

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5146	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45270.1.1	STP-1221(11)	PE	
45270.2.1	STP-1221(11)	R.W./UTIL.	
45270.3.1	STP-1221(11)	CONST.	

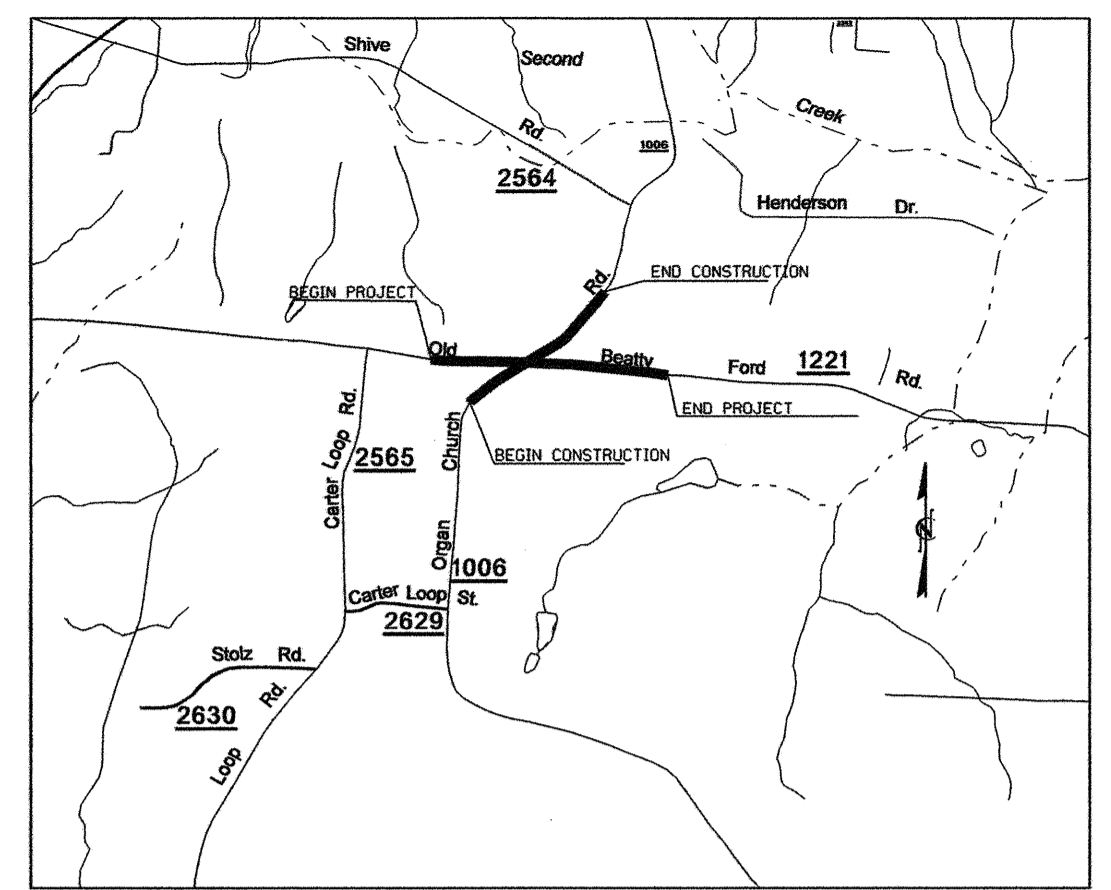
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROWAN COUNTY

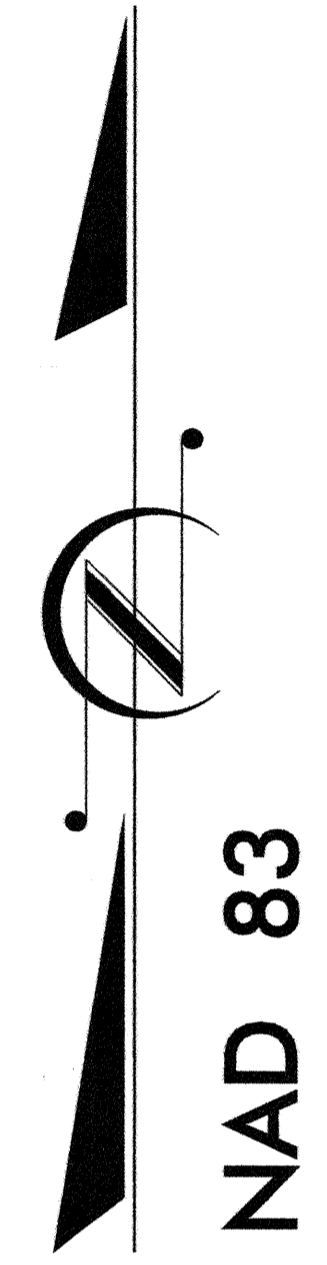
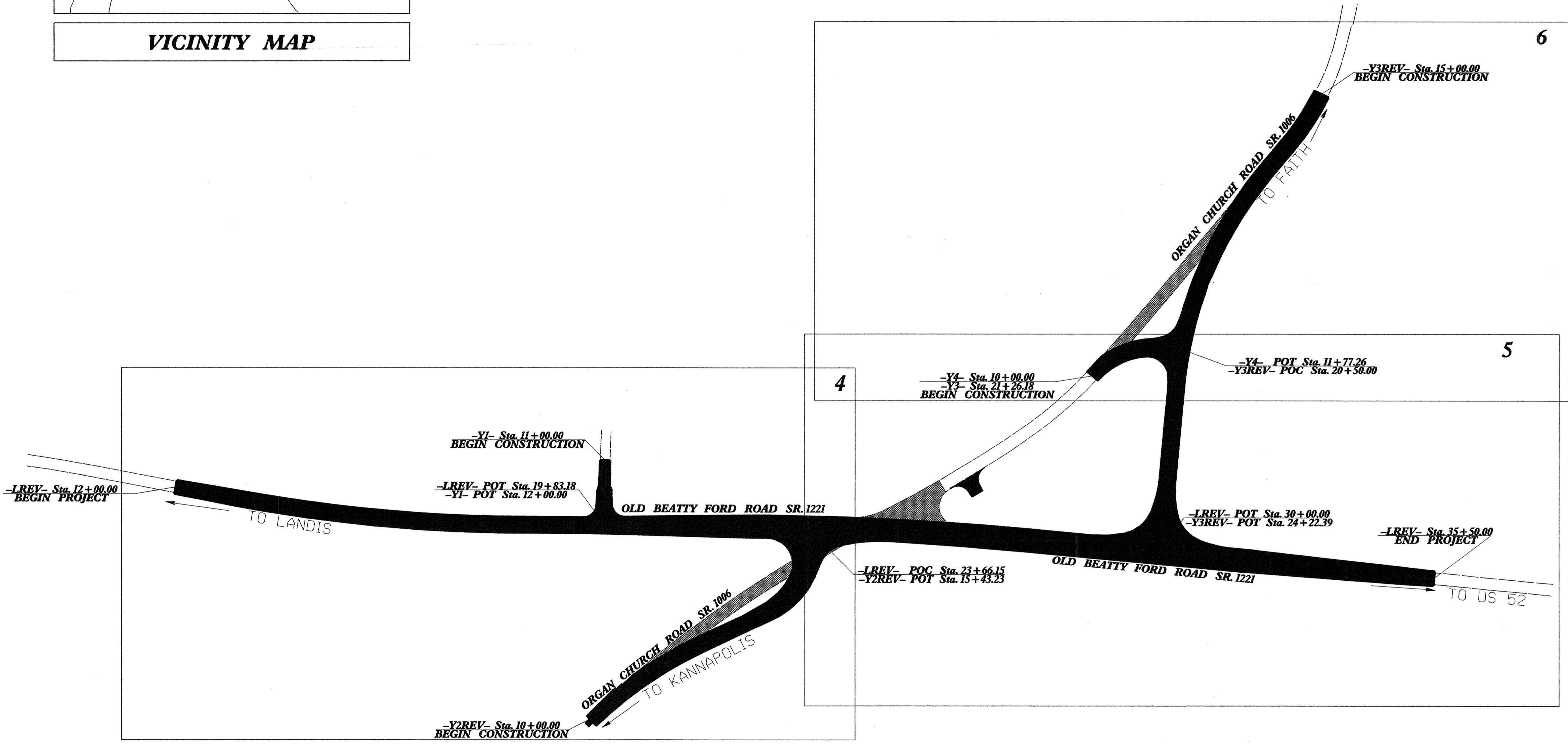
LOCATION: INTERSECTION OF SR.1221 OLD BEATTY FORD ROAD
AND SR.1006 ORGAN CHURCH ROAD

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

See Sheet 1-A For Index of Sheets

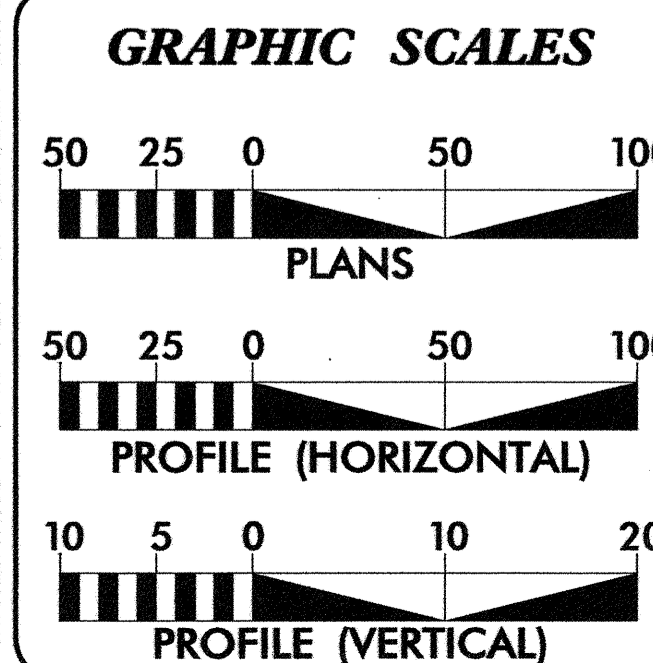


VICINITY MAP



TIP PROJECT: W-5146

CONTRACT: C203124



DESIGN DATA

ADT 2011 =	3,500
ADT 2025 =	5,000
DHV =	10 %
D =	60 %
T =	3 % *
V =	45 MPH
FUNC CLASS =	
SR. 1006 MAJOR COL.	
SR. 1221 MINOR COL.	
Subregional TIER	

PROJECT LENGTH
LENGTH ROADWAY TIP PROJECT W-5146 = 0.445 MILE

Prepared in the Office of:
DIVISION OF HIGHWAYS
NINTH DIVISION DESIGN/CONSTRUCT OFFICE
375 SILAS CREEK PARKWAY, WINSTON-SALEM, NC 27103

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 15, 2011

LETTING DATE: SEPTEMBER 18, 2012

J. Brett Abernathy, P.E., P.L.S.
PROJECT ENGINEER

Diane K. Hampton, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

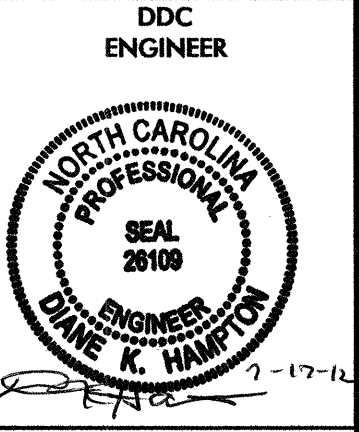
7-17-12 P.E.
Diane K. Hampton

7-17-12 P.E.
Diane K. Hampton

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

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SHEET NUMBER	SHEET	INDEX OF SHEETS
1	TITLE SHEET	
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS	
1-B	CONVENTIONAL SYMBOLS	
1-C	SURVEY CONTROL	
2 THRU 2A	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS	
3	SUMMARY OF QUANTITIES	
3A THRU 3C	SUMMARY OF DRAINAGE QUANTITIES, EARTHWORK SUMMARY, ASPHALT PAVEMENT REMOVAL SUMMARY, PARCEL INDEX	
4 THRU 6	PLAN SHEETS	
7 THRU 10	PROFILE SHEETS	
TMP-1 THRU TMP-7	TRAFFIC CONTROL PLANS	
PM-1 THRU PM-2	PAVEMENT MARKING PLANS	
EC-1 THRU EC-4	EROSION CONTROL PLANS	
X-0 THRU X-22	CROSS-SECTIONS	

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

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 CENTERLINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE IN.

CLEARING:

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

SUPERELEVATION:

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

SHOULDER CONSTRUCTION:

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

SIDE ROADS:

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

STREET TURNOUT:

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

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

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

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Duke Energy
Windstream
Time Warner

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS PRIOR TO THE DATE OF AVAILABILITY

RIGHT-OF-WAY MARKERS:

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

2012 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, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superlevation - 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 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
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	Frames, Grates, And Hood - for use on standard catch basin
840.45	Precast Drainage Structure
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.04	Street Turnout
852.01	Concrete Islands
876.02	Guide for Rip Rap at Pipe Outlets

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

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	○ EP
Property Corner	✕
Property Monument	□ ECM
Parcel/Sequence Number	⑫③
Existing Fence Line	×-×-×-×
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
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ?

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	▭
Proposed Lateral, Tail, Head Ditch	▭
False Sump	▭

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	□
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	○ R/W
Proposed Right of Way Line with Iron Pin and Cap Marker	○ R/W
Proposed Right of Way Line with Concrete or Granite Marker	○ R/W
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	E
Proposed Temporary Construction Easement	E
Proposed Temporary Drainage Easement	TDE
Proposed Permanent Drainage Easement	PDE
Proposed Permanent Drainage / Utility Easement	DUE
Proposed Permanent Utility Easement	PUE
Proposed Temporary Utility Easement	TUE
Proposed Aerial Utility Easement	AUE

ROADS AND RELATED FEATURES:

Proposed Permanent Easement with Iron Pin and Cap Marker	◆
Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	C
Proposed Slope Stakes Fill	F
Proposed Curb Ramp	CR
Curb Cut Future Ramp	CCFR
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	▭

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	PH
H-Frame Pole	●
Recorded U/G Power Line	P
Designated U/G Power Line (S.U.E.*)	P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	▭
Telephone Pedestal	▭
Telephone Cell Tower	⊗
U/G Telephone Cable Hand Hole	PH
Recorded U/G Telephone Cable	T
Designated U/G Telephone Cable (S.U.E.*)	T
Recorded U/G Telephone Conduit	TC
Designated U/G Telephone Conduit (S.U.E.*)	TC
Recorded U/G Fiber Optics Cable	T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	T FO

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	W
Designated U/G Water Line (S.U.E.*)	W
Above Ground Water Line	A/G Water

TV:

TV Satellite Dish	⊗
TV Pedestal	▭
TV Tower	⊗
U/G TV Cable Hand Hole	PH
Recorded U/G TV Cable	TV
Designated U/G TV Cable (S.U.E.*)	TV
Recorded U/G Fiber Optic Cable	TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	G
Designated U/G Gas Line (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
Recorded SS Forced Main Line	FSS
Designated SS Forced Main Line (S.U.E.*)	FSS

MISCELLANEOUS:

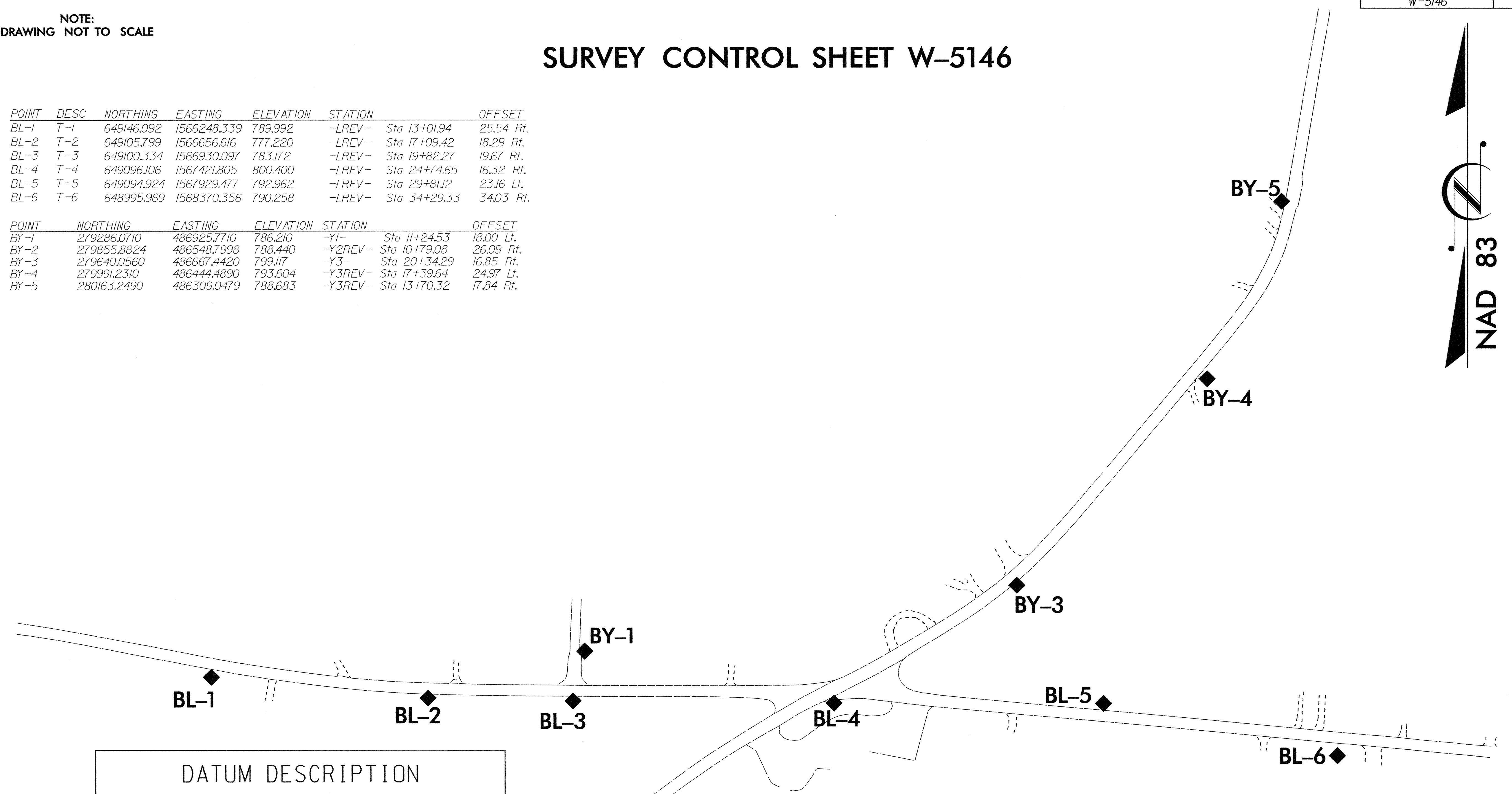
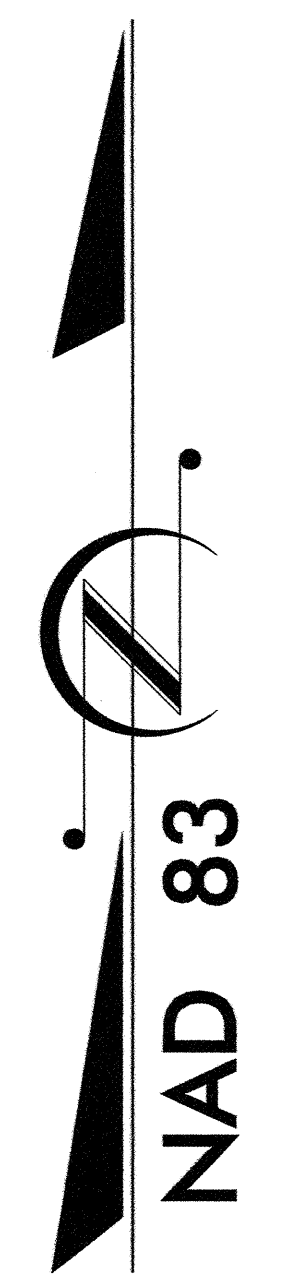
Utility Pole	●
Utility Pole with Base	▭
Utility Located Object	○
Utility Traffic Signal Box	▭
Utility Unknown U/G Line	U/G
U/G Tank; Water, Gas, Oil	▭
Underground Storage Tank, Approx. Loc.	UST
A/G Tank; Water, Gas, Oil	▭
Geoenvironmental Boring	⊗
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility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

NOTE:
DRAWING NOT TO SCALE

SURVEY CONTROL SHEET W-5146

POINT	DESC	NORTHING	EASTING	ELEVATION	STATION	OFFSET
BL-1	T-1	649146.092	1566248.339	789.992	-LREV- Sta 13+01.94	25.54 Rt.
BL-2	T-2	649105.799	1566656.616	777.220	-LREV- Sta 17+09.42	18.29 Rt.
BL-3	T-3	649100.334	1566930.097	783.172	-LREV- Sta 19+82.27	19.67 Rt.
BL-4	T-4	649096.106	1567421.805	800.400	-LREV- Sta 24+74.65	16.32 Rt.
BL-5	T-5	649094.924	1567929.477	792.962	-LREV- Sta 29+81.12	23.16 Lt.
BL-6	T-6	648995.969	1568370.356	790.258	-LREV- Sta 34+29.33	34.03 Rt.

POINT	NORTHING	EASTING	ELEVATION	STATION	OFFSET
BY-1	279286.0710	486925.7710	786.210	-Y1- Sta 11+24.53	18.00 Lt.
BY-2	279855.8824	486548.7998	788.440	-Y2REV- Sta 10+79.08	26.09 Rt.
BY-3	279640.0560	486667.4420	799.117	-Y3- Sta 20+34.29	16.85 Rt.
BY-4	279991.2310	486444.4890	793.604	-Y3REV- Sta 17+39.64	24.97 Lt.
BY-5	280163.2490	486309.0479	788.683	-Y3REV- Sta 13+70.32	17.84 Rt.



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "ORGAN"

WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
 NORTHING: 650523.5283(±) EASTING: 1568402.0666(±)
 ELEVATION: 776.53(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998519

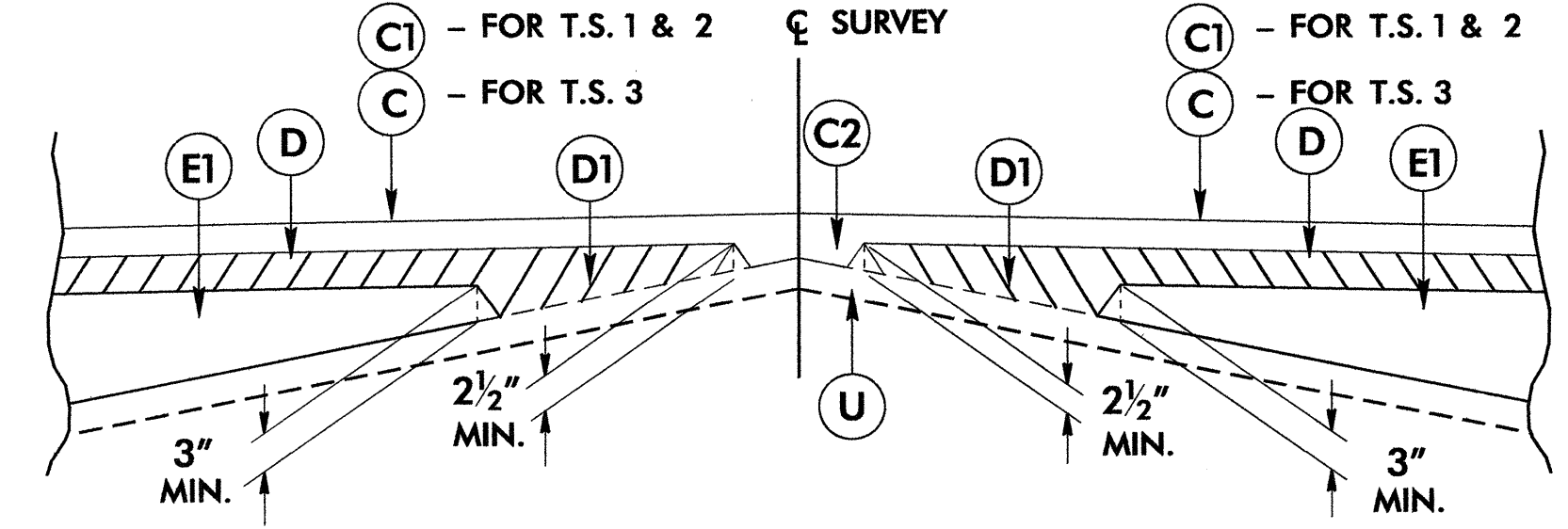
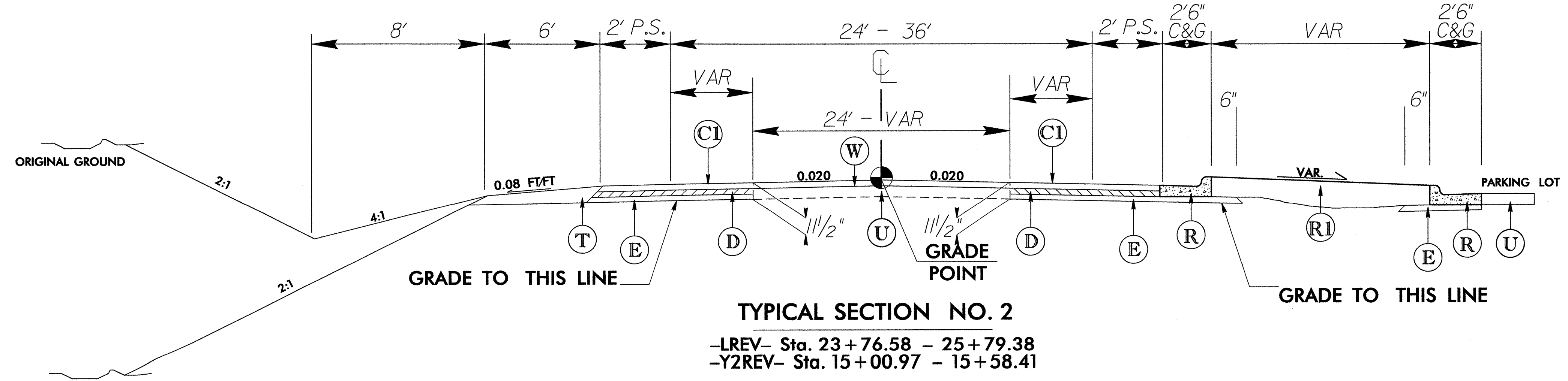
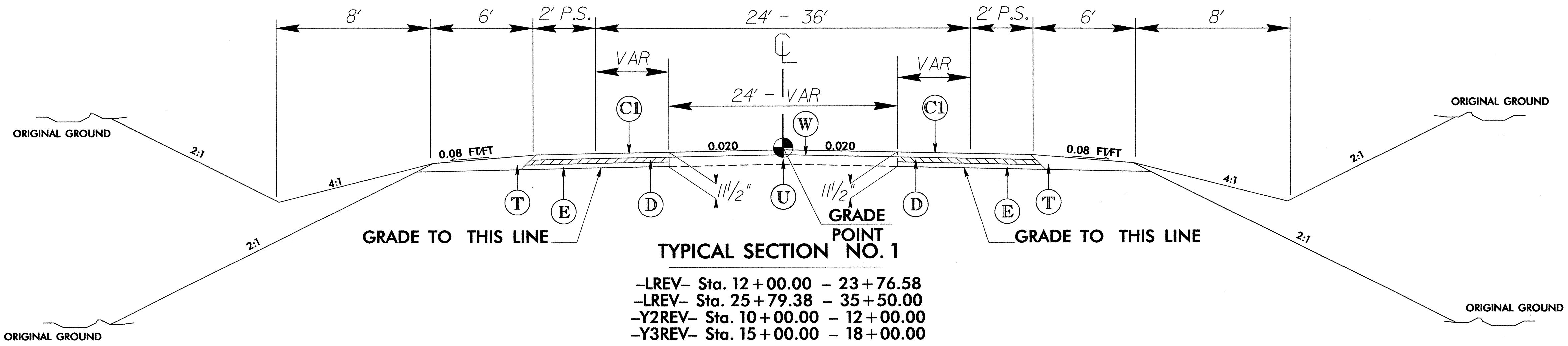
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "ORGAN" TO -LREV- STATION 10+00.00' IS
 N 62°04'06.20" E 2768.28'

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

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C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E1	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, 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.
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.	R	2'-6" CONCRETE CURB AND GUTTER.
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 LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.	R1	12"-7" TYPE A CONCRETE ISLAND W/4"X4" W 3.5 X W 3.5 REINFORCEMENT.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	T	EARTH MATERIAL.
D1	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, 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.	U	EXISTING PAVEMENT.
E	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

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

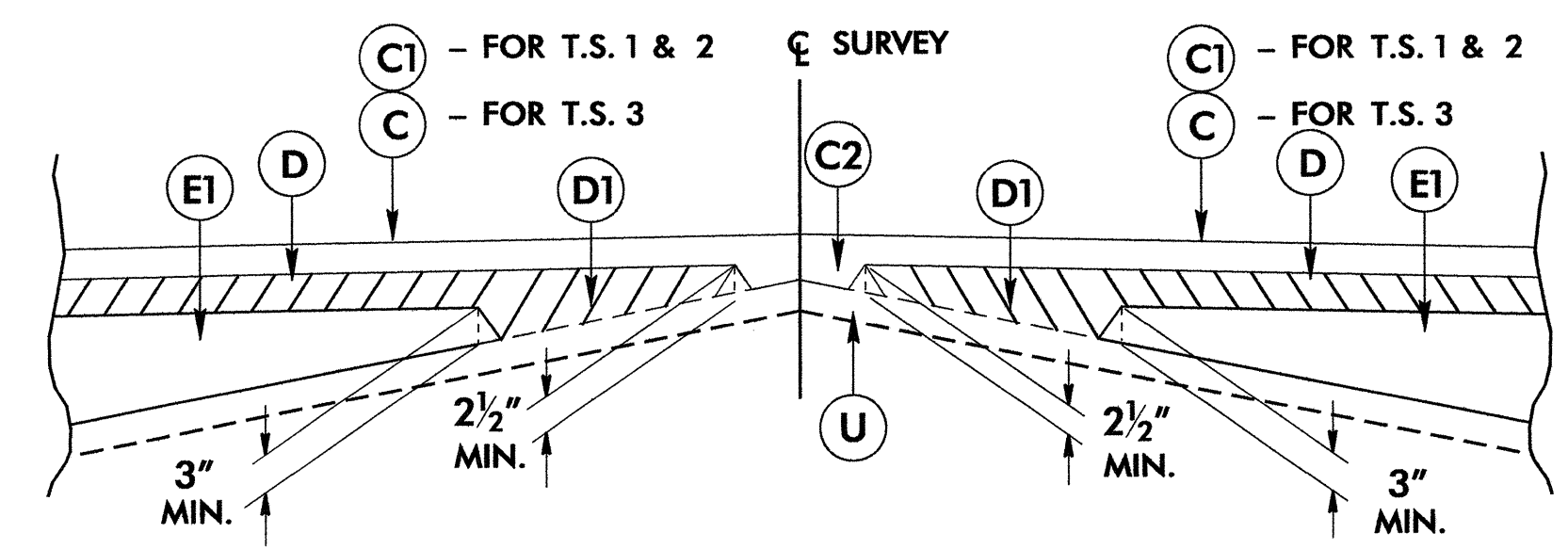
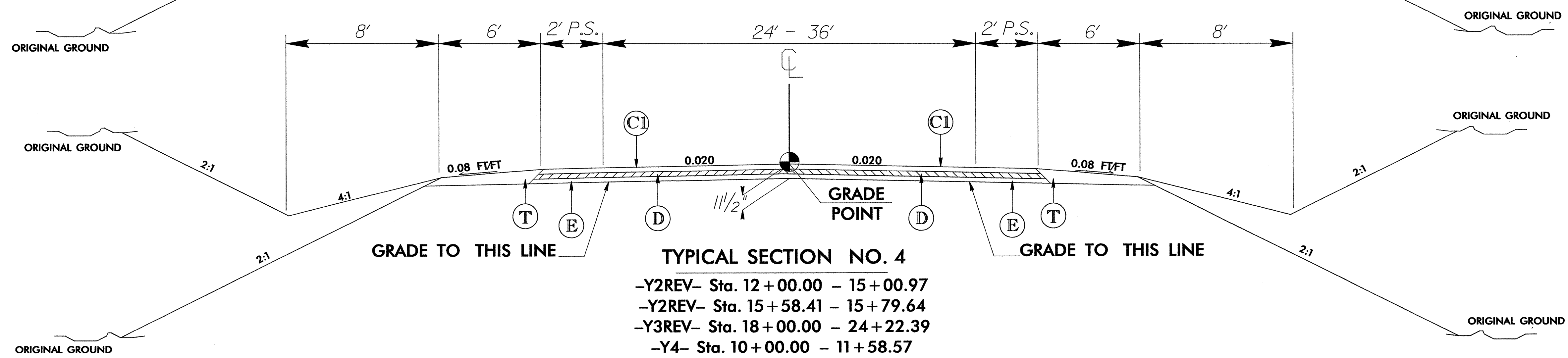
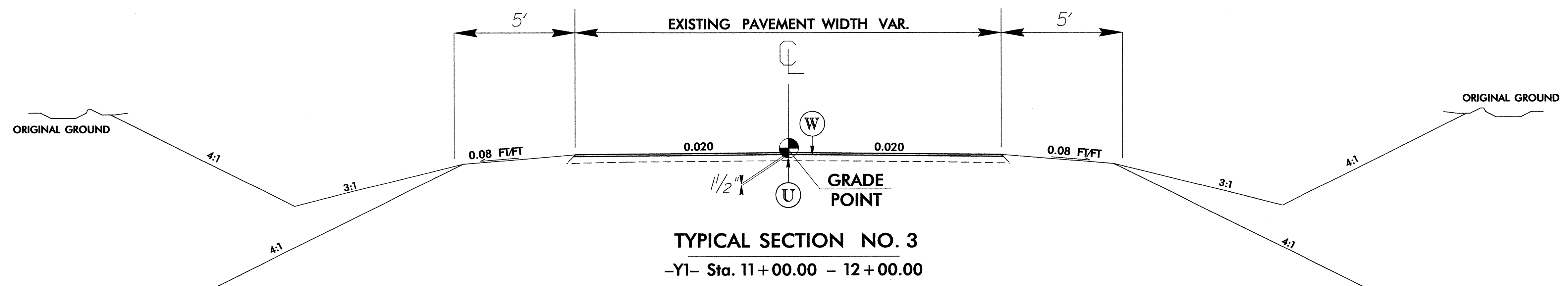


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PROJECT REFERENCE NO. W-5146	SHEET NO. 2A
RW SHEET NO.	
DDC ENGINEER	PAVEMENT DESIGN ENGINEER

C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E1	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, 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.
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NOTE:
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UNLESS SHOWN OTHERWISE



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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203124

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
005700000-E	226	400	CY	UNDERCUT EXCAVATION
006300000-N	SP	Lump Sum		GRADING
010600000-E	230	11,400	CY	BORROW EXCAVATION
031800000-E	300	60	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
032000000-E	300	170	SY	FOUNDATION CONDITIONING GEOTEXTILE
036600000-E	310	324	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E	310	40	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	184	LF	24" RC PIPE CULVERTS, CLASS III
099500000-E	340	341	LF	PIPE REMOVAL
122000000-E	545	100	TON	INCIDENTAL STONE BASE
133000000-E	607	1,000	SY	INCIDENTAL MILLING
148900000-E	610	6,500	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
149800000-E	610	3,000	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
151900000-E	610	2,300	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
157500000-E	620	560	TON	ASPHALT BINDER FOR PLANT MIX
169300000-E	654	50	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
200000000-N	806	51	EA	RIGHT OF WAY MARKERS
225300000-E	840	2	CY	PIPE COLLARS
228600000-N	840	1	EA	MASONRY DRAINAGE STRUCTURES
237400000-N	840	1	EA	FRAME WITH GRATE & HOOD, STD 340.03, TYPE ** (G)
254900000-E	846	450	LF	2'-6" CONCRETE CURB & GUTTER

SUMMARY OF QUANTITIES - W-5146

ItemNumber	Sec #	Quantity	Unit	Description
273800000-E	SP	510	SY	GENERIC PAVING ITEM 7"-12" MONOLITHIC CONC ISLAND WITH REINFORCEMENT
303000000-E	862	24	LF	STEEL BM GUARDRAIL
310500000-N	862	2	EA	STEEL BM GUARDRAIL TERMINAL SECTIONS
364900000-E	876	19	TON	RIP RAP, CLASS B
365600000-E	876	310	SY	GEOTEXTILE FOR DRAINAGE
440000000-E	1110	187	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	144	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	60	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
443000000-N	1130	175	EA	DRUMS
443500000-N	1135	75	EA	CONES
445500000-N	1150	180	DAY	FLAGGER
451600000-N	1180	30	EA	SKINNY DRUM
465000000-N	1251	109	EA	TEMPORARY RAISED PAVEMENT MARKERS
468500000-E	1205	4,100	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
468600000-E	1205	9,120	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
469500000-E	1205	53	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
481000000-E	1205	89,107	LF	PAINT PAVEMENT MARKING LINES (4")
482500000-E	1205	516	LF	PAINT PAVEMENT MARKING LINES (12")
483500000-E	1205	588	LF	PAINT PAVEMENT MARKING LINES (24")
484500000-N	1205	16	EA	PAINT PAVEMENT MARKING SYMBOL
485000000-E	1205	400	LF	REMOVAL OF PAVEMENT MARKING LINES (4")
600000000-E	1605	3,000	LF	TEMPORARY SILT FENCE
600600000-E	1610	325	TON	STONE FOR EROSION CONTROL, CLASS A

ItemNumber	Sec #	Quantity	Unit	Description
600900000-E	1610	600	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	200	TON	SEDIMENT CONTROL STONE
601500000-E	1615	6	ACR	TEMPORARY MULCHING
601800000-E	1620	300	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	2	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	150	LF	TEMPORARY SLOPE DRAINS
603000000-E	1630	1,590	CY	SILT EXCAVATION
603600000-E	1631	5,000	SY	MATTING FOR EROSION CONTROL
603700000-E	SP	30	SY	COIR FIBER MAT
604200000-E	1632	100	LF	1/4" HARDWARE CLOTH
607101000-E	SP	840	LF	WATTLE
607102000-E	SP	100	LB	POLYACRYLAMIDE (PAM)
607103000-E	1640	65	LF	COIR FIBER BAFFLE
607105000-E	SP	3	EA	*** SKIMMER (1-1/2")
608400000-E	1660	7	ACR	SEEDING & MULCHING
609000000-E	1661	100	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	200	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	5	TON	FERTILIZER TOPDRESSING
611700000-N	SP	12	EA	RESPONSE FOR EROSION CONTROL

RD248621

COMPUTED BY: JC DATE: 7/17/12
 CHECKED BY: DKH DATE: 7/17/12

PROJECT NO.	SHEET NO.
W-5146	3-B

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

**SUMMARY OF EARTHWORK
 IN CUBIC YARDS**

**SUMMARY OF EXISTING ASPHALT
 PAVEMENT REMOVAL**

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-LREV- 12+00	35+50	1,369	5,557	4,188	
-Y1- 11+00	12+00	201	17		184
-Y2REV- 10+00	15+43.23	827	307		520
-Y3REV- 15+00	24+22.39	422	5,569	5,147	
-Y4- 10+00	11+77.26	25	1,064	1,039	
SUBTOTALS:		2,844	12,514	10,374	704
MATERIAL FOR SHLDR CONST.			1,152	1,152	
LOSS DUE TO C&G		-15		15	
WASTE TO REPLACE BORROW				-704	-704
SUBTOTALS:		2,829	13,666	10,837	0
PROJECT TOTALS:		2,829.00	13,666.00	10,837.00	0.00
EST. TO REPLACE TOPSOIL FOR BORROW PIT				542	
GRAND TOTALS:		2,829		11,379	
SAY:		2,900		11,400	

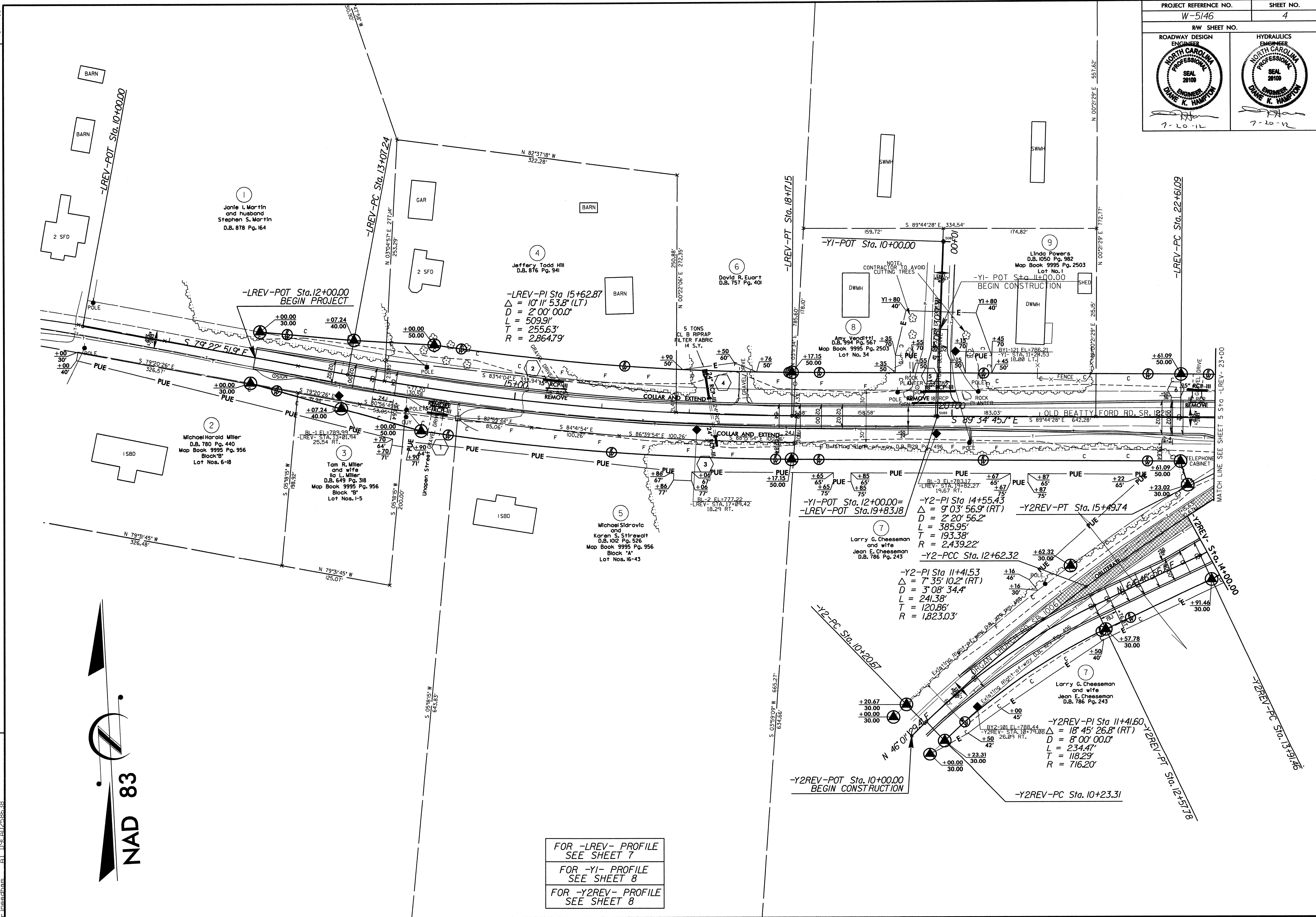
LINE	Station	Station	LOC LT/RT/CL	YD ²
-Y2-	10+79	15+00	CL	741.00
-Y3-	16+48	25+50	CL	980.00
TOTAL:				1721.00
SAY:				1721

Note: Approximate quantities only. Unclassified excavation, fine grading, removal of asphalt pavement, clearing and grubbing, will be paid for at the lump sum price for "Grading".

ESTIMATED UNDERCUT = 400 CY

5/7/10

REVISIONS



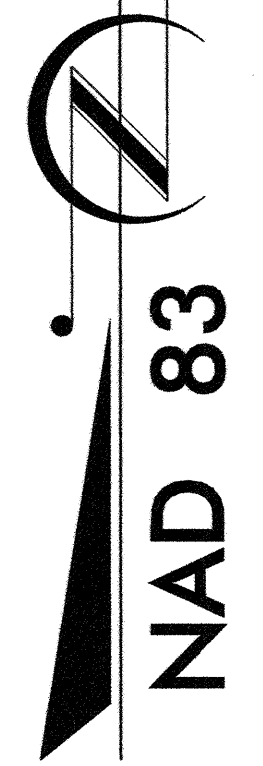
NAD 83

FOR -LREV- PROFILE
SEE SHEET 7

FOR -Y1- PROFILE
SEE SHEET 8

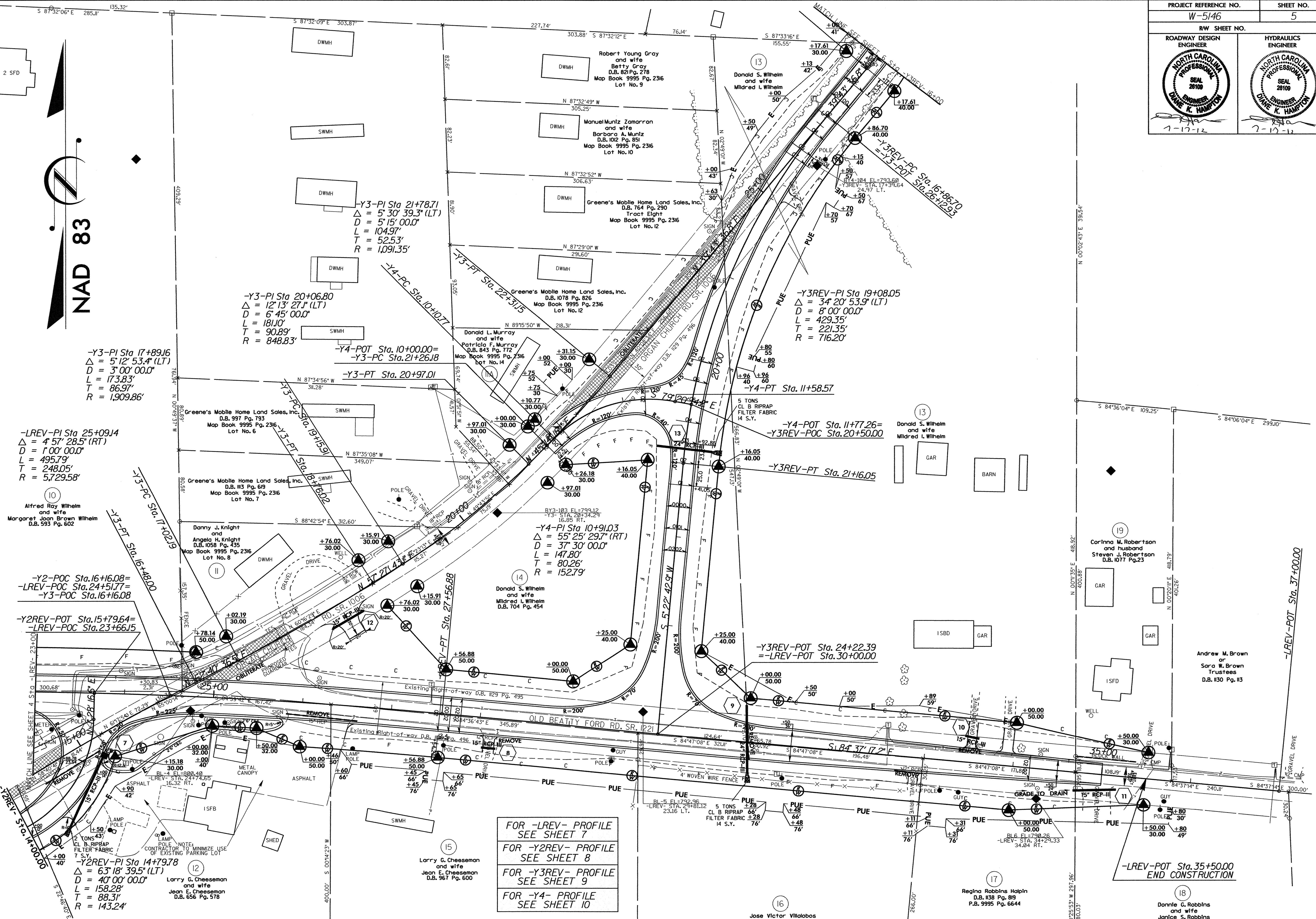
FOR -Y2REV- PROFILE
SEE SHEET 8

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REVISIONS

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-Y3-PI Sta 17+89.16
 $\Delta = 5'12'' 53.4''$ (LT)
 $D = 3'00'' 00.0''$
 $L = 173.83'$
 $T = 86.97'$
 $R = 1,909.86'$

-LREV-PI Sta 25+09.14
 $\Delta = 4'57'' 28.5''$ (RT)
 $D = 1'00'' 00.0''$
 $L = 495.79'$
 $T = 248.05'$
 $R = 5,729.58'$

-Y2-POC Sta.16+16.08=
 -LREV-POC Sta.24+51.77=
 -Y3-POC Sta.16+16.08

-Y2REV-POT Sta.15+79.64=
 -LREV-POC Sta.23+66.15

-Y2REV-PI Sta 14+79.78
 $\Delta = 63'18'' 39.5''$ (LT)
 $D = 40'00'' 00.0''$
 $L = 158.28'$
 $T = 88.31'$
 $R = 143.24'$

-Y3-PI Sta 20+06.80
 $\Delta = 12'13'' 27.1''$ (LT)
 $D = 6'45'' 00.0''$
 $L = 181.10'$
 $T = 90.89'$
 $R = 848.83'$

-Y4-POT Sta.10+00.00=
 -Y3-PC Sta.21+26.18

-Y3-PT Sta. 20+97.01

-Y4-PI Sta 10+91.03
 $\Delta = 55'25'' 29.7''$ (RT)
 $D = 37'30'' 00.0''$
 $L = 147.80'$
 $T = 80.26'$
 $R = 152.79'$

-Y3REV-PI Sta 19+08.05
 $\Delta = 34'20'' 53.9''$ (LT)
 $D = 8'00'' 00.0''$
 $L = 429.35'$
 $T = 221.35'$
 $R = 716.20'$

-Y4-POT Sta.11+77.26=
 -Y3REV-POC Sta.20+50.00

-Y3REV-PT Sta. 21+16.05

-Y3REV-POT Sta. 24+22.39
 =-LREV-POT Sta.30+00.00

FOR -LREV- PROFILE
 SEE SHEET 7
 FOR -Y2REV- PROFILE
 SEE SHEET 8
 FOR -Y3REV- PROFILE
 SEE SHEET 9
 FOR -Y4- PROFILE
 SEE SHEET 10

-LREV-POT Sta.35+50.00
 END CONSTRUCTION

15
 Larry G. Cheeseman
 and wife
 Jean E. Cheeseman
 D.B. 967 Pg. 600

12
 Larry G. Cheeseman
 and wife
 Jean E. Cheeseman
 D.B. 656 Pg. 578

16
 Jose Victor Villalobos
 D.B. 1078 Pg. 768

17
 Regina Robbins Halpin
 D.B. 838 Pg. 819
 P.B. 9995 Pg. 6644

18
 Donnie G. Robbins
 and wife
 Janice S. Robbins
 D.B. 1140 Pg. 92

19
 Corinna M. Robertson
 and husband
 Steven J. Robertson
 D.B. 1077 Pg.23

Andrew M. Brown
 or
 Sara W. Brown
 Trustees
 D.B. 130 Pg. 13

13
 Donald S. Wilhelm
 and wife
 Mildred L. Wilhelm

14
 Donald S. Wilhelm
 and wife
 Mildred L. Wilhelm
 D.B. 704 Pg. 454

11
 Danny J. Knight
 and
 Angela H. Knight
 D.B. 1058 Pg. 435
 Map Book 9995 Pg. 2316
 Lot No. 8

Greene's Mobile Home Land Sales, Inc.
 D.B. 113 Pg. 619
 Map Book 9995 Pg. 2316
 Lot No. 7

Greene's Mobile Home Land Sales, Inc.
 D.B. 997 Pg. 793
 Map Book 9995 Pg. 2316
 Lot No. 6

Robert Young Gray
 and wife
 Betty Gray
 D.B. 821 Pg. 278
 Map Book 9995 Pg. 2316
 Lot No. 9

Manuel Muniz Zamarron
 and wife
 Barbara A. Muniz
 D.B. 1012 Pg. 851
 Map Book 9995 Pg. 2316
 Lot No. 10

Greene's Mobile Home Land Sales, Inc.
 D.B. 1078 Pg. 826
 Map Book 9995 Pg. 2316
 Lot No. 12

Greene's Mobile Home Land Sales, Inc.
 D.B. 1078 Pg. 826
 Map Book 9995 Pg. 2316
 Lot No. 12

Donald L. Murray
 and wife
 Patricia F. Murray
 D.B. 845 Pg. 772
 Map Book 9995 Pg. 2316
 Lot No. 14

13
 Donald S. Wilhelm
 and wife
 Mildred L. Wilhelm

Manuel Muniz Zamarron
 and wife
 Barbara A. Muniz
 D.B. 1012 Pg. 851
 Map Book 9995 Pg. 2316
 Lot No. 10

Greene's Mobile Home Land Sales, Inc.
 D.B. 1078 Pg. 826
 Map Book 9995 Pg. 2316
 Lot No. 12

Greene's Mobile Home Land Sales, Inc.
 D.B. 1078 Pg. 826
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13
 Donald S. Wilhelm
 and wife
 Mildred L. Wilhelm

14
 Donald S. Wilhelm
 and wife
 Mildred L. Wilhelm
 D.B. 704 Pg. 454

15
 Larry G. Cheeseman
 and wife
 Jean E. Cheeseman
 D.B. 967 Pg. 600

16
 Jose Victor Villalobos
 D.B. 1078 Pg. 768

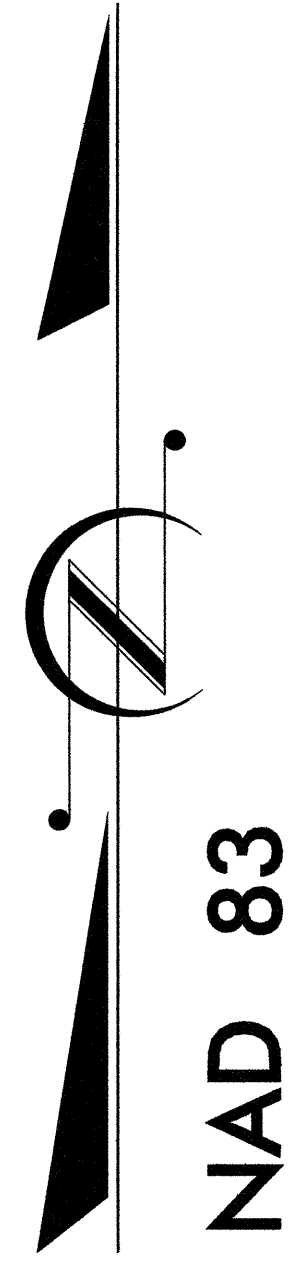
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 Regina Robbins Halpin
 D.B. 838 Pg. 819
 P.B. 9995 Pg. 6644

18
 Donnie G. Robbins
 and wife
 Janice S. Robbins
 D.B. 1140 Pg. 92

19
 Corinna M. Robertson
 and husband
 Steven J. Robertson
 D.B. 1077 Pg.23

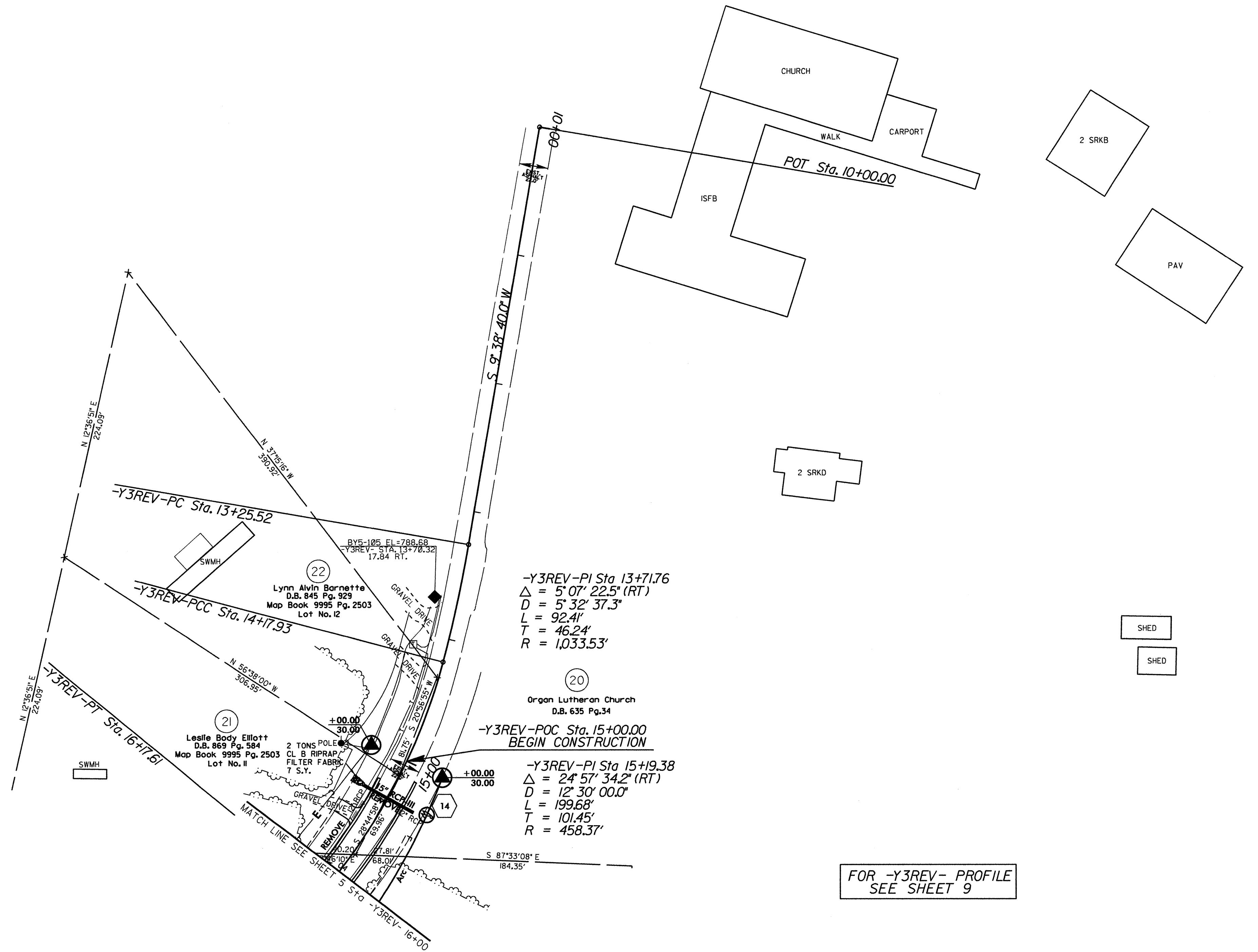
Andrew M. Brown
 or
 Sara W. Brown
 Trustees
 D.B. 130 Pg. 13

PROJECT REFERENCE NO.	SHEET NO.
W-5146	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

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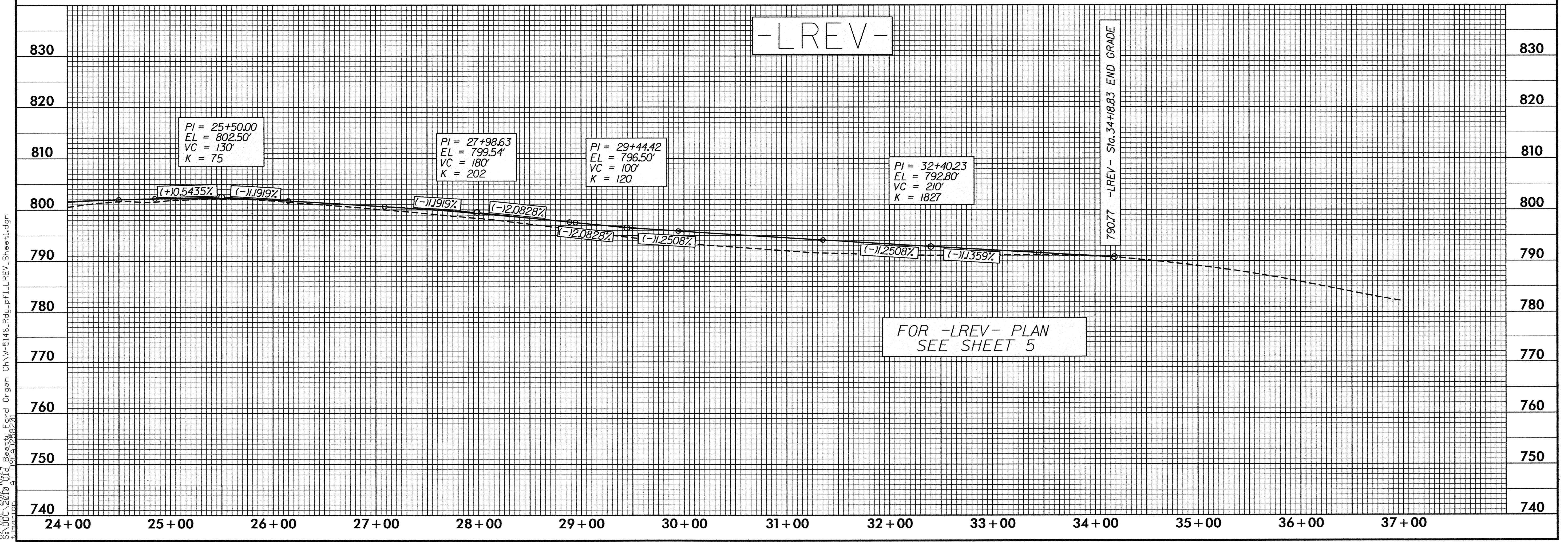
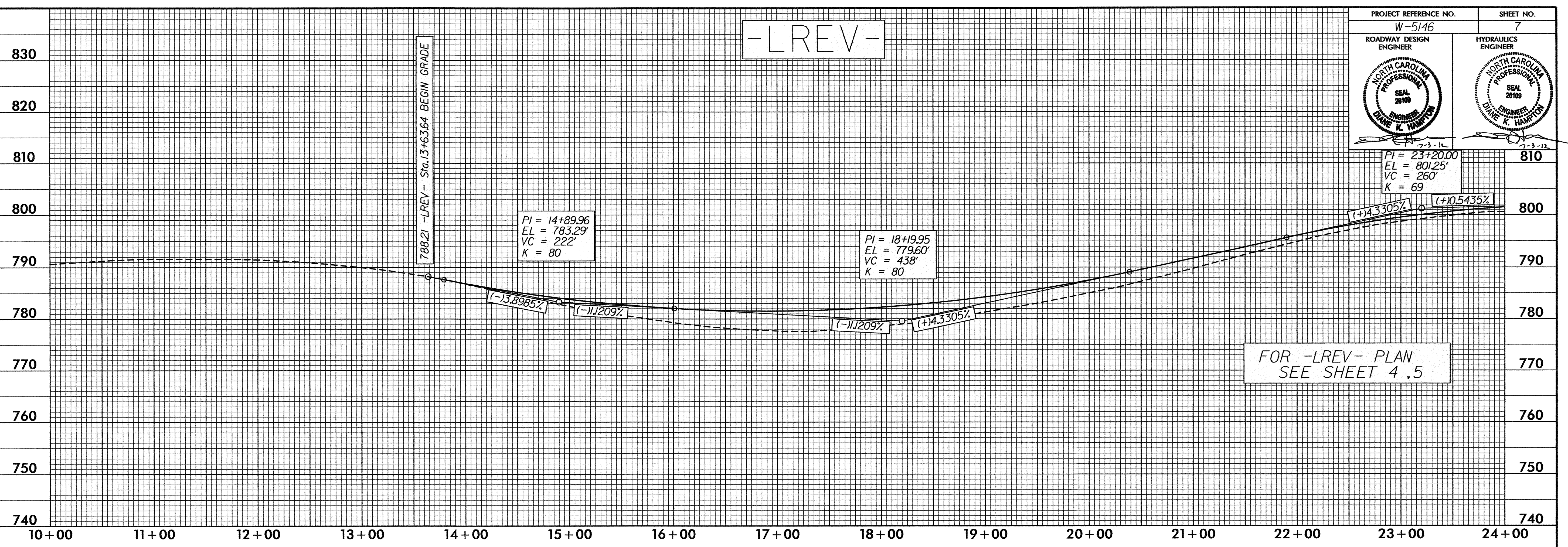


FOR -Y3REV- PROFILE
SEE SHEET 9

9/12/11

PROJECT REFERENCE NO. W-5146	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

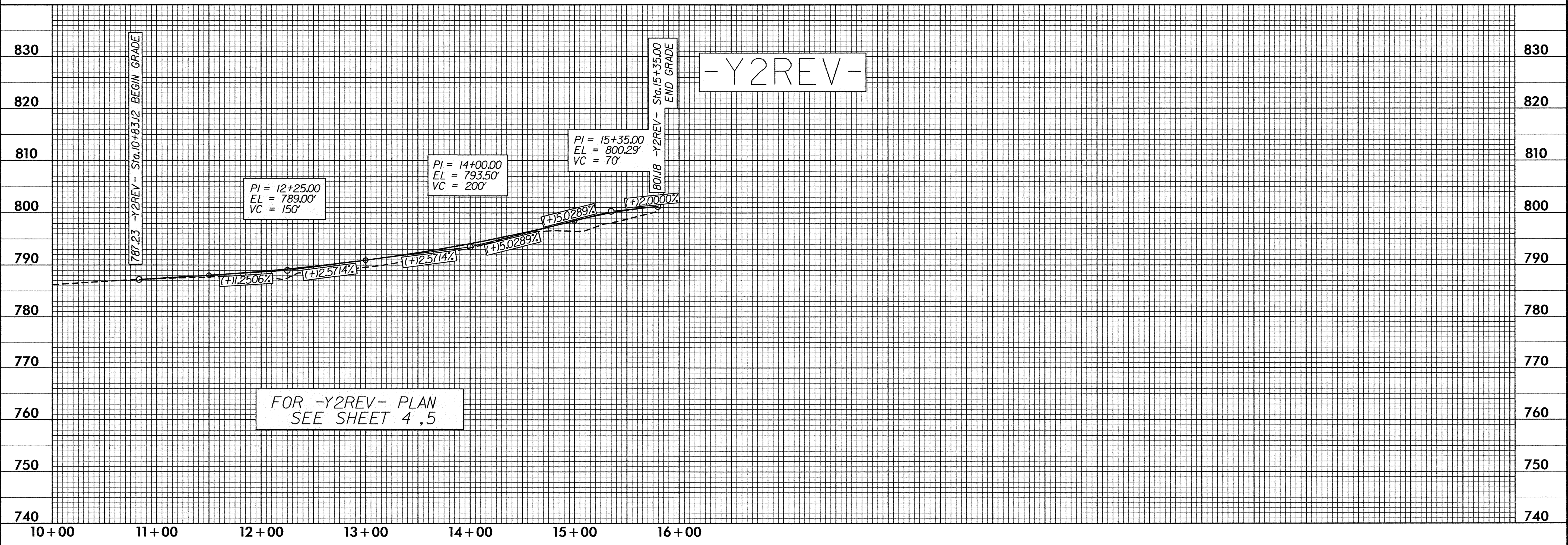
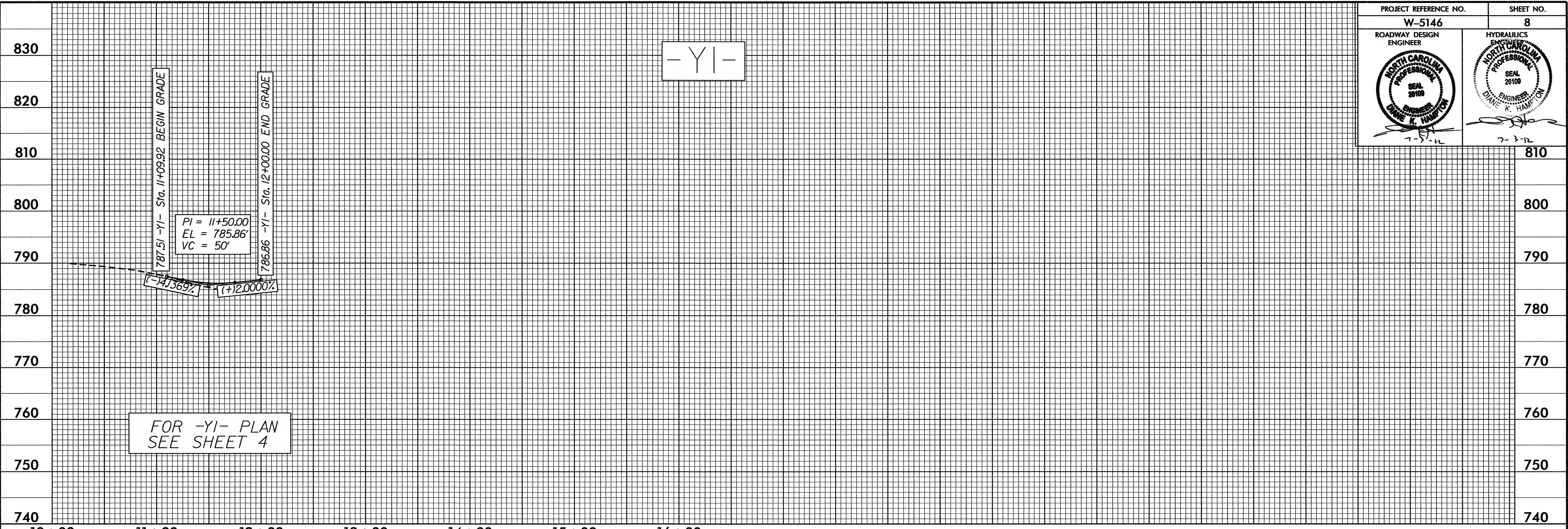
2-3-11
 PI = 23+20.00
 EL = 801.25'
 VC = 260'
 K = 69



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5/28/09
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PROJECT REFERENCE NO.	W-5146	SHEET NO.	8
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			<i>(Signature)</i>
			7-3-12

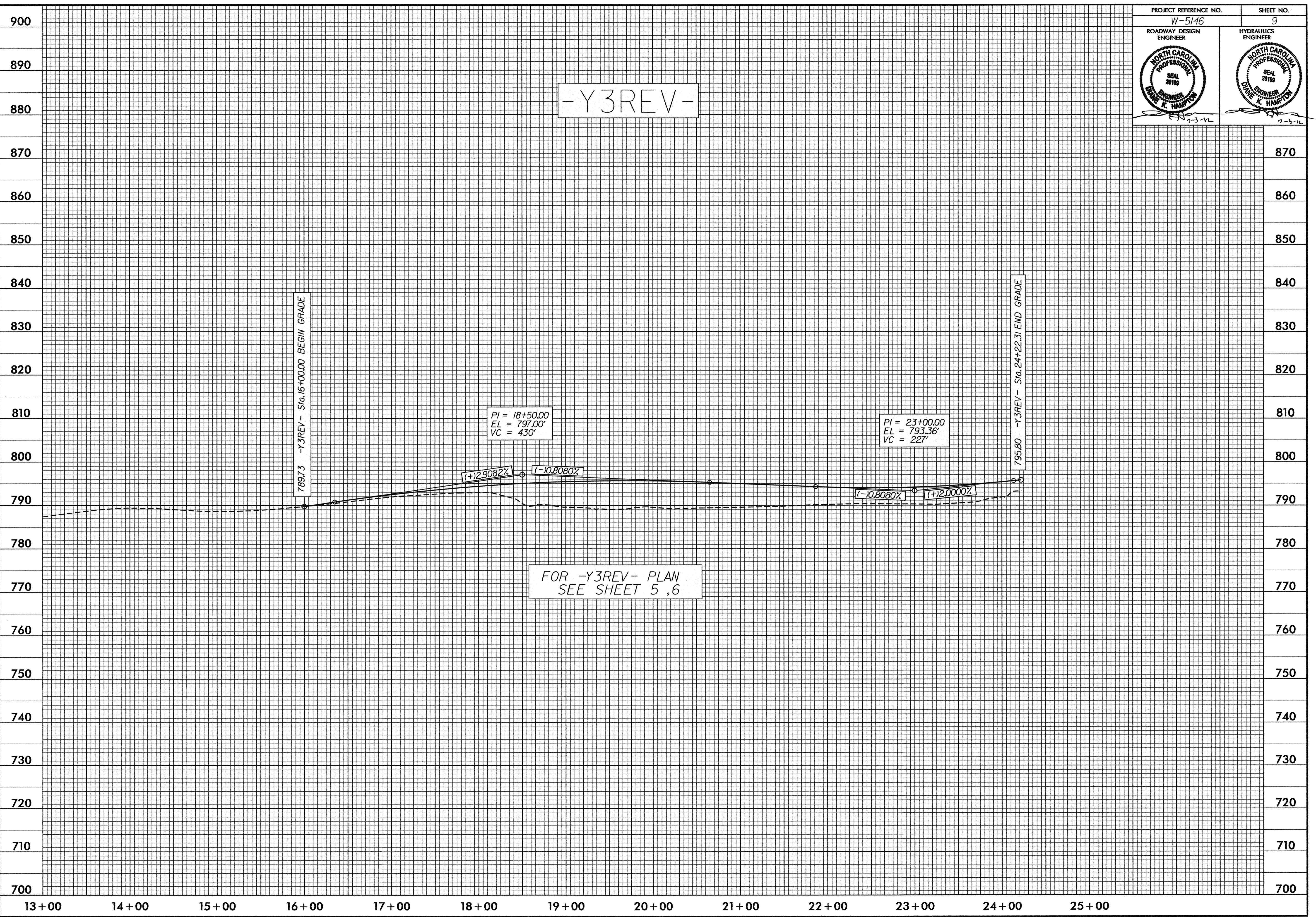


9/12/11

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PROJECT REFERENCE NO. W-5146	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y3REV-





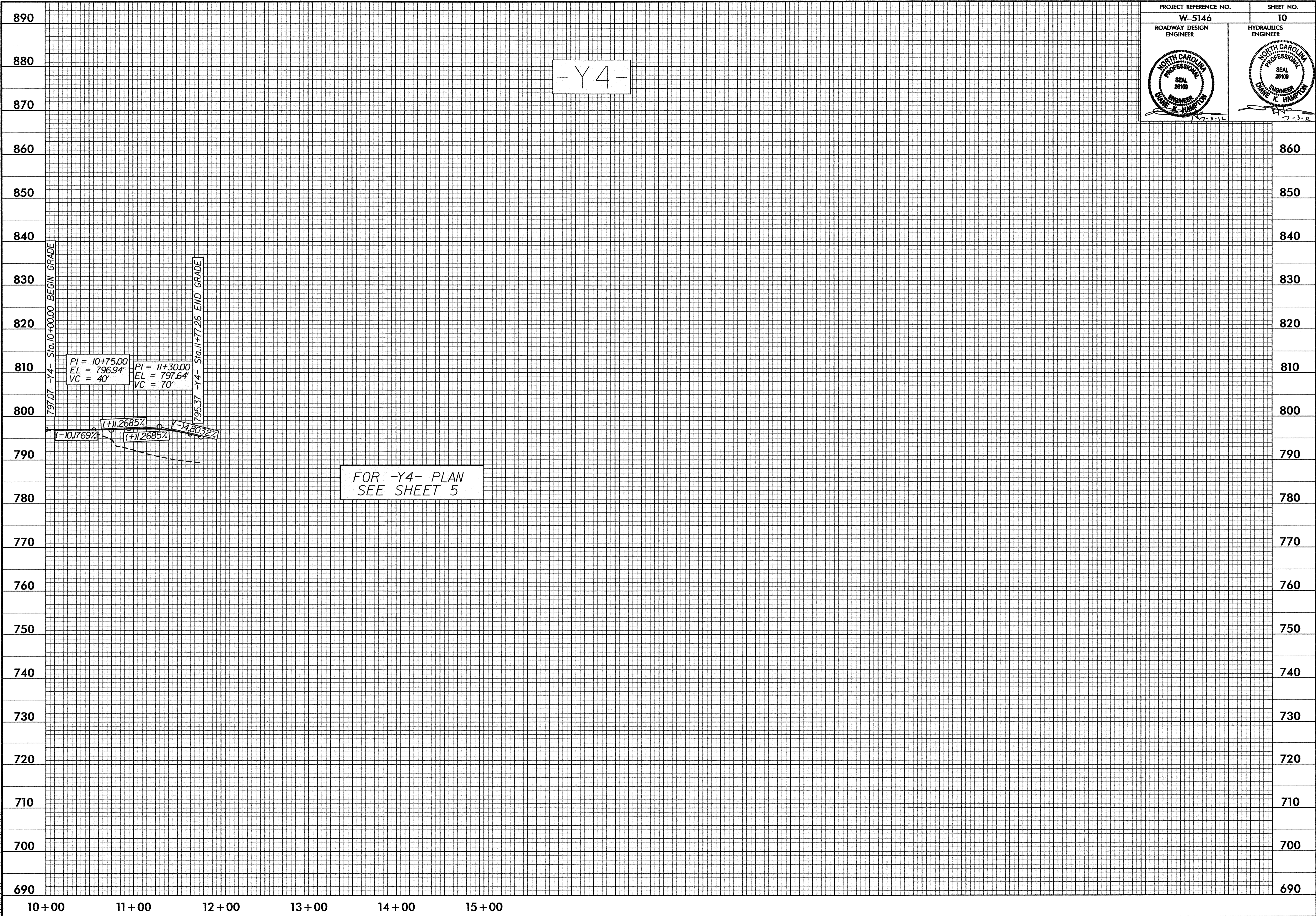
FOR -Y3REV- PLAN
SEE SHEET 5,6

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5/14/99

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PROJECT REFERENCE NO. W-5146	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	



-Y4-

$PI = 10+75.00$
 $EL = 796.94'$
 $VC = 40'$

$PI = 11+30.00$
 $EL = 797.64'$
 $VC = 70'$

$(-)10.1769\%$ $(+)1.2685\%$ $(-)4.9032\%$
 $(+)1.2685\%$

FOR -Y4- PLAN
SEE SHEET 5

797.07 -Y4- Sta.10+00.00 BEGIN GRADE

795.37 -Y4- Sta.11+77.26 END GRADE

10+00 11+00 12+00 13+00 14+00 15+00

860
850
840
830
820
810
800
790
780
770
760
750
740
730
720
710
700
690