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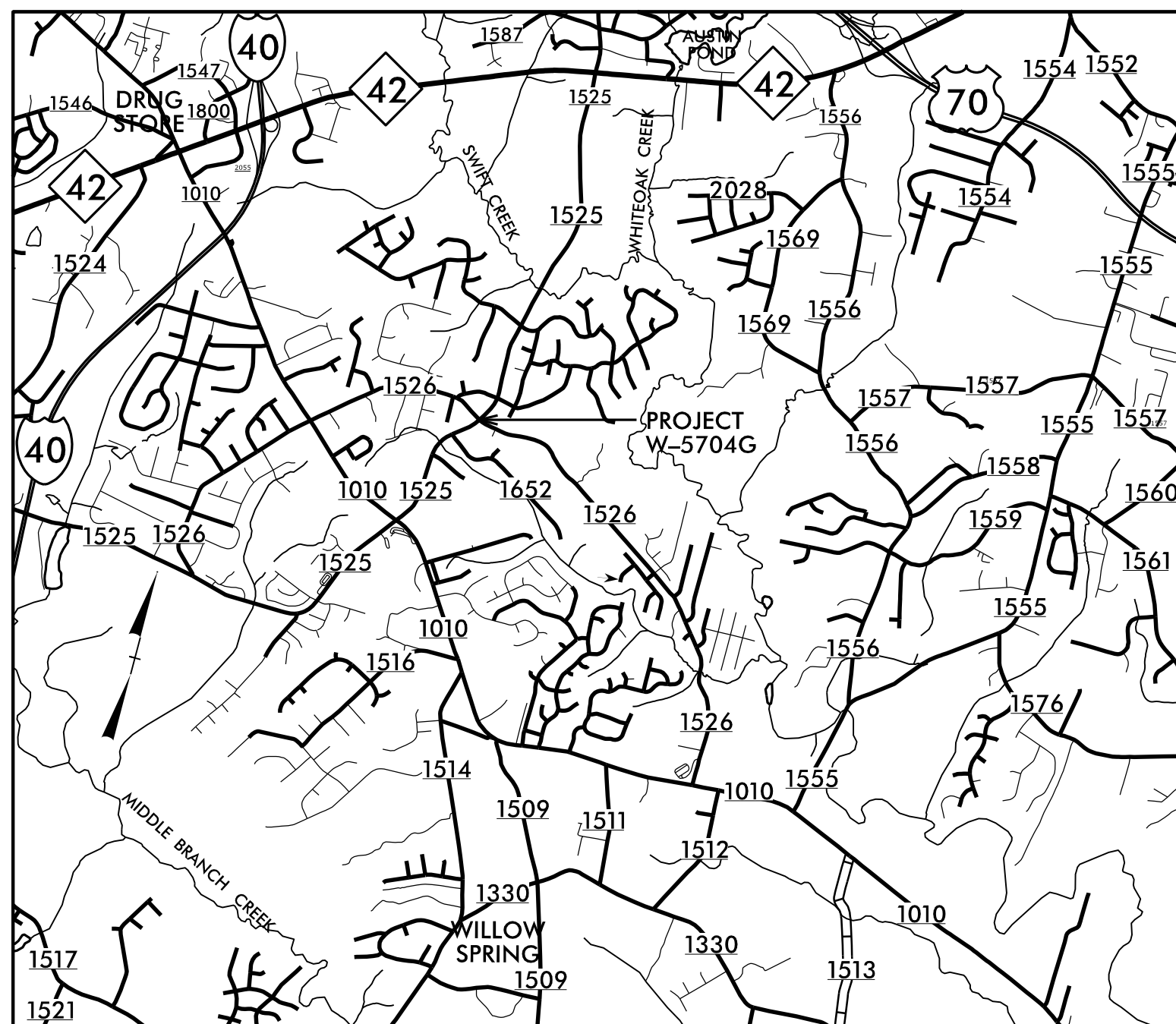
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TIP PROJECT: W-5704G

CONTRACT: DD00377

See Sheet 1-A For Index of Sheets



VICINITY MAP

FOR OFF-SITE DETOUR ROUTES SEE TRANSPORTATION MANAGEMENT PLAN

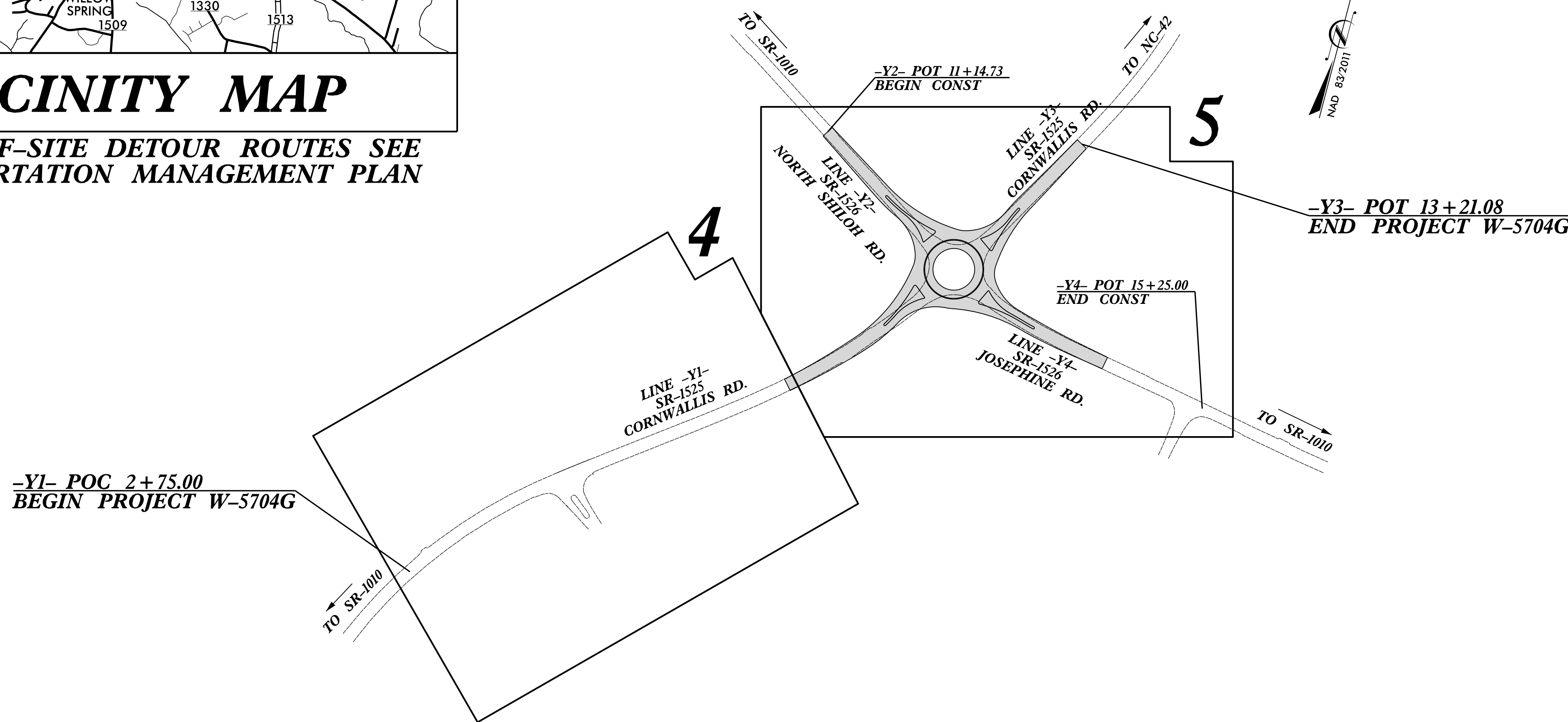
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

JOHNSTON COUNTY

**LOCATION: ROUNDABOUT AT INTERSECTION OF
SR-1525 (CORNWALLIS ROAD) AND SR-1526
(SHILOH ROAD & JOSEPHINE ROAD).**

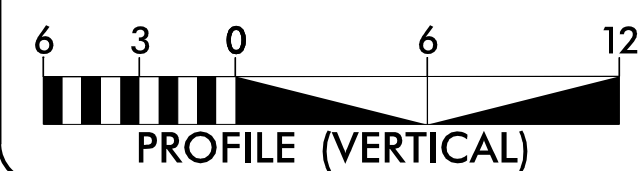
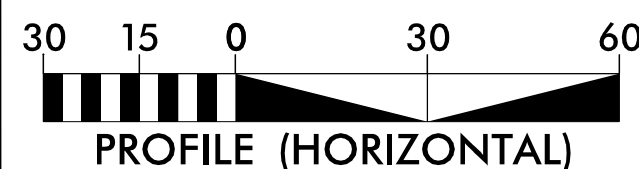
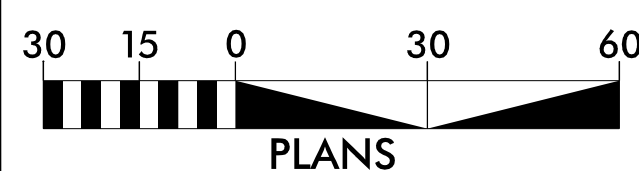
TYPE OF WORK: GRADING, DRAINAGE AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5704G	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
44850.1.7	HSIP-1525(013)	PE	
44850.2.7	HSIP-1525(013)	RW & UTILITY	
44850.3.7	HSIP-1525(013)	CONST	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA
ADT 2015 = 6100 -Y1-

FUNCTIONAL CLASS
-Y1-&-Y3- MAJOR COLLECTOR
-Y2-&-Y4- LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5704G = 0.283 MILES
TOTAL LENGTH TIP PROJECT W-5704G = 0.283 MILES
(LENGTH BASED ON LINES -Y1- & -Y3-)

Prepared in the Office of:
DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895

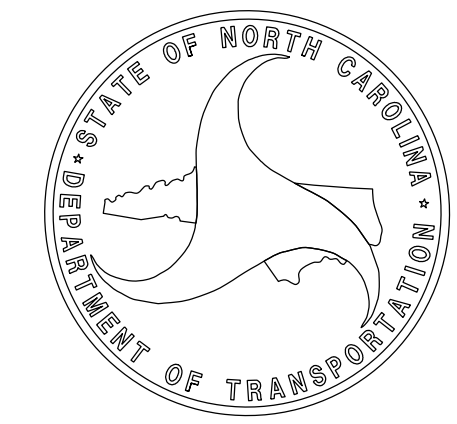
2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: APRIL 4, 2019	KEVIN BOWEN, PE PROJECT ENGINEER
LETTING DATE: JULY 26, 2022	D. R. ETHRIDGE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
05/31/2022

DocuSigned by:
William G. Conley
92F5070204114D5
SIGNATURE:

ROADWAY DESIGN ENGINEER
05/31/2022

DocuSigned by:
Norwood A. Gentry III
E01D9885FA55046
SIGNATURE:



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJ. REFERENCE NO. W-5704G	SHEET NO. 1-A
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SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	ROADWAY DETAILS - INTERSECTION DETAIL
2B-2	ROADWAY DETAILS - PROJECT CURVE DATA
3B-1	ROADWAY SUMMARIES - EARTHWORK, PARCEL INDEX, AND REMOVAL OF EXISTING ASPHALT PAVEMENT.
3D-1 THRU 3D-2	DRAINAGE SUMMARIES
4 THRU 5	PLAN SHEET
6 THRU 7	PROFILE SHEET
RW-1 THRU RW-5	SURVEY CONTROL, EXISTING CENTERLINES RIGHT OF WAY, EASEMENTS AND PROPERTY TIES
TMP-1 THRU TMP-5	TRANSPORTATION MANAGEMENT PLANS
PM-1 THRU PM-2	PAVEMENT MARKING PLANS
E-1	ELECTRICAL PLAN
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4A	SIGNING PLANS
UC-1 THRU UC-8	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-3	UTILITIES BY OTHERS PLANS
X-1A	CROSS-SECTION SUMMARY
X-1 THRU X-20	CROSS-SECTIONS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY, 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

- DIVISION 2 - EARTHWORK
 - 200.03 METHOD OF CLEARING - METHOD III
 - 225.02 GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
 - 225.04 METHOD OF OBTAINING SUPERELEVATION - TWO LANE PAVEMENT
- DIVISION 3 - PIPE CULVERTS
 - 300.01 METHOD OF PIPE INSTALLATION
 - 310.10 DRIVEWAY PIPE CONSTRUCTION
- DIVISION 5 - SUBGRADE, BASES AND SHOULDERS
 - 560.01 METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE - METHOD I
- DIVISION 6 - ASPHALT BASES AND PAVEMENTS
 - 654.01 PAVEMENT REPAIRS
- DIVISION 8 - INCIDENTALS
 - 840.00 CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
 - 840.01 BRICK CATCH BASIN - 12" THRU 54" PIPE
 - 840.02 CONCRETE CATCH BASIN - 12" THRU 54" PIPE
 - 840.03 FRAME, GRATES AND HOOD - FOR USE ON STANDARD CATCH BASIN
 - 840.14 CONCRETE DROP INLET - 12" THRU 30" PIPE
 - 840.15 BRICK DROP INLET - 12" THRU 30" PIPE
 - 840.16 DROP INLET FRAME AND GRATES - FOR USE WITH STD. DWG 840.14 AND 840.15
 - 840.18 CONCRETE GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
 - 840.24 FRAMES AND NARROW SLOT SAG GRATES
 - 840.25 ANCHORAGE FOR FRAMES - BRICK OR CONCRETE OR PRECAST
 - 840.27 BRICK GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
 - 840.45 PRECAST DRAINAGE STRUCTURE
 - 840.66 DRAINAGE STRUCTURE STEPS
 - 840.71 CONCRETE AND BRICK PIPE PLUG
 - 840.72 PIPE COLLAR
 - 846.01 CONCRETE CURB, GUTTER AND CURB & GUTTER
 - 848.02 DRIVEWAY TURNOUT - RADIUS TYPE
 - 852.01 CONCRETE ISLANDS
 - 852.06 METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS
 - 876.02 GUIDE FOR RIP RAP AT PIPE OUTLETS

GENERAL NOTES: 2018 SPECIFICATIONS

GRADE LINE:
GRADING AND SURFACING:
 THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
 CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:
 ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04. USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:
 ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:
 THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

DRIVEWAYS:
 DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TEMPORARY SHORING:
 SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:
 NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:
 UTILITY OWNERS ON THIS PROJECT ARE:
 JOHNSTON CO. WATER, SPECTRUM, DUKE ENERGY, CENTURYLINK/LUMEN, CON TERRA AND AQUA.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:
 ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Computed Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB
Existing Historic Property Boundary	----- HPB
Known Contamination Area: Soil	☠ -s- ☠
Potential Contamination Area: Soil	?? -s- ??
Known Contamination Area: Water	☠ -w- ☠
Potential Contamination Area: Water	?? -w- ??
Contaminated Site: Known or Potential	☠ ??

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	----- JS
Buffer Zone 1	----- BZ 1
Buffer Zone 2	----- BZ 2
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Wetland	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	⊠
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	----- (RW)
New Right of Way Line with Pin and Cap	----- (RW) ▲
New Right of Way Line with Concrete or Granite RW Marker	----- (RW) ●
New Control of Access Line with Concrete CA Marker	----- (CA) ●
Existing Control of Access	----- (CA)
New Control of Access	----- (CA)
Existing Easement Line	----- E
New Temporary Construction Easement	----- E
New Temporary Drainage Easement	----- TDE
New Permanent Drainage Easement	----- PDE
New Permanent Drainage / Utility Easement	----- DUE
New Permanent Utility Easement	----- PUE
New Temporary Utility Easement	----- TUE
New Aerial Utility Easement	----- AUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Curb Ramp	----- (CR)
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

Single Tree	○
Single Shrub	○

Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	----- Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊙
Storm Sewer	----- S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	-----
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	----- P
U/G Power Line LOS C (S.U.E.*)	----- P
U/G Power Line LOS D (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	----- T
U/G Telephone Cable LOS C (S.U.E.*)	----- T
U/G Telephone Cable LOS D (S.U.E.*)	----- T
U/G Telephone Conduit LOS B (S.U.E.*)	----- TC
U/G Telephone Conduit LOS C (S.U.E.*)	----- TC
U/G Telephone Conduit LOS D (S.U.E.*)	----- TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	----- W
U/G Water Line LOS C (S.U.E.*)	----- W
U/G Water Line LOS D (S.U.E.*)	----- W
Above Ground Water Line	----- A/G Water

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	-----
U/G TV Cable LOS B (S.U.E.*)	----- TV
U/G TV Cable LOS C (S.U.E.*)	----- TV
U/G TV Cable LOS D (S.U.E.*)	----- TV
U/G Fiber Optic Cable LOS B (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS C (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS D (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	----- G
U/G Gas Line LOS C (S.U.E.*)	----- G
U/G Gas Line LOS D (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	----- FSS
SS Forced Main Line LOS C (S.U.E.*)	----- FSS
SS Forced Main Line LOS D (S.U.E.*)	----- FSS

MISCELLANEOUS:

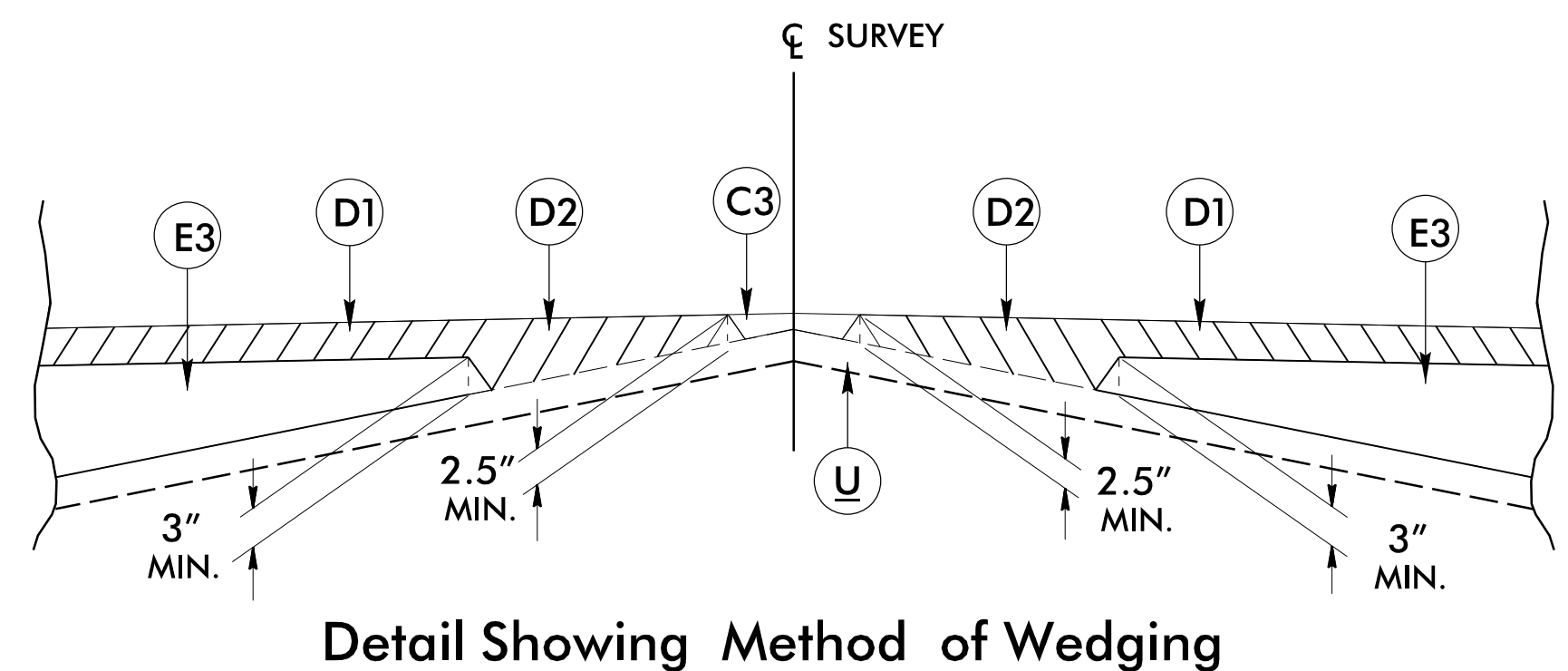
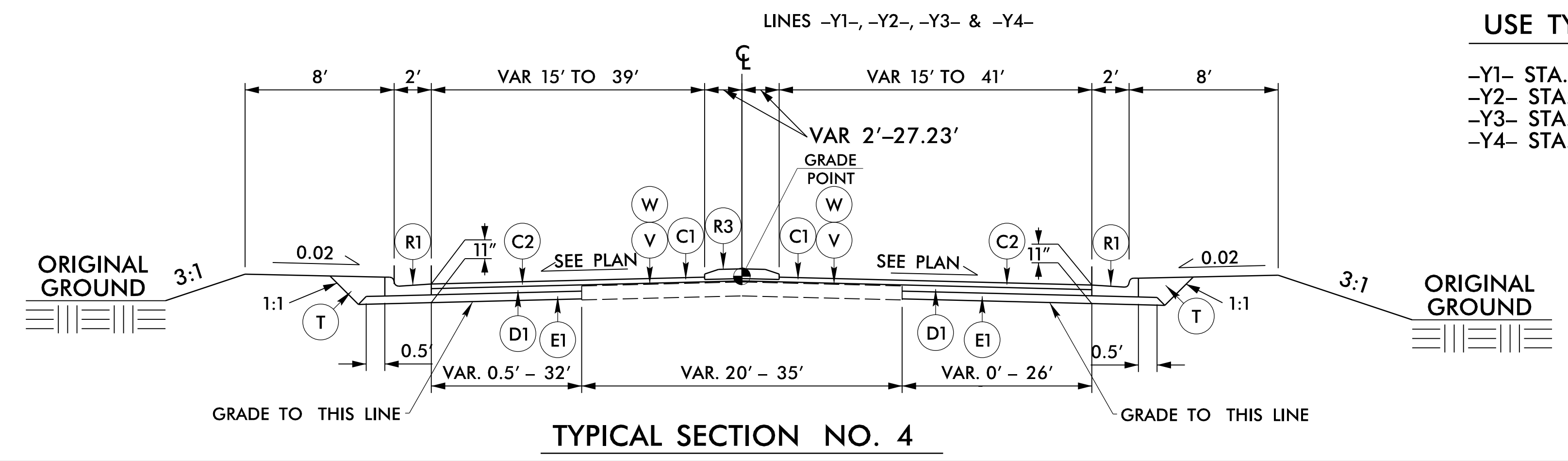
Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	----- 70TL
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	⊠ UST
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

6/2/99

PROJECT REFERENCE NO. W-5704G	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER 01/31/2022 SEAL 040774 NORWOOD A. GAINEY III	PAVEMENT DESIGN ENGINEER 01/31/2022 SEAL 040774 NORWOOD A. GAINEY III
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

USE TYPICAL SECTION NO. 4

-Y1- STA. 13+00.00 TO STA. 13+97.50
 -Y2- STA. 12+80.00 TO STA. 13+97.50
 -Y3- STA. 10+52.50 TO STA. 11+50.00
 -Y4- STA. 10+52.50 TO STA. 11+70.00



PAVEMENT SCHEDULE

C1	1.5" S9.5B
C2	3" S9.5B
C3	VAR S9.5B
D1	4" I19.0C
D2	VAR I19.0C
E1	4" B25.0C
E2	5.5" B25.0C
E3	VAR B25.0C
R1	2.5' C&G
R2	1.5' C&G
R3	5" ISLAND
R4	7" CONC. APRON
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V	1.5" MILLING
W	WEDGING

REVISIONS

31-JAN-2022 08:51
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PROJECT CURVE DATA

LINE -L-

PI Sta 10+70.36 $\Delta = 103^{\circ} 58' 18.5''$ (LT) D = 104' 10" 26.9" L = 99.81' T = 70.36' R = 55.00'	PI Sta 11+46.02 $\Delta = 80^{\circ} 04' 32.4''$ (LT) D = 104' 10" 26.9" L = 76.87' T = 46.21' R = 55.00'	PI Sta 12+31.32 $\Delta = 89^{\circ} 38' 02.4''$ (LT) D = 104' 10" 26.9" L = 86.04' T = 54.65' R = 55.00'	PI Sta 13+14.29 $\Delta = 86^{\circ} 19' 06.7''$ (LT) D = 104' 10" 26.9" L = 82.86' T = 51.57' R = 55.00'
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LINE -Y1-

PI Sta 3+64.94 $\Delta = 29^{\circ} 59' 58.0''$ (RT) D = 5' 50' 59.6" L = 512.82' T = 262.43' R = 979.44'	PI Sta 11+11.2 $\Delta = 1^{\circ} 13' 30.2''$ (LT) D = 4' 02' 09.7" L = 278.12' T = 139.51' R = 1,419.61'	PI Sta 13+53.76 $\Delta = 38^{\circ} 14' 52.1''$ (LT) D = 19' 05' 54.9" L = 200.27' T = 104.02' R = 300.00'
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LINE -Y2-

PI Sta 13+66.59 $\Delta = 32^{\circ} 47' 00.7''$ (LT) D = 19' 05' 54.9" L = 171.65' T = 88.25' R = 300.00'

LINE -Y3-

PI Sta 10+80.72 $\Delta = 30^{\circ} 07' 04.0''$ (RT) D = 19' 05' 54.9" L = 157.70' T = 80.72' R = 300.00'	PI Sta 12+19.74 $\Delta = 0^{\circ} 58' 43.6''$ (LT) D = 0' 47' 19.8" L = 124.08' T = 62.04' R = 7,263.29'	PI Sta 14+22.08 $\Delta = 3^{\circ} 04' 39.2''$ (LT) D = 5' 30' 37.0" L = 55.85' T = 27.93' R = 1,039.80'
---	---	--

LINE -Y4-

PI Sta 10+70.66 $\Delta = 26^{\circ} 30' 31.5''$ (RT) D = 19' 05' 54.9" L = 138.80' T = 70.66' R = 300.00'	PI Sta 11+49.82 $\Delta = 1^{\circ} 55' 41.4''$ (LT) D = 8' 44' 46.7" L = 22.05' T = 11.02' R = 655.09'	PI Sta 12+09.68 $\Delta = 4^{\circ} 14' 00.8''$ (LT) D = 4' 20' 11.2" L = 97.63' T = 48.84' R = 1,321.26'	PI Sta 15+85.64 $\Delta = 0^{\circ} 59' 04.0''$ (RT) D = 0' 25' 53.4" L = 228.15' T = 114.08' R = 13,278.63'	PI Sta 17+42.97 $\Delta = 2^{\circ} 47' 27.3''$ (LT) D = 3' 13' 35.3" L = 86.50' T = 43.26' R = 1,775.81'
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REVISIONS

8/17/99

2B-2.dgn

01-FEB-2022 09:50
R:\Roadway\Projects\W-5704G-DDC4_psh_curve_data

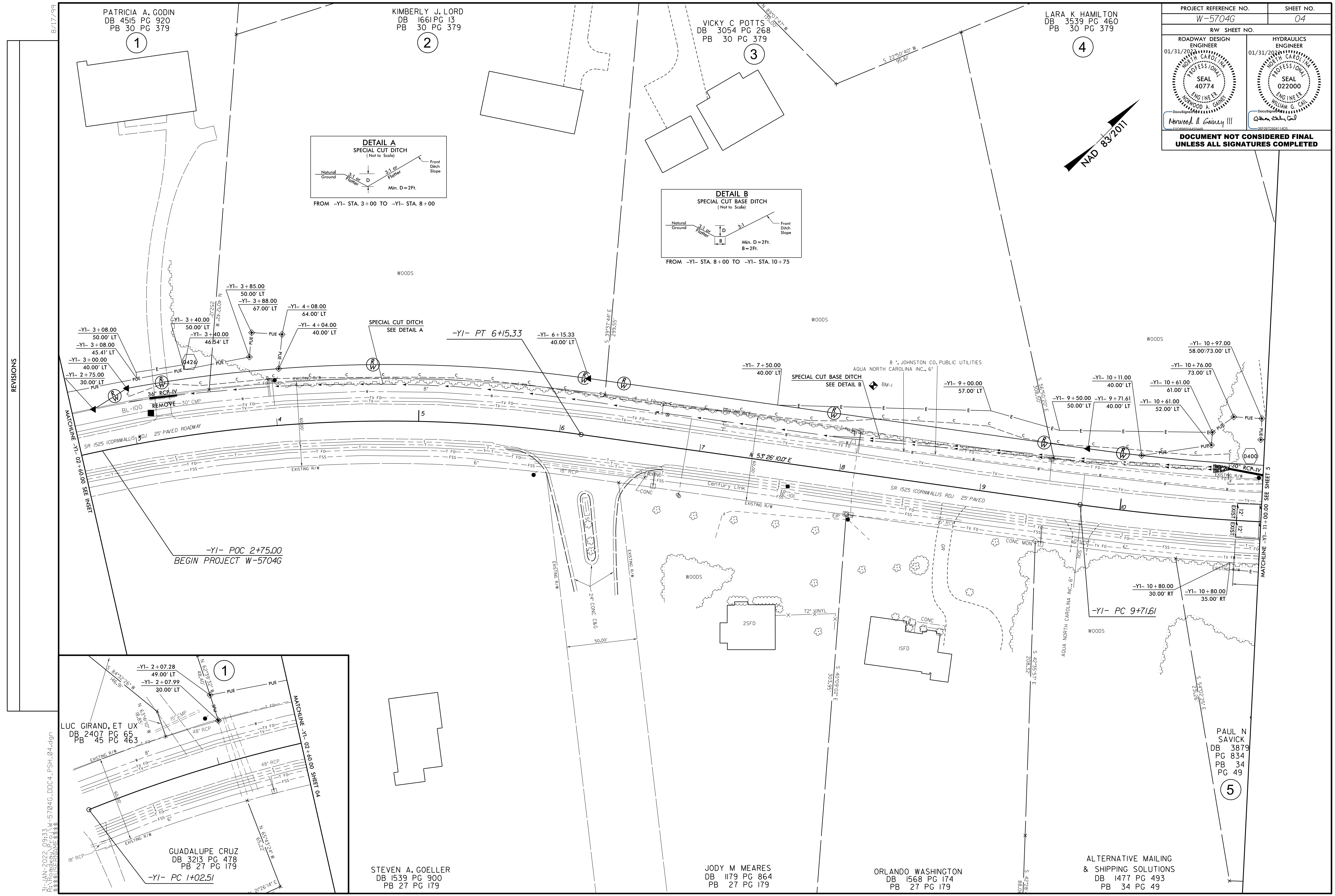
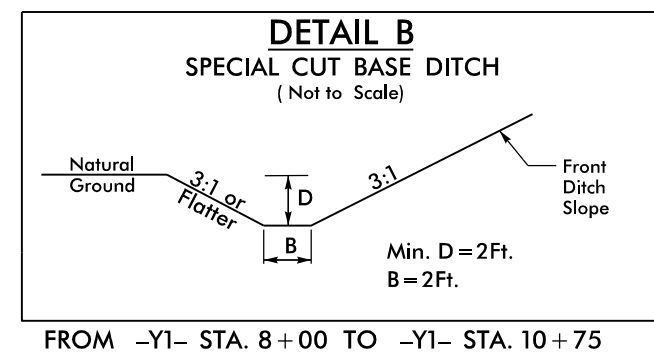
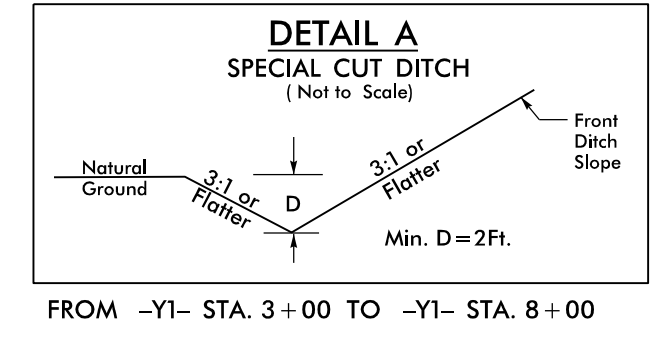
PROJECT REFERENCE NO. W-5704G	SHEET NO. 04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 01/31/2022 NORTH CAROLINA PROFESSIONAL SEAL 40774 NORWOOD & GAINY III 2709 S. WOODS BLVD. #100 RANDOLPH, NC 28134	HYDRAULICS ENGINEER 01/31/2022 NORTH CAROLINA PROFESSIONAL SEAL 022000 WILLIAM S. CALDWELL 1000 S. WOODS BLVD. #100 RANDOLPH, NC 28134
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PATRICIA A. GODIN
DB 4515 PG 920
PB 30 PG 379

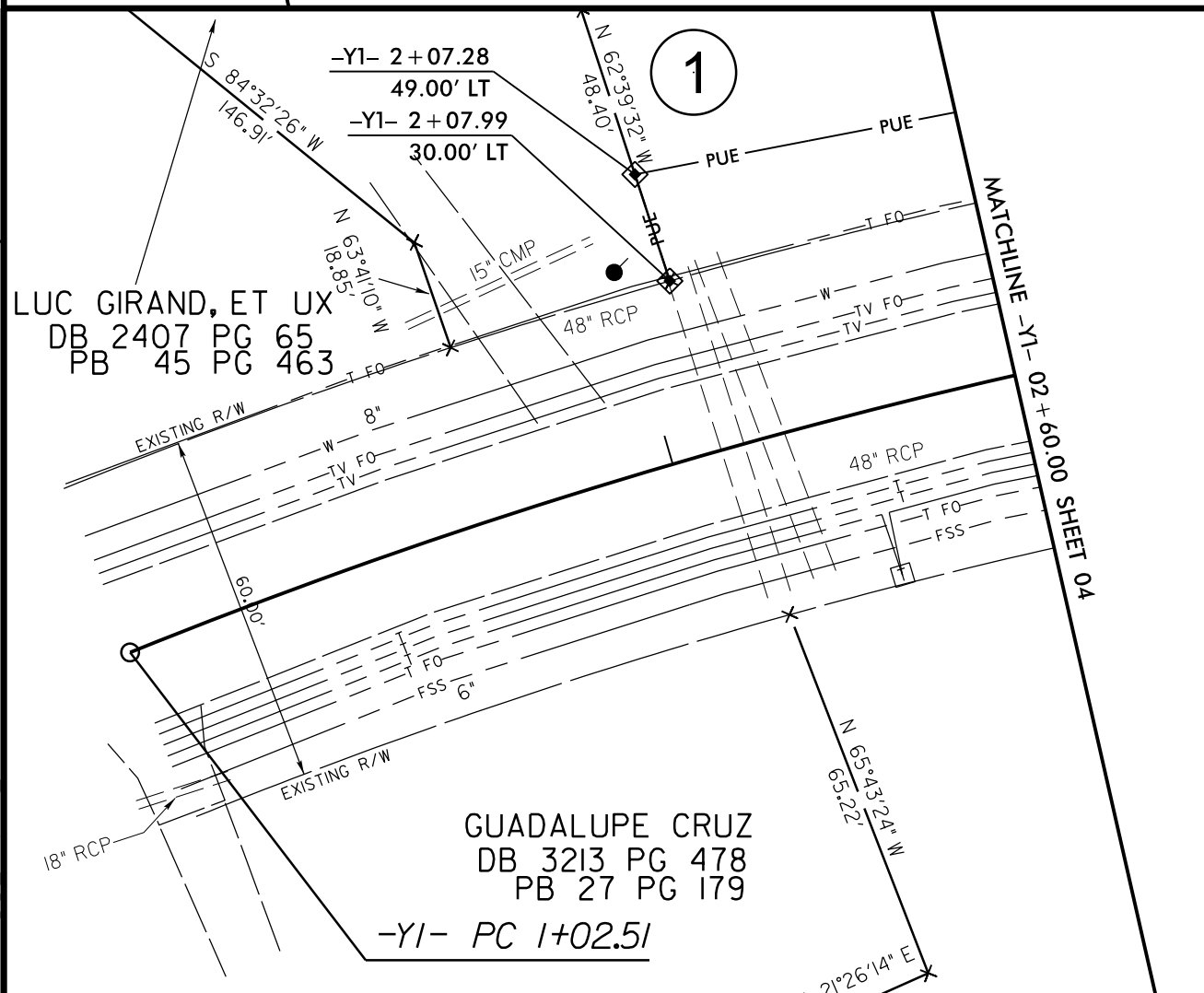
KIMBERLY J. LORD
DB 1661 PG 13
PB 30 PG 379

VICKY C POTTS
DB 3054 PG 268
PB 30 PG 379

LARA K HAMILTON
DB 3539 PG 460
PB 30 PG 379



REVISIONS



-Y1- POC 2+75.00
BEGIN PROJECT W-5704G

8/17/99
31-JAN-2022 09:33
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LUC GIRAND, ET UX DB 2407 PG 65 PB 45 PG 463
GUADALUPE CRUZ DB 3213 PG 478 PB 27 PG 179

MATCHLINE -Y1- 02+60.00 SEE SHEET 03
MATCHLINE -Y1- 11+00.00 SEE SHEET 05

GUADALUPE CRUZ
DB 3213 PG 478
PB 27 PG 179

STEVEN A. GOELLER
DB 1539 PG 900
PB 27 PG 179

JODY M MEARES
DB 1179 PG 864
PB 27 PG 179

ORLANDO WASHINGTON
DB 1568 PG 174
PB 27 PG 179

ALTERNATIVE MAILING
& SHIPPING SOLUTIONS
DB 1477 PG 493
PB 34 PG 49

PAUL N SAVICK
DB 3879
PG 834
PB 34
PG 49

PROJECT REFERENCE NO. W-5704G	SHEET NO. 05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 01/31/2024 SEAL 40774 NORTH CAROLINA PROFESSIONAL ENGINEER NORWOOD A. GAINY III	HYDRAULICS ENGINEER 01/31/2024 SEAL 022000 NORTH CAROLINA PROFESSIONAL ENGINEER WILLIAM G. CALDWELL
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

MICHAEL C GALLI
DB 4359 PG 985
PB 41PG 445

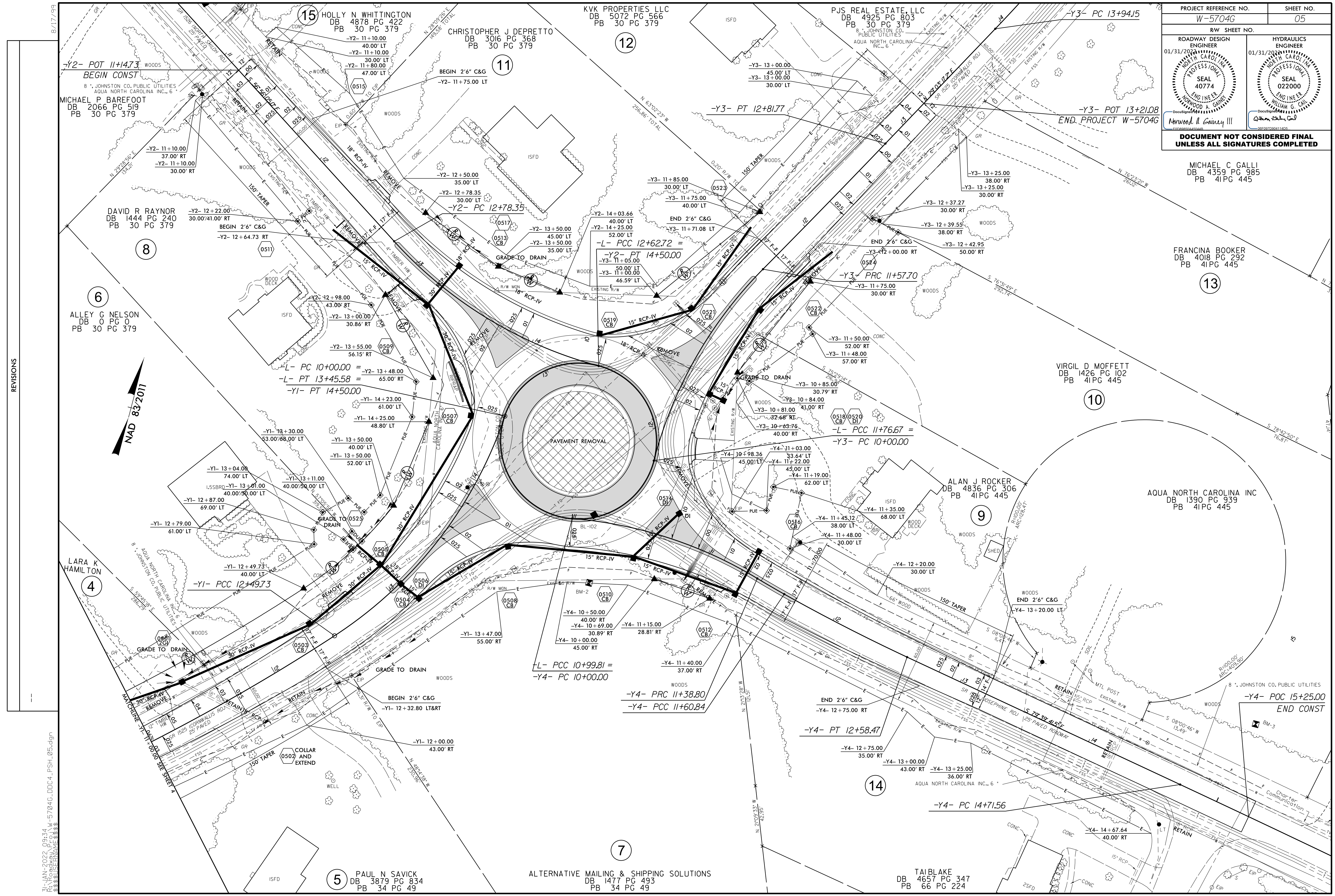
FRANCINA BOOKER
DB 4018 PG 292
PB 41PG 445

VIRGIL D MOFFETT
DB 1426 PG 102
PB 41PG 445

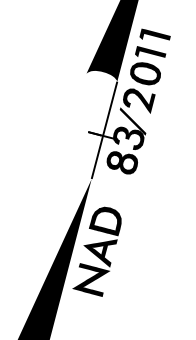
ALAN J ROCKER
DB 4836 PG 306
PB 41PG 445

AQUA NORTH CAROLINA INC
DB 1390 PG 939
PB 41PG 445

8" JOHNSTON CO. PUBLIC UTILITIES
-Y4- POC 15+25.00
END CONST



REVISIONS



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5704G.DWG

8/17/99

15 HOLLY N WHITTINGTON
DB 4878 PG 422
PB 30 PG 379

CHRISTOPHER J DEPRETTO
DB 3016 PG 368
PB 30 PG 379

KVK PROPERTIES LLC
DB 5072 PG 566
PB 30 PG 379

PJS REAL ESTATE, LLC
DB 4925 PG 803
PB 30 PG 379

8" JOHNSTON CO. PUBLIC UTILITIES
AQUA NORTH CAROLINA INC., 6

MICHAEL P BAREFOOT
DB 2066 PG 519
PB 30 PG 379

DAVID R RAYNOR
DB 1444 PG 240
PB 30 PG 379

6 ALLEY G NELSON
DB 0 PG 0
PB 30 PG 379

4 LARA K HAMILTON

5 PAUL N SAVICK
DB 3879 PG 834
PB 34 PG 49

7 ALTERNATIVE MAILING & SHIPPING SOLUTIONS
DB 1477 PG 493
PB 34 PG 49

8 VIRGIL D MOFFETT
DB 1426 PG 102
PB 41PG 445

9 ALAN J ROCKER
DB 4836 PG 306
PB 41PG 445

10 AQUA NORTH CAROLINA INC
DB 1390 PG 939
PB 41PG 445

11 MICHAEL C GALLI
DB 4359 PG 985
PB 41PG 445

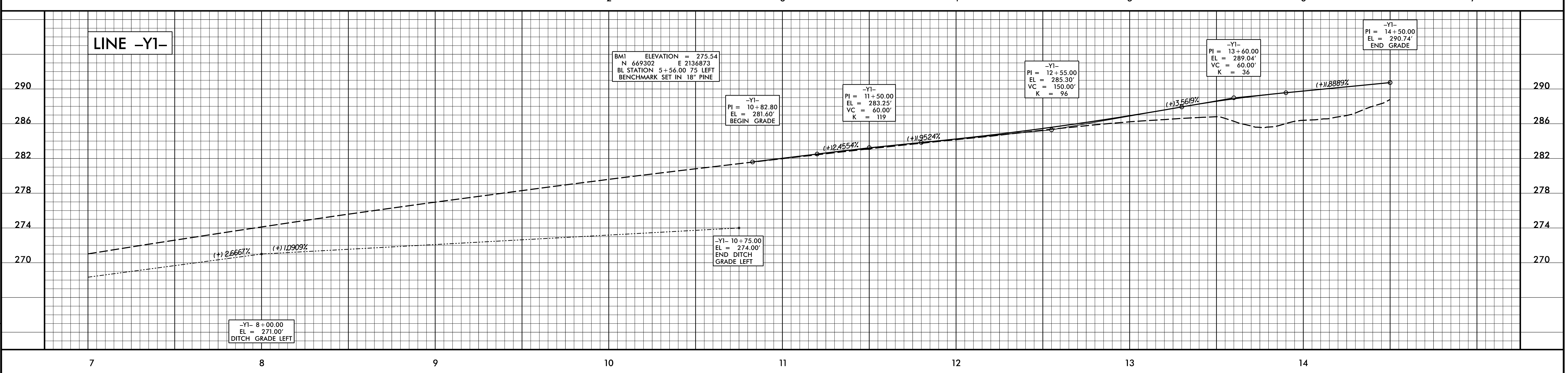
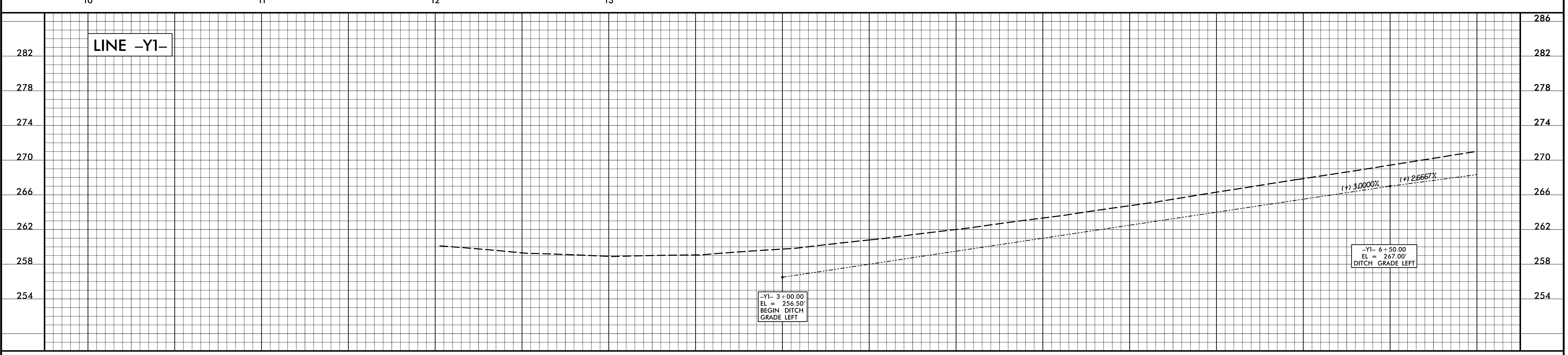
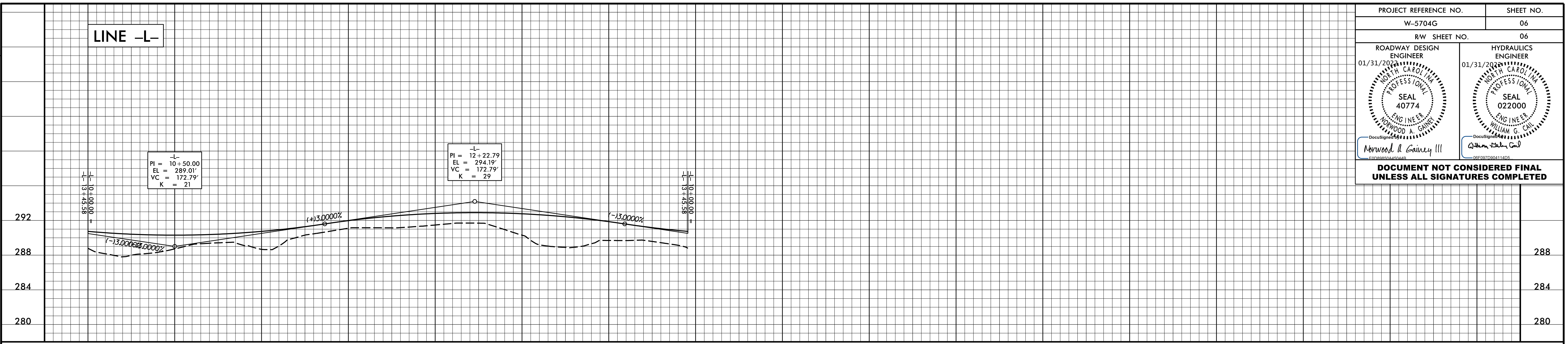
12 FRANCINA BOOKER
DB 4018 PG 292
PB 41PG 445

13 VIRGIL D MOFFETT
DB 1426 PG 102
PB 41PG 445

14 ALAN J ROCKER
DB 4836 PG 306
PB 41PG 445

15 TAI BLAKE
DB 4657 PG 347
PB 66 PG 224

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	06
RW SHEET NO.	06
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
01/31/2020	01/31/2020
SEAL 40774	SEAL 022000
PROFESSIONAL ENGINEER	PROFESSIONAL ENGINEER
NORTH CAROLINA	NORTH CAROLINA
WOOD & GAINES	WILLIAM G. GAINES
DocuSign	DocuSign
Norwood A. Gaine III	William G. Gaines
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS

31 JAN 2020 08:05
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\$\$\$\$USER\$NAME\$\$\$\$

DDC4

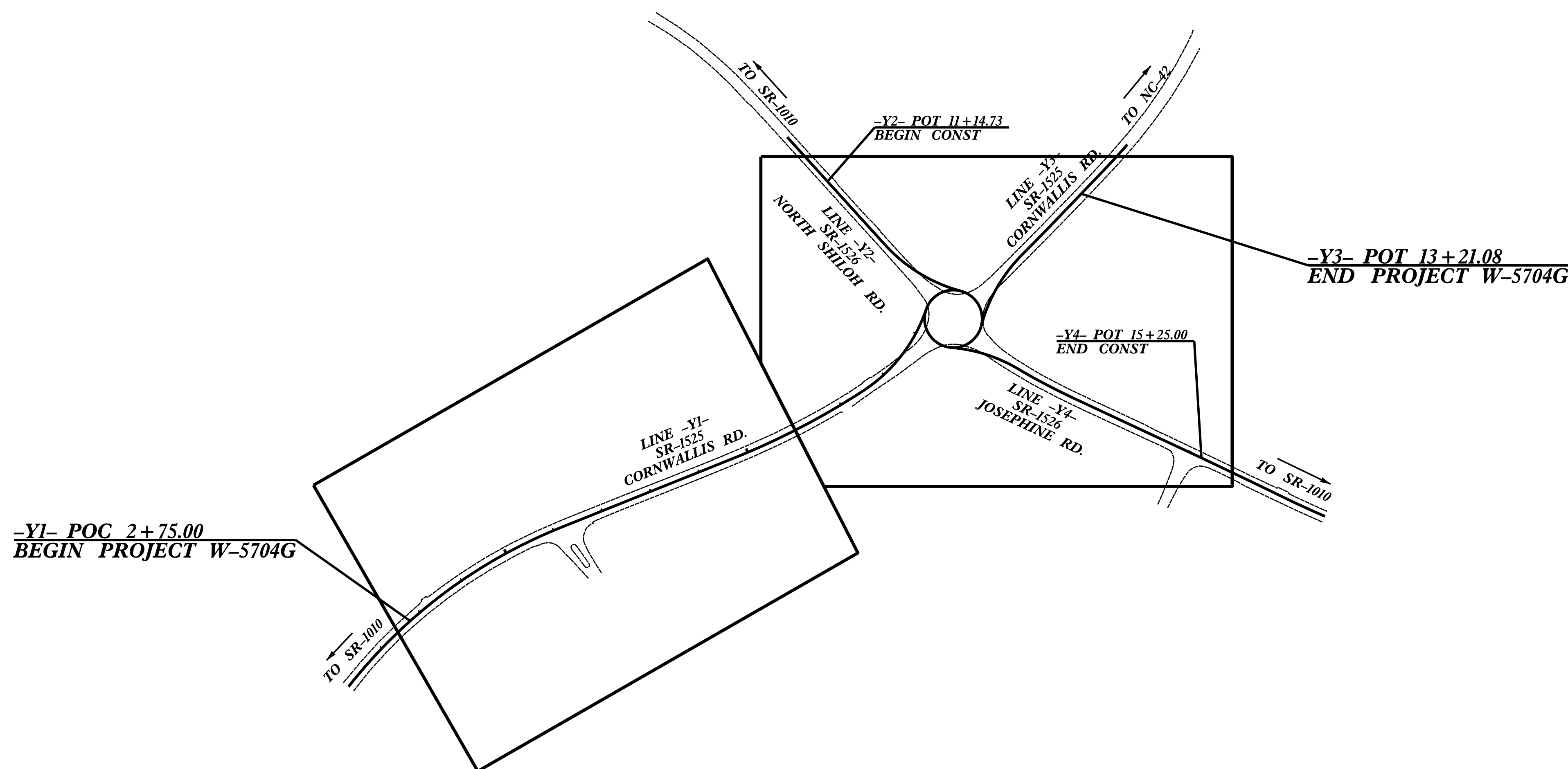
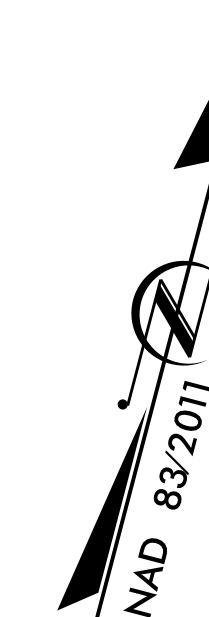
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5704G	RW01	

TIP PROJECT: W-5704G

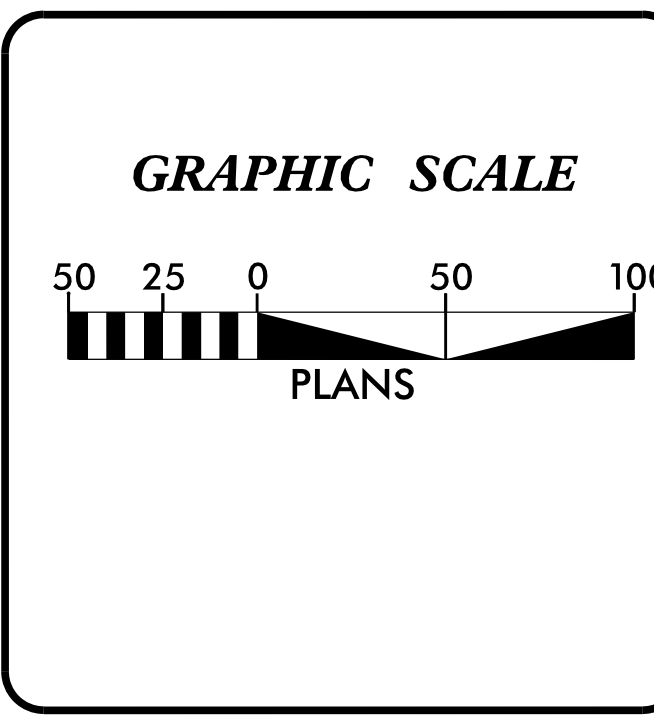
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

SURVEY CONTROL, EXISTING CENTERLINES,
 RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

JOHNSTON COUNTY



\$\$\$\$\$ SYSTEM \$\$\$\$\$\$
\$\$\$\$\$ DDN \$\$\$\$\$\$
\$\$\$\$\$ USERNAME \$\$\$\$\$\$



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "W-5704G-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 670,154.884(ft) EASTING: 2,136,600.071(ft) ELEVATION: 300.920(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99988104

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W-5704G-2" TO -Y1- STATION 2+75.00 IS S 03-45°22.42" X 1271.49(ft)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 License No. F-0377
 Bus: 919 851 8077
 Fax: 919 851 8107

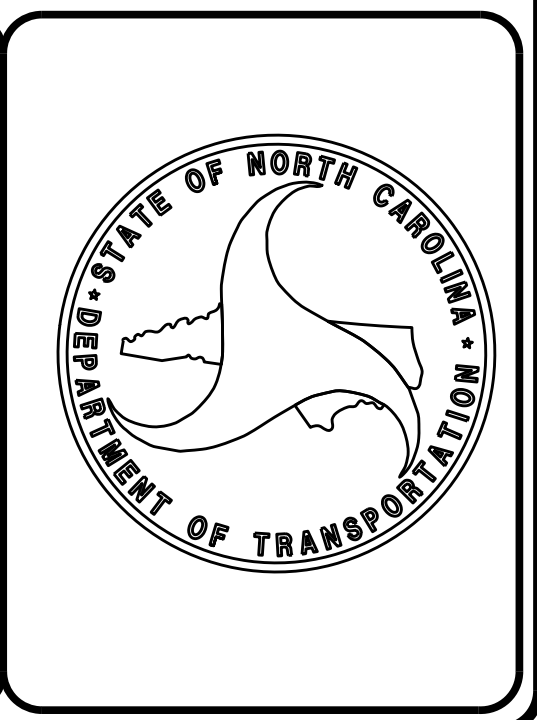
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
 CIVIL/SITE DESIGN - SURVEYING - CONSTRUCTION OBSERVATION

2018 STANDARD SPECIFICATIONS


RIGHT OF WAY DATE: APRIL 4, 2019	LETTING DATE: MARCH 24, 2020
--	--

PROFESSIONAL LAND SURVEYOR

DocuSigned by:
 Anthony K. Alford
 11/4/2019
 SIGNATURE: _____ Date: _____

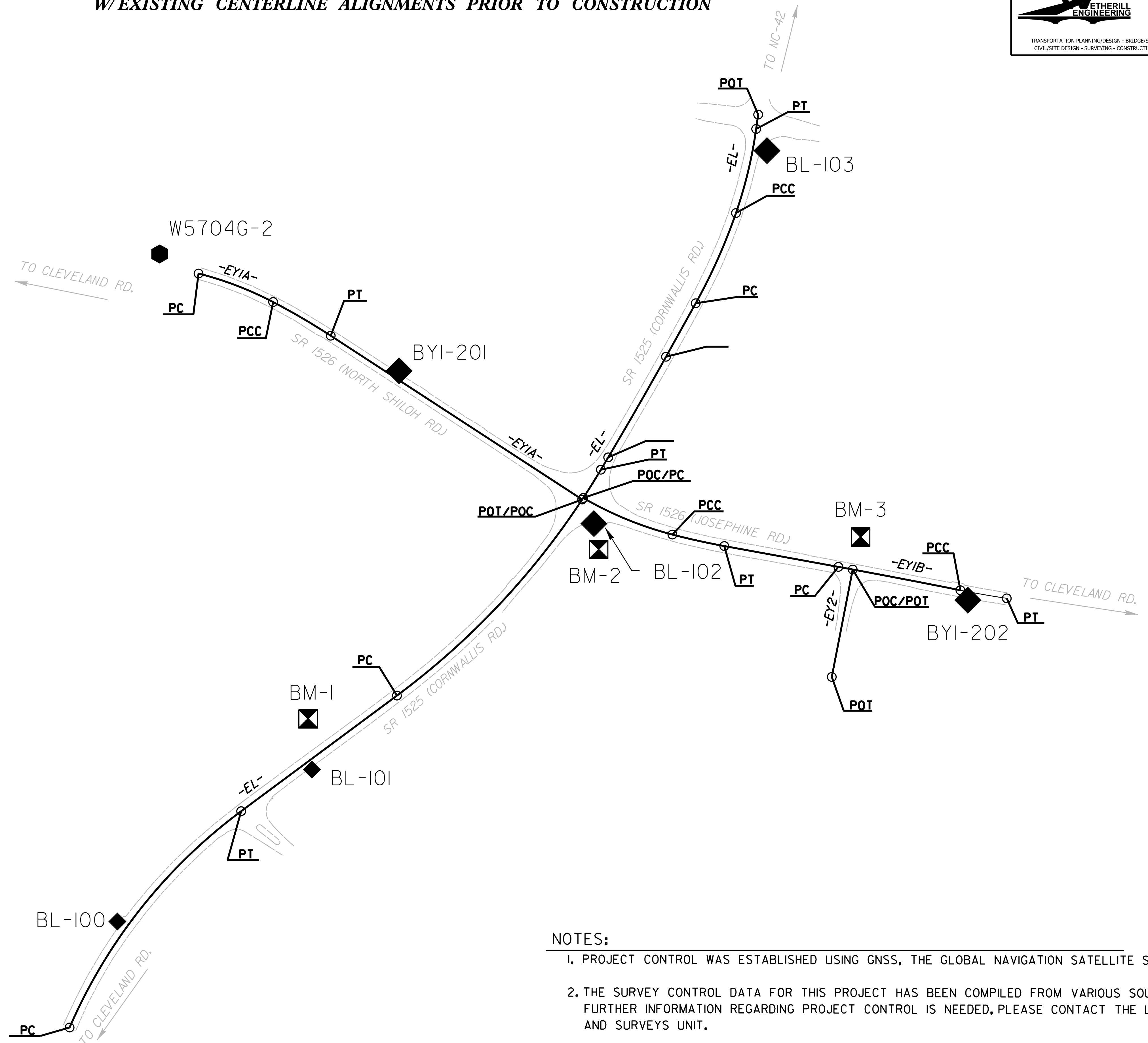
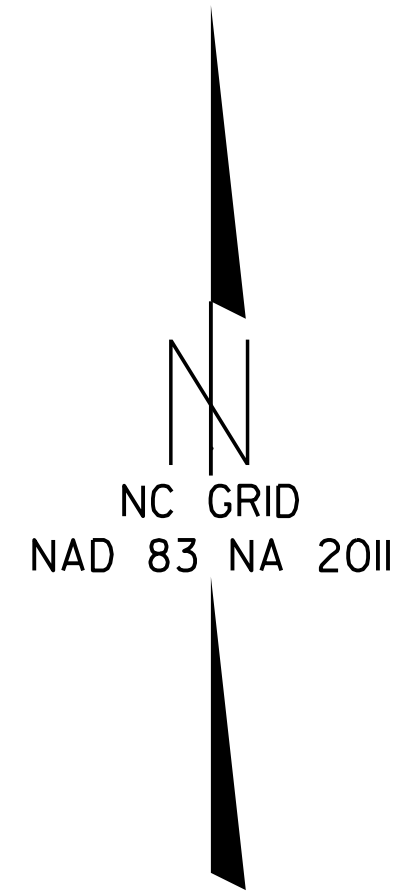


6/2/09

PROJECT REFERENCE NO.	SHEET NO.
W5704-G	RW02C-1
Location and Surveys	
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
<small>TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - SURVEYING - CONSTRUCTION OBSERVATION</small>	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

REVISIONS

05-NOV-2018 10:16 Location and Surveys\W-5704G RM Staking 19163.30\80-Drawings\FOR REVIEW\1009191-resubmittal\w5704g_1s_rw02c1.dgn
 P:\2018\1009191-resubmittal\w5704g_1s_rw02c1.dgn
 Bl Turner AT RAL-WS083

6/2/19

RIGHT OF WAY CONTROL SHEET

<small>PROJECT REFERENCE NO.</small> W-5704G	<small>SHEET NO.</small> RW03E-1
Location and Surveys	
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-4377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - SURVEYING - CONSTRUCTION OBSERVATION	
<p style="font-size: x-small;">PROJECT SURVEYOR</p> 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	2+75.00	-30.00	668902.6921	2136491.7648
Y1	3+00.00	-40.00	668929.7214	2136498.0761
Y1	6+15.33	-40.00	669163.9487	2136725.9555
Y1	9+71.61	-40.00	669376.1949	2137012.1217
Y1	12+49.73	-40.00	669557.3786	2137212.1048
Y1	13+50.00	-40.00	669630.2148	2137258.7508
Y1	14+25.00	-48.80	669693.9030	2137267.8091

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	12+78.35	-30.00	669836.2492	2137228.1156
Y2	13+00.00	30.86	669772.9478	2137215.3767
Y2	13+50.00	-35.00	669812.5383	2137287.4891
Y2	13+55.00	56.15	669724.6322	2137262.8584
Y2	14+03.66	-40.00	669805.8174	2137334.1649

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	10+85.00	30.79	669782.9283	2137470.0935
Y3	11+00.00	-46.59	669820.9706	2137400.9976
Y3	11+75.00	30.00	669858.2382	2137503.6106
Y3	11+85.00	-30.00	669896.7816	2137456.5532

ROW MARKER IRON PIN AND CAP-E

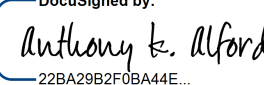
ALIGN	STATION	OFFSET	NORTH	EAST
Y4	10+69.00	30.89	669626.6286	2137450.2567
Y4	11+15.00	28.81	669623.2376	2137491.5521

I, ANTHONY K ALFORD, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 8th day of October, 2019.

DocuSigned by:

 22BA29B2F0BA44E
 Professional Land Surveyor

L-4372
 PLS #

Seal

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

REVISIONS

Staking 19163.30\80-Dr\Drawings\FOR REVIEW\100919\resubmittal\w5704g_ls_rw02e1.dgn
 PC: NOV-2019 08:39
 PS: 2019 NCDOT Section and Surveys\W-5704G_RW
 AT: RAJ-WS083

6/2/2019

PERMANENT EASEMENT CONTROL SHEET

PROJECT REFERENCE NO. W-5704G	SHEET NO. RW03E-2
Location and Surveys	
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-4377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - SURVEYING - CONSTRUCTION OBSERVATION	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	2+07.28	-49.00	668852.5960	2136438.7284
Y1	2+07.99	-30.00	668843.8629	2136455.6188
Y1	3+85.00	-50.00	669006.3338	2136544.2232
Y1	3+88.00	-67.00	669019.7061	2136533.2557
Y1	4+04.00	-40.00	669014.9444	2136564.7358
Y1	4+08.00	-64.00	669033.9199	2136549.4495
Y1	10+11.00	-40.00	669399.4208	2137042.5454
Y1	10+61.00	-52.00	669439.2751	2137072.4781
Y1	10+61.00	-61.00	669446.1521	2137066.6723
Y1	10+76.00	-73.00	669464.5574	2137069.7551
Y1	10+97.00	-73.00	669477.6786	2137084.7429
Y1	10+97.00	-58.00	669466.4659	2137094.7066
Y1	12+79.00	-61.00	669589.4922	2137211.3484
Y1	12+87.00	-69.00	669599.2568	2137208.5359
Y1	13+01.00	-50.00	669598.0322	2137230.5642
Y1	13+01.00	-40.00	669592.6710	2137239.0056
Y1	13+04.00	-74.00	669612.8129	2137211.5069
Y1	13+11.00	-40.00	669600.0629	2137243.5292
Y1	13+11.00	-50.00	669605.1398	2137234.9138
Y1	13+30.00	-68.00	669627.1649	2137226.4601
Y1	13+30.00	-53.00	669620.3827	2137239.8393
Y1	13+50.00	-52.00	669634.9155	2137247.7098
Y1	14+23.00	-61.00	669694.1815	2137255.5081

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	10+81.00	32.68	669778.9733	2137470.9373
Y3	10+84.00	41.00	669779.2588	2137479.6616
Y3	11+48.00	57.00	669822.8101	2137514.4865
Y3	11+50.00	52.00	669826.6262	2137510.8649
Y3	12+37.27	30.00	669912.5812	2137534.5463
Y3	12+42.95	50.00	669907.7370	2137554.7713

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	12+22.00	41.00	669807.4896	2137142.1578
Y2	12+22.00	30.00	669816.7082	2137148.1593
Y2	12+98.00	43.00	669763.4368	2137207.5072
Y2	13+48.00	65.00	669719.0198	2137252.0126

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y4	11+03.00	-33.64	669686.8316	2137491.3793
Y4	11+19.00	-62.00	669711.0467	2137515.0777
Y4	11+22.00	-45.00	669693.6875	2137514.6963
Y4	11+35.00	-68.00	669712.0700	2137535.4194
Y4	11+48.00	-30.00	669671.9053	2137537.5387

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Witness my original signature, registration number and seal this 8th day of October, 2019.

DocuSigned by:

 22BA292F2844E
 Professional Land Surveyor

L-4372
 PLS #

Seal


NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

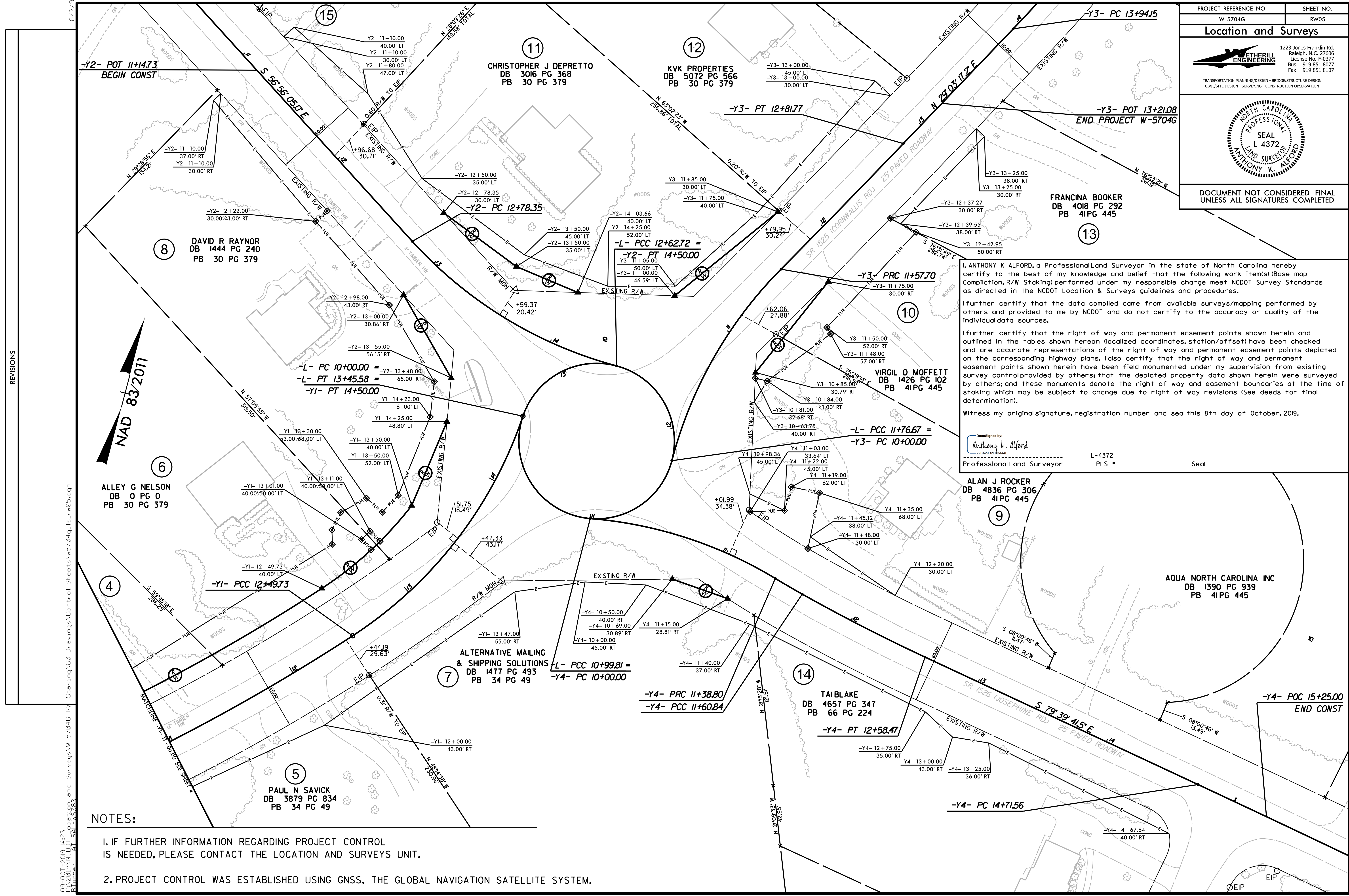
REVISIONS

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PROJECT REFERENCE NO. W-5704G	SHEET NO. RW05
Location and Surveys	
	
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - SURVEYING - CONSTRUCTION OBSERVATION	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



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Witness my original signature, registration number and seal this 8th day of October, 2019.

DocuSigned by:
 Anthony K. Alford
 228A2982F8BA44E
 Professional Land Surveyor

L-4372
 PLS #
 Seal

REVISIONS

NAD 83/2011

NOTES:

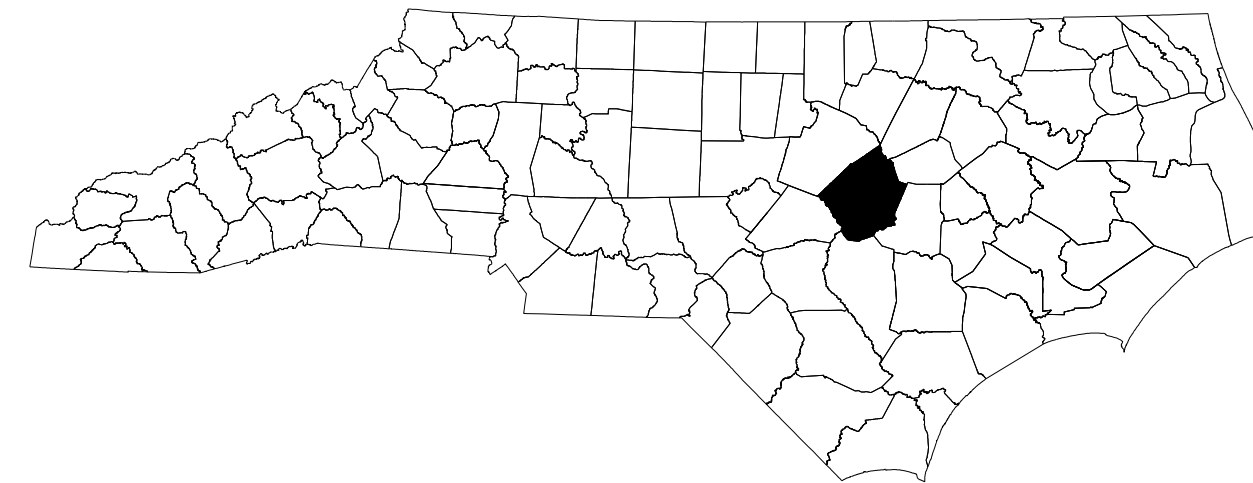
- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

6/2/19
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 05-2019\NCDOT\Location and Surveys\W-5704G_R\Staking\80-Drawings\Control_Sheets\w5704g_1s_rw05.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

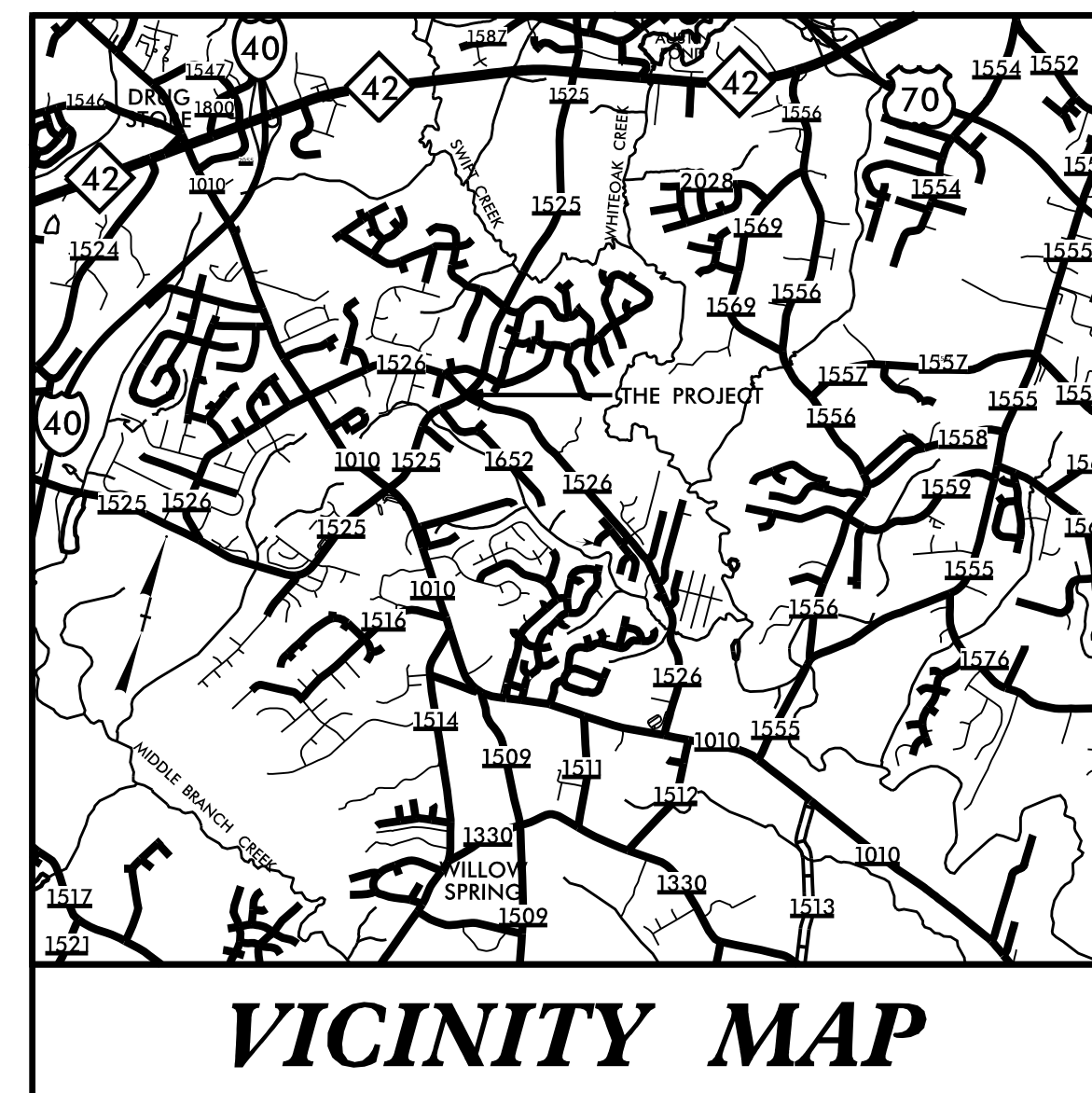
TRANSPORTATION MANAGEMENT PLAN

JOHNSTON COUNTY



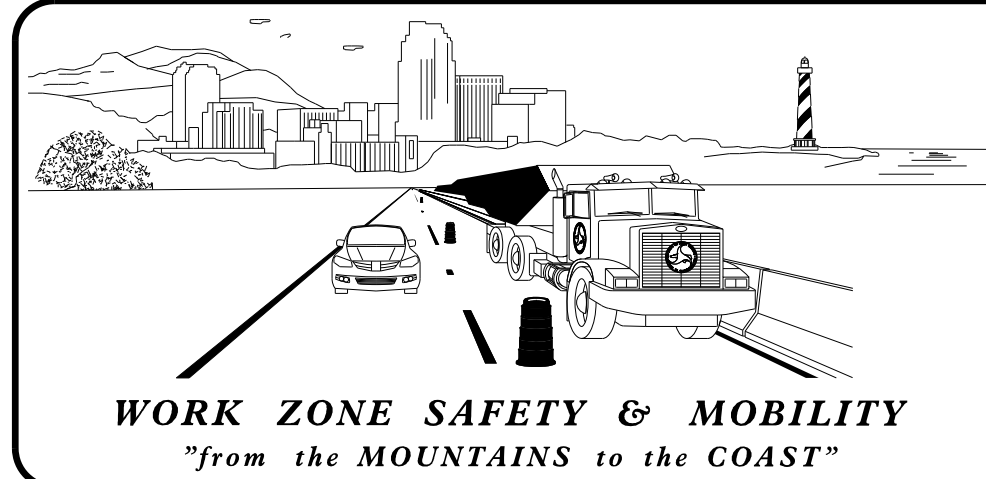
**LOCATION: ROUNDABOUT AT INTERSECTION OF SR-1525 (CORNWALLIS ROAD)
AND SR-1526 (SHILOH ROAD & JOSEPHINE ROAD).**

**TYPE OF WORK: TEMPORARY TRAFFIC CONTROL, PAVEMENT MARKING, &
DELINEATION FOR GRADING, DRAINAGE, AND PAVING**



VICINITY MAP

PLOT DRIVER: NCDOT_paf_color_eng_50.plt
PENTABLE: NCDOT_tcp.tbl
USER: JWILLES
DATE: 11/10/2021
TIME: 9:46:13 AM
FILE: pwa\pwhdr\users\01\HDR_US_East_01\Documents\3322\10001377\10162358\6.0_CAD_BIM\6.2_WIP\TrafficControl\TCP\TMP-1.dgn



PLANS PREPARED BY:

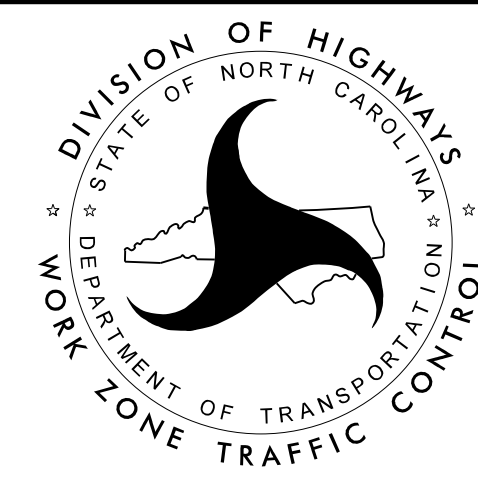
BEN SCHOENBAUER, P.E.
TRAFFIC CONTROL PROJECT ENGINEER

JOHN WILES, P.E.
TRAFFIC CONTROL DESIGN ENGINEER

NCDOT CONTACTS:

PROJECT ENGINEER

PROJECT DESIGN ENGINEER



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

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

11/10/21 DATE SUBMITTED
SUBMITTAL:
 STAGING CONCEPT
 MIDPOINT
 PRE-FINAL
 FINAL
DO NOT USE FOR CONSTRUCTION

APPROVED: Ben Schoenbauer

DATE: 11/10/2021

SEAL

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-2-2B	SPECIAL SIGN DESIGNS
TMP-2C-2I	OFF-SITE DETOUR ROUTES
TMP-3	PHASING
TMP-4	PHASE 1 DETAIL
TMP-5	PHASE 2 DETAIL




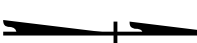





ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:




STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)
-  WORK AREA
-  REMOVAL
-  WEDGING












SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY


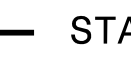
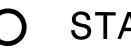
PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES

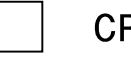


TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM
-  SKINNY DRUM
-  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

-  PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

- 4" PAINT**
- P1 WHITE EDGELINE
- P4 3 FT.-9 FT./SP WHITE MINISKIP
- P10 YELLOW EDGELINE
- P13 YELLOW DOUBLE CENTER


- 12" PAINT**
- P102 YIELD LINE TRIANGLE

- 24" PAINT**
- P61 WHITE STOP BAR

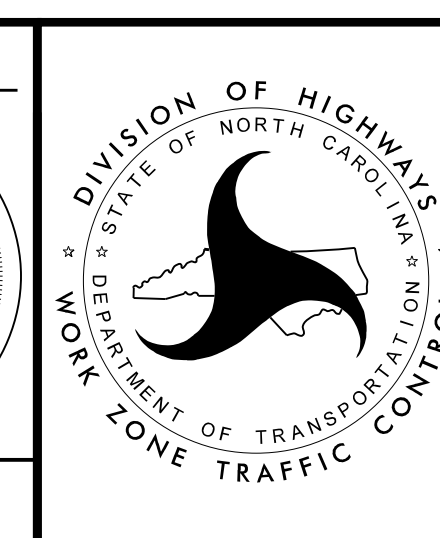
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 DATE: 11/10/2021

APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021




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



ROADWAY STANDARD
DRAWINGS & LEGEND

GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
W-5704G	TMP-1B
 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	

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS - REQUIRES INTERMEDIATE CONTRACT TIME PROJECT SPECIAL PROVISIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
N SHILOH RD	MONDAY THRU FRIDAY
CORNWALLIS RD	6:00 A.M. TO 9:00 A.M.
JOSEPHINE RD	4:00 P.M. TO 7:00 P.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
N SHILOH RD
CORNWALLIS RD
JOSEPHINE RD

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CLOSE ROAD AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
N SHILOH RD	6:00 A.M. MONDAY
CORNWALLIS RD	TO
JOSEPHINE RD	7:00 P.M. FRIDAY

LANE AND SHOULDER CLOSURE REQUIREMENTS

- REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

- DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

- DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 350 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

- PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

- COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

- INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

- PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

- INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
N SHILOH RD	PAINT	TEMPORARY RAISED
CORNWALLIS RD	PAINT	TEMPORARY RAISED
JOSEPHINE RD	PAINT	TEMPORARY RAISED

- PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

- TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

- REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

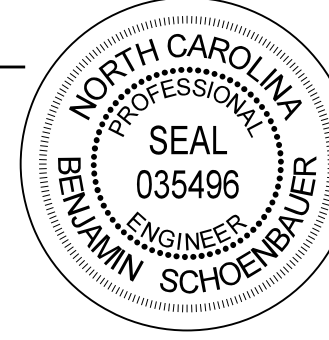
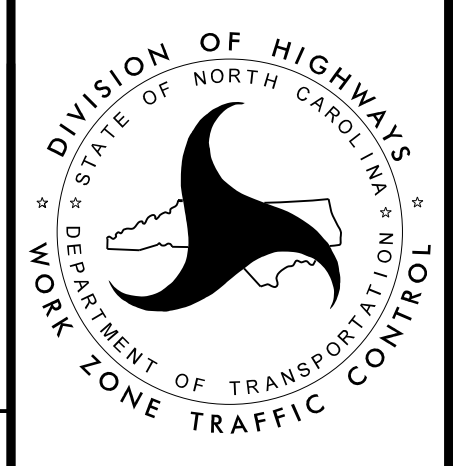
- TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

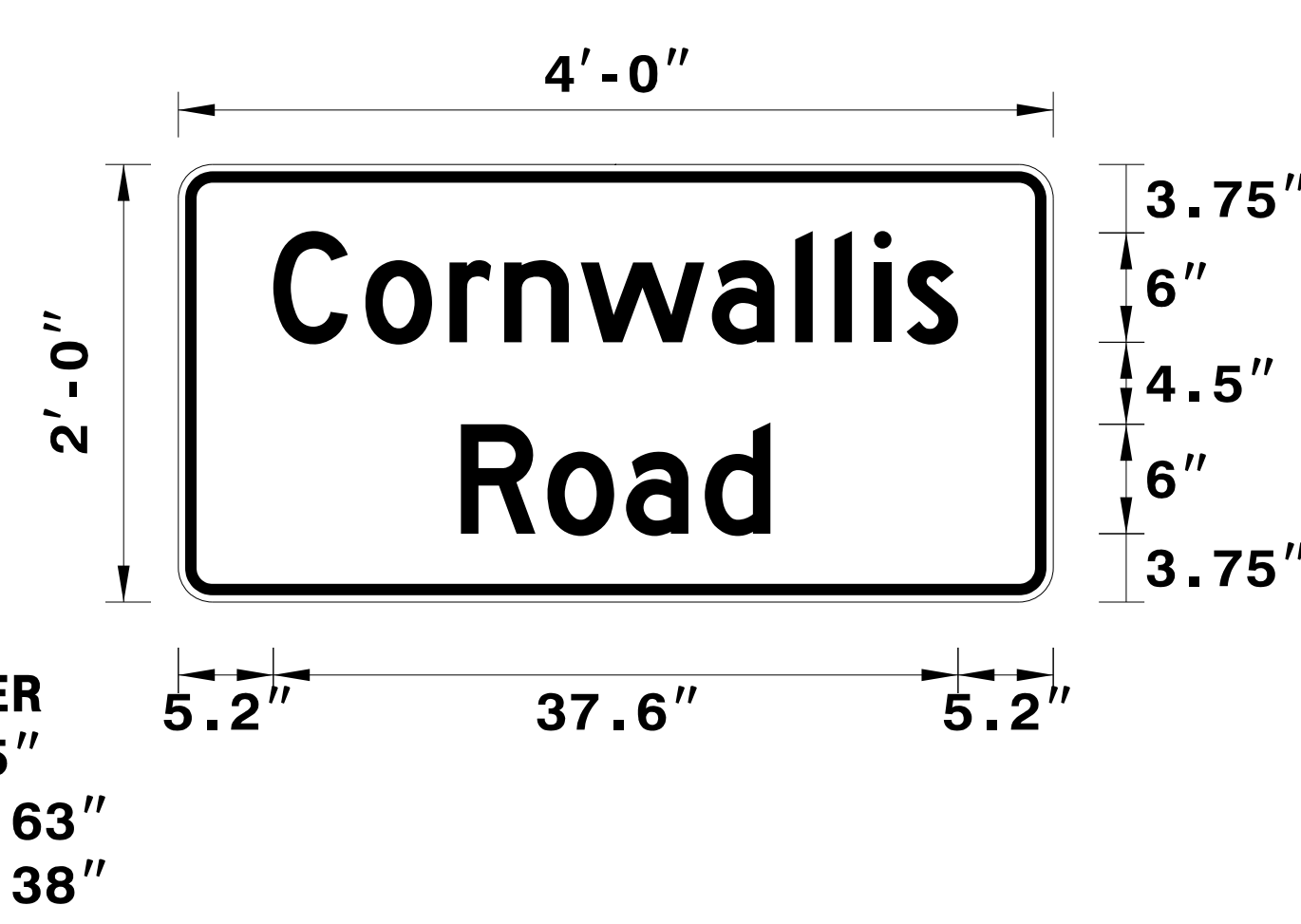
- IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 350 FT AND 700 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

REVISIONS

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APPROVED: <i>Ben Schoenbauer</i> DATE: 11/10/2021 		<p style="text-align: center;">TRANSPORTATION OPERATION PLAN</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>		

SIGN NUMBER: name TYPE: STATIONARY QUANTITY: SEE PLANS SIGN WIDTH: 4'-0" HEIGHT: 2'-0" TOTAL AREA: 8.0 Sq.Ft. BORDER TYPE: RECESSED RECESS: 0.38" WIDTH: 0.63" RADII: 1.5" MAT'L: 0.080" (2.0 mm) ALUMINUM	BACKG COLOR: Fluorescent Orange COPY COLOR: Black <table border="1"> <thead> <tr> <th>SYMBOL</th> <th>X</th> <th>Y</th> <th>WID</th> <th>HT</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	SYMBOL	X	Y	WID	HT																																				DESIGN BY: R. DRAYTON PROJECT ID: W-5704G CHECKED BY: R. KING Sep 01, 2021 DIV: 5
SYMBOL	X	Y	WID	HT																																						



BORDER
R=1.5"
TH=0.63"
IN=0.38"

Spacing Factor is 1 unless specified otherwise

USE NOTES: 1,2

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

LETTER POSITIONS

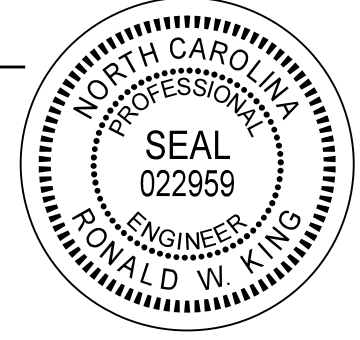
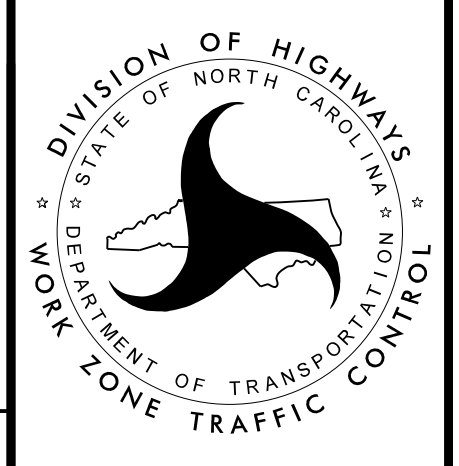
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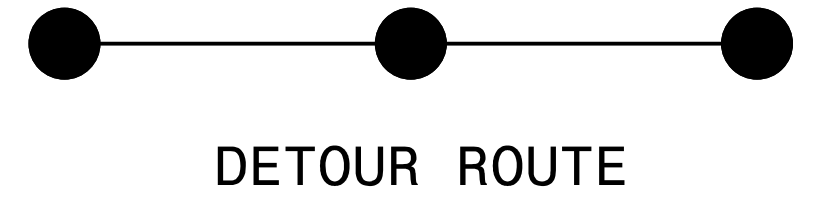
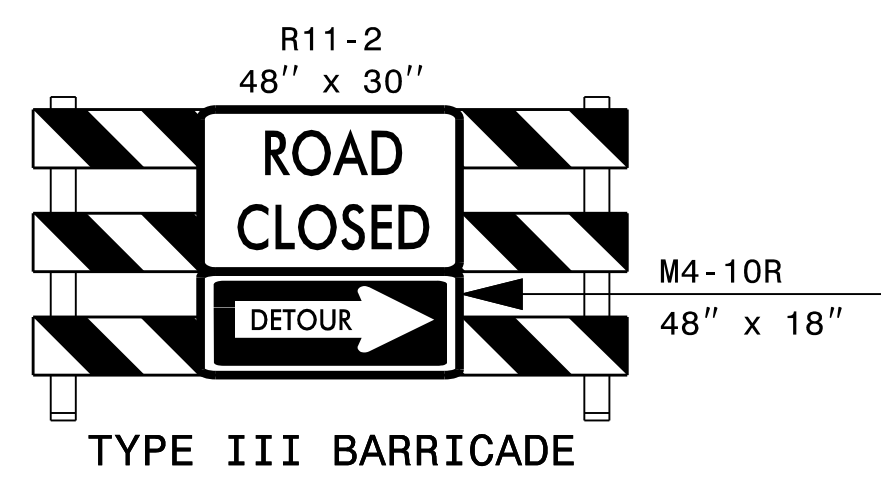
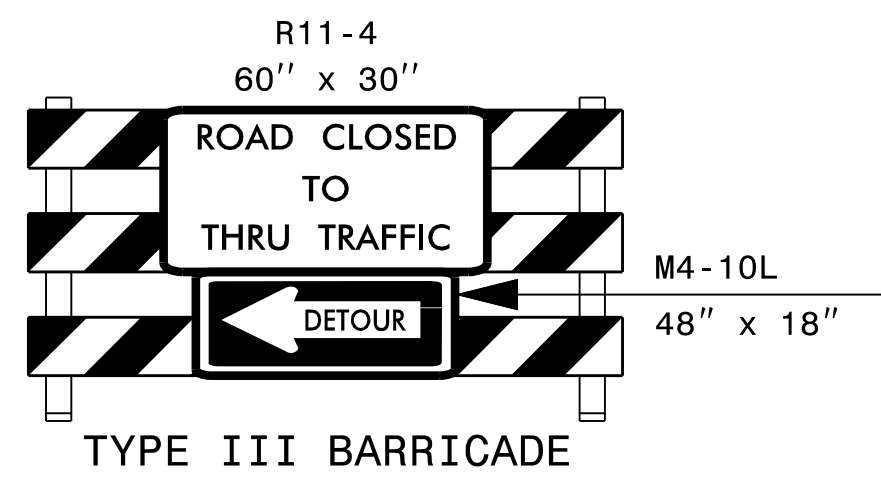
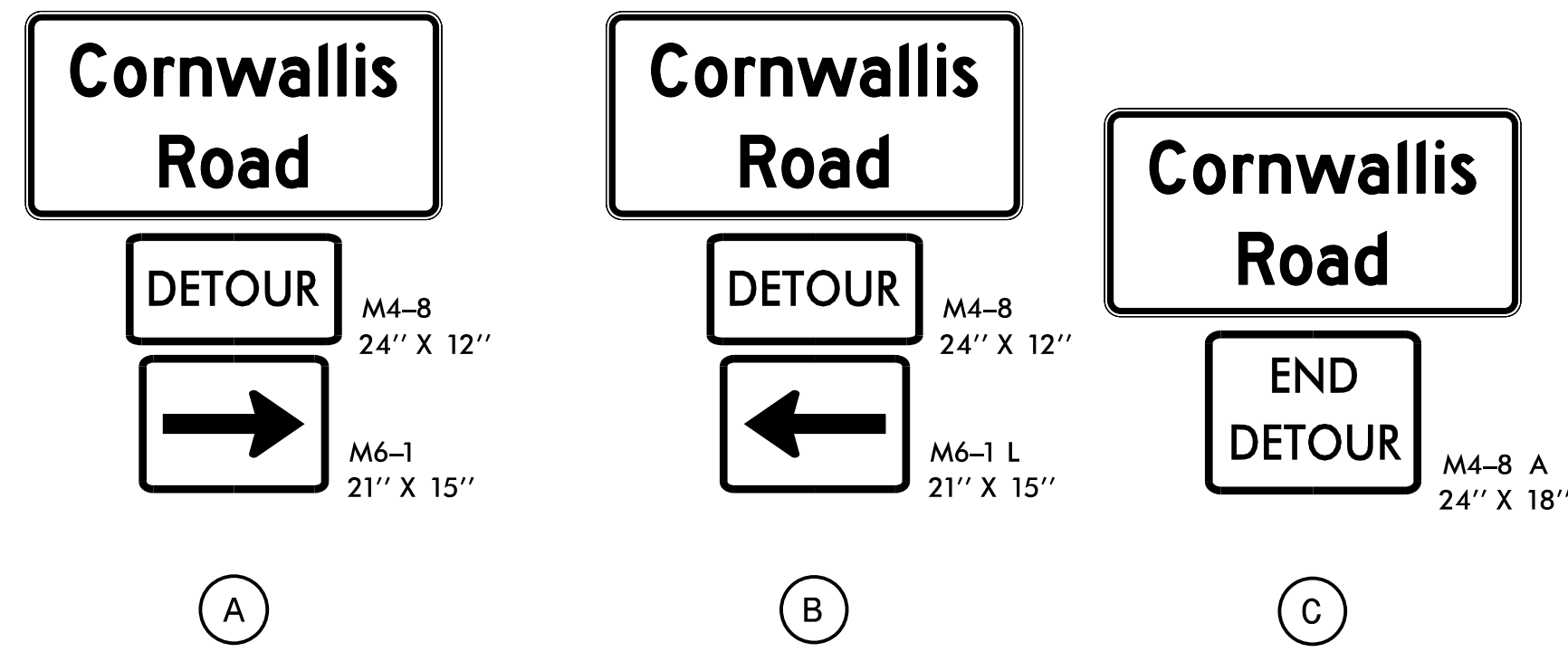
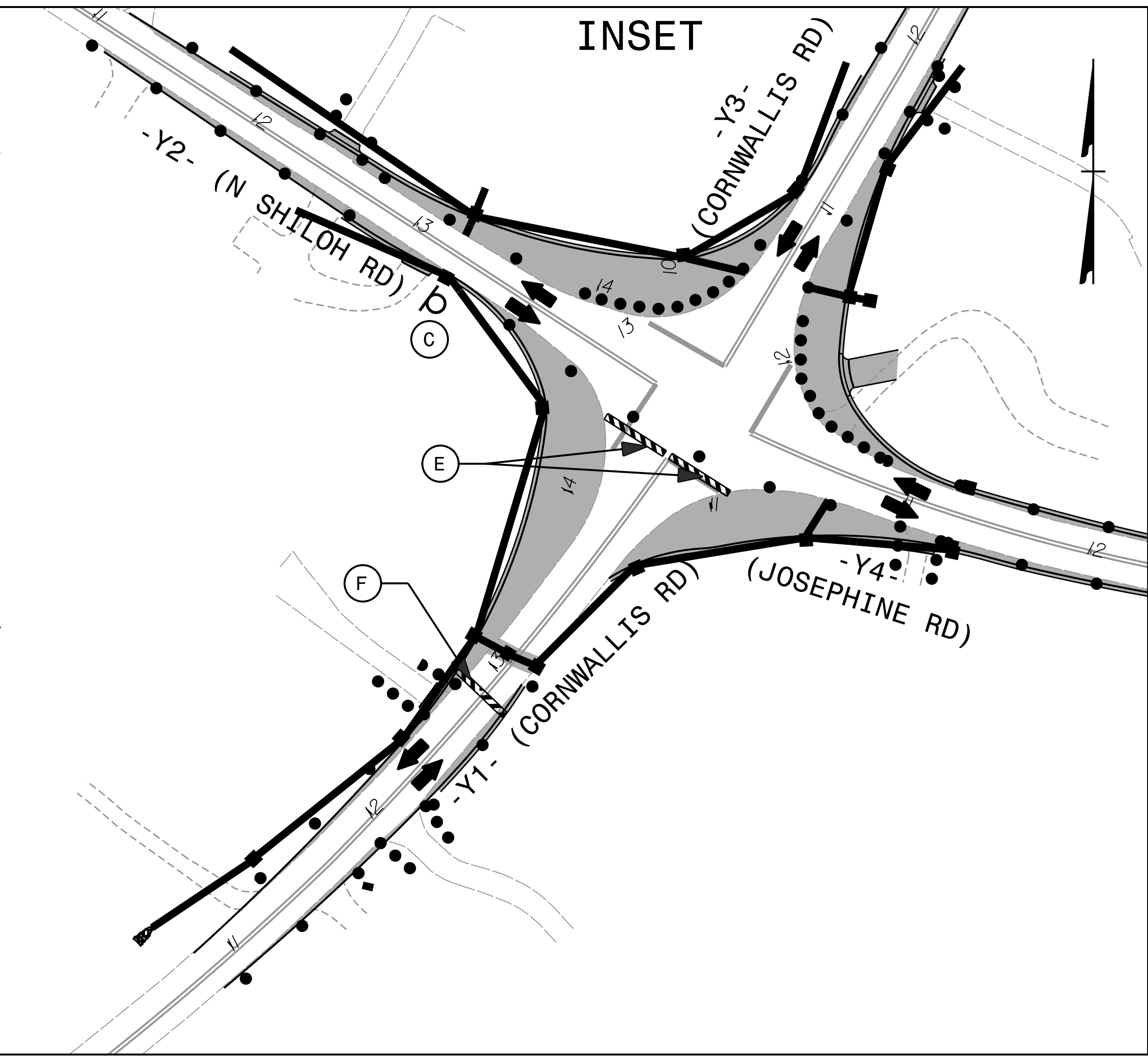
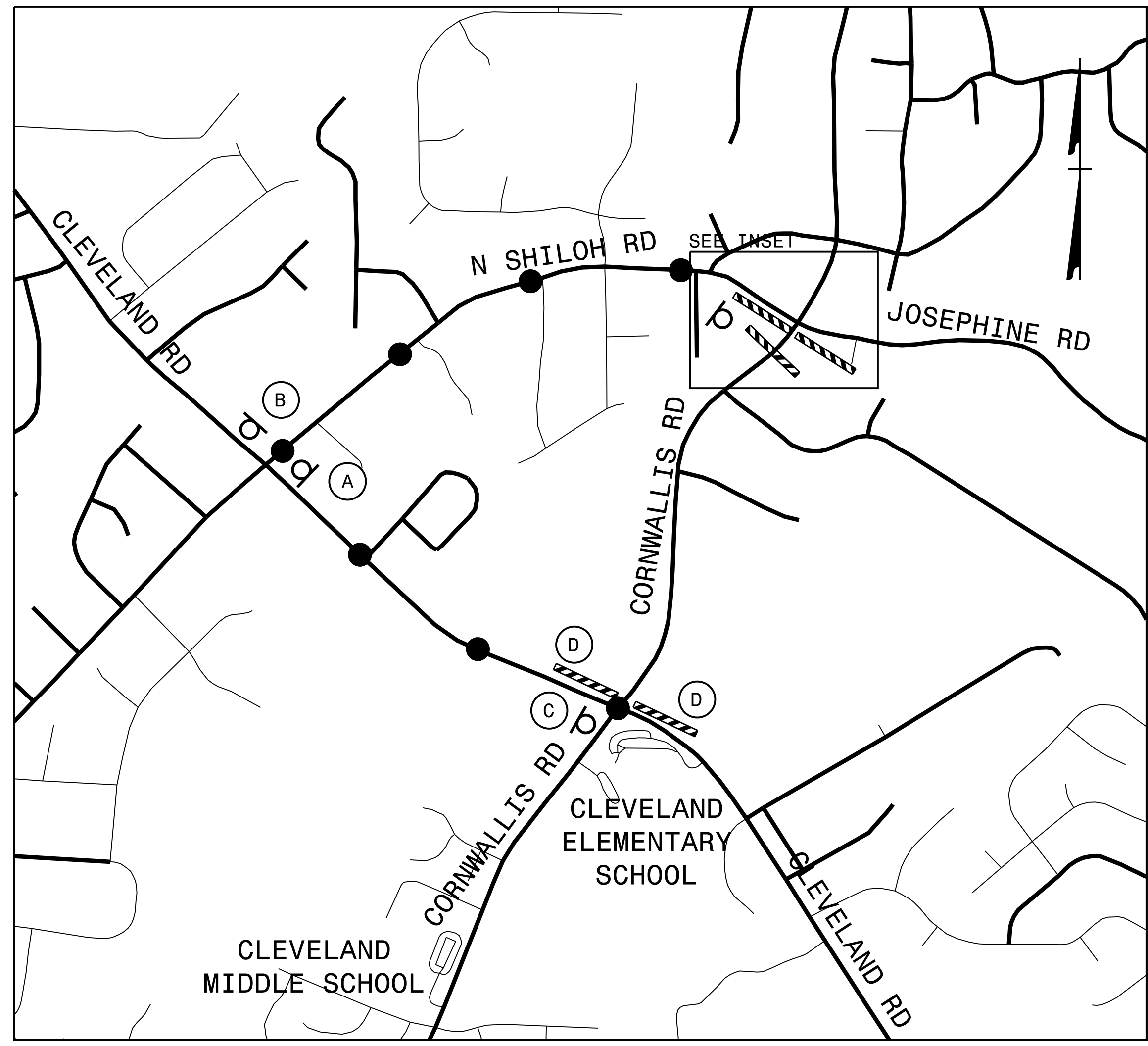
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		R	o	a	d							D 2000
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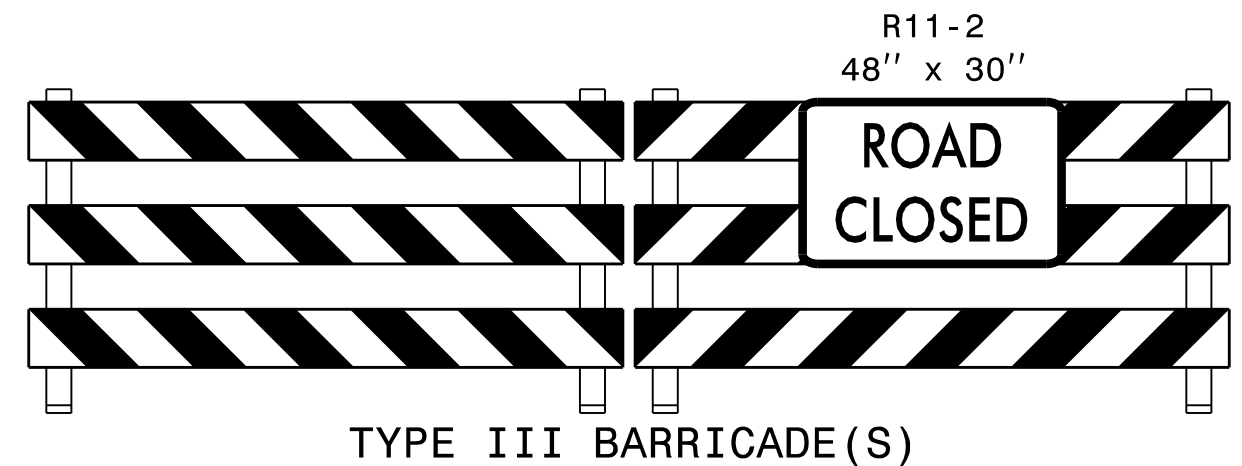
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REVISIONS

APPROVED: <i>Ren King</i> DATE: 11/10/2021 SEAL 		CORNWALLIS RD SIGN DESIGN
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



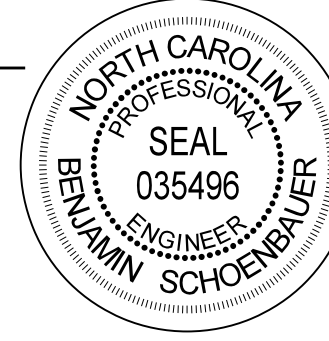
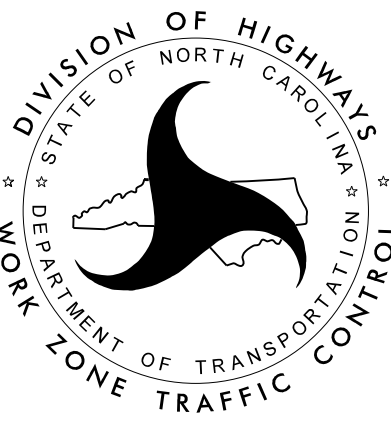
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 -SEE RSD 1101.03 SHEETS 1 AND 2 OF 9 FOR ADDITIONAL SIGNS AND NOTES
 -ALL SIGNS FOR THIS DETOUR MAY BE MOUNTED ON PORTABLE SUPPORTS AND REMAIN IN PLACE FOR UP TO 3 DAYS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER



APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

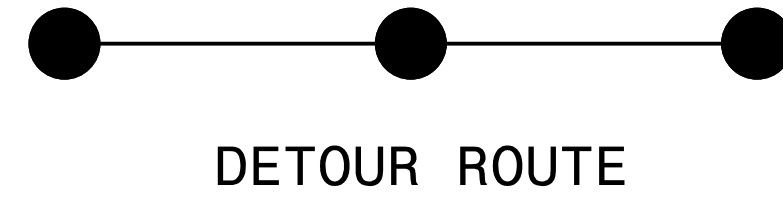
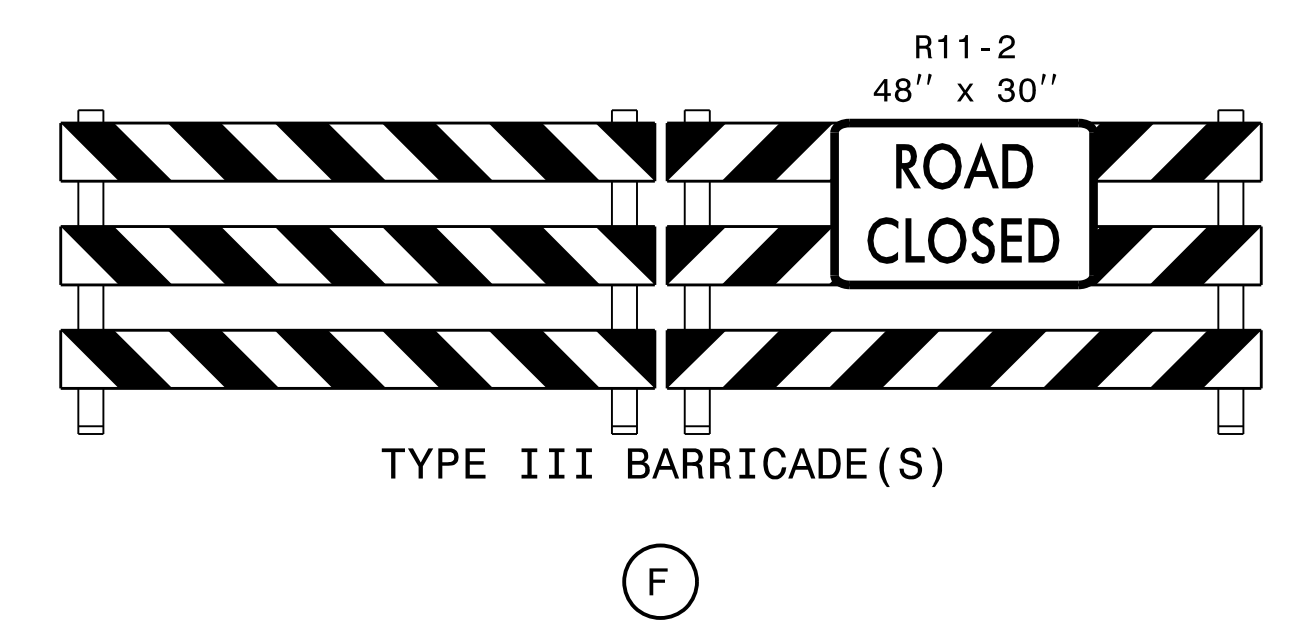
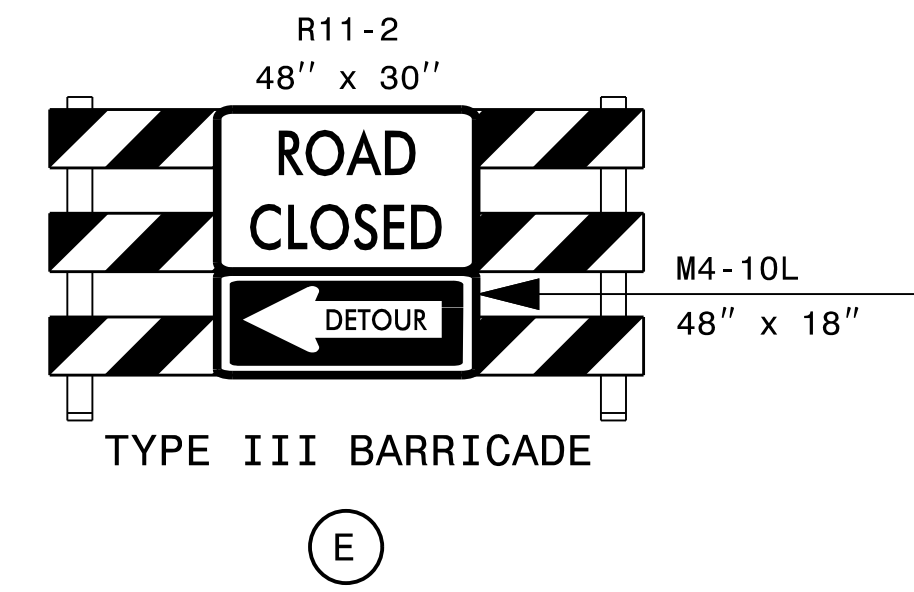
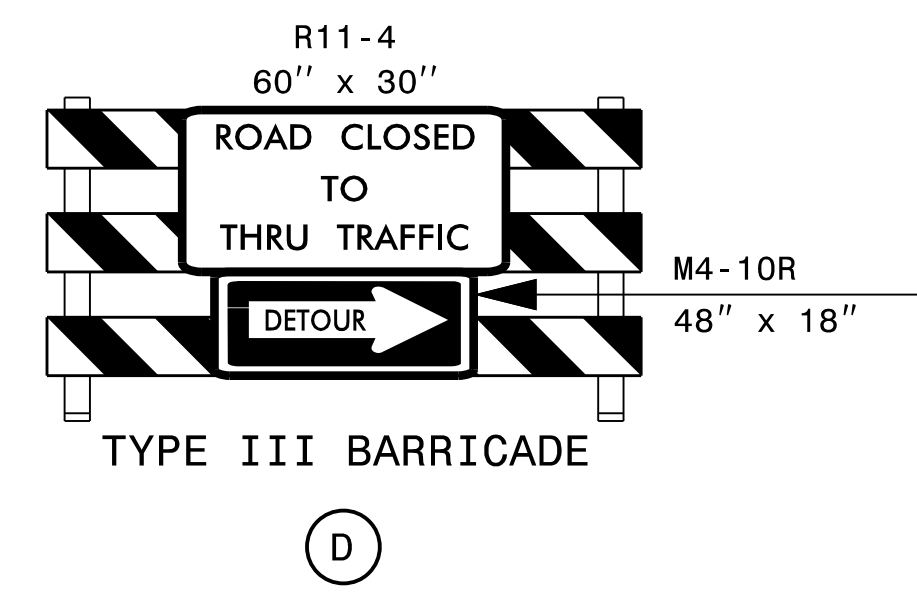
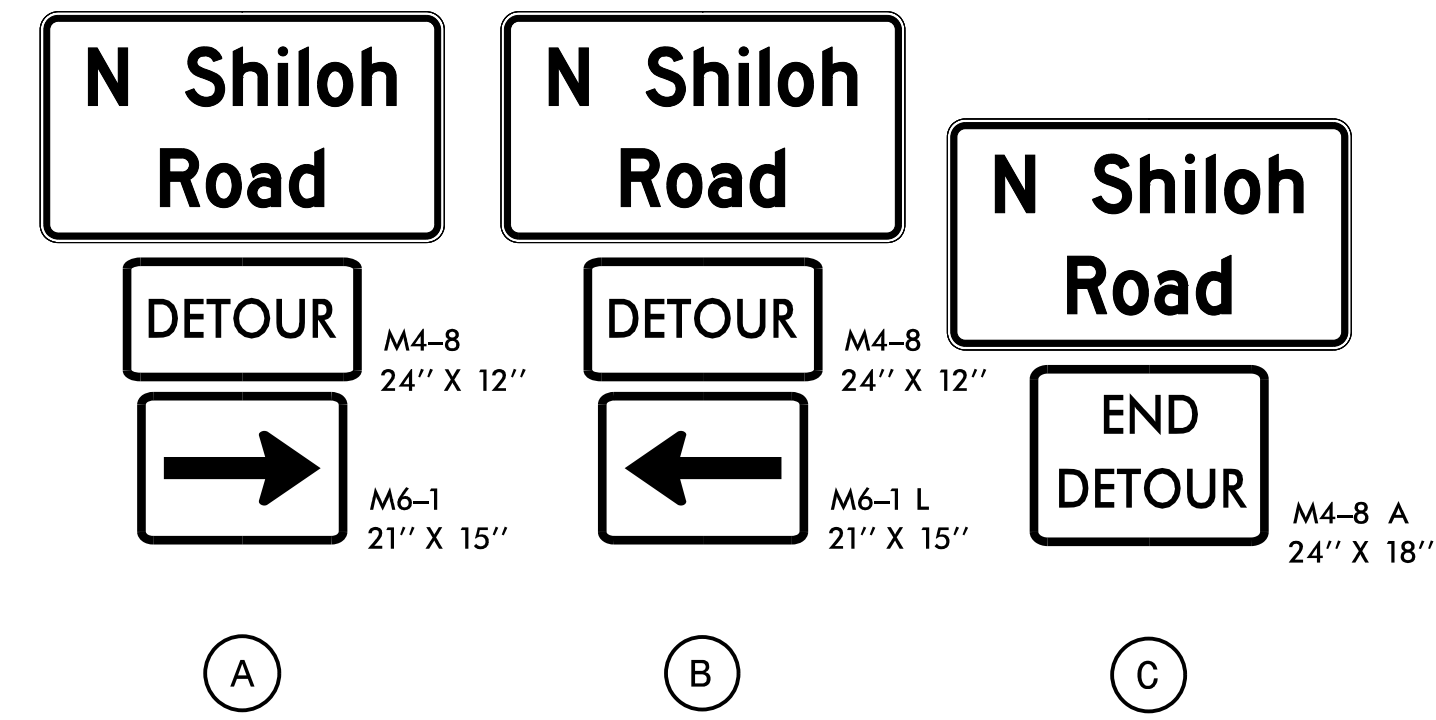
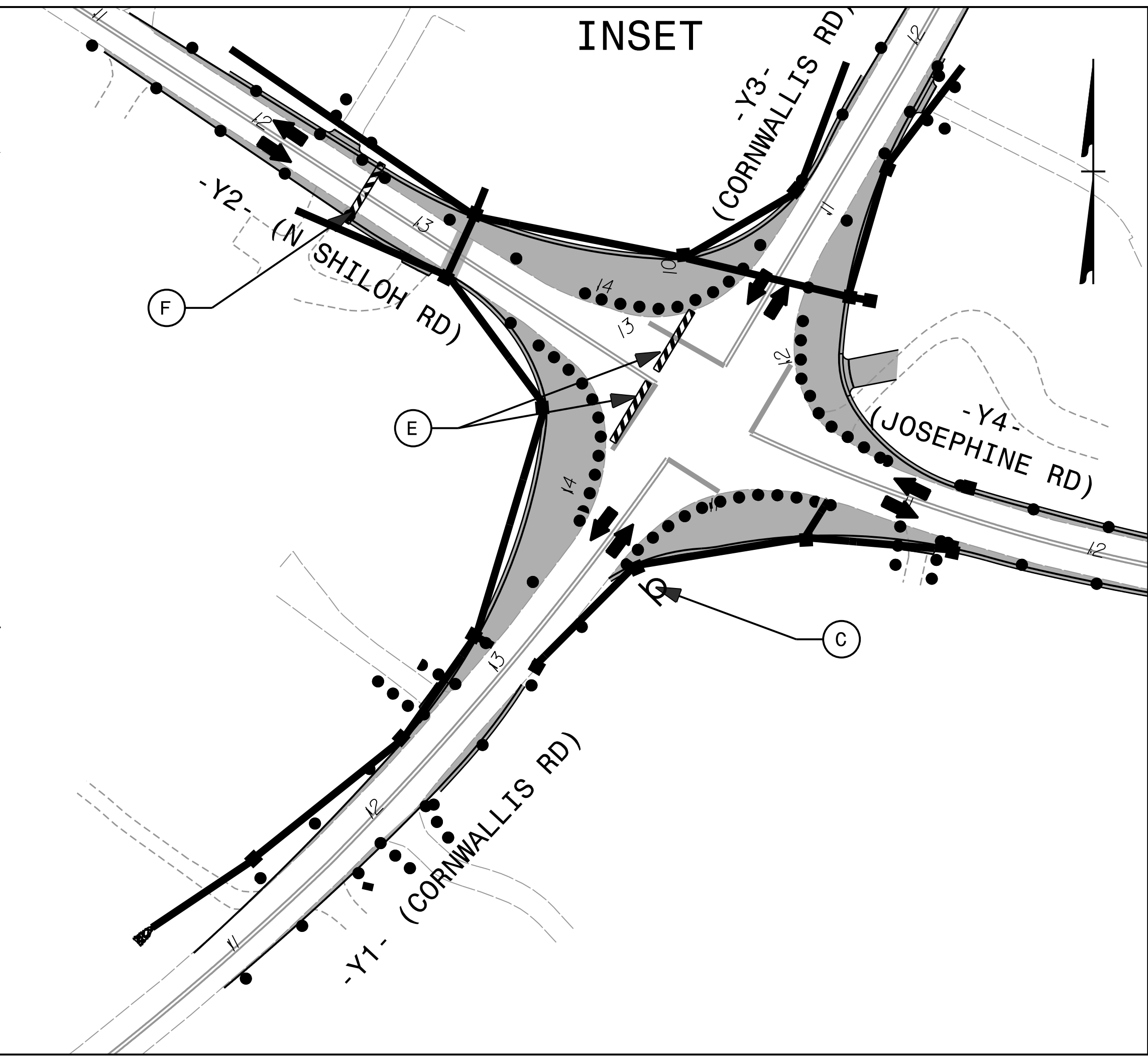
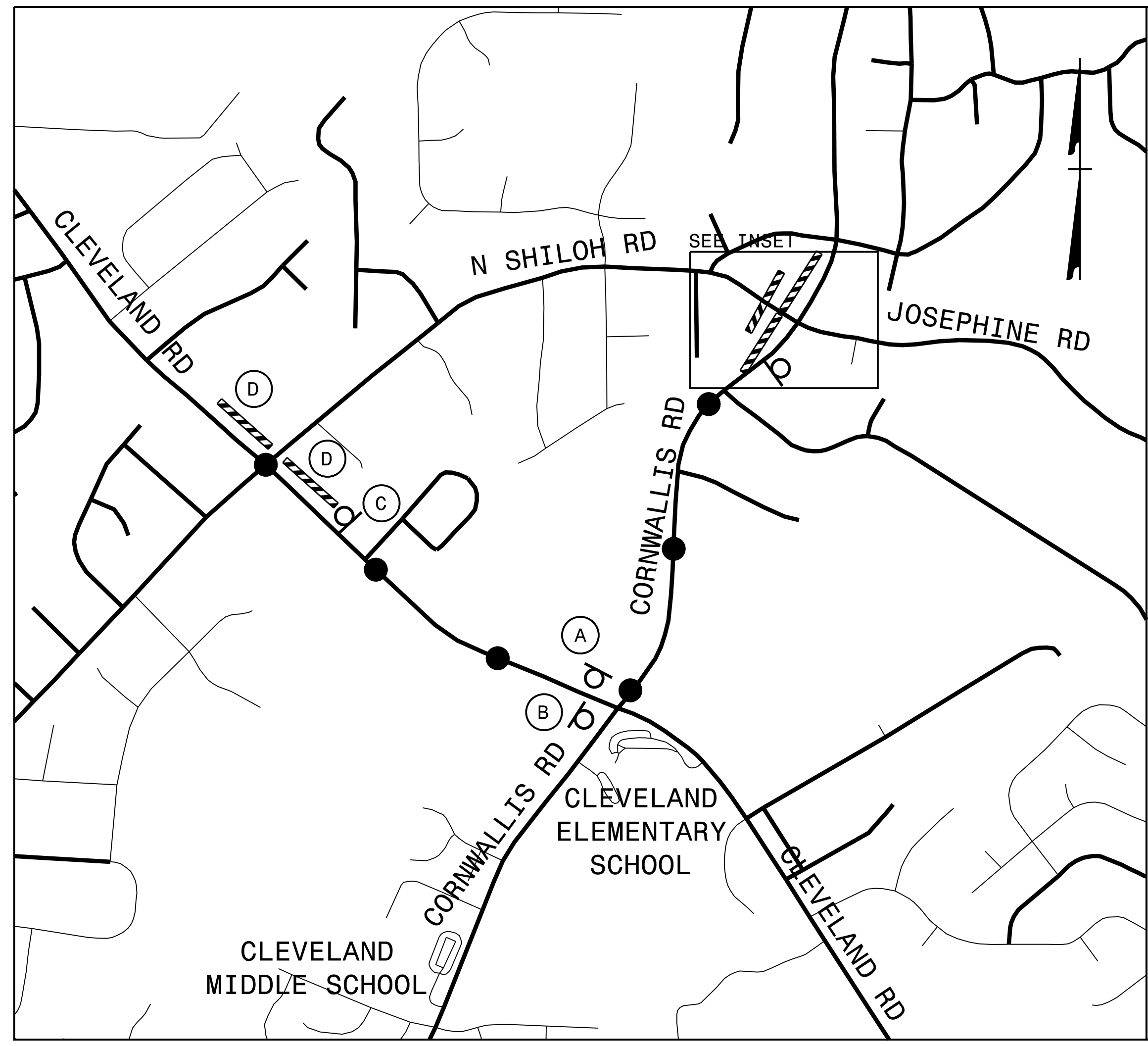
SEAL

CORNWALLIS RD
 DETOUR ROUTE

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

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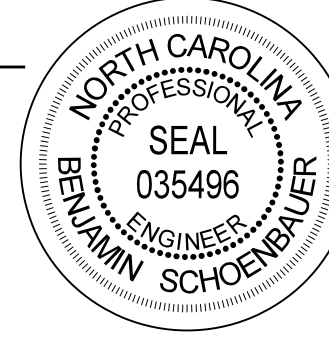
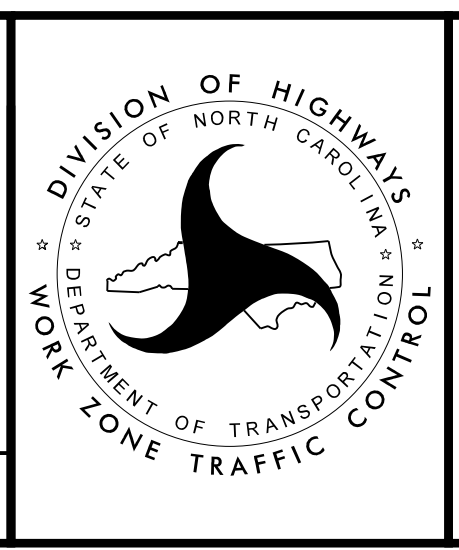


NOTE: -SEE SHEET TMP-2A FOR SIGN DESIGN
 -SEE RSD 1101.03 SHEETS 1 AND 2 OF 9 FOR ADDITIONAL SIGNS AND NOTES
 -ALL SIGNS FOR THIS DETOUR MAY BE MOUNTED ON PORTABLE SUPPORTS AND REMAIN IN PLACE FOR UP TO 3 DAYS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER

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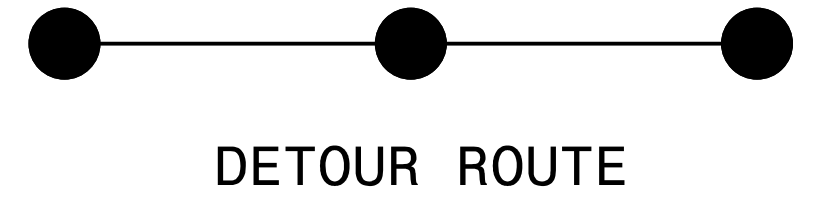
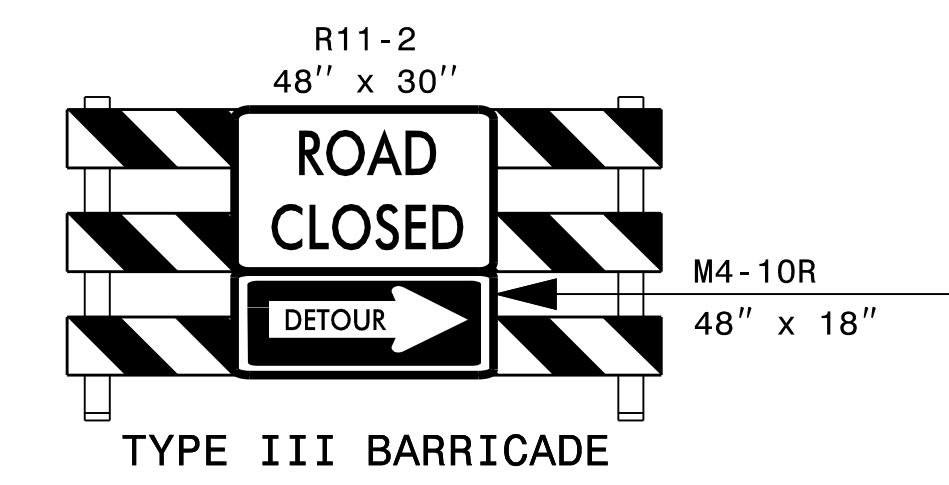
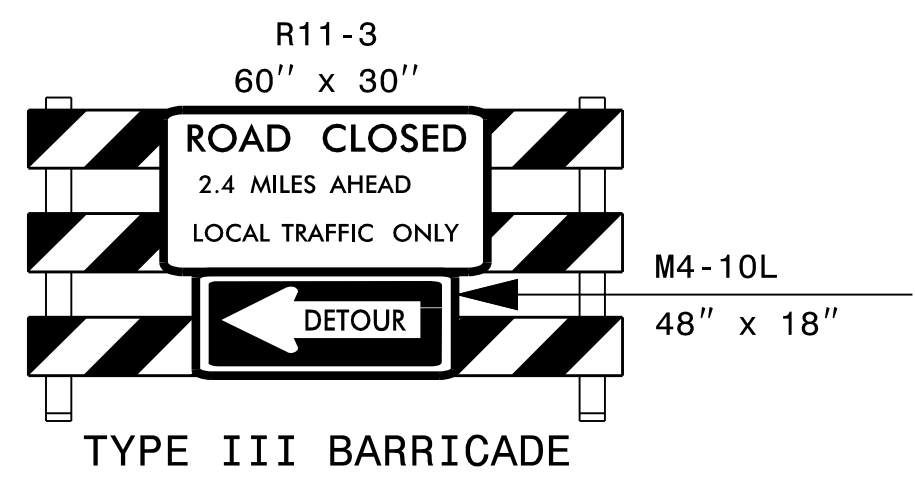
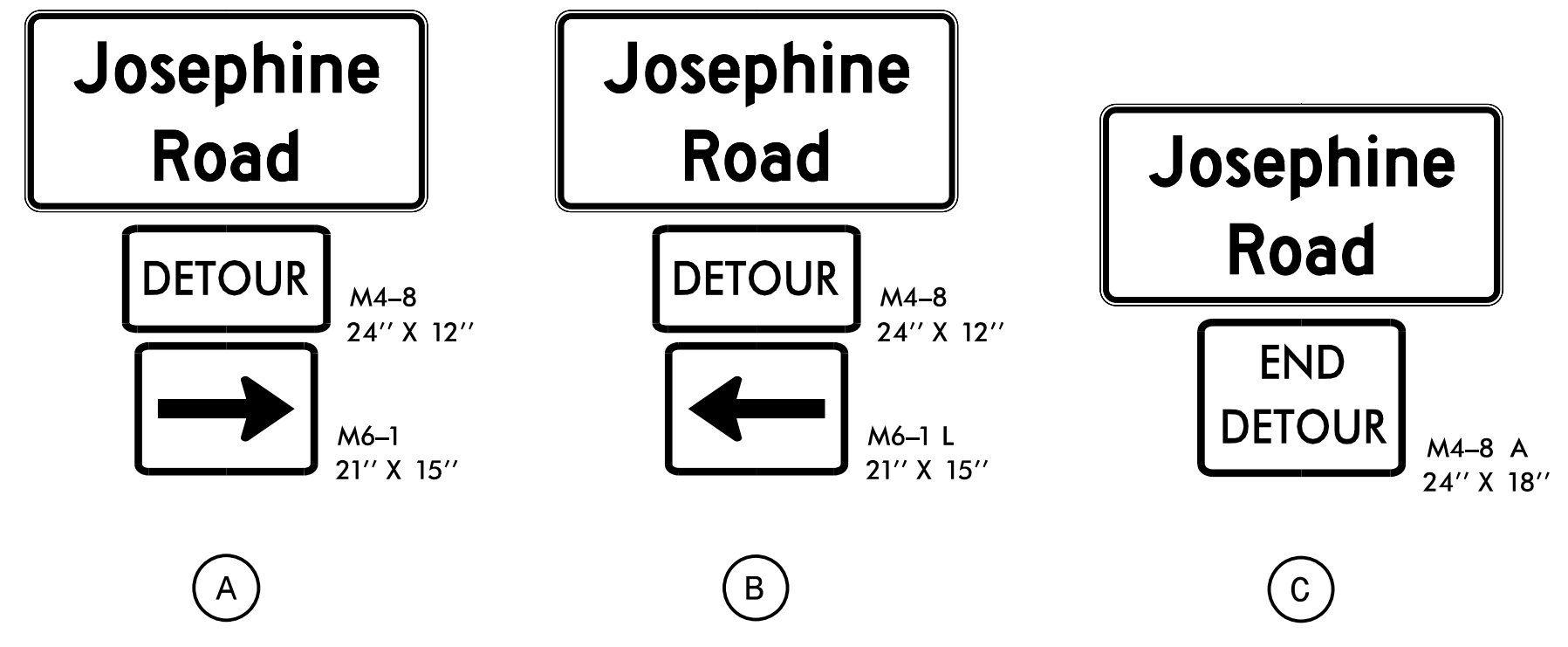
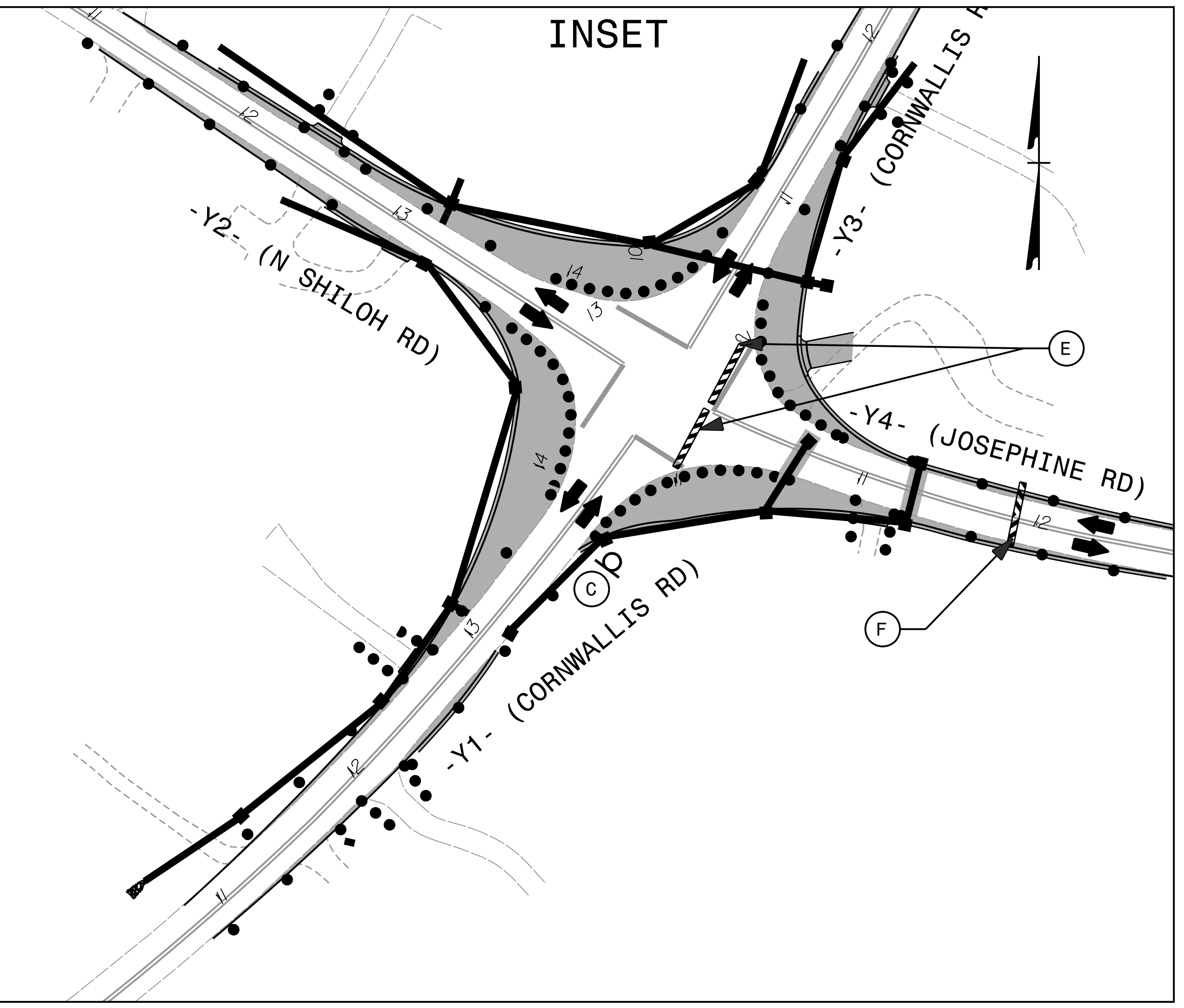
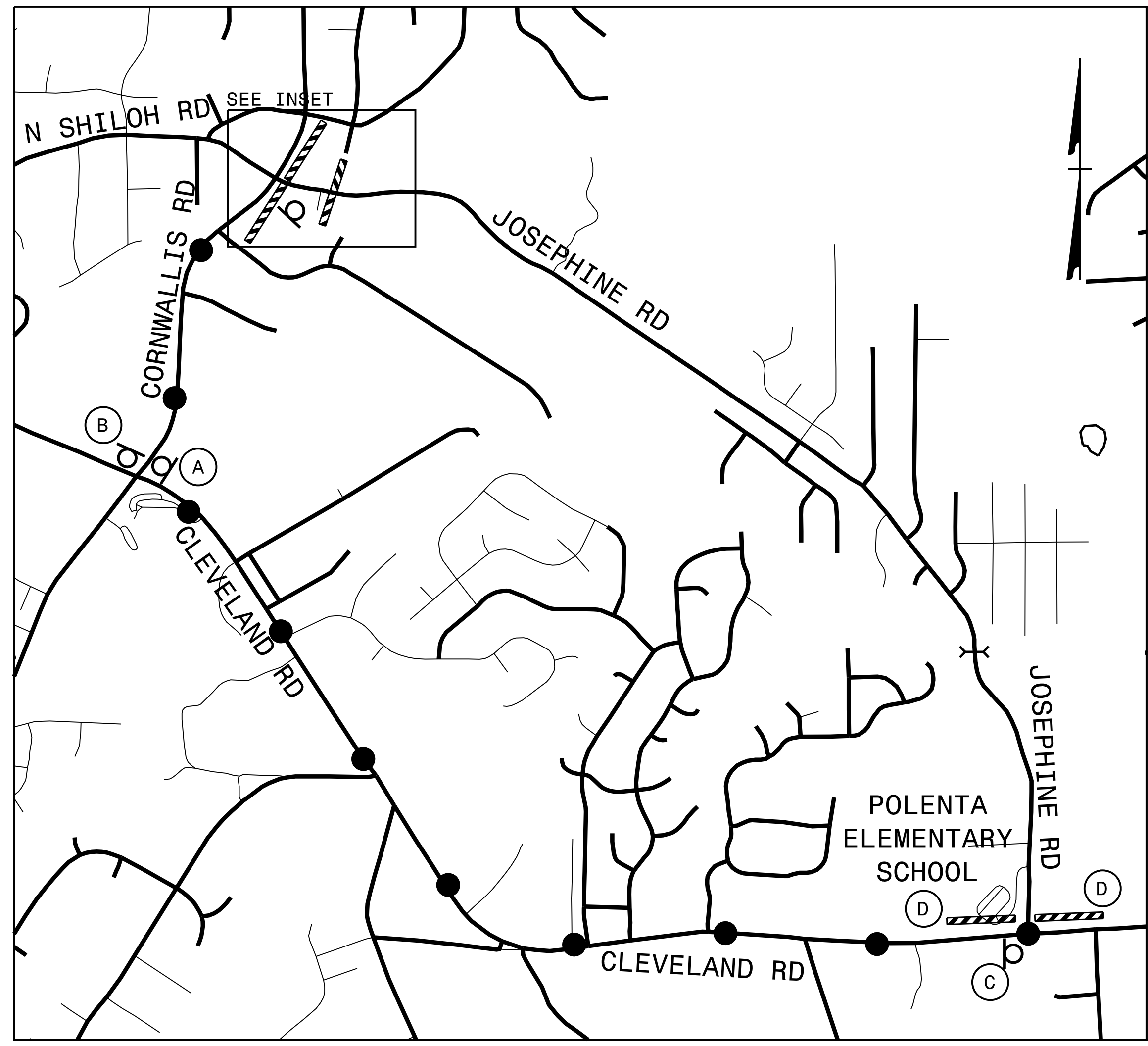
REVISIONS

APPROVED: *Ben Schoenbauer*
 DATE: 11/10/2021
 SEAL

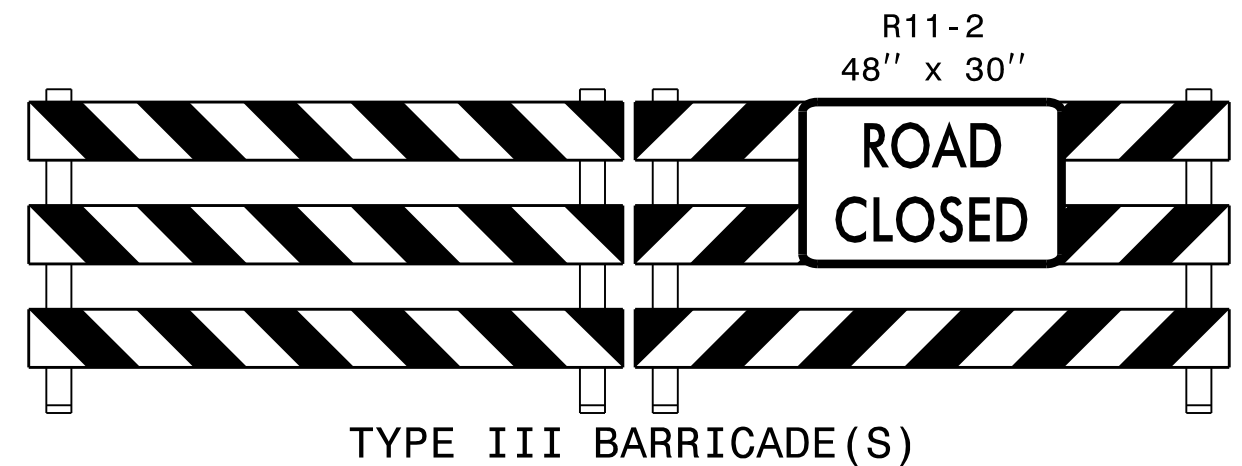



N SHILOH RD
 DETOUR ROUTE

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



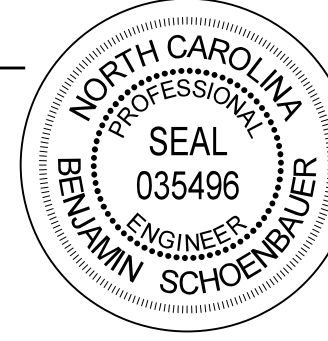
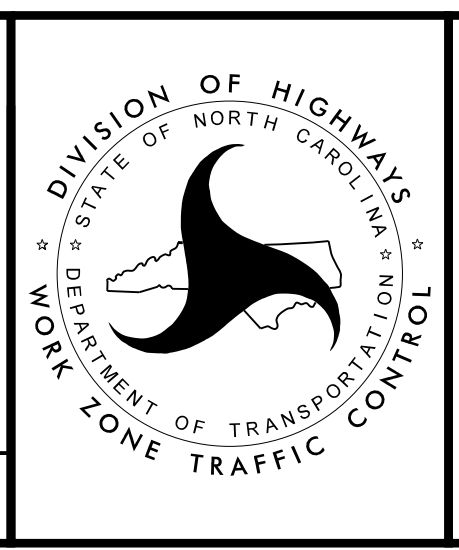
NOTE: -SEE SHEET TMP-2B FOR SIGN DESIGN
 -SEE RSD 1101.03 SHEETS 1 AND 2 OF 9 FOR ADDITIONAL SIGNS AND NOTES
 -ALL SIGNS FOR THIS DETOUR MAY BE MOUNTED ON PORTABLE SUPPORTS AND REMAIN IN PLACE FOR UP TO 3 DAYS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER



APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

SEAL

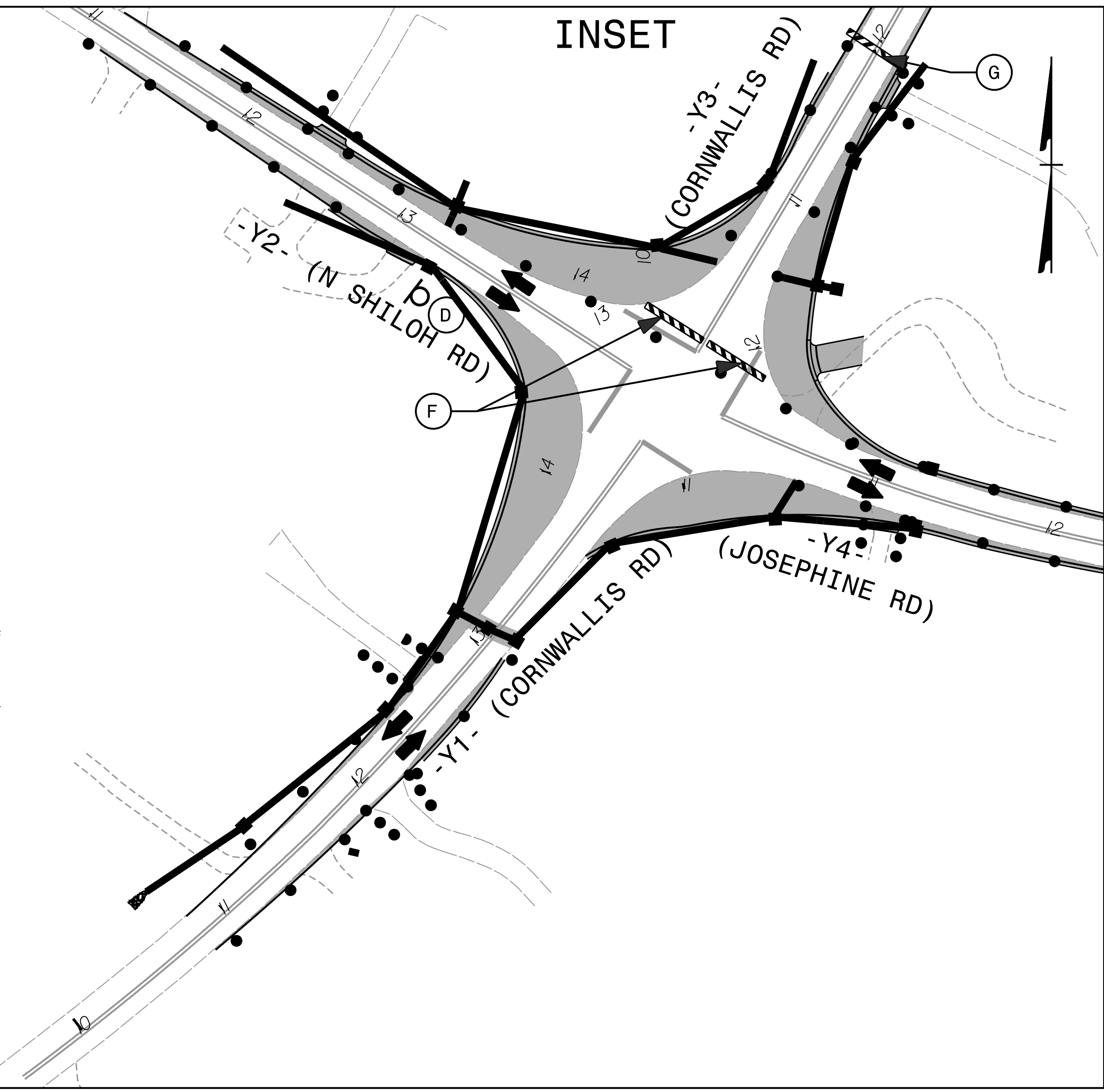



JOSEPHINE RD
 DETOUR ROUTE

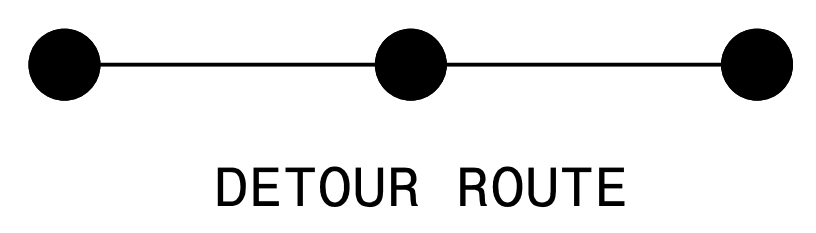
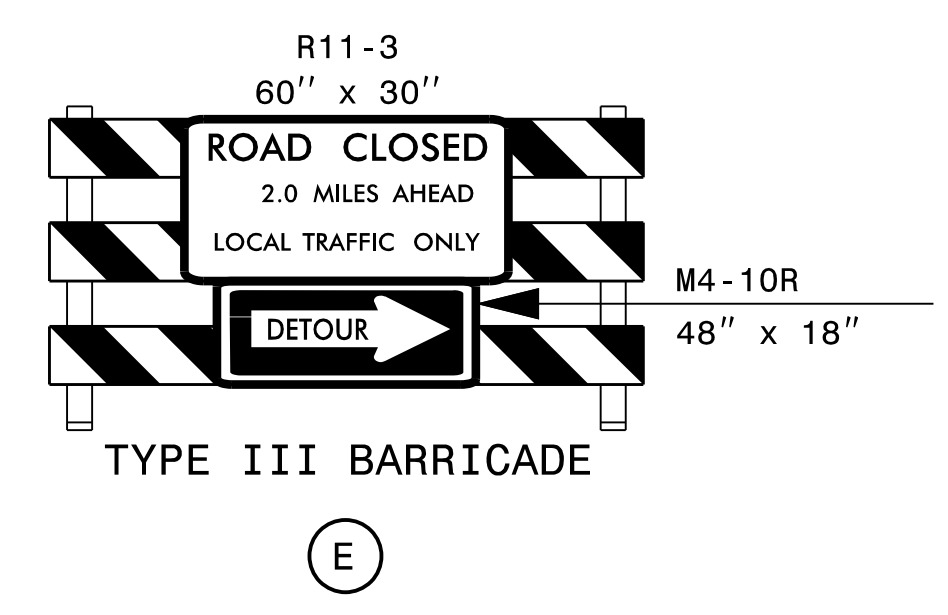
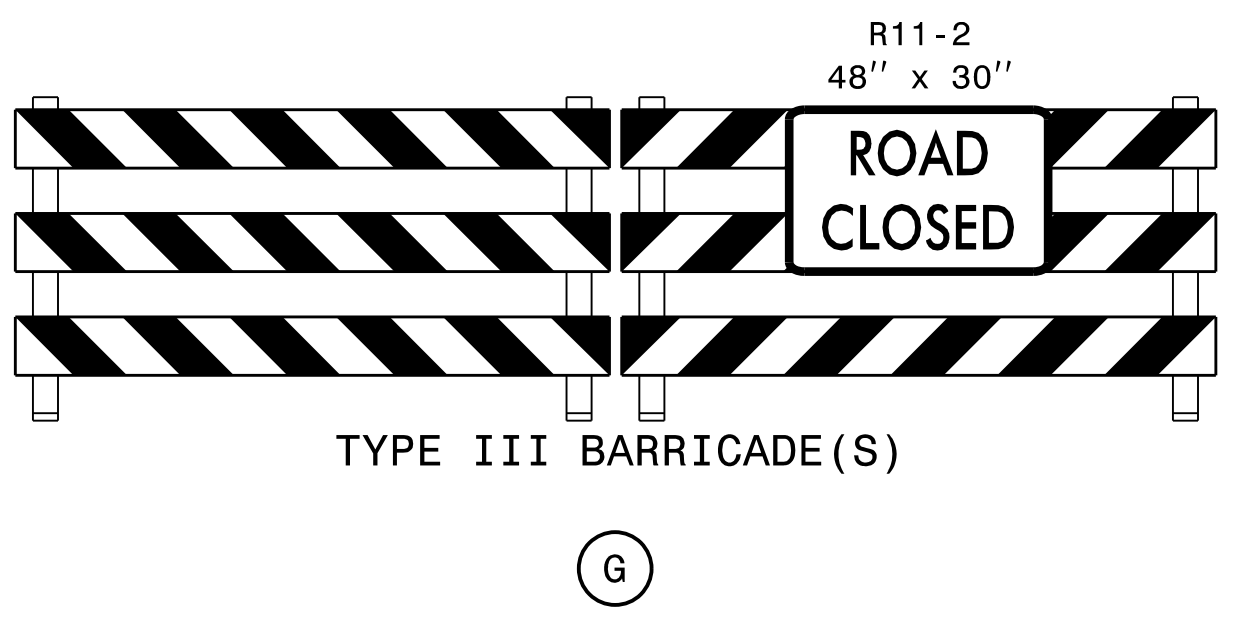
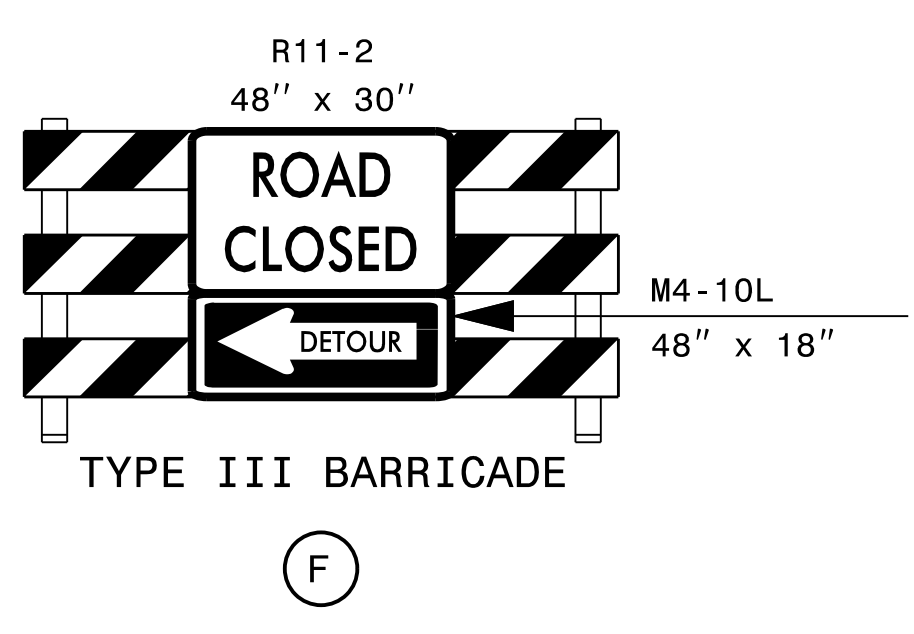
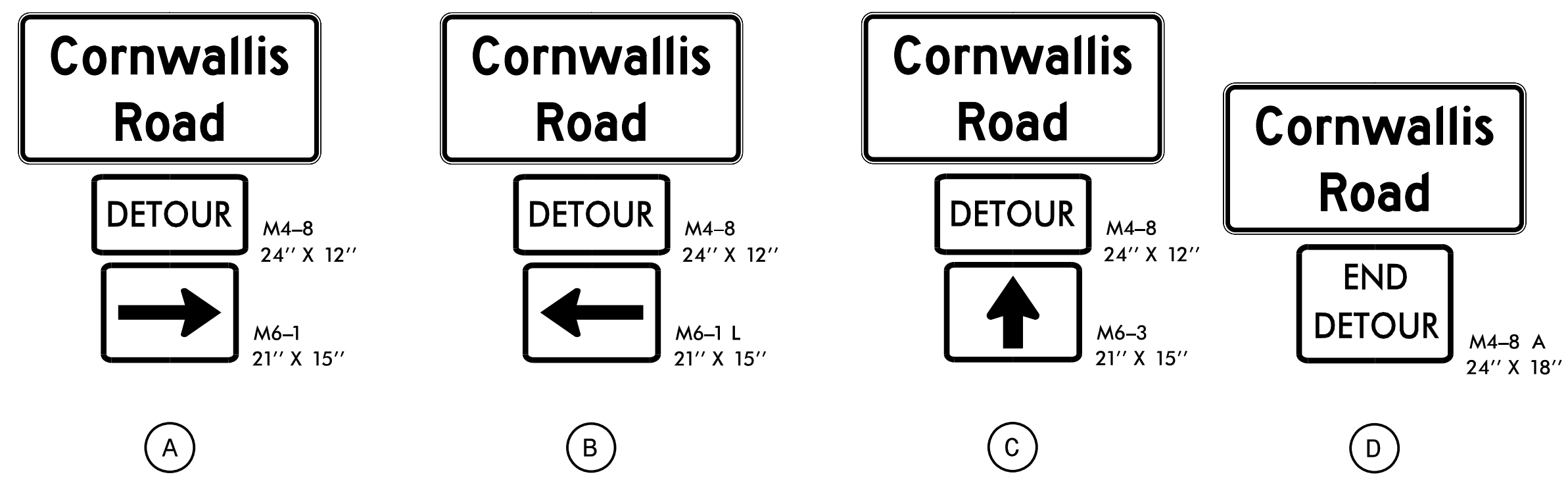
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REVISIONS

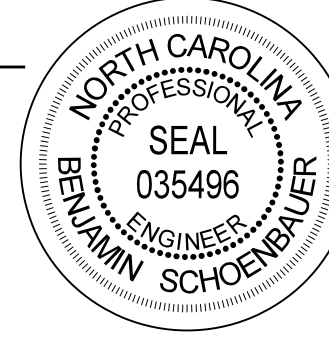


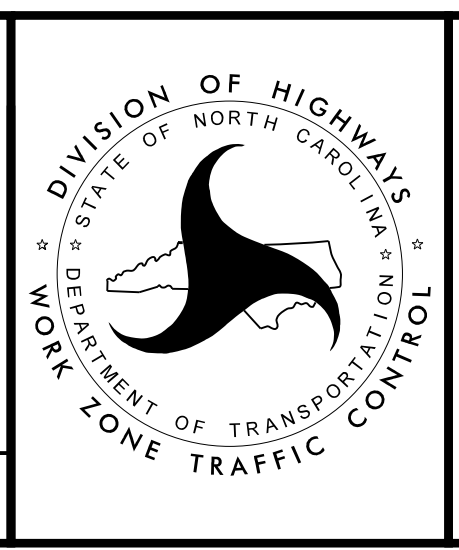
REVISIONS



NOTE: -SEE SHEET TMP-2 FOR SIGN DESIGN
 -SEE RSD 1101.03 SHEETS 1 AND 2 OF 9 FOR ADDITIONAL SIGNS AND NOTES
 -ALL SIGNS FOR THIS DETOUR MAY BE MOUNTED ON PORTABLE SUPPORTS AND REMAIN IN PLACE FOR UP TO 3 DAYS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER

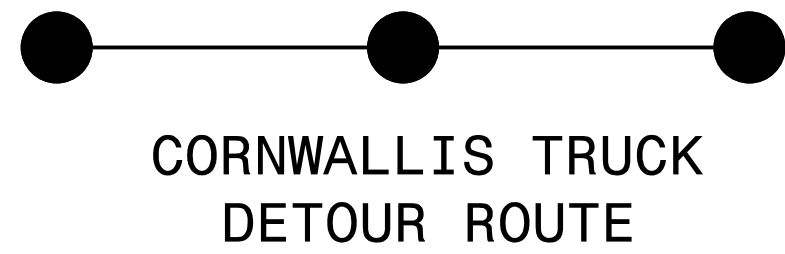
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APPROVED: *Ben Schoenbauer*
 DATE: 11/10/2021
 SEAL




CORNWALLIS RD
 DETOUR ROUTE

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



NOTE: PLACE CMS TWO WEEKS PRIOR TO USE OF TRUCK DETOUR

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS AHEAD	MM/DD/YY TO MM/DD/YY

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS NEXT LT	MM/DD/YY TO MM/DD/YY

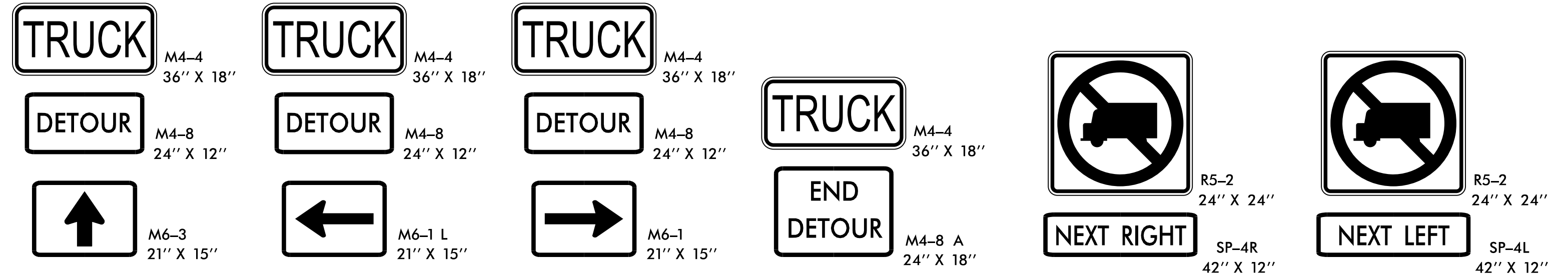
CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS NEXT RT	MM/DD/YY TO MM/DD/YY

CHANGEABLE MESSAGE SIGN

(C)



(D)

(E)

(F)

(G)

(H)

(I)

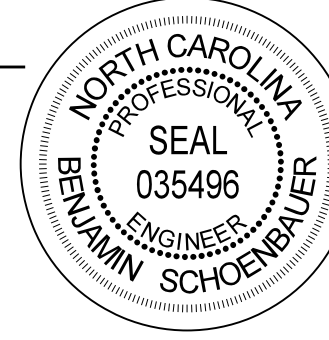
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REVISIONS

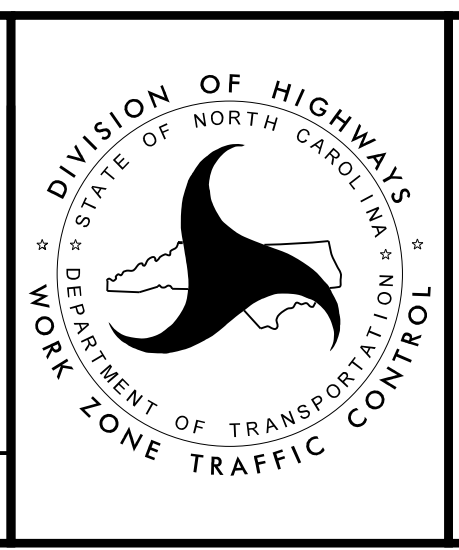
APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

SEAL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRUCK DETOUR ROUTE
CORNWALLIS RD



● ——— ● ——— ●
 JOSEPHINE/N SHILOH RD TRUCK
 DETOUR ROUTE

NOTE: PLACE CMS TWO WEEKS PRIOR TO USE
 OF TRUCK DETOUR

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS AHEAD	MM/DD/YY TO MM/DD/YY

CHANGEABLE MESSAGE SIGN

(A)

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS NEXT LT	MM/DD/YY TO MM/DD/YY













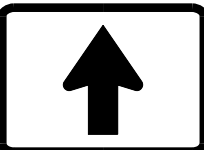
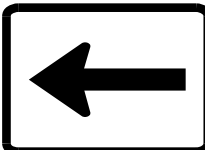
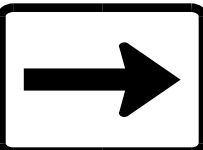
CHANGEABLE MESSAGE SIGN

(B)

MESSAGE NO. 1	MESSAGE NO. 2
NO TRUCKS NEXT RT	MM/DD/YY TO MM/DD/YY

CHANGEABLE MESSAGE SIGN

(C)

 M4-4 36" X 18"	 M4-4 36" X 18"	 M4-4 36" X 18"	 M4-4 36" X 18"	 R5-2 24" X 24"	 R5-2 24" X 24"
 M4-8 24" X 12"	 M4-8 24" X 12"	 M4-8 24" X 12"	 M4-8 A 24" X 18"	 SP-4R 42" X 12"	 SP-4L 42" X 12"
 M6-3 21" X 15"	 M6-1 L 21" X 15"	 M6-1 21" X 15"			

(D)

(E)
(NOT USED)

(F)
(NOT USED)

(G)

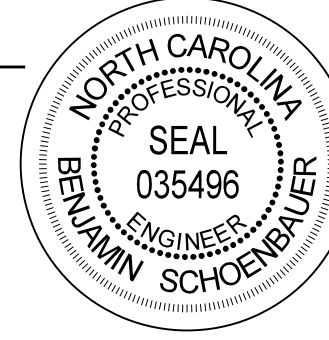
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(I)

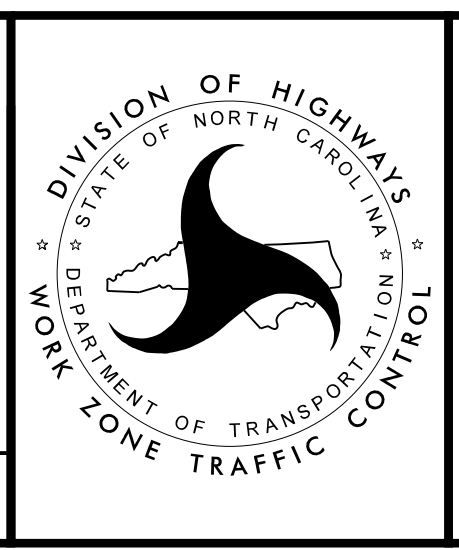
APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

SEAL



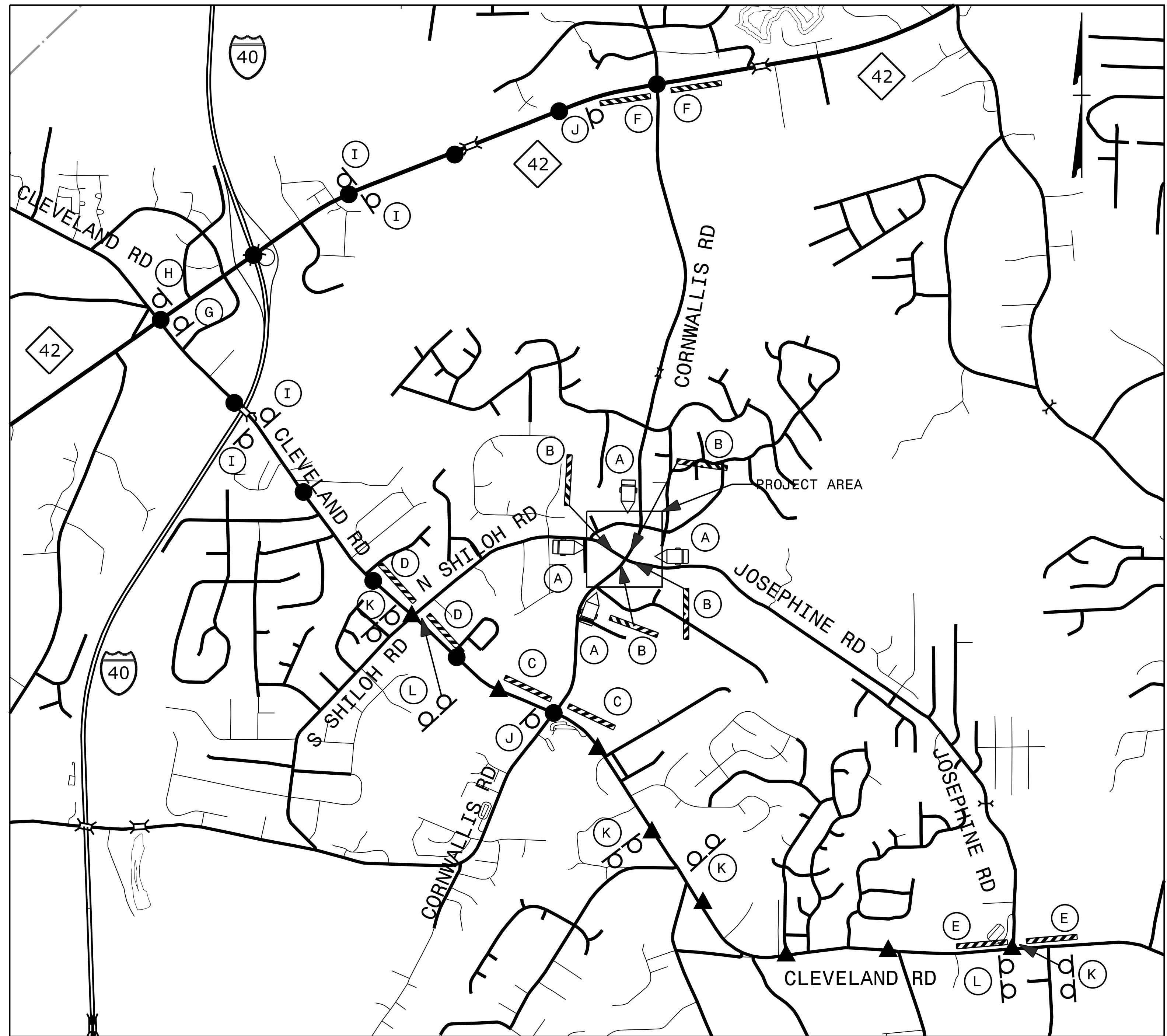
DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



TRUCK DETOUR ROUTE
 JOSEPHINE/N SHILOH RD

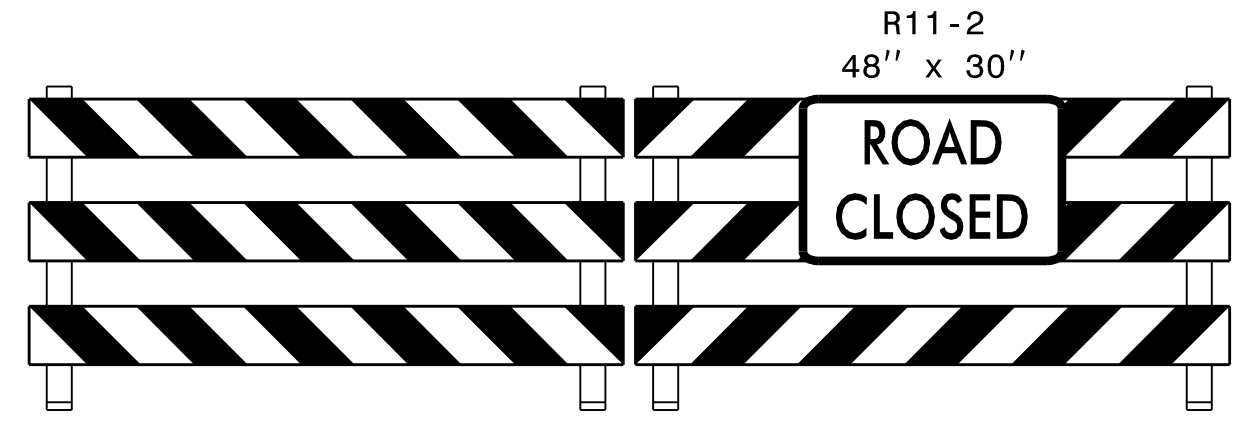
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 REVISIONS

NOTE: -PLACE CMS TWO WEEKS PRIOR TO CLOSURE
 -SEE SHEET TMP-2 THRU TMP-2B FOR SIGN DESIGNS
 -SEE RSD 1101.03 SHEETS 1 AND 2 OF 9 FOR ADDITIONAL SIGNS AND NOTES
 -ALL SIGNS FOR THIS DETOUR MAY BE MOUNTED ON PORTABLE SUPPORTS AND REMAIN IN PLACE FOR UP TO 7 DAYS FOR THIS PATTERN ONLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER

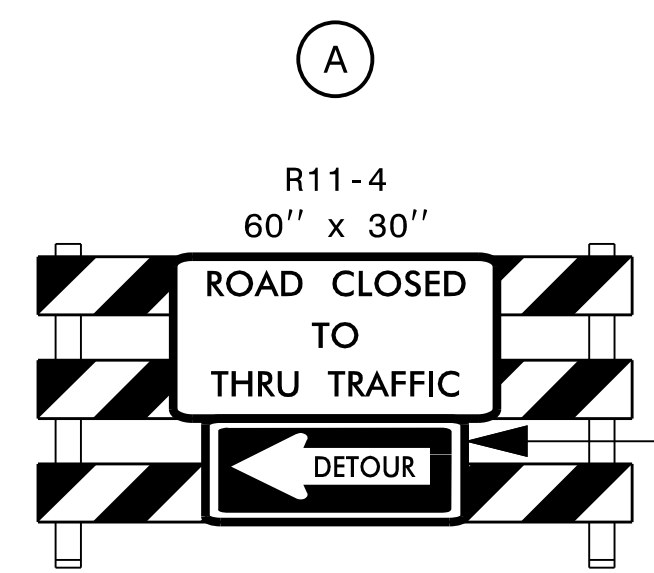


MESSAGE NO. 1	MESSAGE NO. 2
ROAD CLOSED	MM/DD/YY TO MM/DD/YY

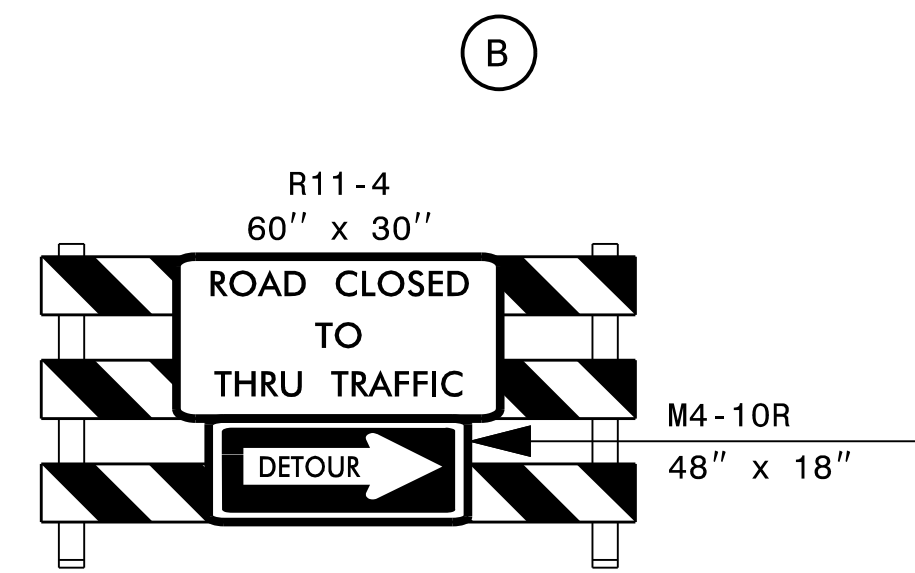
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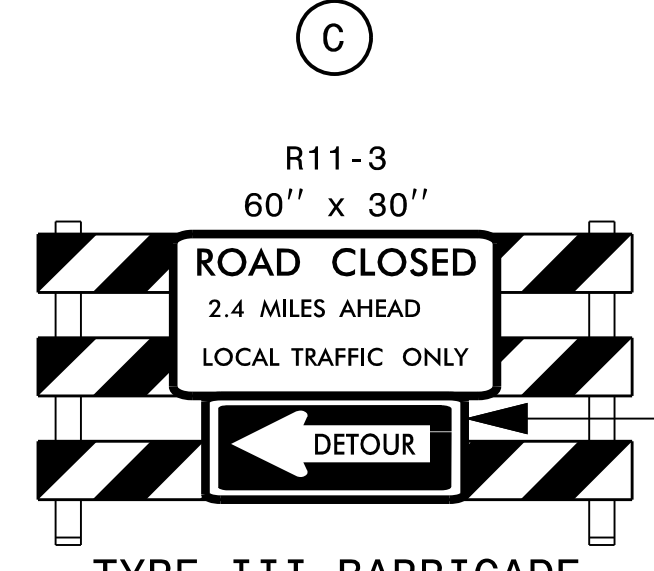
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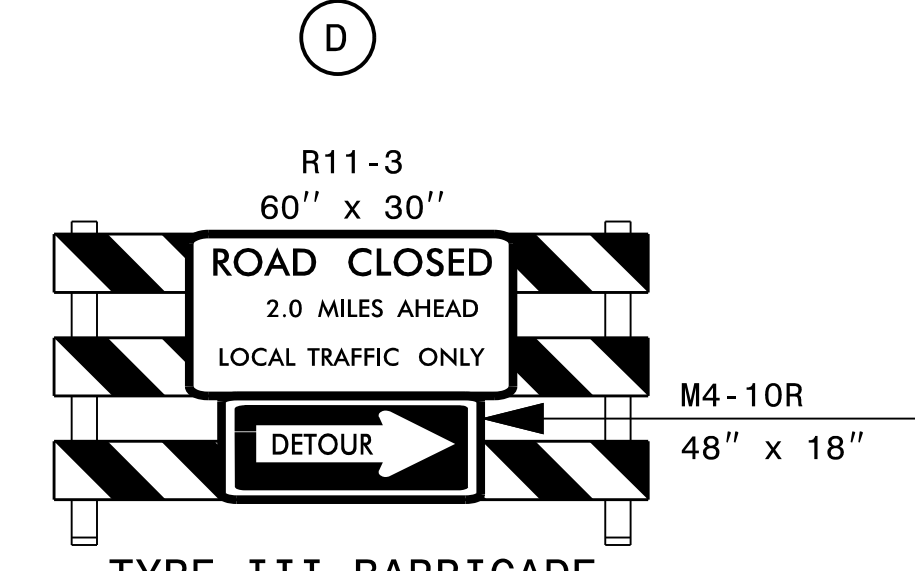
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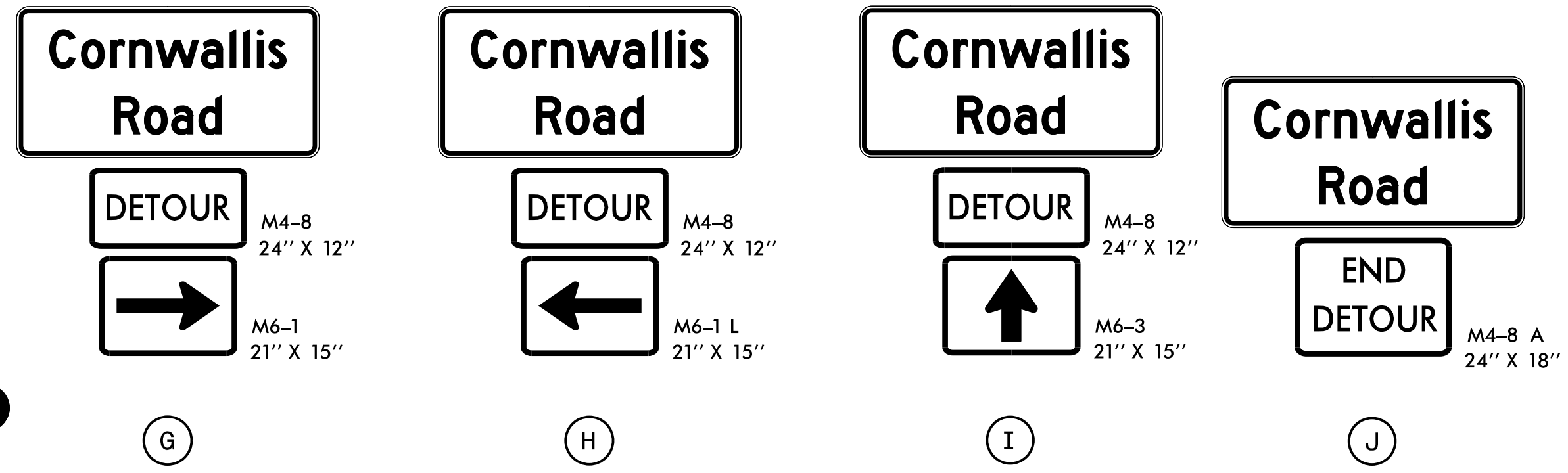
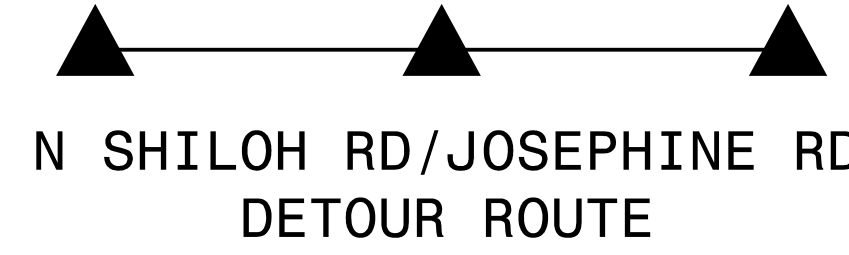
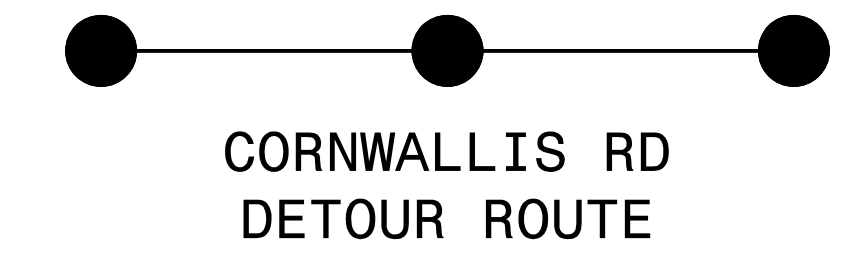
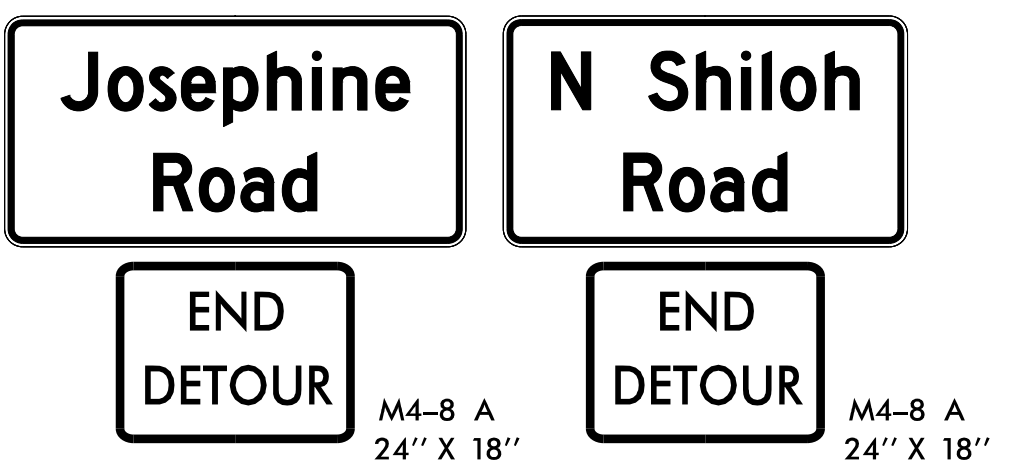
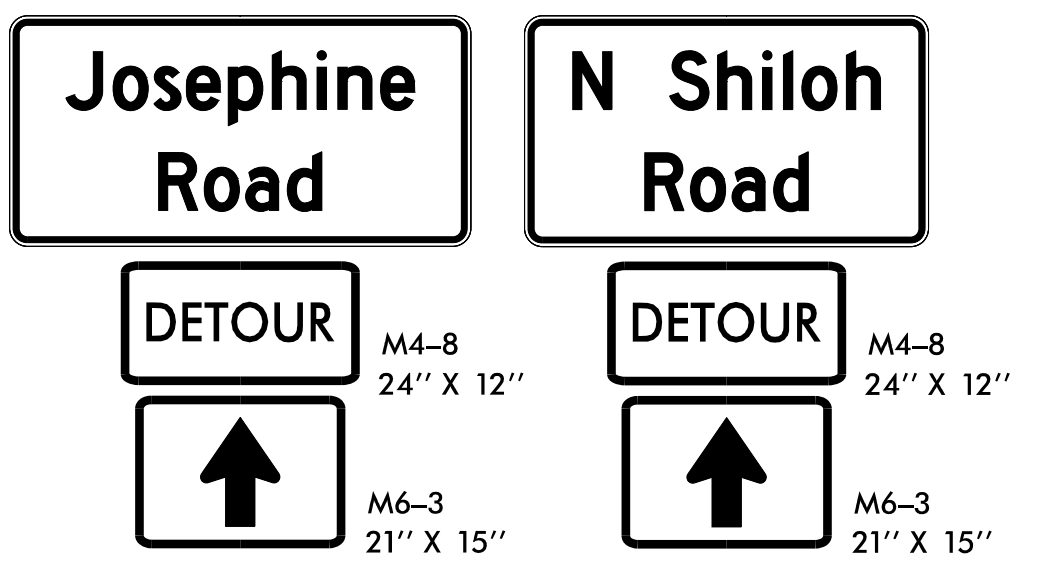
TYPE III BARRICADE



TYPE III BARRICADE



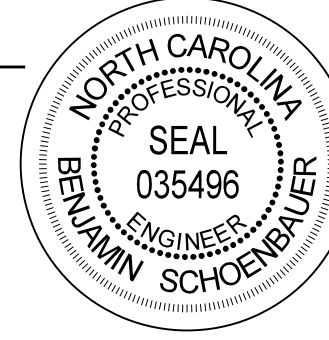
TYPE III BARRICADE




APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

SEAL




DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DIVISION OF HIGHWAYS
 NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 WORK ZONE TRAFFIC CONTROL

INTERSECTION
 FULL CLOSURE
 DETOUR ROUTE

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 REVISIONS

PROJ. REFERENCE NO.	SHEET NO.
W-5704G	TMP-3
 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	

PHASING

PHASE 1

STEP 1:
 USING ROADWAY STANDARD DRAWING (RSD) 1101.01 SHEET 3 OF 3 INSTALL ADVANCE WORK ZONE WARNING SIGNS. INSTALL AND COVER TRUCK DETOUR SIGNS (SEE SHEETS TMP-2G-2H).

STEP 2:
 USING RSD 1101.02 SHEET 1 OF 14, 1101.04 SHEET 1 OF 1, AND TRUCK DETOURS (SEE SHEETS TMP-2G-2H), AS NECESSARY, BEGIN CONSTRUCTION OF THE PROPOSED ROADWAY AND DRAINAGE, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE (SEE SHEET TMP-4). AS NECESSARY, COVER TRUCK DETOUR SIGNS WHEN NOT IN USE. USE TRUCK DETOURS DURING ALL LANE CLOSURES AND ALL OTHER OPERATIONS THAT ENCROACH UPON TRAFFIC, OR AS DIRECTED BY THE ENGINEER. COMPLETE ALL PROPOSED WIDENING AND WEDGING IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE.

CLOSE AND DETOUR -Y1- (CORNWALLIS RD), -Y2- (N SHILOH RD), -Y3- (CORNWALLIS RD), OR -Y4- (JOSEPHINE RD) FOR THE PRIMARY PURPOSE OF INSTALLING CROSSLINE DRAINAGE. THE CONTRACTOR WILL BE ALLOWED ONE WEEKEND CLOSURE ON EACH -Y- LINE FOR THE PRIMARY PURPOSE OF INSTALLING CROSSLINE DRAINAGE. SEE GENERAL NOTE C (SHEET TMP-1B) FOR ROAD CLOSURE RESTRICTIONS.

PHASE 2

STEP 1:
 USING RSD 1101.02 SHEET 1 OF 14 AND TRUCK DETOURS (SEE SHEETS TMP-2G-2H), AS NECESSARY, PLACE TEMPORARY PAVEMENT MARKINGS IN THE LOCATION OF THE FINAL AND SHIFT TRAFFIC TO THE PATTERN SHOWN ON SHEET TMP-5. THEN BEGIN CONSTRUCTION OF PROPOSED MONOLITHIC ISLANDS AND REMAINING CURB AND GUTTER. AS NECESSARY COVER TRUCK DETOUR SIGNS WHEN NOT IN USE. USE TRUCK DETOURS DURING ALL LANE CLOSURES AND ALL OTHER OPERATIONS THAT ENCROACH UPON TRAFFIC, OR AS DIRECTED BY THE ENGINEER.

AS DIRECTED BY THE ENGINEER, CLOSE AND DETOUR -Y1- (CORNWALLIS RD), -Y2- (N SHILOH RD), -Y3- (CORNWALLIS RD), OR -Y4- (JOSEPHINE RD). SEE GENERAL NOTE C (SHEET TMP-1B) FOR ROAD CLOSURE RESTRICTIONS.

INTERMEDIATE CONTRACT TIME (WEEKLONG)

THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION REQUIRED OF PHASE 2, STEP 2 AS STATED BELOW WITHIN 7 CONSECUTIVE DAYS AND SEE GENERAL NOTE K FOR NOTIFICATION REQUIREMENTS

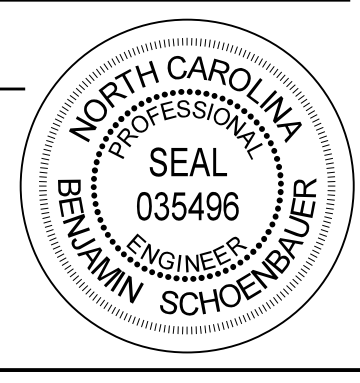
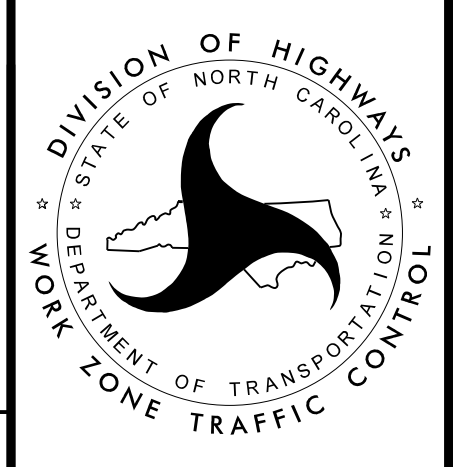
STEP 2:
 DETOUR TRAFFIC ON CORNWALLIS RD, N SHILOH RD, AND JOSEPHINE RD, AS SHOWN ON SHEET TMP-2I THEN CONSTRUCT PROPOSED ROUNDABOUT CENTER ISLAND. UPON COMPLETION OF CENTER ISLAND, REMOVE DETOUR SIGNS AND OPEN ROADS TO TRAFFIC.

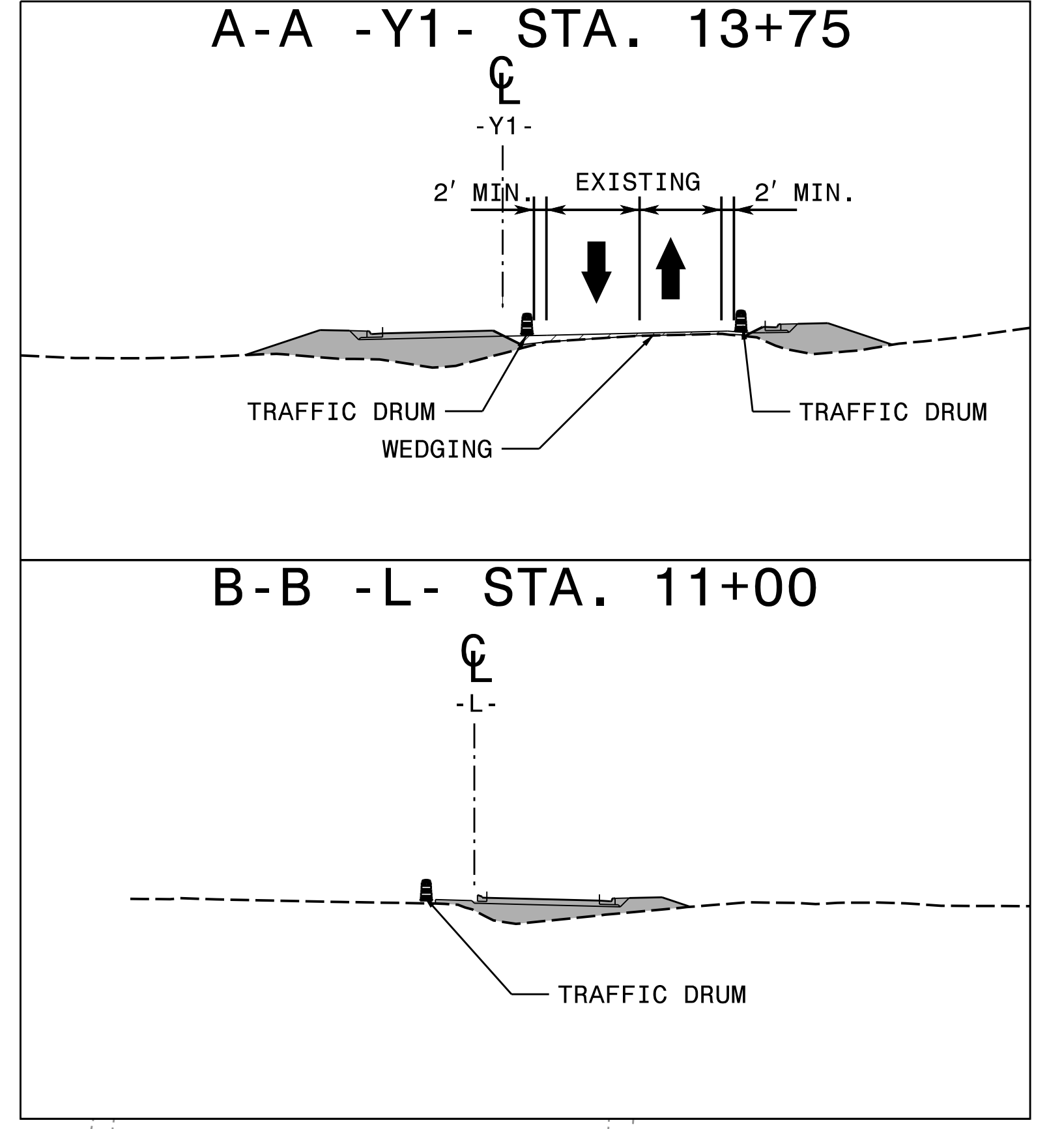
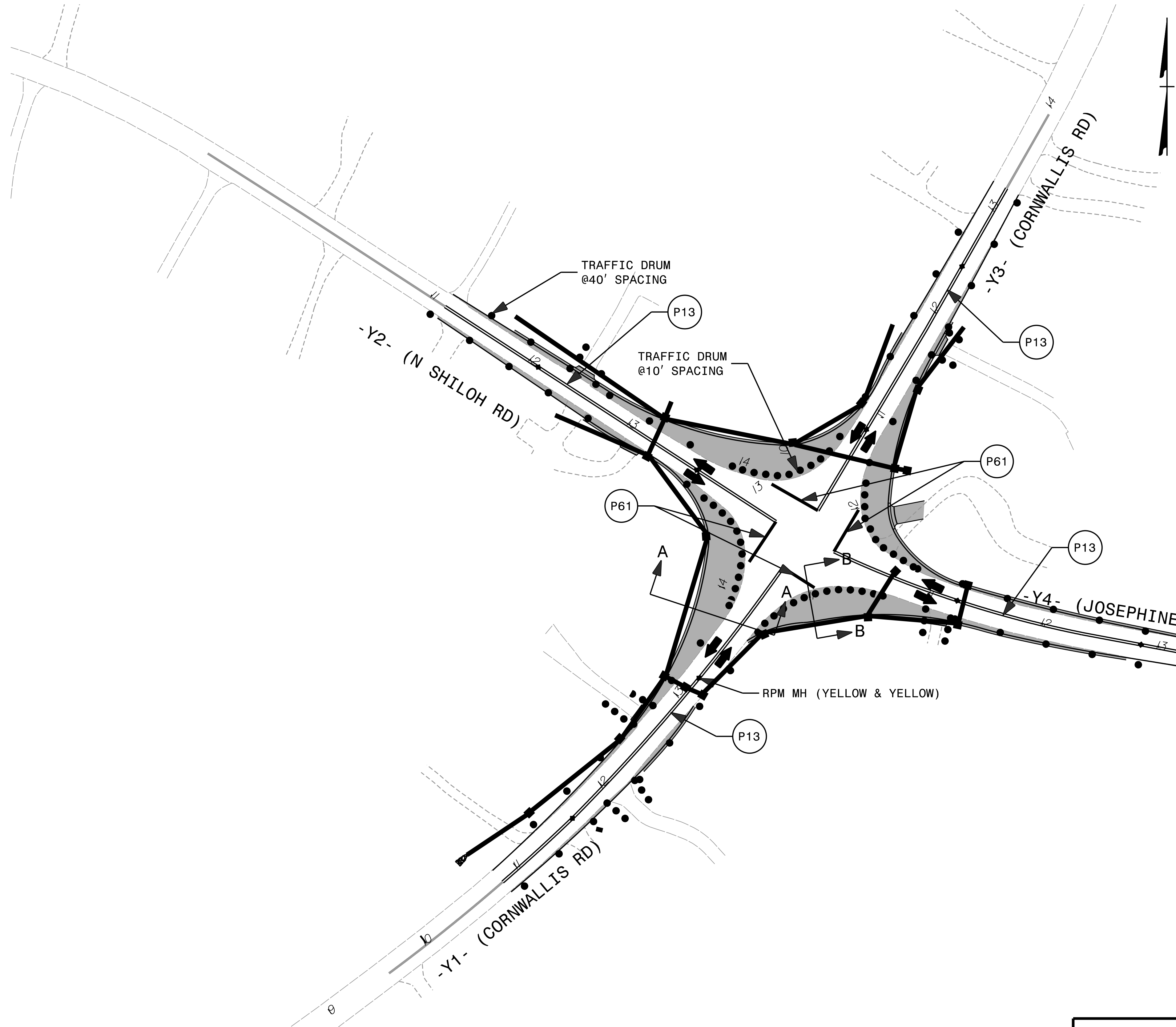
STEP 3:
 USING RSD 1101.02 SHEET 1 OF 14 COMPLETE REMAINING CONSTRUCTION, INSTALL THE FINAL LAYER OF SURFACE COURSE, AND PLACE THE FINAL PAVEMENT MARKINGS ACCORDING TO THE PAVEMENT MARKING PLAN.

STEP 4:
 REMOVE ALL TEMPORARY WORK ZONE TRAFFIC CONTROL DEVICES.

REVISIONS

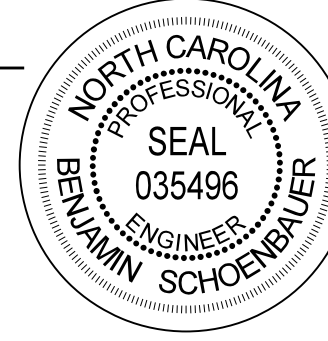
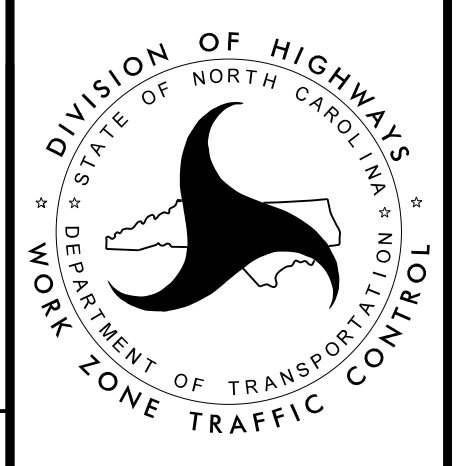
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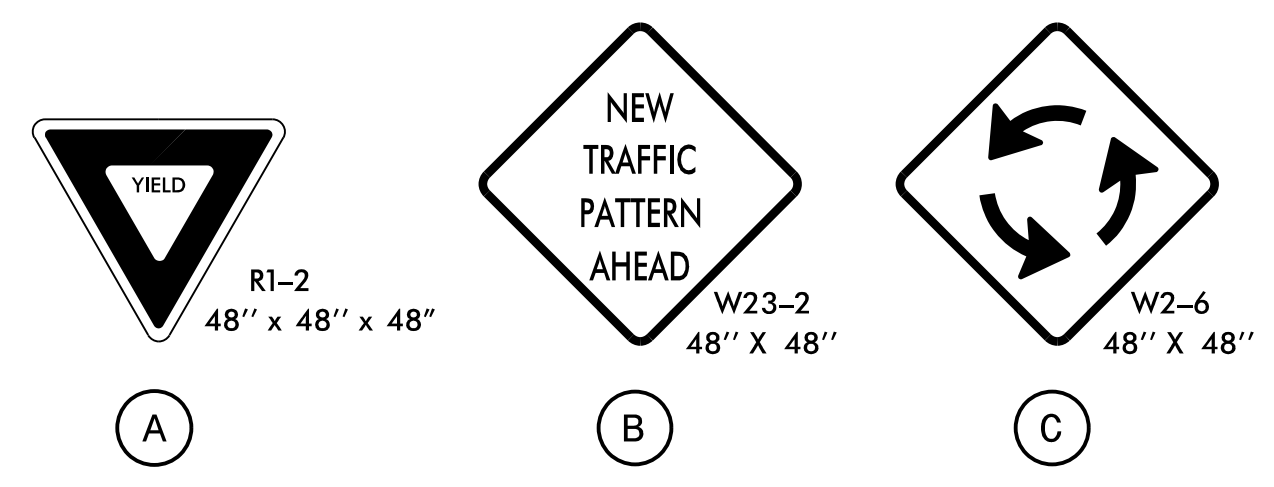
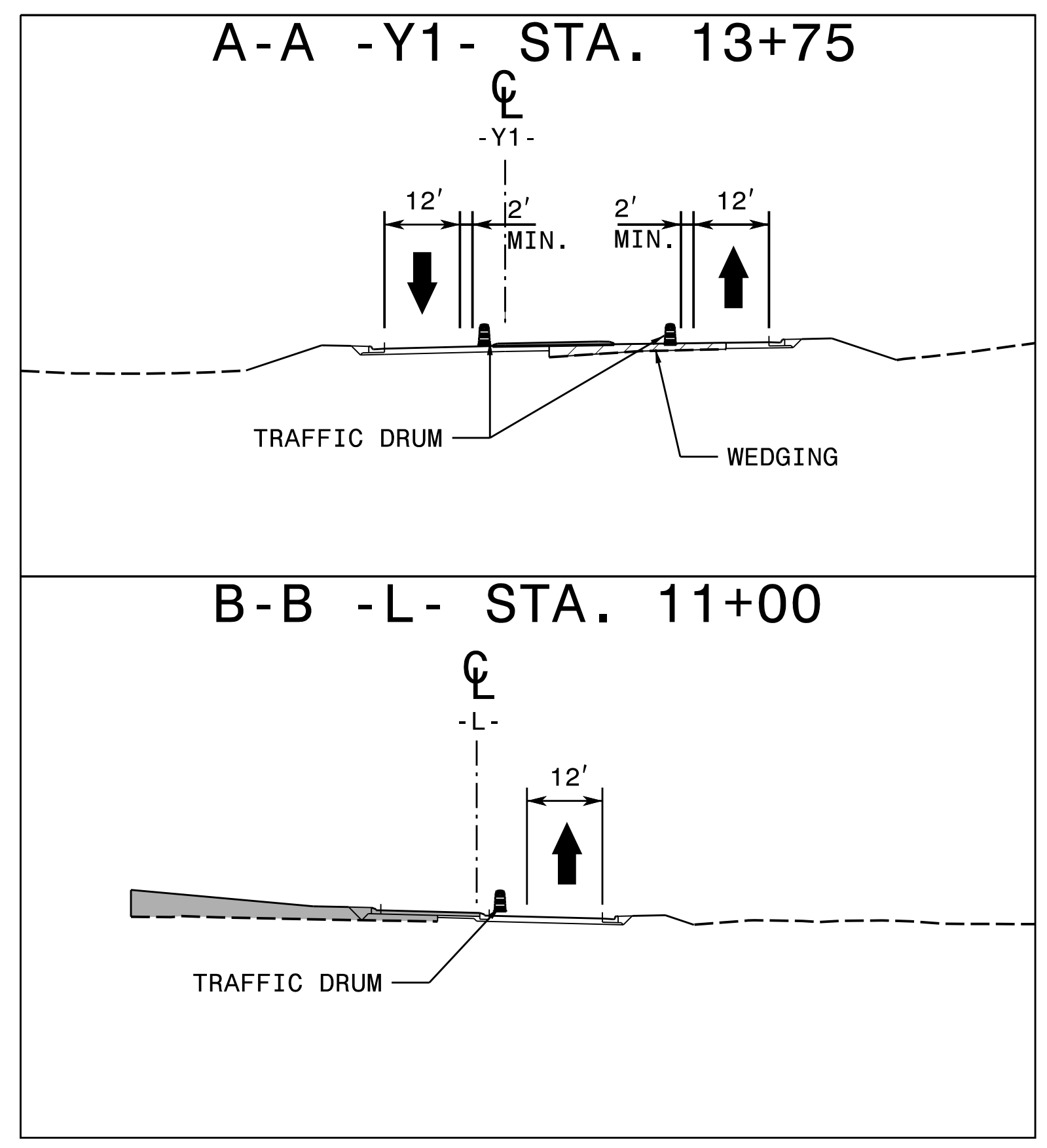
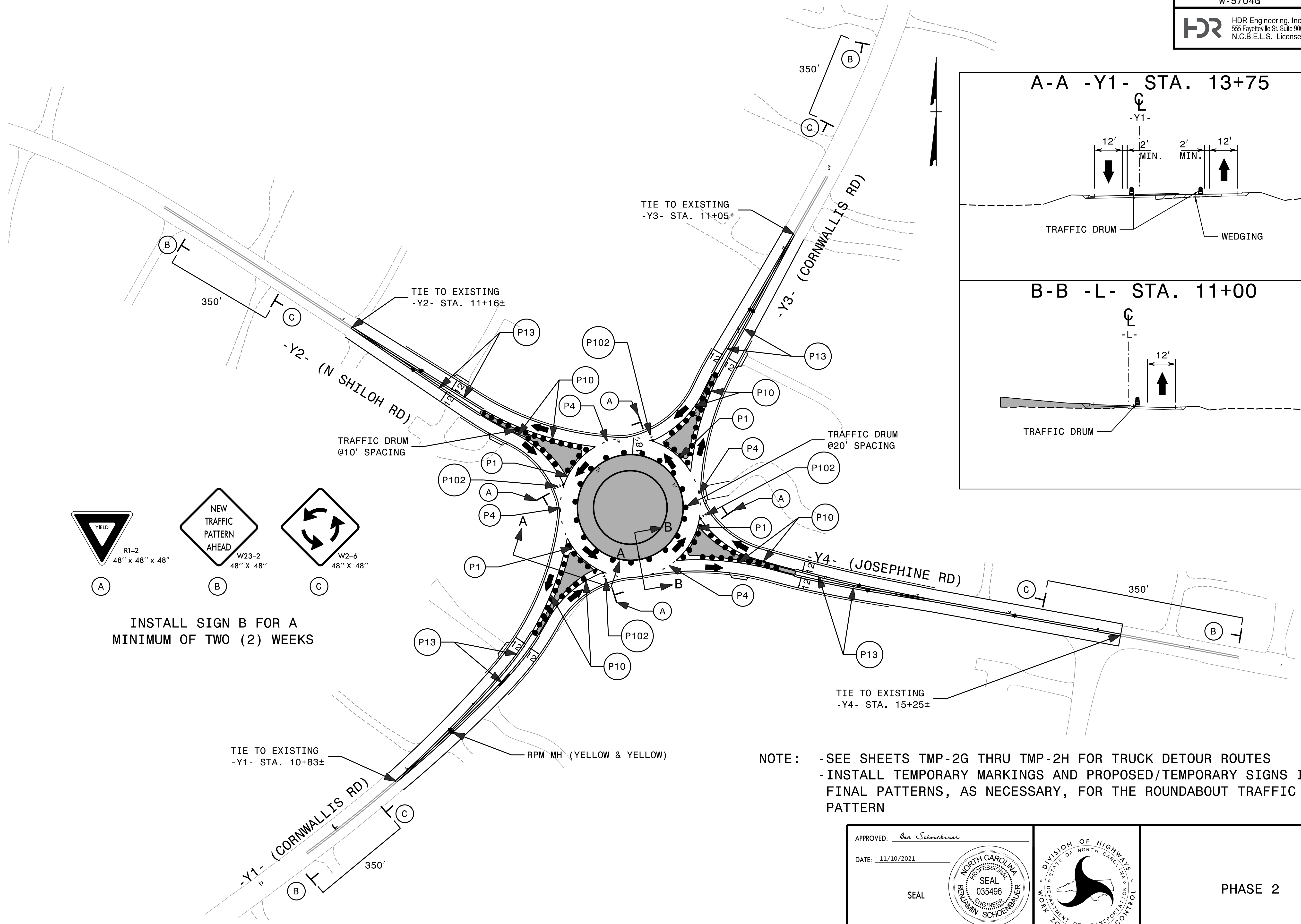
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REVISIONS

APPROVED: <i>Ben Schoenbauer</i> DATE: 11/10/2021 SEAL			PHASE 1
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



INSTALL SIGN B FOR A
MINIMUM OF TWO (2) WEEKS

NOTE: -SEE SHEETS TMP-2G THRU TMP-2H FOR TRUCK DETOUR ROUTES
-INSTALL TEMPORARY MARKINGS AND PROPOSED/TEMPORARY SIGNS IN FINAL PATTERNS, AS NECESSARY, FOR THE ROUNDABOUT TRAFFIC PATTERN

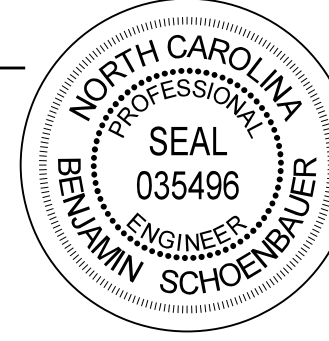
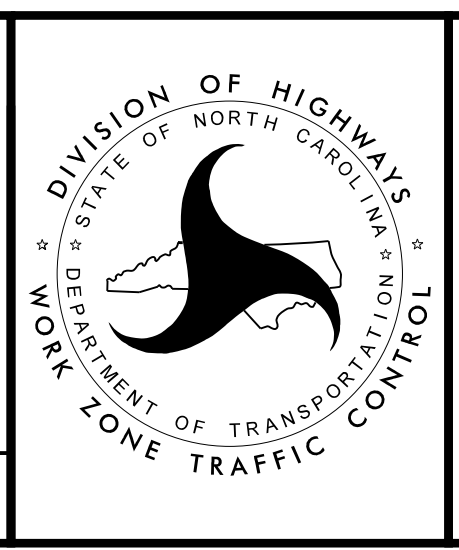
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REVISIONS

APPROVED: *Ben Schoenbauer*

DATE: 11/10/2021

SEAL

PHASE 2


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

T.I.P.: W-5704G

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
JOHNSTON COUNTY**

**LOCATION: ROUNDABOUT AT INTERSECTION OF
SR 1525 (CORNWALLIS ROAD) AND SR 1526
(SHILOH ROAD & JOSEPHINE ROAD).**

TIP NO. W-5704G	SHEET NO. PMP-1
APPROVED: <i>Ron King</i>	
DATE: 1/6/2022	
	
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INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
PMP-1	PAVEMENT MARKING PLAN TITLE, GENERAL NOTES, ROADWAY STANDARD DRAWINGS, AND INDEX
PMP-1A	PAVEMENT MARKING DETAIL
PMP-2	PAVEMENT MARKING PLAN

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

<u>ROAD NAME</u>	<u>MARKING</u>	<u>MARKER</u>
ALL ROADS	THERMOPLASTIC	NONE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

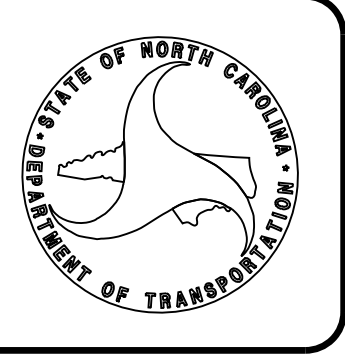
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1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS (SHEET 1 OF 2 ONLY. SEE PMP-1A FOR REVISED SHEET 2 OF 2)
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

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PLAN SUBMITTED TO: N.C.D.O.T. SIGNING AND DELINEATION UNIT

SIGNING & DELINEATION STANDARDS ENGINEER


SIGNING & DELINEATION PROJECT DESIGN ENGINEER




PLAN PREPARED BY: HDR ENGINEERING, INC. OF THE CAROLINAS

RON KING, P.E. _____ SIGNING & DELINEATION PROJECT DESIGN ENGINEER

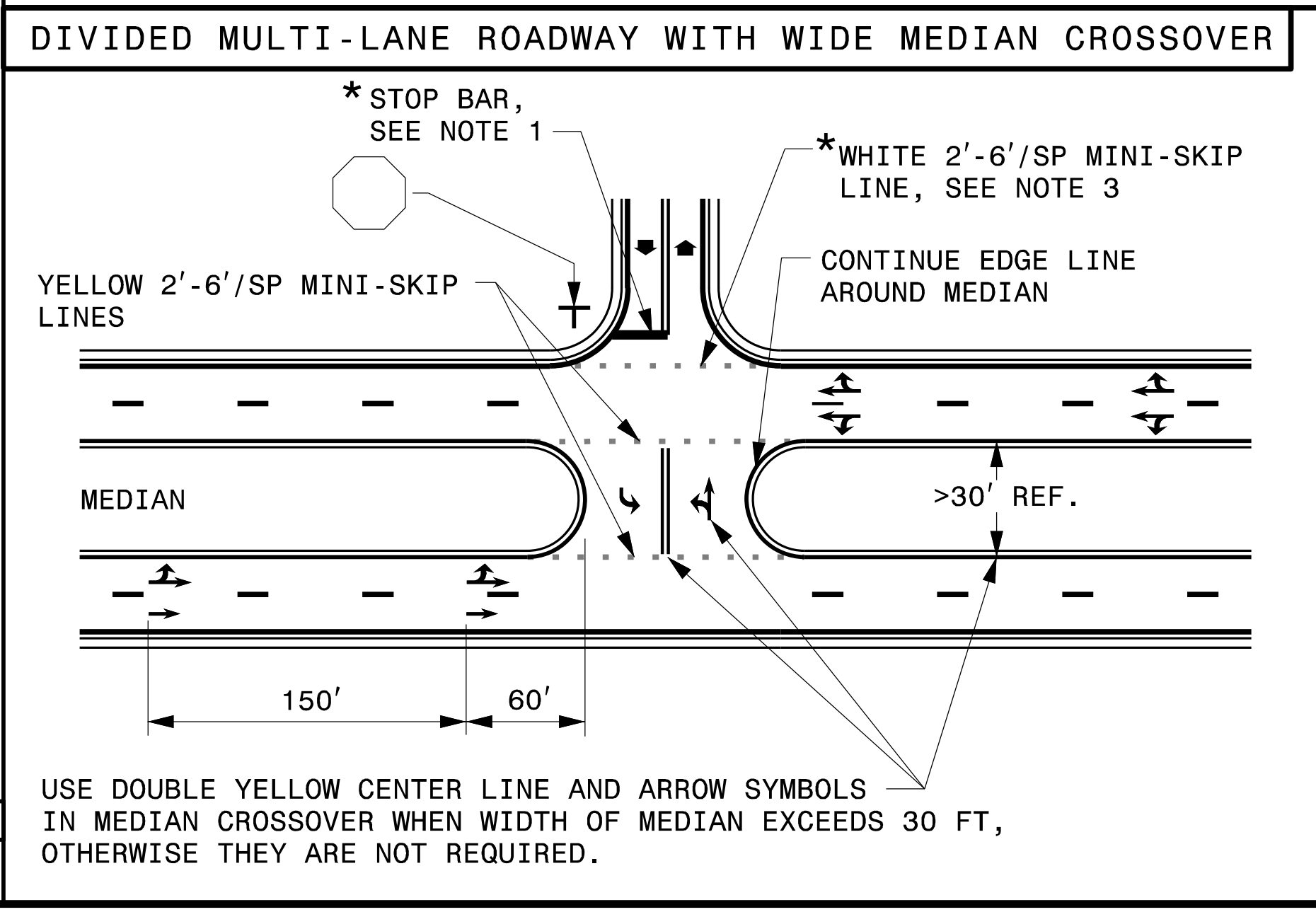
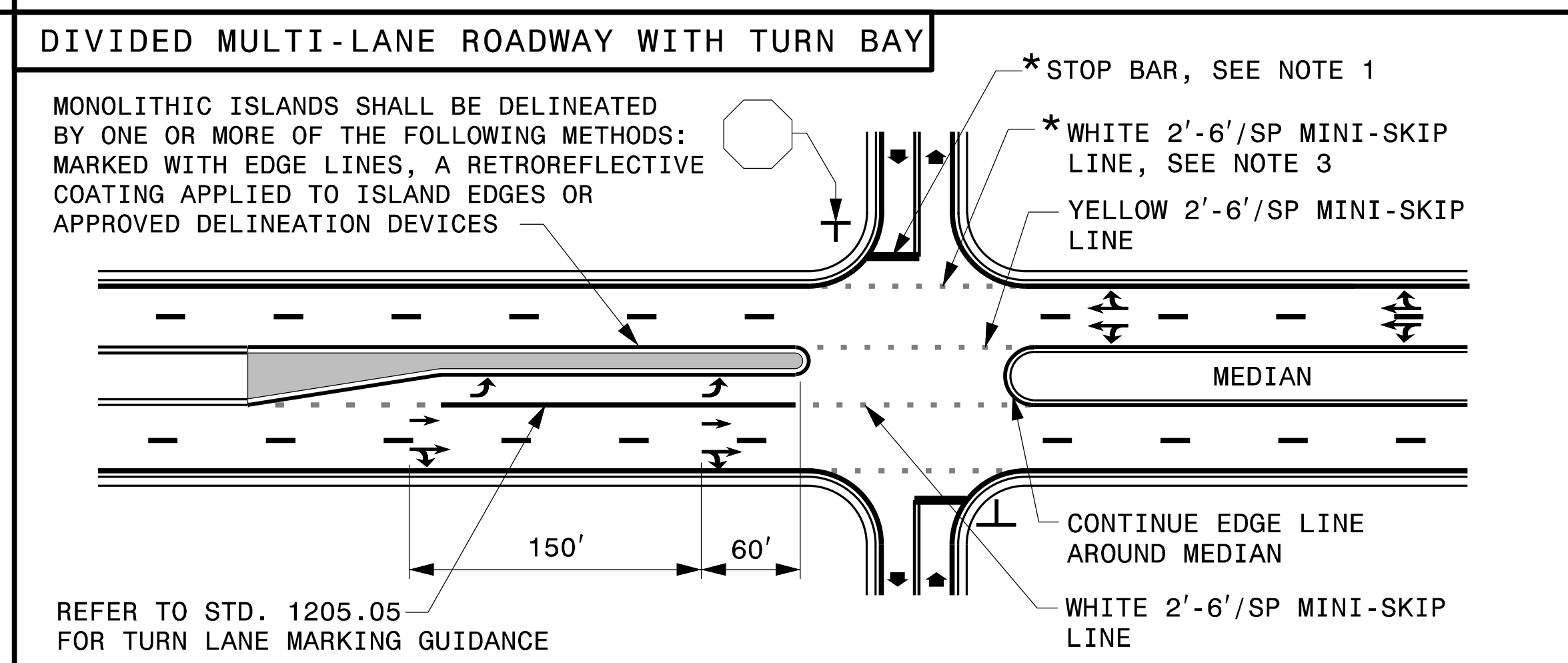
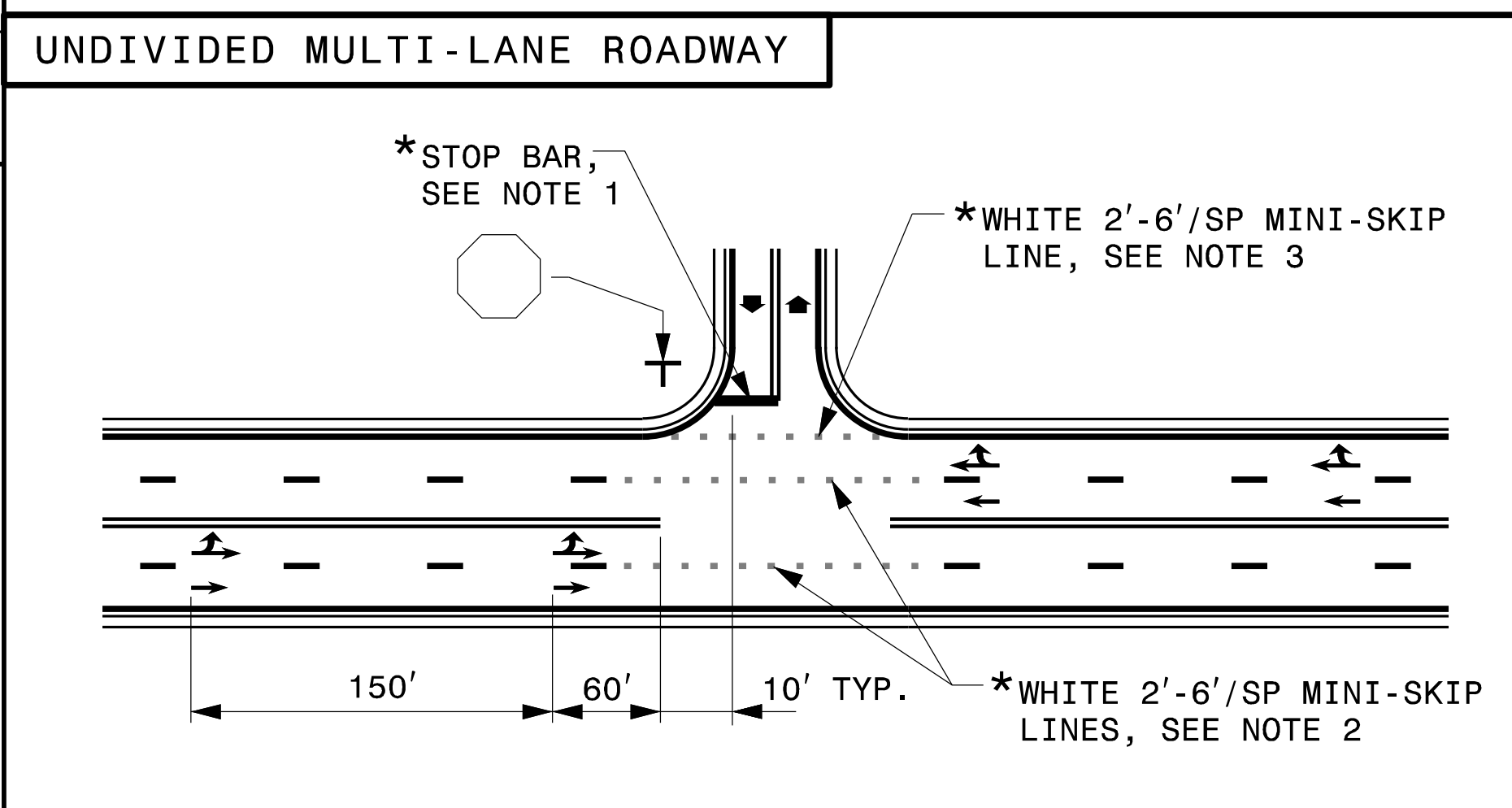
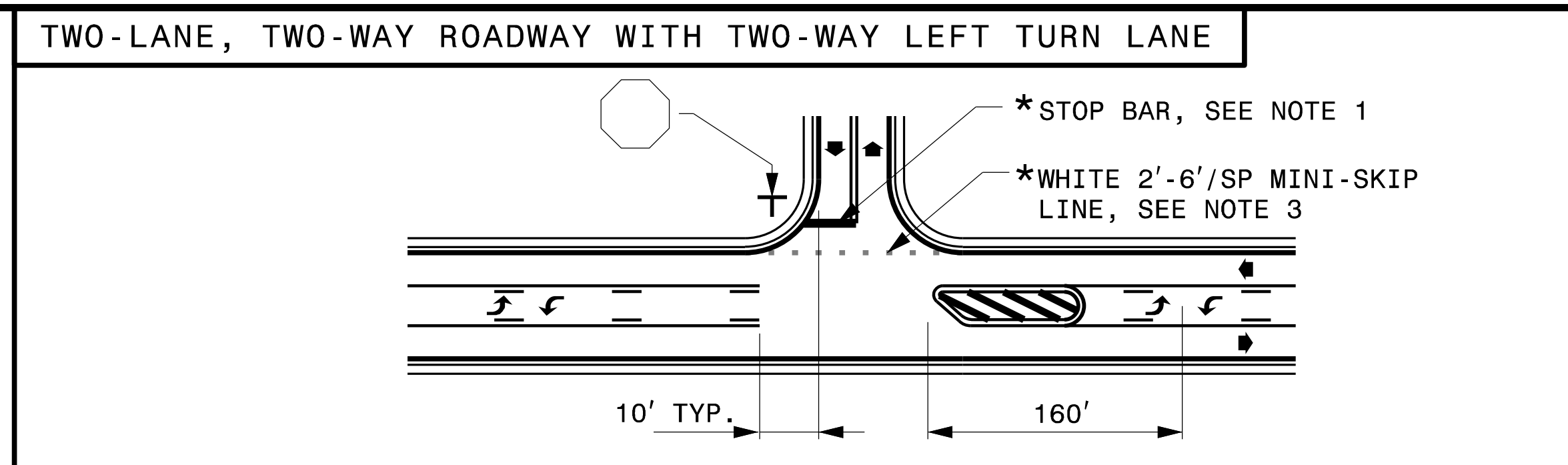
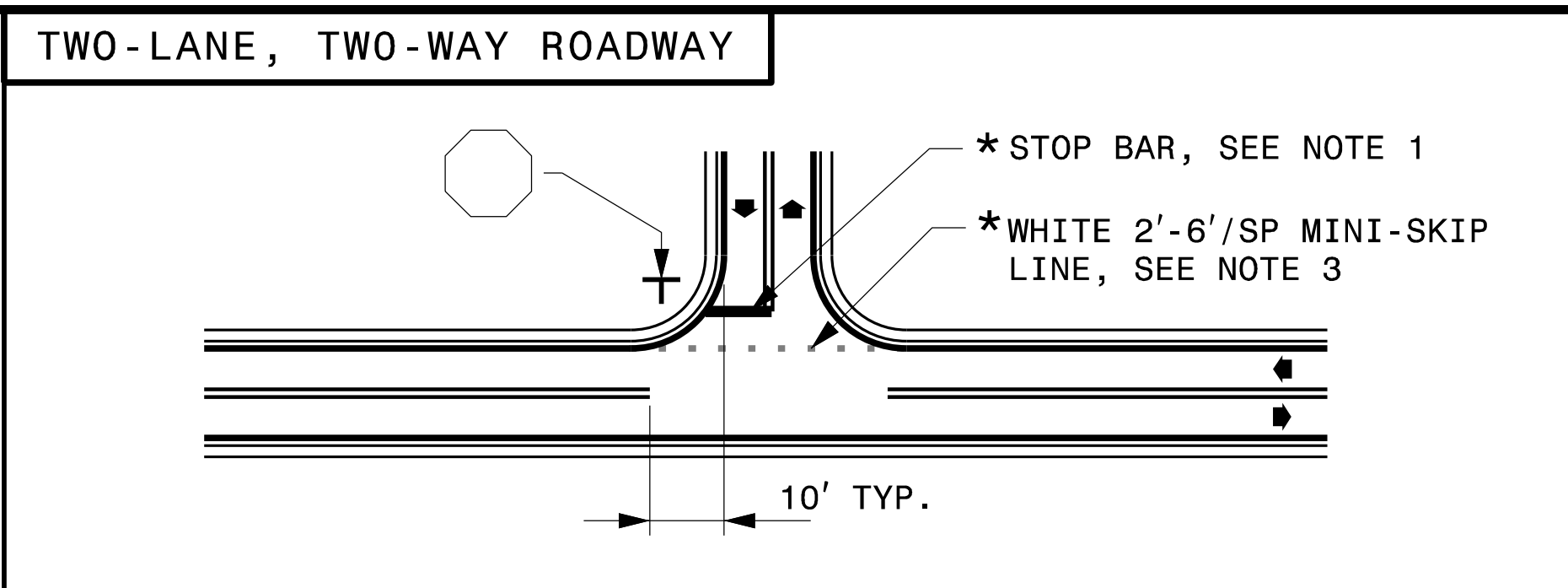
CHRIS HARNDEN _____ SIGNING & DELINEATION PROJECT DESIGN TECHNICIAN



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

TIP NO. SHEET NO.
W-5704G-~~DocuSign~~ RMP-1A
APPROVED: *Matthew V. Springer*
DATE: 8/13/2019
SEAL


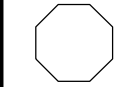

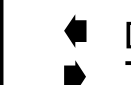

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
8-19
ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
INTERSECTIONS
SHEET 2 OF 2
1205D04



GENERAL NOTES:

- 1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.
- 2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
- 3- MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.
- 4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

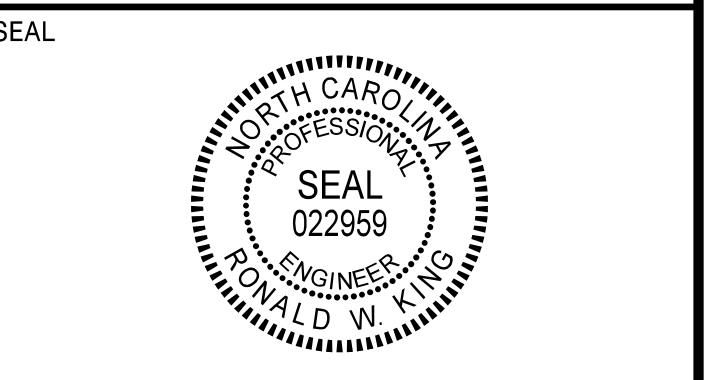
LEGEND

 STOP SIGN	 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW	 PAVEMENT MARKING SYMBOLS
* OPTIONAL	

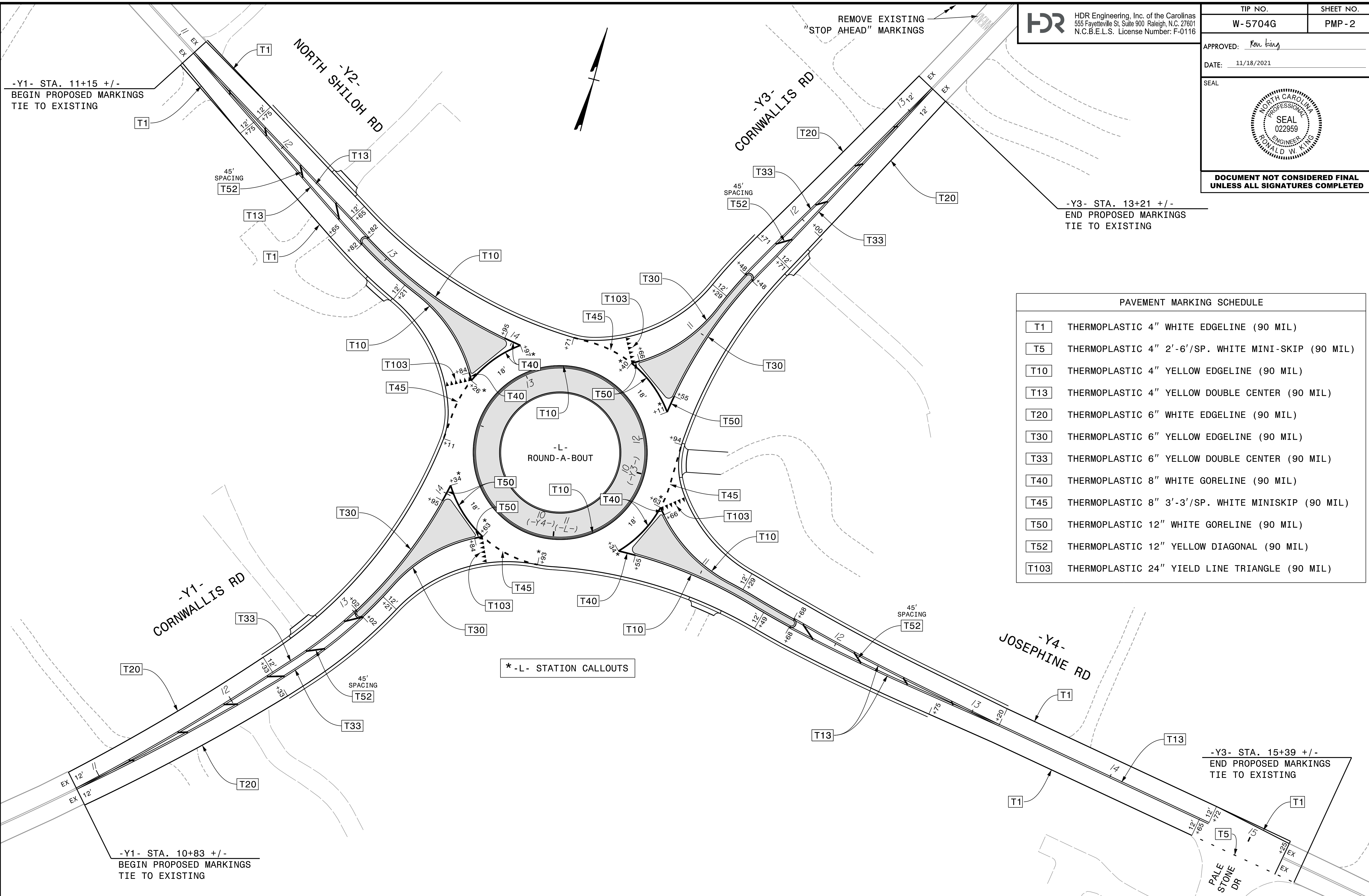
SHEET 2 OF 2
1205D04

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.
8-19
ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
INTERSECTIONS
SHEET 2 OF 2
1205D04

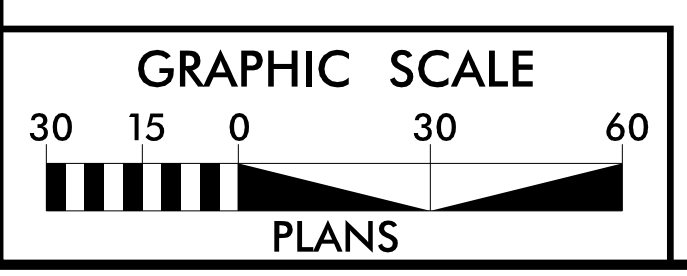
REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING



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

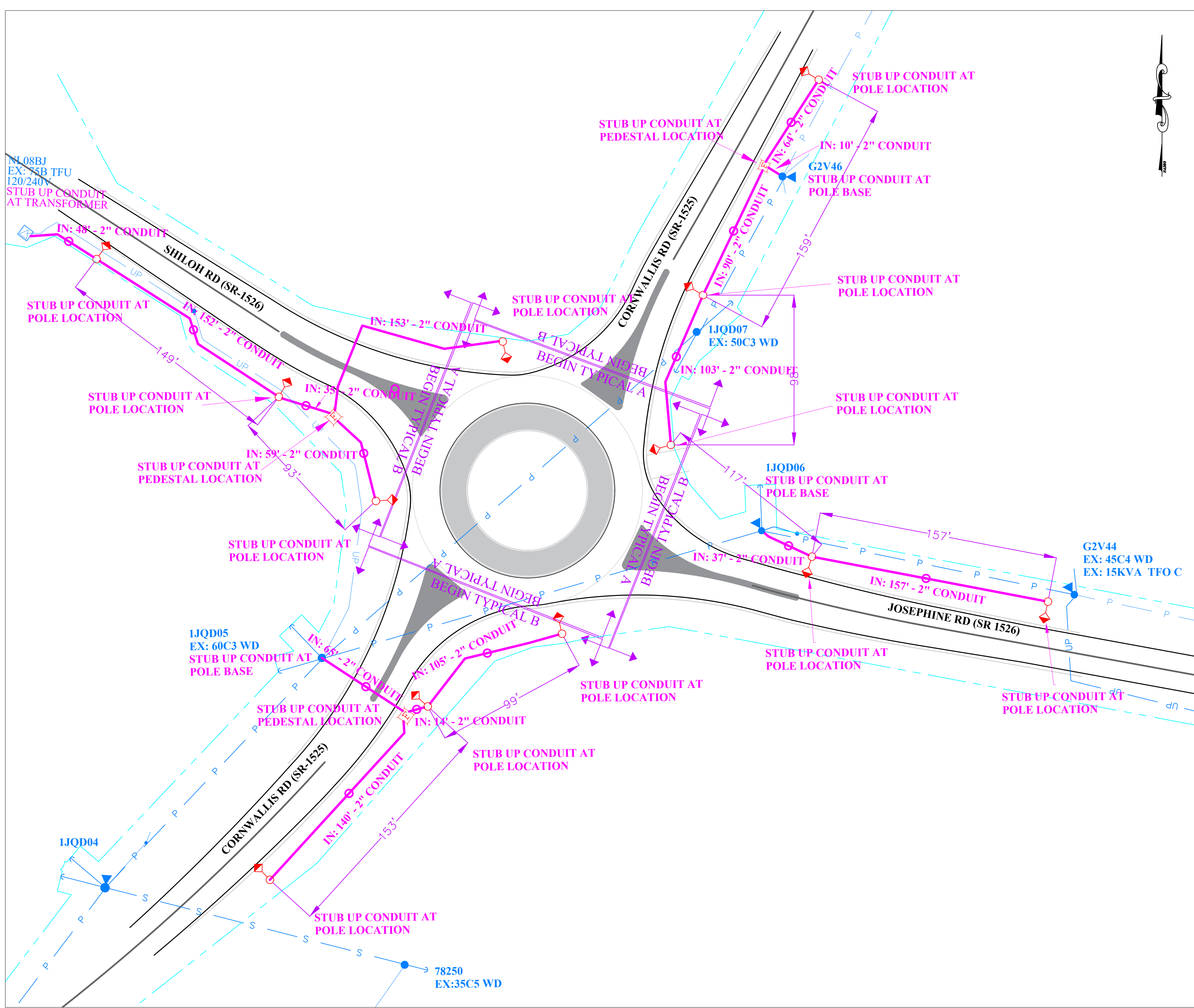


PAVEMENT MARKING SCHEDULE	
T1	THERMOPLASTIC 4" WHITE EDGELINE (90 MIL)
T5	THERMOPLASTIC 4" 2'-6"/SP. WHITE MINI-SKIP (90 MIL)
T10	THERMOPLASTIC 4" YELLOW EDGELINE (90 MIL)
T13	THERMOPLASTIC 4" YELLOW DOUBLE CENTER (90 MIL)
T20	THERMOPLASTIC 6" WHITE EDGELINE (90 MIL)
T30	THERMOPLASTIC 6" YELLOW EDGELINE (90 MIL)
T33	THERMOPLASTIC 6" YELLOW DOUBLE CENTER (90 MIL)
T40	THERMOPLASTIC 8" WHITE GORELINE (90 MIL)
T45	THERMOPLASTIC 8" 3'-3"/SP. WHITE MINISKIP (90 MIL)
T50	THERMOPLASTIC 12" WHITE GORELINE (90 MIL)
T52	THERMOPLASTIC 12" YELLOW DIAGONAL (90 MIL)
T103	THERMOPLASTIC 24" YIELD LINE TRIANGLE (90 MIL)



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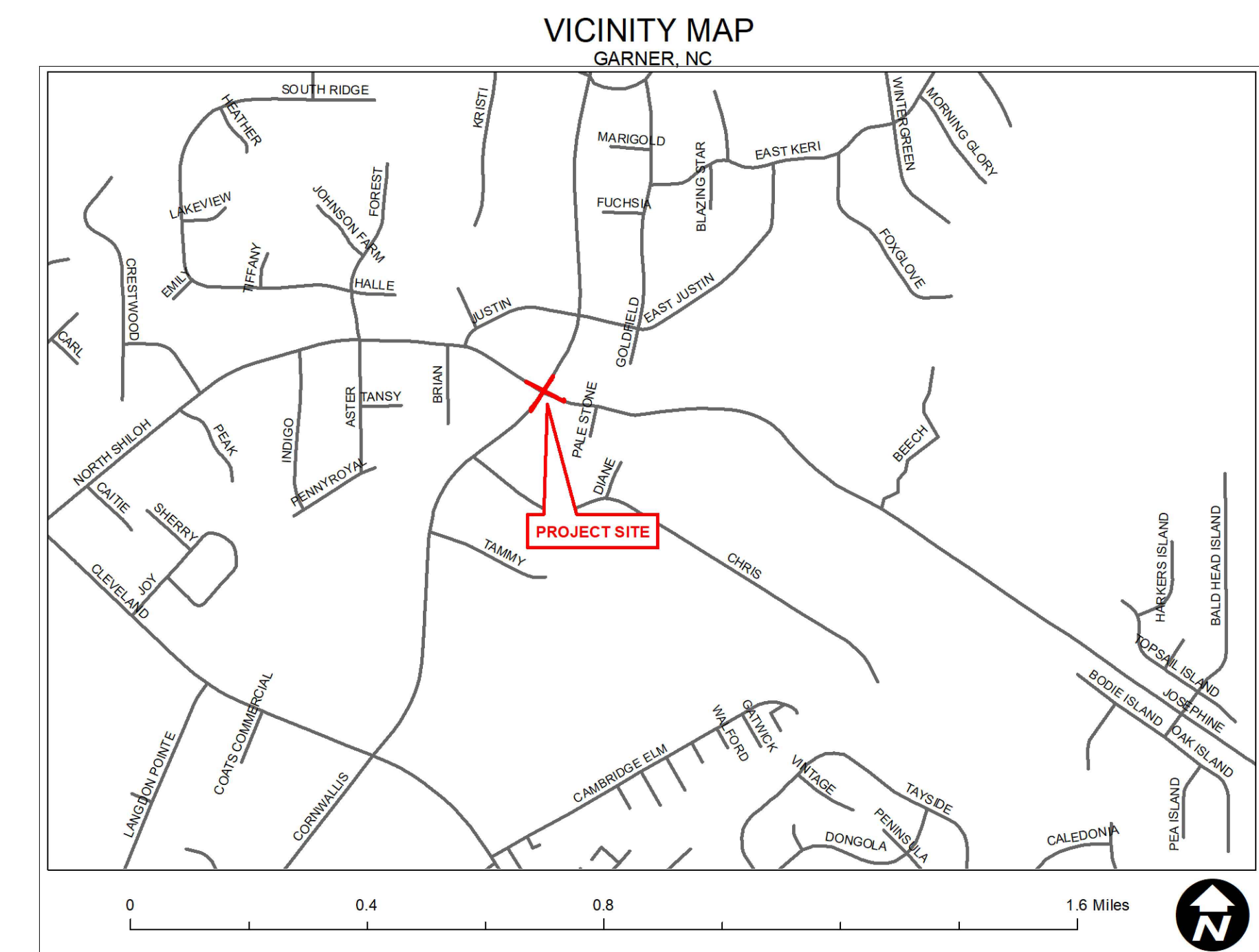
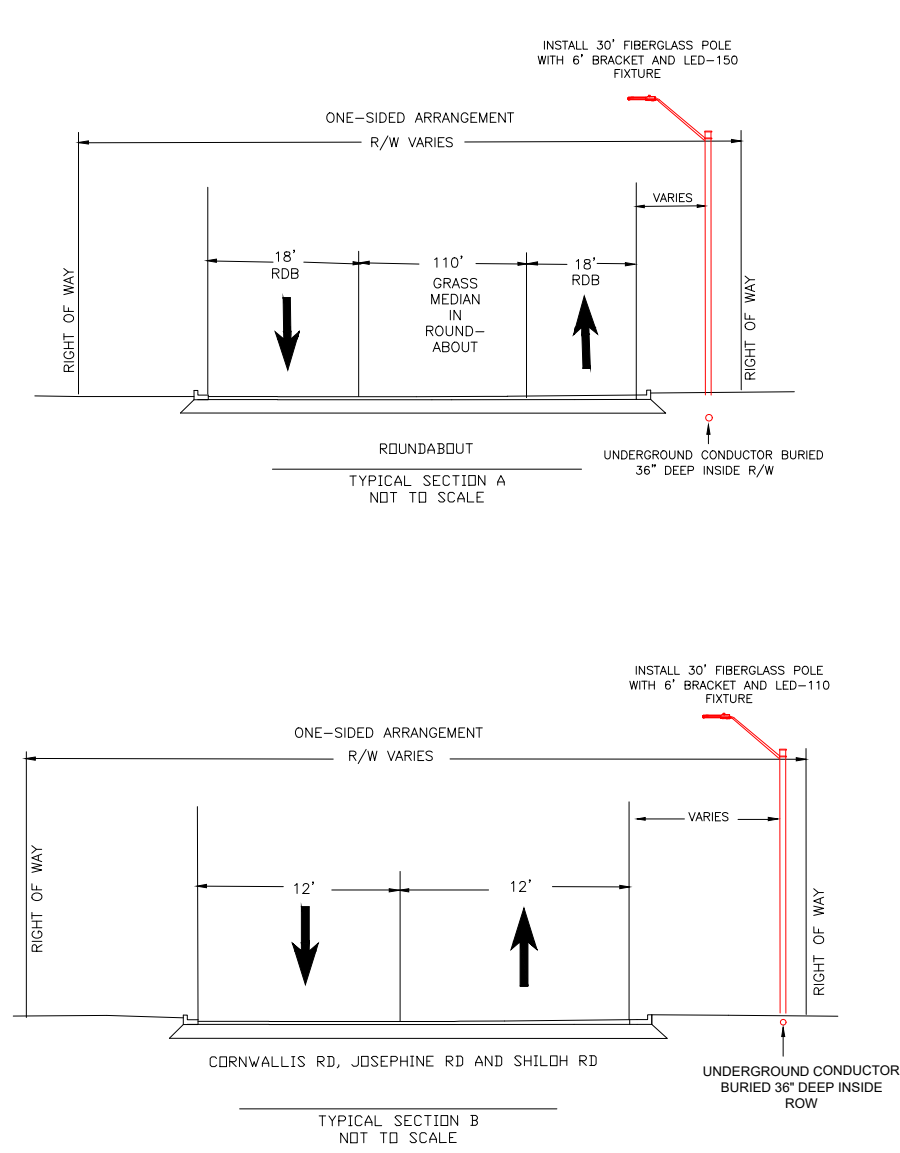
PAVEMENT MARKING PLAN



NOTES

1. INSTALL 2" PVC SCHEDULE 40 STICK CONDUIT WHERE INDICATED ON DRAWING.
2. BURY CONDUIT AT LEAST 36" DEEP WITHIN THE RIGHT OF WAY.
3. INSTALL CONTINUOUS RUN OF CONDUIT BETWEEN POINTS AND STUB OUT CONDUIT FROM UNDER SIDEWALK. ALSO STUB UP CONDUIT AT EACH POINT TO MARK LIGHT LOCATIONS.
4. TAPE OFF ENDS OF CONDUIT AT THE STUB UPS.
5. INSTALL PULL STRING IN EACH SPAN OF CONDUIT. THE PULL STRING SHOULD EXTEND AT LEAST 12 INCHES OUTSIDE OF STUB UP AND BE MADE FROM A MATERIAL THAT WILL NOT ROT.

PROPOSED	EXISTING	REMOVE	ABANDON	LEGEND
				LED LUMINAIRE
				DECORATIVE LUMINAIRE
				FIBERGLASS/STEEL LIGHTING POLE
				WOOD POLE
				FOREIGN POLE
				TRANSFORMER (POLE MOUNTED)
				STREET LIGHT CIRCUIT UNDERGROUND
				PRIMARY CIRCUIT UNDERGROUND
				STREET LIGHT CIRCUIT OVERHEAD
				PRIMARY CIRCUIT OVERHEAD
				RIGHT OF WAY
				PROPERTY LINE
				INSTALL CONDUIT
				EXISTING CONDUIT
				EXISTING SPAN GUY
				ABOVE GROUND PEDESTAL
				FLUSH MOUNTED 13" X 23" PED
				PAD MOUNTED ENCLOSURE
				JUNCTION BOX
				TRANSFORMER (PAD MOUNTED)
				RECLOSER
				CABLE MARKER



BY INITIATING THIS BLOCK THE CUSTOMER STATES THEY HAVE REVIEWED EACH SHEET OF THE PROPOSED LIGHTING DESIGN AND APPROVES OF ALL PROPOSED LIGHTING FACILITY LOCATIONS. CUSTOMER HAS VERIFIED THERE ARE NO CONFLICTS WITH PROPOSED LIGHTING ARRANGEMENT AND THE PLANS ARE CURRENT.

CUSTOMER INITIALS
X _____

Safety Reminders / Adverse Conditions

SAFETYFirst

 P: PERSONAL ACCOUNTABILITY
 A: ACTIVE GARDING
 R: RADIANT RECOGNITION

WZS: REMEMBER "YOUR CIRCLE OF SAFETY"
WZS: SET PROPER WORK ZONE NEEDED
WZS: SET PROPER SIGNS, CONES, AND BARRICADES
WZS: REMEMBER WALK AROUNDS AND PRETRIP
WZS:

REMEMBER: Work zone area conditions may have changed for this job! Everyone is responsible for verifying the above safety information is correct prior to any work being performed each day.

FOR CONSTRUCTION DETAILS, REFER IN PARTICULAR TO THE FOLLOWING PE SPECIFICATION DRAWINGS

DRAWING NUMBER	DRAWING TITLE
30.09-101	GRAY FIBERGLASS POLE LIGHTING INSTALLATION
30.02-120	LIGHTING BRACKETS FOR STEEL (AND FIBERGLASS) POLES
30.09-103	NON-STOCKED FBRL DOT RATED BREAK-A-WAY POLES
30.08-124	MOUNTING HEIGHT FOR LUMINAIRES

LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



PROPRIETARY & CONFIDENTIAL

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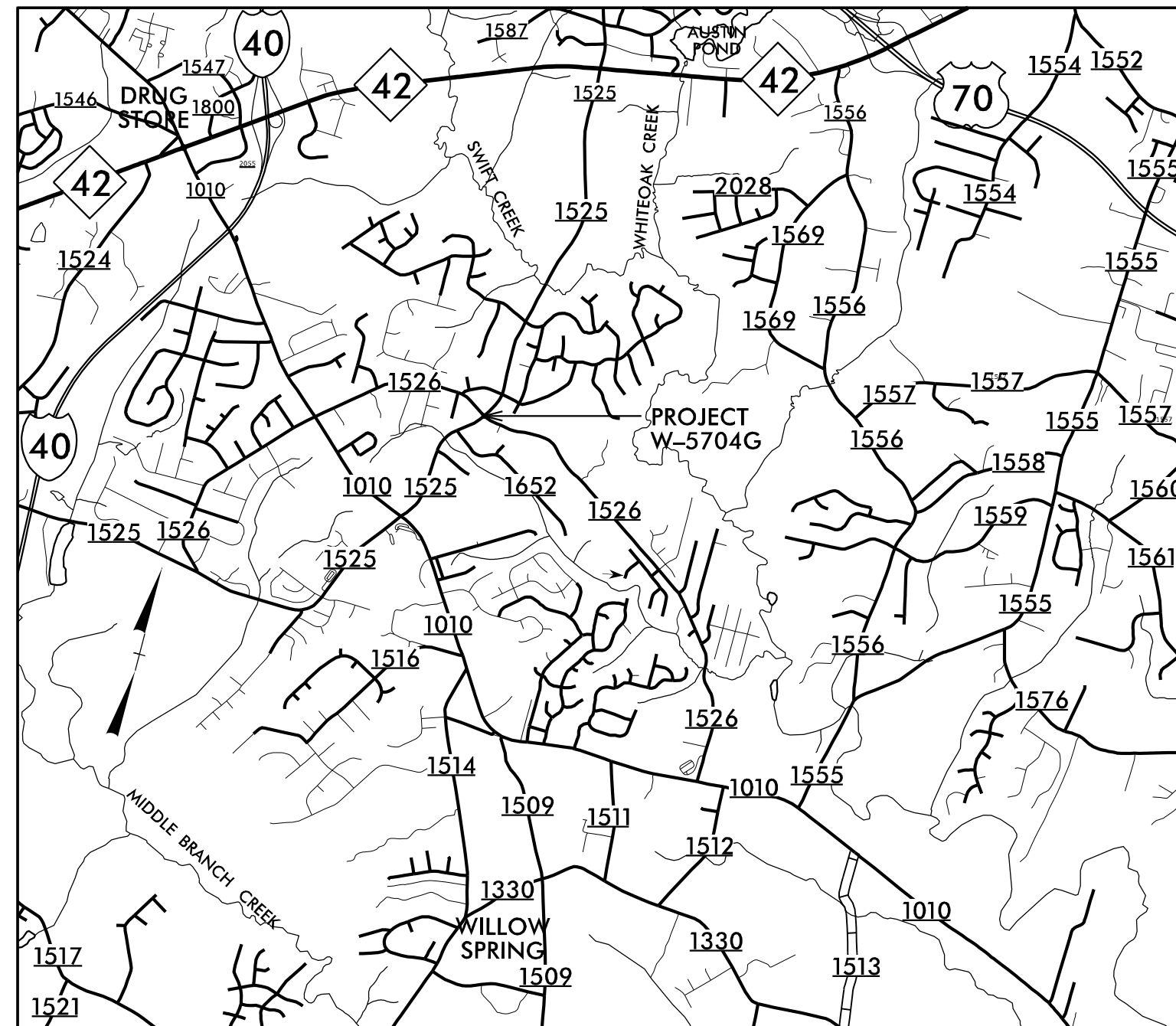
CONDUIT ARRANGEMENT FOR

CORNWALLIS RD (NCSR-1525) AND JOSEPHINE RD (NCSR-1526)
 GARNER, NC

Designed by **DUKE ENERGY PROGRESS LIGHTING SOLUTIONS**
 Reviewed by **JESSICA WESTERVELT** Scale **1" = 40'**
 Date **2/8/2022** Size **Drawing size "D"**
 Description _____
 Drawing No. _____ Sht. **1** OF **1**

NO.	DATE	REVISION	BY

See Sheet 1-A For Index of Sheets

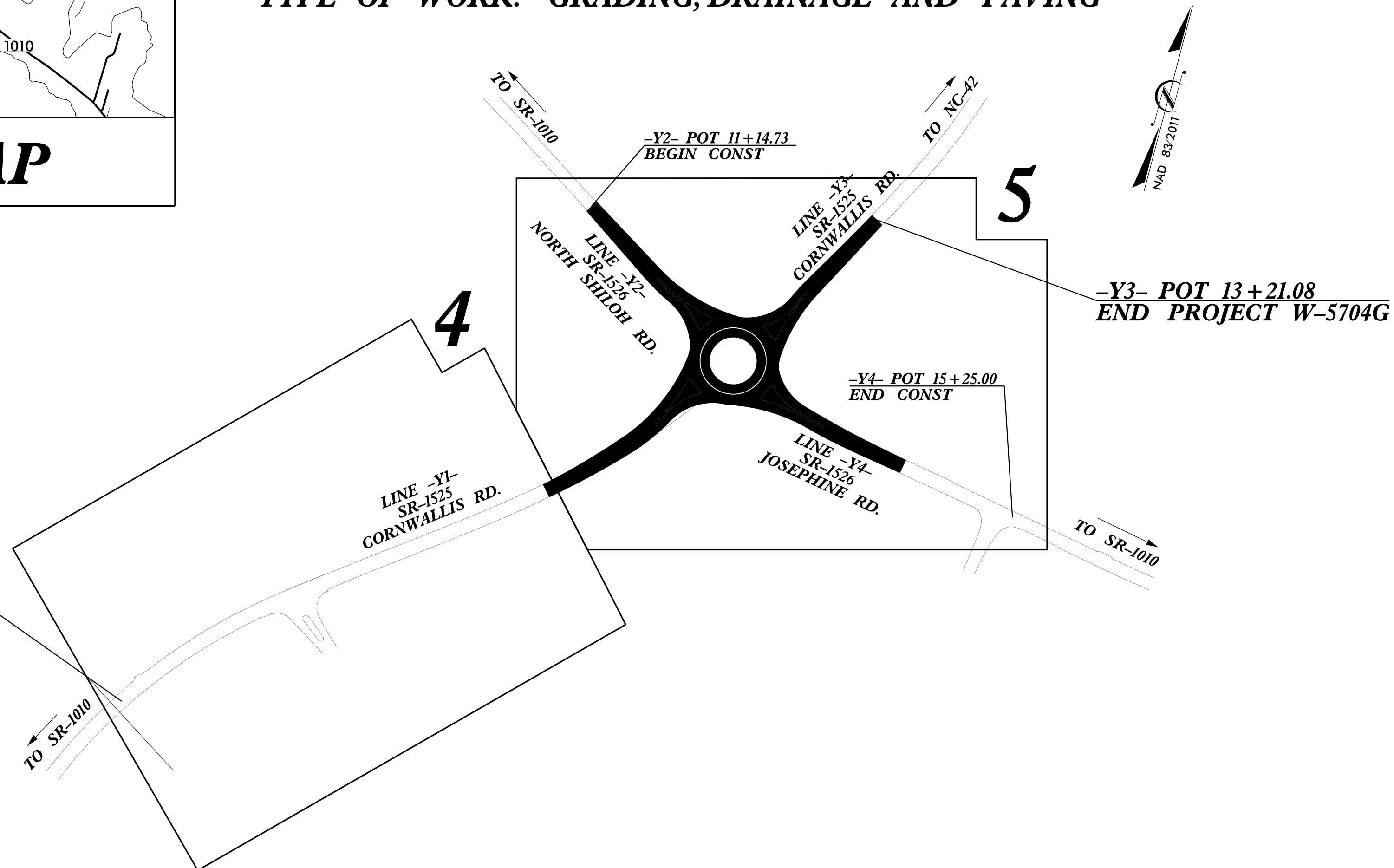


VICINITY MAP

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
 JOHNSTON COUNTY

LOCATION: ROUNDABOUT AT INTERSECTION OF SR-1525 (CORNWALLIS ROAD) AND SR-1526 (SHILOH ROAD & JOSEPHINE ROAD).

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



-Y1- POC 2+75.00
 BEGIN PROJECT W-5704G

TIP PROJECT: W-5704G

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5704G	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34853.1.2			

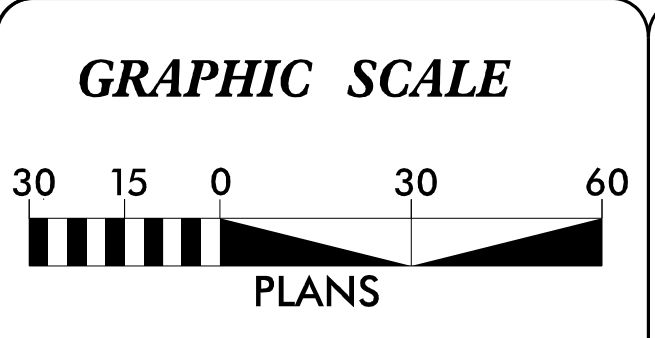
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1650.05	Temporary Silt Ditch	TD
1650.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	TSD
1650.02	Silt Basin Type B	Silt Basin Type B
1653.01	Temporary Rock Silt Check Type-A	Rock Silt Check Type-A
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	Rock Silt Check Type-A with PAM
1653.02	Temporary Rock Silt Check Type-B	Rock Silt Check Type-B
	Wattle / Coir Fiber Wattle	Wattle / Coir Fiber Wattle
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	Wattle / Coir Fiber Wattle with PAM
1654.01	Temporary Rock Sediment Dam Type-A	Rock Sediment Dam Type-A
1654.02	Temporary Rock Sediment Dam Type-B	Rock Sediment Dam Type-B
1655.01	Rock Pipe Inlet Sediment Trap Type-A	Rock Pipe Inlet Sediment Trap Type-A
1655.02	Rock Pipe Inlet Sediment Trap Type-B	Rock Pipe Inlet Sediment Trap Type-B
1650.04	Stilling Basin	Stilling Basin
1650.06	Special Stilling Basin	Special Stilling Basin
	Rock Inlet Sediment Trap:	
1652.01	Type A	A
1652.02	Type B	B
1652.05	Type C	C
	Skimmer Basin	Skimmer Basin
	Tiered Skimmer Basin	Tiered Skimmer Basin
	Infiltration Basin	Infiltration Basin

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared in the Office of:

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

2018 STANDARD SPECIFICATIONS

Designed by:

Wyatt D. Yelverton, PE, CPESC 3609
 NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:

ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611

2018 STANDARD SPECIFICATIONS

Reviewed by:

Wes Chandler, PE

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"-- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

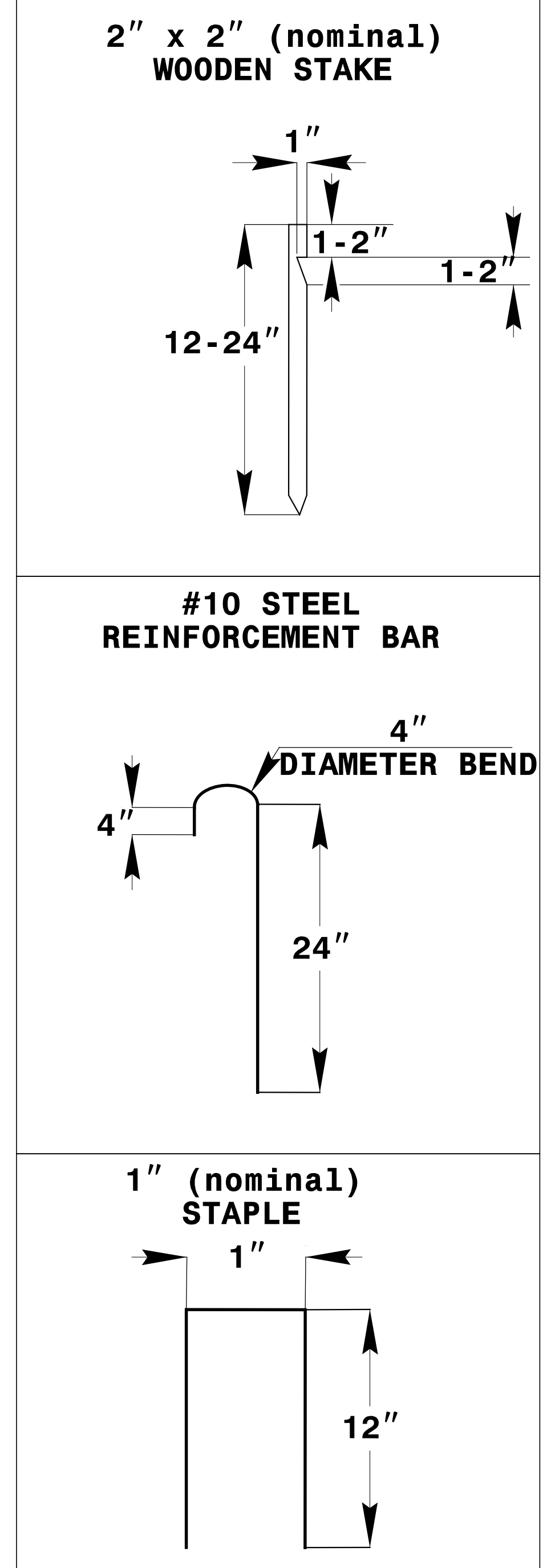
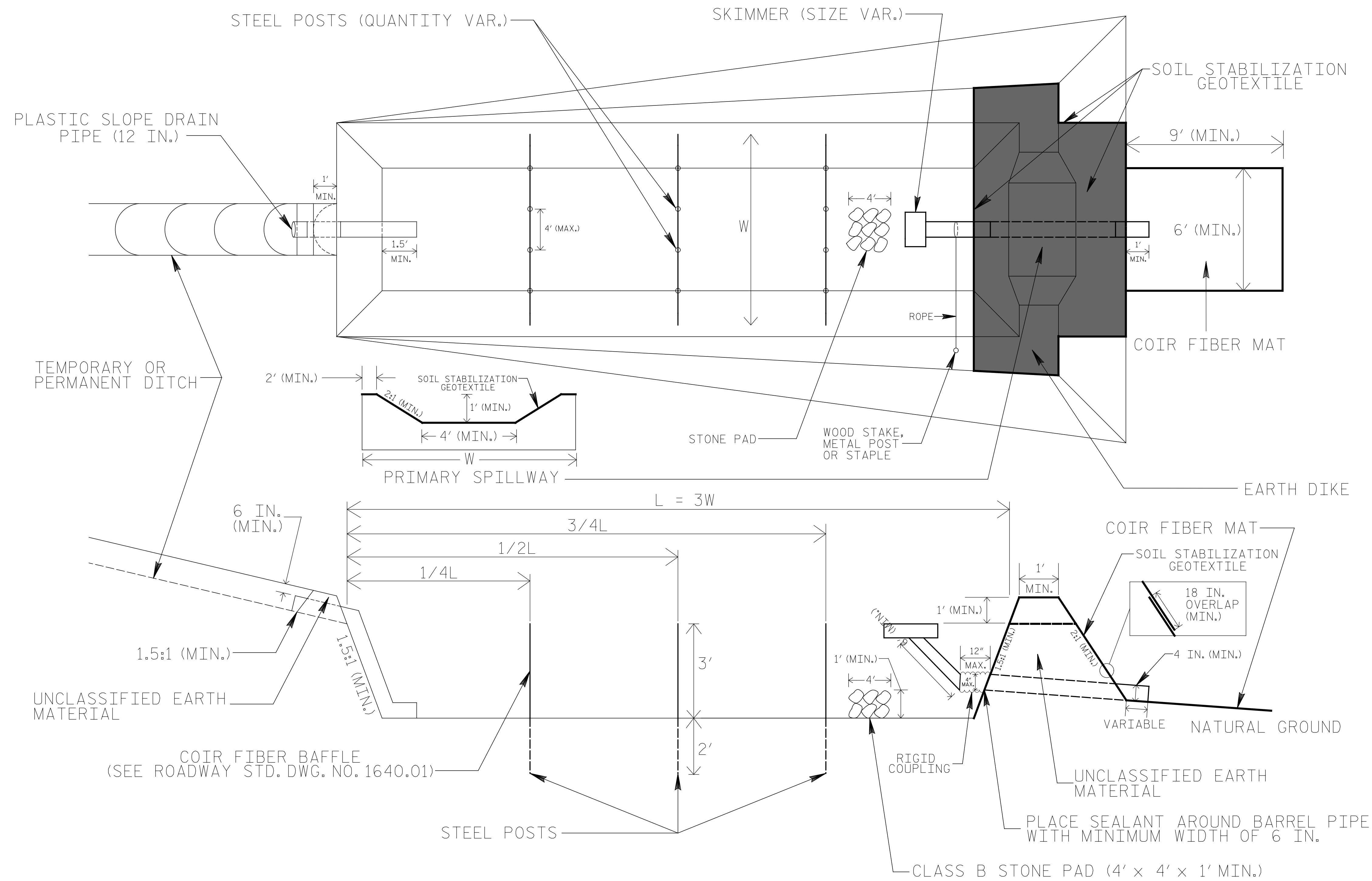
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

T:\10\2019\104\EC-1\SH.dgn



PROJECT REFERENCE NO. W-5704G	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL




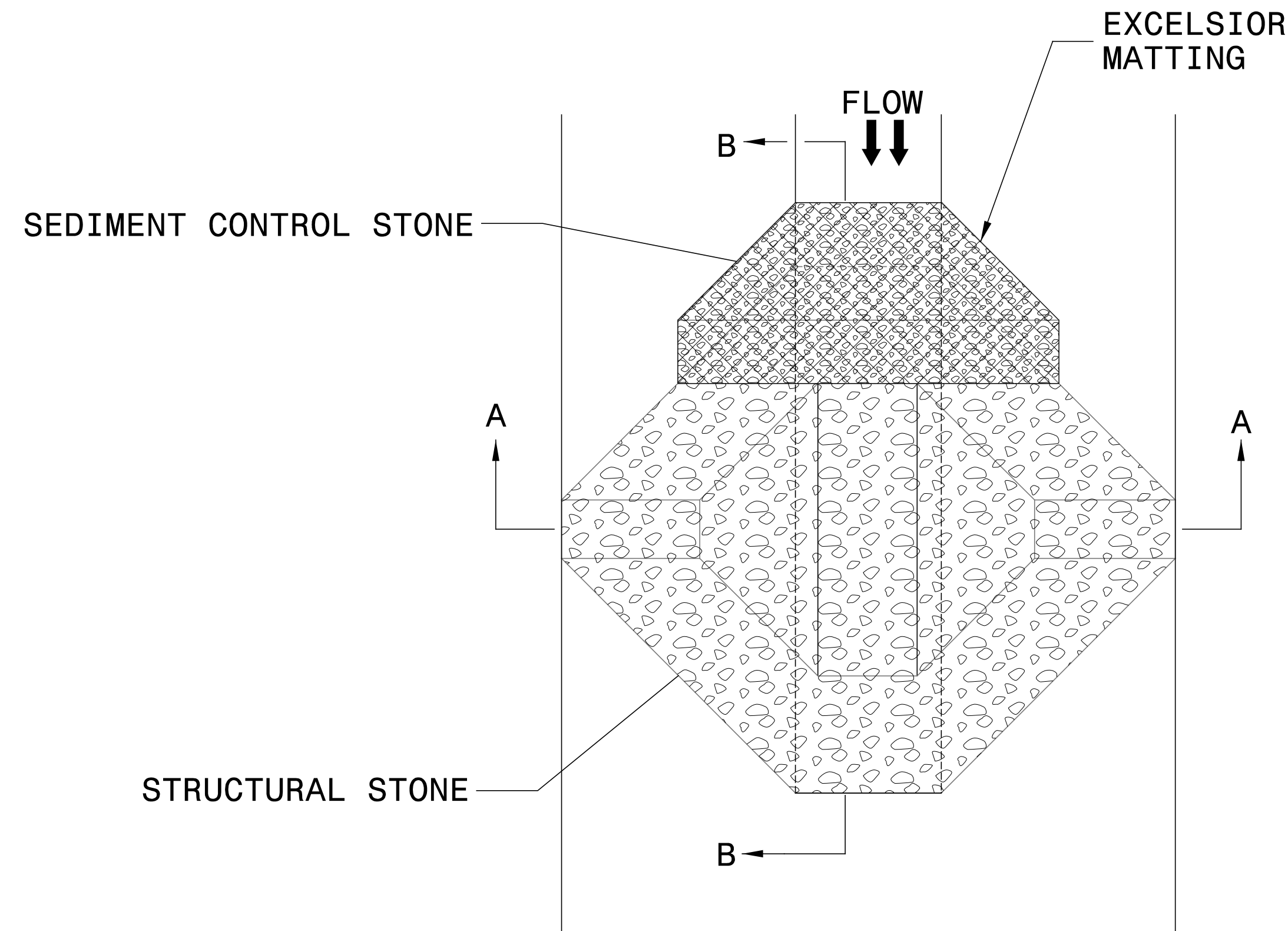
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

PROJECT REFERENCE NO. W-5704G	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 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	



PLAN

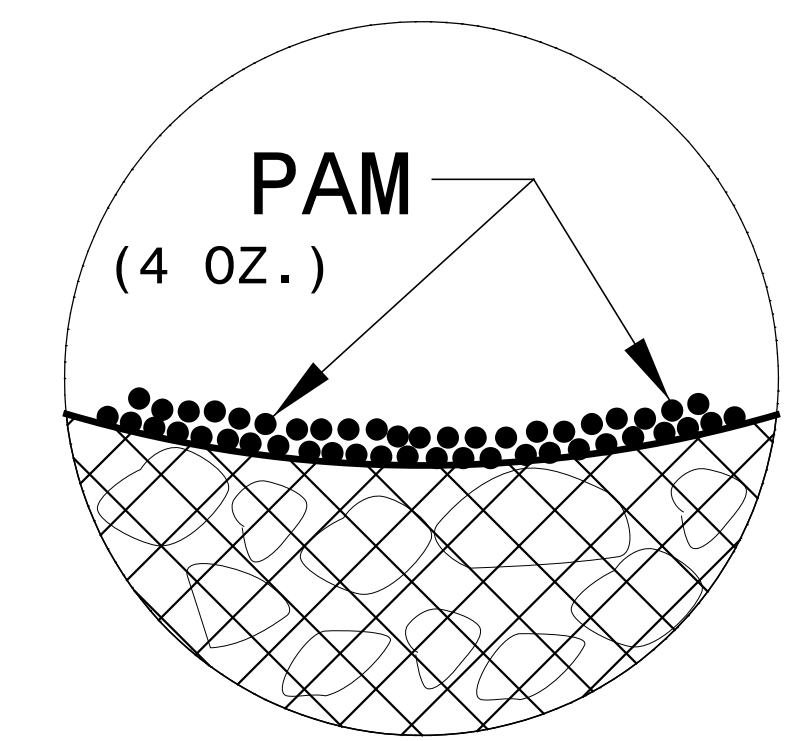
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

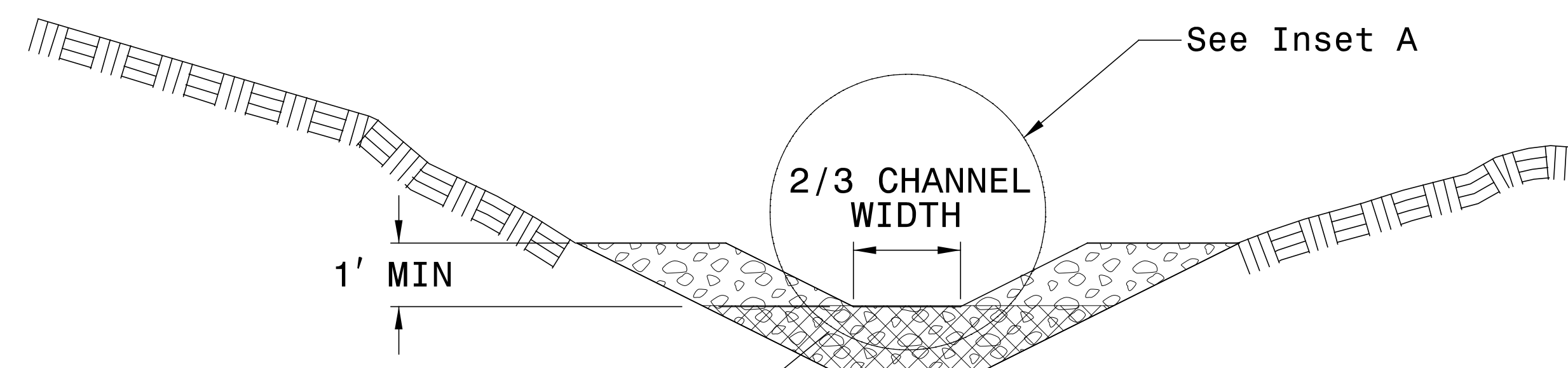
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

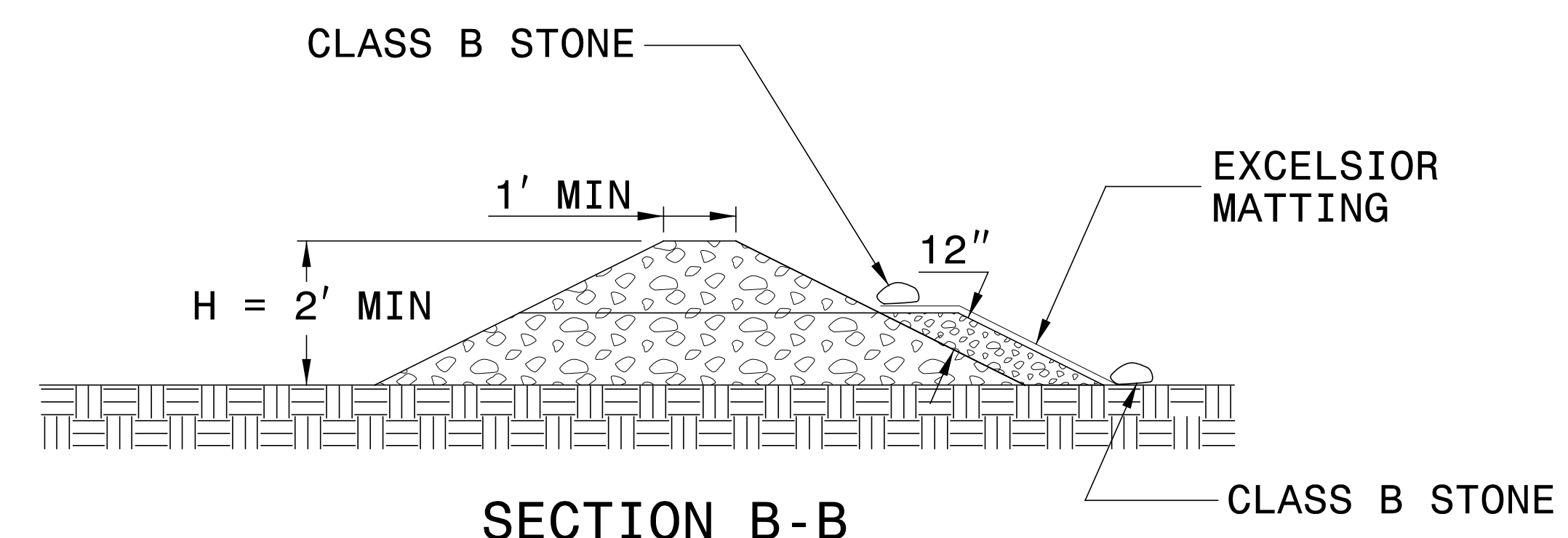
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



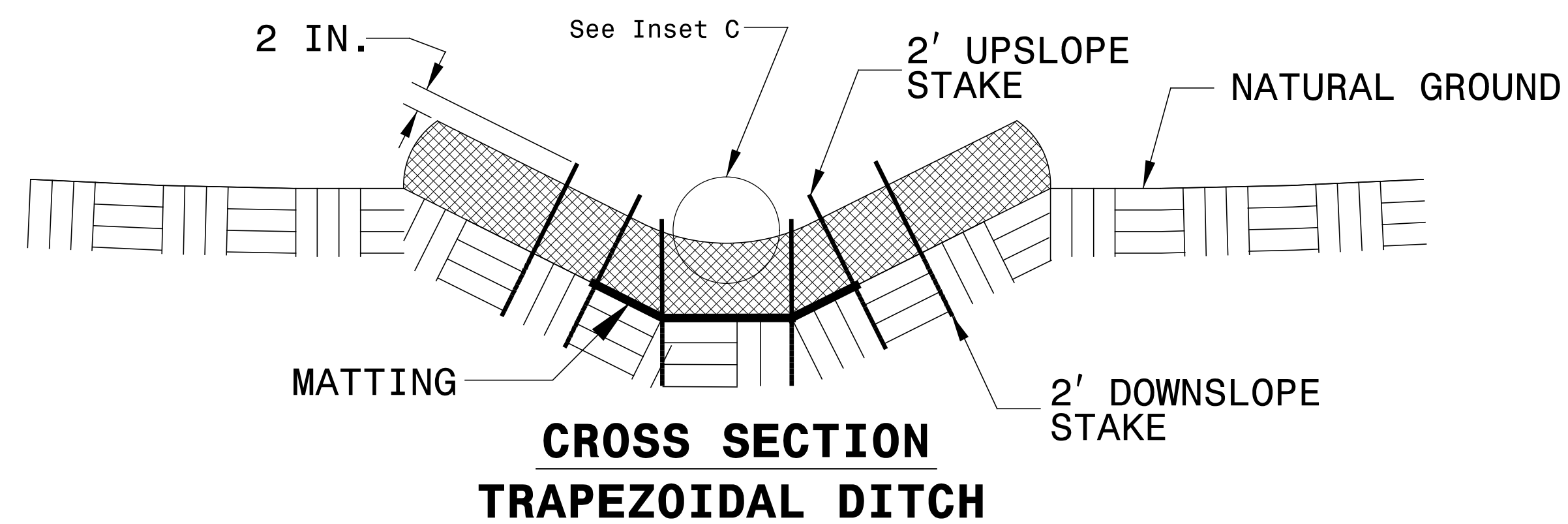
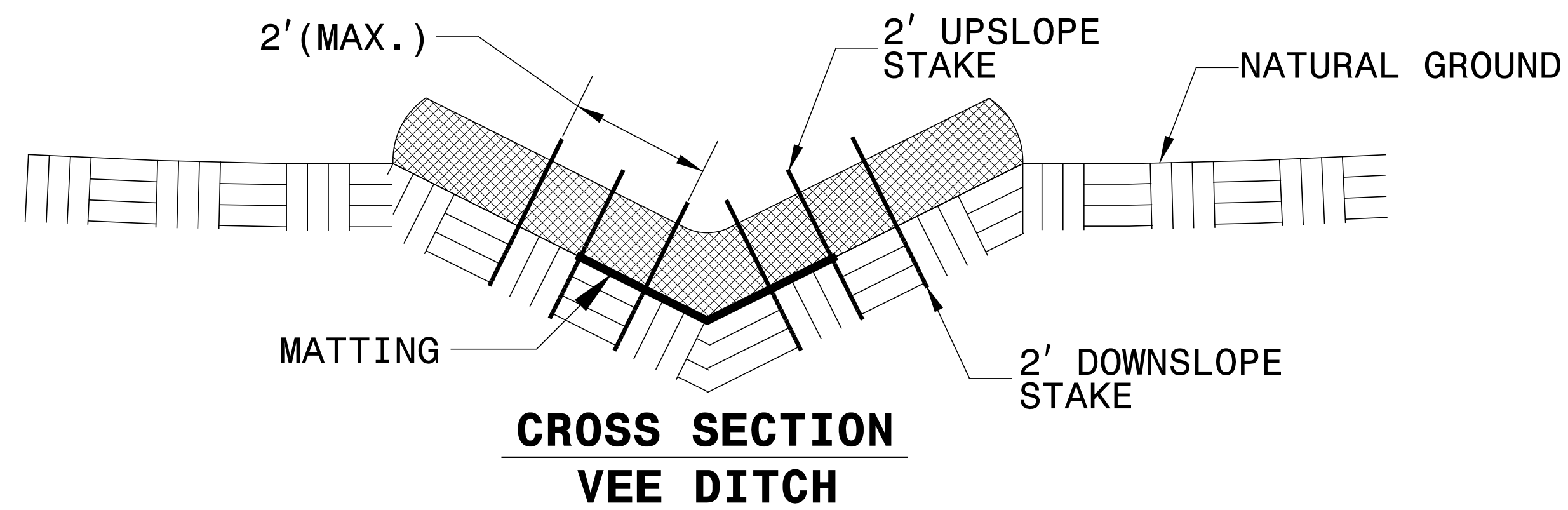
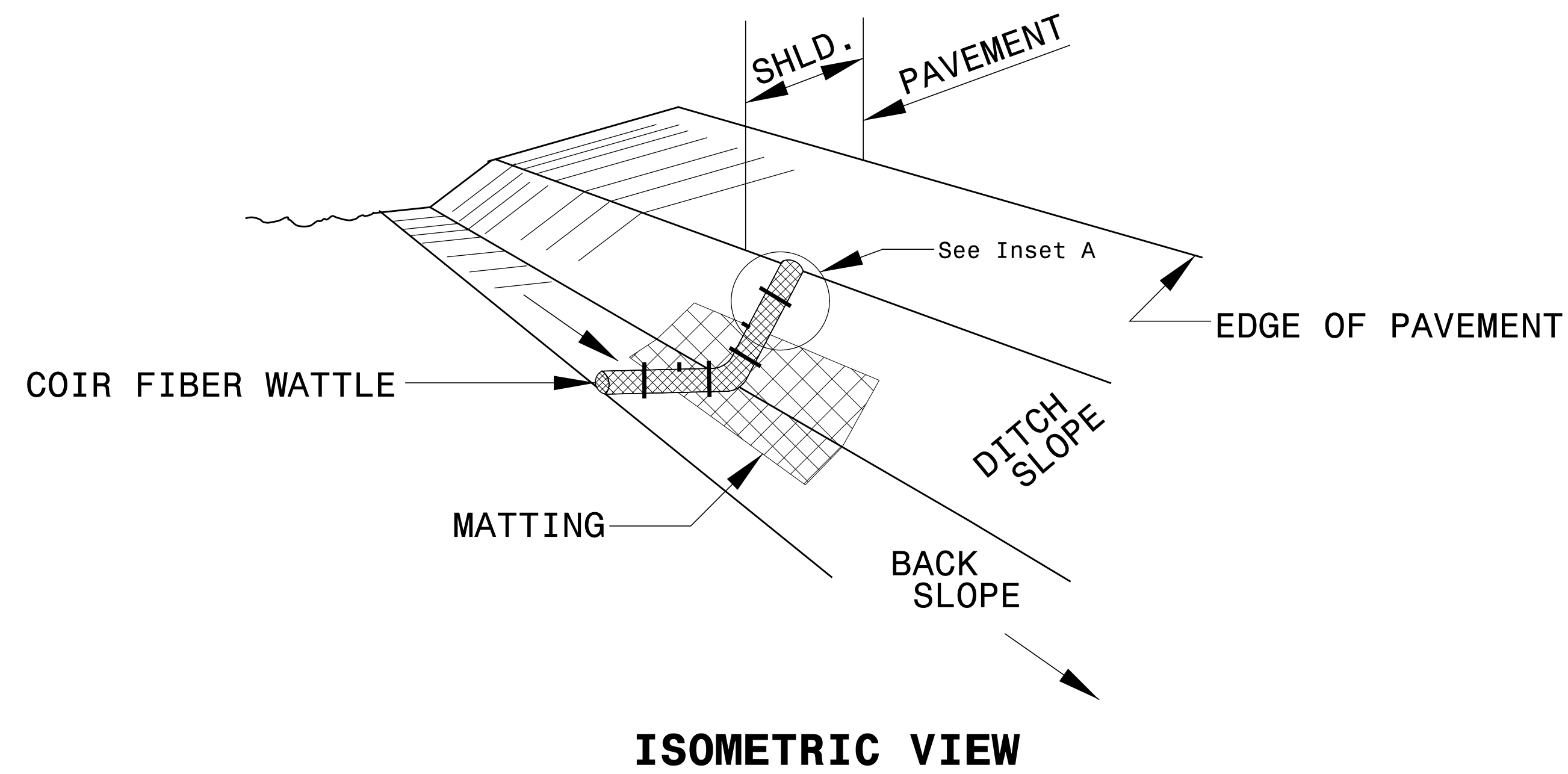
SECTION B-B

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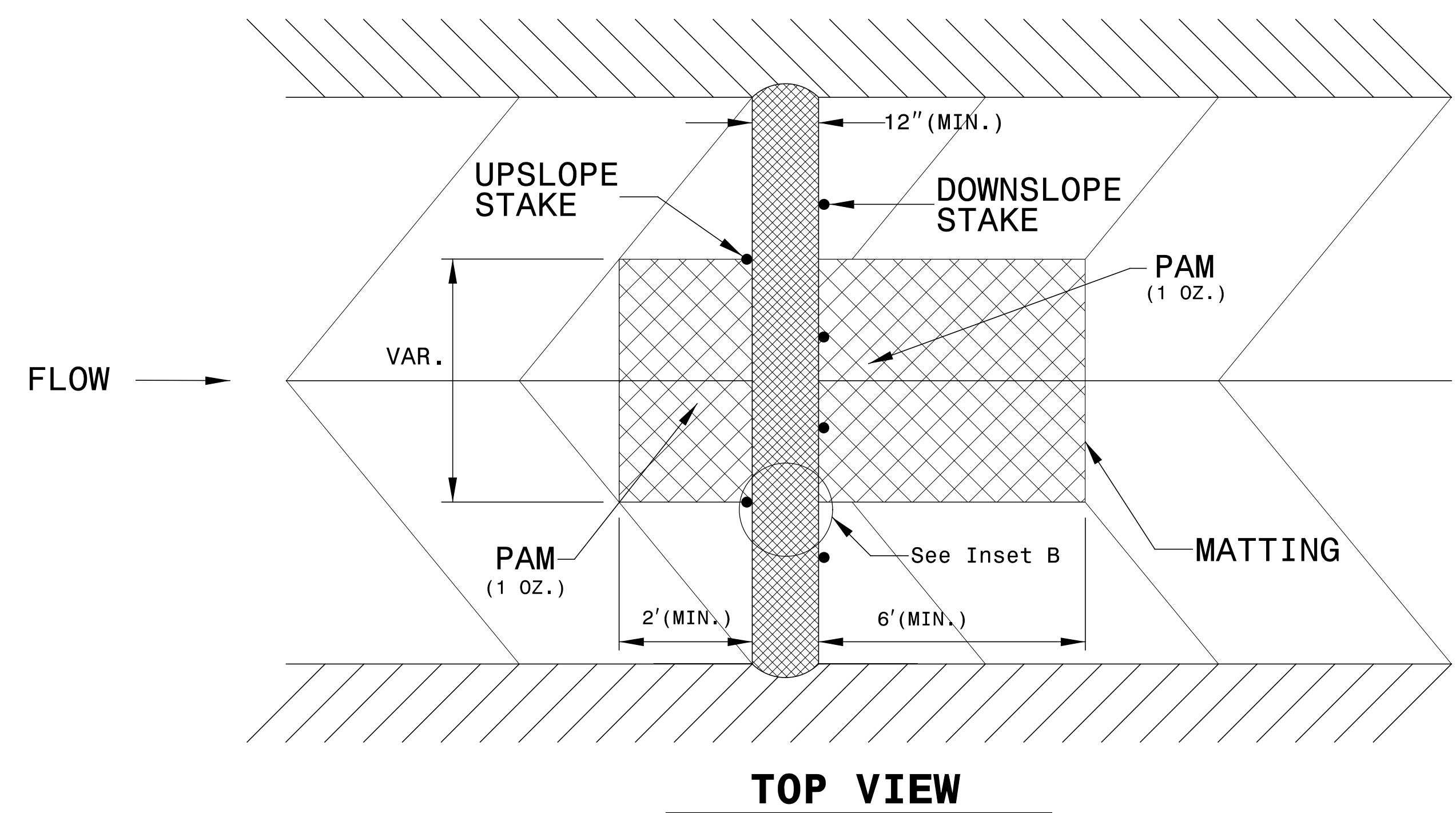
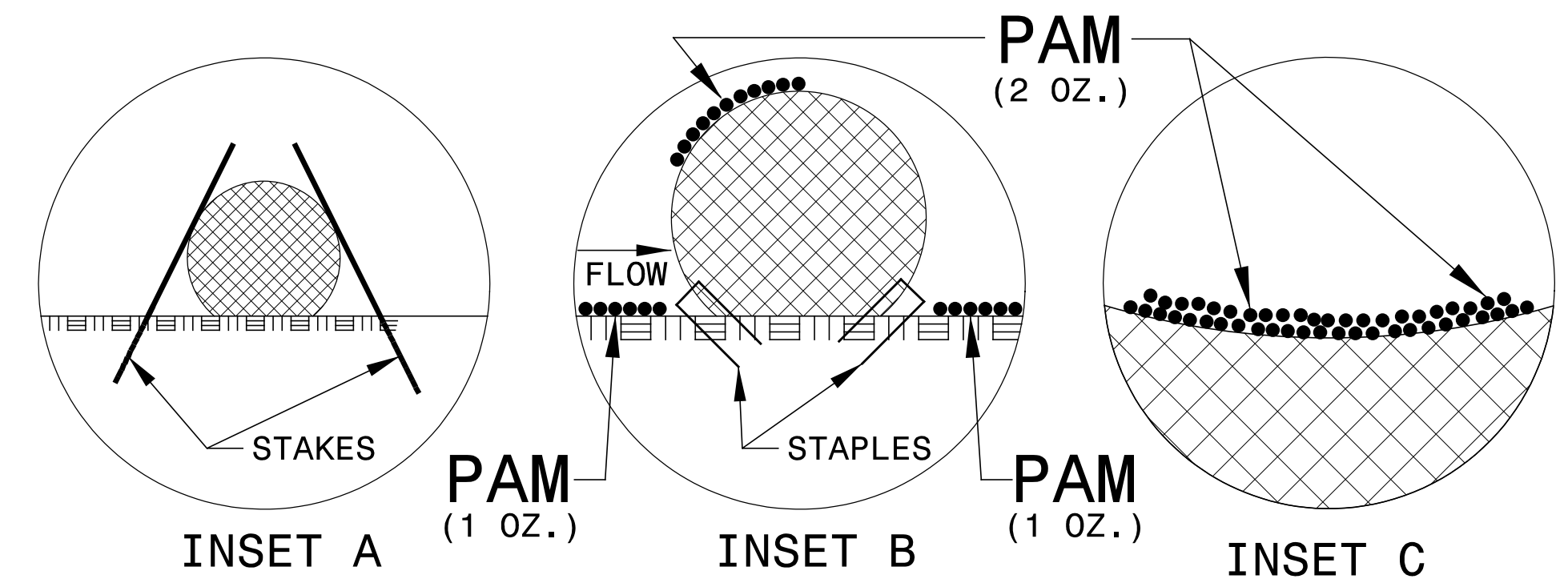
PROJECT REFERENCE NO. W-5704G	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



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555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO. <i>W-5704G</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	EC-04/CONST. 04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PATRICIA A. GODIN
DB 4515 PG 920
PB 30 PG 379

1

KIMBERLY J. LORD
DB 1661 PG 13
PB 30 PG 379

2

VICKY C POTTS
DB 3054 PG 268
PB 30 PG 379

3

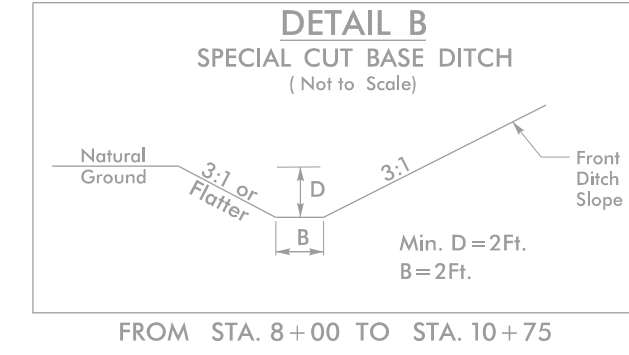
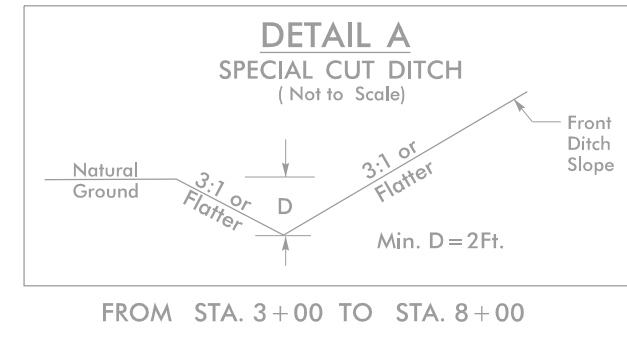
LARA K HAMILTON
DB 3539 PG 460
PB 30 PG 379

4

NOTE:

PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

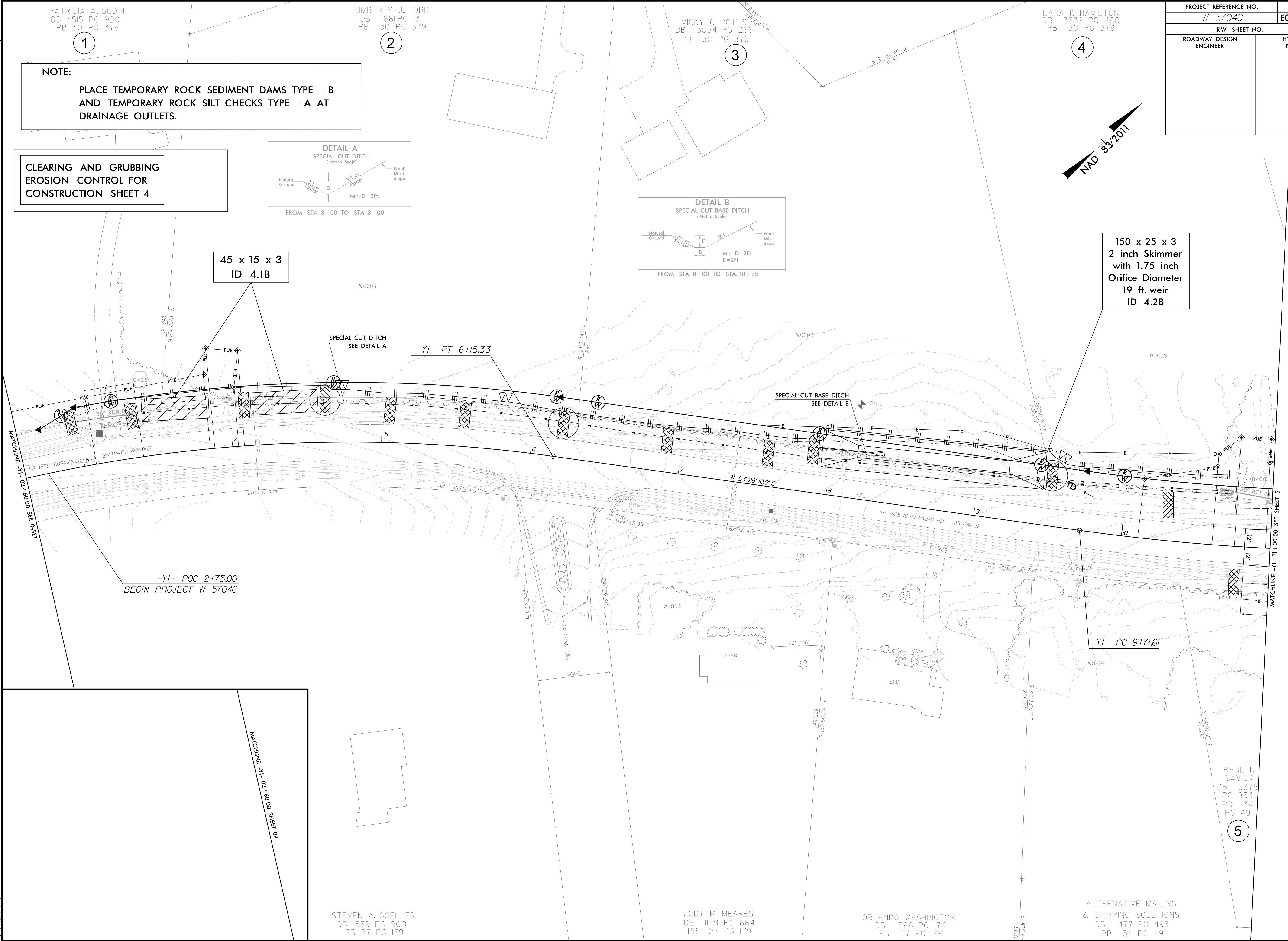


45 x 15 x 3
ID 4.1B

150 x 25 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
19 ft. weir
ID 4.2B



REVISIONS



11/18/2021
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5:44:35 PM

STEVEN A. GOELLER
DB 1539 PG 900
PB 27 PG 179

JODY M MEARES
DB 1179 PG 864
PB 27 PG 179

ORLANDO WASHINGTON
DB 1568 PG 174
PB 27 PG 179

ALTERNATIVE MAILING
& SHIPPING SOLUTIONS
DB 1477 PG 493
PB 34 PG 49

PAUL N
SAVICK
DB 3879
PG 834
PB 34
PG 49

5

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	EC-05/CONST. 05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MICHAEL C GALLI
DB 4359 PG 985
PB 41PG 445

FRANCINA BOOKER
DB 4018 PG 292
PB 41PG 445

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5**

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

VIRGIL D MOFFETT
DB 1426 PG 102
PB 41PG 445

ALAN J ROCKER
DB 4836 PG 306
PB 41PG 445

AQUA NORTH CAROLINA INC
DB 1390 PG 939
PB 41PG 445

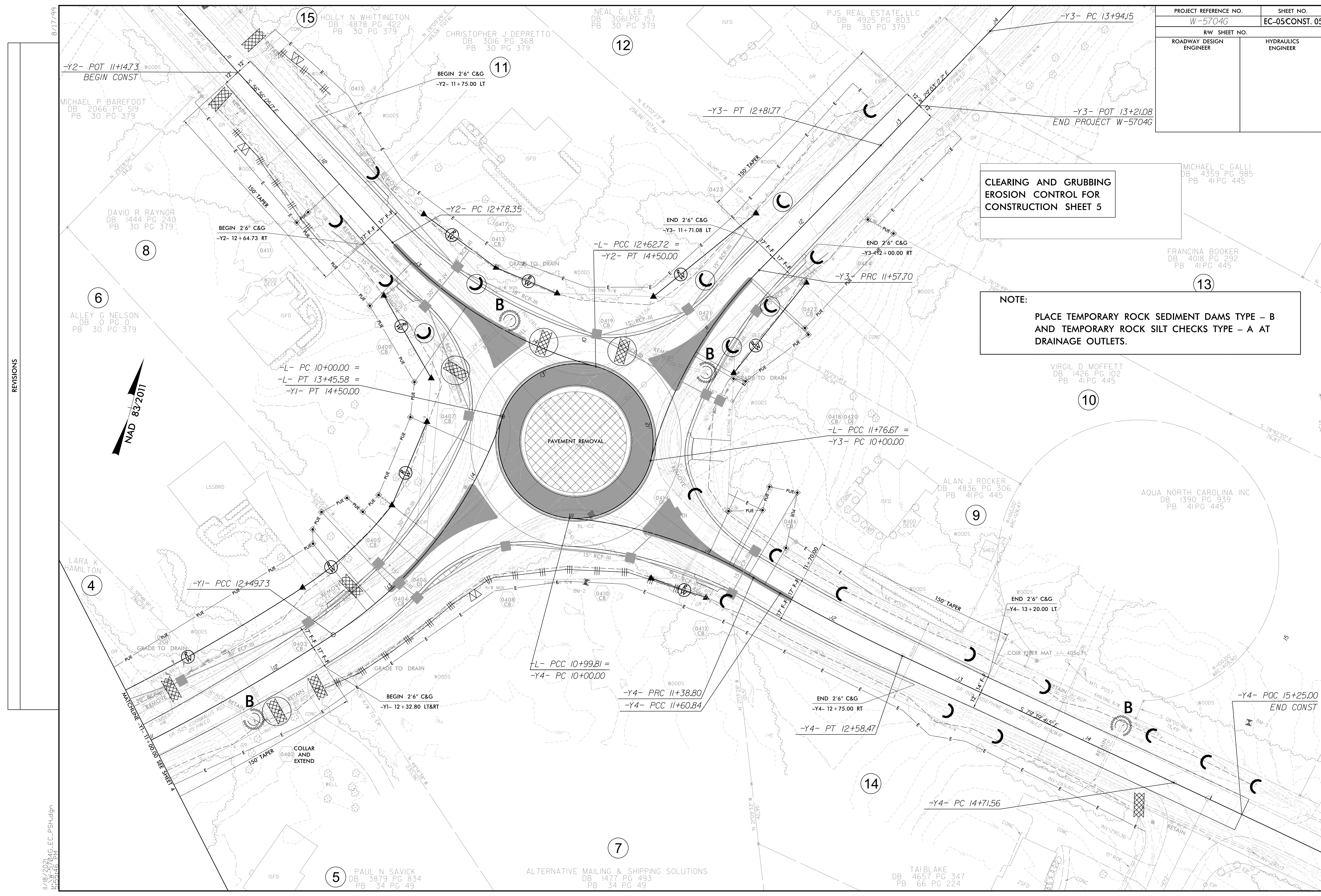
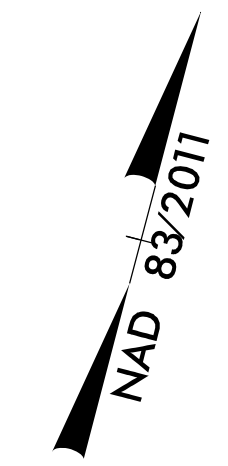
TAIBLAKE
DB 4657 PG 347
PB 66 PG 224

ALTERNATIVE MAILING & SHIPPING SOLUTIONS
DB 1477 PG 493
PB 34 PG 49

PAUL N SAVICK
DB 3879 PG 834
PB 34 PG 49

11/18/2021
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REVISIONS



8/17/99

MICHAEL P BAREFOOT
DB 2066 PG 519
PB 30 PG 379

DAVID R RAYNOR
DB 1444 PG 240
PB 30 PG 379

ALLEY G NELSON
DB 0 PG 0
PB 30 PG 379

LARA K HAMILTON

PAUL N SAVICK
DB 3879 PG 834
PB 34 PG 49

CHRISTOPHER J DEPRETTO
DB 3016 PG 368
PB 30 PG 379

NEAL C LEE III
DB 3061 PG 157
PB 30 PG 379

PJS REAL ESTATE, LLC
DB 4925 PG 803
PB 30 PG 379

-Y3- PC 13+94.15

-Y2- POT 11+14.73
BEGIN CONST

BEGIN 2'6" C&G
-Y2- 11+75.00 LT

BEGIN 2'6" C&G
-Y2- 12+64.73 RT

END 2'6" C&G
-Y2- 11+71.08 LT

END 2'6" C&G
-Y3- 12+00.00 RT

-L- PC 10+00.00 =
-L- PT 13+45.58 =
-Y1- PT 14+50.00

-Y1- PCC 12+49.73

-L- PCC 10+99.81 =
-Y4- PC 10+00.00

-Y4- PRC 11+38.80
-Y4- PCC 11+60.84

END 2'6" C&G
-Y4- 12+75.00 RT

END 2'6" C&G
-Y4- 13+20.00 LT

-Y4- POC 15+25.00
END CONST

-Y4- PC 14+71.56

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	EC-06/CONST. 04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

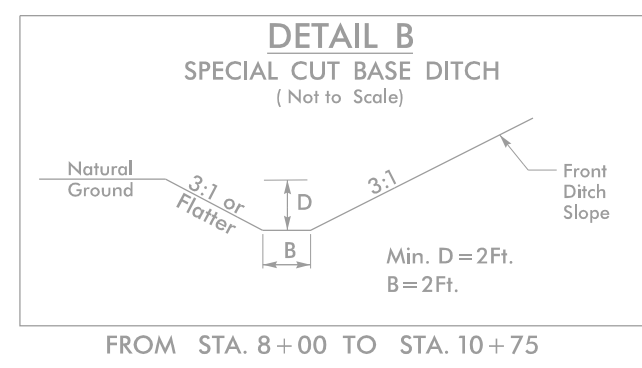
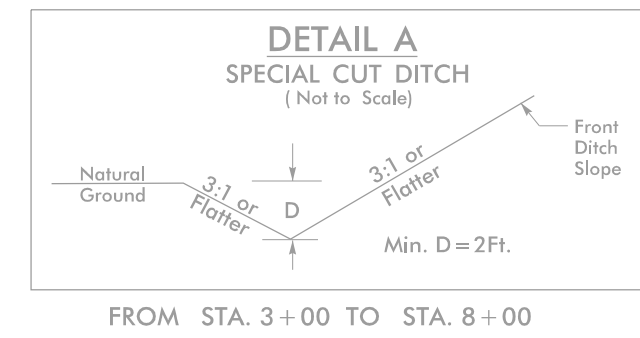
PATRICIA A. GODIN
DB 4515 PG 920
PB 30 PG 379

KIMBERLY J. LORD
DB 1661 PG 13
PB 30 PG 379

VICKY C POTTS
DB 3054 PG 268
PB 30 PG 379

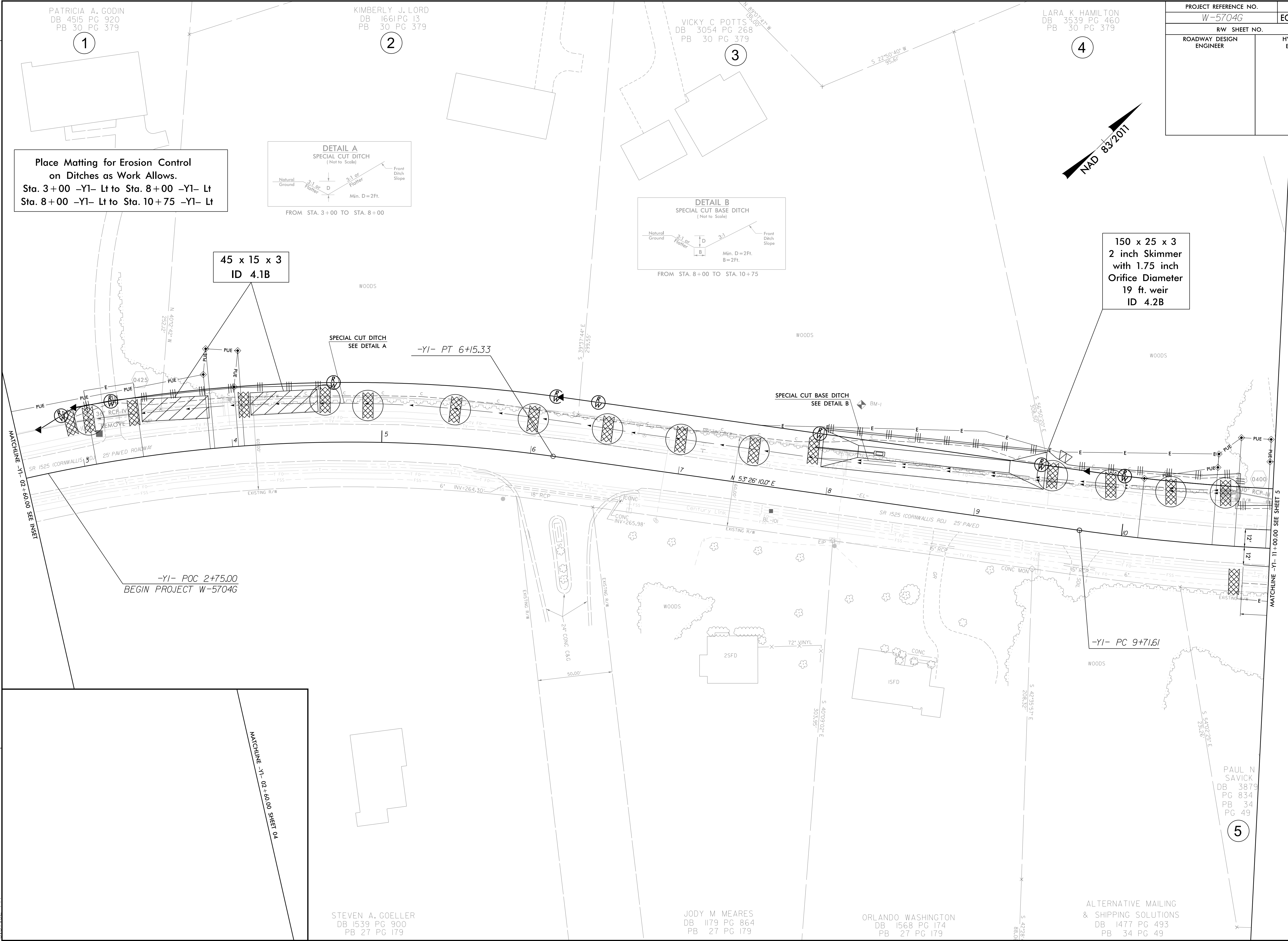
LARA K HAMILTON
DB 3539 PG 460
PB 30 PG 379

Place Matting for Erosion Control
on Ditches as Work Allows.
Sta. 3+00 -Y1- Lt to Sta. 8+00 -Y1- Lt
Sta. 8+00 -Y1- Lt to Sta. 10+75 -Y1- Lt



150 x 25 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
19 ft. weir
ID 4.2B

45 x 15 x 3
ID 4.1B



REVISIONS

11/18/2021
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11:47:32 PM

8/17/99

STEVEN A. GOELLER
DB 1539 PG 900
PB 27 PG 179

JODY M MEARES
DB 1179 PG 864
PB 27 PG 179

ORLANDO WASHINGTON
DB 1568 PG 174
PB 27 PG 179

ALTERNATIVE MAILING
& SHIPPING SOLUTIONS
DB 1477 PG 493
PB 34 PG 49

PAUL N SAVICK
DB 3879
PG 834
PB 34
PG 49

MATCHLINE -Y1- 02+60.00 SEE INSET

MATCHLINE -Y1- 02+60.00 SHEET 04

MATCHLINE -Y1- 11+00.00 SEE SHEET 5

PROJECT REFERENCE NO. W-5704G	SHEET NO. EC-07/CONST. 05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Ditches as Work Allows.
Sta. 11+50 -Y1- Rt to Sta. 12+00 -Y1- Rt
Sta. 11+15 -Y2- Lt to Sta. 11+69 -Y2- Lt
Sta. 11+73 -Y3- Lt to Sta. 12+75 -Y3- Lt
Sta. 12+01 -Y3- Rt to Sta. 13+21 -Y3- Rt

MICHAEL C GALLI
DB 4359 PG 985
PB 41PG 445

FRANCINA BOOKER
DB 4018 PG 292
PB 41PG 445

VIRGIL D MOFFETT
DB 1426 PG 102
PB 41PG 445

ALAN J ROCKER
DB 4836 PG 306
PB 41PG 445

AQUA NORTH CAROLINA INC
DB 1390 PG 939
PB 41PG 445

END 2'6" C&G
-Y4- 13+20.00 LT

-Y4- POC 15+25.00
END CONST

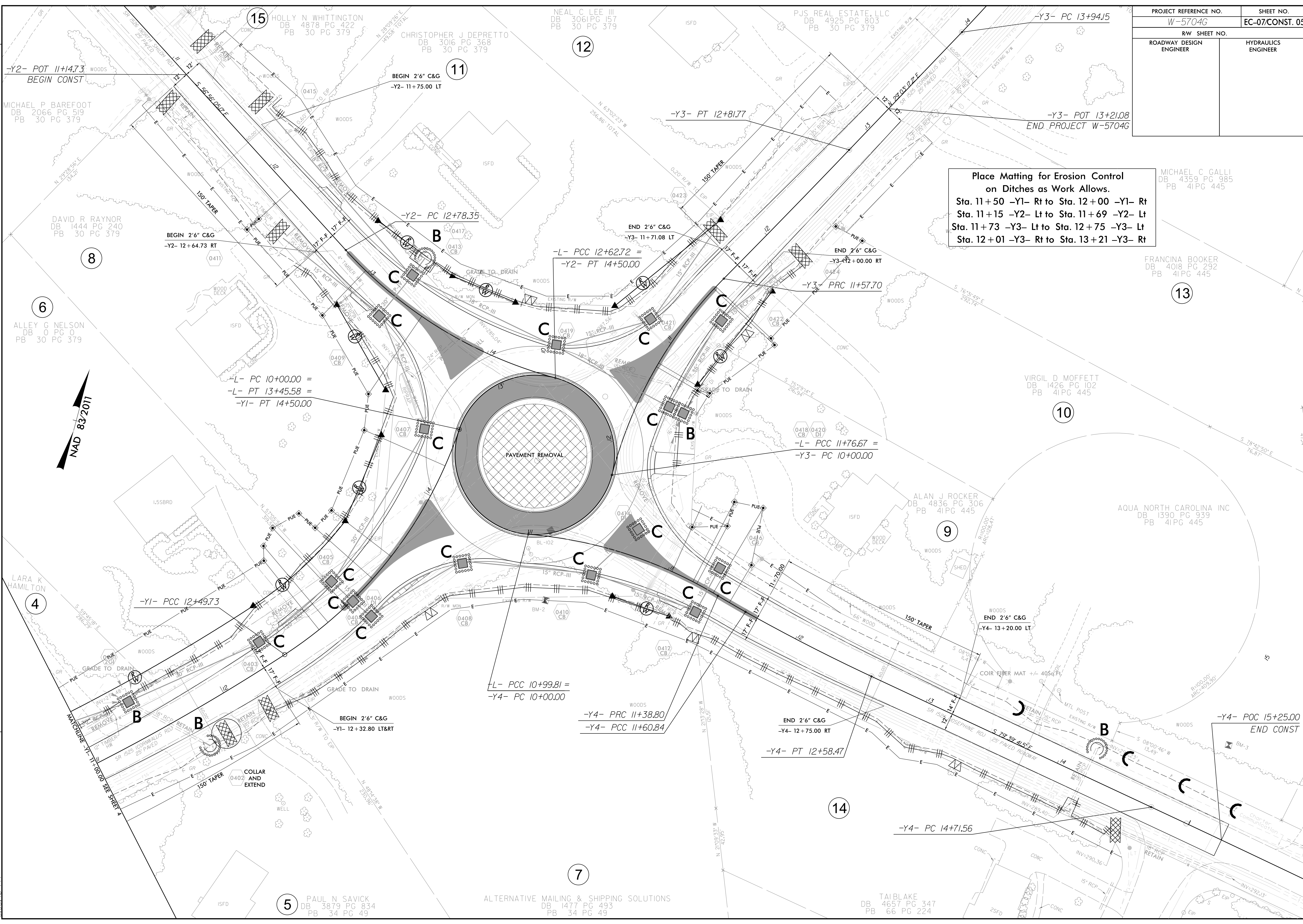
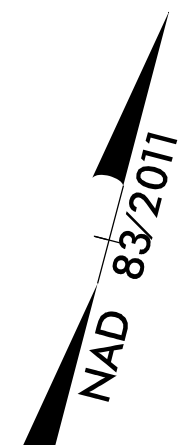
TAIBLAKE
DB 4657 PG 347
PB 66 PG 224

ALTERNATIVE MAILING & SHIPPING SOLUTIONS
DB 4677 PG 493
PB 34 PG 49

PAUL N SAVICK
DB 3879 PG 834
PB 34 PG 49

11/18/2021
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5:58:40 PM

REVISIONS



8,17,199


8,17,199

TIP PROJECT: W-5704G

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
JOHNSTON COUNTY**

**LOCATION: ROUNDABOUT AT INTERSECTION OF
SR-1525 (CORNWALLIS ROAD) AND SR-1526
(SHILOH ROAD & JOSEPHINE ROAD).**

PROJECT NO. W-5704G	SHEET NO. SIGN-1
APPROVED: <u>Ron King</u>	
DATE: <u>1/6/2022</u>	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.40	SINGLE/TWO LANE ROUNDABOUT WITH PEDESTRIAN

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	410	L.F.
4102000000	904	SIGN ERECTION, TYPE E	38	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	22	EA.

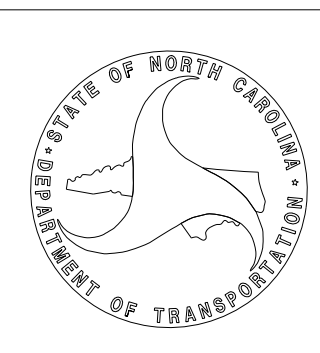
PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	RSD 904D50 (1 OF 2) MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
SIGN-3	E SHEET
SIGN- 4 & 4A	SIGN DETAIL SHEETS

PLAN SUBMITTED TO:




PLAN PREPARED BY: HDR Engineering, Inc. of the Carolinas

RON KING, P.E. PROJECT ENGINEER

RICHARD DRAYTON PROJECT DESIGN ENGINEER



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

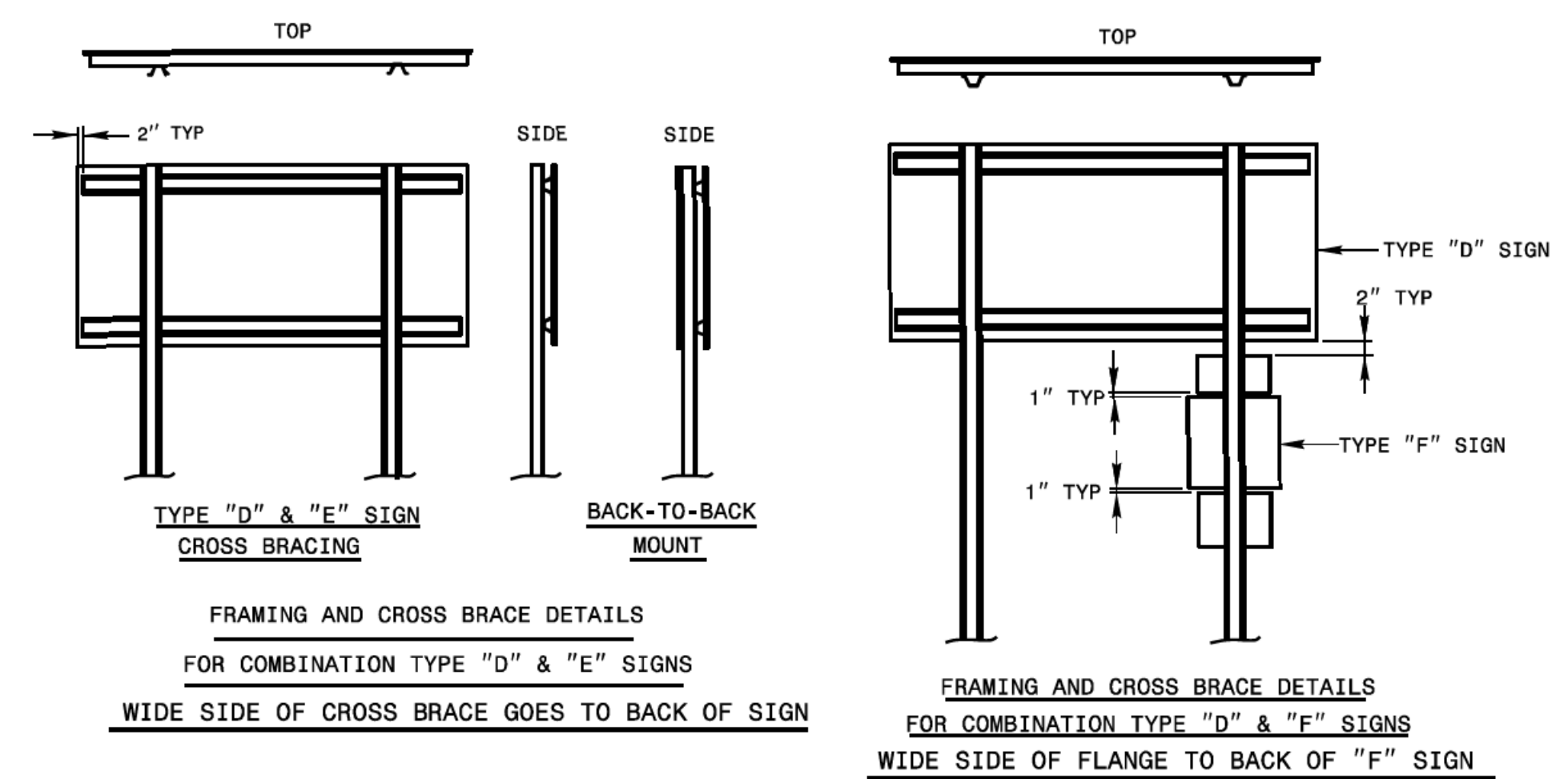
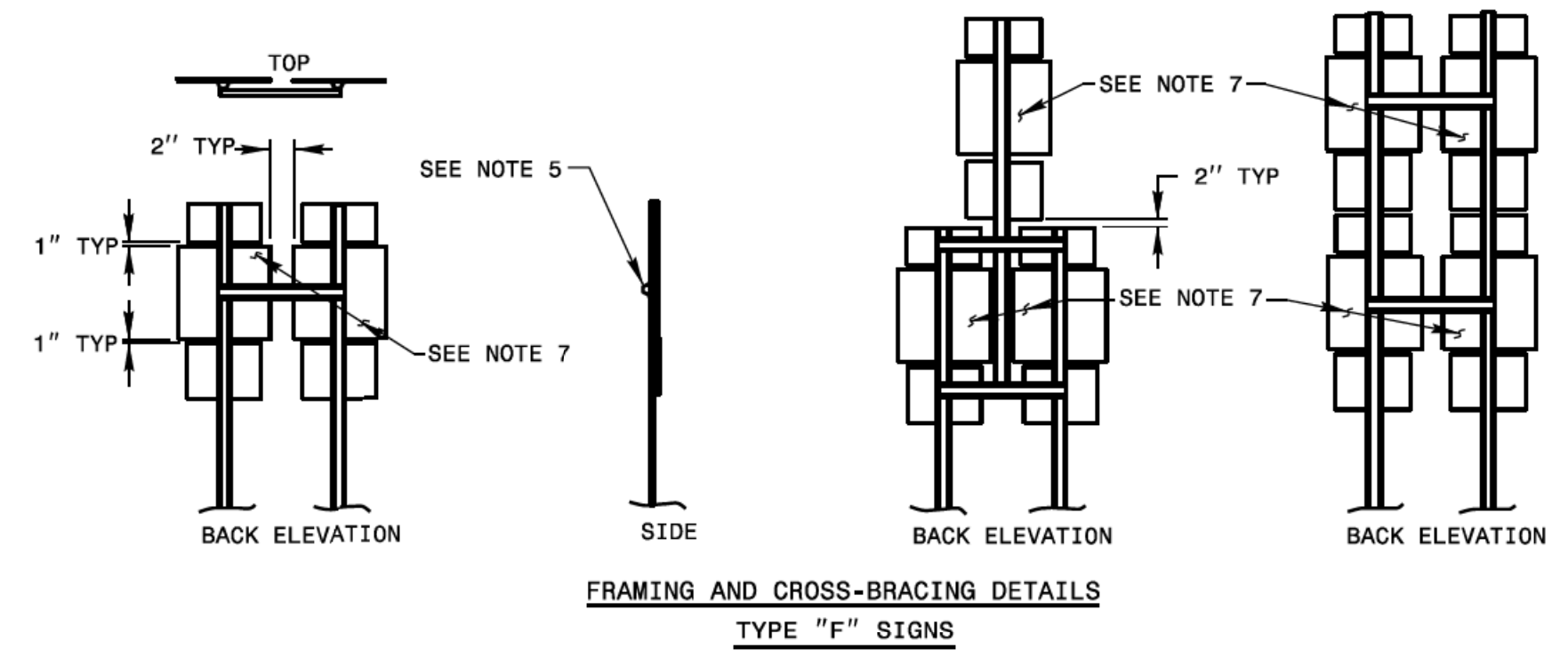
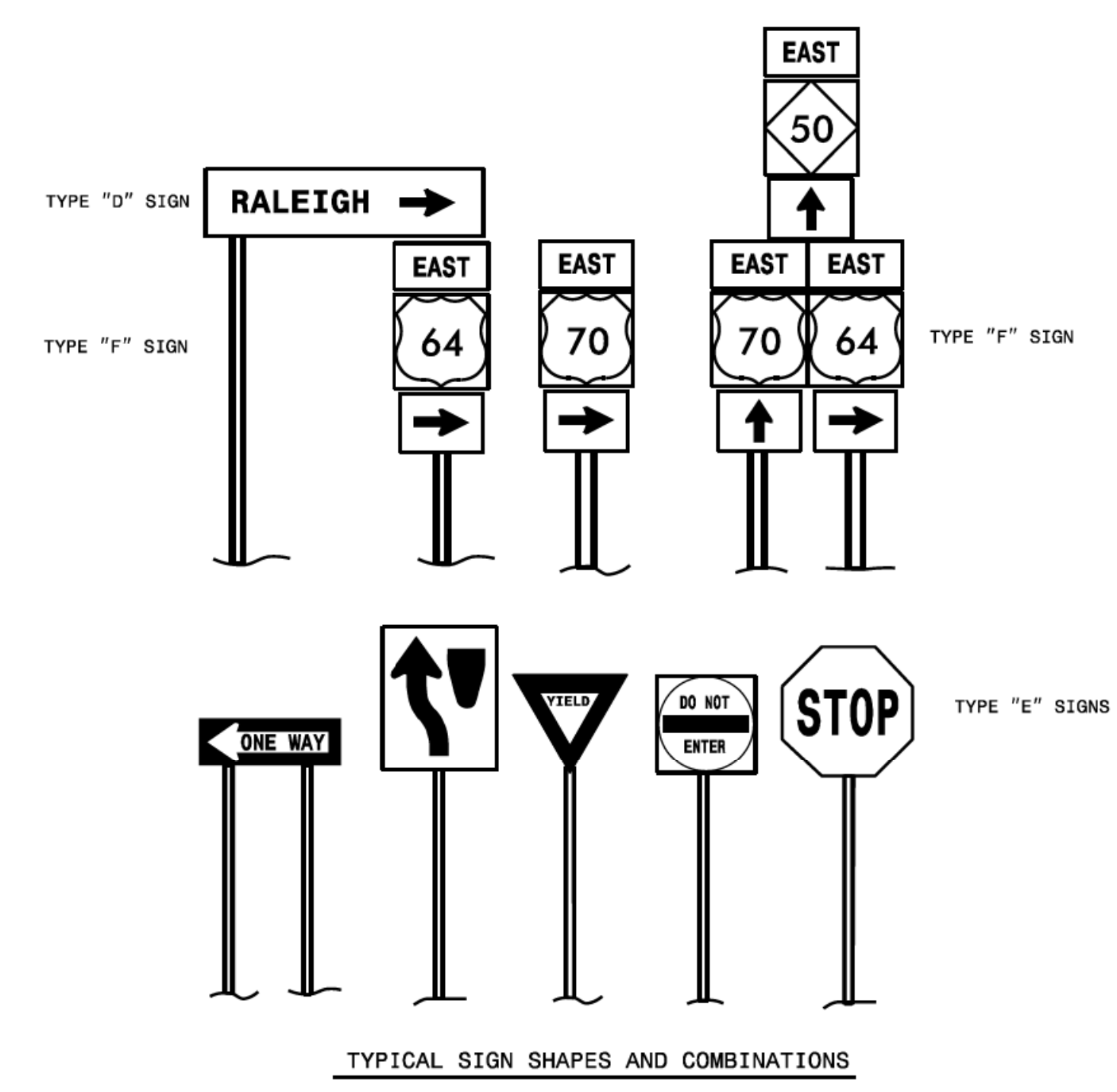
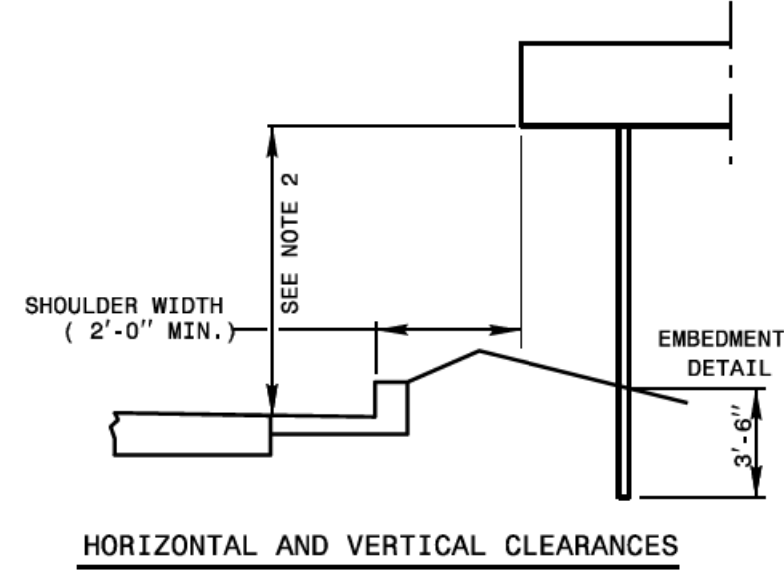
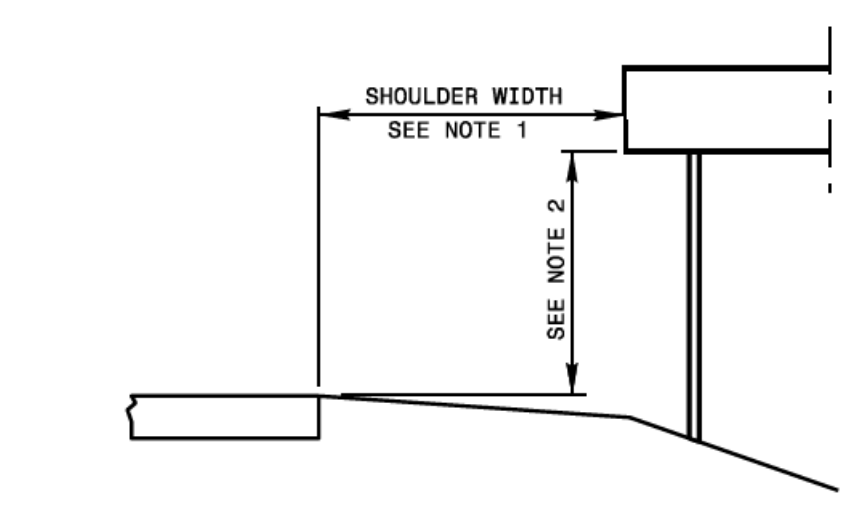
TIP NO. W-5704G	SHEET NO. SIGN-2
APPROVED: <i>Matthew V. Springer</i>	
DATE: 6/23/2021	
SEAL	
	

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

6-21

ENGLISH DETAIL DRAWING FOR
MOUNTING OF
TYPE 'D', 'E' AND 'F' SIGNS
ON 'U' CHANNEL POSTS

SHEET 1 OF 2
904D50



- NOTES:
1. ERECT TYPE "D", "E", AND "F" SIGNS ON FREEWAYS WITH THE NEAR EDGE OF THE SIGN 20 FT. FROM THE TRAVEL LANE. ERECT ALL OTHER "D", "E", AND "F" SIGNS WITH THE NEAR EDGE OF THE SIGN AT THE EDGE OF THE SHOULDER BREAK (6 FT. MINIMUM CLEARANCE, 12 FT. DESIRABLE, FROM THE EDGE OF TRAVEL LANE), OR AS DIMENSIONED ON PLAN SHEETS.
 2. ERECT TYPE "D", "E", AND "F" SIGNS WITH THE BOTTOM OF SIGN ASSEMBLY AT LEAST 7 FT. ABOVE THE EDGE OF THE TRAVEL LANE ON ROADS WITH 2 OR MORE LANES IN THE SAME DIRECTION AND AT LEAST 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE IS 7 FT. WHERE REQUIRED FOR PEDESTRIAN TRAFFIC AND/OR PARKED VEHICLES.
 3. THE VERTICAL DIMENSION BETWEEN MOUNTING HOLE CENTERS ON ALL TYPES "D", "E", AND "F" SIGNS IS 30" MAXIMUM. THE VERTICAL AND HORIZONTAL DIMENSIONS BETWEEN MOUNTING HOLES IS TO THE WHOLE INCH. EACH SIGN PANEL HAS A MINIMUM OF 2 BOLTS PER SUPPORT.
 4. ATTACH SIGN W/ 5/16" HEX HEAD BOLT, NYLON WASHER, SHIM, FLAT WASHER, LOCK WASHER, HEX.NUT NO BUCKLING OF THE SIGN WILL BE PERMITTED. SEE ASSEMBLY DETAIL SHEET# 2 OF 904.50.
 5. FURNISH AND INSTALL CROSS-BRACING AS SHOWN IN DETAIL. PAINT ENDS OF CROSS BRACES W/ APPROVED. ZINC PAINT
 6. INSTALL POST AND CROSS-BRACING WITH THE WIDE SIDE OF THE FLANGE TOWARD THE BACK OF SIGN(S) FOR COMBINATION TYPE "D" AND "F" SIGNS.
 7. THE SHIELD HEIGHTS IN THESE ASSEMBLIES CAN NOT BE LARGER THAN 24".
 8. IF SIGN ASSEMBLIES REQUIRE MORE THAN TWO U-CHANNEL SUPPORTS, THE SUPPORTS SHALL BE PLACED A MINIMUM OF 4 FT. BETWEEN POSTS. NO MORE THAN TWO POSTS SHALL FALL WITHIN 7 FT. PATH, OR THE SIGN ASSEMBLY MUST BE PLACED BEHIND BARRIER PROTECTION.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

6-21

ENGLISH DETAIL DRAWING FOR
MOUNTING OF
TYPE 'D', 'E' AND 'F' SIGNS
ON 'U' CHANNEL POSTS

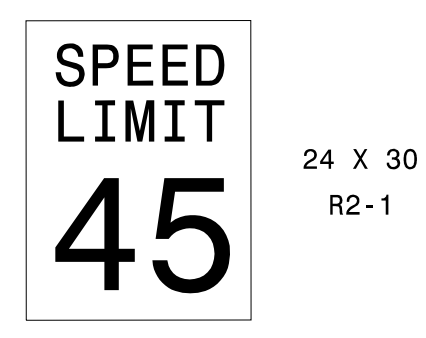
SHEET 1 OF 2
904D50

APPROVED: *Ron King*
 DATE: 1/6/2022



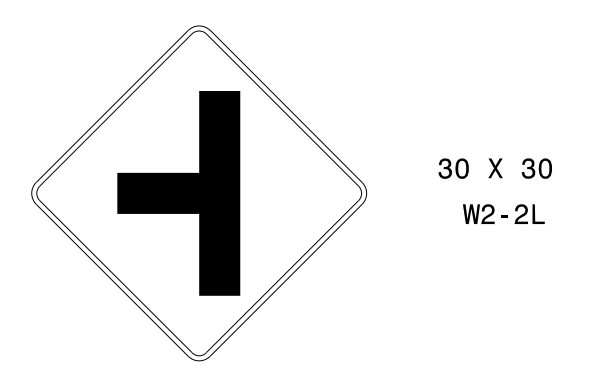
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UNLESS ALL SIGNATURES COMPLETED**

401 QUANTITY REQ'D 4



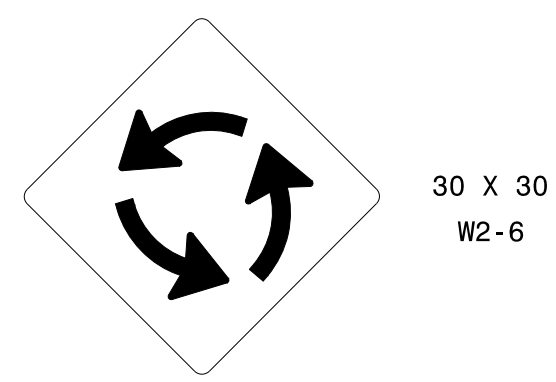
ONE "U" POST

407 QUANTITY REQ'D 1



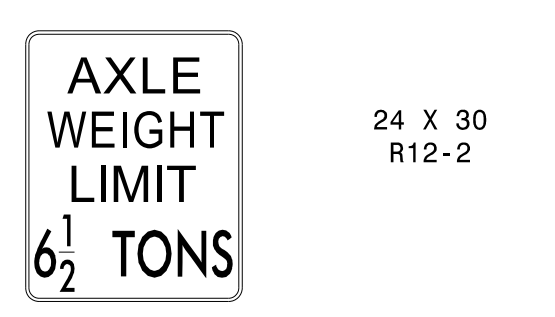
ONE "U" POST PER SIGN

402 QUANTITY REQ'D 4



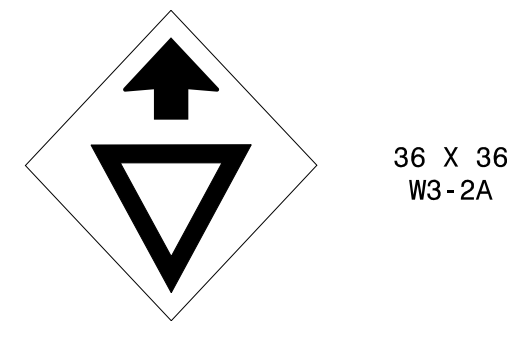
ONE "U" POST PER SIGN

408 QUANTITY REQ'D 1



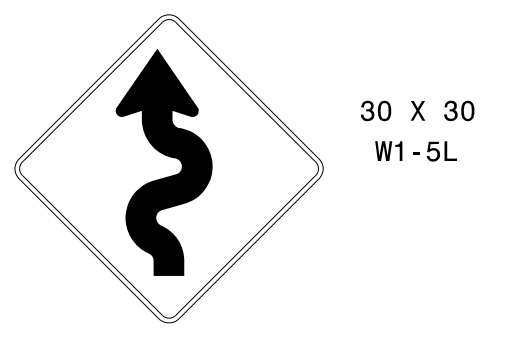
ONE "U" POST PER SIGN

403 QUANTITY REQ'D 4



ONE "U" POST PER SIGN

409 QUANTITY REQ'D 1



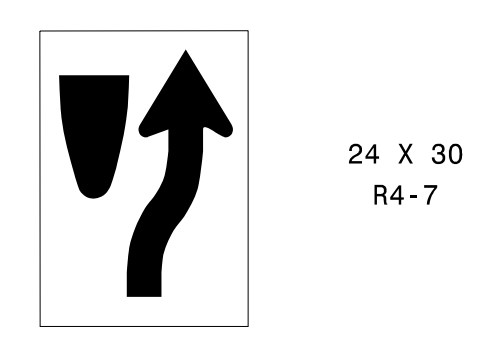
ONE "U" POST PER SIGN

404 QUANTITY REQ'D 8



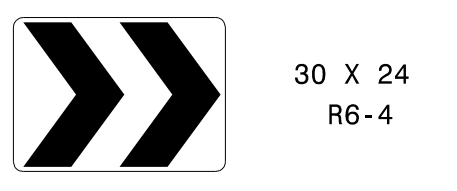
ONE "U" POST PER SIGN

410 QUANTITY REQ'D 4



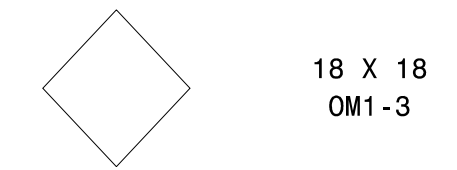
ONE "U" POST PER SIGN

405 QUANTITY REQ'D 4



ONE "U" POST PER SIGN

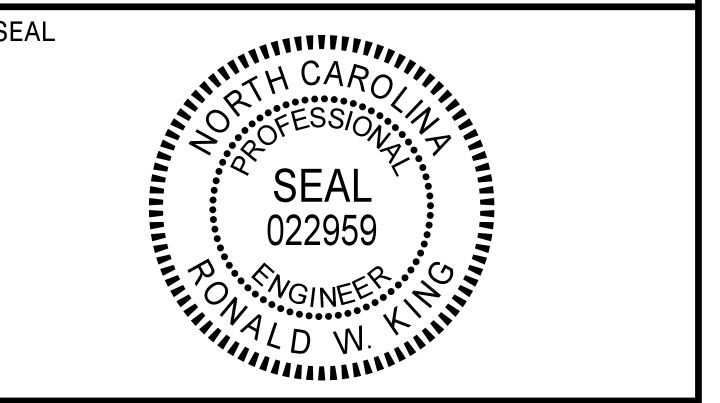
411 QUANTITY REQ'D 4



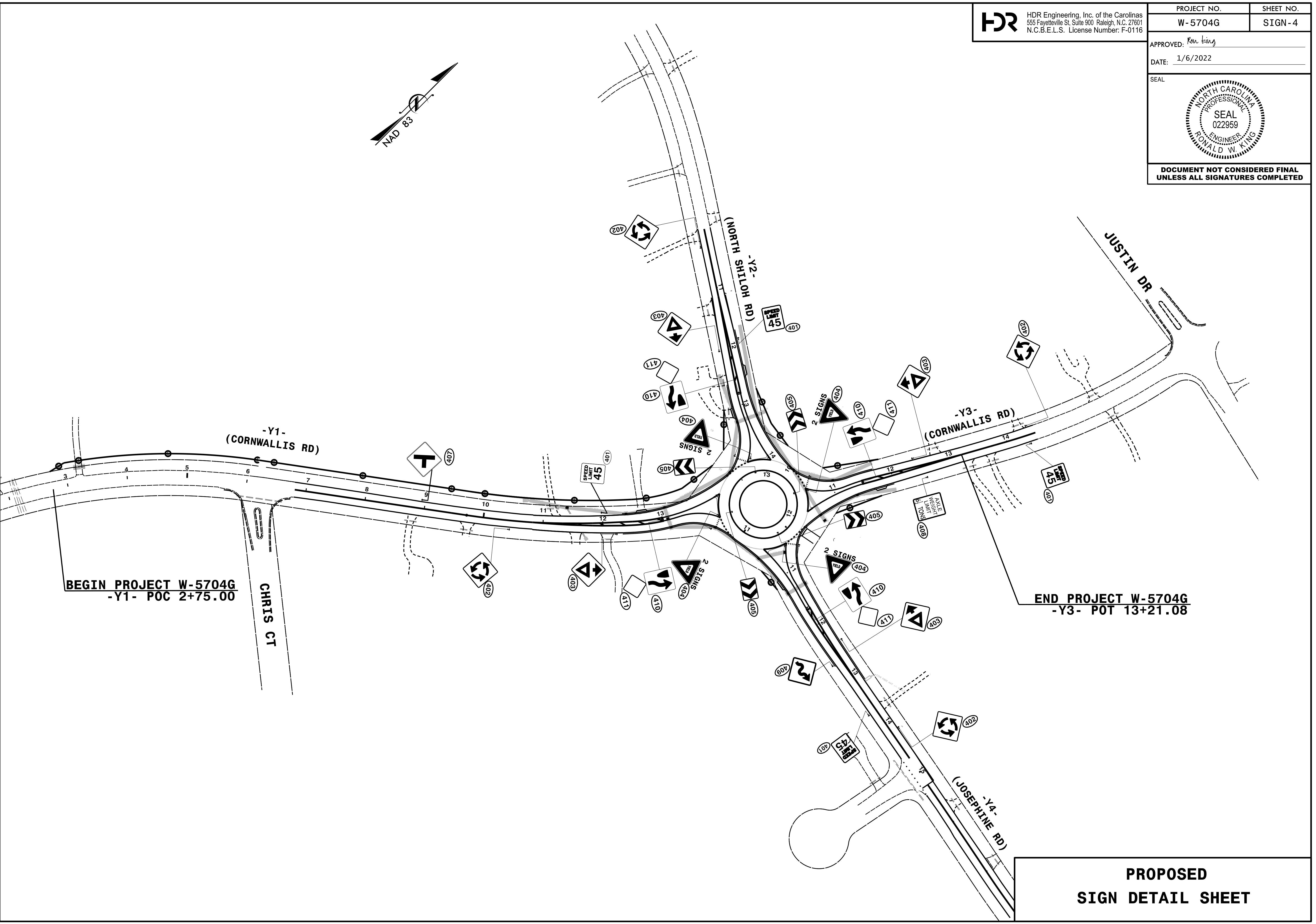
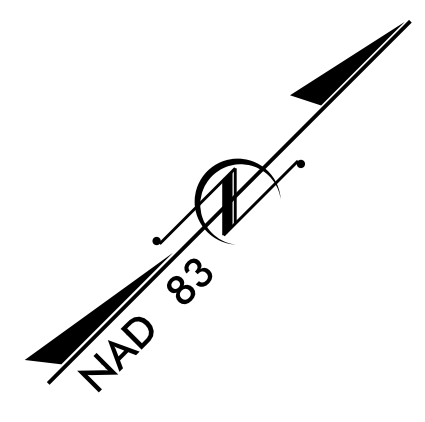
MOUNT BELOW SIGN 410
IN 4 INSTALLATIONS

TYPE "E" SIGNS

7:34:43 AM
 5/9/2021
 c:\pwworking\leas\01\00728269\2018_PEF_Engneerd_05-26-20.dgn



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UNLESS ALL SIGNATURES COMPLETED

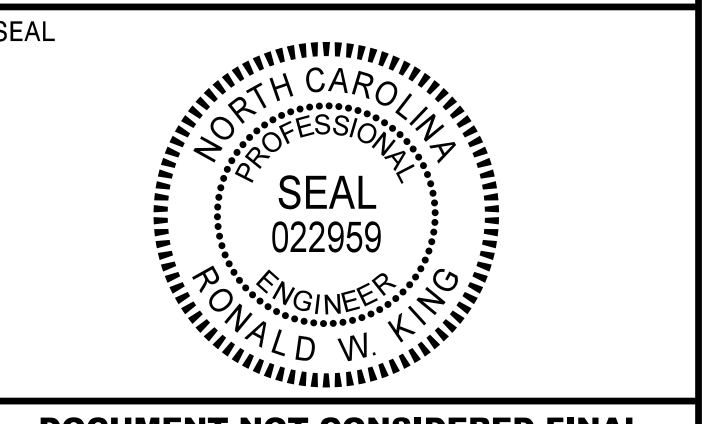


BEGIN PROJECT W-5704G
-Y1- POC 2+75.00

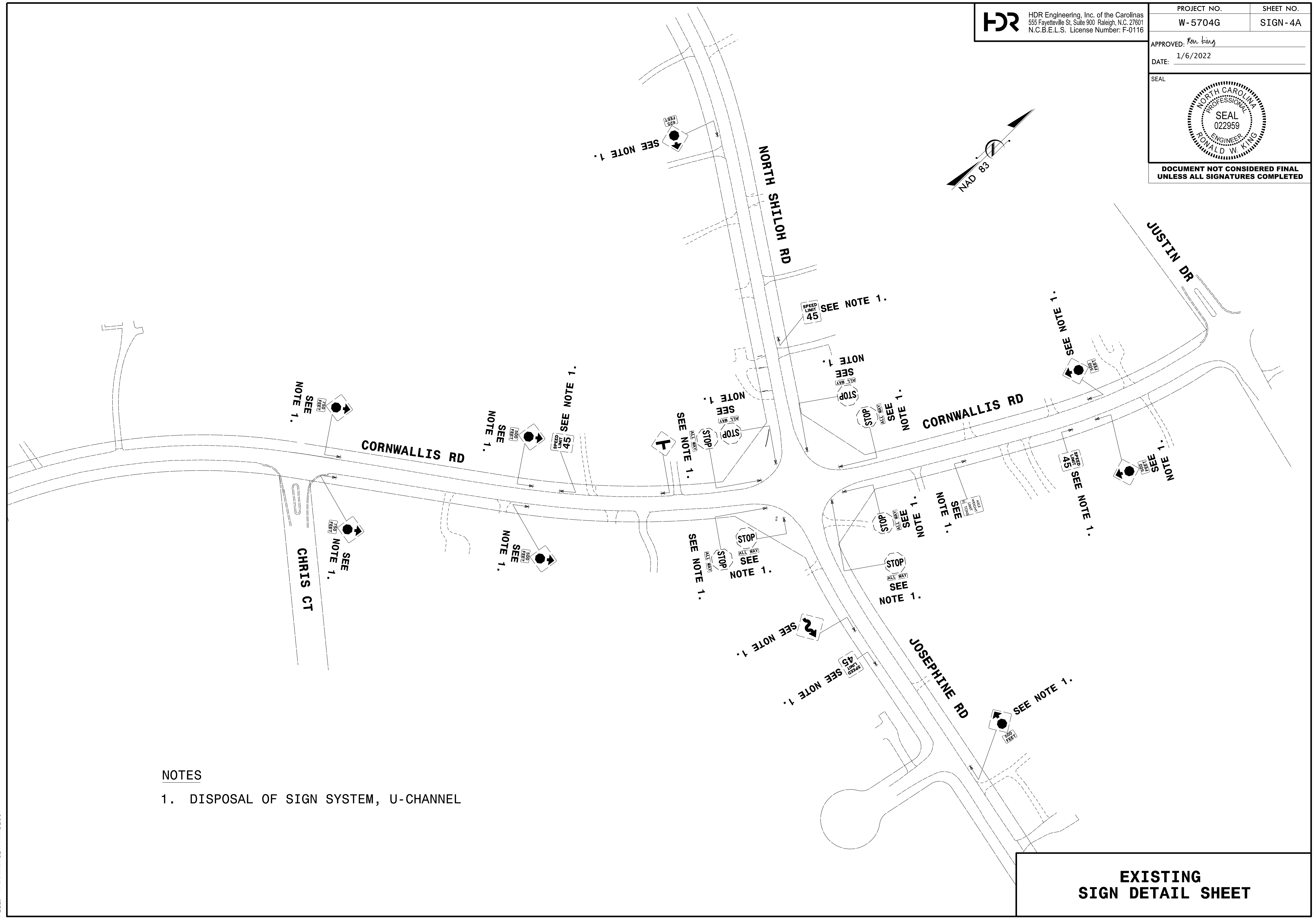
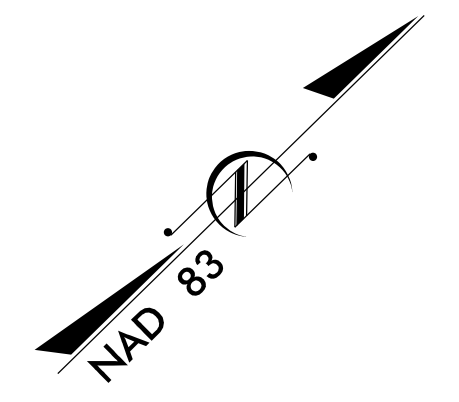
END PROJECT W-5704G
-Y3- POT 13+21.08

**PROPOSED
SIGN DETAIL SHEET**

PLOT DRIVER: \$PLTDVRS\$
USER: \$USER\$
FILE: \$PWVAVALLTPATHDESC\$
DATE: 10/6/2021
PENTABLE: \$PENTBLS\$
TIME: 11:20:49 AM



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



NOTES

- 1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL

**EXISTING
SIGN
DETAIL SHEET**

TIP PROJECT: W-5704G

CONTRACT:

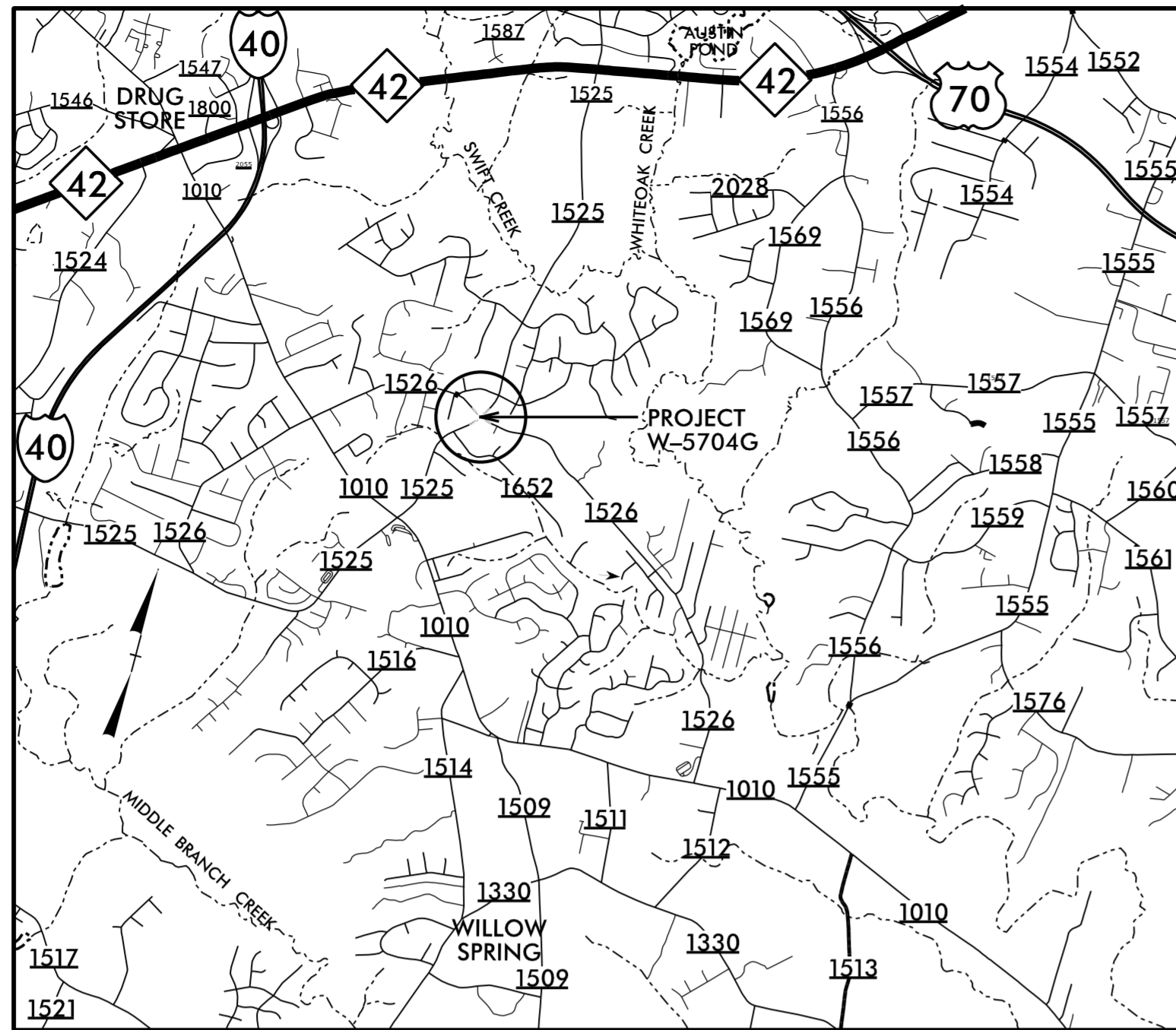
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
W-5706G	UC-1

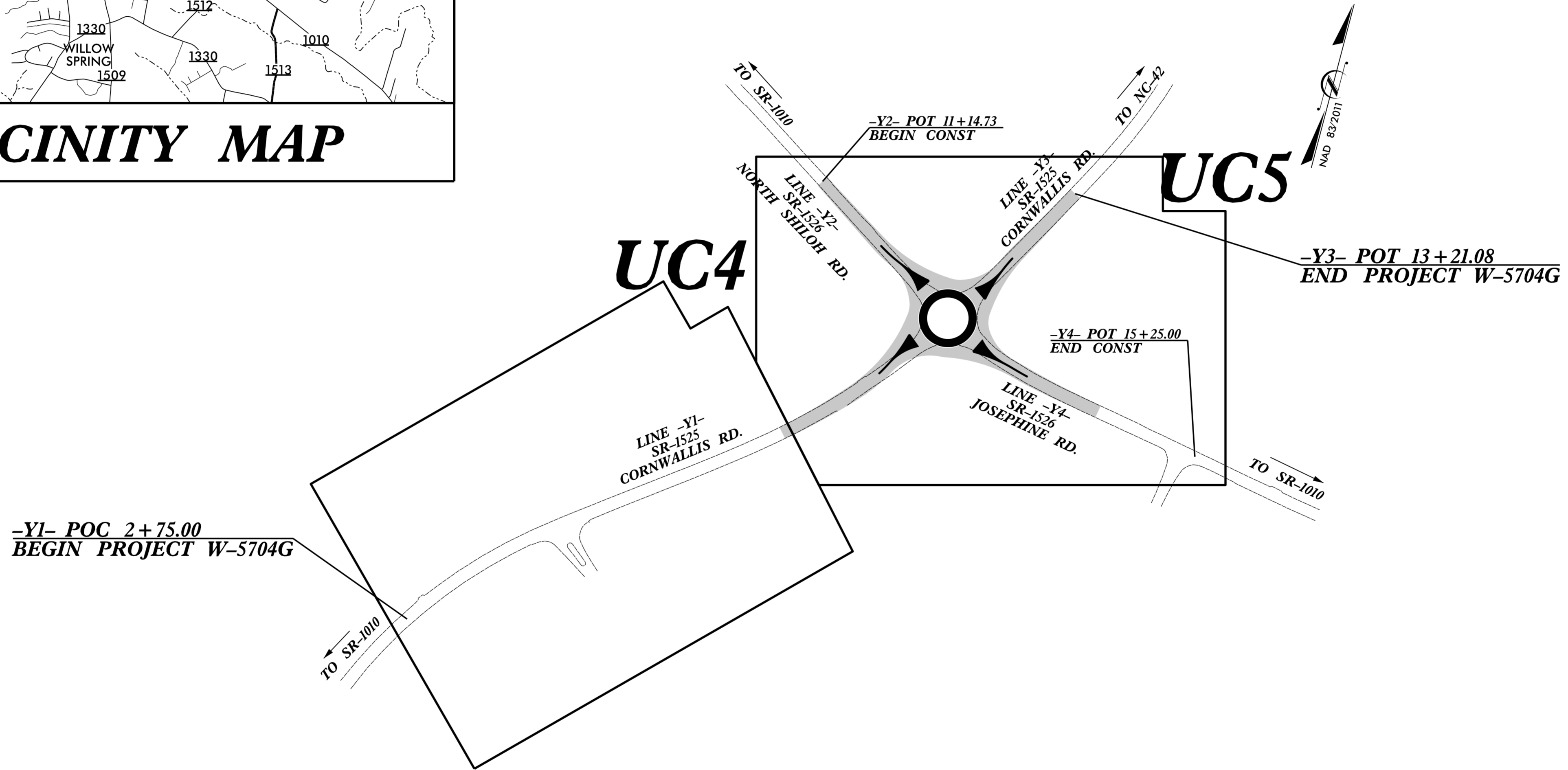
UTILITY CONSTRUCTION PLANS JOHNSTON COUNTY

**LOCATION: ROUNDABOUT AT INTERSECTION OF
SR-1525 (CORNWALLIS ROAD) AND SR-1526
(SHILOH ROAD & JOSEPHINE ROAD).**

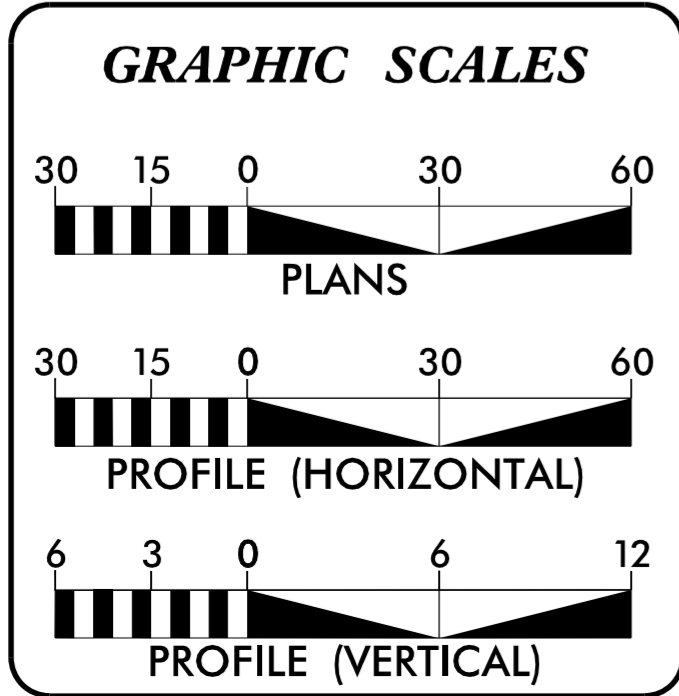
TYPE OF WORK: WATER AND SEWER CONSTRUCTION



VICINITY MAP



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3C	DETAILS
UC-4 THRU UC-5B	UTILITY CONSTRUCTION SHEETS
UC-6 THRU UC-8	PROFILE SHEETS

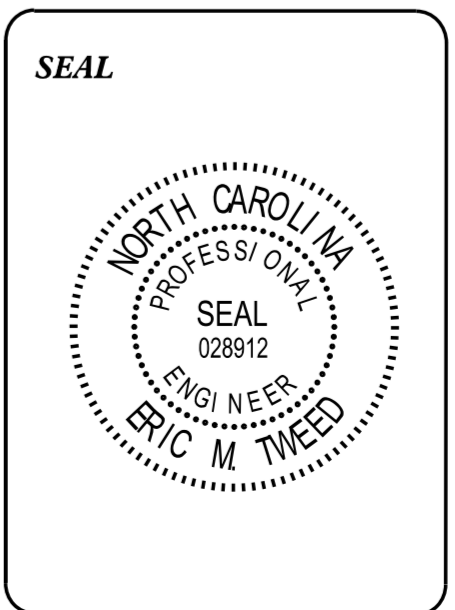
WATER AND SEWER OWNERS ON PROJECT

(A) WATER: AQUA NC
(B) WATER: JOHNSTON COUNTY
(C) SEWER: JOHNSTON COUNTY

PREPARED IN THE OFFICE OF
CH ENGINEERING

3220 GLEN ROYAL RD. RALEIGH, NC 27617
TELE 919.788.0224 FAX 919.788.0232
NC LICENSE #P-0189

BRIAN WILES, PE UTILITY PROJECT MANAGER
ERIC TWEED, PE PROJECT UTILITY COORDINATOR



**DIVISION OF HIGHWAYS
DIVISION 04**

509 WARD BLVD.
WILSON, NC 27895

KYLE PLEASANT DIVISION UTILITY ENGINEER
FRANK ZDELAR DIVISION UTILITY COORDINATOR
ADDISON GAINNEY, PE DIVISION PROJECT TEAM LEAD
COREY MCLAMB, PE DIVISION CONSTRUCTION ENGINEER

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11¼ Degree Bend	
22½ Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	A/G Gas
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	A/G Water
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	ss
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	A/G Sanitary Sewer
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

*For Existing Utilities
 Utility Line Drawn from Record (Type as Shown)
 Designated Utility Line (Type as Shown)

5/14/99
9/29/2021 UC\Projects\5706G\UC-2\Sym UC02.psh.dgn
REV: 2/1/2012

UTILITY CONSTRUCTION

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018.
2. THE EXISTING FORCEMAINS AND 8" WATER LINES BELONGS TO JOHNSTON COUNTY. THE 6" WATER LINES BELONG TO AQUA NC.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

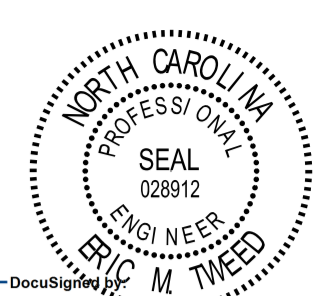
6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

PROJECT SPECIFIC NOTES:

1. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.

LIST OF STANDARD DRAWINGS

1515.01 WATER METER

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-3
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
Eric M. Tweed 1/18/2022 UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-3A
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	

FORCEMAIN TIE-IN DETAILS

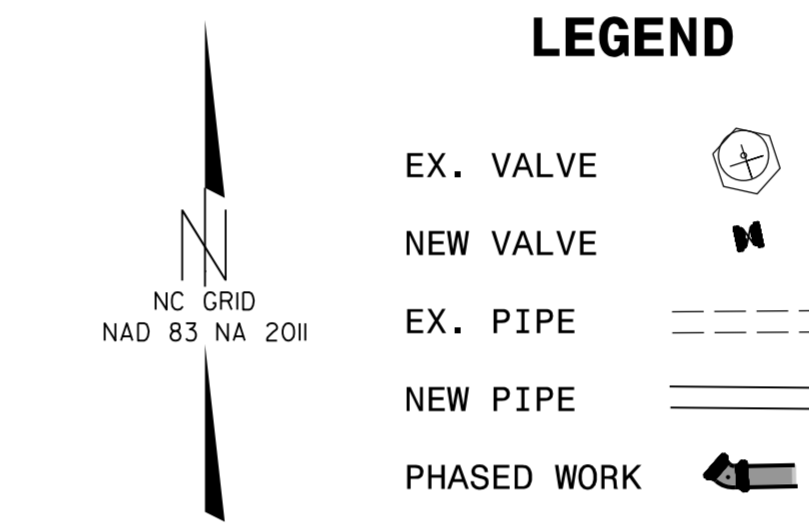
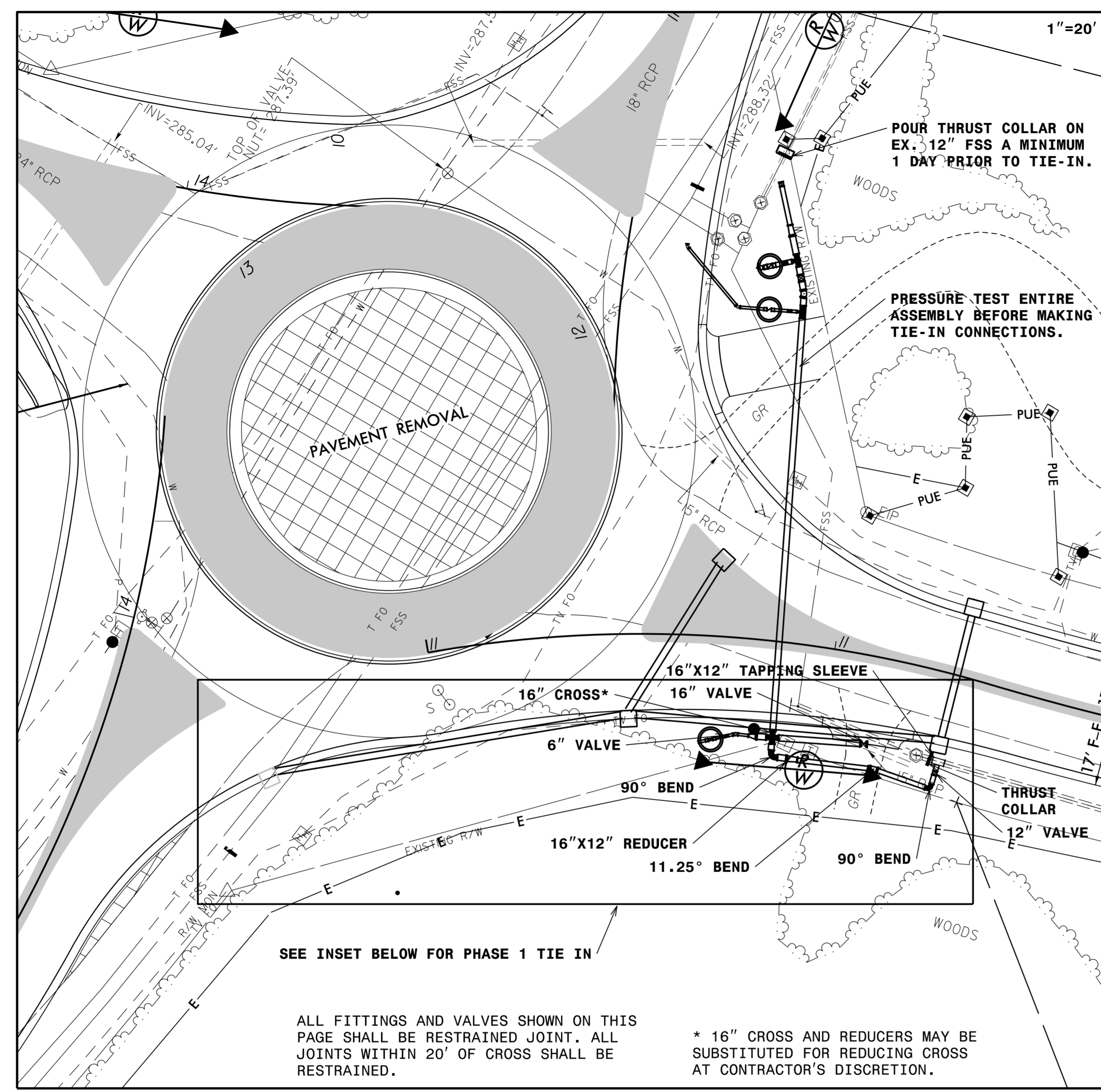
TIE-IN WORK WILL DISRUPT PUMP STATIONS OPERATIONS. COUNTY MAY REQUIRE NIGHT AND/OR WEEKEND WORK TO LIMIT DOWN TIME.

NOTES:
 JOHNSTON COUNTY HAS FOUR PUMP STATIONS WHOSE FORCE MAINS TIE TOGETHER AT THIS INTERSECTION AND BECOME A SINGLE 16" FORCEMAIN (FSS).

SEQUENCE BELOW IS PROVIDED TO ALLOW TIE-INS TO BE RELOCATED WHILE ONLY HAVING ONE PUMP STATION'S OPERATION TO BE DISRUPTED AT A TIME. NEW 16"X12" TS&V PROVIDES TEMPORARY CONNECTION FOR THIS PURPOSE.

UTILITY CONSTRUCTION

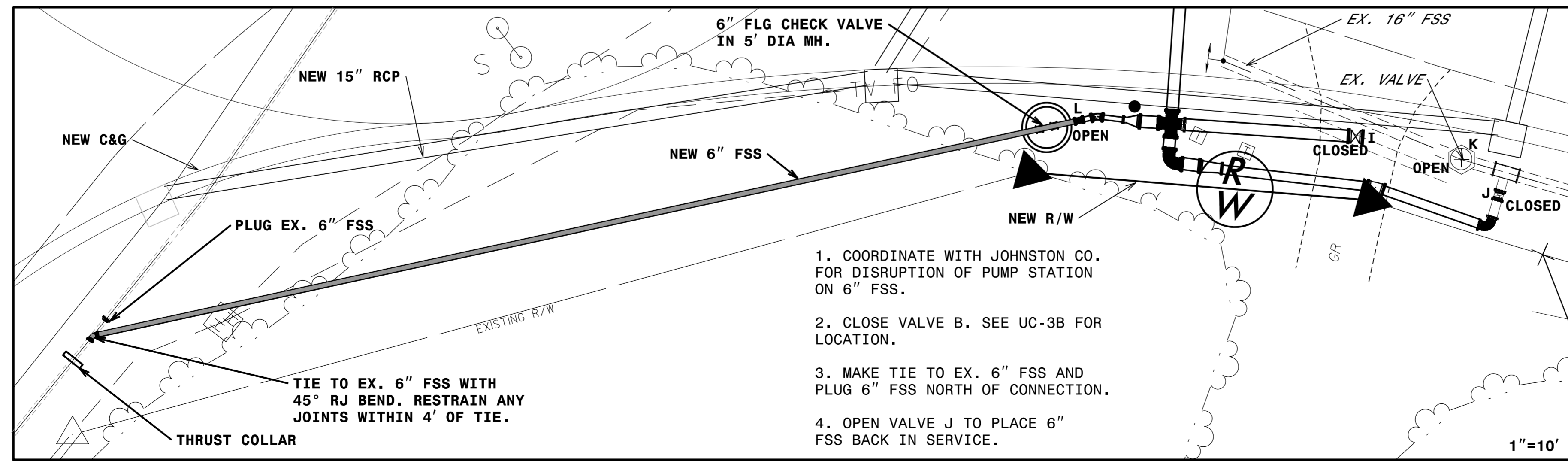
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SEE INSET BELOW FOR PHASE 1 TIE IN

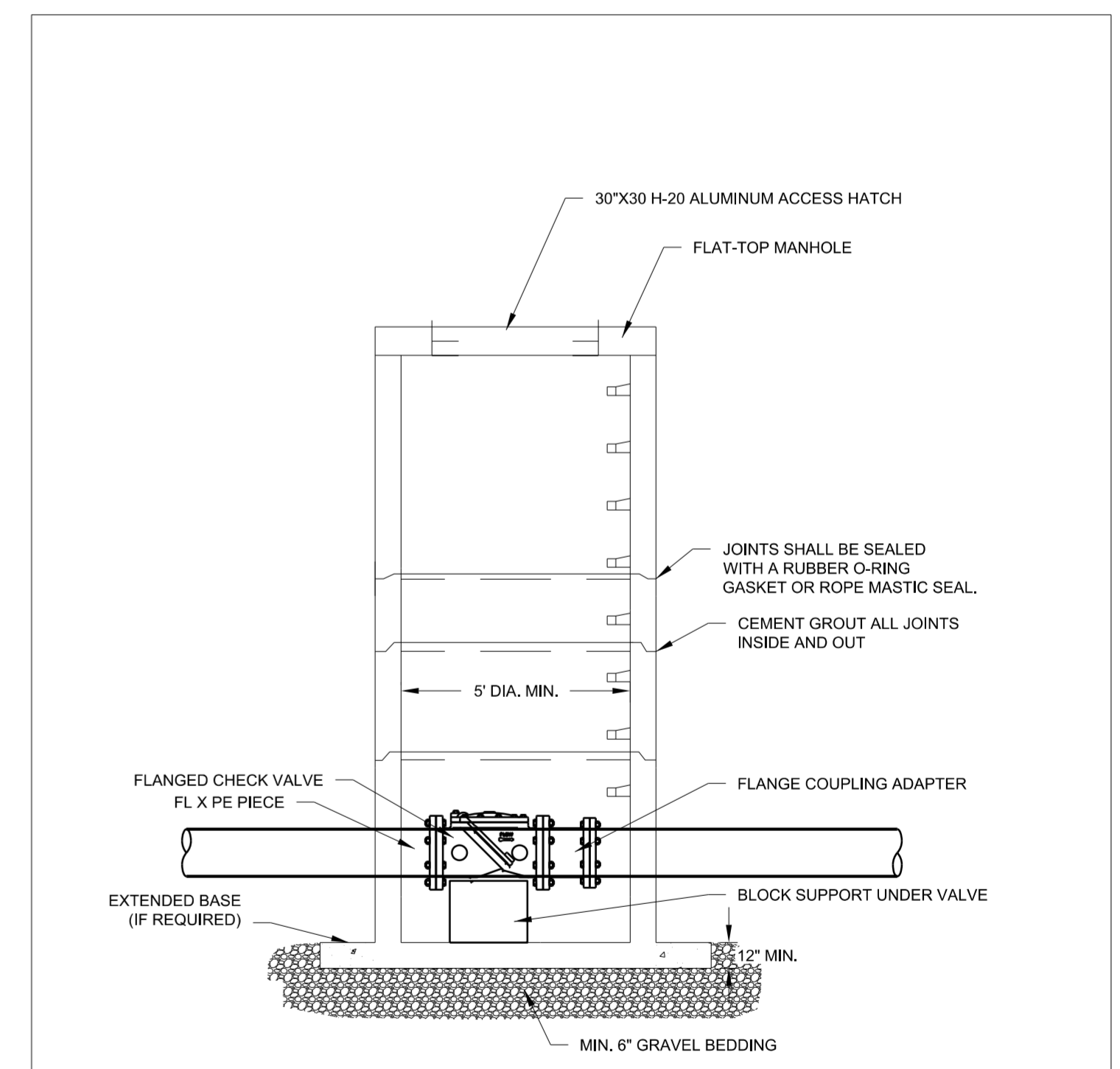
ALL FITTINGS AND VALVES SHOWN ON THIS PAGE SHALL BE RESTRAINED JOINT. ALL JOINTS WITHIN 20' OF CROSS SHALL BE RESTRAINED.
 * 16" CROSS AND REDUCERS MAY BE SUBSTITUTED FOR REDUCING CROSS AT CONTRACTOR'S DISCRETION.

FORCEMAIN TIE-IN SEQUENCE PHASE 1



- COORDINATE WITH JOHNSTON CO. FOR DISRUPTION OF PUMP STATION ON 6" FSS.
- CLOSE VALVE B. SEE UC-3B FOR LOCATION.
- MAKE TIE TO EX. 6" FSS AND PLUG 6" FSS NORTH OF CONNECTION.
- OPEN VALVE J TO PLACE 6" FSS BACK IN SERVICE.

TIE TO EX. 6" FSS WITH 45° RJ BEND. RESTRAIN ANY JOINTS WITHIN 4' OF TIE.



CHECK VALVE IN CONCRETE MANHOLE

Drawn By:	Name	Date	
Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

SANITARY SEWER
 FSS DETAIL
 Check Valve
 Manhole

PAGE

SEE SHEET UC-8 FOR PROFILE

1/18/2022 UC-P-01 W-5704G-ut_dtl_UC03A_psh.dgn

5/14/19

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-3B
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

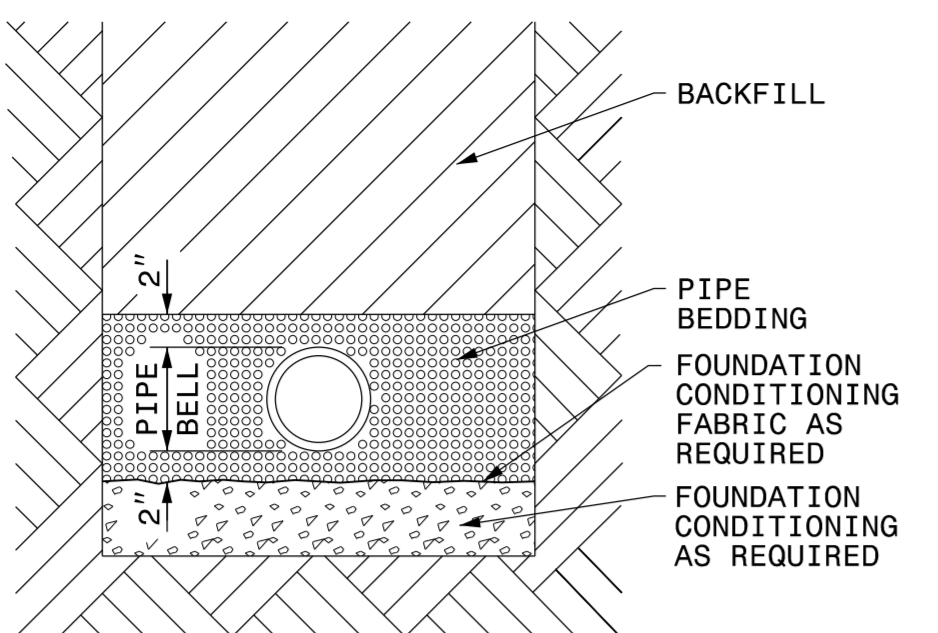
FORCEMAIN TIE-IN DETAILS

NOTES:
 JOHNSTON COUNTY OPERATES FOUR PUMP STATIONS WHOSE FORCE MAINS TIE TOGETHER AT THIS INTERSECTION AND BECOME A SINGLE 16" FORCEMAIN (FSS).

TIE-IN WORK WILL DISRUPT PUMP STATION OPERATIONS. COUNTY MAY REQUIRE NIGHT AND/OR WEEKEND WORK TO LIMIT DOWN TIME.

SEQUENCE BELOW IS PROVIDED TO ALLOW TIE-INS TO BE RELOCATED WHILE ONLY HAVING ONE PUMP STATION'S OPERATION TO BE DISRUPTED AT A TIME. NEW 16"X12" TS&V PROVIDES TEMPORARY CONNECTION FOR THIS PURPOSE.

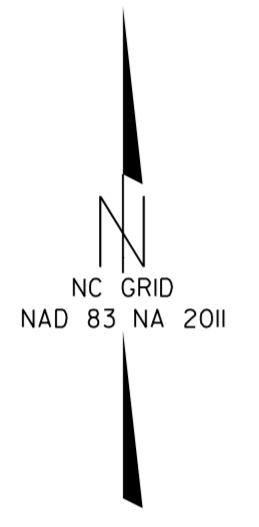
TRENCH DETAIL



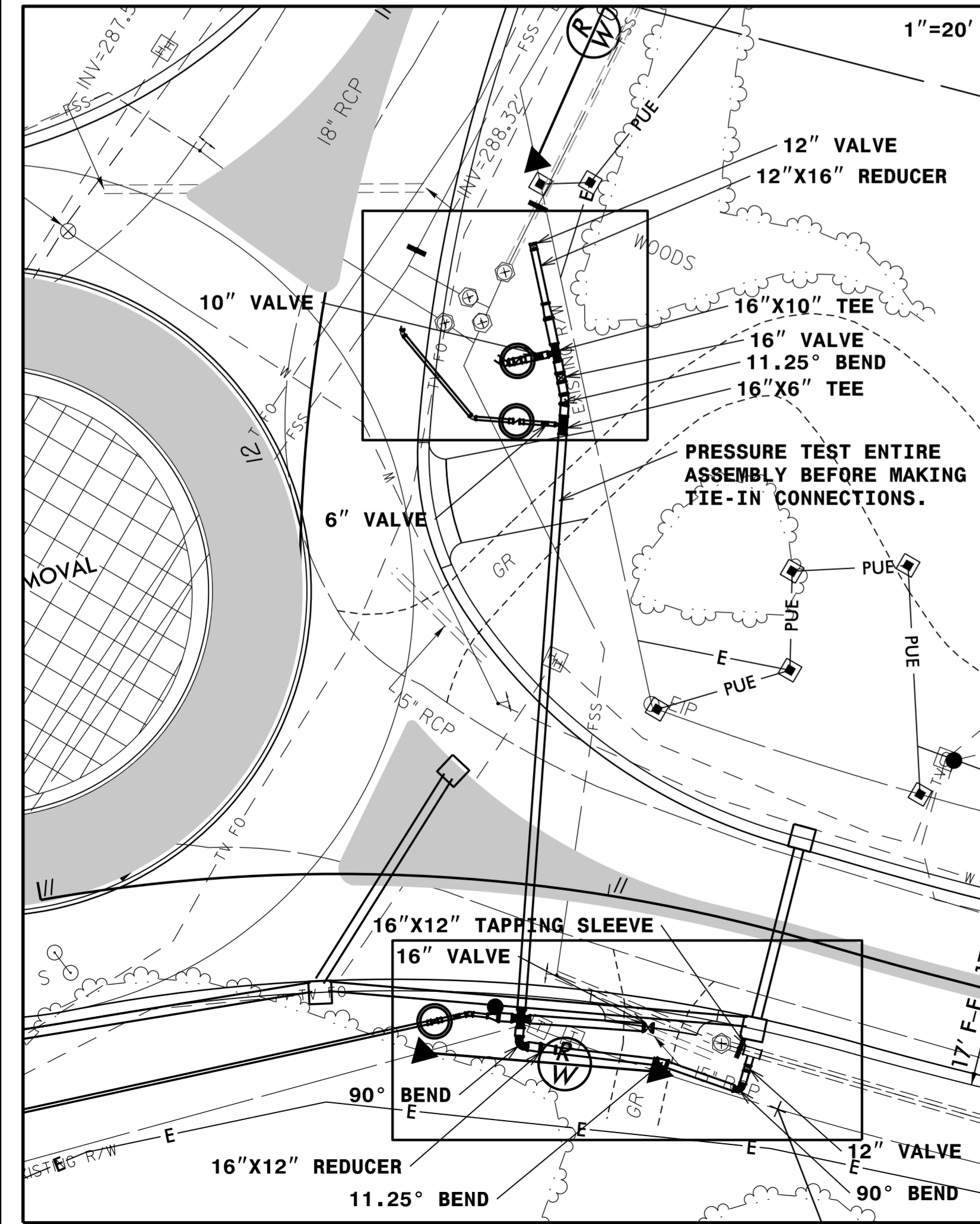
PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

LEGEND

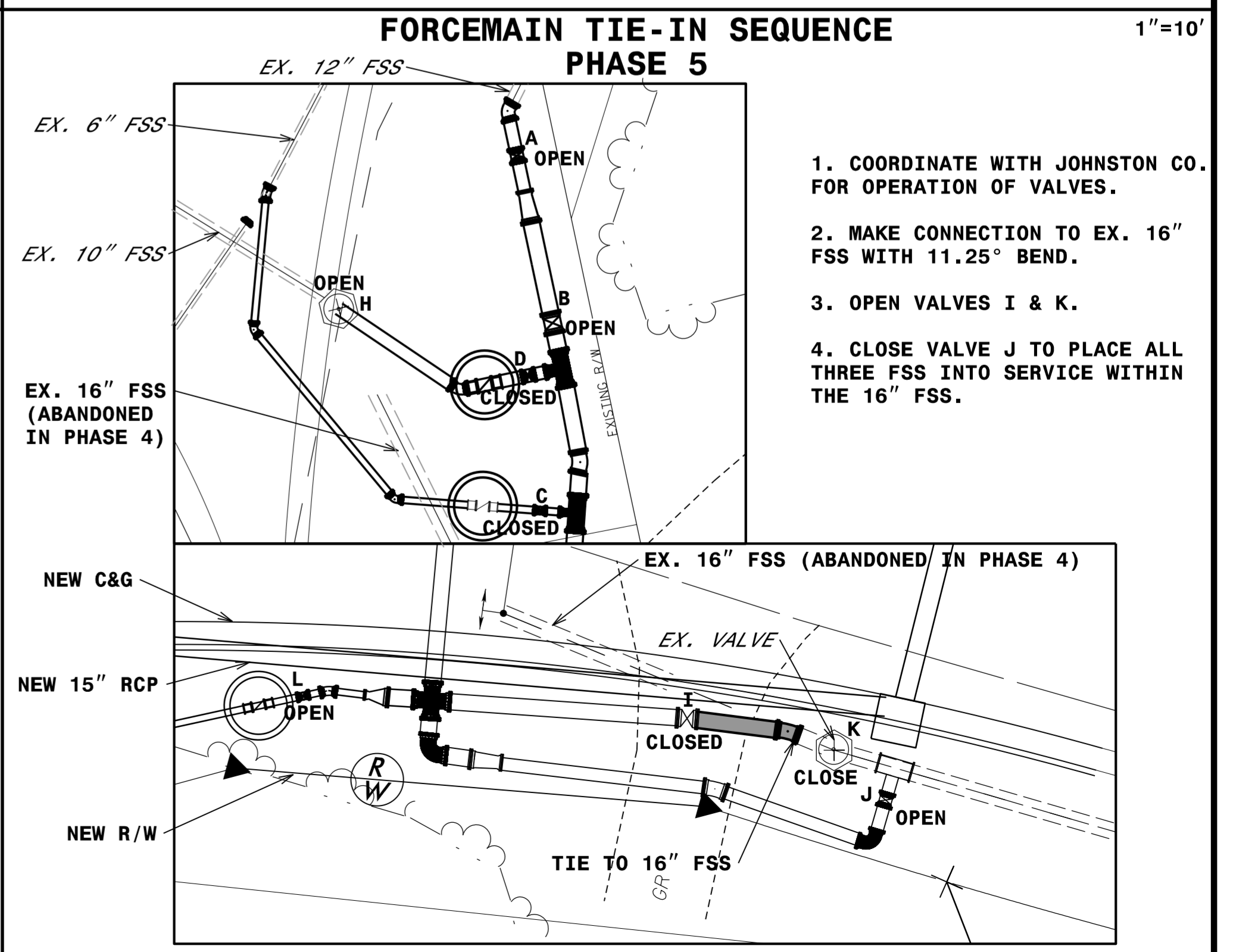
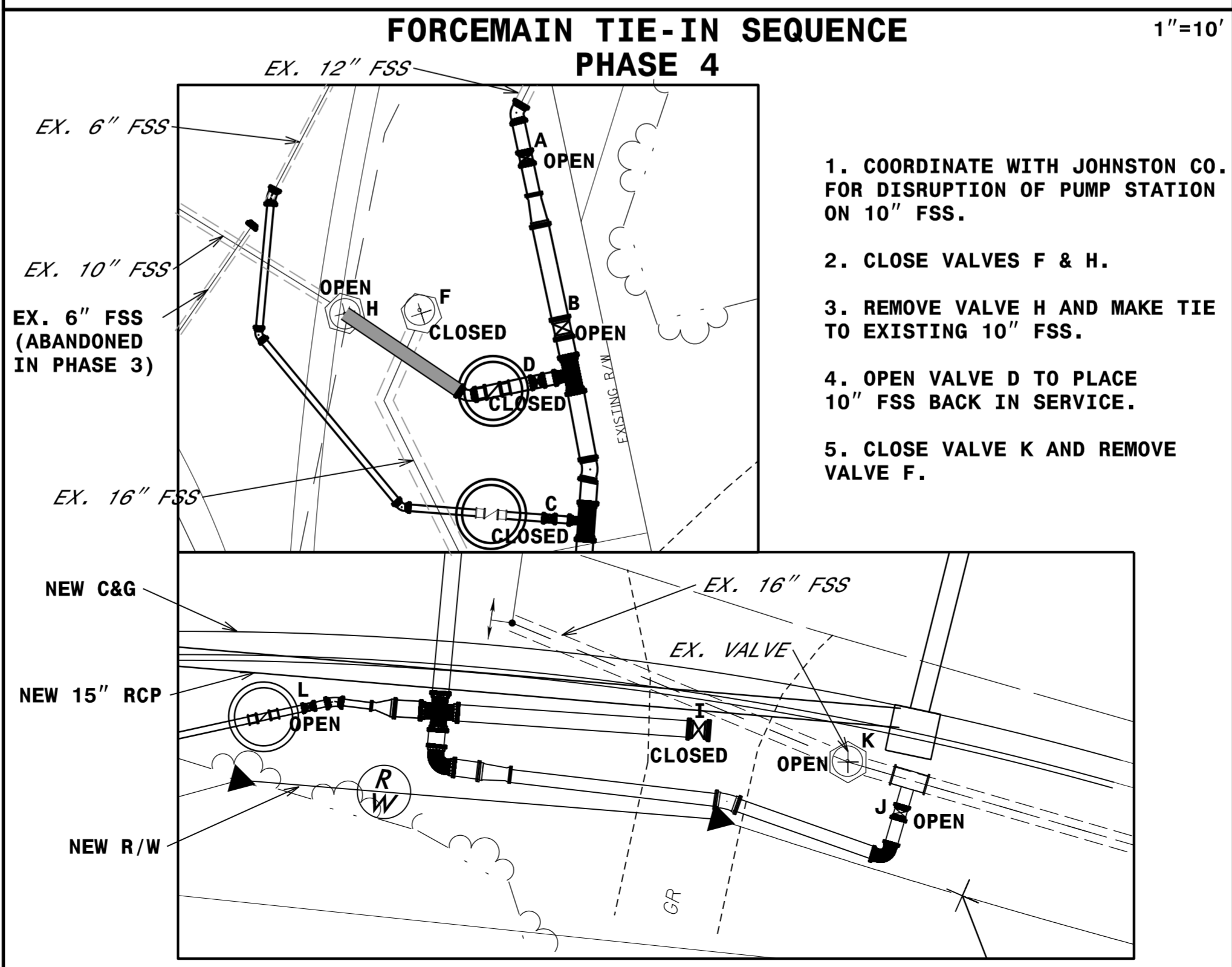
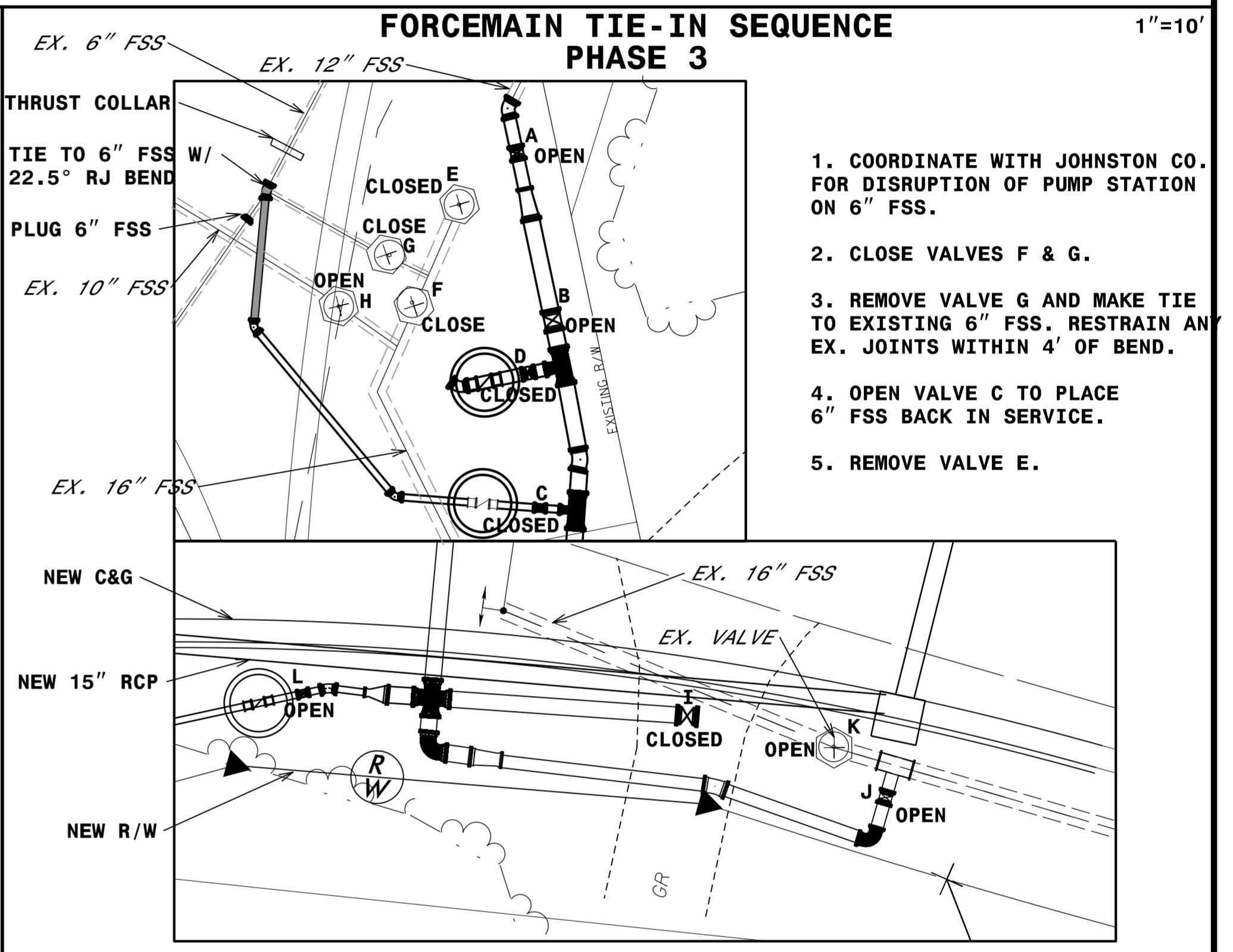
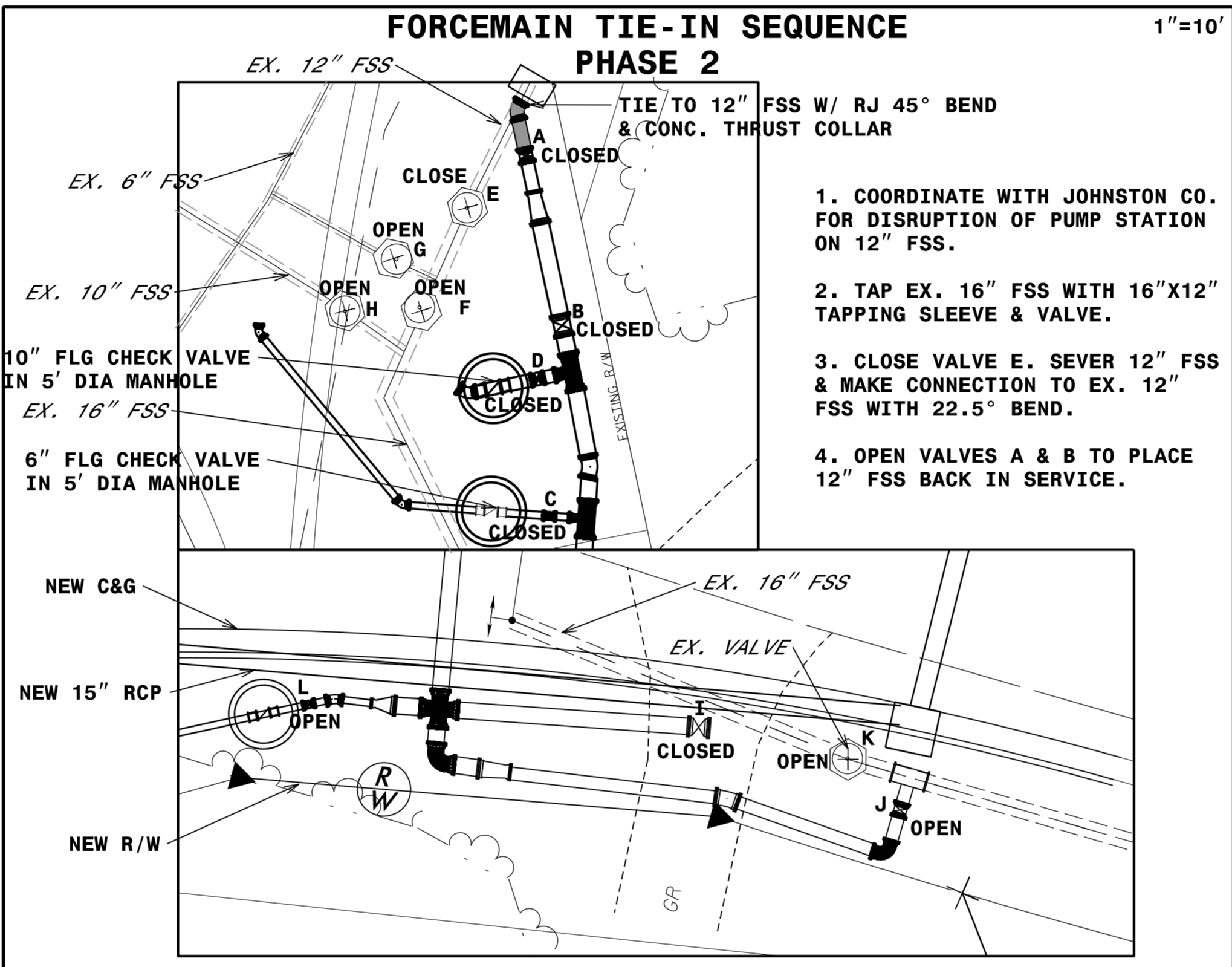
- EX. VALVE
- NEW VALVE
- EX. PIPE
- NEW PIPE
- PHASED WORK



SEE SHEET UC-8 FOR PROFILE



SEE SHEET UC-3A FOR PHASE 1

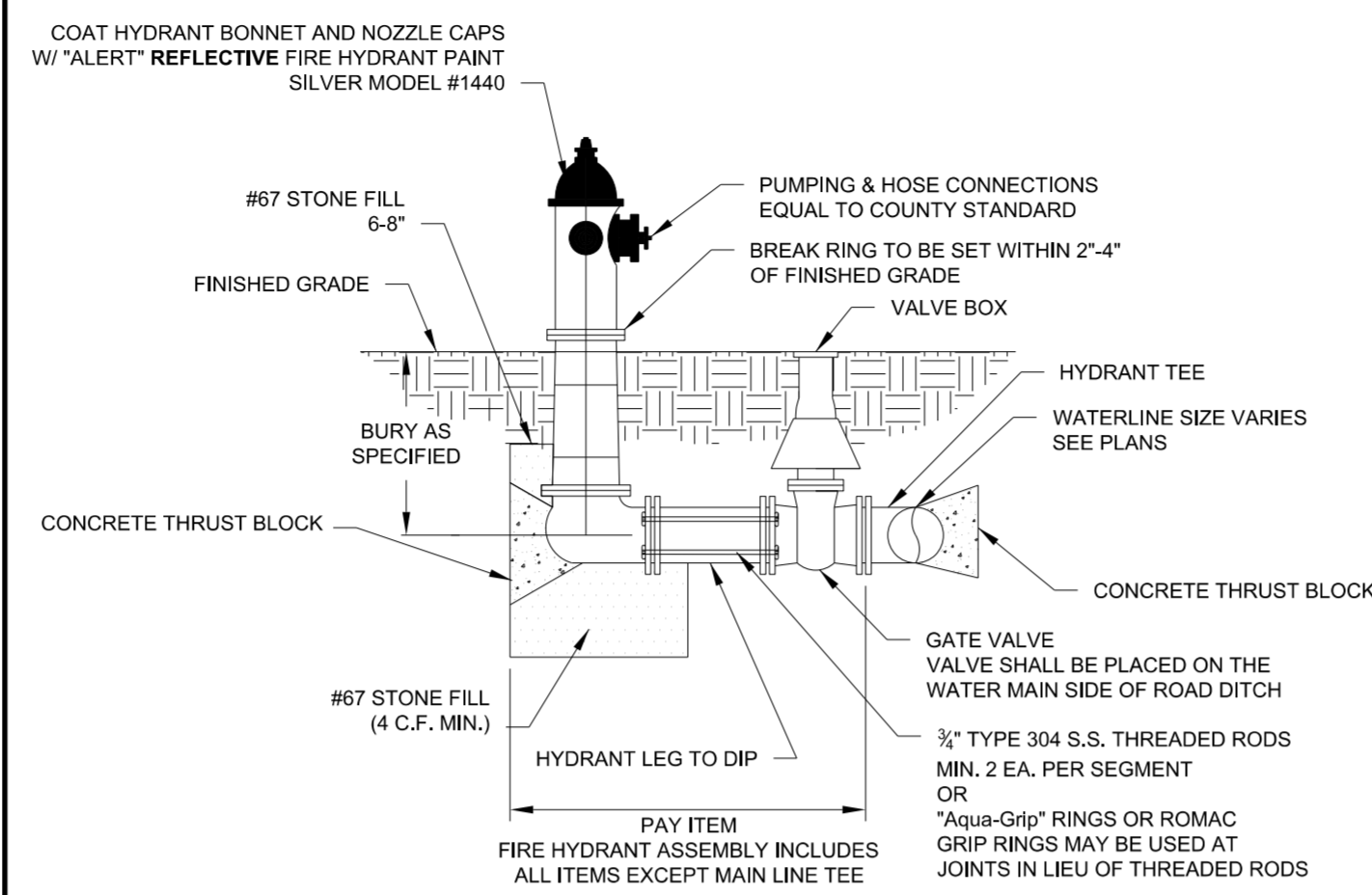


1/18/2022 UC-3B.dwg W-5704G-ut.dtl UC03B.psh.dgn

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/19

- NOTE:
 1. MIN. OF 4 CU. FT. STONE (MORE IF REQ'D).
 2. CONC. THRUST BLOCK TO HAVE MIN. OF 6 SQ. FT. BEARING ON SOLID BANK (MORE IF REQ'D).
 3. DRAIN HOLES AND FLANGES SHALL BE CLEAR OF CONC.
 4. FIRE HYDRANT BARREL SHALL BE PLUMB.
 5. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.



FIRE HYDRANT ASSEMBLY
NOT TO SCALE

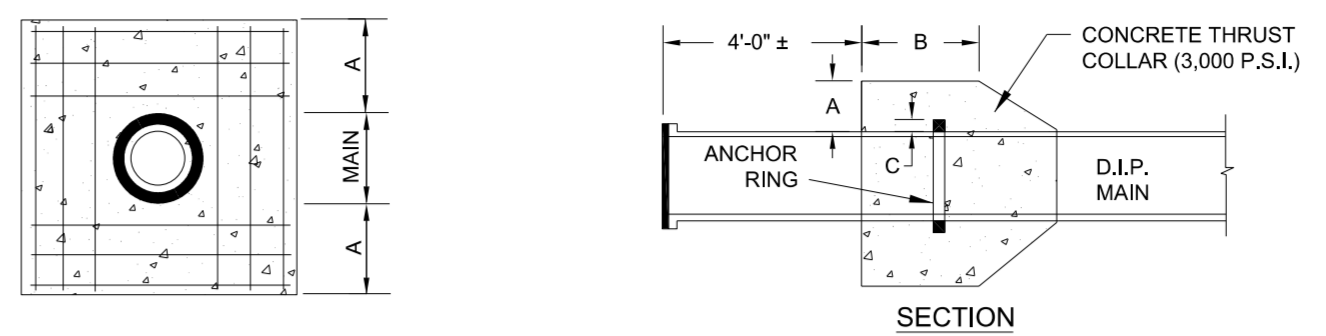
****FIRE HYDRANTS INSTALLED ON EXISTING 6" WATER MAINS, MUST BE INSTALLED USING A 6"x6" TEE CUT INTO THE EXISTING WATER MAIN. FIRE HYDRANTS INSTALLED ON EXISTING WATER MAINS LARGER THAN 6", CAN BE INSTALLED USING A TAPPING SLEEVE AND VALVE ON THE EXISTING WATER MAIN.**

Drawn By:	Name	Date	
Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

JOHNSTON COUNTY
 Department of Public Utilities
 P.O. Box 2263
 Smithfield, NC 27577

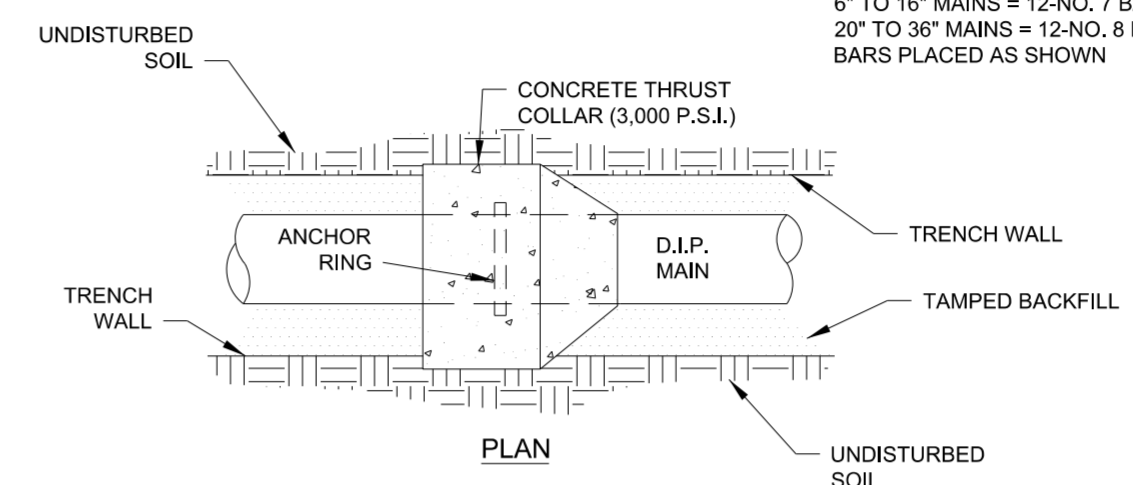
WATER STANDARD DETAIL
 Fire Hydrant Assembly

PAGE **4**



REINFORCING

SECTION



SCHEDULE

PIPE DIAMETER	CONCRETE THRUST COLLAR		ANCHOR COLLAR	RINGS REQUIRED
	A	B		
6", 8", 12"	1'-0"	1'-0"	2"	ONE
16"	1'-4"	1'-0"	2"	ONE
20"	1'-4"	1'-0"	3"	ONE
24"	1'-4"	1'-0"	3"	TWO
30"	1'-4"	1'-2"	4"	TWO
36"	1'-4"	1'-4"	4"	TWO

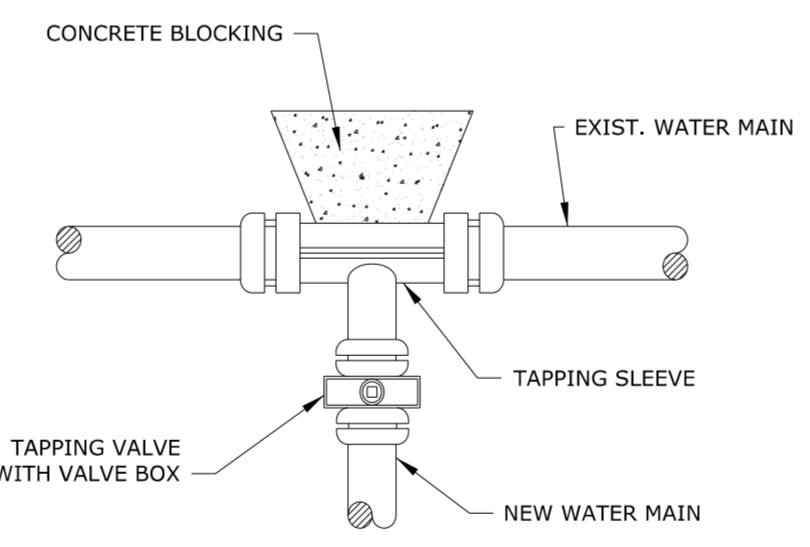
THRUST COLLAR INSTALLATION
NOT TO SCALE

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Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

JOHNSTON COUNTY
 Department of Public Utilities
 P.O. Box 2263
 Smithfield, NC 27577

WATER STANDARD DETAIL
 Thrust Collar Installation

PAGE **9**



TAPPING SLEEVE & VALVE ASSEMBLY
NOT TO SCALE

- NOTES:
 1. TAPPING SLEEVE SHALL BE FABRICATED OF TYPE 304 OR 316 S.S. AND PROVIDE A 360° SEAL AROUND EXISTING PIPE WITH FULL CIRCUMFERENTIAL GASKET.
 2. TAPPING SLEEVE SHALL BE JCM 432, MUELLER H-304, FORD FTSS, ROMAC ST III OR APPROVED EQUAL.
 3. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

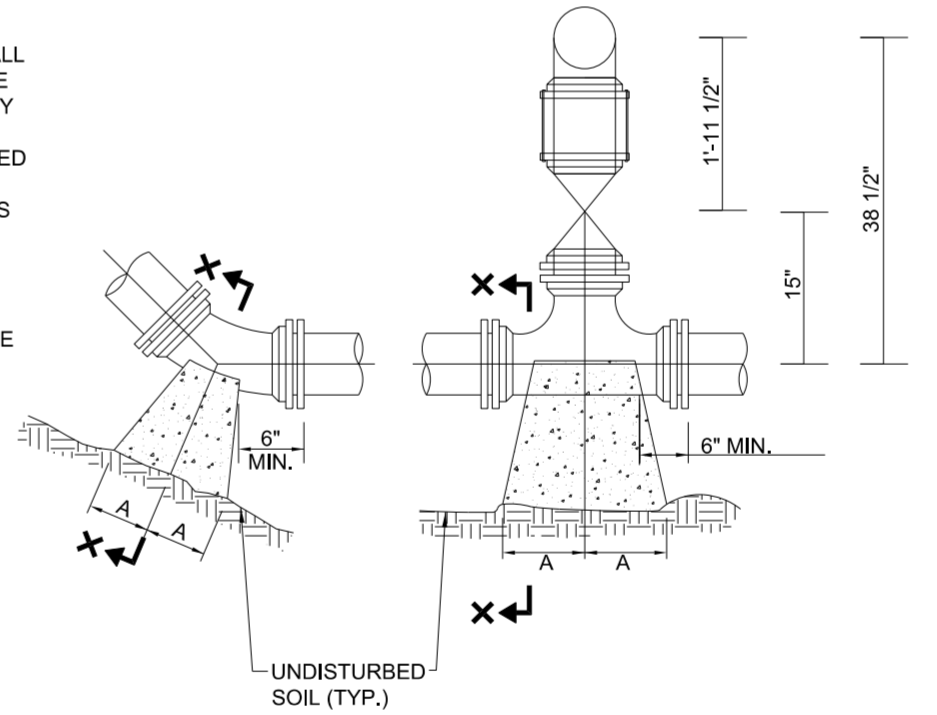
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Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

JOHNSTON COUNTY
 Department of Public Utilities
 P.O. Box 2263
 Smithfield, NC 27577

WATER STANDARD DETAIL
 Tapping Sleeve and Valve Assembly

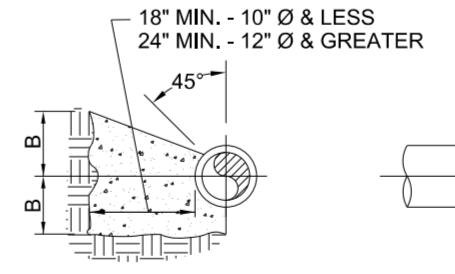
PAGE **5**

- NOTES:
 1. CONCRETE SHALL BE 3,000 PSI MIN.
 2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.
 3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.
 4. ALL FITTING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL POLYETHYLENE PRIOR TO POURING BLOCKING.
 5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.



PLAN BENDS

PLAN TEES



SECTION X-X BENDS & TEES

PLAN & ELEV. PLUGS

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE			PLUG
	A	B	A	B	A	B	A	B	C	D		
4"	8"	12"	8"	8"	8"	8"	8"	8"	8"	9"	10"	18"
6"	10"	12"	8"	10"	8"	8"	8"	8"	10"	10"	12"	18"
8"	15"	13"	10"	10"	8"	8"	8"	8"	10"	12"	12"	24"
10"	18"	14"	10"	12"	8"	10"	8"	10"	11"	14"	14"	25"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
14"	22"	18"	14"	16"	10"	14"	10"	14"	16"	18"	18"	34"
16"	26"	20"	16"	18"	12"	16"	12"	16"	18"	20"	20"	38"
20"	36"	26"	24"	18"	16"	13"	12"	9"	19"	18"	24"	48"
24"	48"	33"	30"	21"	18"	18"	15"	11"	21"	21"	28"	56"

THRUST BLOCK DETAIL
NOT TO SCALE

Drawn By:	Name	Date	
Checked By:			
Approved By:			
Scale:			
Rev.	Description	Date	Init.

JOHNSTON COUNTY
 Department of Public Utilities
 P.O. Box 2263
 Smithfield, NC 27577


WATER STANDARD DETAIL
 Thrust Block

PAGE **8**

PROJECT REFERENCE NO.	W-5704G	SHEET NO.	UC-3C
DESIGNED BY:	EMT		
DRAWN BY:	EMT		
CHECKED BY:	BAW		
APPROVED BY:			
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		1/18/2022	
UTILITIES ENGINEERING SEC.		UTILITY CONSTRUCTION PLANS ONLY	
PHONE: (919) 707-6690		FAX: (919) 250-4151	

UTILITY CONSTRUCTION

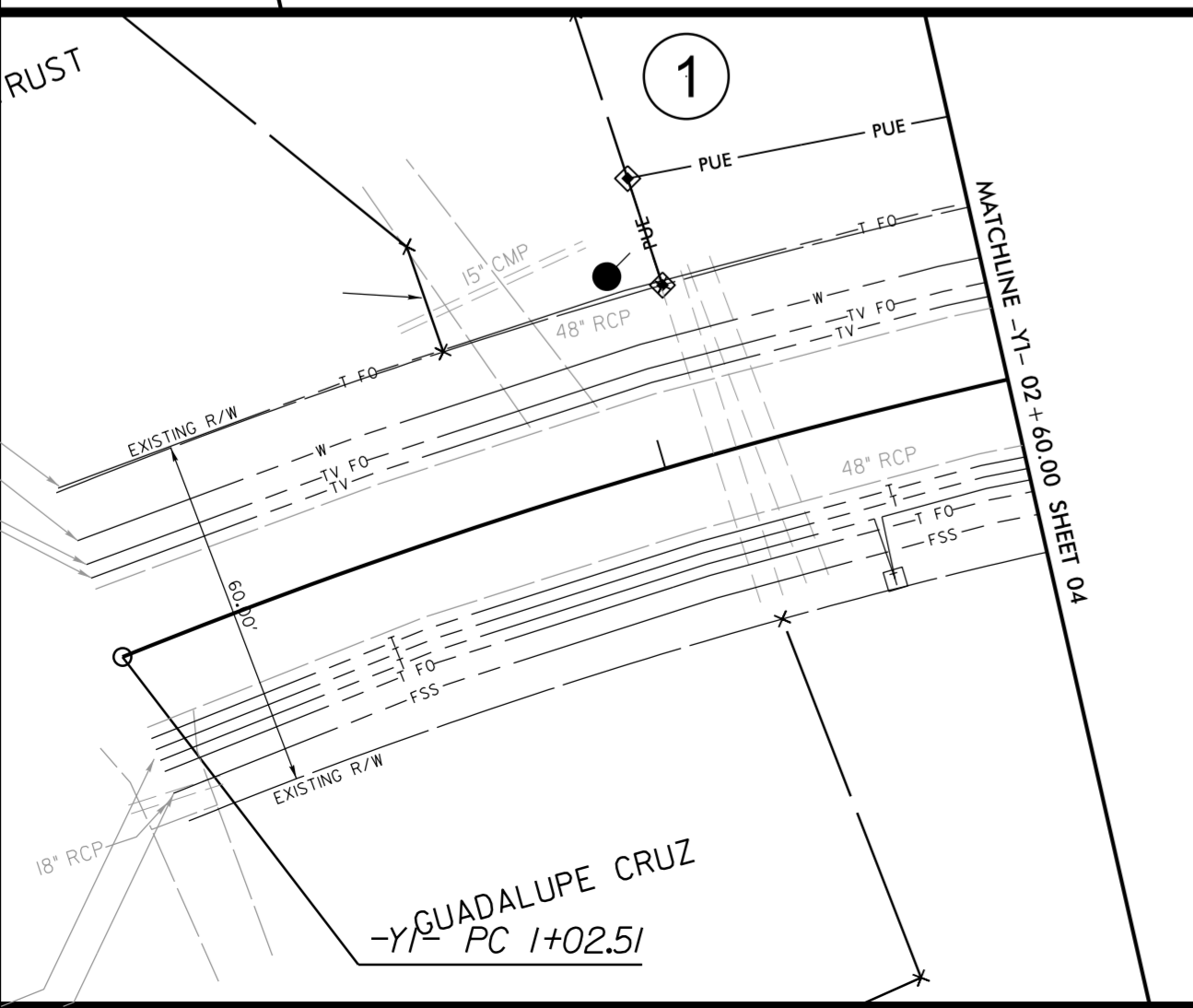
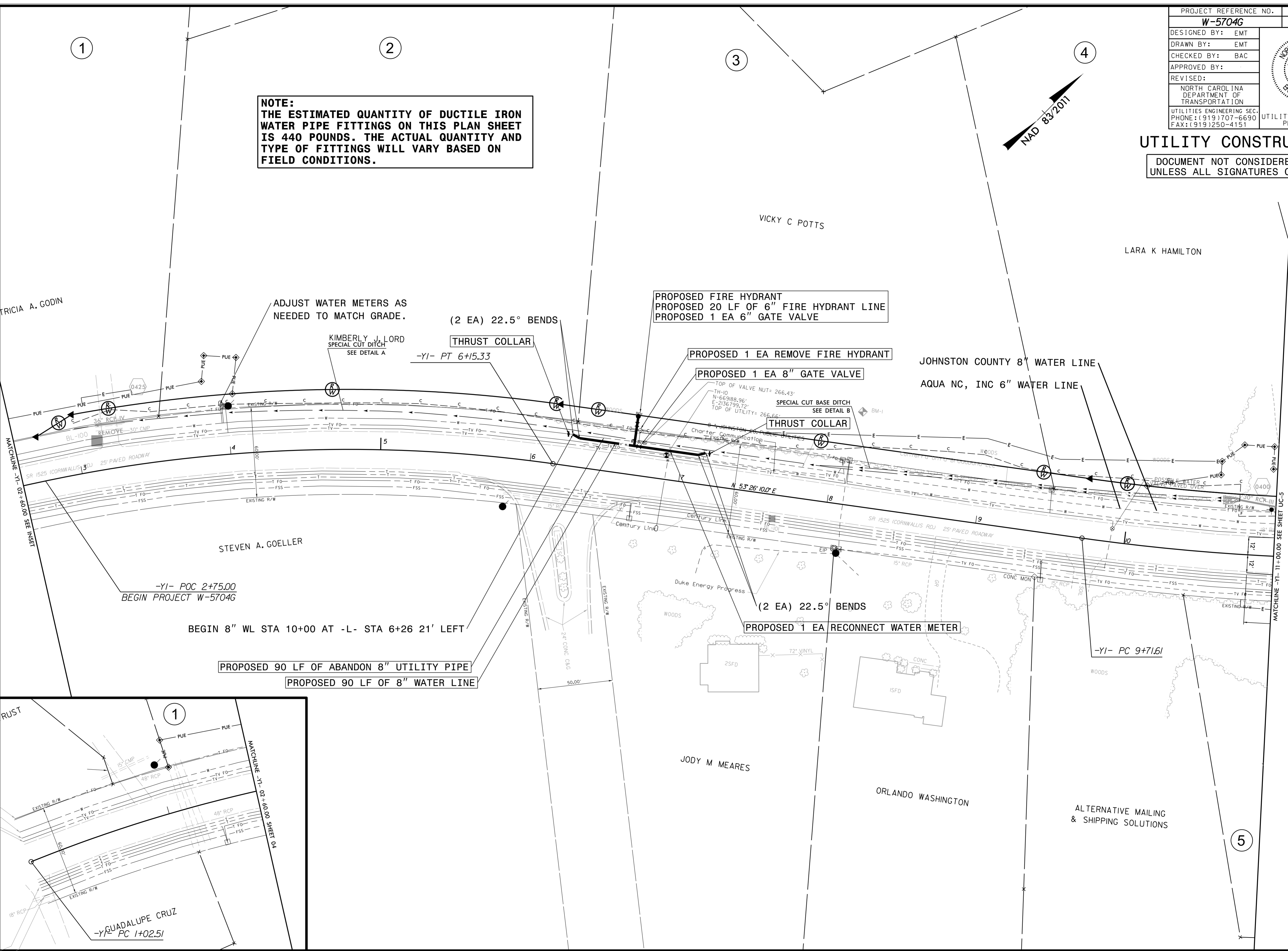
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PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-4
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAC	
APPROVED BY:	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 1250-4151	


UTILITY CONSTRUCTION

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NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 440 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

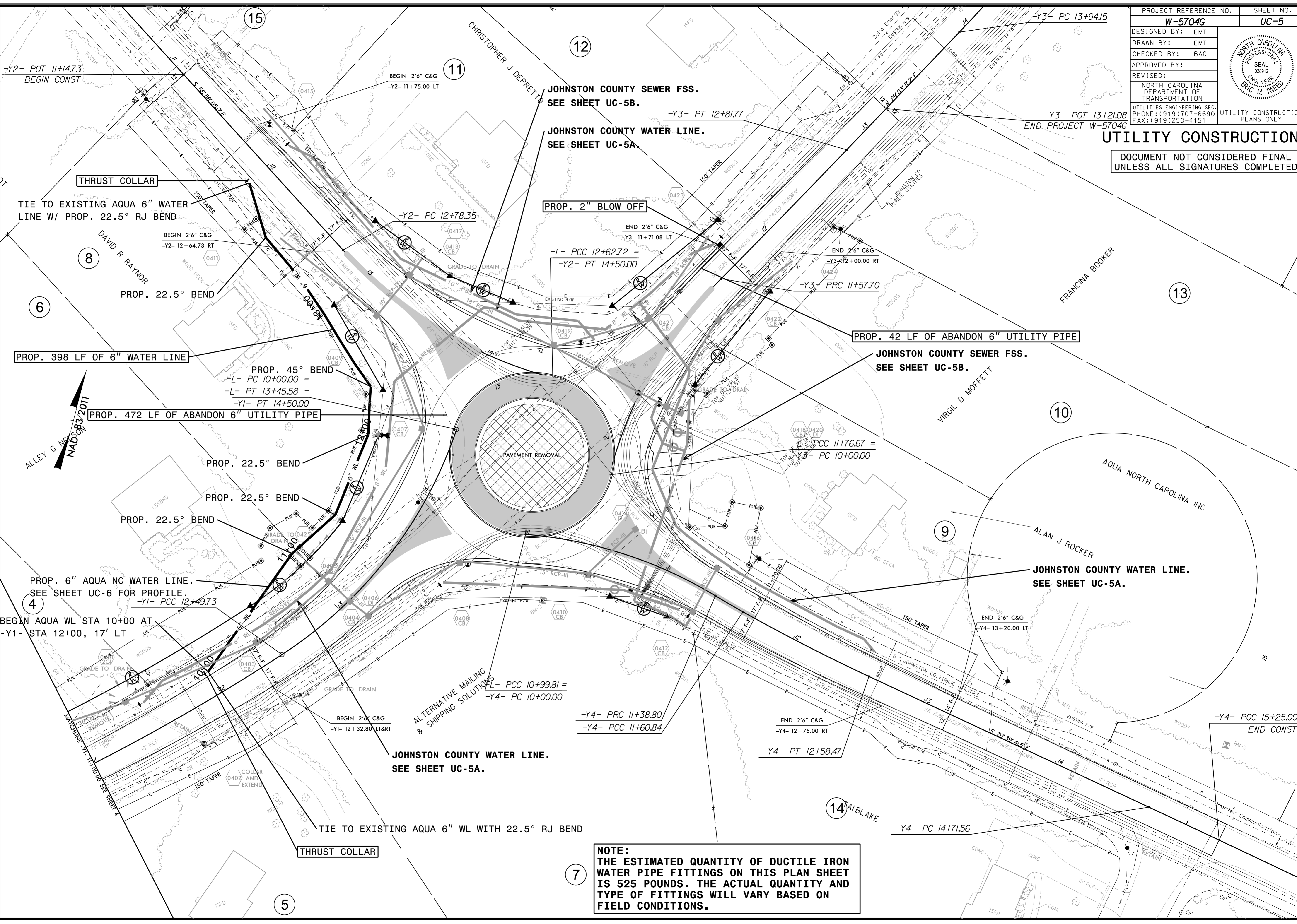


8/17/99
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 8/25/2022
 INSTRUMENTS\Engineering\UC\Proj\W-5704G.ut_r.dwg UC04_psh.dgn

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-5
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAC	
APPROVED BY:	
REVISED:	
UTILITIES ENGINEERING SEC. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PHONE: (919) 707-6690 FAX: (919) 250-4151	


UTILITY CONSTRUCTION

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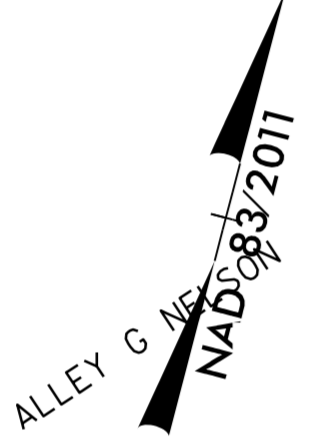
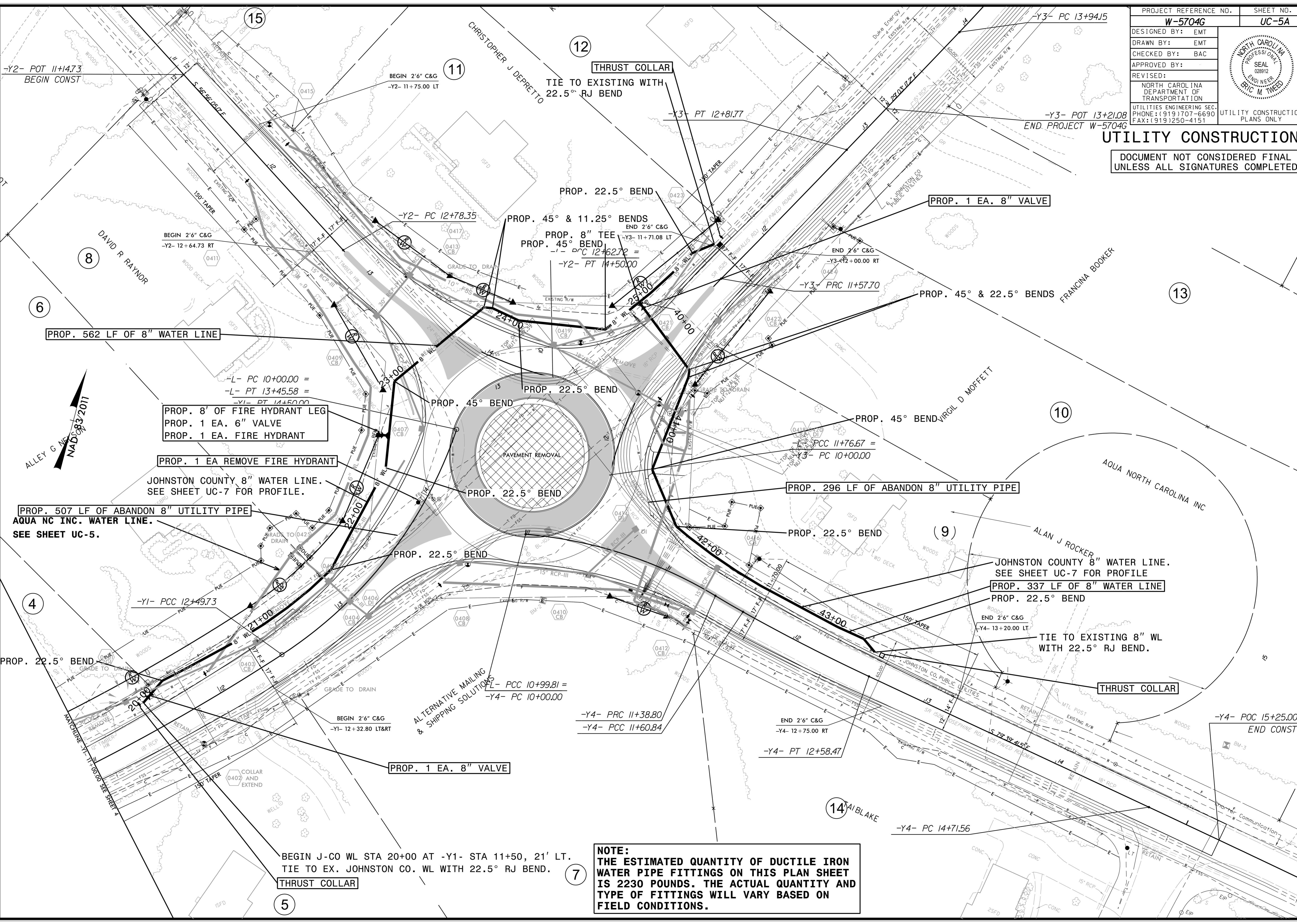
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 525 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

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 8/17/19

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-5A
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAC	
APPROVED BY:	
REVISED:	
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UTILITY CONSTRUCTION

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PROP. 8' OF FIRE HYDRANT LEG
PROP. 1 EA. 6" VALVE
PROP. 1 EA. FIRE HYDRANT

PROP. 1 EA REMOVE FIRE HYDRANT

JOHNSTON COUNTY 8" WATER LINE.
SEE SHEET UC-7 FOR PROFILE.

PROP. 507 LF OF ABANDON 8" UTILITY PIPE
AQUA NC INC. WATER LINE.
SEE SHEET UC-5.

PROP. 296 LF OF ABANDON 8" UTILITY PIPE


JOHNSTON COUNTY 8" WATER LINE.
SEE SHEET UC-7 FOR PROFILE

PROP. 337 LF OF 8" WATER LINE
PROP. 22.5° BEND

TIE TO EXISTING 8" WL
WITH 22.5° RJ BEND.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 2230 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

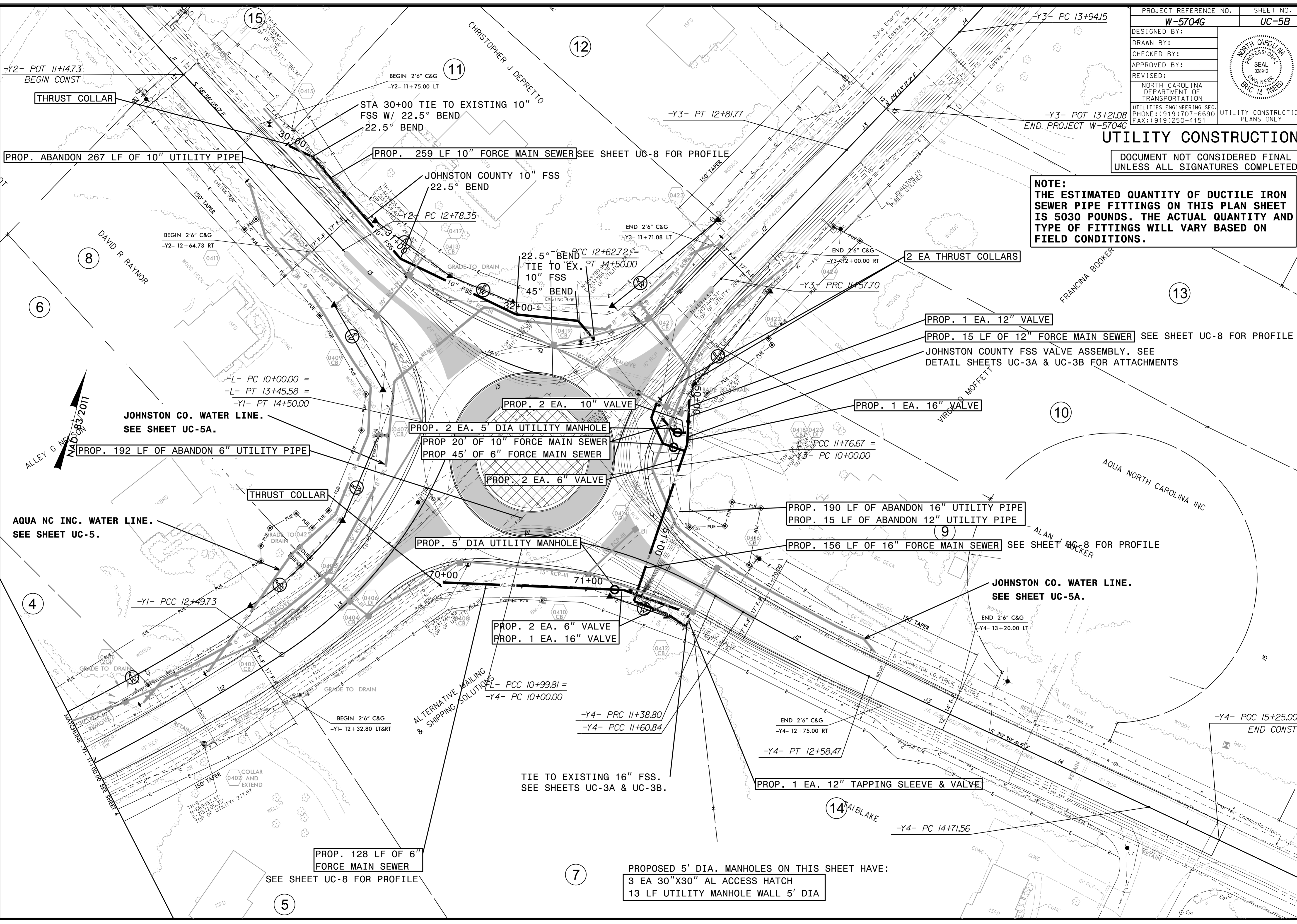
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 8/17/199

PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-5B
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 1250-4151 UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 5030 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



THRUST COLLAR

PROP. ABANDON 267 LF OF 10" UTILITY PIPE

PROP. 259 LF 10" FORCE MAIN SEWER SEE SHEET UC-8 FOR PROFILE

JOHNSTON COUNTY 10" FSS 22.5° BEND

2 EA THRUST COLLARS

PROP. 1 EA. 12" VALVE

PROP. 15 LF OF 12" FORCE MAIN SEWER SEE SHEET UC-8 FOR PROFILE

JOHNSTON COUNTY FSS VALVE ASSEMBLY. SEE DETAIL SHEETS UC-3A & UC-3B FOR ATTACHMENTS

PROP. 2 EA. 10" VALVE

PROP. 1 EA. 16" VALVE

PROP. 192 LF OF ABANDON 6" UTILITY PIPE

PROP. 2 EA. 5' DIA UTILITY MANHOLE

PROP 20' OF 10" FORCE MAIN SEWER

PROP 45' OF 6" FORCE MAIN SEWER

PROP. 2 EA. 6" VALVE

PROP. 190 LF OF ABANDON 16" UTILITY PIPE

PROP. 15 LF OF ABANDON 12" UTILITY PIPE

PROP. 156 LF OF 16" FORCE MAIN SEWER SEE SHEET UC-8 FOR PROFILE

AQUA NC INC. WATER LINE. SEE SHEET UC-5.

THRUST COLLAR

PROP. 5' DIA UTILITY MANHOLE

JOHNSTON CO. WATER LINE. SEE SHEET UC-5A.

PROP. 2 EA. 6" VALVE
 PROP. 1 EA. 16" VALVE


TIE TO EXISTING 16" FSS. SEE SHEETS UC-3A & UC-3B.

PROP. 1 EA. 12" TAPPING SLEEVE & VALVE

PROP. 128 LF OF 6" FORCE MAIN SEWER SEE SHEET UC-8 FOR PROFILE

PROPOSED 5' DIA. MANHOLES ON THIS SHEET HAVE:
 3 EA 30"X30" AL ACCESS HATCH
 13 LF UTILITY MANHOLE WALL 5' DIA

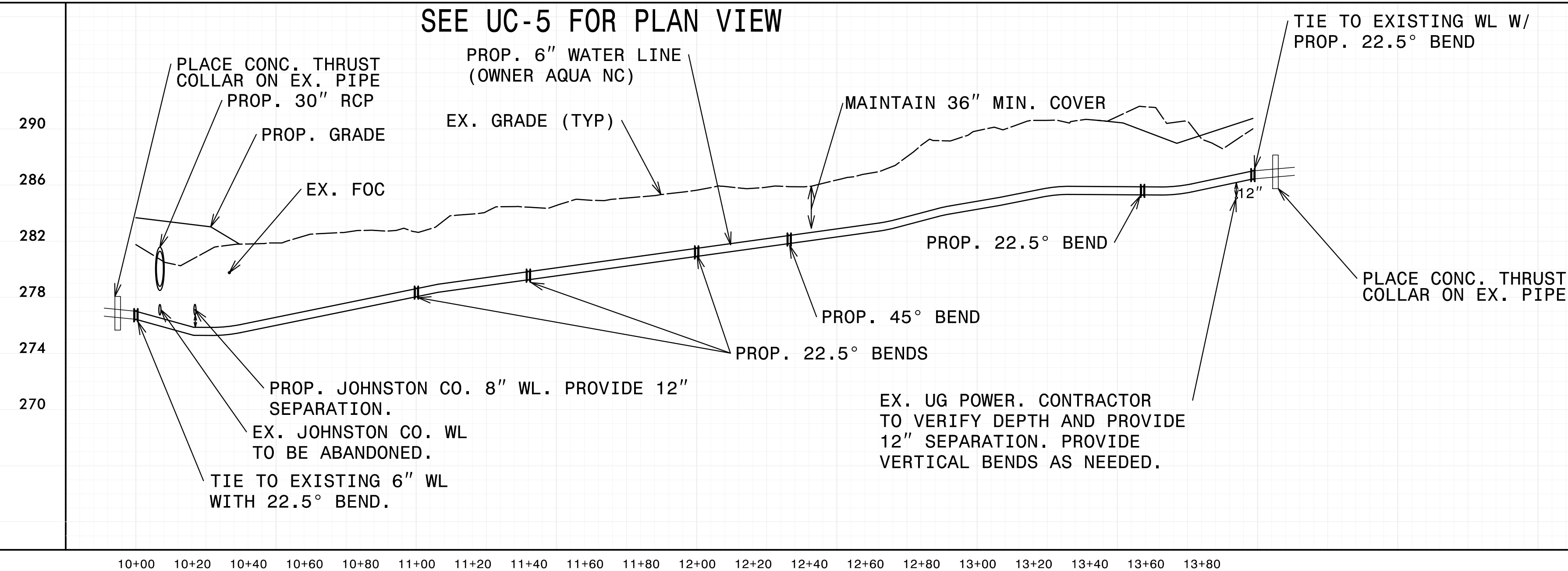
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 8/17/19

PROJECT REFERENCE NO. W-5704G	SHEET NO. UC-6
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION
 DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED


REVISIONS

AQUA NC- 6" WATER LINE
 SEE UC-5 FOR PLAN VIEW

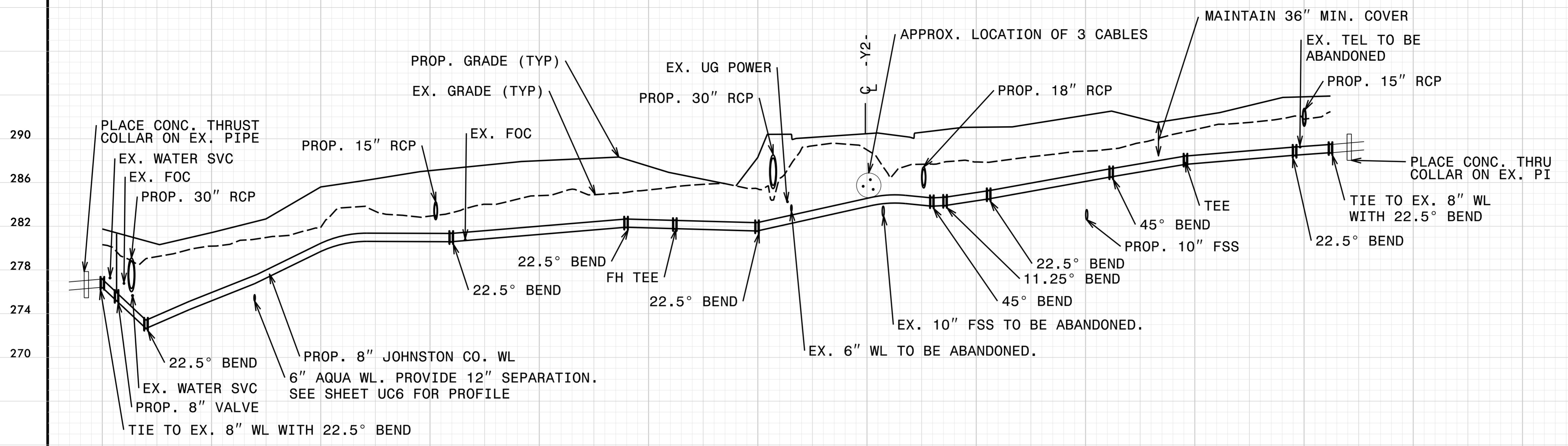


5/10/09
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JOHNSTON COUNTY- 8" WATER LINE ALONG -Y1- AND -Y2- SEE SHEET UC-5A FOR PLAN VIEW

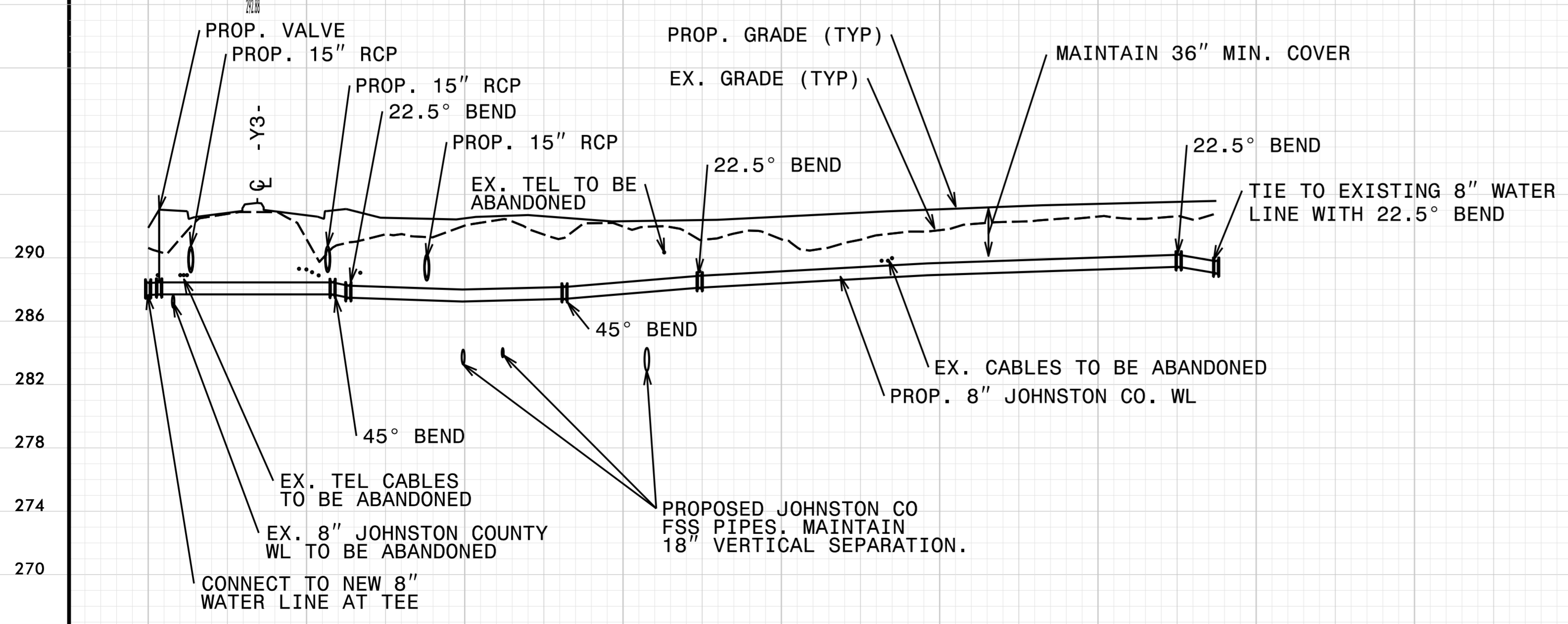
PROJECT REFERENCE NO.	W-5704G	SHEET NO.	UC-7
DESIGNED BY:	EMT		
DRAWN BY:	EMT		
CHECKED BY:	BAW		
APPROVED BY:			
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION			
UTILITIES ENGINEERING SECTION			
PHONE: (919) 707-6690			
FAX: (919) 250-4151			

UTILITY CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



20+00 20+20 20+40 20+60 20+80 21+00 21+20 21+40 21+60 21+80 22+00 22+20 22+40 22+60 22+80 23+00 23+20 23+40 23+60 23+80 24+00 24+20 24+40 24+60 24+80 25+00 25+20 25+40 25+60


JOHNSTON COUNTY- 8" WATER LINE ACROSS -Y3- AND ALONG -Y4- SEE SHEET UC-5A FOR PLAN VIEW



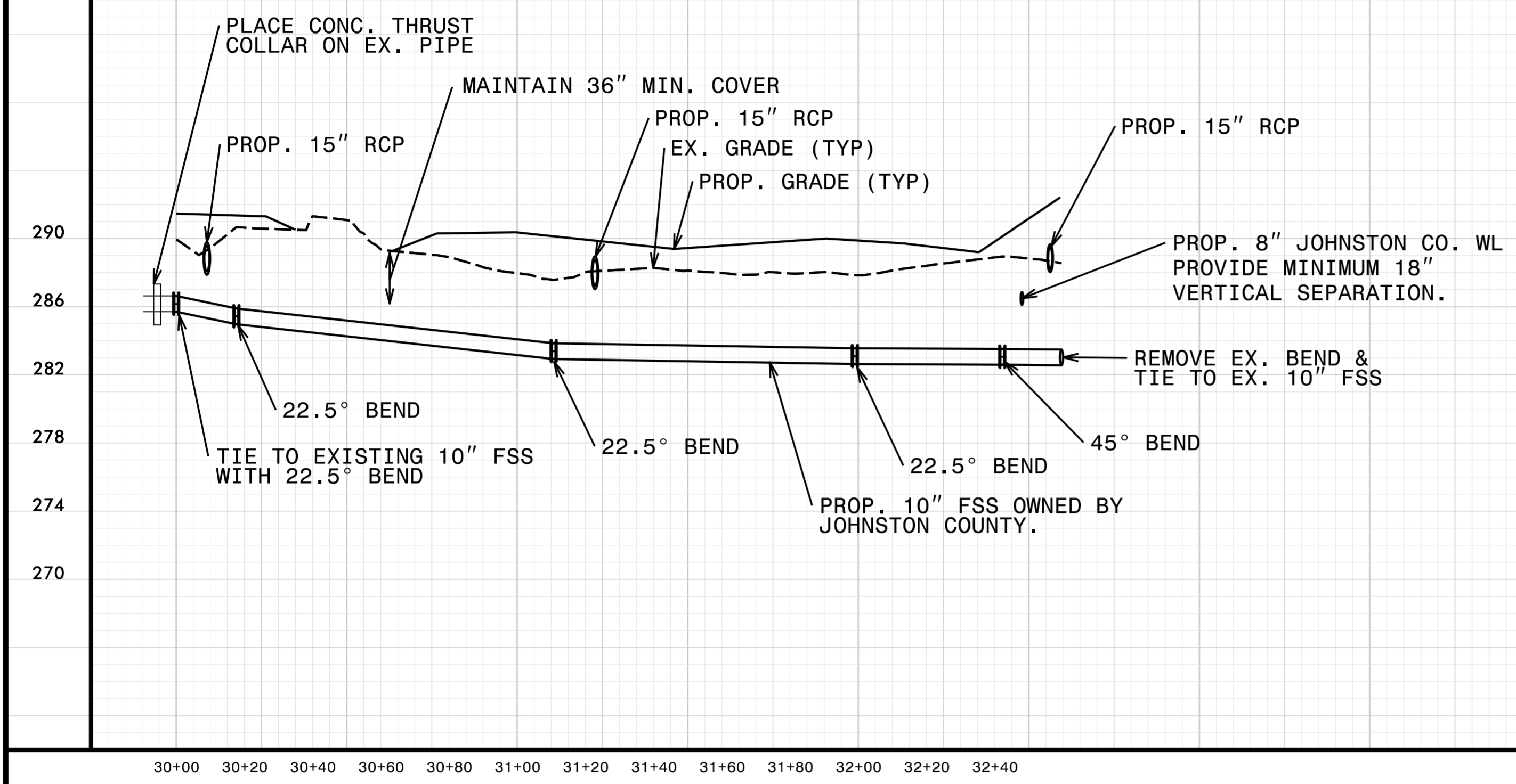
40+00 40+20 40+40 40+60 40+80 41+00 41+20 41+40 41+60 41+80 42+00 42+20 42+40 42+60 42+80 43+00 43+20

REVISIONS

5/25/2022
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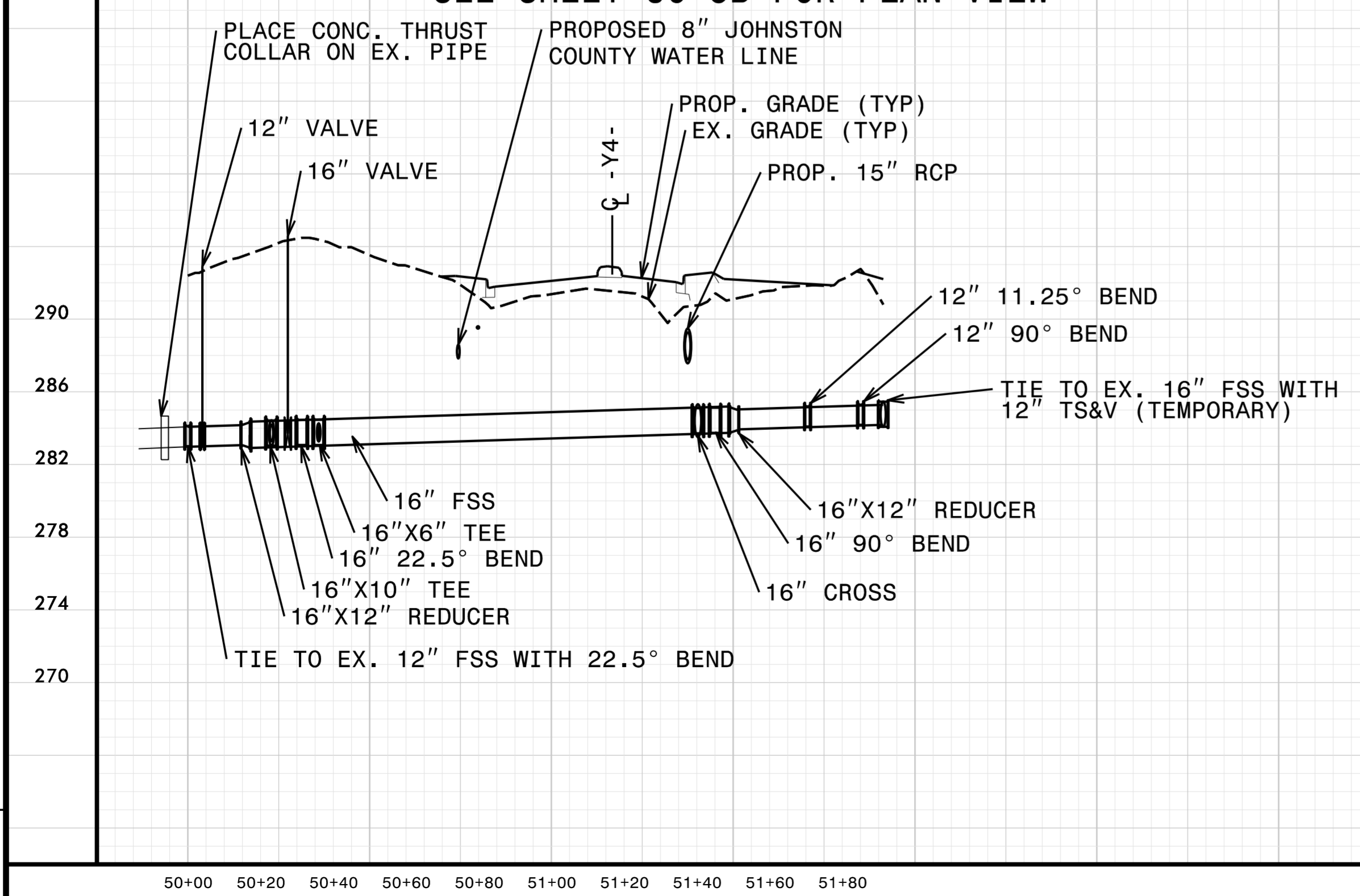
PROJECT REFERENCE NO.	SHEET NO.
W-5704G	UC-8
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: BAW	
APPROVED BY:	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

JOHNSTON COUNTY- 10" FORCE MAIN
ALONG -Y2- AND -Y3-
SEE SHEET UC-5B FOR PLAN VIEW

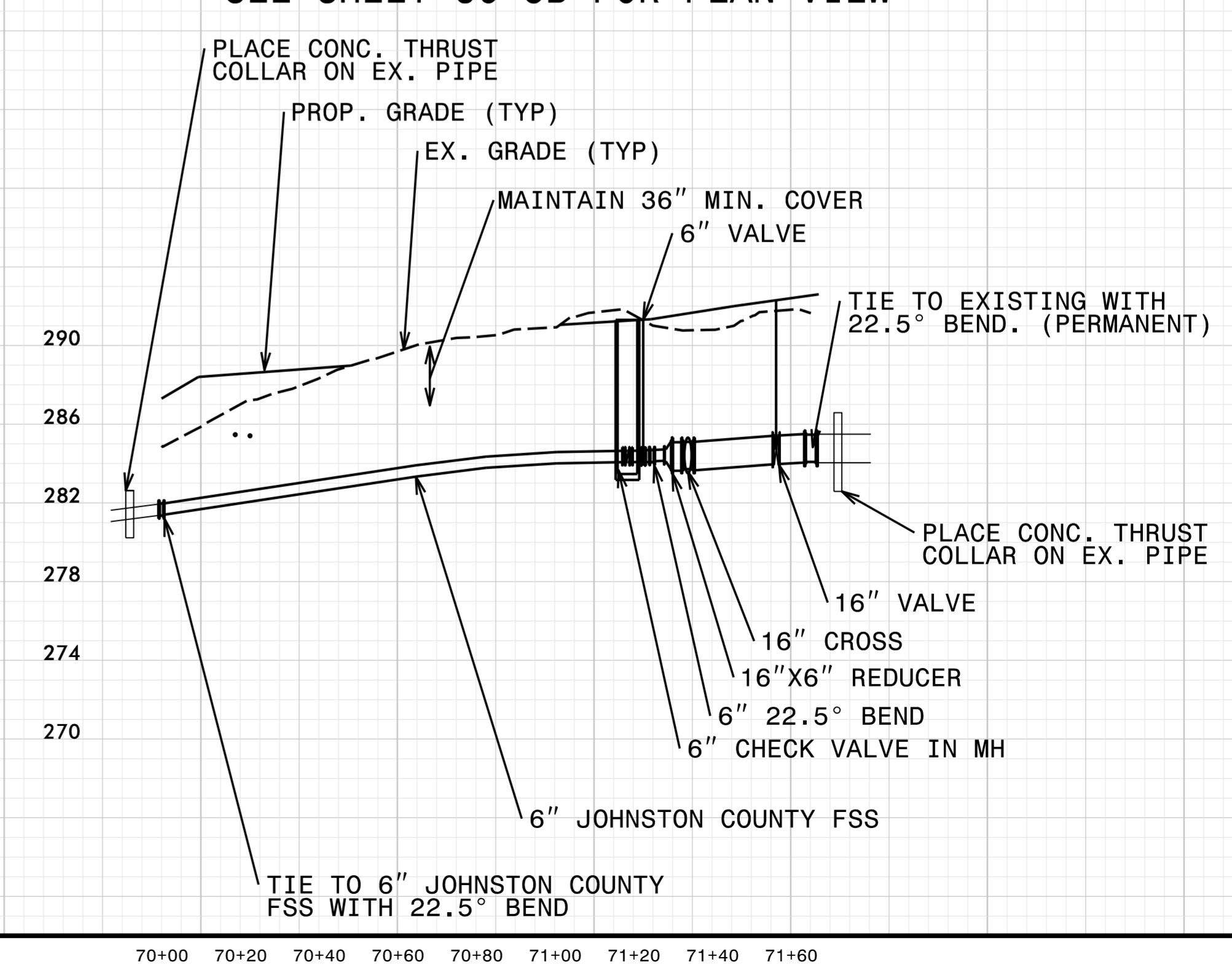


UTILITY CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

JOHNSTON COUNTY- 12" & 16" FORCE MAIN
ACROSS -Y4- AND ALONG -L-
SEE SHEET UC-5B FOR PLAN VIEW



JOHNSTON COUNTY- 6" & 16" FORCE MAIN
ALONG -L-
SEE SHEET UC-5B FOR PLAN VIEW

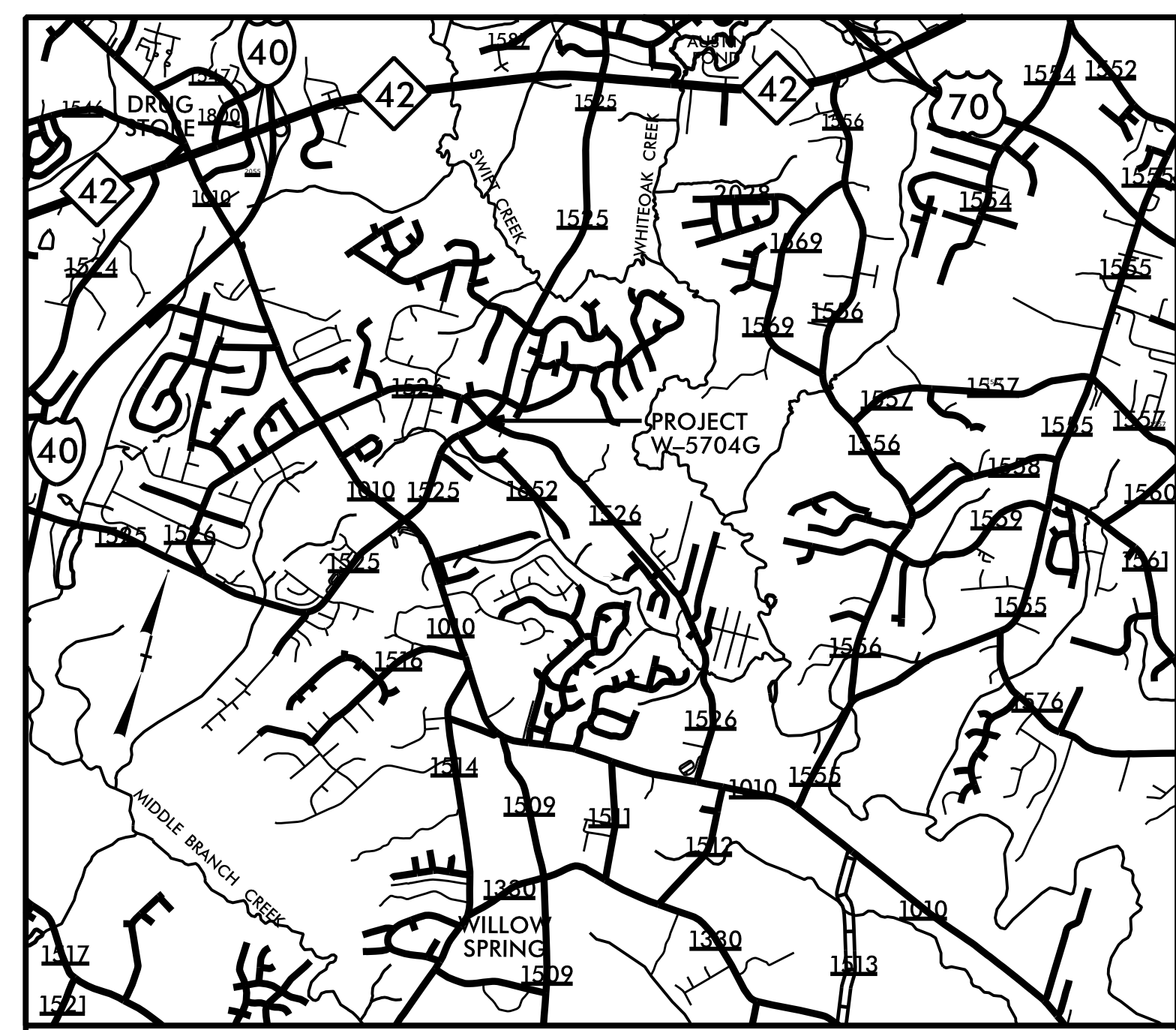


REVISIONS

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09.08/99

TIP PROJECT: W-5704G



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

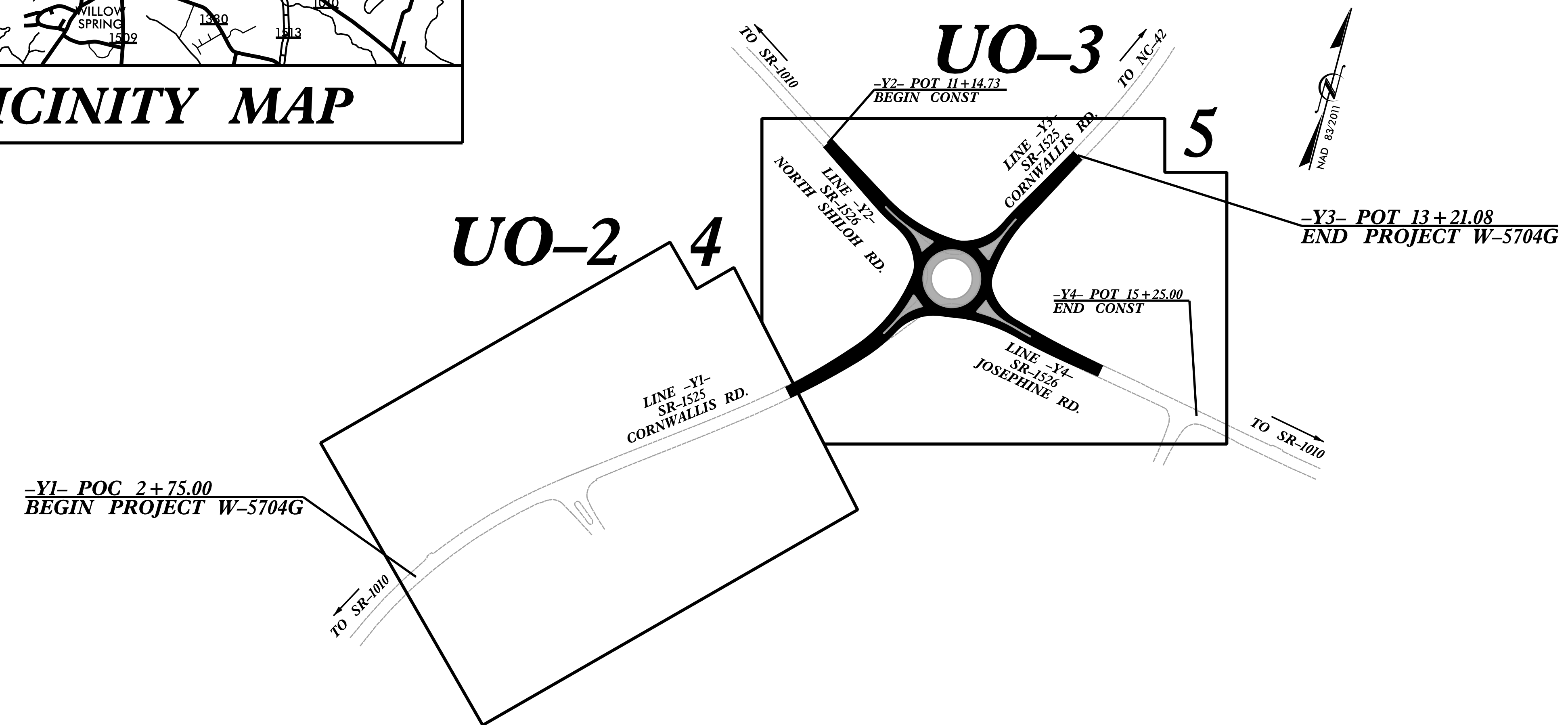
UTILITIES BY OTHERS PLANS
JOHNSTON COUNTY

LOCATION: ROUNDABOUT AT INTERSECTION OF
SR-1525 (CORNWALLIS ROAD) AND SR-1526
(SHILOH ROAD & JOSEPHINE ROAD)

TYPE OF WORK: POWER (DISTRIBUTION) AND COMMUNICATIONS

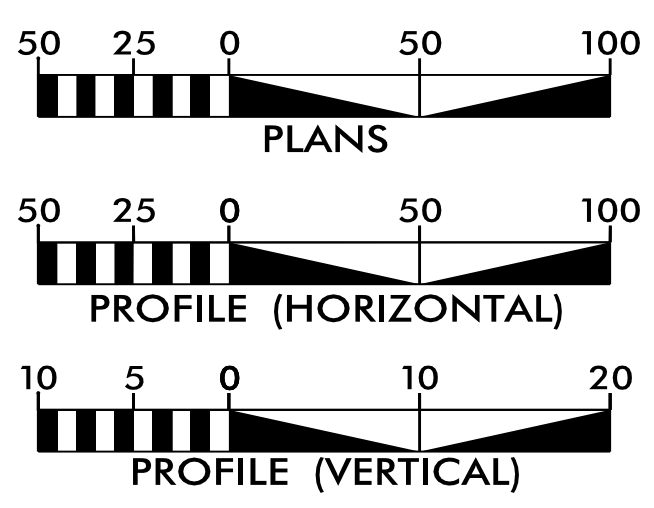
T.I.P. NO.	SHEET NO.
W-5704G	UO-1

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-02 THRU UO-03	UBO PLAN SHEETS

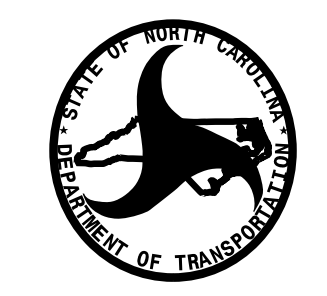
UTILITY OWNERS WITH CONFLICTS

- (A) POWER - DUKE ENERGY
- (B) COMMUNICATIONS - CENTURYLINK
- (C) COMMUNICATIONS - CONTERRA
- (D) COMMUNICATIONS - SPECTRUM

PREPARED IN THE OFFICE OF:



Freddie Bunn UTILITY PROJECT MANAGER
Matthew Ward PROJECT UTILITY COORDINATOR

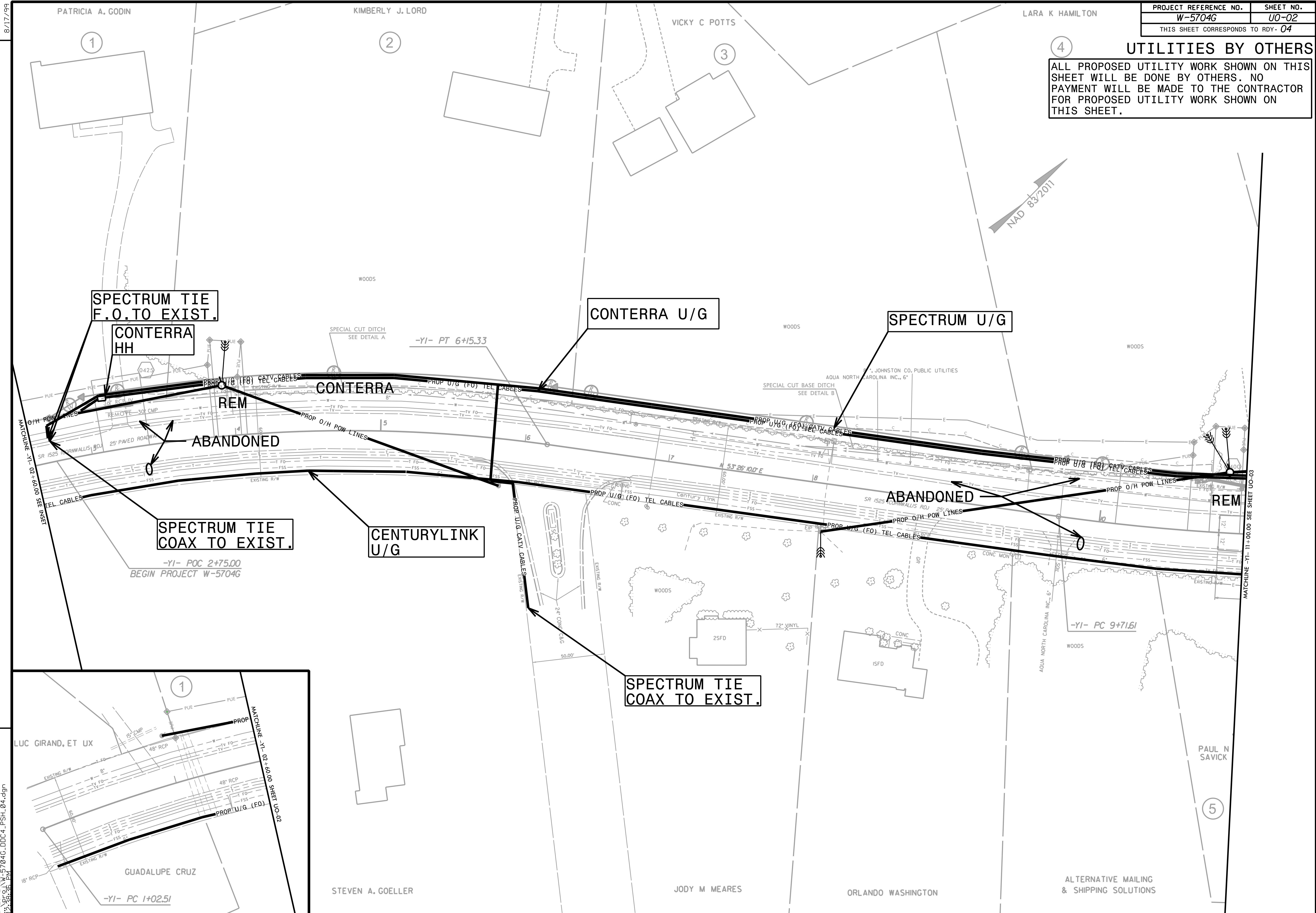


DIVISION OF HIGHWAYS
DIVISION 04
DIV ADDRESS
509 Ward Blvd.
Wilson, NC 27895

Kyle Pleasant DIVISION UTILITY ENGINEER
Frank Zdelar DIVISION UTILITY COORD.

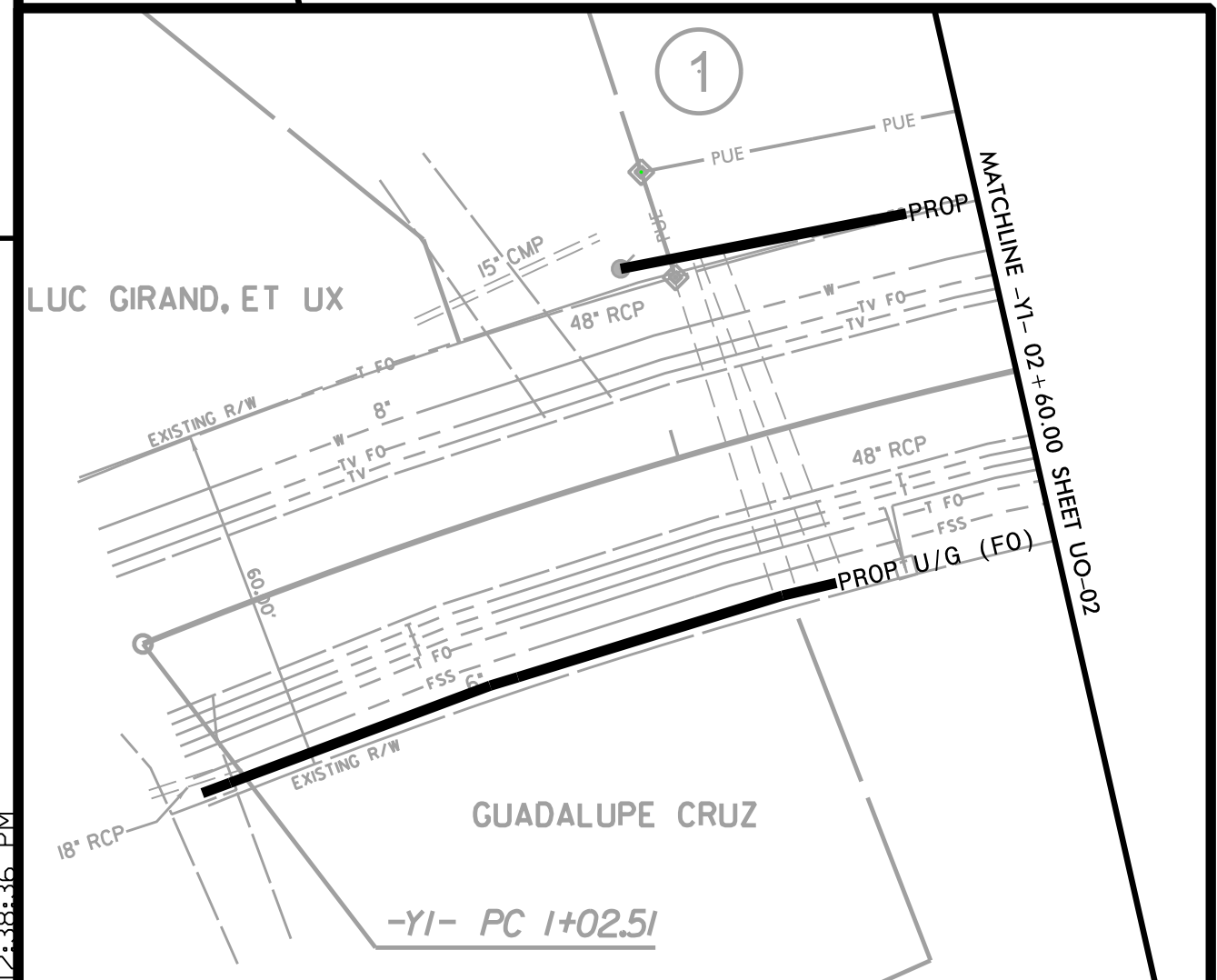
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4 UTILITIES BY OTHERS
 ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



REVISIONS

5/25/2022
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STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PROJ. REFERENCE NO.

SHEET NO.

W-5704G

X-1A

Approximate quantities only. Unclassified excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the contract lump sum price

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

CROSS-SECTION SUMMARY

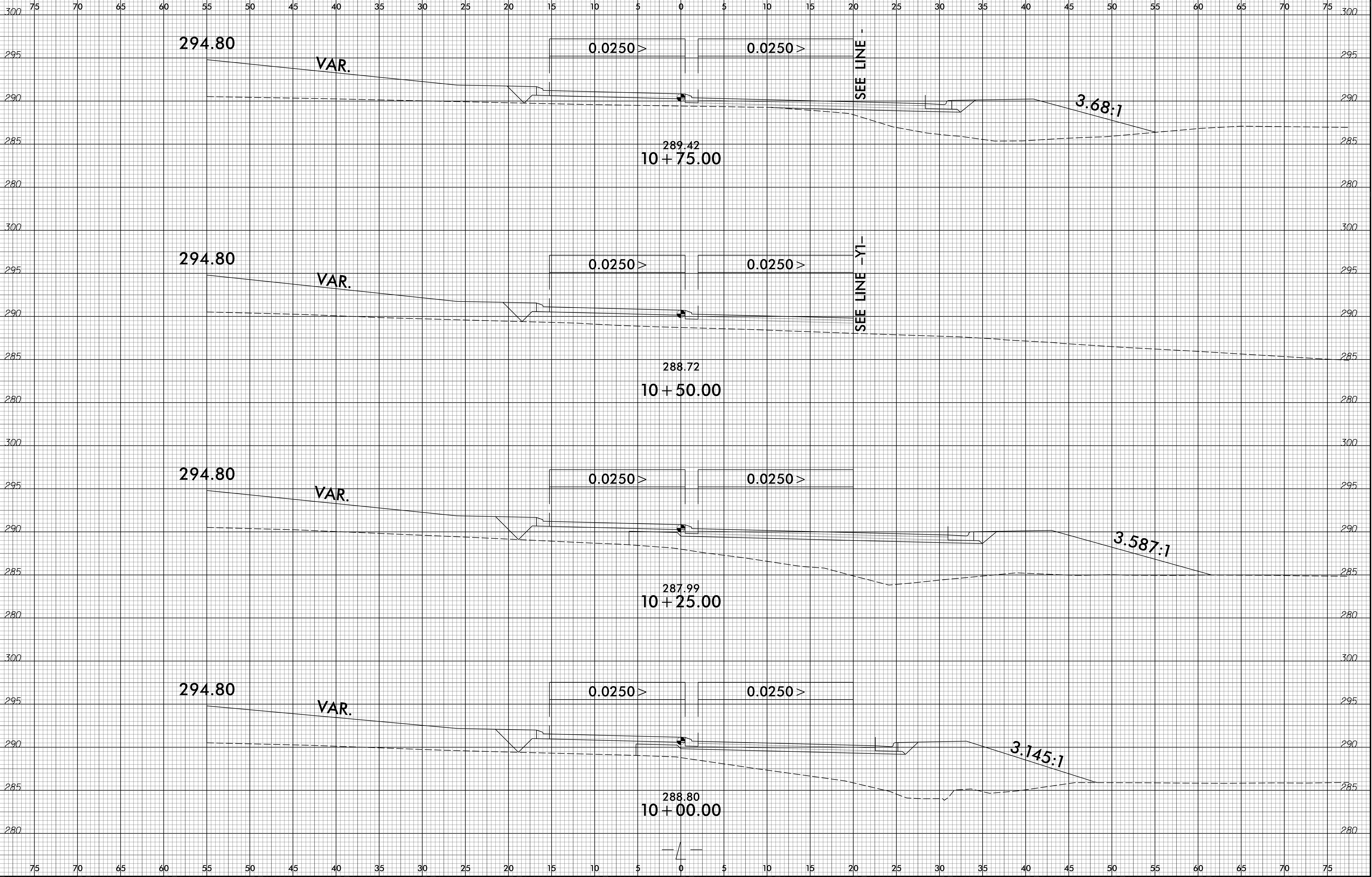
STATION L	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)
10+00.00		
10+25.00		309
10+50.00		177
10+75.00		108
11+00.00		163
11+25.00		143
11+50.00		93
11+75.00	5	56
12+00.00	7	76
12+25.00		71
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13+00.00		168
13+25.00		69
13+45.58		135

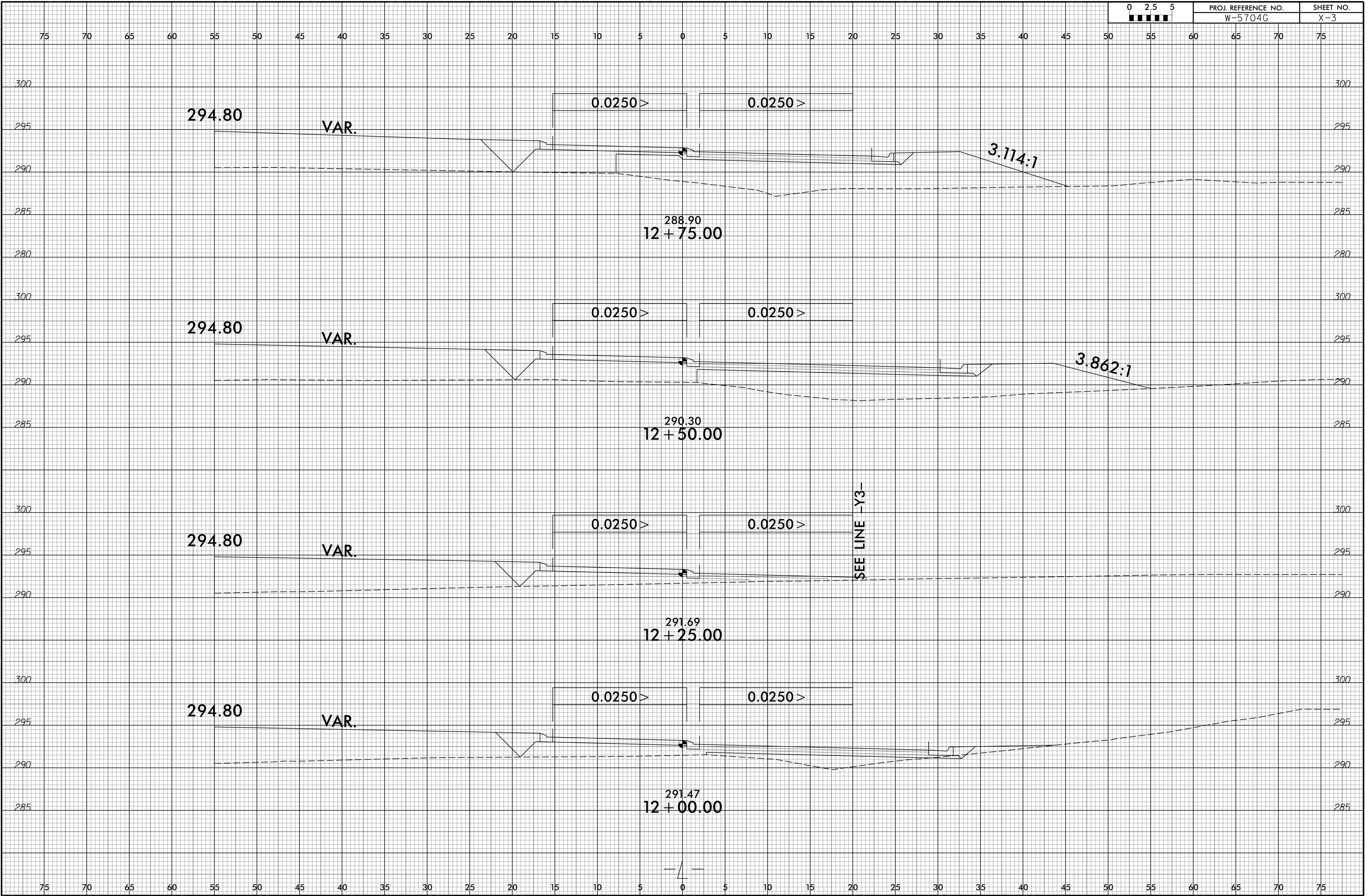
STATION Y1	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)
3+00.00		6
3+25.00	16	3
3+50.00	18	3
3+75.00	6	6
4+00.00	6	6
4+25.00	6	7
4+50.00	5	8
4+75.00	4	9
5+00.00	4	10
5+25.00	5	10
5+50.00	6	8
5+75.00	7	6
6+00.00	7	4
6+25.00	5	3
6+50.00	4	3
6+75.00	3	3
7+00.00	4	3
7+25.00	5	2
7+50.00	7	2
7+75.00	10	2
8+00.00	15	2
8+25.00	30	2
8+50.00	47	2
8+75.00	58	2
9+00.00	64	2
9+25.00	57	2
9+50.00	45	1
9+75.00	42	
10+00.00	43	1
10+25.00	42	2
10+50.00	39	3
10+75.00	39	4
11+00.00	22	12
11+25.00	2	14
11+50.00	6	14
11+75.00	6	29
12+00.00	5	33
12+25.00	4	30
12+50.00	2	52
12+75.00	1	67
13+00.00	1	83
13+25.00		109
13+50.00		129
13+75.00		174
14+00.00		178
14+25.00		128

STATION Y2	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)
11+14.73		
11+25.00	8	1
11+50.00	15	4
11+75.00	10	12
12+00.00	11	20
12+25.00	17	21
12+50.00	17	11
12+75.00	10	15
13+00.00	7	34
13+25.00	5	48
13+50.00	3	68
13+75.00	1	119
14+00.00		129
14+25.00		84

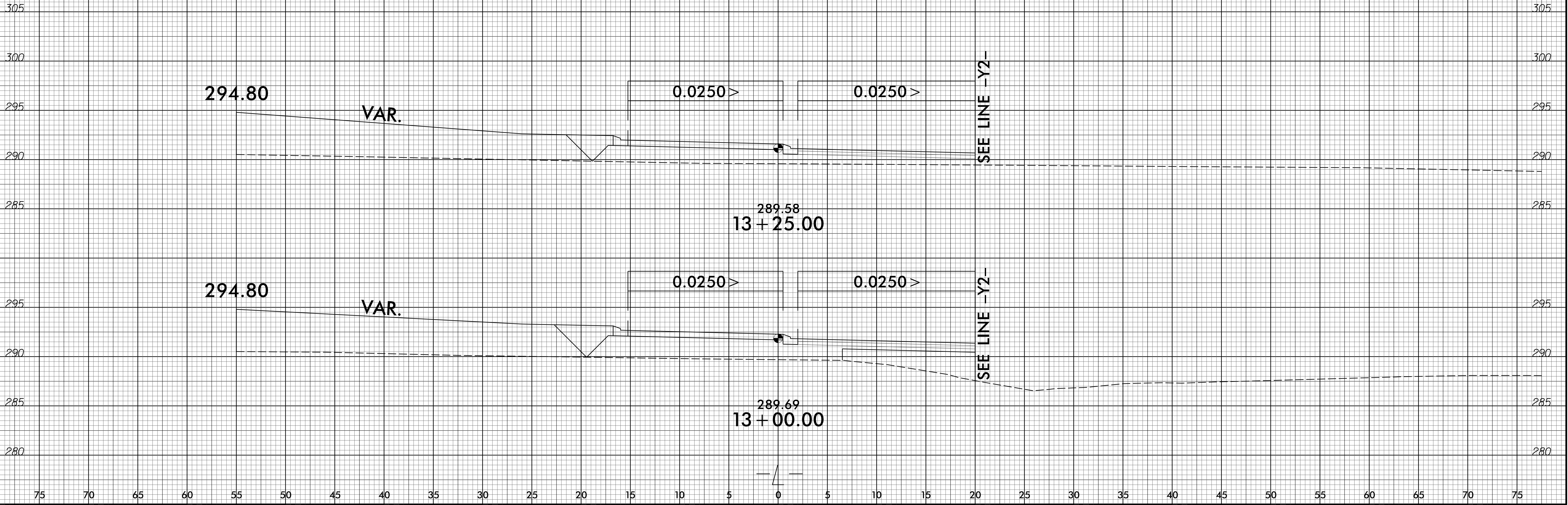
STATION Y3	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)
10+25.00		
10+50.00	2	14
10+75.00	5	54
11+00.00	6	70
11+25.00	4	48
11+50.00	4	44
11+75.00	7	27
12+00.00	10	18
12+25.00	10	19
12+50.00	13	11
12+75.00	21	8
13+00.00	16	6
13+21.08	6	3

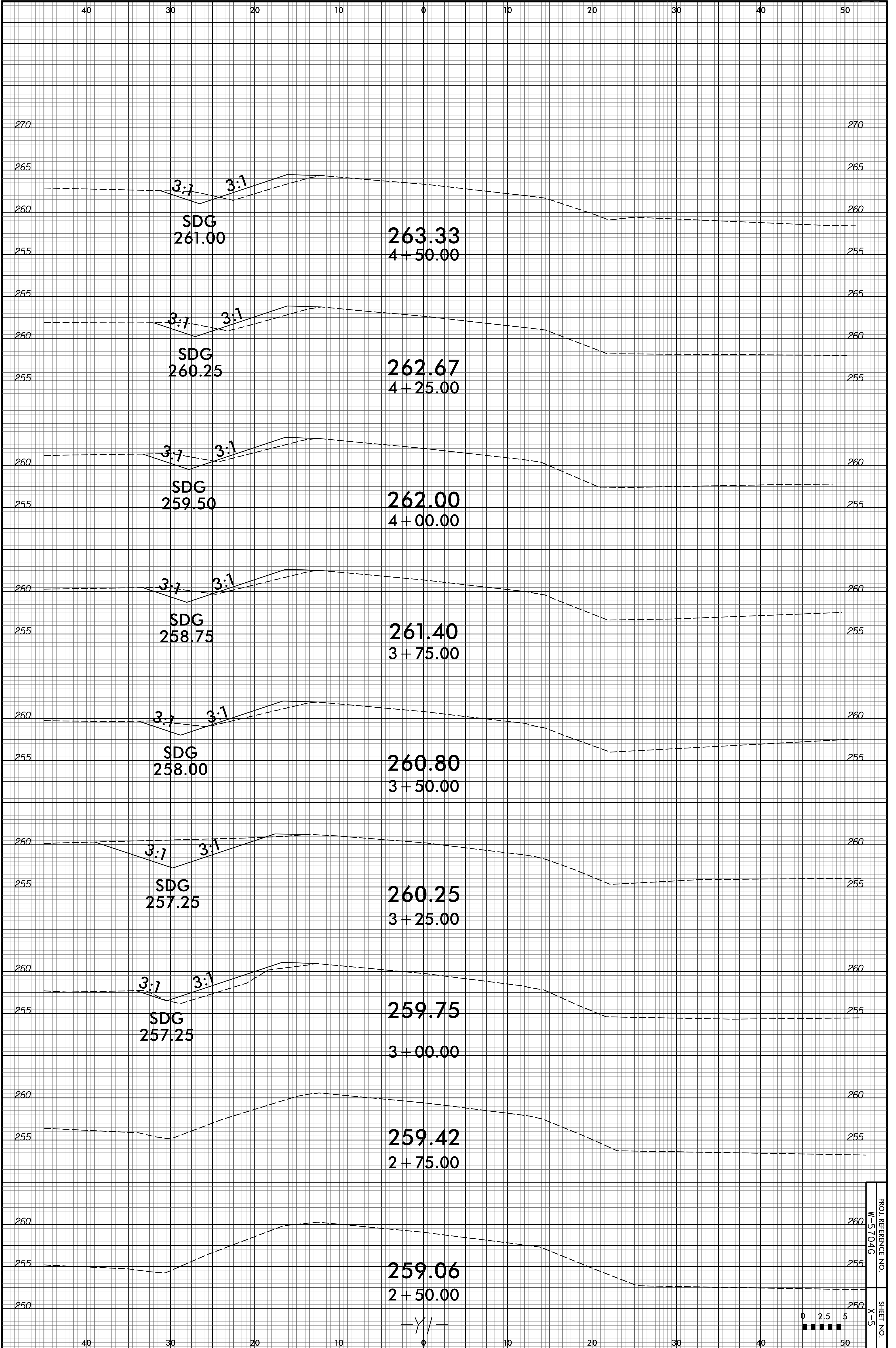
STATION Y4	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)
10+25.00		
10+50.00	2	11
10+75.00	12	8
11+00.00	12	7
11+25.00	5	17
11+50.00	6	17
11+75.00	5	12
12+00.00	6	12
12+25.00	7	11
12+50.00	7	10
12+75.00	7	12
13+00.00	10	12
13+25.00	8	9
13+50.00	1	10
13+75.00	1	14
14+00.00	1	16
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14+75.00	2	13
15+00.00	2	3
15+25.00	2	2



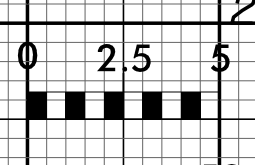


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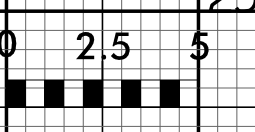
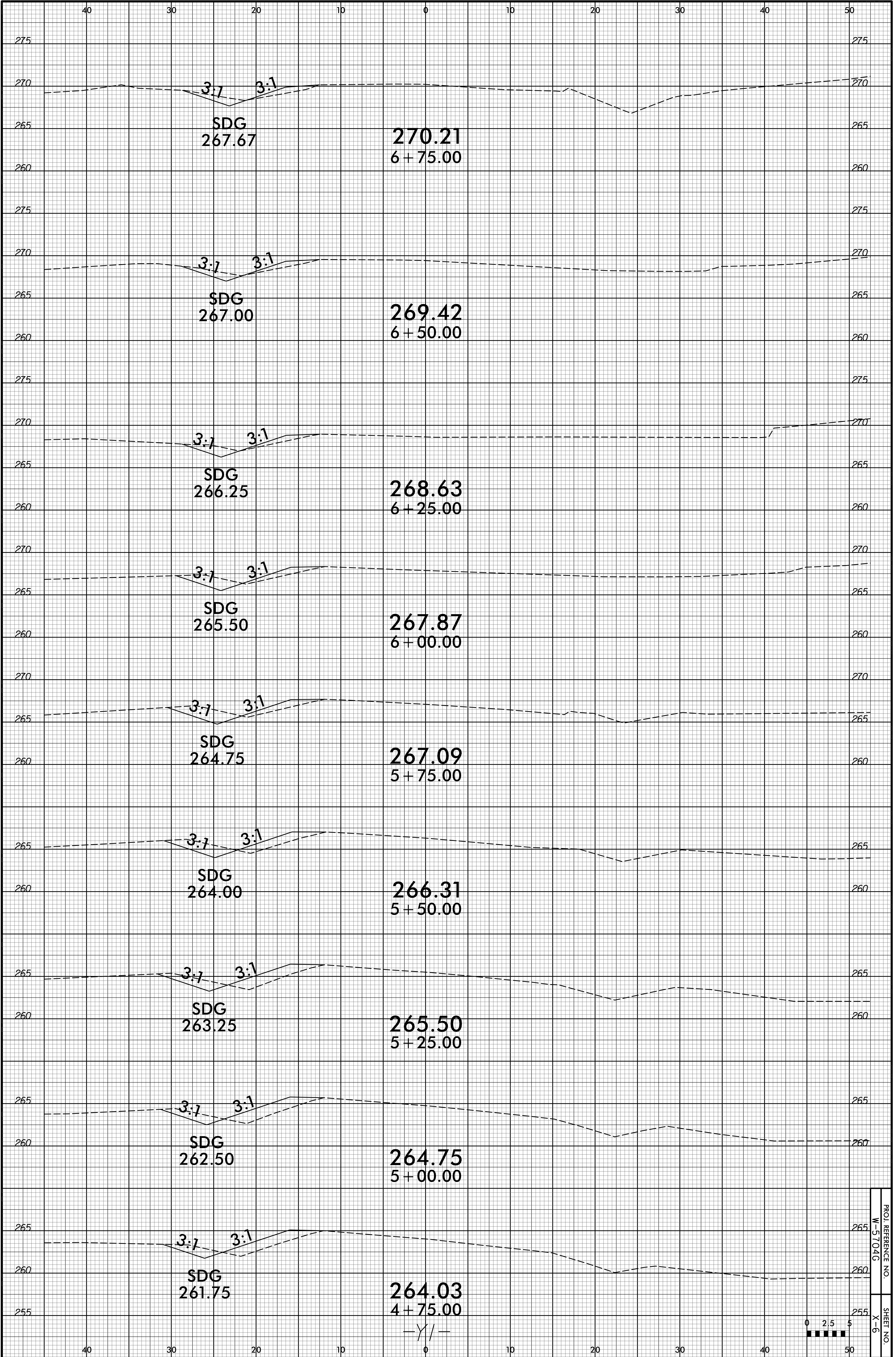




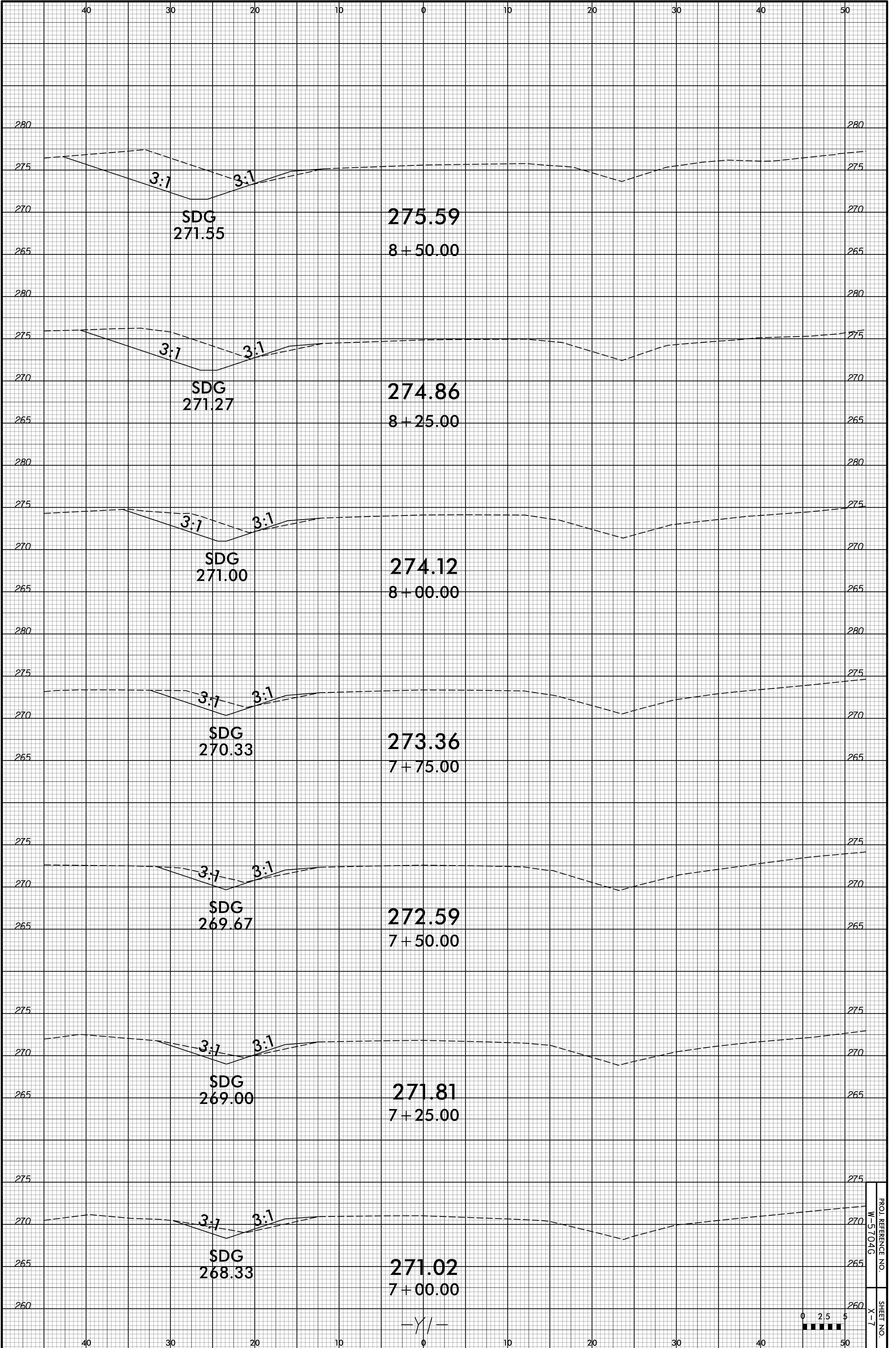
PROJ. REFERENCE NO. W-5704G
SHEET NO. X-5



-Y/-



PROJ. REFERENCE NO. W-5704G
SHEET NO. X-6



SDG
271.55

275.59
8+50.00

SDG
271.27

274.86
8+25.00

SDG
271.00

274.12
8+00.00

SDG
270.33

273.36
7+75.00

SDG
269.67

272.59
7+50.00

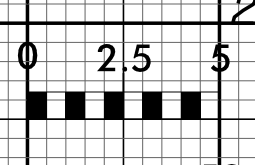
SDG
269.00

271.81
7+25.00

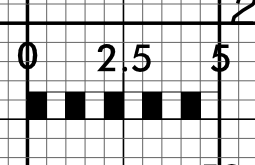
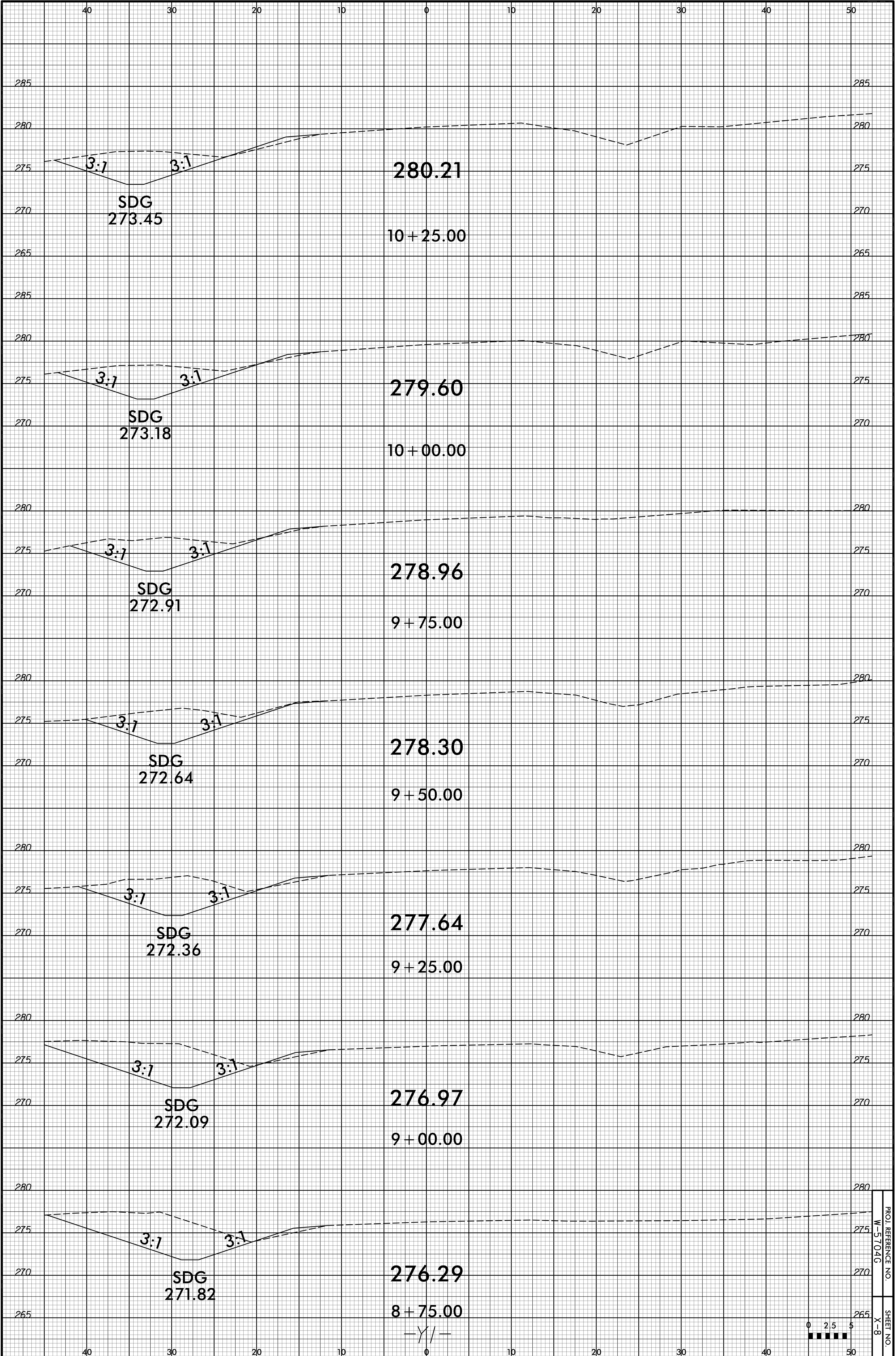
SDG
268.33

271.02
7+00.00

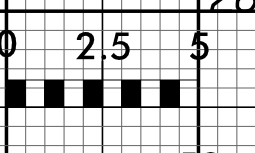
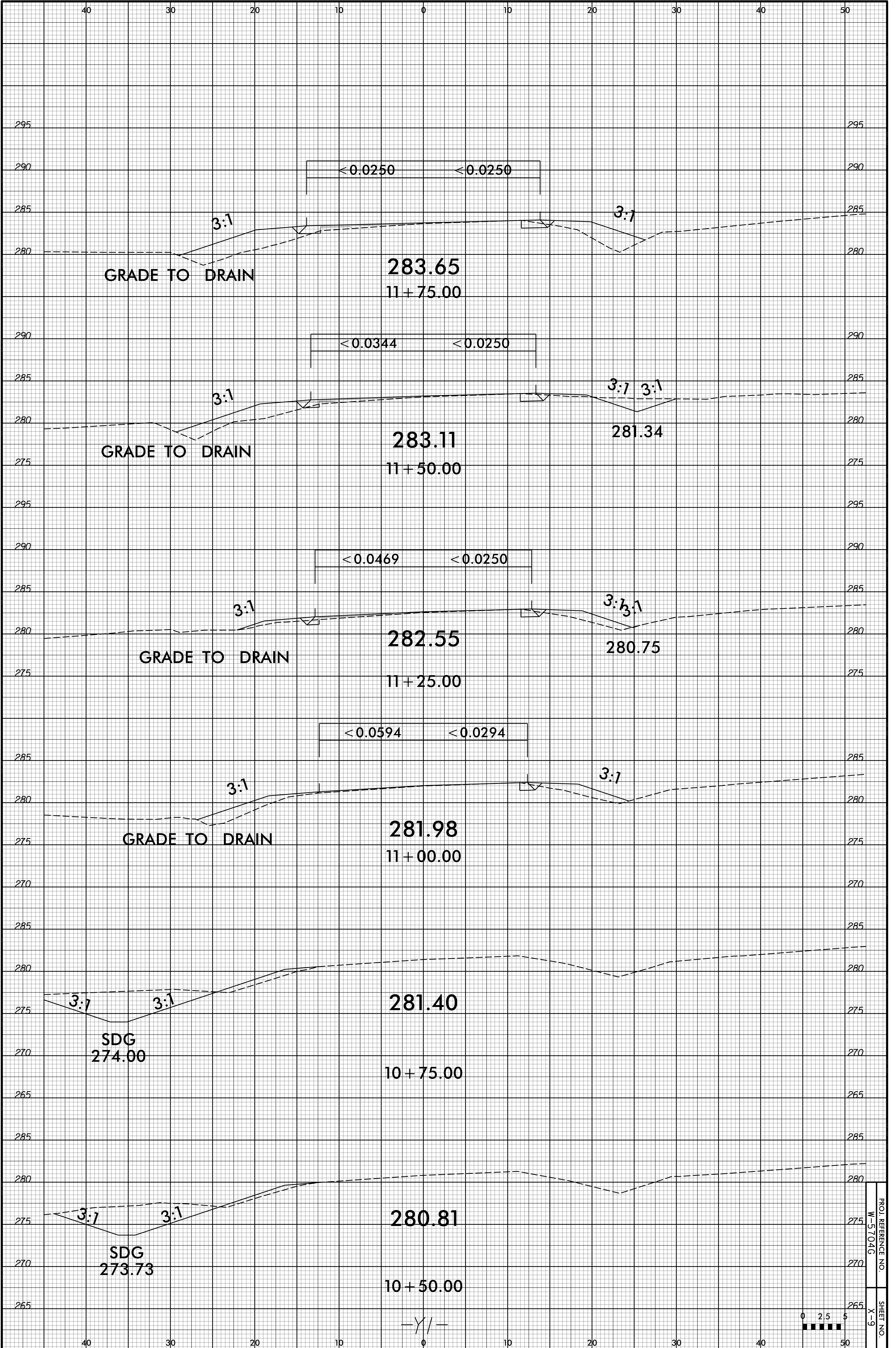
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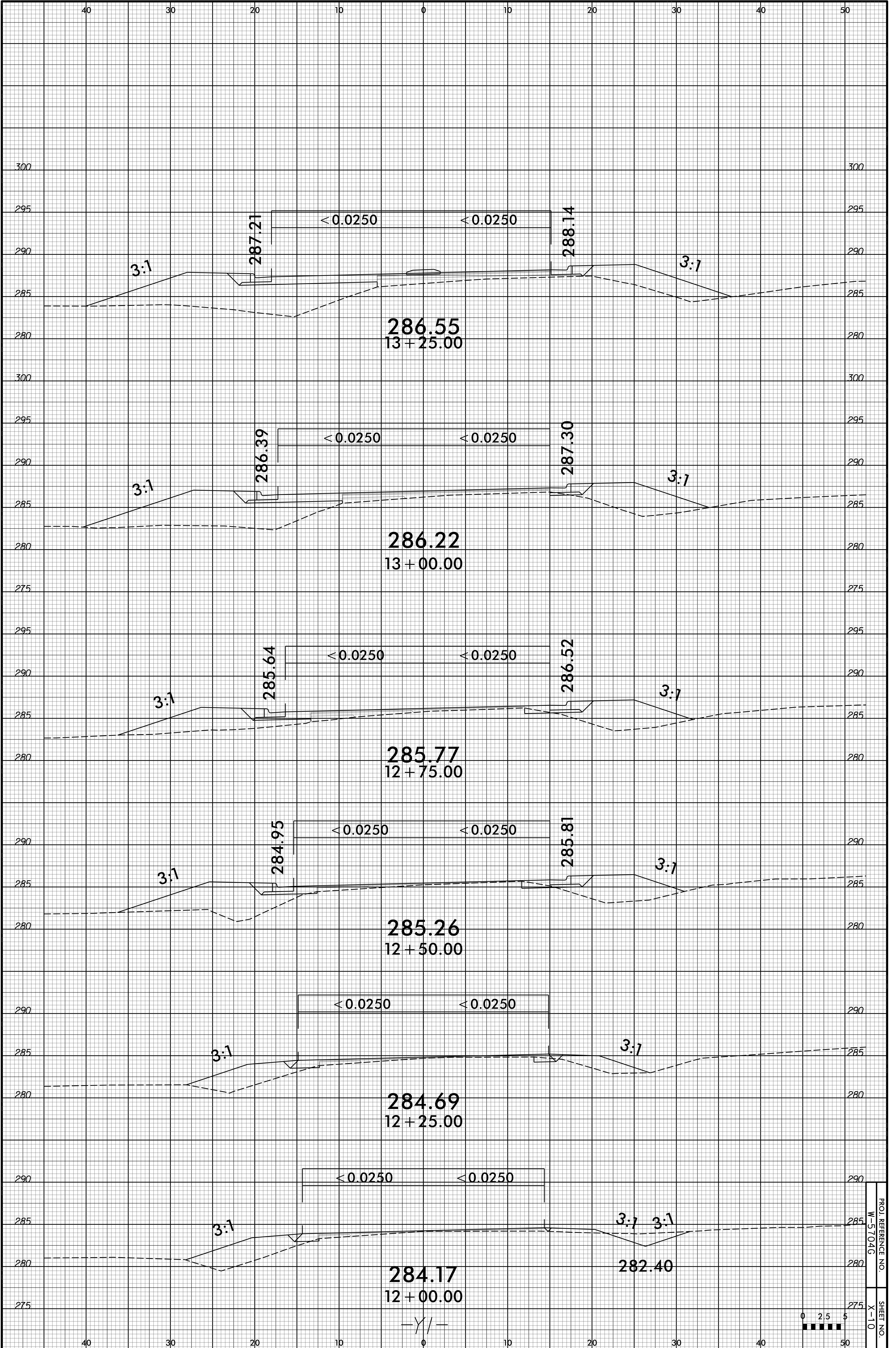
PROJ. REFERENCE NO.
W-5704G
SHEET NO.
X-7



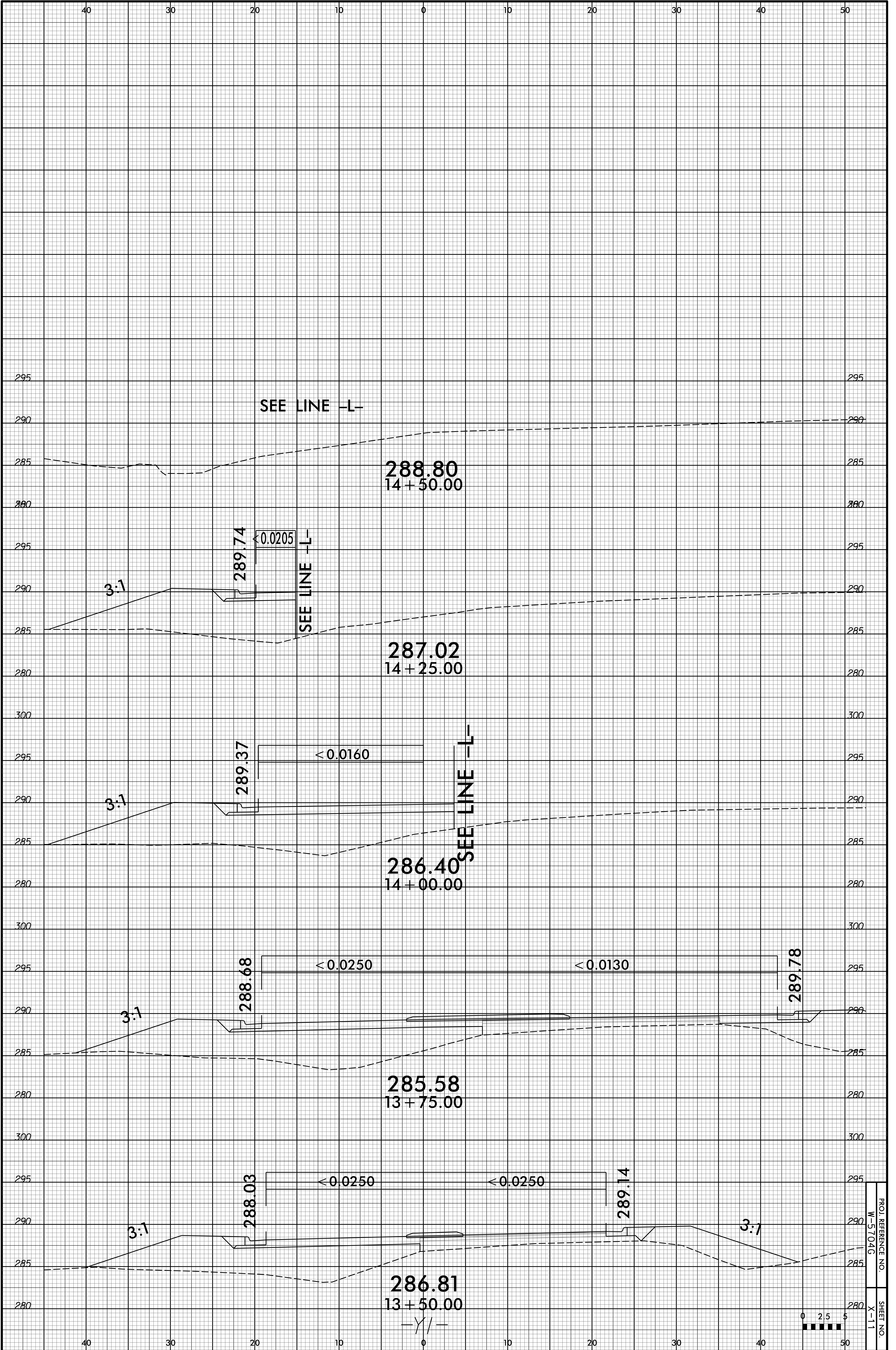
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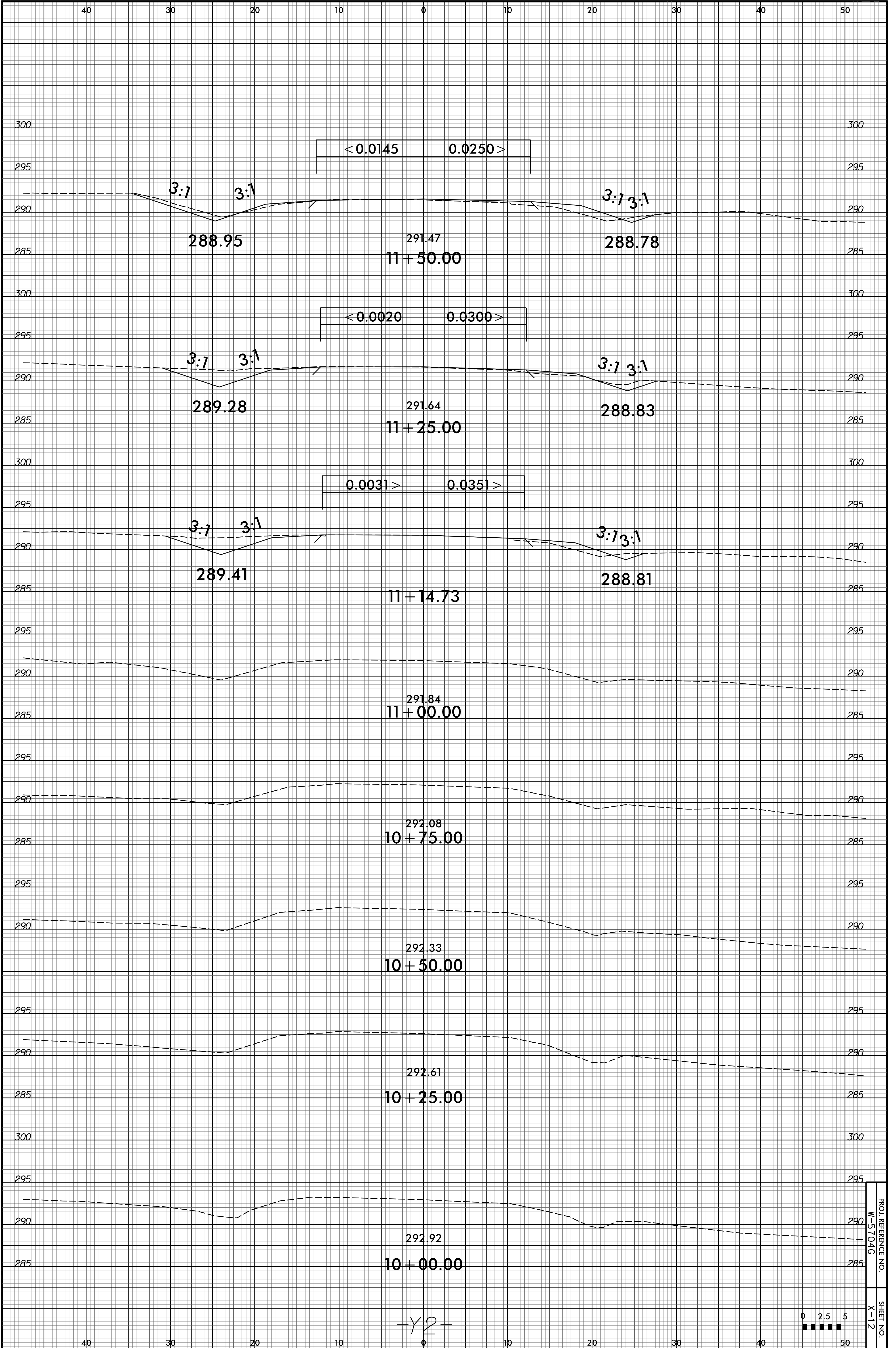


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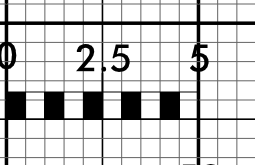


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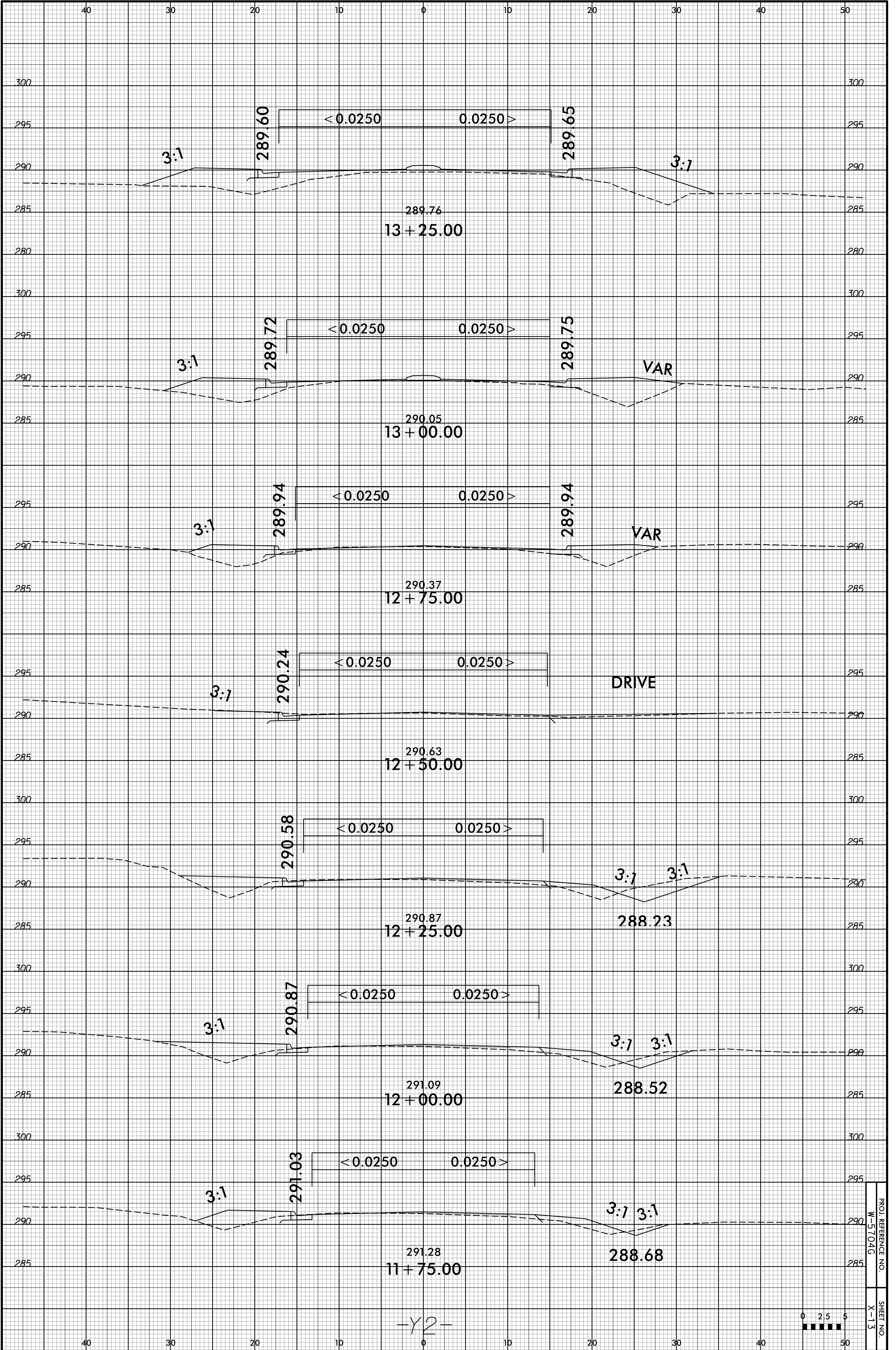




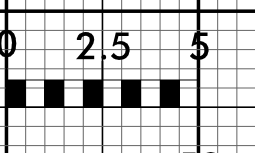
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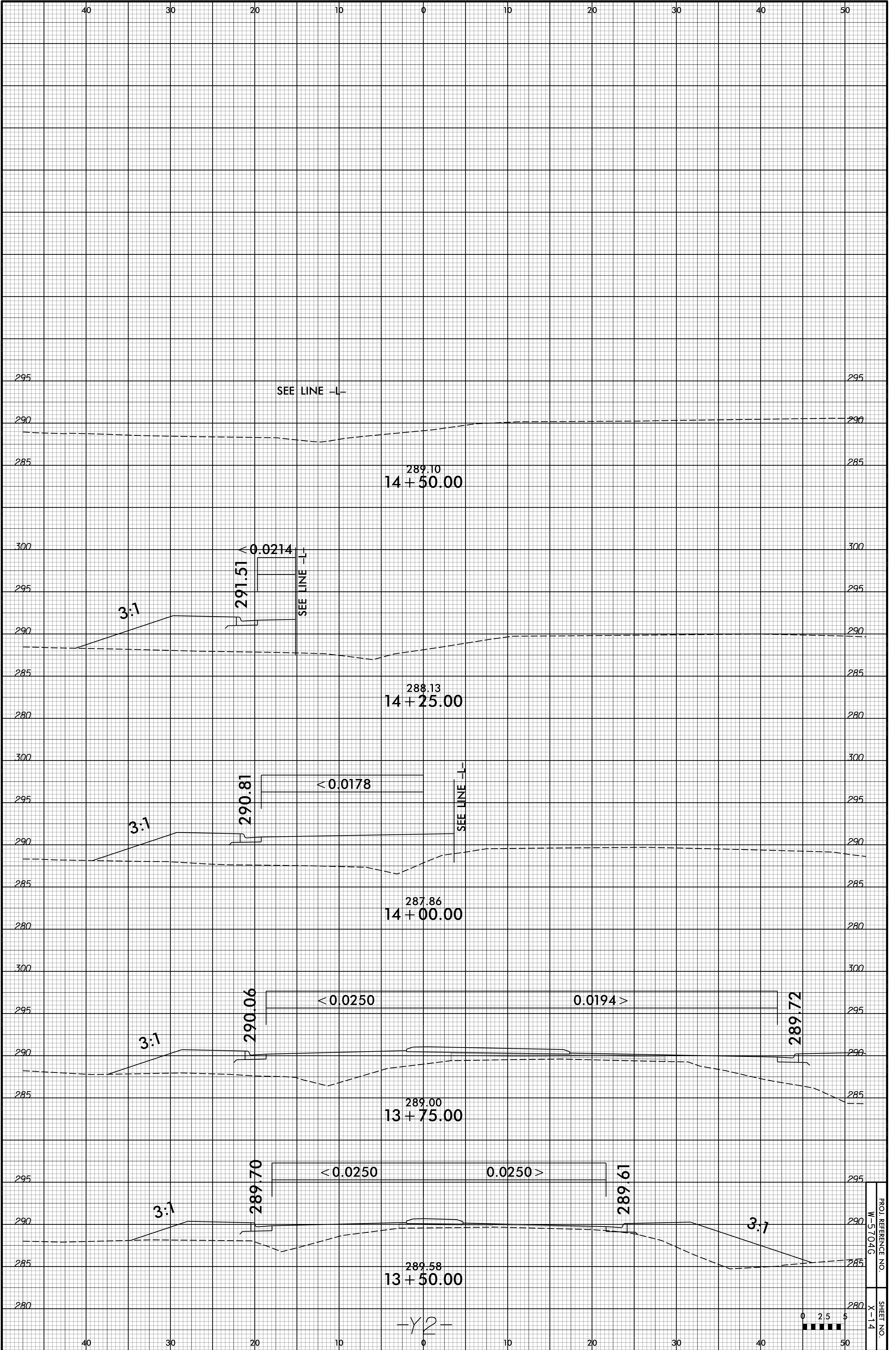
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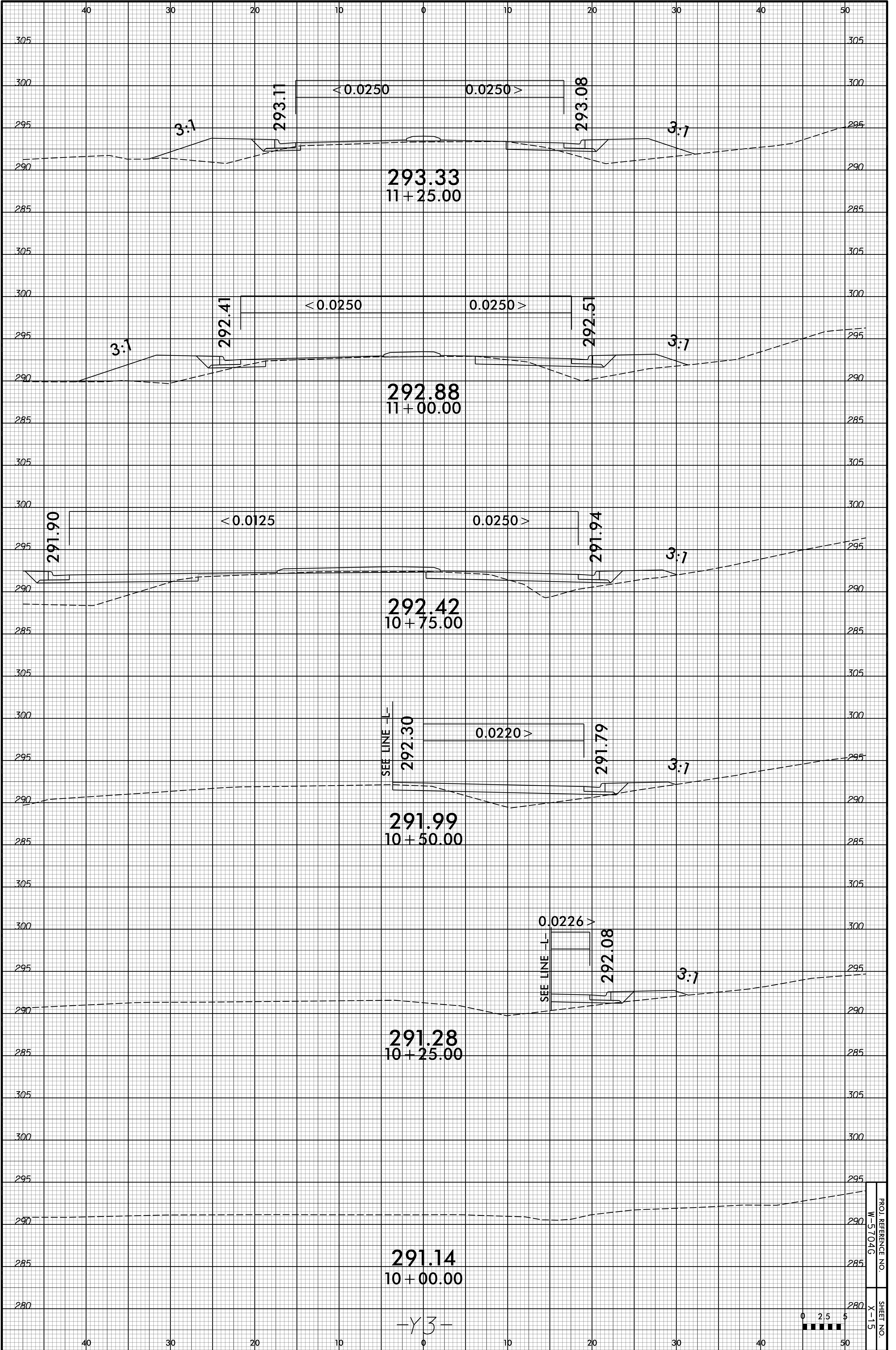


-Y2-



PROJ. REFERENCE NO. W-5704G
SHEET NO. X-13





293.33
11+25.00

292.88
11+00.00

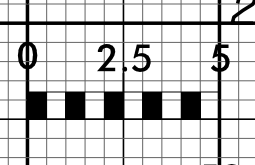
292.42
10+75.00

291.99
10+50.00

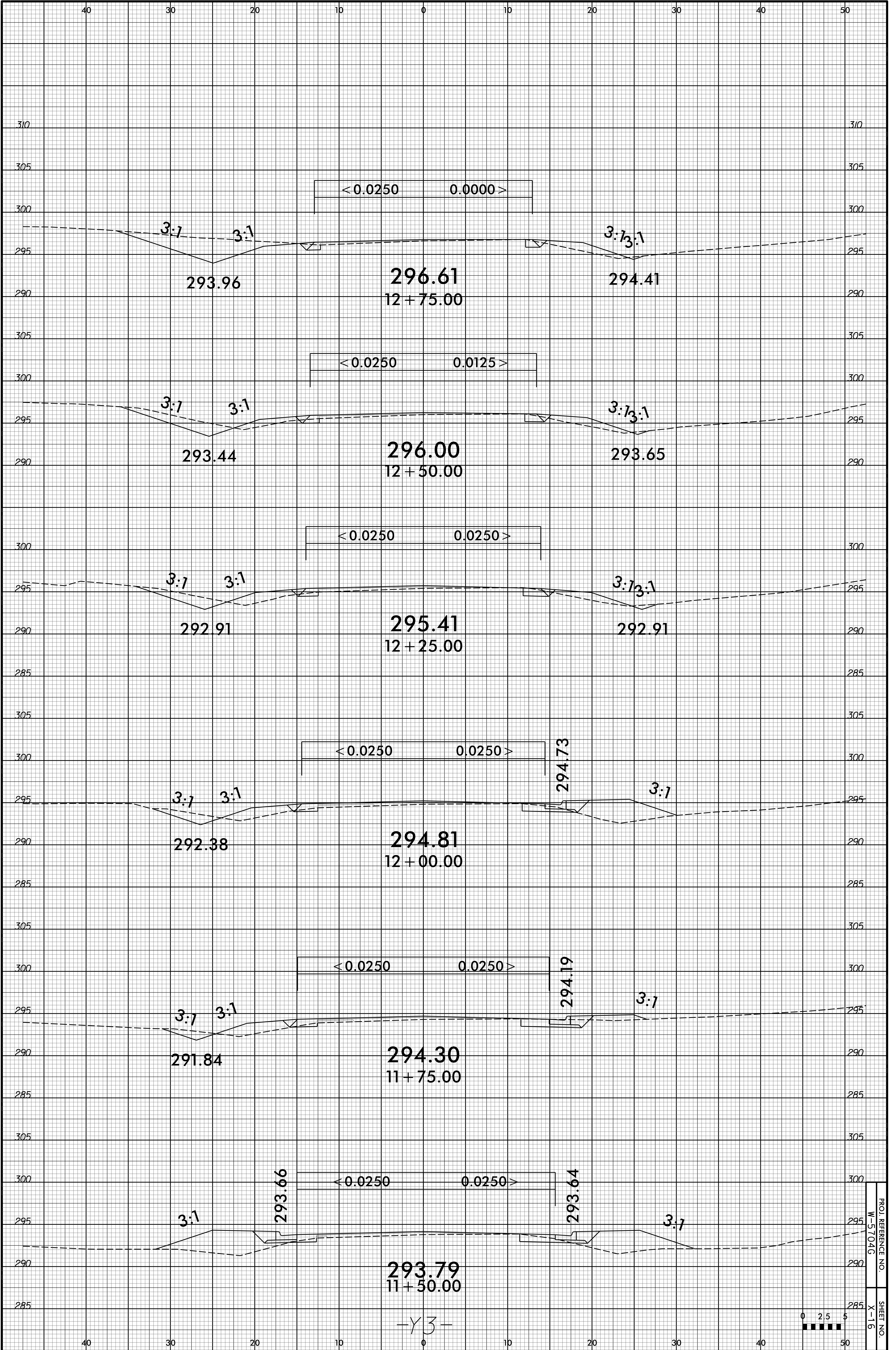
291.28
10+25.00

291.14
10+00.00

-Y3-



PROJ. REFERENCE NO. W-5704G
SHEET NO. X-15



-Y3-

PROJ. REFERENCE NO. W-5704G
SHEET NO. X-16

