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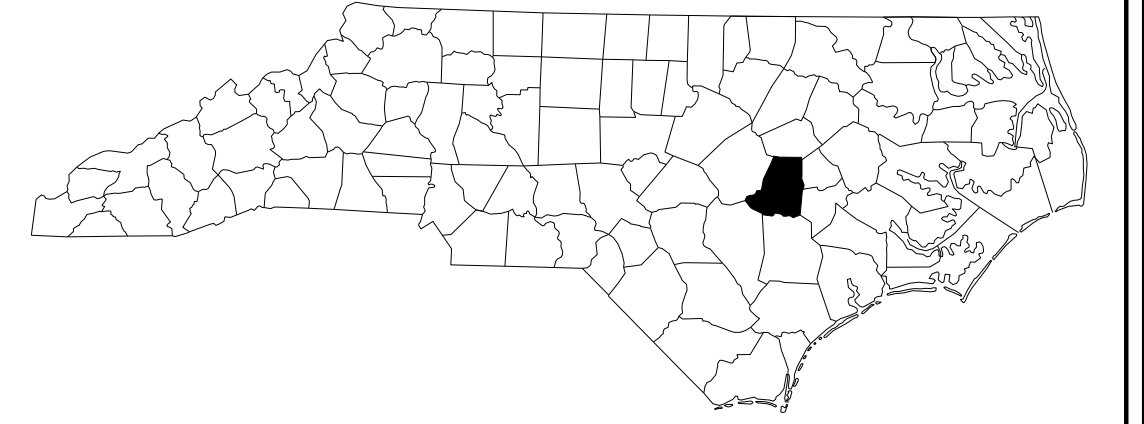
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09.08/2019

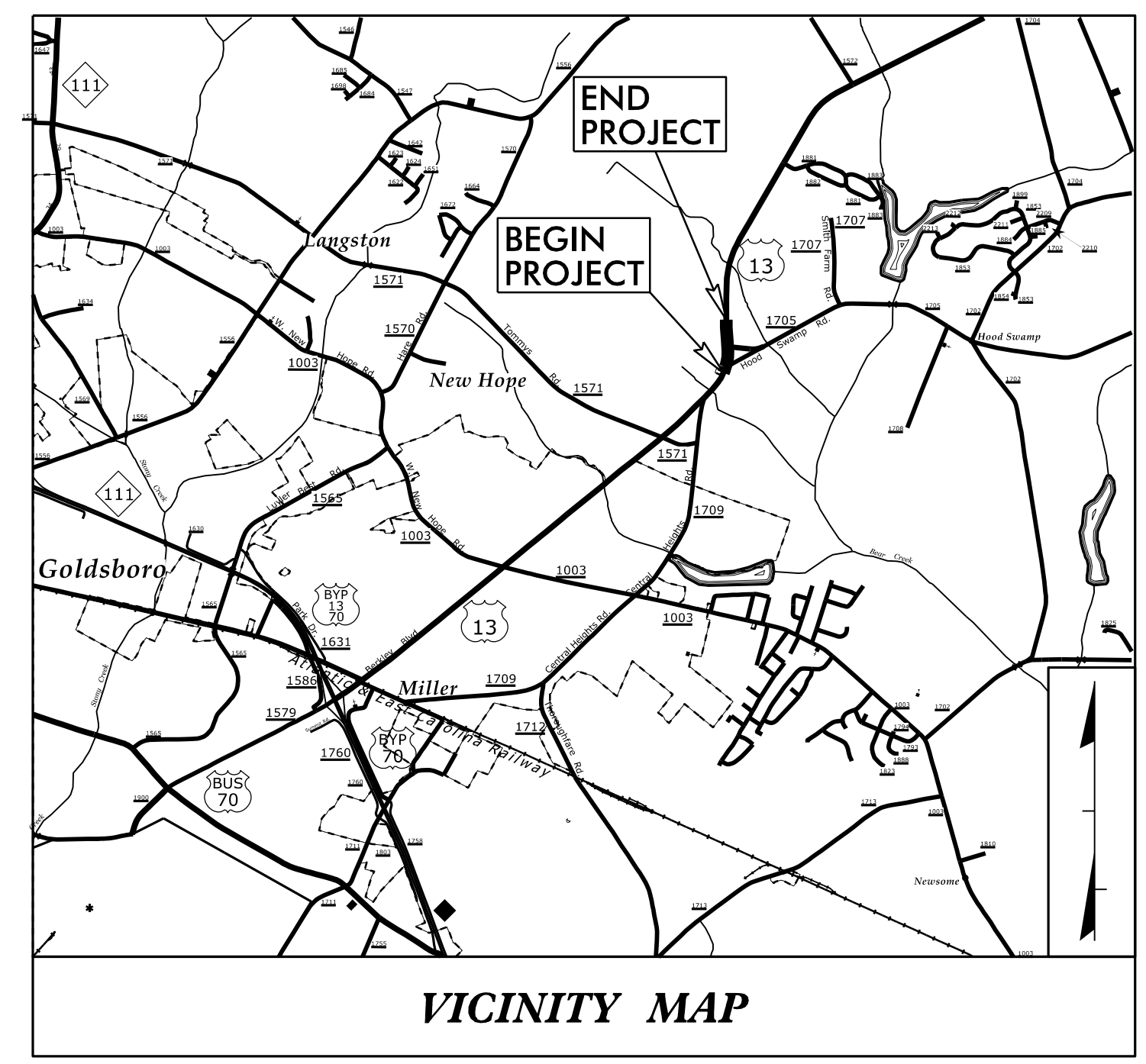
See Sheet 1A For Index of Sheets
 See Sheet 1B For Conventional Symbols
 See Sheet 1C-1 thru 1C- For Survey Control Sheets

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
WAYNE COUNTY

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | U-3609BA | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 39026.1.2 | N/A | PE | |
| 39026.2.3 | N/A | RW/UTIL. | |
| 39026.3.3 | N/A | CONST. | |
| | | | |
| | | | |



TIP PROJECT: U-3609BA

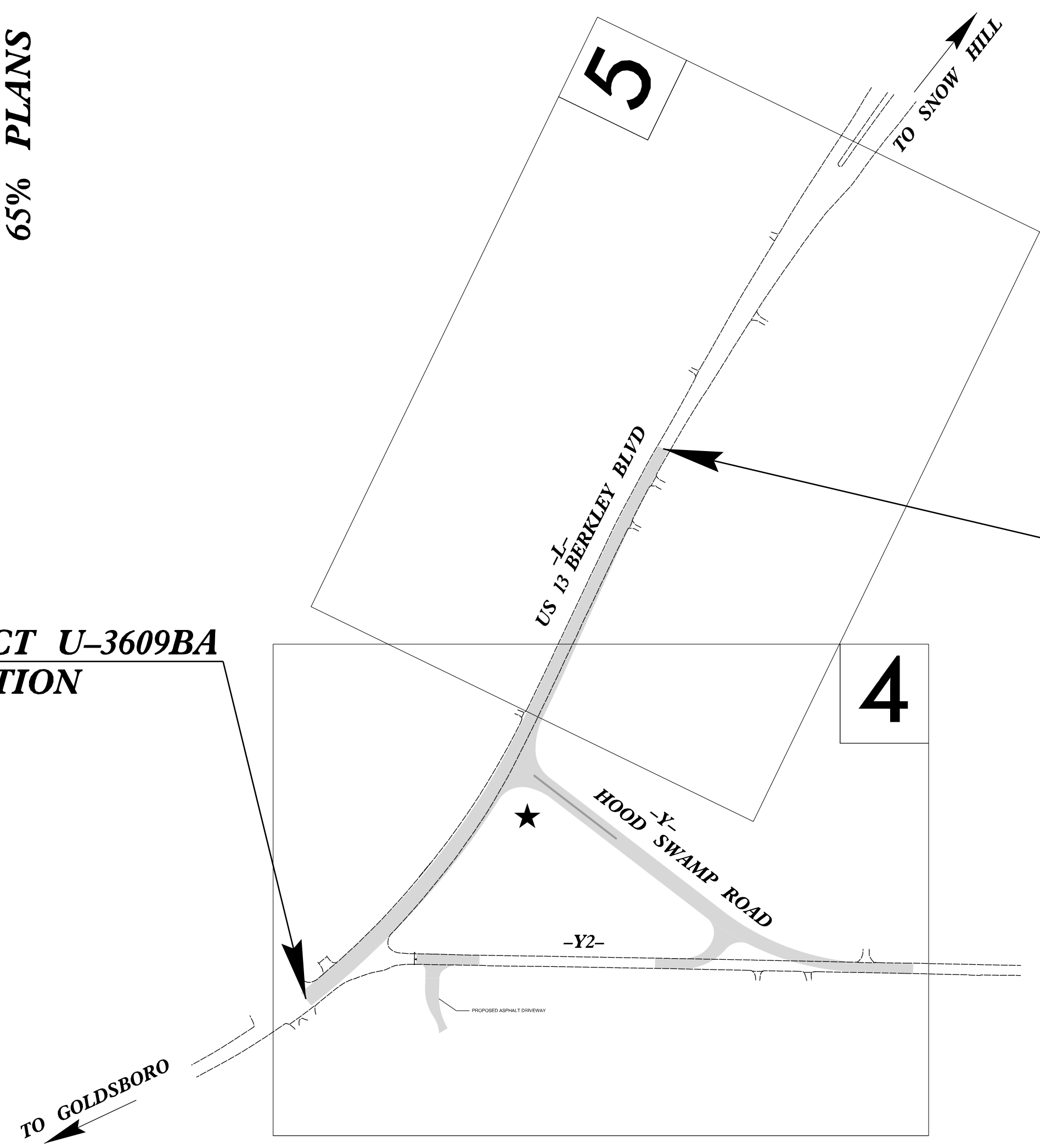


65% PLANS

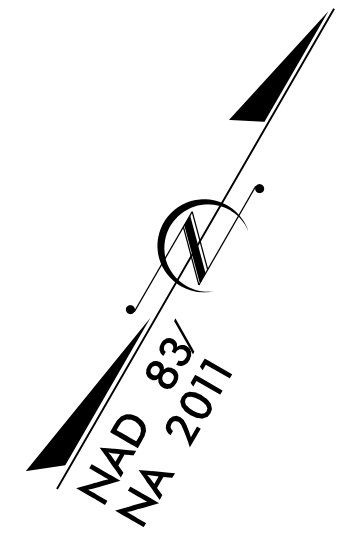
**LOCATION: US 13 (BERKELEY BOULEVARD) AT
 SR 1705 (HOOD SWAMP ROAD)**
**TYPE OF WORK: GRADING, PAVING, DRAINAGE
 AND SIGNAL**

**BEGIN TIP PROJECT U-3609BA
 BEGIN CONSTRUCTION
 -L- STA. 23 + 15.78**

**END TIP PROJECT U-3609BA
 END CONSTRUCTION
 -L- STA. 37 + 32.00**

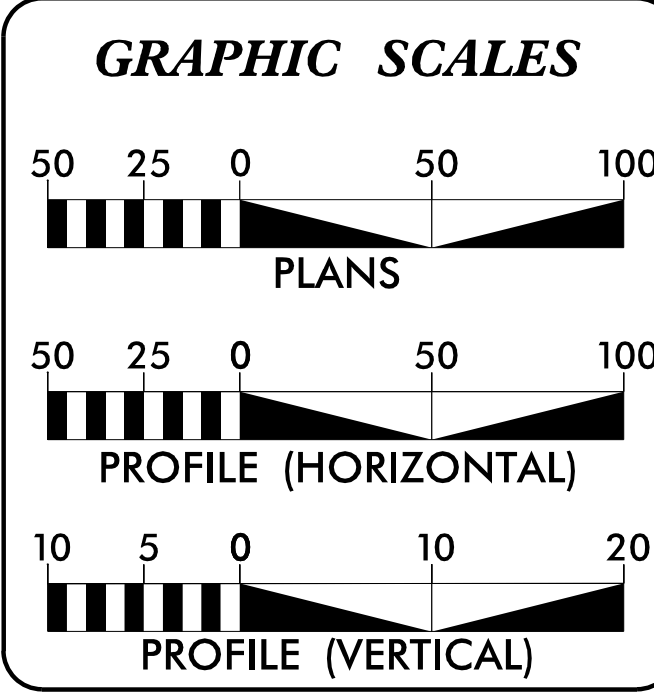


★ **PROPOSED SIGNAL**



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

CONTRACT: DD003883



DESIGN DATA

| | |
|-----------------------|--------|
| ADT 2019 = | 13,429 |
| ADT 2040 = | 17,200 |
| K = | 9 % |
| D = | 55 % |
| T = | 3 % * |
| V = | 50 MPH |
| * TTST = 1% DUAL = 2% | |
| FUNC CLASS = | |
| RURAL ARTERIAL | |
| REGIONAL TIER | |

PROJECT LENGTH

| | |
|---|--------------------|
| LENGTH ROADWAY TIP PROJECT U-3609BA = | 0.268 miles |
| TOTAL LENGTH TIP PROJECT U-3609BA = | 0.268 miles |

Prepared In The Office of:

Stantec
 Stantec Consulting Services Inc.
 801 Jones Franklin Road
 Suite 300
 Raleigh, NC 27606
 Tel. (919) 851-6866 Fax. (919) 851-7024
 www.stantec.com License No. F-0672

MI ENGINEERING
 1011 SCHAU DRIVE, SUITE 100
 RALEIGH, NC 27606
 (919) 851-6606
 FIRM PE NUMBER : P-0671

For the North Carolina Department of Transportation

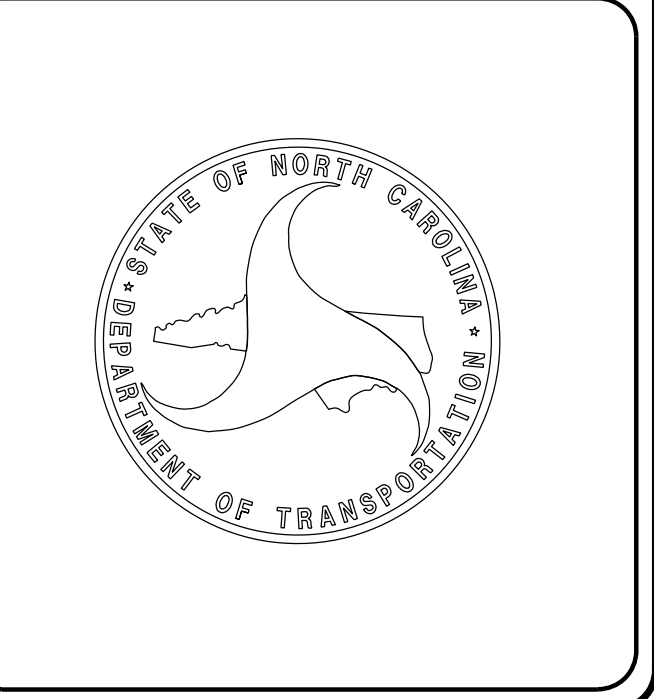
| | |
|---|--|
| 2018 STANDARD SPECIFICATIONS | STANTEC CONTACT |
| RIGHT OF WAY DATE: OCTOBER 18, 2018 | STEVE SMALLWOOD, P.E. PROJECT ENGINEER |
| LETTING DATE: APRIL 12, 2022 | NCDOT DIVISION 4 CONTACT: ADDISION GAINEY, P.E. PROJECT TEAM LEAD |

HYDRAULICS ENGINEER

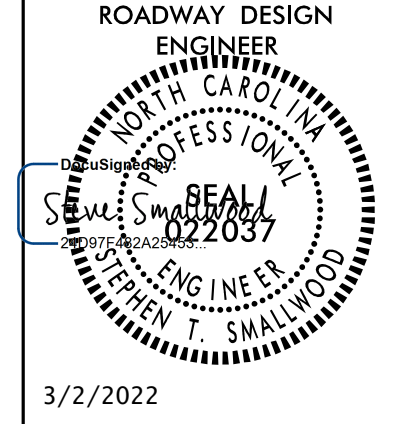
DocuSigned by:
 William Demigien
 SIGNATURE: _____
 P.E. 3/2/2022

ROADWAY DESIGN ENGINEER

DocuSigned by:
 Steve Smallwood
 SIGNATURE: _____
 P.E. 3/2/2022



8/17/99



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

| SHEET NUMBER | SHEET |
|----------------------|--|
| 1 | TITLE SHEET |
| 1A | INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS |
| 1B | CONVENTIONAL SYMBOLS |
| 1C-1 THRU 1C-4 | SURVEY CONTROL/ROW SHEETS |
| 2A-1 | PAVEMENT SCHEDULE, WEDGING DETAILS AND TYPICAL SECTIONS |
| 2C-1 | GUARDRAIL INSTALLATION W BEAM RAIL SECTION |
| 3B-1 | SUMMARY OF ROADWAY QUANTITIES SUMMARY OF EARTHWORK, ASPHALT PAVEMENT REMOVAL SUMMARY |
| 3D-1 | DRAINAGE SUMMARY |
| 3P-1 | PARCEL INDEX SHEETS |
| 4 THRU 5 | PLAN SHEETS |
| 6 THRU 7 | PROFILE SHEETS |
| PMP-1 THRU PMP-3 | PAVEMENT MARKING PLANS |
| EC-1 THRU EC-7 | EROSION CONTROL PLANS |
| SIGN-1 THRU SIGN 5 | SIGNING PLANS |
| SIG-1.0 THRU SIG-3.0 | SIGNAL PLANS |
| X-1A | CROSS-SECTION SUMMARY |
| X-1 THRU X-17 | CROSS-SECTIONS |

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED 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.

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 Duke Energy Progress, NCDOT, Eastern Wayne Sanitary District, City of Goldsboro, Fork Township Sanitary District, AT&T Corp, Charter Communications, Conterra Communications

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

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

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:

| STD.NO. | TITLE |
|--|--|
| 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 |
| 225.06 | Method of Grading Sight Distance at Intersection |
| 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 | |
| 806.01 | Concrete Right-of-Way Marker |
| 806.02 | Granite Right-of-Way Marker |
| 838.01 | Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew |
| 838.11 | Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew |
| 840.00 | Concrete Base Pad for Drainage Structures |
| 840.18 | Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe |
| 840.27 | Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe |
| 840.29 | Frames and Narrow Slot Flat Grates |
| 852.01 | Concrete Islands |
| 862.01 | Guardrail Placement |
| 862.02 | Guardrail Installation |
| 876.02 | Guide for Rip Rap at Pipe Outlets |

EFF. 01-16-2018
REV.

12/2/2016

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 | □ ECM |
| 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 | ☠-W-☠ |

BUILDINGS AND OTHER CULTURE:

| | |
|-------------------------------|-----|
| Gas Pump Vent or U/G Tank Cap | ○ |
| Sign | ○ S |
| 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 | --- WLB --- |
| Proposed Lateral, Tail, Head Ditch | ----- |
| False Sump | ▽ |

RAILROADS:

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

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 | ----- |
| New Right of Way Line with Pin and Cap | ----- |
| New Right of Way Line with Concrete or Granite R/W Marker | ----- |
| New Control of Access Line with Concrete C/A Marker | ----- |
| Existing Control of Access | ----- |
| New Control of Access | ----- |
| Existing Easement Line | ----- |
| New Temporary Construction Easement | ----- |
| New Temporary Drainage Easement | ----- |
| New Permanent Drainage Easement | ----- |
| New Permanent Drainage / Utility Easement | ----- |
| New Permanent Utility Easement | ----- |
| New Temporary Utility Easement | ----- |
| New Aerial Utility Easement | ----- |

ROADS AND RELATED FEATURES:

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

VEGETATION:

| | |
|--------------|---|
| Single Tree | ☼ |
| Single Shrub | ☼ |

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

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

EXISTING STRUCTURES:

| | |
|--|-------|
| MAJOR: | |
| Bridge, Tunnel or Box Culvert | ----- |
| Bridge Wing Wall, Head Wall and End Wall | ----- |
| MINOR: | |
| Head and End Wall | ----- |
| Pipe Culvert | ----- |
| Footbridge | ----- |
| Drainage Box: Catch Basin, DI or JB | ----- |
| Paved Ditch Gutter | ----- |
| Storm Sewer Manhole | ----- |
| Storm Sewer | ----- |

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.*) | ----- |
| U/G Power Line LOS C (S.U.E.*) | ----- |
| U/G Power Line LOS D (S.U.E.*) | ----- |

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.*) | ----- |
| U/G Telephone Cable LOS C (S.U.E.*) | ----- |
| U/G Telephone Cable LOS D (S.U.E.*) | ----- |
| U/G Telephone Conduit LOS B (S.U.E.*) | ----- |
| U/G Telephone Conduit LOS C (S.U.E.*) | ----- |
| U/G Telephone Conduit LOS D (S.U.E.*) | ----- |
| U/G Fiber Optics Cable LOS B (S.U.E.*) | ----- |
| U/G Fiber Optics Cable LOS C (S.U.E.*) | ----- |
| U/G Fiber Optics Cable LOS D (S.U.E.*) | ----- |

WATER:

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

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

| | |
|--|--------|
| Utility Pole | ● |
| Utility Pole with Base | □ |
| Utility Located Object | ○ |
| Utility Traffic Signal Box | ⊕ |
| Utility Unknown U/G Line LOS B (S.U.E.*) | ----- |
| U/G Tank; Water, Gas, Oil | ----- |
| Underground Storage Tank, Approx. Loc. | ----- |
| 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. |

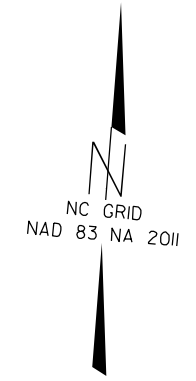
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-------|-----------------------------|-----------|--------------|
| N.C. | U-3609BA | RW01 | 11 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

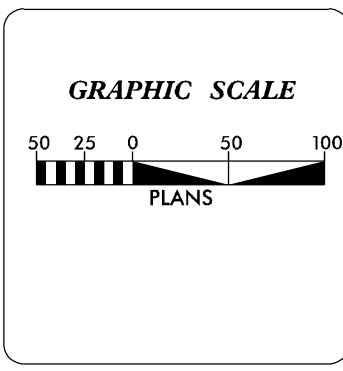
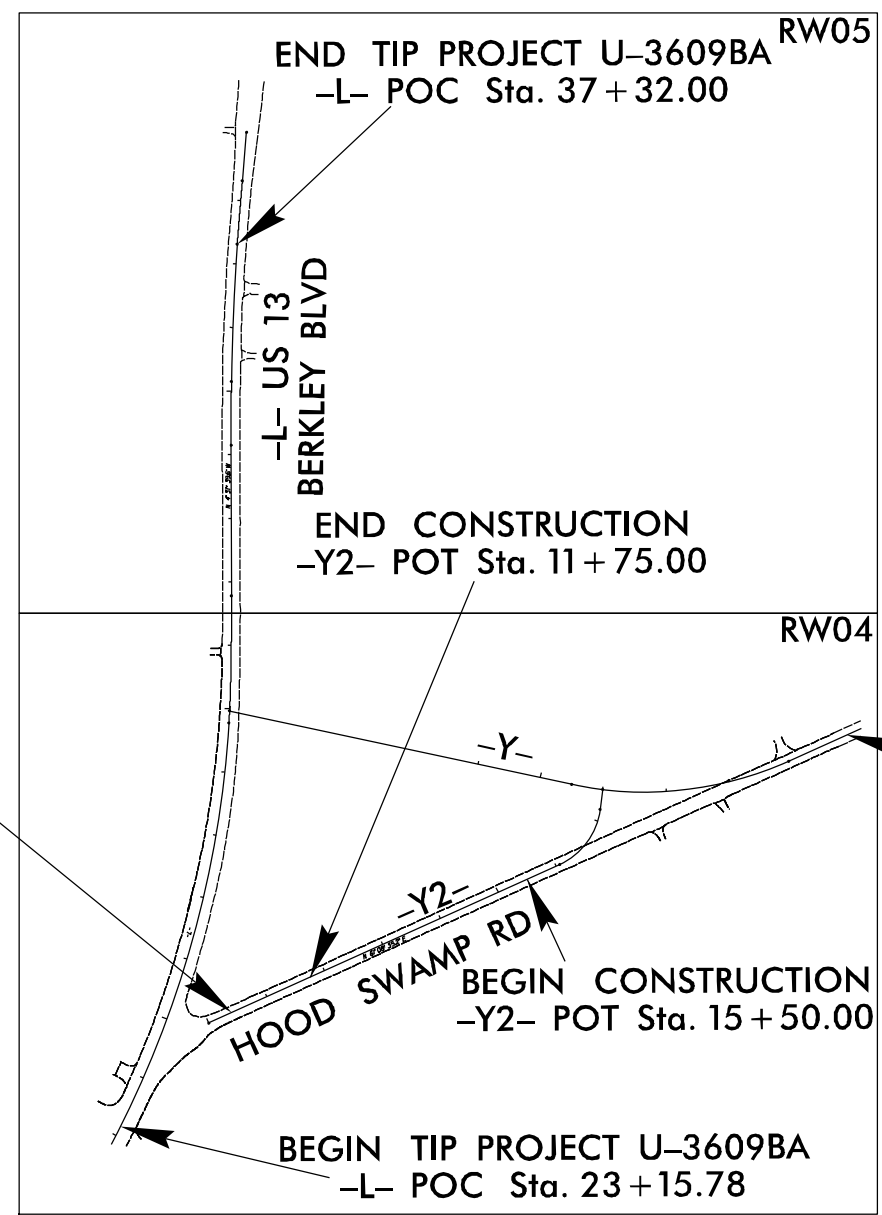
WAYNE COUNTY

TIP PROJECT: U-3609BA



TO SNOW HILL

TO GOLDSBORO



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U3609B-3" WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 601449.873(ft) EASTING: 2325835.214(ft) ELEVATION: 119.726(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999875313

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U-3609B-3" TO -L- STATION 23+15.78 IS N 45°42'26.79" E 3458.1143(ft)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD88-GEOID G12NC

Prepared in the Office of:

LOCATION AND SURVEYS
509 WARD BLVD
WILSON, NC, 27893

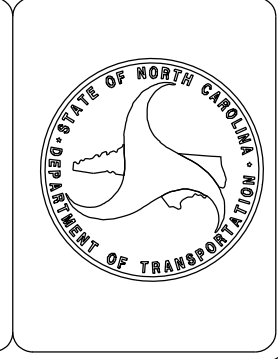
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 10/12/2018

LETTING DATE: 04/12/2022

PROFESSIONAL LAND SURVEYOR

SIGNATURE: _____ Date: _____



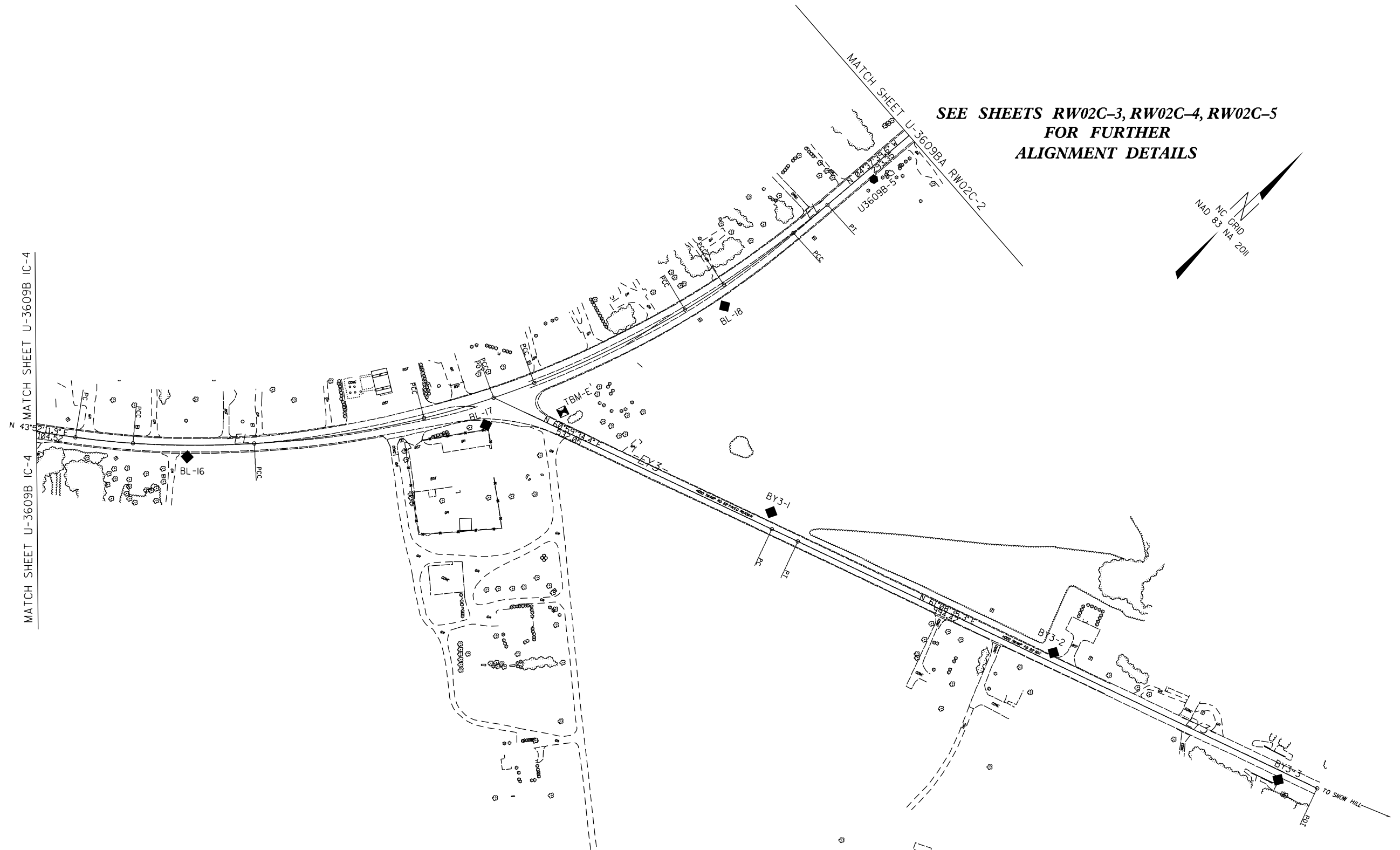
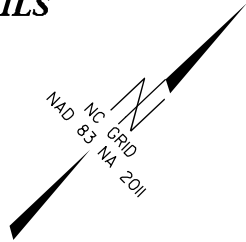
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| | |
|-----------------------|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| U-3609BA | RW02C-1 |
| Location and Surveys | |

SURVEY CONTROL SHEET U-3609BA

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

**SEE SHEETS RW02C-3, RW02C-4, RW02C-5
FOR FURTHER
ALIGNMENT DETAILS**



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.
3. U-3609BA IS A PROJECT WITHIN U-3609B THAT SHARES THE ALIGNMENTS AND CONTROL AS U-3609B

REVISIONS

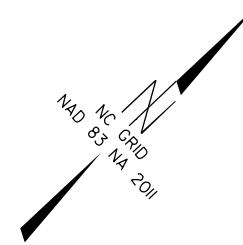
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6/2/99

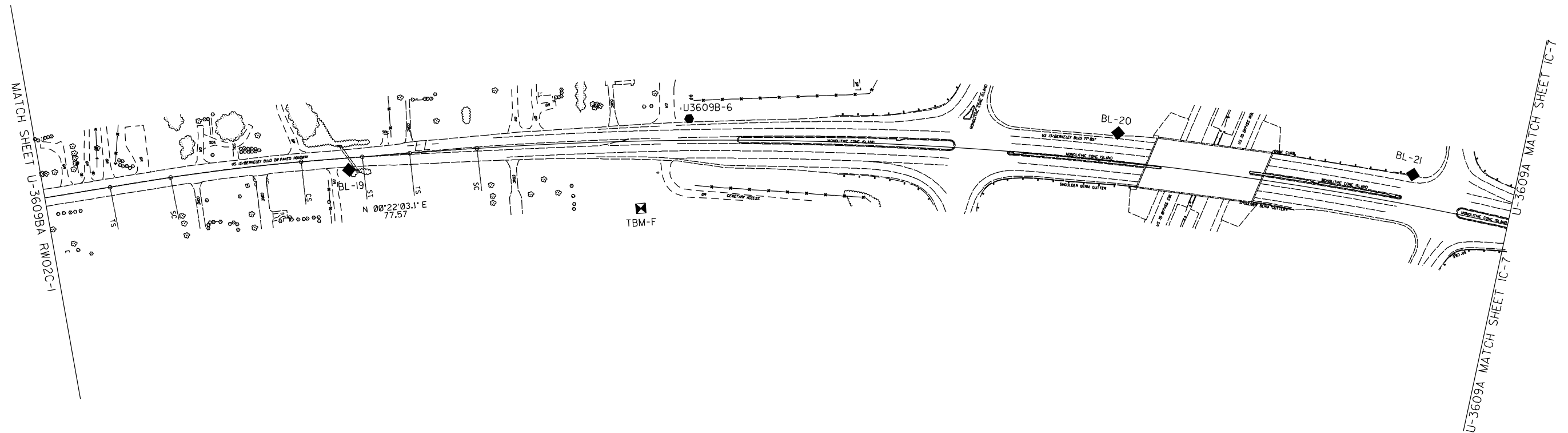
| | |
|-----------------------|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| U-3609B | RW02C-2 |
| Location and Surveys | |

SURVEY CONTROL SHEET U-3609BA

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



**SEE SHEETS RW02C-3, RW02C-4, RW02C-5
FOR FURTHER
ALIGNMENT DETAILS**



NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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3. U-3609BA IS A PROJECT WITHIN U-3609B THAT SHARES THE ALIGNMENTS AND CONTROL AS U-3609B

REVISIONS

10 MAR 2022 15:19
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 AT 1504:31623

6/2/99

SURVEY CONTROL SHEET U-3609BA

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BASELINE

| BL | POINT | DESC. | NORTH | EAST | ELEVATION | BY1 | POINT | DESC. | NORTH | EAST | ELEVATION |
|-----|-------|-----------|-------------|--------------|-----------|------|-------|----------|-------------|--------------|-----------|
| 91 | | U3609B-1 | 598323.4330 | 2321262.6400 | 138.19 | A94 | | U3609B-4 | 602001.8930 | 2326610.4470 | 121.21 |
| 92 | | U3609B-2 | 598176.6310 | 2321977.0730 | 138.96 | 111 | | BY1-1 | 601767.0636 | 2327047.2354 | 120.11 |
| 1 | | BL-1 | 598454.3958 | 2322165.8133 | 136.79 | A123 | | BY2-3 | 601771.5790 | 2327542.7756 | 119.24 |
| 2 | | BL-2 | 598784.4447 | 2322578.8605 | 134.57 | | | | | | |
| 3 | | BL-3 | 599123.9897 | 2322993.0242 | 129.39 | | | | | | |
| 4 | | BL-4 | 599417.6381 | 2323354.8289 | 124.68 | | | | | | |
| 5 | | BL-5 | 599718.0576 | 2323725.1471 | 122.03 | | | | | | |
| 6 | | BL-6 | 599981.1738 | 2324050.1534 | 121.32 | | | | | | |
| 7 | | BL-7 | 600242.4519 | 2324370.8269 | 121.09 | | | | | | |
| 8 | | BL-8 | 600498.8955 | 2324677.1961 | 117.90 | | | | | | |
| 9 | | BL-9 | 600722.7819 | 2324964.9519 | 113.13 | | | | | | |
| 10 | | BL-10 | 600997.6343 | 2325302.9413 | 117.43 | | | | | | |
| 11 | | BL-11 | 601217.2445 | 2325569.3950 | 119.77 | | | | | | |
| 93 | | U3609B-3 | 601449.8730 | 2325835.2140 | 119.73 | | | | | | |
| 12 | | BL-12 | 601761.5349 | 2326194.2647 | 121.52 | | | | | | |
| 94 | | U3609B-4 | 602001.8930 | 2326610.4470 | 121.21 | | | | | | |
| 13 | | BL-13 | 602357.6281 | 2327049.4140 | 121.12 | | | | | | |
| 14 | | BL-14 | 602679.7654 | 2327353.2632 | 120.61 | | | | | | |
| 15 | | BL-15 | 603033.2754 | 2327695.4987 | 120.90 | | | | | | |
| 16 | | BL-16 | 603502.3237 | 2328130.0622 | 121.44 | | | | | | |
| 17 | | BL-17 | 603953.9816 | 2328386.8856 | 120.97 | | | | | | |
| 18 | | BL-18 | 604409.0275 | 2328461.1648 | 119.80 | | | | | | |
| 95 | | U3609B-5 | 604746.5090 | 2328433.5690 | 121.32 | | | | | | |
| 19 | | BL-19 | 605338.9993 | 2328403.2118 | 120.80 | | | | | | |
| 96 | | U3609B-6 | 605899.0040 | 2328365.9620 | 123.86 | | | | | | |
| 20 | | BL-20 | 606594.3924 | 2328446.9523 | 147.30 | | | | | | |
| 21 | | BL-21 | 607068.3304 | 2328554.2057 | 146.63 | | | | | | |
| 22 | | BL-22 | 607847.0659 | 2328840.7933 | 125.74 | | | | | | |
| 23 | | BL-23 | 608420.7090 | 2329139.8545 | 128.61 | | | | | | |
| 24 | | BL-24 | 608893.0680 | 2329468.8522 | 127.23 | | | | | | |
| 25 | | BL-25 | 609398.6532 | 2329760.2748 | 128.28 | | | | | | |
| 26 | | BL-26 | 609902.2534 | 2330056.2024 | 127.58 | | | | | | |
| 97 | | U3609B-7 | 610478.4840 | 2330381.1650 | 126.01 | | | | | | |
| 98 | | U3609B-8 | 611118.7840 | 2330751.1870 | 124.73 | | | | | | |
| 27 | | BL-27 | 611612.0687 | 2331124.4653 | 126.29 | | | | | | |
| 28 | | BL-28 | 611960.2645 | 2331553.4475 | 124.81 | | | | | | |
| 29 | | BL-29 | 612245.7885 | 2332116.9858 | 126.63 | | | | | | |
| 30 | | BL-30 | 612472.1401 | 2332539.0913 | 123.07 | | | | | | |
| 99 | | U3609B-9 | 612693.8060 | 2332974.5450 | 119.65 | | | | | | |
| 100 | | U3609B-10 | 613063.9630 | 2333696.0220 | 125.28 | | | | | | |

| BY2 | POINT | DESC. | NORTH | EAST | ELEVATION |
|-----|-------|-------|-------------|--------------|-----------|
| A15 | | BL-15 | 603033.2754 | 2327695.4987 | 120.90 |
| 121 | | BY2-1 | 602621.4832 | 2327600.7886 | 120.22 |
| 122 | | BY2-2 | 602196.1833 | 2327595.3975 | 120.76 |
| 123 | | BY2-3 | 601771.5790 | 2327542.7756 | 119.24 |
| 124 | | BY2-4 | 601203.2804 | 2327488.3718 | 119.88 |
| 125 | | BY2-5 | 600732.3746 | 2327443.8003 | 118.80 |

| BY3 | POINT | DESC. | NORTH | EAST | ELEVATION |
|-----|-------|-------|-------------|--------------|-----------|
| A17 | | BL-17 | 603953.9816 | 2328386.8856 | 120.97 |
| 131 | | BY3-1 | 604266.3939 | 2328797.5399 | 117.80 |
| 132 | | BY3-2 | 604520.9579 | 2329279.6092 | 114.63 |
| 133 | | BY3-3 | 604707.9912 | 2329684.9745 | 109.64 |

| BY4 | POINT | DESC. | NORTH | EAST | ELEVATION |
|-----|-------|-------|-------------|--------------|-----------|
| A26 | | BL-26 | 609902.2534 | 2330056.2024 | 127.58 |
| 141 | | BY4-1 | 609776.9449 | 2330409.4049 | 124.69 |
| 142 | | BY4-2 | 609898.3547 | 2330699.8534 | 125.01 |

| BY5 | POINT | DESC. | NORTH | EAST | ELEVATION |
|-----|-------|-------|-------------|--------------|-----------|
| 151 | | BY5-1 | 612665.5253 | 2331848.0476 | 126.97 |
| A29 | | BL-29 | 612245.7885 | 2332116.9858 | 126.63 |

.....
 200 ELEVATION = 139.50
 N 598430 E 2322132
 TBM-A FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 201 ELEVATION = 123.71
 N 599710 E 2323681
 TBM-B FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 202 ELEVATION = 118.78
 N 600995 E 2325386
 TBM-C FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 206 ELEVATION = 123.33
 N 602018 E 2326519
 TBM-D CHISELED 'X' IN CONCRETE BASE
 OF TRAFFIC SIGNAL CABINET

.....
 208 ELEVATION = 121.27
 N 604075 E 2328446
 TBM-E FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 212 ELEVATION = 123.34
 N 605808 E 2328505
 TBM-F TOP OF GROUNDING ROD IN CONCRETE BASE
 OF LARGE SINGLE POLE BILLBOARD

.....
 214 ELEVATION = 129.35
 N 608398 E 2329217
 TBM-G FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 224 ELEVATION = 121.38
 N 601761 E 2327551
 TBM-H FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 232 ELEVATION = 128.95
 N 609986 E 2330137
 TBM-J FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 234 ELEVATION = 126.77
 N 611321 E 2330887
 TBM-K FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 237 ELEVATION = 129.37
 N 612229 E 2332086
 TBM-L FILED 'X' IN BONNET BOLT OF FIRE HYDRANT

.....
 358 ELEVATION = 118.39
 N 612716 E 2333042
 TBM-M PK NAIL SET IN CENTER OF CONCRETE HEAD WALL

NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.
- U-3609BA IS A PROJECT WITHIN U-3609B THAT SHARES THE ALIGNMENTS AND CONTROL AS U-3609B

SURVEY CONTROL SHEET U-3609BA

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

| EL POINT | N | E | BEARING | DIST | DELTA | D | L | T | R | DELTA S | Ls | LT | ST |
|----------|------------|-------------|-----------------|---------|------------------|-------------|---------|---------|----------|-------------------|--------|-------|-------|
| POT | 598371.444 | 2322117.918 | | | | | | | | | | | |
| LINE | | | N 50°46'19.2" E | 3518.78 | | | | | | | | | |
| PC | 600596.746 | 2324843.688 | | | | | | | | | | | |
| CURVE | | | N 50°39'49.2" E | 37.82 | 00°13'00.0"(L T) | 00°34'22.6" | 37.82 | 18.91 | 10000.00 | | | | |
| PT | 600620.716 | 2324872.936 | | | | | | | | | | | |
| LINE | | | N 50°33'19.2" E | 422.18 | | | | | | | | | |
| PC | 600888.942 | 2325198.962 | | | | | | | | | | | |
| CURVE | | | N 50°39'11.6" E | 34.17 | 00°11'44.8"(R T) | 00°34'22.6" | 34.17 | 17.09 | 10000.00 | | | | |
| PT | 600910.607 | 2325225.386 | | | | | | | | | | | |
| LINE | | | N 50°45'04.0" E | 2073.75 | | | | | | | | | |
| PC | 602222.646 | 2326831.307 | | | | | | | | | | | |
| CURVE | | | N 47°44'51.4" E | 361.54 | 06°00'25.4"(L T) | 01°39'38.7" | 361.71 | 181.02 | 3450.00 | | | | |
| PT | 602465.746 | 2327098.917 | | | | | | | | | | | |
| LINE | | | N 44°44'38.7" E | 496.32 | | | | | | | | | |
| PC | 602818.262 | 2327448.297 | | | | | | | | | | | |
| CURVE | | | N 44°49'01.4" E | 50.95 | 00°08'45.5"(R T) | 00°17'11.3" | 50.95 | 25.48 | 20000.00 | | | | |
| PT | 602854.405 | 2327484.210 | | | | | | | | | | | |
| LINE | | | N 44°53'24.1" E | 560.79 | | | | | | | | | |
| PC | 603251.706 | 2327879.989 | | | | | | | | | | | |
| CURVE | | | N 44°22'48.0" E | 53.41 | 01°01'12.3"(L T) | 01°54'35.5" | 53.41 | 26.71 | 3000.00 | | | | |
| PT | 603289.879 | 2327917.345 | | | | | | | | | | | |
| LINE | | | N 43°52'11.9" E | 104.52 | | | | | | | | | |
| PC | 603365.233 | 2327989.783 | | | | | | | | | | | |
| CURVE | | | N 41°34'41.3" E | 99.97 | 04°35'01.2"(L T) | 04°35'01.2" | 100.00 | 50.03 | 1250.00 | | | | |
| PCC | 603440.018 | 2328056.130 | | | | | | | | | | | |
| CURVE | | | N 35°50'54.8" E | 289.87 | 06°52'31.8"(L T) | 03°16'26.6" | 210.00 | 105.13 | 1750.00 | | | | |
| PCC | 603610.135 | 2328179.041 | | | | | | | | | | | |
| CURVE | | | N 27°10'29.1" E | 296.88 | 10°28'19.6"(L T) | 03°31'21.0" | 297.29 | 149.06 | 1626.57 | | | | |
| PCC | 603874.244 | 2328314.628 | | | | | | | | | | | |
| CURVE | | | N 18°06'58.1" E | 200.00 | 07°38'42.4"(L T) | 03°49'11.0" | 200.15 | 100.22 | 1500.00 | | | | |
| PCC | 604064.330 | 2328376.817 | | | | | | | | | | | |
| CURVE | | | N 09°44'28.8" E | 289.69 | 09°06'16.3"(L T) | 03°08'22.2" | 290.00 | 145.31 | 1825.00 | | | | |
| PCC | 604349.848 | 2328425.833 | | | | | | | | | | | |
| CURVE | | | N 03°06'20.1" E | 79.98 | 04°10'01.1"(L T) | 05°12'31.3" | 80.00 | 40.02 | 1100.00 | | | | |
| PCC | 604429.713 | 2328430.166 | | | | | | | | | | | |
| CURVE | | | N 00°53'16.0" W | 149.97 | 03°49'11.0"(L T) | 02°32'47.3" | 150.00 | 75.03 | 2250.00 | | | | |
| PCC | 604579.667 | 2328427.843 | | | | | | | | | | | |
| CURVE | | | N 03°42'45.5" W | 76.25 | 01°49'48.2"(L T) | 02°24'00.0" | 76.25 | 38.13 | 2387.32 | | | | |
| PT | 604655.755 | 2328422.905 | | | | | | | | | | | |
| LINE | | | N 04°37'39.6" W | 293.35 | | | | | | | | | |
| TS | 604948.153 | 2328399.237 | | | | | | | | | | | |
| SPIRAL | | | N 04°21'47.1" W | 100.00 | | | | | | 00°47'37.6"(R T) | 100.00 | 66.67 | 33.33 |
| SC | 605047.862 | 2328391.630 | | | | | | | | | | | |
| CURVE | | | N 02°07'48.3" W | 214.61 | 03°24'27.4"(R T) | 01°35'15.3" | 214.64 | 107.35 | 3609.00 | | | | |
| CS | 605262.324 | 2328383.653 | | | | | | | | | | | |
| SPIRAL | | | N 00°06'10.5" E | 100.00 | | | | | | 359°12'22.4"(R T) | 100.00 | 66.67 | 33.33 |
| ST | 605362.323 | 2328383.833 | | | | | | | | | | | |
| LINE | | | N 00°22'03.1" E | 77.57 | | | | | | | | | |
| TS | 605439.887 | 2328384.330 | | | | | | | | | | | |
| SPIRAL | | | N 00°32'34.3" E | 109.99 | | | | | | 00°31'33.7"(R T) | 109.99 | 73.33 | 36.66 |
| SC | 605549.871 | 2328385.372 | | | | | | | | | | | |
| CURVE | | | N 15°07'39.8" E | 2945.70 | 28°28'05.9"(R T) | 00°57'23.5" | 2976.23 | 1519.50 | 5990.00 | | | | |
| CS | 608393.497 | 2329154.118 | | | | | | | | | | | |
| SPIRAL | | | N 29°42'45.3" E | 110.00 | | | | | | 00°31'33.9"(R T) | 110.00 | 73.33 | 36.67 |
| ST | 608489.034 | 2329208.639 | | | | | | | | | | | |
| LINE | | | N 29°53'16.7" E | 147.68 | | | | | | | | | |
| PC | 608617.072 | 2329282.228 | | | | | | | | | | | |
| CURVE | | | N 29°58'57.6" E | 49.59 | 00°11'21.9"(R T) | 00°22'55.1" | 49.59 | 24.79 | 15000.00 | | | | |
| PT | 608660.023 | 2329307.008 | | | | | | | | | | | |
| LINE | | | N 30°04'38.5" E | 2765.72 | | | | | | | | | |
| PC | 611053.334 | 2330693.099 | | | | | | | | | | | |
| CURVE | | | N 30°11'07.0" E | 37.67 | 00°12'57.0"(R T) | 00°34'22.6" | 37.67 | 18.84 | 10000.00 | | | | |
| PT | 611085.897 | 2330712.040 | | | | | | | | | | | |
| LINE | | | N 30°17'35.5" E | 176.16 | | | | | | | | | |
| PC | 611238.007 | 2330800.902 | | | | | | | | | | | |
| CURVE | | | N 32°57'12.1" E | 259.91 | 05°19'13.2"(R T) | 02°02'46.6" | 260.00 | 130.09 | 2800.00 | | | | |
| PCC | 611456.098 | 2330942.280 | | | | | | | | | | | |
| CURVE | | | N 37°10'34.1" E | 59.99 | 03°07'30.8"(R T) | 05°12'31.3" | 60.00 | 30.01 | 1100.00 | | | | |
| PCC | 611503.899 | 2330978.531 | | | | | | | | | | | |
| CURVE | | | N 42°00'46.1" E | 239.87 | 06°32'53.1"(R T) | 02°43'42.1" | 240.00 | 120.13 | 2100.00 | | | | |
| PCC | 611682.121 | 2331139.075 | | | | | | | | | | | |
| CURVE | | | N 48°19'12.5" E | 179.92 | 06°03'59.8"(R T) | 03°22'13.2" | 180.00 | 90.08 | 1700.00 | | | | |
| PCC | 611801.759 | 2331273.449 | | | | | | | | | | | |
| CURVE | | | N 53°43'12.1" E | 189.95 | 04°43'59.3"(R T) | 02°29'28.0" | 190.00 | 95.05 | 2300.00 | | | | |
| PCC | 611914.157 | 2331426.572 | | | | | | | | | | | |
| CURVE | | | N 58°03'44.3" E | 99.98 | 03°57'05.2"(R T) | 03°57'05.2" | 100.00 | 50.02 | 1450.00 | | | | |
| PCC | 611967.046 | 2331511.417 | | | | | | | | | | | |
| CURVE | | | N 61°32'44.7" E | 160.80 | 03°00'55.6"(R T) | 01°52'30.1" | 160.82 | 80.43 | 3055.71 | | | | |
| PT | 612043.661 | 2331652.794 | | | | | | | | | | | |
| LINE | | | N 63°03'12.5" E | 1486.87 | | | | | | | | | |
| POT | 612717.449 | 2332978.233 | | | | | | | | | | | |

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.
3. U-3609BA IS A PROJECT WITHIN U-3609B THAT SHARES THE ALIGNMENTS AND CONTROL AS U-3609B

SURVEY CONTROL SHEET U-3609BA

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

EY1

| POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|-------|------------|-------------|-----------------|--------|-----------------|-------------|--------|--------|---------|
| POT | 602002.510 | 2326403.845 | | | | | | | |
| LINE | | | S 68°33'01.8" E | 110.90 | | | | | |
| PC | 601961.956 | 2326507.064 | | | | | | | |
| CURVE | | | S 66°09'45.6" E | 41.66 | 04°46'32.4"(RT) | 11°27'33.0" | 41.68 | 20.85 | 500.00 |
| PT | 601945.118 | 2326545.174 | | | | | | | |
| LINE | | | S 63°46'29.4" E | 274.91 | | | | | |
| PC | 601823.635 | 2326791.787 | | | | | | | |
| CURVE | | | S 67°24'29.6" E | 129.91 | 07°16'00.4"(LT) | 05°35'23.4" | 130.00 | 65.09 | 1025.00 |
| PCC | 601773.727 | 2326911.731 | | | | | | | |
| CURVE | | | S 78°28'57.4" E | 199.44 | 14°52'55.3"(LT) | 07°26'27.6" | 200.00 | 100.57 | 770.00 |
| PCC | 601733.906 | 2327107.153 | | | | | | | |
| CURVE | | | N 88°20'48.5" E | 99.83 | 11°27'33.0"(LT) | 11°27'33.0" | 100.00 | 50.17 | 500.00 |
| PCC | 601736.786 | 2327206.945 | | | | | | | |
| CURVE | | | N 80°42'47.8" E | 125.81 | 03°48'28.4"(LT) | 03°01'34.3" | 125.83 | 62.94 | 1893.33 |
| PT | 601757.088 | 2327331.104 | | | | | | | |
| LINE | | | N 78°48'33.5" E | 201.35 | | | | | |
| POT | 601796.166 | 2327528.628 | | | | | | | |

EY2

| POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|-------|------------|-------------|-----------------|--------|-----------------|-------------|--------|--------|----------|
| POT | 603136.308 | 2327765.033 | | | | | | | |
| LINE | | | S 18°47'06.4" W | 217.29 | | | | | |
| PC | 602930.593 | 2327695.062 | | | | | | | |
| CURVE | | | S 15°51'51.6" W | 145.84 | 05°50'29.7"(LT) | 04°00'13.1" | 145.91 | 73.02 | 1431.09 |
| PCC | 602790.305 | 2327655.194 | | | | | | | |
| CURVE | | | S 11°37'16.7" W | 119.99 | 02°38'39.9"(LT) | 02°12'13.3" | 120.00 | 60.01 | 2600.00 |
| PCC | 602672.775 | 2327631.023 | | | | | | | |
| CURVE | | | S 08°36'05.2" W | 119.98 | 03°23'43.1"(LT) | 02°49'45.9" | 120.00 | 60.02 | 2025.00 |
| PCC | 602554.142 | 2327613.078 | | | | | | | |
| CURVE | | | S 06°36'28.0" W | 155.00 | 00°35'31.4"(LT) | 00°22'55.1" | 155.00 | 77.50 | 15000.00 |
| PT | 602400.173 | 2327595.242 | | | | | | | |
| LINE | | | S 06°18'42.3" W | 519.75 | | | | | |
| PC | 601883.568 | 2327538.101 | | | | | | | |
| CURVE | | | S 05°53'58.5" W | 287.73 | 00°49'27.5"(LT) | 00°17'11.3" | 287.73 | 143.87 | 20000.00 |
| PT | 601597.361 | 2327508.527 | | | | | | | |
| LINE | | | S 05°29'14.8" W | 358.04 | | | | | |
| PC | 601240.961 | 2327474.288 | | | | | | | |
| CURVE | | | S 05°37'10.8" W | 50.77 | 00°15'51.9"(RT) | 00°31'15.1" | 50.77 | 25.38 | 11000.00 |
| PT | 601190.440 | 2327469.317 | | | | | | | |
| LINE | | | S 05°45'06.7" W | 469.62 | | | | | |
| POT | 600723.187 | 2327422.252 | | | | | | | |

EY3

| POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|-------|------------|-------------|-----------------|--------|-----------------|-------------|-------|-------|----------|
| POT | 603992.254 | 2328356.525 | | | | | | | |
| LINE | | | N 60°59'34.4" E | 532.05 | | | | | |
| PC | 604250.256 | 2328821.838 | | | | | | | |
| CURVE | | | N 61°04'04.8" E | 49.82 | 00°09'00.9"(RT) | 00°18'05.6" | 49.82 | 24.91 | 19000.00 |
| PT | 604274.359 | 2328865.442 | | | | | | | |
| LINE | | | N 61°08'35.3" E | 994.42 | | | | | |
| POT | 604754.289 | 2329736.382 | | | | | | | |

EY4

| POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|-------|------------|-------------|-----------------|--------|-----------------|-------------|--------|-------|---------|
| POT | 609962.650 | 2330061.428 | | | | | | | |
| LINE | | | S 59°22'31.0" E | 241.05 | | | | | |
| PC | 609839.857 | 2330268.856 | | | | | | | |
| CURVE | | | S 70°35'26.3" E | 126.00 | 22°25'50.4"(LT) | 17°41'21.5" | 126.80 | 64.22 | 323.90 |
| PCC | 609797.986 | 2330387.691 | | | | | | | |
| CURVE | | | S 87°18'54.6" E | 24.96 | 11°01'06.3"(LT) | 44°04'25.2" | 25.00 | 12.54 | 130.00 |
| PCC | 609796.817 | 2330412.625 | | | | | | | |
| CURVE | | | N 84°44'26.0" E | 33.99 | 04°52'12.5"(LT) | 14°19'26.2" | 34.00 | 17.01 | 400.00 |
| PCC | 609799.933 | 2330446.472 | | | | | | | |
| CURVE | | | N 78°00'29.9" E | 29.97 | 08°35'39.7"(LT) | 28°38'52.4" | 30.00 | 15.03 | 200.00 |
| PCC | 609806.160 | 2330475.790 | | | | | | | |
| CURVE | | | N 72°08'07.7" E | 54.99 | 03°09'04.6"(LT) | 05°43'46.5" | 55.00 | 27.51 | 1000.00 |
| PT | 609823.030 | 2330528.131 | | | | | | | |
| LINE | | | N 70°33'35.4" E | 218.44 | | | | | |
| POT | 609895.732 | 2330734.118 | | | | | | | |

EY5

| POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|-------|------------|-------------|-----------------|--------|-----------------|-------------|-------|-------|----------|
| POT | 612899.707 | 2331678.385 | | | | | | | |
| LINE | | | S 32°16'59.7" E | 308.84 | | | | | |
| PC | 612638.606 | 2331843.340 | | | | | | | |
| CURVE | | | S 32°24'21.2" E | 42.81 | 00°14'43.1"(LT) | 00°34'22.6" | 42.81 | 21.41 | 10000.00 |
| PT | 612602.459 | 2331866.284 | | | | | | | |
| LINE | | | S 32°31'42.8" E | 403.30 | | | | | |
| POT | 612262.430 | 2332083.145 | | | | | | | |

NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 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.
- U-3609BA IS A PROJECT WITHIN U-3609B THAT SHARES THE ALIGNMENTS AND CONTROL AS U-3609B

PROPOSED ALIGNMENT CONTROL SHEET

L

| TYPE | STATION | NORTH | EAST |
|------|----------|-------------|--------------|
| POT | 10+00.00 | 602854.4053 | 2327484.2105 |
| TS | 15+68.99 | 603257.5115 | 2327885.7724 |
| SC | 17+68.99 | 603402.0364 | 2328023.9721 |
| CS | 29+77.71 | 604511.0905 | 2328430.5128 |
| ST | 31+77.71 | 604710.6934 | 2328418.4583 |
| TS | 34+15.03 | 604947.2392 | 2328399.3113 |
| SC | 35+15.03 | 605046.9484 | 2328391.7011 |
| CS | 37+31.50 | 605263.2405 | 2328383.6563 |
| ST | 38+31.50 | 605363.2395 | 2328383.8386 |
| POT | 39+08.15 | 605439.8867 | 2328384.3303 |

Y

| TYPE | STATION | NORTH | EAST |
|------|----------|-------------|--------------|
| POT | 10+00.00 | 604530.1942 | 2328430.0333 |
| PC | 15+50.43 | 604457.7515 | 2328975.6735 |
| PT | 19+00.03 | 604521.2619 | 2329313.5027 |
| POT | 23+82.86 | 604754.2887 | 2329736.3819 |

Y2

| TYPE | STATION | NORTH | EAST |
|------|----------|-------------|--------------|
| POT | 10+00.00 | 604037.9224 | 2328436.3752 |
| PC | 16+05.75 | 604330.2723 | 2328966.9095 |
| PT | 17+18.53 | 604422.0098 | 2329023.7245 |
| POT | 17+50.00 | 604453.4492 | 2329025.0415 |

NOTES:

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

6/2/99

REVISIONS

I:\MAR-2022-05\Final\Projects\Conventional\U-3609BA\Hood Swamp Rd\Jarrett\Work\U3609BA.ls.rw02d-1.dgn
 U-3609BA
 AT 1504-312623
 jwreesh

RIGHT OF WAY CONTROL SHEET

ROW MARKER CONCRETE OR GRANITE -E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| L | 25+59.65 | 70.00 | 604080.2021 | 2328453.2755 |
| L | 29+05.00 | 70.00 | 604436.6236 | 2328500.2808 |
| L | 29+30.00 | -30.23 | 604463.6803 | 2328400.5157 |
| L | 29+30.00 | -45.00 | 604463.8258 | 2328385.7432 |
| L | 30+60.00 | -45.00 | 604590.6282 | 2328382.2034 |
| L | 30+60.00 | -29.99 | 604591.5212 | 2328397.1897 |
| L | 30+88.00 | 65.00 | 604625.6913 | 2328490.1761 |
| L | 31+77.71 | 65.00 | 604715.9374 | 2328483.2465 |
| L | 32+60.00 | 65.00 | 604797.9591 | 2328476.6073 |
| L | 32+60.00 | 55.00 | 604797.1523 | 2328466.6399 |
| L | 33+15.00 | 48.00 | 604851.4082 | 2328455.2253 |
| L | 34+15.03 | 48.00 | 604951.1084 | 2328447.1551 |
| L | 35+15.05 | 48.00 | 605050.1821 | 2328439.5920 |
| L | 35+20.34 | 48.00 | 605055.3929 | 2328439.2463 |
| L | 35+21.68 | 29.99 | 605055.5375 | 2328421.1873 |

ROW MARKER CONCRETE OR GRANITE -E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| Y | 11+20.00 | 30.00 | 604484.6617 | 2328545.0412 |
| Y | 11+30.00 | -30.00 | 604542.8237 | 2328562.8509 |
| Y | 15+25.00 | 30.00 | 604431.3591 | 2328946.5182 |
| Y | 15+50.43 | -30.00 | 604487.4906 | 2328979.6219 |
| Y | 18+99.89 | -30.00 | 604547.4706 | 2329298.9039 |

ROW MARKER CONCRETE OR GRANITE -E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| Y2 | 10+40.00 | 31.11 | 604029.9765 | 2328486.4249 |
| Y2 | 10+40.00 | 50.00 | 604013.4360 | 2328495.5395 |
| Y2 | 11+25.00 | 30.89 | 604071.1947 | 2328560.7627 |
| Y2 | 11+25.03 | 50.00 | 604054.4752 | 2328570.0145 |
| Y2 | 16+05.75 | 30.00 | 604303.9967 | 2328981.3868 |
| Y2 | 16+25.00 | -28.76 | 604363.3732 | 2328964.8180 |

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

I:\MAR-2002-05\27-Projects\Conventional\U-3609BA\Hood Swamp Rd\Jarrett\Work\U3609BA.is-rw03e-1.dgn
 AT 1:50:41.312623
 JWC:ecch

PERMANENT EASEMENT CONTROL SHEET

ROW MARKER PERMANENT EASEMENT - E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| L | 32+32.56 | -30.00 | 604762.9481 | 2328384.1305 |
| L | 32+32.56 | -45.00 | 604761.7379 | 2328369.1794 |
| L | 32+72.93 | -30.00 | 604803.1825 | 2328380.8738 |
| L | 32+73.00 | -45.00 | 604802.0419 | 2328365.9170 |

ROW MARKER PERMANENT EASEMENT - E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| Y | 15+35.42 | 55.00 | 604405.2051 | 2328953.5581 |
| Y | 15+75.00 | -30.00 | 604484.9484 | 2329002.7120 |
| Y | 16+05.00 | -70.00 | 604523.2250 | 2329032.3317 |
| Y | 16+15.00 | -30.00 | 604483.0226 | 2329040.4727 |
| Y | 16+35.00 | -50.00 | 604503.0858 | 2329058.9453 |
| Y | 16+90.00 | -30.00 | 604486.8179 | 2329111.2252 |
| Y | 17+19.00 | -45.00 | 604505.6365 | 2329135.7357 |
| Y | 17+19.00 | -60.00 | 604520.4087 | 2329133.1315 |
| Y | 17+40.00 | -65.00 | 604528.8951 | 2329150.4345 |
| Y | 17+45.00 | -50.00 | 604515.2127 | 2329158.0394 |
| Y | 18+69.56 | 30.89 | 604479.4642 | 2329299.8117 |
| Y | 18+71.32 | 68.00 | 604446.8794 | 2329317.6711 |
| Y | 18+93.00 | 68.00 | 604457.9369 | 2329339.3774 |
| Y | 18+96.00 | 30.02 | 604492.9353 | 2329324.2581 |
| Y | 19+20.00 | -30.00 | 604557.1741 | 2329316.5132 |
| Y | 19+20.00 | -50.00 | 604574.6907 | 2329306.8607 |

ROW MARKER PERMANENT EASEMENT - E

| ALIGN | STATION | OFFSET | NORTH | EAST |
|-------|----------|--------|-------------|--------------|
| Y2 | 16+00.00 | -30.00 | 604353.7714 | 2328947.3933 |

REVISIONS

I:\MAR_2022\02-07-22\Projects\Conventional\U-3609BA\Hood Swamp Rd\Jarrett\Work\U3609BA.is-rw03e-2.dgn
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 AT 15:04:31

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.

6/2/2019

PAVEMENT SCHEDULE

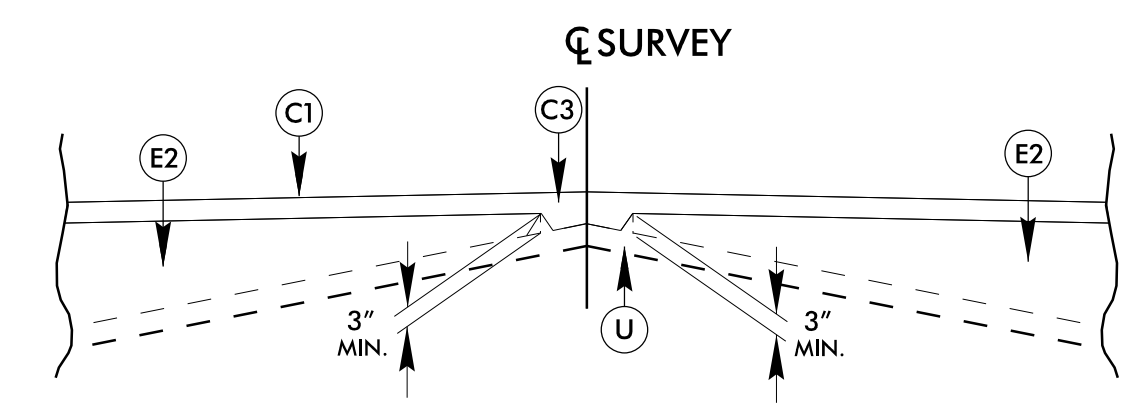
(PRELIMINARY PAVEMENT DESIGN)

| | | | |
|----|---|----|---|
| C1 | PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. | E2 | PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH. |
| C2 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | T | EARTH MATERIAL. |
| C3 | PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH. | U | EXISTING PAVEMENT. |
| E1 | PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. | W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL). |

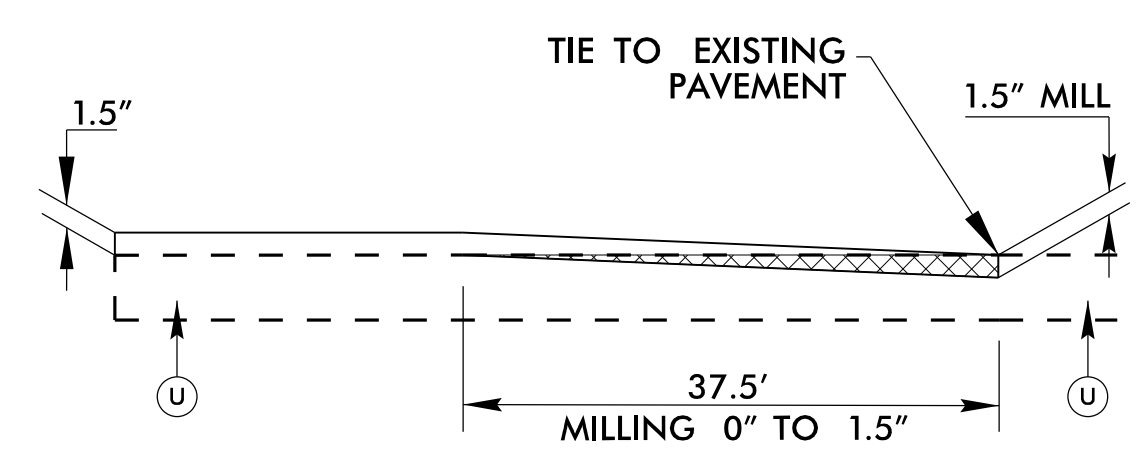
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

| | |
|---|--|
| PROJECT REFERENCE NO. U-3609BA | SHEET NO. 2A-1 |
| ROADWAY DESIGN ENGINEER SEAN SWANSON Professional Engineer No. 022037 | PAVEMENT DESIGN ENGINEER STEPHEN T. SMALLWOOD Professional Engineer No. 022037 |
| 3/29/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

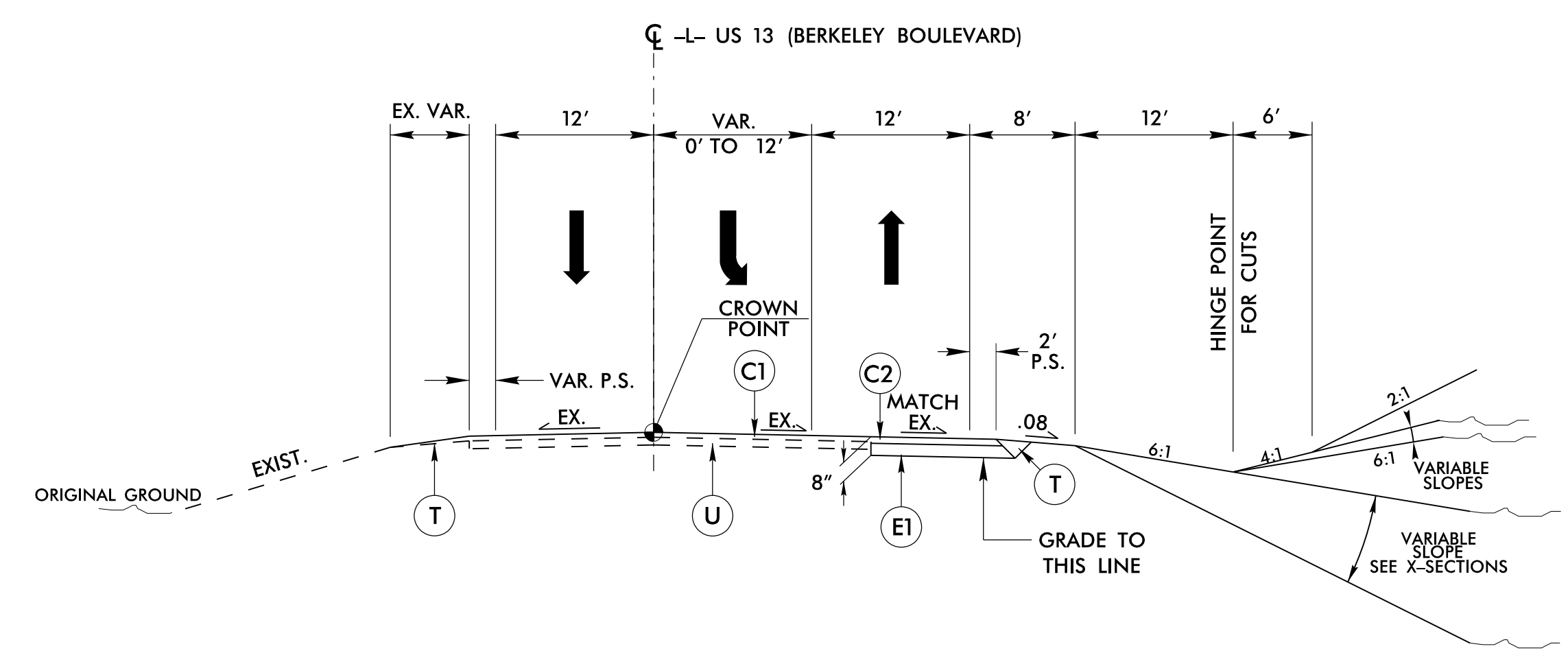
Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672



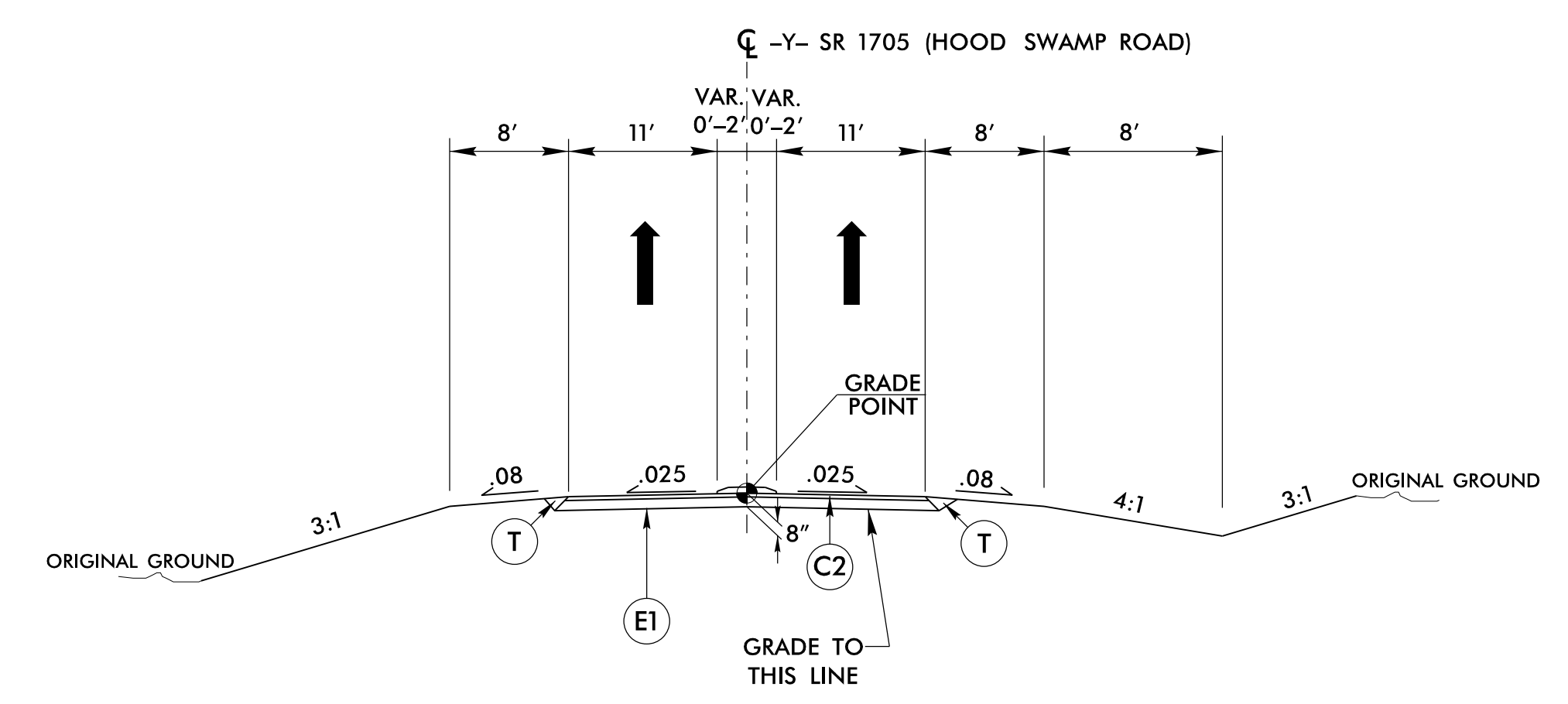
Detail W2 Showing Method of Wedging



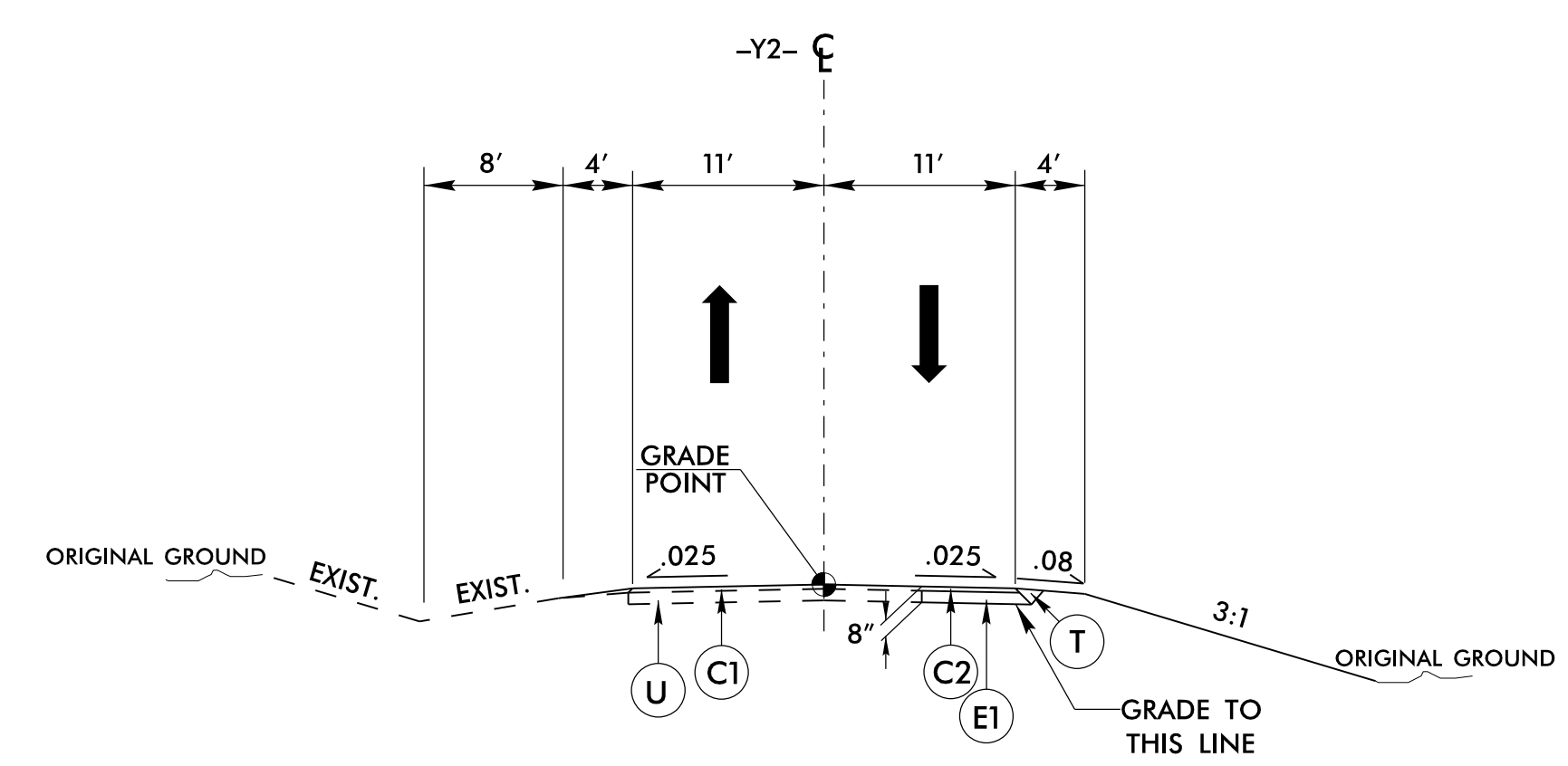
Milling Detail



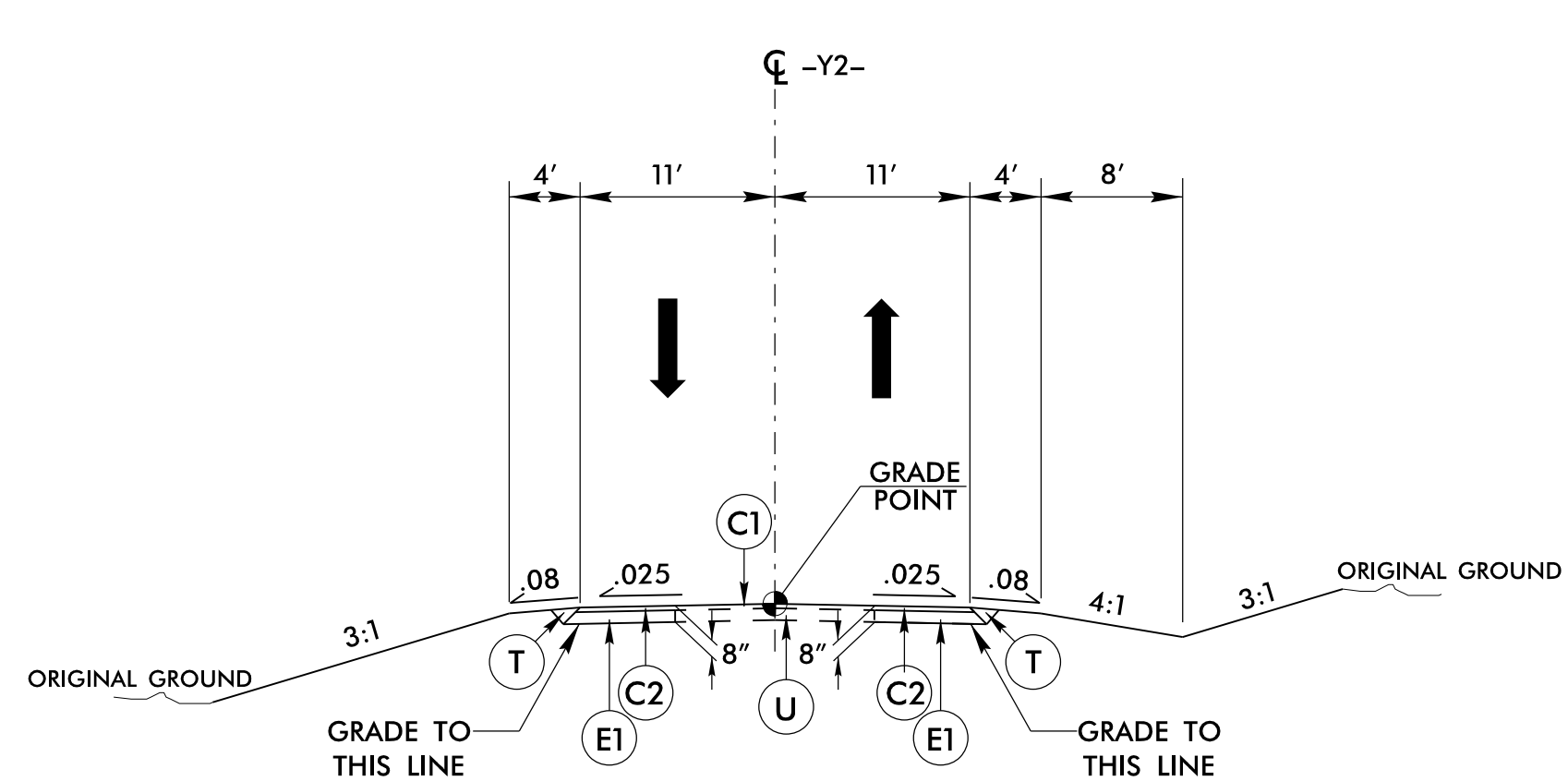
TYPICAL SECTION No. 1
-L- STA. 23+15.78 TO 37+32.00



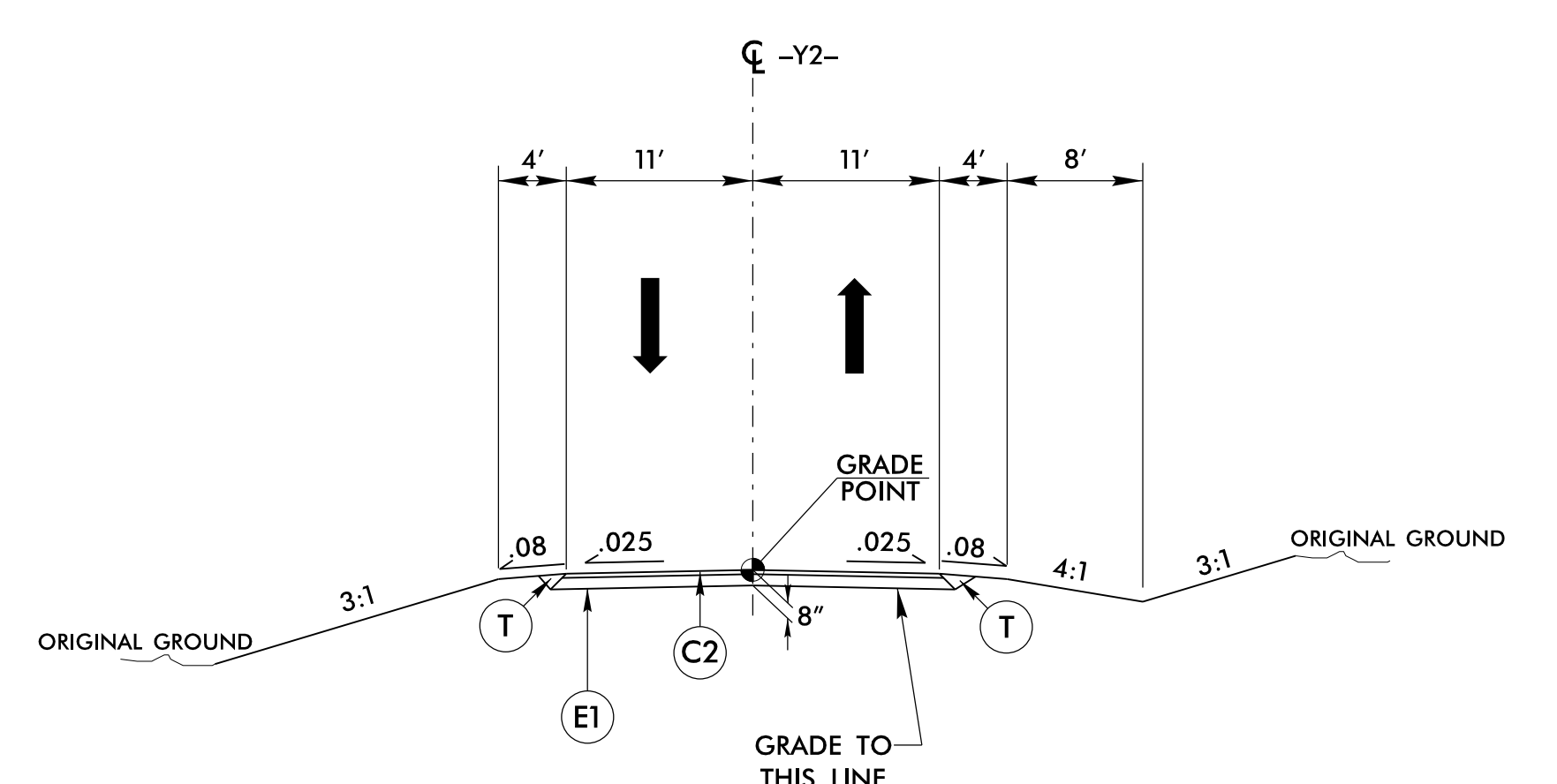
TYPICAL SECTION No. 2
-Y- STA. 10+24.32 TO 20+00.00



TYPICAL SECTION No. 3
-Y2- STA. 10+40.00 TO 11+75.00
USE TYP. NO. 3 PAVEMENT DESIGN FOR PROPOSED ASPHALT DRIVEWAY @ -Y2- 10+75 RT.



TYPICAL SECTION No. 3
-Y2- STA. 15+50.00 TO 16+73.35



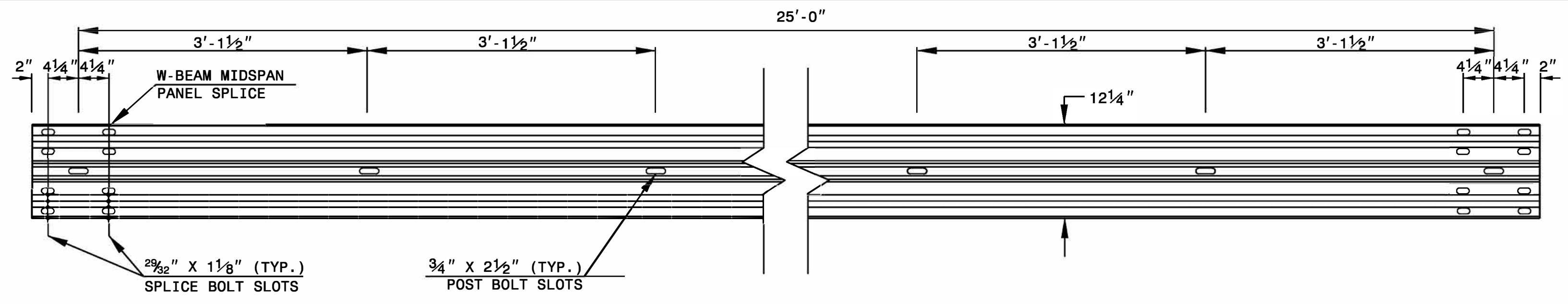
TYPICAL SECTION No. 5
-Y2- STA. 16+73.35 TO 17+34.42

3/28/2022
U:\Projects\2022\U-3609BA-Rd\typ.dgn
stam11wood

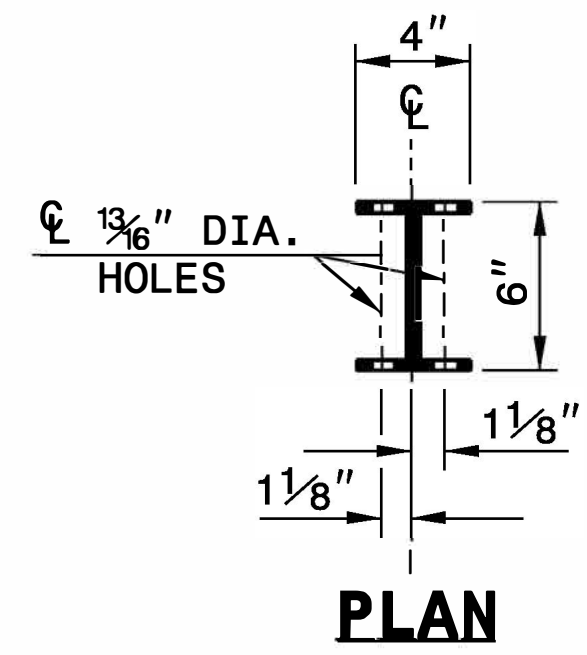
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

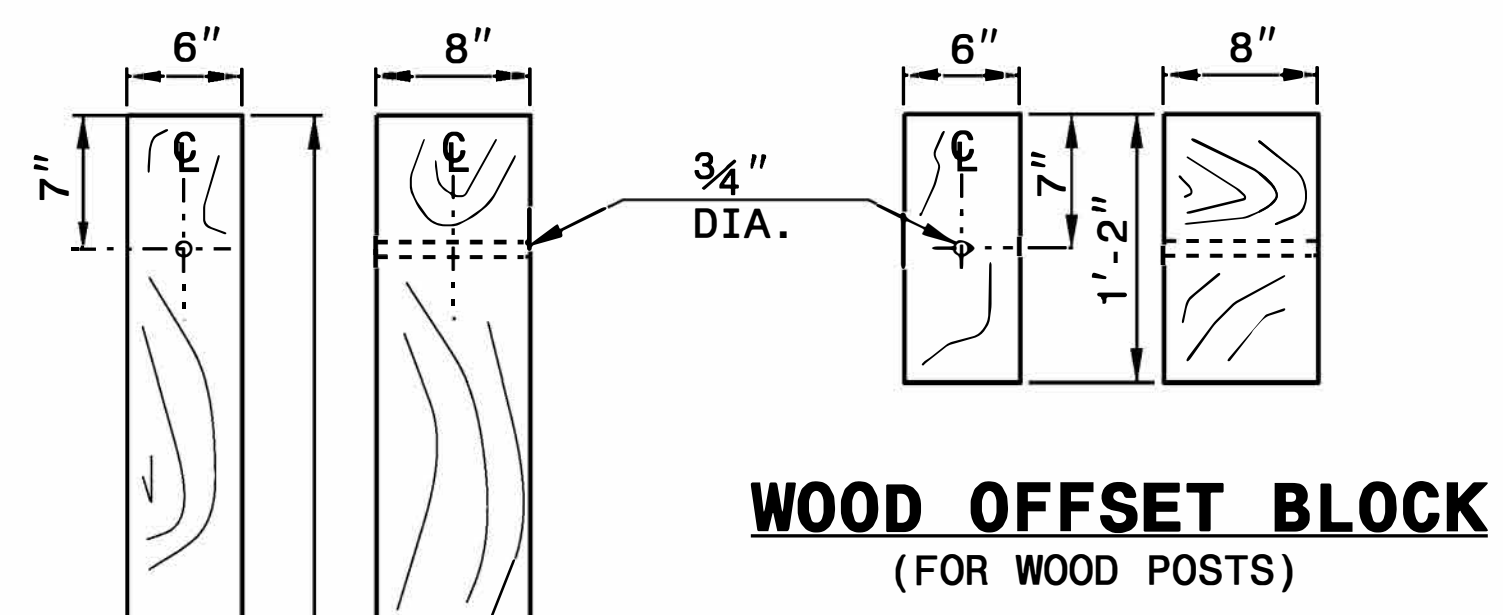
SHEET 6 OF 8
862D02



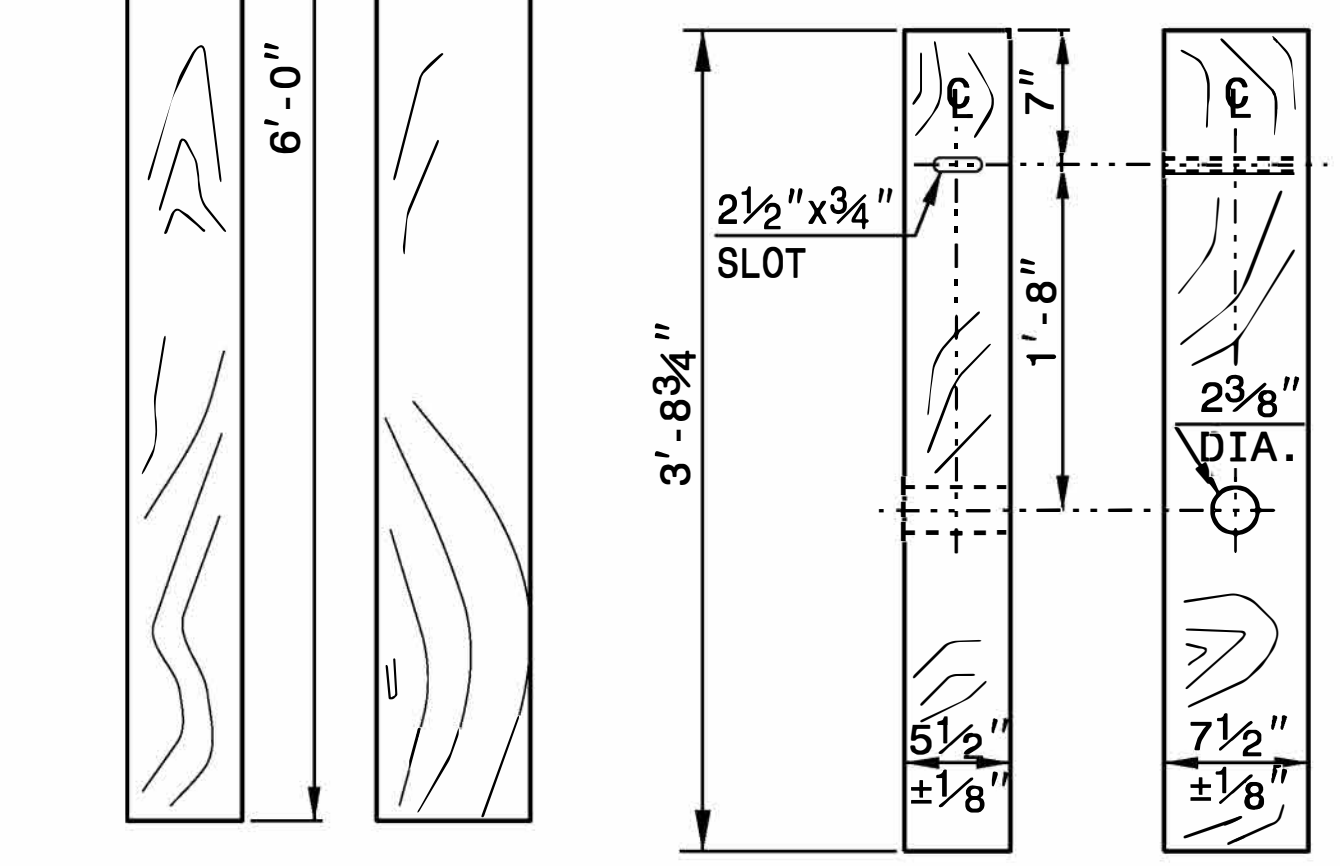
STANDARD W-BEAM GUARDRAIL



PLAN

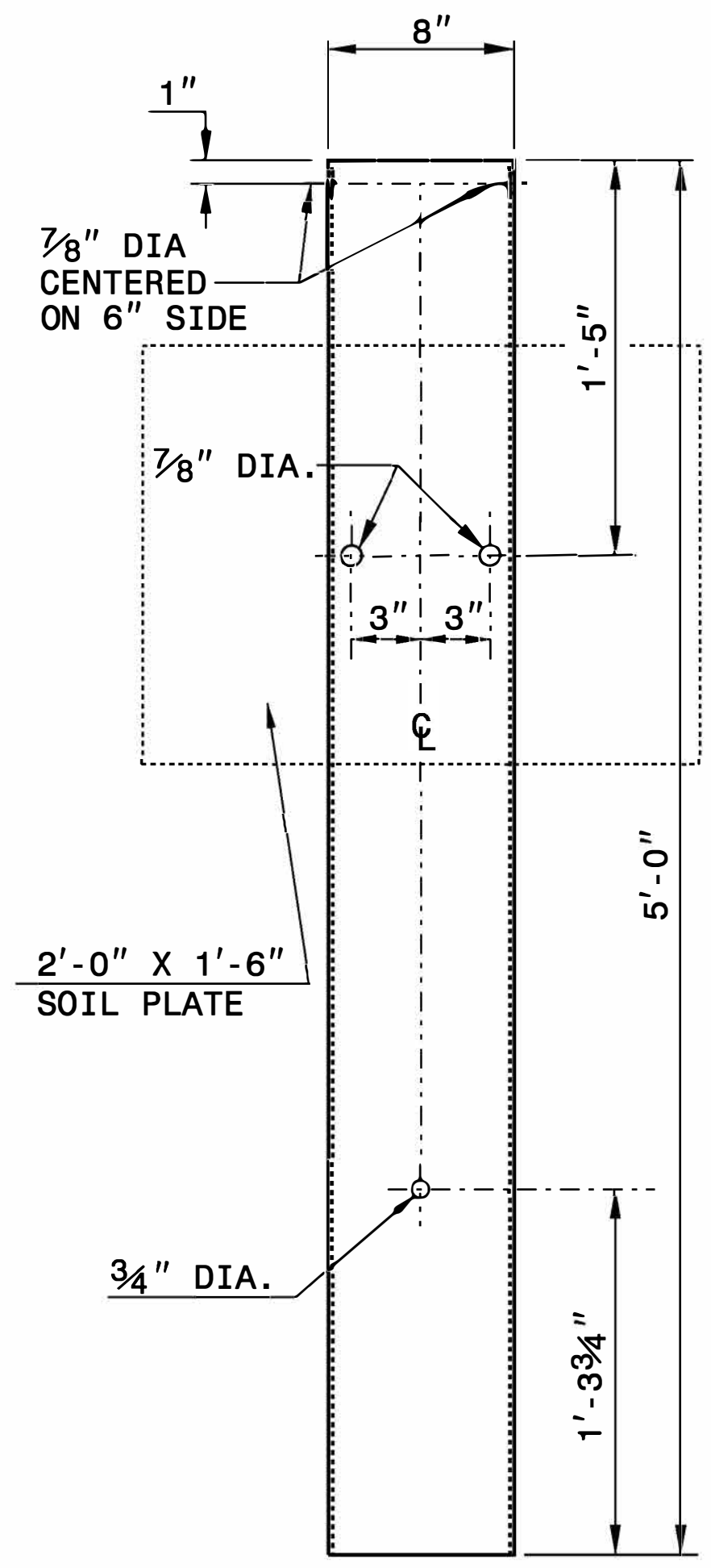


**WOOD OFFSET BLOCK
(FOR WOOD POSTS)**

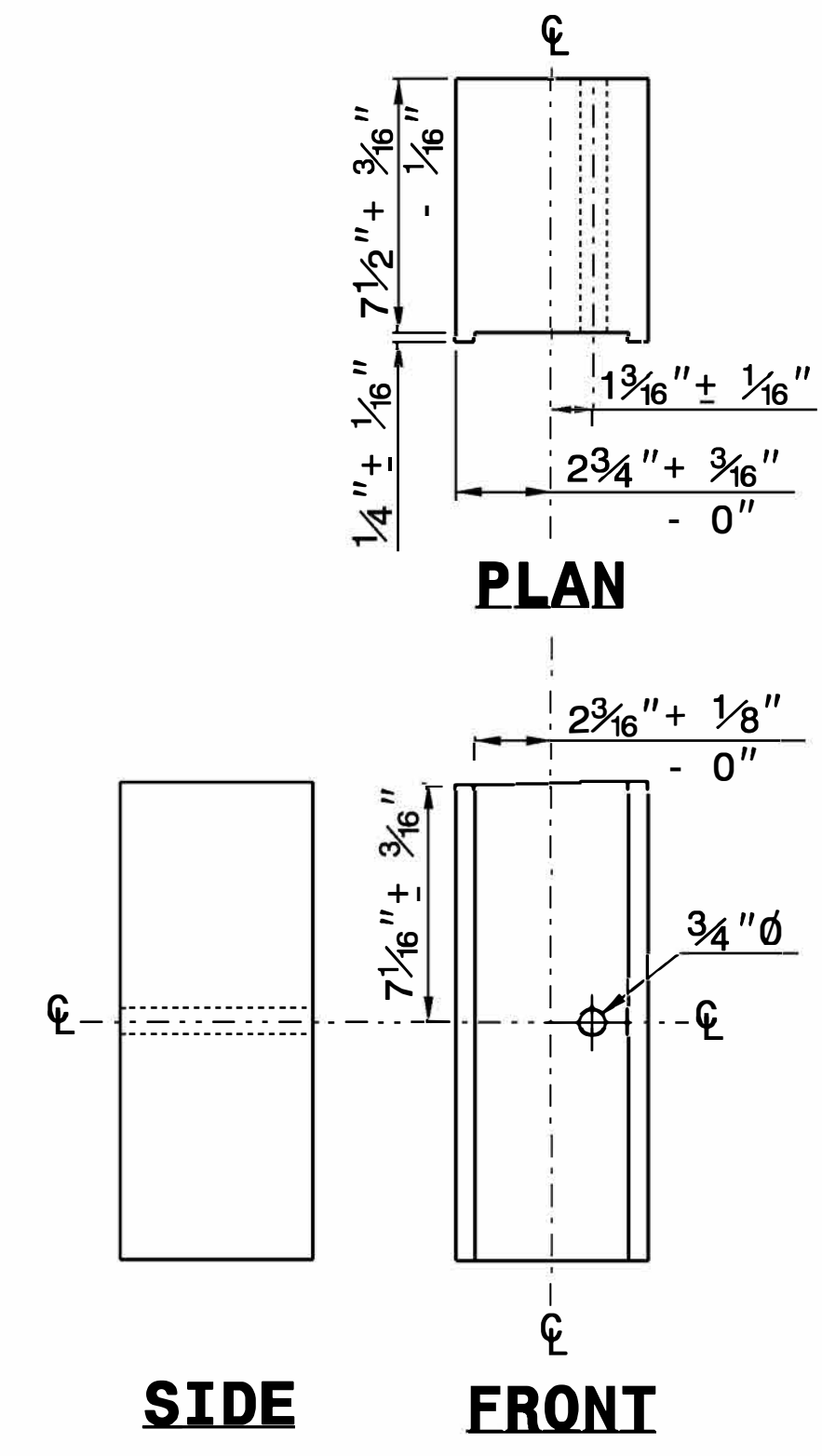


**STANDARD
LINE POST**

**SHORT WOOD
BREAKAWAY POST**



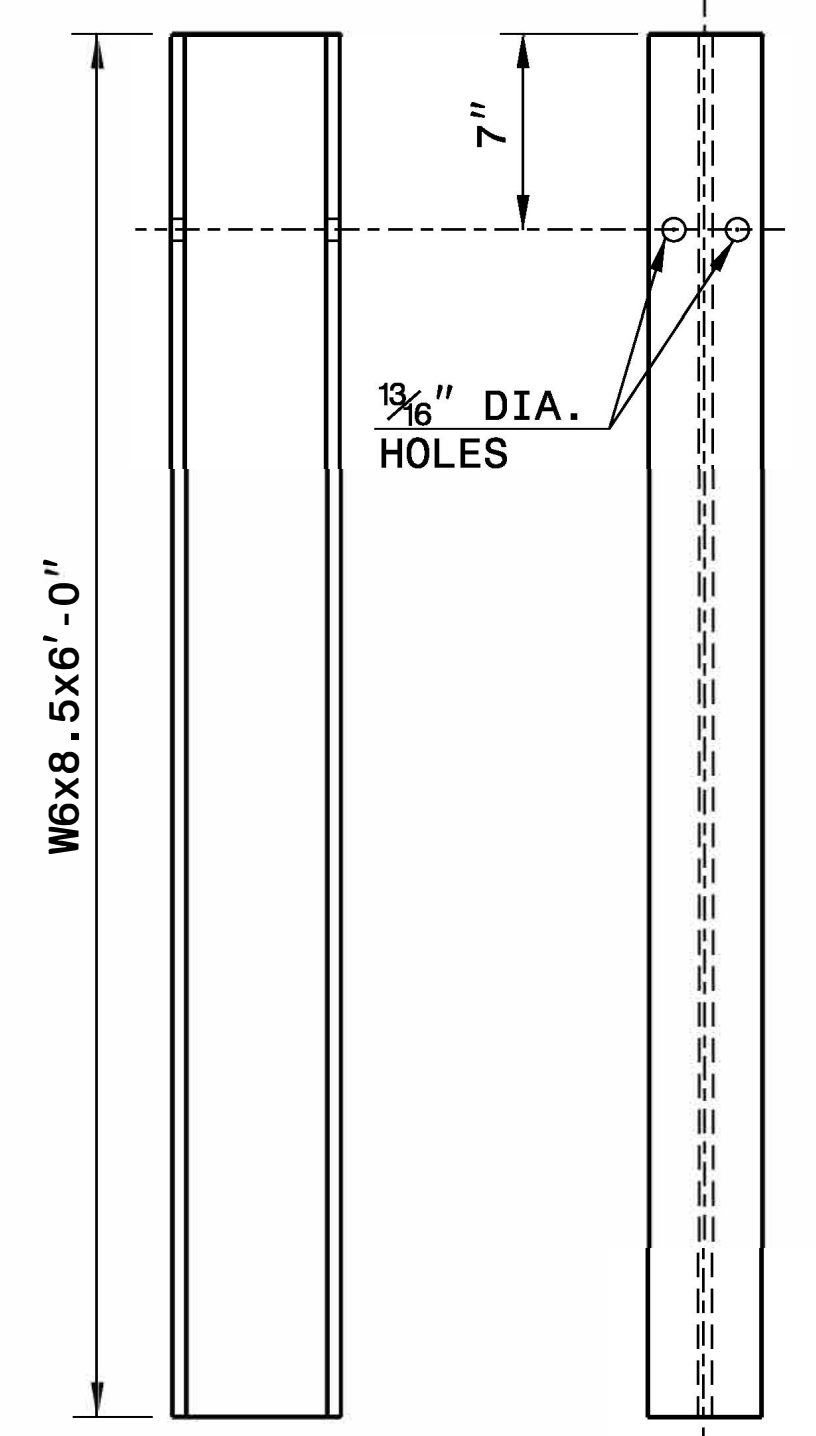
**STEEL TUBE
TS 6"x8"x0.1875"**



SIDE

FRONT

**ROUTED
OFFSET BLOCK**



SIDE

FRONT

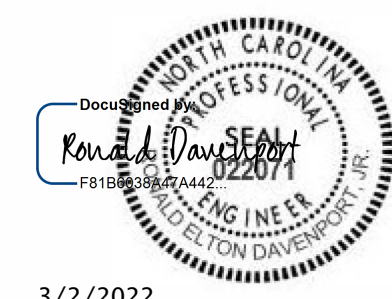
"W6" STEEL POST

SYSTEM PARTS

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 6 OF 8
862D02



3/2/2022

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

| | |
|--------------------------|----------------|
| ORIGINAL BY: J. HOWERTON | DATE: 3-7-2018 |
| MODIFIED BY: | DATE: |
| CHECKED BY: | DATE: |
| FILE SPEC.: | |

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

**SUMMARY OF EARTHWORK
 Volumes in Cubic Yards**

| Station | Station | Uncl. Excav. | Embank. +% | Borrow | Waste |
|---|----------|--------------|------------|-------------|-------|
| -L- 23+15.78 LT | 37+32.00 | 51 | 0 | 0 | 51 |
| -L- 23+15.78 RT | 37+32.00 | 39 | 1,923 | 1,892 | 8 |
| SUBTOTALS: | | 90 | 1923 | 1892 | 59 |
| -Y- 10+24.32 | 17+50.00 | 134 | 6188 | 6081 | 27 |
| -Y2- 10+40.00 | 11+75.00 | 2 | 33 | 31 | 0 |
| -Y1- RT 17+50.00 | 19+50.00 | 73 | 135 | 77 | 15 |
| -Y1- LT 17+50.00 | 19+50.00 | 35 | 73 | 45 | 7 |
| -Y2- 15+50.00 | 16+23.35 | 10 | 186 | 178 | 2 |
| SUBTOTALS: | | 254 | 6615 | 6412 | 51 |
| TOTAL: | | 344 | 8538 | 8304 | 110 |
| LOSS DUE TO CLEARING AND GRUBBING | | -25 | 0 | 25 | 0 |
| WASTE IN LIEU OF BORROW | | 0 | 0 | -41 | -41 |
| PROJECT TOTALS: | | 319 | 8538 | 8288 | 69 |
| EST. 5% TO REPLACE TOP SOIL IN BORROW PIT | | 0 | 0 | 416 | 0 |
| GRAND TOTALS: | | 319 | 8538 | 8704 | 69 |
| SAY: | | 500 | | 9250 | |

PAVEMENT REMOVAL SUMMARY

| LINE | STATION | STATION | LOCATION | LENGTH OR AREA (SF) | WIDTH (FT) | SQUARE YARDS |
|----------|------------|-----------|----------|---------------------|--------------|--------------|
| -L- | 23+15 | 25+37 | RT | 4,942.66 | | 550 |
| -Y2-/-Y- | -Y2- 16+12 | -Y- 19+00 | RT | 5,387.97 | | 599 |
| | | | | | TOTAL | 1,149 |
| | | | | | SAY | 1,150 |

Note: Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for grading.

UNDERCUT = EST 100 CY
 SHALLOW UNDERCUT = EST 200 CY

**DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA**

GUARDRAIL SUMMARY

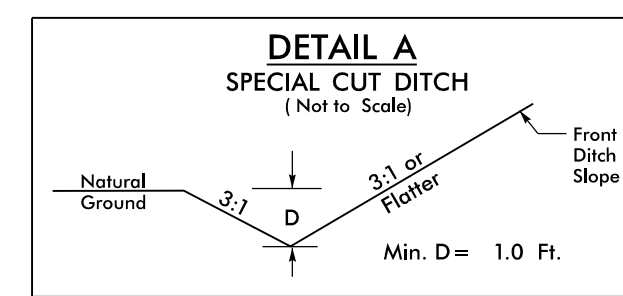
"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF

| SURVEY LINE | BEG. STA. | END STA. | LOCATION | LENGTH | WARRANT POINT | | "N" DIST. FROM E.O.L. | TOTAL SHOULDER WIDTH | FLARE LENGTH | | W | | ANCHORS | REMARKS |
|-----------------------------|-----------|----------|----------|--------|------------------|--------------|-----------------------|----------------------|--------------|--------------|--------------|--------------|---------|----------------------------|
| | | | | | STRAIGHT | APPROACH END | | | TRAILING END | APPROACH END | TRAILING END | APPROACH END | | |
| -Y2- | 10+36 | | END | 25.00 | | | | | | | | | 2 | END OF ROAD AT TURN AROUND |
| SUBTOTAL | | | | 25.00 | | | | | | | | | | |
| LESS DEDUCTIONS FOR ANCHORS | | | | 0 | | | | | | | | | | |
| PROJECT TOTALS: | | | | 25.00 | | | | | | | | | | |
| SAY: | | | | 25.00 | Additional Posts | 5 | | | | | | | | |

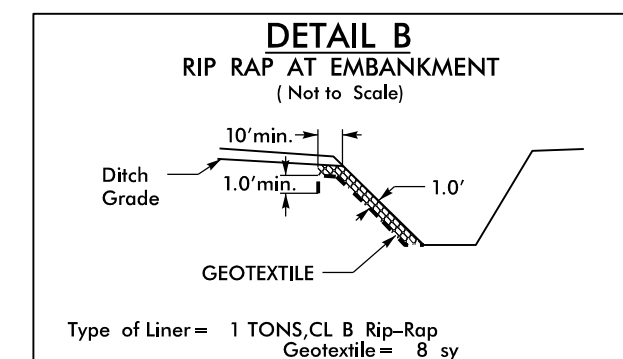
5/14/2022



| | |
|--|--|
| PROJECT REFERENCE NO. U-3609BA | SHEET NO. 4 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER SEAL 022037 | HYDRAULICS ENGINEER SEAL 040382 |
| 3/2/2022 | 3/2/2022 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

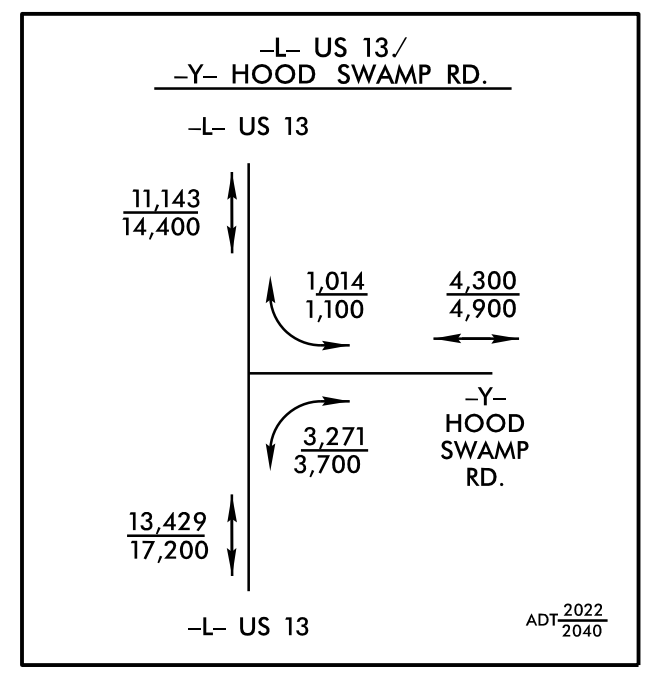
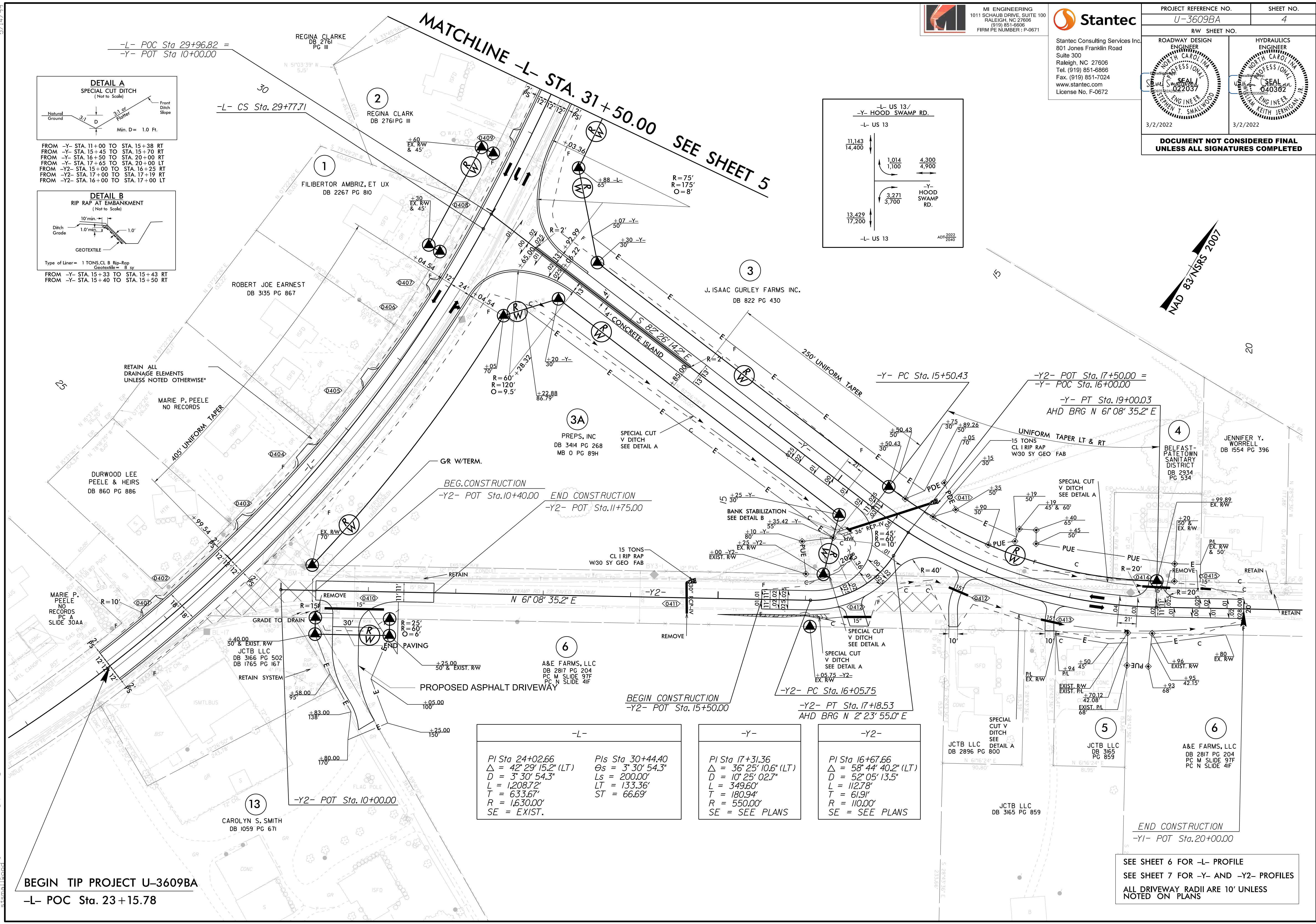


FROM -Y- STA. 11+00 TO STA. 15+38 RT
 FROM -Y- STA. 15+45 TO STA. 15+70 RT
 FROM -Y- STA. 16+50 TO STA. 20+00 RT
 FROM -Y- STA. 17+65 TO STA. 20+00 LT
 FROM -Y2- STA. 15+00 TO STA. 16+25 RT
 FROM -Y2- STA. 17+00 TO STA. 17+19 RT
 FROM -Y2- STA. 16+00 TO STA. 17+00 LT



Type of Liner = 1 TONS CL B Rip-Rap
 Geotextile = 8 sy

FROM -Y- STA. 15+33 TO STA. 15+43 RT
 FROM -Y- STA. 15+40 TO STA. 15+50 RT



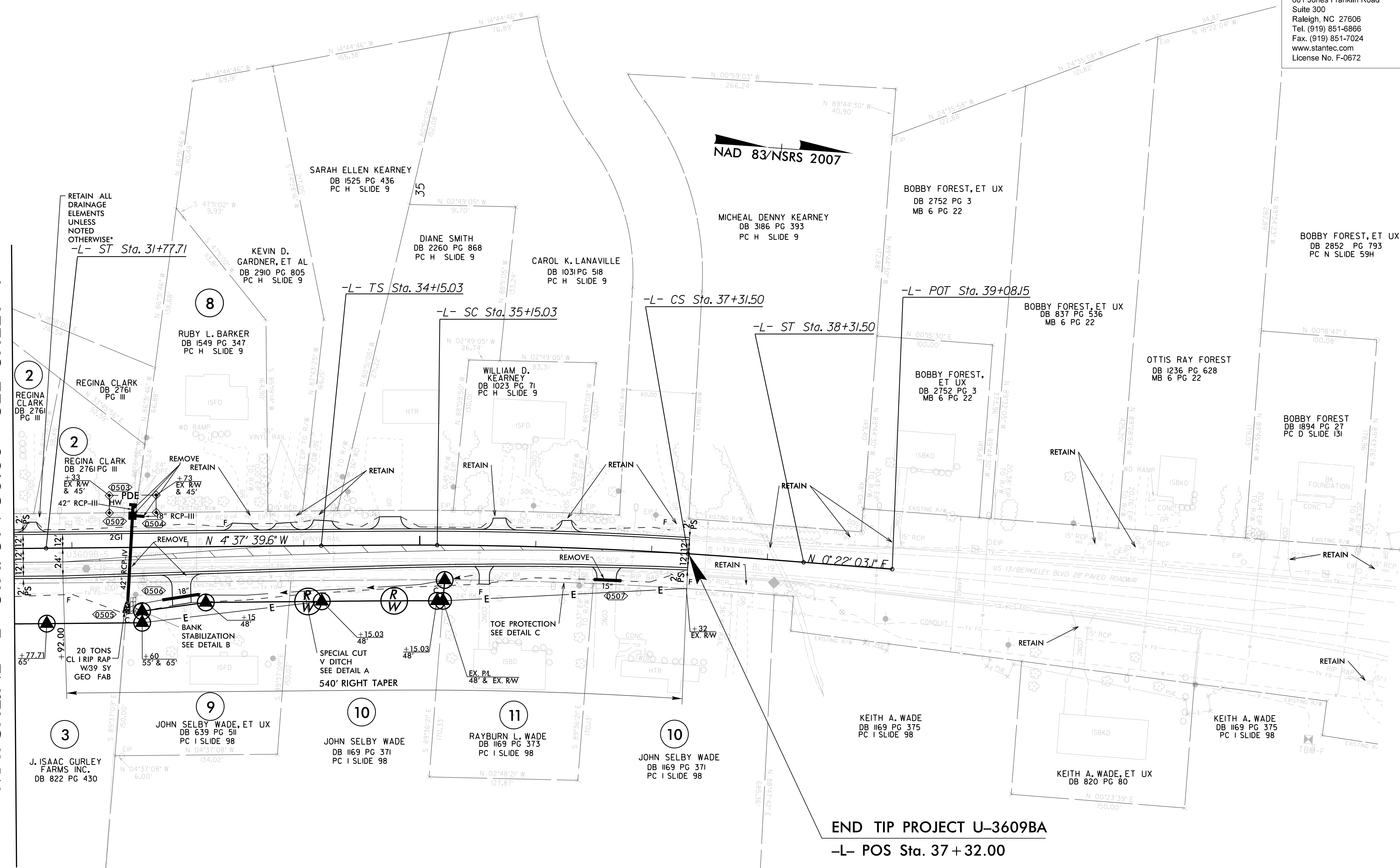
| -L- | -Y- |
|---|--|
| PI Sta 24+02.66 Δ = 42° 29' 15.2" (LT) D = 3' 30' 54.3" L = 1,208.72' T = 633.67' R = 1,630.00' SE = EXIST. | PIs Sta 30+44.40 Θs = 3° 30' 54.3" Ls = 200.00' LT = 133.36' ST = 66.69' |

| -Y- | -Y2- |
|---|--|
| PI Sta 17+31.36 Δ = 36° 25' 10.6" (LT) D = 10' 25' 02.7" L = 349.60' T = 180.94' R = 550.00' SE = SEE PLANS | PI Sta 16+67.66 Δ = 58° 44' 40.2" (LT) D = 52' 05' 13.5" L = 112.78' T = 61.91' R = 110.00' SE = SEE PLANS |

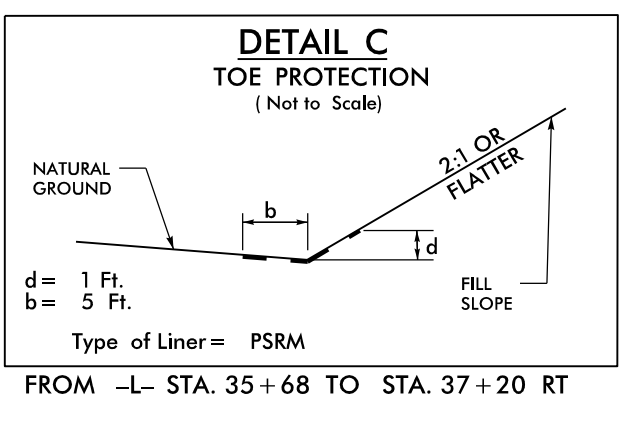
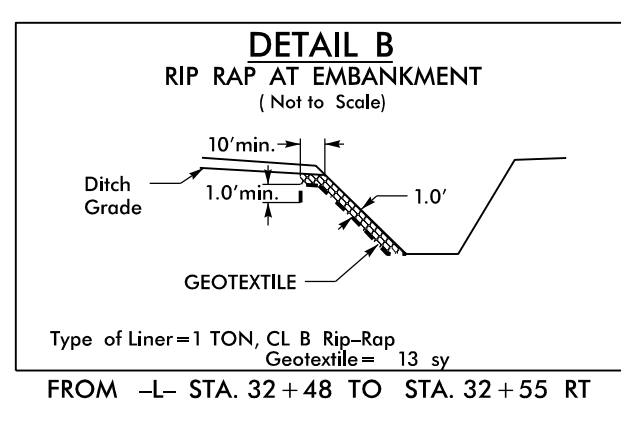
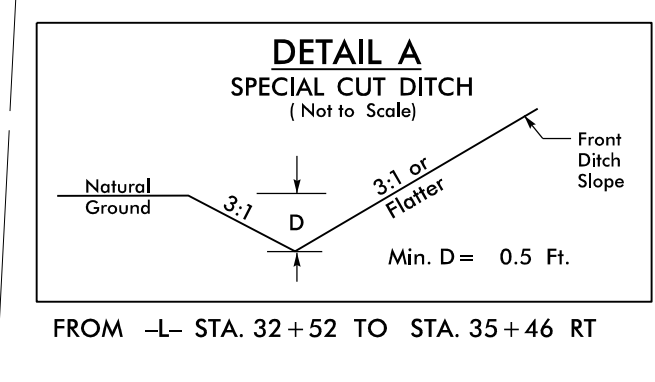
SEE SHEET 6 FOR -L- PROFILE
 SEE SHEET 7 FOR -Y- AND -Y2- PROFILES
 ALL DRIVEWAY RADII ARE 10' UNLESS NOTED ON PLANS

U:\P\26\2022\U3609BA_Rdy_psh4.dgn

MATCHLINE -L- STA. 31 + 50.00 SEE SHEET 4



| | | | |
|---|---|--|---|
| <p>-L-</p> <p>Pls Sta 30+44.40 $\theta_s = 3^\circ 30' 54.3''$ $L_s = 200.00'$ $LT = 133.36'$ $ST = 66.69'$</p> | <p>Pls Sta 34+81.70 $\theta_s = 0^\circ 47' 21.1''$ $L_s = 100.00'$ $LT = 66.67'$ $ST = 33.33'$</p> | <p>Pl Sta 36+23.30 $\Delta = 3^\circ 25' 00.5''$ (RT) $D = 1^\circ 34' 42.2''$ $L = 216.47'$ $T = 108.27'$ $R = 3,630.00'$ $SE = EXIST.$</p> | <p>Pls Sta 37+64.84 $\theta_s = 0^\circ 47' 21.1''$ $L_s = 100.00'$ $LT = 66.67'$ $ST = 33.33'$</p> |
|---|---|--|---|



SEE SHEET 6 FOR -L- PROFILE
 ALL DRIVEWAY RADII ARE 10' UNLESS NOTED ON PLANS

5/28/99



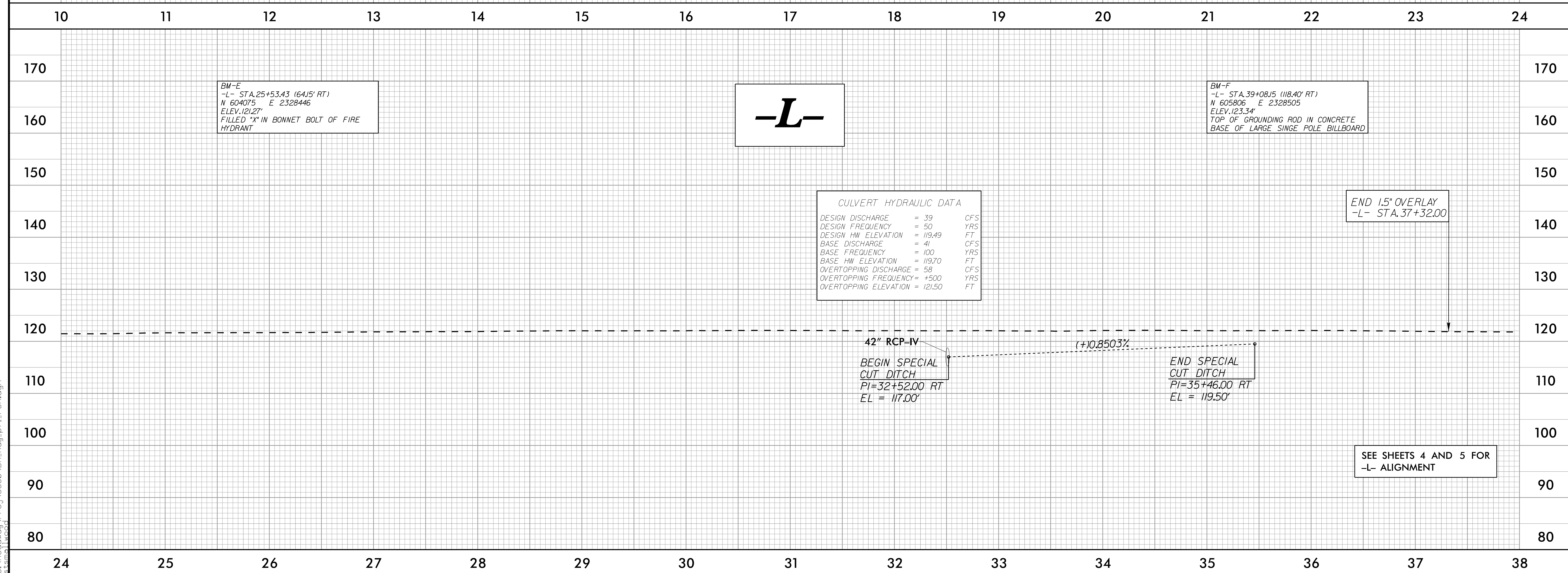
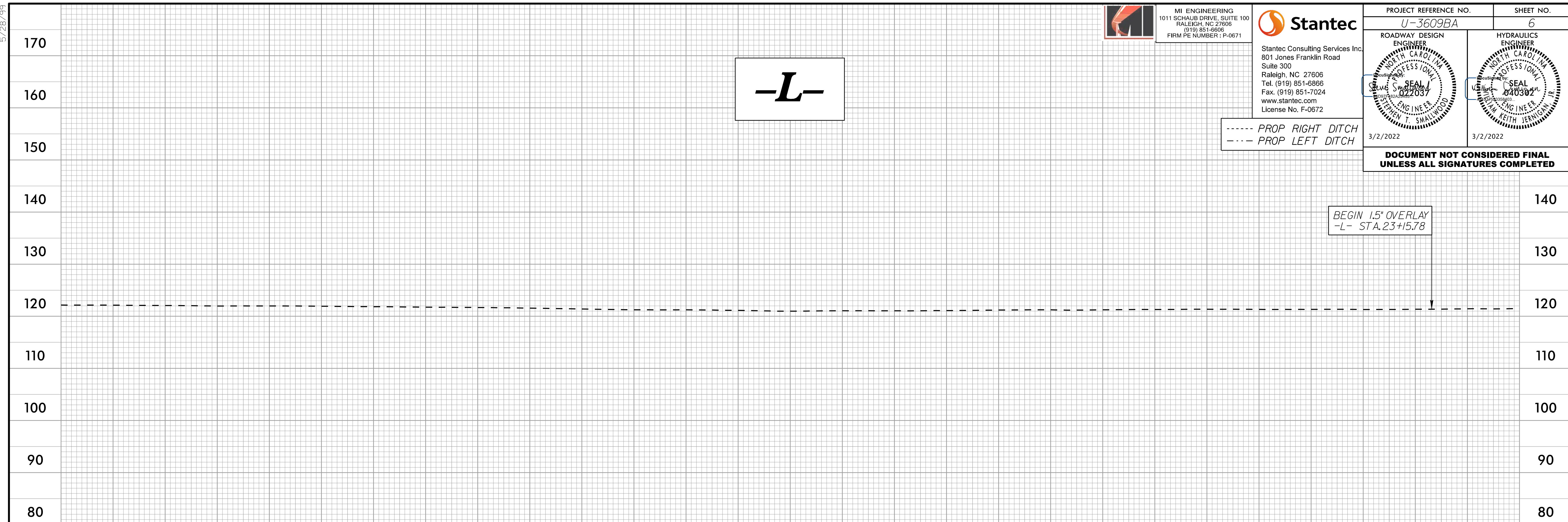
MI ENGINEERING
1011 SCHAUB DRIVE, SUITE 100
RALEIGH, NC 27606
(919) 851-6866
FIRM PE NUMBER: P-0671



Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

| | |
|--|--|
| PROJECT REFERENCE NO. <i>U-3609BA</i> | SHEET NO. <i>6</i> |
| ROADWAY DESIGN ENGINEER SEAL <i>3/22/2022</i> | HYDRAULICS ENGINEER SEAL <i>3/22/2022</i> |
| <i>3/2/2022</i> | <i>3/2/2022</i> |

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



BM-E
-L- STA.25+53.43 (64J5' RT)
N 604075 E 2328446
ELEV.121.27'
FILLED *X* IN BONNET BOLT OF FIRE
HYDRANT

BM-F
-L- STA.39+08.15 (118.40' RT)
N 605806 E 2328505
ELEV.123.34'
TOP OF GROUNDING ROD IN CONCRETE
BASE OF LARGE SINGE POLE BILLBOARD

CULVERT HYDRAULIC DATA

| | | |
|-----------------------|----------|-----|
| DESIGN DISCHARGE | = 39 | CFS |
| DESIGN FREQUENCY | = 50 | YRS |
| DESIGN HW ELEVATION | = 119.49 | FT |
| BASE DISCHARGE | = 41 | CFS |
| BASE FREQUENCY | = 100 | YRS |
| BASE HW ELEVATION | = 119.70 | FT |
| OVERTOPPING DISCHARGE | = 58 | CFS |
| OVERTOPPING FREQUENCY | = +500 | YRS |
| OVERTOPPING ELEVATION | = 121.50 | FT |

42" RCP-IV
BEGIN SPECIAL
CUT DITCH
PI=32+52.00 RT
EL = 117.00'

END SPECIAL
CUT DITCH
PI=35+46.00 RT
EL = 119.50'

SEE SHEETS 4 AND 5 FOR
-L- ALIGNMENT

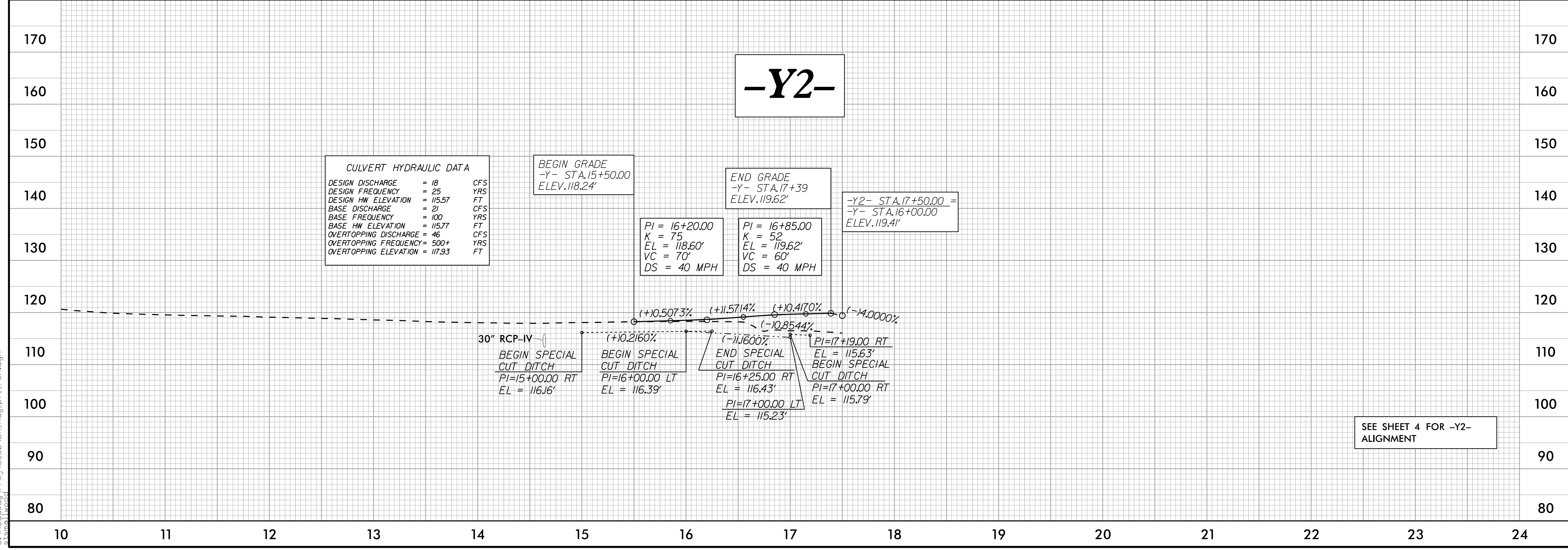
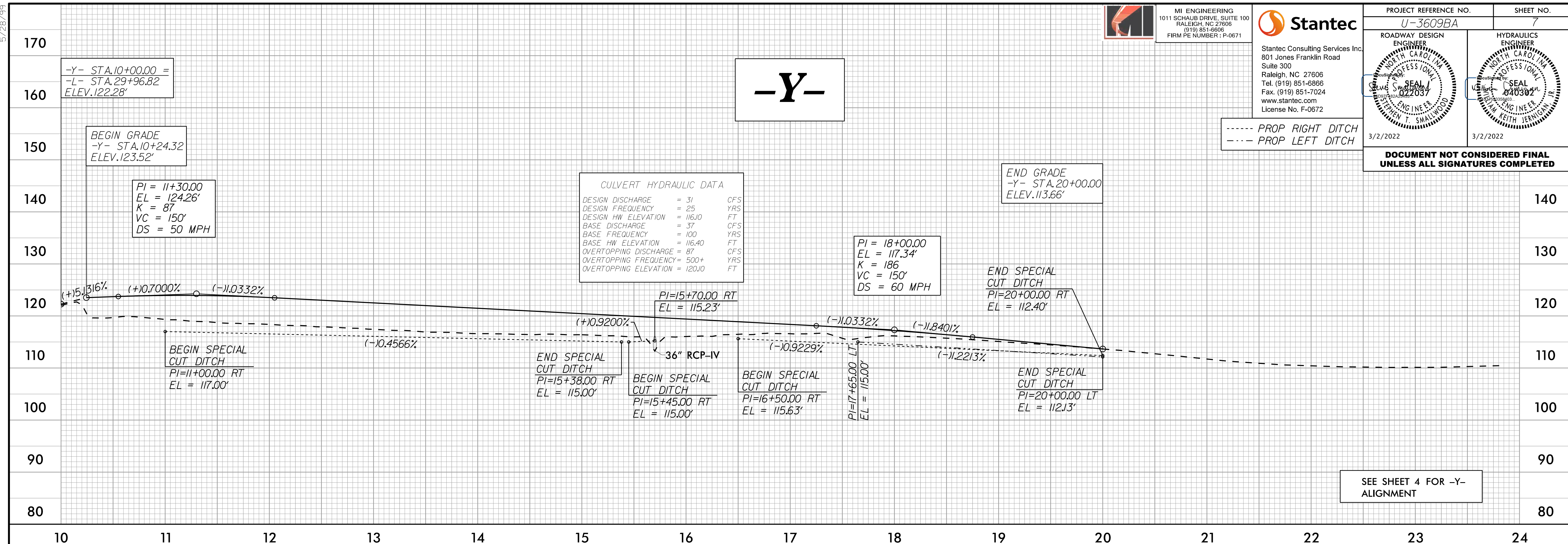
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5/28/22



| | |
|---|---|
| PROJECT REFERENCE NO. U-3609BA | SHEET NO. 7 |
| ROADWAY DESIGN ENGINEER SEAL 3/22/2022 STEPHEN T. SMALLWOOD | HYDRAULICS ENGINEER SEAL 3/22/2022 KEITH JERAMIAN |
| 3/2/2022 | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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T.I.P.: U-3609BA

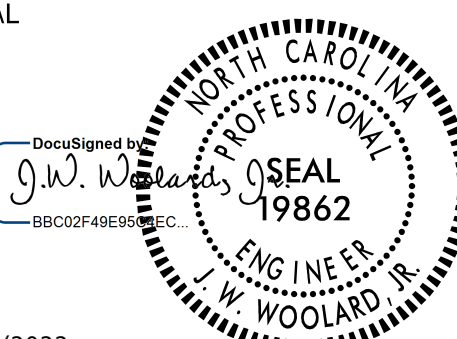

CONTRACT NO.:

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
WAYNE COUNTY**

**LOCATION: US 13 (BERKELEY BOULEVARD) AT
SR 1705 (HOOD SWAMP ROAD)**

TYPE OF WORK: GRADING, PAVING, DRAINAGE

| | |
|---|--------------------|
| TIP NO. U-3609BA | SHEET NO. PMP-1 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
|  | |
| 3/2/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

ROADWAY STANDARD DRAWINGS

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 |
|----------|---|
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES & OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1250.01 | RAISED PAVEMENT MARKERS - INSTALLATION SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS - PERMANENT & TEMPORARY |

FINAL PAVEMENT MARKING SCHEDULE

| SYMBOL | DESCRIPTION | PAY ITEM |
|--------|--|-----------------------------|
| T1 | WHITE EDGELINE | (4", 90 MIL) THERMOPLASTIC |
| T2 | WHITE SOLID LANE LINE | (4", 90 MIL) THERMOPLASTIC |
| T4 | 3 FT.-9 FT./SP WHITE MINISKIP | (4", 90 MIL) THERMOPLASTIC |
| T5 | 2 FT.-6 FT./SP WHITE MINISKIP | (4", 90 MIL) THERMOPLASTIC |
| T10 | YELLOW EDGELINE | (4", 90 MIL) THERMOPLASTIC |
| T11 | YELLOW SINGLE CENTER | (4", 90 MIL) THERMOPLASTIC |
| T12 | 10 FT. YELLOW SKIP | (4", 90 MIL) THERMOPLASTIC |
| T13 | YELLOW DOUBLE CENTER | (4", 90 MIL) THERMOPLASTIC |
| T52 | YELLOW DIAGONAL | (12", 90 MIL) THERMOPLASTIC |
| T61 | WHITE STOPBAR | (24", 90 MIL) THERMOPLASTIC |
| T70 | LEFT TURN ARROW | (90 MIL) THERMOPLASTIC |
| T72 | STRAIGHT ARROW | (90 MIL) THERMOPLASTIC |
| T74 | COMBO. RIGHT/STRAIGHT ARROW | (90 MIL) THERMOPLASTIC |
| T75 | COMBO. LEFT/RIGHT ARROW | (90 MIL) THERMOPLASTIC |
| MA | YELLOW & YELLOW, PERMANENT RAISED PAVEMENT MARKERS | |
| MB | CRYSTAL & RED, PERMANENT RAISED PAVEMENT MARKERS | |

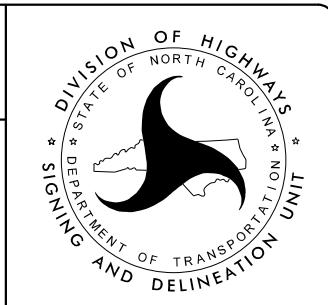
GENERAL NOTES

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:

| ROAD NAME | MARKING | MARKER |
|-----------|---------------|------------------|
| ALL ROADS | THERMOPLASTIC | PERMANENT RAISED |
- 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) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- F) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS.

| |
|--|
| PLAN REVIEWED BY: N.C.D.O.T. DIVISION 4 |
| ADDISON GAINNEY, P.E. PROJECT TEAM LEAD |



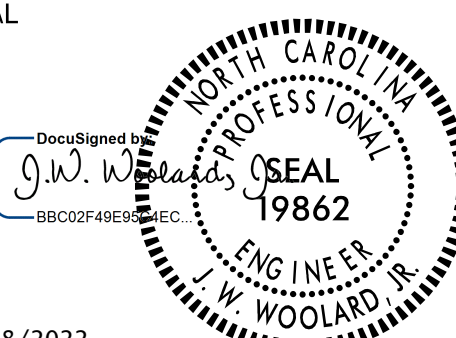

| |
|---|
| PLAN PREPARED BY: |
| JAY WOOLARD, P.E. SENIOR TRANSPORTATION ENGINEER |
| ANDREW N. GOOD TRANSPORTATION DESIGNER |

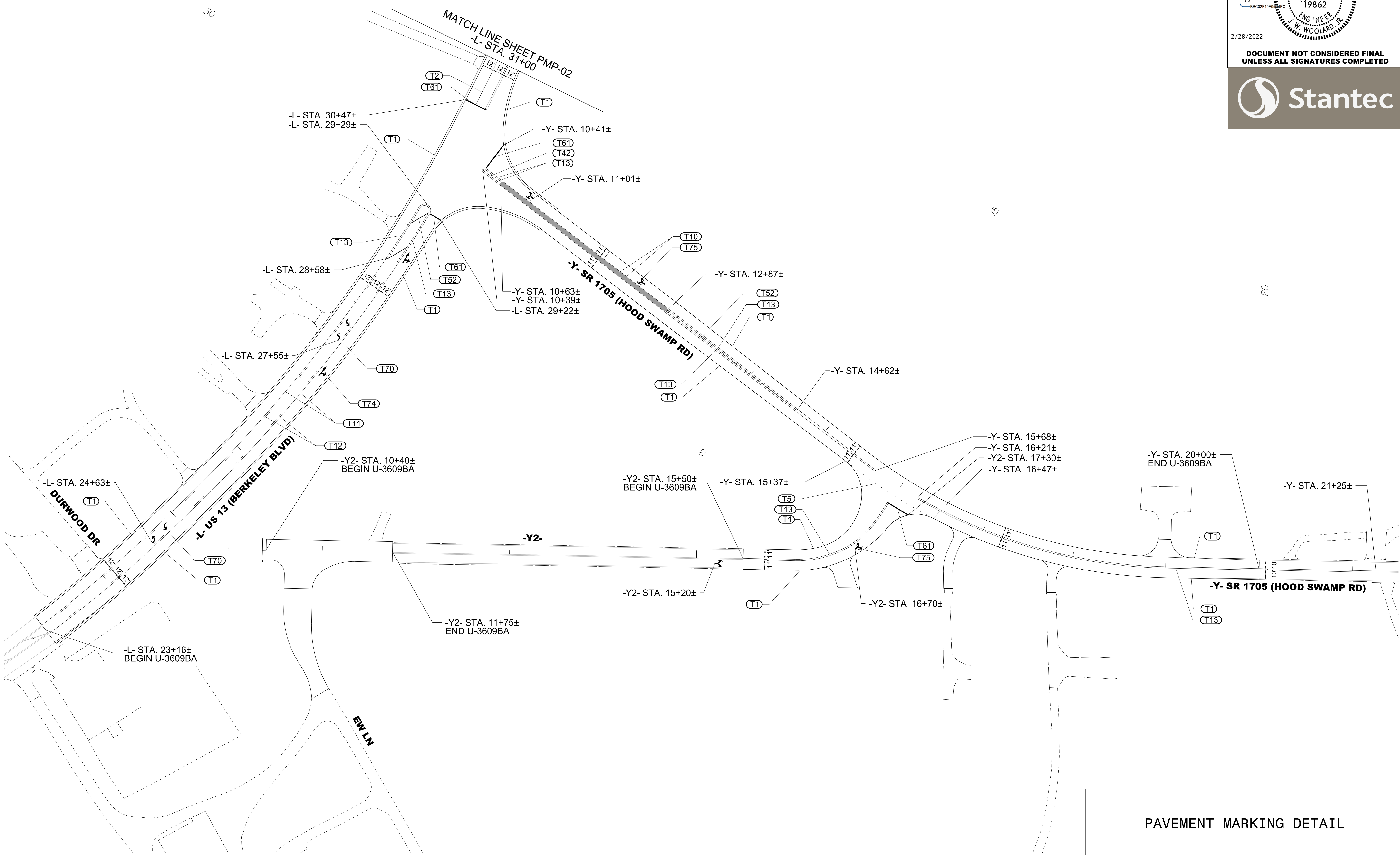
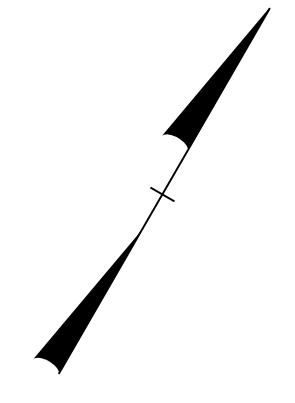
Stantec

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www.stantec.com
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INDEX

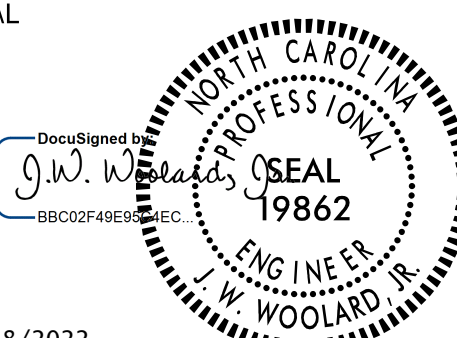

| SHEET NO. | DESCRIPTION |
|-----------|--|
| PMP-1 | PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET |
| PMP-2-3 | PAVEMENT MARKING DETAIL |

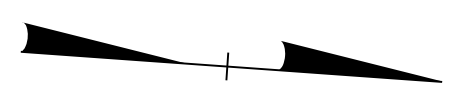
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|---|--------------------|
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| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
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| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
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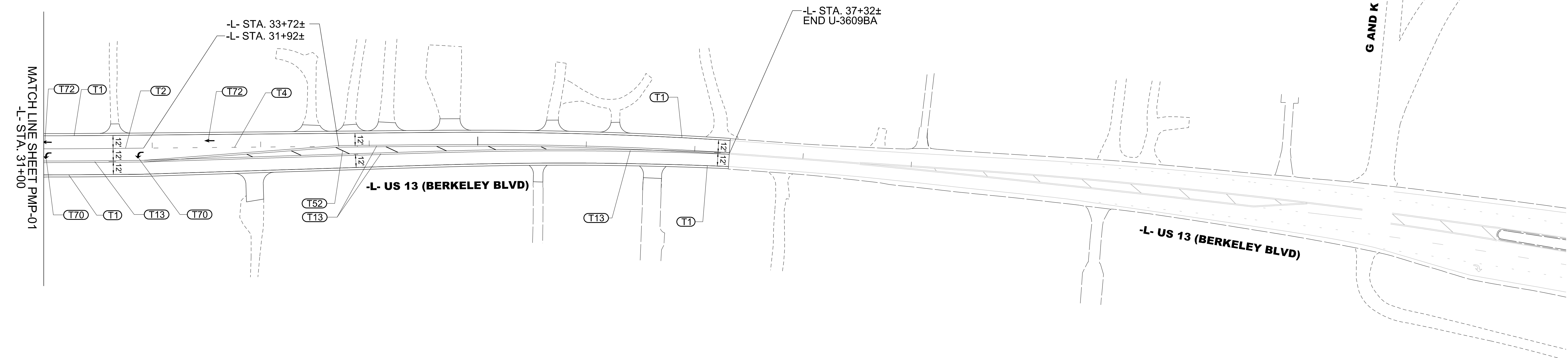
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angood

PAVEMENT MARKING DETAIL

| | |
|---|--------------------|
| TIP NO. U-3609BA | SHEET NO. PMP-3 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
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| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
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35



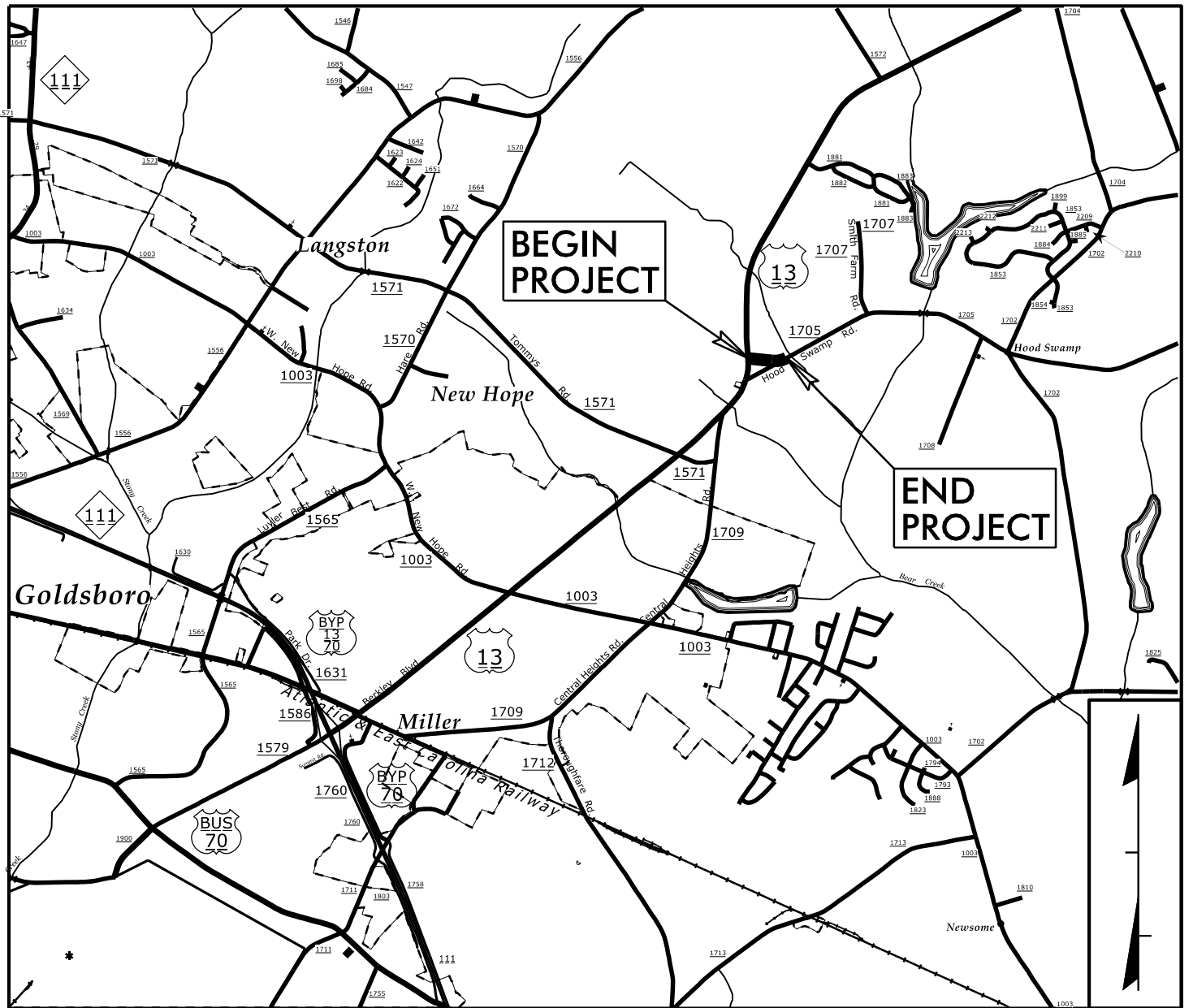
2/28/2022
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angood

PAVEMENT MARKING DETAIL

| | | | |
|-----------------|-----------------------------|-------------|--------------|
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
| N.C. | U-3609BA | EC-1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| | | | |
| | | | |
| | | | |
| | | | |

TIP PROJECT: U-3609BA

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



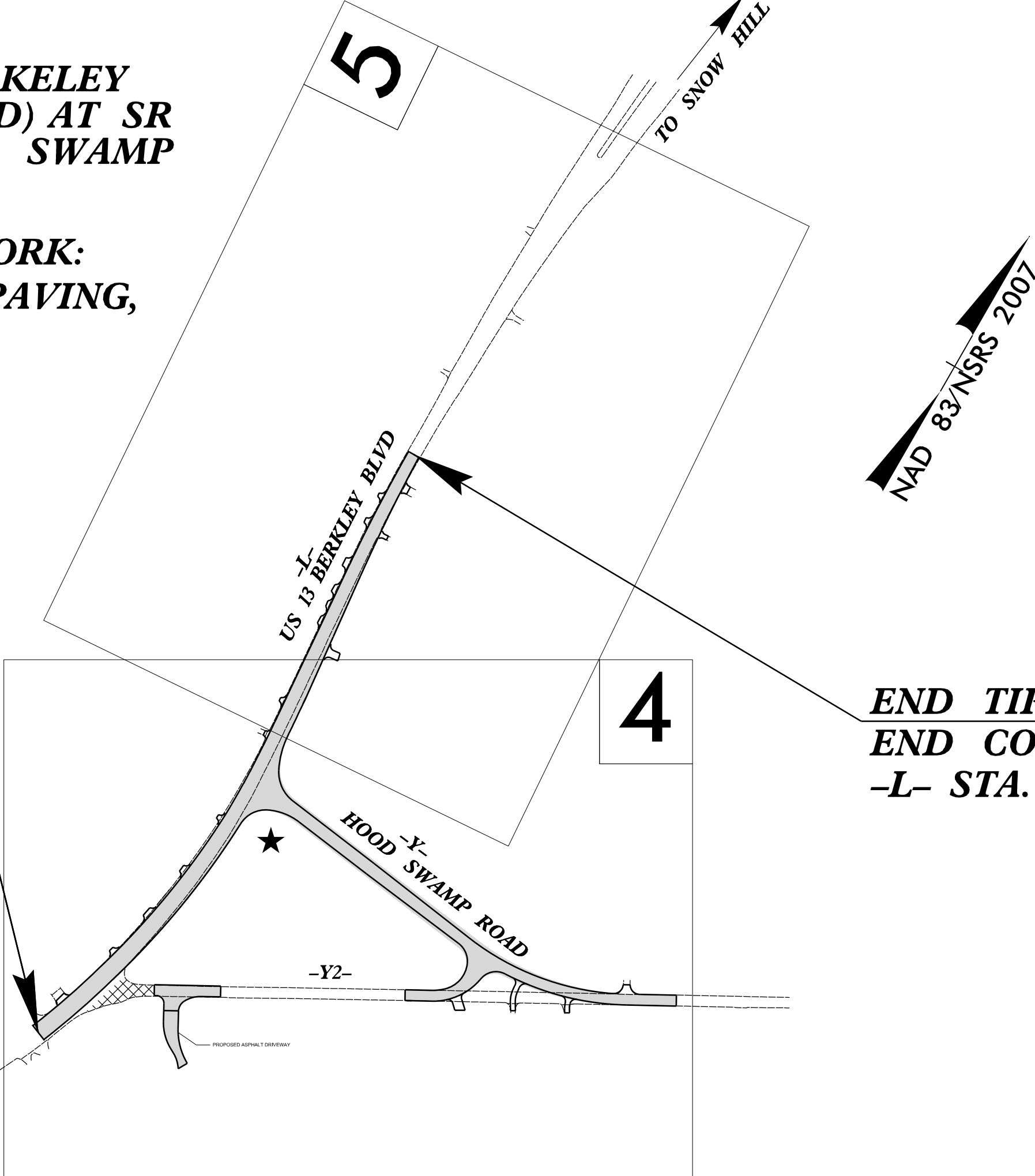
VICINITY MAP

LOCATION:
 US 13 (BERKELEY BOULEVARD) AT SR 1705 (HOOD SWAMP ROAD)

TYPE OF WORK:
 GRADING, PAVING, DRAINAGE

BEGIN TIP PROJECT U-3609BA
BEGIN CONSTRUCTION
 -L- STA. 23 + 15.78

END TIP PROJECT U-3609BA
END CONSTRUCTION
 -L- STA. 37 + 32.00



★ **PROPOSED SIGNAL**

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

EROSION AND SEDIMENT CONTROL MEASURES

| Std. # | Description | Symbol |
|---------|--|--------|
| 1630.03 | Temporary Silt Ditch | |
| 1630.05 | Temporary Diversion | |
| 1605.01 | Temporary Silt Fence | |
| 1606.01 | Special Sediment Control Fence | |
| 1622.01 | Temporary Berms and Slope Drains | |
| 1630.02 | Silt Basin Type B | |
| 1633.01 | Temporary Rock Silt Check Type-A | |
| | Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) | |
| 1633.02 | Temporary Rock Silt Check Type-B | |
| | Wattle / Coir Fiber Wattle | |
| | Wattle / Coir Fiber Wattle with Polyacrylamide (PAM) | |
| 1634.01 | Temporary Rock Sediment Dam Type-A | |
| 1634.02 | Temporary Rock Sediment Dam Type-B | |
| 1635.01 | Rock Pipe Inlet Sediment Trap Type-A | |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B | |
| 1630.04 | Stilling Basin | |
| 1630.06 | Special Stilling Basin | |
| | Rock Inlet Sediment Trap: | |
| 1632.01 | Type A | |
| 1632.02 | Type B | |
| 1632.03 | Type C | |
| | Skimmer Basin | |
| | Tiered Skimmer Basin | |
| | Infiltration Basin | |

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

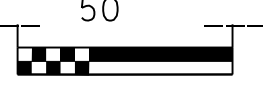
ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
 Refer To E. C. Special Provisions for Special Considerations.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

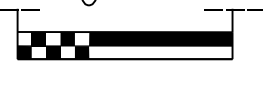
GRAPHIC SCALE



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 1, 2016 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared in the Office of:
MI ENGINEERING, PLLC
 1011 SCHAUB DRIVE, SUITE 100
 RALEIGH, NC 27606

Designed by:
WILLIAM K. JERNIGAN, JR., PE 3395
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:
DONALD PEARSON, JR., EI, CPESC

Roadway Standard Drawings

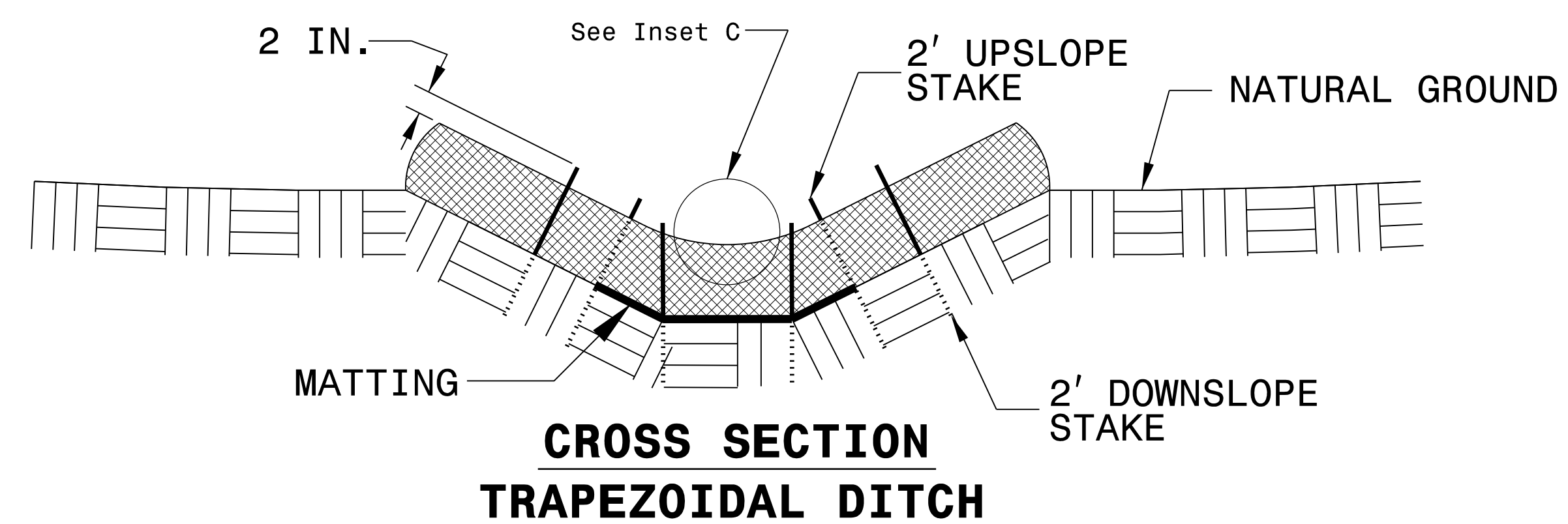
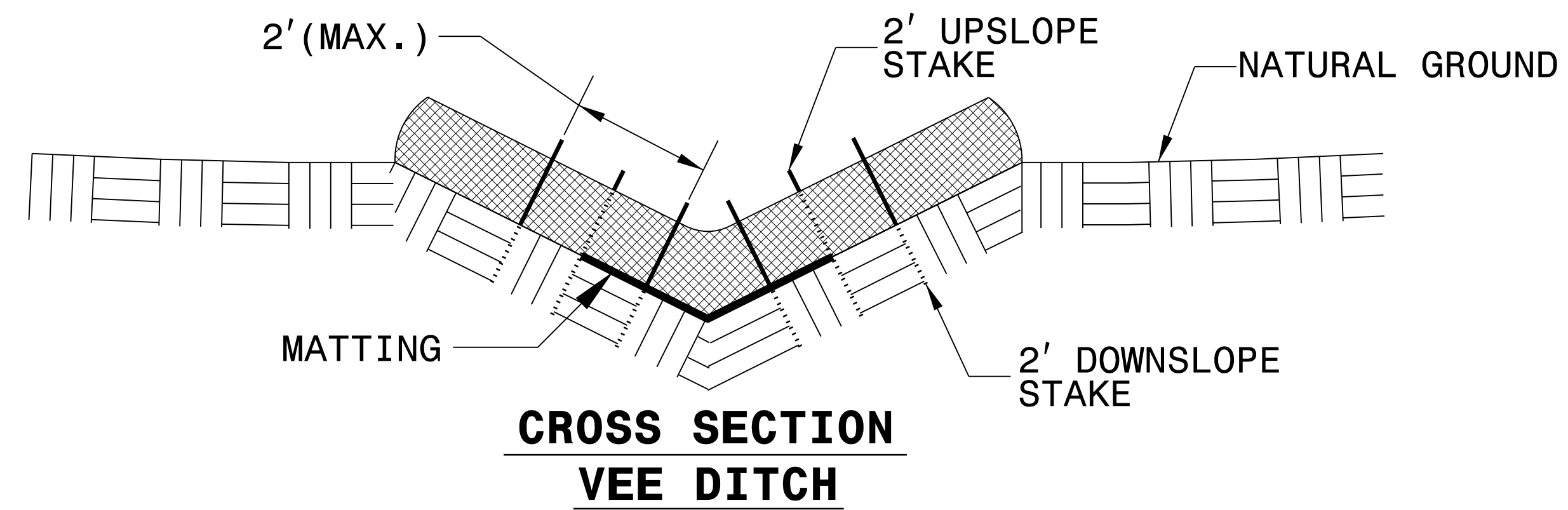
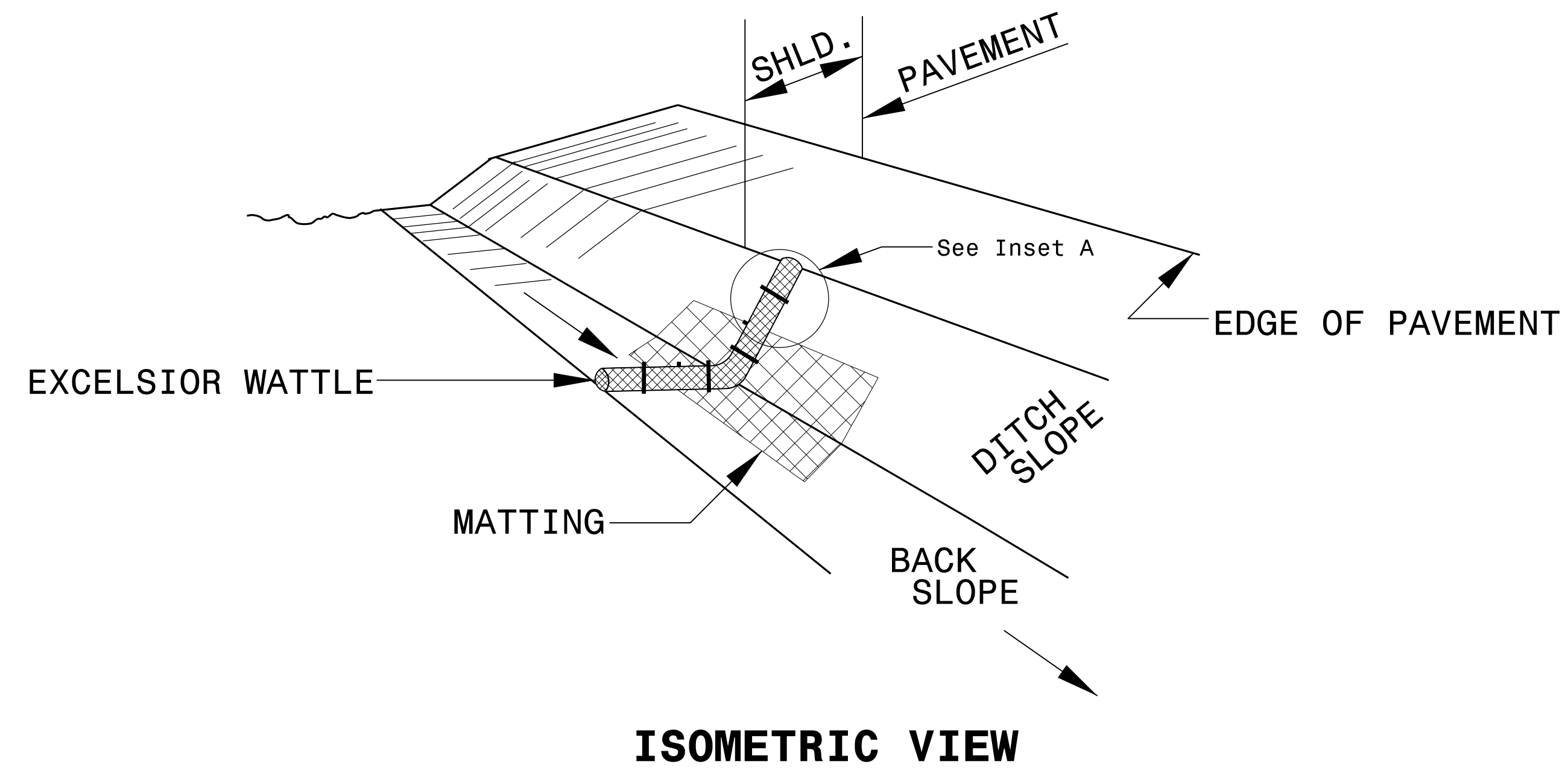
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

| | | | |
|---------|----------------------------------|---------|--------------------------------------|
| 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 J |
| 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 J |
| 1630.01 | Riser Basin | 1634.01 | Temporary Rock Sediment Dam Type A |
| 1630.02 | Silt Basin Type J | 1634.02 | Temporary Rock Sediment Dam Type J |
| 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 J |
| 1630.05 | Temporary Diversion | 1640.01 | Coir Fiber Wattle |
| 1630.06 | Special Stilling Basin | 1645.01 | Temporary Stream Crossing |
| 1631.01 | Matting Installation | | |

918 U-3609 BA-23-FEB-2022 15:52:26 918 U-3609 BA-23-FEB-2022 15:52:26 918 U-3609 BA-23-FEB-2022 15:52:26 918 U-3609 BA-23-FEB-2022 15:52:26 918 U-3609 BA-23-FEB-2022 15:52:26

| | |
|-----------------------------------|---------------------|
| PROJECT REFERENCE NO. U-3609BA | SHEET NO. EC-2 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR 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.

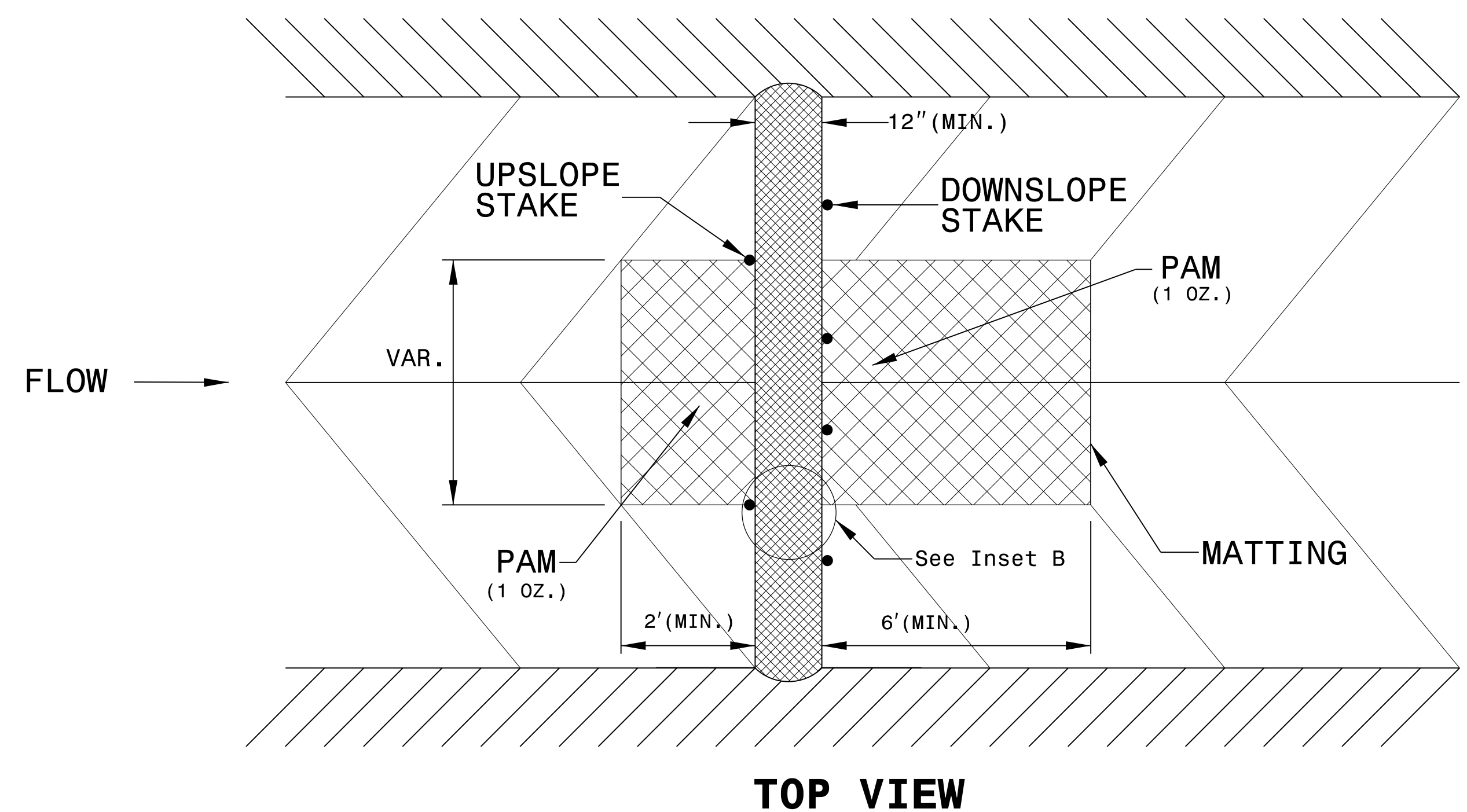
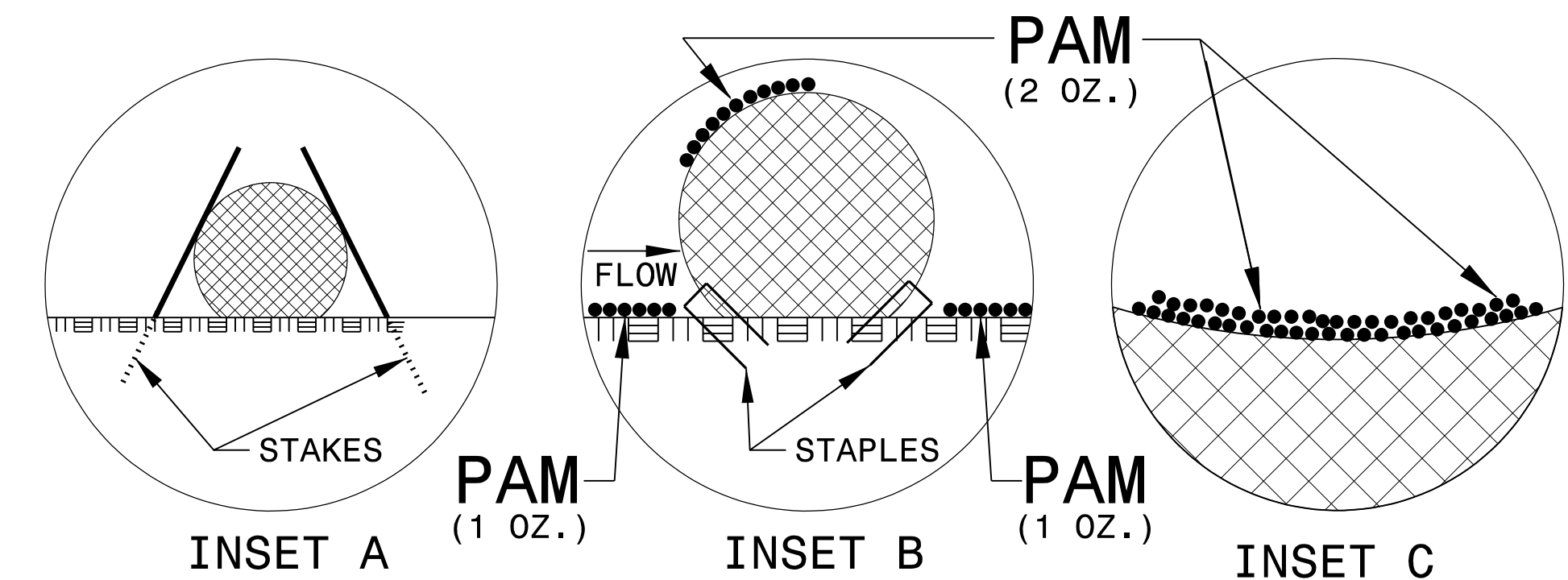
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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 MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



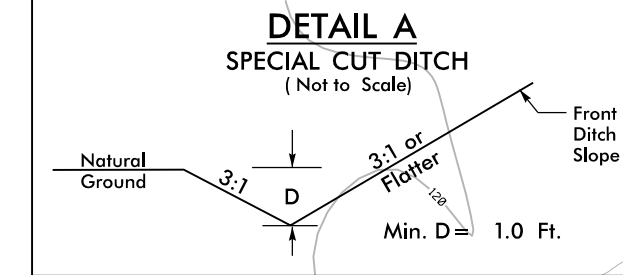
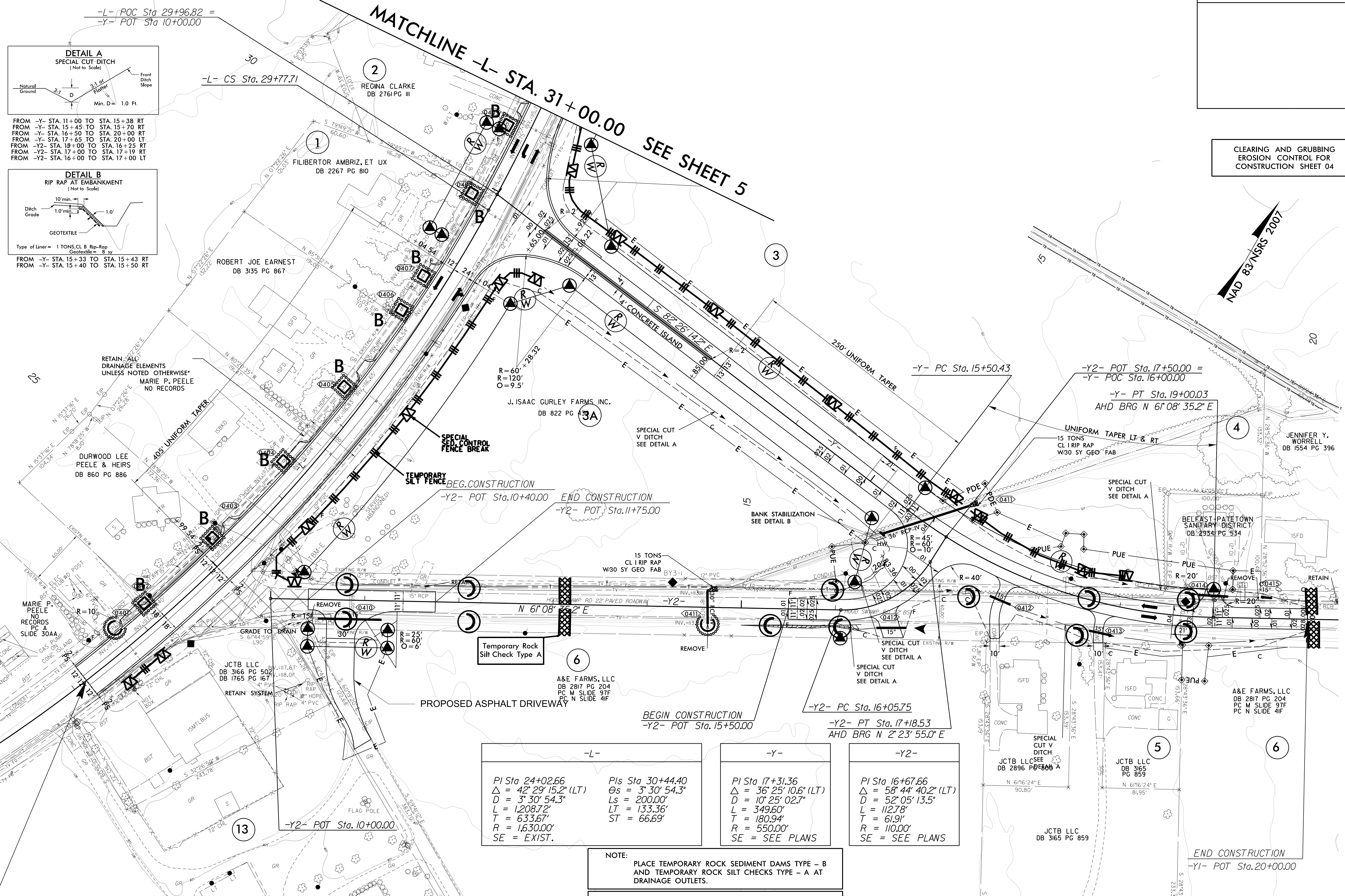
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

| | |
|--|---------------------------|
| PROJECT REFERENCE NO. <i>U-3609BA</i> | SHEET NO. <i>EC-3A</i> |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

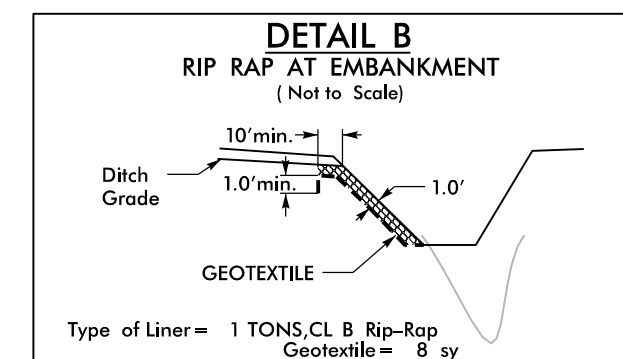
SOIL STABILIZATION TIMEFRAMES

| <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. |

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04



FROM -Y- STA. 11+00 TO STA. 15+38 RT
FROM -Y- STA. 15+45 TO STA. 15+70 RT
FROM -Y- STA. 16+50 TO STA. 20+00 RT
FROM -Y- STA. 17+65 TO STA. 20+00 LT
FROM -Y2- STA. 19+00 TO STA. 16+25 RT
FROM -Y2- STA. 17+00 TO STA. 17+19 RT
FROM -Y2- STA. 16+00 TO STA. 17+00 LT



Type of Liner = 1 TONS CL B Rip-Rap
Geotextile = 8 sy

FROM -Y- STA. 15+33 TO STA. 15+43 RT
FROM -Y- STA. 15+40 TO STA. 15+50 RT

| -L- | -Y- |
|---|--|
| PI Sta 24+02.66 Δ = 42° 29' 15.2" (LT) D = 3' 30' 54.3" L = 1,208.72' T = 633.67' R = 1,630.00' SE = EXIST. | PIs Sta 30+44.40 Θs = 3° 30' 54.3" Ls = 200.00' LT = 133.36' ST = 66.69' |

| -Y- | -Y2- |
|---|--|
| PI Sta 17+31.36 Δ = 36° 25' 10.6" (LT) D = 10' 25' 02.7" L = 349.60' T = 180.94' R = 550.00' SE = SEE PLANS | PI Sta 16+67.66 Δ = 58° 44' 40.2" (LT) D = 52' 05' 13.5" L = 112.78' T = 61.91' R = 110.00' SE = SEE PLANS |

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

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING PLAN

BEGIN TIP PROJECT U-3609BA
-L- POC Sta. 23+15.78

END CONSTRUCTION
-Y1- POT Sta. 20+00.00

REVISIONS

5/14/2022 15:41 U:\3609BA-EC-ps-h4.dgn

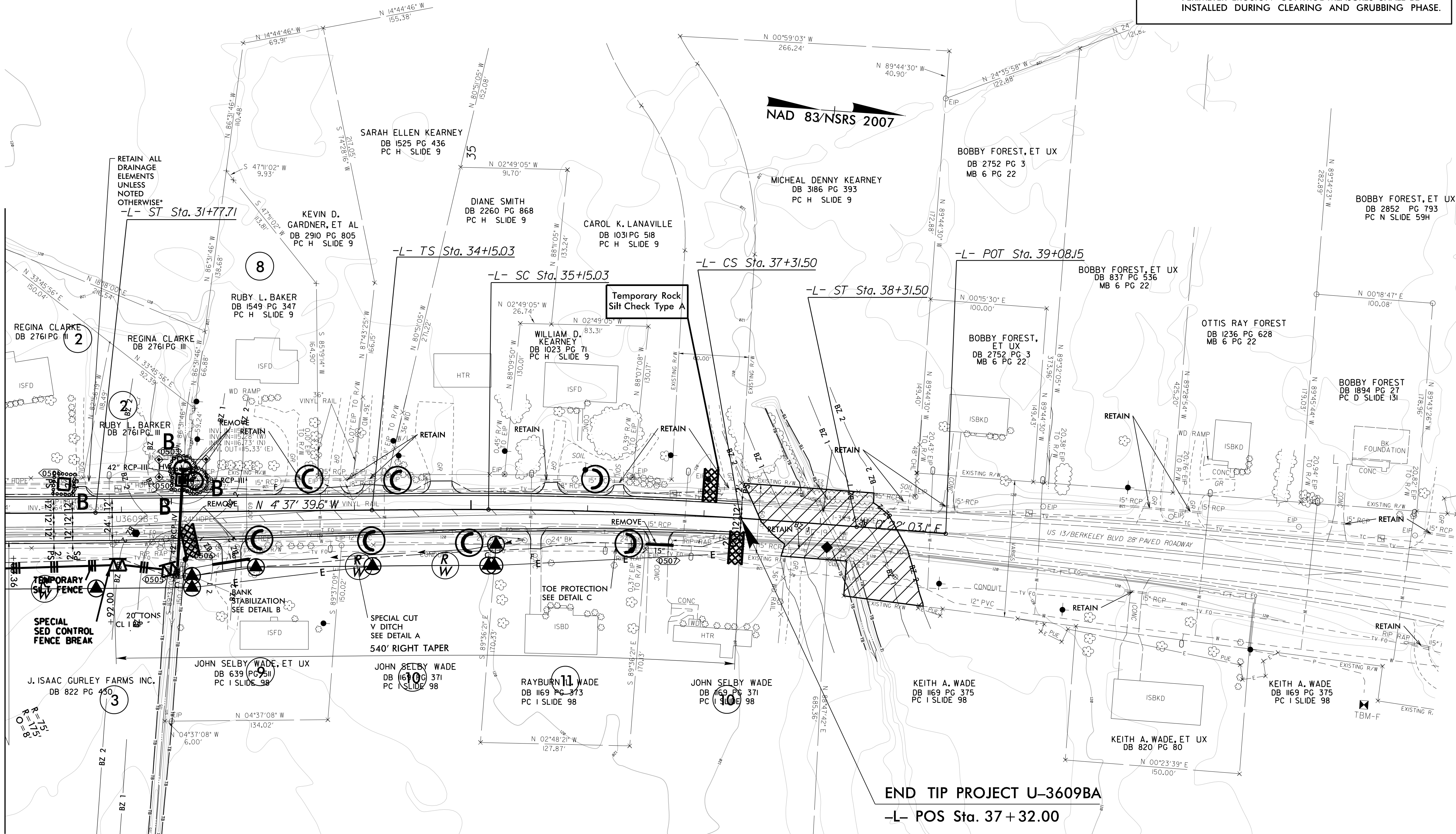
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

MATCHLINE -L- STA. 31+00.00 SEE SHEET 4

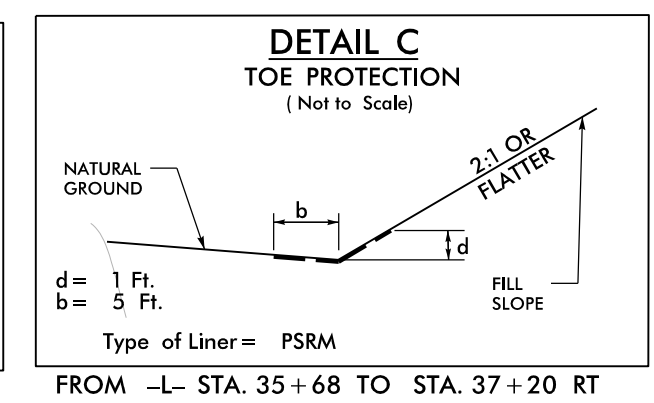
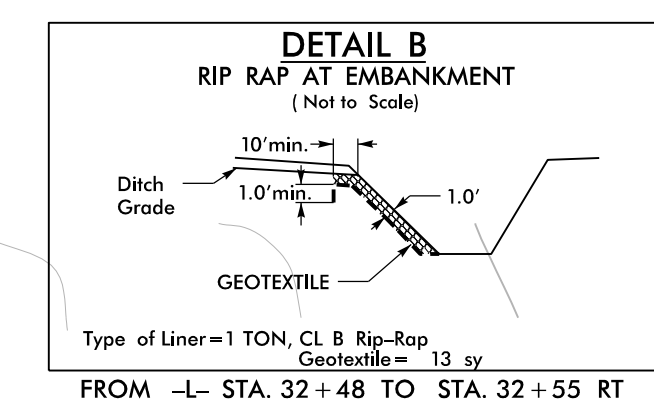
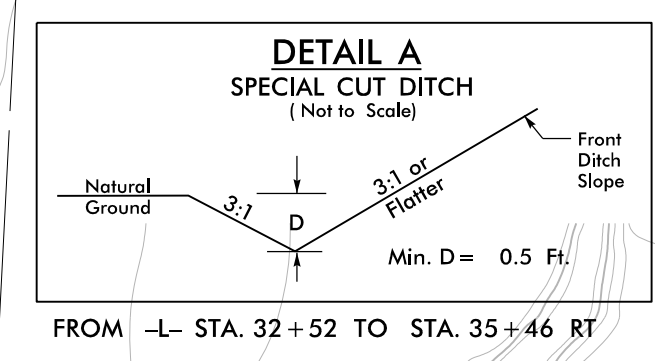
REVISIONS



END TIP PROJECT U-3609BA
-L- POS Sta. 37+32.00



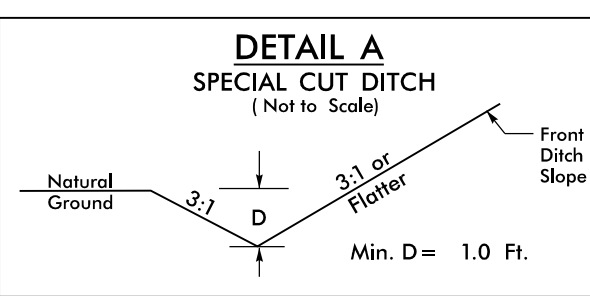
| Sta | Curve Data | Sta | Curve Data | Sta | Curve Data | Sta | Curve Data |
|------------------|---------------------------------|------------------|---------------------------------|------------------|------------------------------------|------------------|---------------------------------|
| Pls Sta 30+44.40 | $\theta_s = 3^\circ 30' 54.3''$ | Pls Sta 34+81.70 | $\theta_s = 0^\circ 47' 21.1''$ | Pl Sta 36+23.30 | $\Delta = 3^\circ 25' 00.5''$ (RT) | Pls Sta 37+64.84 | $\theta_s = 0^\circ 47' 21.1''$ |
| Ls = 200.00' | | Ls = 100.00' | | D = 1' 34' 42.2" | Ls = 100.00' | | |
| LT = 133.36' | | LT = 66.67' | | L = 216.47' | LT = 66.67' | | |
| ST = 66.69' | | ST = 33.33' | | R = 108.27' | ST = 33.33' | | |
| | | | | T = 3,630.00' | | | |
| | | | | SE = EXIST. | | | |



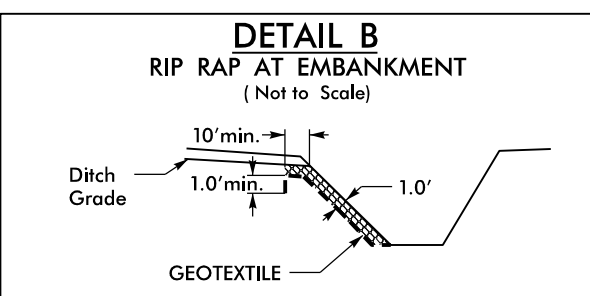
CLEARING AND GRUBBING PLAN

5/14/2022 15:41 U:\3609BA_EC.psh5.dgn
 3-FEB-2022 15:41 U:\3609BA_EC.psh5.dgn
 3-FEB-2022 15:41 U:\3609BA_EC.psh5.dgn

-L- POC Sta 29+96.82 =
 -Y- POT Sta 10+00.00



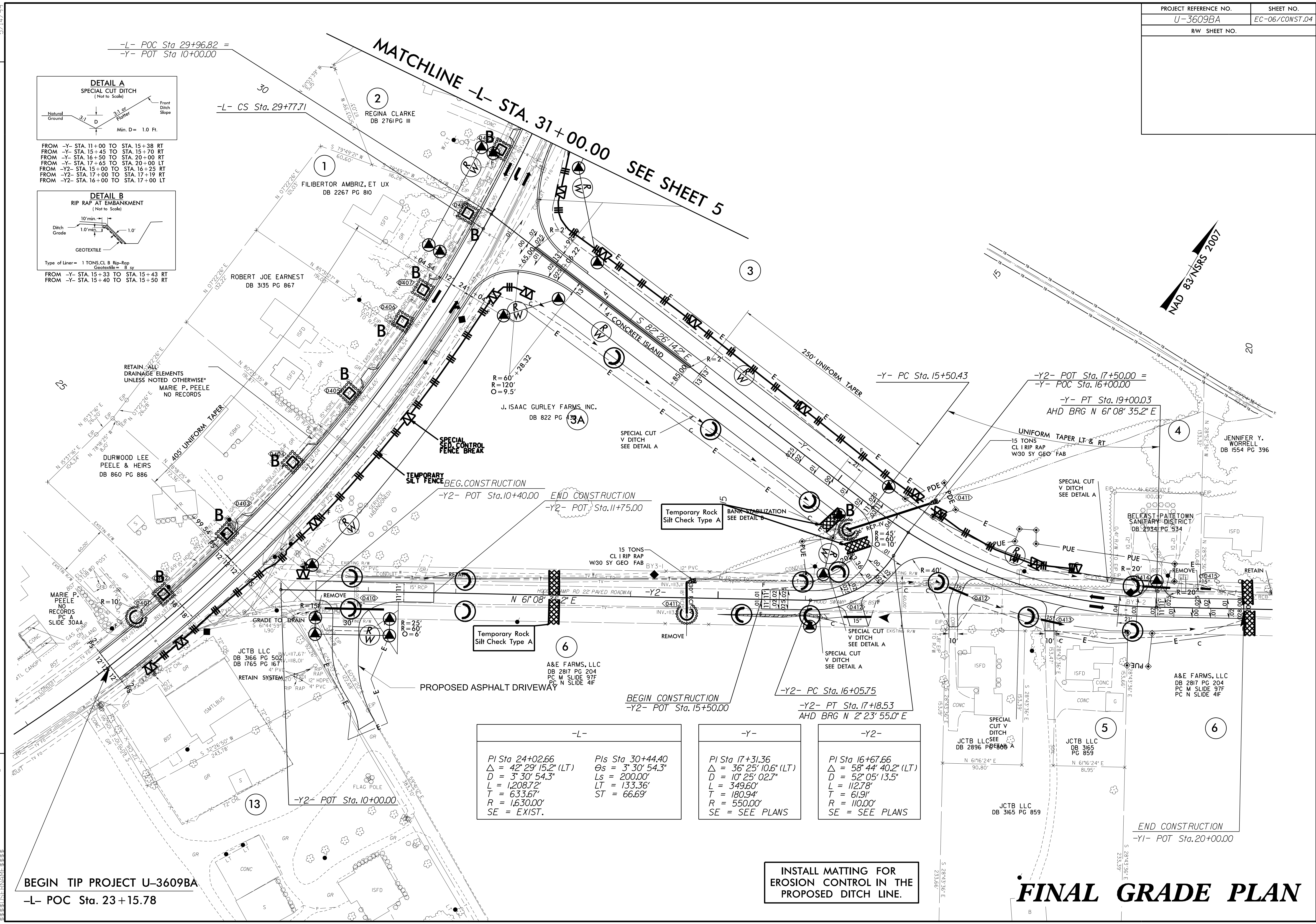
FROM -Y- STA. 11+00 TO STA. 15+38 RT
 FROM -Y- STA. 15+45 TO STA. 15+70 RT
 FROM -Y- STA. 16+50 TO STA. 20+00 RT
 FROM -Y- STA. 17+65 TO STA. 20+00 LT
 FROM -Y2- STA. 15+00 TO STA. 16+25 RT
 FROM -Y2- STA. 17+00 TO STA. 17+19 RT
 FROM -Y2- STA. 16+00 TO STA. 17+00 LT



Type of Liner = 1 TONS CL B Rip-Rap
 Geotextile = 8 sy
 FROM -Y- STA. 15+33 TO STA. 15+43 RT
 FROM -Y- STA. 15+40 TO STA. 15+50 RT

5/14/2022 15:41 U:\3609BA-EC.psh6.dgn

REVISIONS



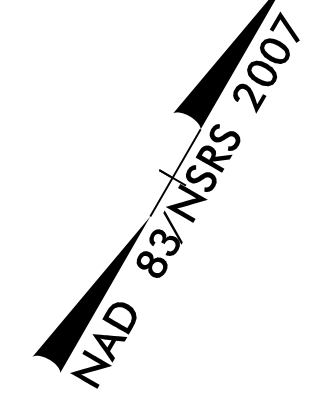
| -L- | -Y- | -Y2- |
|---|--|---|
| PI Sta 24+02.66 Δ = 42° 29' 15.2" (LT) D = 3' 30' 54.3" L = 1,208.72' T = 633.67' R = 1,630.00' SE = EXIST. | PIs Sta 30+44.40 Θs = 3° 30' 54.3" Ls = 200.00' LT = 133.36' ST = 66.69' | PI Sta 17+31.36 Δ = 36° 25' 10.6" (LT) D = 10' 25' 02.7" L = 349.60' T = 180.94' R = 550.00' SE = SEE PLANS |
| | | PI Sta 16+67.66 Δ = 58° 44' 40.2" (LT) D = 52' 05' 13.5" L = 112.78' T = 61.91' R = 110.00' SE = SEE PLANS |

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

FINAL GRADE PLAN

BEGIN TIP PROJECT U-3609BA
 -L- POC Sta. 23+15.78

END CONSTRUCTION
 -Y1- POT Sta. 20+00.00

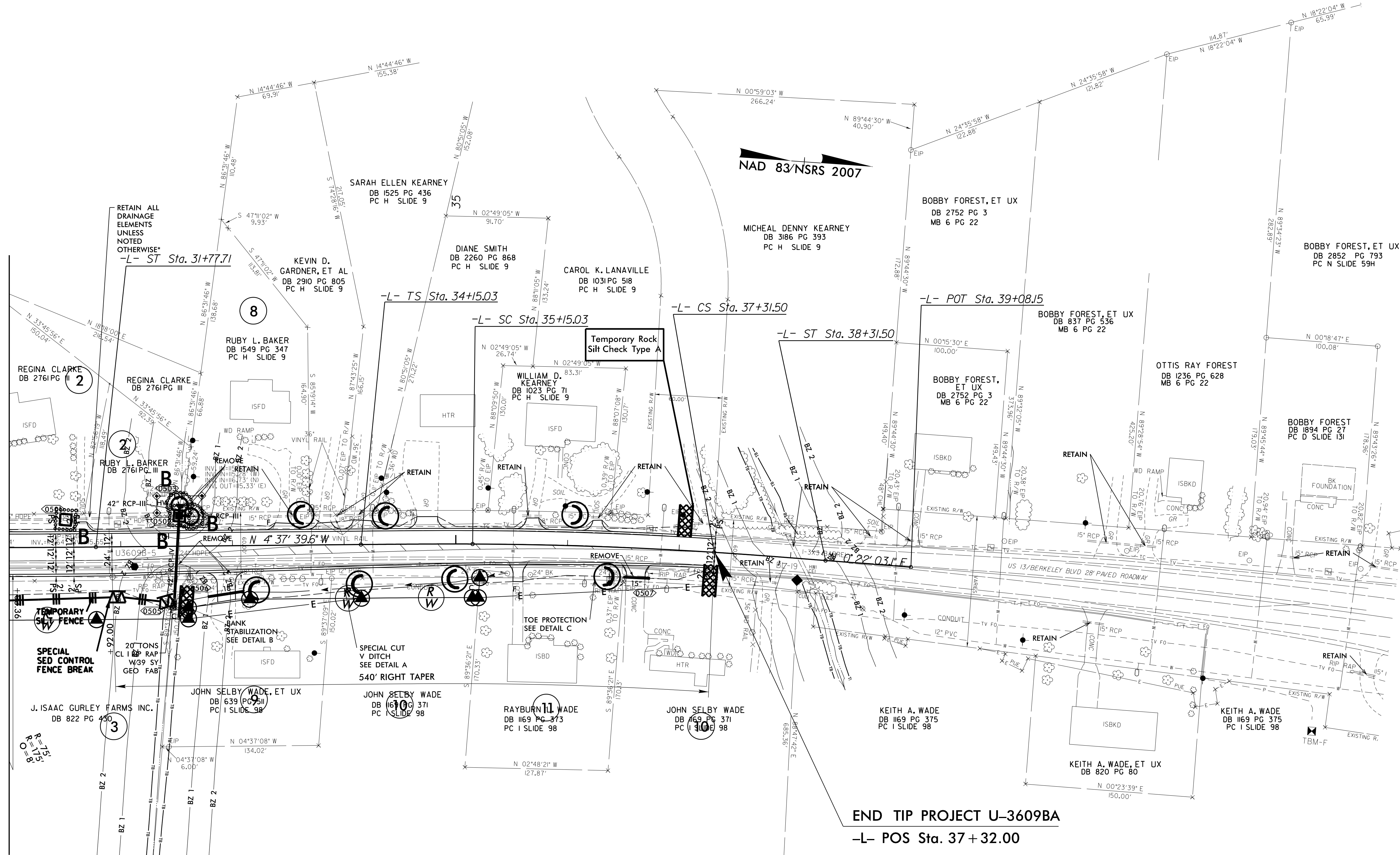


5/14/99

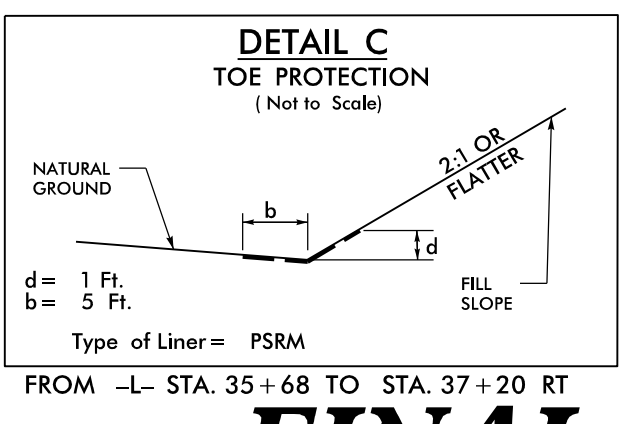
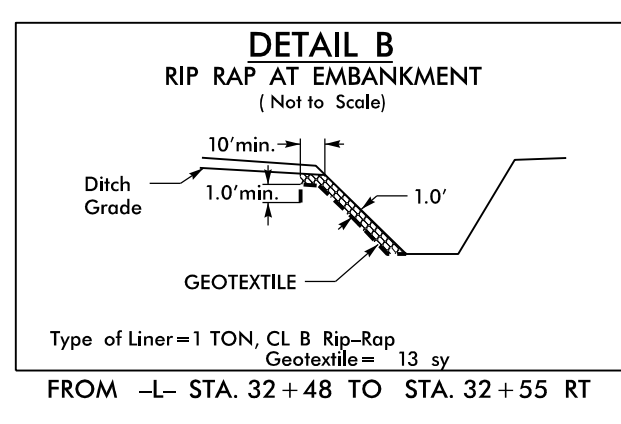
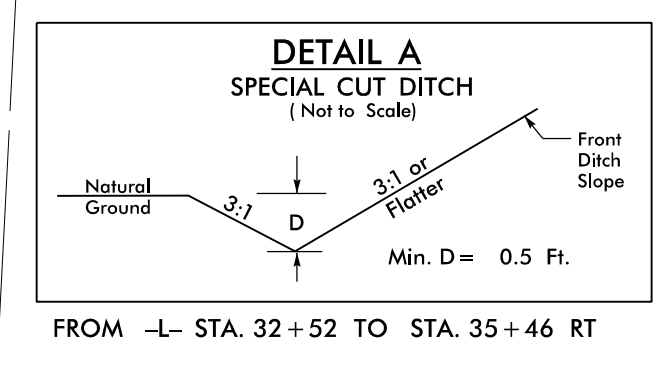
R:\3-FEB-2022 15:41\U3609BA-EC.psh7.dgn

MATCHLINE -L- STA. 31+00.00 SEE SHEET 4

REVISIONS



| -L- | | | |
|---------------------------------|---------------------------------|------------------------------------|---------------------------------|
| Pls Sta 30+44.40 | Pls Sta 34+81.70 | Pl Sta 36+23.30 | Pls Sta 37+64.84 |
| $\theta_s = 3^\circ 30' 54.3''$ | $\theta_s = 0^\circ 47' 21.1''$ | $\Delta = 3^\circ 25' 00.5''$ (RT) | $\theta_s = 0^\circ 47' 21.1''$ |
| $L_s = 200.00'$ | $L_s = 100.00'$ | $D = 1^\circ 34' 42.2''$ | $L_s = 100.00'$ |
| $LT = 133.36'$ | $LT = 66.67'$ | $L = 216.47'$ | $LT = 66.67'$ |
| $ST = 66.69'$ | $ST = 33.33'$ | $T = 108.27'$ | $ST = 33.33'$ |
| | | $R = 3,630.00'$ | |
| | | $SE = EXIST.$ | |



INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

FINAL GRADE PLAN

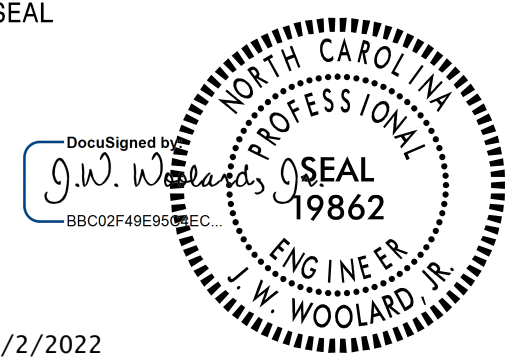

T.I.P.: U-3609BA

CONTRACT NO.:

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
WAYNE COUNTY**

**LOCATION: US 13 (BERKELEY BOULEVARD) AT
SR 1705 (HOOD SWAMP ROAD)
TYPE OF WORK: GRADING, PAVING, DRAINAGE**

| | |
|---|---------------------|
| TIP NO. U-3609BA | SHEET NO. SIGN-1 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
|  | |
| 3/2/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

GENERAL NOTES

- . SIGNS FURNISHED BY CONTRACTOR
- . 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. | | |
| 4025000000 | 901 | CONTRACTOR FURNISHED, TYPE E SIGN | 65.25 S.F. |
| 4025000000 | 901 | CONTRACTOR FURNISHED, TYPE F SIGN | 28.50 S.F. |
| 4072000000 | 903 | SUPPORTS, 3 LB STEEL U-CHANNEL | 163 L.F. |
| 4102000000 | 904 | SIGN ERECTION, TYPE E | 8 EA. |
| 4108000000 | 904 | SIGN ERECTION, TYPE F | 3 EA. |
| 4155000000 | 907 | DISPOSAL OF SIGN SYSTEM, U-CHANNEL | 4 EA. |
| 4915000000 | 1264 | 7' U-CHANNEL POSTS | 3 EA. |
| 4955000000 | 1264 | OBJECT MARKERS (END OF ROAD) | 3 EA. |

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 |
| 1264.01 | OBJECT MARKERS -TYPES |
| 1264.02 | OBJECT MARKERS -INSTALLATION |

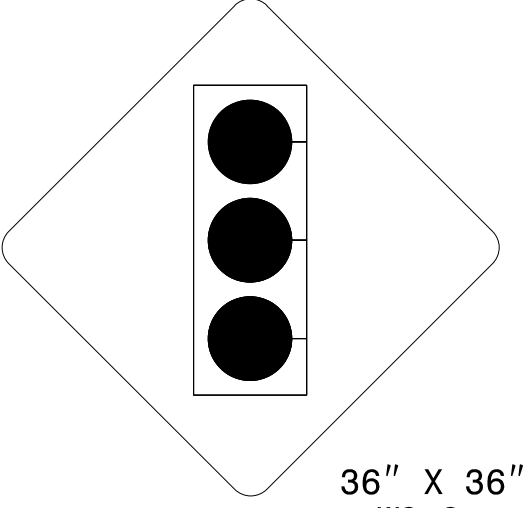
| | |
|--|---|
| PLAN REVIEWED BY: N.C.D.O.T. DIVISION 4 |  |
| ADDISON GAINES, P.E. PROJECT TEAM LEAD | |

| | |
|---|---|
| PLAN PREPARED BY: |  Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-6672 |
| JAY WOOLARD, P.E. SENIOR TRANSPORTATION ENGINEER | |
| ANDREW N. GOOD TRANSPORTATION DESIGNER | |

| INDEX | |
|--------------|--------------------------|
| SHEET NO. | DESCRIPTION |
| SIGN-1 | SIGNING PLAN TITLE SHEET |
| SIGN-2 | TYPE "E" & "F" SIGNS |
| SIGN 3-5 | SIGNING PLAN SHEETS |

| | |
|---|---------------------|
| TIP NO. U-3609BA | SHEET NO. SIGN-2 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL  | |
| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

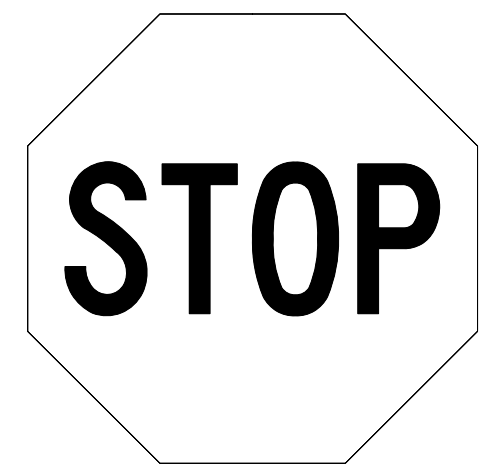
401 QUANTITY REQ'D 2



36" X 36"
W3-3

ONE "U" POST PER SIGN

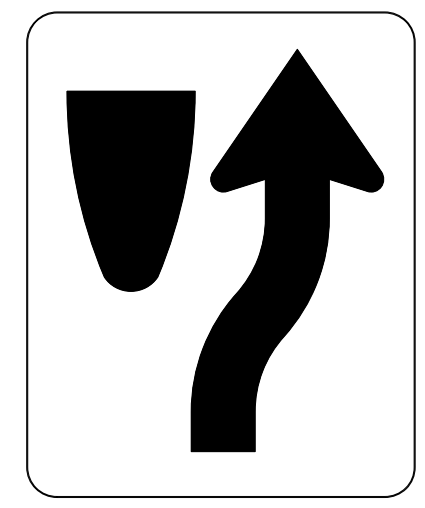
402 QUANTITY REQ'D 1



36" X 36"
R1-1

ONE "U" POST PER SIGN

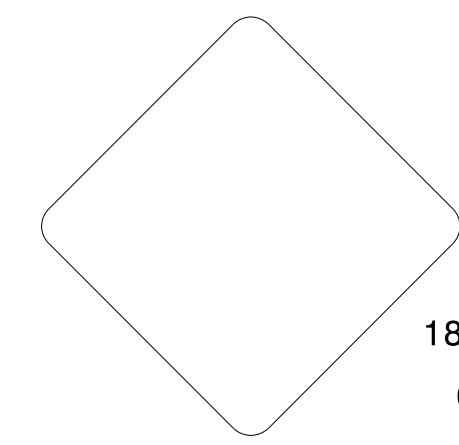
403 QUANTITY REQ'D 2



24" X 30"
R4-7

ONE "U" POST PER SIGN

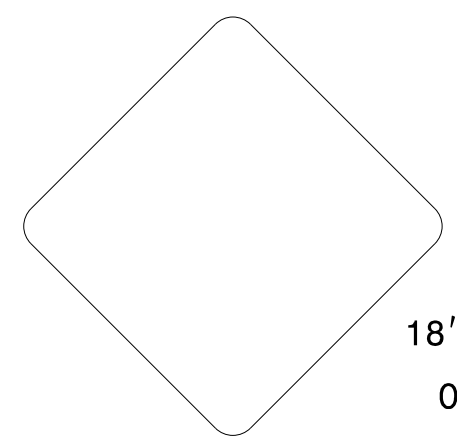
404 QUANTITY REQ'D 2



18" X 18"
OM1-3

(MOUNT BELOW SIGN #403
IN 2 INSTALLATIONS)


405 QUANTITY REQ'D 3



18" X 18"
OM4-3

ONE "U" POST PER SIGN

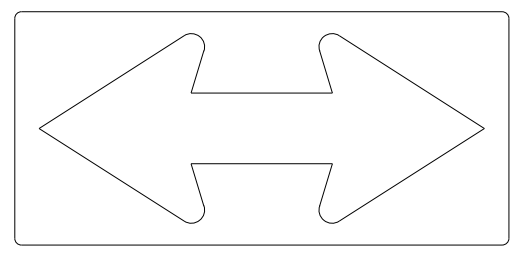
406 QUANTITY REQ'D 1



36" X 36"
W14-2

ONE "U" POST PER SIGN

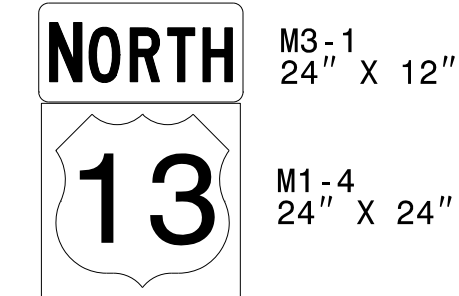
407 QUANTITY REQ'D 1



48" X 24"
R4-7

TWO "U" POST PER SIGN

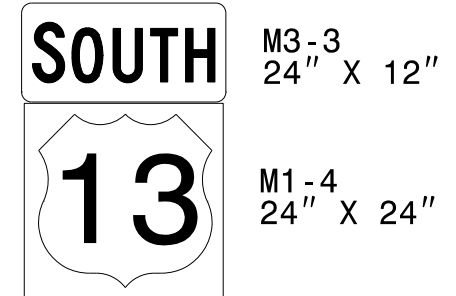
501 QUANTITY REQ'D 1



M3-1
24" X 12"
M1-4
24" X 24"

ONE "U" POST PER ASSEMBLY

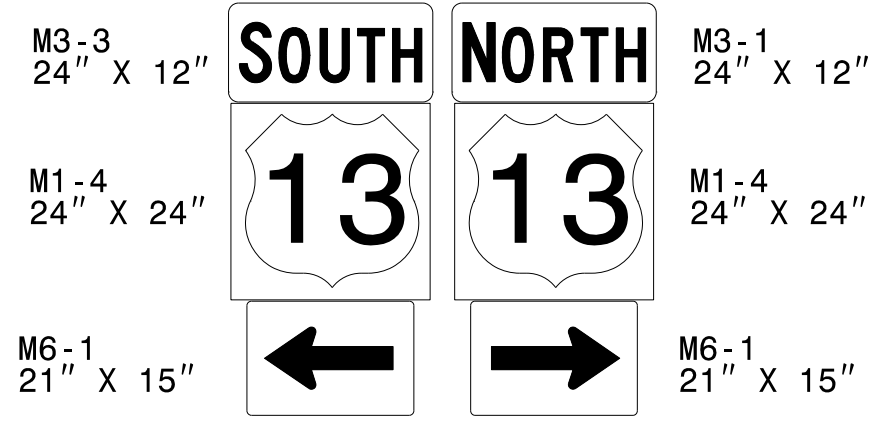
502 QUANTITY REQ'D 1



M3-3
24" X 12"
M1-4
24" X 24"

ONE "U" POST PER ASSEMBLY

503 QUANTITY REQ'D 1

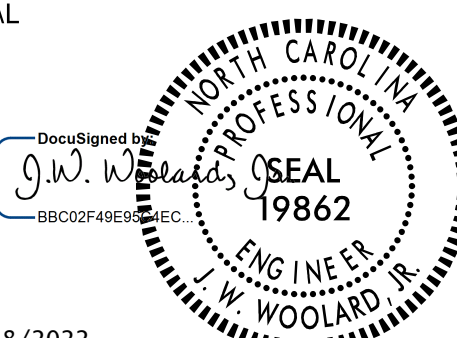



M3-3
24" X 12"
M1-4
24" X 24"
M6-1
21" X 15"

TWO "U" POST PER ASSEMBLY

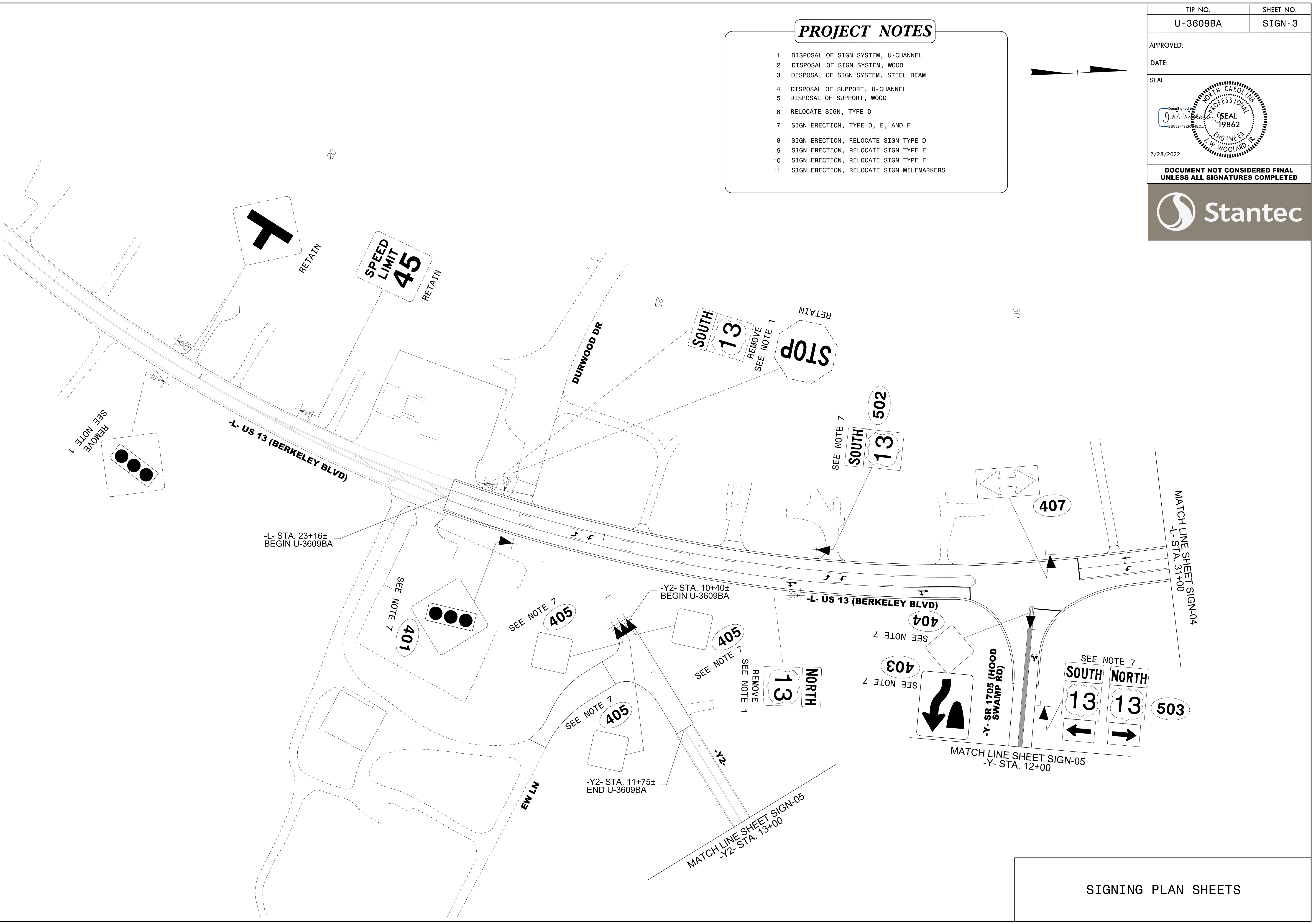
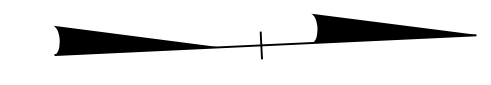
2/28/2022
Us\Traffic\Signing\CADD\Signing\Plan Sheets\U-3609BA_sign_02-E_AND_F_Sheets.dgn
angood

TYPE "E" & "F" SIGNS

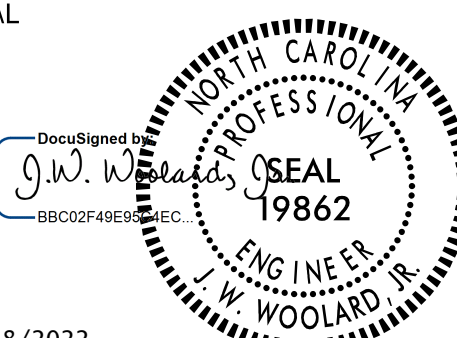

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| TIP NO. U-3609BA | SHEET NO. SIGN-3 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
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| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

PROJECT NOTES

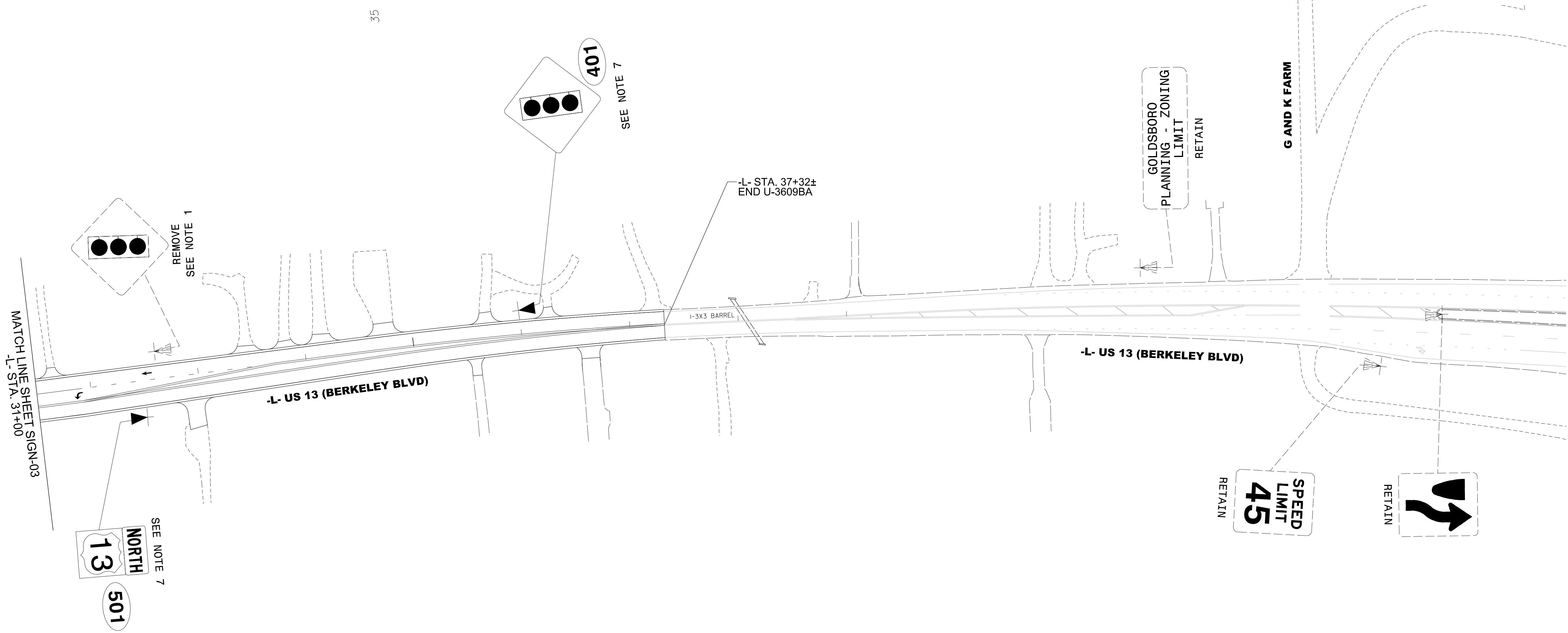
- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2 DISPOSAL OF SIGN SYSTEM, WOOD
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
- 4 DISPOSAL OF SUPPORT, U-CHANNEL
- 5 DISPOSAL OF SUPPORT, WOOD
- 6 RELOCATE SIGN, TYPE D
- 7 SIGN ERECTION, TYPE D, E, AND F
- 8 SIGN ERECTION, RELOCATE SIGN TYPE D
- 9 SIGN ERECTION, RELOCATE SIGN TYPE E
- 10 SIGN ERECTION, RELOCATE SIGN TYPE F
- 11 SIGN ERECTION, RELOCATE SIGN MILEMARKERS



2/28/2022
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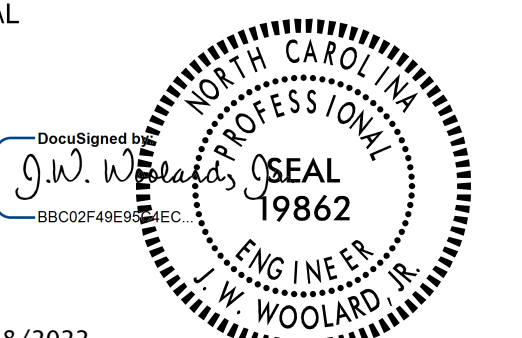

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| TIP NO. U-3609BA | SHEET NO. SIGN-4 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
|  | |
| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
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- PROJECT NOTES**
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
 - DISPOSAL OF SIGN SYSTEM, WOOD
 - DISPOSAL OF SIGN SYSTEM, STEEL BEAM
 - DISPOSAL OF SUPPORT, U-CHANNEL
 - DISPOSAL OF SUPPORT, WOOD
 - RELOCATE SIGN, TYPE D
 - SIGN ERECTION, TYPE D, E, AND F
 - SIGN ERECTION, RELOCATE SIGN TYPE D
 - SIGN ERECTION, RELOCATE SIGN TYPE E
 - SIGN ERECTION, RELOCATE SIGN TYPE F
 - SIGN ERECTION, RELOCATE SIGN MILEMARKERS



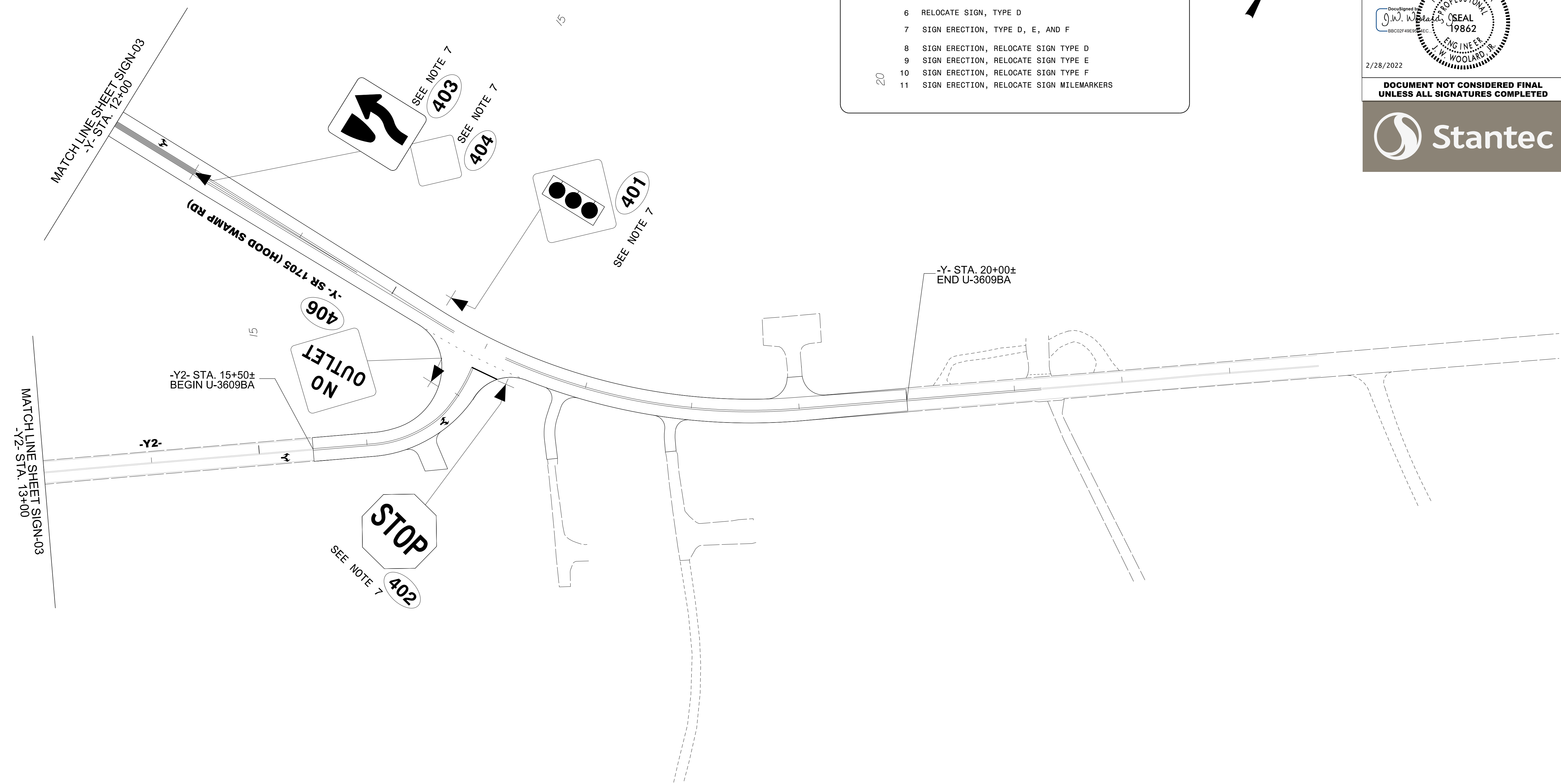
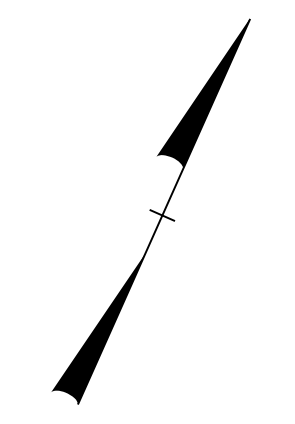
2/28/2022
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SIGNING PLAN SHEETS

| | |
|---|---------------------|
| TIP NO. U-3609BA | SHEET NO. SIGN-5 |
| APPROVED: _____ | |
| DATE: _____ | |
| SEAL | |
|  | |
| 2/28/2022 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
|  | |

PROJECT NOTES

- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2 DISPOSAL OF SIGN SYSTEM, WOOD
- 3 DISPOSAL OF SIGN SYSTEM, STEEL BEAM
- 4 DISPOSAL OF SUPPORT, U-CHANNEL
- 5 DISPOSAL OF SUPPORT, WOOD
- 6 RELOCATE SIGN, TYPE D
- 7 SIGN ERECTION, TYPE D, E, AND F
- 8 SIGN ERECTION, RELOCATE SIGN TYPE D
- 9 SIGN ERECTION, RELOCATE SIGN TYPE E
- 10 SIGN ERECTION, RELOCATE SIGN TYPE F
- 11 SIGN ERECTION, RELOCATE SIGN MILEMARKERS



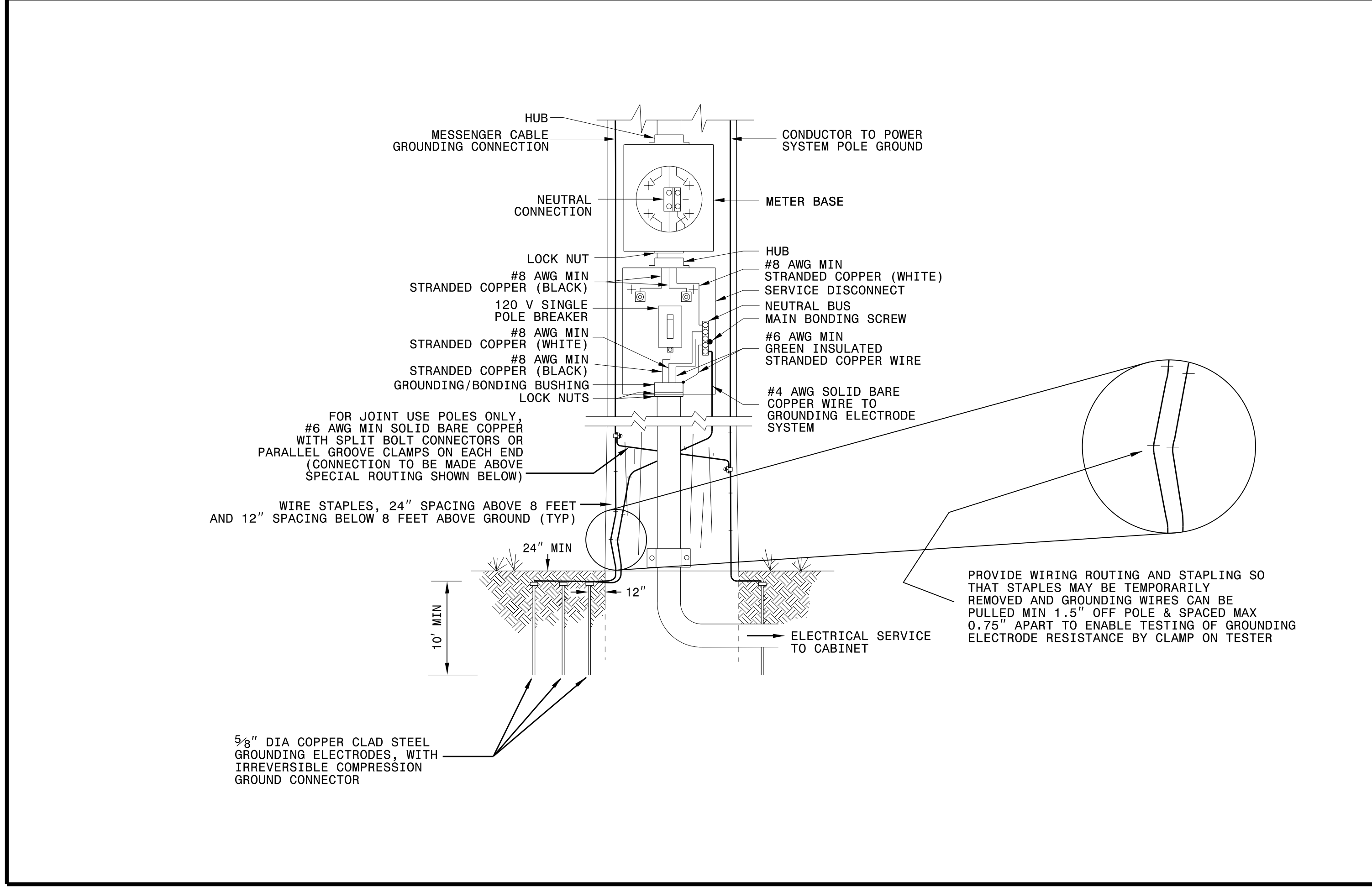
2/28/2022
 U:\Traffic\Signing\CADD\Signing\Plan Sheets\U-3609BA_sign_05.dgn
 angood

SIGNING PLAN SHEETS

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
ELECTRICAL SERVICE GROUNDING
GROUNDING AND BONDING

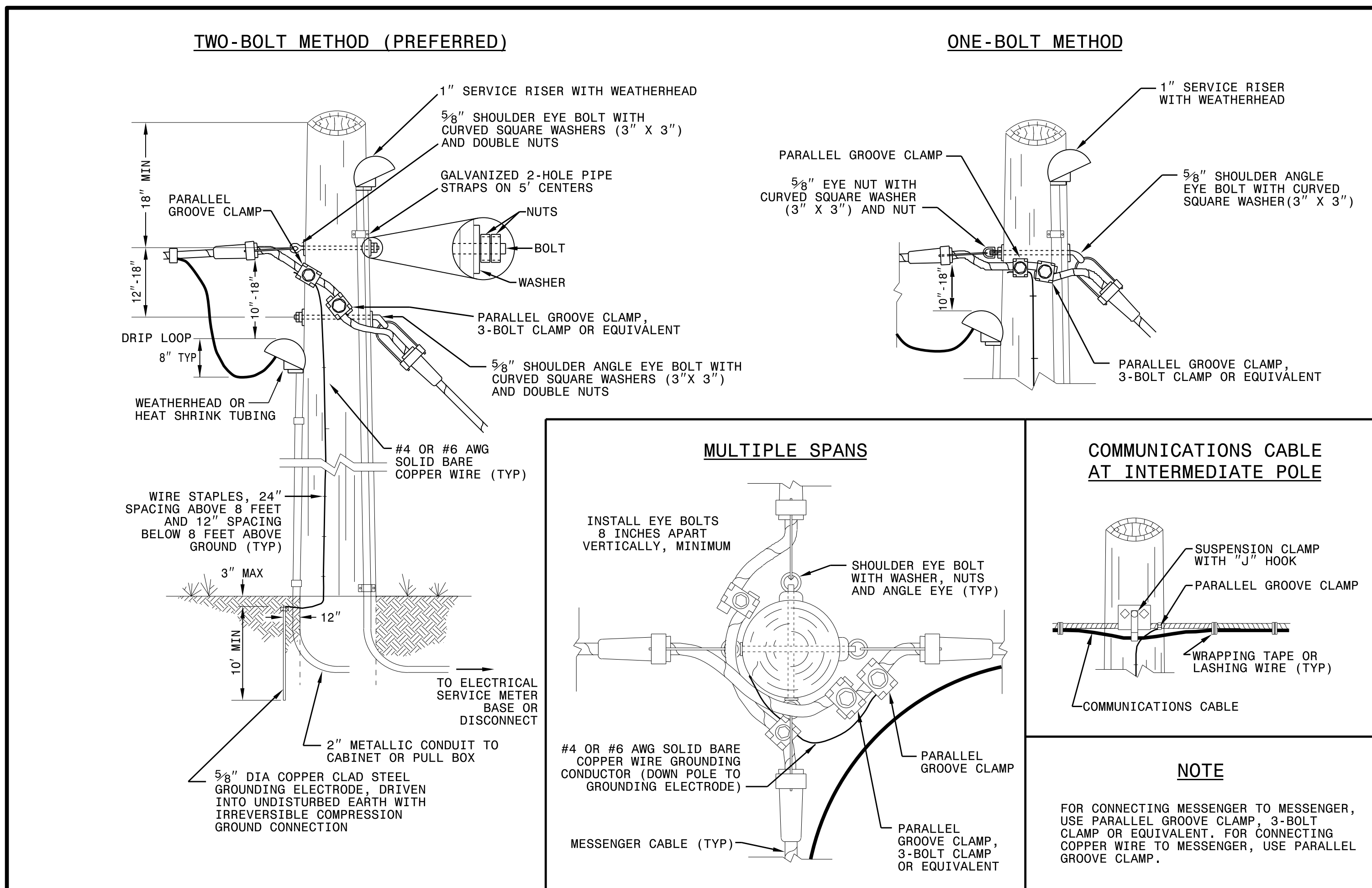
SHEET 1 OF 1
1700D01



1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

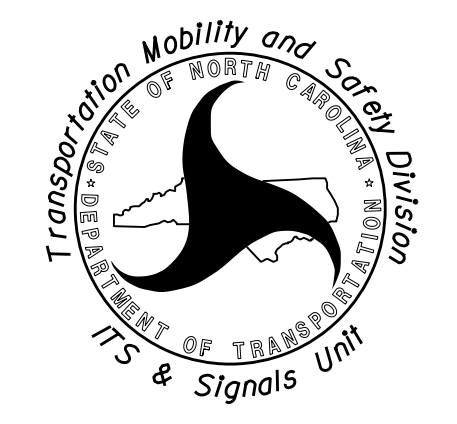
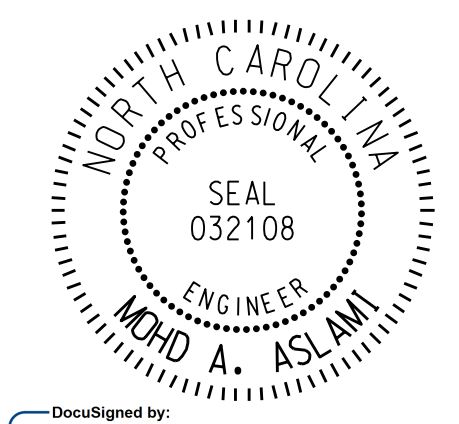
ENGLISH STANDARD DRAWING FOR
WOOD POLES
METHODS OF ATTACHMENT AND GROUNDING

SHEET 1 OF 1
1720D01



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

See Plate for Title

| | |
|--|---|
| Prepared in the Offices of:  | SEAL  |
| 750 N. Greenfield Parkway Garner, NC 27529 | DocuSigned by: <i>Mohd Aslami</i> 10/11/2017 DATE |

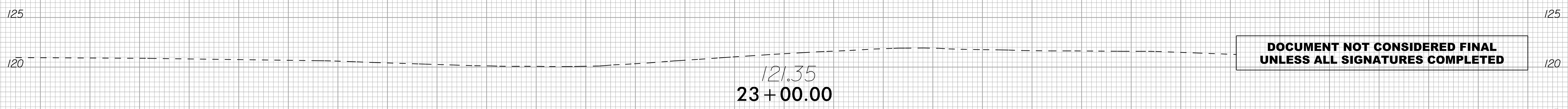
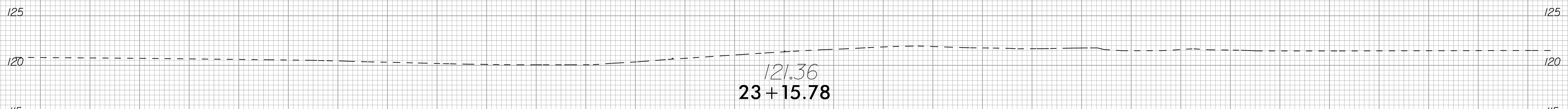
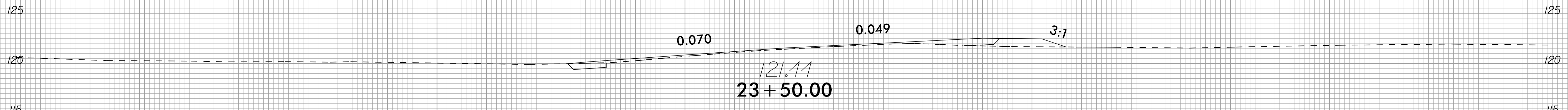
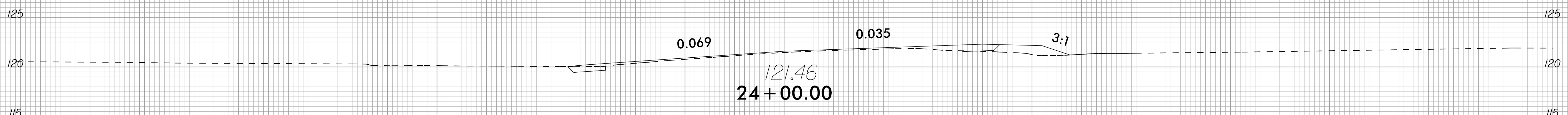
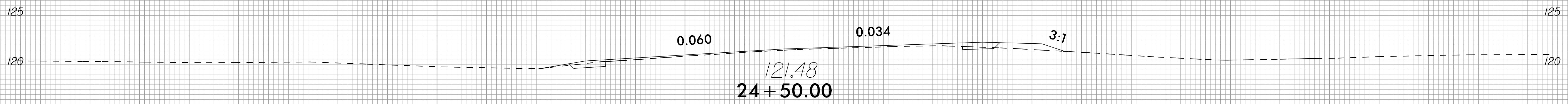
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6/23/16



| | |
|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| U-3609BA | X-1 |

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



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

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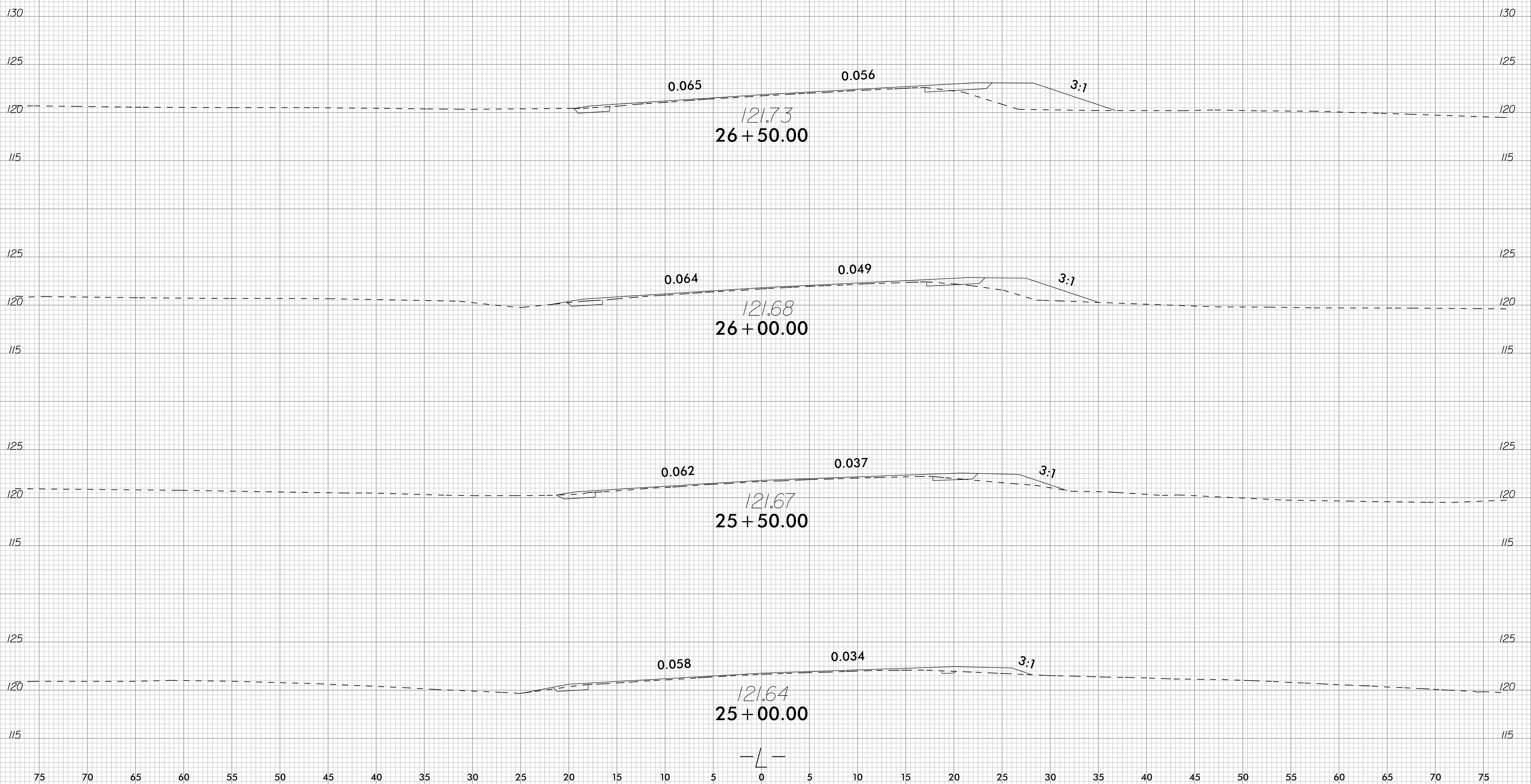
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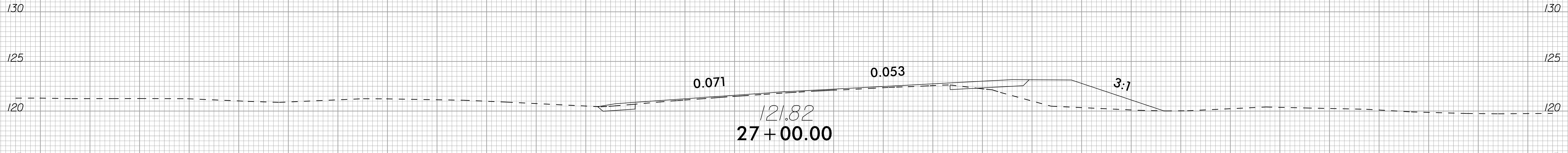
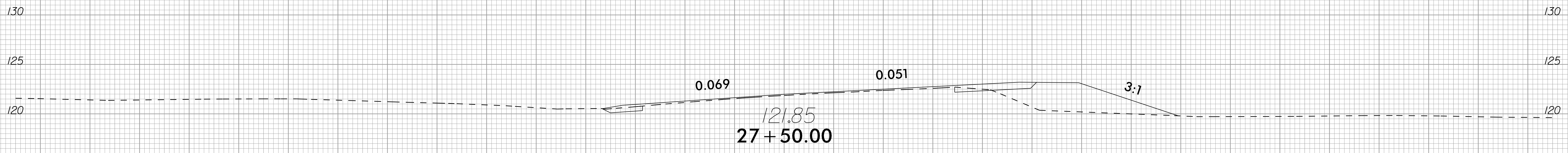
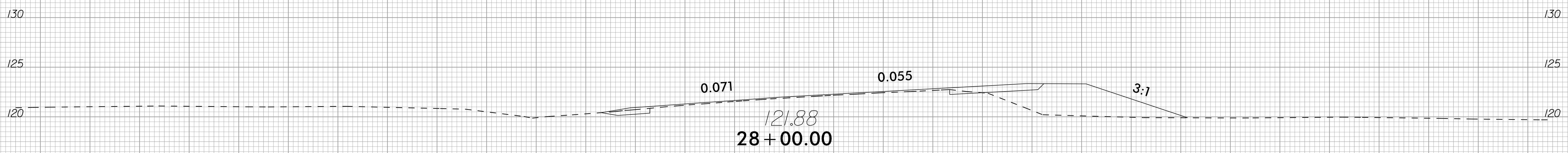
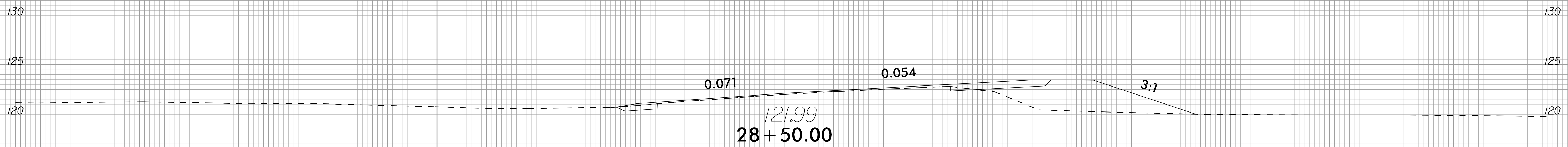
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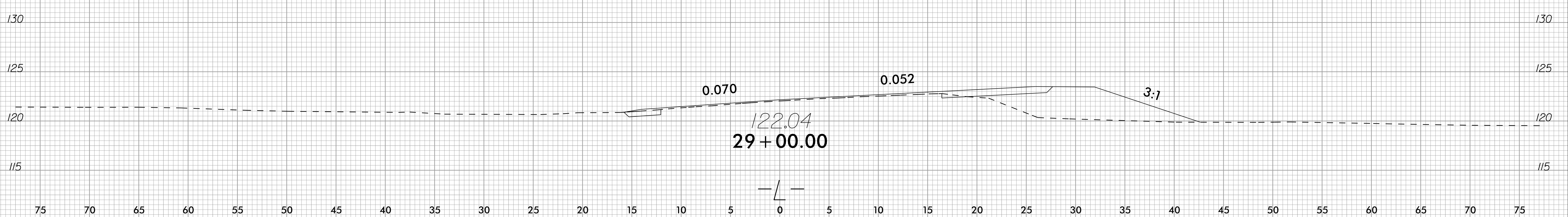
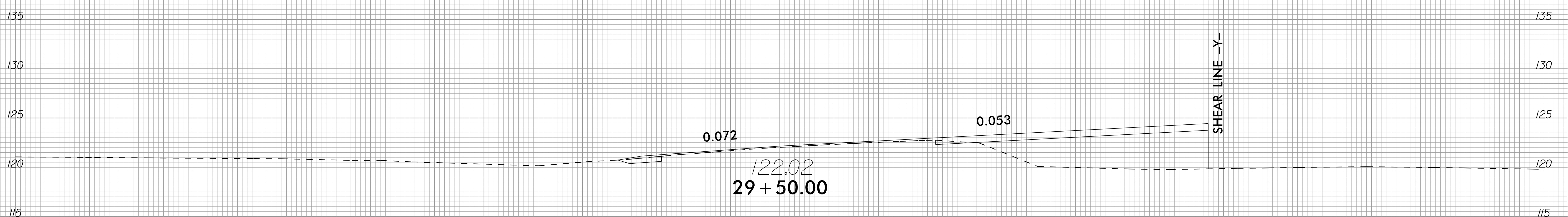
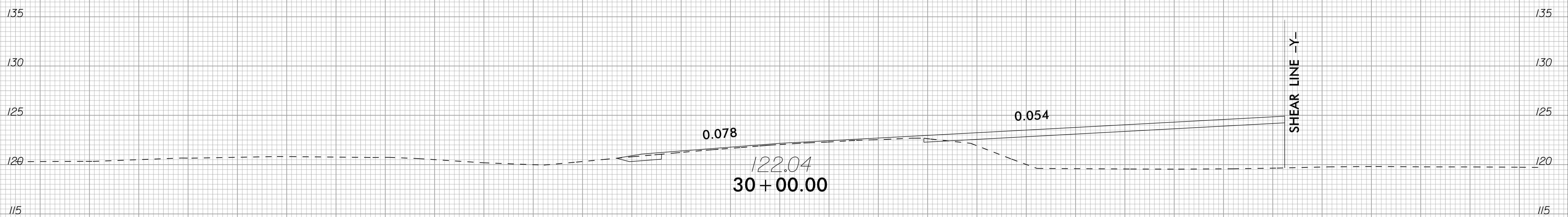
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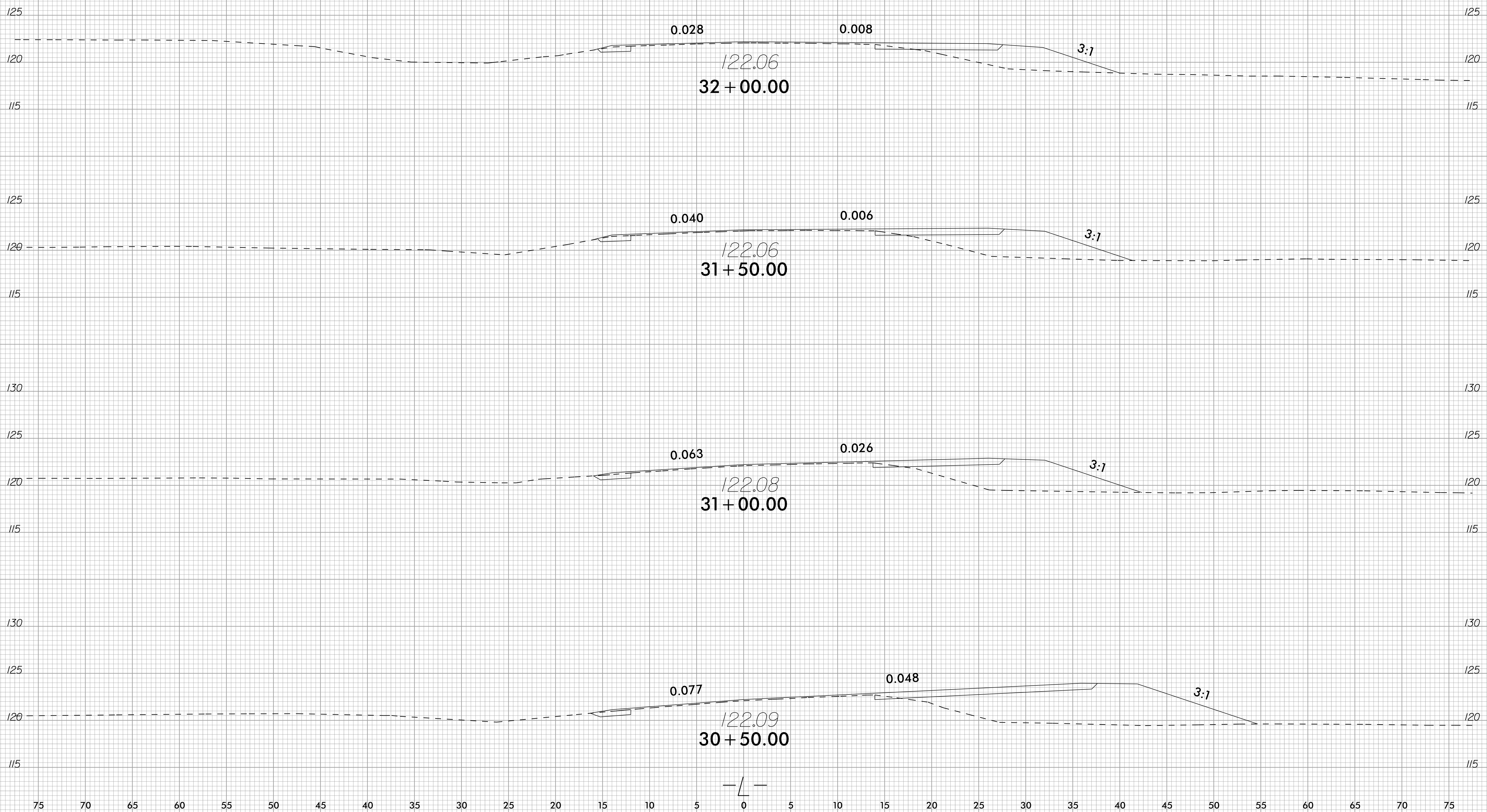
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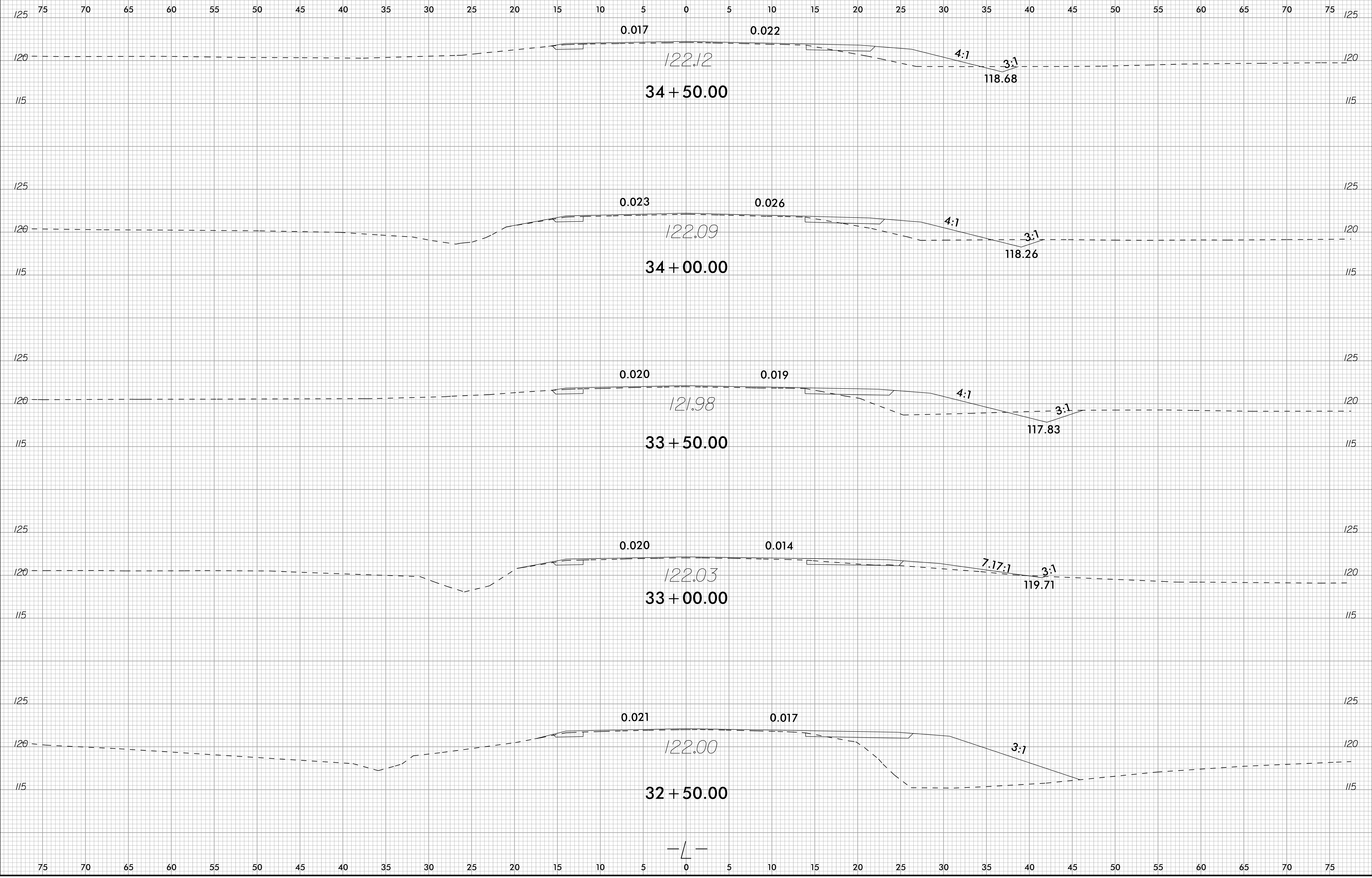
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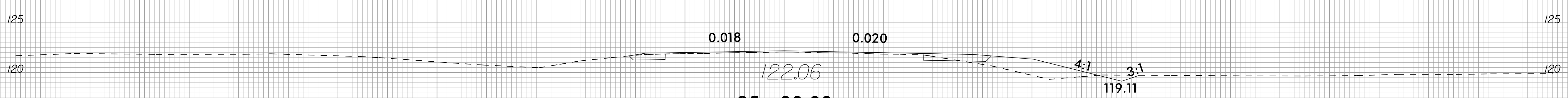
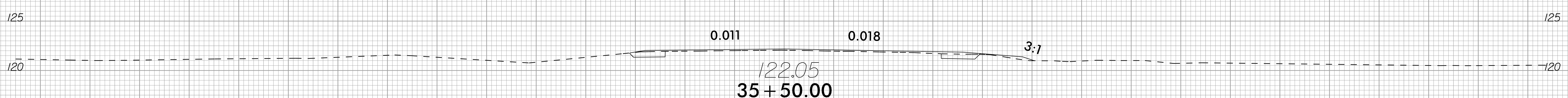
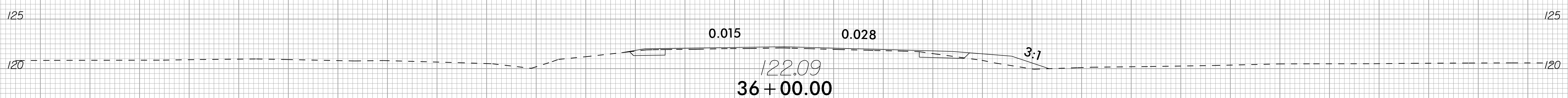
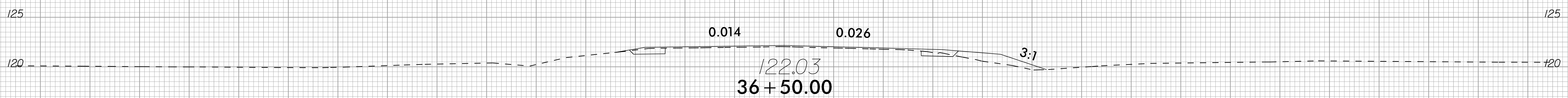
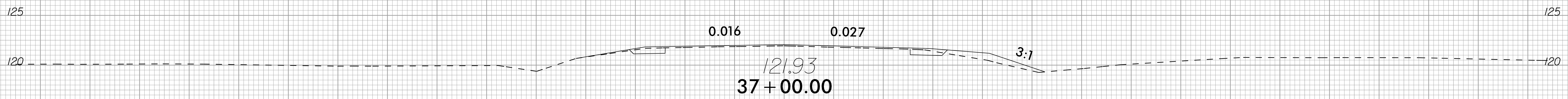
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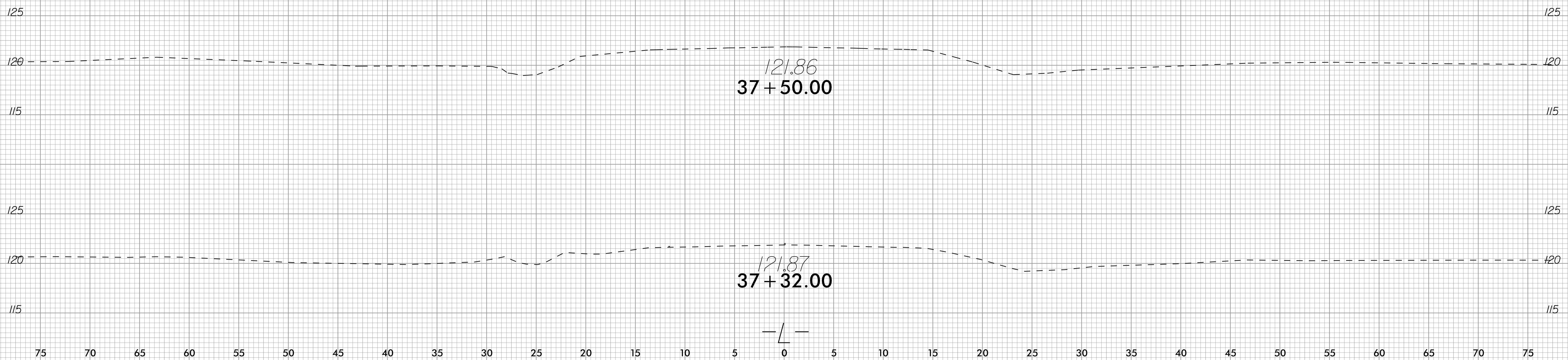
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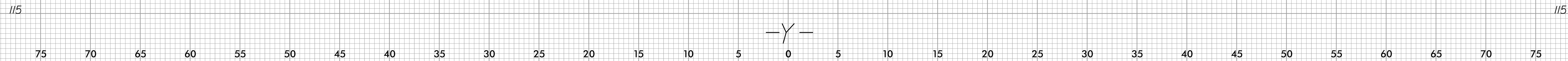
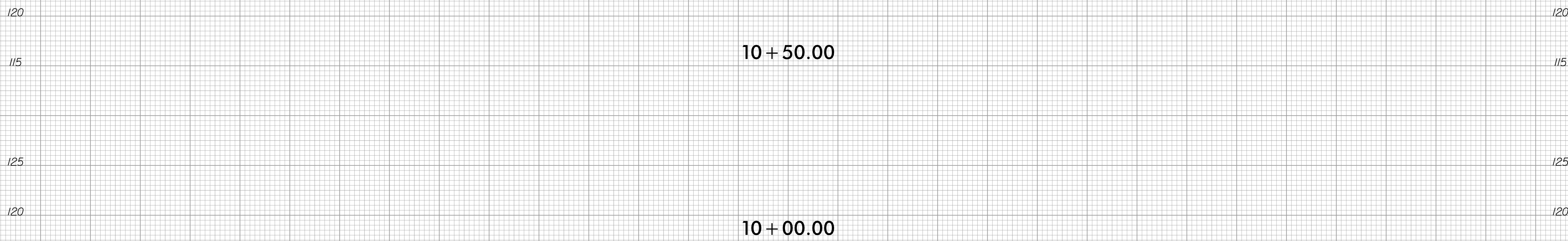
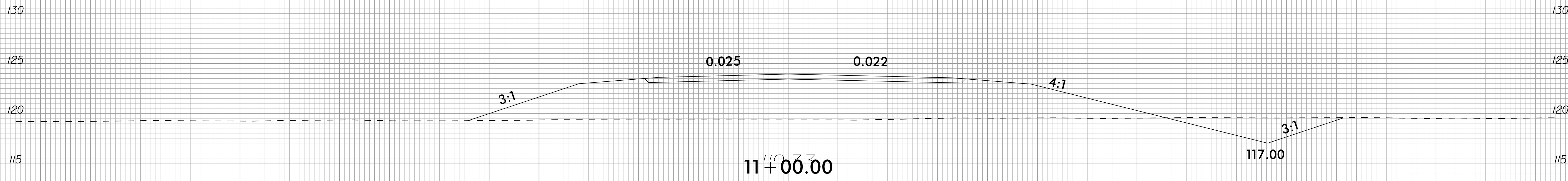
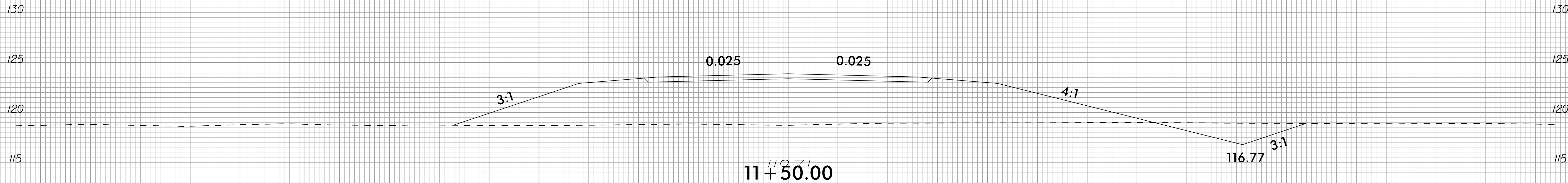


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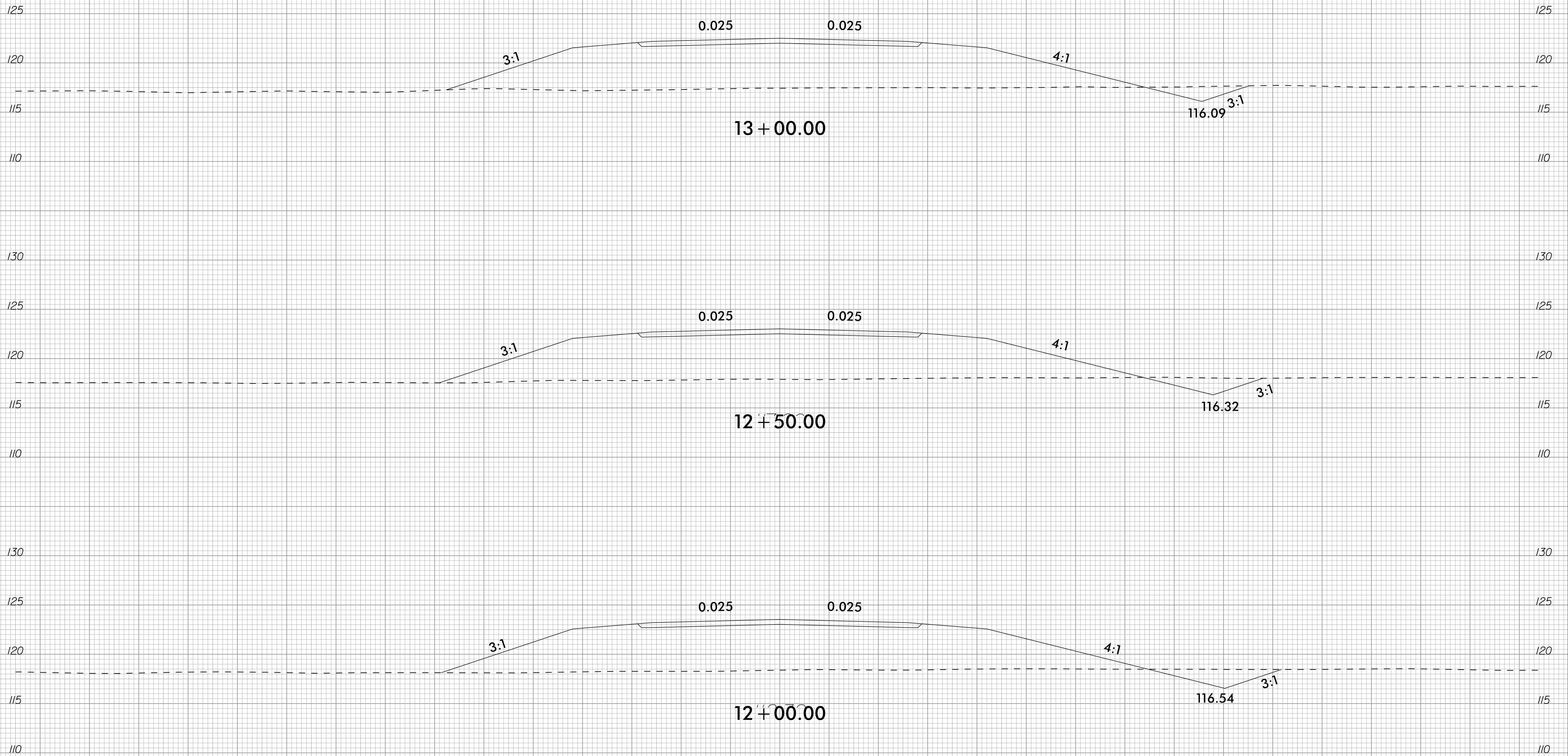


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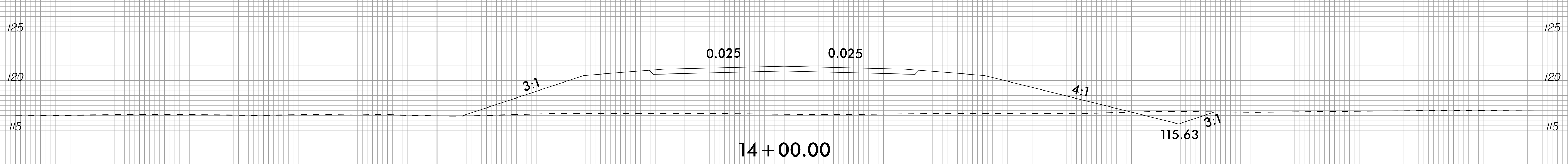
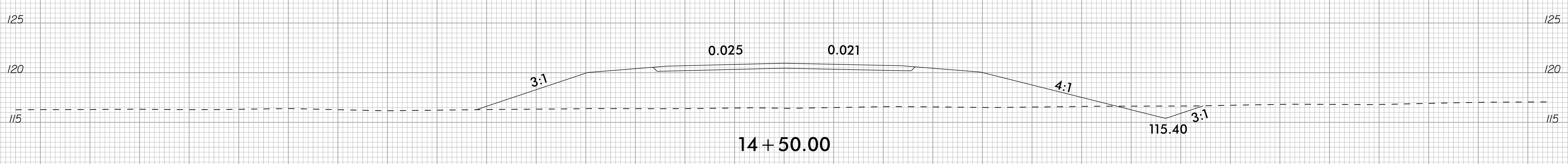
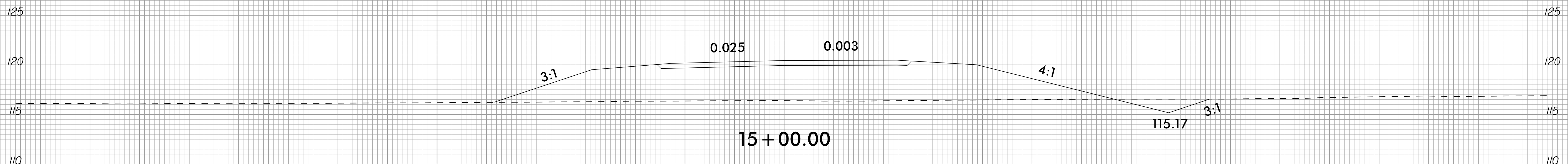


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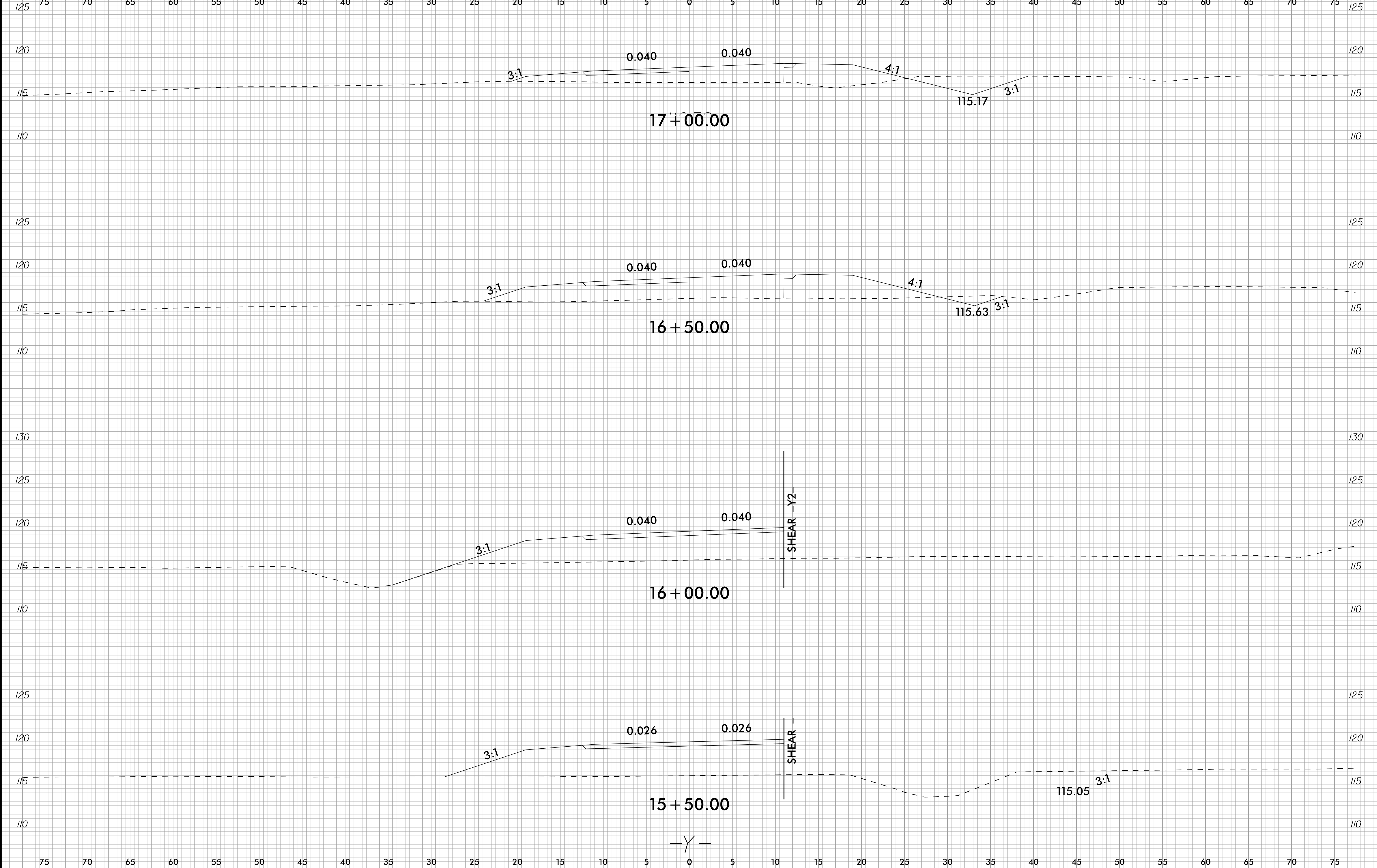
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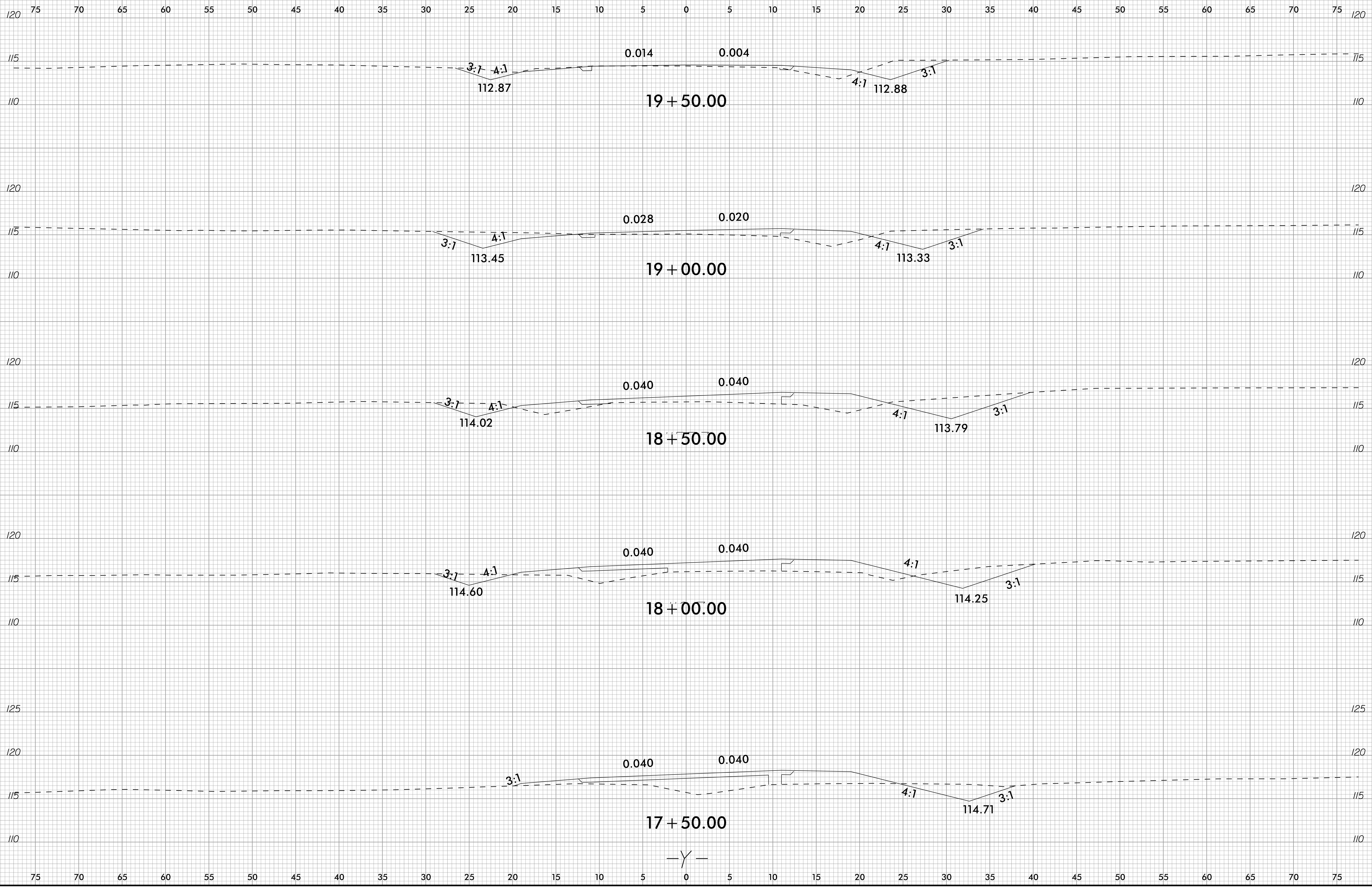


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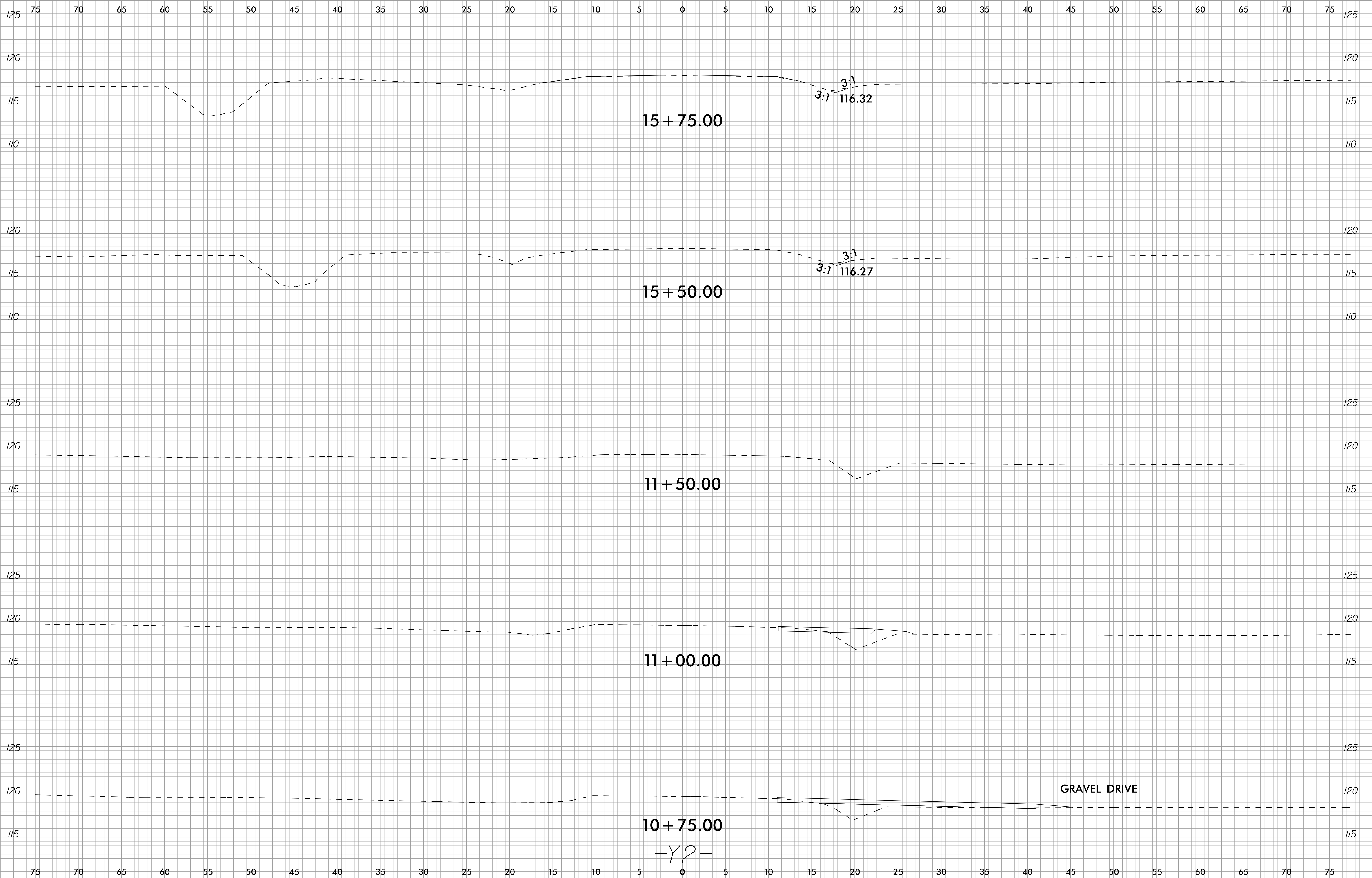
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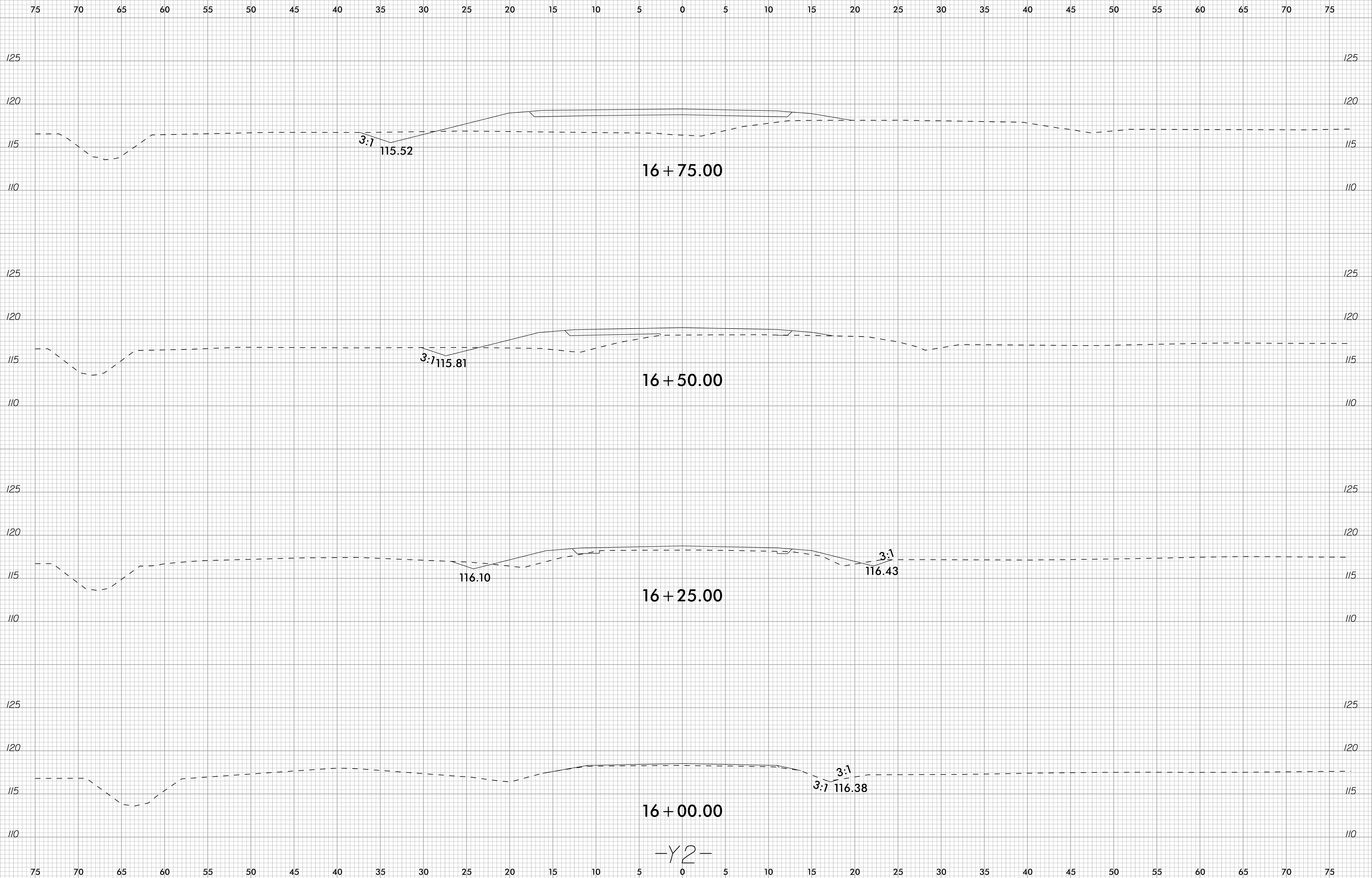
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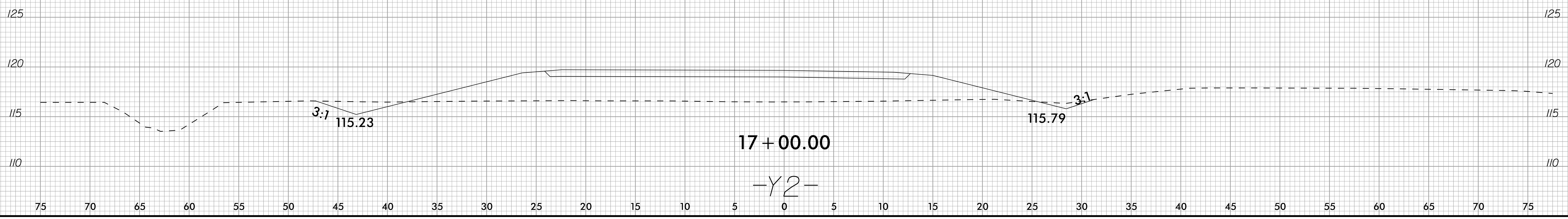
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