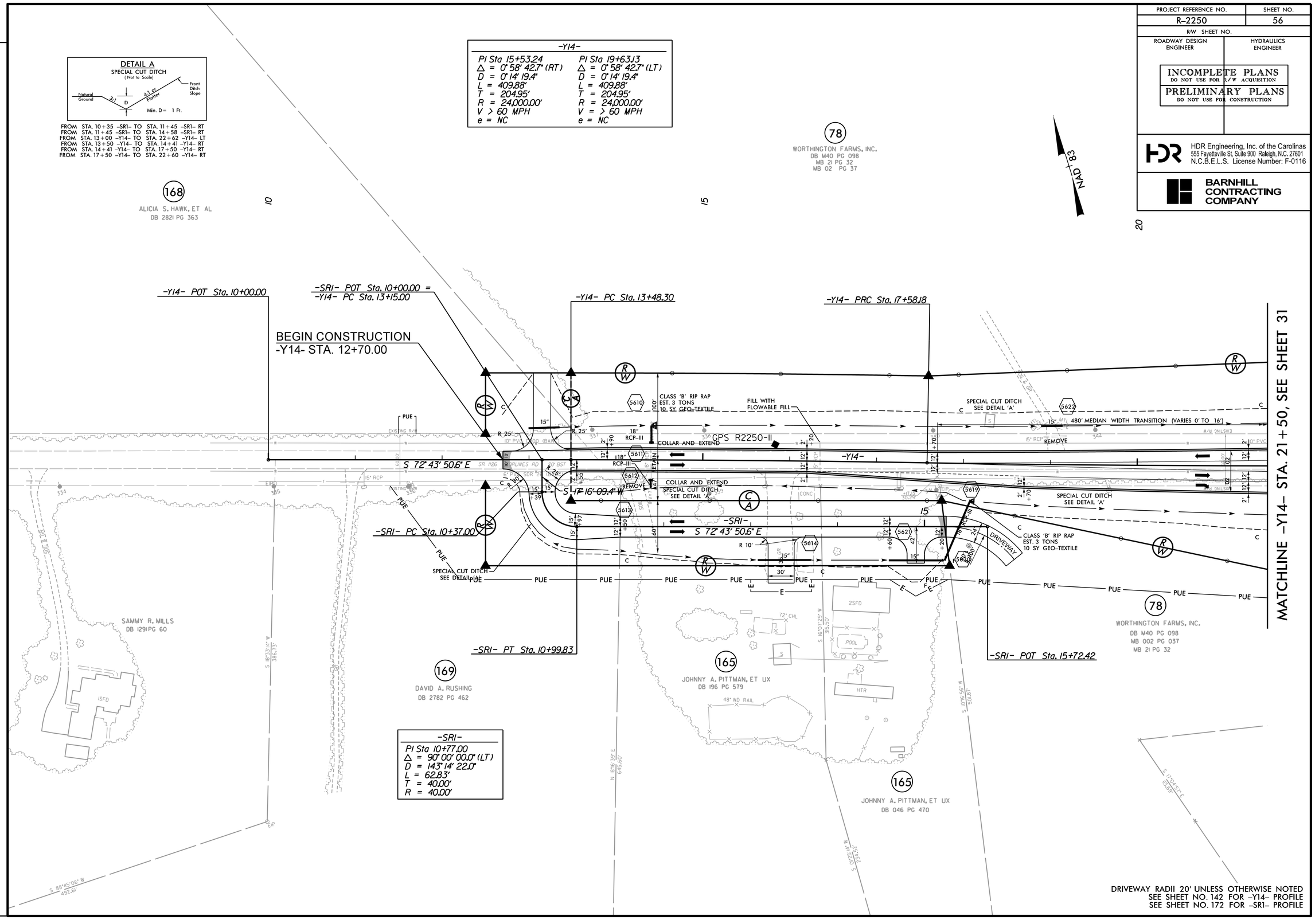
REVISIONS

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

FROM STA. 10+35 -SR1- TO STA. 11+45 -SR1- RT
FROM STA. 11+45 -SR1- TO STA. 14+58 -SR1- RT
FROM STA. 13+00 -Y14- TO STA. 22+62 -Y14- LT
FROM STA. 13+50 -Y14- TO STA. 14+41 -Y14- RT
FROM STA. 14+41 -Y14- TO STA. 17+50 -Y14- RT
FROM STA. 17+50 -Y14- TO STA. 22+60 -Y14- RT

-Y14-

PI Sta 15+53.24	PI Sta 19+63.13
Δ = 0° 58' 42.7" (RT)	Δ = 0° 58' 42.7" (LT)
D = 0° 14' 19.4"	D = 0° 14' 19.4"
L = 409.88'	L = 409.88'
T = 204.95'	T = 204.95'
R = 24,000.00'	R = 24,000.00'
V > 60 MPH	V = > 60 MPH
e = NC	e = NC



-SRI-

PI Sta 10+77.00
Δ = 90° 00' 00.0" (LT)
D = 143° 14' 22.0"
L = 62.83'
T = 40.00'
R = 40.00'

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 142 FOR -Y14- PROFILE
SEE SHEET NO. 172 FOR -SR1- PROFILE

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwr1 DATE: 11/11/2015 TIME: 6:13:07 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-56.dgn

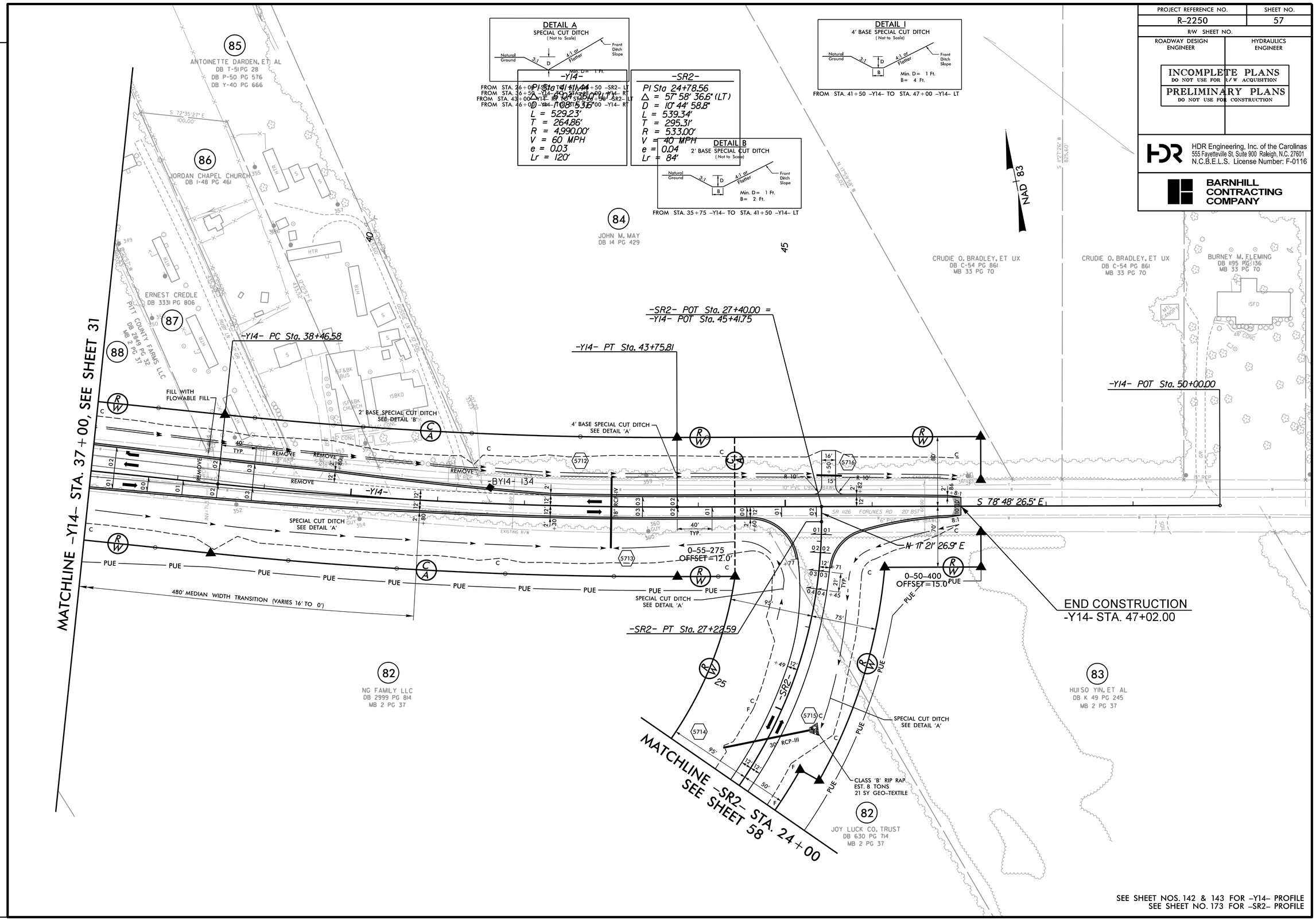
PROJECT REFERENCE NO.	SHEET NO.
R-2250	57
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 142 & 143 FOR -Y14- PROFILE
SEE SHEET NO. 173 FOR -SR2- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:13:17 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-57.dgn

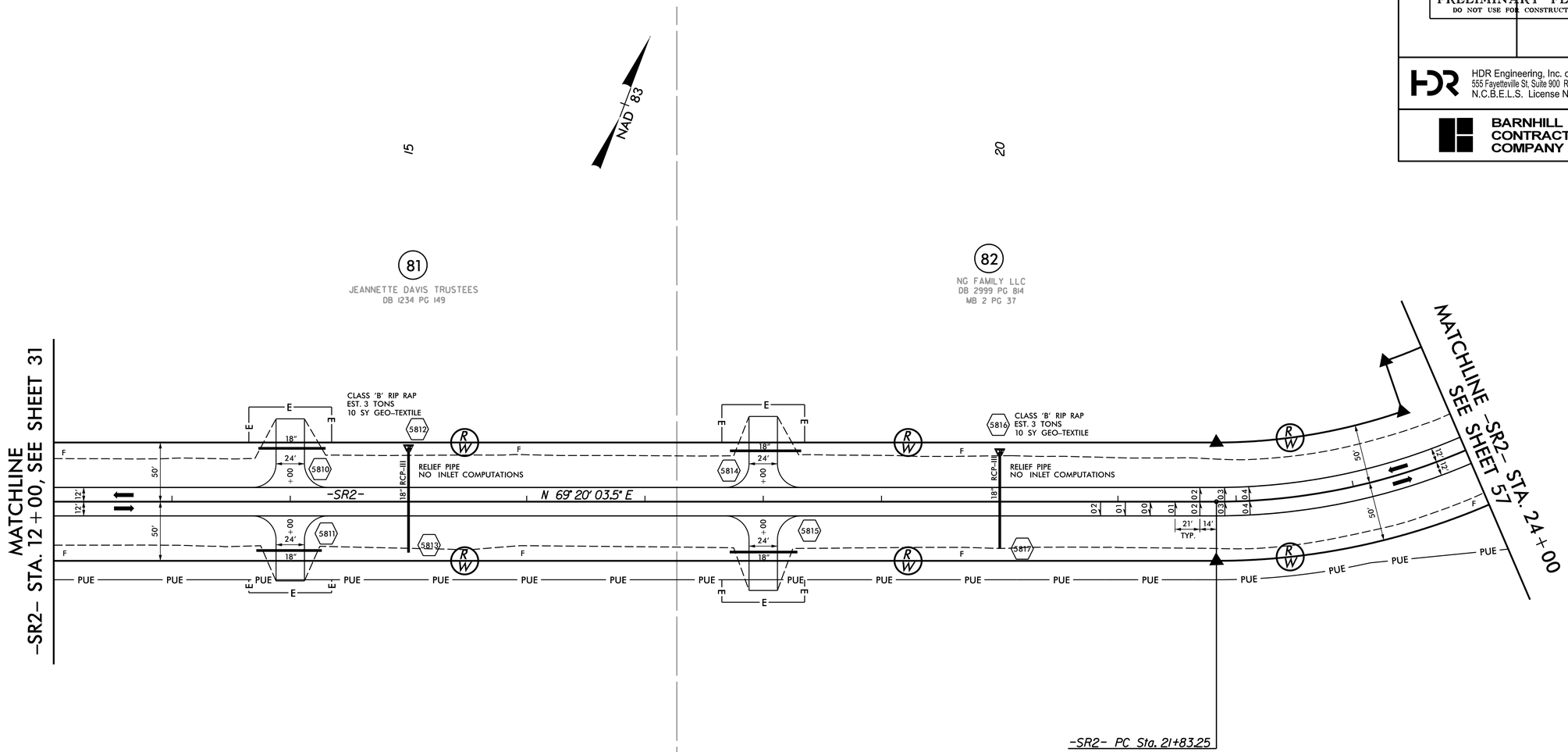
PROJECT REFERENCE NO.	SHEET NO.
R-2250	58
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



81
JEANNETTE DAVIS TRUSTEES
DB 1234 PG 149

82
NG FAMILY LLC
DB 2999 PG 814
MB 2 PG 37

-SR2-
PI Sta 24+78.56
Δ = 57° 58' 36.6" (LT)
D = 10° 44' 58.8"
L = 539.34'
T = 295.31'
R = 533.00'
V = 40 MPH
e = 0.04
Lr = 84'

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 173 FOR -SR2- PROFILE

REVISIONS

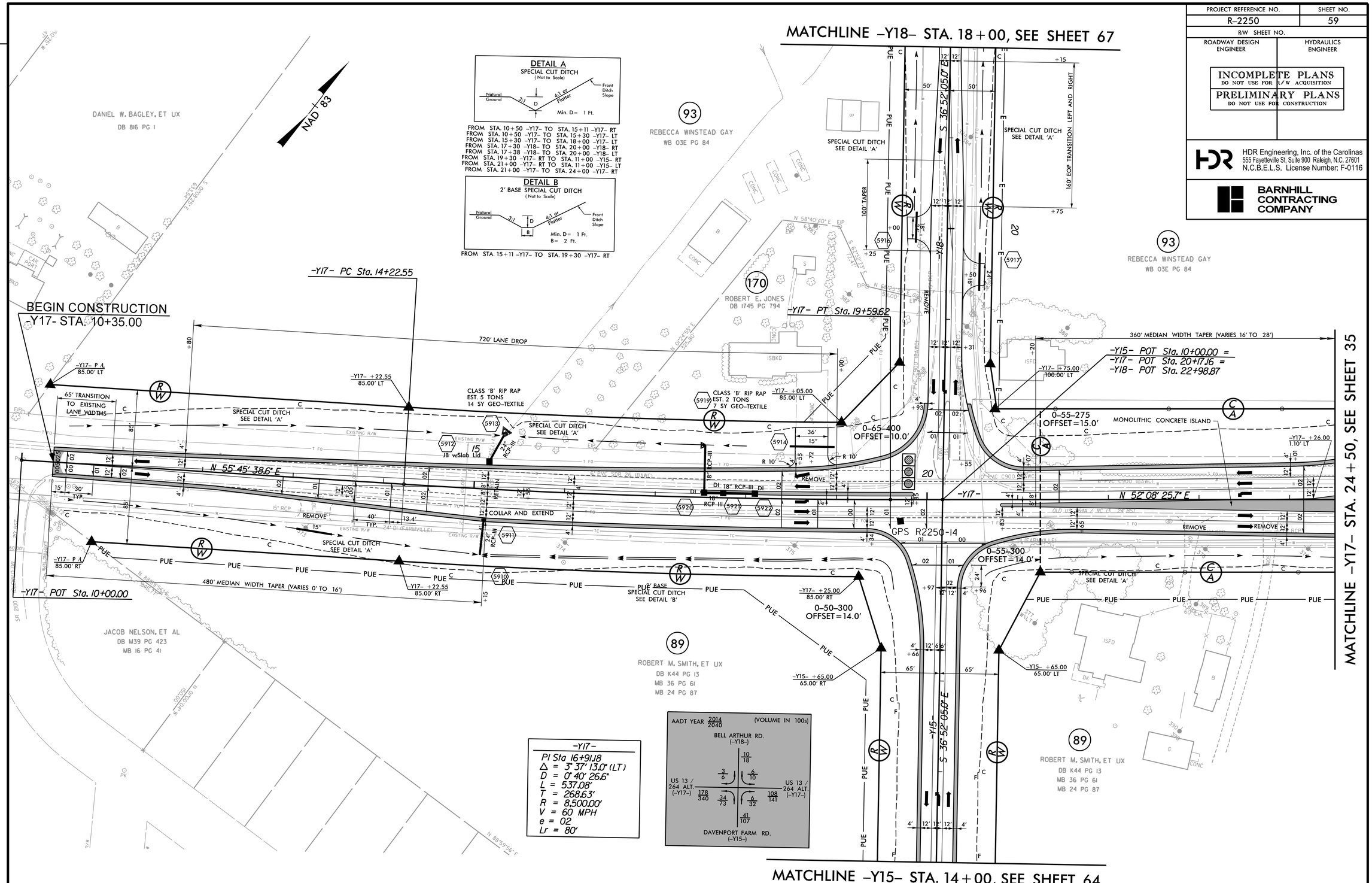
PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:13:28 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-58.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	59
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 148 FOR -Y15- PROFILE
SEE SHEET NO. 150 FOR -Y17- PROFILE
SEE SHEET NO. 158 FOR -Y18- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfi.tbl
USER: dwainwr1 DATE: 11/11/2015 TIME: 6:13:39 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-59.dgn

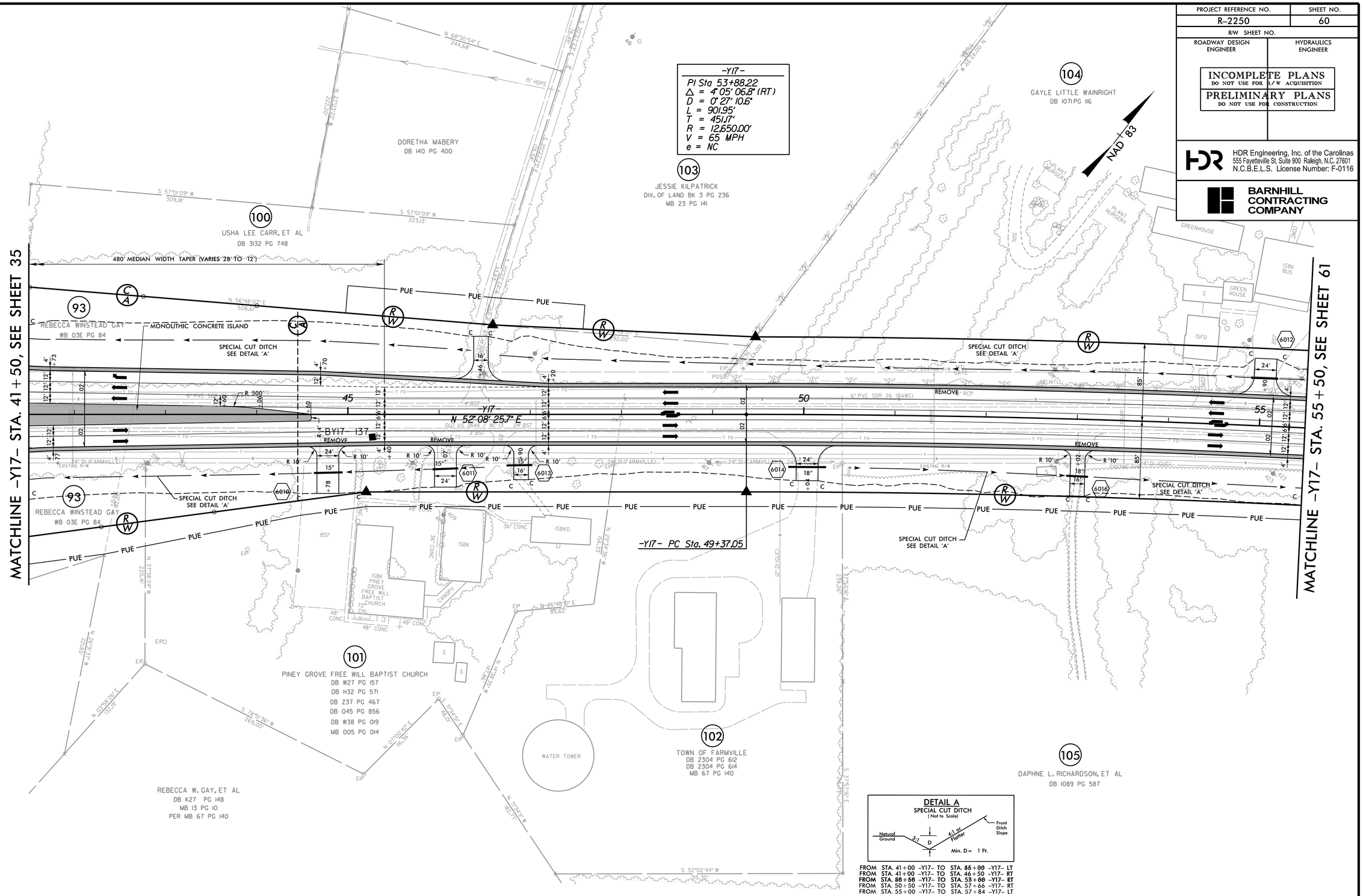
PROJECT REFERENCE NO.	SHEET NO.
R-2250	60
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

FROM STA. 41+00 -Y17- TO STA. 55+00 -Y17- LT
FROM STA. 41+00 -Y17- TO STA. 46+50 -Y17- RT
FROM STA. 55+00 -Y17- TO STA. 58+00 -Y17- RT
FROM STA. 50+50 -Y17- TO STA. 57+66 -Y17- RT
FROM STA. 55+00 -Y17- TO STA. 57+84 -Y17- LT

DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 149 FOR -Y15- PROFILE
SEE SHEET NO. 151 FOR -Y17- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:13:51 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-60.dgn

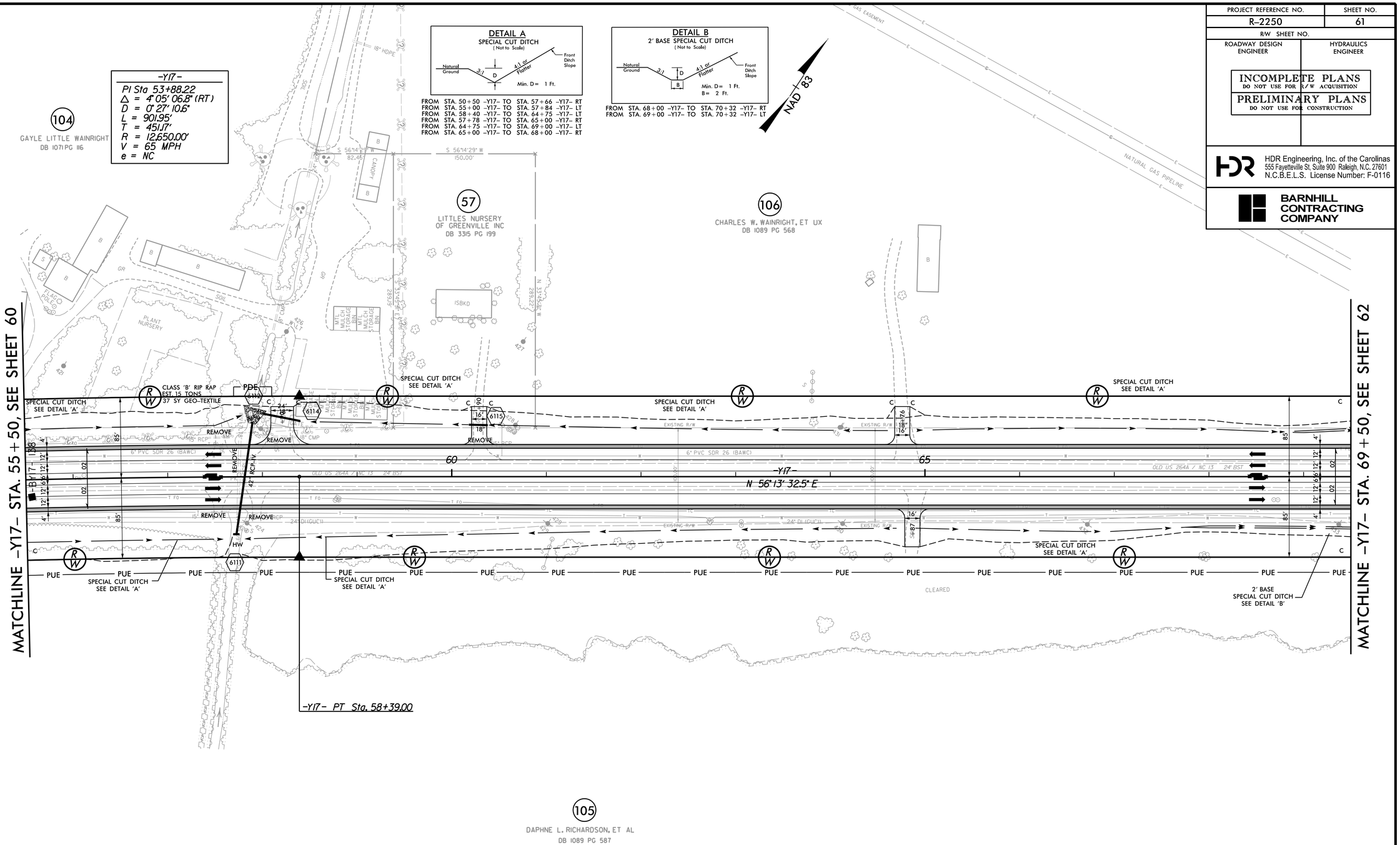
PROJECT REFERENCE NO.	SHEET NO.
R-2250	61
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 151 & 152 FOR -Y17- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:14:04 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-61.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	62
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

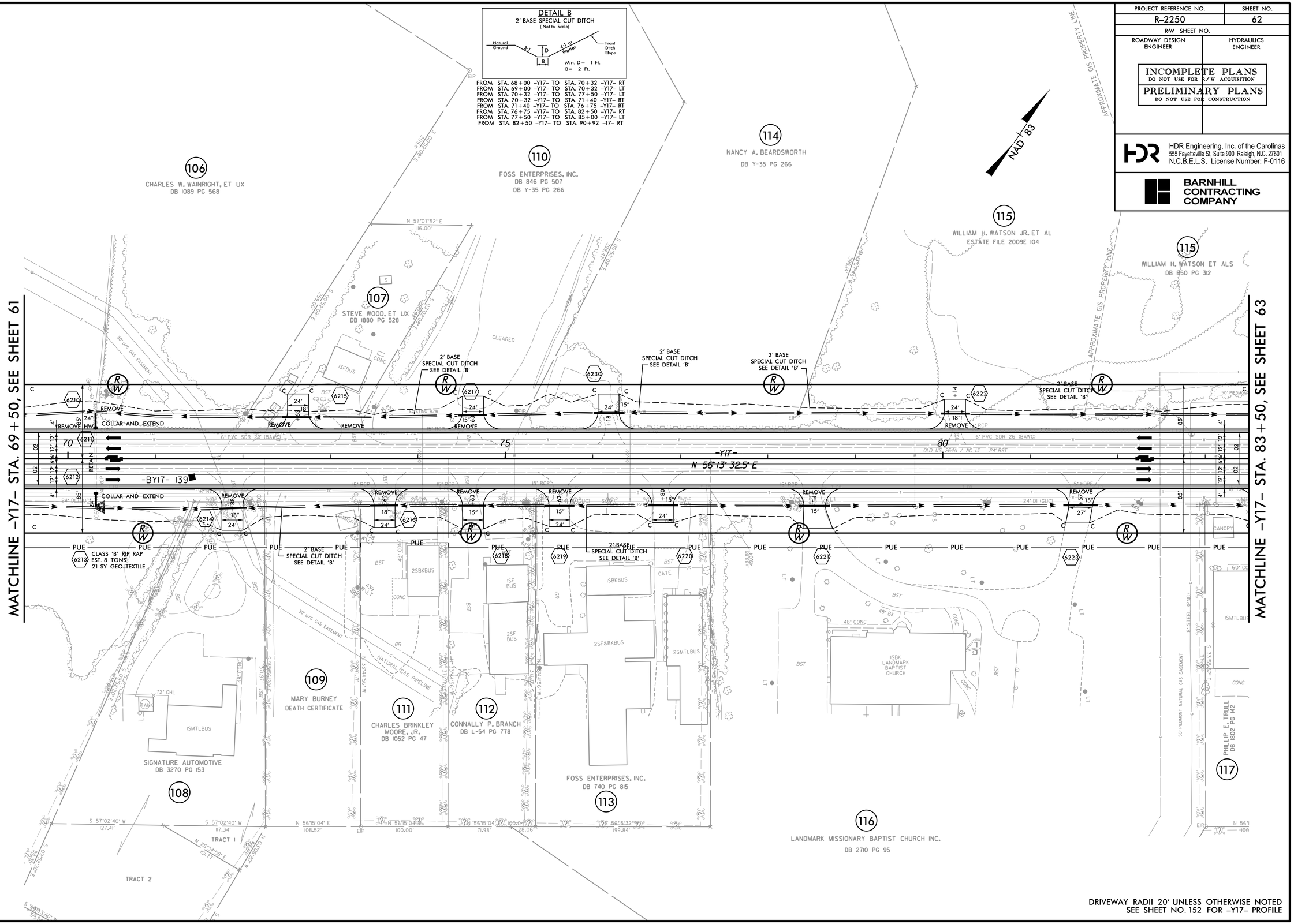
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL B
2' BASE SPECIAL CUT DITCH
(Not to Scale)

FROM STA. 68+00 -Y17- TO STA. 70+32 -Y17- RT
FROM STA. 69+00 -Y17- TO STA. 70+32 -Y17- LT
FROM STA. 70+32 -Y17- TO STA. 77+50 -Y17- LT
FROM STA. 70+32 -Y17- TO STA. 71+40 -Y17- RT
FROM STA. 71+40 -Y17- TO STA. 76+75 -Y17- RT
FROM STA. 76+75 -Y17- TO STA. 82+50 -Y17- RT
FROM STA. 77+50 -Y17- TO STA. 85+00 -Y17- LT
FROM STA. 82+50 -Y17- TO STA. 90+92 -Y17- RT



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 152 FOR -Y17- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:14:17 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-62.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	63
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

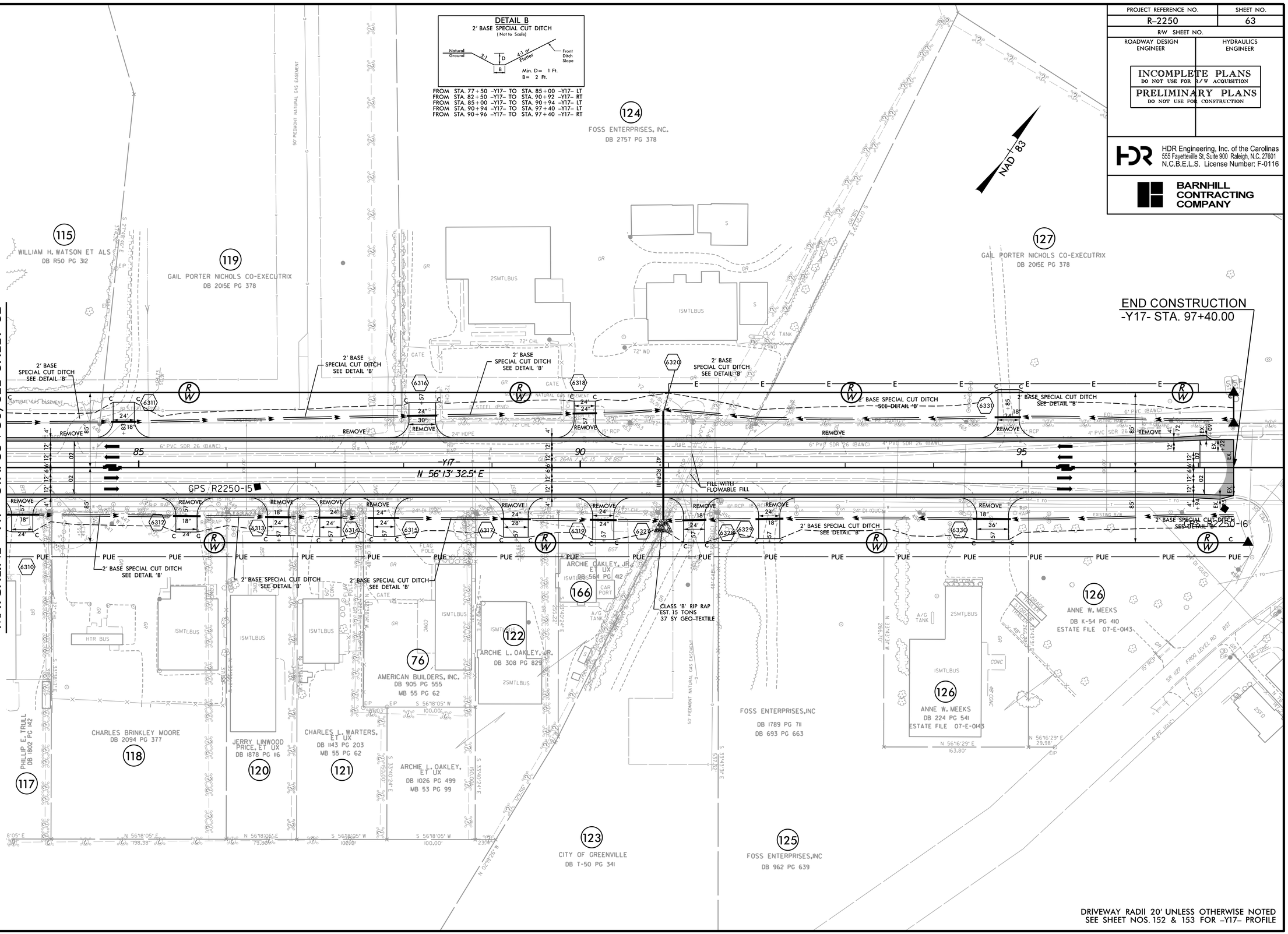
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

DETAIL B
2' BASE SPECIAL CUT DITCH
(Not to Scale)

FROM STA. 77+50 -Y17- TO STA. 85+00 -Y17- LT
FROM STA. 82+50 -Y17- TO STA. 90+92 -Y17- RT
FROM STA. 85+00 -Y17- TO STA. 90+94 -Y17- LT
FROM STA. 90+94 -Y17- TO STA. 97+40 -Y17- LT
FROM STA. 90+96 -Y17- TO STA. 97+40 -Y17- RT



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NOS. 152 & 153 FOR -Y17- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:14:28 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-63.dgn

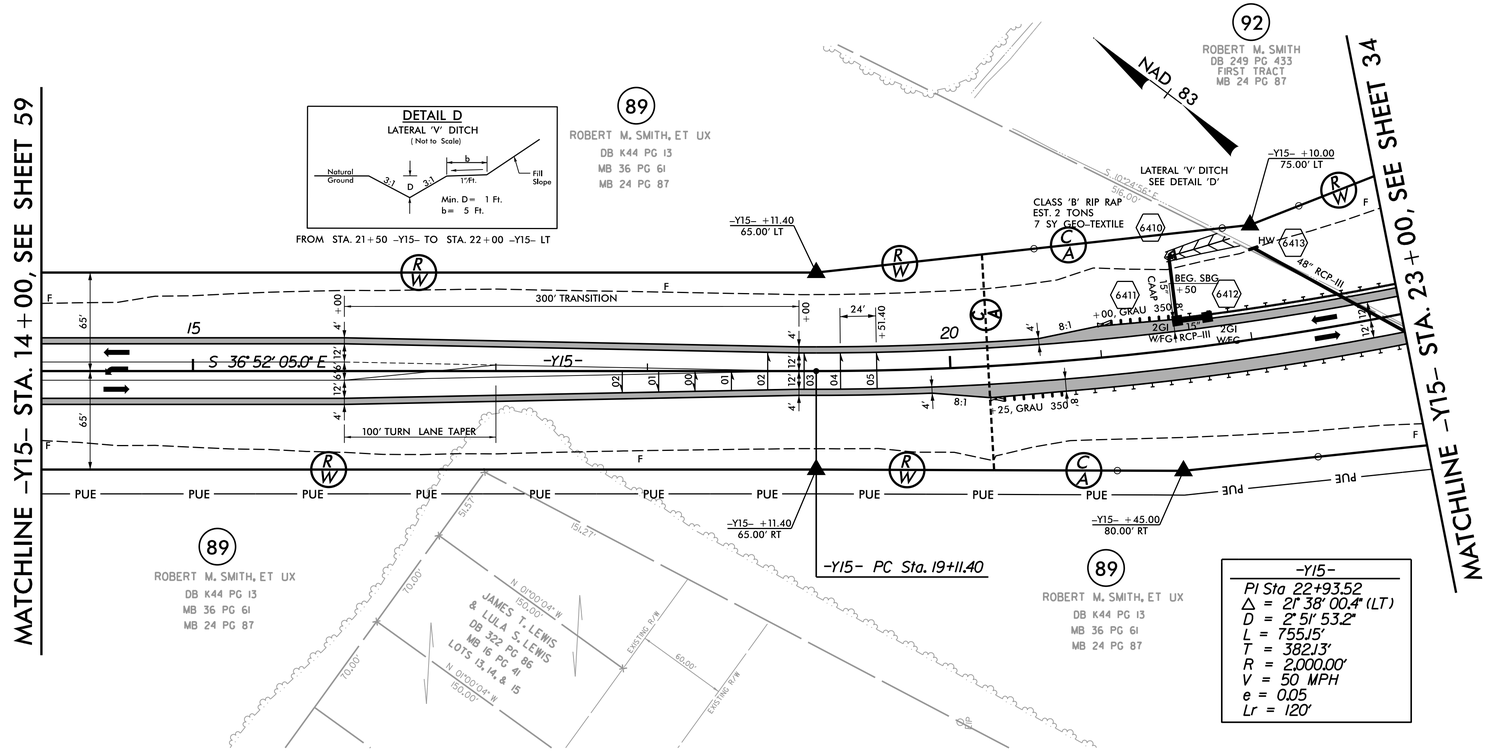
PROJECT REFERENCE NO.	SHEET NO.
R-2250	64
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

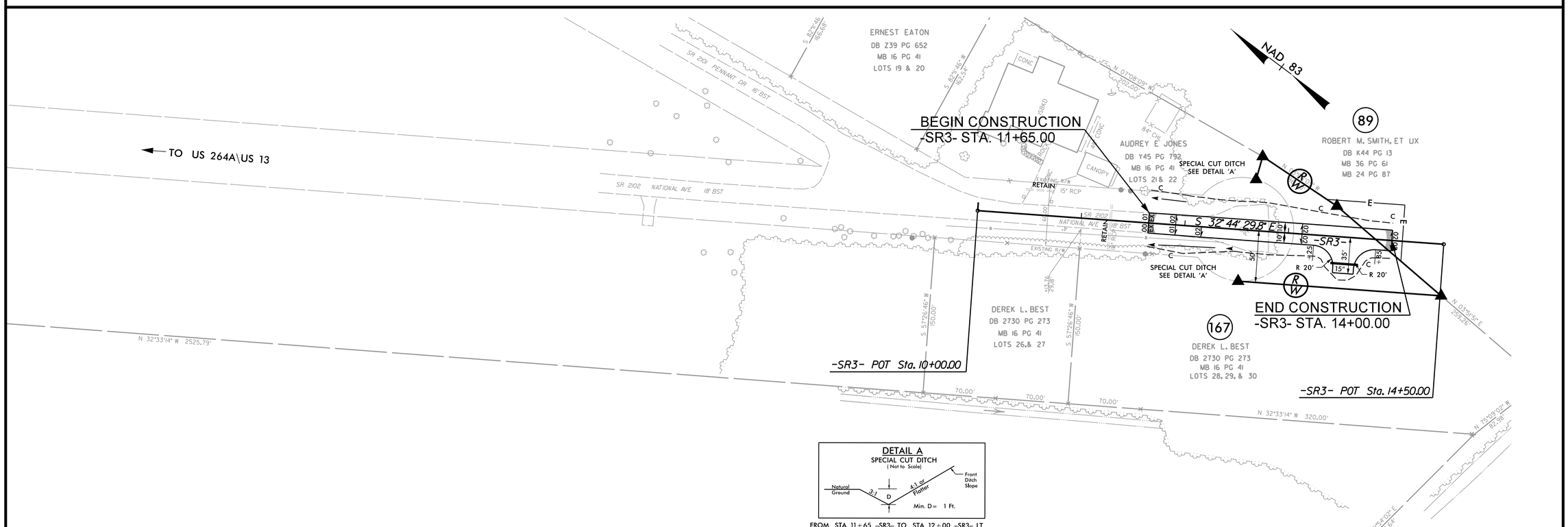
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NO. 148 FOR -Y15- PROFILE



SEE SHEET NO. 173 FOR -SR3- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B.C.Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-64.dgn
PENTABLE: NCDOT_pshpfl.tbl
DATE: 11/11/2015
TIME: 6:14:40 PM

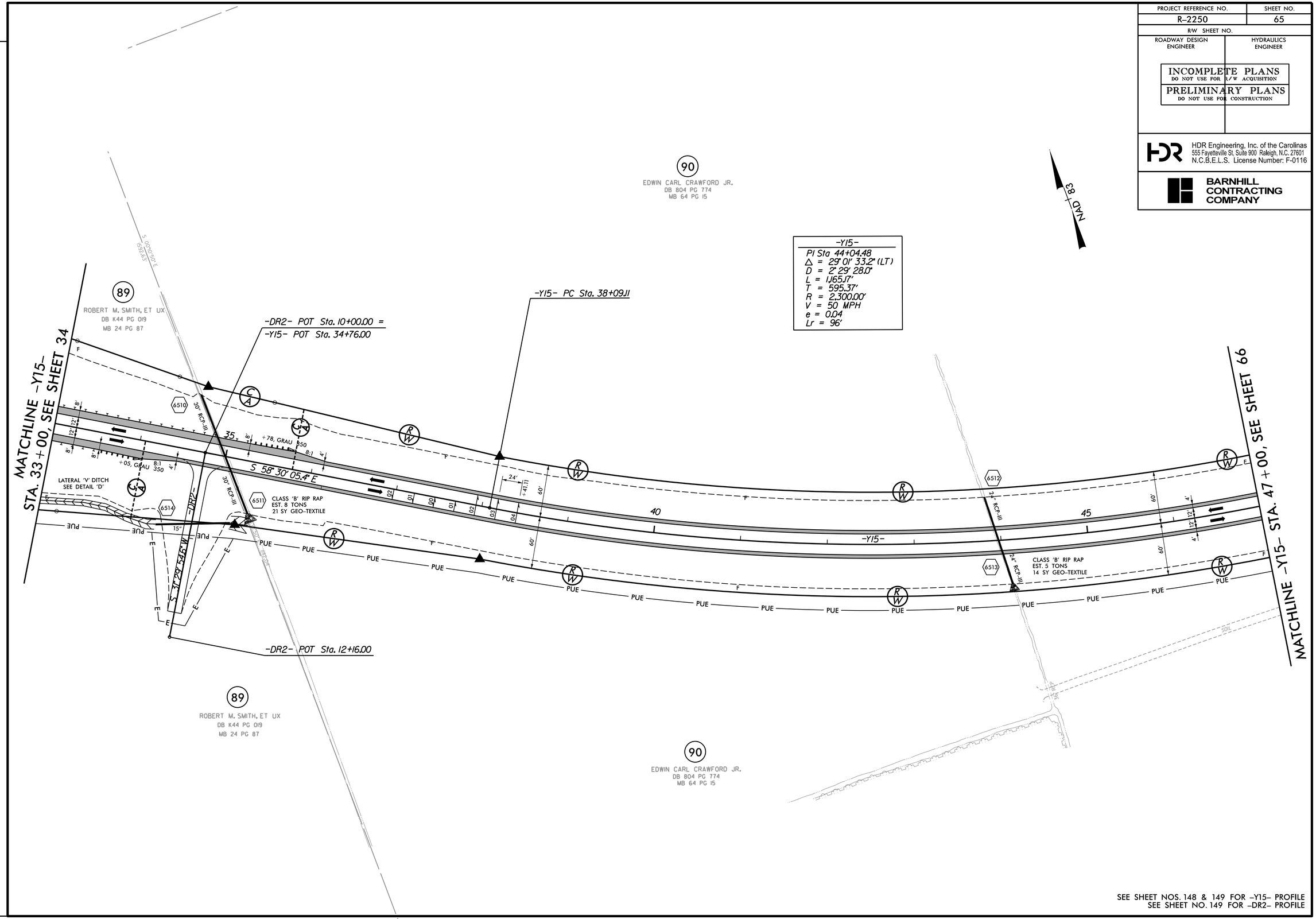
PROJECT REFERENCE NO.	SHEET NO.
R-2250	65
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NOS. 148 & 149 FOR -Y15- PROFILE
SEE SHEET NO. 149 FOR -DR2- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:14:50 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-65.dgn

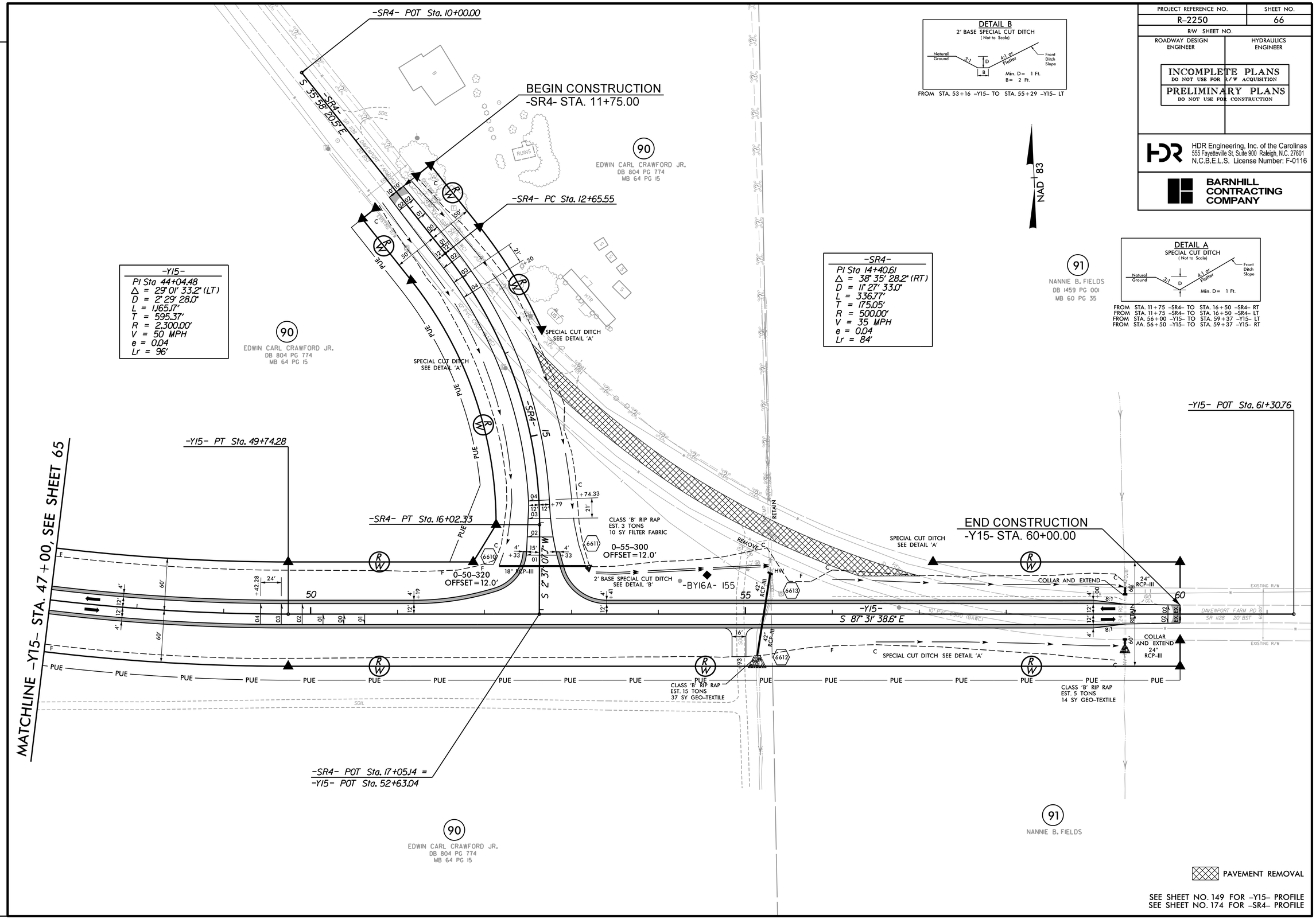
PROJECT REFERENCE NO.	SHEET NO.
R-2250	66
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



SEE SHEET NO. 149 FOR -Y15- PROFILE
SEE SHEET NO. 174 FOR -SR4- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:15:00 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-66.dgn

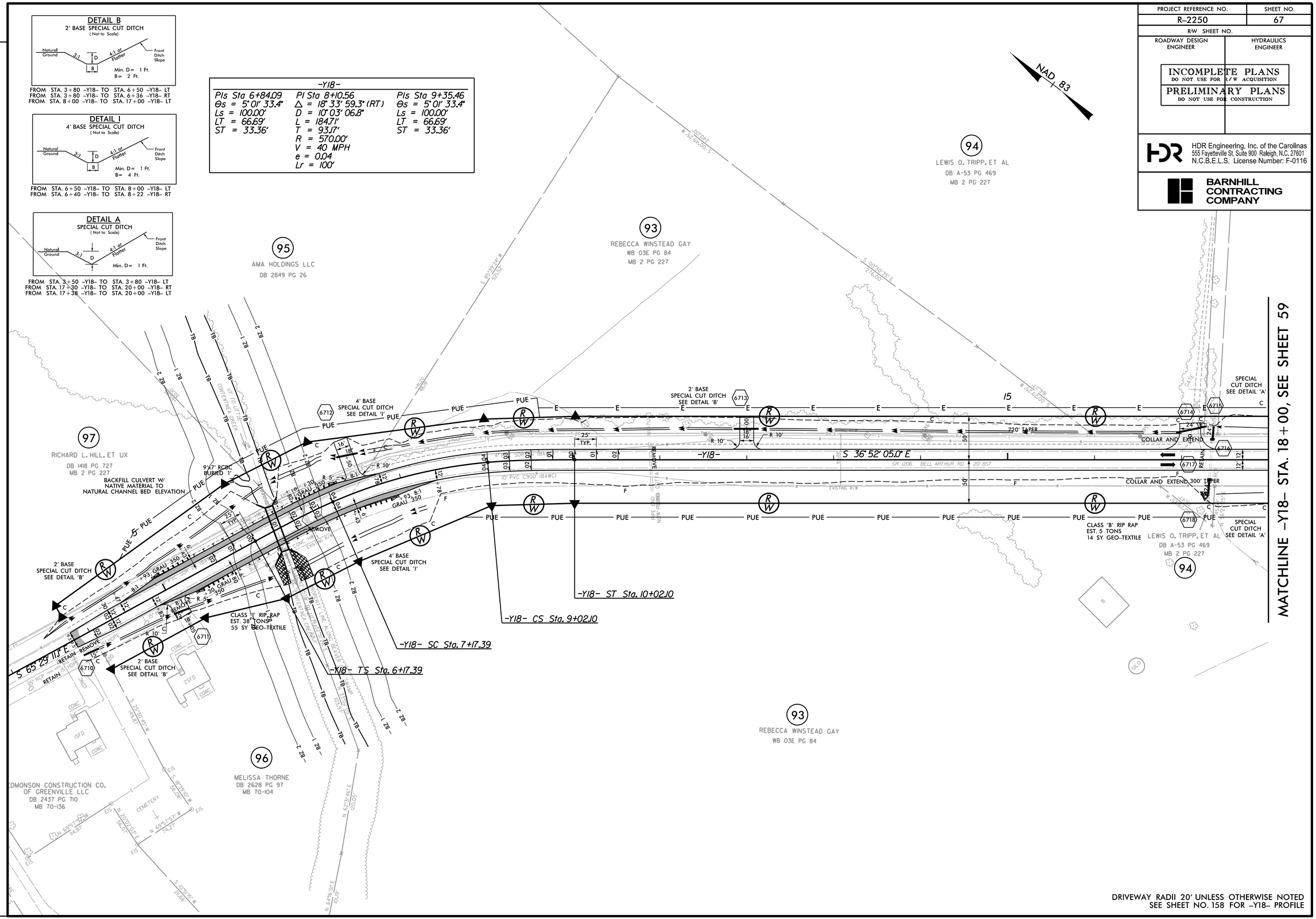
PROJECT REFERENCE NO.	SHEET NO.
R-2250	67
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 158 FOR -Y18- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:15:12 PM
FILE: North_Carolina_Dept_of_Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-67.dgn

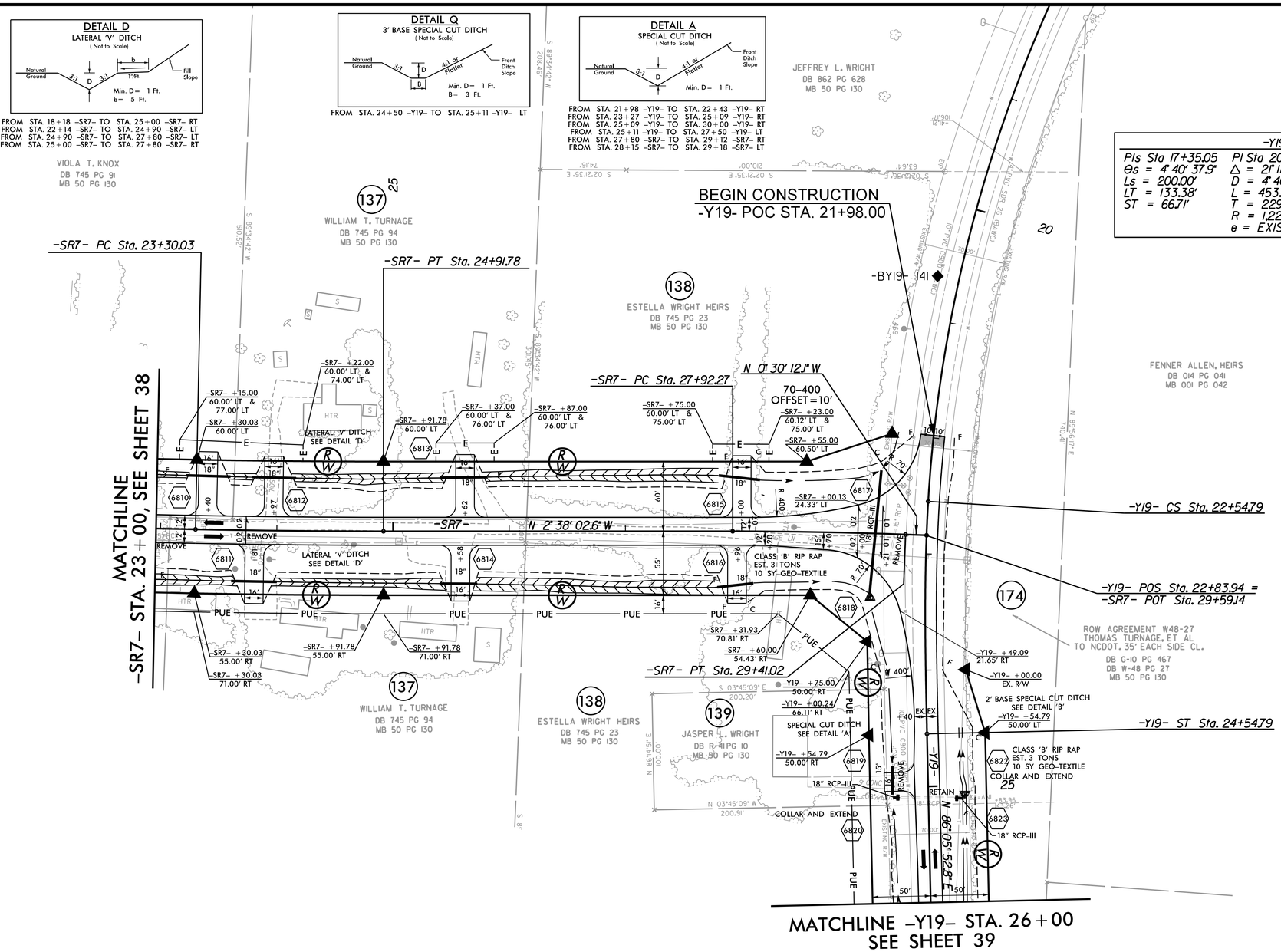
PROJECT REFERENCE NO.	SHEET NO.
R-2250	68
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



DRIVEWAY RADII 20' UNLESS OTHERWISE NOTED
SEE SHEET NO. 159 FOR -Y19- PROFILE
SEE SHEET NO. 175 FOR -SR7- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:15:22 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-68.dgn

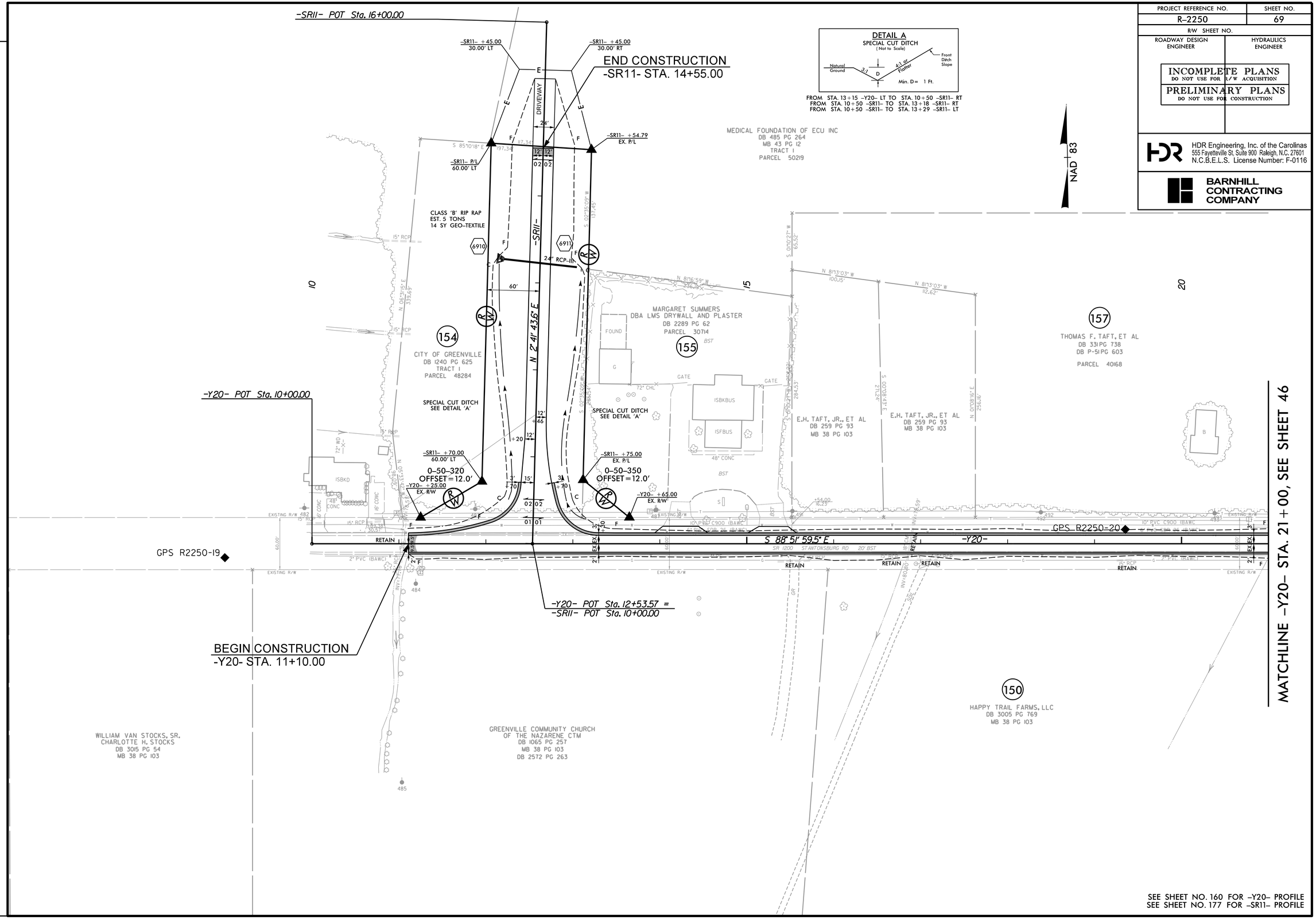
PROJECT REFERENCE NO.	SHEET NO.
R-2250	69
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY



REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwalnwri DATE: 11/11/2015 TIME: 6:15:32 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-69.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	70
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

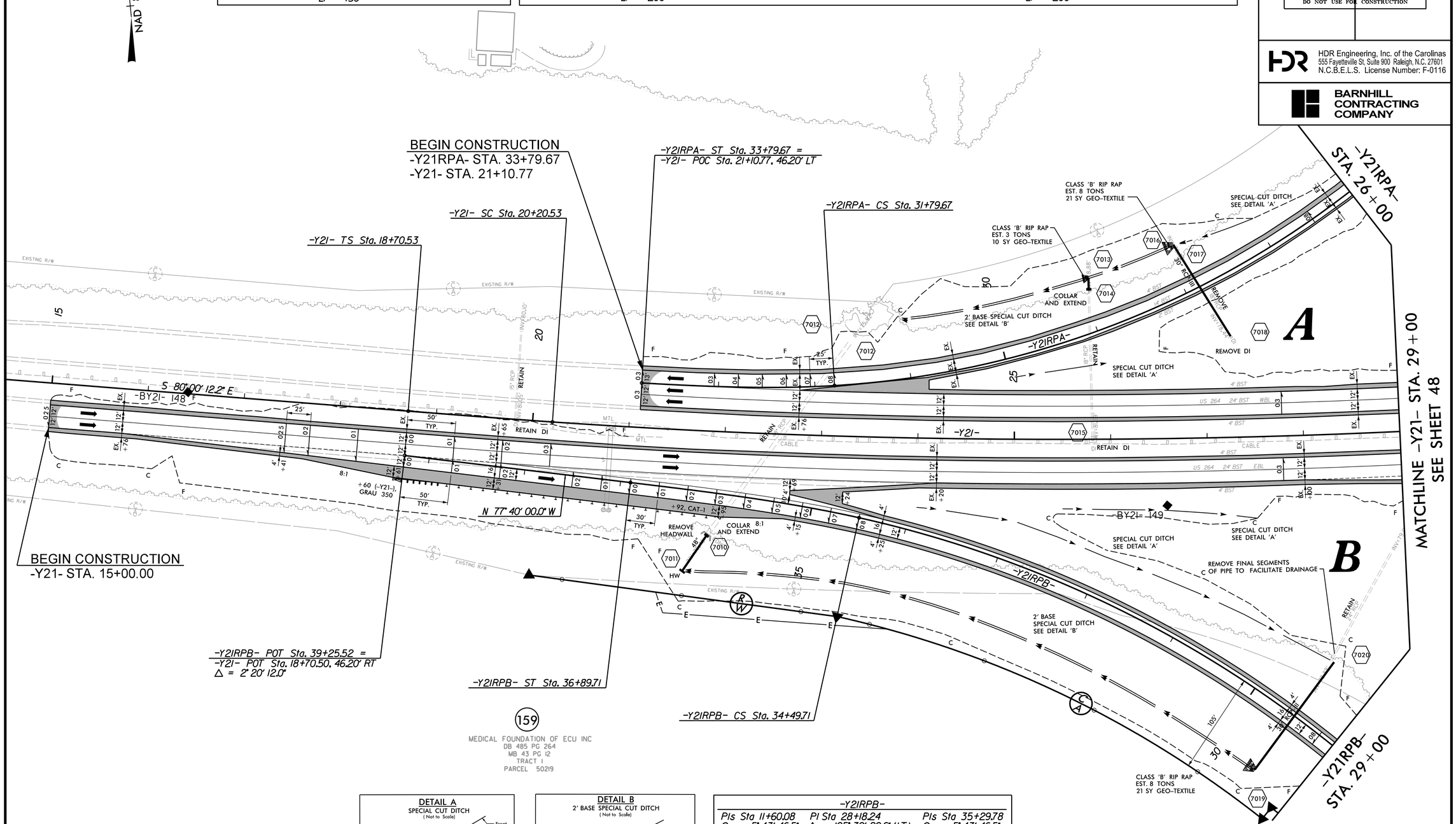
BARNHILL CONTRACTING COMPANY

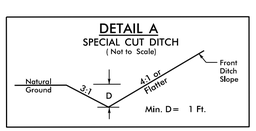
-Y21-

PIs Sta 19+70.53	PI Sta 27+92.41	PIs Sta 36+09.08
Θs = 0° 33' 42.2"	Δ = 11° 31' 23.6" (LT)	Θs = 0° 33' 42.2"
Ls = 150.00'	D = 0° 44' 56.3"	Ls = 150.00'
LT = 100.00'	L = 1,538.55'	LT = 100.00'
ST = 50.00'	T = 771.88'	ST = 50.00'
	R = 7,650.00'	
	V = 70 MPH	
	e = 0.03	
	Lr = 150'	

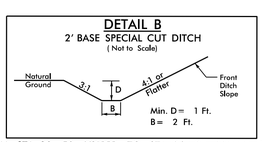
-Y21RPA-

PIs Sta 13+53.39	PI Sta 16+87.47	PIs Sta 20+20.56	PI Sta 22+43.37	PIs Sta 24+67.34	PI Sta 28+72.96	PIs Sta 32+53.94
Θs = 5° 12' 31.3"	Δ = 27° 20' 00.0" (RT)	Θs = 0° 49' 03.9"	Δ = 1° 36' 51.1" (RT)	Θs = 0° 49' 03.0"	Δ = 37° 51' 45.7" (RT)	Θs = 0° 45' 09.3"
Ls = 200.00'	D = 5° 12' 31.3"	Θs = 5° 12' 34.1"	D = 0° 49' 06.6"	Θs = 5° 56' 18.2"	D = 5° 56' 14.6"	Θs = 5° 56' 18.0"
LT = 133.39'	L = 524.76'	Ls = 200.00'	L = 197.21'	Ls = 200.00'	L = 637.70'	Ls = 200.00'
ST = 66.72'	T = 267.47'	LT = 124.37'	T = 98.61'	LT = 125.36'	T = 330.98'	LT = 125.93'
	R = 1,100.00'	ST = 75.80'	R = 7,000.00'	ST = 74.84'	R = 965.00'	ST = 74.27'
	V = 55 MPH		V = 60 MPH		V = 55 MPH	
	e = 0.08		e = 0.025		e = 0.08	
	Lr = 200'				Lr = 200'	





FROM STA. 24+00 -Y21- TO STA. 25+00 -Y21- RT
FROM STA. 25+00 -Y21- TO STA. 26+00 -Y21- LT
FROM STA. 25+50 -Y21- TO STA. 27+50 -Y21- RT



FROM STA. 29+50 -Y21RPB- TO STA. 36+25 -Y21RPB- LT

-Y21RPB-

PIs Sta 11+60.08	PI Sta 28+18.24	PIs Sta 35+29.78
Θs = 5° 43' 46.5"	Δ = 105° 30' 20.6" (LT)	Θs = 5° 43' 46.5"
Ls = 240.00'	D = 4° 46' 28.7"	Ls = 240.00'
LT = 160.08'	L = 2,209.71'	LT = 160.08'
ST = 80.08'	T = 1,578.24'	ST = 80.08'
	R = 1,200.00'	
	V = 60 MPH	
	e = 0.08	
	Lr = 240'	

SEE SHEET NOS. 161 & 162 FOR -Y21- PROFILE
SEE SHEET NO. 165 FOR -Y21RPA- PROFILE
SEE SHEET NOS. 166 & 167 FOR -Y21RPB- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: dwainwri
DATE: 11/11/2015
PENTABLE: NCDOT_pshpfl.tbl
TIME: 6:15:42 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-70.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	71
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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

BARNHILL CONTRACTING COMPANY

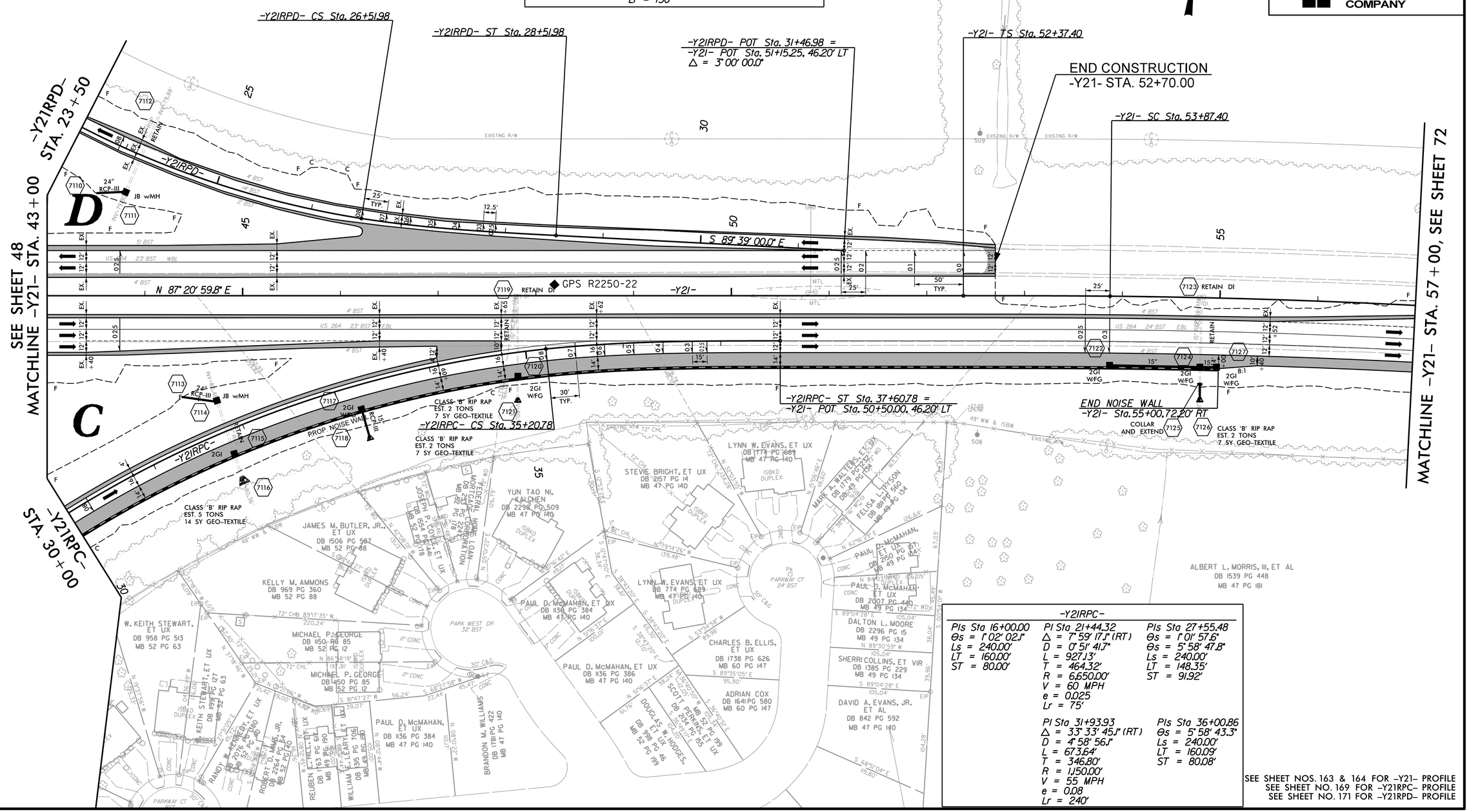
NAD 83

-Y21IRPD-

PIs Sta 11+33.41	PI Sta 14+48.88	PI Sta 19+40.96	PI Sta 24+24.21	PIs Sta 27+18.72
Θs = 5° 59' 58.4"	Δ = 29° 12' 48.1" (LT)	Δ = 24° 48' 30.2" (LT)	Δ = 27° 53' 42.6" (LT)	Θs = 5° 59' 58.4"
Ls = 200.00'	D = 5° 59' 58.4"	D = 4° 57' 38.4"	D = 5° 59' 58.4"	Ls = 200.00'
LT = 133.41'	L = 486.93'	L = 500.10'	L = 464.95'	LT = 133.41'
ST = 66.74'	T = 248.88'	T = 254.03'	T = 237.18'	ST = 66.74'
	R = 955.00'	R = 1,155.00'	R = 955.00'	
	V ≅ 55 MPH	V = 55 MPH	V ≅ 55 MPH	
	e = 0.08	e = 0.08	e = 0.08	
	Lr = 200'		Lr = 200'	

-Y21-

PIs Sta 53+37.40	PI Sta 60+13.50	PIs Sta 66+86.81
Θs = 0° 33' 42.2"	Δ = 9° 21' 27.4" (RT)	Θs = 0° 33' 42.2"
Ls = 150.00'	D = 0° 44' 56.3"	Ls = 150.00'
LT = 100.00'	L = 1,249.41'	LT = 100.00'
ST = 50.00'	T = 626.10'	ST = 50.00'
	R = 7,650.00'	
	V = 70 MPH	
	e = 0.03	
	Lr = 150'	



-Y21IRPC-

PIs Sta 16+00.00	PI Sta 21+44.32	PIs Sta 27+55.48
Θs = 1° 02' 02.1"	Δ = 7° 59' 17.1" (RT)	Θs = 1° 01' 57.6"
Ls = 240.00'	D = 0° 51' 41.7"	Θs = 5° 58' 47.8"
LT = 160.00'	L = 927.13'	Ls = 240.00'
ST = 80.00'	T = 464.32'	LT = 148.35'
	R = 6,650.00'	ST = 91.92'
	V = 60 MPH	
	e = 0.025	
	Lr = 75'	
	PI Sta 31+93.93	PIs Sta 36+00.86
	Δ = 33° 33' 45.1" (RT)	Θs = 5° 58' 43.3"
	D = 4° 58' 56.1"	Ls = 240.00'
	L = 673.64'	LT = 160.09'
	T = 346.80'	ST = 80.08'
	R = 1,150.00'	
	V = 55 MPH	
	e = 0.08	
	Lr = 240'	

SEE SHEET NOS. 163 & 164 FOR -Y21- PROFILE
SEE SHEET NO. 169 FOR -Y21RPC- PROFILE
SEE SHEET NO. 171 FOR -Y21RPD- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwr1 DATE: 11/11/2015 TIME: 6:15:53 PM
FILE: North Carolina Dept of Transportation\R-2250A_B_C_Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-71.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2250	72
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

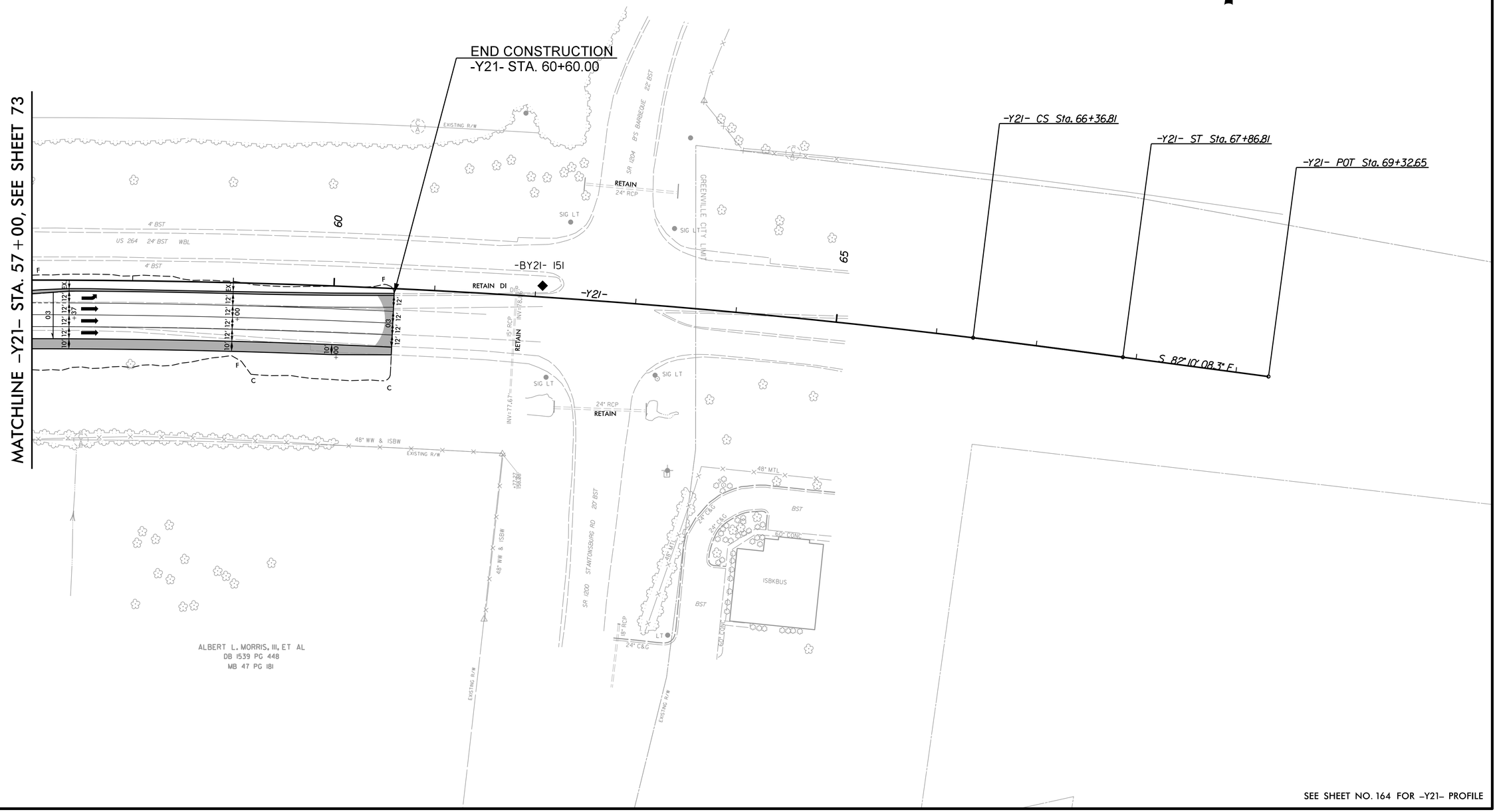
HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

BARNHILL CONTRACTING COMPANY

-Y21-

PIs Sta 53+37.40	PI Sta 60+13.50	PIs Sta 66+86.81
Θs = 0° 33' 42.2"	Δ = 9° 21' 27.4" (RT)	Θs = 0° 33' 42.2"
Ls = 150.00'	D = 0° 44' 56.3"	Ls = 150.00'
LT = 100.00'	L = 1,249.41'	LT = 100.00'
ST = 50.00'	T = 626.10'	ST = 50.00'
	R = 7,650.00'	
	V = 70 MPH	
	e = 0.03	
	Lr = 150'	

NAD 83



SEE SHEET NO. 164 FOR -Y21- PROFILE

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_pshpfl.tbl
USER: dwainwri DATE: 11/11/2015 TIME: 6:16:04 PM
FILE: North_Carolina_Dept_of_Transportation\R_2250A_B.C.Greenville_Southwest_Bypass_DB\06.00_Project_Design\R-2250_NCDOT_File_Structure\Roadway\Proj\R2250_RDY_PSH-72.dgn