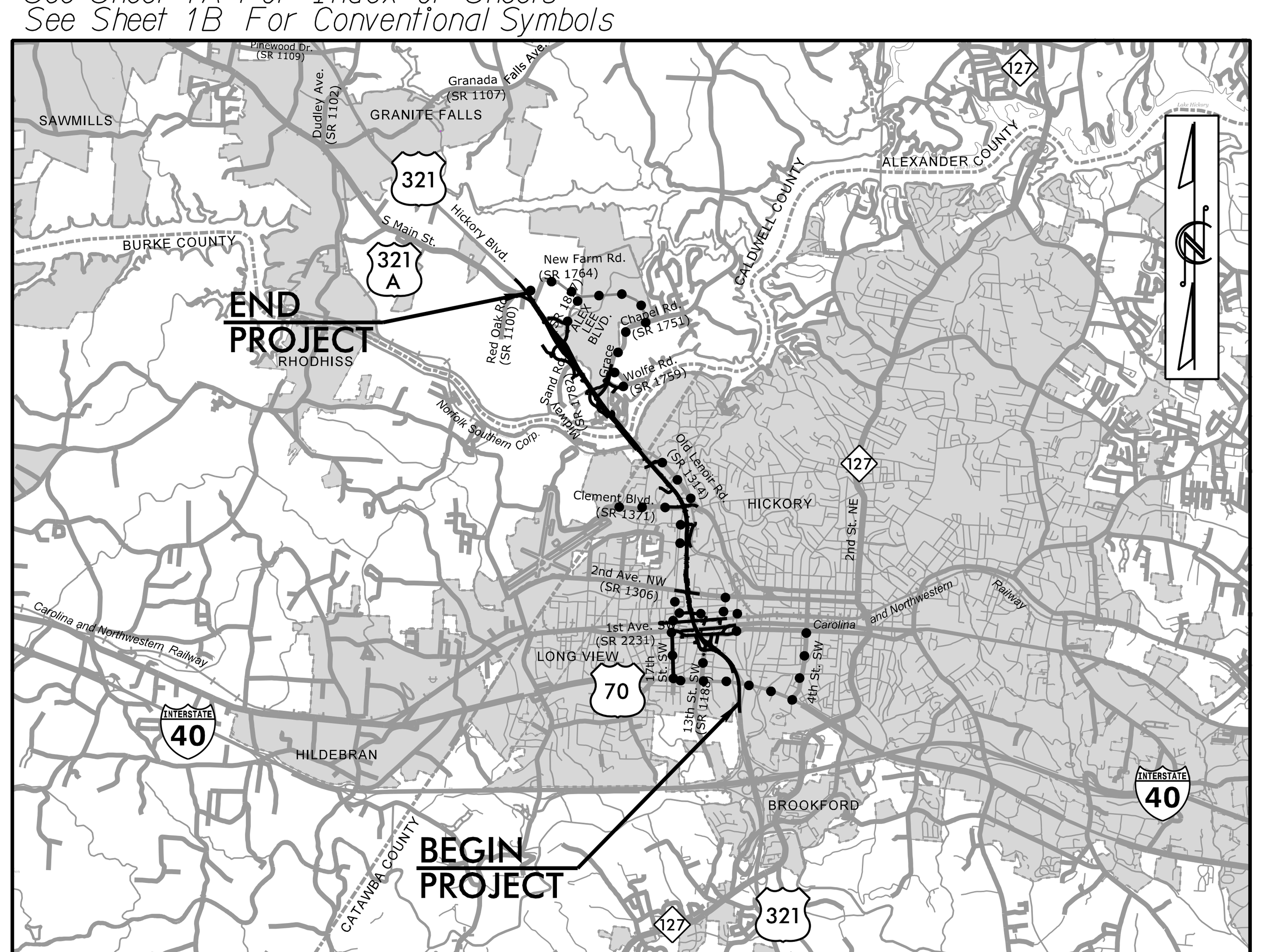
TIP PROJECT: U-4700A

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



VICINITY MAP (NTS)

• • • OFFSITE DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4700A	1	

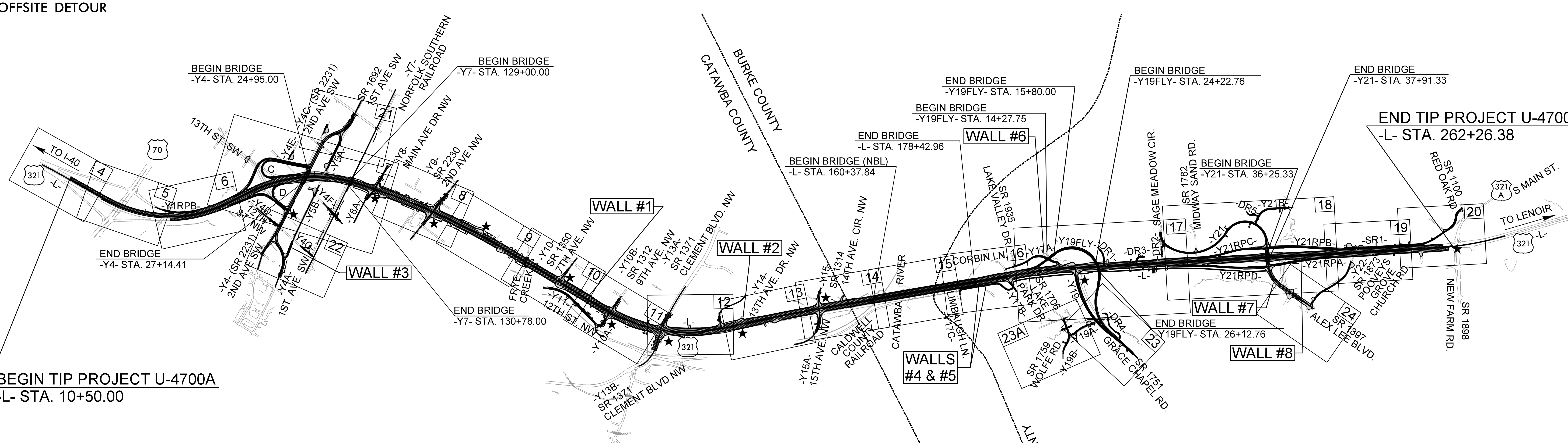
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
35993.1.7	NHP-0321(039)	PE
35993.2.GV6	NHP-0321(039)	ROW
35993.3.6	NHP-0321(039)	UTILITIES
35993.3.15	NHP-0321(039)	CONSTRUCTION

BURKE, CALDWELL, & CATAWBA COUNTIES

LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY TO JUST SOUTH OF US 321A /NEW FARM RD.

TYPE OF WORK: GRADING, PAVING, WIDENING, DRAINAGE, CULVERTS, SIGNING, STRUCTURES, RETAINING WALLS, SIGNALS, & UTILITIES

NAD 83/2011



S-152: 90% ROADWAY PLANS
DATE: 10/10/2022

NOTES:
1. THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

★ TRAFFIC SIGNAL

CONTRACT:

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2021 = 50,135
ADT 2041 = 57,490
V = 60 MPH
DHV = 9%
D = 60%
T = 8% *
(* TTST = 4% /* DUAL = 4%)

FUNC CLASS = ARTERIAL
STATEWIDE TIER

DESIGN EXCEPTIONS AS NOTED ON PLANS

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-4700A............ 4.427 miles
LENGTH STRUCTURE TIP PROJECT U-4700A........... 0.341 miles (NBL)
TOTAL LENGTH OF PROJECT U-4700A.................. 4.768 miles

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PLANS PREPARED BY:

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Raleigh, North Carolina 27615-3960
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FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY DATE: November 26, 2019
LETTING DATE: August 19, 2025

Brandon McInnis, P.E. — PROJECT ENGINEER
Mary Mays Yahl, P.E. — PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
SIGNATURE: P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

NCDOT DIVISION 12
CONTACT: Bryan Sowell, P.E.

10/10/2022
R:\Roadway\Proj\u4700a_rdy_tsh.dgn
bespinosa

09/08/99

-L-
PI Sta 7+70.81
△ = 2° 08' 23.3" (RT)
D = 0° 25' 27.9"
L = 504.18'
T = 252.12'
R = 13,500.00'
e = exist.
V = 60 mph

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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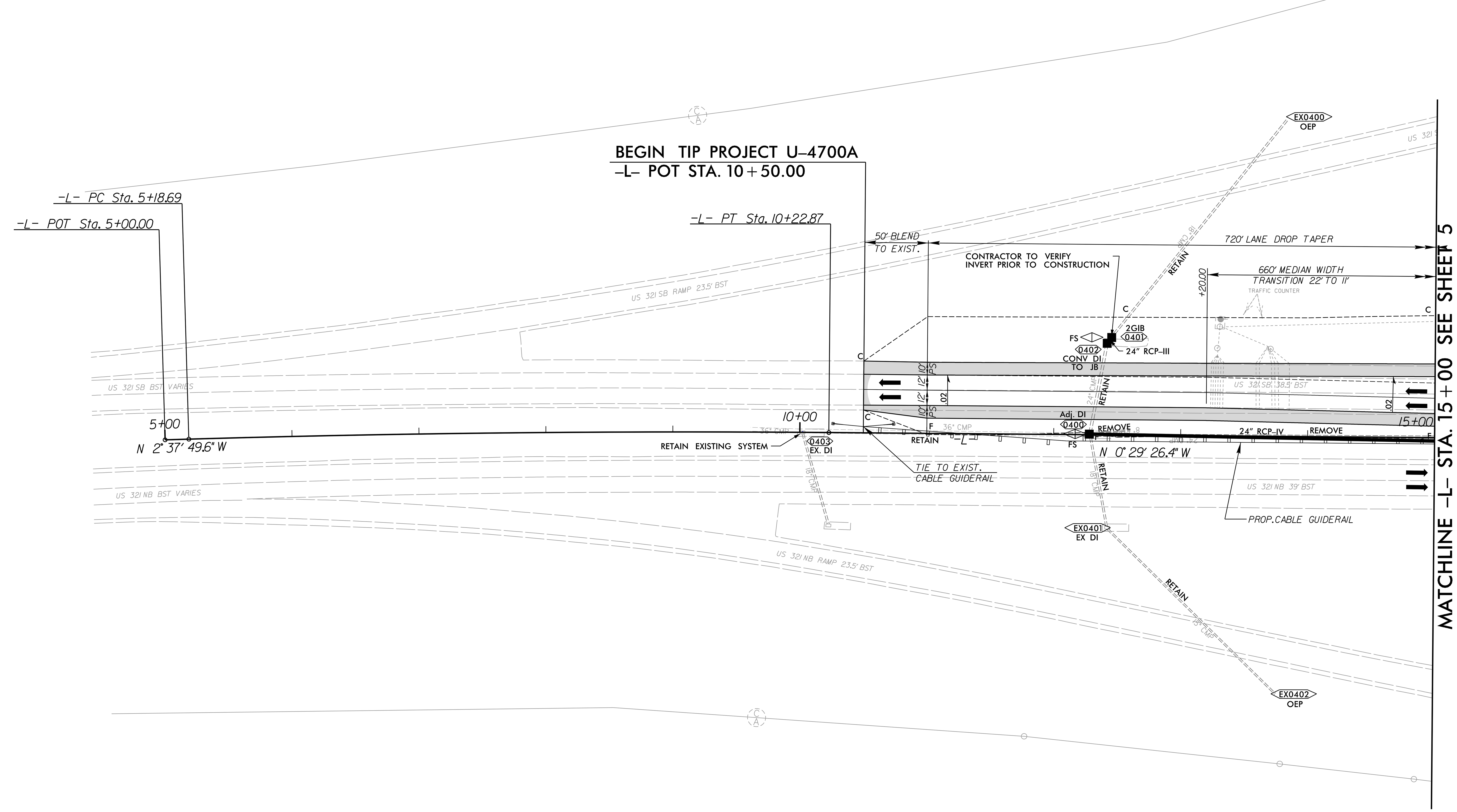
UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011



FOR -L- PROFILE SEE SHT. 25
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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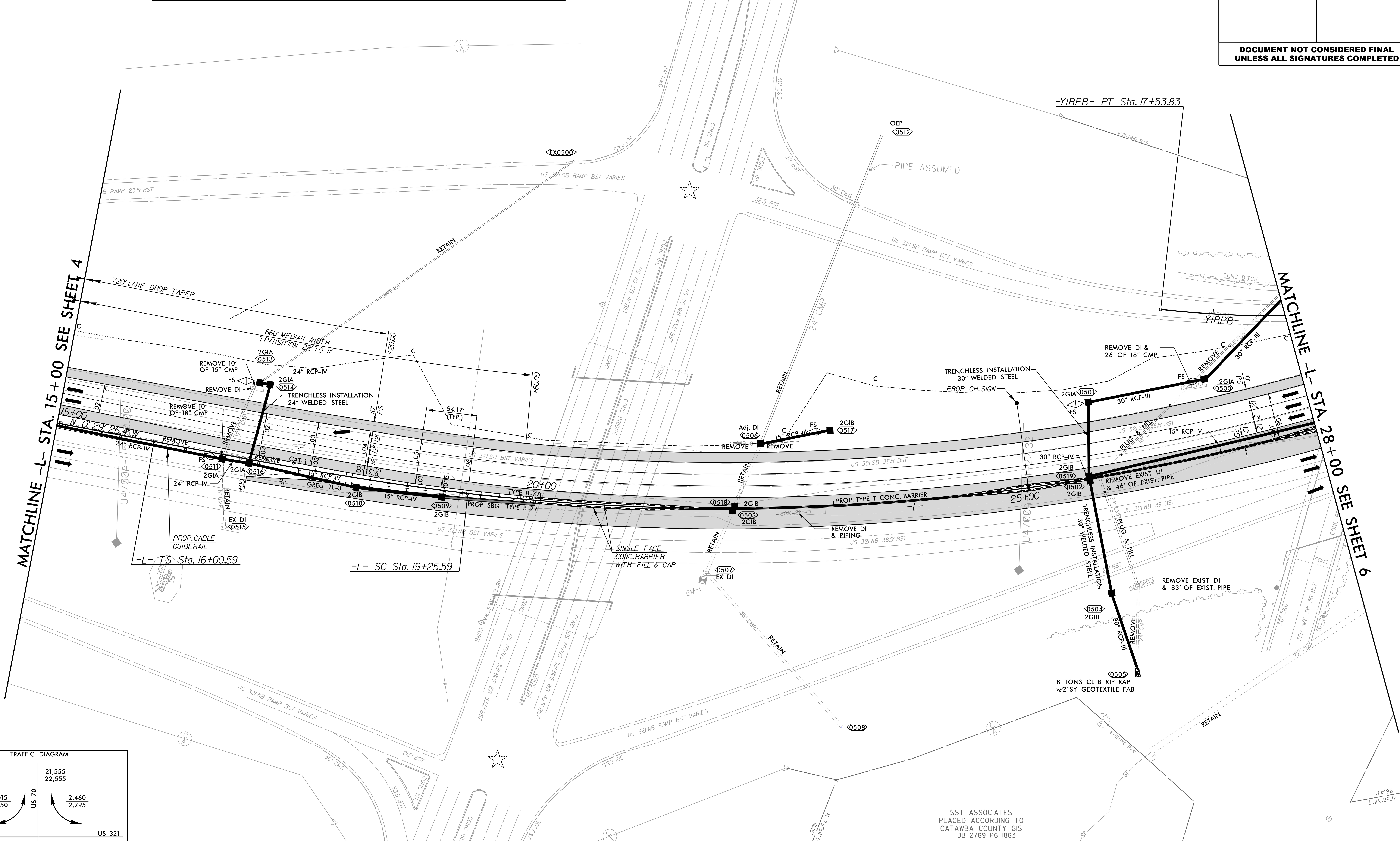
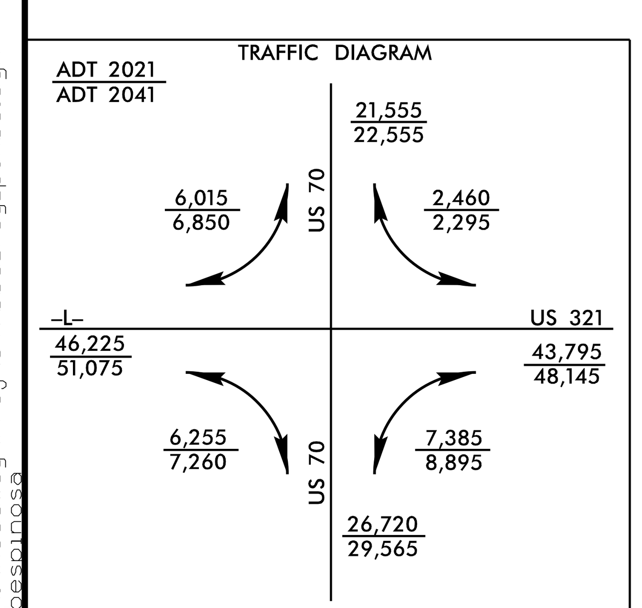
8/17/99
10/10/2022
R:\Roadway\Proj\u4700a_rdy_psh04.dgn

-L-		-YIRPB-
PIs Sta 18+17.31	PI Sta 27+65.98	PI Sta 14+60.03
Θs = 4° 06' 05.7"	Δ = 40° 37' 51.2" (LT)	Δ = 32° 02' 02.7" (RT)
Ls = 325.00'	D = 2° 31' 26.6"	D = 5° 18' 18.6"
LT = 216.72'	L = 1,609.75'	L = 603.83'
ST = 108.39'	T = 840.39'	T = 310.03'
	R = 2,270.00'	R = 1,080.00'
	e = 6%	e = 6%
	V = 60 mph	V = 50 mph

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





EXISTING TRAFFIC SIGNAL

FOR -L- PROFILE SEE SHTS. 25 & 25A
FOR -Y1RPB- PROFILE SEE SHT. 34
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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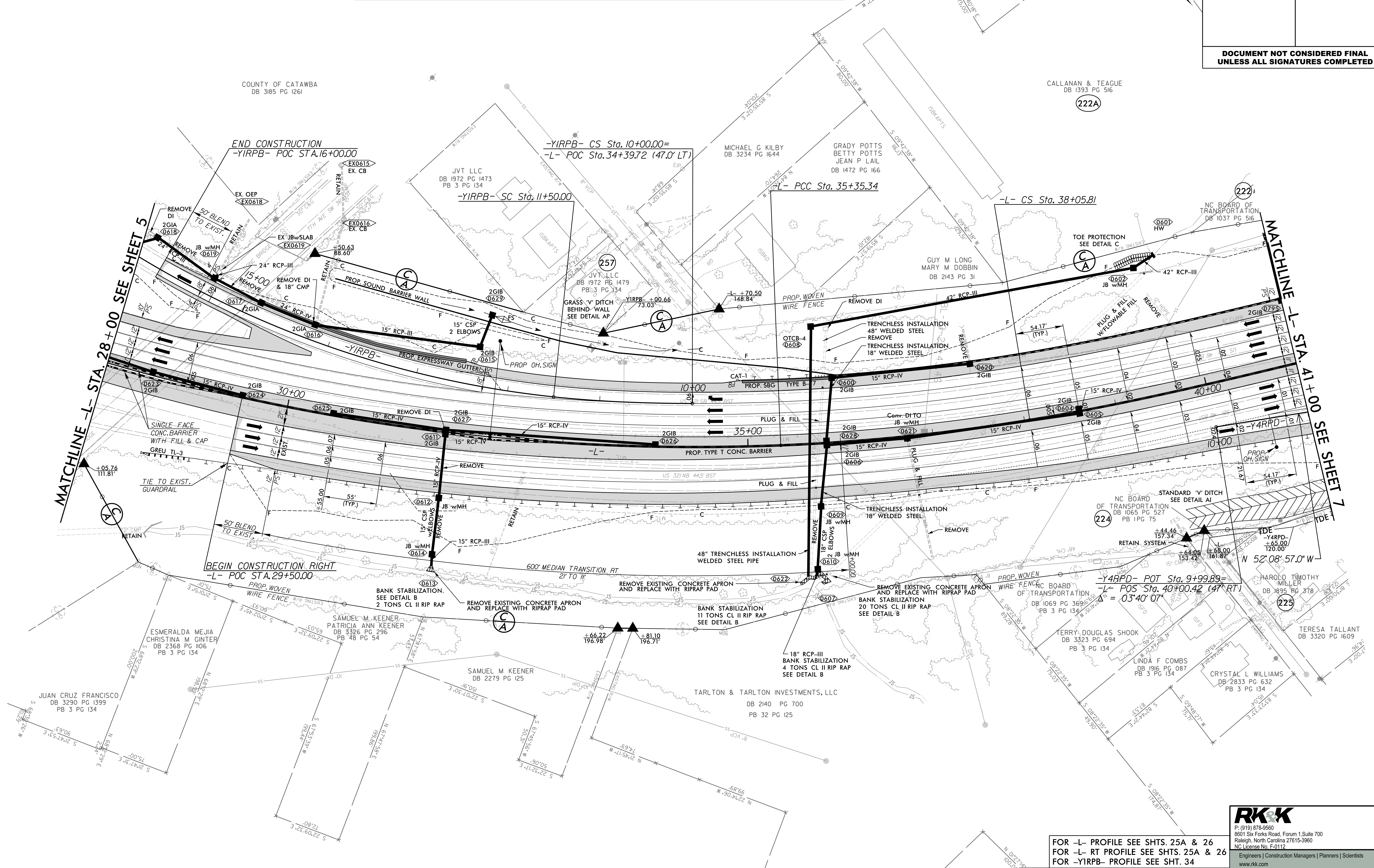
8/17/99
10/10/2022
R:\Roadway\Proj\u4700a_rdy_psh05.dgn

-L-			-YIRPB-	
PI Sta 27+65.98	PI Sta 36+70.75	PIs Sta 39+14.20	PIs Sta 10+83.72	PI Sta 14+60.03
△ = 40° 37' 51.2" (LT)	△ = 7° 02' 38.3" (LT)	Θs = 4° 13' 55.5"	Θs = 1° 55' 58.4"	△ = 32° 02' 02.7" (RT)
D = 2° 31' 26.6"	D = 2° 36' 15.7"	Ls = 325.00'	Θs = 3° 58' 44.5"	D = 5° 18' 18.6"
L = 1,609.75'	L = 270.47'	LT = 216.73'	Ls = 150.00'	L = 603.83'
T = 840.39'	T = 135.41'	ST = 108.39'	LT = 83.72'	T = 310.03'
R = 2,270.00'	R = 2,200.00'		ST = 66.41'	R = 1,080.00'
e = 6%	e = 6%			e = 6%
V = 60 mph	V = 60 mph			V = 50 mph

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



FOR -L- PROFILE SEE SHTS. 25A & 26
FOR -L- RT PROFILE SEE SHTS. 25A & 26
FOR -YIRPB- PROFILE SEE SHT. 34
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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8/17/99
10/10/2022
R:\Roadway\Proj\u4700a_rdy_psh06.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	7

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

ROW REVISION #3 – 01/27/2020:
Parcels #15 & #16 – Removed PUE & revised TCE
Parcel #77 – Eliminated TCE & revised PUE
Parcel #214 – Revised TCE & added PUE
Parcel #238 – Removed PUE

ROW REVISION #4 – 01/31/2020:
Parcels #22 & #30 – Revised PUE
Parcel #24 – Added ROW lines

ROW REVISION #7 – 03/17/2020:
Parcel #4 – Added PUE
Parcel #6 – Added house
Parcel #215 – Added PUE

ROW REVISION #8 – 04/07/2020:
Added exisitng ROW & property lines along –Y8A–.
Revised property lines on Parcel #6.
Parcel #17 – Added PUE
Parcel #18 – Revised PUE & added TCE
Parcel #19 – Revised PUE
Parcel #20 – Added DUE, revised PDE & PUE, and removed TCE
Parcel #43 – Added PUE (new claim)
Parcel #49 – Added PUE (new claim)
Parcel #50 – Added PUE (new claim)
Parcel #215 – Revised PUE
Parcel #227 – Added PUE
Parcel #234 – Removed PUE & Claim
Parcel #235 – Revised PUE

ROW REVISION #9 – 08/05/2020:
Parcel #13 – Added DUE & PDE; revised PUE & TCE.

ROW REVISION #12 – 05/21/2021:
Parcel #172 – Revised ROW & Added TCE.

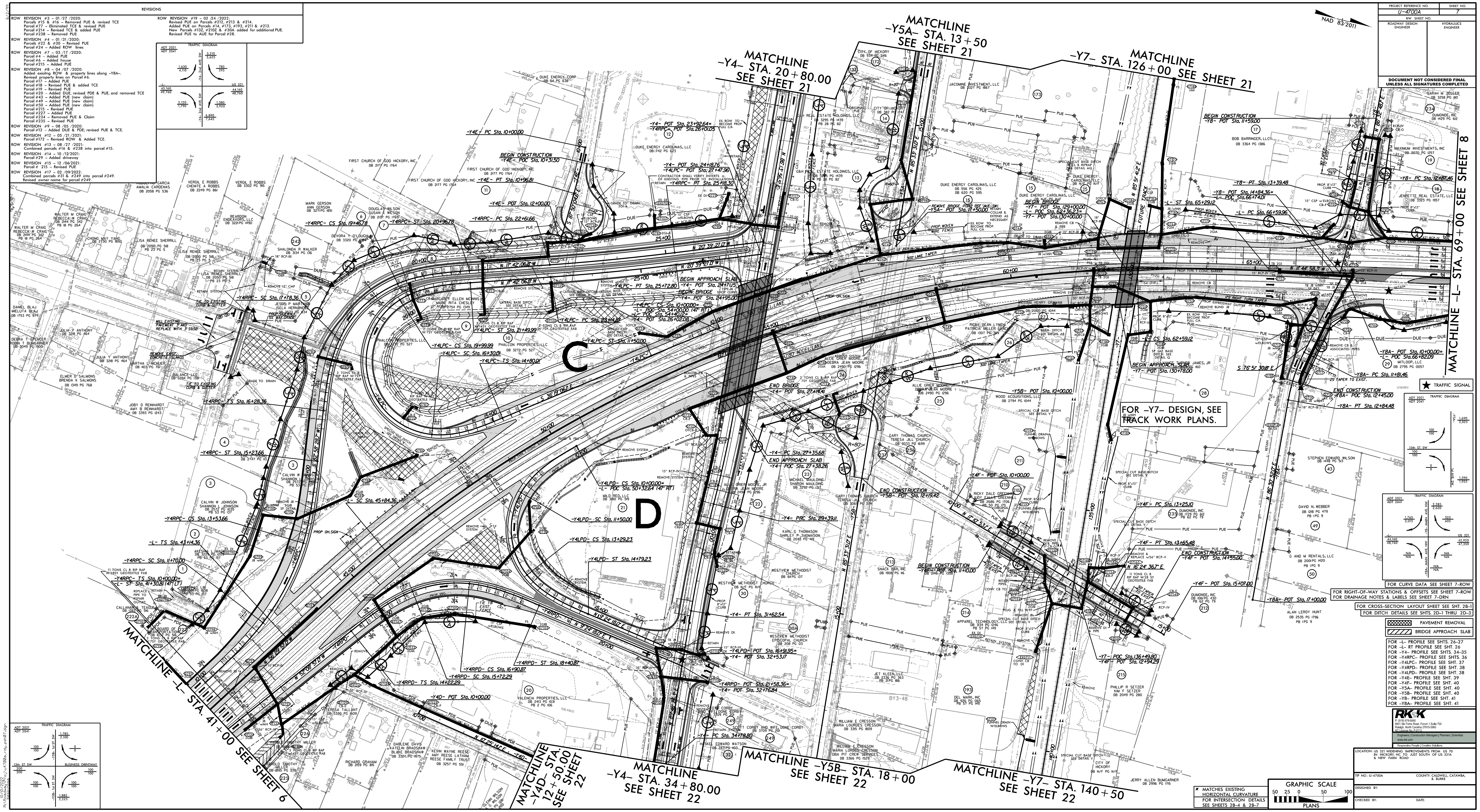
ROW REVISION #13 – 08/27/2021:
Combined parcels #16 & #238 into parcel #15.

ROW REVISION #14 – 10/12/2021:
Parcel #29 – Added driveway

ROW REVISION #15 – 12/06/2021:
Parcel # 215 – Revised PUE

ROW REVISION #17 – 02/09/2022:
Combined parcels #31 & #249 into parcel #249.
Revised owner name for parcel #249.

ROW REVISION #19 – 02/24/2022:
Revised PUE on Parcels #212, #213 & #214.
Added PUE on Parcels #14, #173, #193, #211 & #213.
New Parcels #13Z, #210Z & #30A added for additional PUE.
Revised PUE to AUE for Parcel #28.



FOR CURVE DATA SEE SHEET 7–ROW

FOR RIGHT–OF–WAY STATIONS & OFFSETS SEE SHEET 7–ROW
FOR DRAINAGE NOTES & LABELS SEE SHEET 7–DRN

FOR CROSS–SECTION LAYOUT SHEET SEE SHT. 2B–1

FOR DITCH DETAILS SEE SHTS. 2D–1 THRU 2D–3

PAVEMENT REMOVAL

BRIDGE APPROACH SLAB

FOR –L– PROFILE SEE SHTS. 26–27
FOR –L– RT PROFILE SEE SHT. 26
FOR –Y4– PROFILE SEE SHTS. 34–35
FOR –Y4RPC– PROFILE SEE SHTS. 36
FOR –Y4LPC– PROFILE SEE SHT. 37
FOR –Y4RPD– PROFILE SEE SHT. 38
FOR –Y4LPD– PROFILE SEE SHT. 38
FOR –Y4E– PROFILE SEE SHT. 39
FOR –Y4F– PROFILE SEE SHT. 40
FOR –Y5A– PROFILE SEE SHT. 40
FOR –Y5B– PROFILE SEE SHT. 40
FOR –Y8– PROFILE SEE SHT. 41
FOR –Y8A– PROFILE SEE SHT. 41

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LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U–4700A | COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:

CHECKED BY: | DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	7-DRN
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

ROW REVISION #3 – 01/27/2020:
Parcels #15 & #16 – Removed PUE & revised TCE
Parcel #77 – Eliminated TCE & revised PUE
Parcel #214 – Revised TCE & added PUE
Parcel #238 – Removed PUE

ROW REVISION #4 – 01/31/2020:
Parcels #22 & #30 – Revised PUE
Parcel #24 – Added ROW lines

ROW REVISION #7 – 03/17/2020:
Parcel #4 – Added PUE
Parcel #6 – Added house
Parcel #215 – Added PUE

ROW REVISION #8 – 04/07/2020:
Added exisitng ROW & property lines along –Y8A–.
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Parcel #17 – Added PUE
Parcel #18 – Revised PUE & added TCE
Parcel #19 – Revised PUE
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Parcel #49 – Added PUE (new claim)
Parcel #50 – Added PUE (new claim)
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Parcel #227 – Added PUE
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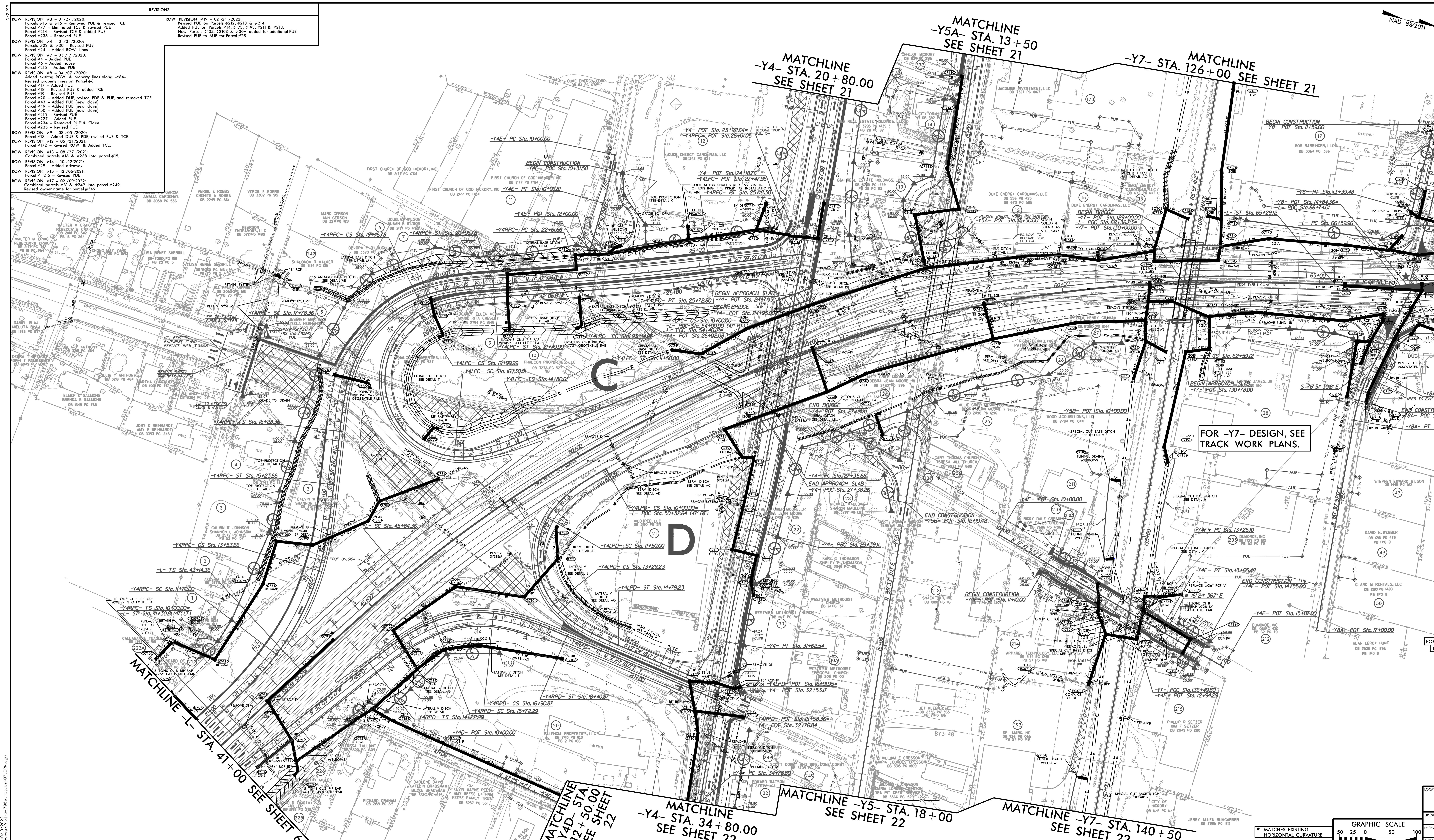

FOR CROSS-SECTION LAYOUT SHEET SEE SHT. 2B-1
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

(crosshatch)	PAVEMENT REMOVAL
(hatch)	BRIDGE APPROACH SLAB

FOR –L– PROFILE SEE SHTS. 26–27
FOR –L– RT PROFILE SEE SHT. 26
FOR –Y4– PROFILE SEE SHTS. 34–35
FOR –Y4RPC– PROFILE SEE SHTS. 35–36
FOR –Y4LPC– PROFILE SEE SHT. 36
FOR –Y4RPD– PROFILE SEE SHT. 37
FOR –Y4LPD– PROFILE SEE SHT. 37
FOR –Y4E– PROFILE SEE SHT. 39
FOR –Y4F– PROFILE SEE SHT. 40
FOR –Y5A– PROFILE SEE SHT. 40
FOR –Y5B– PROFILE SEE SHT. 40
FOR –Y8– PROFILE SEE SHT. 41
FOR –Y8A– PROFILE SEE SHT. 41

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* MATCHES EXISTING HORIZONTAL CURVATURE

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U-4700A
COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:

CHECKED BY: DATE:

6/2/99

REVISIONS

ROW REVISION #3 – 01/27/2020:
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Parcel #77 – Eliminated TCE & revised PUE
Parcel #214 – Revised TCE & added PUE
Parcel #238 – Removed PUE

ROW REVISION #4 – 01/31/2020:
Parcels #22 & #30 – Revised PUE
Parcel #24 – Added ROW lines

ROW REVISION #7 – 03/17/2020:
Parcel #4 – Added PUE
Parcel #6 – Added house
Parcel #215 – Added PUE

ROW REVISION #8 – 04/07/2020:
Added exisitng ROW & property lines along –Y8A–.
Revised property lines on Parcel #6.
Parcel #17 – Added PUE
Parcel #18 – Revised PUE & added TCE
Parcel #19 – Revised PUE
Parcel #20 – Added DUE, revised PDE & PUE, and removed TCE
Parcel #43 – Added PUE (new claim)
Parcel #49 – Added PUE (new claim)
Parcel #50 – Added PUE (new claim)
Parcel #215 – Revised PUE
Parcel #227 – Added PUE
Parcel #234 – Removed PUE & Claim
Parcel #235 – Revised PUE

ROW REVISION #9 – 08/05/2020:
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ROW REVISION #14 – 10/12/2021:
Parcel #29 – Added driveway

ROW REVISION #15 – 12/06/2021:
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Added PUE on Parcels #14, #173, #193, #211 & #213.
New Parcels #13Z, #210Z & #30A added for additional PUE.
Revised PUE to AUE for Parcel #28.

-L-

PIs Sta 44+94.39	PI Sta 54+54.80	PIs Sta 63+49.14
Θs = 3° 06′ 23.0″	Δ = 38° 32′ 12.7″ (RT)	Θs = 3° 06′ 23.0″
Ls = 270.00′	D = 2° 18′ 03.7″	Ls = 270.00′
LT = 180.03′	L = 1,674.76′	LT = 180.03′
ST = 90.03′	T = 870.45′	ST = 90.03′
	R = 2,490.00′	
	e = 5%	
	V = 60 mph	

-Y4-

PI Sta 28+37.45	PI Sta 30+50.90	PI Sta 37+55.61
Δ = 4° 39′ 43.9″ (RT)	Δ = 5° 07′ 14.1″ (LT)	Δ = 12° 38′ 12.5″ (RT)
D = 2° 17′ 30.6″	D = 2° 17′ 30.6″	D = 2° 17′ 30.6″
L = 203.43′	L = 223.43′	L = 551.38′
T = 101.77′	T = 111.79′	T = 276.82′
R = 2,500.00′	R = 2,500.00′	R = 2,500.00′
e = RC (2%)	e = RC (2%)	e = RC (2%)
Lr = 60.00′	Lr = 60.00′	Lr = 60.00′
V = 35 mph	V = 35 mph	V = 35 mph

-Y4RPC-

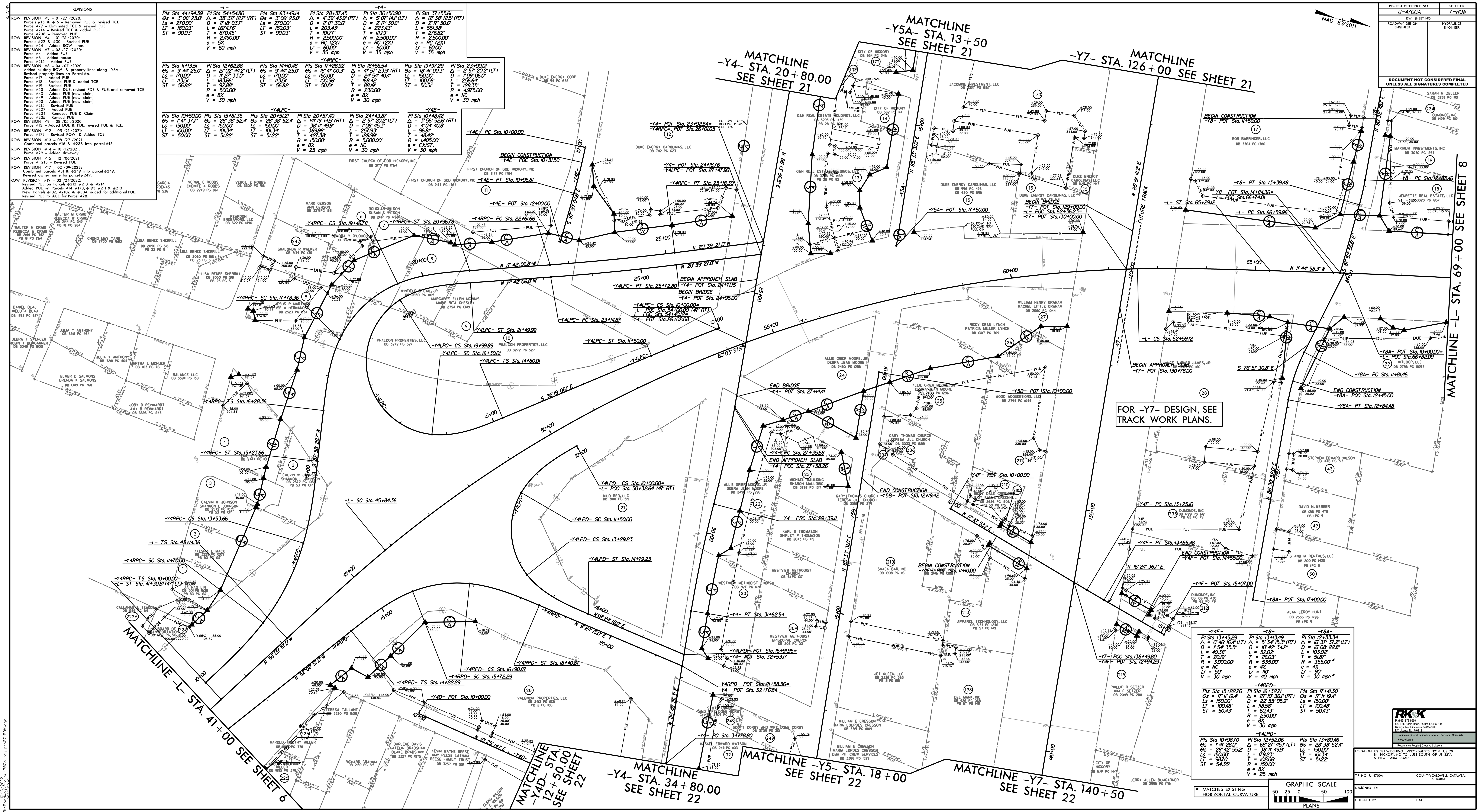
PIs Sta 11+13.51	PI Sta 12+62.88	PIs Sta 14+10.48	PIs Sta 17+28.92	PI Sta 18+66.54	PIs Sta 19+97.29	PI Sta 23+90.01
Θs = 9° 44′ 25.0″	Δ = 21° 02′ 44.2″ (LT)	Θs = 9° 44′ 25.0″	Θs = 18° 41′ 00.3″	Δ = 41° 57′ 23.9″ (RT)	Θs = 18° 41′ 00.3″	Δ = 2° 57′ 20.2″ (LT)
Ls = 170.00′	D = 11° 27′ 33.0″	Ls = 170.00′	Ls = 150.00′	D = 24° 54′ 40.4″	Ls = 150.00′	D = 1° 09′ 06.0″
LT = 113.51′	L = 183.66′	LT = 113.51′	LT = 100.56′	L = 168.42′	LT = 100.56′	L = 256.64′
ST = 56.82′	T = 92.88′	ST = 56.82′	ST = 50.51′	T = 88.19′	ST = 50.51′	T = 128.35′
	R = 500.00′			R = 230.00′		R = 4,975.00′
	e = 8%			e = 8%		e = NC
	V = 30 mph			V = 30 mph		V = 30 mph

-Y4LPC-

PIs Sta 10+50.00	PIs Sta 15+81.36	PIs Sta 20+51.21	PI Sta 20+57.40	PI Sta 24+43.87
Θs = 1° 41′ 37.7″	Θs = 28° 38′ 52.4″	Θs = 28° 38′ 52.4″	Δ = 141° 19′ 14.5″ (RT)	Δ = 2° 57′ 20.2″ (LT)
Ls = 150.00′	Ls = 150.00′	Ls = 150.00′	D = 38° 11′ 49.9″	D = 1° 08′ 45.3″
LT = 100.00′	LT = 101.34′	LT = 101.34′	L = 369.98′	L = 257.93′
ST = 50.00′	ST = 51.22′	ST = 51.22′	T = 427.38′	T = 128.99′
			R = 150.00′	R = 5,000.00′
			e = 8%	e = NC
			V = 25 mph	V = 30 mph

-Y4E-

PI Sta 10+48.42
Δ = 3° 56′ 52.6″ (RT)
D = 4° 04′ 40.8″
L = 96.81′
T = 48.42′
R = 1,405.00′
e = EXIST.
V = 30 mph



-Y4F-

PI Sta 13+45.29
Δ = 0° 46′ 16.4″ (LT)
D = 1° 54′ 35.5″
L = 40.38′
T = 20.19′
R = 3,000.00′
e = NC
Lr = 50′
V = 30 mph

-Y8-

PI Sta 13+13.49
Δ = 5° 34′ 15.3″ (RT)
D = 10° 42′ 34.2″
L = 52.02′
T = 26.03′
R = 535.00′
e = 4%
Lr = 110′
V = 40 mph

-Y8A-

PI Sta 12+33.34
Δ = 16° 37′ 37.2″ (LT)
D = 16° 08′ 22.8″
L = 103.02′
T = 51.87′
R = 355.00′ *
e = 4%
Lr = 90′
V = 30 mph *

-Y4RPD-

PIs Sta 15+22.76	PI Sta 16+32.71	PIs Sta 17+41.30
Θs = 17° 11′ 19.4″	Δ = 27° 10′ 36.1″ (RT)	Θs = 17° 11′ 19.4″
Ls = 150.00′	D = 22° 55′ 05.9″	Ls = 150.00′
LT = 100.48′	L = 118.58′	LT = 100.48′
ST = 50.43′	T = 60.43′	ST = 50.43′
	R = 250.00′	
	e = 8%	
	V = 30 mph	

-Y4LPD-

PIs Sta 10+98.70	PI Sta 12+52.06	PIs Sta 13+80.46
Θs = 1° 41′ 28.0″	Δ = 68° 27′ 45.1″ (LT)	Θs = 28° 38′ 52.4″
Θs = 28° 42′ 55.2″	D = 38° 11′ 49.9″	Ls = 150.00′
Ls = 150.00′	L = 179.23′	LT = 101.34′
LT = 98.70′	T = 102.06′	ST = 51.22′
ST = 54.35′	R = 150.00′	
	e = 8%	
	V = 25 mph	

* MATCHES EXISTING HORIZONTAL CURVATURE

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	7-ROW
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U–4700A COUNTY: CALDWELL, CATAWBA, & BURKE

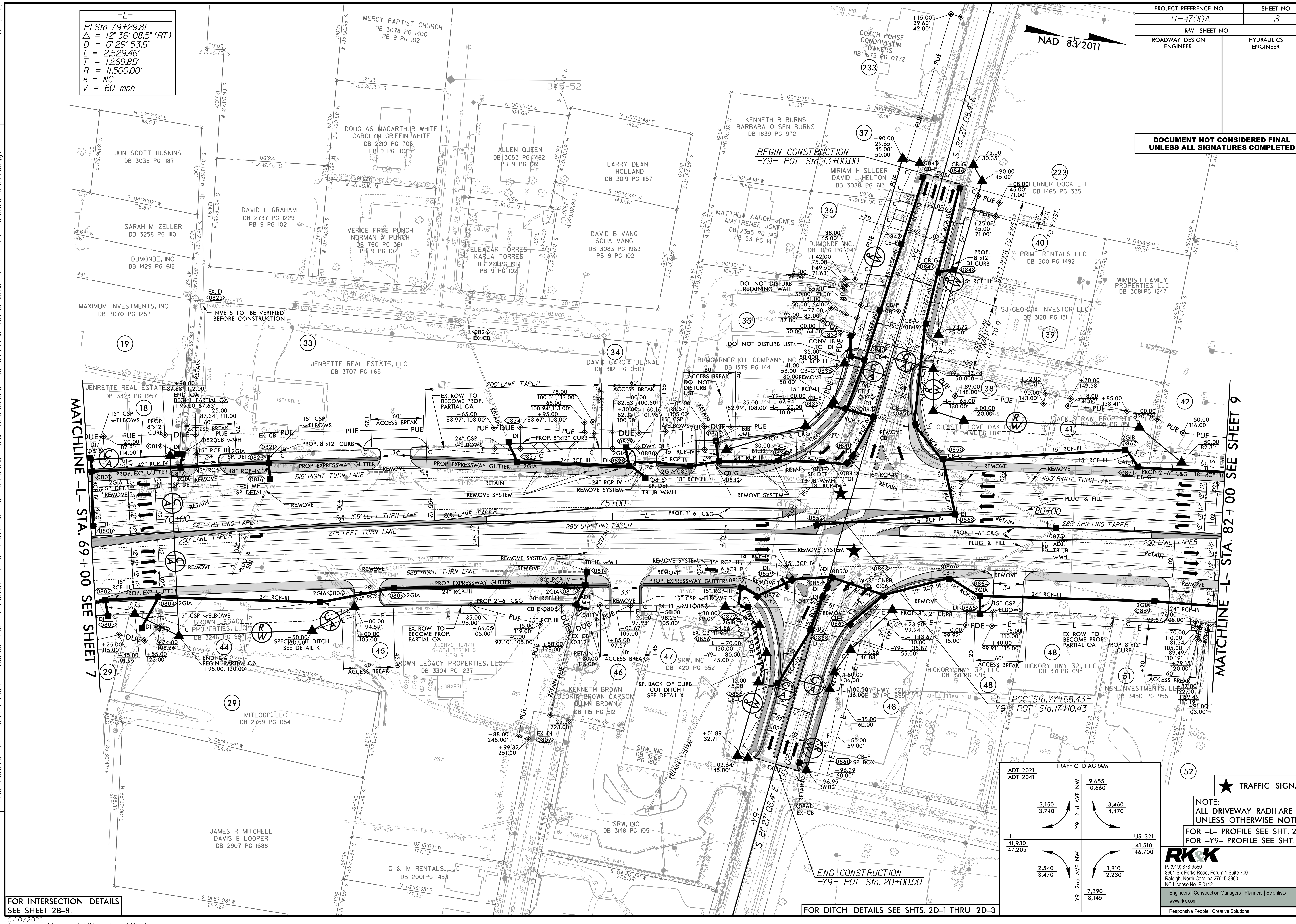
DESIGNED BY:

CHECKED BY: DATE:

REVISIONS

- ROW Revision #5 – 02/14/2020 – Combined Parcels #29 & #43 into one parcel, #29.
- ROW Revision #7 – 03/17/2020 – Revised names on Parcels #38, #41, & #48. Combined Parcels #48, #49, & #50 into one parcel, #50.
- ROW Revision #8 – 04/07/2020 – Revised PUE on Parcels #38 & #41.
- ROW Revision #9 – 08/05/2020 – Combined Parcels #44 & #45 into one parcel, #44. Added access break to Parcel #33.
- ROW Revision #11 – 04/23/2021 – Split parcel #44 into parcels #44 & #45.
- ROW Revision #12 – 05/21/2021 – Revised property lines & existing ROW on Parcel #47.
- ROW Revision #13 – 08/27/2021 – Removed PUE & revised TCE on Parcel #48.
- ROW Revision #14 – 10/12/2021 – Revised ROW on Parcel #47 to tie to existing ROW.
- ROW Revision #15 – 12/06/2021 – Revised PUE on Parcel #33.
- ROW Revision #17 – 02/09/2022 – Added "Do not Disturb USTs" note and revised drainage on parcel #35. Updated owner for parcel #33, #41, #48 and #51. Revised TCE and ROW on Parcel 48 along -Y9-.
- ROW Revision #19 – 02/24/2022 – Revised PUE on Parcels #34 & #35. Added PUE to Parcels #51 & #52. Reduced ROW on Parcel #35 at corner of -L-/-Y9- to avoid metal canopy.

8/17/99



PROJECT REFERENCE NO.	SHEET NO.
U-4700A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

★ TRAFFIC SIGNAL

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -L- PROFILE SEE SHT. 27
FOR -Y9- PROFILE SEE SHT. 41

FOR INTERSECTION DETAILS SEE SHEET 2B-8.

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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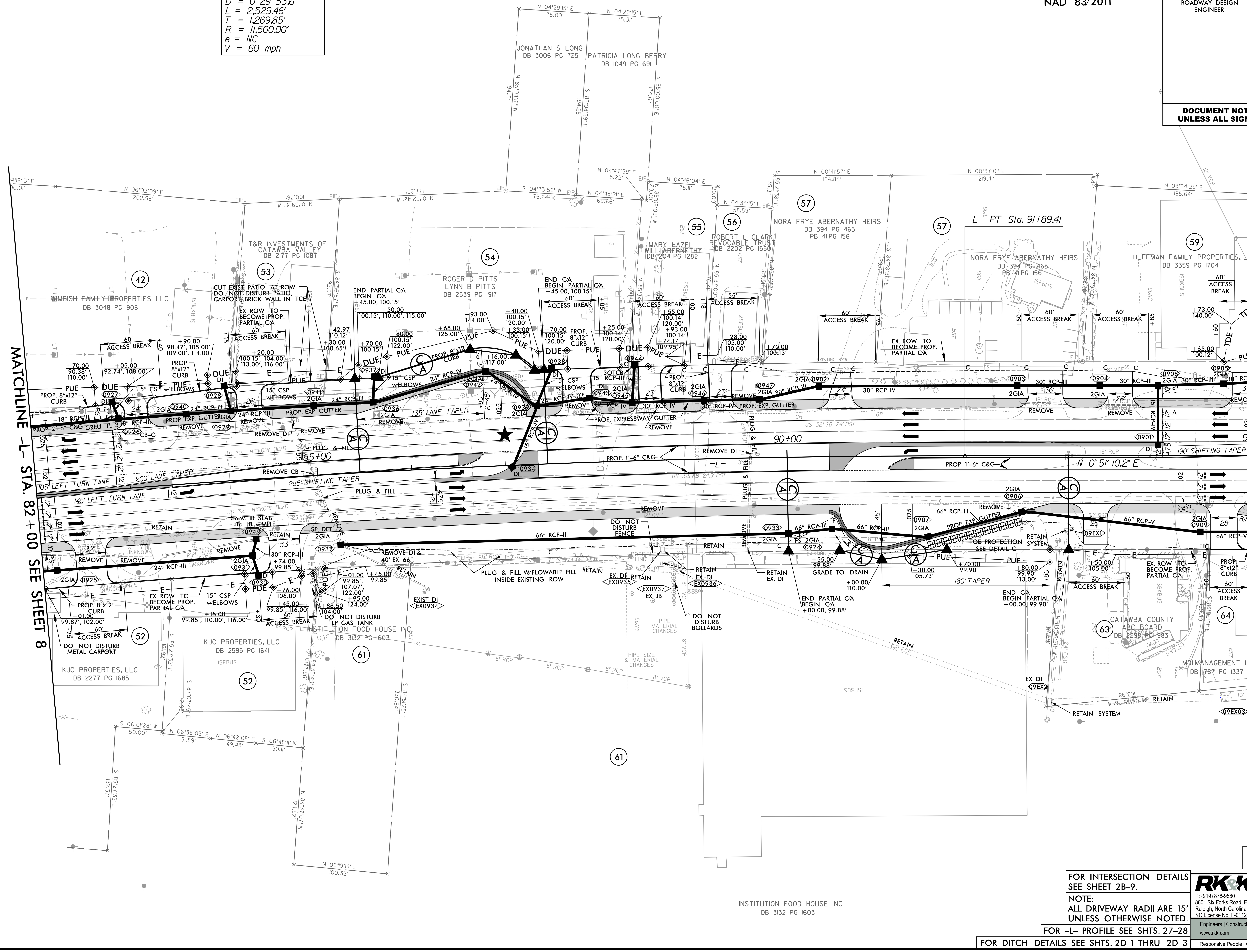
bespinosa

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
PI Sta 79+29.81
Δ = 12° 36' 08.5" (RT)
D = 0° 29' 53.6"
L = 2,529.46'
T = 1,269.85'
R = 11,500.00'
e = NC
V = 60 mph

NAD 83/2011



TRAFFIC SIGNAL

FOR INTERSECTION DETAILS SEE SHEET 2B-9.

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -L- PROFILE SEE SHTS. 27-28

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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REVISIONS

ROW Revision #7 - 03/17/2020 - Combined Parcels #52 & #60 into one parcel. #52. Combined Parcels #57 & #58 into one parcel. #57.
ROW Revision #8 - 04/07/2020 - Added PUE on Parcel #62.
ROW Revision #9 - 08/05/2020 - Combined Parcels #61 & #62 into one parcel. #62. Added do not disturb note on Parcel #61.
ROW Revision #10 - 10/23/2020 - Removed PDE on Parcel #61.
ROW Revision #11 - 04/23/2021 - Revised TCE & DUE and added PUE on parcels #54 & #55.
ROW Revision #15 - 12/06/2021 - Revised TCE and added PUE on parcels #52 & #61.
ROW Revision #17 - 02/09/2022 - Added "cut exist patio at row, do not disturb patio, carport, brick wall in TCE" note on parcel #53.
ROW Revision #19 - 02/24/2022 - Added PUE to Parcel #52.

8/17/99

10/10/2022
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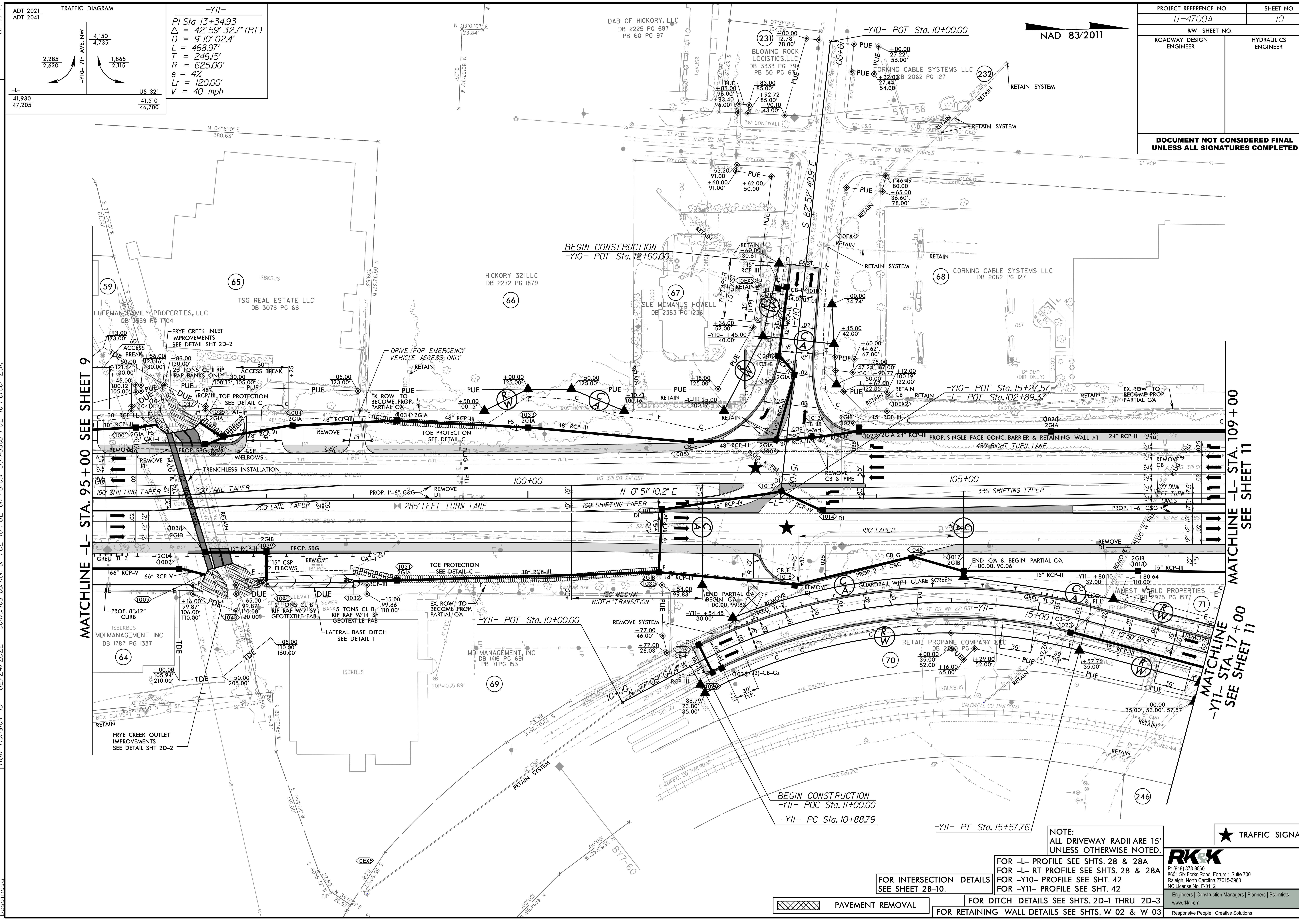
bespinosa

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

★ TRAFFIC SIGNAL

FOR INTERSECTION DETAILS SEE SHEET 2B-10.

FOR -L- PROFILE SEE SHTS. 28 & 28A
FOR -L- RT PROFILE SEE SHTS. 28 & 28A
FOR -Y10- PROFILE SEE SHT. 42
FOR -Y11- PROFILE SEE SHT. 42

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-02 & W-03

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REVISIONS

ROW Revision #3 - 01/27/2020 - Added PUE to Parcel #70
ROW Revision #4 - 01/31/2020 - Revised PUE on Parcel #69
ROW Revision #5 - 02/14/2020 - Combined Parcels #64 & #69 into one parcel, #64.
ROW Revision #9 - 08/05/2020 - Revised ROW & TCE on Parcel #71.
ROW Revision #13 - 08/27/2021 - Removed driveway on Parcel #64.
ROW Revision #14 - 10/04/2021 - Added driveway on Parcel #65.
ROW Revision #15 - 12/06/2021 - Added PUE to Parcel #68.
ROW Revision #17 - 02/14/2022 - Split parcel #64 into parcels #64 and #69.
ROW Revision #19 - 02/24/2022 - Converted portion of TCE to PUE on Parcel #59. Added PUE to Parcel #231.

8/17/99

10/10/2022
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-L-	-Y10A-	-Y11-			
PIs Sta 112+69.10	PI Sta 12+96.25	PI Sta 20+40.42	PI Sta 21+55.47	PI Sta 23+02.87	PI Sta 23+82.09
Θs = 2° 44' 51.9"	△ = 44° 09' 00.8" (RT)	△ = 4° 24' 21.0" (RT)	△ = 34° 16' 50.8" (RT)	△ = 49° 03' 58.9" (LT)	△ = 13° 49' 33.1" (LT)
Ls = 270.00'	D = 26° 02' 36.7"	D = 3° 16' 26.6"	D = 36° 57' 54.1"	D = 60° 18' 40.8"	D = 16° 51' 06.1"
LT = 180.02'	L = 169.52'	L = 134.57'	L = 92.74'	L = 81.36'	L = 82.04'
ST = 90.02'	T = 89.22'	T = 67.32'	T = 47.80'	T = 43.36'	T = 41.22'
	R = 220.00'*	R = 1,750.00'	R = 155.00'**	R = 95.00'	R = 340.00'
	e = 4%	e = 3%	e = 4%	e = 4%	e = 4%
	Lr = 140'	Lr = 120'	Lr = 120'	Lr = 120'	Lr = 120'
	V = 25 mph*	V = 40 mph	V = 25 mph**	V = 20 mph	V = 30 mph

PIs Sta 123+39.11, △ = 38° 23' 26.5" (LT), D = 2° 02' 07.3", L = 1,886.17', T = 980.03', R = 2,815.00', e = 5%, V = 60 mph

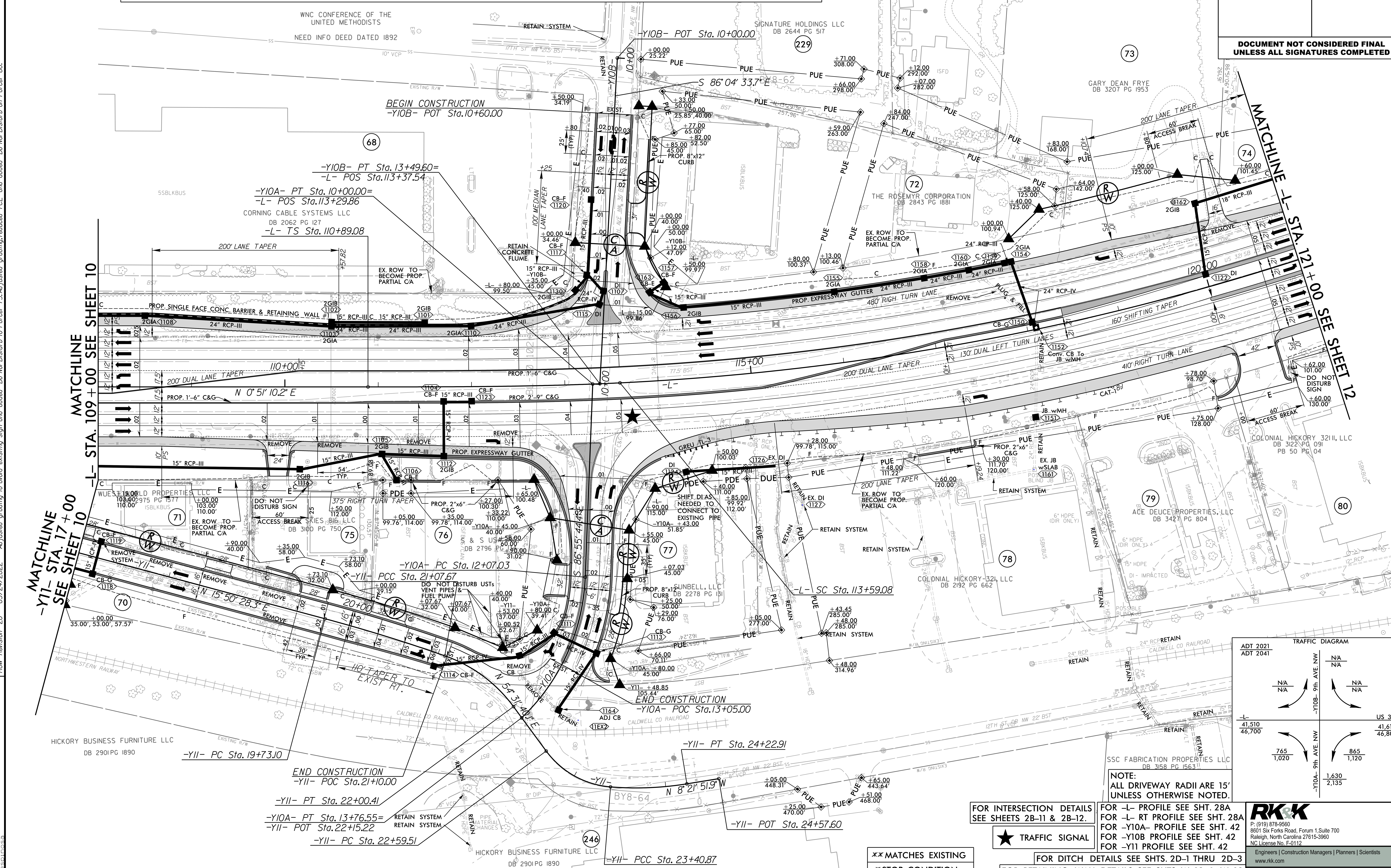
PROJECT REFERENCE NO.	SHEET NO.
U-4700A	11

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011



TRAFFIC DIAGRAM

ADT 2021
ADT 2041

	ADT 2021	ADT 2041
-Y10B- 9th AVE. NW (left)	N/A	N/A
-Y10B- 9th AVE. NW (top)	N/A	N/A
-Y10B- 9th AVE. NW (right)	N/A	N/A
-L-	41,510	46,700
US 321	41,610	46,800
-Y10A- 9th AVE. NW (left)	765	1,020
-Y10A- 9th AVE. NW (right)	865	1,120
-Y10A- 9th AVE. NW (bottom)	1,630	2,135

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR INTERSECTION DETAILS SEE SHEETS 2B-11 & 2B-12.

★ TRAFFIC SIGNAL

** MATCHES EXISTING
* STOP CONDITION

FOR -L- PROFILE SEE SHT. 28A
FOR -L- RT PROFILE SEE SHT. 28A
FOR -Y10A- PROFILE SEE SHT. 42
FOR -Y10B- PROFILE SEE SHT. 42
FOR -Y11 PROFILE SEE SHT. 42

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-02 & W-03

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REVISIONS

ROW Revision *3 - 01/27/2020 - Added PUE to Parcel *246.
ROW Revision *7 - 03/17/2020 - Combined Parcels *73, *82, & *230 Into Parcel *73.
ROW Revision *9 - 06/05/2020 - Revised ROW,PUE,& TCE on Parcels *71 & *75,Revised ROW,PUE,& TCE on Parcel *76,Revised PUE & DUE on Parcels *77 & *78,Removed PUE on Parcel *246.
ROW Revision *13 - 08/27/2021 - Added driveway & revised TCE on Parcel *75,Revised property owner name on Parcel *79.
ROW Revision *15 - 12/06/2021 - Revised PUE on Parcel *78.
ROW Revision *16 - 01/19/2022 - Revised PUE on Parcel *246.
ROW Revision *17 - 02/09/2022 - Revised berm width from -Y11- STA.21+00 LT TO -Y10A- STA.12+75 RT and added "Do Not Disturb USTs,vent pipes and fuel pump" note on Parcel *76.
ROW Revision *20 - 03/24/2022 - Adjusted grading to avoid existing sign and added "Do Not Disturb" note on Parcel *75,Adjusted grading,reduced TCE and added "Do Not Disturb" on Parcel *80.

8/17/99

10/10/2022
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REVISIONS

ROW Revision #5 - 02/14/2020 - Revised ROW & added TCE on Parcels #86 & #254.
ROW Revision #6 - 03/02/2020 - Revised TCE on Parcels #84 & #88, Added driveway on Parcel #84, Removed TCE line inside PUE on Parcel #83, Revised PDE On Parcel #85.
ROW Revision #7 - 03/17/2020 - Revised ROW, PDE & PUE and added DUE on Parcel #86.
ROW Revision #8 - 08/05/2020 - Combined Parcels #73, #82, #230 into Parcel #73, Removed DUE & revised PUE on Parcel #86.
ROW Revision #13 - 08/05/2021 - Revised property lines on Parcels #88 & #89.
ROW Revision #14 - 08/27/2021 - Revised ROW & TCE and added PDE on Parcel #80, Added TCE on Parcels #86 & #87.
ROW Revision #16 - 01/19/2022 - Added "Do Not Disturb Existing Sign" on Parcel #88.
ROW Revision #17 - 02/09/2022 - Added PUE on parcel #83, Revised name and deed book on parcel #89.
ROW Revision #19 - 02/24/2022 - Added parcel #81Z for PUE.
ROW Revisions #20 - 03/24/2022 - Adjusted grading, reduced TCE and added "Do Not Disturb" on Parcel #80.

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

PI Sta 123+39.11
Δ = 38° 23' 26.5" (LT)
D = 2° 02' 07.3"
L = 1,886.17'
T = 980.03'
R = 2,815.00'
e = 5%
V = 60 mph

PIs Sta 133+35.27
Θs = 2° 44' 51.9"
Ls = 270.00'
LT = 180.02'
ST = 90.02'

-Y13A-

PI Sta 13+16.94
Δ = 7° 15' 14.3" (LT)
D = 1° 08' 45.3"
L = 633.03'
T = 316.94'
R = 5,000.00'
e = RC
Lr = 70'
V = 40 mph

PI Sta 17+64.92
Δ = 10° 03' 01.1" (RT)
D = 3° 49' 11.0"
L = 263.12'
T = 131.90'
R = 1,500.00'
e = 3%
Lr = 105'
V = 40 mph

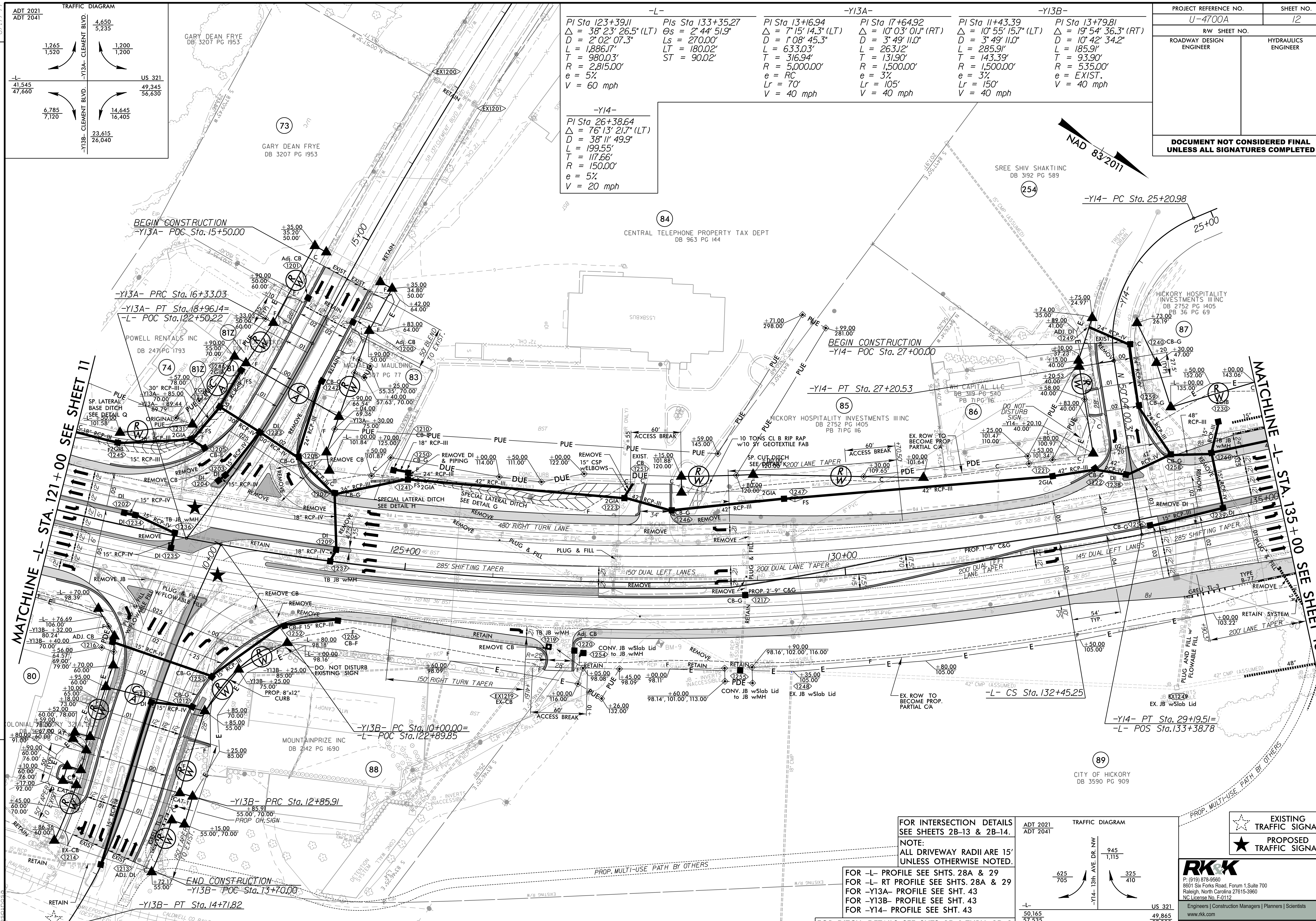
-Y13B-

PI Sta 11+43.39
Δ = 10° 55' 15.7" (LT)
D = 3° 49' 11.0"
L = 285.91'
T = 143.39'
R = 1,500.00'
e = 3%
Lr = 150'
V = 40 mph

PI Sta 13+79.81
Δ = 19° 54' 36.3" (RT)
D = 10° 42' 34.2"
L = 185.91'
T = 93.90'
R = 535.00'
e = EXIST.
V = 40 mph

-Y14-

PI Sta 26+38.64
Δ = 76° 13' 21.7" (LT)
D = 38° 11' 49.9"
L = 199.55'
T = 117.66'
R = 150.00'
e = 5%
V = 20 mph



FOR INTERSECTION DETAILS SEE SHEETS 2B-13 & 2B-14.

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -L- PROFILE SEE SHTS. 28A & 29
FOR -L- RT PROFILE SEE SHTS. 28A & 29
FOR -Y13A- PROFILE SEE SHT. 43
FOR -Y13B- PROFILE SEE SHT. 43
FOR -Y14- PROFILE SEE SHT. 43

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

EXISTING TRAFFIC SIGNAL
PROPOSED TRAFFIC SIGNAL

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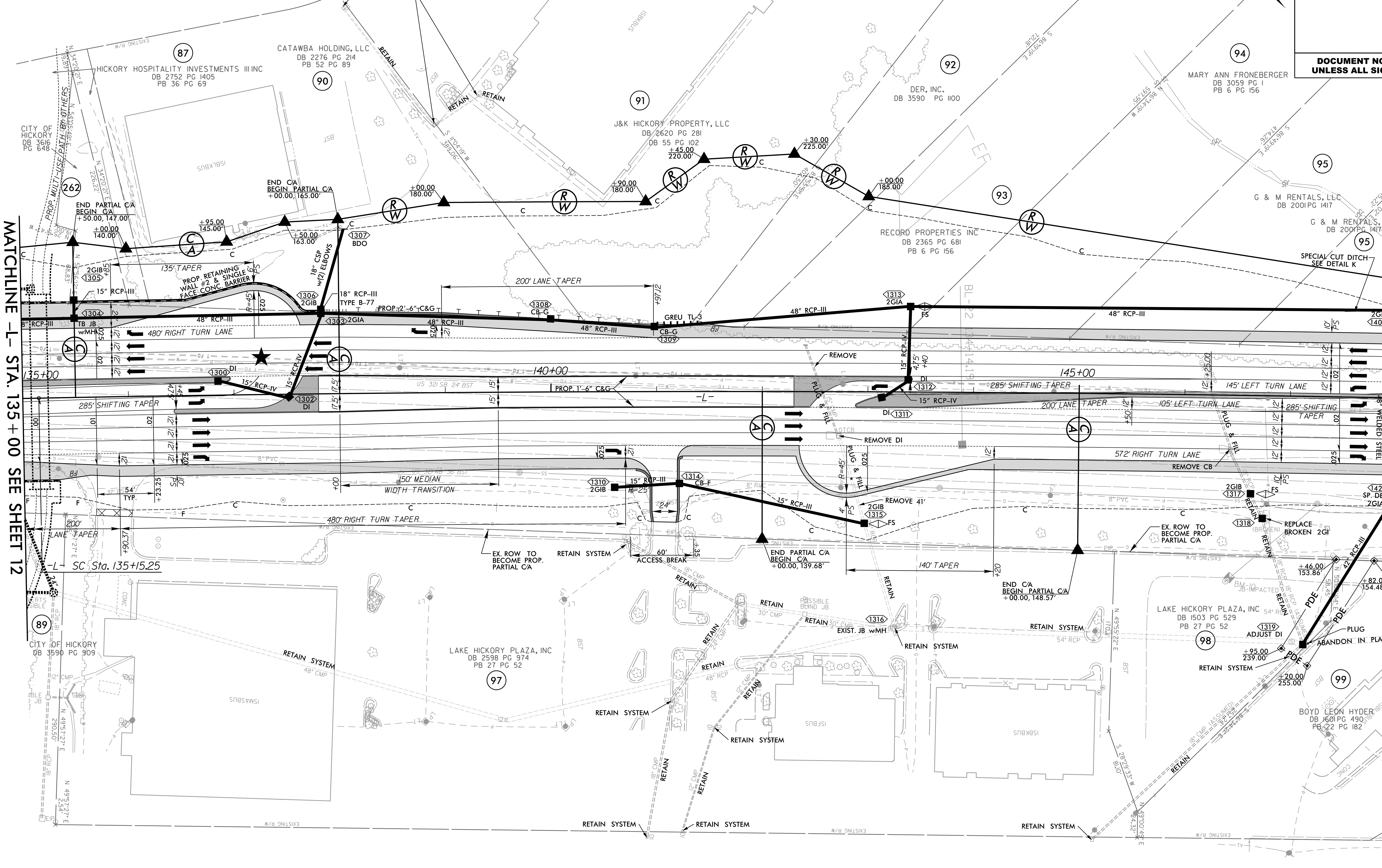
PROJECT REFERENCE NO.	SHEET NO.
U-4700A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

-L-

PIs Sta 133+35.27	PI Sta 144+19.22
Θs = 2° 44' 51.9"	Δ = 3° 06' 32.5" (RT)
Ls = 270.00'	D = 0° 10' 19.2"
LT = 180.02'	L = 1,807.50'
ST = 90.02'	T = 903.97'
	R = 33,310.00'
	e = NC
	V = 60 mph



NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

★ TRAFFIC SIGNAL

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 29 & 29A
FOR -L- RT PROFILE SEE SHTS. 29 & 29A
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-04 & W-05
FOR INTERSECTION DETAILS SEE SHEETS 2B-14 & 2B-15.

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REVISIONS

ROW Revision #6 - 03/02/2020 - Removed PUE from Parcels #97, #98 & #99.
ROW Revision #7 - 03/17/2020 - Combined Parcels #95 & #96 into Parcel #95. Revised property owners on Parcels #91 & #99.
ROW Revision #9 - 08/05/2020 - Revised property lines on Parcels #89 & #97.
ROW Revision #11 - 04/23/2021 - Changed property owner name on Parcel #92. Added PUE on Parcels # 98 & #99.
ROW Revision #12 - 05/21/2021 - Revised property lines to split Parcel #87 into #87 & #262.
ROW Revision #17 - 02/09/2022 - Revised name and deed book on parcel #89.

8/17/99

10/10/2022
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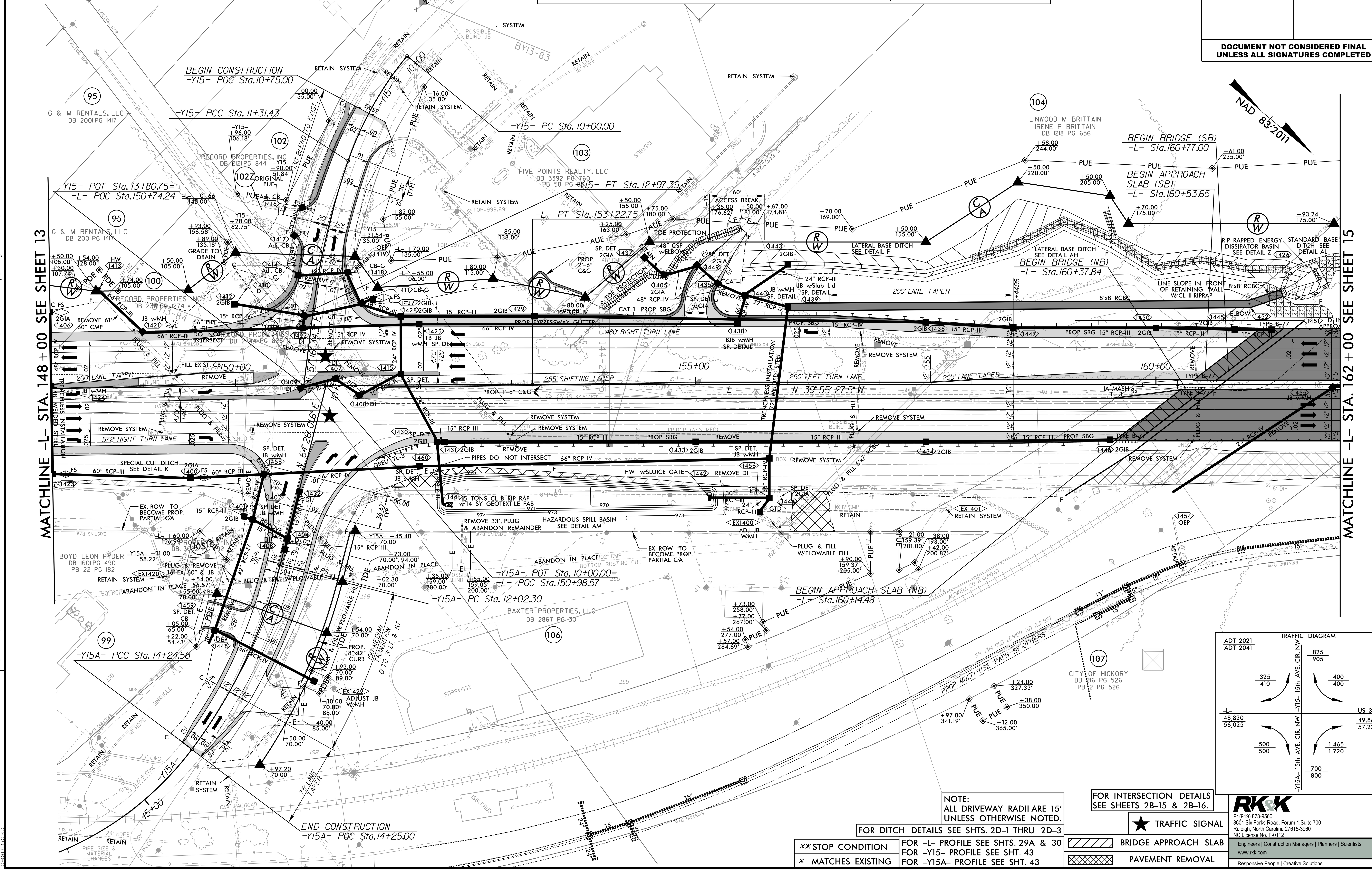
PROJECT REFERENCE NO.	SHEET NO.
U-4700A	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-	-Y15-		-Y15A-	
PI Sta 144+19.22	PI Sta 10+66.42	PI Sta 12+14.72	PI Sta 13+14.90	PI Sta 15+35.12
△ = 3° 06' 32.5" (RT)	△ = 20° 21' 11.0" (LT)	△ = 11° 57' 38.1" (LT)	△ = 22° 32' 31.3" (RT)	△ = 35° 31' 45.1" (RT)
D = 0° 10' 19.2"	D = 15° 29' 07.2"	D = 7° 12' 25.3"	D = 10° 08' 27.0"	D = 16° 36' 26.9"
L = 1,807.50'	L = 131.43'	L = 165.96'	L = 222.29'	L = 213.94'
T = 903.97'	T = 66.42'	T = 83.28'	T = 112.60'	T = 110.53'
R = 33,310.00'	R = 370.00'*	R = 795.00'	R = 565.00'**	R = 345.00'*
e = NC	e = 4%	e = 4%	e = 6%	e = 6%
V = 60 mph	V = 30 mph*	V = 40 mph	Lr = 220'	Lr = 220'
			V = 30 mph**	V = 35 mph



NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR INTERSECTION DETAILS SEE SHEETS 2B-15 & 2B-16.

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

** STOP CONDITION	FOR -L- PROFILE SEE SHTS. 29A & 30
* MATCHES EXISTING	FOR -Y15- PROFILE SEE SHT. 43
	FOR -Y15A- PROFILE SEE SHT. 43

★ TRAFFIC SIGNAL

BRIDGE APPROACH SLAB

PAVEMENT REMOVAL

TRAFFIC DIAGRAM

ADT 2021
ADT 2041

Movement	ADT 2021	ADT 2041
	825	905
	325	410
	400	400
-L-	48,820	56,025
US 321	49,865	57,235
	500	500
	1,465	1,720
	700	800

-Y15- 15th AVE. CIR. NW
-Y15A- 15th AVE. CIR. NW

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REVISIONS

ROW Revision #4 - 01/31/2020 - Added PDE to Parcel #106.
ROW Revision #7 - 03/17/2020 - Revised property owner name on Parcel #99. Combined Parcels #95 & #96 into Parcel #95. Combined Parcels #100 & #101 into one Parcel #100. Added driveway, access break, & TCE to Parcel #104.
ROW Revision #9 - 08/05/2020 - Added PUE to Parcels #100 & #106. Added PUE & revised TCE on Parcels #103 & #104. Added PUE to Parcel #107 (new parcel).
ROW Revision #11 - 04/23/2021 - Part of TCE replaced with PDE on parcel #99. Parcel #106: Added TCE at -L- RT Sta.152+45 +/-; Removed PDE & TDE at -L- RT Sta.155+70 +/-; Removed PDE & added TCE at -Y15A- LT Sta.12+00 +/-; Added PDE at -Y15A- LT Sta.13+00 +/-
ROW Revision #15 - 12/06/2021 - Revised PUE on parcel #106.
ROW Revision #17 - 02/09/2022 - Revised PUE on parcel #102.
ROW Revision #18 - 02/17/2022 - Added Parcel 102Z for added PUE.
ROW Revision #23 - 08/19/2022 - Revised PUE to AUE from -L- LT Sta.152+85 to 154+75 over parking lot for Parcel No.103.

8/17/99

10/10/2022
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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	15
R/W SHEET NO.	
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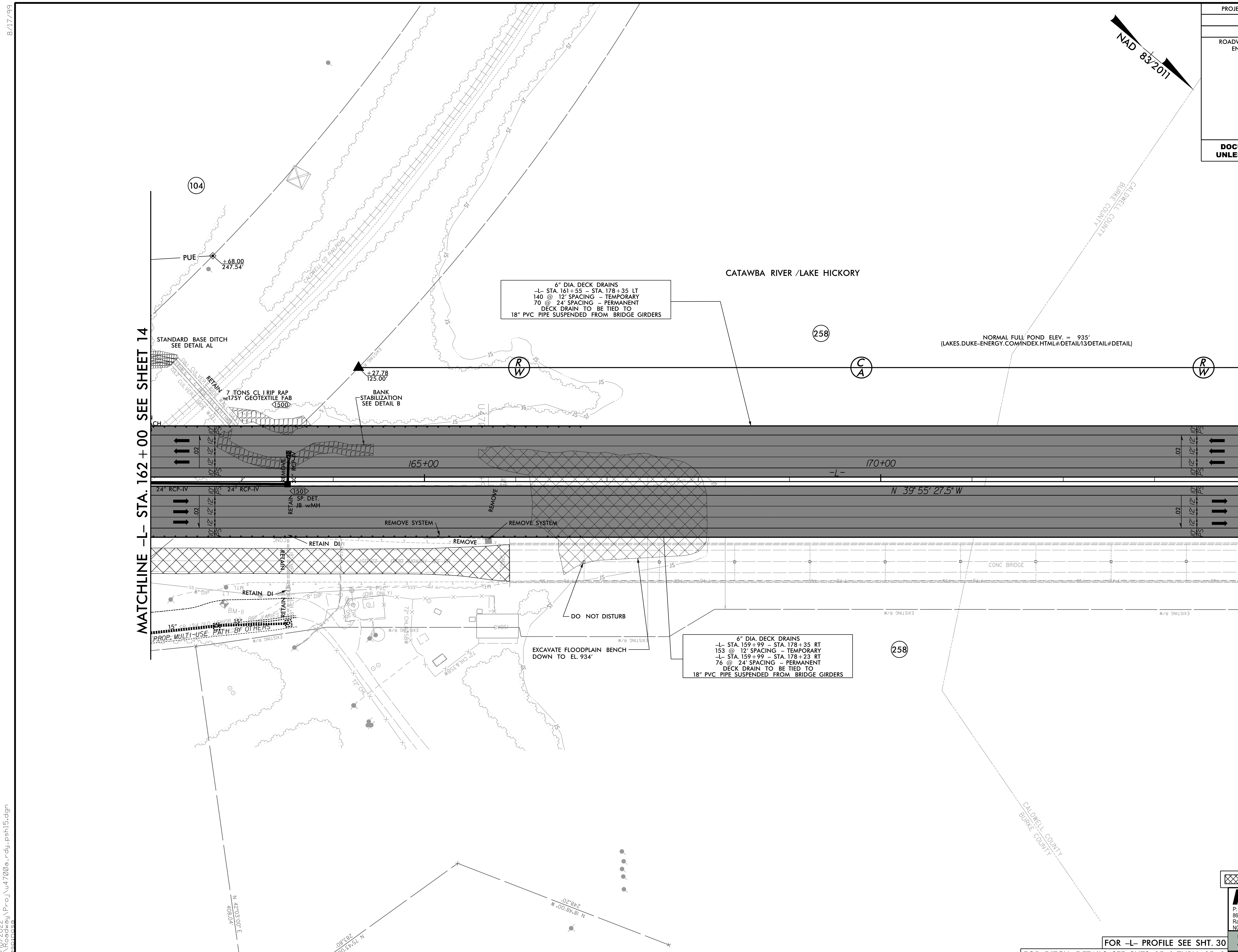

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHT. 30

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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8/17/99

10/10/2022
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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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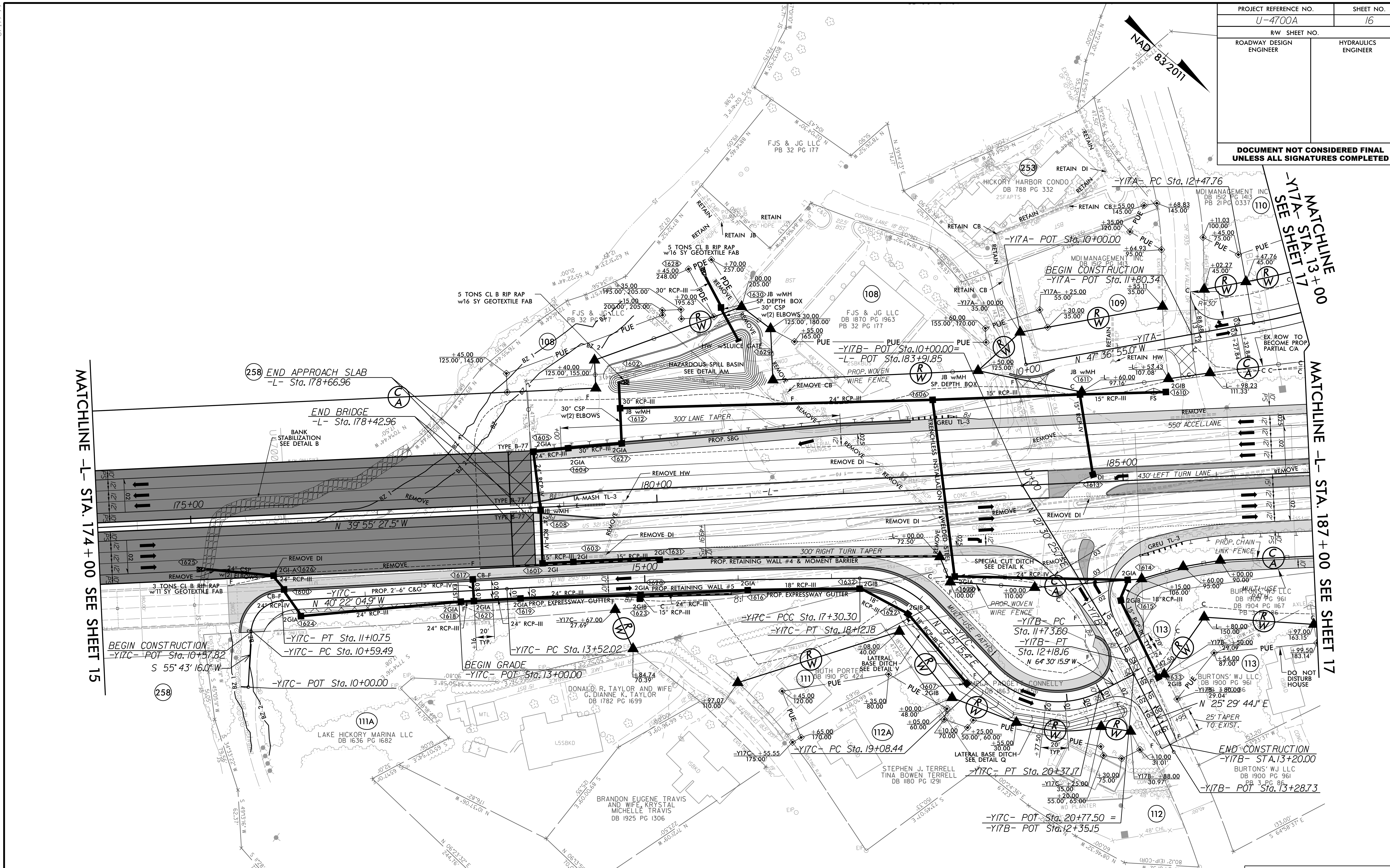

-Y17A-	-Y17B-	-Y17C-			
PI Sta 13+66.40	PI Sta 11+95.89	PI Sta 10+90.96	PI Sta 15+41.19	PI Sta 17+73.69	PI Sta 19+83.47
Δ = 19° 30' 40.6" (LT)	Δ = 3° 59' 18.4" (RT)	Δ = 83° 54' 39.1" (RT)	Δ = 2° 42' 33.3" (RT)	Δ = 46° 54' 46.9" (RT)	Δ = 73° 45' 31.3" (LT)
D = 8° 18' 13.5"	D = 8° 57' 08.9"	D = 163° 42' 08.0"	D = 0° 42' 58.3"	D = 57° 17' 44.8"	D = 57° 17' 44.8"
L = 234.97'	L = 44.55'	L = 51.26'	L = 378.28'	L = 81.88'	L = 128.73'
T = 118.63'	T = 22.28'	T = 31.46'	T = 189.18'	T = 43.39'	T = 75.03'
R = 690.00'	R = 640.00'	R = 35.00'*	R = 8,000.00'	R = 100.00'*	R = 100.00'**
e = 3%	e = 4%		e = NC	e = NC	e = NC
Lr = 50'	Lr = 120'		Lr = 40'	Lr = 40'	Lr = 40'
V = 30 mph	V = 30 mph		V = 20 mph	V = 20 mph*	V = 20 mph**

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3.
FOR RETAINING WALL DETAILS SEE SHTS. W-08 & W-09.

FOR INTERSECTION DETAILS SEE SHEET 2B-17.

FOR -L- PROFILE SEE SHTS. 30 & 31
FOR -Y17A- PROFILE SEE SHT. 44
FOR -Y17B- PROFILE SEE SHT. 44
FOR -Y17C- PROFILE SEE SHT. 44

* DESIGN EXCEPTION	BRIDGE APPROACH SLAB
** STOP CONDITION	PAVEMENT REMOVAL

RK&K
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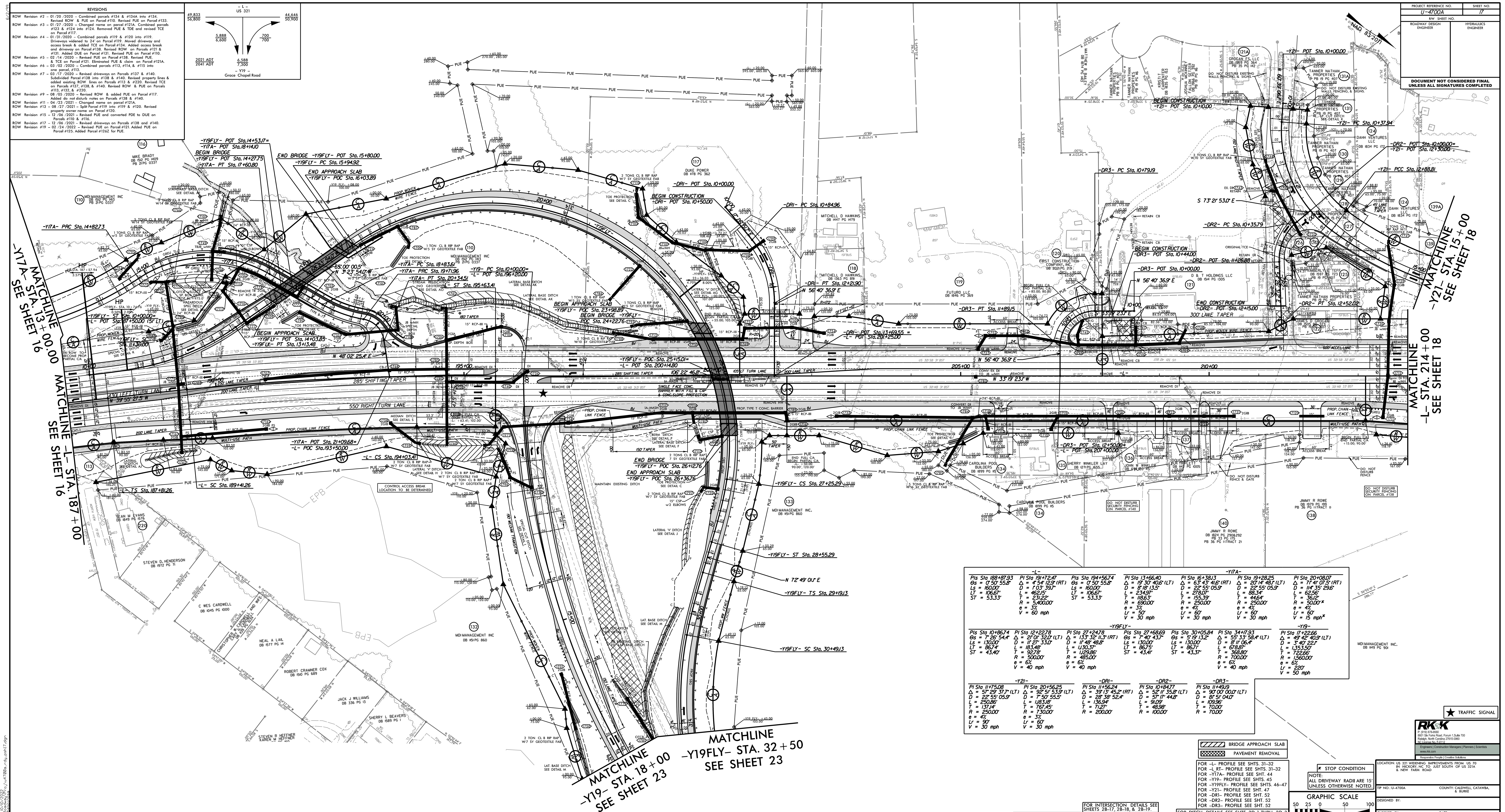
8/17/99

10/10/2022
R:\Roadway\Proj\u4700a_rdy_psh16.dgn
bespinosa

REVISIONS

ROW Revision #2 – 01 /20 /2020 – Combined parcels #134 & #134A into #134. Revised ROW & PUE on Parcel #110. Revised PUE on Parcel #133.
ROW Revision #3 – 01 /27 /2020 – Changed name on parcel #121A. Combined parcels #123 & #124 into #124. Removed PUE & TDE and revised TCE on Parcel #117.
ROW Revision #4 – 01 /31 /2020 – Combined parcels #119 & #120 into #119. Driveways widened to 24′ on Parcel #119. Moved driveway and access break & added TCE on Parcel #134. Added access break and driveway on Parcel #138. Revised ROW on Parcels #121 & #131. Added DUE on Parcel #131. Revised PUE on Parcel #110.
ROW Revision #5 – 02 /14 /2020 – Revised PUE on Parcel #138. Revised PUE. & TCE on Parcel #121. Eliminated PUE & claim on Parcel #121A.
ROW Revision #6 – 03 /02 /2020 – Combined parcels #113, #114, & #115 into one parcel, #113.
ROW Revision #7 – 03 /17 /2020 – Revised driveways on Parcels #137 & #140. Subdivided Parcel #138 into #138 & #140. Revised property lines & added existing ROW lines on Parcels #113 & #220. Revised TCE on Parcels #137, #138, & #140. Revised ROW & PUE on Parcels #113, #132, & #220.
ROW Revision #9 – 08 /05 /2020 – Revised ROW & added PUE on Parcel #117. Added do not disturb notes on Parcels #138 & #140.
ROW Revision #11 – 04 /23 /2021 – Changed name on parcel #121A.
ROW Revision #13 – 08 /27 /2021 – Split Parcel #119 into #119 & #120. Revised property owner name on Parcel #120.
ROW Revision #15 – 12 /06 /2021 – Revised PUE and converted PDE to DUE on Parcels #110 & #116.
ROW Revision #17 – 12 /06 /2021 – Revised driveways on Parcels #138 and #140.
ROW Revision #19 – 02 /24 /2022 – Revised PUE on Parcel #121. Added PUE on Parcel #125. Added Parcel #126Z for PUE.



–L–

PIs Sta 188+87.93
θs = 0° 50′ 55.8″
Ls = 160.00′
LT = 106.67′
ST = 53.33′

PI Sta 191+72.47
Δ = 4° 54′ 12.9″ (RT)
D = 1° 03′ 39.7″
L = 462.15′
T = 231.22′
R = 5,400.00′
e = 3%
V = 60 mph

PIs Sta 194+56.74
θs = 0° 50′ 55.8″
Ls = 160.00′
LT = 106.67′
ST = 53.33′

–Y17A–

PI Sta 13+66.40
Δ = 19° 30′ 40.6″ (LT)
D = 8° 18′ 13.5″
L = 234.97′
T = 118.63′
R = 690.00′
e = 3%
Lr = 50′
V = 30 mph

PI Sta 16+38.13
Δ = 63° 43′ 41.6″ (RT)
D = 22° 55′ 05.9″
L = 278.07′
T = 155.39′
R = 250.00′
e = 4%
Lr = 60′
V = 30 mph

PI Sta 19+28.25
Δ = 20° 14′ 48.1″ (LT)
D = 22° 55′ 05.9″
L = 88.34′
T = 44.64′
R = 250.00′
e = 4%
Lr = 60′
V = 30 mph

PI Sta 20+08.07
Δ = 71° 41′ 07.5″ (RT)
D = 114° 35′ 29.6″
L = 62.56′
T = 36.12′
R = 50.00′ *
e = 4%
Lr = 60′
V = 15 mph *

–Y19FLY–

PIs Sta 10+86.74
θs = 7° 26′ 54.4″
Ls = 130.00′
LT = 86.74′
ST = 43.40′

PI Sta 12+22.78
Δ = 21° 01′ 32.0″ (LT)
D = 11° 27′ 33.0″
L = 183.48′
T = 92.78′
R = 500.00′
e = 6%
V = 40 mph

PI Sta 27+24.78
Δ = 133° 32′ 11.3″ (RT)
D = 11° 48′ 48.8″
L = 1,130.37′
T = 1,129.86′
R = 485.00′
e = 6%
V = 40 mph

PIs Sta 27+68.69
θs = 7° 40′ 43.7″
Ls = 130.00′
LT = 86.75′
ST = 43.41′

PIs Sta 30+05.84
θs = 5° 19′ 13.2″
Ls = 130.00′
LT = 86.71′
ST = 43.37′

PI Sta 34+17.93
Δ = 55° 33′ 58.4″ (LT)
D = 8° 11′ 06.4″
L = 678.87′
T = 368.80′
R = 700.00′
e = 6%
V = 40 mph

–Y19–

PI Sta 17+22.66
Δ = 49° 42′ 40.9″ (LT)
D = 3° 40′ 22.1″
L = 1,353.50′
T = 722.66′
R = 1,560.00′
e = 6%
Lr = 220′
V = 50 mph

–Y21–

PI Sta 11+75.08
Δ = 57° 29′ 37.7″ (LT)
D = 22° 55′ 05.9″
L = 250.86′
T = 137.14′
R = 250.00′
e = 4%
Lr = 90′
V = 30 mph

PI Sta 20+56.25
Δ = 92° 51′ 53.9″ (LT)
D = 7° 50′ 55.5″
L = 1,183.18′
T = 767.45′
R = 730.00′
e = 3%
Lr = 60′
V = 30 mph

–DR1–

PI Sta 11+56.24
Δ = 39° 13′ 45.2″ (RT)
D = 28° 38′ 52.4″
L = 136.94′
T = 71.27′
R = 200.00′

–DR2–

PI Sta 10+84.77
Δ = 52° 11′ 35.8″ (LT)
D = 57° 17′ 44.8″
L = 91.09′
T = 48.98′
R = 100.00′

–DR3–

PI Sta 11+49.19
Δ = 90° 00′ 00.0″ (LT)
D = 81° 51′ 04.0″
L = 109.96′
T = 70.00′
R = 70.00′

★ TRAFFIC SIGNAL

BRIDGE APPROACH SLAB
PAVEMENT REMOVAL

FOR –L– PROFILE SEE SHTS. 31–32
FOR –L_RT– PROFILE SEE SHTS. 31–32
FOR –Y17A– PROFILE SEE SHT. 44
FOR –Y19– PROFILE SEE SHTS. 45
FOR –Y19FLY– PROFILE SEE SHTS. 46–47
FOR –Y21– PROFILE SEE SHT. 47
FOR –DR1– PROFILE SEE SHT. 52
FOR –DR2– PROFILE SEE SHT. 52
FOR –DR3– PROFILE SEE SHT. 52

FOR INTERSECTION DETAILS SEE SHEETS 2B–17, 2B–18, & 2B–19.
FOR RIGHT-OF-WAY STATIONS & OFFSETS SEE SHEET 17–ROW
FOR DRAINAGE NOTES & LABELS SEE SHEET 17–DRN
FOR DITCH DETAILS SEE SHTS. 2D–1 THRU 2D–3
FOR RETAINING WALL DETAILS SEE SHTS. W–10 & W–11

✱ STOP CONDITION

NOTE:
ALL DRIVEWAY RADII ARE 15′ UNLESS OTHERWISE NOTED.

GRAPHIC SCALE
50 25 0 50 100
PLANS

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LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U–4700A
COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:
CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
U–4700A	17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER

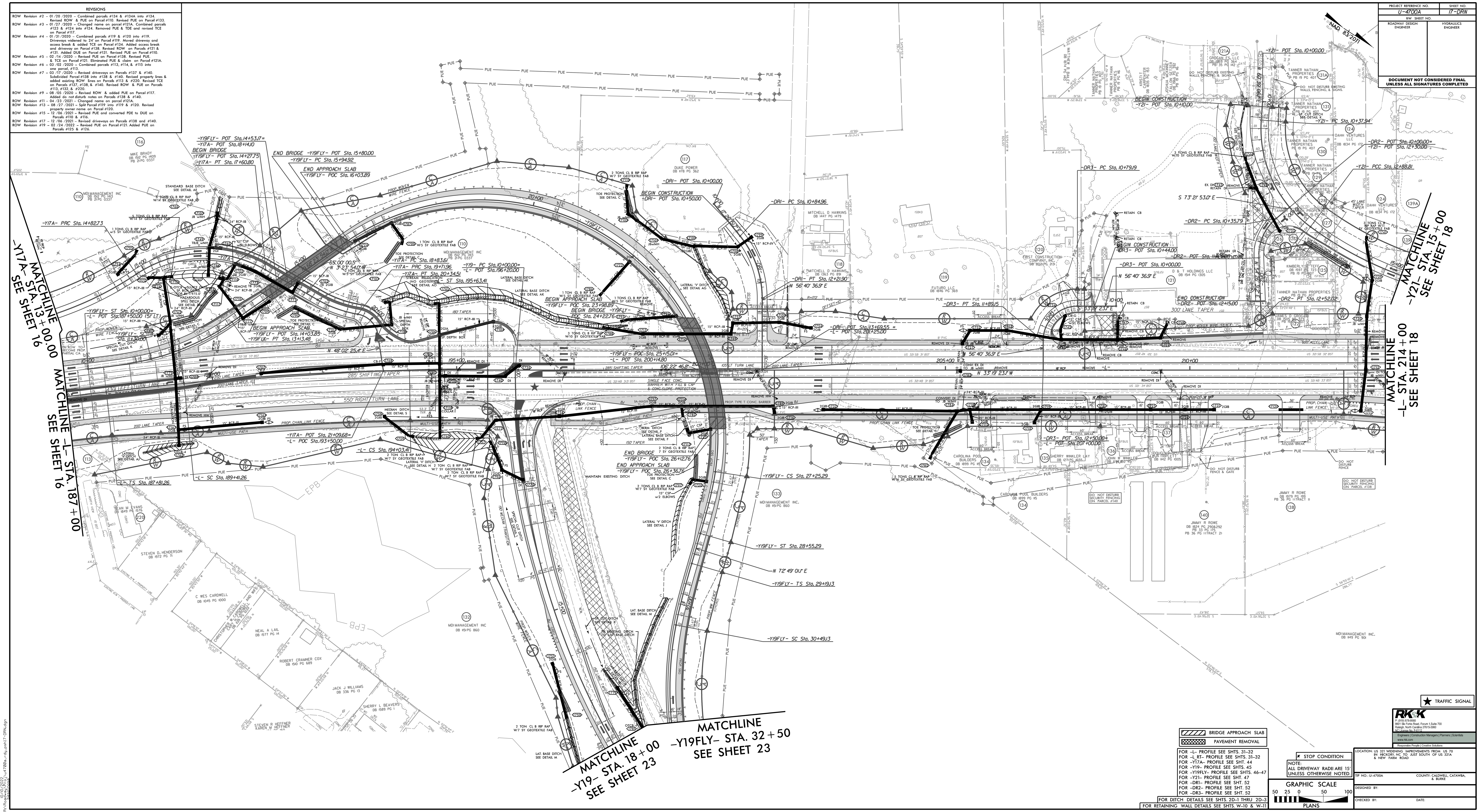
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	17-DRN
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

ROW Revision #2 – 01/20/2020 – Combined parcels #134 & #134A into #134. Revised ROW & PUE on Parcel #110. Revised PUE on Parcel #133.
ROW Revision #3 – 01/27/2020 – Changed name on parcel #121A. Combined parcels #123 & #124 into #124. Removed PUE & TDE and revised TCE on Parcel #117.
ROW Revision #4 – 01/31/2020 – Combined parcels #119 & #120 into #119. Driveways widened to 24′ on Parcel #119. Moved driveway and access break & added TCE on Parcel #134. Added access break and driveway on Parcel #138. Revised ROW on Parcels #121 & #131. Added DUE on Parcel #131. Revised PUE on Parcel #110.
ROW Revision #5 – 02/14/2020 – Revised PUE on Parcel #138. Revised PUE. & TCE on Parcel #121. Eliminated PUE & claim on Parcel #121A.
ROW Revision #6 – 03/02/2020 – Combined parcels #113, #114, & #115 into one parcel, #113.
ROW Revision #7 – 03/17/2020 – Revised driveways on Parcels #137 & #140. Subdivided Parcel #138 into #138 & #140. Revised property lines & added existing ROW lines on Parcels #113 & #220. Revised TCE on Parcels #137, #138, & #140. Revised ROW & PUE on Parcels #113, #132, & #220.
ROW Revision #9 – 08/05/2020 – Revised ROW & added PUE on Parcel #117. Added do not disturb notes on Parcels #138 & #140.
ROW Revision #11 – 04/23/2021 – Changed name on parcel #121A.
ROW Revision #13 – 08/27/2021 – Split Parcel #119 into #119 & #120. Revised property owner name on Parcel #120.
ROW Revision #15 – 12/06/2021 – Revised PUE and converted PDE to DUE on Parcels #110 & #116.
ROW Revision #17 – 12/06/2021 – Revised driveways on Parcels #138 and #140.
ROW Revision #19 – 02/24/2022 – Revised PUE on Parcel #121. Added PUE on Parcels #125 & #126.



★ TRAFFIC SIGNAL

BRIDGE APPROACH SLAB
PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 31–32
FOR -L_RT- PROFILE SEE SHTS. 31–32
FOR -Y17A- PROFILE SEE SHT. 44
FOR -Y19- PROFILE SEE SHTS. 45
FOR -Y19FLY- PROFILE SEE SHTS. 46–47
FOR -Y21- PROFILE SEE SHT. 47
FOR -DR1- PROFILE SEE SHT. 52
FOR -DR2- PROFILE SEE SHT. 52
FOR -DR3- PROFILE SEE SHT. 52
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-10 & W-11

STOP CONDITION

NOTE:
ALL DRIVEWAY RADII ARE 15′ UNLESS OTHERWISE NOTED.

GRAPHIC SCALE
50 25 0 50 100
PLANS

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Responsive People | Creative Solutions

LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U-4700A
COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:

CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	17-ROW

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

ROW Revision #2 – 01/20/2020 – Combined parcels #134 & #134A into #134. Revised ROW & PUE on Parcel #110. Revised PUE on Parcel #133.

ROW Revision #3 – 01/27/2020 – Changed name on parcel #121A. Combined parcels #123 & #124 into #124. Removed PUE & TDE and revised TCE on Parcel #117.

ROW Revision #4 – 01/31/2020 – Combined parcels #119 & #120 into #119. Driveways widened to 24′ on Parcel #119. Moved driveway and access break & added TCE on Parcel #134. Added access break and driveway on Parcel #138. Revised ROW on Parcels #121 & #131. Added DUE on Parcel #131. Revised PUE on Parcel #110.

ROW Revision #5 – 02/14/2020 – Revised PUE on Parcel #138. Revised PUE. & TCE on Parcel #121. Eliminated PUE & claim on Parcel #121A.

ROW Revision #6 – 03/02/2020 – Combined parcels #113, #114, & #115 into one parcel, #113.

ROW Revision #7 – 03/17/2020 – Revised driveways on Parcels #137 & #140. Subdivided Parcel #138 into #138 & #140. Revised property lines & added existing ROW lines on Parcels #113 & #220. Revised TCE on Parcels #137, #138, & #140. Revised ROW & PUE on Parcels #113, #132, & #220.

ROW Revision #9 – 08/05/2020 – Revised ROW & added PUE on Parcel #117. Added do not disturb notes on Parcels #138 & #140.

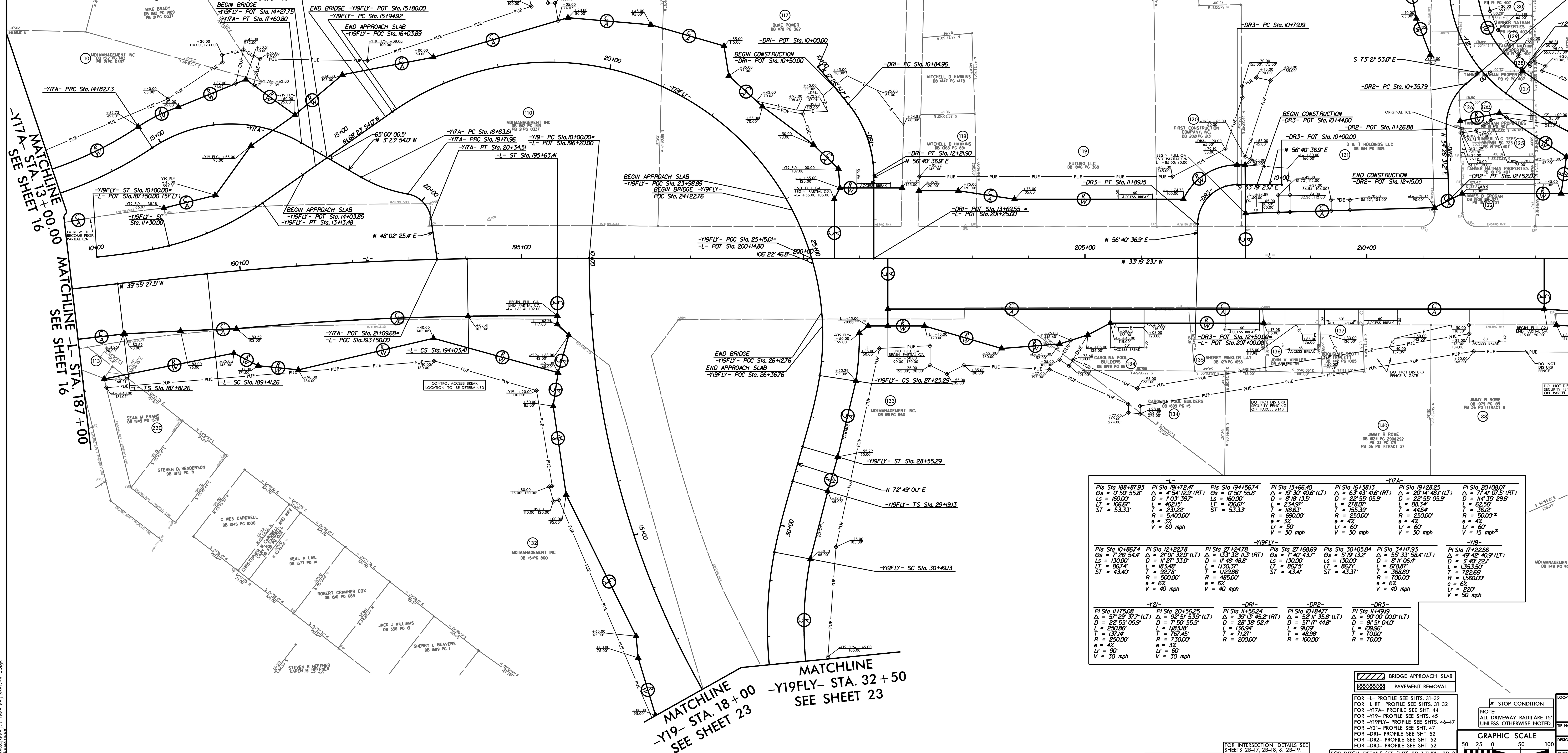
ROW Revision #11 – 04/23/2021 – Changed name on parcel #121A.

ROW Revision #13 – 08/27/2021 – Split Parcel #119 into #119 & #120. Revised property owner name on Parcel #120.

ROW Revision #15 – 12/06/2021 – Revised PUE and converted PDE to DUE on Parcels #110 & #116.

ROW Revision #17 – 12/06/2021 – Revised driveways on Parcels #138 and #140.

ROW Revision #19 – 02/24/2022 – Revised PUE on Parcel #121. Added PUE on Parcels #125A & #126. Added Parcel #126Z for PUE.



-L-		
PIs Sta 188+87.93	PI Sta 191+72.47	PIs Sta 194+56.74
Θs = 0° 50′ 55.8″	Δ = 4° 54′ 12.9″ (RT)	Θs = 0° 50′ 55.8″
Ls = 160.00′	D = 1° 03′ 39.7″	Ls = 160.00′
LT = 106.67′	L = 462.15′	LT = 106.67′
ST = 53.33′	T = 231.22′	ST = 53.33′
	R = 5,400.00′	
	e = 3%	
	V = 60 mph	

-Y17A-			
PI Sta 13+66.40	PI Sta 16+38.13	PI Sta 19+28.25	PI Sta 20+08.07
Δ = 19° 30′ 40.6″ (LT)	Δ = 63° 43′ 41.6″ (RT)	Δ = 20° 14′ 48.1″ (LT)	Δ = 71° 41′ 07.5″ (RT)
D = 8° 18′ 13.5″	D = 22° 55′ 05.9″	D = 22° 55′ 05.9″	D = 114° 35′ 29.6″
L = 234.97′	L = 278.07′	L = 88.34′	L = 62.56′
T = 118.63′	T = 155.39′	T = 44.64′	T = 36.12′
R = 690.00′	R = 250.00′	R = 250.00′	R = 50.00′*
e = 3%	e = 4%	e = 4%	e = 4%
Lr = 50′	Lr = 60′	Lr = 60′	Lr = 60′
V = 30 mph	V = 30 mph	V = 30 mph	V = 15 mph*

-Y19FLY-					
PIs Sta 10+86.74	PI Sta 12+22.78	PI Sta 27+24.78	PIs Sta 27+68.69	PIs Sta 30+05.84	PI Sta 34+17.93
Θs = 7° 26′ 54.4″	Δ = 21° 01′ 32.0″ (LT)	Δ = 133° 32′ 11.3″ (RT)	Θs = 7° 40′ 43.7″	Θs = 5° 19′ 13.2″	Δ = 55° 33′ 58.4″ (LT)
Ls = 130.00′	D = 11° 27′ 33.0″	D = 11° 48′ 48.8″	Ls = 130.00′	Ls = 130.00′	D = 8° 11′ 06.4″
LT = 86.74′	L = 183.48′	L = 1,130.37′	LT = 86.75′	LT = 86.71′	L = 678.87′
ST = 43.40′	T = 92.78′	T = 1,129.86′	ST = 43.41′	ST = 43.37′	T = 368.80′
	R = 500.00′	R = 485.00′			R = 700.00′
	e = 6%	e = 6%			e = 6%
	V = 40 mph	V = 40 mph			V = 40 mph

-Y19-
PI Sta 17+22.66
Δ = 49° 42′ 40.9″ (LT)
D = 3° 40′ 22.1″
L = 1,353.50′
T = 722.66′
R = 1,560.00′
e = 6%
Lr = 220′
V = 50 mph

-Y21-		-DR1-	-DR2-	-DR3-
PI Sta 11+75.08	PI Sta 20+56.25	PI Sta 11+56.24	PI Sta 10+84.77	PI Sta 11+49.19
Δ = 57° 29′ 37.7″ (LT)	Δ = 92° 51′ 53.9″ (LT)	Δ = 39° 13′ 45.2″ (RT)	Δ = 52° 11′ 35.8″ (LT)	Δ = 90° 00′ 00.0″ (LT)
D = 22° 55′ 05.9″	D = 7° 50′ 55.5″	D = 28° 38′ 52.4″	D = 57° 17′ 44.8″	D = 81° 51′ 04.0″
L = 250.86′	L = 1,183.18′	L = 136.94′	L = 91.09′	L = 109.96′
T = 137.14′	T = 767.45′	T = 71.27′	T = 48.98′	T = 70.00′
R = 250.00′	R = 730.00′	R = 200.00′	R = 100.00′	R = 70.00′
e = 4%	e = 3%			
Lr = 90′	Lr = 60′			
V = 30 mph	V = 30 mph			

★ TRAFFIC SIGNAL

BRIDGE APPROACH SLAB

PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 31–32
FOR -L_RT- PROFILE SEE SHTS. 31–32
FOR -Y17A- PROFILE SEE SHT. 44
FOR -Y19- PROFILE SEE SHTS. 45
FOR -Y19FLY- PROFILE SEE SHTS. 46–47
FOR -Y21- PROFILE SEE SHT. 47
FOR -DR1- PROFILE SEE SHT. 52
FOR -DR2- PROFILE SEE SHT. 52
FOR -DR3- PROFILE SEE SHT. 52

FOR INTERSECTION DETAILS SEE SHEETS 2B-17, 2B-18, & 2B-19.
FOR RIGHT-OF-WAY STATIONS & OFFSETS SEE SHEET 17-ROW
FOR DRAINAGE NOTES & LABELS SEE SHEET 17-DRN
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-10 & W-11

* STOP CONDITION

NOTE:
ALL DRIVEWAY RADII ARE 15′ UNLESS OTHERWISE NOTED.

GRAPHIC SCALE
50 25 0 50 100
PLANS

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Responsive People | Creative Solutions

LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

TIP NO.: U-4700A

COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:

CHECKED BY:

DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

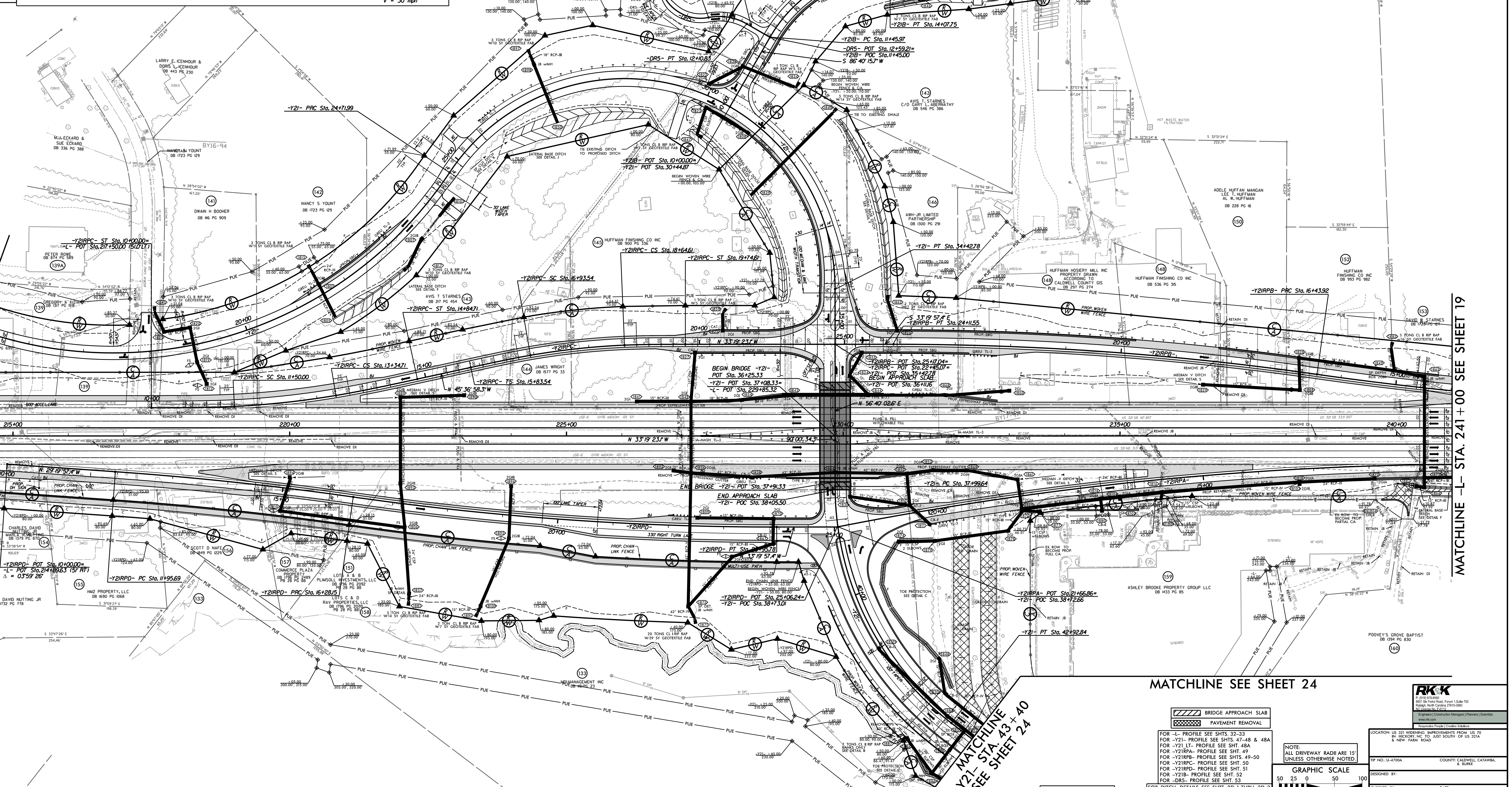
6/2/99

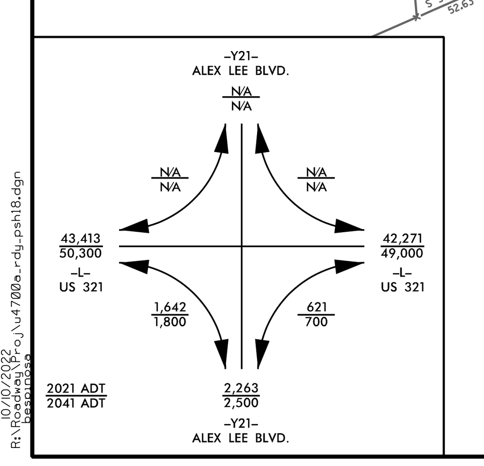
REVISIONS

- ROW Revision #2 – 01/20/2020 – Revised PUE on Parcels #139A & #141. Combined Parcels #143 & #147 into #143. Parcel #153 released for ROW acquisition.
- ROW Revision #3 – 01/27/2020 – Chagned property owner name on Parcel #155. Combined Parcels #139 & #140 into #139. Added PUE on Parcel #159.
- ROW Revision #5 – 02/14/2020 – Revised PUE on Parcels #138, #154, #155, #156, & #156A.
- ROW Revision #6 – 03/02/2020 – Combined Parcels #148, #149, & #151 into one parcel, #148. Combined Parcels #133, #156A, #158, & #209 into one parcel, #133.
- ROW Revision #7 – 03/17/2020 – Revised property lines and added existing ROW lines on Parcels #133 & #159. Subdivided Parcel #157 into #151, #157, & #158. Revised ROW on Parcel #133. Existing ROW to become full C/A on Parcel #159.
- ROW Revision #11 – 04/23/2021 – Chagned property owner name on Parcel #155.
- ROW Revision #13 – 08/27/2021 – Revised property owner name for Parcel #150.

-Y21-	-Y21-	-Y21-	-Y21RPA-	-Y21RPB-	-Y21RPB-	-Y21RPD-	-Y21RPD-	-DR5-	-DR5-	-DR5-
PI Sta 20+56.25	PI Sta 37+29.60	PI Sta 40+64.95	PI Sta 15+85.27	PI Sta 14+27.79	PI Sta 20+28.38	PI Sta 14+12.02	PI Sta 20+12.61	PI Sta 10+20.03	PI Sta 10+98.35	PI Sta 11+76.62
Δ = 92° 51′ 53.9″ (LT)	Δ = 146° 22′ 28.1″ (RT)	Δ = 52° 19′ 47.8″ (LT)	Δ = 11° 08′ 33.6″ (LT)	Δ = 4° 07′ 46.9″ (RT)	Δ = 8° 07′ 46.9″ (LT)	Δ = 4° 07′ 46.9″ (RT)	Δ = 8° 07′ 46.9″ (LT)	Δ = 7° 30′ 51.2″ (LT)	Δ = 75° 46′ 06.0″ (LT)	Δ = 41° 03′ 06.5″ (RT)
D = 7° 50′ 55.5″	D = 15° 04′ 40.2″	D = 10° 36′ 37.2″	D = 0° 57′ 17.7″	D = 0° 57′ 17.7″	D = 1° 03′ 32.7″	D = 0° 57′ 17.7″	D = 1° 03′ 32.7″	D = 18° 47′ 07.8″	D = 76° 23′ 39.7″	D = 57° 17′ 44.8″
L = 1,183.18′	L = 970.79′	L = 493.20′	L = 1,166.86′	L = 432.46′	L = 767.62′	L = 432.46′	L = 767.62′	L = 40.00′	L = 99.18′	L = 71.65′
T = 767.45′	T = 1,257.61′	T = 265.30′	T = 585.27′	T = 216.32′	T = 384.46′	T = 216.32′	T = 384.46′	T = 20.03′	T = 58.35′	T = 37.44′
R = 730.00′	R = 380.00′	R = 540.00′	R = 6,000.00′	R = 6,000.00′	R = 5,410.00′	R = 6,000.00′	R = 5,410.00′	R = 305.00′	R = 75.00′	R = 100.00′
e = 3%	e = 4%	e = 4%	e = RC	e = RC	e = NC	e = RC	e = NC			
Lr = 60′	Lr = 90′(B)/100′(A)	Lr = 160′	V = 50 mph	V = 50 mph	V = 50 mph	V = 50 mph	V = 40 mph			
V = 30 mph	V = 30 mph	V = 40 mph								

-Y21RPC-	-Y21RPC-	-Y21RPC-	-Y21RPC-	-Y21RPC-	-Y21RPC-	-Y21B-
PIs Sta 11+00.01	PI Sta 12+42.46	PIs Sta 13+84.72	PIs Sta 16+56.88	PI Sta 17+79.20	PIs Sta 19+01.28	PI Sta 12+90.29
θs = 2° 45′ 16.6″	Δ = 6° 47′ 02.0″ (LT)	θs = 2° 45′ 16.6″	θs = 2° 24′ 20.0″	Δ = 7° 28′ 55.2″ (RT)	θs = 2° 24′ 20.0″	Δ = 59° 59′ 47.0″ (RT)
Ls = 150.00′	D = 3° 40′ 22.1″	Ls = 150.00′	Ls = 110.00′	D = 4° 22′ 25.4″	Ls = 110.00′	D = 22° 55′ 05.9″
LT = 100.01′	L = 184.71′	LT = 100.01′	LT = 73.34′	L = 171.07′	LT = 73.34′	L = 261.78′
ST = 50.01′	T = 92.46′	ST = 50.01′	ST = 36.67′	T = 85.66′	ST = 36.67′	T = 144.33′
	R = 1,560.00′			R = 1,310.00′		R = 250.00′
	e = 6%			e = 5%		e = 4%
	V = 50 mph			V = 40 mph		Lr = 80′
						V = 30 mph





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bespinosa

MATCHLINE SEE SHEET 24

▨	BRIDGE APPROACH SLAB
▩	PAVEMENT REMOVAL

FOR -L- PROFILE SEE SHTS. 32-33
FOR -Y21- PROFILE SEE SHTS. 47-48 & 48A
FOR -Y21_LT- PROFILE SEE SHT. 48A
FOR -Y21RPA- PROFILE SEE SHT. 49
FOR -Y21RPB- PROFILE SEE SHTS. 49-50
FOR -Y21RPC- PROFILE SEE SHT. 50
FOR -Y21RPD- PROFILE SEE SHT. 51
FOR -Y21B- PROFILE SEE SHT. 52
FOR -DR5- PROFILE SEE SHT. 53
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3
FOR RETAINING WALL DETAILS SEE SHTS. W-12 THRU W-15
FOR INTERSECTION DETAILS SEE SHEETS 2B-21 & 2B-22.

NOTE:
ALL DRIVEWAY RADII ARE 15′ UNLESS OTHERWISE NOTED.

GRAPHIC SCALE
50 25 0 50 100
PLANS

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LOCATION: US 321 WIDENING IMPROVEMENTS FROM US 70 IN HICKORY, NC TO JUST SOUTH OF US 321A & NEW FARM ROAD

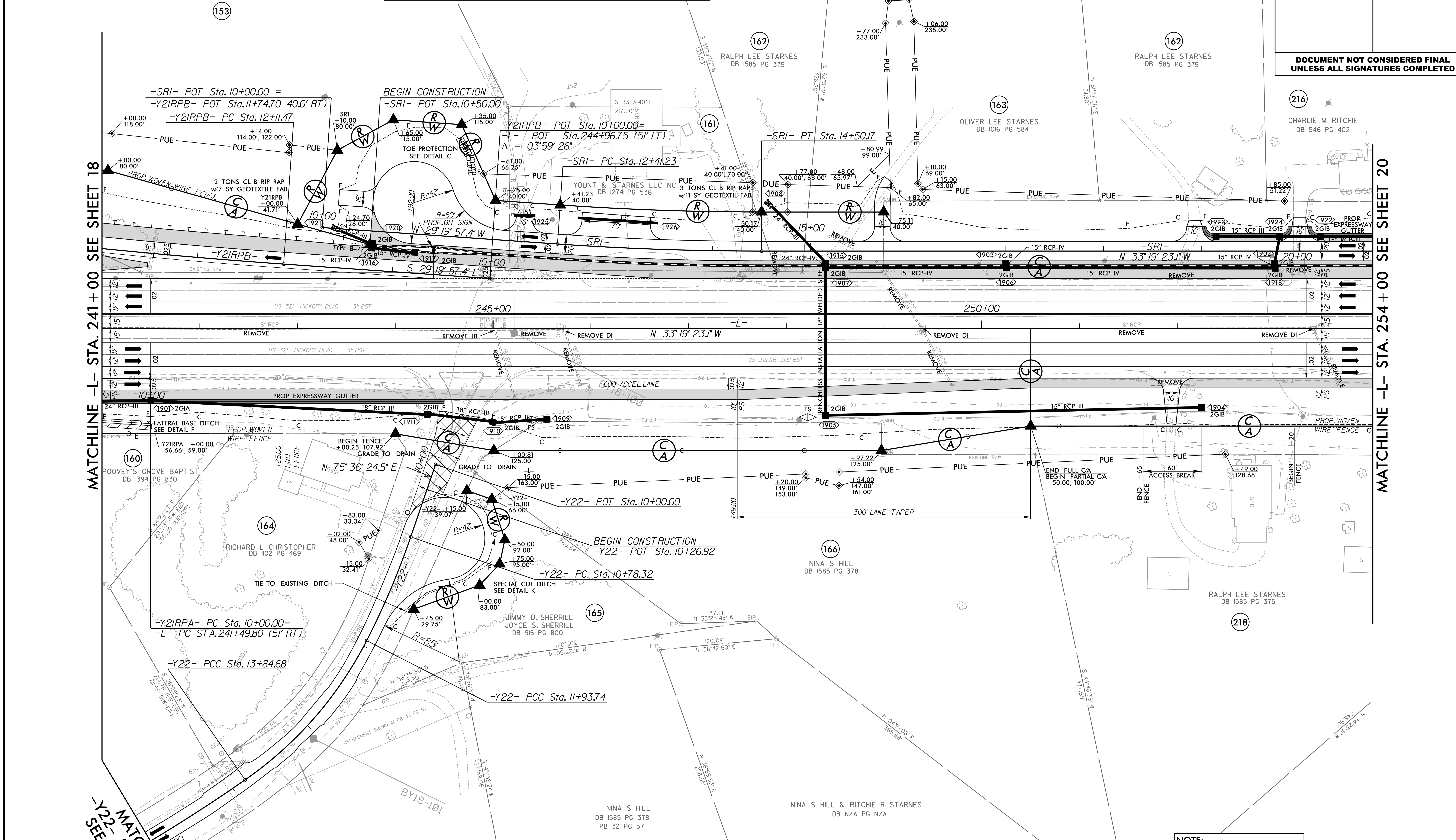
TIP NO.: U-4700A
COUNTY: CALDWELL, CATAWBA, & BURKE

DESIGNED BY:
CHECKED BY:
DATE:

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y2IRPA-	-Y2IRPB-	-SRI-
PI Sta 15+85.27	PI Sta 20+28.38	PI Sta 13+45.74
Δ = 11° 08' 33.6" (LT)	Δ = 8° 07' 46.9" (LT)	Δ = 3° 59' 25.7" (LT)
D = 0° 57' 17.7"	D = 1° 03' 32.7"	D = 1° 54' 35.5"
L = 1,166.86'	L = 767.62'	L = 208.94'
T = 585.27'	T = 384.46'	T = 104.51'
R = 6,000.00'	R = 5,410.00'	R = 3,000.00'
e = RC	e = NC	e = NC
V = 50 mph	V = 40 mph	V = 30 mph



NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -L- PROFILE SEE SHT. 33 & 33A
FOR -Y21RPA- PROFILE SEE SHT. 49
FOR -Y21RPB- PROFILE SEE SHT. 49
FOR -Y22- PROFILE SEE SHT. 52
FOR -SR1- PROFILE SEE SHT. 54
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

PAVEMENT REMOVAL

-Y22-		
PI Sta 11+36.13	PI Sta 12+91.16	PI Sta 15+12.06
Δ = 8° 09' 50.5" (RT)	Δ = 28° 03' 06.8" (RT)	Δ = 8° 40' 19.1" (RT)
D = 7° 04' 24.8"	D = 14° 41' 28.4"	D = 3° 24' 37.7"
L = 115.42'	L = 190.94'	L = 254.28'
T = 57.81'	T = 97.43'	T = 127.38'
R = 810.00'	R = 390.00'	R = 1,680.00'

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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

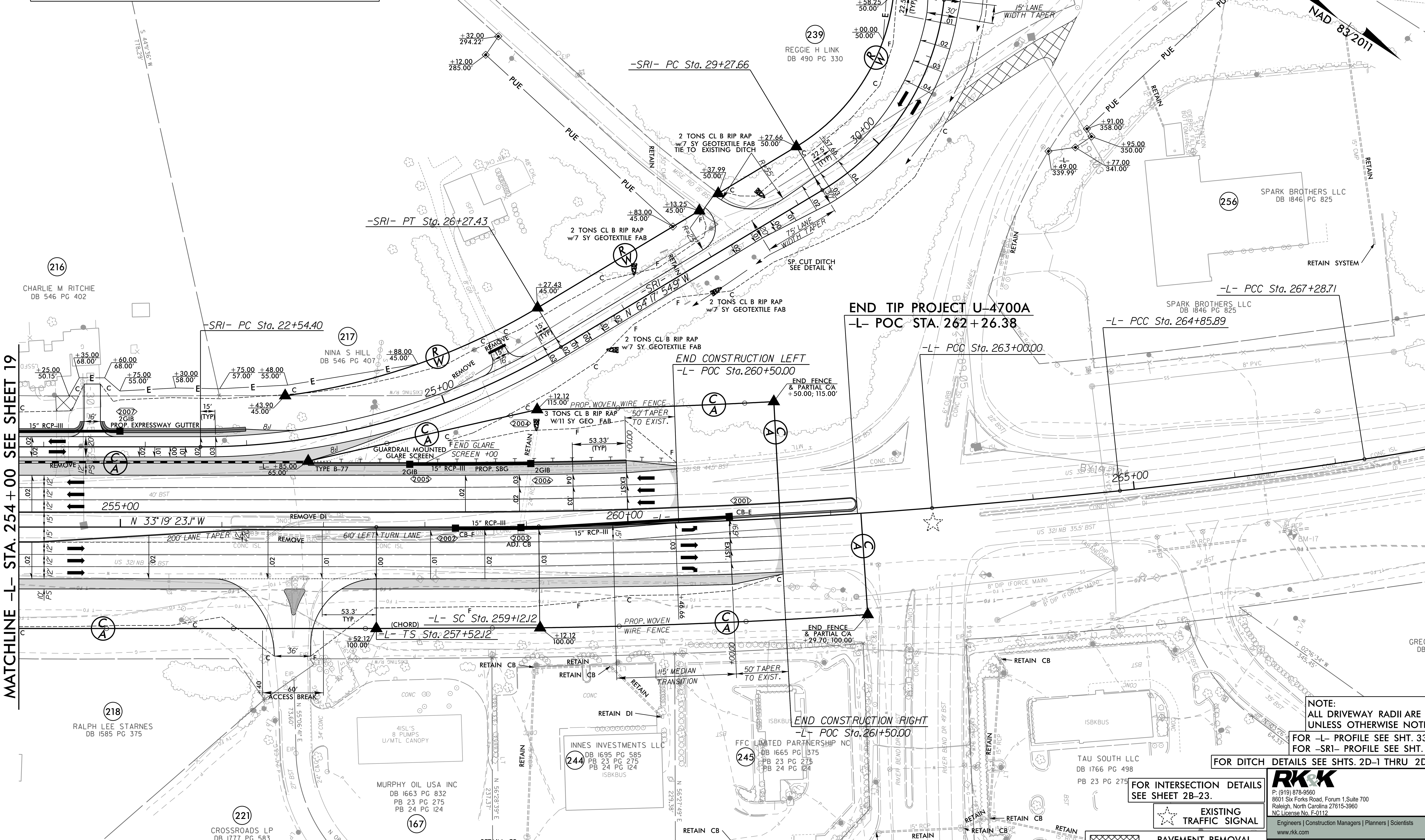
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

PIs Sta 258+58.79	PI Sta 261+06.13	PI Sta 263+92.95	PI Sta 266+07.32	PI Sta 269+48.46
Θs = 0° 46′ 36.8″	Δ = 3° 46′ 00.2″ (LT)	Δ = 1° 26′ 21.5″ (LT)	Δ = 2° 46′ 56.9″ (LT)	Δ = 4° 23′ 34.7″ (LT)
Ls = 160.00′	D = 0° 58′ 16.0″	D = 0° 46′ 27.4″	D = 1° 08′ 45.3″	D = 1° 00′ 00.0″
LT = 106.67′	L = 387.88′	L = 185.89′	L = 242.82′	L = 439.30′
ST = 53.33′	T = 194.01′	T = 92.95′	T = 121.43′	T = 219.76′
	R = 5,900.00′	R = 7,400.00′	R = 5,000.00′	R = 5,729.58′
	e = 3%			
	V = 60 mph			

-SRI-

PI Sta 24+45.59	PI Sta 30+51.89	PI Sta 32+40.09
Δ = 30° 58′ 31.8″ (LT)	Δ = 52° 50′ 54.1″ (LT)	Δ = 55° 40′ 03.7″ (RT)
D = 8° 18′ 13.5″	D = 22° 55′ 05.9″	D = 36° 57′ 54.1″
L = 373.03′	L = 230.59′	L = 150.60′
T = 191.20′	T = 124.23′	T = 81.84′
R = 690.00′	R = 250.00′	R = 155.00′
e = 3%	e = 4%	e = 4%
V = 30 mph	V = 30 mph	V = 25 mph



NOTE:
ALL DRIVEWAY RADII ARE 15′ UNLESS OTHERWISE NOTED.

FOR -L- PROFILE SEE SHT. 33A
FOR -SRI- PROFILE SEE SHT. 54

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

FOR INTERSECTION DETAILS SEE SHEET 2B-23.

EXISTING TRAFFIC SIGNAL

PAVEMENT REMOVAL

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REVISIONS

- ROW Revision #1 - 12/13/2019 - Added Parcels #244 & 245.
- ROW Revision #2 - 01/20/2020 - Added Parcels #255 & #256. Pacels #216,#217,#239,#255,& #256 released for ROW acquisition.
- ROW Revision #3 - 01/27/2020 - Revised location of partial C/A on Parcel #218. Adjusted C/A limits along US 321 frontage on Parcel #245.
- ROW Revision #5 - 02/14/2020 - Revised property lines on Parcels #167,#244,& #245.
- ROW Revision #7 - 03/17/2020 - Added existing ROW line and revised PUE on Parcel #217
- ROW Revision #8 - 04/07/2020 - Revised location of C/A on Parcels #167,#244,& #245.
- ROW Revision #9 - 08/05/2020 - Removed TCE from Parcel #167 & removed TCE from Parcel #221(eliminated claim).Added access break & driveway on Parcels #167 & #221.
- ROW Revision #22 - 04/26/2022 - Added Parcel #2552 for additional PUE.

8/17/99

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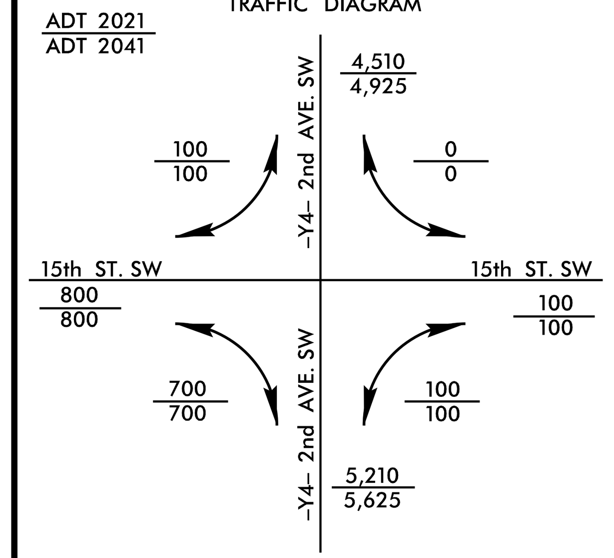
8/17/99

-Y4-		-Y5A-
PI Sta 14+57.52	PI Sta 18+33.13	PI Sta 11+08.16
△ = 44° 03' 33.7" (RT)	△ = 44° 35' 03.6" (LT)	△ = 47° 54' 17.2" (RT)
D = 15° 04' 40.2"	D = 15° 04' 40.2"	D = 36° 57' 54.1"
L = 292.21'	L = 295.69'	L = 129.59'
T = 153.76'	T = 155.79'	T = 68.86'
R = 380.00'	R = 380.00'	R = 155.00'*
e = 4%	e = 4%	e = 4%
Lr = 140'	Lr = 120'	Lr = 100'
V = 35 mph	V = 35 mph	V = 25 mph*

TRAFFIC DIAGRAM



☆ EXISTING TRAFFIC SIGNAL

REVISIONS

ROW Revision #7 - 03/17/2020 - Added PUE to Parcels #170 & #171.
ROW Revision #8 - 04/07/2020 - Revised PDE on Parcels #171 & #261. Revised PUE on Parcels #173, #240, #260.
ROW Revision #12 - 05/21/2021 - Revised ROW and added DUE, PDE, & TCE on Parcel #172.
ROW Revision #13 - 08/27/2021 - Added do not disturb note on Parcel #171.
ROW Revision #15 - 12/06/2021 - Revised PUE on Parcels #250 & #260.
ROW Revision #19 - 02/24/2022 - Added Parcel #132 for PUE.

PROJECT REFERENCE NO.	SHEET NO.
U-4700A	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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FOR -Y7- DESIGN, SEE TRACK WORK PLANS.

FOR INTERSECTION DETAILS SEE SHEET 2B-3.

* STOP CONDITION

PAVEMENT REMOVAL

FOR -Y4- PROFILE SEE SHT. 34
FOR -Y4C- PROFILE SEE SHT. 39
FOR -Y5A- PROFILE SEE SHT. 40

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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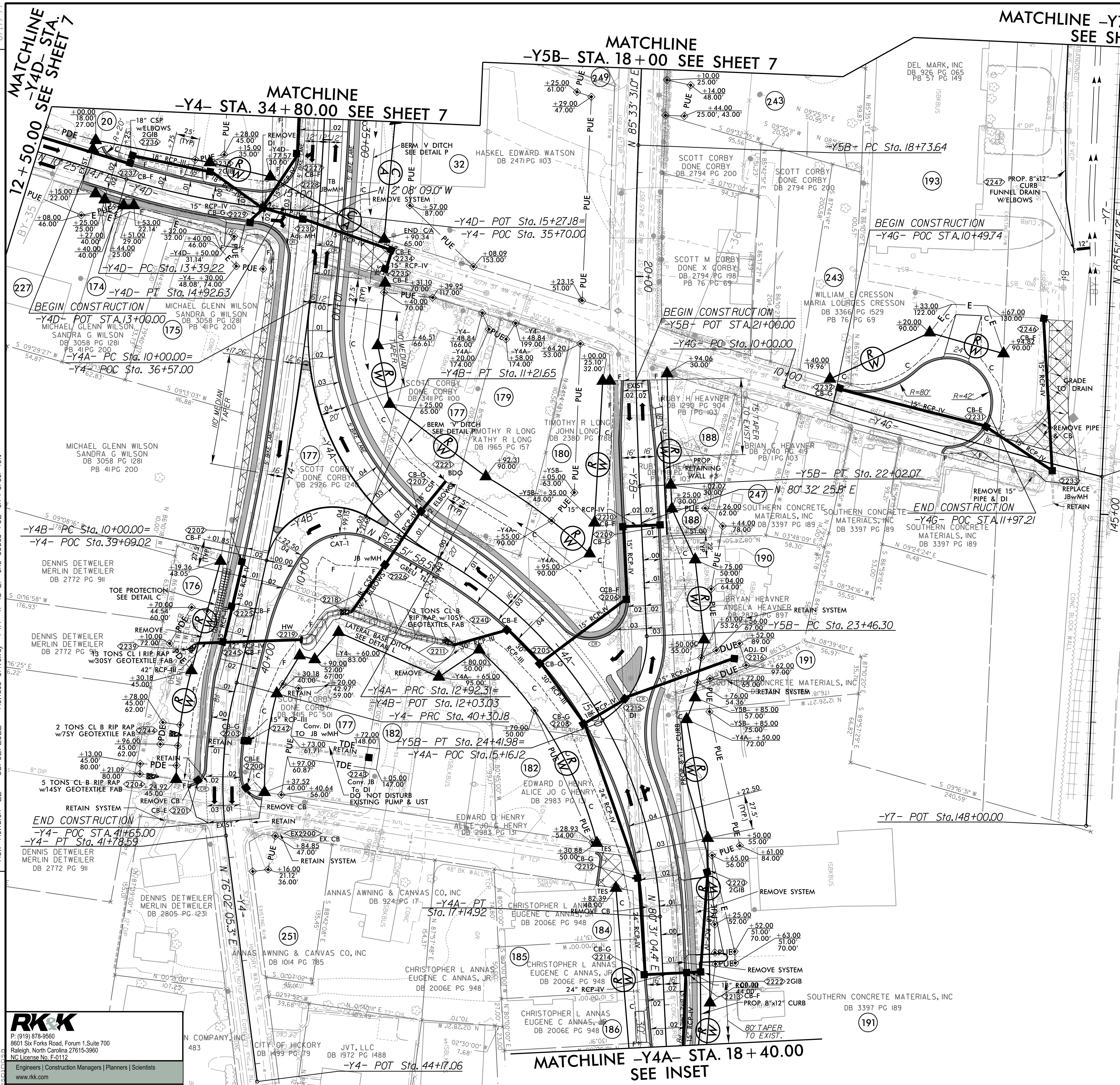


-Y4-	
PI Sta 37+55.61	PI Sta 41+05.34
△ = 12° 38' 12.5" (RT)	△ = 22° 22' 33.6" (LT)
D = 2° 17' 30.6"	D = 15° 04' 40.2"
L = 551.38'	L = 148.40'
T = 276.82'	T = 75.16'
R = 2,500.00'	R = 380.00'
e = RC (2%)	e = 4%
Lr = 60'	Lr = 110'
V = 35 mph	V = 35 mph

-Y4A-	
PI Sta 11+65.45	PI Sta 15+23.45
△ = 66° 59' 30.7" (LT)	△ = 57° 39' 06.0" (RT)
D = 22° 55' 05.9"	D = 13° 38' 30.7"
L = 292.31'	L = 422.61'
T = 165.45'	T = 231.14'
R = 250.00' *	R = 420.00'
e = 4%	e = 4%
Lr = 110'	Lr = 110'
V = 30 mph *	V = 35 mph

-Y4B-	-Y4D-
PI Sta 10+88.22	PI Sta 14+16.24
△ = 107° 13' 56.0" (RT)	△ = 12° 33' 23.1" (LT)
D = 88° 08' 50.5"	D = 8° 11' 06.4"
L = 121.65'	L = 153.41'
T = 88.22'	T = 77.01'
R = 65.00' *	R = 700.00'
e = 4%	e = 3%
Lr = 90'	Lr = 70'
V = 15 mph *	V = 30 mph

-Y4G-	-Y5B-	
PI Sta 11+58.92	PI Sta 20+37.96	PI Sta 23+99.22
△ = 2° 51' 29.7" (LT)	△ = 5° 01' 05.2" (LT)	△ = 60° 54' 24.3" (RT)
D = 0° 53' 58.1"	D = 1° 31' 40.4"	D = 63° 39' 43.1"
L = 317.77'	L = 328.43'	L = 95.67'
T = 158.92'	T = 164.32'	T = 52.92'
R = 6,370.00'	R = 3,750.00'	R = 90.00' **
e = EXIST.	e = EXIST.	e = 3%
V = 30 mph	V = 30 mph	V = 20 mph **

* DESIGN EXCEPTION REQUIRED

** STOP CONDITION

PAVEMENT REMOVAL

FOR -Y7- DESIGN, SEE TRACK WORK PLANS.

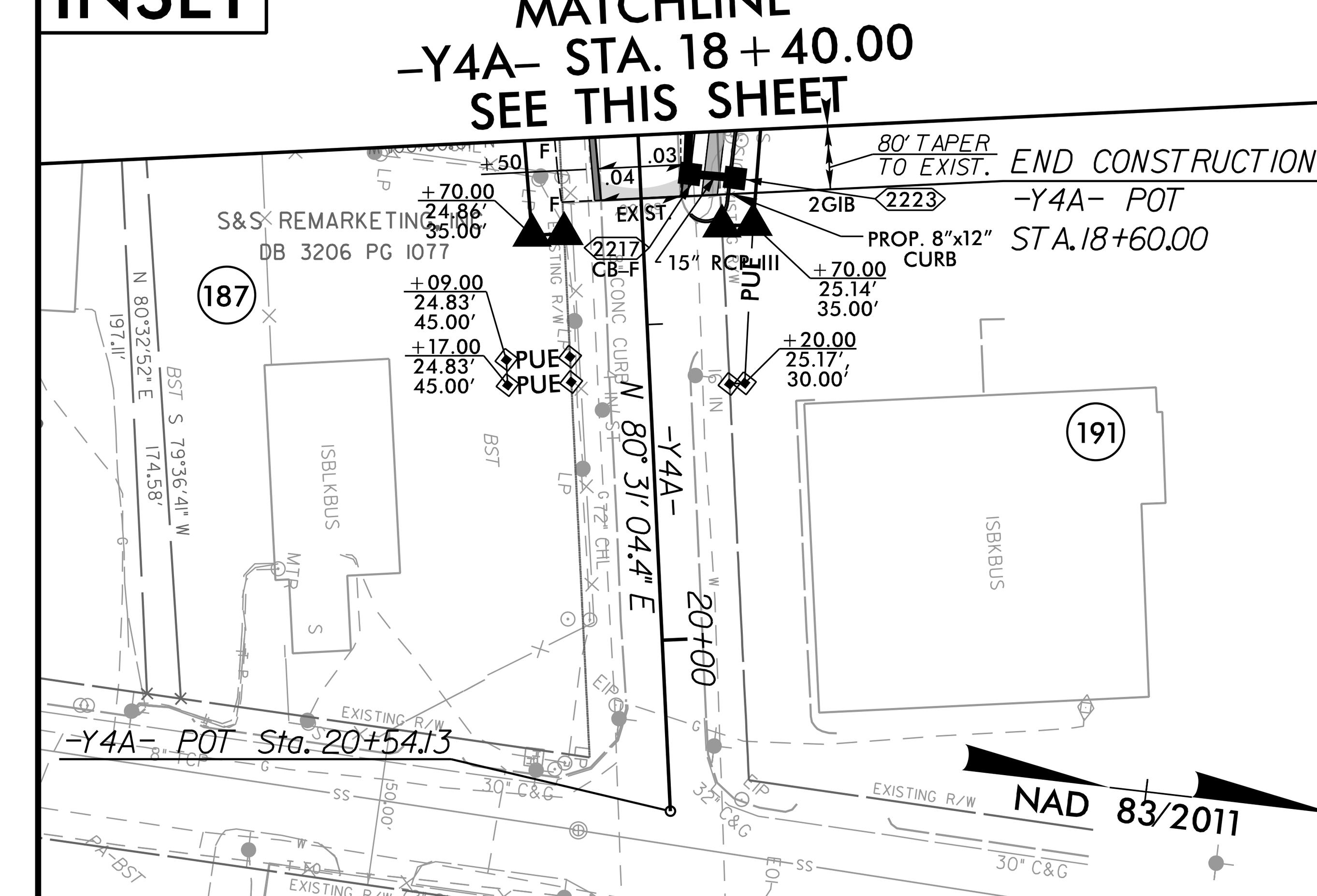
FOR INTERSECTION DETAILS SEE SHEET 2B-5 & 2B-6.

FOR -Y4- PROFILE SEE SHT. 35
FOR -Y4A- PROFILE SEE SHT. 39
FOR -Y4B- PROFILE SEE SHT. 39
FOR -Y4D- PROFILE SEE SHT. 39
FOR -Y5B- PROFILE SEE SHT. 40

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

FOR RETAINING WALL DETAILS SEE SHTS. W-06 & W-07

INSET



REVISIONS

ROW Revision #6 - 03/02/2020 - Combined Parcels #191 & #192 into one parcel, #191. Widened driveway on Parcel #191.
ROW Revision #7 - 03/17/2020 - Combined Parcels #188 & #189 into one parcel, #188. Combined Parcels #243 & #248 into one parcel, #243.
ROW Revision #8 - 04/07/2020 - Revised PUE on Parcels #20 & #32. Added PUE on Parcels #174, #178, & #179. Revised ROW, PUE, & DUE on Parcel #191. Revised TCE & added PUE on Parcel #227.
ROW Revision #13 - 08/27/2021 - Removed PUE on Parcel #187.
ROW Revision #14 - 10/12/2021 - Combined Parcels #182 & #183 into one parcel, #182. Combined Parcels #177, #178 & #181 into one parcel, #177. Added do not disturb note to Parcel #177.
ROW Revision #19 - 02/24/2022 - Added PUE to Parcel #187. Reduced PUE on Parcel #191.
ROW Revision #22 - 05/02/2022 - Revised driveway -Y4A- 17+18 LT and added TCE on Parcel #191.

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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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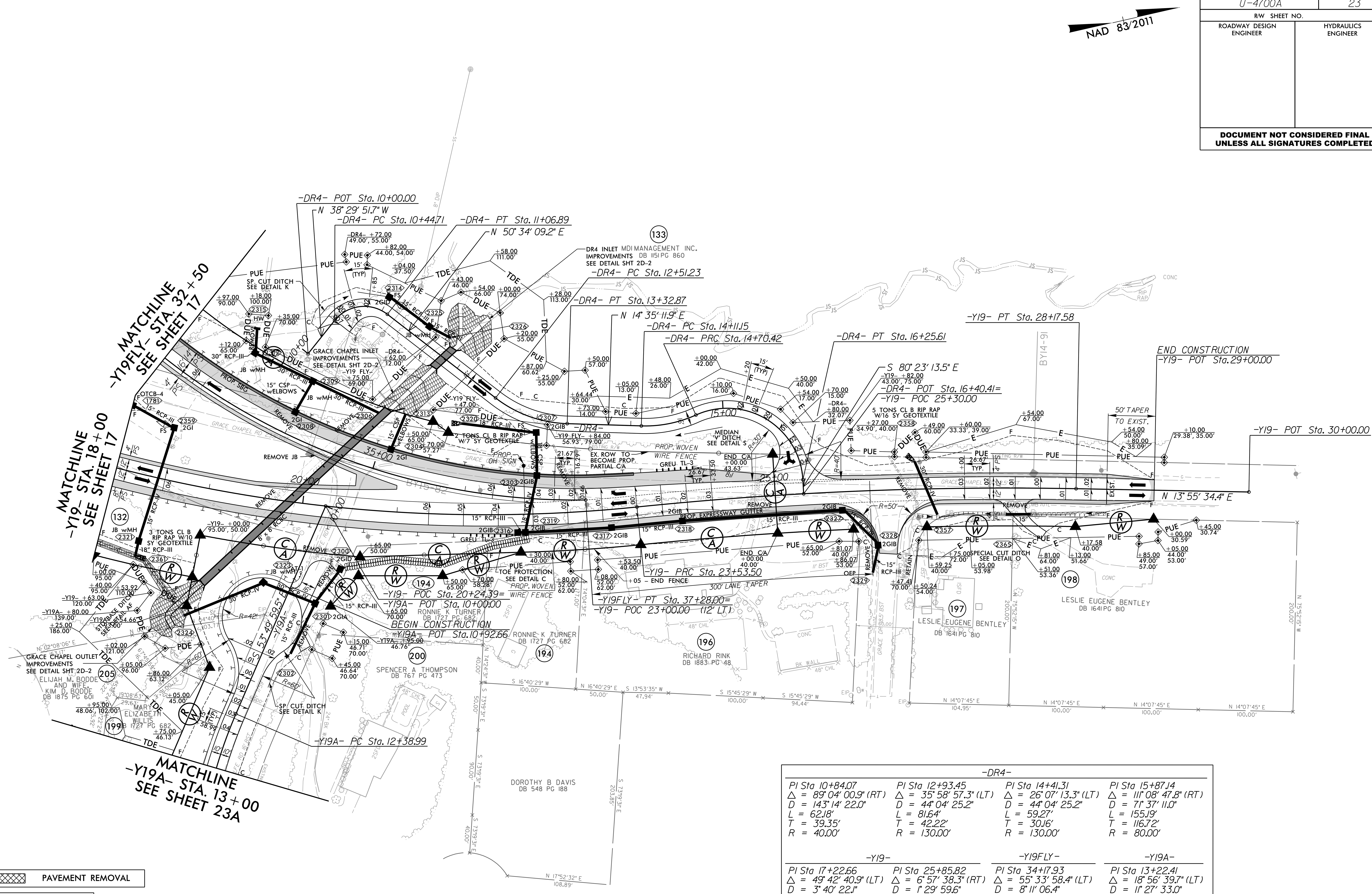

-DR4-

PI Sta 10+84.07	PI Sta 12+93.45	PI Sta 14+41.31	PI Sta 15+87.14
△ = 89° 04' 00.9" (RT)	△ = 35° 58' 57.3" (LT)	△ = 26° 07' 13.3" (LT)	△ = 111° 08' 47.8" (RT)
D = 143° 14' 22.0"	D = 44° 04' 25.2"	D = 44° 04' 25.2"	D = 71° 37' 11.0"
L = 62.18'	L = 81.64'	L = 59.27'	L = 155.19'
T = 39.35'	T = 42.22'	T = 30.16'	T = 116.72'
R = 40.00'	R = 130.00'	R = 130.00'	R = 80.00'

-Y19-	-Y19-	-Y19FLY-	-Y19A-
PI Sta 17+22.66	PI Sta 25+85.82	PI Sta 34+17.93	PI Sta 13+22.41
△ = 49° 42' 40.9" (LT)	△ = 6° 57' 38.3" (RT)	△ = 55° 33' 58.4" (LT)	△ = 18° 56' 39.7" (LT)
D = 3° 40' 22.1"	D = 1° 29' 59.6"	D = 8° 11' 06.4"	D = 11° 27' 33.0"
L = 1,353.50'	L = 464.08'	L = 678.87'	L = 165.32'
T = 722.66'	T = 232.32'	T = 368.80'	T = 83.42'
R = 1,560.00'	R = 3,820.00'	R = 700.00'	R = 500.00'
e = 6%	e = 3%	e = 6%	e = 4%
Lr = 220'	Lr = 80'	V = 40 mph	Lr = 60'
V = 50 mph	V = 50 mph		V = 30 mph

PAVEMENT REMOVAL

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -Y19- PROFILE SEE SHT. 45
FOR -Y19A- PROFILE SEE SHT. 45
FOR -Y19FLY- PROFILE SEE SHT. 47
FOR -DR4- PROFILE SEE SHT. 53
FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	23A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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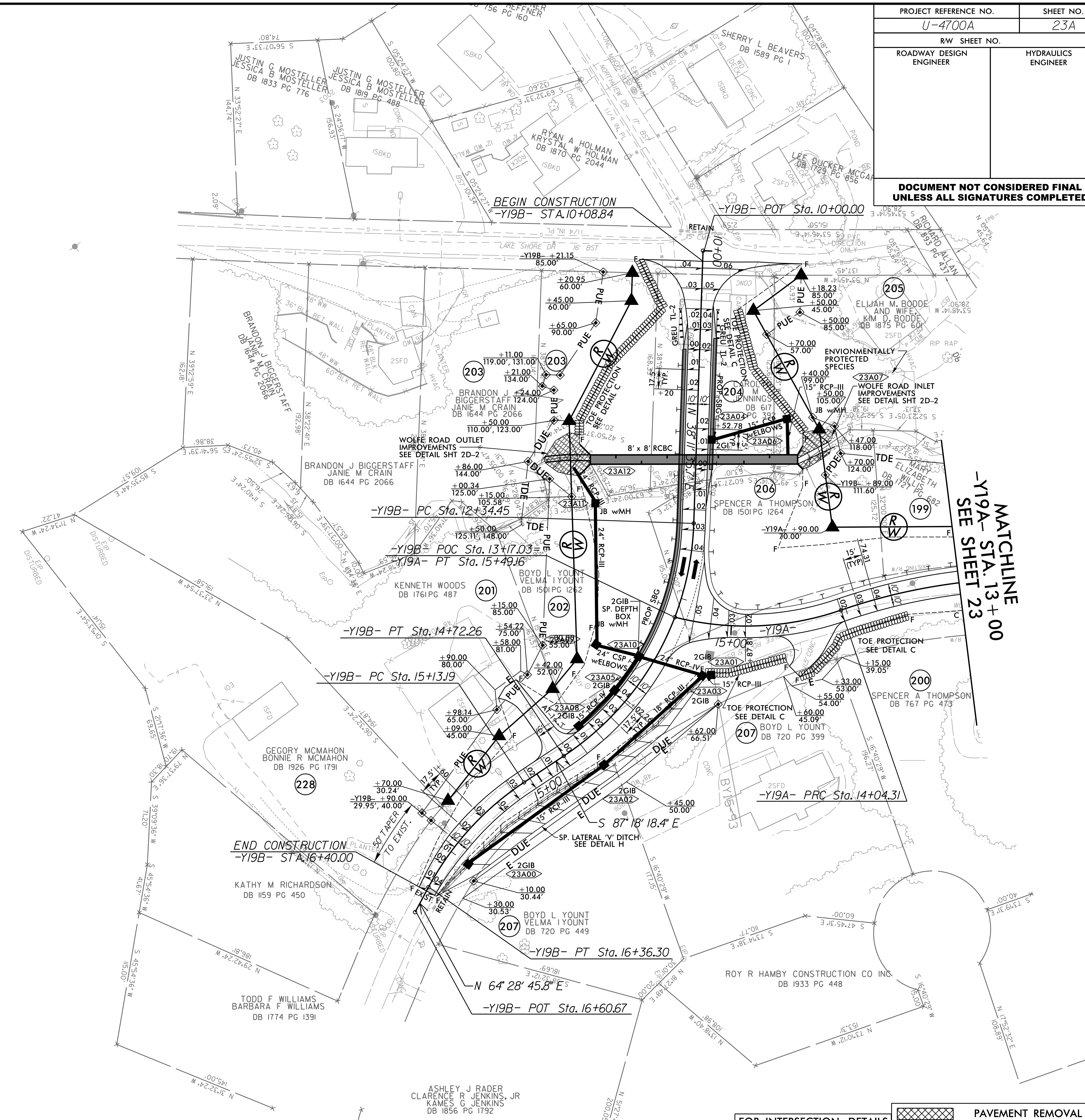
NAD 83/2011



-Y19A-		-Y19B-	
PI Sta 13+22.41	PI Sta 14+78.83	PI Sta 13+63.21	PI Sta 15+76.02
Δ = 18° 56' 39.7" (LT)	Δ = 33° 11' 57.0" (RT)	Δ = 54° 30' 06.0" (RT)	Δ = 28° 12' 55.8" (LT)
D = 11° 27' 33.0"	D = 22° 55' 05.9"	D = 22° 55' 05.9"	D = 22° 55' 05.9"
L = 165.32'	L = 144.86'	L = 237.81'	L = 123.11'
T = 83.42'	T = 74.53'	T = 128.76'	T = 62.83'
R = 500.00'	R = 250.00'	R = 250.00'	R = 250.00'
e = 4%	e = 4%	e = 4%	e = 4%
Lr = 60'	Lr = 60'	Lr = 70'	Lr = 70'
V = 30 mph	V = 30 mph	V = 30 mph	V = 30 mph

PAVEMENT REMOVAL

FOR INTERSECTION DETAILS SEE SHEET 2B-20.

NOTE:
ALL DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -Y19A- PROFILE SEE SHT. 45
FOR -Y19B- PROFILE SEE SHT. 46

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

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REVISIONS

ROW Revision #2 - 01/20/2020 - Combined parcels: #203 & #219 into #203; #207 & #208 into #207.
ROW Revision #3 - 01/27/2020 - Changed owner name on Parcel #199.
ROW Revision #11 - 04/23/2021 - Changed owner name on Parcel #199.
ROW Revision #19 - 02/24/2022 - Revised PUE on Parcel #203.

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PROJECT REFERENCE NO.	SHEET NO.
U-4700A	24

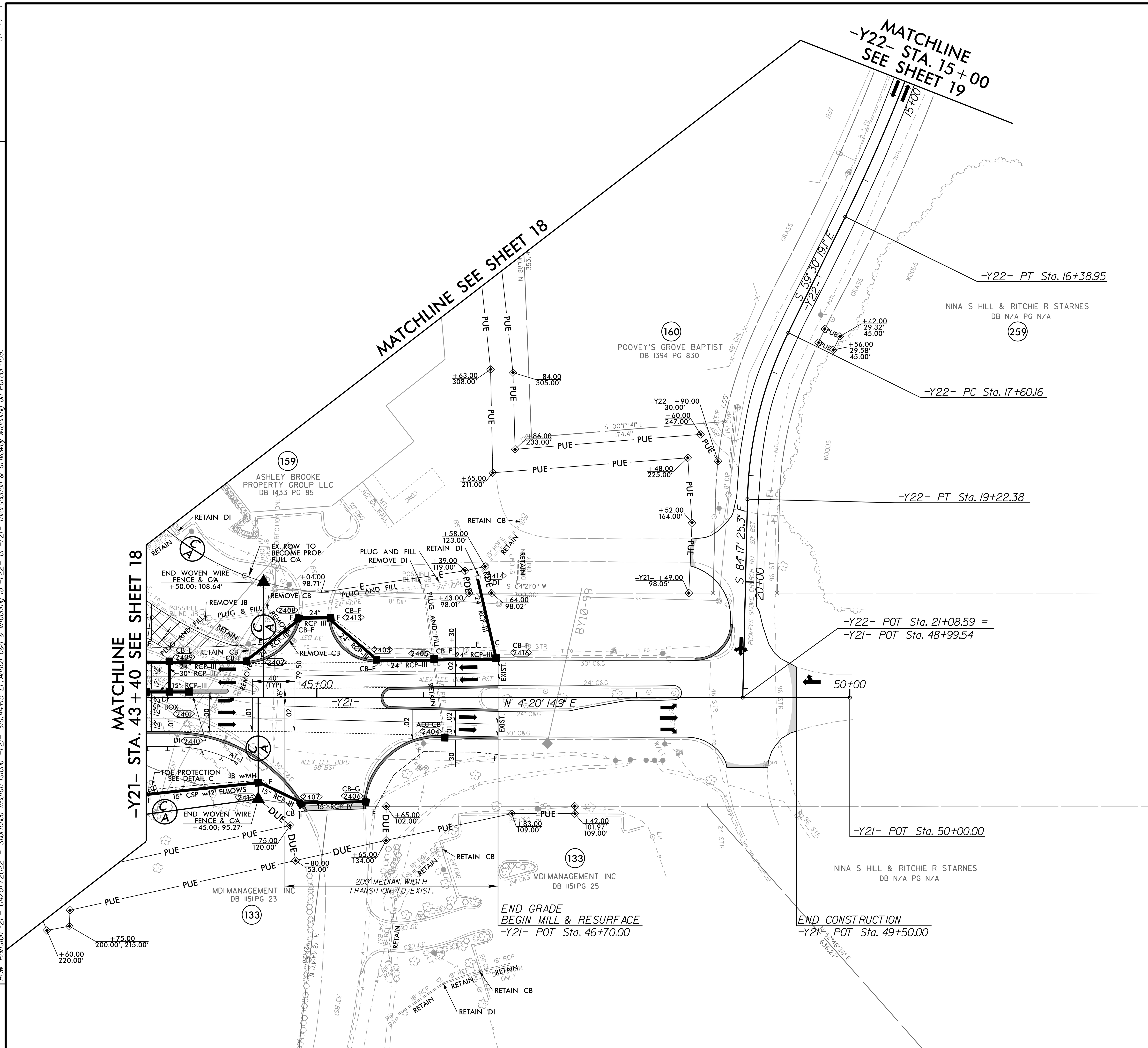
R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

-Y22-	
PI Sta 15+12.06	PI Sta 18+42.56
△ = 8° 40′ 19.1″ (RT)	△ = 24° 47′ 06.2″ (LT)
D = 3° 24′ 37.7″	D = 15° 16′ 43.9″
L = 254.28′	L = 162.22′
T = 127.38′	T = 82.40′
R = 1,680.00′	R = 375.00′



ROW Revision #2 - 01/20/2020 - Changed PDE into DUE and revised DUE & PUE on Parcels #158 & #209.
ROW Revision #3 - 01/27/2020 - Revised PUE on Parcels #158 & #209. Added PUE on Parcel #159.
ROW Revision #7 - 03/17/2020 - Revised property lines & added existing ROW lines on Parcels #133 & #159. Existing ROW to become full C/A on Parcel #159. Revised TCE, PDE, & PUE on Parcel #159. Revised ROW, DUE, & PUE on Parcel #133.
ROW Revision #8 - 04/07/2020 - Added PUE to Parcel #259.
ROW Revision #15 - 12/06/2021 - Revised PUE on Parcel #159.
ROW Revision #18 - 02/14/2022 - Revised PUE on Parcel #159.
ROW Revision #21 - 04/07/2022 - Shortened median island -Y21- Sta. 44+15 LT. Added c&g & widening to -Y22- at -Y21- intersection & driveway widening on Parcel #159.

REVISIONS

8/17/99

10/10/2022

FOR INTERSECTION DETAILS SEE SHEET 2B-23.

FOR DITCH DETAILS SEE SHTS. 2D-1 THRU 2D-3

FOR -Y21- PROFILE SEE SHT. 48A

FOR -Y21_LT- PROFILE SEE SHT. 48A

PAVEMENT REMOVAL

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