

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

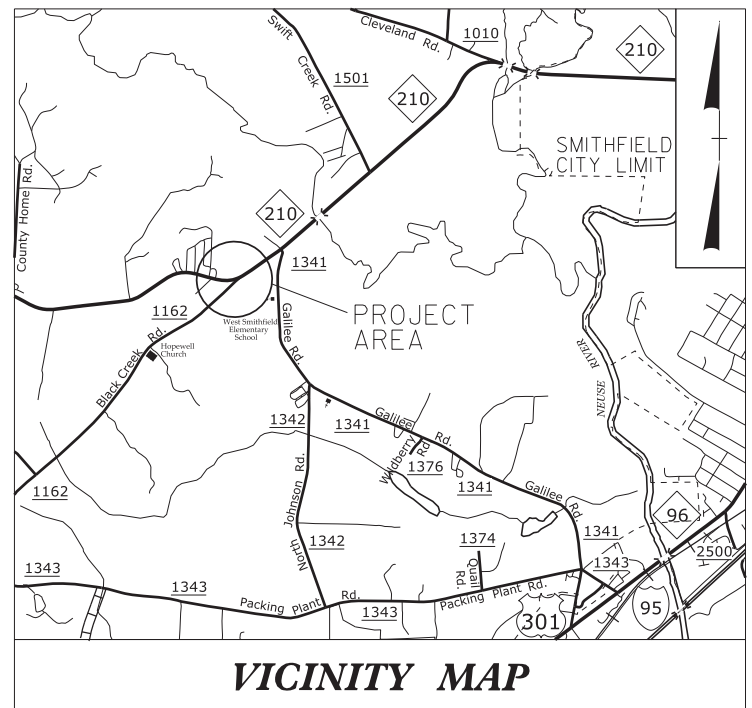


09/08/19

TIP PROJECT: R-5817

CONTRACT: DD00253

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

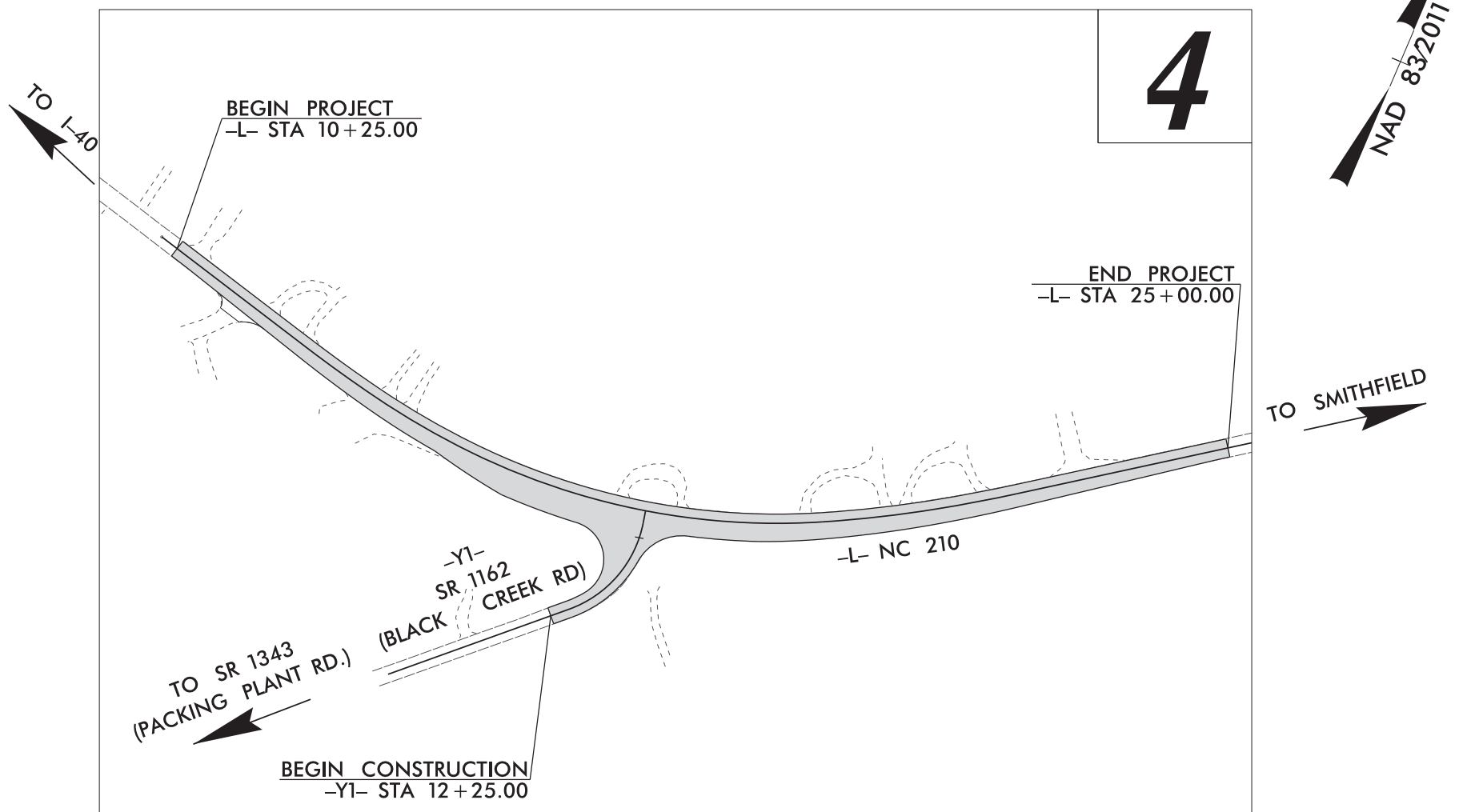


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

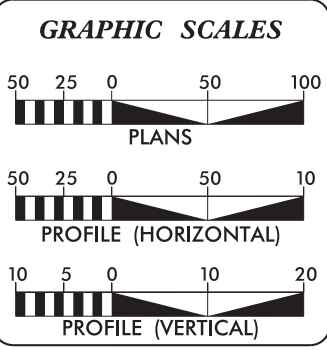
JOHNSTON COUNTY

LOCATION: INTERSECTION AT NC 210 AND SR 1162 (BLACK CREEK RD.)
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5817	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
46989.1.1	NA	P.E.	
46989.2.1	NA	R/W	
46989.3.1	NA	CONST.	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
ADT -L- 2016 = 3600
ADT -YI- 2016 = 1400
V = 50 MPH
FUNC CLASS = MINOR ARTERIAL

PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT R-5817 = 0.279 MILES
TOTAL LENGTH TIP PROJECT R-5817 = 0.279 MILES

RACHEL EVANS, PE
NCDOT CONTACT, DIVISION 4

Prepared in the Office of:
SUMMIT
DESIGN AND ENGINEERING SERVICES
FIRM NO. P-0339
504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.net

2018 STANDARD SPECIFICATIONS

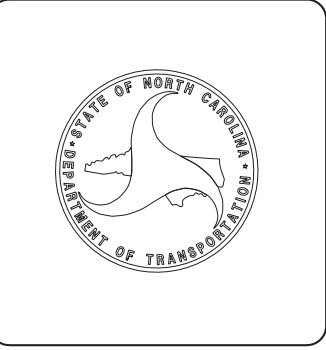
RIGHT OF WAY DATE: DECEMBER 2017
LETTING DATE: JUNE 26, 2018

TRACY N. PARROTT, PE
PROJECT ENGINEER

BRANDON W. JOHNSON, PE
PROJECT DESIGN ENGINEER

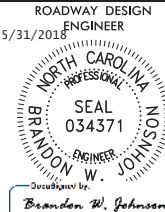

HYDRAULICS ENGINEER
5/31/2018
D.L. Duffield
NORTH CAROLINA PROFESSIONAL SEAL 030405
D.C. DUFFIELD
P.E.

ROADWAY DESIGN ENGINEER
5/31/2018
Brandon W. Johnson
NORTH CAROLINA PROFESSIONAL SEAL 034371
BRANDON W. JOHNSON
P.E.



31-MAY-2018 10:44
R-5817_Rdy_tsh.dgn
spencer.meritt

8/17/99

PROJECT REFERENCE NO. <i>R-5817</i>	SHEET NO. <i>1A</i>
ROADWAY DESIGN ENGINEER 5/31/2018  BRANDON W. JOHNSON ENGINEER Drawn by: <i>Brandon W. Johnson</i>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	 NC FIRM LICENSE No. P-0339 504 Meadows Drive Hillsborough, NC 27278 (919) 752-3883 (919) 752-6676 (FAX)

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-2	SURVEY CONTROL SHEETS
1D-1	PROPOSED ALIGNMENT CONTROL SHEETS
1E-1	RIGHT OF WAY CONTROL SHEETS
2A-1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	ROADWAY SUMMARIES
4 THRU 5	PLAN AND PROFILE SHEET
RW-1	ROW TITLE SHEET
RW-4	ROW PLAN SHEET
TMP-1 THRU TMP-3	TRAFFIC MANAGEMENT PLANS
SD-1	SPECIAL SIGN DESIGN
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1 THRU X-13	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 II.

SUPERELEVATION:
 ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 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. 560.02

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.

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

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

UTILITIES:
 UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, CENTURY LINK, AND CHARTER SPECTRUM
 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	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Super-elevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 8 - INCIDENTALS	
876.04	Drainage Ditches with Class 'B' Rip Rap

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

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

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

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	⊠
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	----- R/W
New Right of Way Line with Pin and Cap	----- R/W ▲
New Right of Way Line with Concrete or Granite RW Marker	----- R/W ▲
New Control of Access Line with Concrete CA 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	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

Single Tree	○
Single Shrub	○

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

EXISTING STRUCTURES:

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

UTILITIES:

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

TELEPHONE:

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

WATER:

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

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

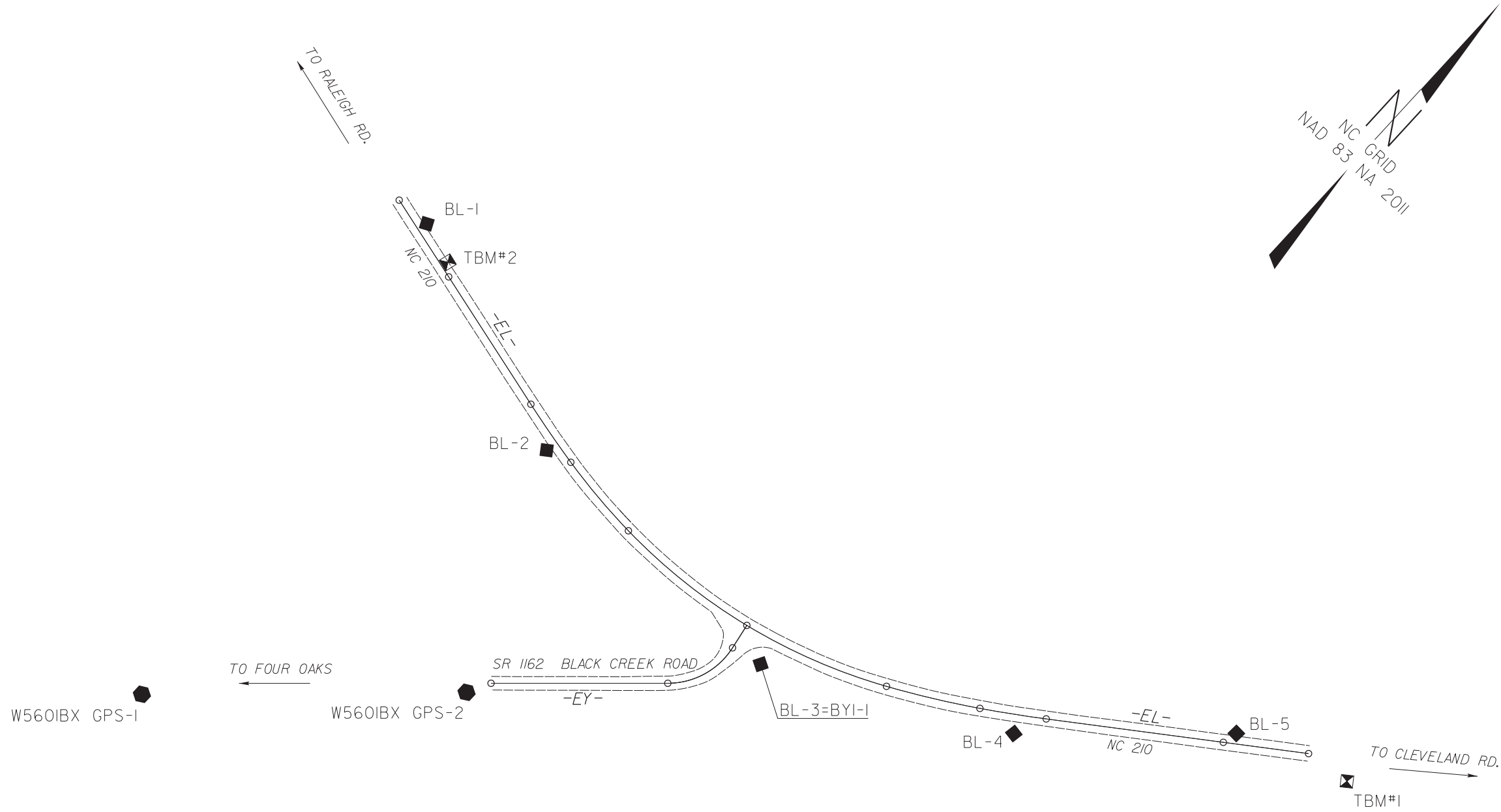
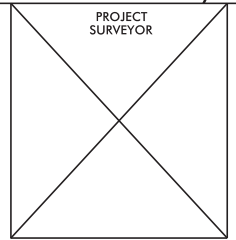
Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	----- TUL
U/G Tank; Water, Gas, Oil	-----
Underground Storage Tank, Approx. Loc.	----- UST
A/G Tank; Water, Gas, Oil	-----
Geoenvironmental Boring	⊕
U/G Test Hole LOS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

6/2/99

SURVEY CONTROL SHEET R-5817

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
R-5817	1C-1
Location and Surveys	



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS-2(W5601BX2)" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 638148.350(ft) EASTING: 2175450.355(ft) ELEVATION: 197.78(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999877977

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS-2(W5601BX2)" TO -L- STATION 10+00 IS
 N72°42'53.27"W 719.38

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

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.
3. NOTE: DRAWING NOT TO SCALE

27-FEB-2018 09:43
R-5817-1C-1.dwg
Lambert

SURVEY CONTROL SHEET R-5817

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION
	107	BL -1	638646.2067	2174909.2107	204.11
	108	BL -2	638512.0083	2175286.8200	202.24
	100	BL -3+BY1 -1	638491.4331	2175759.1848	197.88
	101	BL -4	638679.0714	2176124.0705	202.90
	102	BL -5	638914.4232	2176380.2149	201.62

BENCHMARK DATA

(104) TBM#1 ELEVATION = 205.07
N 638976 E 2176558
RR SPIKE IN BASE OF 30" OAK

(109) TBM#2 ELEVATION = 204.41
N 638624 E 2174974
RR SPIKE SET IN WEST EDGE OF PAVEMENT OF NC 210

BY1	POINT	DESC.	NORTH	EAST	ELEVATION
	2	W5601BX GPS-2	638148.3500	2175450.3550	197.78
	100	BL -3+BY1 -1	638491.4331	2175759.1848	197.88

PRIMARY CONTROL	POINT	DESC.	NORTH	EAST	ELEVATION
	1	W5601BX GPS-1	637803.0749	2175078.6096	198.84

ALIGNMENT DATA

EL	POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
	POT	638644.300	2174852.576							
	LINE			S 75°21'25.2" E	142.70					
	POT	638608.226	2174990.640							
	LINE			S 75°21'25.2" E	237.01					
	PC	638548.311	2175219.951							
	CURVE			S 77°03'13.3" E	110.12	03°23'36.2(LT)	03°04'51.9"	110.14	55.08	1859.59
	PCC	638523.640	2175327.272							
	CURVE			S 82°34'12.4" E	139.90	07°38'22.0(LT)	05°27'24.3"	140.00	70.10	1050.00
	PCC	638505.550	2175465.994							
	CURVE			N 78°33'17.6" E	471.03	30°06'37.9(LT)	06°19'09.3"	476.49	243.88	906.69
	PCC	638599.015	2175927.653							
	CURVE			N 60°44'42.1" E	149.94	05°30'33.2(LT)	03°40'22.1"	150.00	75.06	1560.00
	PCC	638672.291	2176058.471							
	CURVE			N 56°29'40.5" E	104.93	02°59'30.0(LT)	02°51'03.2"	104.94	52.48	2009.76
	PT	638730.212	2176145.962							
	LINE			N 54°59'55.5" E	279.19					
	POT	638890.354	2176374.657							
	LINE			N 54°59'55.5" E	134.41					
	POT	638967.448	2176484.754							

EY	POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
	POT	638521.658	2175702.398							
	LINE			S 10°00'28.5" E	41.56					
	POT	638480.730	2175709.621							
	LINE			N 10°00'28.2" W	0.00					
	PC	638480.730	2175709.621							
	CURVE			S 18°43'38.7" W	115.38	57°28'14.4(RT)	47°44'47.3"	120.37	65.79	120.00
	PT	638371.455	2175672.575							
	LINE			N 47°27'45.0" E	0.00					
	POT	638371.456	2175672.575							
	LINE			S 47°27'45.9" W	276.24					
	POT	638184.697	2175469.029							

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.
3. NOTE: DRAWING NOT TO SCALE

6/2/99

REVISIONS

27-FEB-2018 09:43
2461
Lath, John

PROPOSED ALIGNMENT CONTROL SHEET R-5817

PRELIMINARY

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	638608.2263	2174990.6396
PC	12+37.01	638548.3112	2175219.9515
PCC	13+47.10	638523.6479	2175327.2299
PCC	14+90.47	638505.3457	2175469.3139
PCC	19+62.57	638598.5320	2175926.6838
PCC	21+13.72	638672.3221	2176058.5207
PT	22+18.59	638730.2121	2176145.9617
POT	25+97.78	638947.7130	2176456.5709

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	638197.0198	2175482.4603
PC	12+50.40	638366.3091	2175666.9663
PT	14+05.66	638507.6134	2175712.3642
POT	14+21.36	638522.9848	2175709.1416

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.

6/2/99

REVISIONS

27-FEB-2018 09:43
R-5817-1D-1.dgn
Lath, Johnke

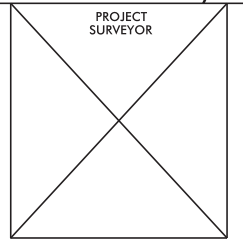
6/2/99

RIGHT OF WAY CONTROL SHEET R-5817

PROJECT REFERENCE NO. SHEET NO.

R-5817 1E-1

Location and Surveys

PROJECT
SURVEYOR**PRELIMINARY**

ROW MARKER IRON PIN AND CAP - E

ALIGN	STATION	OFFSET	NORTH	EAST
L	14+39.00	30.00	638479.8594	2175414.7704
L	16+01.55	60.00	638445.6343	2175584.0913
L	19+17.61	53.00	638530.9431	2175907.1798
L	19+62.57	53.00	638551.0842	2175950.2995
L	21+13.72	53.00	638627.3812	2176086.6155
L	22+18.59	53.00	638686.7977	2176176.3622
L	24+82.00	35.00	638852.6300	2176381.8033
L	24+82.00	30.00	638856.7257	2176378.9353

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
L	19+90.00	71.00	638547.9717	2175983.8771
L	22+01.00	66.00	638665.7906	2176168.8878
L	22+01.00	82.00	638652.6045	2176177.9502
L	22+24.00	79.00	638668.6006	2176195.7034
L	22+24.00	63.00	638681.7068	2176186.5259
L	22+61.00	50.10	638713.4949	2176209.4359

ROW MARKER PERMANENT EASEMENT - E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	13+43.62	86.65	638428.2175	2175797.1615
Y1	13+48.27	78.07	638436.9219	2175790.1072

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.

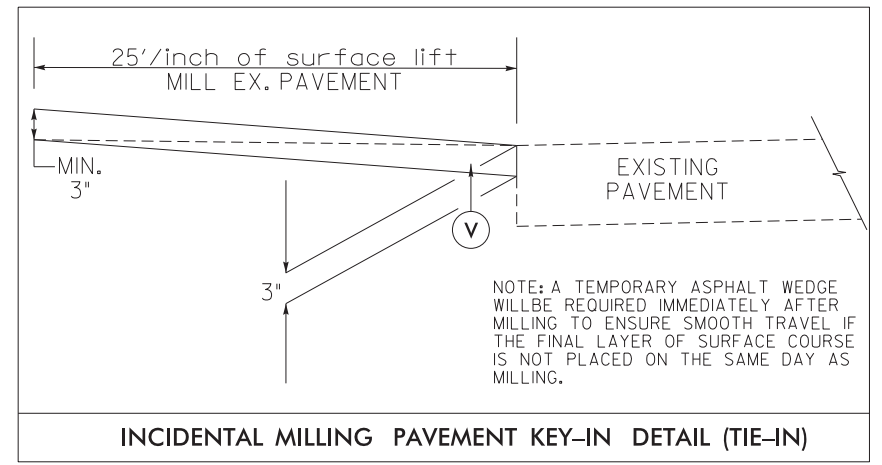
REVISIONS

27-FEB-2018 09:43
R-5817-1E-1.dgn
Laurie Johnson

6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 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.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING BITUMINOUS PAVEMENT. 3" DEPTH.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

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



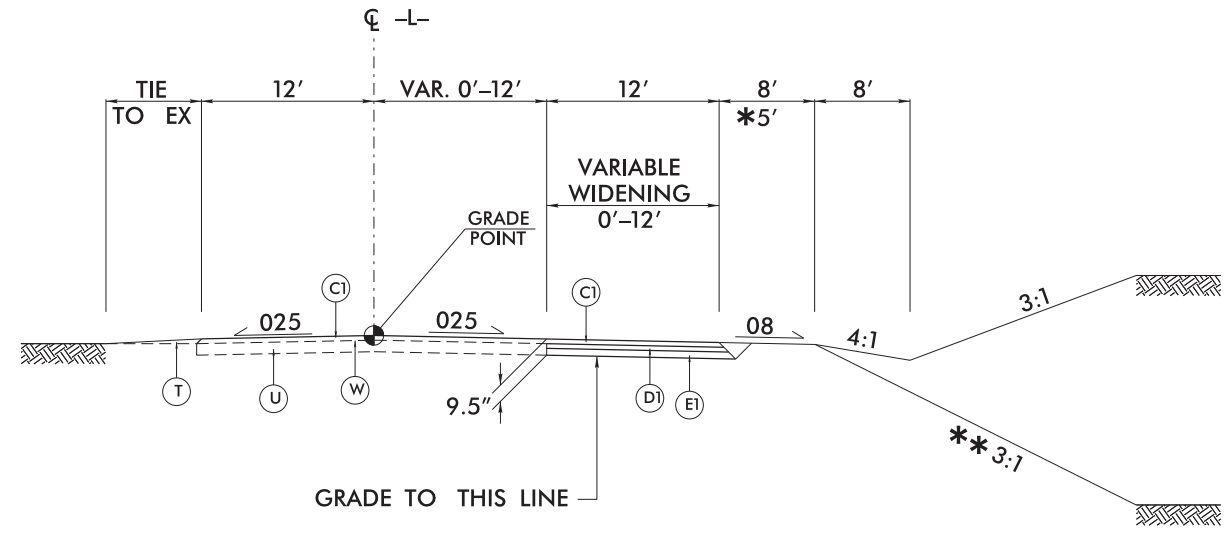
-L- STA 10+25.00 TO 11+00.00
 -L- STA 24+25.00 TO 25+00.00
 -Y1- STA 12+25.00 TO 13+00.00

STATION RANGES ARE APPROXIMATE ONLY.
 GRADE MAY BE ADJUSTED BY ENGINEER
 TO ENSURE A PROPER TIE-IN.

27-FEB-2018 09:43
 R-5817_Rdy_typ.dgn
 fatb,leahnik

PROJECT REFERENCE NO. R-5817	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER 2/27/2018 BRANDON W. JOHNSON	PAVEMENT DESIGN ENGINEER 2/28/2018 RACHEL C. EVANS
SEAL 034371	SEAL 037392
Prepared in the Office of:	Prepared in the Office of:
UNLESS ALL SIGNATURES COMPLETED NOT CONSIDERED FINAL	

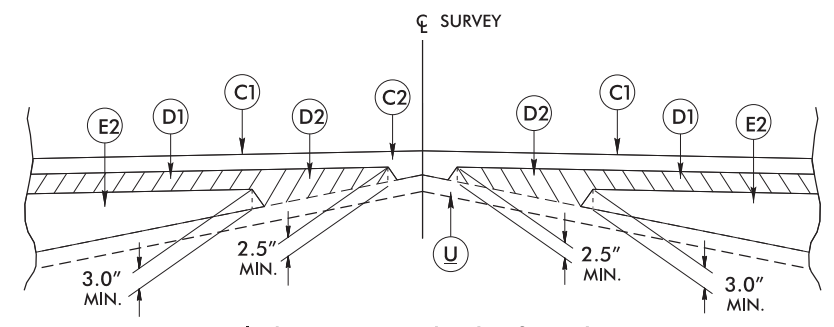
**** SLOPES MAY BE STEEPER THAN 3:1 TO AVOID SLIVER FILL, NO SLOPE SHALL BE STEEPER THAN 2:1**



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

*-L- STA 10+25.00 TO 11+50.00
 -L- STA 11+50.00 TO 25+00.00




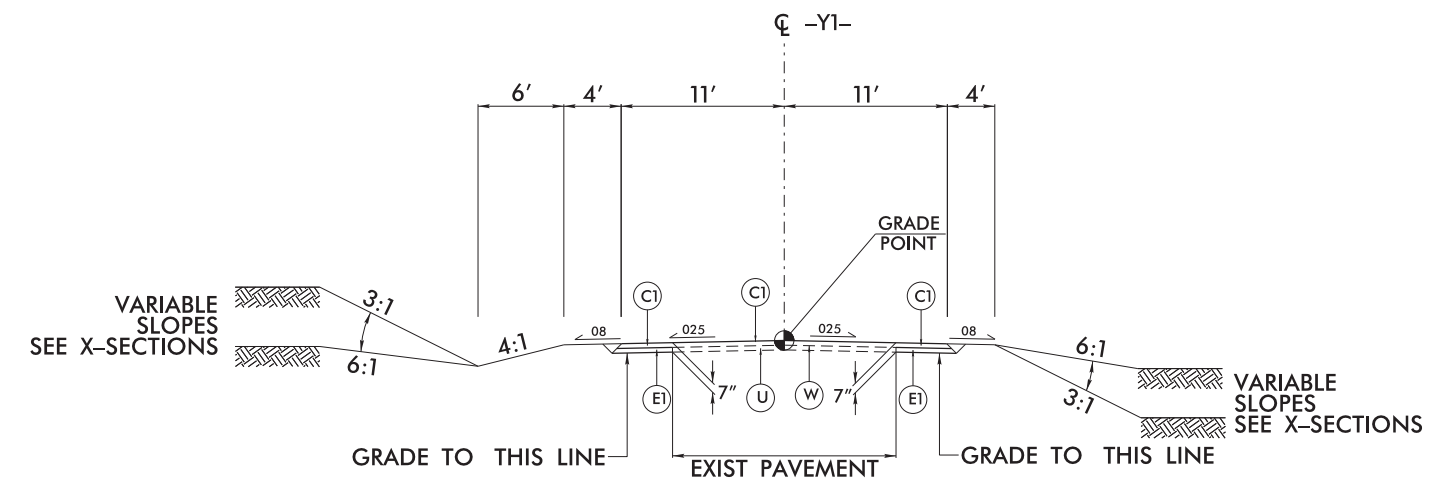
Detail Showing Method of Wedging

6/2/99

PAVEMENT SCHEDULE	
C1	3" S9.5B
C2	VAR. S9.5B
D1	2 1/2" I19.5C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V	3" MILLING
W	WEDGING

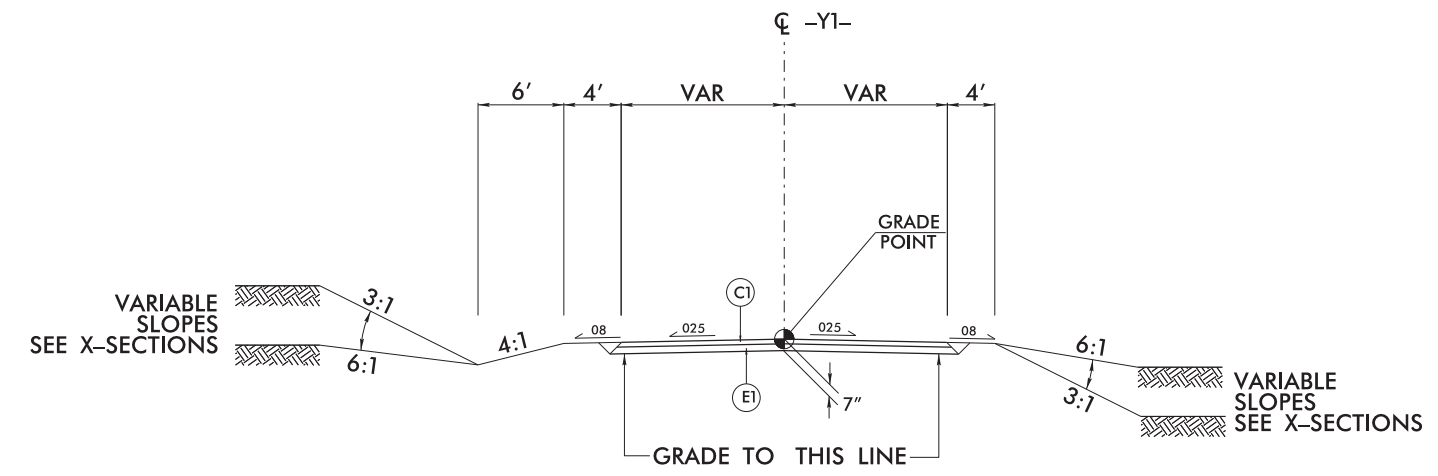
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO. R-5817	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER 2/27/2018 BRAYDON W. JOHNSON SEAL 034371 NORTH CAROLINA PROFESSIONAL ENGINEER	PAVEMENT DESIGN ENGINEER 2/28/2018 RACHEL C. EVANS SEAL 037392 NORTH CAROLINA PROFESSIONAL ENGINEER
Prepared in the Office of: 	
UNLESS ALL SIGNATURES COMPLETED	



TYPICAL SECTION NO. 2

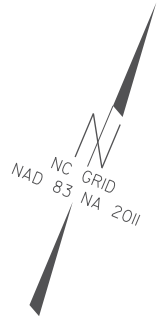
USE TYPICAL SECTION NO. 2
-Y1- STA 12+25.00 TO 13+00.00



TYPICAL SECTION NO. 3

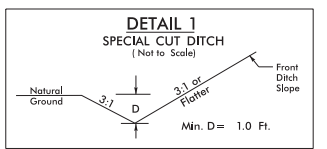
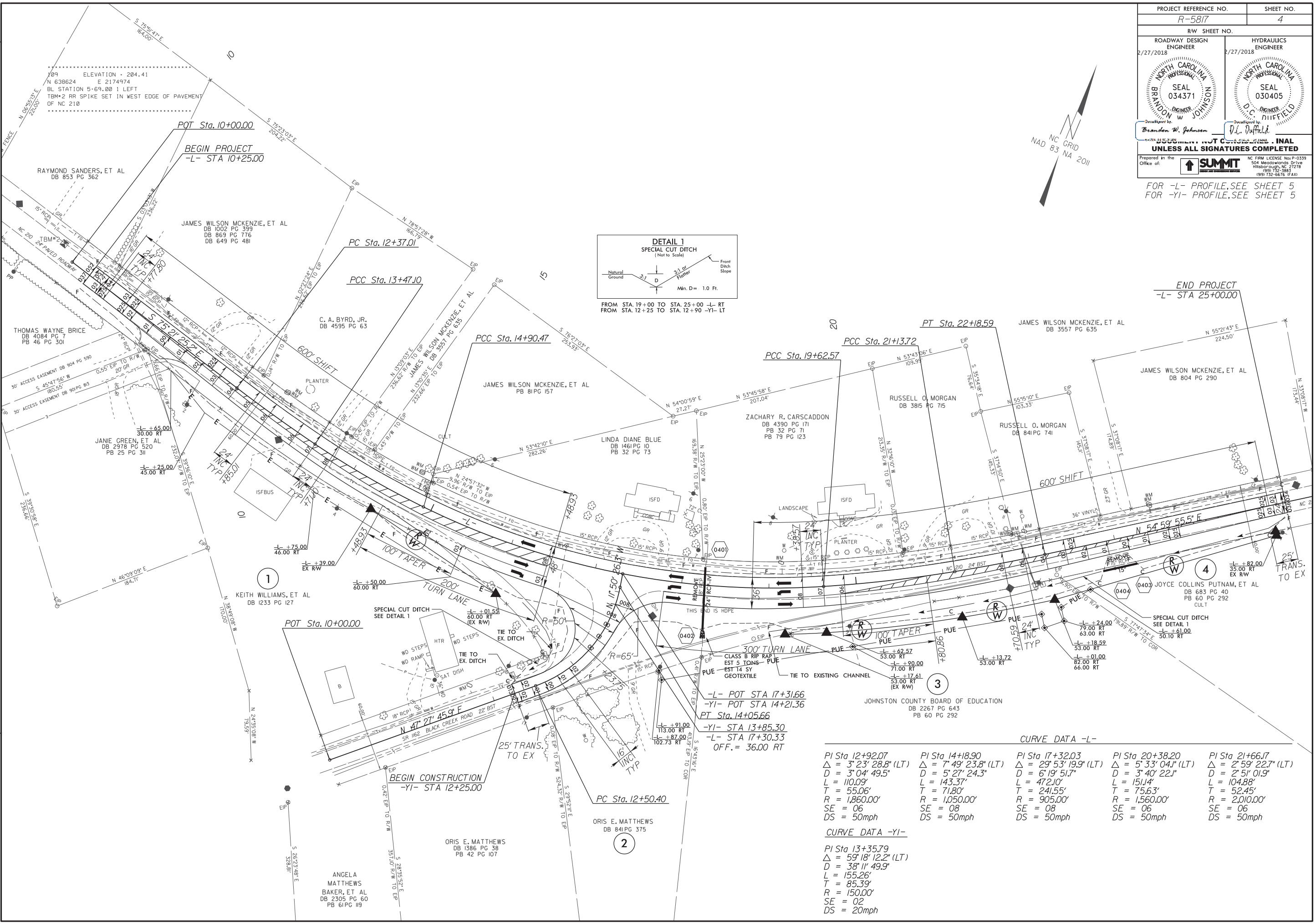
USE TYPICAL SECTION NO. 3
-Y1- STA 13+00.00 TO 13+85.30

PROJECT REFERENCE NO. R-5817	SHEET NO. 4
ROADWAY DESIGN ENGINEER 2/27/2018	HYDRAULICS ENGINEER 2/27/2018
Prepared in the Office of: 	UNLESS ALL SIGNATURES COMPLETED



FOR -L- PROFILE, SEE SHEET 5
FOR -YI- PROFILE, SEE SHEET 5

REVISIONS



FROM STA. 19+00 TO STA. 25+00 -L- RT
FROM STA. 12+25 TO STA. 12+90 -YI- LT

CURVE DATA -L-

PI Sta 12+92.07 $\Delta = 3^{\circ} 23' 28.8''$ (LT) $D = 3^{\circ} 04' 49.5''$ $L = 110.09'$ $T = 55.06'$ $R = 1,860.00'$ $SE = 06$ $DS = 50$ mph	PI Sta 14+18.90 $\Delta = 7^{\circ} 49' 23.8''$ (LT) $D = 5^{\circ} 27' 24.3''$ $L = 143.37'$ $T = 71.80'$ $R = 1,050.00'$ $SE = 08$ $DS = 50$ mph	PI Sta 17+32.03 $\Delta = 29^{\circ} 53' 19.9''$ (LT) $D = 6^{\circ} 19' 51.7''$ $L = 472.10'$ $T = 241.55'$ $R = 905.00'$ $SE = 08$ $DS = 50$ mph	PI Sta 20+38.20 $\Delta = 5^{\circ} 33' 04.1''$ (LT) $D = 3^{\circ} 40' 22.1''$ $L = 151.14'$ $T = 75.63'$ $R = 1,560.00'$ $SE = 06$ $DS = 50$ mph	PI Sta 21+66.77 $\Delta = 2^{\circ} 59' 22.7''$ (LT) $D = 2^{\circ} 51' 01.9''$ $L = 104.88'$ $T = 52.45'$ $R = 2,010.00'$ $SE = 06$ $DS = 50$ mph
---	---	---	---	---

CURVE DATA -YI-

PI Sta 13+35.79 $\Delta = 59^{\circ} 18' 12.2''$ (LT) $D = 38^{\circ} 11' 49.9''$ $L = 155.26'$ $T = 85.39'$ $R = 150.00'$ $SE = 02$ $DS = 20$ mph

10

15

20

1

2

3

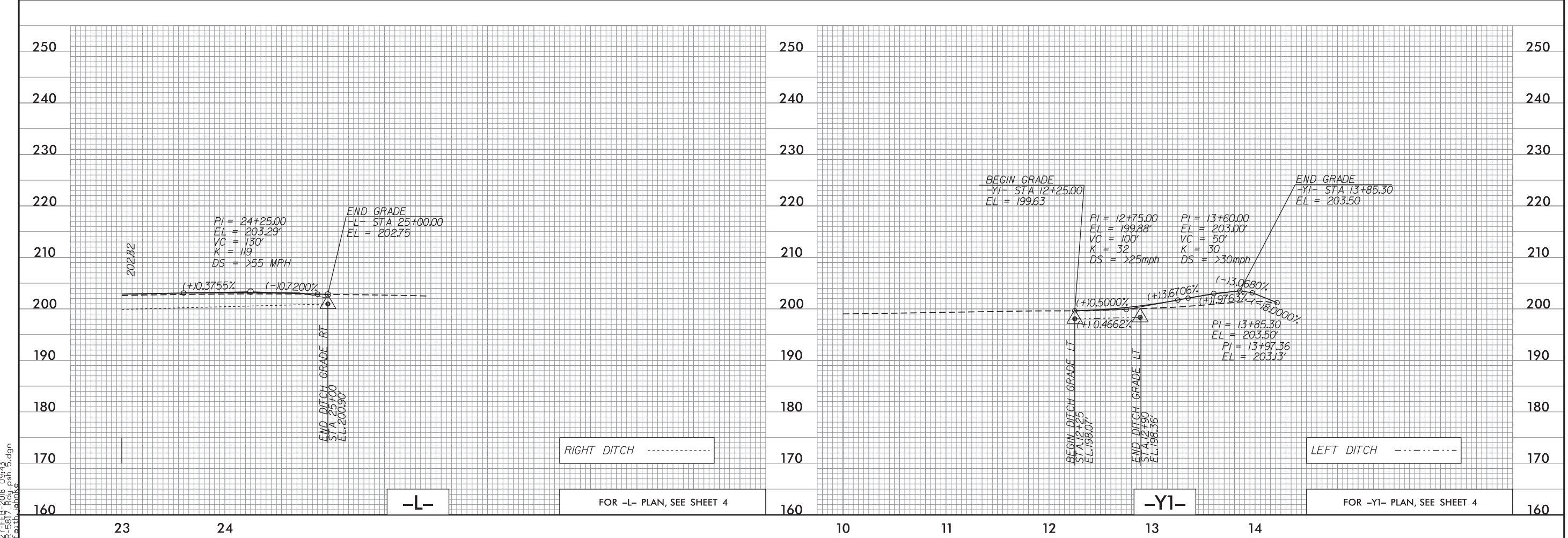
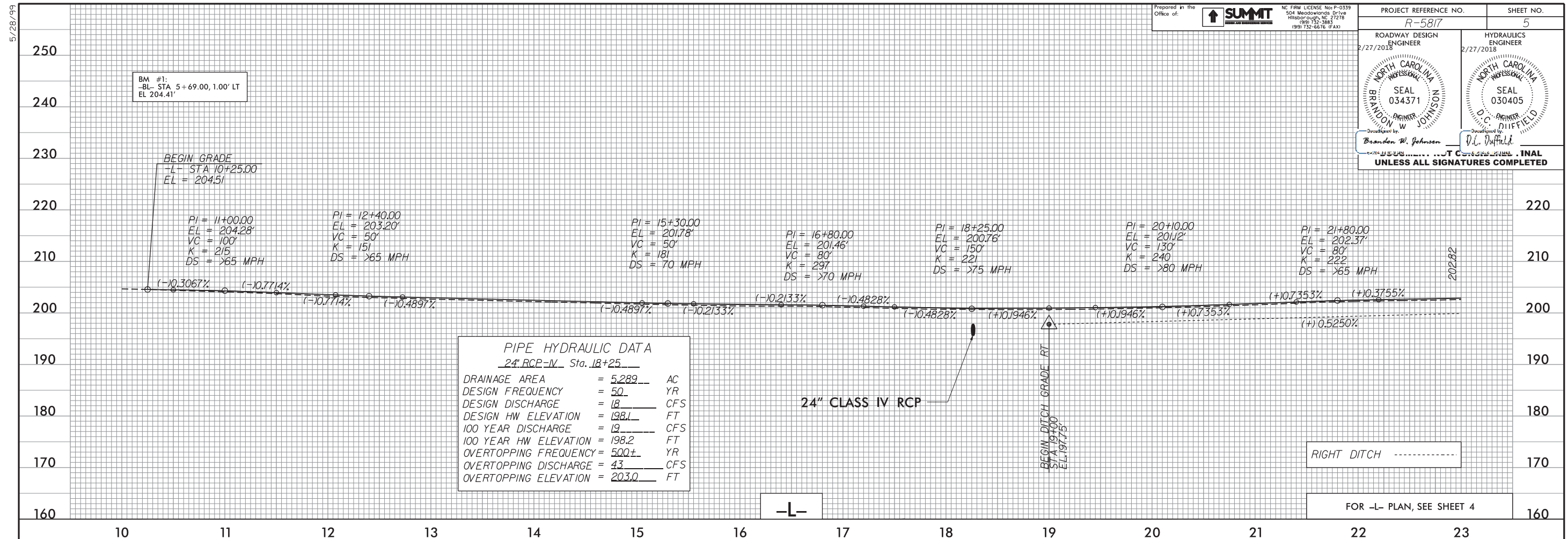
4

ROADWAY DESIGN ENGINEER
2/27/2018
NORTH CAROLINA PROFESSIONAL SEAL 034371
BRANDON W. JOHNSON

HYDRAULICS ENGINEER
2/27/2018
NORTH CAROLINA PROFESSIONAL SEAL 030405
D.L. DUFFIELD

Drawn by: **Brandon W. Johnson**
Checked by: **D.L. Duffield**

UNLESS ALL SIGNATURES COMPLETED



27-FEB-2018 09:43
R-5817_Rdy_psh_B.dgn
faib,annke

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR NEW
RIGHT OF WAY AND EASEMENTS

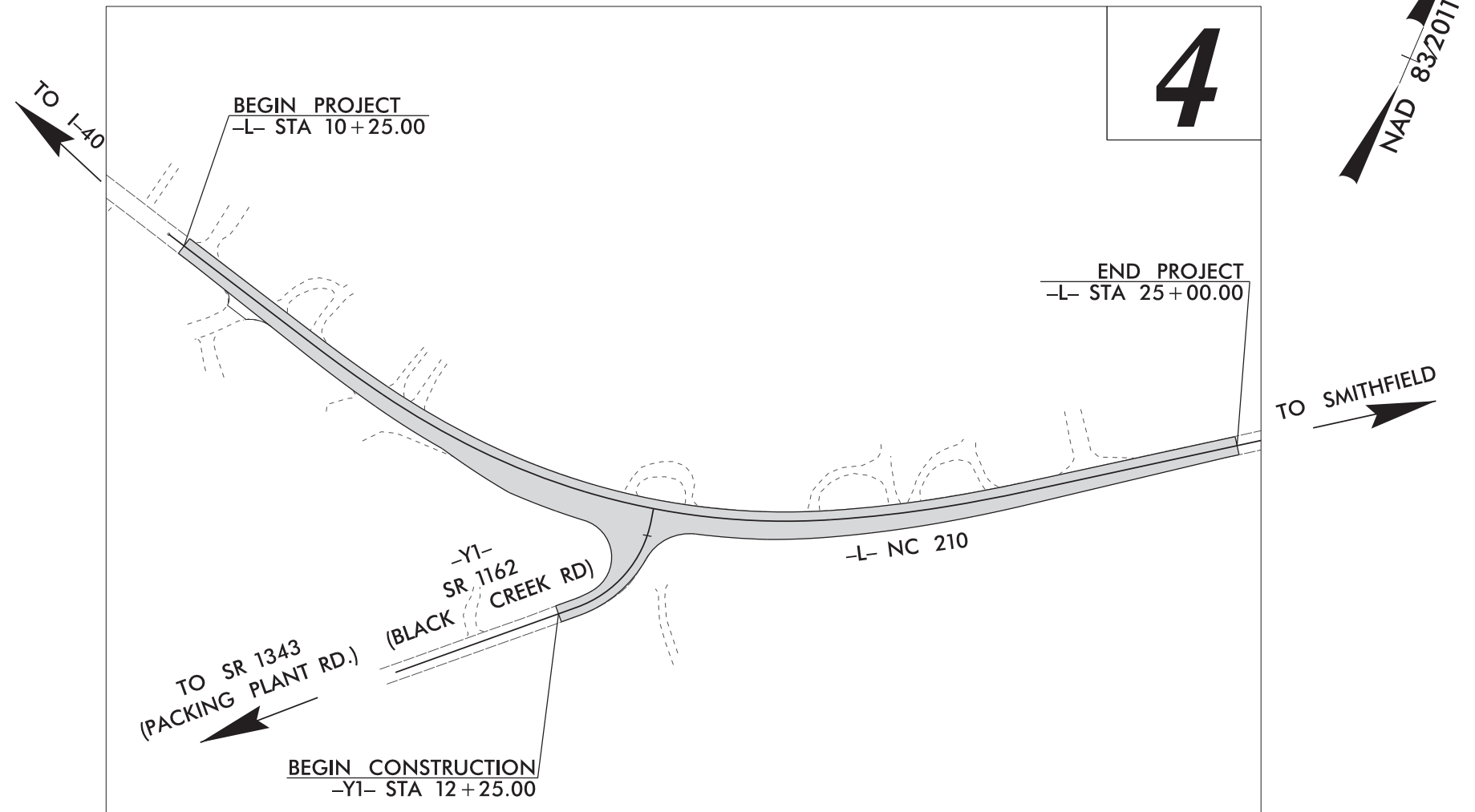
JOHNSTON COUNTY

LOCATION: INTERSECTION AT NC 210 AND SR 1162 (BLACK CREEK RD.)
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5817	RW-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46989.1.1	NA	P.E.	
46989.2.1	NA	R/W	
46989.3.1	NA	CONST.	

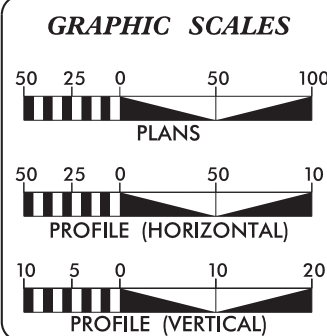
TIP PROJECT: R-5817

CONTRACT: DD00253



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

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA
ADT -L- 2016 = 3600
ADT -YI- 2016 = 1400
V = 50 MPH

FUNC CLASS =
MINOR ARTERIAL

PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT R-5817 = 0.279 MILES
TOTAL LENGTH TIP PROJECT R-5817 = 0.279 MILES

RACHEL EVANS, PE
NCDOT CONTACT, DIVISION 4

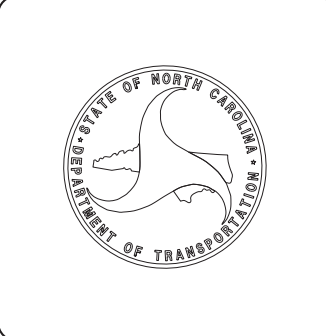
Prepared in the Office of:
SUMMIT
DESIGN AND ENGINEERING SERVICES
FIRM NO. P-0339
504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.net

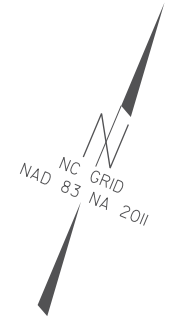
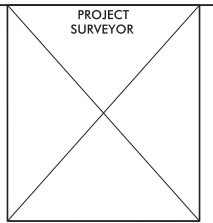
2018 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
DECEMBER 2017

LETTING DATE:
MARCH 27, 2018

PROFESSIONAL LAND SURVEYOR

SIGNATURE: _____ P.E.





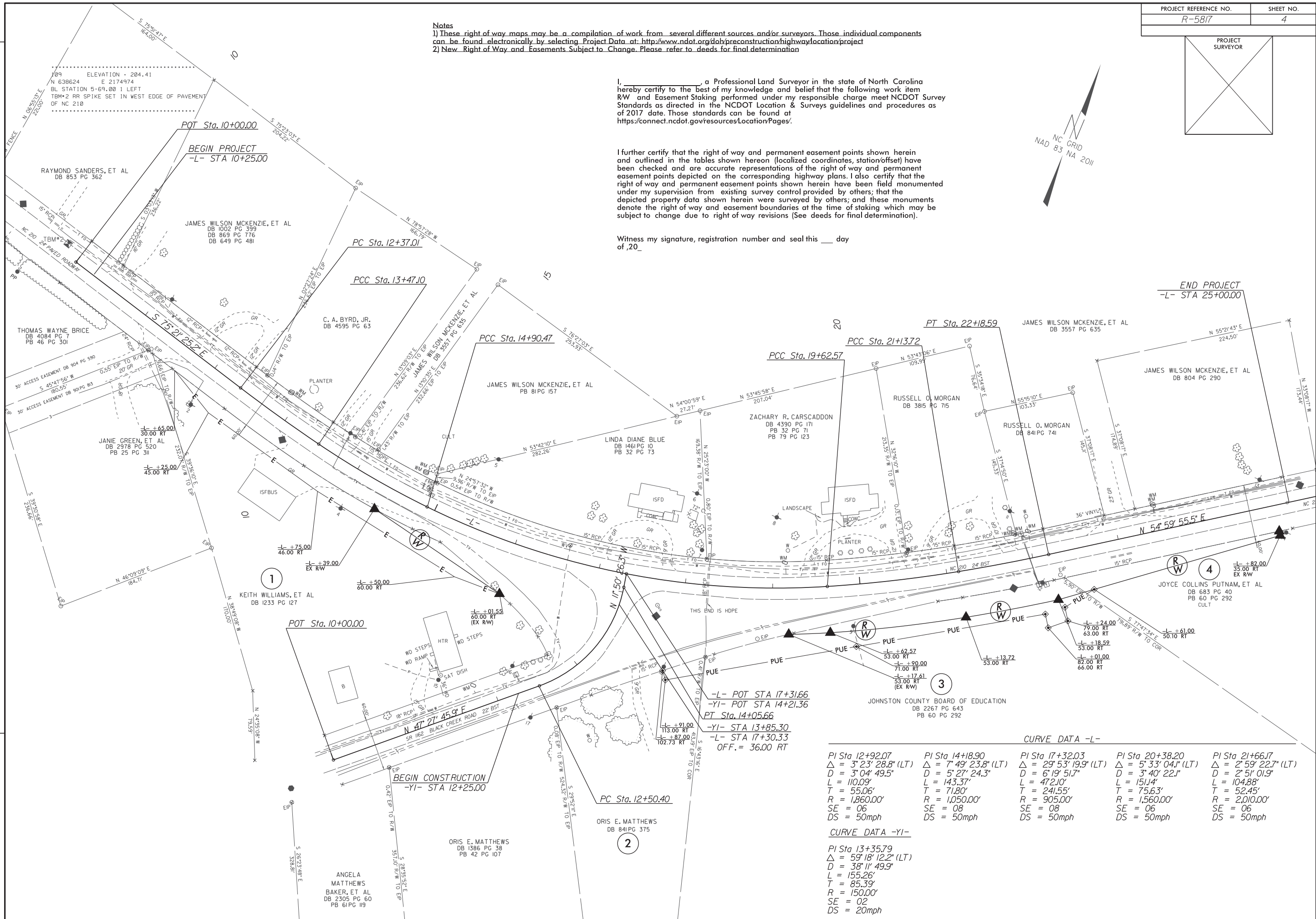
Notes
 1) These right of way maps may be a compilation of work from several different sources and/or surveyors. Those individual components can be found electronically by selecting Project Data at: <http://www.ndot.org/doh/preconstruction/highway/location/project>
 2) New Right of Way and Easements Subject to Change. Please refer to deeds for final determination

I, _____, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item RW and Easement Staking performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures as of 2017 date. Those standards can be found at <https://connect.ncdot.gov/resources/Location/Pages/>.

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

Witness my signature, registration number and seal this ___ day of 20__

REVISIONS



CURVE DATA -L-

PI Sta 12+92.07 Δ = 3° 23' 28.8" (LT) D = 3° 04' 49.5" L = 110.09' T = 55.06' R = 1,860.00' SE = 06 DS = 50mph	PI Sta 14+18.90 Δ = 7° 49' 23.8" (LT) D = 5° 27' 24.3" L = 143.37' T = 71.80' R = 1,050.00' SE = 08 DS = 50mph	PI Sta 17+32.03 Δ = 29° 53' 19.9" (LT) D = 6° 19' 51.7" L = 472.10' T = 241.55' R = 905.00' SE = 08 DS = 50mph	PI Sta 20+38.20 Δ = 5° 33' 04.1" (LT) D = 3° 40' 22.1" L = 151.14' T = 75.63' R = 1,560.00' SE = 06 DS = 50mph	PI Sta 21+66.17 Δ = 2° 59' 22.7" (LT) D = 2° 51' 01.9" L = 104.88' T = 52.45' R = 2,010.00' SE = 06 DS = 50mph
---	---	---	---	---

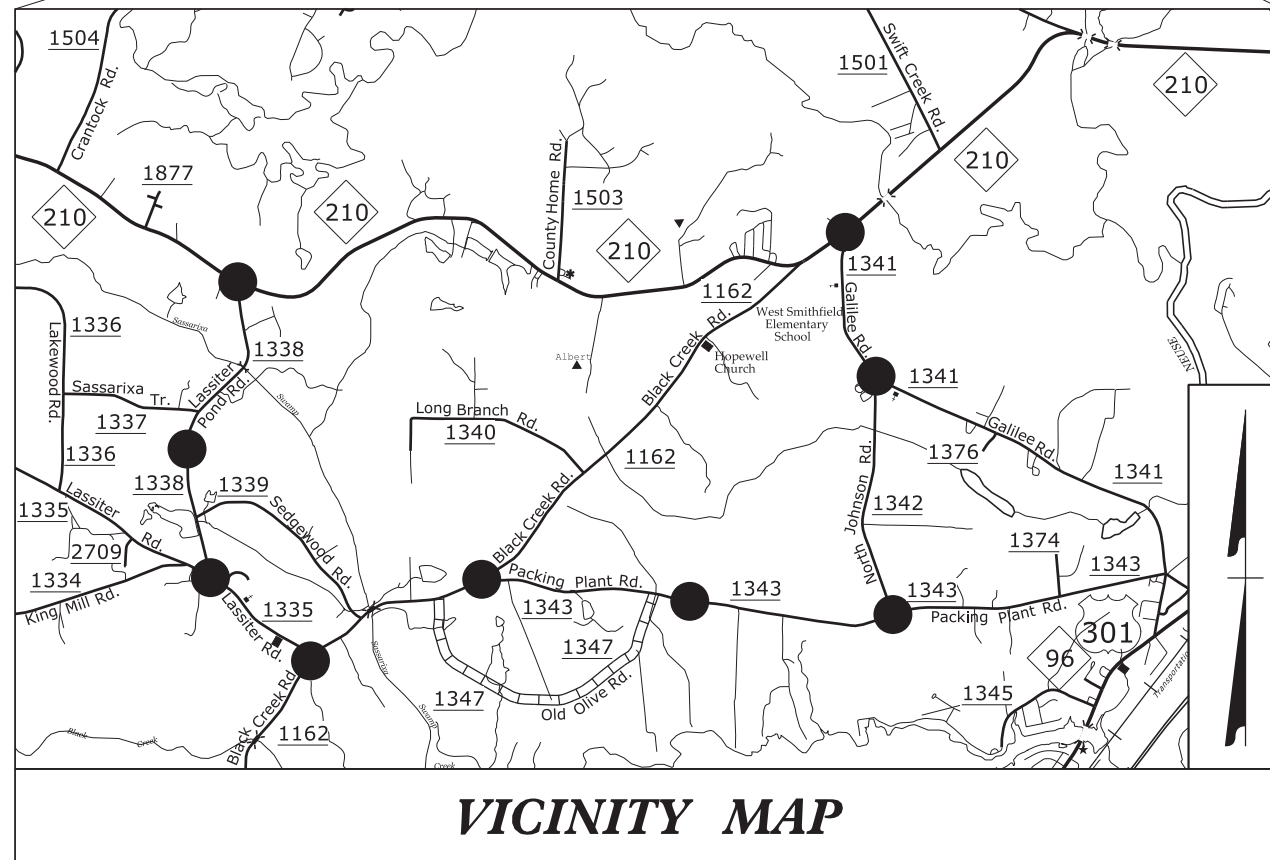
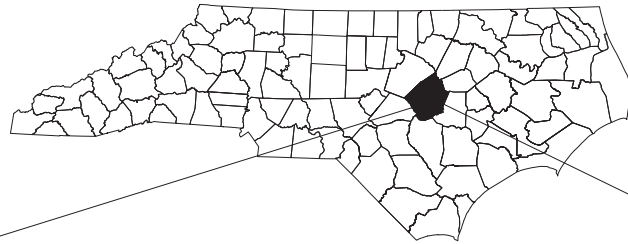
CURVE DATA -YI-

PI Sta 13+35.79 Δ = 59° 18' 12.2" (LT) D = 38° 11' 49.9" L = 155.26' T = 85.39' R = 150.00' SE = 02 DS = 20mph

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

JOHNSTON COUNTY
(SR 1162 - BLACK CREEK RD)



● DETOUR ROUTE

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, GENERAL NOTES AND LOCAL NOTES)
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)
TMP-2	PHASE 1 DETAIL DRAWING
TMP-3	OFFSITE DETOUR PLAN
SD-1	SPECIAL SIGN DESIGN

ROADWAY STANDARD DRAWINGS

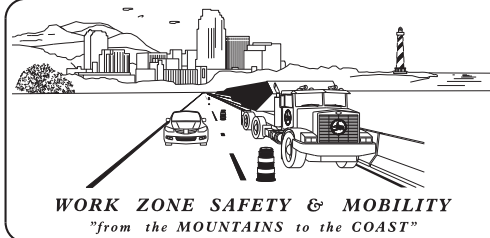
THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS

LEGEND

- DIRECTION OF TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- BARRICADE (TYPE III)
- STATIONARY SIGN

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
J. S. BOURNE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
B. W. JOHNSON, P.E. TRAFFIC CONTROL PROJECT DESIGN ENGINEER
F. E. JAHNKE, E.I. TRAFFIC CONTROL DESIGNER

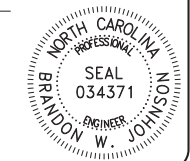


Prepared in the Office of:
SUMMIT
DESIGN AND ENGINEERING SERVICES

NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

APPROVED: Brandon W. Johnson
DATE: 2/27/2018

SEAL



20-FEB-2018 09:49
R-5817_IC_TMP_djgn
spencer.merritt

SHEET NO.
TMP-1

R-5817

PROJECT:

GENERAL NOTES (CONT.)

- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER WITHIN 5 FT ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- F) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- G) 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 EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

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

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

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

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

TRAFFIC PATTERN ALTERATIONS

- I) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- J) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- K) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

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

GENERAL NOTES (CONT.)

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

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN
- N) INSTALL BLACK ON ORANGE *DIP* SIGNS (W8-2) AND/OR *BUMP* SIGNS (W8-1) 350 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- O) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- P) PLACE TYPE III BARRICADES WITH *ROAD CLOSED* SIGN R11-2 ATTACHED OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- Q) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS, CONES OR SKINNY DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

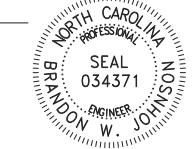
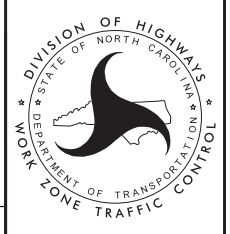
- R) INSTALL TEMPORARY PAVEMENT MARKING AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

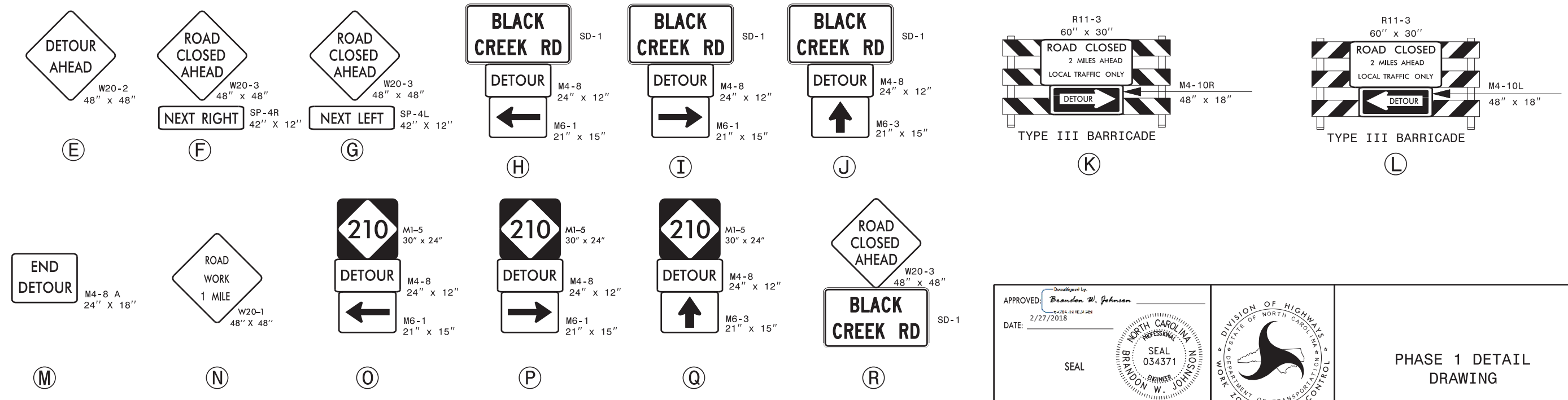
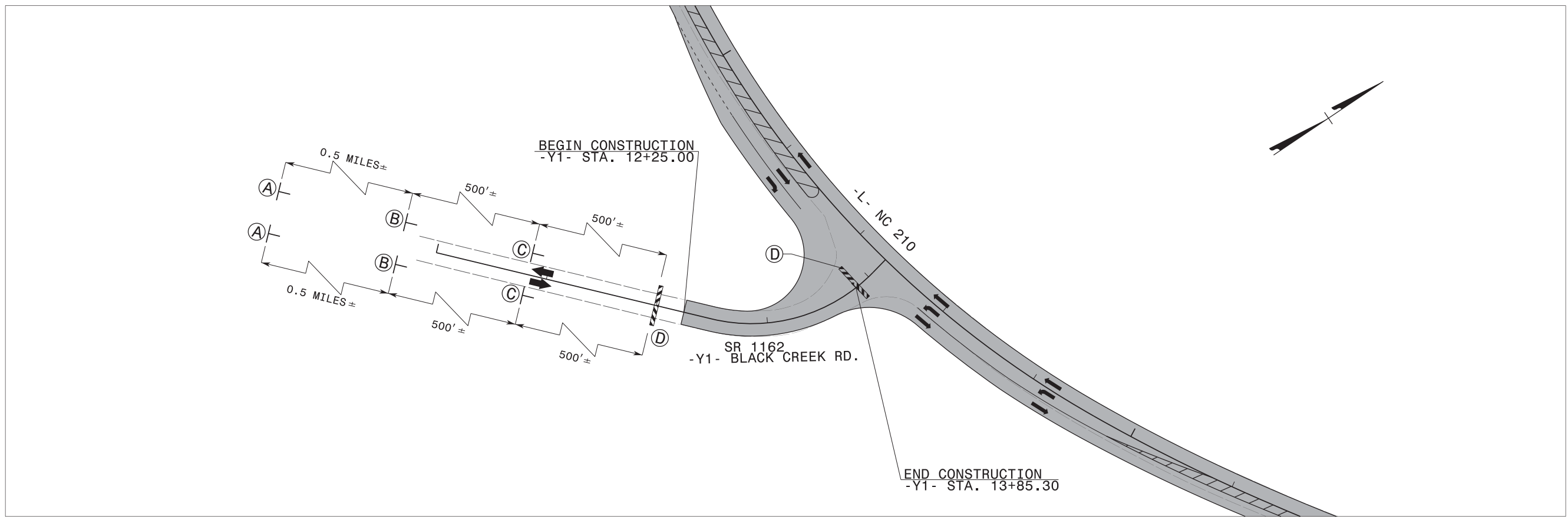
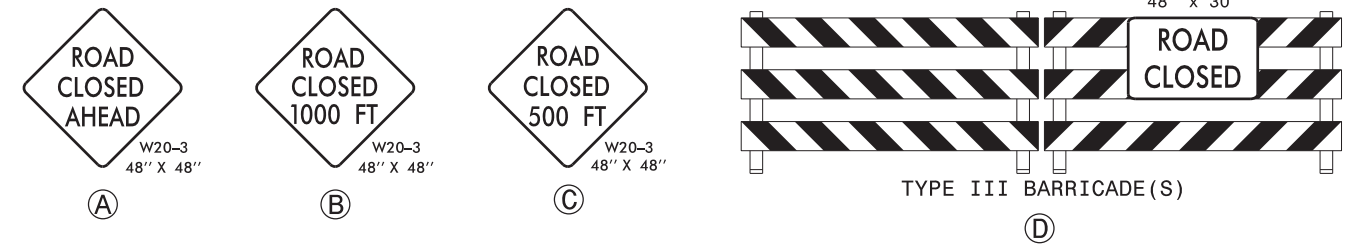
ROAD NAME	MARKING	MARKER
ALL	PAINT	TEMP RAISED

- S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

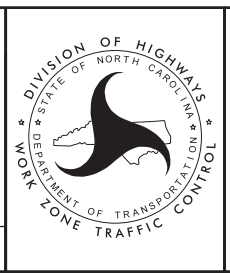
- V) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

APPROVED: <i>Brandon W. Johnson</i> DATE: 2/27/2018 SEAL 		TRANSPORTATION OPERATIONS PLAN
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



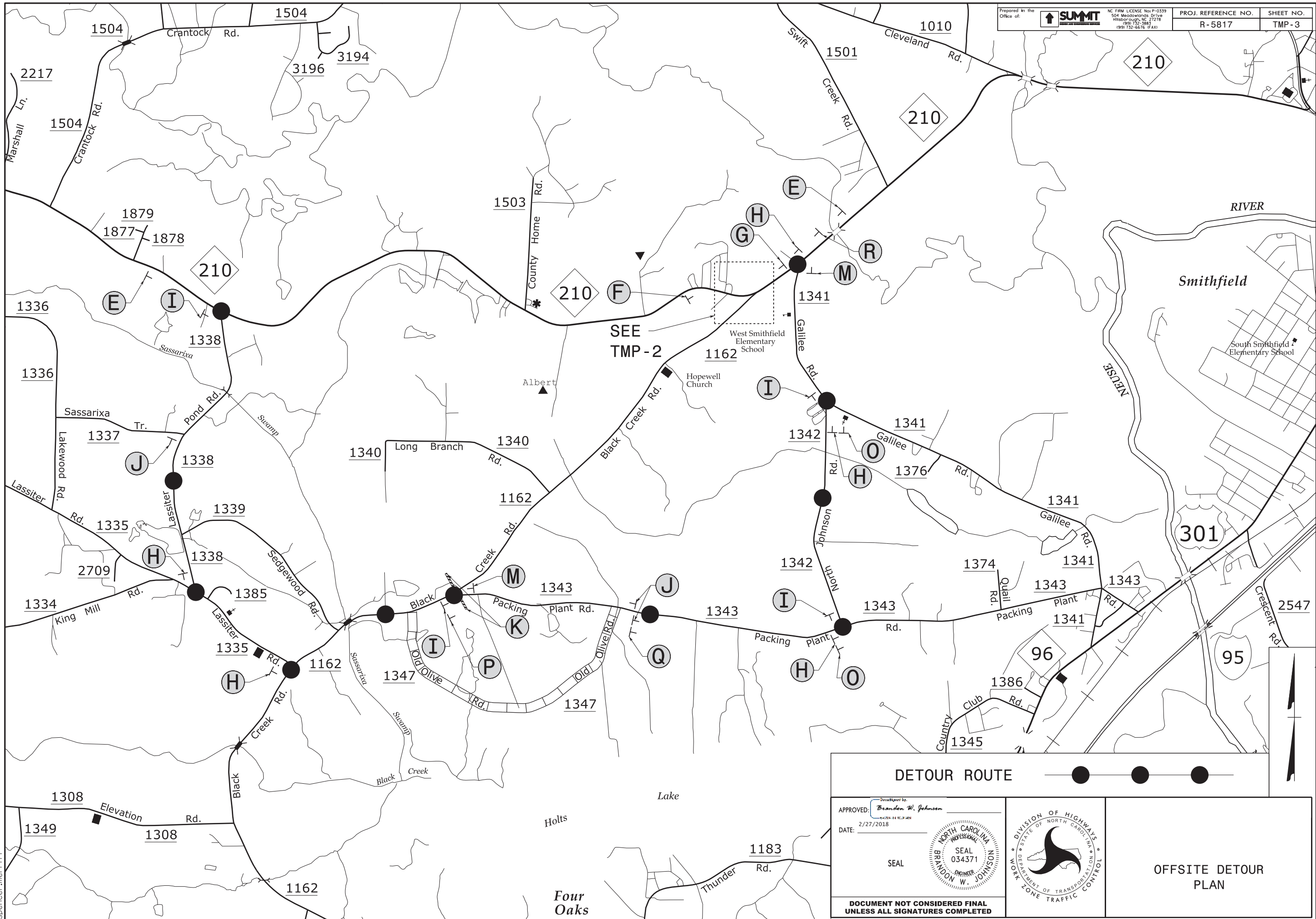
20-FEB-2018 09:49
 R-5817_TC_TMP_2.dgn
 spencer.merritt

APPROVED: *Brandon W. Johnson*
 DATE: 2/27/2018
 SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 BRANDON W. JOHNSON
 SEAL 034371



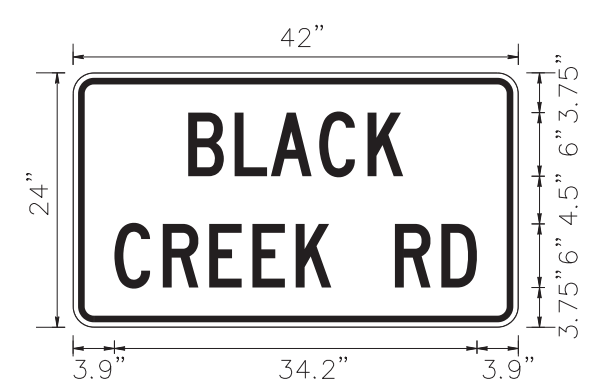
PHASE 1 DETAIL
 DRAWING

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

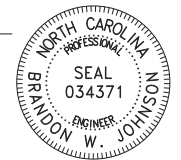



20-FEB-2018 09:49
R-5817-TC-TMP-3.dgn
spencer.merritt

DETOUR ROUTE			OFFSITE DETOUR PLAN
APPROVED: <i>Brandon W. Johnson</i> DATE: 2/27/2018	SEAL 		

<p>SIGN NUMBER: SD-1 TYPE: STATIONARY QUANTITY: SEE PLANS</p> <p>SIGN WIDTH: 3'-6" HEIGHT: 2'-0" TOTAL AREA: 7.0 SF</p> <p>BORDER TYPE: INSERT RECESS: 0.47" WIDTH: 0.63" RADII: 1.50"</p> <p>NO. Z BARS: N/A LENGTH: N/A</p> <p style="text-align: center;">MAT'L: 0.125" ALUMINUM</p> <p>USE NOTES: 1,2 1. Legend and border shall be direct applied black non-reflective sheeting. 2. Background shall be NC GRADE B flourescent orange retroreflective sheeting.</p>	<p>DESIGN BY: SWM PROJECT ID: R-5817</p> <p>CHECKED BY: BWJ DIV: 6</p> <p>DATE: Nov 2017</p> <div style="text-align: center;">  </div> <p>BORDER R=1.50" TH=0.63" IN=0.47"</p> <p style="text-align: right;">Spacing Factor is 1 unless specified otherwise</p>																																																																																																																																																										
<p>LETTER POSITIONS</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="13">Letter spacings are to start of next letter</th> <th>Series/Size</th> </tr> <tr> <th></th> <th>B</th> <th>L</th> <th>A</th> <th>C</th> <th>K</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Text Length</th> </tr> </thead> <tbody> <tr> <td></td> <td>10.9</td> <td>4.4</td> <td>3.4</td> <td>4.6</td> <td>4.6</td> <td>3.4</td> <td>10.9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>20.4</td> </tr> <tr> <td></td> <td></td> <td>C</td> <td>R</td> <td>E</td> <td>E</td> <td>K</td> <td></td> <td>R</td> <td>D</td> <td></td> <td></td> <td></td> <td>34.2</td> </tr> <tr> <td></td> <td>3.9</td> <td>4.6</td> <td>4.4</td> <td>4.1</td> <td>4.1</td> <td>3.4</td> <td>6</td> <td>4.4</td> <td>3.4</td> <td>3.9</td> <td></td> <td></td> <td>6</td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>FILENAME: R-5817_TC_SD-1.dgn SUMMIT DESIGN & ENGINEERING SIGN DETAIL</p>		Letter spacings are to start of next letter													Series/Size		B	L	A	C	K								Text Length		10.9	4.4	3.4	4.6	4.6	3.4	10.9						20.4			C	R	E	E	K		R	D				34.2		3.9	4.6	4.4	4.1	4.1	3.4	6	4.4	3.4	3.9			6																																																																																				
Letter spacings are to start of next letter													Series/Size																																																																																																																																														
	B	L	A	C	K								Text Length																																																																																																																																														
	10.9	4.4	3.4	4.6	4.6	3.4	10.9						20.4																																																																																																																																														
		C	R	E	E	K		R	D				34.2																																																																																																																																														
	3.9	4.6	4.4	4.1	4.1	3.4	6	4.4	3.4	3.9			6																																																																																																																																														

20-FEB-2018 09:49
 R-5817_TC_SD-1.dgn
 spencer.merritt

<p>APPROVED: <i>Brandon W. Johnson</i> DATE: 2/27/2018</p> <p style="text-align: center;">SEAL</p>			<p>SPECIAL SIGN DESIGN</p>
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>			


PROJECT: R-5817

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

LOCATION: INTERSECTION AT NC 210 AND SR 1162 (BLACK CREEK RD)
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING.

TIP NO. R-5817	SHEET NO. PMP-1
APPROVED <small>Drawn/checked by:</small> <i>Brandon W. Johnson</i>	
DATE: 2/27/2018	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS

**PROJECT R-5817
PAVEMENT MARKING SCHEDULE**

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
THERMO (4")		
TA	WHITE EDGE LINE	3205 LF (90MIL)
TD	3'-9' WHITE MINI-SKIP	55 LF (120MIL)
TE	WHITE SOLID LANE LINE	305 LF (120MIL)
TI	YELLOW DOUBLE CENTER	5240 LF (120MIL)
THERMO (8")		
TP	YELLOW DIAGONAL	225 LF (90MIL)
UA	LEFT TURN ARROW	2 EA (90MIL)
UB	RIGHT TURN ARROW	1 EA (90MIL)
RAISED MARKERS		37 EA

GENERAL NOTES

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

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

<u>ROAD NAME</u>	<u>MARKING</u>	<u>MARKER</u>
NC 210	THERMO	SNOW PLOWABLE
SR 1162	THERMO	NONE

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

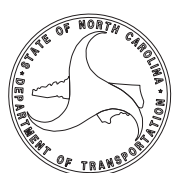
Prepared in the Office of:



NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
Hillsborough, NC 27278
(919) 732-3883
(919) 732-6676 (FAX)

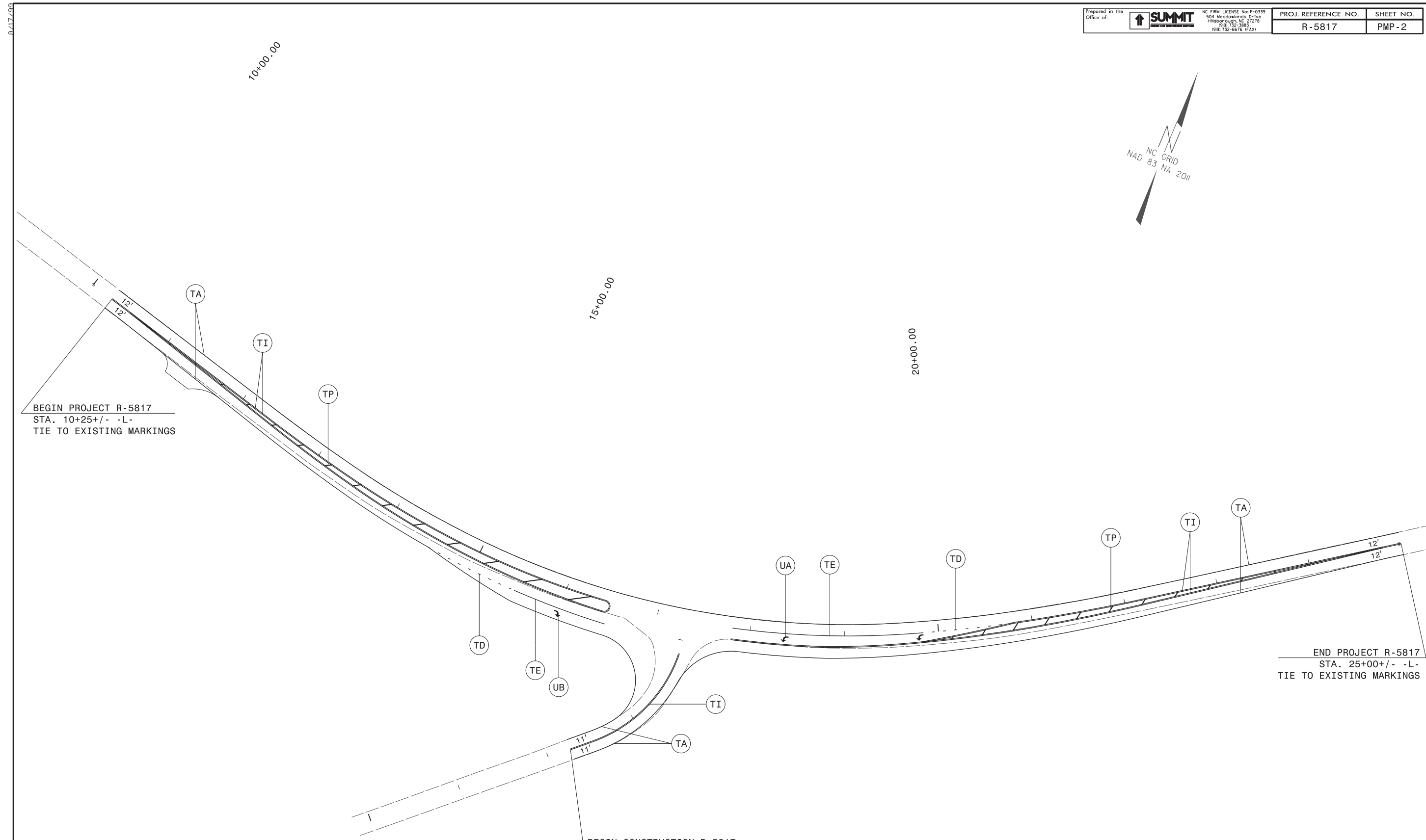
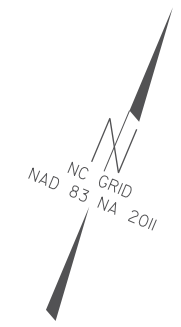
BRANDON W. JOHNSON, PE PROJECT ENGINEER

FAITH E. JAHNKE, EI PROJECT DESIGNER



INDEX

- PMP-1 PAVEMENT MARKING PLAN TITLE, SCHEDULE, AND QUANTITIES
PMP-2 PAVEMENT MARKING DETAIL SHEETS

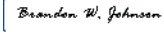


BEGIN PROJECT R-5817
 STA. 10+25+/- -L-
 TIE TO EXISTING MARKINGS

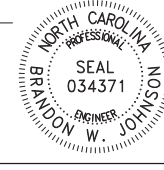
END PROJECT R-5817
 STA. 25+00+/- -L-
 TIE TO EXISTING MARKINGS

BEGIN CONSTRUCTION R-5817
 STA. 12+25+/- -Y1-
 TIE TO EXISTING MARKINGS

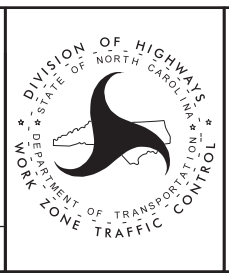
20-FEB-2018 09:49
 R-5817_TC_PMP_2.dgn
 spencer.merritt

APPROVED: 
 DATE: 2/27/2018

SEAL



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



PAVEMENT MARKING
 DETAIL SHEET 1

TIP PROJECT: R-5817

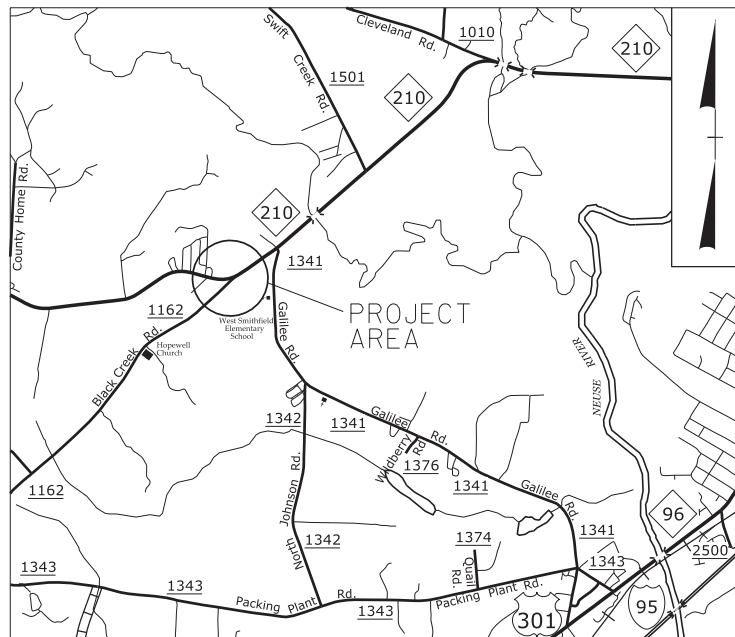
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

JOHNSTON COUNTY

LOCATION: INTERSECTION AT NC 210 AND SR 1162 (BLACK CREEK RD.)
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5817	EC-1	5
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

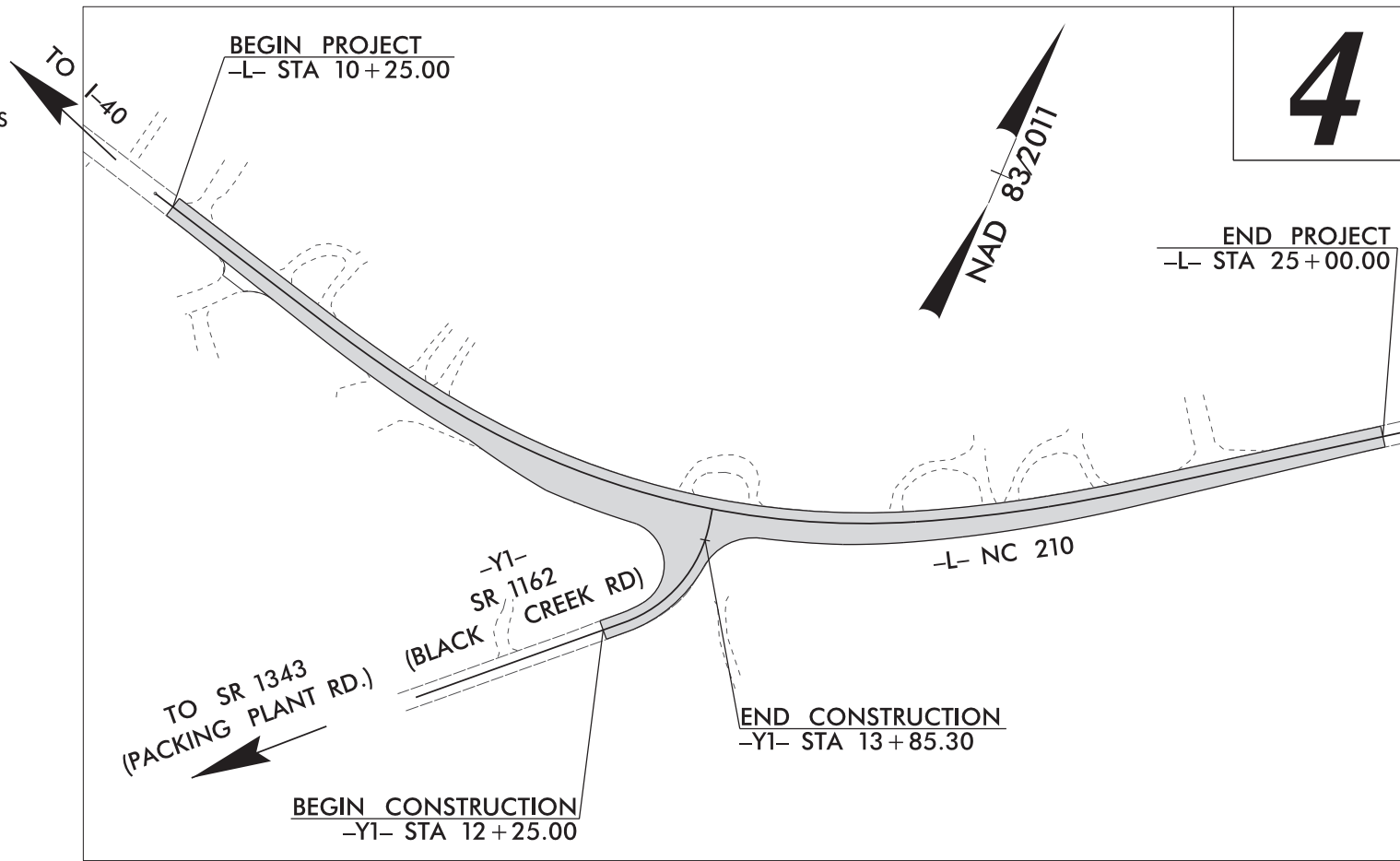


VICINITY MAP

NOTE: THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

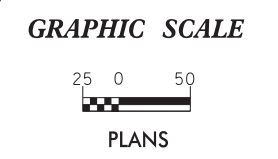
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Diversion	--- TD ---
1605.01	Temporary Silt Fence	---
1606.01	Special Sediment Control Fence	--- S ---
1622.01	Temporary Berms and Slope Drains	--- B ---
1630.02	Silt Basin Type B	--- SB ---
1633.01	Temporary Rock Silt Check Type-A	--- RSCA ---
1633.02	Temporary Rock Silt Check Type-B	--- RSCB ---
1633.01	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- RSCA-PAM ---
1633.02	Temporary Rock Silt Check Type-B with Matting and Polyacrylamide (PAM)	--- RSCB-PAM ---
1633.01	Wattle / Coir Fiber Wattle	--- WF ---
1633.02	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	--- WF-PAM ---



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

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



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared In the Office of:

504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.net

Designed by:

Dan C. Duffield, PE **3481**

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:

JOSHUA YOUNG

Roadway Standard Drawings

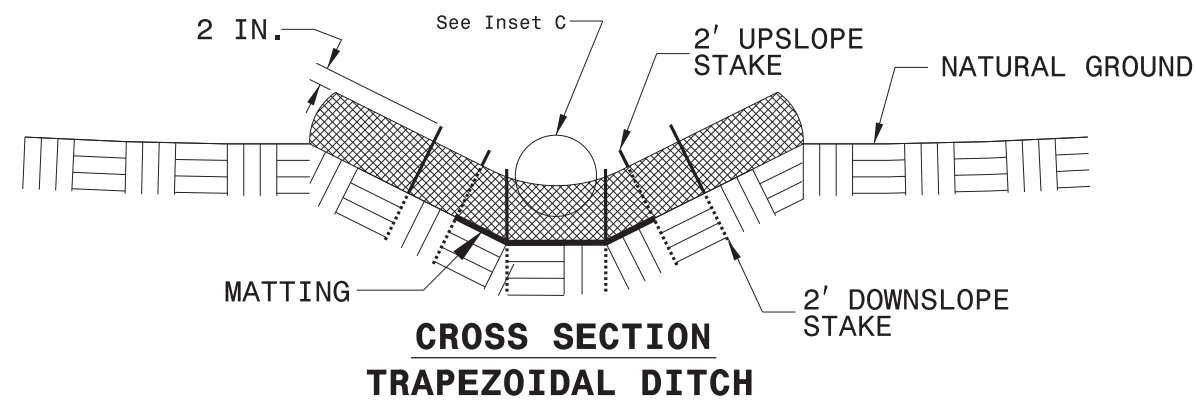
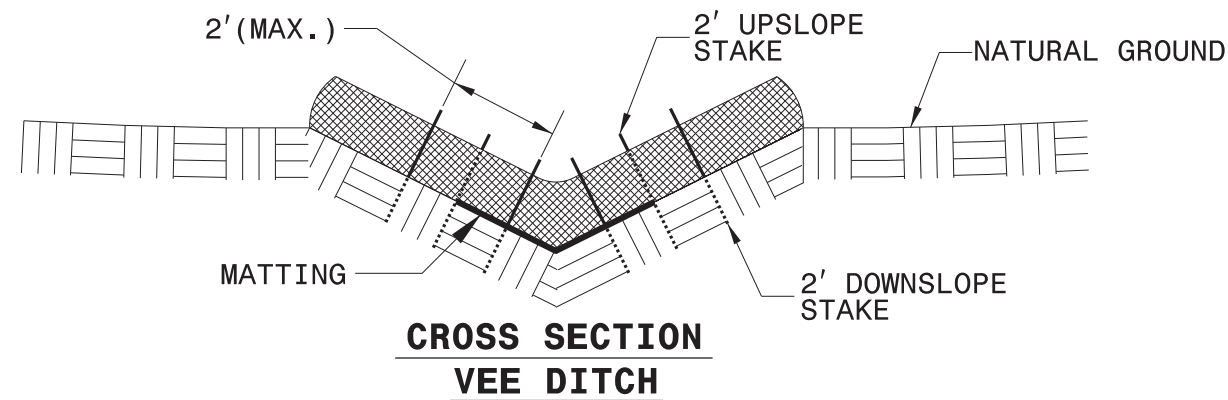
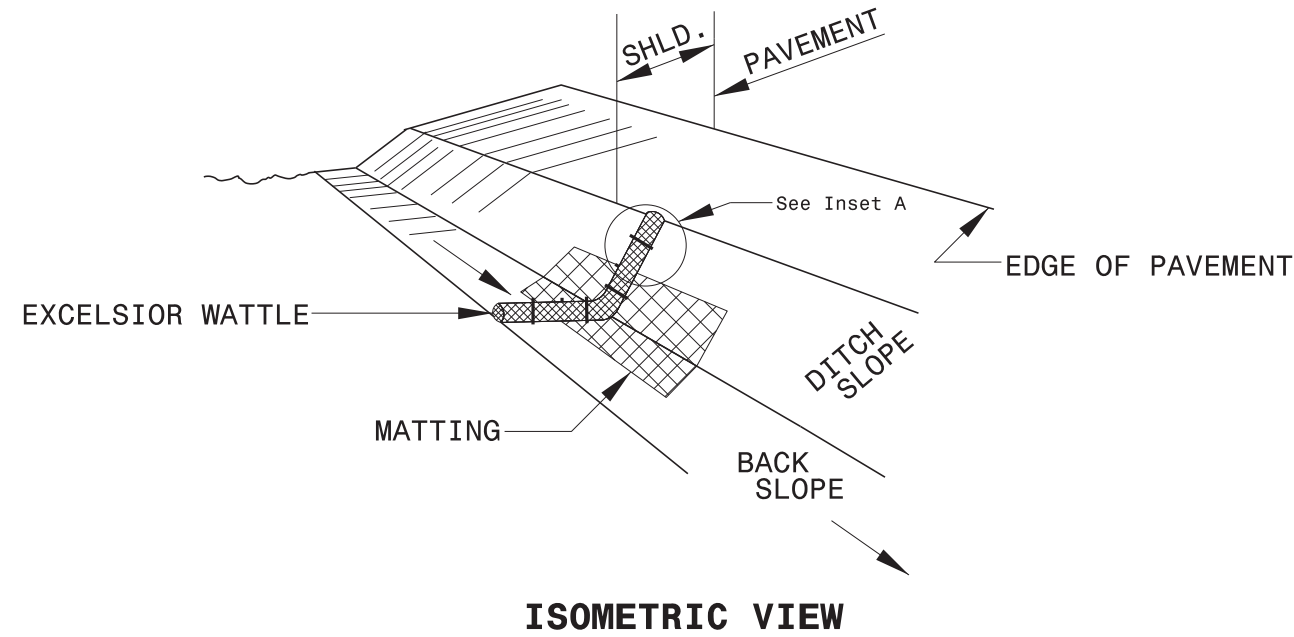
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 Wattle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

12-FEB-2018 10:00 AM
F:\12-17-18\1801\1801-EC_tsh.dgn

PROJECT REFERENCE NO. R-5817	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.

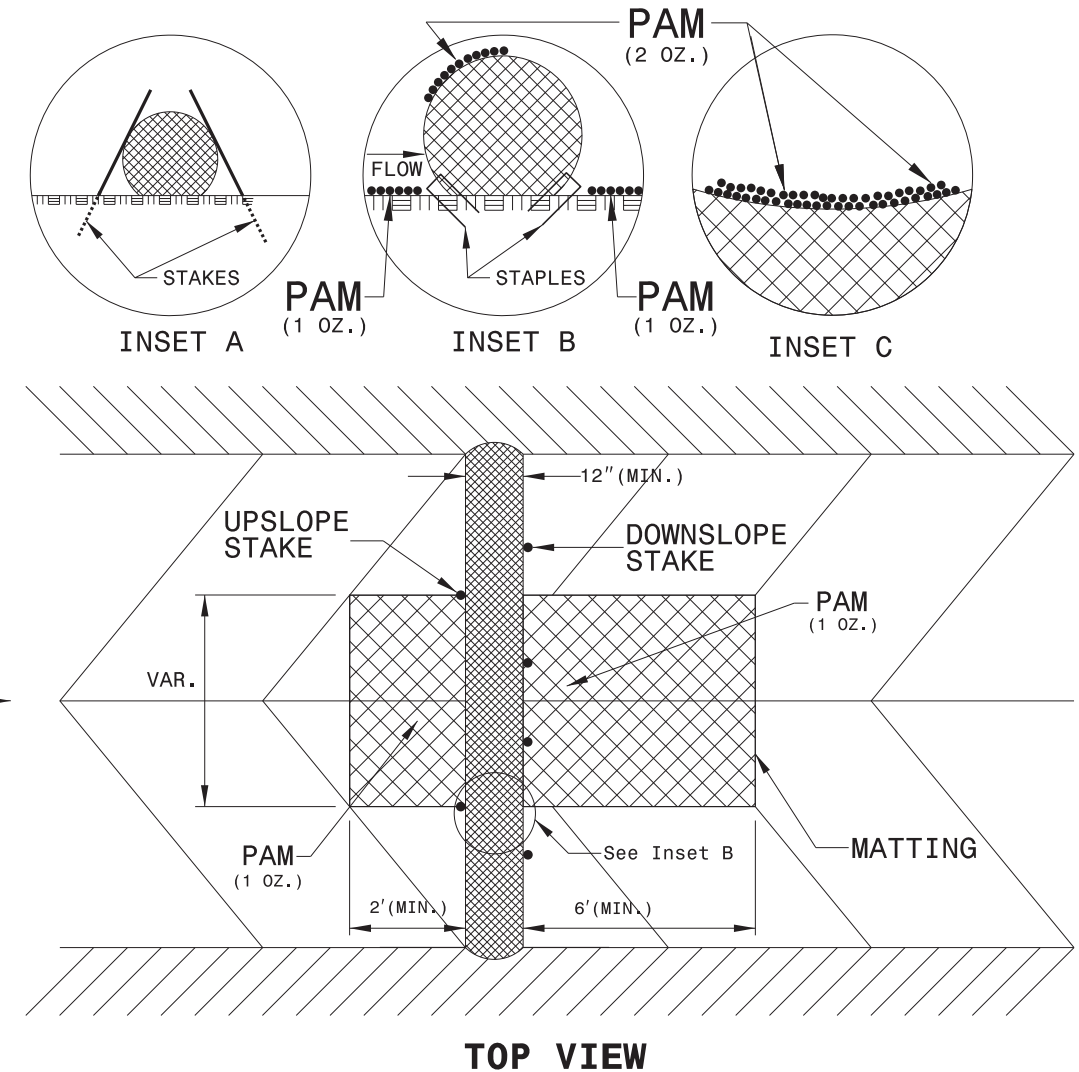
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

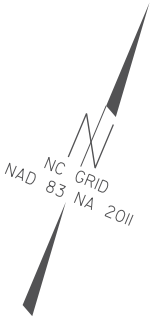
PROJECT REFERENCE NO. <i>R-5817</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

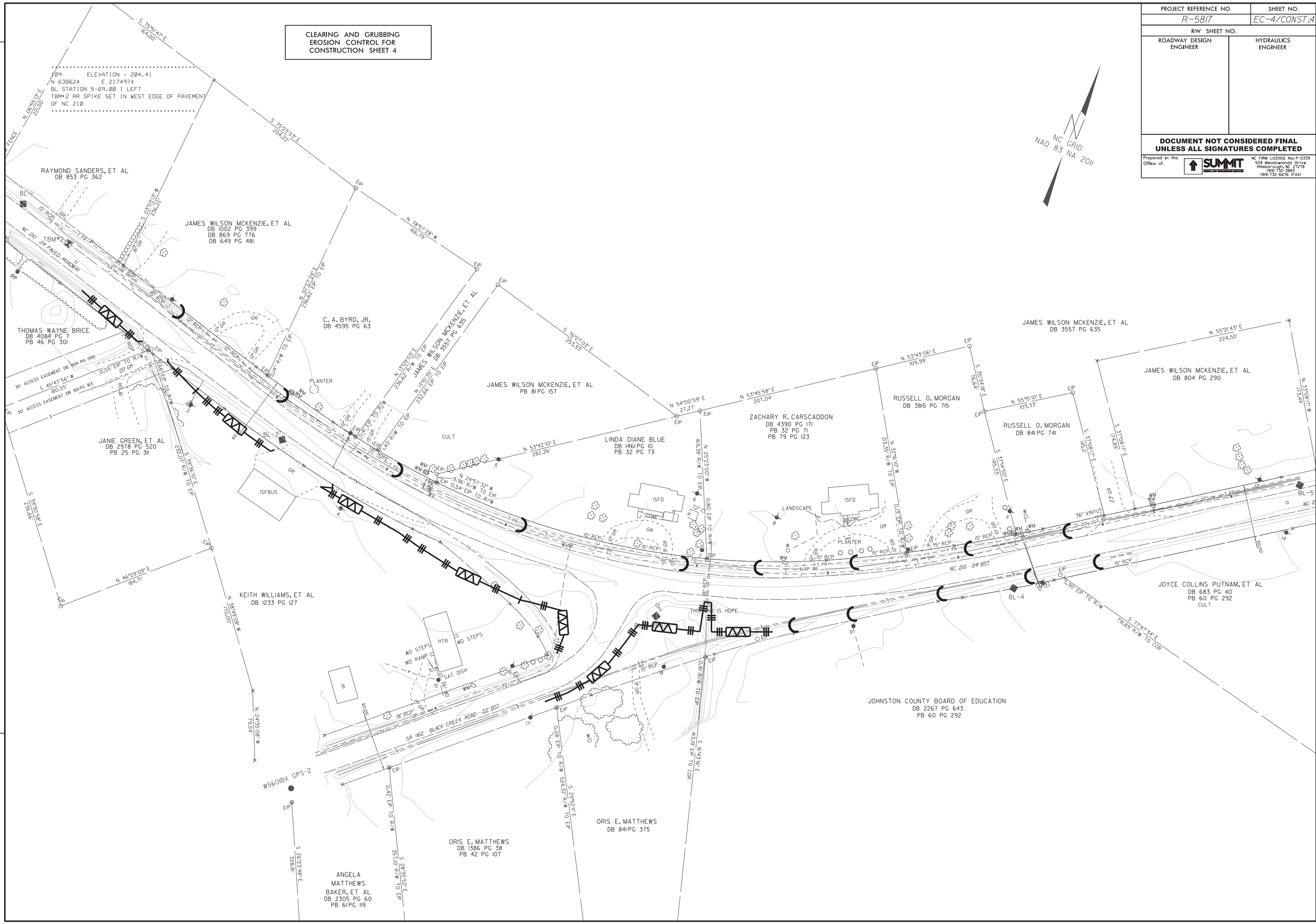
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

PROJECT REFERENCE NO. <i>R-5817</i>	SHEET NO. <i>EC-4/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	 <small>NC FIRM LICENSE No: P-0339 504 Meadows Road Hillsborough, NC 27278 (919) 332-3883 (919) 732-6676 (FAX)</small>



REVISIONS



ELEVATION = 204.41
N 638624 E 2174974
BL STATION 5+69.00 1 LEFT
TBM# 2 BR SPIKE SET IN WEST EDGE OF PAVEMENT
OF NC 210

RAYMOND SANDERS, ET AL
DB 853 PG 362

JAMES WILSON MCKENZIE, ET AL
DB 1002 PG 399
DB 869 PG 776
DB 649 PG 481

C. A. BYRD, JR.
DB 4595 PG 63

THOMAS WAYNE BRICE
DB 4084 PG 7
PB 46 PG 301

JANIE GREEN, ET AL
DB 2978 PG 520
PB 25 PG 311

JAMES WILSON MCKENZIE, ET AL
PB 81 PG 157

LINDA DIANE BLUE
DB 1461 PG 10
PB 32 PG 73

ZACHARY R. CARSCADDON
DB 4390 PG 171
PB 32 PG 71
PB 79 PG 123

RUSSELL O. MORGAN
DB 3815 PG 715

RUSSELL O. MORGAN
DB 841 PG 741

JAMES WILSON MCKENZIE, ET AL
DB 3557 PG 635

JAMES WILSON MCKENZIE, ET AL
DB 804 PG 290

KEITH WILLIAMS, ET AL
DB 1233 PG 127

JOYCE COLLINS PUTNAM, ET AL
DB 683 PG 40
PB 60 PG 292
CULT

JOHNSTON COUNTY BOARD OF EDUCATION
DB 2267 PG 643
PB 60 PG 292

ORIS E. MATTHEWS
DB 841 PG 375

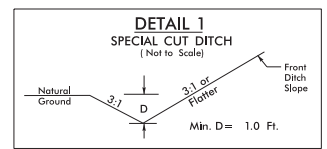
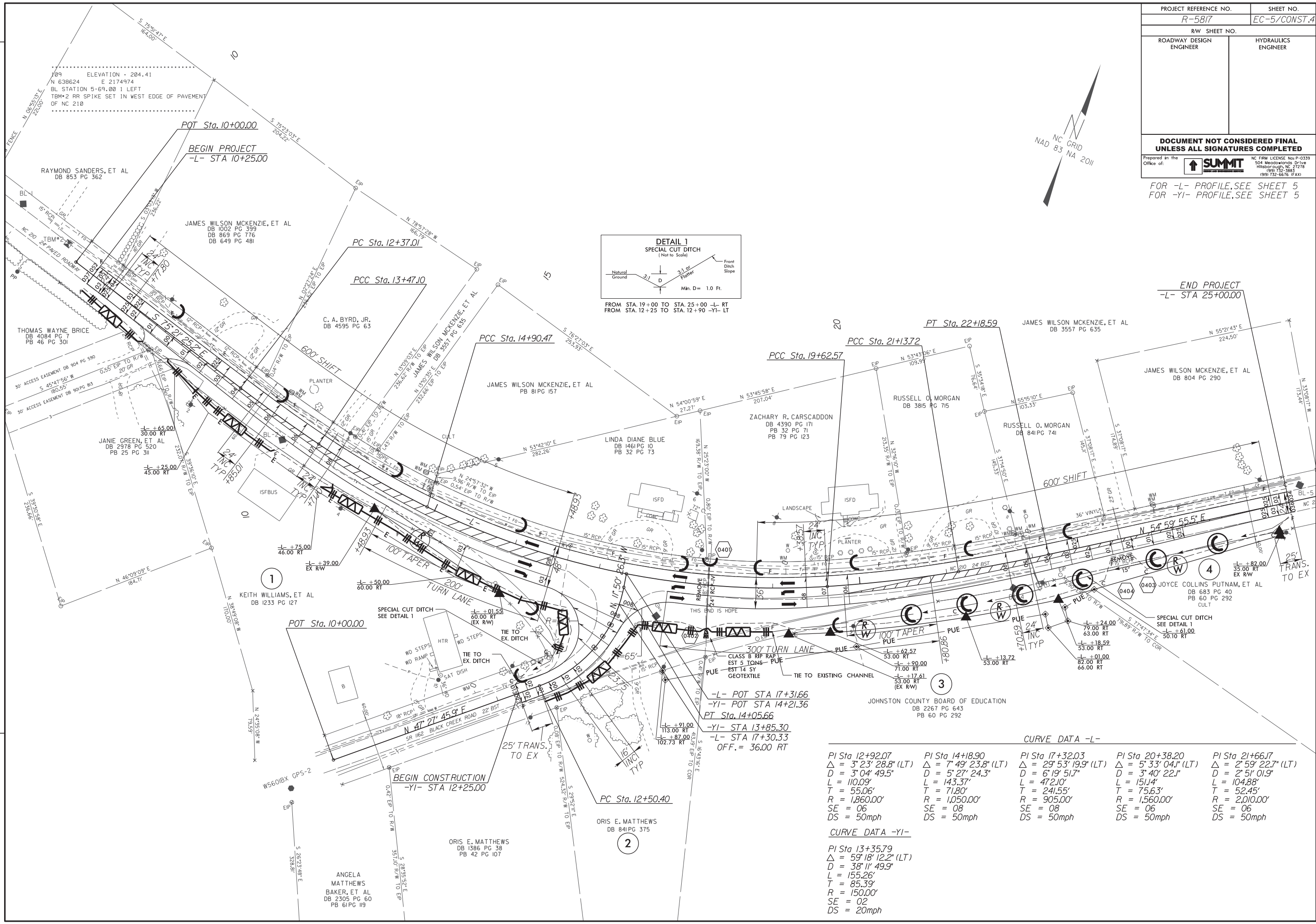
ORIS E. MATTHEWS
DB 1386 PG 38
PB 42 PG 107

ANGELA
MATTHEWS
BAKER, ET AL
DB 2305 PG 60
PB 61 PG 119



FOR -L- PROFILE, SEE SHEET 5
FOR -YI- PROFILE, SEE SHEET 5

REVISIONS



FROM STA. 19+00 TO STA. 25+00 -L- RT
FROM STA. 12+25 TO STA. 12+90 -YI- LT

CURVE DATA -L-

PI Sta 12+92.07 Δ = 3° 23' 28.8" (LT) D = 3° 04' 49.5" L = 110.09' T = 55.06' R = 1,860.00' SE = 06 DS = 50mph	PI Sta 14+18.90 Δ = 7° 49' 23.8" (LT) D = 5° 27' 24.3" L = 143.37' T = 71.80' R = 1,050.00' SE = 08 DS = 50mph	PI Sta 17+32.03 Δ = 29° 53' 19.9" (LT) D = 6° 19' 51.7" L = 472.10' T = 241.55' R = 905.00' SE = 08 DS = 50mph	PI Sta 20+38.20 Δ = 5° 33' 04.1" (LT) D = 3° 40' 22.1" L = 151.14' T = 75.63' R = 1,560.00' SE = 06 DS = 50mph	PI Sta 21+66.17 Δ = 2° 59' 22.7" (LT) D = 2° 51' 01.9" L = 104.88' T = 52.45' R = 2,010.00' SE = 06 DS = 50mph
---	---	---	---	---

CURVE DATA -YI-

PI Sta 13+35.79 Δ = 59° 18' 12.2" (LT) D = 38° 11' 49.9" L = 155.26' T = 85.39' R = 150.00' SE = 02 DS = 20mph

27-FEB-2018 09:39
 F:\5817_Sgn_SUN_1.dgn
 Pat Johnson

TIP PROJECT: R-5817

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SIGNING PLAN JOHNSTON COUNTY

LOCATION: LOCATION: INTERSECTION AT NC 210 AND 1162 (BLACK CREEK RD.)

TIP PROJECT NO. R-5817	SHEET NO. SIGN-1
APPROVED:	
DATE: 2/27/2018	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	

GENERAL NOTES

SIGNS FURNISHED BY STATE

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	50	LF
4102000000	904	SIGN ERECTION, TYPE E	4	EA
4116100000	904	SIGN ERECTION, RELOCATE TYPE E	1	EA
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	5	EA




PROJECT NOTES



- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
- 2 SIGN ERECTION, RELOCATE TYPE E

INDEX

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

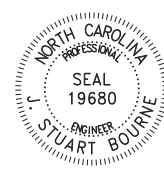
Prepared in the Office of: 	NC FIRM LICENSE No: P-0339 504 Meadowlands Drive Hillsborough, NC 27278 (919) 732-3883 (919) 732-6676 (FAX)	
SARA S. LOUKILI PROJECT DESIGNER	BRANDON W. JOHNSON, PE PROJECT DESIGN ENGINEER	

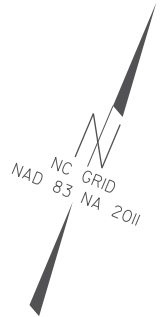
<p>401 QUANTITY REQ'D 1</p>  <p>W1-10L 36" X 36"</p> <p>ONE "U" POST PER SIGN</p>					
<p>402 QUANTITY REQ'D 2</p>  <p>W1-8L 18" X 24"</p> <p>ONE "U" POST PER SIGN</p>					
<p>403 QUANTITY REQ'D 1</p>  <p>W1-10R 36" X 36"</p> <p>ONE "U" POST PER SIGN</p>					

TIP NO. R-5817	SHEET NO. SIGN-2
APPROVED: <i>J. Stuart Bourne</i> <small>Drawn/signed by:</small>	
DATE: 2/27/2018 <small>Project: rd 124811</small>	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of: 	<small>NC FIRM LICENSE No. P-0339 504 Meadows Drive Raleigh, NC 27618 919-752-3883 919-752-6616 (FAX)</small>

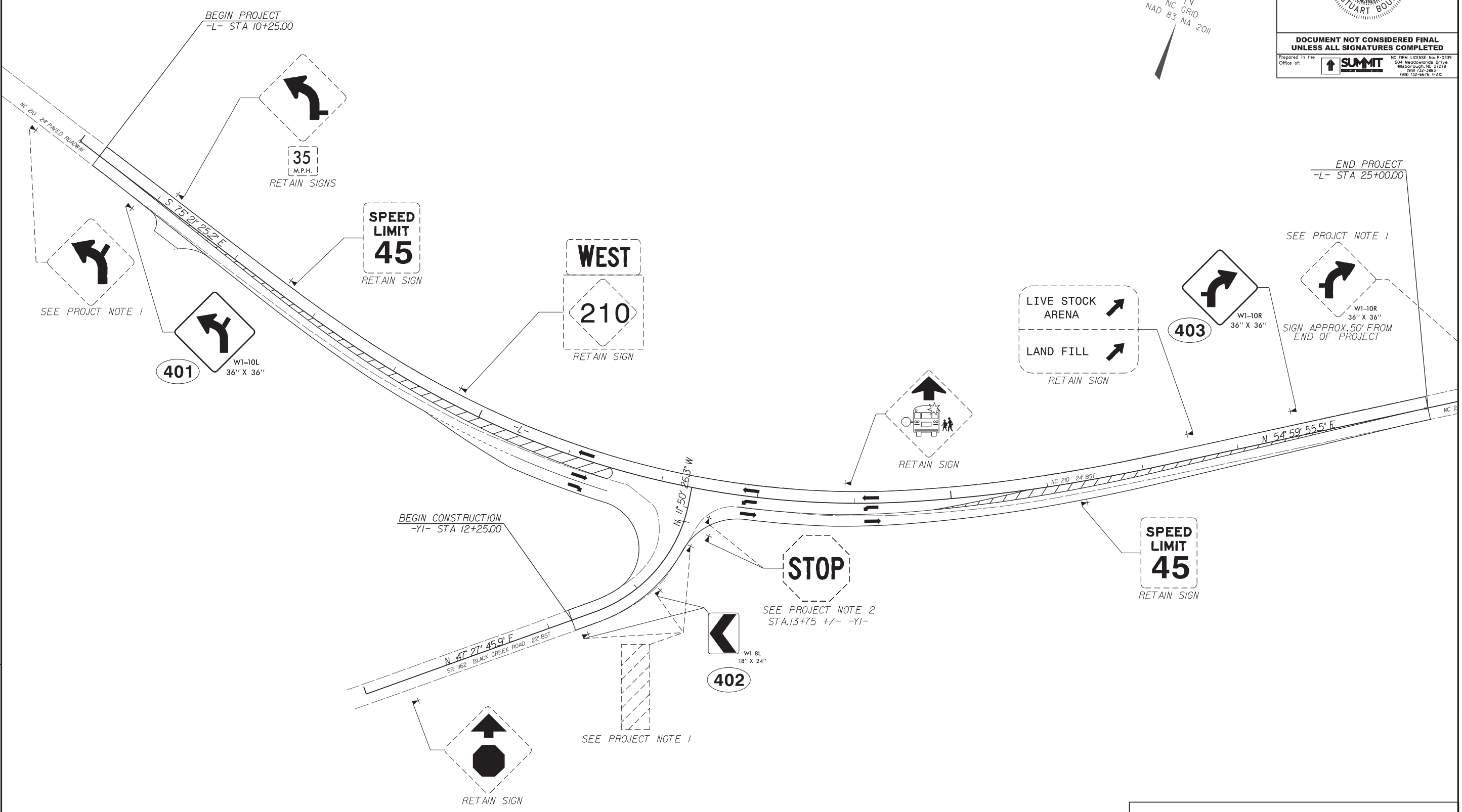
27-FEB-2018 09:39
 R-5817_Sgn-SGN_2.dgn
 Faith.Johnke

TYPE "E" SIGNS

TIP NO. R-5817	SHEET NO. SIGN-3
APPROVED: <i>J. Stuart Bourne</i>	
DATE: 2/27/2018	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of:	NC FIRM LICENSE No. P-0319 504 Meadows Drive Hillsborough, NC 27278 (919) 752-3883 (919) 752-6676 (FAX)



REVISIONS



PROPOSED SIGNS

09/08/09

I:\MAY-2018_10:38
C:\USERS\WINSTON34\2017\R-5817\Utilities\Engineering\UBO\Proj\R-5817_Ut_+sh_U001_psh.dgn
\$\$\$\$\$USERNAME\$\$\$\$

TIP PROJECT: R-5817

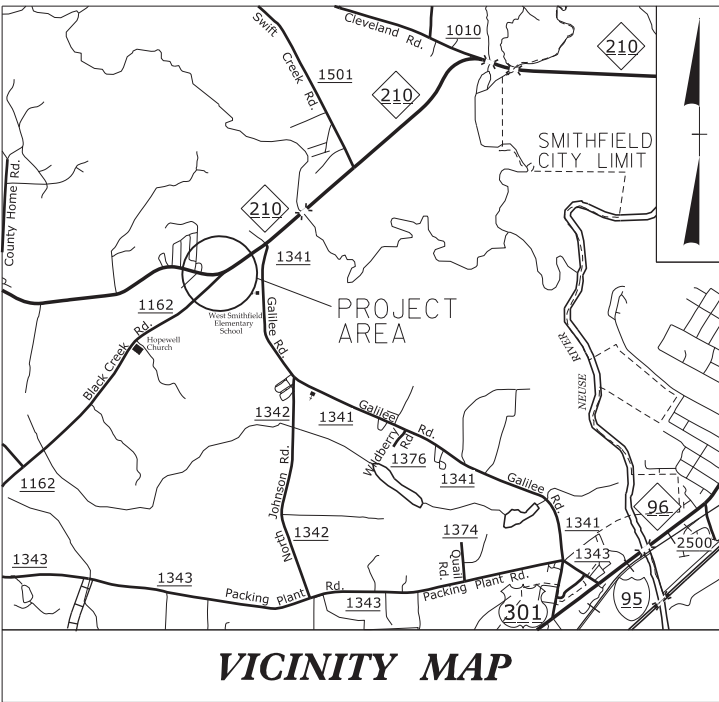
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-5817	UO-1

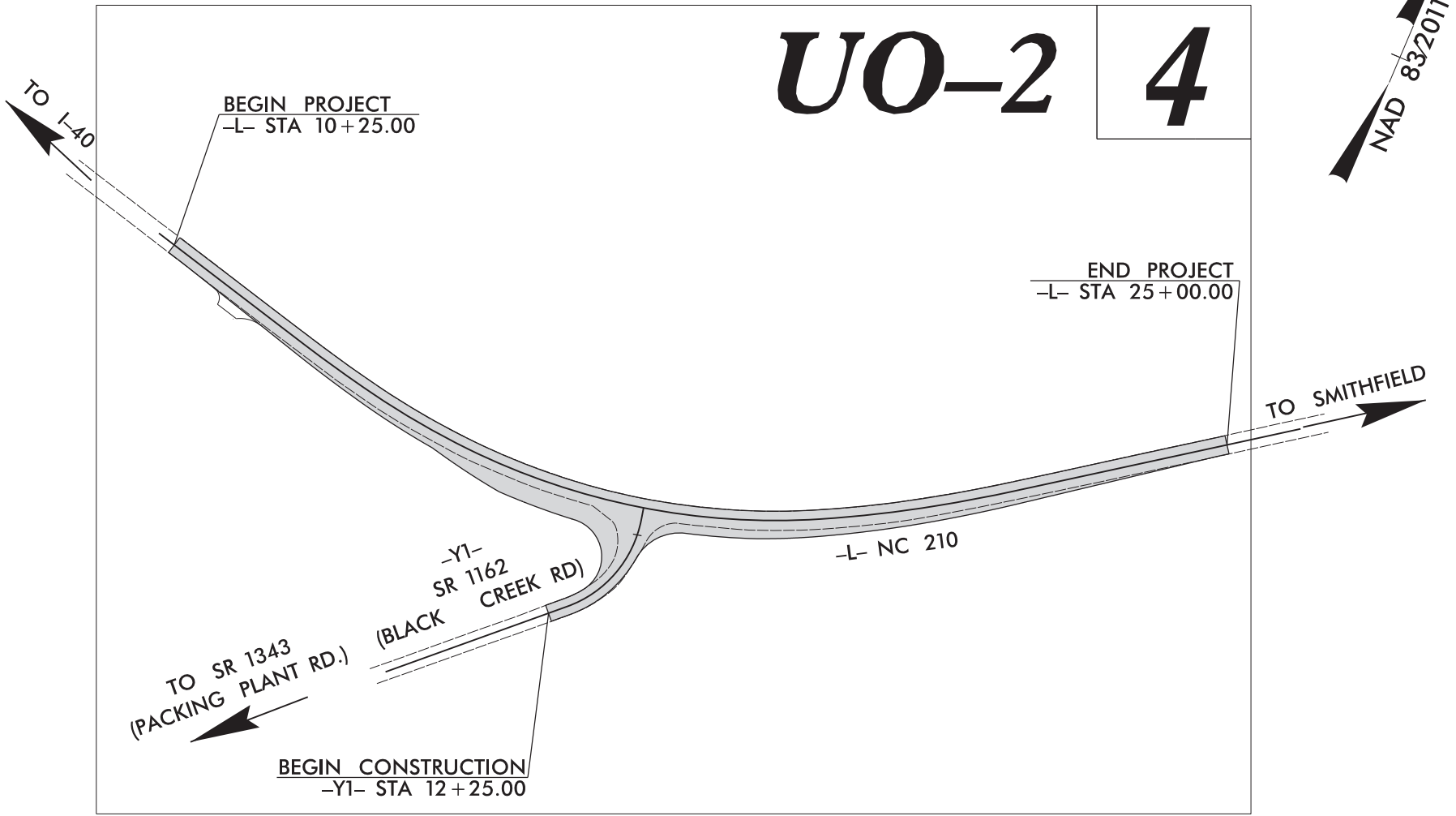
NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS.
NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

**UTILITIES BY OTHERS PLANS
JOHNSTON COUNTY**

LOCATION: INTERSECTION AT NC 210 AND SR 1162 (BLACK CREEK RD.)
TYPE OF WORK: POWER DISTRIBUTION AND TELEPHONE RELOCATION

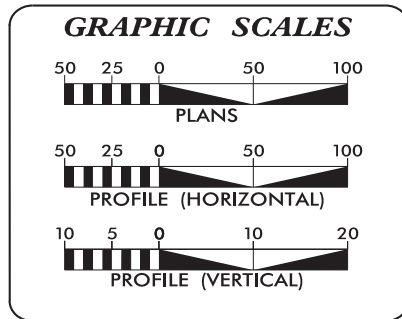


VICINITY MAP



UO-2 4

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



INDEX OF SHEETS	
SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-2	UBO PLAN SHEET

UTILITY OWNERS WITH CONFLICTS
(A) POWER DISTRIBUTION - DUKE ENERGY
(B) COMMUNICATIONS - CENTURYLINK

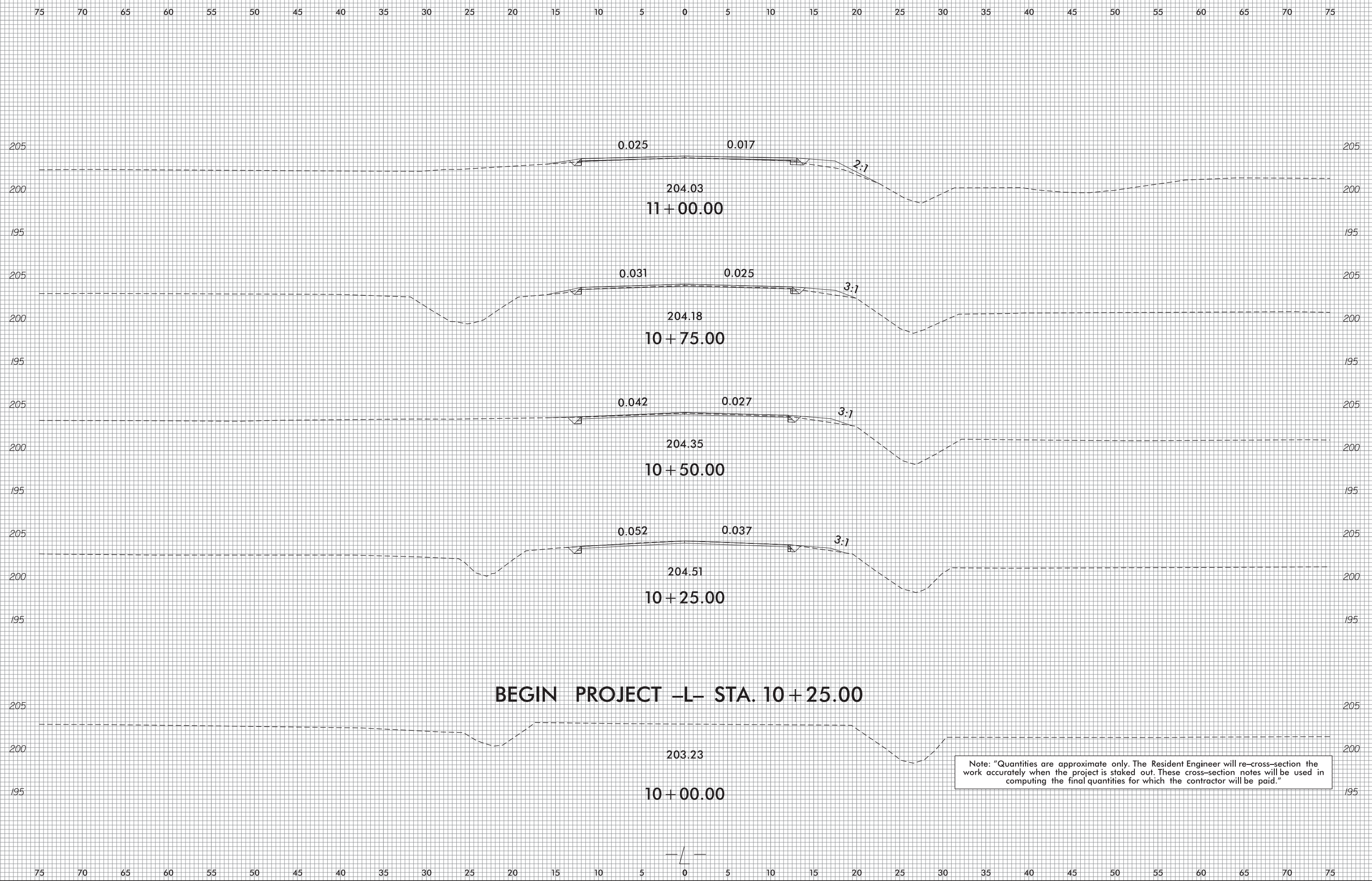
PREPARED IN THE OFFICE OF:

TELICS
5173 GUMTREE ROAD
WINSTON-SALEM, NC 27107
(336) 788-0150

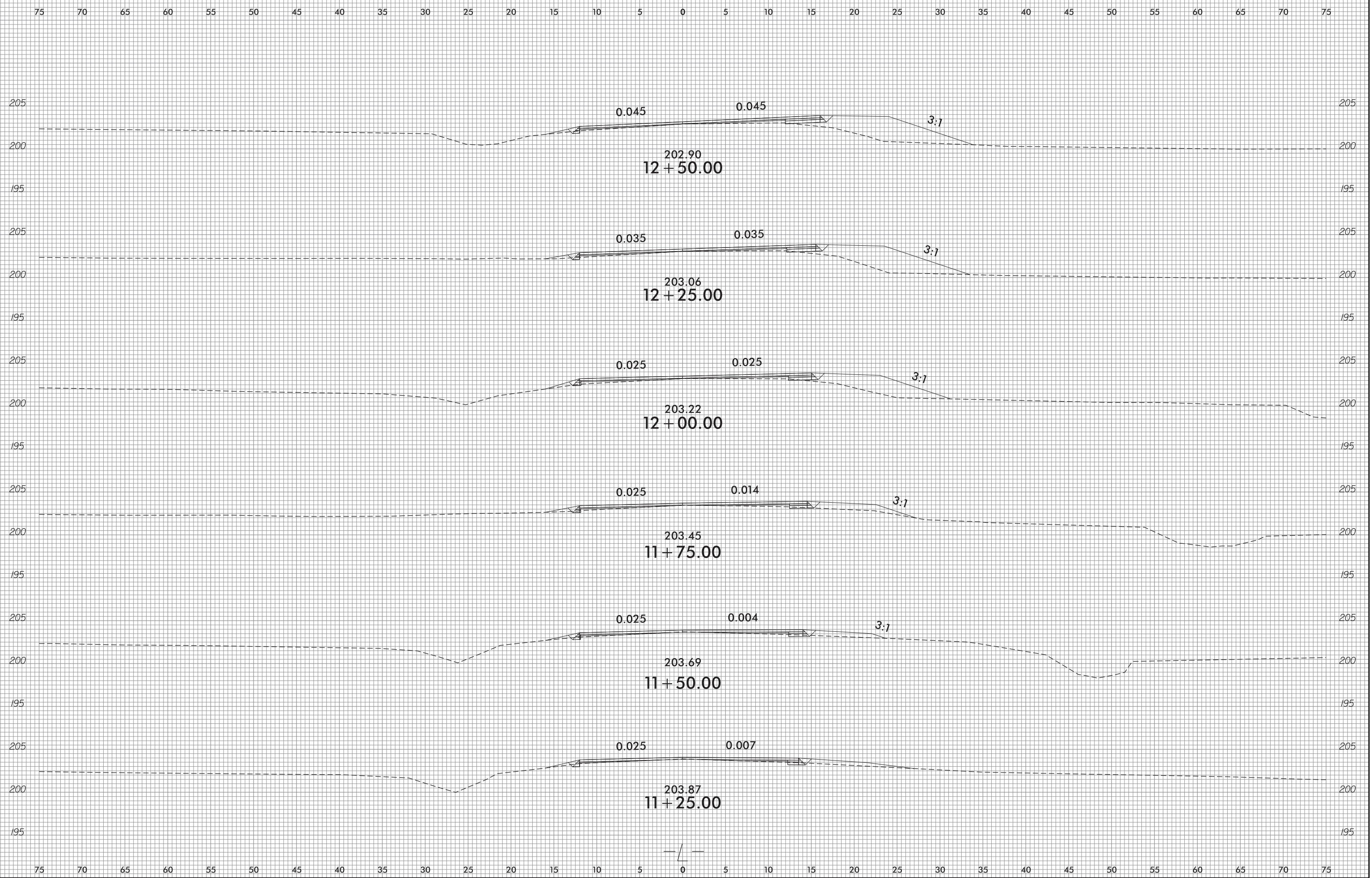
Jim Brooks UTILITY PROJECT MANAGER
Chris Kennedy PROJECT UTILITY COORDINATOR

**DIVISION OF HIGHWAYS
UTILITIES UNIT**
1555 MAIL SERVICES CENTER
RALEIGH, NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

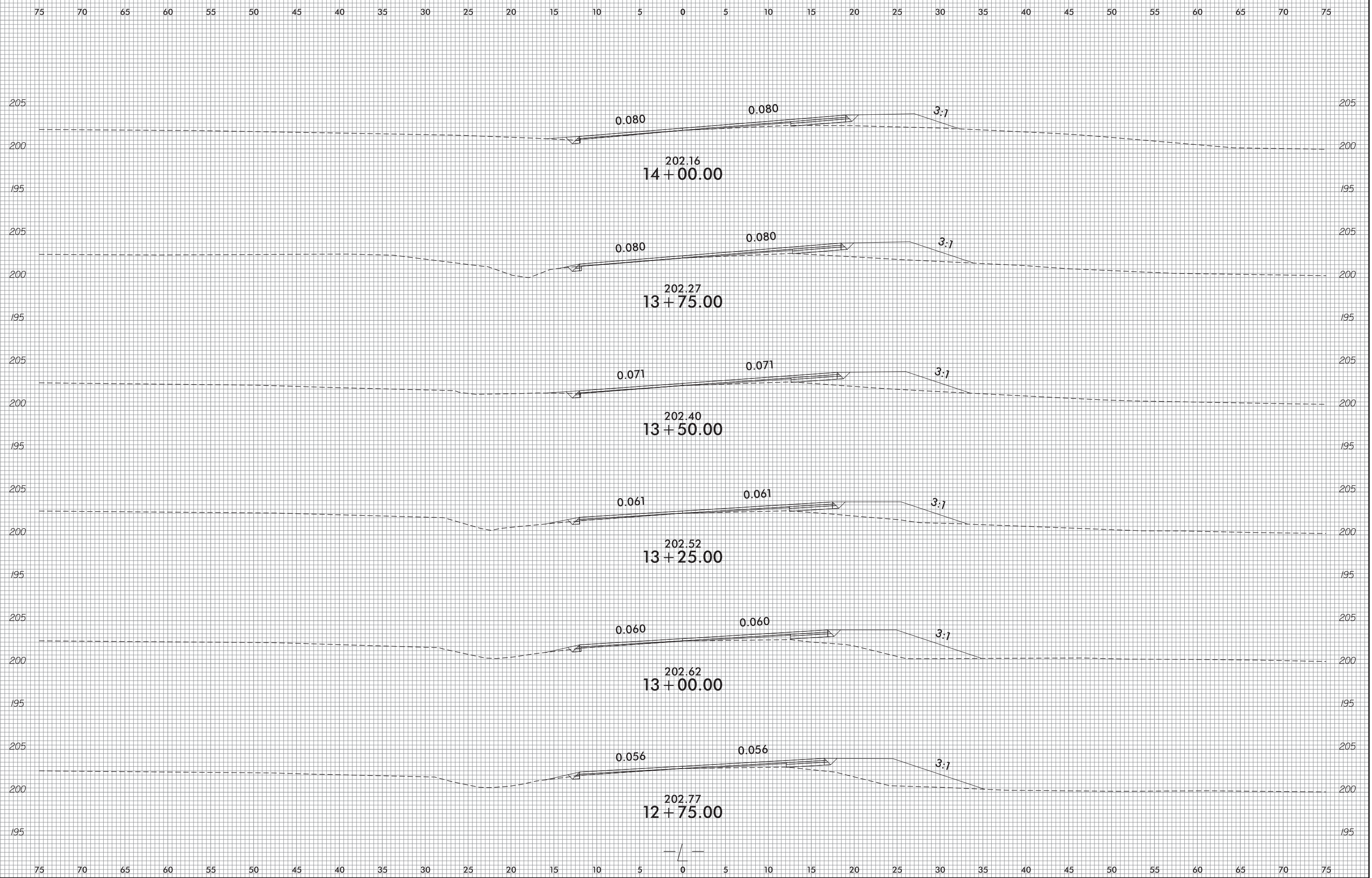
Bo Hemphill, PE UTILITIES REGIONAL ENGINEER
Kim Moore UTILITIES ENGINEER
Kyle Pleasant UTILITIES AREA COORDINATOR
David Beaman UTILITIES COORDINATOR



27-FEB-2018 09:43
 R-5817 Rdw_xpl.dgn
 fath,ahnke



27-FEB-2018 09:44
R-5817 Rdw_xpl.L.dgn
fath, jhmk

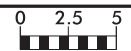


27-FEB-2018 09:44
R-5817 Rdv_xpl.L.dgn
fath, jhmk

Prepared in the Office of:



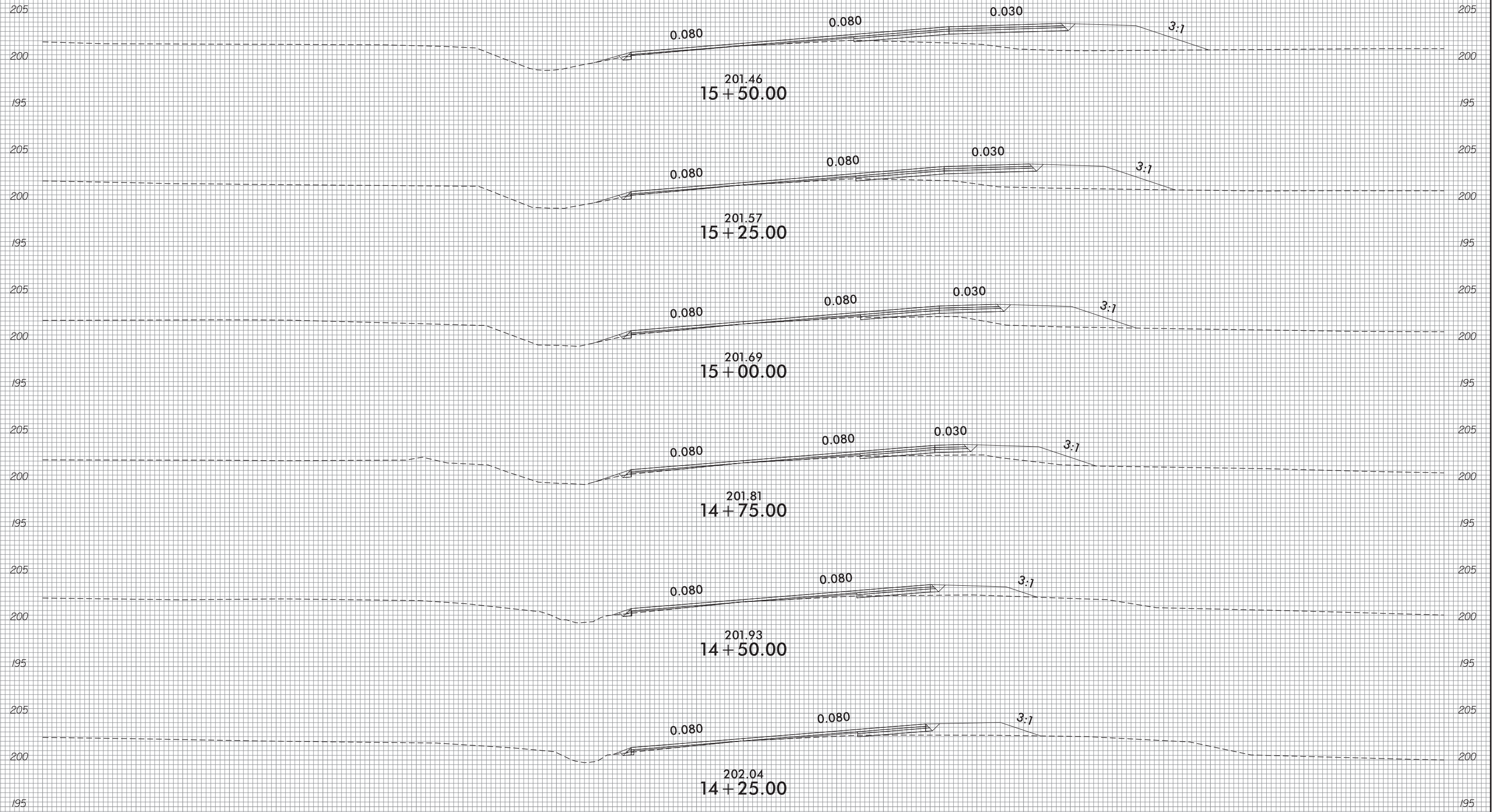
NC FIRM LICENSE No. P-0339
504 Meadows Drive
Hillsborough, NC 27278
(919) 752-5883
(919) 752-6876 (Fax)



PROJ. REFERENCE NO.
R-5817

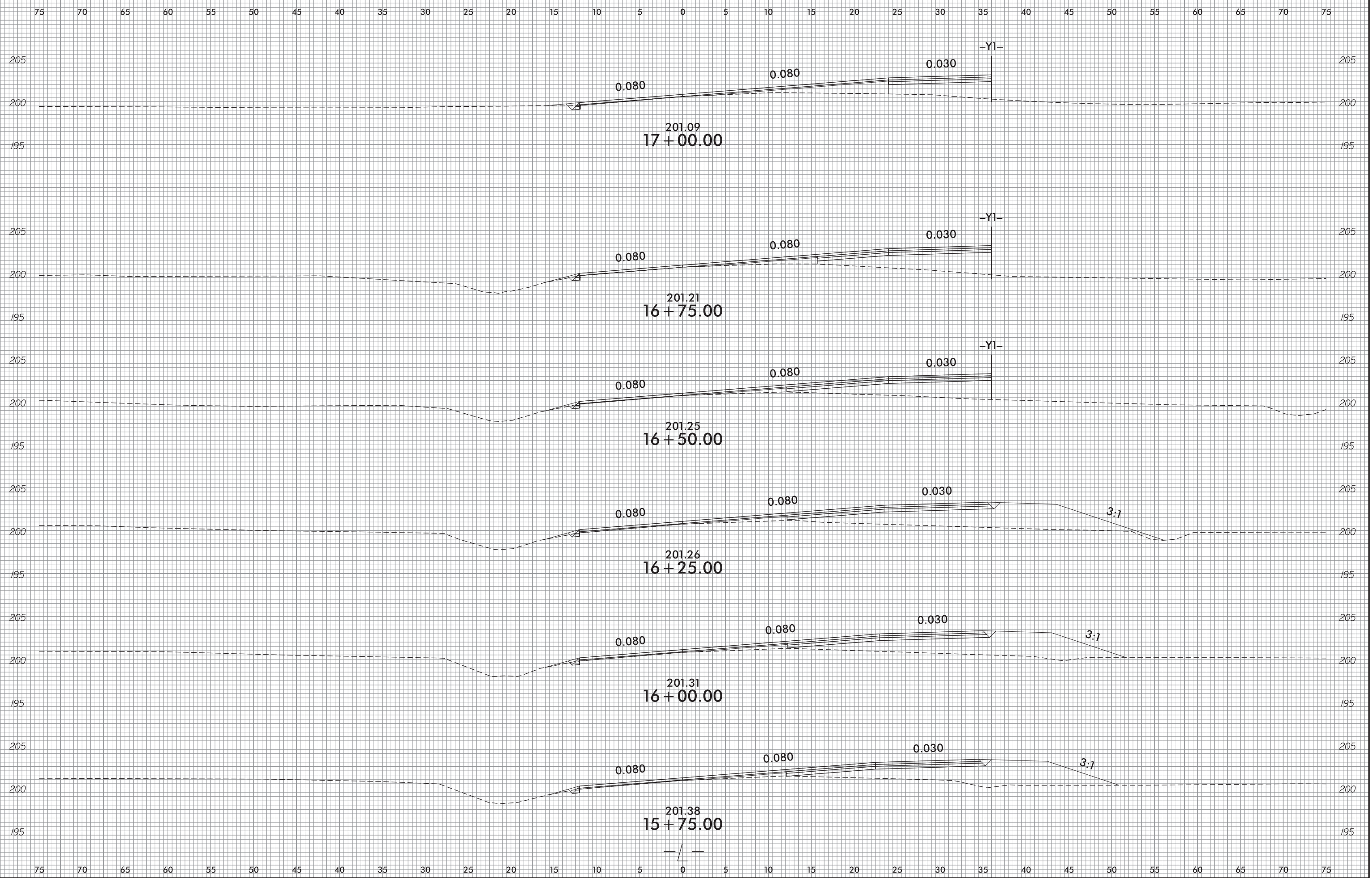
SHEET NO.
X-4

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

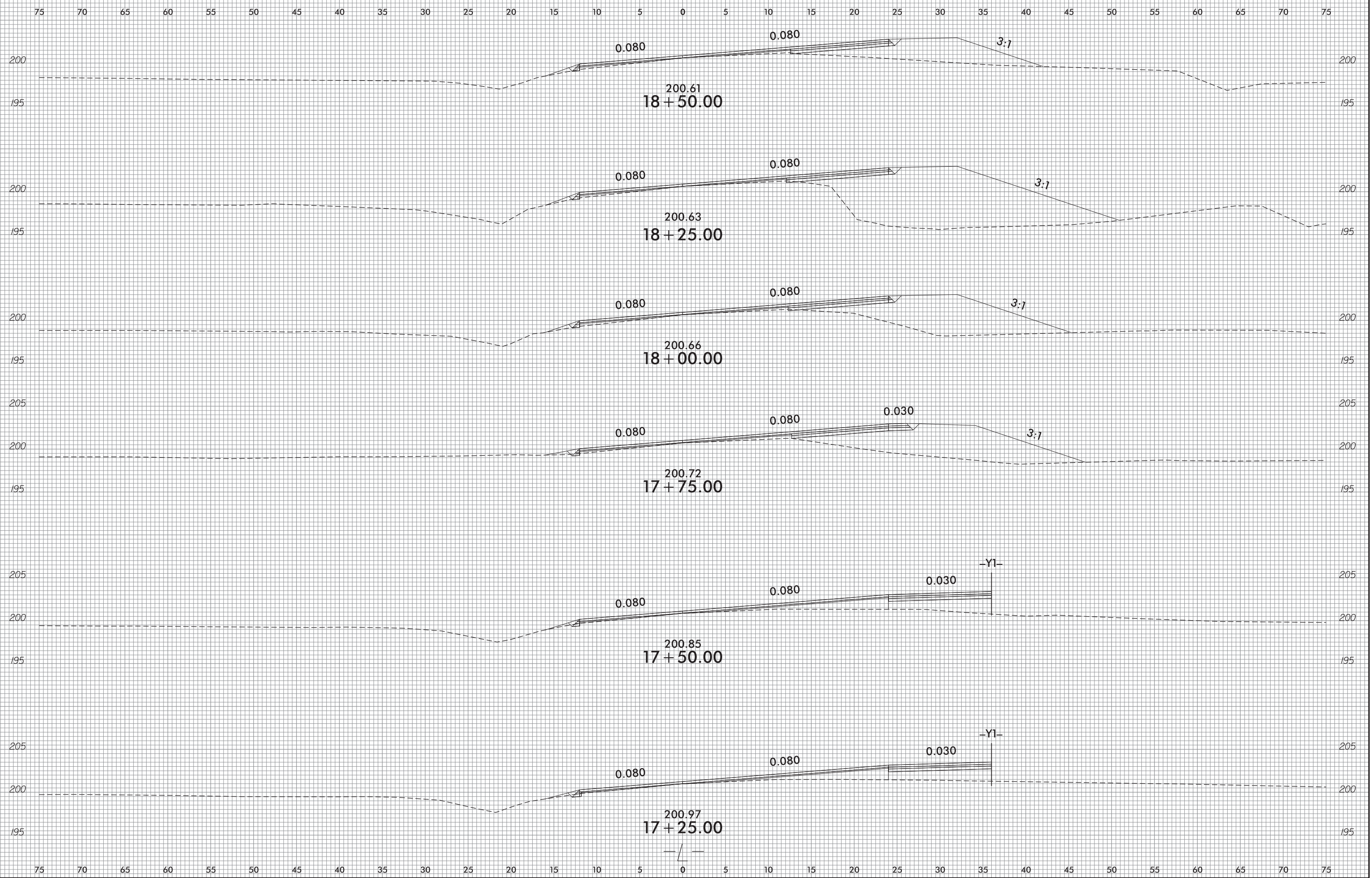


27-FEB-2018 09:44
R-5817 Rdw_xpl.L.dgn
fath_vehnke

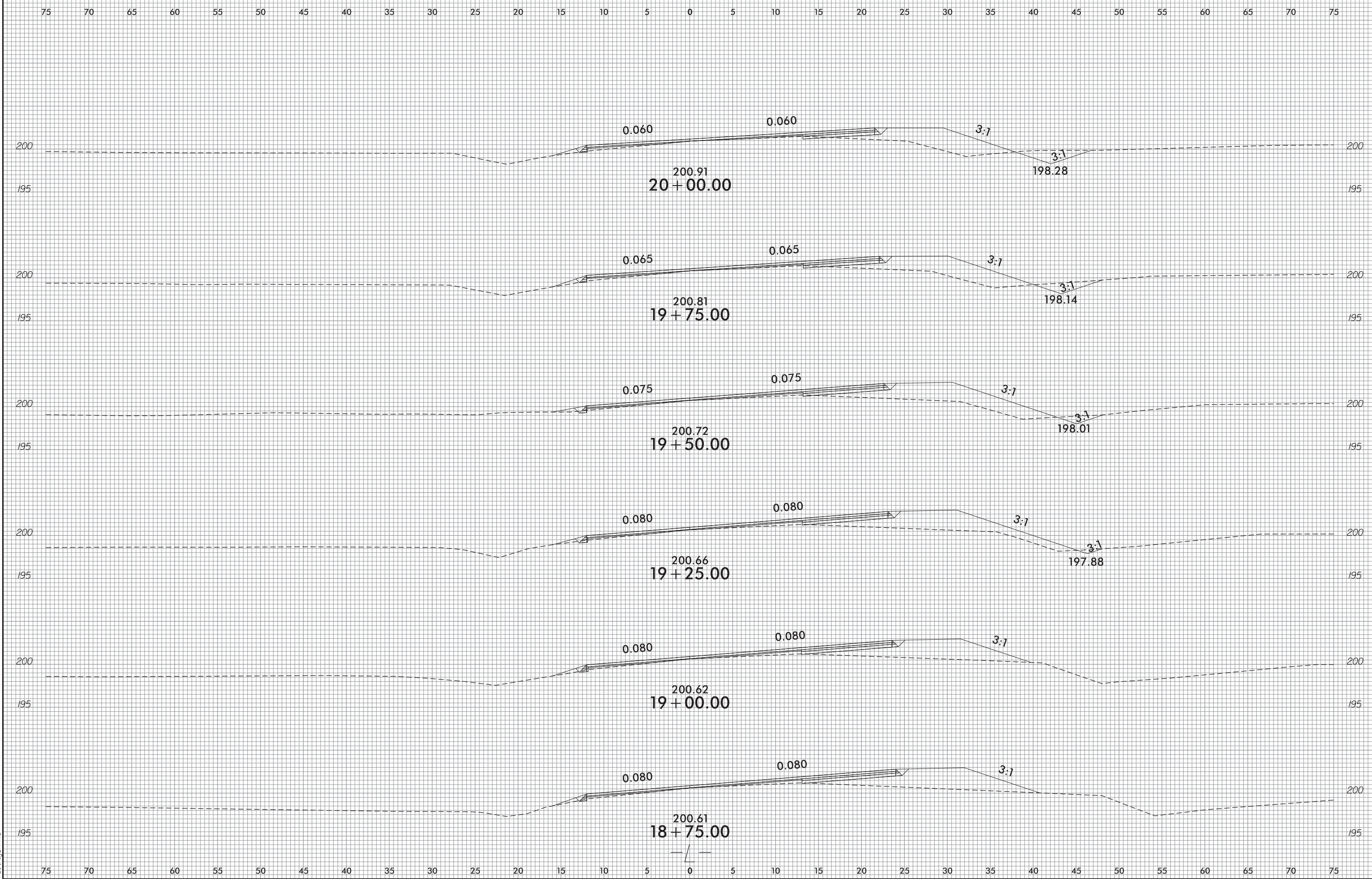
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



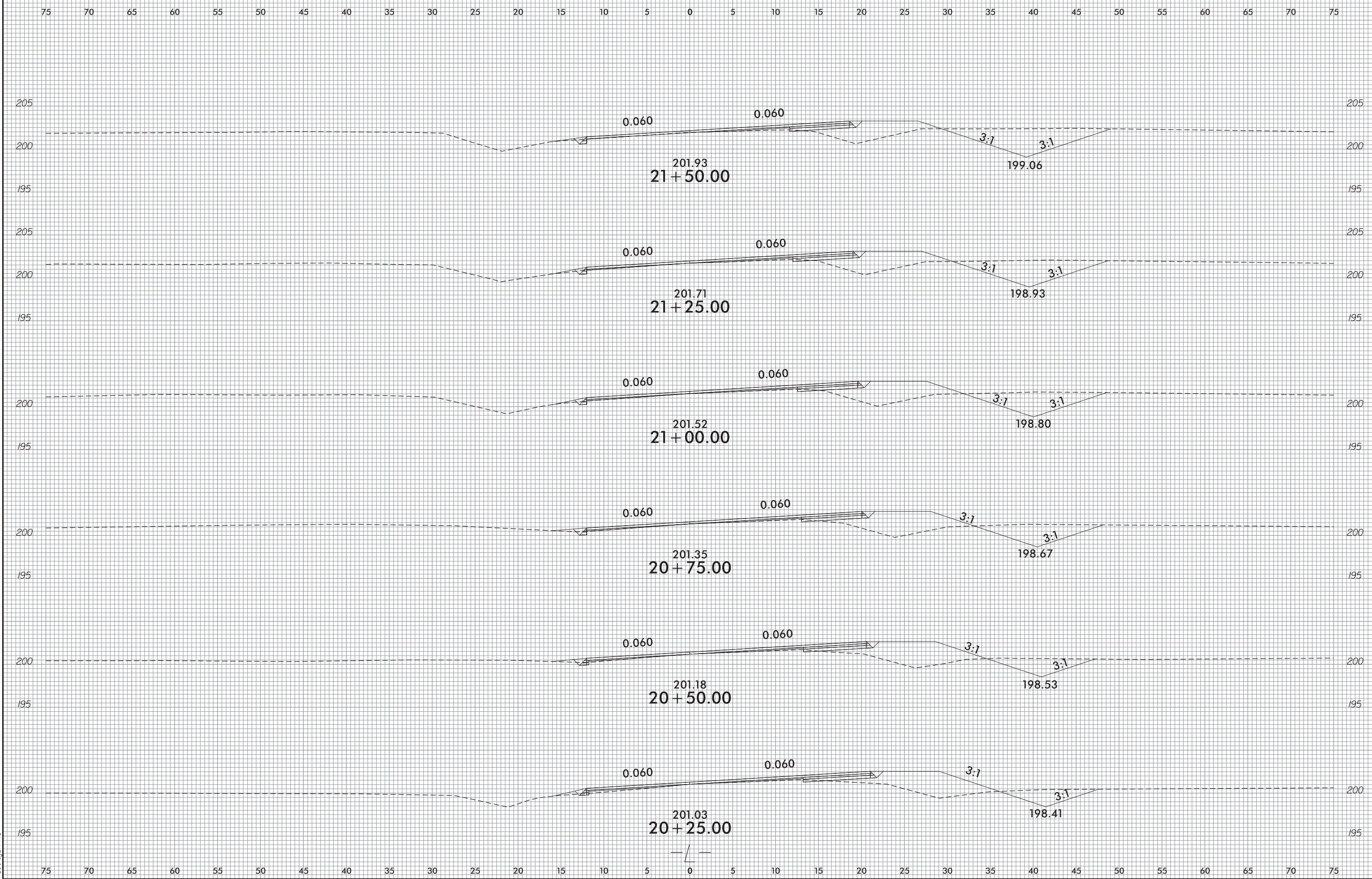
27-FEB-2018 09:44
 R-5817 Rdv_xpl.L.dgn
 fath, jhmk



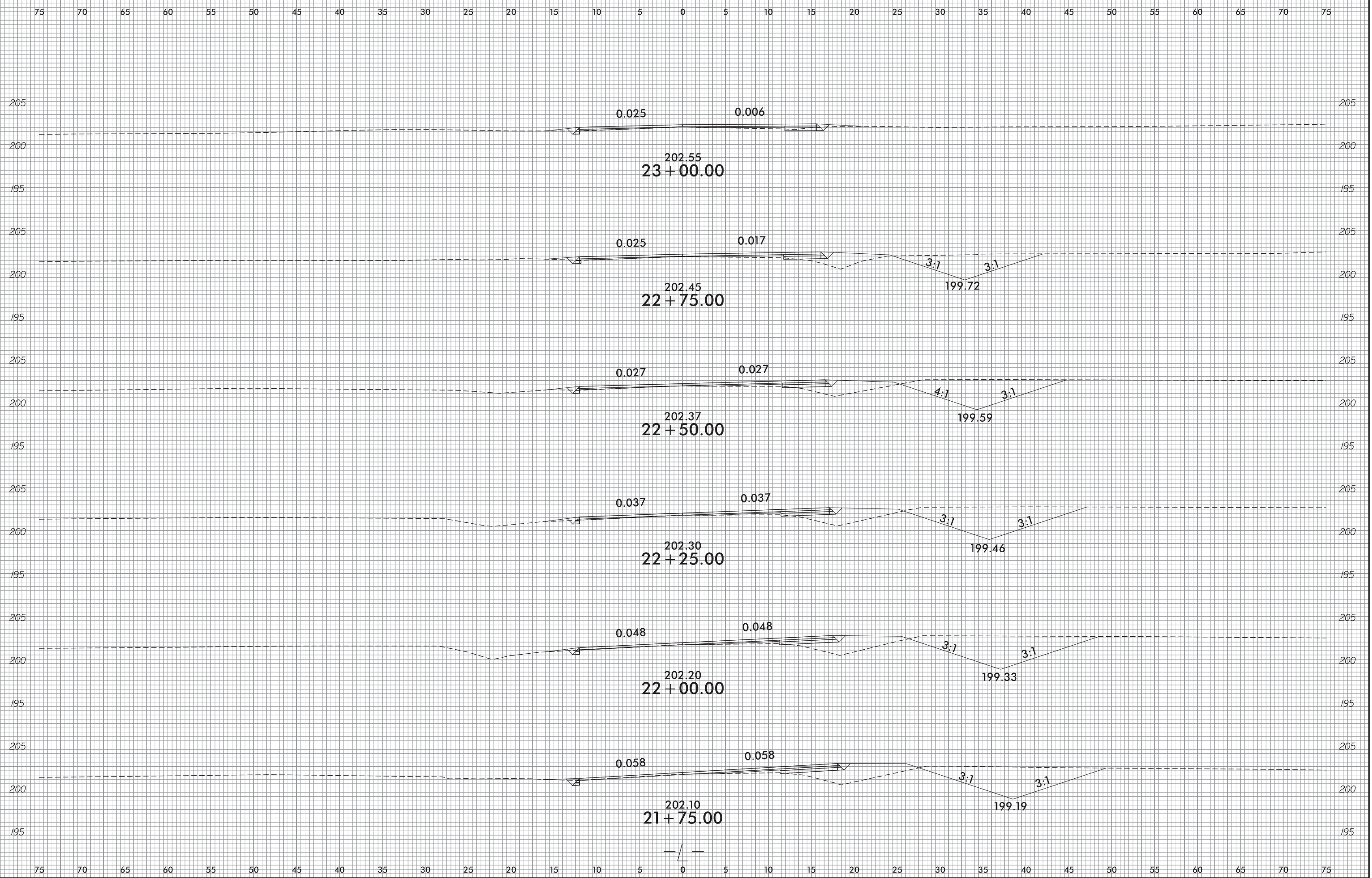
27-FEB-2018 09:44
R-5817 Rdv xp1.L.dgn
fath, jhmk



27-FEB-2018 09:44
 R-5817 Rdv xpl.L.dgn
 fath, jhmk



27-FEB-2018 09:44
 R-5817 Rdw xp1.L.dgn
 fath, jhmk



27-FEB-2018 09:44
 R-5817 Rdv_xpl.L.dgn
 fath,ahnke

Prepared in the Office of:

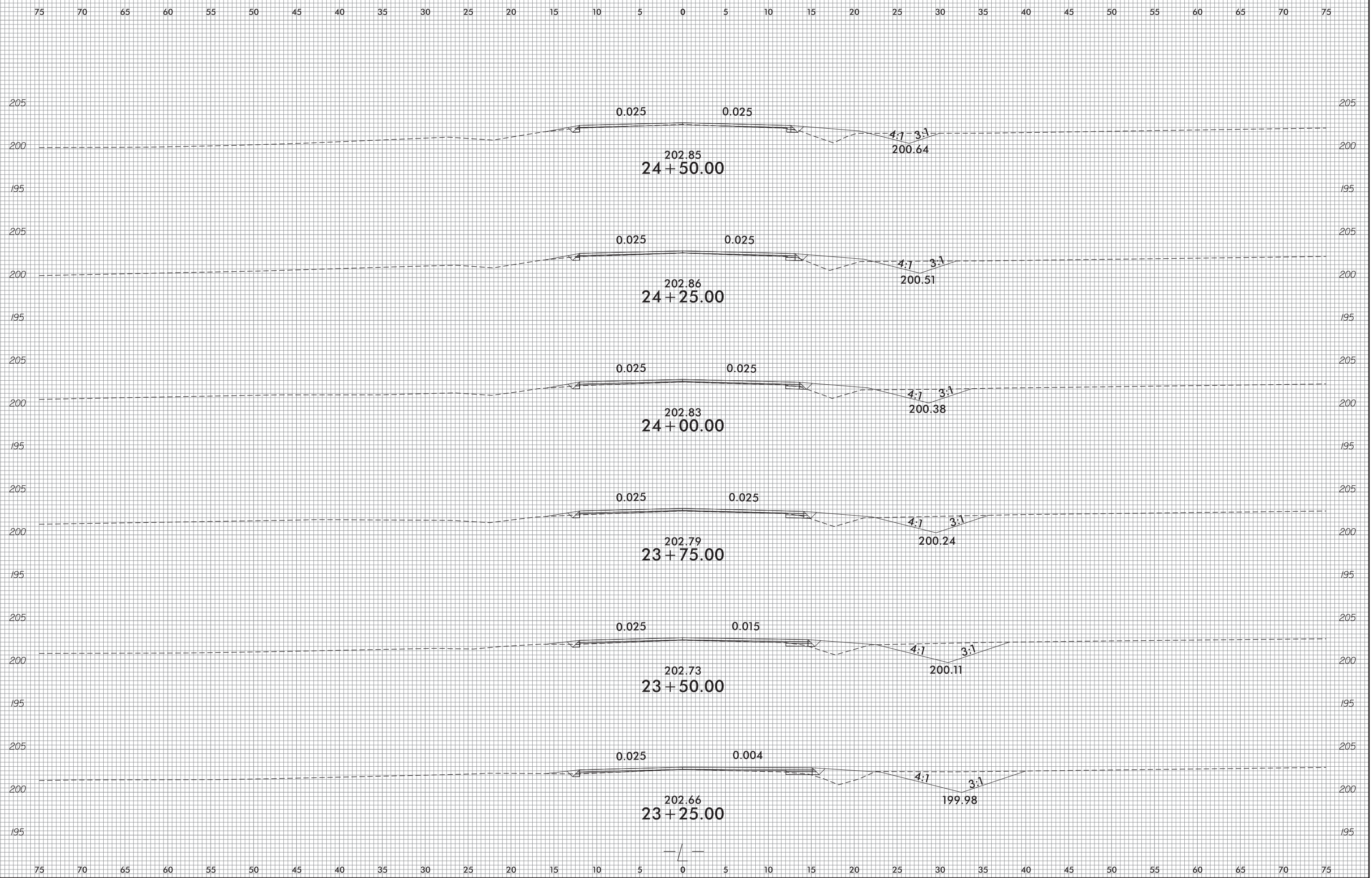


NC FIRM LICENSE No. P-0339
504 Meadows Drive
Raleigh, NC 27617
(919) 552-5883
(919) 732-6676 (Fax)



PROJ. REFERENCE NO.
R-5817

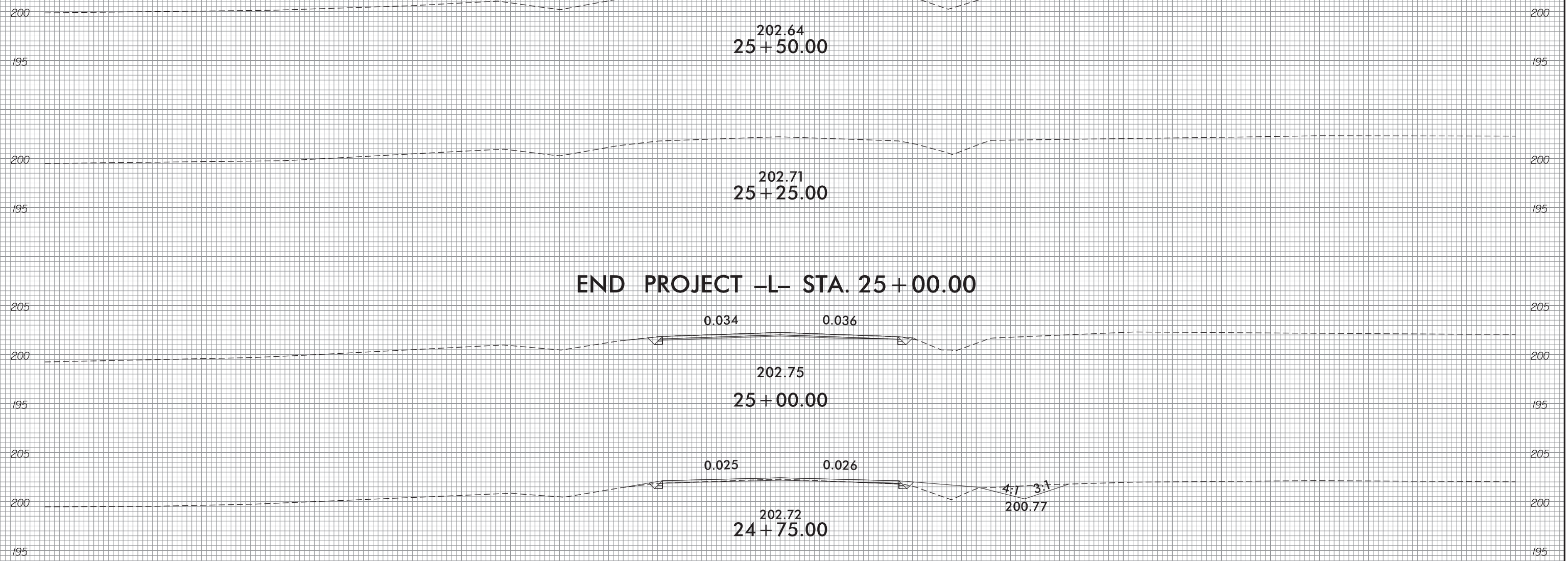
SHEET NO.
X-10



27-FEB-2018 09:44
R-5817 Rdv_xpl.L.dgn
fath, jhmk

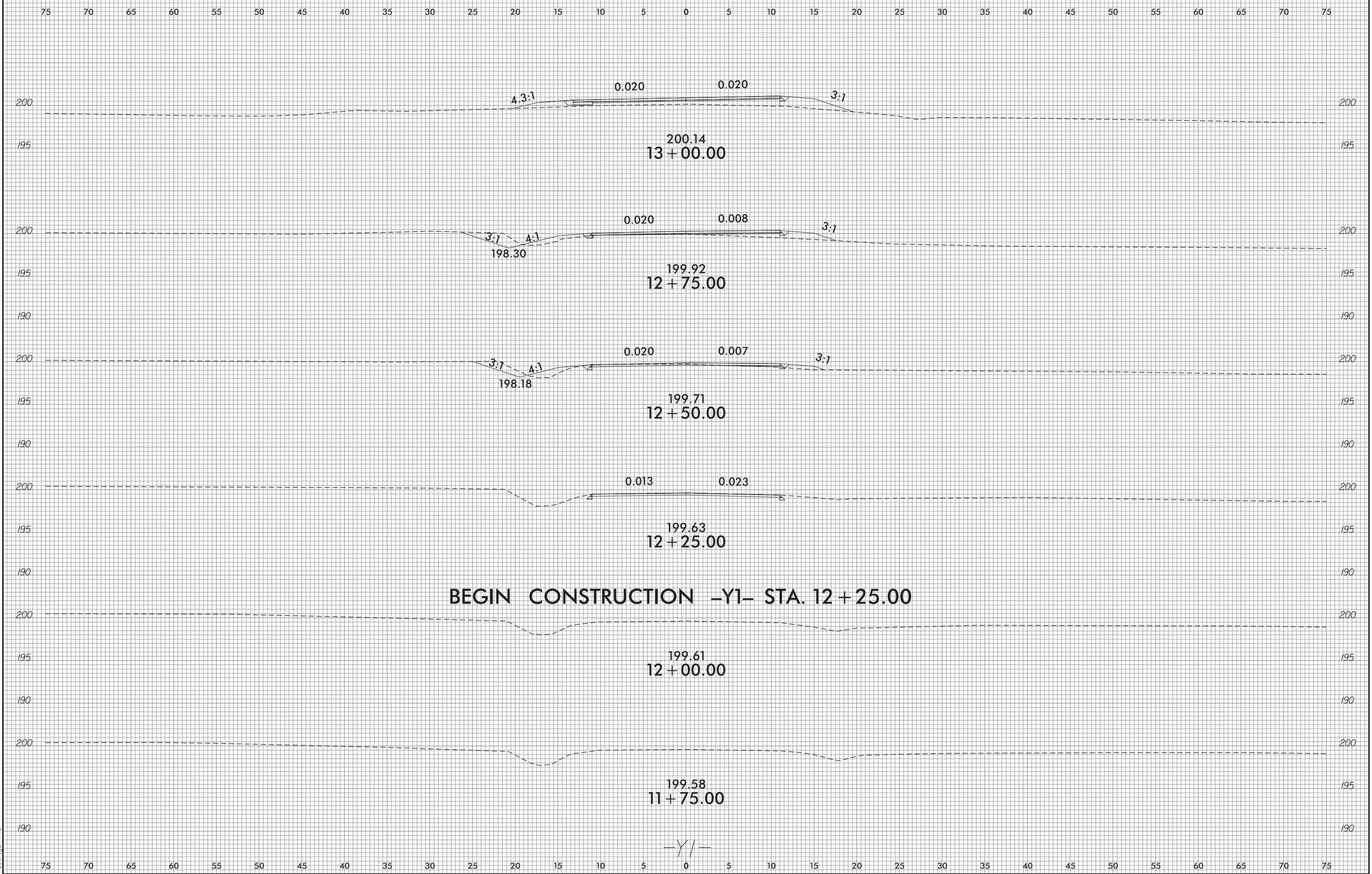


75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75



27-FEB-2018 09:44
R-5817 Rdv xp1.L.dgn
fath, jhmk

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



BEGIN CONSTRUCTION -Y1- STA. 12+25.00

27-FEB-2018 09:44
 R-5817 Rdw_xpt_Y1.dgn
 fath_vehnke

Prepared in the Office of:



NC FIRM LICENSE No. P-0339
504 Meadows Drive
Raleigh, NC 27618
(919) 552-5883
(919) 732-6876 (Fax)

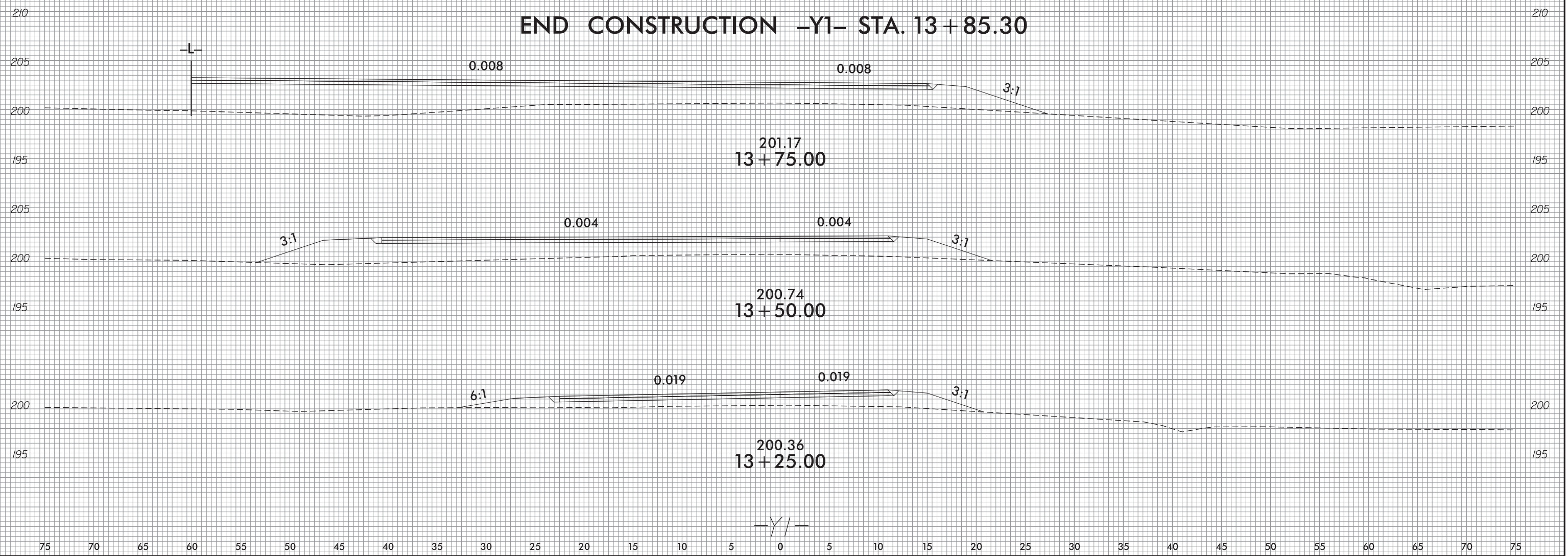


PROJ. REFERENCE NO.
R-5817

SHEET NO.
X-13

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

END CONSTRUCTION -Y1- STA. 13+85.30



27-FEB-2018 09:44
R-5817 Rdw xp1-Y1.dgn
f a t h , j e h n k e

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