

05-APR-2019 09:21 H:\DDC\Projects\W-5706E NC 211 at Mount Olive Church Rd\Rob Co\Roadway\proj\W-5706E_Rdy_Tsh.dgn \$\$\$USERNAME\$\$\$

CONTRACT: DF00266 **TIP PROJECT: W-5706E**

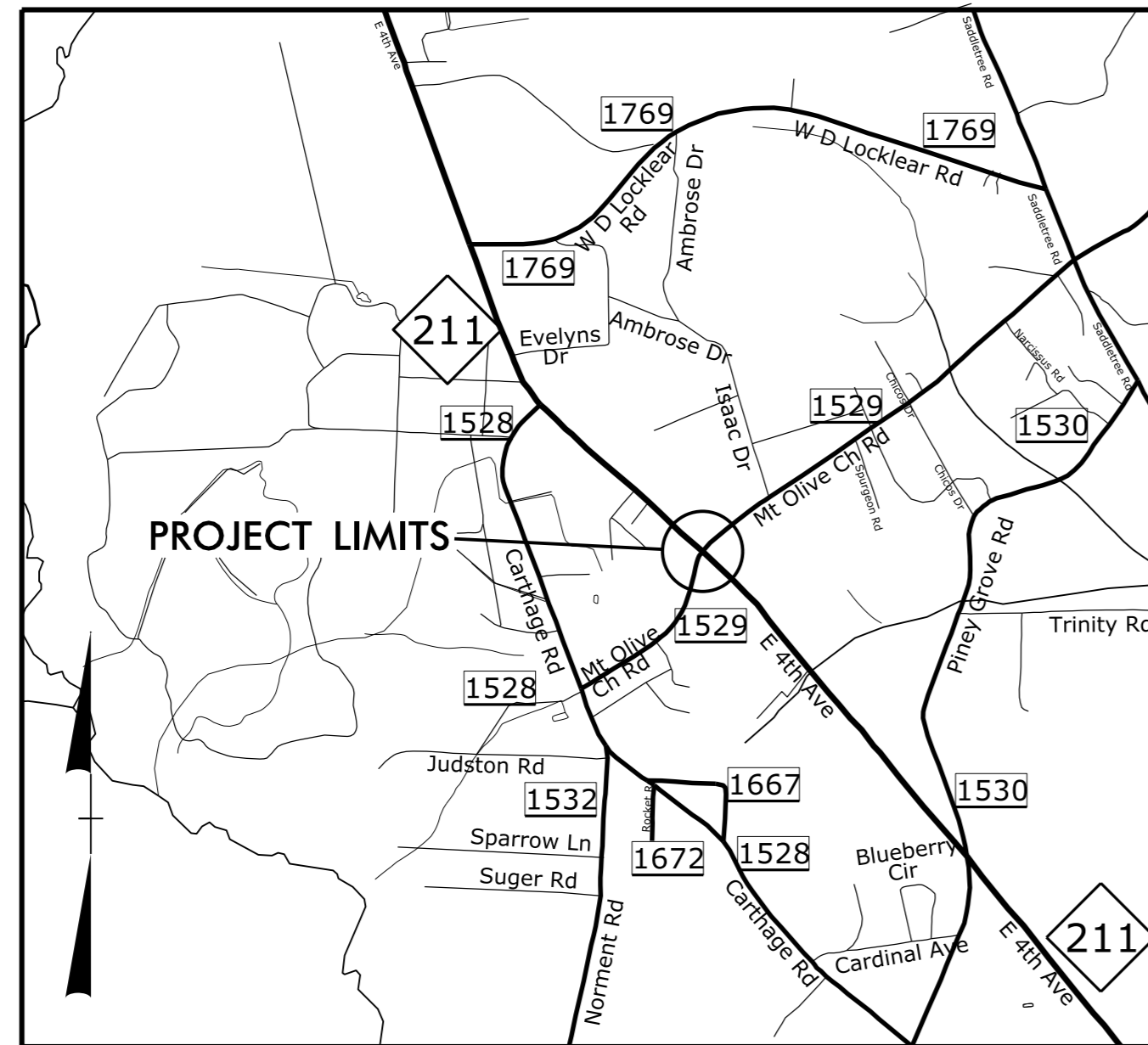
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROBESON COUNTY

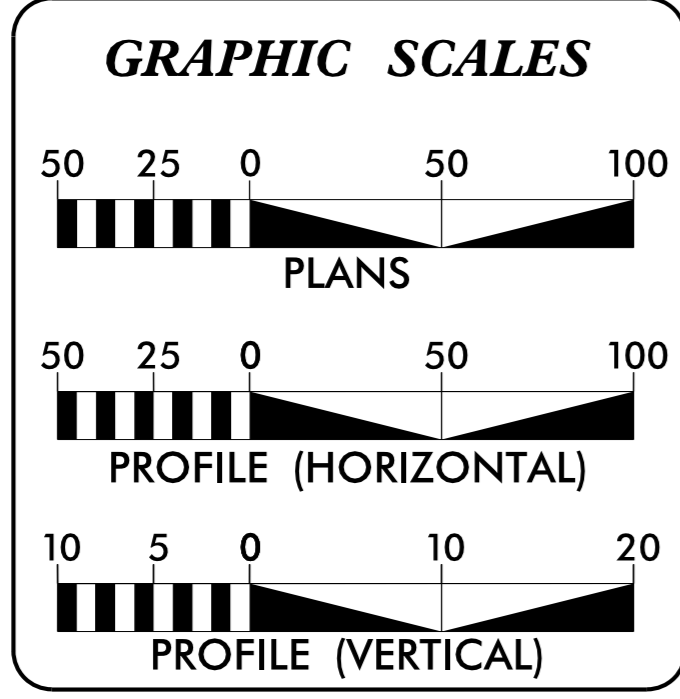
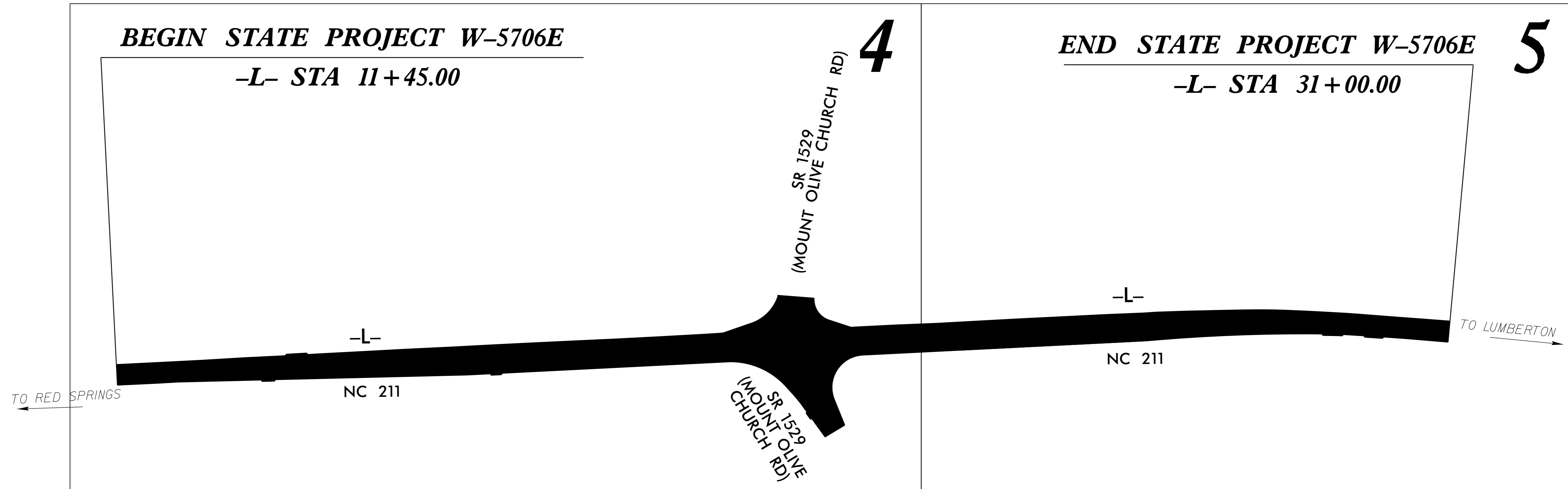
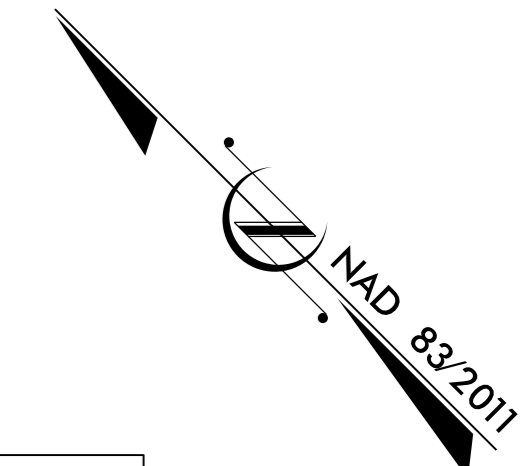
LOCATION: NC 211 AT MOUNT OLIVE CHURCH ROAD (SR 1529)

**TYPE OF WORK: WIDENING, GRADING, PAVING,
AND PAVEMENT MARKINGS**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5706E	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44852.1.5	HSIP-0211(040)	P.E.	
44852.2.5	HSIP-0211(040)	ROWUTIL	
44852.3.5	HSIP-0211(040)	CONST.	



VICINITY MAP
NOT TO SCALE



DESIGN DATA

ADT 2018 = 8,500
ADT 2038 = 15,352

V = 60 MPH

PROJECT LENGTH

PROJECT LENGTH = 0.370 MI

Prepared in the Office of:
DIVISION OF HIGHWAYS
431 Transportation Dr., Fayetteville, NC 28301

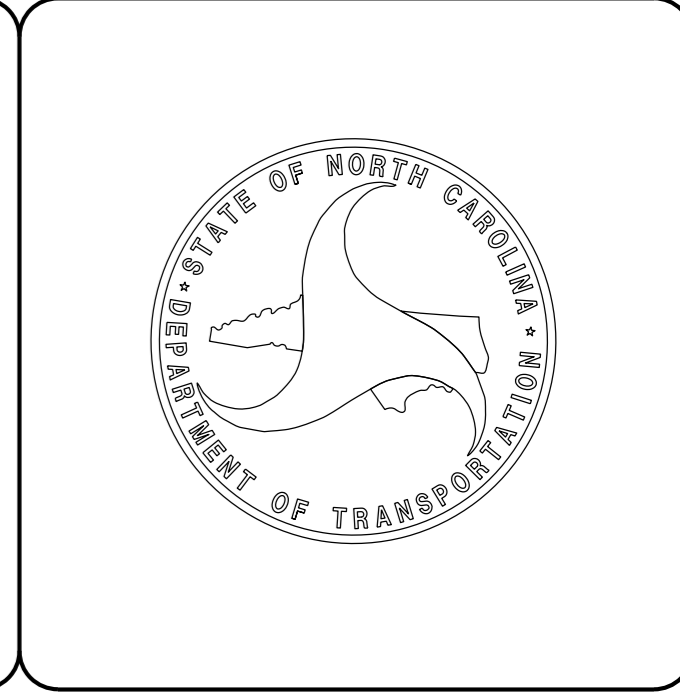
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 30, 2018

LETTING DATE:
MAY 15, 2019

JOHN GAUTHIER
PROJECT ENGINEER

NEIL BUTLER
PROJECT DESIGN ENGINEER



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

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ 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	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	⊠
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	-----
New Right of Way Line with Pin and Cap	-----
New Right of Way Line with Concrete or Granite RW Marker	-----
New Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
New Control of Access	-----
Existing Easement Line	-----
New Temporary Construction Easement	-----
New Temporary Drainage Easement	----- 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	☼

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

Hedge	-----
Woods Line	-----
Orchard	☼☼☼☼
Vineyard	□ Vineyard

EXISTING STRUCTURES:

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

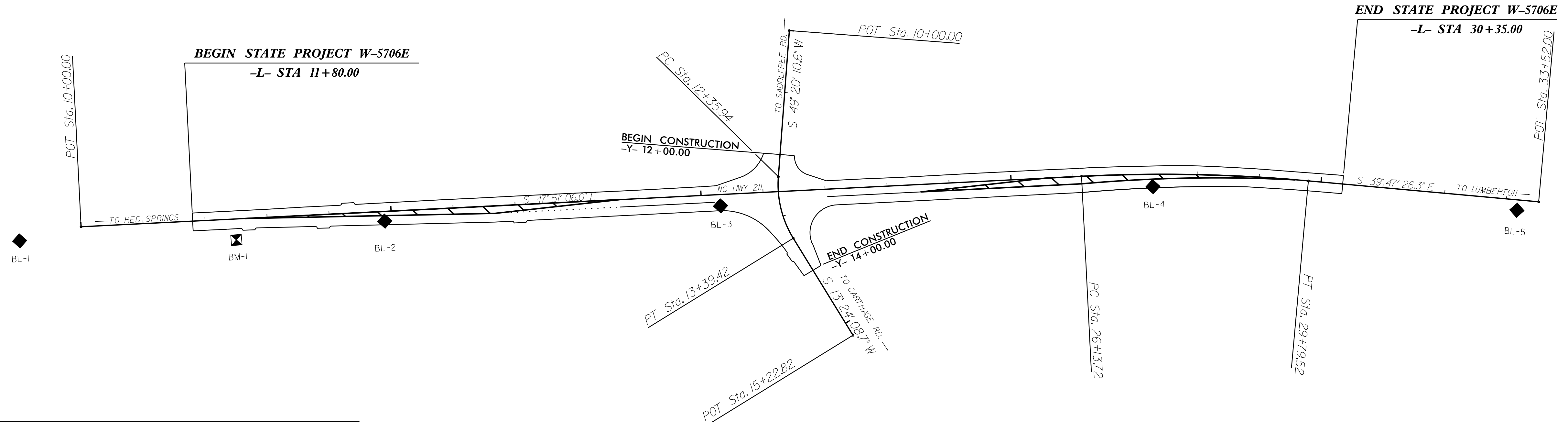
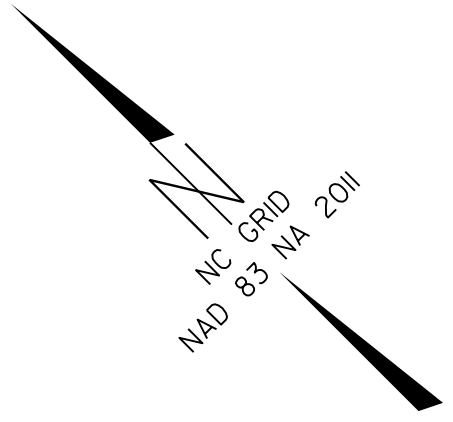
MISCELLANEOUS:

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

SURVEY CONTROL SHEET W-5706E

BL	POINT	DESC.	NORTH	EAST	ELEVATION
1	W5706E	BL-1	341079.0025	1983375.3983	152.25
2	W5706E	BL-2	340684.0220	1983813.3355	152.25
3	W5706E	BL-3	340320.0909	1984213.8464	152.32
4	W5706E	BL-4	339849.2893	1984728.0313	148.49
5	W5706E	BL-5	339406.6727	1985114.4478	145.74

 BM1 ELEVATION = 152.18
 N 340834 E 1983624
 R/R SPIKE IN BASE OF 18" PINE TREE



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "W5706E GPS-2"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
 NORTHING: 341717.6180(±) EASTING: 1982669.6870(±)
 ELEVATION: 150.91(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991894

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GRID DISTANCE FROM "W5706E GPS-2" TO -L- STATION 10+00 IS
 S48°49'18.91"E 1,051.9044'

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

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

REVISIONS

8/17/99
 04-APR-2019 09:16 W-5706E NC 211 at Mount Olive Church Rd. Rob Co\Location\Control Sheet\w5706e_ls_1c-1.dgn
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PROPOSED ALIGNMENT CONTROL SHEET W-5706E

L

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	341025.043	1983461.421							
LINE			S 47°51'06.0" E	1613.72					
PC	339942.153	1984657.847							
CURVE			S 43°49'16.1" E	365.50	08°03'39.7"(RT)	02°12'13.3"	365.80	183.20	2600.00
PT	339678.446	1984910.920							
LINE			S 39°47'26.3" E	372.49					
POT	339392.231	1985149.306							

Y

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	340440.948	1984491.160							
LINE			S 49°20'10.6" W	235.94					
PC	340287.208	1984312.191							
CURVE			S 31°22'09.6" W	101.79	35°56'01.9"(LT)	34°43'29.0"	103.48	53.51	165.00
PT	340200.292	1984259.202							
LINE			S 13°24'08.7" W	183.40					
POT	340021.887	1984216.692							

NOTES:

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

REVISIONS

8/17/99

04 APR 2019 05:17 W-5706E NC 211 at Mount Olive Church Rd. Rob Co. Location\Control Sheet\w5706e_ls_ld-1.dgn

RIGHT OF WAY CONTROL SHEET W-5706E

PROP ROW MKR

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+80.00	40.00	340874.5967	1983568.0322
L	13+20.00	50.00	340773.2352	1983665.1191
L	20+48.12	50.00	340284.6262	1984204.9569
L	22+14.89	50.00	340172.7160	1984328.6005
L	27+80.00	50.00	339791.8536	1984741.6256
L	28+45.00	40.00	339752.3790	1984792.8265
L	11+80.00	30.00	340882.0108	1983574.7427
L	13+20.00	40.00	340780.6493	1983671.8296
L	27+80.00	40.00	339798.8237	1984748.7962
L	28+45.00	30.00	339759.1677	1984800.1691

PROP ROW MKR

ALIGN	STATION	OFFSET	NORTH	EAST
Y	13+52.91	30.00	340194.1196	1984226.8909
Y	13+71.74	-30.00	340161.8979	1984280.8929

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

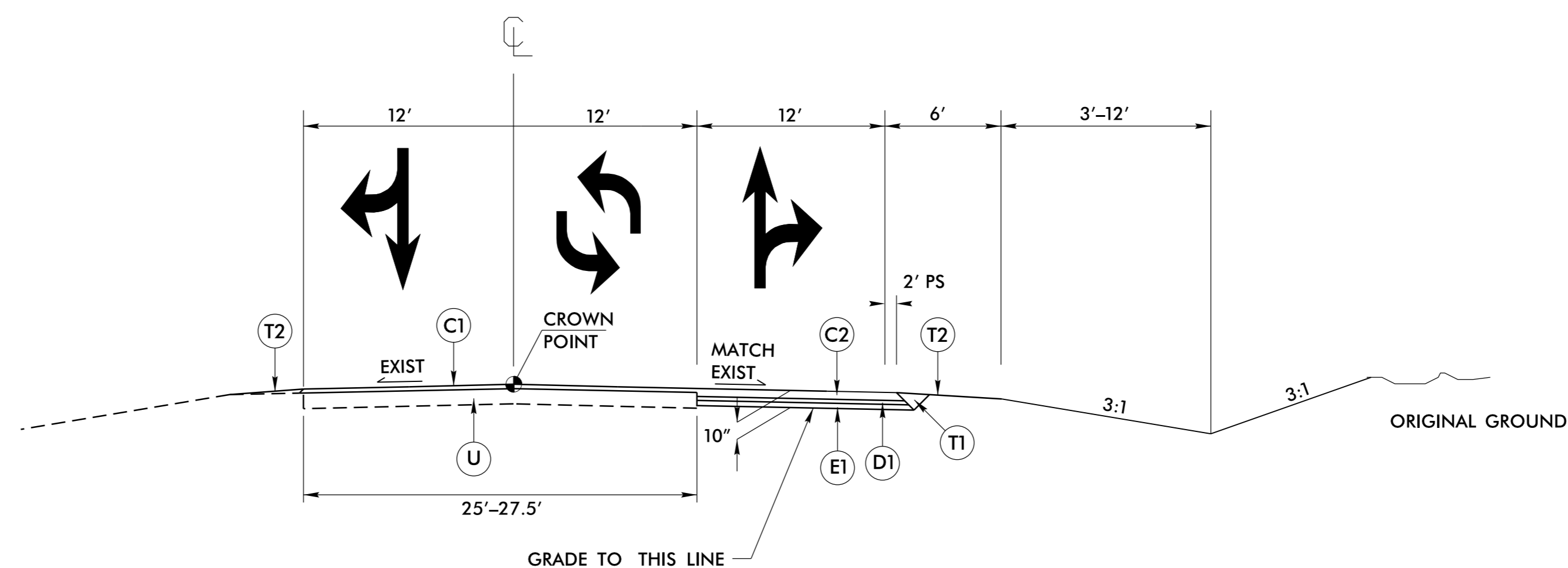
6/2/99

Church Rd, Rob Co\Location\Control Sheet\w5706e_ls_1e_1.dgn

04_APR_2019 09:18
 145415706E NC 211 at Mount Olive
 145415706E

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 336 LBS. PER SQ. YD.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T1	EARTH MATERIAL
T2	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT

TRANSITION FROM EXISTING TO TYPICAL NO. 1
-L- STA. 11+80.00 TO STA 18+68.72



TYPICAL SECTION NO. 1

-L- STA. 18+68.72 TO STA 23+53.43

TRANSITION FROM TYPICAL NO. 1 TO EXISTING
-L- STA. 23+53.43 TO STA 31+00.00

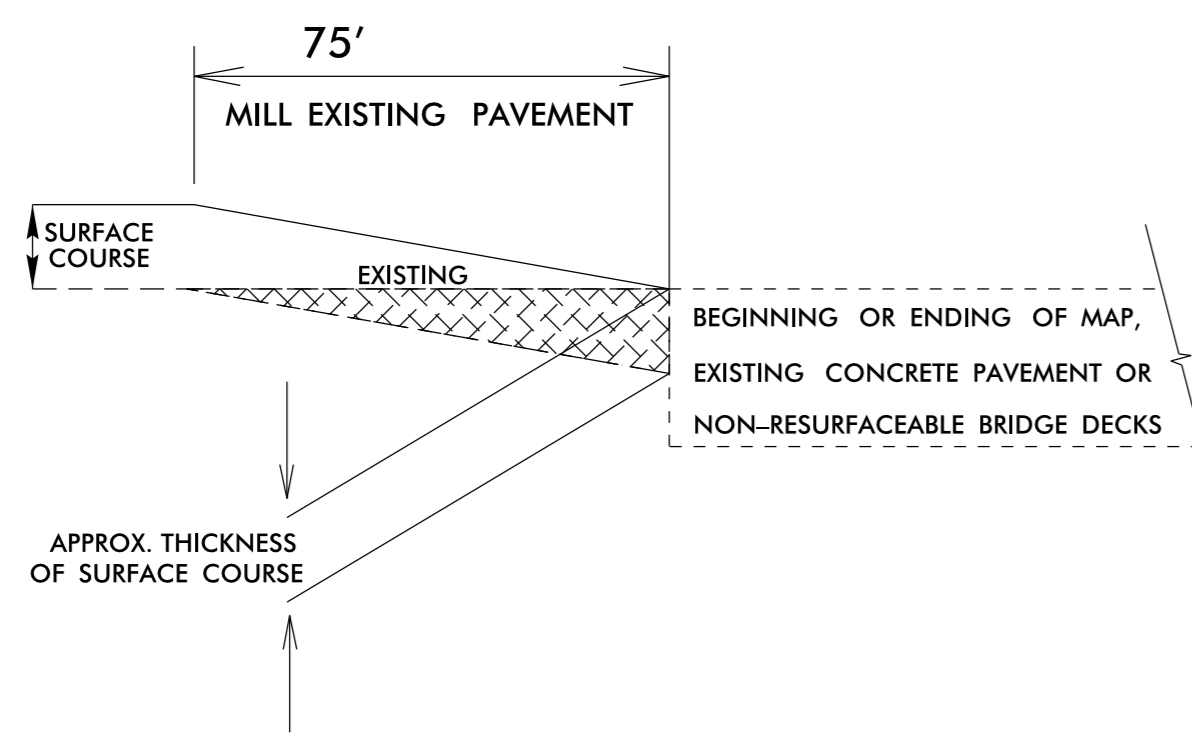
MILLING AT PAVEMENT TIE-INS

NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.

Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

Perform the work in accordance with Section 607 of the January 2018 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.



PROJECT NOTES

1. The contractor shall not work on both sides of the road simultaneously within the same area.
2. Ingress and egress shall be maintained to all businesses and dwellings on the project.
3. At the end of each workday, the contractor shall be required to backfill any area adjacent to existing travelway that has been graded, leaving no more than a 1" drop-off.
4. A minimum of two-way, two-lane traffic (plus all existing left and right turn lanes) shall be maintained during periods of construction inactivity.
5. The Contractor shall not be allowed to stop traffic for more than 5 minutes at a time in any one direction.
6. During periods of construction inactivity, the difference in elevation between lanes shall not exceed 1-1/2 inch.
7. Access to police and fire stations, fire hydrants, and hospitals shall be maintained at all times.
8. During periods of construction inactivity, place cones/drums 3' from existing edge of pavement (travelway) as directed by the Engineer.
9. Contractor to install Erosion Control devices as directed by the Engineer.
10. Contractor shall coordinate with the Division Six Traffic Services Unit (910-364-0606) for placement of all pavement markings and signs 14 days prior to placement.
13. All right of way is to be monumented upon completion of project and will be paid for under construction surveying.
14. Contractor shall provide Driveway Turnouts at all soil or gravel drives as directed by Engineer.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

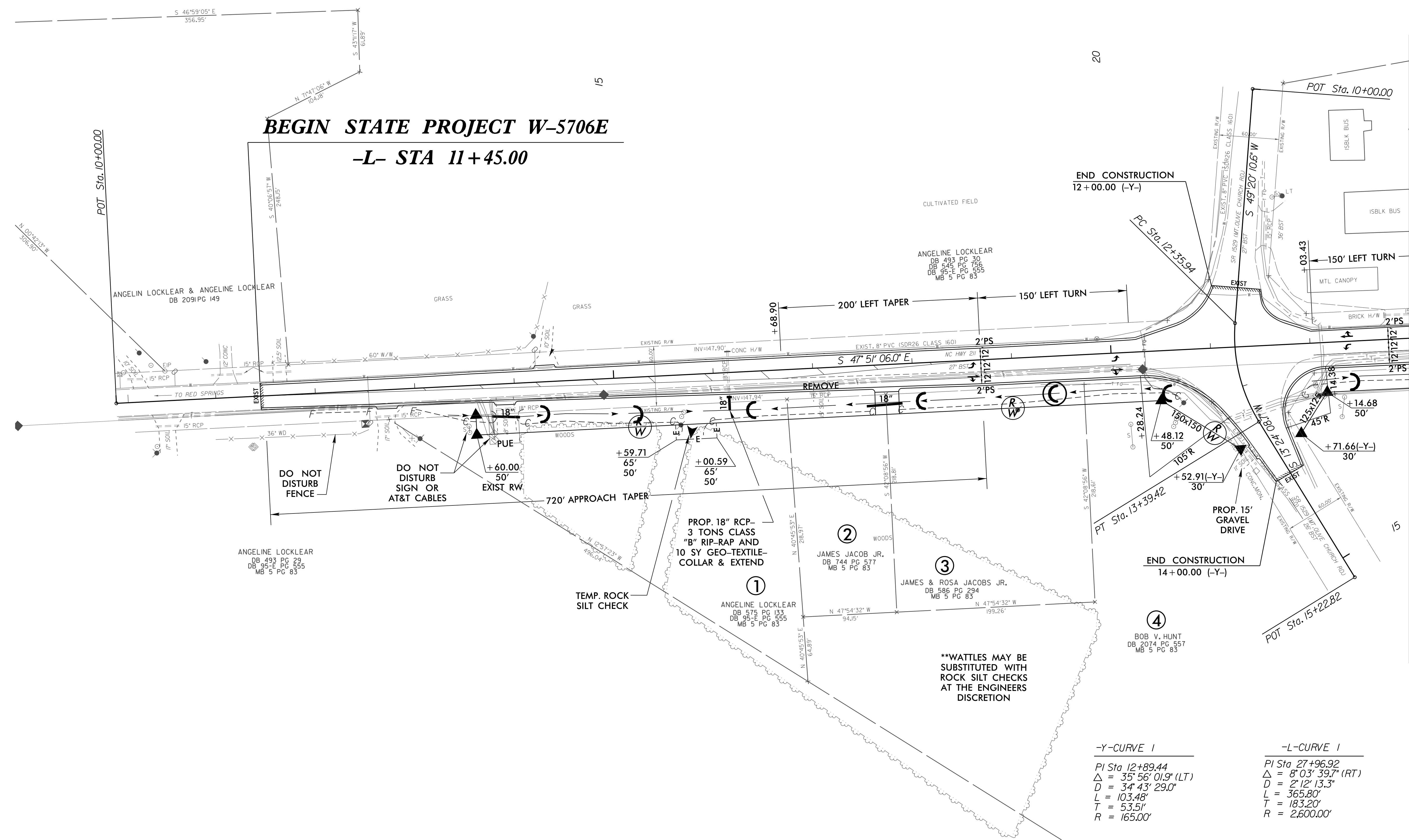
STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCL. EXCAV.	ROCK	UNDER-CUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. (+) 25%		ROCK	SUITABLE	UNSUIT.	TOTAL
11 + 45 (-L-)	31 + 00 (-L-)	948				948	662		662	828			121		120
TOTALS		948				948	662		662	828			120		120
EST. 5% TO REPLACE SOIL ON BORROW PIT															
GRAND TOTALS															120
SAY															120

Earthwork quantities are calculated by the Division 6 DDC Unit.
No subsurface data provided by the Geotechnical Engineering Unit.

8/17/99

REVISIONS

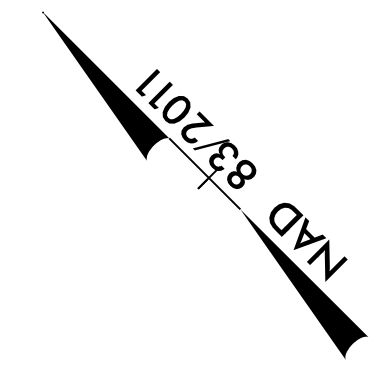
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 3:38:51 PM
 3:38:51 PM



-Y-CURVE 1
 PI Sta 12+89.44
 $\Delta = 35^{\circ}56'01.9"$ (LT)
 $D = 34'43.290"$
 $L = 103.48'$
 $T = 53.51'$
 $R = 165.00'$

-L-CURVE 1
 PI Sta 27+96.92
 $\Delta = 8^{\circ}03'39.7"$ (RT)
 $D = 2'12.13.3"$
 $L = 365.80'$
 $T = 183.20'$
 $R = 2,600.00'$

MATCHLINE STA 23 + 00.00 SHEET 5

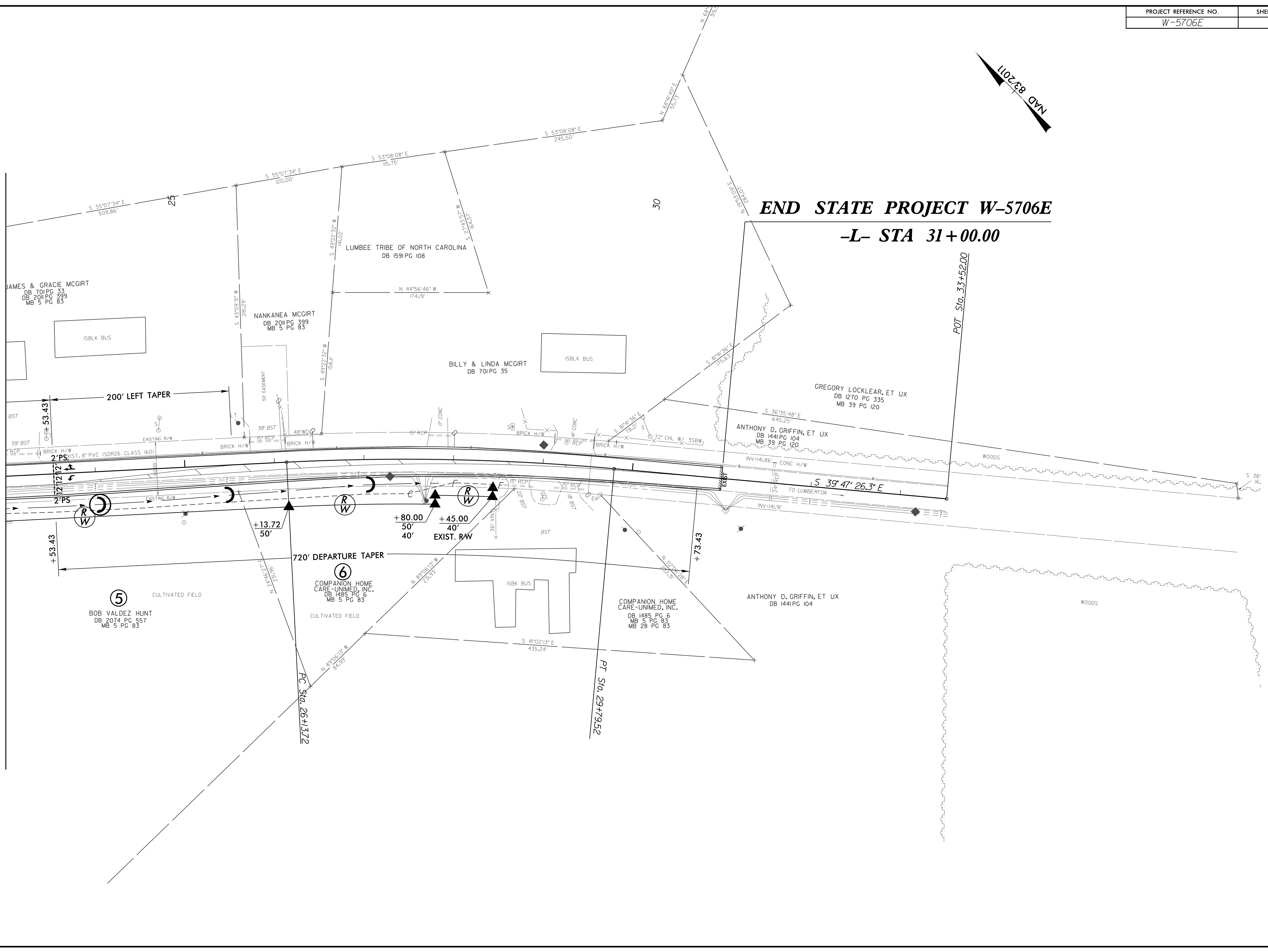


END STATE PROJECT W-5706E
-L- STA 31+00.00

MATCHLINE STA 23+00.00 SHEET 4

REVISIONS

05-APR-2019 14:12 \\s\proj\2019\W-5706E\proj\W-5706E_Rd\psh5.dgn Church Rd, Rob Co\Roadway\proj\W-5706E_Rd\psh5.dgn 8/17/99



PROJECT REFERENCE NO.	SHEET NO.
W-5706E	6

5/28/99

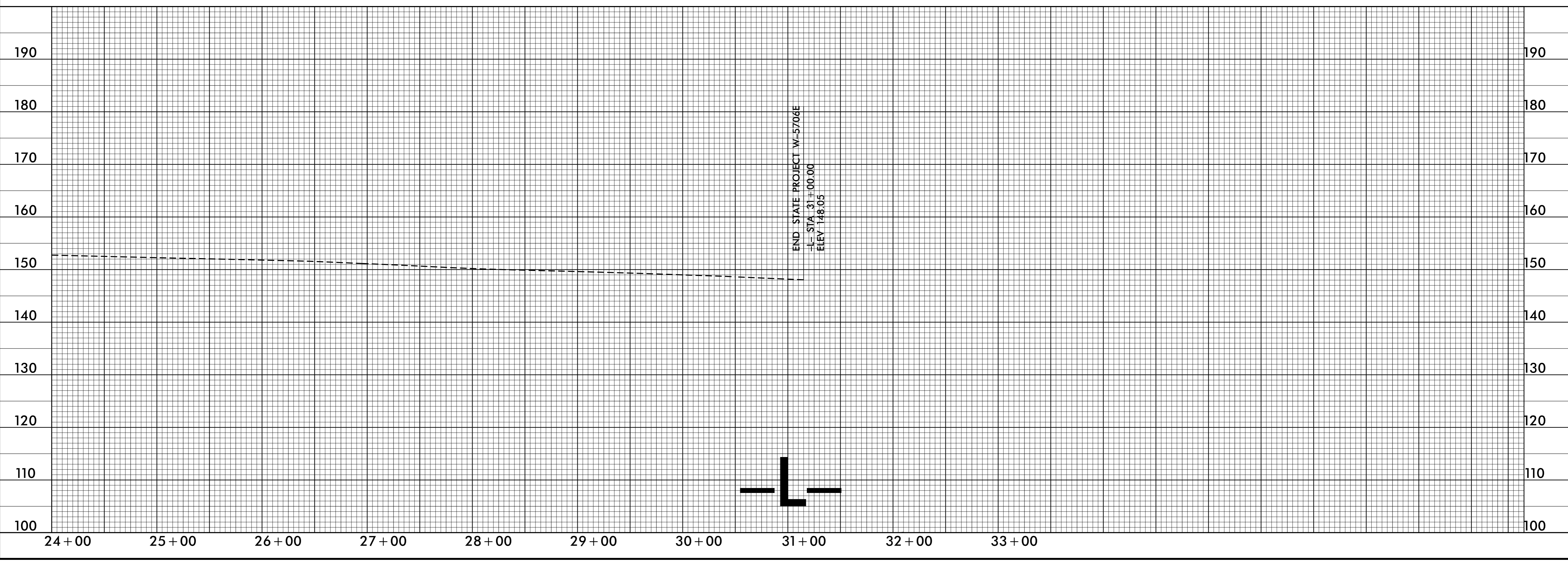
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 N 340834 E 1983624
 BL STATION 12+48.66 33.12' RT -L-
 RR SPIKE IN BASE OF 18" PINE TREE

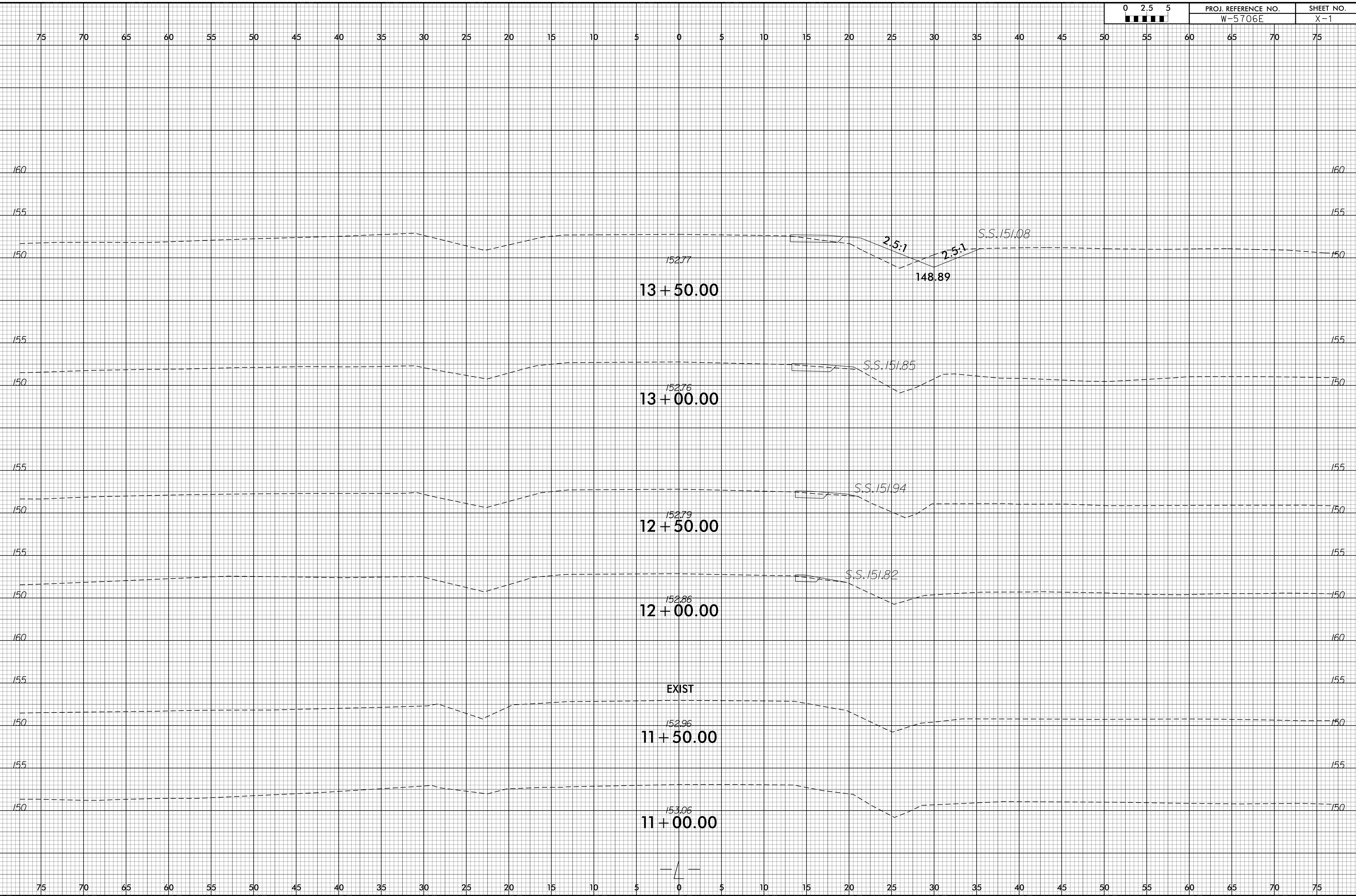
BEGIN STATE PROJECT W-5706E
 -L- STA 11+45.00
 ELEV 152.97



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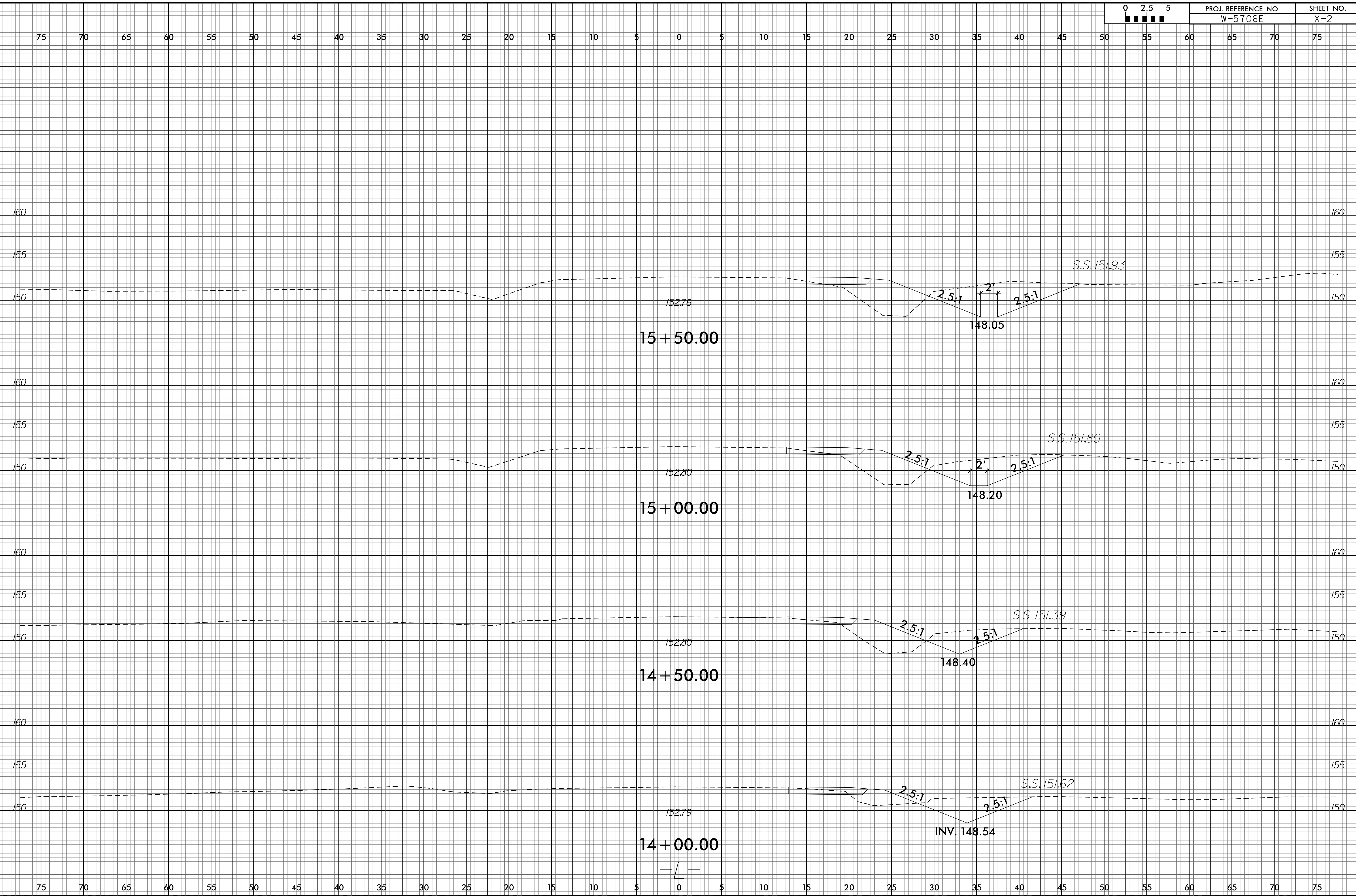
END STATE PROJECT W-5706E
 -L- STA 31+00.00
 ELEV 148.05



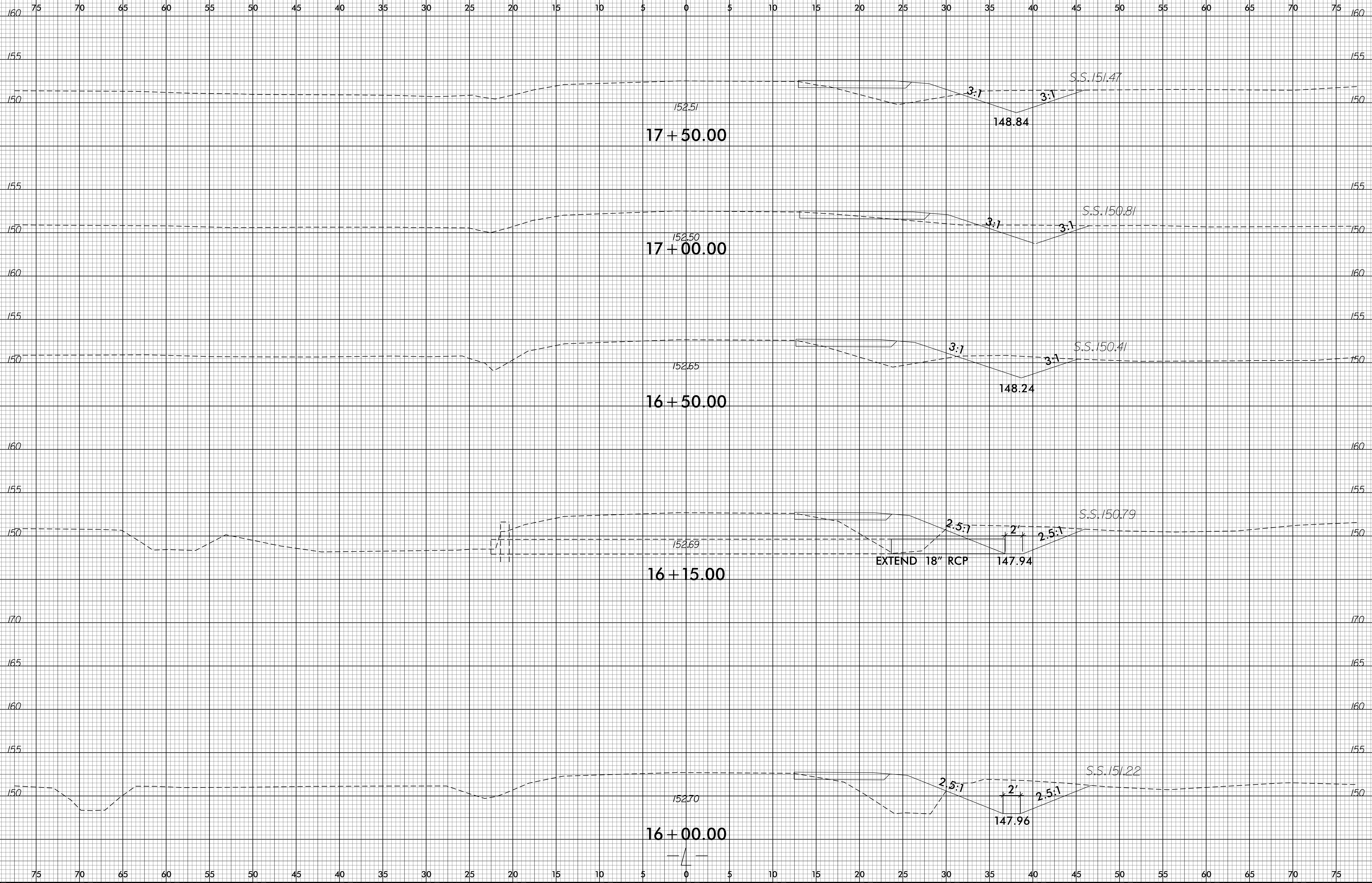


6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5706E	X-2

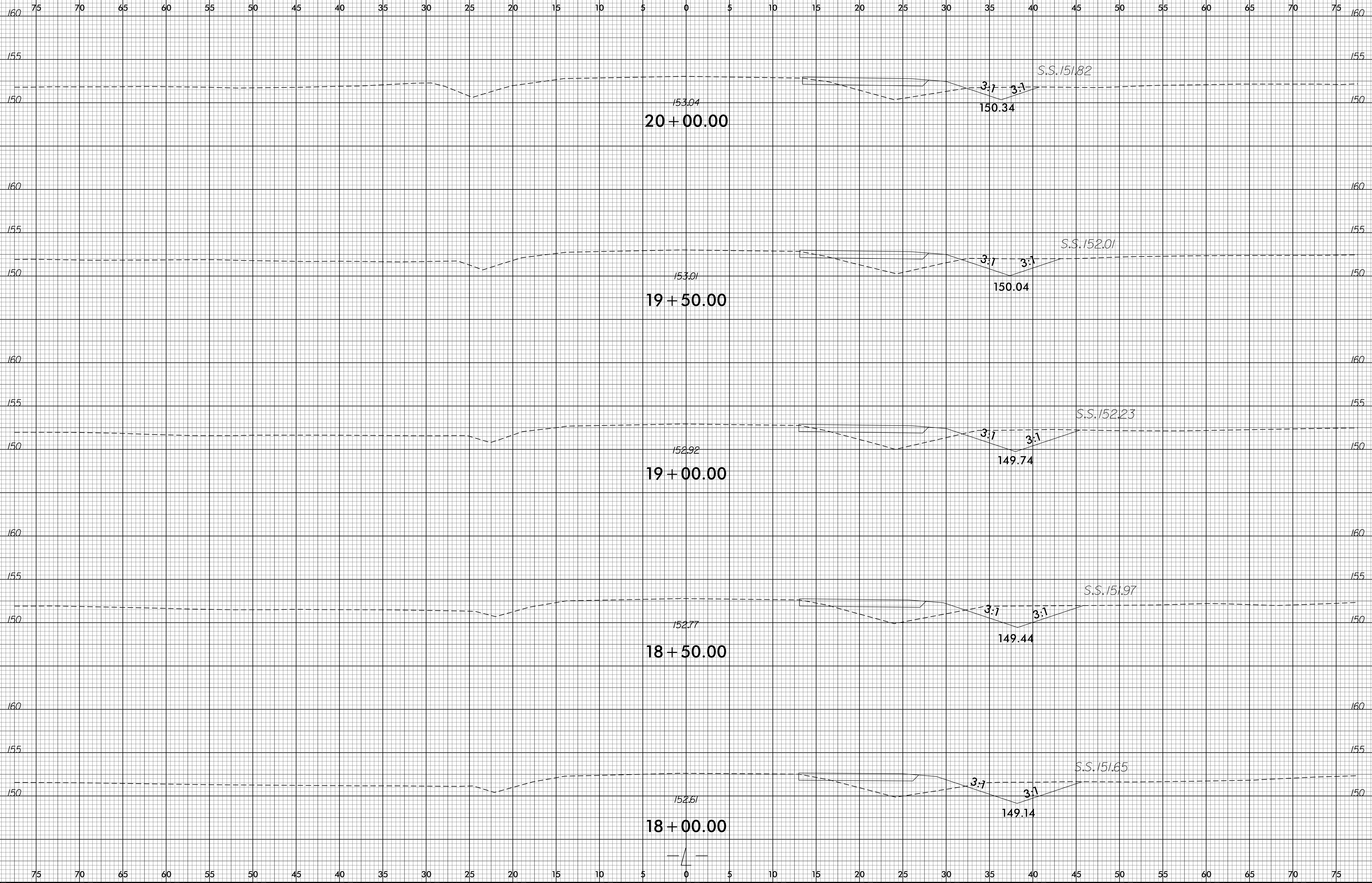


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6/23/16

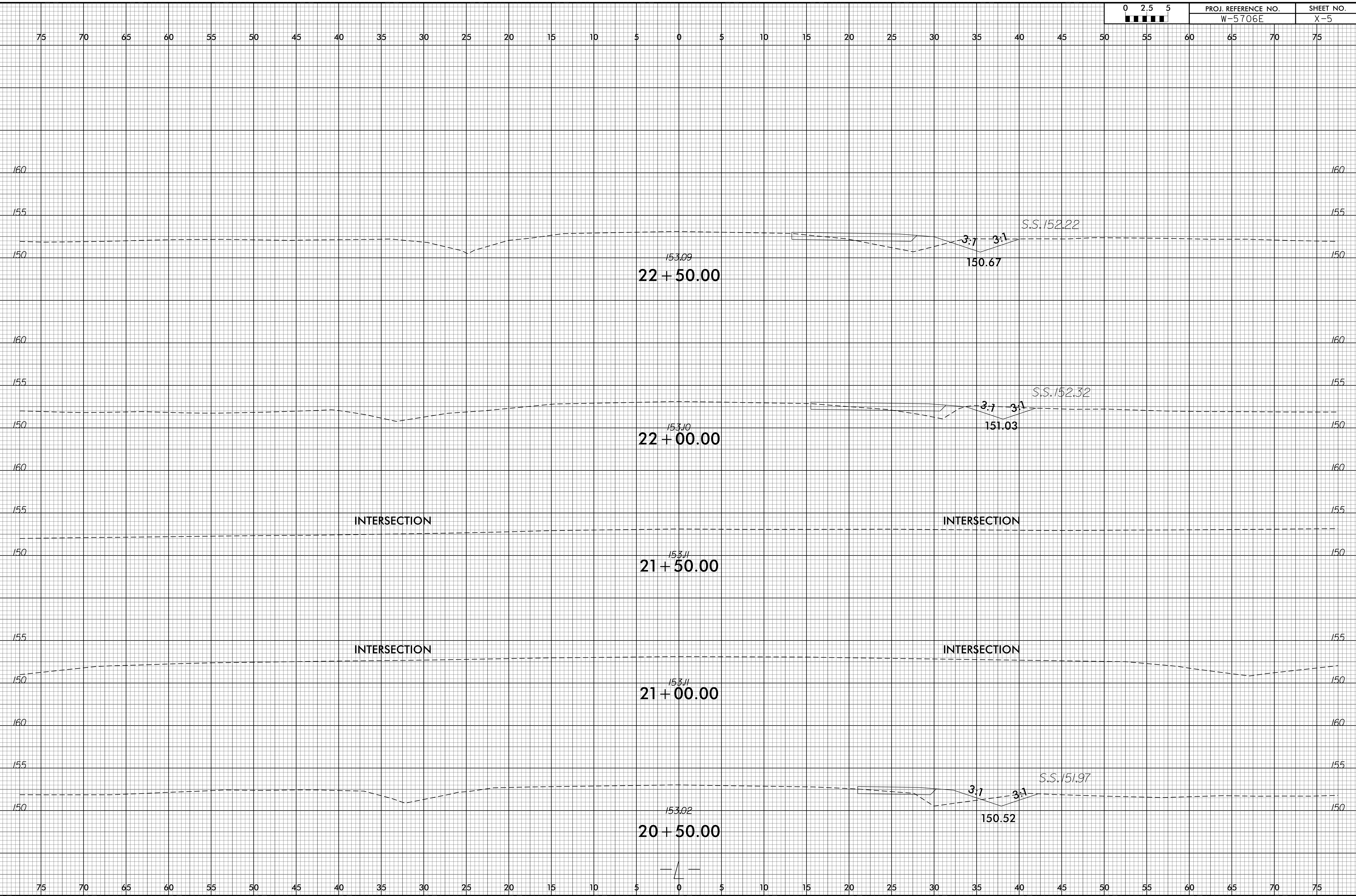
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	W-5706E	X-4



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6/23/16

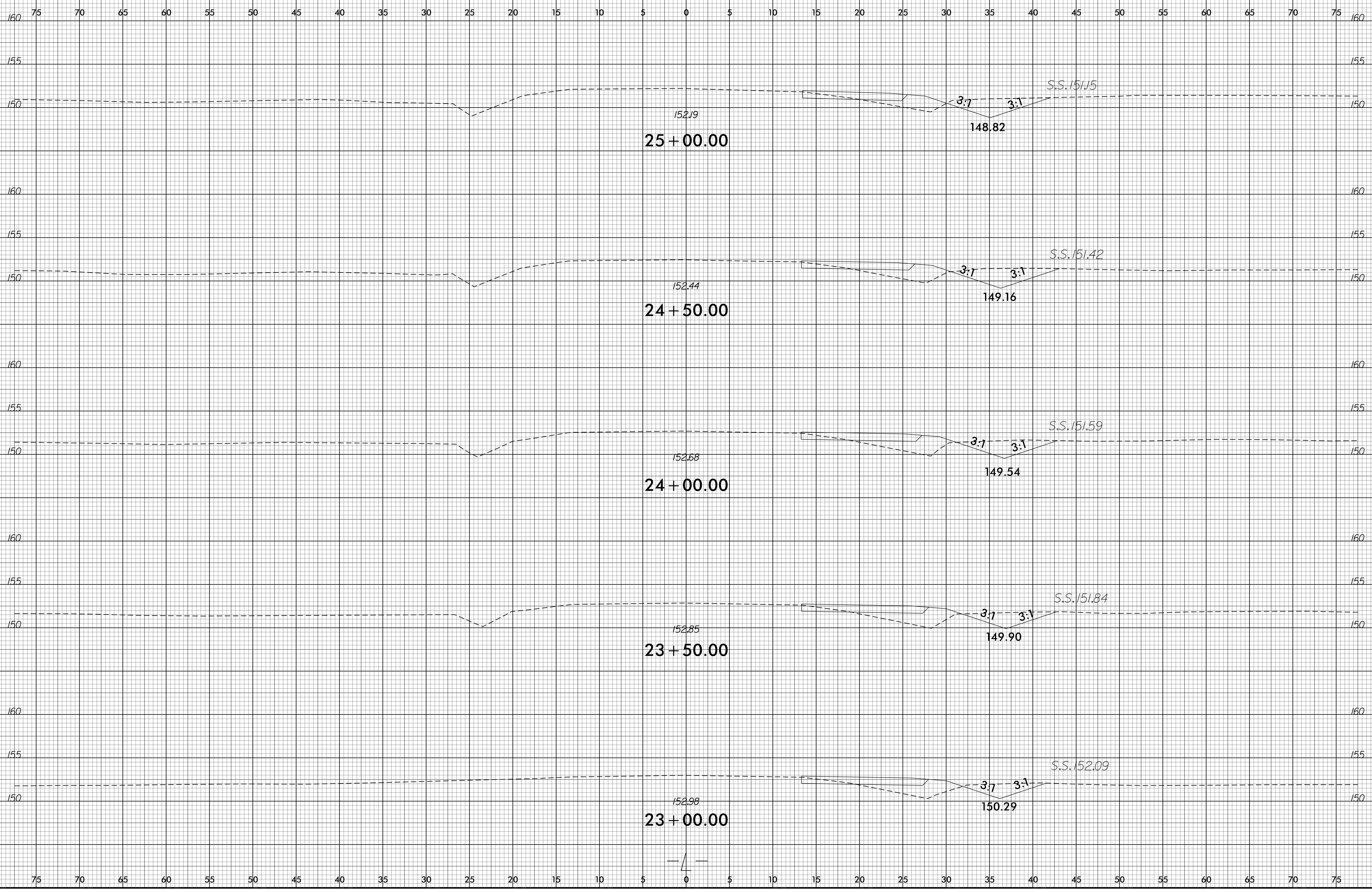
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	W-5706E	X-5



04-APR-2019 09:40
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 \$\$\$USERNAME\$\$\$

6/23/16

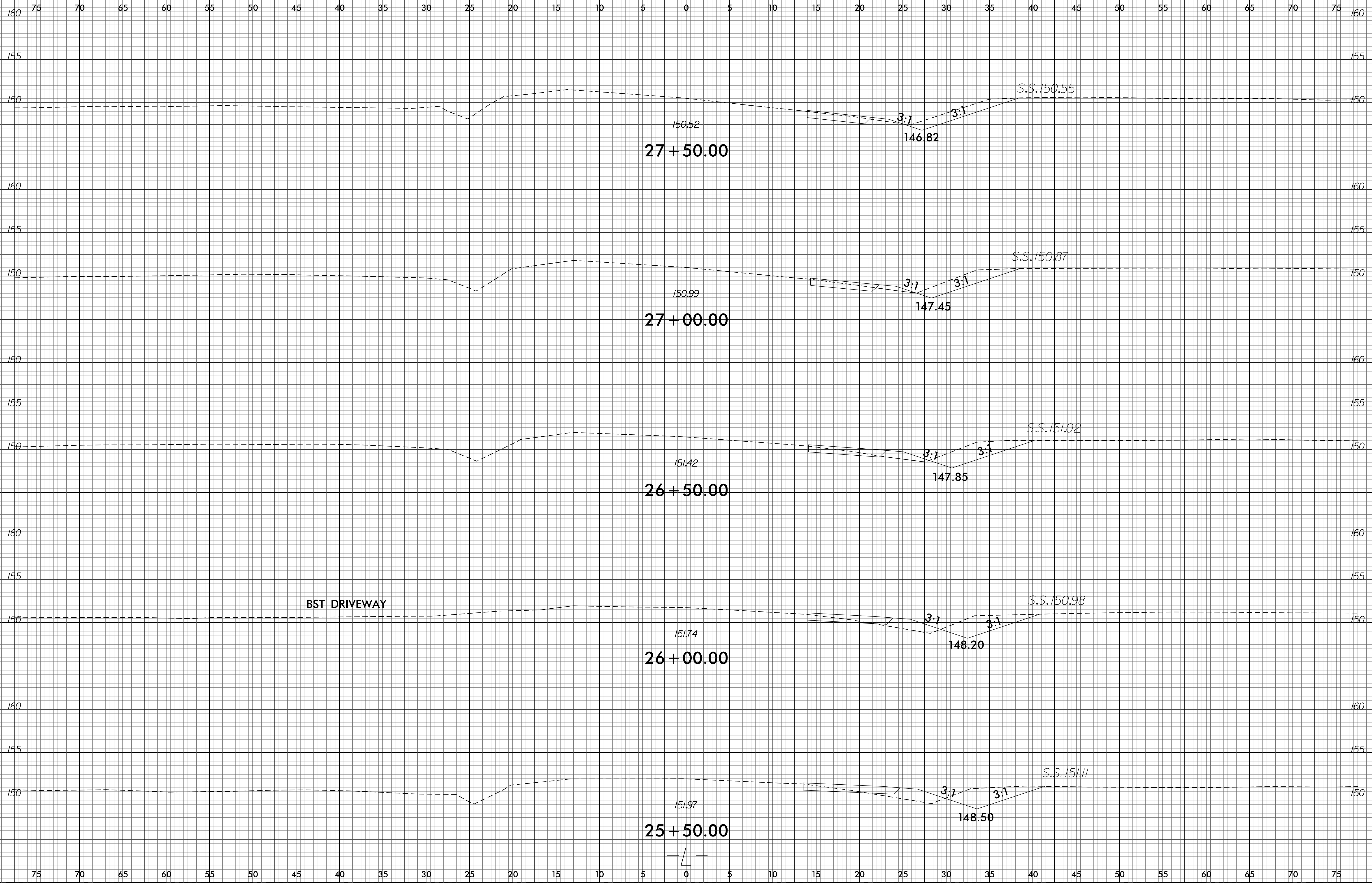
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04-APR-2019 09:40 H:\DUC\PROJECTS\W-5706E\W-5706E_Roadway\Xsc\W-5706E_Roadway_xp1.L.dgn

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5706E	X-7



BST DRIVEWAY

04-APR-2019 09:40
H:\DUC\PROJECTS\W-5706E\W-5706E_NC 211 at Mount Olive Church Rd.Rob Co.Roadway\Xsc\W-5706E_Rdy.xpl.L.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

