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09.08/2019

See Sheet 1A For Index of Sheets  
 See Sheet 1B For Conventional Symbols  
 See Sheet RW02C-1 - RW02C-3 For Survey Control Sheets

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

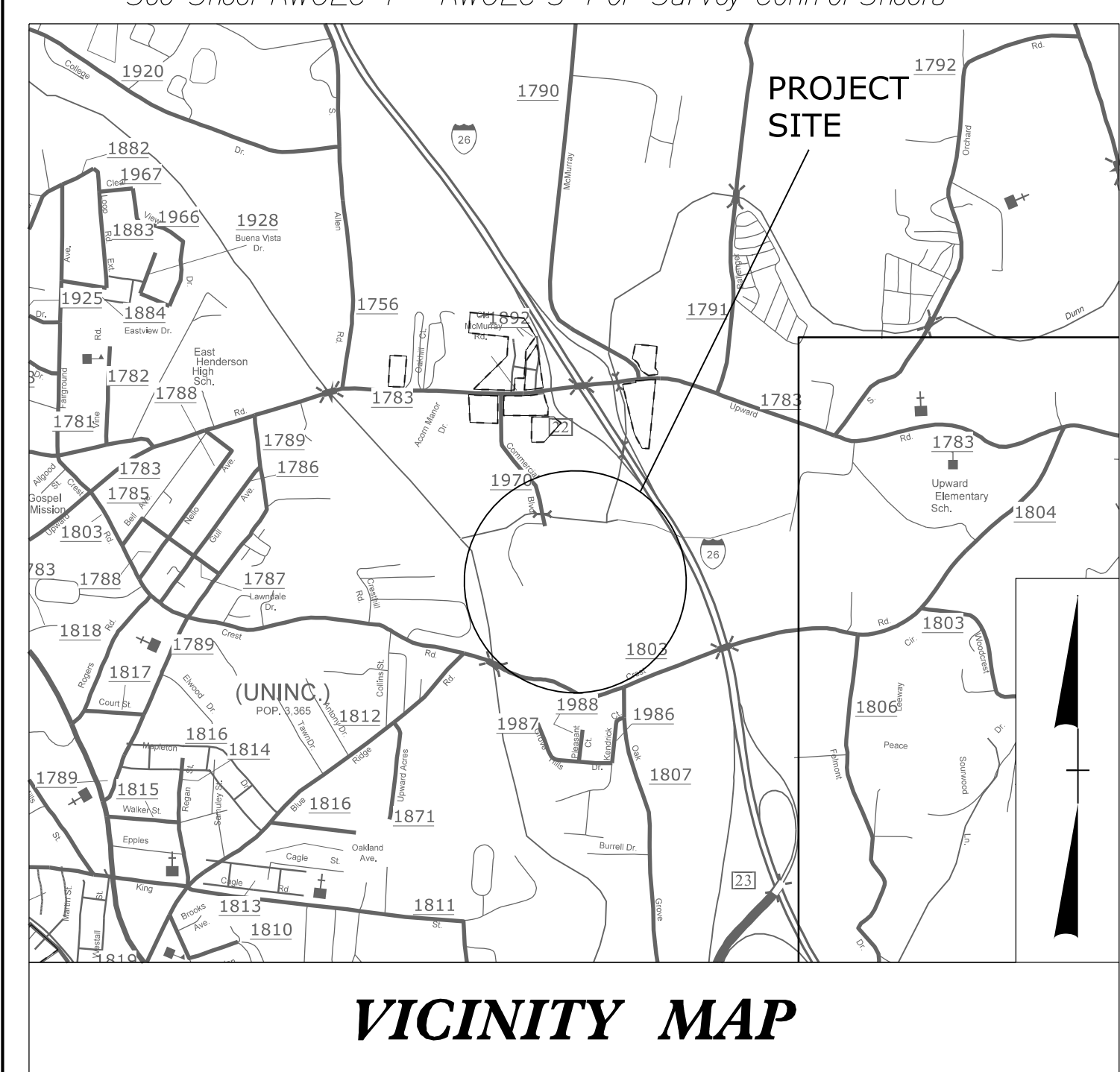
**HENDERSON COUNTY**

**LOCATION: EXTENSION OF SR 1970 (COMMERCIAL BOULEVARD)  
 TO SR 1803 (CREST ROAD)**

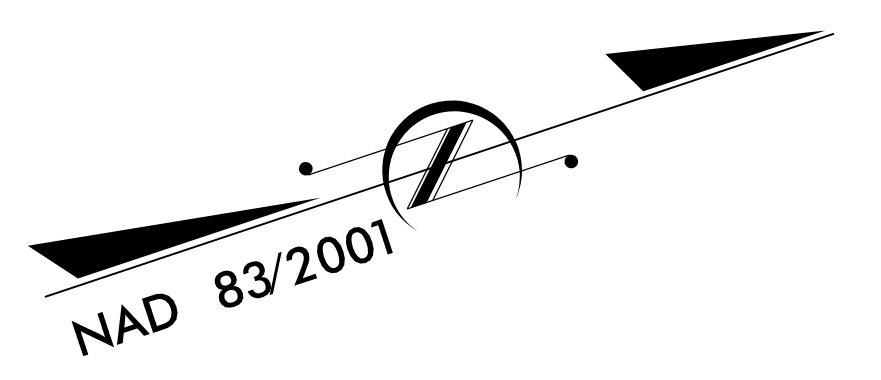
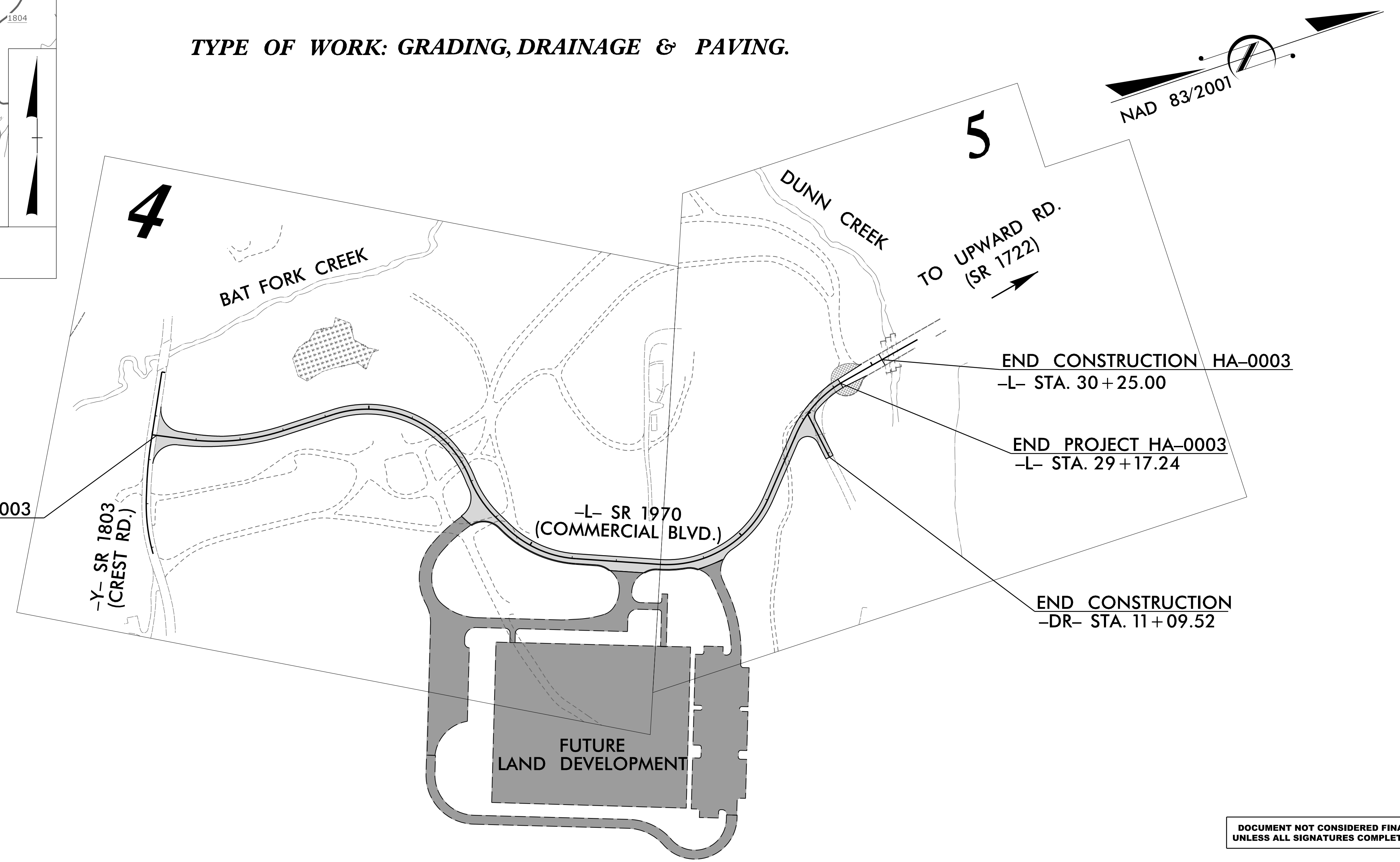
**TYPE OF WORK: GRADING, DRAINAGE & PAVING.**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HA-0003	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49760.1.1	1970002	PE	
49760.2.1	1970002	ROW	
49760.2.2	1970002	UTILITY	
49760.3.1	1970002	CONST	

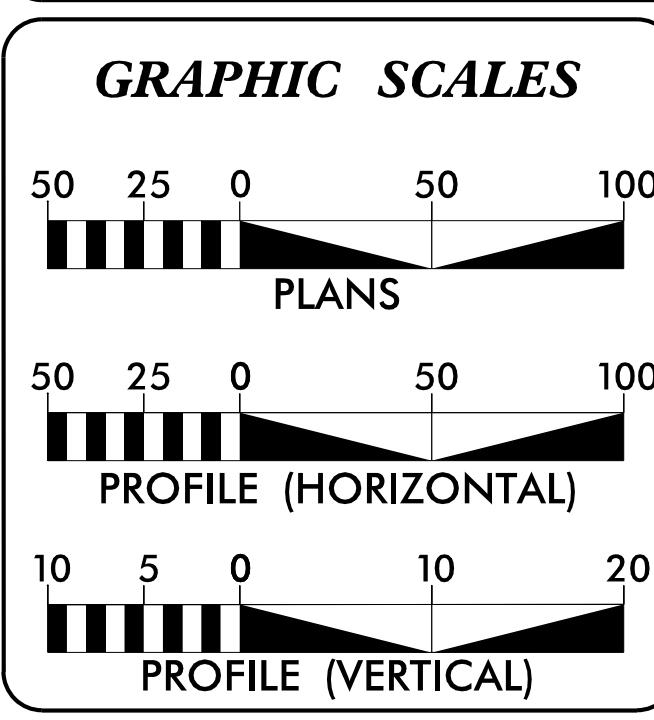
**TIP PROJECT: HA-0003**



**VICINITY MAP**



**CONTRACT: DN00752**



**DESIGN DATA**

ADT 2021 = N/A

K =	%
D =	%
T =	% *
V =	30 MPH
* TTST =	DUAL
FUNC CLASS =	LOCAL
STATEWIDE TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT HA-003 = 0.361 MILES

TOTAL LENGTH TIP PROJECT HA-003 = 0.361 MILES

**NCDOT CONTACT:** BARRY MOSTELLER  
DESIGN CONSTRUCTION ENGINEER, DIVISION 14

Prepared in the Office of:

320 Executive Ct.  
 Hillsborough, NC 27278-8551  
 Voice: (919) 732-3883  
 Fax: (919) 732-6776  
 www.summitde.net

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:** APRIL 21, 2021

**LETTING DATE:** AUGUST 10, 2021

**JAMES A. SPEER, PE**  
PROJECT ENGINEER

**JEFFREY P. MUHLBAUER, PE**  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

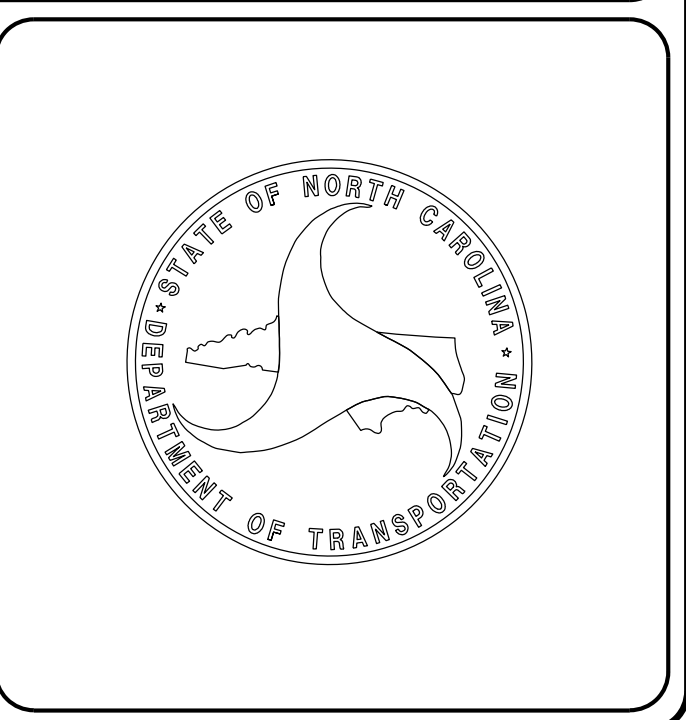
6/28/2021

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**ROADWAY DESIGN ENGINEER**

6/28/2021

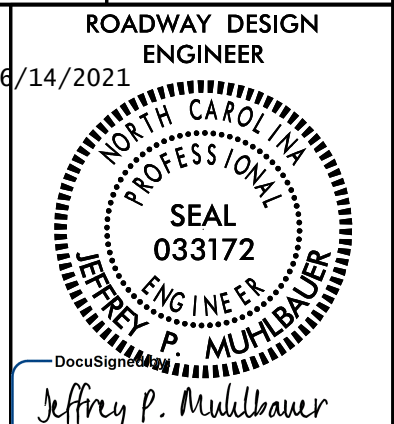
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8/17/19



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Prepared in the Office of:  NC FIRM LICENSE No. P-0339  
420 Executive Ct.  
Hillsborough, NC 27278  
(919) 732-3883  
(919) 732-6676 (FAX)

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
RW02C-1 - RW02C-3	SURVEY CONTROL SHEETS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2D-1	DRAINAGE DITCH DETAILS
3B-1	ROADWAY & DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4 AND 5	PLAN SHEETS
6	PROFILE SHEET
TMP-1 THRU TMP-1B	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
UBD-1 THRU UBD-3	UTILITIES BY OTHERS PLANS
X-1 THRU X-14	CROSS-SECTIONS

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

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

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

**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 DRAINS:**  
SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

**STREET TURNOUT:**  
STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

**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 AT&T, DUKE ENERGY, DOMINION ENERGY (NG), MORRIS BROADBAND, CITY OF HENDERSONVILLE (WATER & SEWER)  
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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

EFF. 01-16-2018  
REV.

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	
200.02	Method of Clearing - Method II
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 Intersections
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 8 - INCIDENTALS	
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
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.22	Frames and Wide Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.45	Precast Drainage Structure
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
848.04	Street Turnout
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

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# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

## CONVENTIONAL PLAN SHEET SYMBOLS

12/2/2016

### 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	☠ ?

### 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	--- FLOW ---
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	○ R W
New Right of Way Line with Pin and Cap	○ R W ◆
New Right of Way Line with Concrete or Granite R/W Marker	○ R W ◆
New Control of Access Line with Concrete C/A Marker	○ C/A
Existing Control of Access	○ C/A
New Control of Access	○ C/A
Existing Easement Line	--- E ---
New Temporary Construction Easement	--- E ---
New Temporary Drainage Easement	--- TDE ---
New Permanent Drainage Easement	--- PDE ---
New Permanent Drainage / Utility Easement	--- DUE ---
New Permanent Utility Easement	--- PUE ---
New Temporary Utility Easement	--- TUE ---
New Aerial Utility Easement	--- AUE ---

### ROADS AND RELATED FEATURES:

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

### VEGETATION:

Single Tree	○
Single Shrub	○

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

Hedge	-----
Woods Line	-----
Orchard	○
Vineyard	□ Vineyard

### EXISTING STRUCTURES:

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

### UTILITIES:

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

### TELEPHONE:

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

### WATER:

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

### TV:

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

### GAS:

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

### SANITARY SEWER:

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



### MISCELLANEOUS:

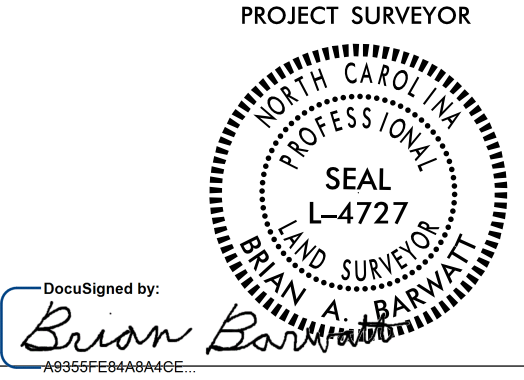
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line LOS B (S.U.E.*)	--- 7UTL ---
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	--- UST ---
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	○
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

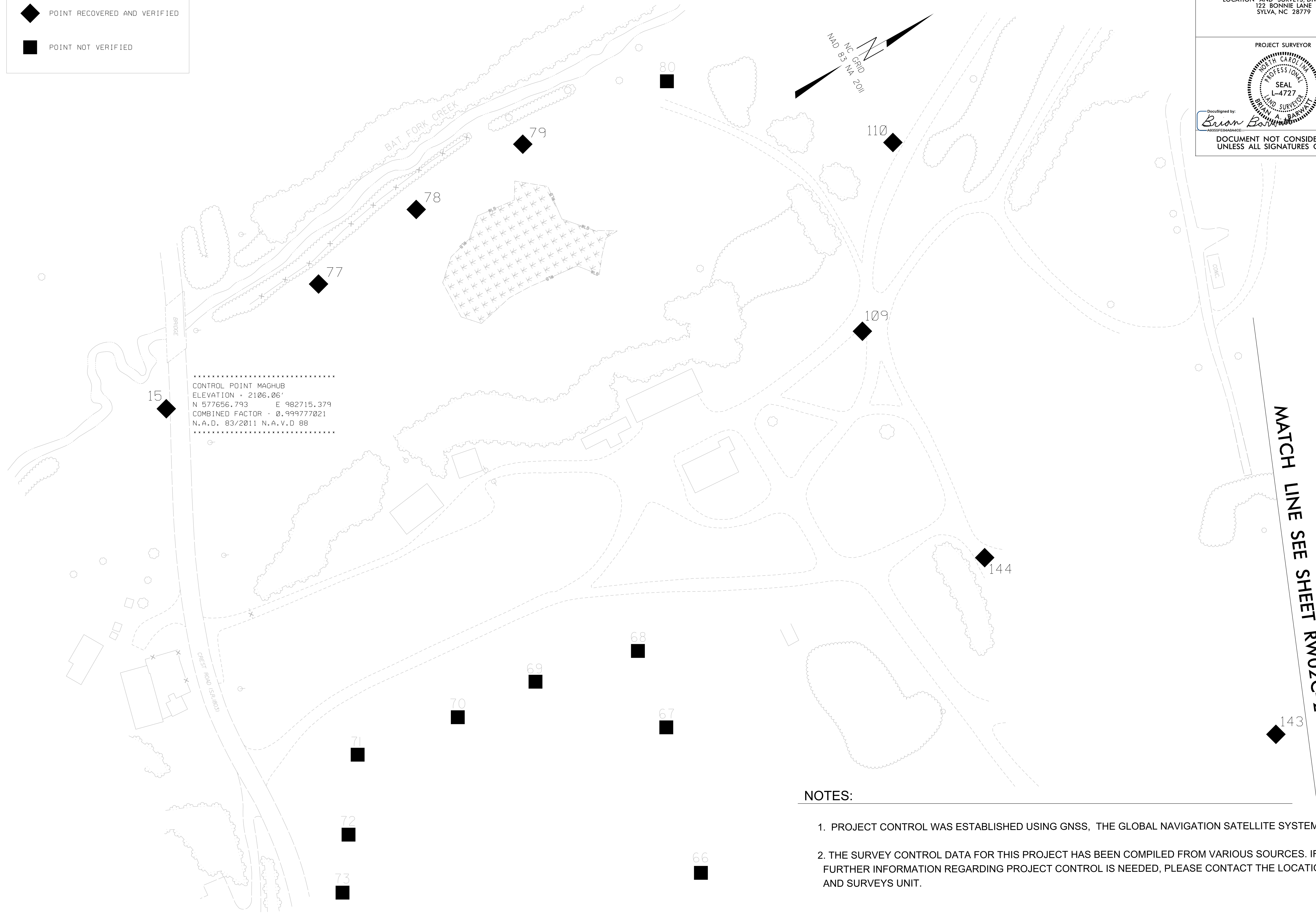


# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

	POINT RECOVERED AND VERIFIED
	POINT NOT VERIFIED

PROJECT REFERENCE NO. 49602	SHEET NO. RW02C-1
<b>Location and Surveys</b>	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR	
	
4/27/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	




CONTROL POINT MAGHUB  
 ELEVATION = 2106.06'  
 N 577656.793    E 982715.379  
 COMBINED FACTOR = 0.999777021  
 N.A.D. 83/2011 N.A.V.D 88

REVISIONS

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### 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.

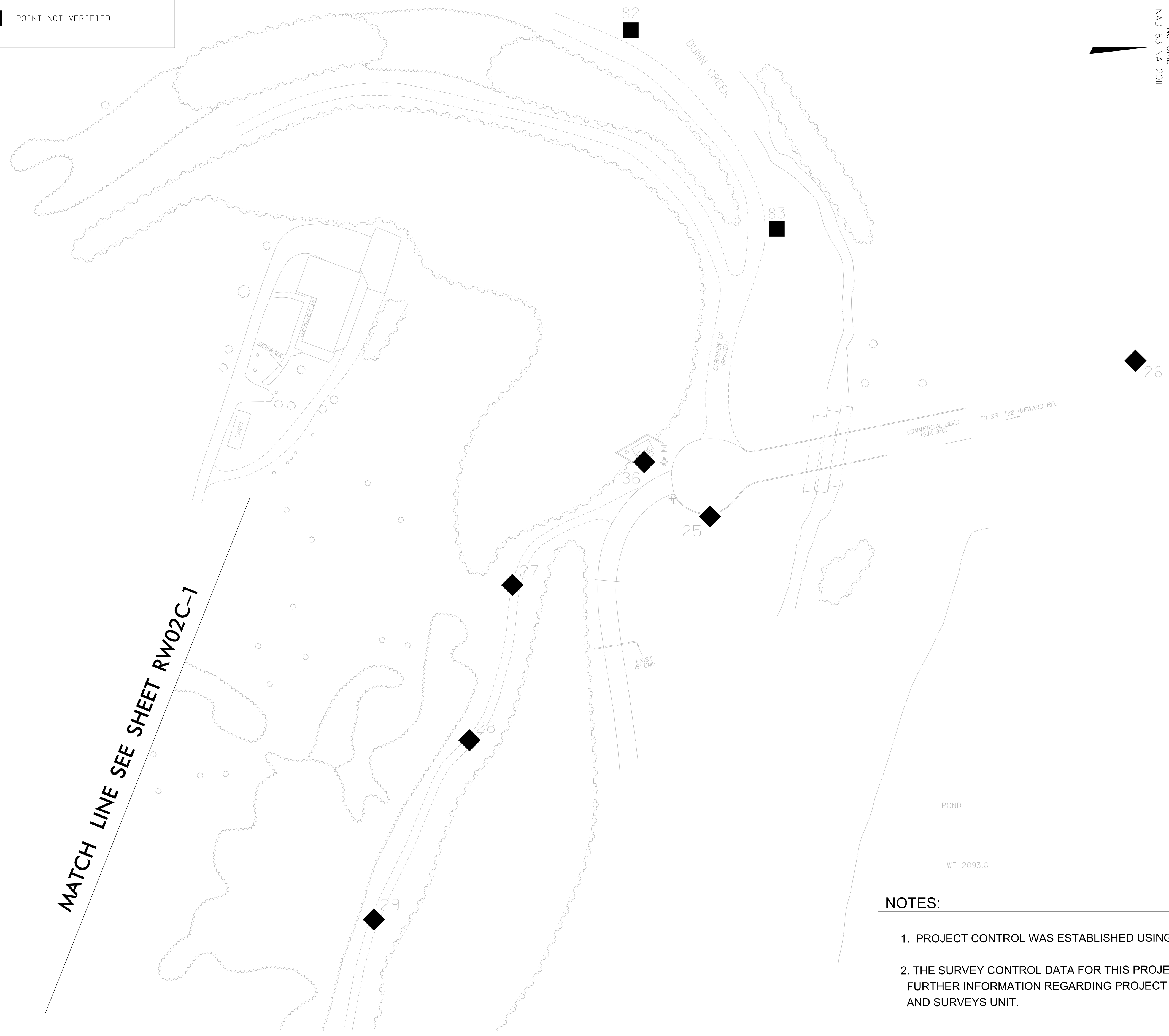
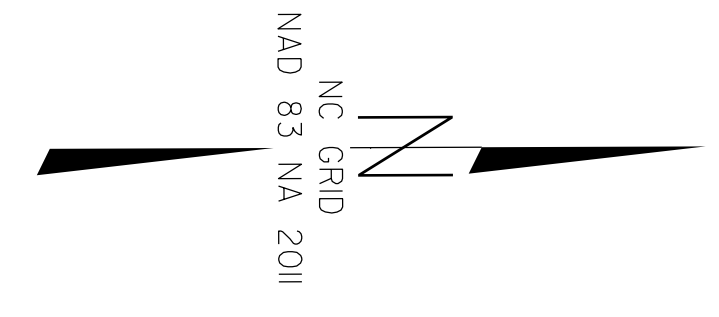
PROJECT REFERENCE NO. 49602	SHEET NO. RW02C-2
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LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR 	
DocuSigned by: <i>Brian Barwick</i> 4/27/2021	
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# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

◆ POINT RECOVERED AND VERIFIED

■ POINT NOT VERIFIED



MATCH LINE SEE SHEET RW02C-1

### NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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# SURVEY CONTROL SHEET

**W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION**

PROJECT REFERENCE NO. 49602	SHEET NO. RW02C-3
<b>Location and Surveys</b>	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR	
	
DocuSigned by: <i>Brian Barwalt</i>	4/27/2021
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POINTS RECOVERED AND VERIFIED

POINT	DESC.	NORTH	EAST	ELEVATION
15	MAG HUB FOUND	577656.3678	982715.2982	2104.06
25	MAG HUB FOUND	579155.0634	983222.2293	2107.30
26	MAG HUB FOUND	579557.9824	983076.4137	2108.75
27	MAG HUB FOUND	578968.0471	983286.3126	2114.19
28	MAG HUB FOUND	578927.0232	983432.9666	2123.12
29	MAG HUB FOUND	578835.9828	983602.0341	2128.32
30	MAG HUB FOUND	578785.7953	983820.1299	2125.82
31	MAG HUB FOUND	578755.4404	983991.3685	2131.76
36	MAG HUB FOUND	579093.0819	983170.4646	2108.77
77	MAG HUB FOUND	577864.7259	982678.8524	2102.45
78	MAG HUB FOUND	577995.2736	982660.5177	2101.54
79	MAG HUB FOUND	578129.2247	982655.5529	2100.13
103	MAG HUB FOUND	578618.8880	983974.6910	2130.92
109	MAG HUB FOUND	578348.3722	983009.0533	2122.96
110	MAG HUB FOUND	578476.1690	982848.6177	2114.96
143	MAG HUB FOUND	578523.0000	983603.3432	2131.02
144	MAG HUB FOUND	578343.6297	983285.0175	2136.17

POINTS NOT VERIFIED

POINT	DESC.	NORTH	EAST	ELEVATION
66	UNKNOWN	577912.6095	983430.4511	2186.56
67	UNKNOWN	577956.7456	983276.2199	2184.33
68	UNKNOWN	577970.4048	983189.8755	2175.00
69	UNKNOWN	577858.4738	983164.7480	2170.69
70	UNKNOWN	577767.1344	983157.0974	2175.62
71	UNKNOWN	577653.8167	983139.4495	2168.42
72	UNKNOWN	577603.2407	983209.3940	2158.65
73	UNKNOWN	577567.1377	983260.4490	2155.96
80	UNKNOWN	578297.1234	982672.5574	2098.88
82	UNKNOWN	579082.0193	982762.2634	2096.52
83	UNKNOWN	579219.3614	982950.5107	2100.60

**NOTES:**

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

REVISIONS






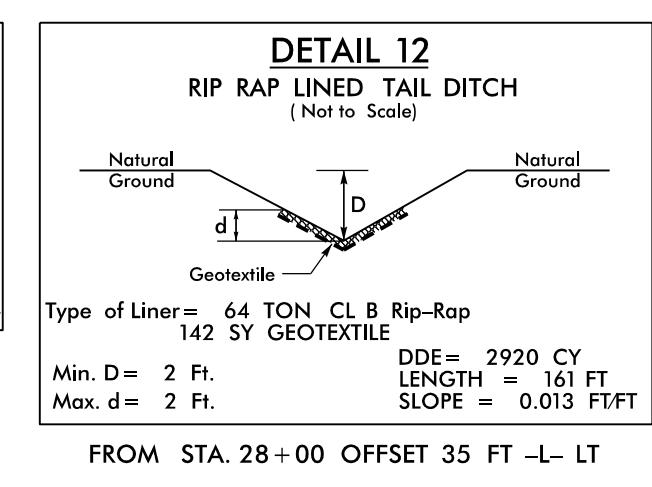
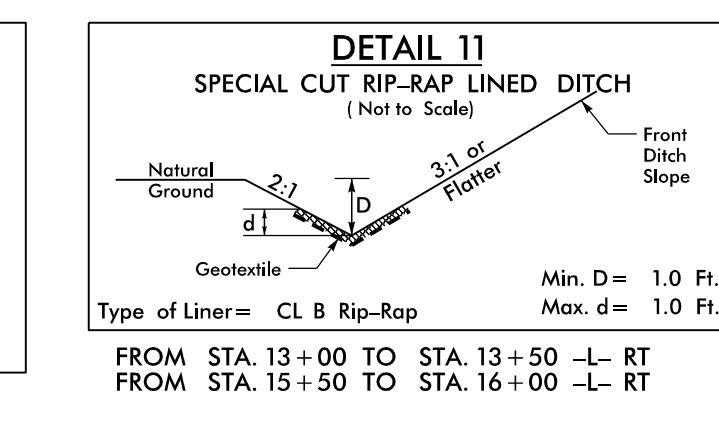
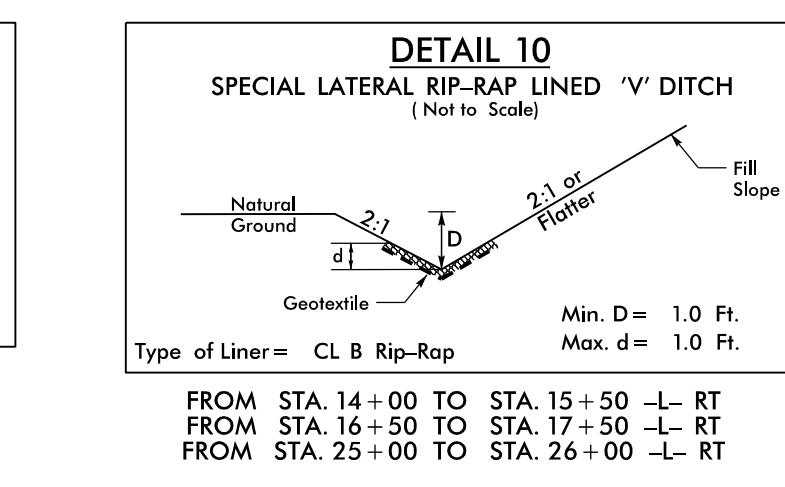
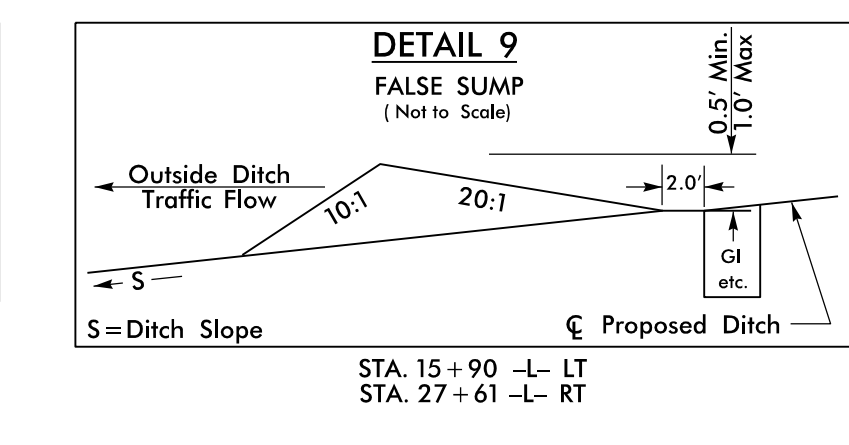
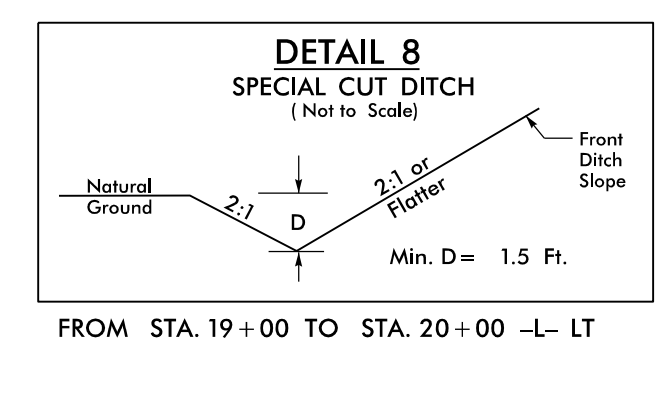
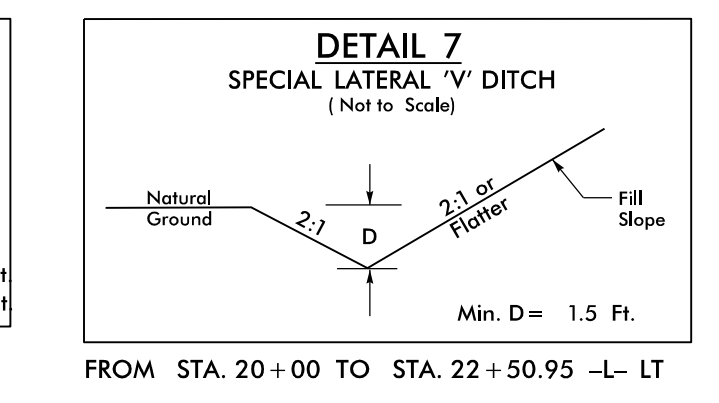
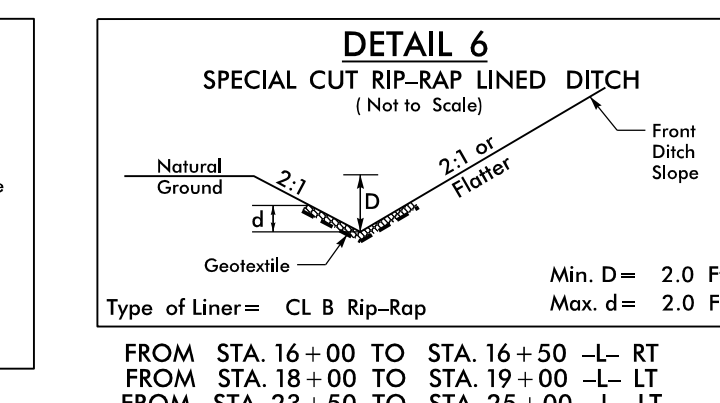
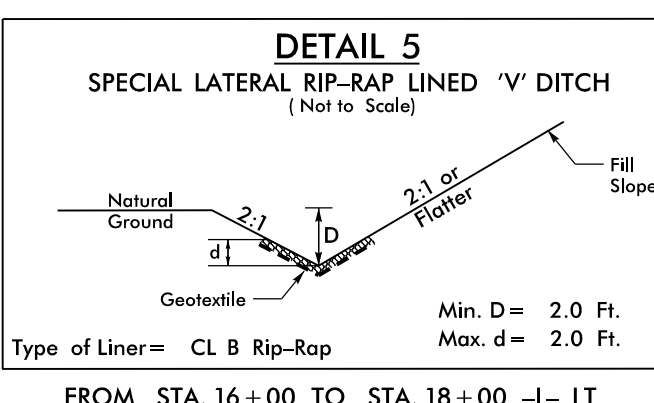
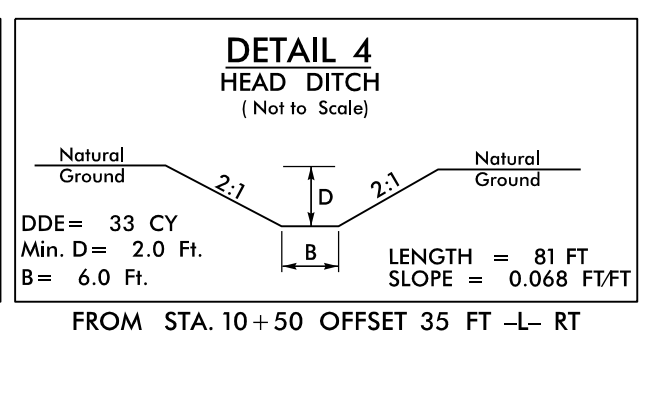
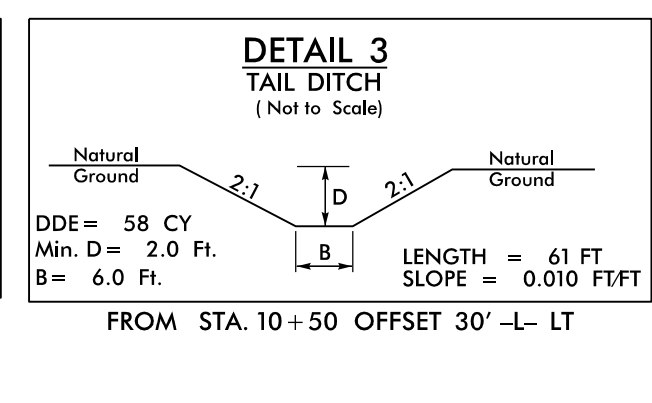
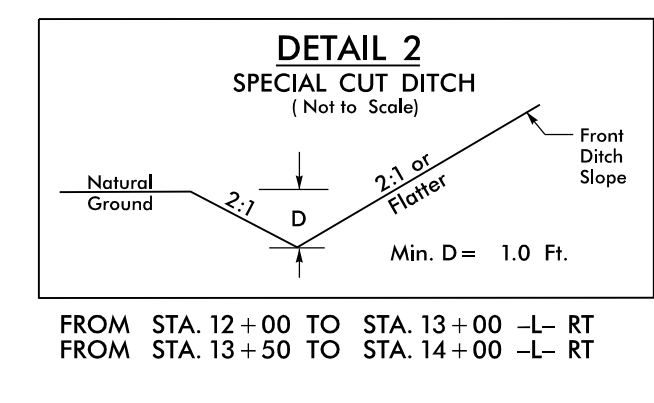
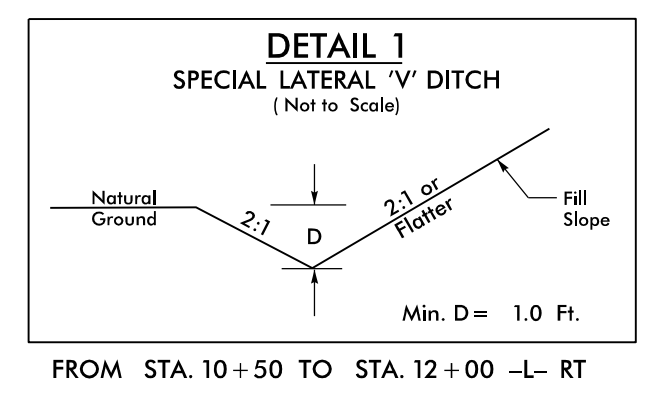
5/28/99

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS DRAINAGE DITCH DETAILS

PROJECT REFERENCE NO. 49602	SHEET NO. 20-1
HYDRAULICS ENGINEER 5/12/2021 NORTH CAROLINA PROFESSIONAL SEAL 046226 JASON M. PATSKOSKI ENGINEER	

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

Prepared in the Office of:  NC FIRM LICENSE No. P-0339  
504 Meadowslands Dr. Lenoir, NC 27218  
(919) 732-3883 • (919) 732-6676 (FAX)



12-MAY-2021 11:09  
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COMPUTED BY: DMM DATE: 4/22/2021  
 CHECKED BY: JCK DATE: 4/22/2021

(12-17-19)

PROJECT NO.	SHEET NO.
49602	3G-1

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

**SUMMARY OF SUBSURFACE DRAINAGE**

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
			CONTINGENCY	SD	200
				TOTAL LF:	200

\*UD = Underdrain  
 \*BD = Blind Drain  
 \*SD = Subsurface Drain

**SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION**

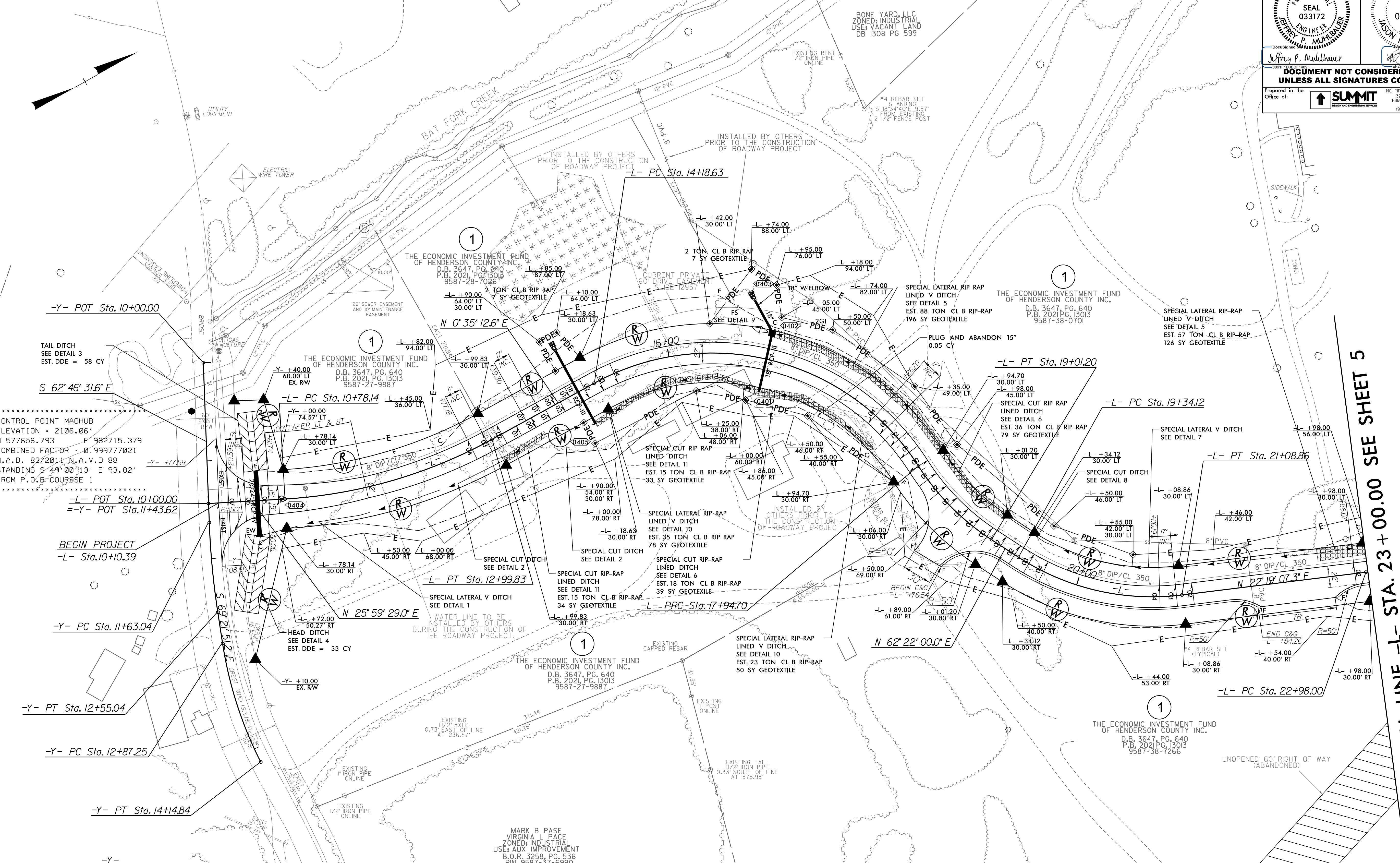
LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
			CONTINGENCY	ASU 1	12	100	200	300	
				TOTAL CY/TONS/SY:		100	200**	300**	0

\*ASU(1/2) = Aggregate Subgrade (Type 1 or 2)  
 \*AST = Aggregate Stabilization  
 \*\*Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Soil Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.



PROJECT REFERENCE NO. 49602	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 6/17/2021	HYDRAULICS ENGINEER 6/17/2021
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	 <small>NC FIRM LICENSE NO: P-0339 300 Executive Ct. Hillsborough, NC 27278 (919) 732-3883 (919) 732-6676 (FAX)</small>

PI Sta 11+90.84 $\Delta = 25' 24' 16.4"$ (LT) $D = 11' 27' 33.0"$ $L = 221.70'$ $T = 112.70'$ $R = 500.00'$	PI Sta 16+52.53 $\Delta = 86' 11' 18.1"$ (RT) $D = 22' 55' 05.9"$ $L = 376.07'$ $T = 233.90'$ $R = 250.00'$	PI Sta 18+48.77 $\Delta = 24' 24' 30.7"$ (LT) $D = 22' 55' 05.9"$ $L = 106.50'$ $T = 54.07'$ $R = 250.00'$	PI Sta 20+25.23 $\Delta = 40' 02' 52.7"$ (LT) $D = 22' 55' 05.9"$ $L = 174.74'$ $T = 91.11'$ $R = 250.00'$
--	--	---	---



PI Sta 12+09.09 $\Delta = 6' 35' 19.6"$ (LT) $D = 7' 09' 43.1"$ $L = 92.00'$ $T = 46.05'$ $R = 800.00'$	PI Sta 13+51.59 $\Delta = 18' 16' 35.9"$ (LT) $D = 14' 19' 26.2"$ $L = 127.59'$ $T = 64.34'$ $R = 400.00'$
--	---

MARK B PACE  
 VIRGINIA LICENSE  
 ZONE: INDUSTRIAL  
 USE: AUX. IMPROVEMENT  
 B.O.R. 3258, PG. 536  
 PIN 9587-37-6990  
 DB 1396 PG 14

MATCH LINE -L- STA. 23+00.00 SEE SHEET 5

REVISIONS

8/17/99

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8/17/99

NOTE: THIS PROJECT IS NEAR THE FEMA REGULATED 100-YEAR FLOODPLAIN OF DUNN CREEK. ALL PROPOSED GRADING AND CONSTRUCTION IS OUTSIDE THE 100-YEAR FLOODPLAIN, AND NO DISTURBANCE WITHIN THE 100-YEAR FLOODPLAIN SHALL OCCUR.

PROJECT REFERENCE NO. 49602	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 5/17/2021	HYDRAULICS ENGINEER 5/17/2021
<p>Jeffrey P. Mullbauer Jason M. Patskowsky</p> <p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	
Prepared in the Office at:	

-L-  
 PI Sta. 24+74.44      PI Sta. 28+46.43  
 $\Delta = 70' 25' 30.1''$  (LT)       $\Delta = 36' 56' 40.9''$  (RT)  
 $D = 22' 55' 05.9''$        $D = 22' 55' 05.9''$   
 $L = 307.29'$        $L = 161.20'$   
 $T = 176.44'$        $T = 83.51'$   
 $R = 250.00'$        $R = 250.00'$

APPLELAND BUSINESS  
 PK PROP OWNERS ASSOC.  
 USE: VACANT LAND  
 ZONING: REGIONAL COMMERCIAL  
 DB 1031 PG 161  
 PIN 9587-29-0342

EASLER FAMILY LLC  
 D.B. 1233 PG. 385  
 PIN 9587-29-6455

1  
 THE ECONOMIC INVESTMENT FUND  
 OF HENDERSON COUNTY INC.  
 D.B. 3647 PG. 640  
 P.B. 2021 PG. 13013  
 9587-38-0701

2  
 ATLAS BOLT & SCREW CO.  
 ZONED: INDUSTRIAL  
 USE: INDUSTRIAL  
 DB 922 PG 55  
 PB 2020 12957  
 PIN 9587-38-7908

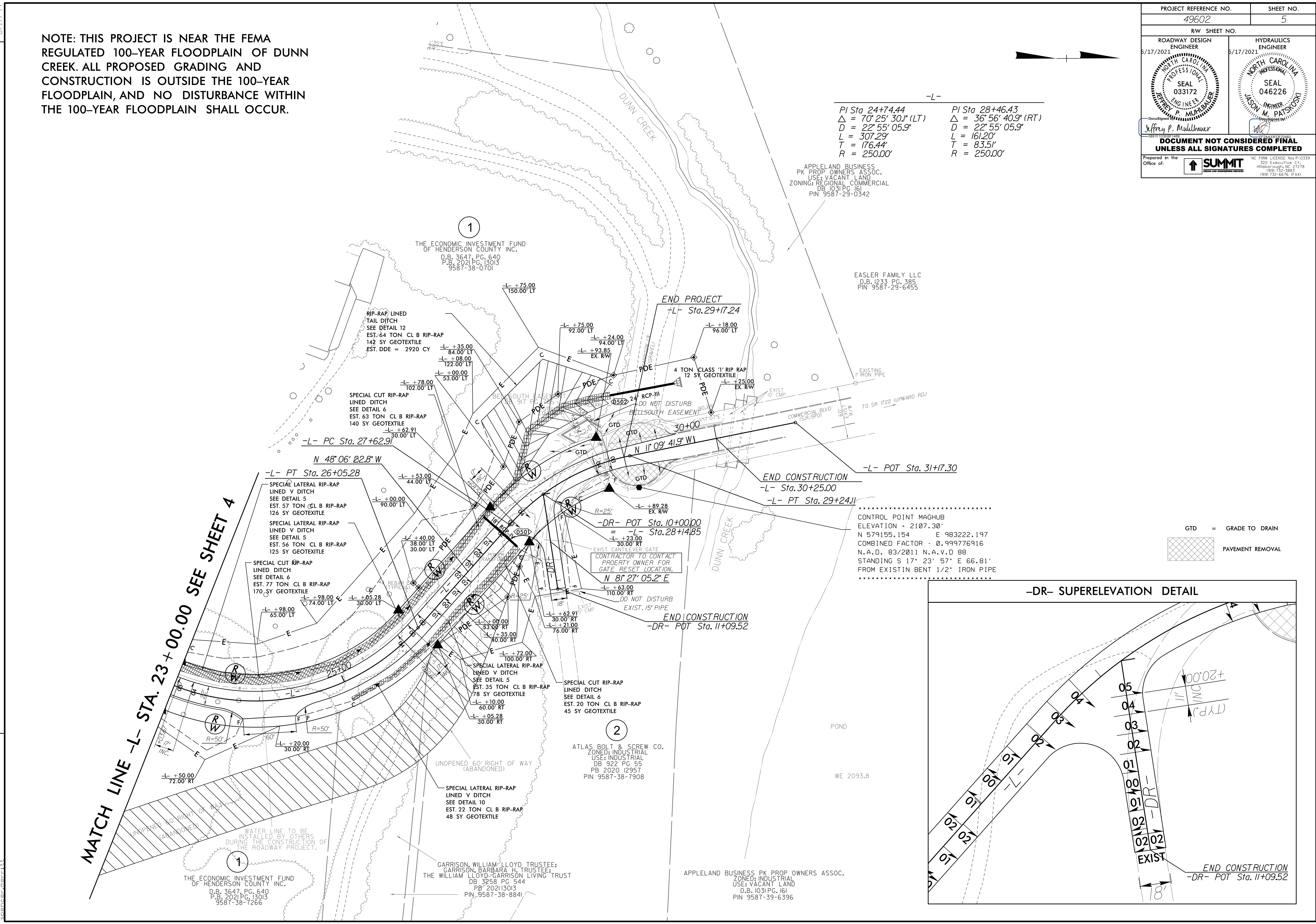
GARRISON, WILLIAM LLOYD TRUSTEE;  
 GARRISON, BARBARA H. TRUSTEE;  
 THE WILLIAM LLOYD-GARRISON LIVING TRUST  
 DB 3258 PG 544  
 PB 2021 13013  
 PIN 9587-38-8841

APPLELAND BUSINESS PK PROP OWNERS ASSOC.  
 ZONED: INDUSTRIAL  
 USE: VACANT LAND  
 D.B. 1031 PG. 161  
 PIN 9587-39-6396

REVISIONS

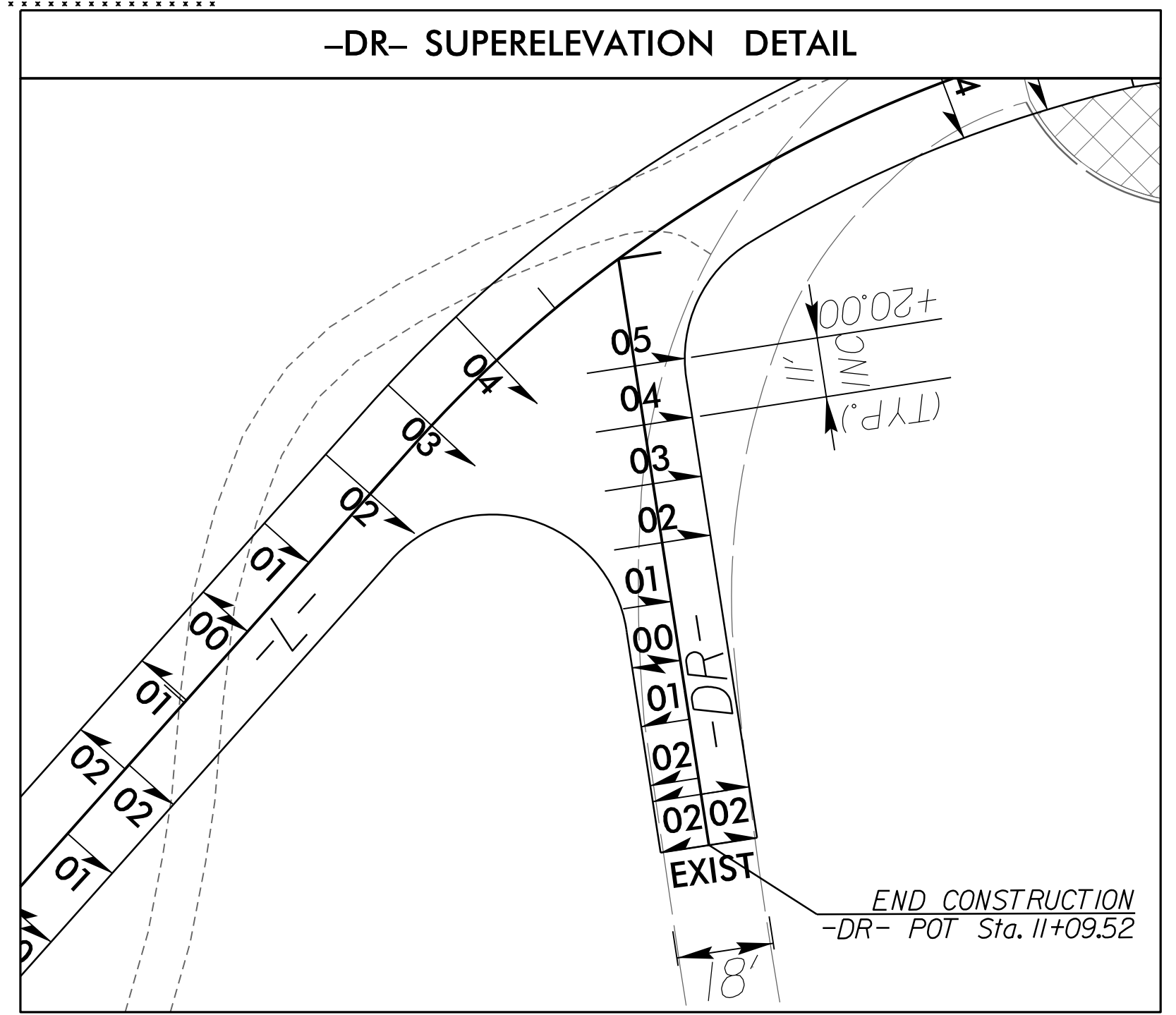
MATCH LINE -L- STA. 23+00.00 SEE SHEET 4

17-JUN-2021 16:46 Commercial Blvd\_Pdls\_psh\_5.dgn



CONTROL POINT MAGHUB  
 ELEVATION - 2107.30'  
 N 579155.154      E 983222.197  
 COMBINED FACTOR - 0.999776916  
 N.A.O. 83/2011 N.A.V.D 88  
 STANDING S 17' 23' 57" E 66.81'  
 FROM EXISTING BENT 1/2" IRON PIPE

GTD = GRADE TO DRAIN  
 PAVEMENT REMOVAL



END CONSTRUCTION -DR- POT Sta. 11+09.52





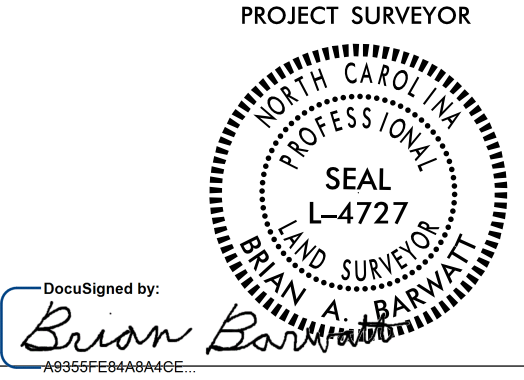


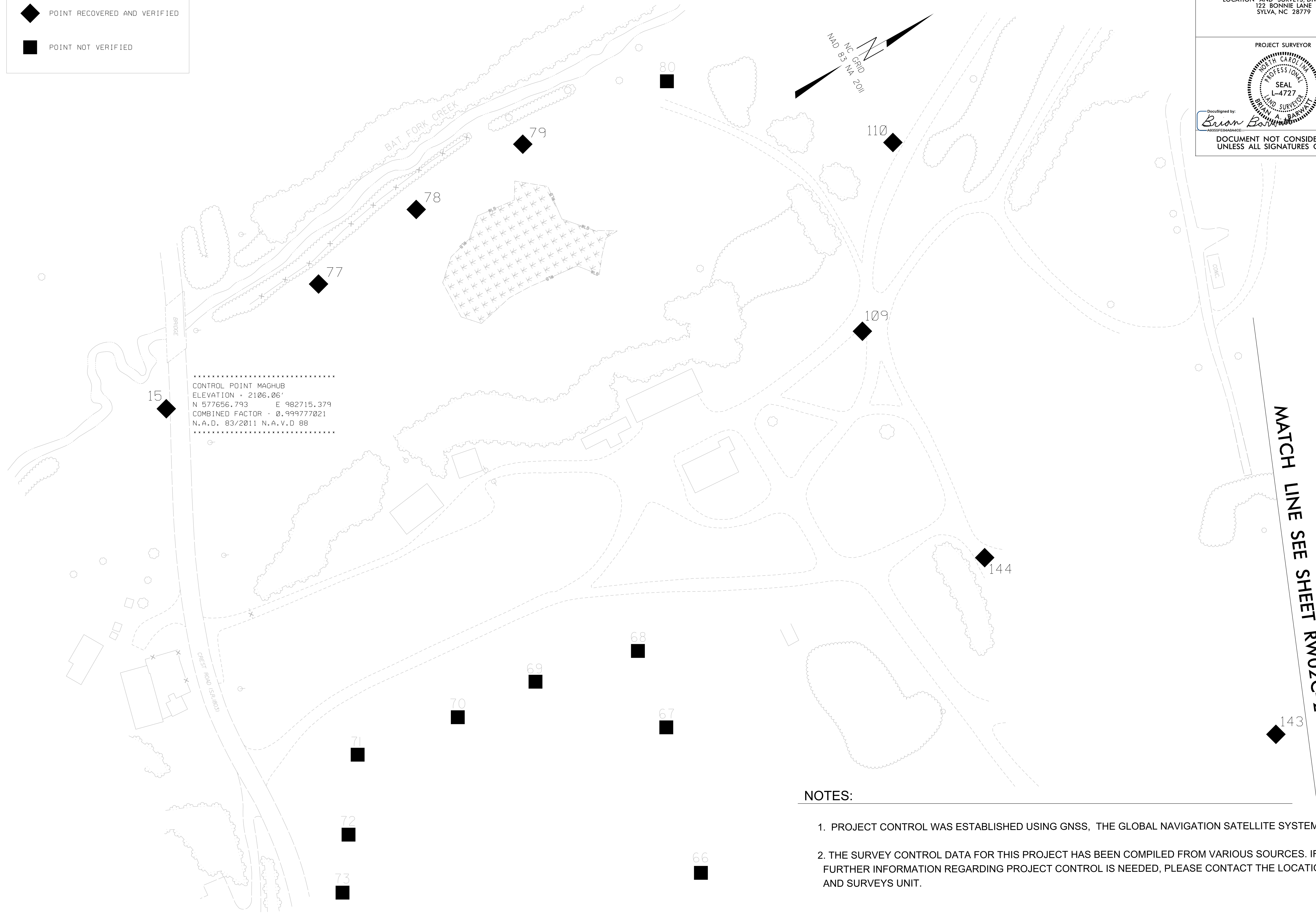


# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

	POINT RECOVERED AND VERIFIED
	POINT NOT VERIFIED

PROJECT REFERENCE NO. 49602	SHEET NO. RW02C-1
Location and Surveys	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR	
	
4/27/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



CONTROL POINT MAGHUB  
 ELEVATION = 2106.06'  
 N 577656.793    E 982715.379  
 COMBINED FACTOR = 0.999777021  
 N.A.D. 83/2011 N.A.V.D 88


REVISIONS

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### 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.



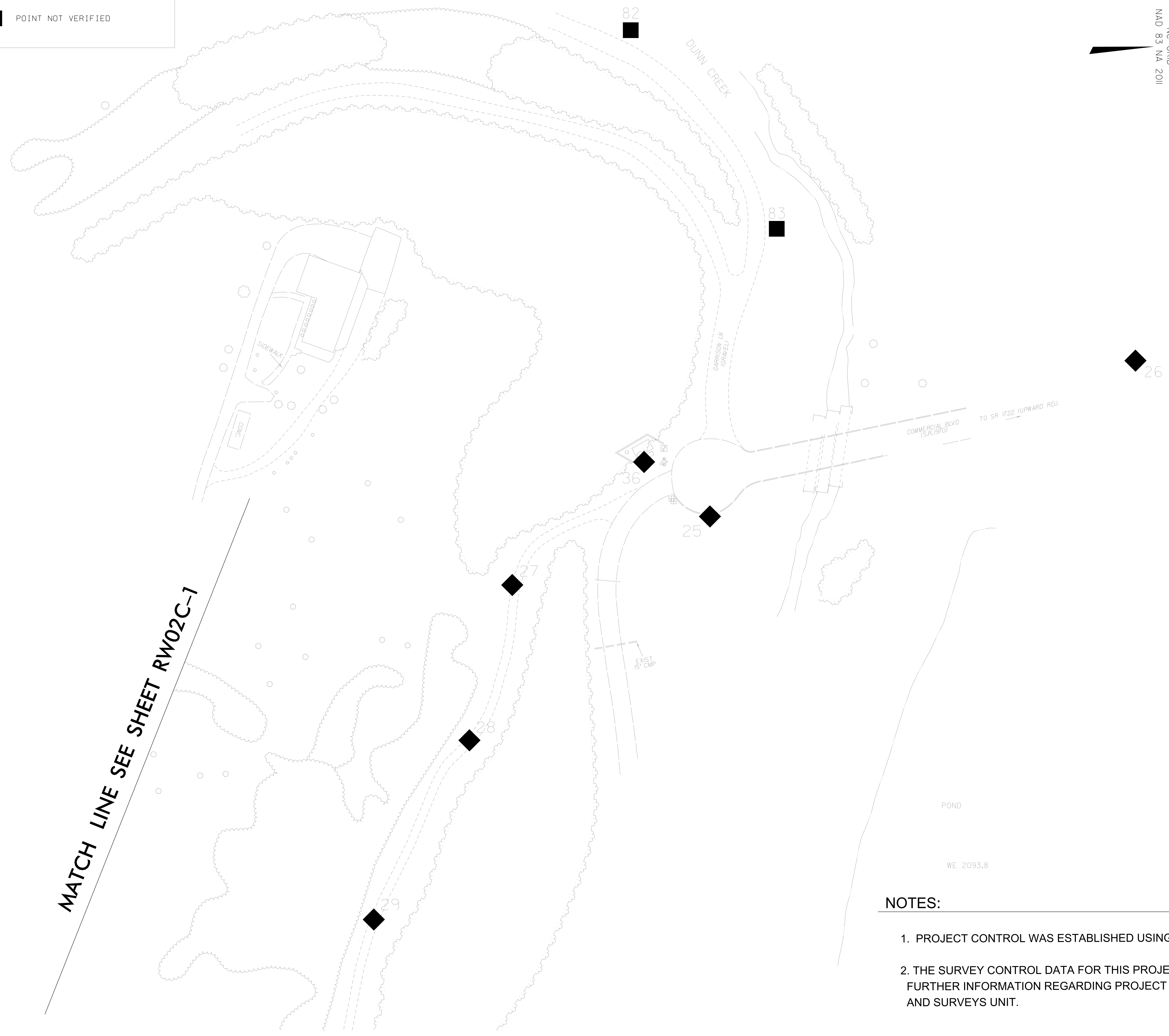
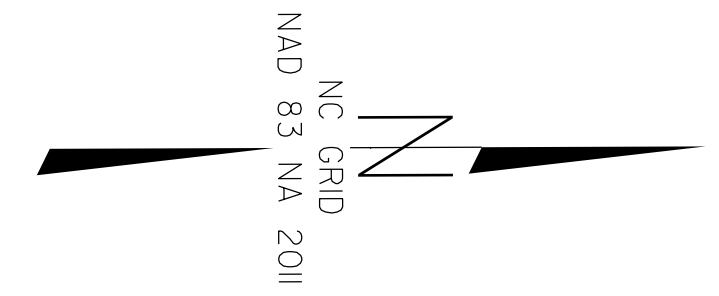
PROJECT REFERENCE NO.	SHEET NO.
49602	RW02C-2
<b>Location and Surveys</b>	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR	
	
DocuSigned by: <i>Brian Barlow</i>	4/27/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

# SURVEY CONTROL SHEET

## W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

◆ POINT RECOVERED AND VERIFIED

■ POINT NOT VERIFIED



MATCH LINE SEE SHEET RW02C-1

### NOTES:


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

REVISIONS

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# SURVEY CONTROL SHEET

**W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION**

PROJECT REFERENCE NO. 49602	SHEET NO. RW02C-3
<b>Location and Surveys</b>	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR	
	
DocuSigned by: <i>Brian Barwalt</i>	4/27/2021
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

POINTS RECOVERED AND VERIFIED

POINT	DESC.	NORTH	EAST	ELEVATION
15	MAG HUB FOUND	577656.3678	982715.2982	2104.06
25	MAG HUB FOUND	579155.0634	983222.2293	2107.30
26	MAG HUB FOUND	579557.9824	983076.4137	2108.75
27	MAG HUB FOUND	578968.0471	983286.3126	2114.19
28	MAG HUB FOUND	578927.0232	983432.9666	2123.12
29	MAG HUB FOUND	578835.9828	983602.0341	2128.32
30	MAG HUB FOUND	578785.7953	983820.1299	2125.82
31	MAG HUB FOUND	578755.4404	983991.3685	2131.76
36	MAG HUB FOUND	579093.0819	983170.4646	2108.77
77	MAG HUB FOUND	577864.7259	982678.8524	2102.45
78	MAG HUB FOUND	577995.2736	982660.5177	2101.54
79	MAG HUB FOUND	578129.2247	982655.5529	2100.13
103	MAG HUB FOUND	578618.8880	983974.6910	2130.92
109	MAG HUB FOUND	578348.3722	983009.0533	2122.96
110	MAG HUB FOUND	578476.1690	982848.6177	2114.96
143	MAG HUB FOUND	578523.0000	983603.3432	2131.02
144	MAG HUB FOUND	578343.6297	983285.0175	2136.17

POINTS NOT VERIFIED

POINT	DESC.	NORTH	EAST	ELEVATION
66	UNKNOWN	577912.6095	983430.4511	2186.56
67	UNKNOWN	577956.7456	983276.2199	2184.33
68	UNKNOWN	577970.4048	983189.8755	2175.00
69	UNKNOWN	577858.4738	983164.7480	2170.69
70	UNKNOWN	577767.1344	983157.0974	2175.62
71	UNKNOWN	577653.8167	983139.4495	2168.42
72	UNKNOWN	577603.2407	983209.3940	2158.65
73	UNKNOWN	577567.1377	983260.4490	2155.96
80	UNKNOWN	578297.1234	982672.5574	2098.88
82	UNKNOWN	579082.0193	982762.2634	2096.52
83	UNKNOWN	579219.3614	982950.5107	2100.60


**NOTES:**

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

REVISIONS



# PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO. 49602	SHEET NO. RW02D-1
<b>Location and Surveys</b>	
LOCATION AND SURVEYS, DIVISION 14 122 BONNIE LANE SYLVA, NC 28779	
PROJECT SURVEYOR 	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

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

This 10th day of June, 2021.

DocuSigned by:  
*Brian Barwatt*  
Professional Land Surveyor L-4727

REVISIONS

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	577625.7147	982805.9135
PC	10+78.14	577695.9499	982840.1564
PT	12+99.83	577909.9468	982890.7002
PC	14+18.63	578028.7383	982891.9170
PRC	17+94.70	578275.7819	983127.8404
PT	19+01.20	578303.9026	983229.7299
PC	19+34.12	578319.1714	983258.8951
PT	21+08.86	578445.7153	983374.2137
PC	22+98.00	578620.6795	983446.0384
PT	26+05.28	578901.7153	983381.7045
PC	27+62.91	579006.9712	983264.3688
PT	29+24.11	579144.6732	983186.0351
POT	31+17.30	579334.2091	983148.6378

Y

TYPE	STATION	NORTH	EAST
POT	10+00.00	577691.4186	982678.2022
PC	11+63.04	577616.8304	982823.1822
PT	12+55.04	577579.5351	982907.2245
PC	12+87.25	577568.1843	982937.3657
PT	14+14.84	577542.8592	983061.8709

DR

TYPE	STATION	NORTH	EAST
POT	10+00.00	579045.4068	983229.5731
POT	11+09.52	579061.6866	983337.8761

**NOTES:**

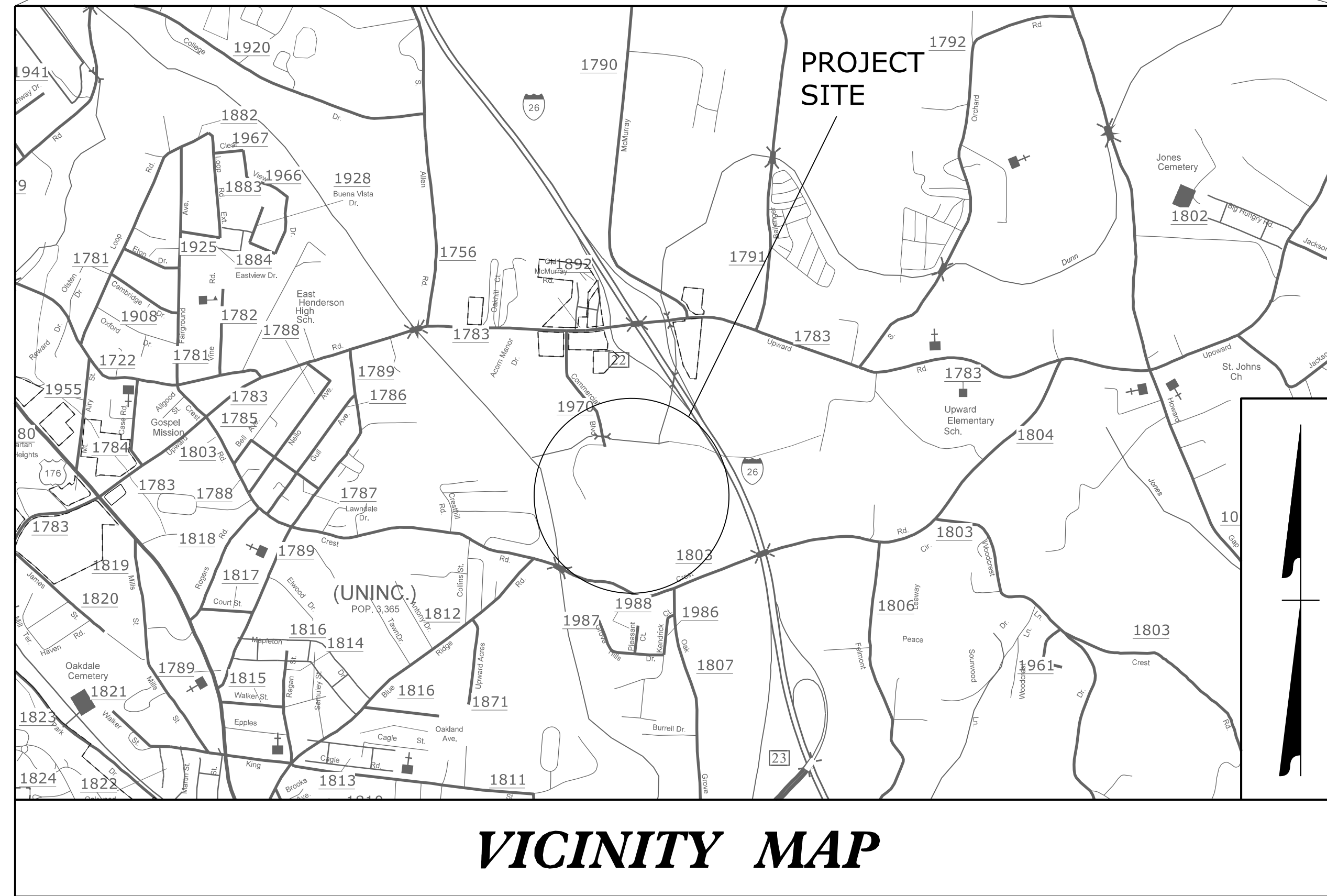
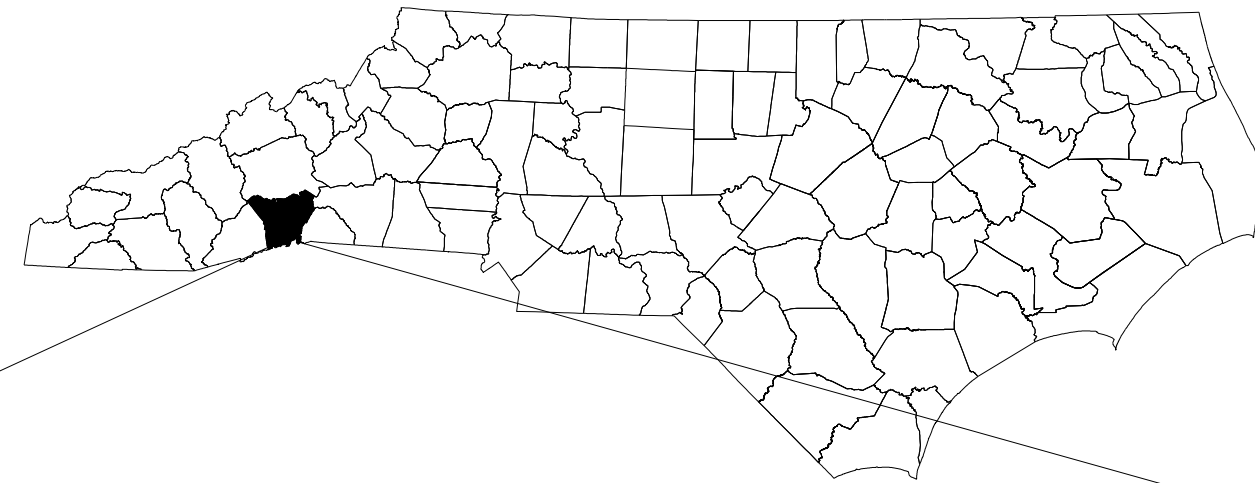
1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**HENDERSON COUNTY**

**EXTENSION OF SR 1970 (COMMERCIAL BOULEVARD) TO SR 1803 (CREST ROAD)**



**VICINITY MAP**

**INDEX OF SHEETS**

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS
TMP-1A	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, PHASING, AND LOCAL NOTES)
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS SHOWN 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
1101.01	WORK ZONE ADVANCED WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURE
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORKZONE SIGNS
1135.01	CONES
1145.01	BARRICADES TYPE III
1150.01	FLAGGING DEVICES

SHEET NO.

TMP-1

**HA-0003**

**TIP PROJECT:**

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

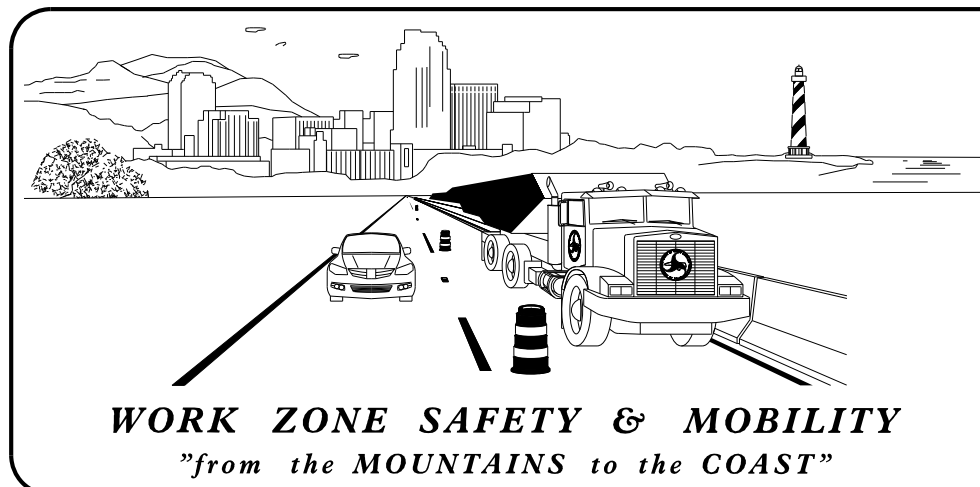


NC FIRM LICENSE No: P-0339  
320 Executive Ct.  
Hillsborough, NC 27278  
(919) 732-3883  
(919) 732-6676 (FAX)

APPROVED: Jeffrey P. Muhlbauer

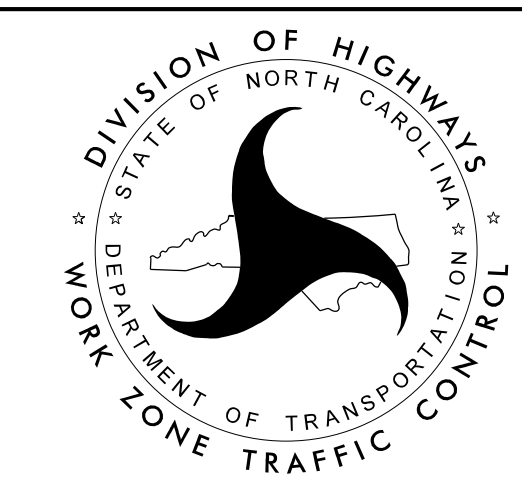
DATE: 6/22/2021

SEAL



**N.C.D.O.T. WORK ZONE TRAFFIC CONTROL**  
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561  
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)  
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. E. HUMMER, PE. STATE TRAFFIC MANAGEMENT ENGINEER  
J. A. SPEER, PE. TRAFFIC CONTROL PROJECT ENGINEER  
J. P. MUHLBAUER, PE. TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
S. W. MERRITT, EI. TRAFFIC CONTROL DESIGNER



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spencer.merritt



## MANAGEMENT STRATEGIES

THE COMMERCIAL BLVD. EXTENSION WILL BE CONSTRUCTED AWAY FROM TRAFFIC. CONSTRUCTION AT SR 1803, CREST ROAD TIE-IN WILL BE CONSTRUCTED USING TEMPORARY LANE CLOSURES AND SHOULDER CLOSURES AS NECESSARY TO COMPLETE CONSTRUCTION.

CLOSE EXISTING SR 1970, COMMERCIAL BLVD NEAR THE EXISTING CUL-DE-SAC. LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES WILL BE MAINTAINED BETWEEN CLOSURE POINTS AT ALL TIMES DURING CONSTRUCTION.

## PHASING

PROVIDE ENGINEER A THIRTY (30) DAY WRITTEN NOTICE PRIOR TO ROAD CLOSURE.

### PHASE 1:

STEP 1:

PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL INSTALL WORK ZONE ADVANCE WARNING SIGNS AS SHOWN ON NCDOT ROADWAY STANDARD DRAWING 1101.01. INSTALL TYPE III BARRICADES AT THE BEGINNING OF THE PROJECT AT CREST ROAD (SR 1803) AND AT THE END OF THE PROJECT NEAR THE EXISTING CUL-DE-SAC ON COMMERCIAL BLVD (SR 1970).

STEP 2:

CONSTRUCT PROPOSED -L- LINE INCLUDING SHOULDERS AND DITCH WITHIN 0.5' OF FINISH GRADE FROM -L- STA. 10+10 TO -L- STA. 18+50.

STEP 3:

CONTRACTOR SHALL SUSPEND WORK FROM -L- STA. 10+10 to -L- STA. 18+50 AS DIRECTED BY THE ENGINEER UNTIL THE UTILITY WORK AND TESTING HAS BEEN COMPLETED. SEE CONTRACT FOR DATES AND TIMES.

### PHASE 2:

STEP 1:

CONSTRUCT PROPOSED -L- LINE INCLUDING SHOULDERS AND DITCH WITHIN 0.5' OF FINISH GRADE FROM -L- STA. 18+50 TO -L- STA. 29+17.

STEP 2:

CONTRACTOR SHALL SUSPEND WORK FROM -L- 18+50 TO -L- STA. 29+17 AS DIRECTED BY THE ENGINEER UNTIL THE UTILITY WORK AND TESTING HAS BEEN COMPLETED. SEE CONTRACT FOR DATES AND TIMES.

### PHASE 3:

STEP 1:

PLACE INTERMEDIATE AND FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKING AND SIGNS.

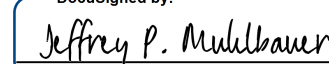
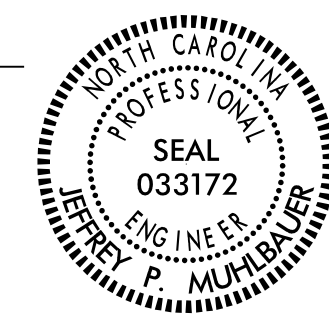
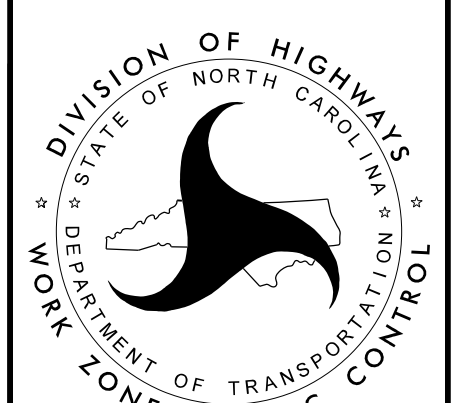
STEP 2:

OPEN THE EXTENSION OF SR 1970, COMMERCIAL BLVD TO TRAFFIC AND REMOVE ALL WORKZONE TRAFFIC CONTROL DEVICES.

## LOCAL NOTES

NOTIFY HENDERSON COUNTY EMERGENCY SERVICES AT (828) 697-4527 AT LEAST THIRTY (30) CALENDAR DAYS PRIOR TO ROAD CLOSURE.

18-JUN-2021 13:17  
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spencer.merritt

APPROVED:  DATE: 6/18/2021  SEAL 		TRANSPORTATION OPERATIONS PLAN
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

## GENERAL NOTES

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

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

TIME RESTRICTIONS – REQUIRES INTERMEDIATE CONTRACT TIME PROJECT SPECIAL PROVISIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
SR 1803, Crest Road	Mon – Fri 7 am – 9 am and 4 pm – 6 pm

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

ROAD NAME
SR 1803, Crest Road

**HOLIDAY**

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

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

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

**LANE AND SHOULDER CLOSURE REQUIREMENTS**

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

**PAVEMENT EDGE DROP OFF REQUIREMENTS**

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

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

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

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

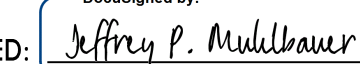
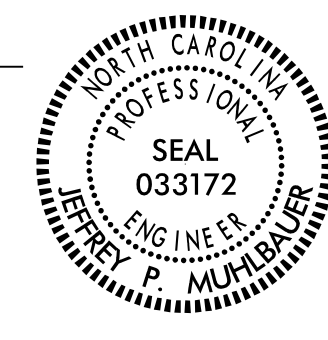
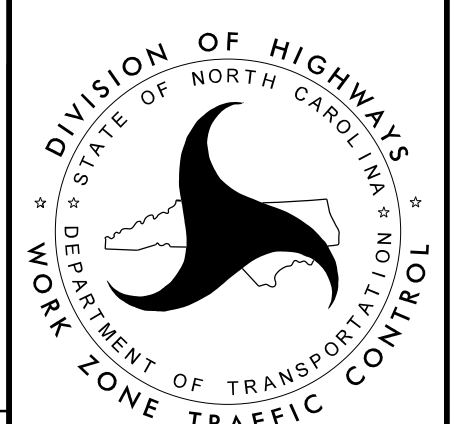
**TRAFFIC PATTERN ALTERATIONS**

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

**SIGNING**

- F) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- G) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

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spencer.merritt

APPROVED:  DATE: 5/12/2021  SEAL  		<b>TRANSPORTATION OPERATIONS PLAN</b>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		

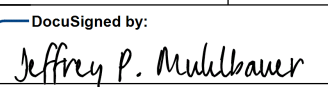




STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**HENDERSON COUNTY**

**LOCATION: EXTENSION OF SR 1970 (COMMERCIAL BOULEVARD)  
TO SR 1803 (CREST ROAD)**

**TYPE OF WORK: GRADING, DRAINAGE & PAVING.**

TIP NO. <b>HA-0003</b>	SHEET NO. <b>PMP-1</b>
APPROVED:  DATE: 6/22/2021	
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of: 	NC FIRM LICENSE No: P-0339 504 Meadowslands Drive Hillsborough, NC 27278 (919) 732-3883 (919) 732-6676 (FAX)

**TIP PROJECT: HA-0003**

**CONTRACT: DN00752**

**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 ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
-L- (SR 1970, COMMERCIAL BLVD EXT.)	PAINT	NONE
-Y- (SR 1930, CREST ROAD)	PAINT	NONE

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.  
C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS.  
D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

**PAVEMENT MARKING SCHEDULE**

SYMBOL	DESCRIPTION
PAINT (4")	
P1	WHITE EDGELINE
P5	2 FT - 6 FT WHITE MINI-SKIP
P13	YELLOW DOUBLE CENTER LINE
PAINT (24")	
P61	WHITE STOPBAR

**SR 1970 MARKINGS**

SYMBOL	DESCRIPTION	QUANTITY
PAINT (4")		
P1	WHITE EDGELINE	3,450 LF
P5	2 FT - 6 FT WHITE MINI-SKIP	34 LF
P13	YELLOW DOUBLE CENTER LINE	3,998 LF
PAINT (24")		
P61	WHITE STOPBAR	30 LF

**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:

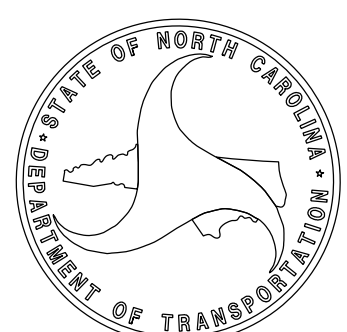
STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS

Prepared in the Office of:



NC FIRM LICENSE No: P-0339  
320 Executive Ct.  
Hillsborough, NC 27278  
(919) 732-3883  
(919) 732-6676 (FAX)

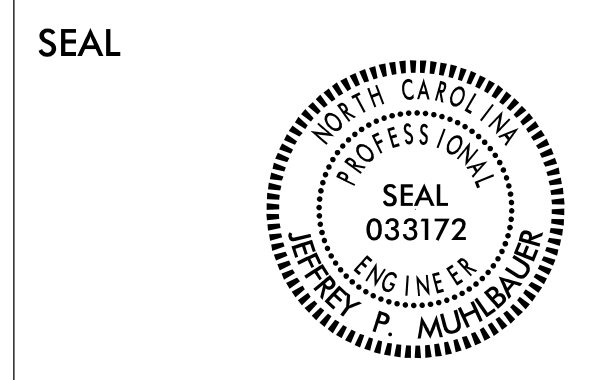
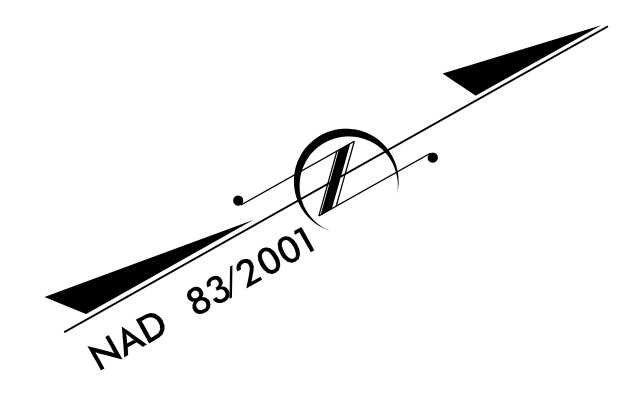
**JAMES SPEER, PE** PROJECT ENGINEER  
**SPENCER MERRITT, EI** PROJECT DESIGNER



**INDEX**

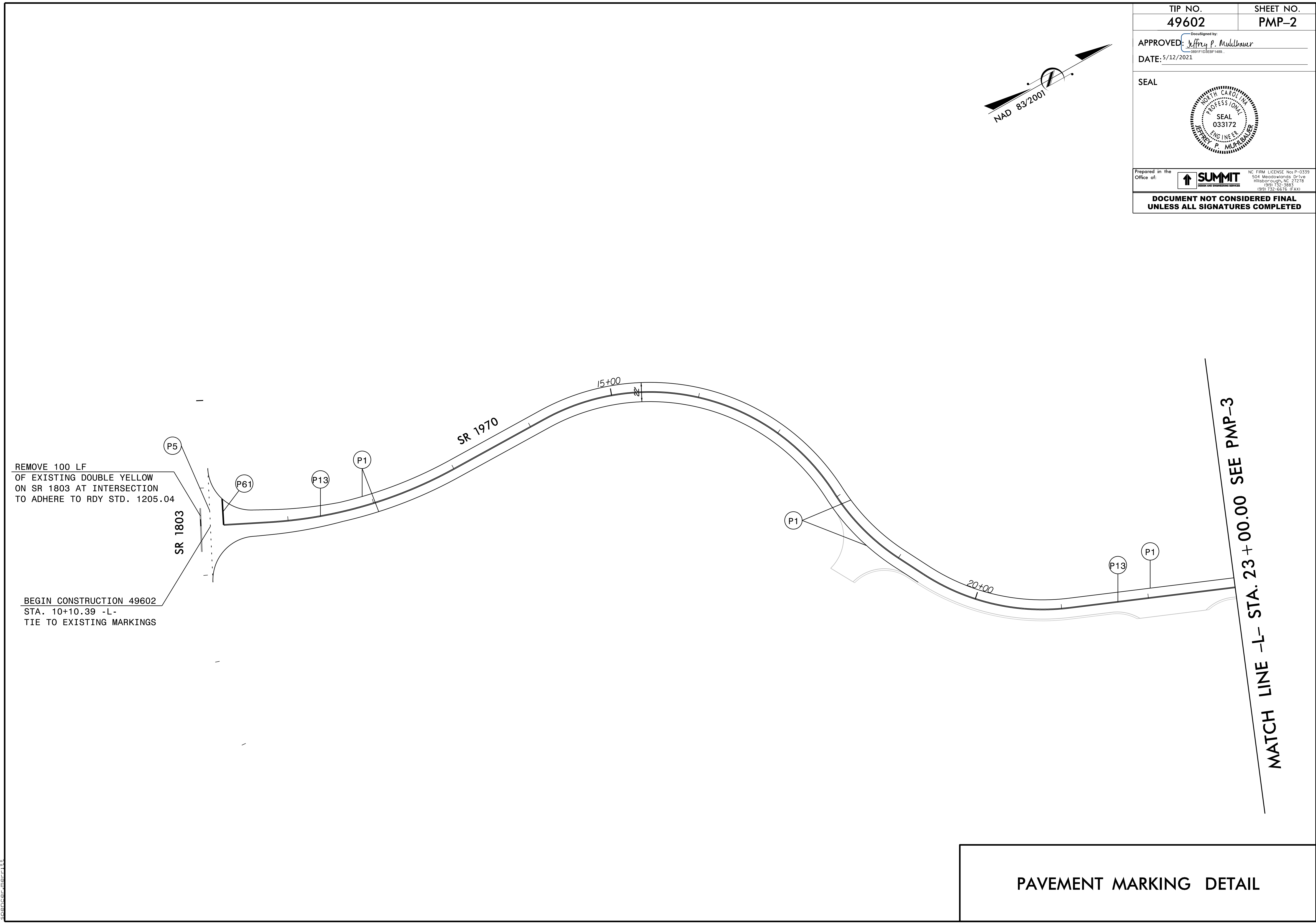
- PMP-1 PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
- PMP-2-3 PAVEMENT MARKING DETAIL SHEETS

APPROVED: *Jeffrey P. Mullbauer*  
DATE: 5/12/2021



Prepared in the Office of: **SUMMIT**  
NC FIRM LICENSE No. P-0339  
504 Meadowlands Drive  
Hillsborough, NC 27278  
(919) 732-9883  
(919) 732-6676 (FAX)

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



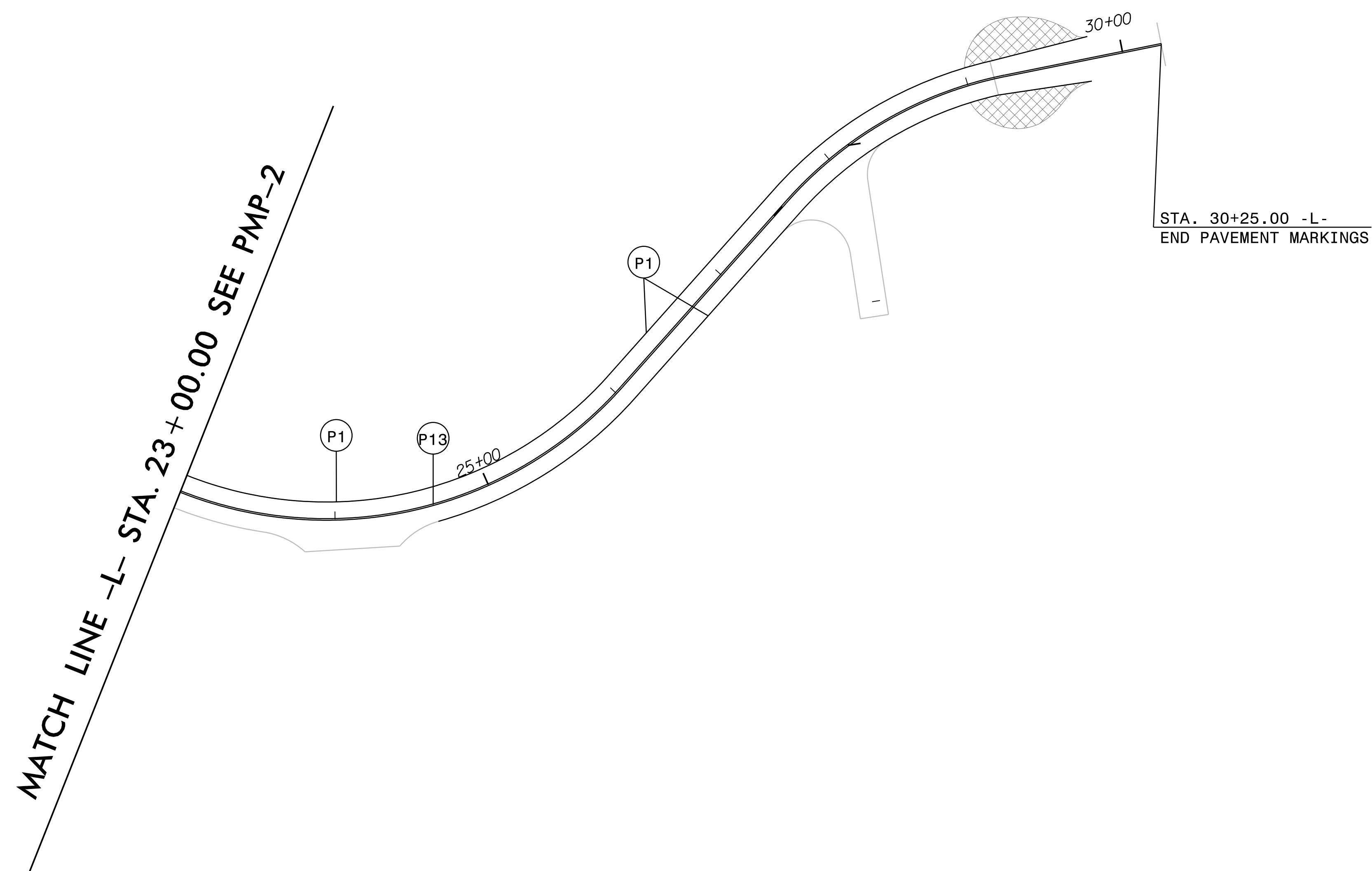
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spencer.merritt





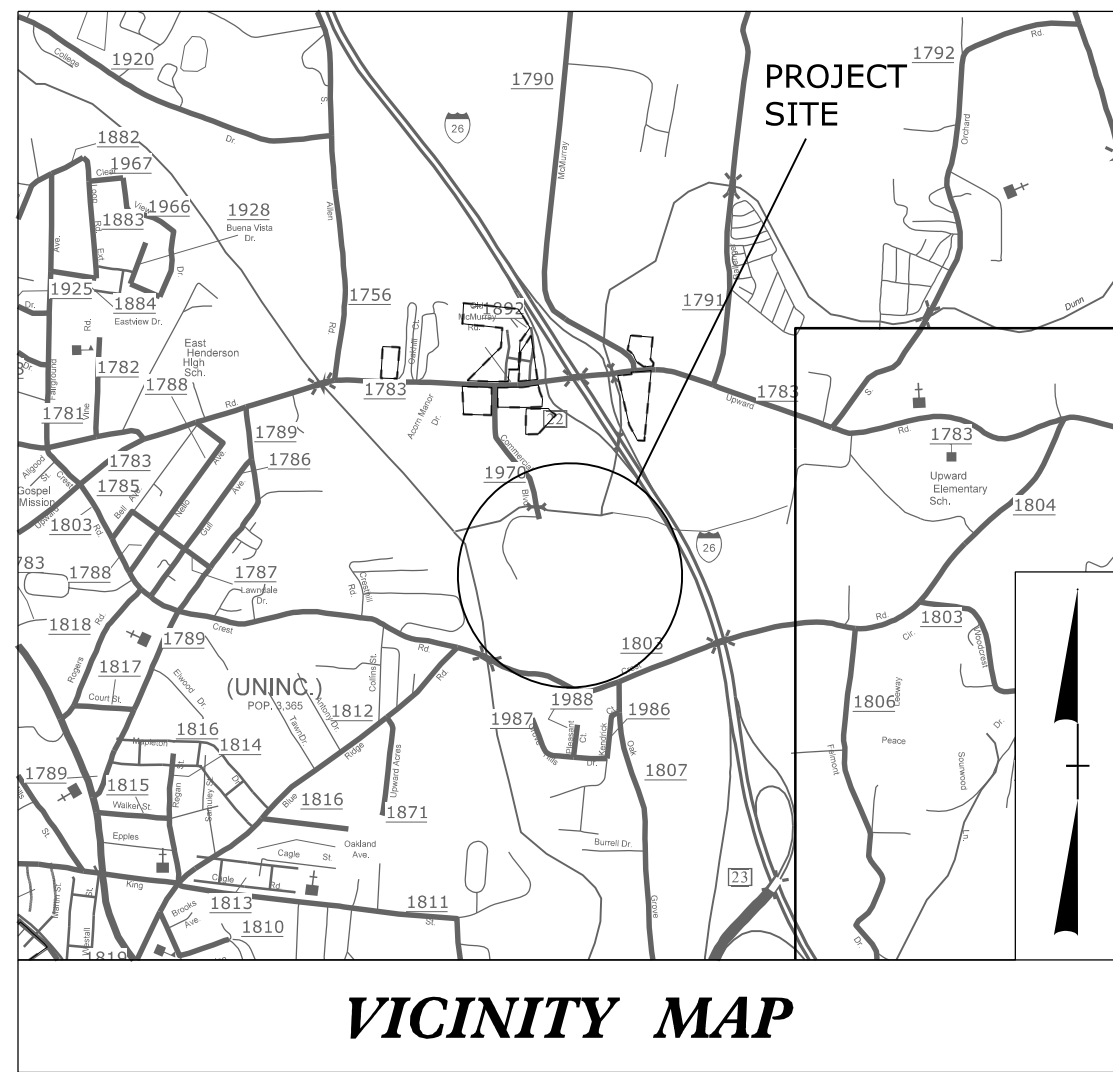
TIP NO. <b>49602</b>	SHEET NO. <b>PMP-3</b>
APPROVED: <i>Jeffrey P. Mulhauer</i>	
DATE: 5/12/2021	
SEAL	
Prepared in the Office of:	 <small>NC FIRM LICENSE No. P-0339 504 Meadowlands Drive Hillsborough, NC 27278 (919) 732-3883 (919) 732-6676 (FAX)</small>
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



PAVEMENT MARKING DETAIL

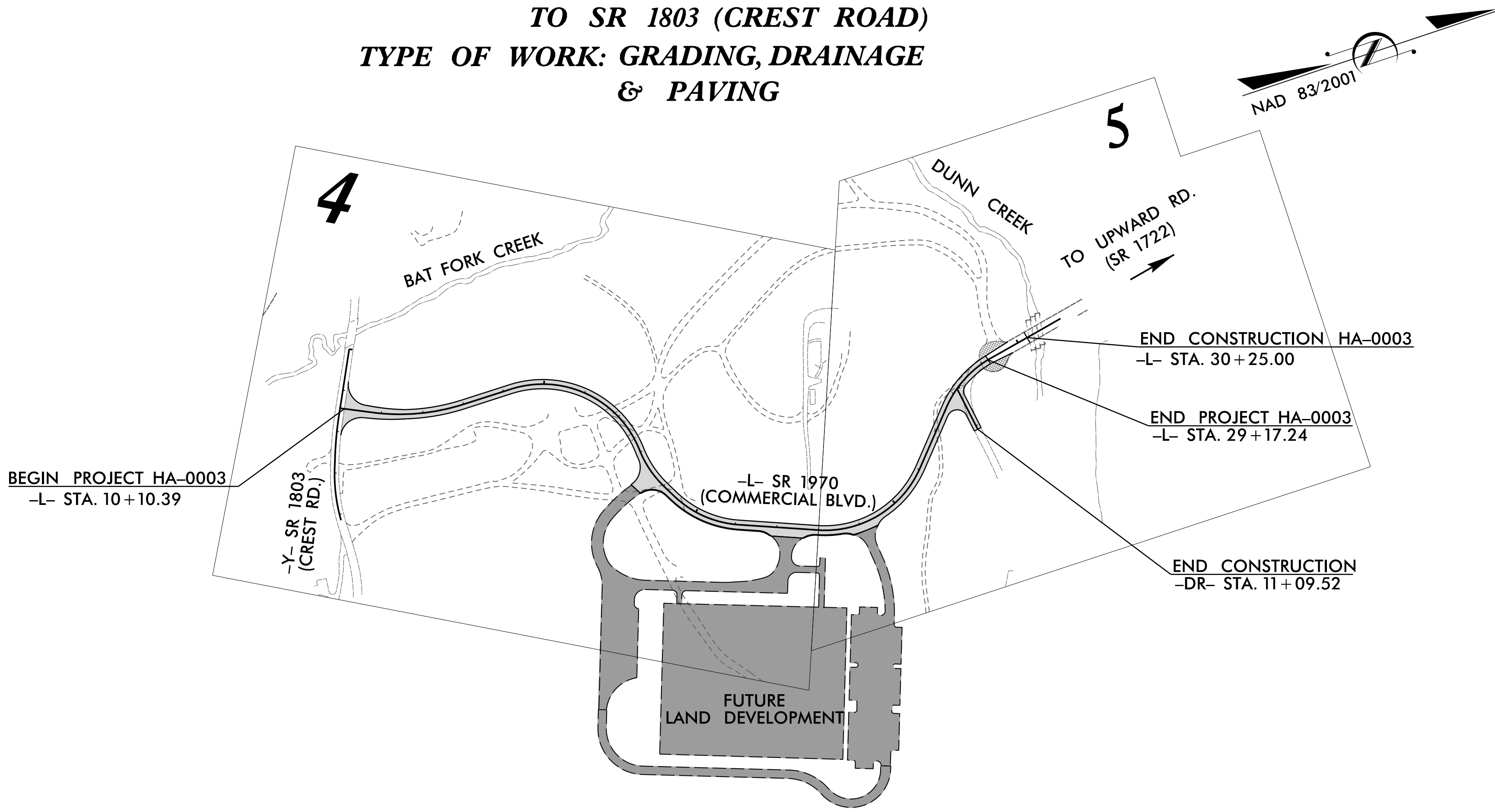
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**TIP PROJECT: HA-0003**



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

**LOCATION: EXTENSION OF SR 1970 (COMMERCIAL BOULEVARD)  
TO SR 1803 (CREST ROAD)**  
**TYPE OF WORK: GRADING, DRAINAGE  
& PAVING**

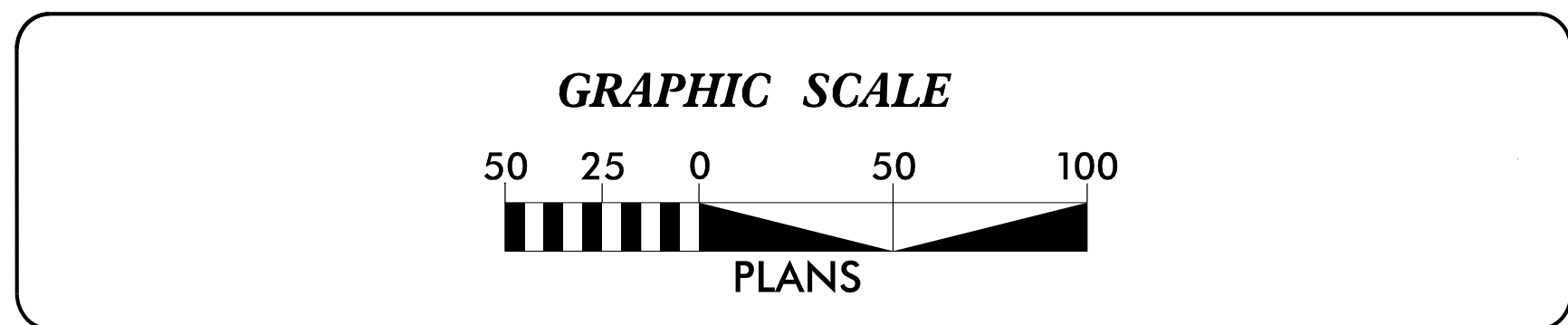


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	HA-0003	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49760.1.1	1970002	PE	
49760.2.1	1970002	ROW	
49760.2.2	1970002	UTILITY	
49760.3.1	1970002	CONST	

**EROSION AND SEDIMENT CONTROL MEASURES**

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

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



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

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
FIRM NO. P-0339

Prepared in the Office of:  
**320 Executive Ct.**  
**Hillsborough, NC 27278-8551**  
Voice: (919)732-3883  
Fax: (919)732-6776  
www.summitde.net

Designed by:  
**JASON PATSKOSKI** **4069**  
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

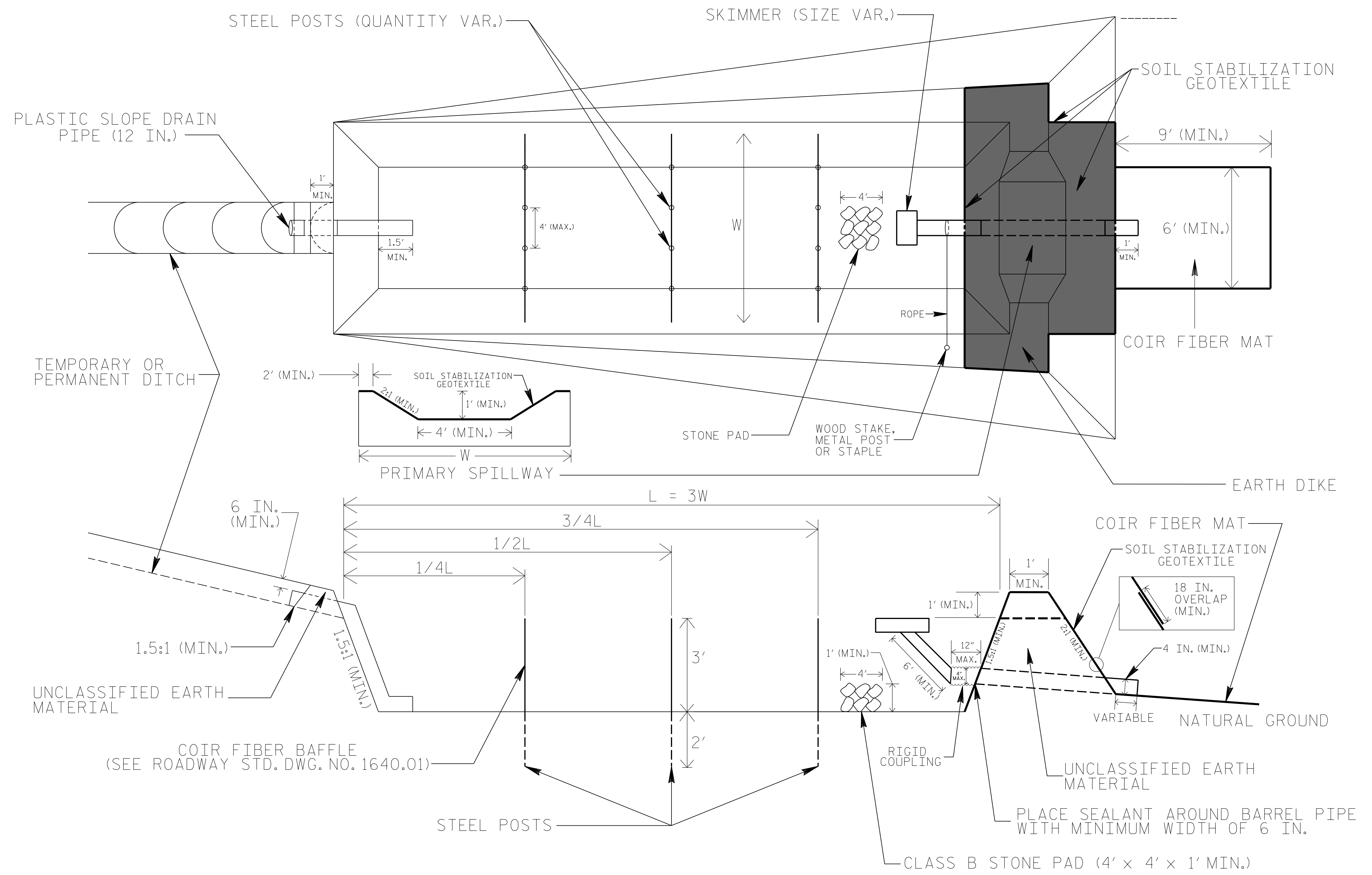
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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



PROJECT REFERENCE NO. 49602	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# SKIMMER BASIN WITH BAFFLES DETAIL



**NOTES**

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

NOT TO SCALE

**COIR FIBER MAT ANCHOR OPTIONS**

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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# ***SOIL STABILIZATION TIMEFRAMES***

<small>PROJECT REFERENCE NO.</small> <i>49602</i>	<small>SHEET NO.</small> <i>EC-2A</i>
<small>ROADWAY DESIGN ENGINEER</small>	<small>HYDRAULICS ENGINEER</small>
<small>Prepared in the Office of:</small> <small>NC FIRM LICENSE No: P-0339 320 Executive Ct. Hillsborough, NC 27218 (919) 732-5883 • (919) 732-6676 (FAX)</small>	

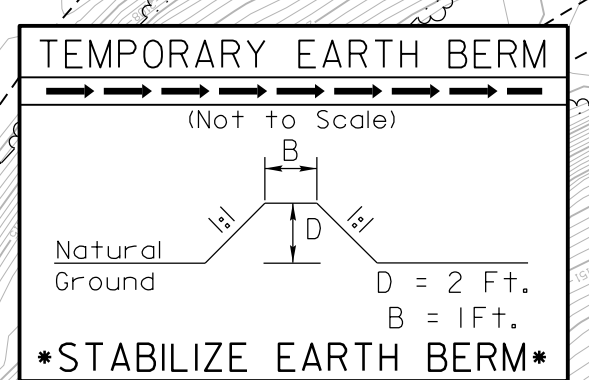
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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







PROJECT REFERENCE NO. 49602	SHEET NO. EC-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



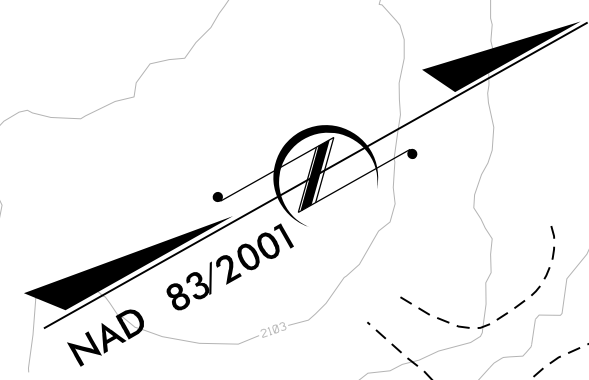
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UNLESS ALL SIGNATURES COMPLETED**

Prepared in the Office of: **SUMMIT**

NC FROM LICENSE No: P-0339  
302 Executive Ct.  
Hillsborough, NC 27278  
(919) 732-3883  
(919) 732-6676 (FAX)

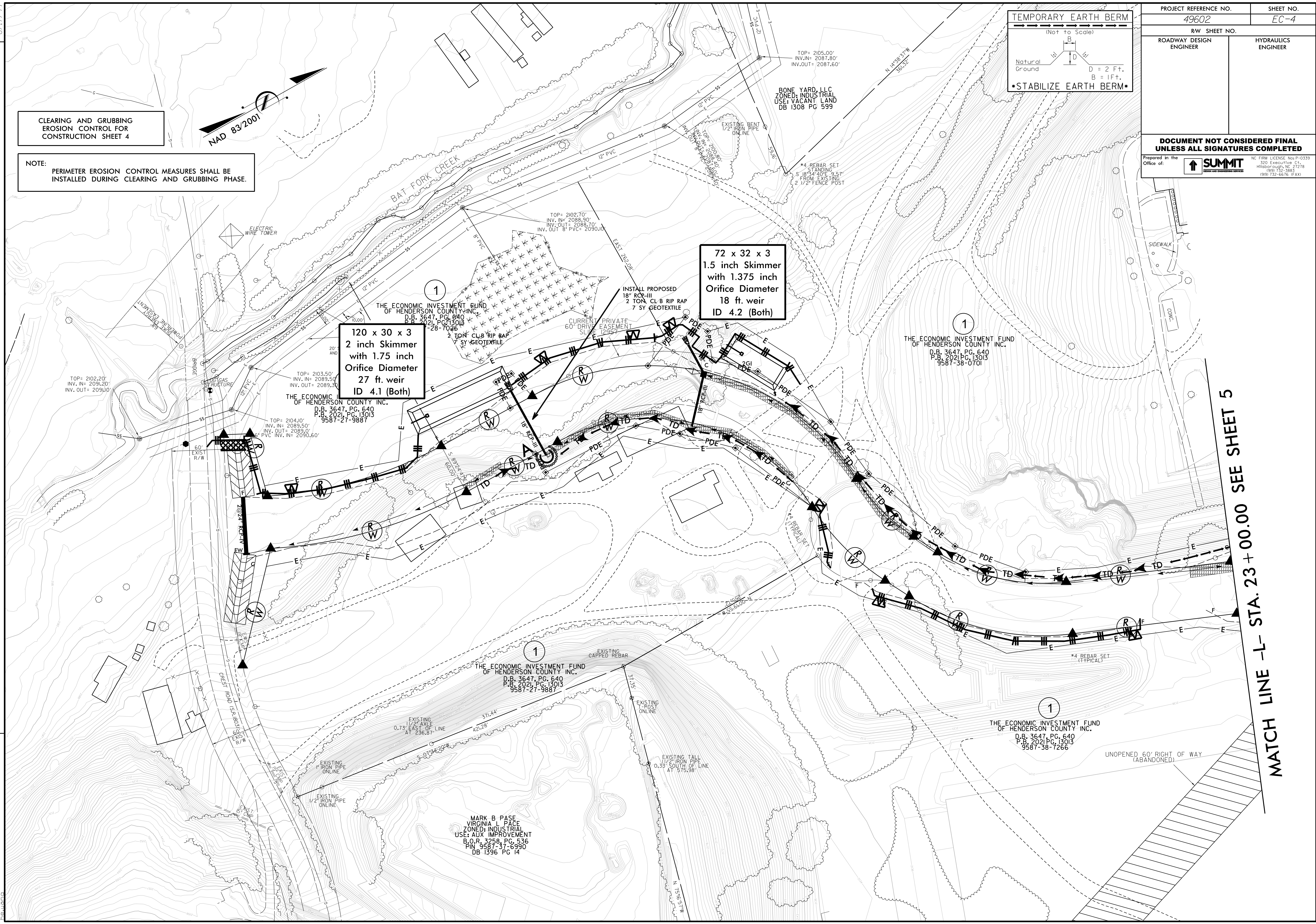
CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

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



8.17.7.99

REVISIONS



120 x 30 x 3  
2 inch Skimmer  
with 1.75 inch  
Orifice Diameter  
27 ft. weir  
ID 4.1 (Both)

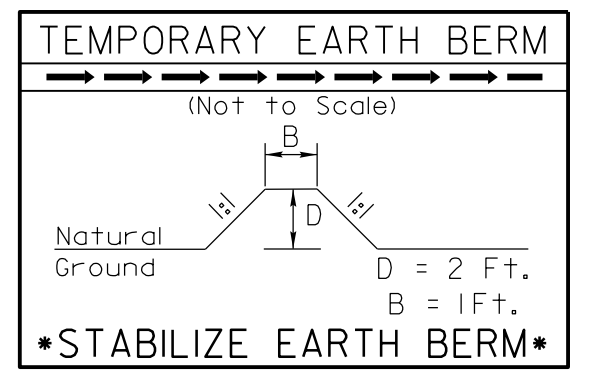
72 x 32 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
18 ft. weir  
ID 4.2 (Both)

MATCH LINE -L- STA. 23+00.00 SEE SHEET 5

20-MAY-2021 08:17  
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DEWAD



8.17.799



**NOTE:**  
IT IS ASSUMED THAT THE GRADING FOR THE PROJECT WHEEL PROJECT WILL BE COMPLETED, AND STABILIZED PRIOR TO THE CLEARING AND GRUBBING PROPOSED. THE CONTOURS SHOWN WERE GENERATED USING THE PROPOSED CONTOURS FROM THE PROJECT WHEEL PROJECT. CLEARING LIMITS/SLOPE STAKES WERE DETERMINED BASED ON THESE PROPOSED CONTOURS. IN THE EVENT THE GRADING/STABILIZATION HAS NOT BEEN COMPLETED, THE EC PLANS FOR THE PROJECT WHEEL PROJECT SHOULD BE USED FROM STA. 17+00 TO STA. 28+00.



PROJECT REFERENCE NO. 49602	SHEET NO. EC-5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of: 	NC FIRM LICENSE No: P-0339 302 Executive Ct. Hillsborough, NC 27278 (919) 332-3883 (919) 732-6676 (FAX)

REVISIONS

MATCH LINE -L- STA. 23+00.00 SEE SHEET 4

**79 x 34 x 3**  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
20 ft. weir  
ID 5.1 (Both)

**70 x 30 x 3**  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
16 ft. weir  
ID 5.2 (Both)

1  
THE ECONOMIC INVESTMENT FUND  
OF HENDERSON COUNTY INC.  
D.B. 3647 PG. 640  
P.B. 2021 PG. 13013  
9587-38-0701

2  
ATLAS BOLT & SCREW CO.  
ZONED: INDUSTRIAL  
USE: INDUSTRIAL  
DB 922 PG 55  
PB 2020 I2957  
PIN 9587-38-7908

GARRISON, WILLIAM LLOYD TRUSTEE;  
GARRISON, BARBARA H. TRUSTEE;  
THE WILLIAM LLOYD-GARRISON LIVING TRUST  
DB 3258 PG 544  
PB 2021/3013  
PIN 9587-38-8841

1  
THE ECONOMIC INVESTMENT FUND  
OF HENDERSON COUNTY INC.  
D.B. 3647 PG. 640  
P.B. 2021 PG. 13013  
9587-38-7266

APPLELAND BUSINESS  
PK PROP OWNERS ASSOC.  
USE: VACANT LAND  
ZONING: REGIONAL COMMERCIAL  
DB 1031 PG 161  
PIN 9587-29-0342

EASLER FAMILY LLC  
D.B. 1233 PG. 385  
PIN 9587-29-6455

APPLELAND BUSINESS PK PROP OWNERS ASSOC.  
ZONED: INDUSTRIAL  
USE: VACANT LAND  
D.B. 1031 PG. 161  
PIN 9587-39-6396

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

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

**NOTE:**  
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING  
BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

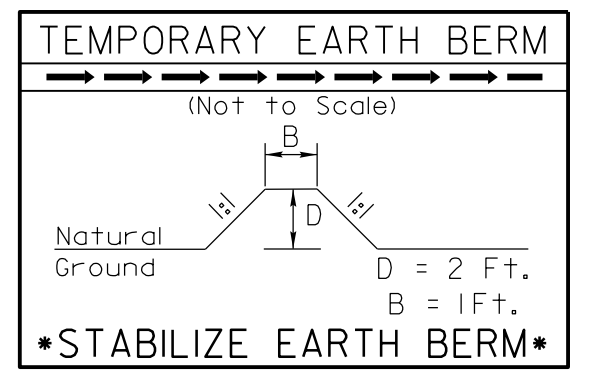
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8/17/99



NOTE:  
IT IS ASSUMED THAT THE GRADING FOR THE PROJECT WHEEL PROJECT WILL BE COMPLETED, AND STABILIZED PRIOR TO THE CLEARING AND GRUBBING PROPOSED. THE CONTOURS SHOWN WERE GENERATED USING THE PROPOSED CONTOURS FROM THE PROJECT WHEEL PROJECT. CLEARING LIMITS/SLOPE STAKES WERE DETERMINED BASED ON THESE PROPOSED CONTOURS. IN THE EVENT THE GRADING/STABILIZATION HAS NOT BEEN COMPLETED, THE EC PLANS FOR THE PROJECT WHEEL PROJECT SHOULD BE USED FROM STA. 17+00 TO STA. 28+00.



PROJECT REFERENCE NO. 49602	SHEET NO. EC-7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Prepared in the Office of:	

-L-  
 PI Sta 24+74.44      PI Sta 28+46.43  
 $\Delta = 70' 25' 30.1''$  (LT)       $\Delta = 36' 56' 40.9''$  (RT)  
 $D = 22' 55' 05.9''$        $D = 22' 55' 05.9''$   
 $L = 307.29'$        $L = 161.20'$   
 $T = 176.44'$        $T = 83.51'$   
 $R = 250.00'$        $R = 250.00'$

APPELAND BUSINESS  
PK PROP OWNERS ASSOC.  
USE: VACANT LAND  
ZONING: REGIONAL COMMERCIAL  
DB 1031 PG 161  
PIN 9587-29-0342

EASLER FAMILY LLC  
D.B. 1233 PG. 385  
PIN 9587-29-6455

NOTE:  
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

REVISIONS

MATCH LINE -L- STA. 23+00.00 SEE SHEET 4

79 x 34 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
20 ft. weir  
ID 5.1 (Both)

70 x 30 x 3  
1.5 inch Skimmer  
with 1.25 inch  
Orifice Diameter  
16 ft. weir  
ID 5.2 (Both)

THE ECONOMIC INVESTMENT FUND  
OF HENDERSON COUNTY INC.  
D.B. 3647 PG. 640  
P.B. 2021 PG. 13013  
9587-38-7266

GARRISON, WILLIAM LLOYD TRUSTEE;  
GARRISON, BARBARA H. TRUSTEE;  
THE WILLIAM LLOYD-GARRISON LIVING TRUST  
DB 3258 PG 544  
PB 2021/3013  
PIN 9587-38-8841

ATLAS BOLT & SCREW CO.  
ZONED: INDUSTRIAL  
USE: INDUSTRIAL  
DB 922 PG 55  
PB 2020 12957  
PIN 9587-38-7908

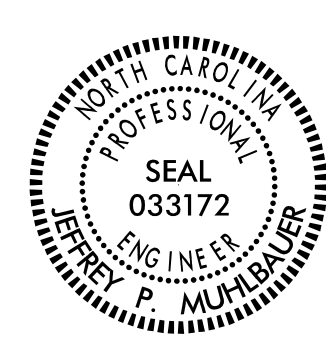
APPELAND BUSINESS PK PROP OWNERS ASSOC.  
ZONED: INDUSTRIAL  
USE: VACANT LAND  
D.B. 1031 PG. 161  
PIN 9587-29-6396

20-MAY-2021 08:17  
Commercial Blvd\_EC\_psh\_7\_F.incl.dgn

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**SIGNING PLAN**  
**HENDERSON COUNTY**

**LOCATION: LOCATION: EXTENSION OF SR 1970 (COMMERCIAL BOULEVARD)  
TO SR 1803 (CREST ROAD)**

TIP NO. HA-0003	SHEET NO. SIGN-1
DocuSigned by: APPROVED: <u>Jeffrey P. Muhlbauer</u> <small>2021/06/22 14:59:...</small>	
DATE: 6/22/2021	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**TIP PROJECT: HA-0003**

**GENERAL NOTES**

SIGNS FURNISHED BY STATE

ALL TYPE 'E' SIGNS SHALL BE MOUNTED ON U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON PLANS

WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.

WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.

THE BACKGROUND FOR TYPE E SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

**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

**SUMMARY OF QUANTITIES**


ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	44	LF
4102000000	904	SIGN ERECTION, TYPE E	4	EA

**INDEX**

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	E SHEETS
SIGN-3	PROPOSED SIGNS

**CONTRACT: DN00752**

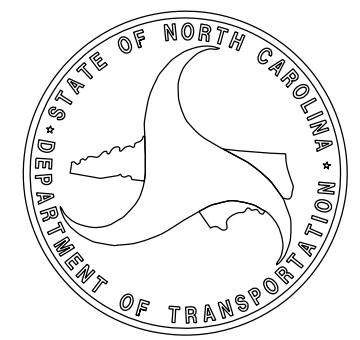
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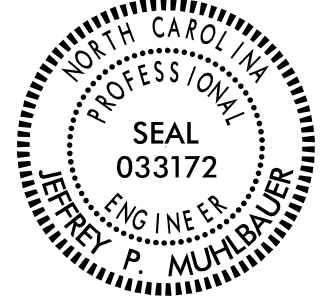
**JEFFREY P. MUHLBAUER, PE** PROJECT ENGINEER

**SPENCER W. MERRITT, EI** PROJECT DESIGN ENGINEER

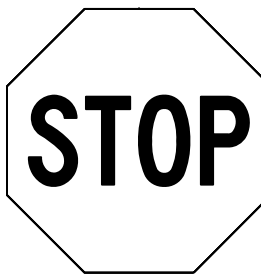
NC FIRM LICENSE No: P-0339  
320 Executive Cour  
Hillsborough, NC 27278  
(919) 732-3883  
(919) 732-6676 (FAX)





TIP NO. 49602	SHEET NO. SIGN-2
APPROVED: <i>Jeffrey P. Muhlbauer</i> <small>0891F1D3EBF148B...</small>	
DATE: 5/12/2021	
SEAL	
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

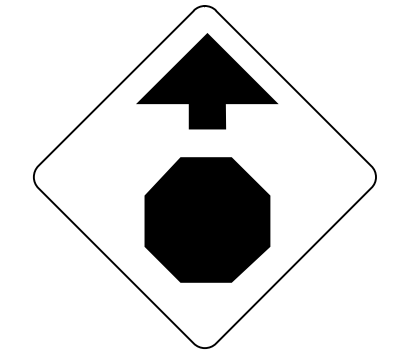
**401** QUANTITY REQ'D 1



30 X 30  
R1-1

ONE "U" POST PER SIGN

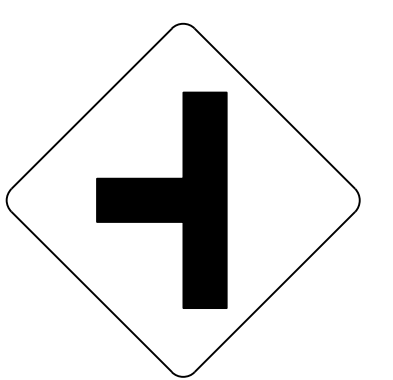
**402** QUANTITY REQ'D 1



30 X 30  
W3-1

ONE "U" POST PER SIGN

**403** QUANTITY REQ'D 2



36 X 36  
W2-2

ONE "U" POST PER SIGN

**TYPE "E" SIGNS**

