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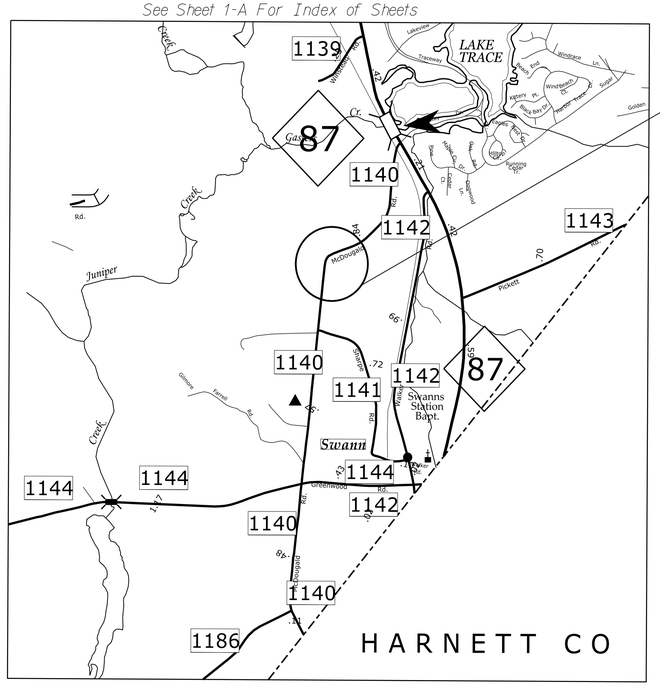
TIP PROJECT:W-5708C PROJECT: SR 1140 (FRANK WICKER RD)

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5708C	1	

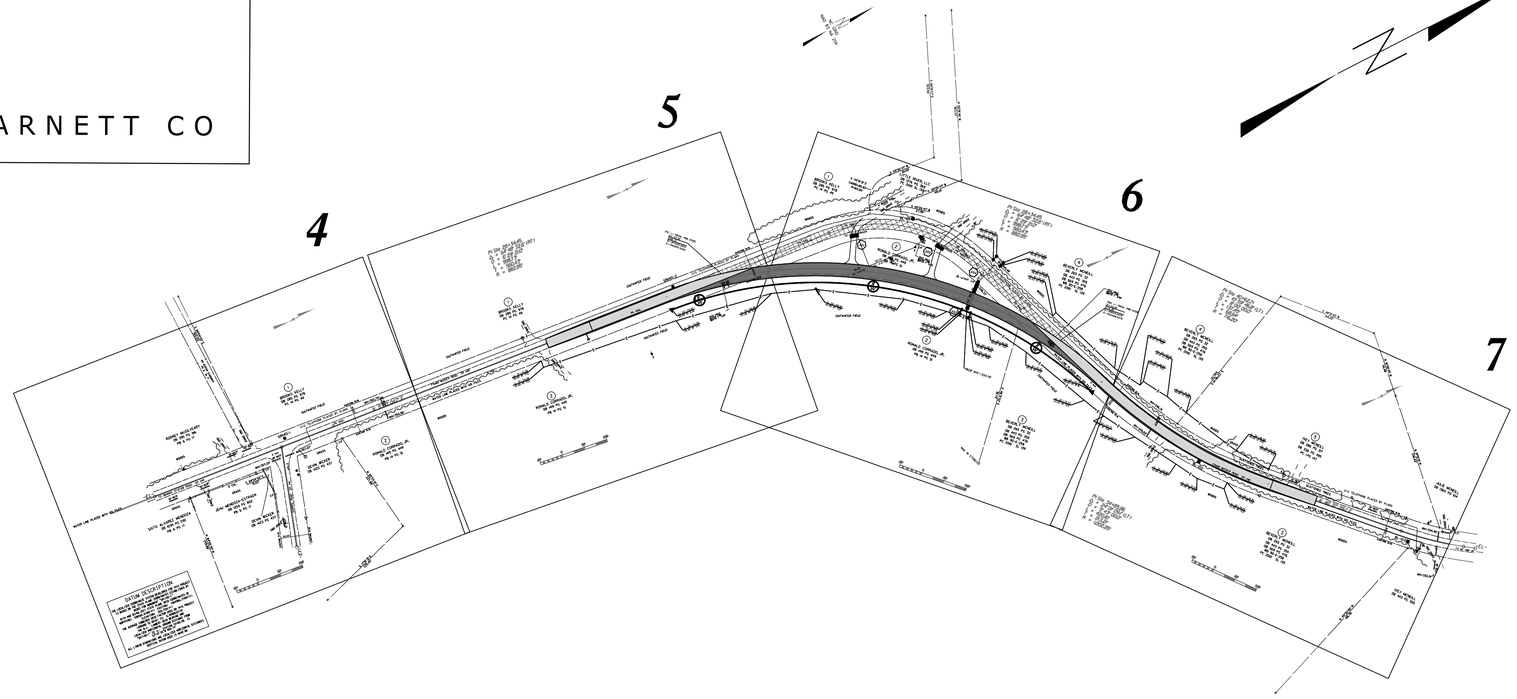
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44854.1.3	HSIP-1140(017)	PE
44854.2.3	HSIP-1140(017)	RW
44854.3.3	HSIP-1140(017)	CONST
2018CPT.08.17.20531		RESURFACING
47864		WIDENING

PROJECT LOCATION

LEE COUNTY

SR 1140 (FRANK WICKER ROAD) EAST OF NC 87

TYPE OF WORK: GRADING, PAVING, AND THERMOPLASTIC MARKINGS & MARKERS



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 30 0 60 60

PROFILE (HORIZONTAL): 25 0 25 50

PROFILE (VERTICAL): 5 0 5 10

DESIGN DATA

ADT 2016 = 1600
ADT 2038 = 3300
V = 55 MPH

Prepared In the Office of:

DIVISION OF HIGHWAYS
DIVISION 8 DESIGN & CONSTRUCT UNIT
902 N. SANDHILLS BLVD.
ABERDEEN NC 28315

PLANS PREPARED BY: DDC

PROJECT LENGTH

ROADWAY: 0.34 MILES
STRUCTURE: ____ MILES
TOTAL: 0.34 MILES

DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
May 22, 2018

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

DIVISION DESIGN ENGINEER

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8...
SIGNATURE: *P.E.* 5/3/2018

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

03-MAY-2018 16:09
Z:\rdy\LEE\sr_1140frank_wicker_rd\psh\sr_1140_tsh.dgn
gsdavis AT DIV8-30480

DocuSigned by:
Greg S. Davis
33D47B5FD78F4A8...

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

5/21/2018

DIVISION DESIGN / CONSTRUCT ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1–A	INDEX OF SHEETS
1–B	CONVENTIONAL SYMBOLS
1–C	SURVEY CONTROL
2	TYPICAL SECTIONS
3 THRU 3–A	SUMMARY OF QUANTITIES
3–B	SUMMARY OF EARTHWORKS, ETC.
3–C	LIST OF PIPES, ETC.
4 THRU 7	W–5708C PLAN SHEETS
8	W–5708C PROFILE SHEET
9 THRU 11	RESURFACING MAP & TYPICALS
TMP–1 THRU TMP–7	TRAFFIC MANAGEMENT PLANS
PM–1 THRU PM–3	W–5708C PAVEMENT MARKING PLANS
EC–1 THRU EC–6	W–5708C EROSION CONTROL PLANS
X–A	CROSS–SECTION SUMMARY
X–1 THRU X–33	W–5708C CROSS–SECTIONS –L–

GENERAL NOTES

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 THE PROPER TIE–IN.

CLEARING

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

SHOULDER CONSTRUCTION:

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

UTILITIES

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

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 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
200.03	Method of Clearing – Method III
225.02	Guide for Grading Subgrade – Secondary and Local
225.04	Method of Obtaining Superelevation – Two Lane Pavement
225.04	Method of Obtaining Superelevation – Two Lane Pavement
300.01	Method of Pipe Installation
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
840.31	Concrete Junction Box
840.54	Manhole Frame and Cover
876.02	Guide for Rip Rap at Pipe Outlets

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Computed Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- 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 — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- 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 Easment 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 — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- 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 — S
- Storm Sewer — S

UTILITIES:

POWER:

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

TELEPHONE:

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

WATER:

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

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- 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

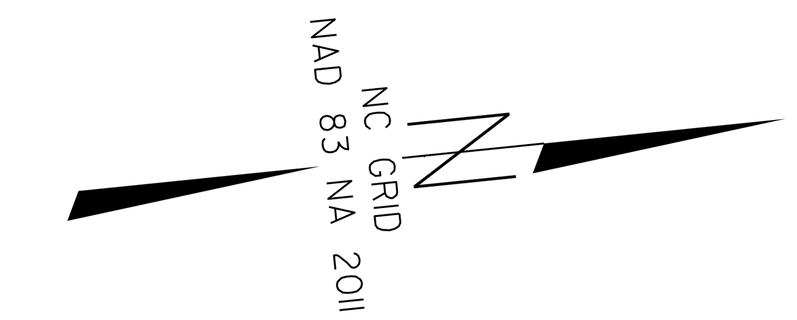
MISCELLANEOUS:

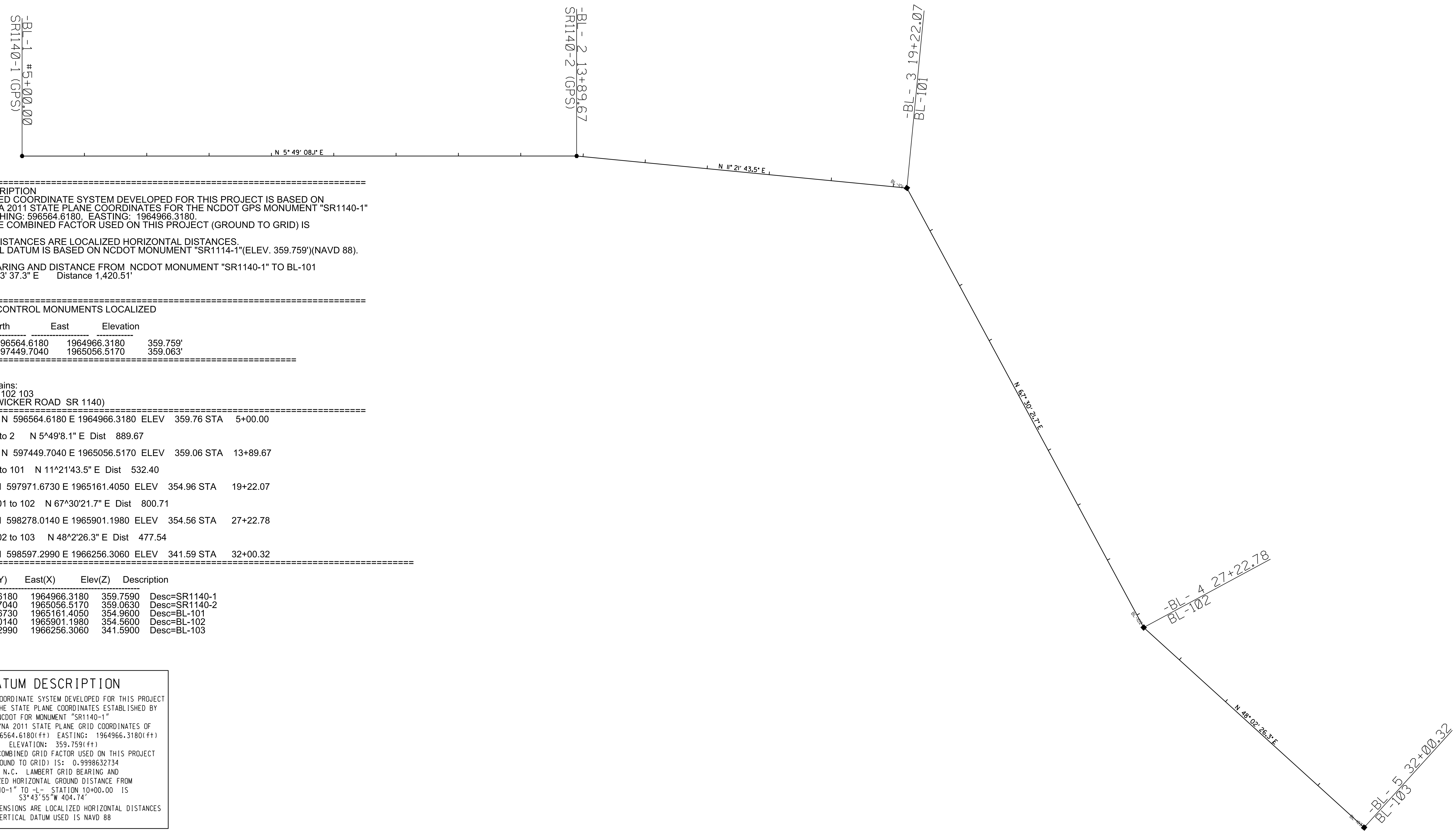
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)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

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	1-C
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SURVEY CONTROL SHEET





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DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON
THE NAD83/NA 2011 STATE PLANE COORDINATES FOR THE NCDOT GPS MONUMENT "SR1140-1"
WITH A NORTHING: 596564.6180, EASTING: 1964966.3180.
THE AVERAGE COMBINED FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS
0.9998632734
ALL LINEAR DISTANCES ARE LOCALIZED HORIZONTAL DISTANCES.
THE VERTICAL DATUM IS BASED ON NCDOT MONUMENT "SR1114-1"(ELEV. 359.759')(NAVD 88).

TIE LINE: BEARING AND DISTANCE FROM NCDOT MONUMENT "SR1140-1" TO BL-101
N 7° 53' 37.3" E Distance 1,420.51'

==

NCDOT GPS CONTROL MONUMENTS LOCALIZED

Point	North	East	Elevation
SR1140-1	596564.6180	1964966.3180	359.759'
SR1140-2	597449.7040	1965056.5170	359.063'

==

Chain BL Contains:
1 2 101 102 103
-BL- (FRANK WICKER ROAD SR 1140)

==

1 (SR1140-1) N 596564.6180 E 1964966.3180 ELEV 359.76 STA 5+00.00

Course from 1 to 2 N 5^49'8.1" E Dist 889.67

2 (SR1140-2) N 597449.7040 E 1965056.5170 ELEV 359.06 STA 13+89.67

Course from 2 to 101 N 11^21'43.5" E Dist 532.40

101 (BL-101) N 597971.6730 E 1965161.4050 ELEV 354.96 STA 19+22.07

Course from 101 to 102 N 67^30'21.7" E Dist 800.71

102 (BL-102) N 598278.0140 E 1965901.1980 ELEV 354.56 STA 27+22.78

Course from 102 to 103 N 48^2'26.3" E Dist 477.54

103 (BL-103) N 598597.2990 E 1966256.3060 ELEV 341.59 STA 32+00.32

==

Point#	North(Y)	East(X)	Elev(Z)	Description
1	596564.6180	1964966.3180	359.7590	Desc=SR1140-1
2	597449.7040	1965056.5170	359.0630	Desc=SR1140-2
101	597971.6730	1965161.4050	354.9600	Desc=BL-101
102	598278.0140	1965901.1980	354.5600	Desc=BL-102
103	598597.2990	1966256.3060	341.5900	Desc=BL-103

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR1140-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 596564.6180(ft) EASTING: 1964966.3180(ft)
ELEVATION: 359.759(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998632734
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SR1140-1" TO -L- STATION 10+00.00 IS
S3°43'55"W 404.74'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W–5708C	2
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8...

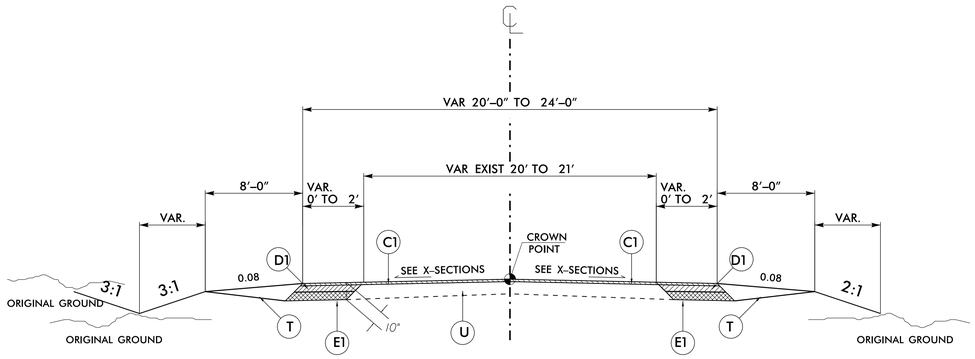
5/3/2018

DIVISION DESIGN ENGINEER

TYPICAL SECTION NO.1

USE TYPICAL SECTION 1

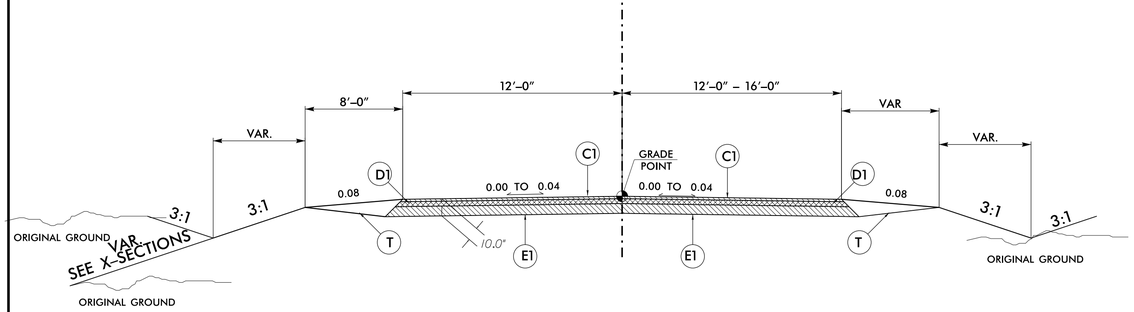
FROM STATION –L– 20+00 TO –L– 22+74.02



TYPICAL SECTION NO.2

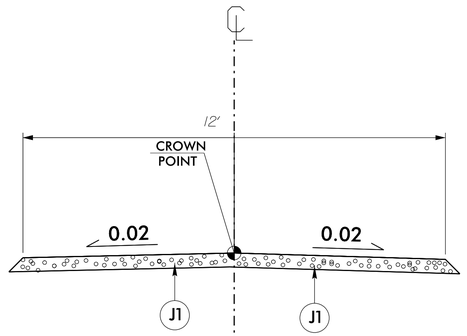
USE TYPICAL SECTION 2

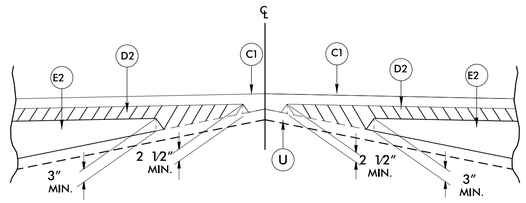
FROM STATION –L– 23+60 TO –L– 36+00



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4 FOR PROPOSED DRIVEWAYS





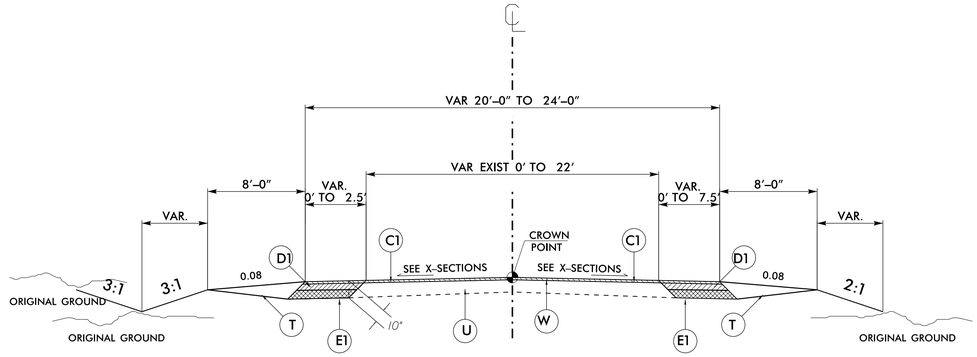
Detail Showing Method of Wedging

NOT TO SCALE

TYPICAL SECTION NO.3

USE TYPICAL SECTION 3

FROM STATION –L– 22+74.02 TO –L– 23+60
FROM STATION –L– 36+00 TO –L– 38+00



PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 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.
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. 5.5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 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.
J1	6″ INCIDENTAL STONE FOR DRIVEWAYS
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING (SEE DETAIL)

REVISIONS 8/17/99

03-MAY-2018 16:10
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PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.08.17.20531	**3**	
44854.3.3 (W-5708C) 47864,		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0036000000-E UNDERCUT EXCAVATION	0043000000-N GRADING	0195000000-E SELECT GRANULAR MATERIAL	0196000000-E GEOTEXTILE FOR SOIL STABILIZATION	0318000000-E FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	0320000000-E FOUNDATION CONDITIONING GEOTEXTILE	0343000000-E 15" SIDE DRAIN PIPE	0448400000-E 24" RC PIPE CULVERTS, CLASS IV	1220000000-E INCIDENTAL STONE BASE	1245000000-E SHOULDER RECONSTRUCTION	1260000000-E AGGREGATE SHOULDER BORROW	1308000000-E 1.5" TO 4.5" MILLING	1330000000-E INCIDENTAL MILLING	1491000000-E BASE COURSE, B25.0C	1503000000-E INTERMEDIATE COURSE, I19.0C	1519000000-E SURFACE COURSE, S9.5B	1575000000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT
										MI	FT	CY	LS	CY	SY	TON	SY	LF	LF	TONS	SMI	TON	SY	SY	TONS	TONS	TONS	TONS	TONS
2018CPT.08.17.20531	Lee	1	SR 1146 ST(ANDREWS CHURCH RD)	FROM SR 1001 (LEMON SPRINGS RD) TO SR 1133 (LEE AVENUE)	5	2	2WU	NO	NO	1.61	22										3.22			300			1,890	113	150
TOTAL FOR MAP NO. 1										**1.61**											**3.22**			**300**			**1,890**	**113**	**150**
2018CPT.08.17.20531	Lee	2	SR 1146 (ST ANDREWS CHURCH RD)	FROM BRIDGE TO SR 1144 (SWANNS STATION RD)	6	2	2WU	NO	NO	1.66	22										3.32	60		500			1,625	98	100
TOTAL FOR MAP NO. 2										**1.66**											**3.32**	**60**		**500**			**1,625**	**98**	**100**
2018CPT.08.17.20531	Lee	3	SR 1139 (WINSTEAD ROAD)	FROM NC 87 TO DEAD END	6	2	2WU	NO	NO	0.25	18										0.50						245	15	50
TOTAL FOR MAP NO. 3										**0.25**											**0.50**						**245**	**15**	**50**
2018CPT.08.17.20531	Lee	4	CAROLINA TRACE FD	FIRE DEPARTMENT PARKING LOT	8	2	2WU	NO	NO	0.023	55												740			65	65	7	
TOTAL FOR MAP NO. 4										**0.023**													**740**			**65**	**65**	**7**	
TOTAL FOR PROJ NO. 2018CPT.08.17.20531										**3.543**											**7.04**	**60**	**740**	**800**		**65**	**3,825**	**233**	**300**
44854.3.3 (W-5708C)	Lee	5	SR 1140 (FRANK WICKER RD)	CURVE REALIGNMENT	1-4	2	2WU	NO	NO	0.341	24	400	1	400	1,200	15	35	40	64	200				200	1,010	495	355	91	
TOTAL FOR MAP NO. 5										**0.341**		**400**	**1**	**400**	**1,200**	**15**	**35**	40	**64**	**200**				**200**	**1,010**	**495**	**355**	**91**	
TOTAL FOR PROJ NO. 44854.3.3 (W-5708C)										**0.341**		**400**	**1**	**400**	**1,200**	**15**	**35**	**40**	**64**	**200**				**200**	**1,010**	**495**	**355**	**91**	
47864	Lee	6	SR 1160 (LEMON SPRINGS RD	FROM SR 1001 (EDWARDS RD) TO SR 1150 (CASTLEBERRY RD)	7	2	2WU	NO	NO	0.68	20										1.36	25			435		155	29	
TOTAL FOR MAP NO. 6										**0.68**											**1.36**	**25**			**435**		**155**	**29**	
TOTAL FOR PROJ NO. 47864										**0.68**											**1.36**	**25**			**435**		**155**	**29**	
GRAND TOTAL										**4.564**		**400**	**1**	**400**	**1,200**	**15**	**35**	**40**	**64**	**200**	**8.40**	**85**	**740**	**1,000**	**1,445**	**560**	**4,335**	**353**	**300**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	2286000000-N MASONRY DRAINAGE STRUCTURE	2396000000-N FRAME WITH MH COVER, STD 840.54	3649000000-E RIP RAP, CLASS B	3656000000-E GEOTEXTILE FOR DRAINAGE	6000000000-E TEMPORARY SILT FENCE	6006000000-E EROSION CONTROL STONE, CLASS A	6009000000-E EROSION CONTROL STONE, CLASS B	6012000000-E SEDIMENT CONTROL STONE	6015000000-E TEMPORARY MULCHING	6036000000-E MATTING (EROSION CONTROL)	6042000000-E 1/4" HARDWARE CLOTH	6071010000-E WATTLE	6071020000-E POLYACRYLAMIDE (PAM)	6071030000-E COIR FIBER BAFFLES	6084000000-E SEED & MULCHING	6090000000-E SEED FOR REPAIR SEEDING	6093000000-E FERTILIZER FOR REPAIR SEEDING	6108000000-E FERTILIZER TOPDRESSING
										MI	FT	EA	EA	TON	SY	LF	TON	TON	TON	ACR	SY	LF	LF	LB	LF	AC	LB	TON	TON
2018CPT.08.17.20531	Lee	1	SR 1146 ST(ANDREWS CHURCH RD)	FROM SR 1001 (LEMON SPRINGS RD) TO SR 1133 (LEE AVENUE)	5	2	2WU	NO	NO	1.61	22					160							30			2.35			
TOTAL FOR MAP NO. 1										**1.61**						**160**							**30**			**2.35**			
2018CPT.08.17.20531	Lee	2	SR 1146 (ST ANDREWS CHURCH RD)	FROM BRIDGE TO SR 1144 (SWANNS STATION RD)	6	2	2WU	NO	NO	1.66	22					165							30			2.42			
TOTAL FOR MAP NO. 2										**1.66**						**165**							**30**			**2.42**			
2018CPT.08.17.20531	Lee	3	SR 1139 (WINSTEAD ROAD)	FROM NC 87 TO DEAD END	6	2	2WU	NO	NO	0.25	18					25							10			0.37			
TOTAL FOR MAP NO. 3										**0.25**						**25**							**10**			**0.37**			
2018CPT.08.17.20531	Lee	4	CAROLINA TRACE FD	FIRE DEPARTMENT PARKING LOT	8	2	2WU	NO	NO	0.023	55																		
TOTAL FOR MAP NO. 4										**0.023**																			
TOTAL FOR PROJ NO. 2018CPT.08.17.20531										**3.543**						**350**							**70**			**5.14**			
44854.3.3 (W-5708C)	Lee	5	SR 1140 (FRANK WICKER RD)	CURVE REALIGNMENT	1-4	2	2WU	NO	NO	0.341	24	1	1	5	14		20	80	50	2.80	1,600	20	180	15	105	2.80	50	0.25	2.00
TOTAL FOR MAP NO. 5										**0.341**		**1**	**1**	**5**	**14**		**20**	**80**	**50**	**2.80**	**1,600**	**20**	**180**	**15**	**105**	**2.80**	**50**	**0.25**	**2.00**
TOTAL FOR PROJ NO. 44854.3.3 (W-5708C)										**0.341**		**1**	**1**	**5**	**14**		**20**	**80**	**50**	**2.80**	**1,600**	**20**	**180**	**15**	**105**	**2.80**	**50**	**0.25**	**2.00**
47864	Lee	6	SR 1160 (LEMON SPRINGS RD	FROM SR 1001 (EDWARDS RD) TO SR 1150 (CASTLEBERRY RD)	7	2	2WU	NO	NO	0.68	20					70							20			0.66			
TOTAL FOR MAP NO. 6										**0.68**						**70**							**20**			**0.66**			
TOTAL FOR PROJ NO. 47864										**0.68**						**70**							**20**			**0.66**			
GRAND TOTAL										**4.564**		**1**	**1**	**5**	**14**	**420**	**20**	**80**	**50**	**2.80**	**1,600**	**20**	**270**	**15**	**105**	**8.60**	**50**	**0.25**	**2.00**

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.08.17.20531	**3-A**	
44854.3.3 (W-5708C) 47864,		

THERMOPLASTIC AND PAINT QUANTITIES

										4413000000-E	**4457000000-N**	**4685000000-E**	**4686000000-E**		**4710000000-E**	**4721000000-E**		**4850000000-E**	**4900000000-N**
PROJECT NO	**COUNTY**	**MAP NO**	**ROUTE**	**DESCRIPTION**	**TYP NO**	**LANES**	**LANE TYPE**	**LENGTH**	**WIDTH**	**WORK ZONE ADVANCE/GENERAL WARNING SIGNING**	**TEMPORARY TRAFFIC CONTROL**	**4" X 90 M WHITE THERMO**	**4" X 120 M WHITE THERMO**	**4" X 120 M YELLOW THERMO**	**24" X 120 M WHITE THERMO**	**THERMO MSG STOP 120 M**	**THERMO MSG AHEAD 120 M**	**4" LINE REMOVAL**	**YELLOW & YELLOW MARKERS**
								MI	**FT**	**SF**	**LS**	**LF**	**LF**	**LF**	**LF**	**EA**	**EA**	**LF**	**EA**
2018CPT.08.17.20531	Lee	1	SR 1146 ST(ANDREWS CHURCH RD)	FROM SR 1001 (LEMON SPRINGS RD) TO SR 1133 (LEE AVENUE)	5	2	2WU	1.61	22	180		17,325	50	11,150	24	4	5		106
TOTAL FOR MAP NO. 1								**1.61**		**180**		**17,325**	**50**	**11,150**	**24**	**4**	**5**		**106**
2018CPT.08.17.20531	Lee	2	SR 1146 (ST ANDREWS CHURCH RD)	FROM BRIDGE TO SR 1144 (SWANNS STATION RD)	6	2		1.66	22	185		17,865		10,960					110
TOTAL FOR MAP NO. 2								**1.66**		**185**		**17,865**		**10,960**					**110**
2018CPT.08.17.20531	Lee	3	SR 1139 (WINSTEAD ROAD)	FROM NC 87 TO DEAD END	6	2		0.25	18	28									
TOTAL FOR MAP NO. 3								**0.25**		**28**									
2018CPT.08.17.20531	Lee	4	CAROLINA TRACE FD	FIRE DEPARTMENT PARKING LOT	8	2	2WU	0.023	55										
TOTAL FOR MAP NO. 4								**0.023**			*								
TOTAL FOR PROJ NO. 2018CPT.08.17.20531								**3.543**		**393**	**1**	**35,190**	**50**	**22,110**	**24**	**4**	**5**		**216**
													22,160			**9**			
44854.3.3 (W-5708C)	Lee	5	SR 1140 (FRANK WICKER RD)	CURVE REALIGNMENT	1-4	2	2WU	0.341	24	12		3,600		3,600					45
TOTAL FOR MAP NO. 5								**0.341**		**12**	*	**3,600**		**3,600**					**45**
TOTAL FOR PROJ NO. 44854.3.3 (W-5708C)								**0.341**		**12**	**1**	**3,600**		**3,600**					**45**
													3,600						
47864	Lee	6	SR 1160 (LEMON SPRINGS RD	FROM SR 1001 (EDWARDS RD) TO SR 1150 (CASTLEBERRY RD)	7	2	2WU	0.68	20	77		7,180						7,180	
TOTAL FOR MAP NO. 6								**0.68**		**77**	*	**7,180**						**7,180**	
TOTAL FOR PROJ NO. 47864								**0.68**		**77**	**1**	**7,180**						**7,180**	
GRAND TOTAL								**4.564**		**482**	**1**	**45,970**	**50**	**25,710**	**24**	**4**	**5**	**7,180**	**261**
													25,760			**9**			

COMPUTED BY: DDC DATE: 4-6-2018
CHECKED BY: GSD DATE: 4-12-2018

PROJECT NO.	SHEET NO.
W-5708C	3-B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 20+00	-L- 38+00	2027	5356	3329	
EST. 5% TO REPLACE TOPSOIL ON BORROW PITS				166	
GRAND TOTALS:		2027		3495	
SAY:		**2030**		**3500**	

Contingency Undercut = 400 CY

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL
-L-	23+60	36+00	LT	3001.76
		TOTAL:		3001.76
		SAY:		3005

COMPUTED BY:	DDC	DATE:	4/3/2018
CHECKED BY:	GSD	DATE:	4/9/2018

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5708C	3-C

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
-L-																			
26+67	LT	601																	
28+35	LT	602																	
29+40	CL	603	604		354.17	348.33													
29+40	LT	604		352.11		348.33													
SHEET TOTALS																			

STATION	C.S. PIPE 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"
-L-																								
26+67																								
28+35																								
29+40																				64				
29+40																								
SHEET TOTALS																				64				

STATION	** " R.C. PIPE (CLASS V)	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	***" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN
-L-																
26+67				20												
28+35				20												
29+40								1								
29+40																
SHEET TOTALS				40				1								

STATION	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME WITH TWO GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31	G.D.I. FRAME (N.S. FLAT) W/2 GRATES STD. 840.29	T.B.D.I. STD. 840.35	MANNHOLE FRAME AND COVER, STD. 840.54	CONVERT 2 GI TO JB w/ MH COVER	SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
-L-																			
26+67																			
28+35																			
29+40										1			1						
29+40																			
SHEET TOTALS										1			1						

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

PROJECT REFERENCE NO. | SHEET NO.
W-5708C | 4

R/W SHEET NO.

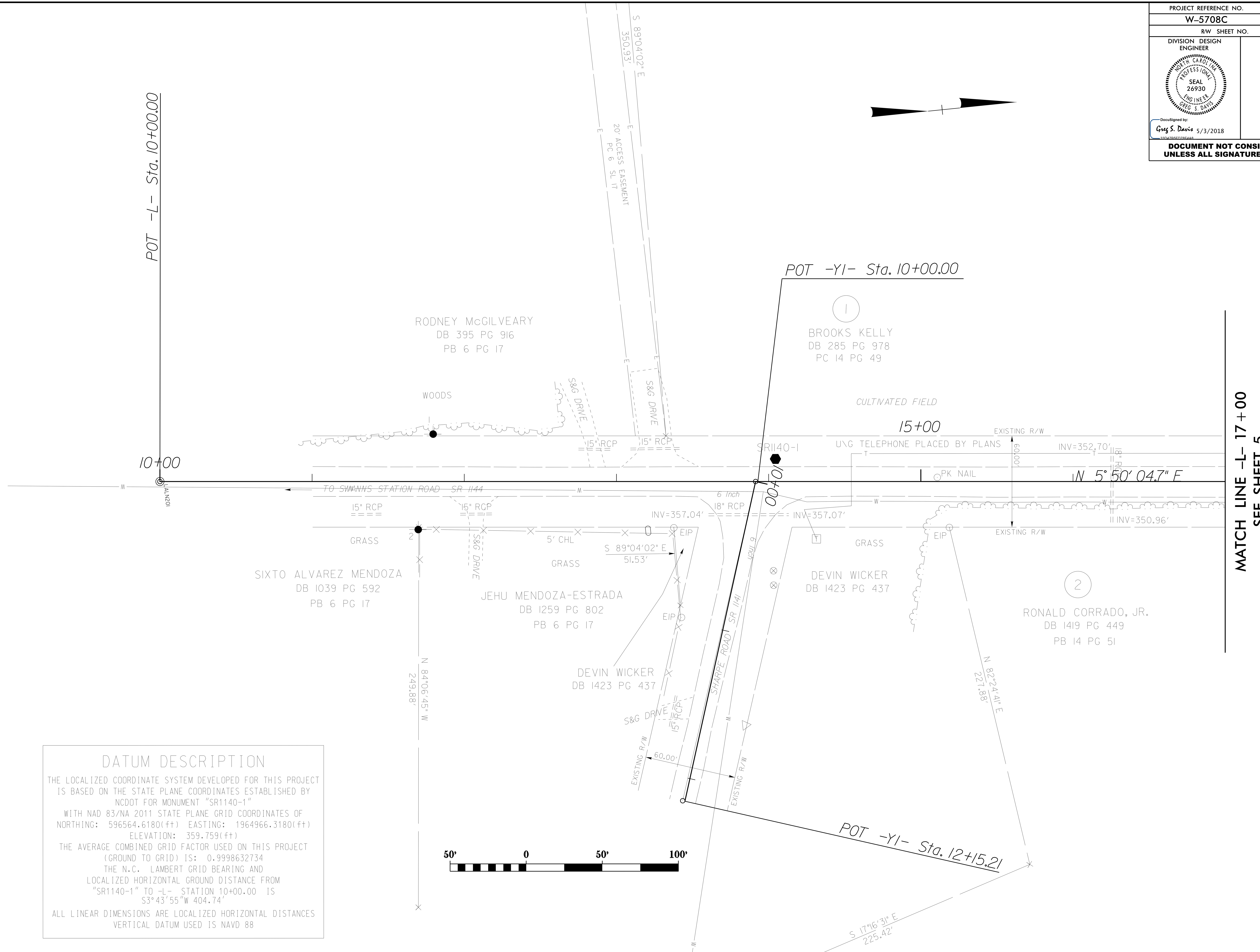
DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by:
Greg S. Davis 5/3/2018
33D47B5ED78E4A8

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR1140-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 596564.6180(ft) EASTING: 1964966.3180(ft)
ELEVATION: 359.759(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998632734
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SR1140-1" TO -L- STATION 10+00.00 IS S3°43'55"W 404.74'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

REVISIONS

8/17/99

03-MAY-2018 16:10
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gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W–5708C	5
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by:
Greg S. Davis 5/3/2018
33D47B5ED78E4A8

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

8/17/99

REVISIONS

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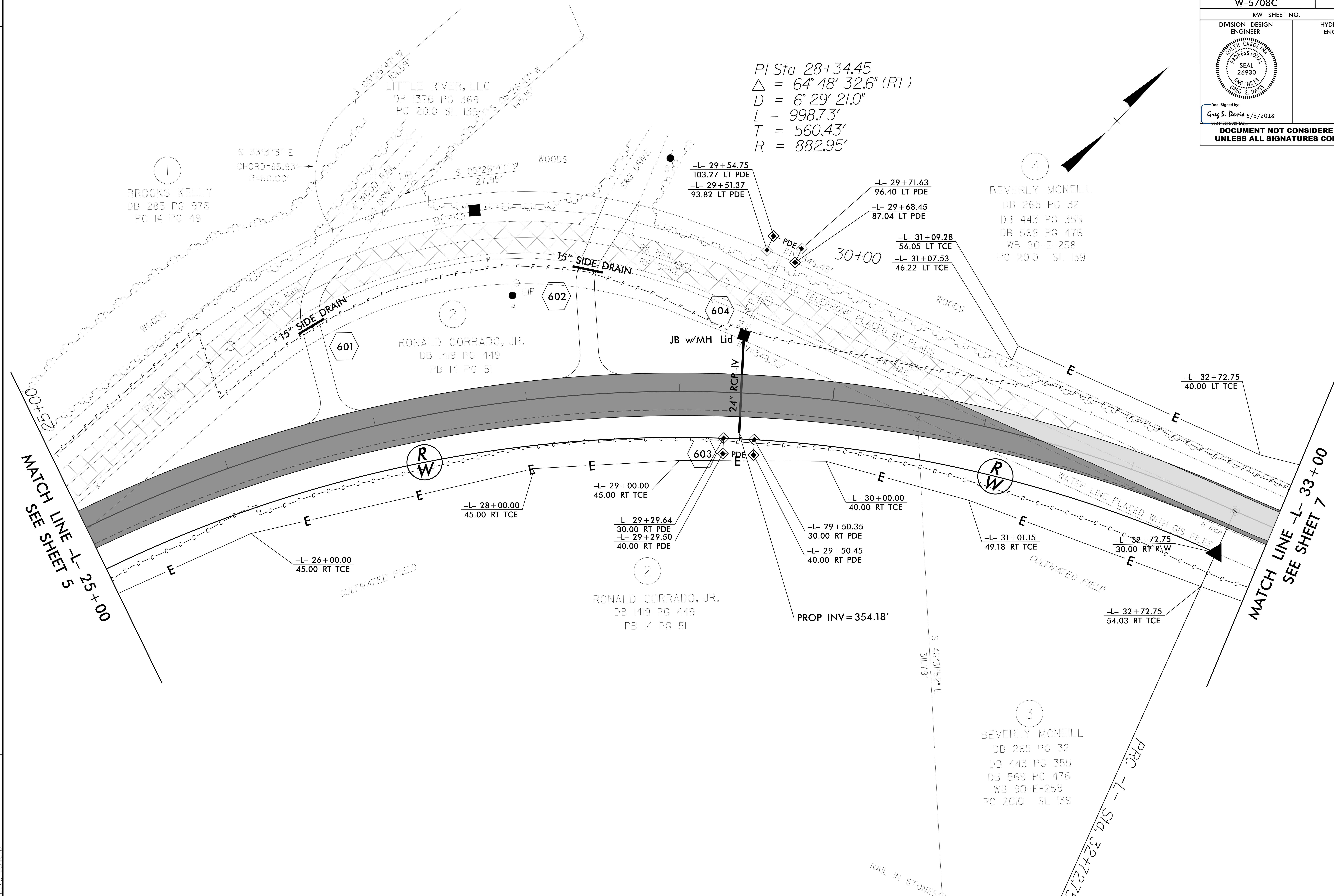
gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	6
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 5/3/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5708C	7
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 5/3/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PI Sta 40+62.71
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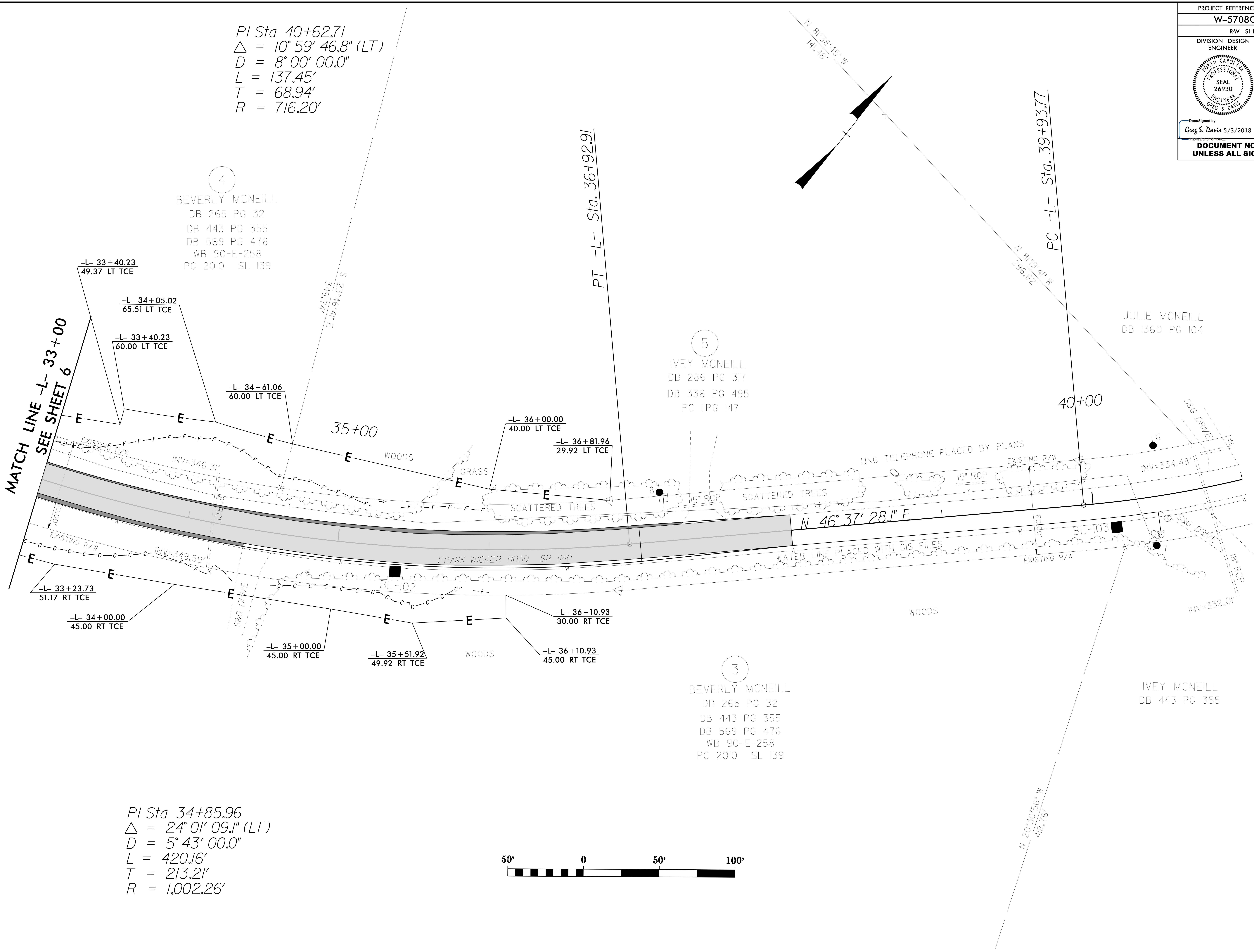
D = 8° 00′ 00.0″
L = 137.45′
T = 68.94′
R = 716.20′



PI Sta 34+85.96
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D = 5° 43′ 00.0″
L = 420.16′
T = 213.21′
R = 1,002.26′

REVISIONS

8/17/99

03-MAY-2018 16:10
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gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W–5708C	8

DIVISION DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS DocuSigned by: Greg S. Davis 5/3/2018 33D47B5FD78F4A8...	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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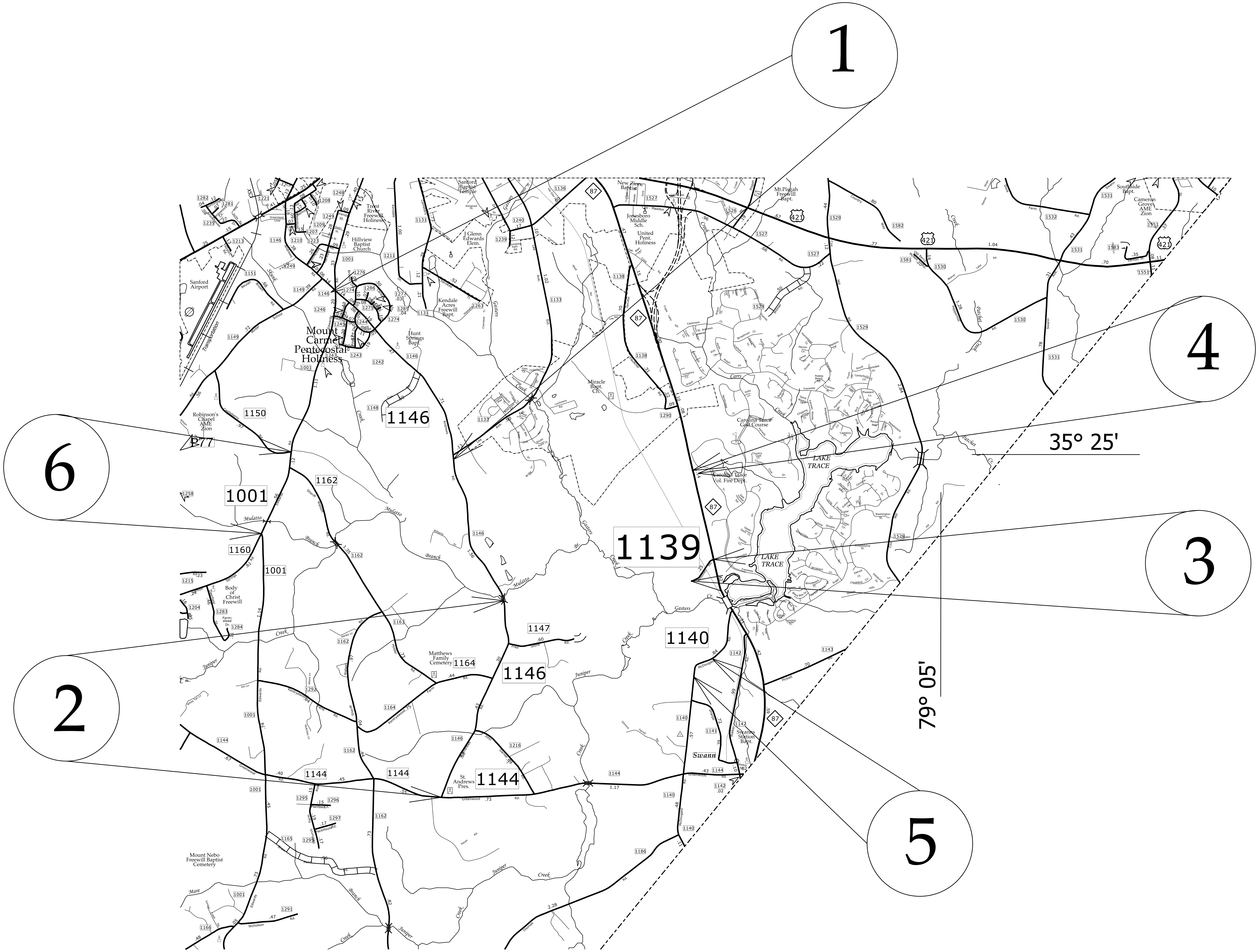
asdavis AT DIV8-30481Ø

5/28/99

WBS ELEMENT	SHEET NO.
2018CPT.08.17.20531 47864	9



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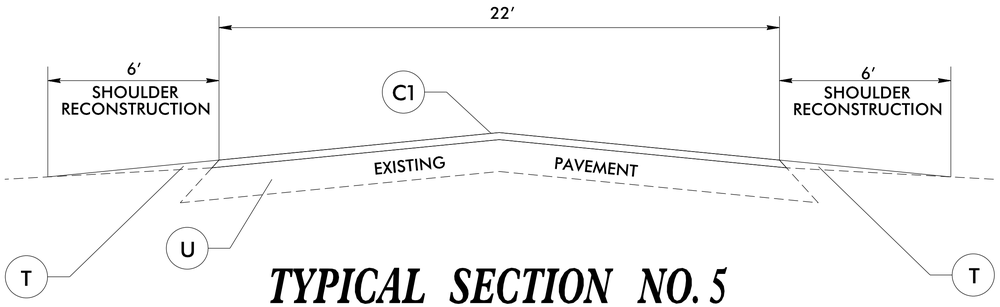
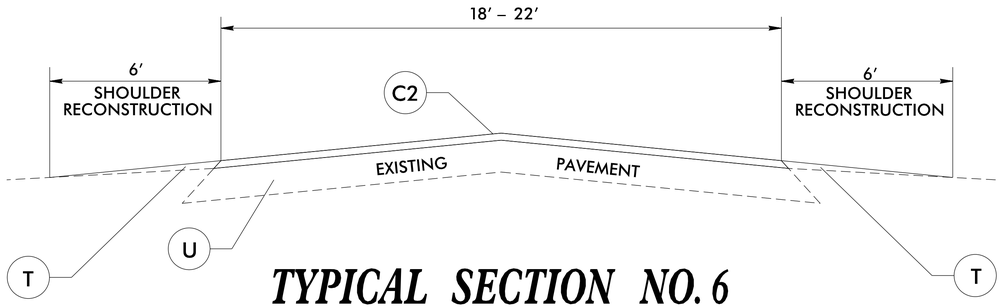
2018CPT.08.17.20531 47864	10



TYPICAL SECTION NO. 5



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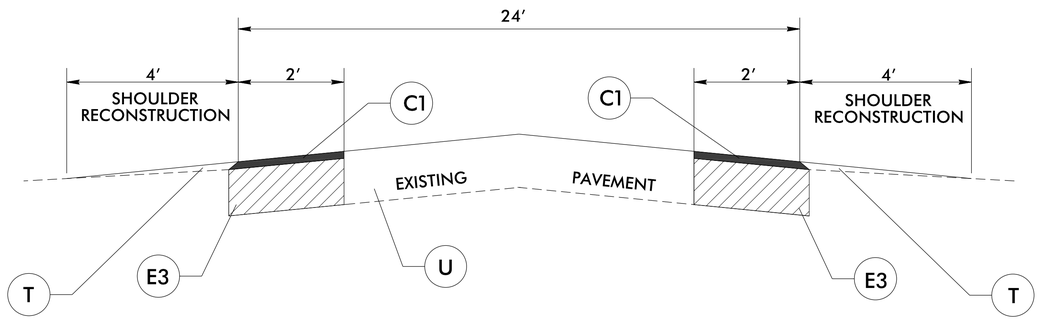
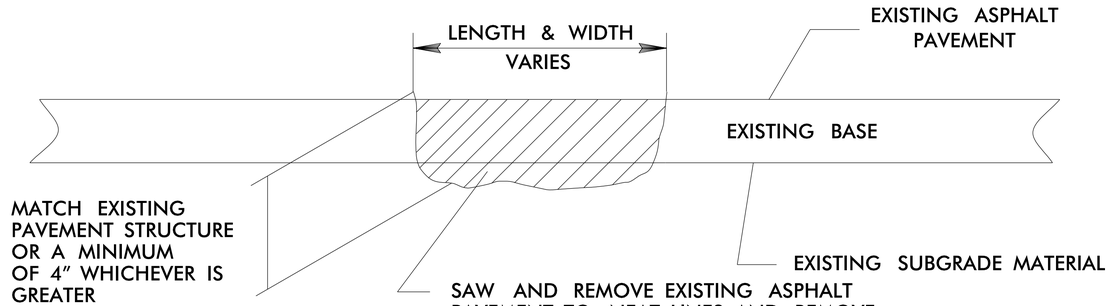
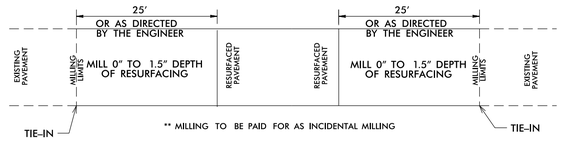


TYPICAL SECTION NO. 8

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING

DETAIL





PAVEMENT TIE–IN DETAIL

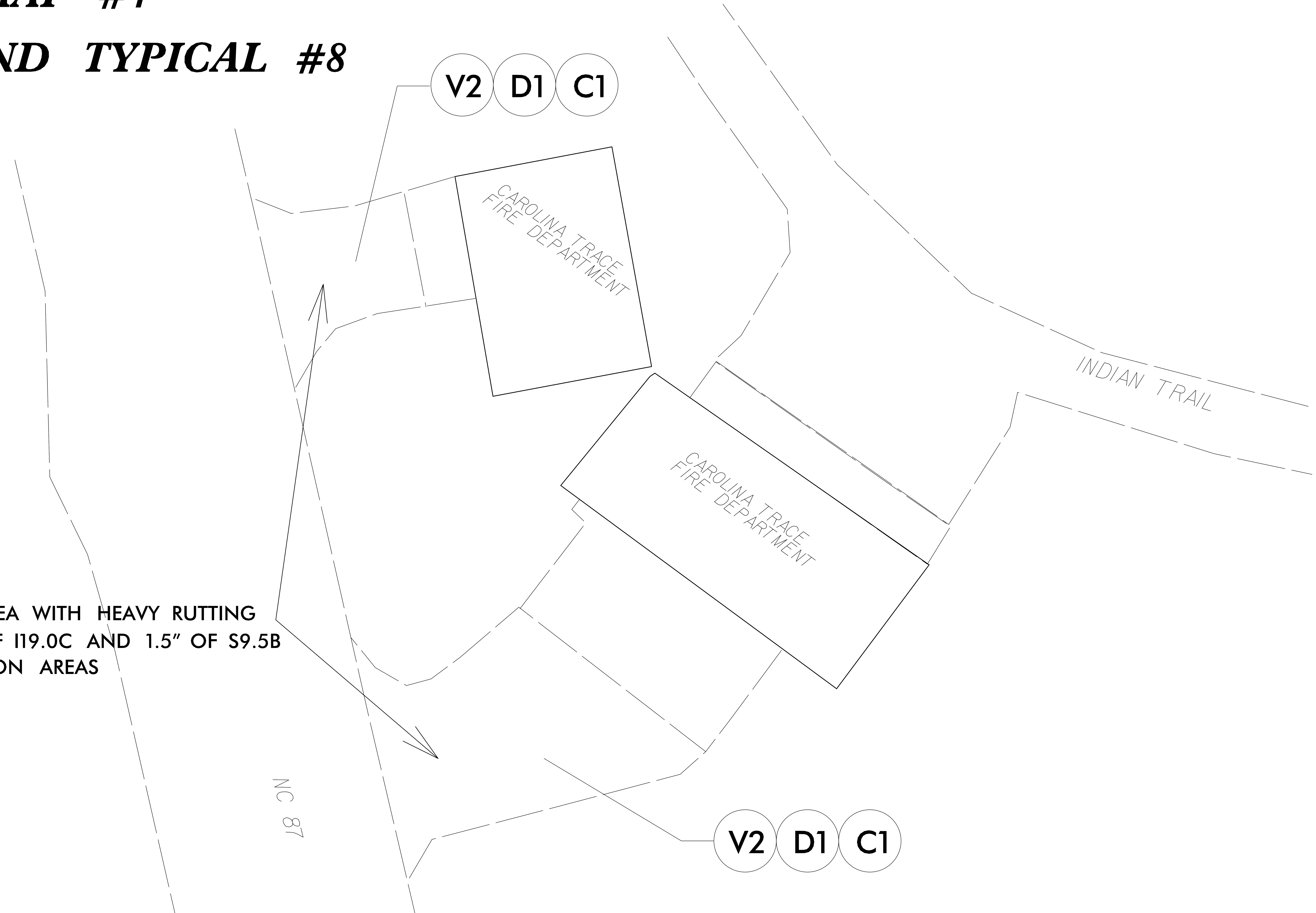
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 138 LBS. PER SQ. YD.
E3	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL
U	EXISTING PAVEMENT.

WBS ELEMENT	SHEET NO.
2018CPT.08.17.20531 47864	11

MAP #4

DETAIL AND TYPICAL #8



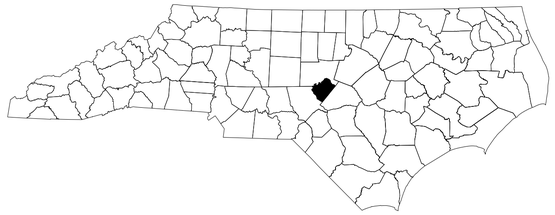
PAVEMENT SCHEDULE

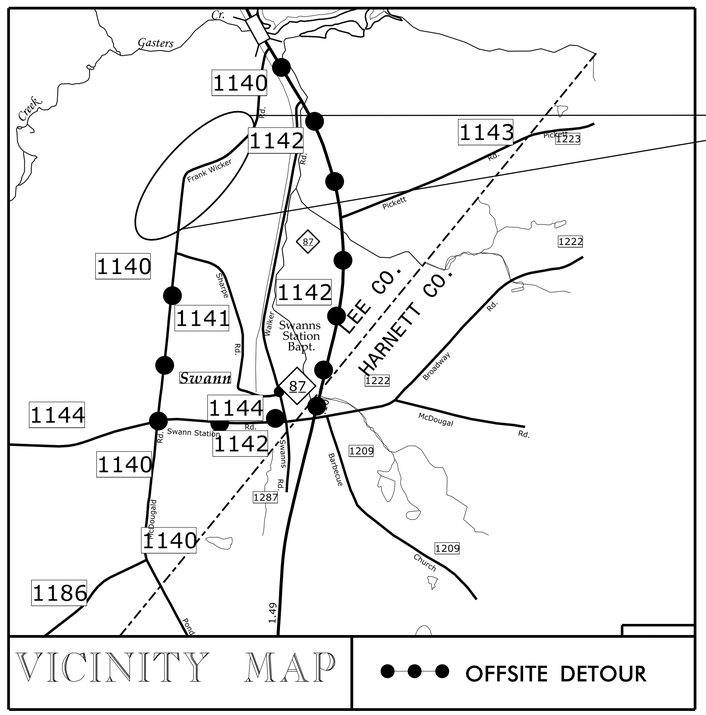
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D1	PROP. APPROX. 3.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
V2	1.5" TO 4.5" MILLING

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

LEE COUNTY





PROJECT LOCATION

N

LOCATION: SR 1140 (FRANK WICKER RD) WEST OF NC 87 SOUTH OF SANFORD

TYPE OF WORK: GRADING, DRAINAGE, PAVING, PAVEMENT MARKINGS & MARKERS, AND EROSION CONTROL

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

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

_____ *STATE TRAFFIC MANAGEMENT ENGINEER*

_____ *TRAFFIC CONTROL PROJECT ENGINEER*

GREG S. DAVIS, PE *TRAFFIC CONTROL PROJECT DESIGN ENGINEER*

_____ *TRAFFIC CONTROL DESIGN ENGINEER*

DIVISION OF HIGHWAYS ★ STATE OF NORTH CAROLINA ★ DEPARTMENT OF TRANSPORTATION ★ WORK ZONE TRAFFIC CONTROL

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-2	GENERAL NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	OFF-SITE DETOUR DETAIL
TMP-5	OFF-SITE DETOUR SIGNING PLAN DETAIL #1
TMP-6	OFF-SITE DETOUR SIGNING PLAN DETAIL #2
TMP-7	SPECIAL SIGN DETAIL

SHEET NO.
TMP-1

W-5708C

TIP PROJECT:

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DIVISION 8 DDC UNIT
GREG S. DAVIS, PE
902 N. SANDHILLS BLVD
ABERDEEN, NC

910-944-2344

APPROVED: Digitally signed by Greg S. Davis 5/21/2018

DATE: 5/21/2018

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

SEAL

DIVISION DESIGN ENGINEER

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL
- USER DEFINED (IF NEEDED)
- USER DEFINED (IF NEEDED)

SIGNALS

EXISTING PROPOSED TEMP TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

APPROVED: DocuSigned by: Greg S. Davis 33D47B5FD78F4AB...

DATE: 5/3/2018

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-2

GENERAL NOTES

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

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

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

ROAD NAME

NC 87

SR 1140 (FRANK WICKER RD)

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 9:00 A.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 9:00 A.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 9:00 A.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 9:00 A.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

B) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

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

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

   WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) 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.

G) 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.

H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON SR 1140 (-L-).

PAVEMENT EDGE DROP OFF REQUIREMENTS

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

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

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

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

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

K) 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.

L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

M) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.

N) PLACE TYPE III BARRICADES WITH " ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. WHERE LOCAL TRAFFIC MUST BE MAINTAINED, THEY MAY BE PLACED IN A STAGGERED PATTERN.

PAVEMENT MARKINGS AND MARKERS

O) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

P) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH WORKING DAY.

APPROVED: DocuSigned by: Greg S. Davis 33D4786FD78F4A8... DATE: 5/3/2018

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION MANAGEMENT PLAN

GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-3

MANAGEMENT STRATEGIES

PHASE I

BEGIN BY CONSTRUCTING A PORTION OF –L– ALIGNMENT (SR 1140) AWAY FROM TRAFFIC. USE SHOULDER AND LANE CLOSURES AS NECESSARY.

PHASE II

WHEN NEW ALIGNMENT ON –L– ALIGNMENT IS READY TO TIE INTO EXISTING SR 1140, USE ROAD CLOSURE ON SR 1140 AND PLACE TRAFFIC ON OFF–SITE DETOUR FOR A PERIOD OF NO MORE THAN 10 DAYS. COMPLETE CONSTRUCTION ON SR 1140 (–L–), REMOVE ALL TRAFFIC CONTROL DEVICES, AND SWITCH TRAFFIC TO NEW –L– ALIGNMENT.

USING LANE CLOSURES TO COMPLETE RESURFACING OF OTHER MAPS IN THE CONTRACT.

PHASING

PHASE I

STEP 1:
INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DRAWING NO. 1101.01. (SHEET 3 OF 3) WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE SIGNS, AS DIRECTED BY THE ENGINEER.

STEP 2:

USING NCDOT STANDARD DRAWING NOs. 1101.02 (SHEET 1 OF 14) AND 1101.04 CLOSE THE SOUTHERN SHOULDER OF SR 1140 (–L–) AND CONSTRUCT UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE THE PORTION OF –L– CONSTRUCTION THAT IS AWAY FROM TRAFFIC.

PHASING

PHASE II

WORK IN A CONTINUOUS MANNER TO COMPLETE STEPS #1 THRU #3 IN TEN (10) CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 1:

USING NCDOT STANDARD DRAWING NO. 1101.03 (SHEET 1 OF 9), CLOSE SR 1140 (–L–) TO THROUGH TRAFFIC AND PLACE TRAFFIC ON OFF–SITE DETOUR. (SEE TMP–4 THRU TMP–6)

STEP 2:

COMPLETE TIE–INS TO –L– AND COMPLETE NEW ALIGNMENT OF SR 1140 (–L–) UPTO AND INCLUDING THE FINAL LAYER OF SURFACE COURSE AND PAVEMENT MARKINGS. (SEE PM–1 THRU PM–3).

STEP 3:

REMOVE OFF–SITE DETOUR AND OPEN SR 1140 (–L–) TO NEW TRAFFIC PATTERN.

NOTE: STEP 4 BELOW MAY BE STARTED BEFORE, DURING OR AFTER COMPLETION OF PHASE I OR PHASE II.

STEP 4:

USING NCDOT STANDARD SR 1101.02 (SHEET 1 OF 14), COMPLETE RESURFACING AND PAVEMENT MARKINGS AND MARKERS ON THE REMAINING MAPS.

5/3/2018

APPROVED: DocuSigned by: Greg S. Davis 53D478SF07BF4A8... DATE:

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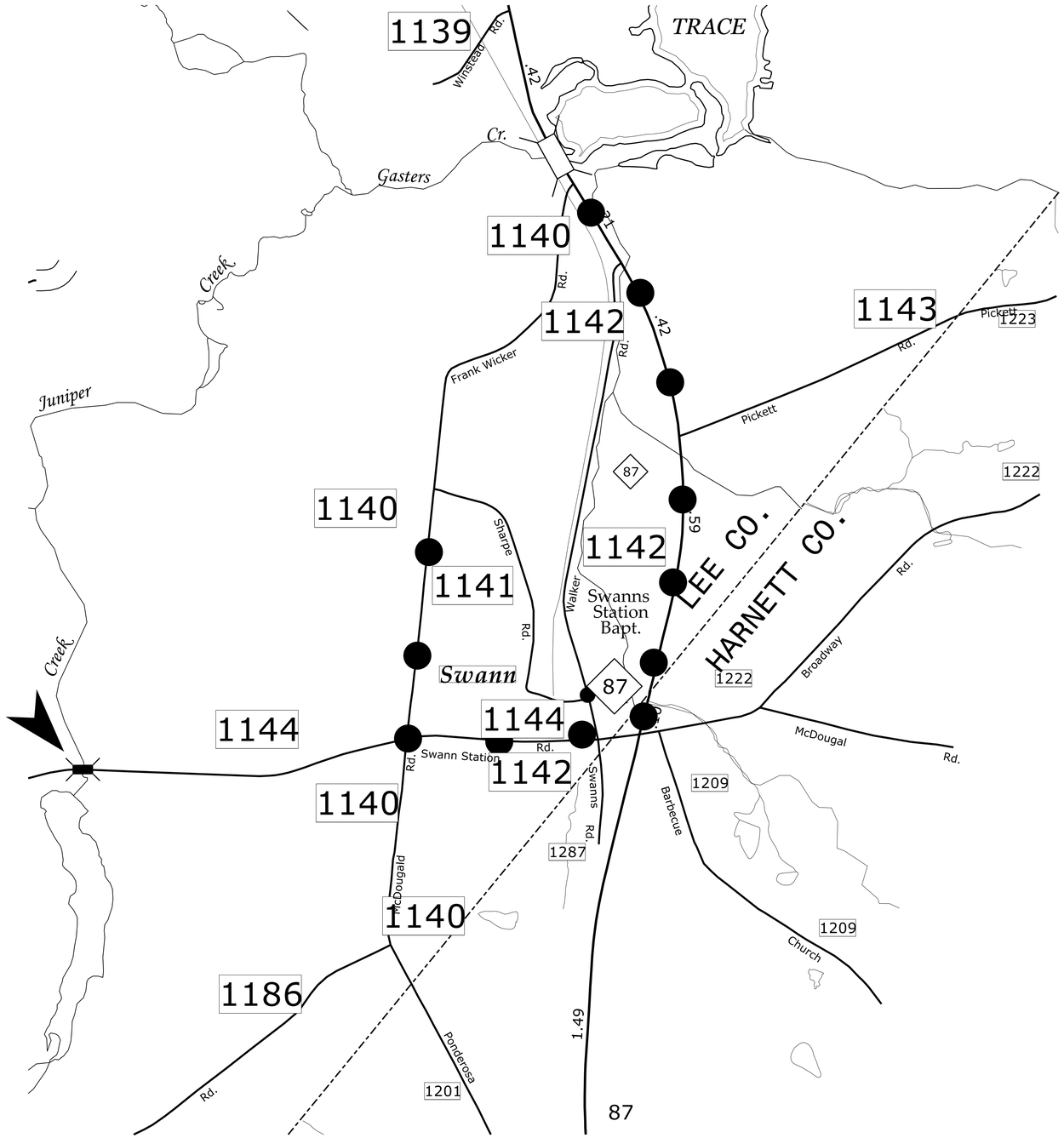
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TEMPORARY TRAFFIC CONTROL PHASING

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-4



APPROVED: DocuSigned by: Greg S. Davis 33D4781B5F1D78F4A8...

DATE: 5/3/2018

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

OFF-SITE DETOUR

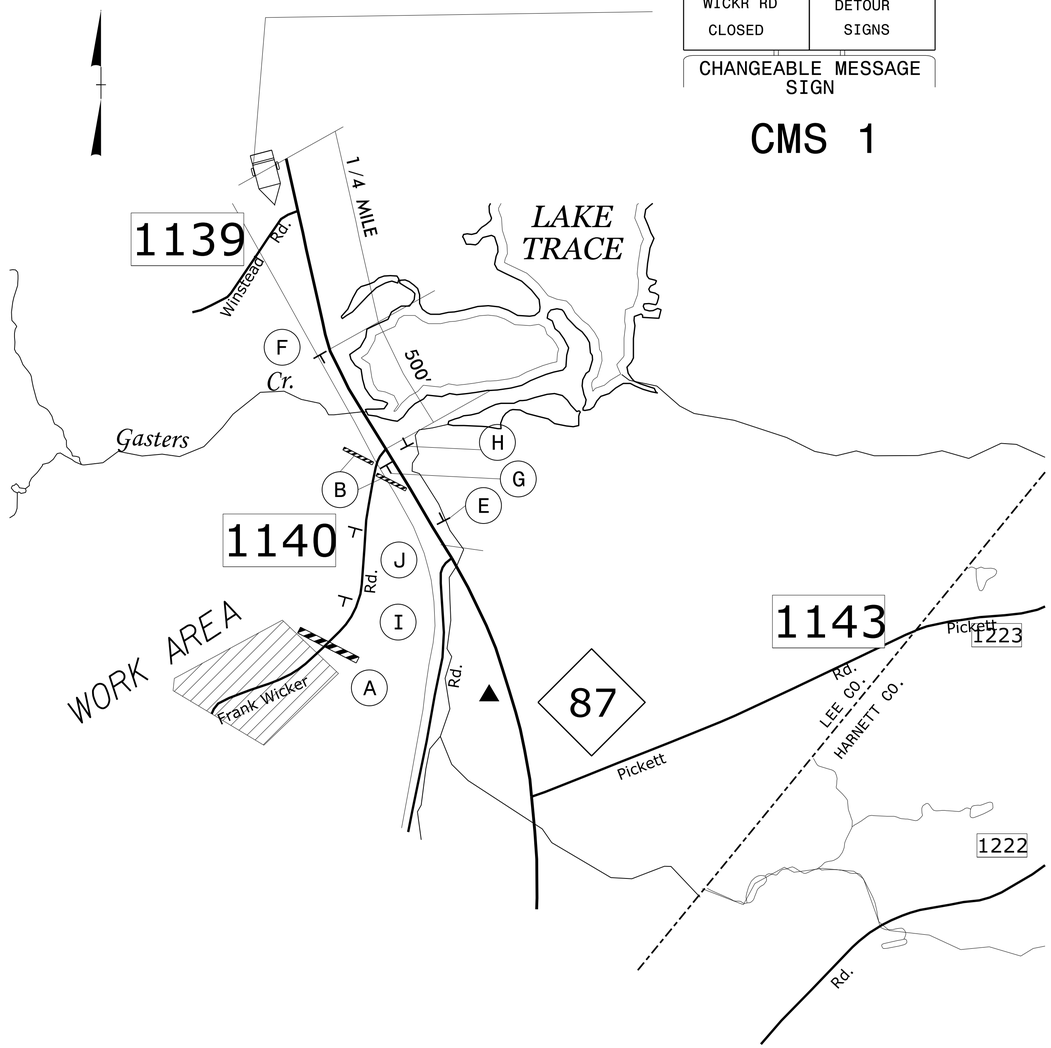
03-MAY-2018 16:12
Z:\rdy\LEE_sr_1140frank_wicker_rd\psh\tmp\W-5708C_tmp.dgn
gsdavis AT DV8-30480

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-5

MESSAGE NO. 1	MESSAGE NO. 2
FRANK WICKR RD CLOSED	FOLLOW DETOUR SIGNS

CHANGEABLE MESSAGE SIGN

CMS 1



PROPOSED DETOUR ROUTE

R11-2
48" x 30"
ROAD CLOSED
TYPE III BARRICADE(S)

A

R11-4
60" x 30"
ROAD CLOSED TO THRU TRAFFIC
DETOUR
M4-10L
48" x 18"
TYPE III BARRICADE

B

ROAD CLOSED AHEAD
W20-3
48" x 48"
NEXT LEFT
SP-4L
42" X 12"

E

ROAD CLOSED AHEAD
W20-3
48" x 48"
NEXT RIGHT
SP-4R
42" X 12"

F

FRANK WICKER ROAD
DETOUR
48" x 24"
M4-8
24" x 12"
M6-3
21" x 15"

G

END DETOUR
M4-8 A
24" X 18"

H

ROAD CLOSED 500 FT
W20-3
48" x 48"

I

ROAD CLOSED 1000 FT
W20-3
48" x 48"

J

FRANK WICKER ROAD
DETOUR
40" x 24"
M4-8
24" x 12"
M6-1R
21" x 15"

K

FRANK WICKER ROAD
DETOUR
48" x 24"
M4-8
24" x 12"
M6-1L
21" x 15"

L

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DATE: 5/21/2018
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NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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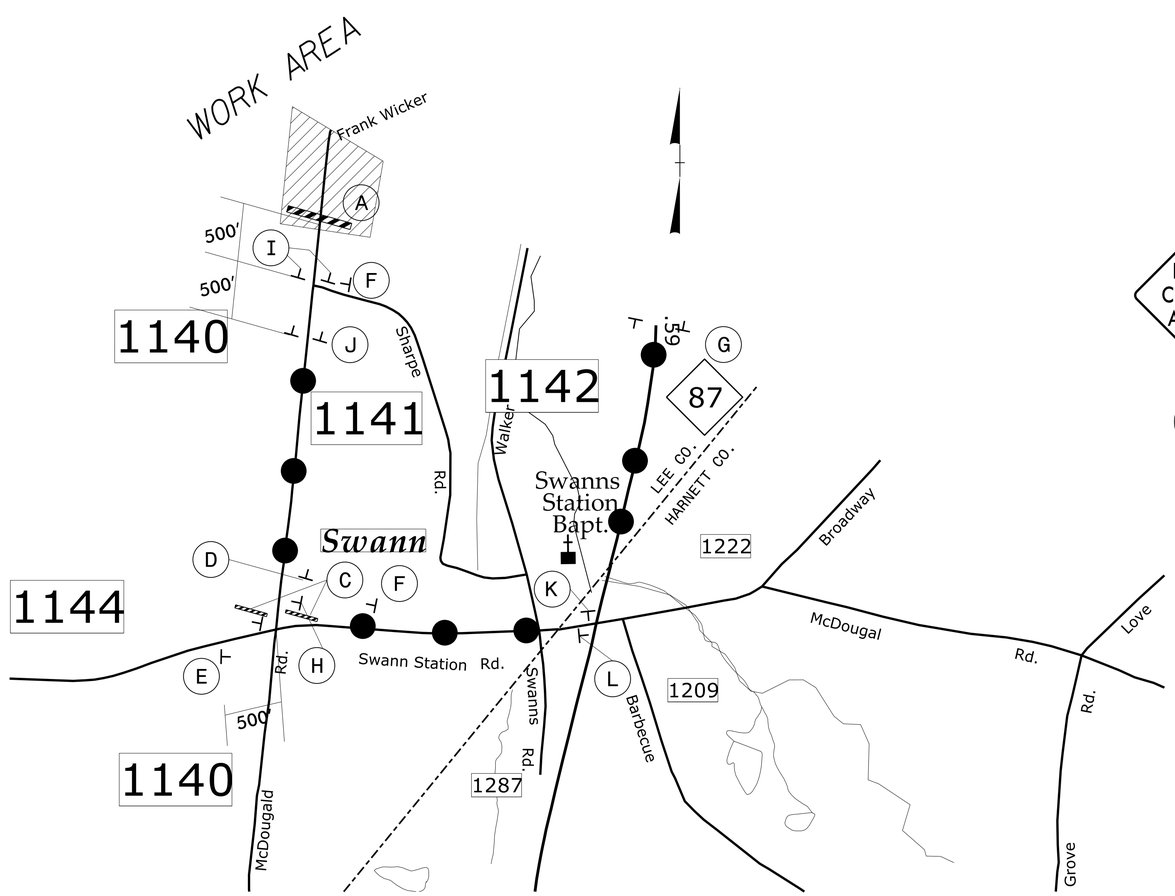
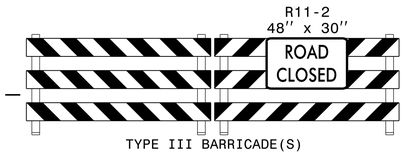
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

OFF-SITE DETOUR SIGNING PLAN DETAIL #1

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-6





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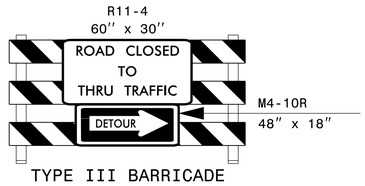

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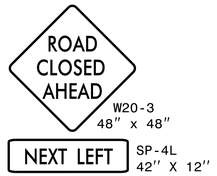
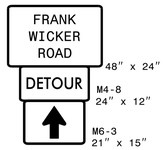


E

F



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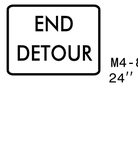

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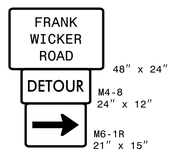

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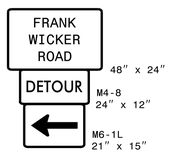

L

APPROVED: Greg S. Davis

DATE: 5/21/2018

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NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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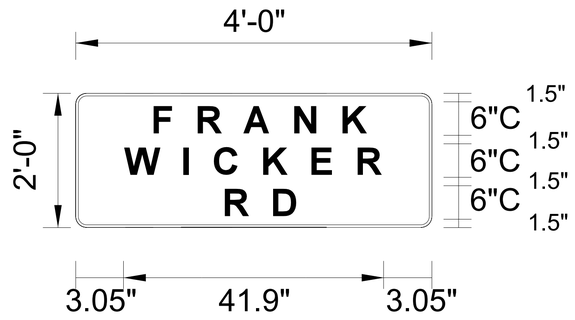
OFF-SITE DETOUR SIGNING PLAN DETAIL #2

21-MAY-2018 15:17
Z:\rdy\LEE\sr_1140\frank_wicker_rd\psh\tmp\W-5708C_tmp.dgn
gsdavis AT DW8-30480

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	TMP-7

SIGN DETAIL

1:40



SIGN NUMBER	Frank Wicker
WIDTH x HGHT.	4'-0" x 2'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

Panel Style: construction_guide.ssi
Dimensions are inches.tenths

Letter widths are shown

LETTER POSITIONS (X)

	F	R	A	N	K																LENGTH	SERIES/SIZE
																						C 2000
13.25	4.1	4.4	4.2	4.4	4.4	13.25															21.5	6
	W	I	C	K	E	R																C 2000
3.05	5.4	2.2	4.6	4.4	4.1	4.4	3.05														41.9	6
	R	D																				C 2000
20.1	4.4	3.4	20.1																		7.8	6

5/21/2018

APPROVED: Greg S. Davis DATE:

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

SPECIAL
SIGN DESIGN

8/17/99

REVISIONS

PAVEMENT MARKING LINES

TA - THERMOPLASTIC (4" WHITE, 90 MILS) EDGE LINE
TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTERLINE

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	PM-1
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4AB...

5/3/2018

DIVISION DESIGN ENGINEER

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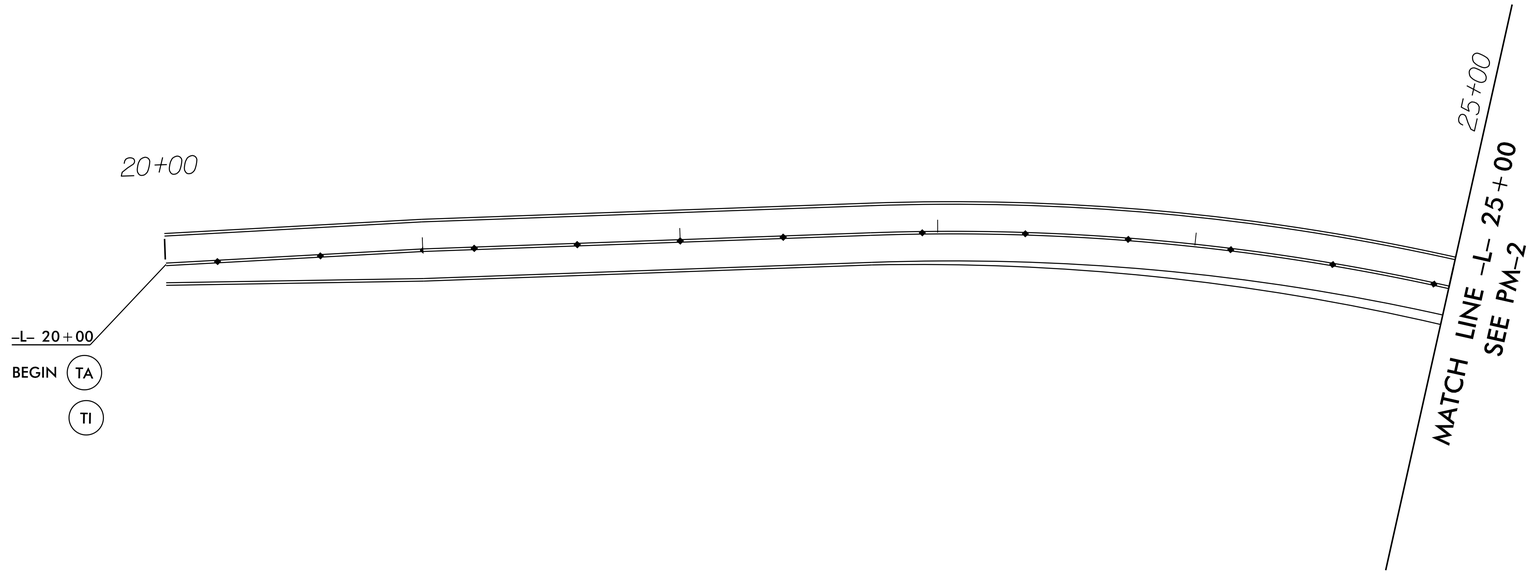
PAVEMENT MARKING LEGEND

- ---CRYSTAL / RED PAVEMENT MARKER
- ---YELLOW / YELLOW PAVEMENT MARKER
- ---CRYSTAL / CRYSTAL PAVEMENT MARKER



50' 0 50' 100'

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	PM-2
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8...

5/3/2018

DIVISION DESIGN ENGINEER

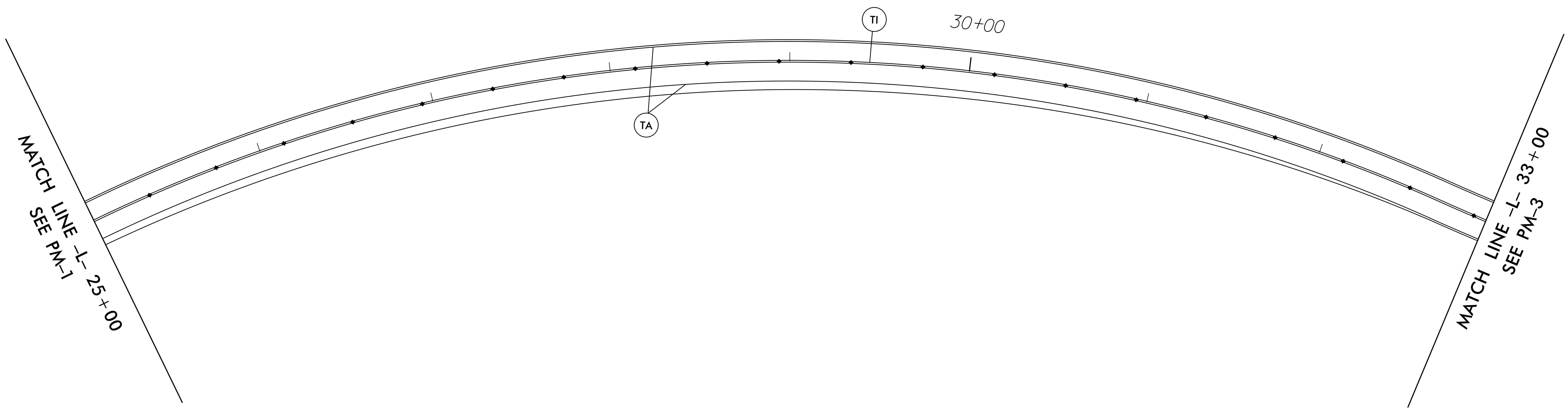
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT MARKING LEGEND

- ···CRYSTAL / RED PAVEMENT MARKER
- ···YELLOW / YELLOW PAVEMENT MARKER
- ···CRYSTAL / CRYSTAL PAVEMENT MARKER

PAVEMENT MARKING LINES

TA - THERMOPLASTIC (4" WHITE, 90 MILS) EDGE LINE
TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTERLINE



30' 0 30' 60'

REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	PM-3
R/W SHEET NO.	

DocuSigned by: Greg S. Davis — 5/3/2018

DIVISION DESIGN ENGINEER

SEAL 26930 — NORTH CAROLINA PROFESSIONAL ENGINEER — GREG S. DAVIS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

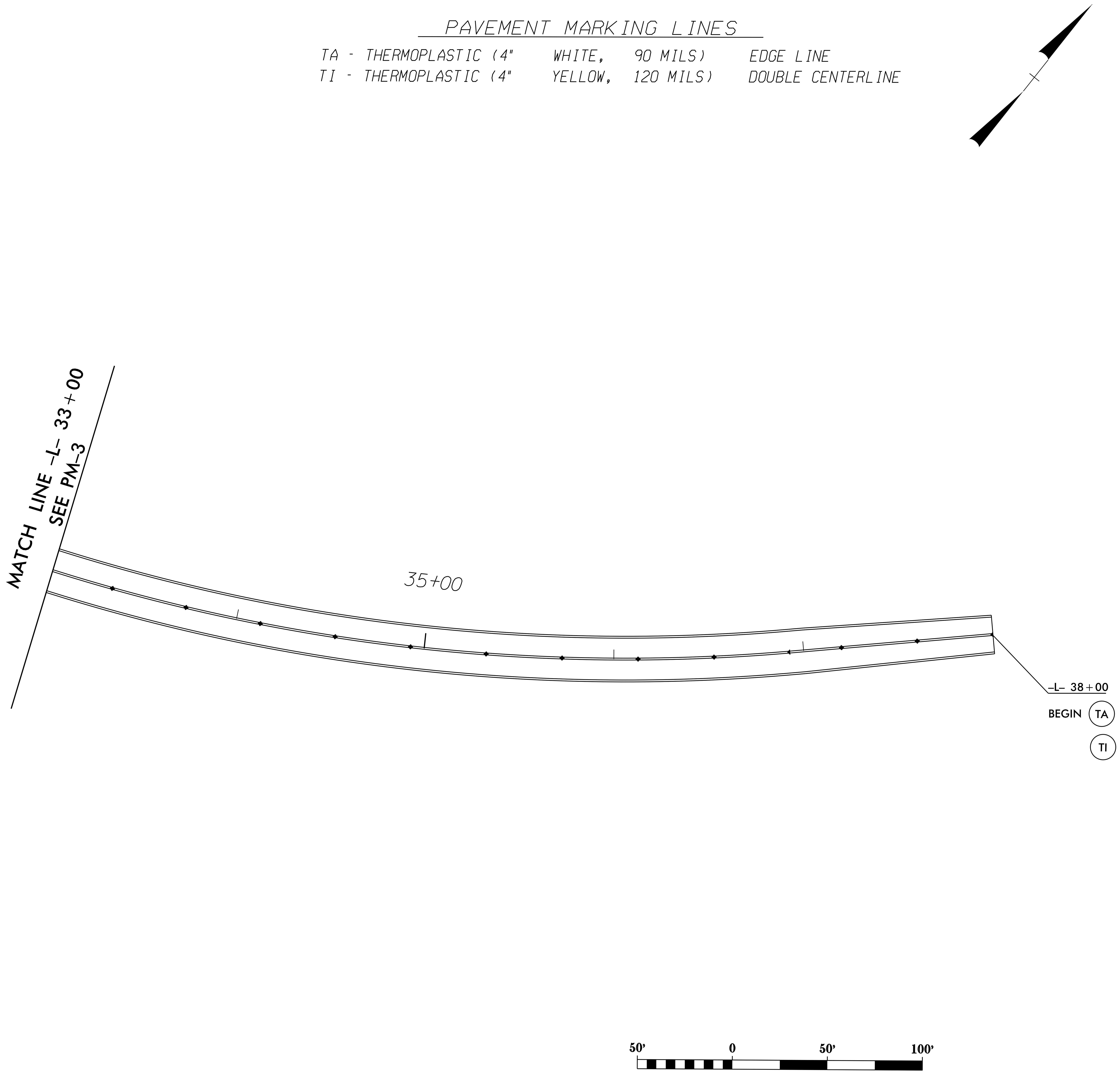
PAVEMENT MARKING LEGEND

- ···CRYSTAL / RED PAVEMENT MARKER
- ···YELLOW / YELLOW PAVEMENT MARKER
- ···CRYSTAL / CRYSTAL PAVEMENT MARKER

PAVEMENT MARKING LINES

TA - THERMOPLASTIC (4" WHITE, 90 MILS) EDGE LINE

TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTERLINE

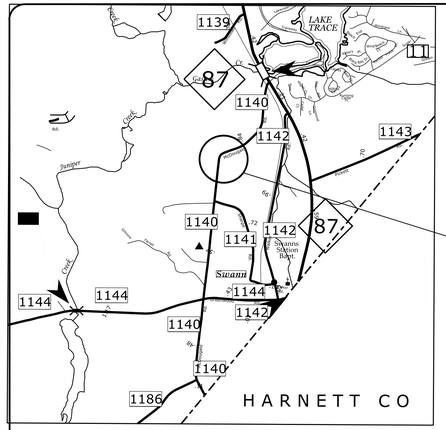


REVISIONS

8/17/99

03-MAY-2018 16:12 W5708C_PM-3.dgn

WBS ELEMENT: W-5708C



VICINITY MAP

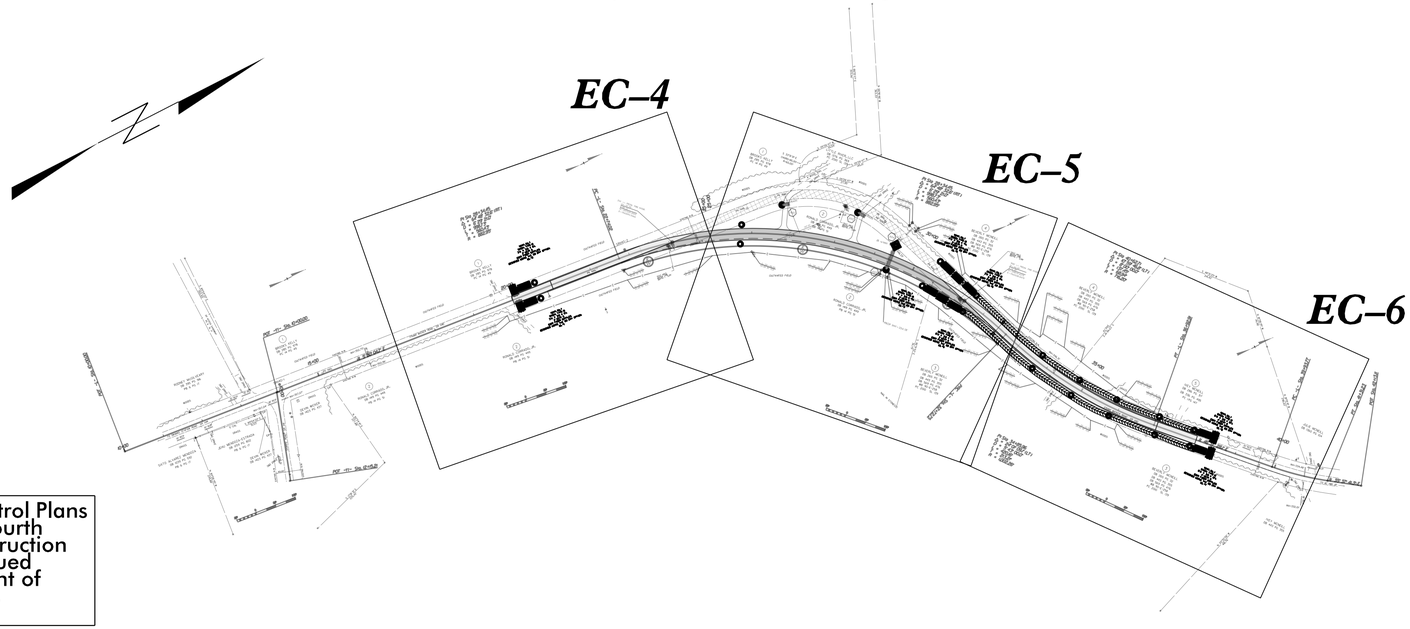
PROJECT LOCATION

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
LEE COUNTY

LOCATION: SR 1140 (FRANK WICKER ROAD) BEGIN WIDENING 610'+- NORTH OF SR 1141 (SHARPE ROAD) AND END WIDENING 1955'+- SOUTH OF NC 87

TYPE OF WORK: GRADING, PAVING, THERMOPLASTIC PAVEMENT MARKINGS, AND PAVEMENT MARKERS



These Erosion and Sediment Control Plans comply with the regulations set fourth by the NCG010000 general construction permit effective August 3, 2011 issued by the North Carolina Department of Enviroment and Natural Resources Division of Water Quality.

STATE	WBS ELEMENT	SHEET NO.	TOTAL SHEETS
N.C.	W-5708C	EC-1	

WBS ELEMENT	F.A. PROJ. NO.	DESCRIPTION
44854.1.3		PE
44854.2.3		R/W
44854.3.3		CONST.

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

Prepared By:
J.Howard Reedy.Jr.
Level III #3663
Dec.31,2020

PROJECT CONTACTS:
District Engineer
Travis Morgan,PE
Design & Construct Engineer
Greg S.Davis,PE
Resident Engineer
M.Garry Phillips

PROJECT LENGTH

0.34 mi.

Prepared In the Office of:
DIVISION EIGHT
DIVISION DESIGN & CONSTRUCT UNIT
902 N Sandhills Blvd.
PO Box 1067
Aberdeen, 28315

2018 STANDARD SPECIFICATIONS

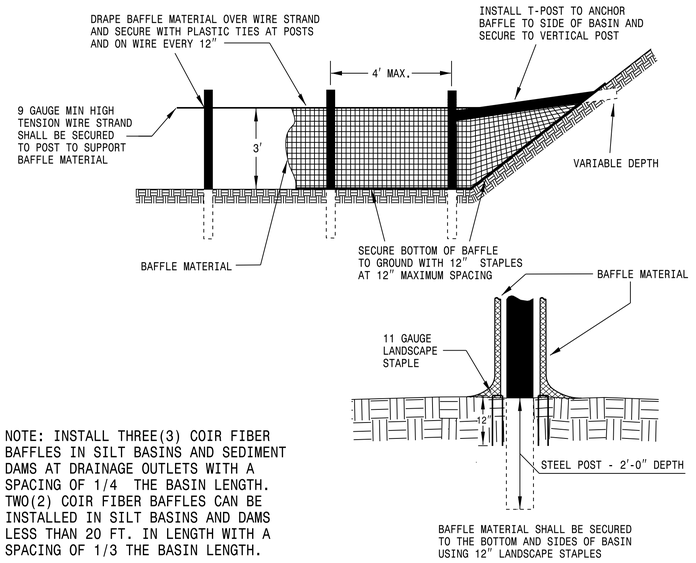
Roadway Standard Drawings

The following roadway ENGLISH standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 17, 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1622.01	Temporary Berms and Slope Drains	1633.01	Temporary Rock Silt Check Type A
1630.01	Riser Basin	1633.02	Temporary Rock Silt Check Type B
1630.02	Silt Basin Type B	1634.01	Temporary Rock Sediment Dam Type A
1630.03	Temporary Silt Ditch	1634.02	Temporary Rock Sediment Dam Type B
1630.04	Stilling Basin	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.05	Temporary Diversion	1636.01	Rock Silt Screen

WBS ELEMENT	SHEET NO.
W-5708C	EC-2

COIR FIBER BAFFLE DETAIL



NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

NARRATIVE

1. SOIL TYPE: _CLAY_ X SAND

2. IS THE PROJECT LOCATED IN A HIGH QUALITY WATER ZONE?
_____ YES __X__ NO

3. ARE THERE ANY WETLANDS ADJOINING THIS PROJECT?
_____ YES _____X_____ NO

SITE DESCRIPTION

This project is located 610'+- north of SR 1141 (Sharpe Rd) and approximately 0.71 miles south of NC 87. The area surrounding this project primarily consists of wooded and grassy areas and single family dwellings. The drainage consists of roadway ditches that lead to existing ditches and drainage structures.

PROJECT DESCRIPTION

The project will consist of clearing, grubbing, draining, setting up the base and paving. The major land disturbing activites will consist of clearing and grading within the right of way. Temporary and permanent erosion control measures will be installed.

MAINTENANCE SCHEDULE

1. INSPECT WEEKLY AND AFTER EACH RAINFALL, USE THE DEPARTMENT OF TRANSPORTATION'S EROSION CONTROL INSPECTION REPORT.

2. MAINTAIN EROSION CONTROL DEVICES AS FOLLOWS:

A. SILT DITCH - REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE - CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.

B. SILT FENCE - REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE - AVOID UNDERMINING THE FENCE.

C. SLOPE DRAINS - INSPECT THE SLOPE DRAINS AND SUPPORTING DIVERSIONS.

D. SEDIMENT BASIN - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH - CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT - REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

E. CHECK DAM - REMOVE SETTLEMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION - ADD STONE TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

F. ROCK DAM - REMOVE SEDIMENT AND RESTORE ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE DESIGN VOLUME - CHECK THE STRUCTURE FOR EROSION, PIPING, AND ROCK DISPLACEMENT AFTER EACH SIGNIFICANT RAINSTORM AND REPAIR IMMEDIATELY.

G. DROP INLET PROTECTION (TYPE C) - REMOVE SEDIMENT FROM THE POOL AREAS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN.

H. SEDIMENT TRAP - REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN SETTLEMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP - CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING TO ENSURE IT IS A MINIMUM OF 1.5 FT. BELOW THE LOW POINT OF THE EMBANKMENT.

NOTE: SEDIMENT SHOULD BE PLACED IN DESIGNATED DISPOSAL AREAS AND NOT ALLOWED TO FLOW INTO STREAMS OR DRAINAGE WAYS DURING STRUCTURE REMOVAL.

NOTE: ALL SEDIMENT TRAPS/BASINS SHALL HAVE COIR FIBER BAFFLES. BASINS/TRAPS OVER 10 FT IN LENGTH SHALL HAVE TWO ROWS.

NOTE: NO PAM TO USED WITH THE LAST BMT (WATTLE) AT OUTLET OF THE PROJECT

NOTE: The erosion control measures have be designed to provide a minimum of 43% of the storage calculated using the RUSLE2 analysis. These sections of disturbed area must then be permanently stabilized within 60 days from the time grading begins.

GENERAL CONSIDERATIONS

1. THE LAW REQUIRES INSTALLATION AND MAINTENANCE OF SUFFICIENT EROSION CONTROL PRACTICES TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. IT ALSO REQUIRES THAT SURFACES BE NON EROSIVE AND STABLE WITHIN 21 DAYS CALENDAR DAYS AFTER THE COMPLETION OF ANY PHASE OF GRADING.

2. FIT THE DEVELOPMENT TO THE SITE - FOLLOW THE NATURAL CONTOURS AS MUCH AS POSSIBLE. PRESERVE AND USE NATURAL DRAINAGE SYSTEMS.

3. LIMIT CLEARING AND GRUBBING - CLEARLY DEFINE WORK LIMIT LINES. GRADE TO MINIMIZE CUT-AND-FILL SLOPES. PRESERVE NATURAL BUFFER AREAS, AND LIMIT THE TIME THAT BARE SOIL IS EXPOSED.

4. PROTECT THE SOIL SURFACE - LIMIT THE EXTENT OF DISTURBANCE AND STABILIZE THE SOIL SURFACE IMMEDIATELY. ONCE THE SURFACE HAS BEEN DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION AND SHOULD BE PROTECTED WITH APPROPRIATE COVER, SUCH AS MULCH OR VEGETATION IN AN EXPEDIENT MANNER.

5. SEDIMENT BASINS AND TRAPS - SELECT SITES AND INSTALL SEDIMENT BASINS AND TRAPS BEFORE OTHER CONSTRUCTION ACTIVITIES ARE STARTED. ALSO CONSIDER LOCATIONS FOR DIVERSIONS, OPEN CHANNELS, AND STORM DRAINS AT THIS TIME SO THAT ALL SEDIMENT-LADEN TO RUN OFF CAN BE DIRECTED TO AN IMPOUNDMENT STRUCTURE BEFORE LEAVING THE CONSTRUCTION SITE. INSTALL ALL MEASURES AND RELEASE POINTS PRIOR TO CLEARING AND GRUBBING.

6. ONCE AN AREA IS DISTURBED, IT IS SUBJECT TO ACCELERATED EROSION. EROSION CONSTROL CAN BE ACHIEVED BY:

- LIMITING THE SIZE OF THE CLEARING AND TIME OF EXPOSURE BY PROPER SCHEDULING.
- REDUCING THE AMOUNT OF RUNOFF OVER THE DISTURBED SURFACE.
- LIMITING GRADES AND LENGTHS OF SLOPES, AND
- RE-ESTABLISHING PROTECTIVE COVER IMMEDIATELY AFTER LAND DUSTURBING ACTIVITIES ARE COMPLETED OR WHEN CONSTRUCTION ACTIVITES ARE DELAYED FOR THIRTY (30) OR MORE WORKING DAYS

7. STABILIZE CONSTRUCTION ACCESS AREAS, CONSTRUCTION ROADS, AND PARKING AREA DURING INITIAL ACTIVITIES. TRY TO KEEP ROAD GRADES TO A MINIMUM GENERALLY NEVER EXCEEDING 12%.

8. CLEAR BORROW AND WASTE DISPOSAL AREAS AS NEEDED AND PROTECT THEM FROM SURFACE RUNOFF. SLOPE ALL AREAS TO PROVIDE POSITIVE DRAINAGE, AND STABILIZE BARE SOIL SURFACES WITH PERMANENT VEGETATION OR MULCH AS SOON AS FINAL GRADES ARE PREPARED. DIRECT ALL RUNOFF THAT CONTAINS SEDIMENT TO A SEDIMENT-TRAPPING DEVICE. IN LARGE BORROW AND DISPOSAL SITES, SHAPE AND DEEPEN THE LOWER END TO FORM AN IN-PLACE SEDIMENT TRAP.

9. ONLY SEDIMENT-FREE RUNOFF MAY BE DISCHARGED FROM CONSTRUCTION SITES DIRECTLY INTO STREAMS. ENSURE THAT ALL OTHER FLOWS ENTER FROM DESILTING POOLS FORMED BY SEDIMENT TRAPS OR BARRIERS.

10. AREAS ADJOINING STREAMS SHOULD BE LEFT UNDISTURBED AS BUFFERS. WHERE NATURAL BUFFERS ARE NOT AVAILABLE, PROVIDE ARTIFICIAL BUFFERS. WHERE WORK IS REQUIRED ALONG A STREAM, PROVIDE MECHANICAL OR ARTIFICIAL BUFFER (25 FEET MINIMUM REQUIRED).

11. BEFORE MOVING TO NEXT JOB SITE, REVIEW ALL MEASURES FOR EFFECTIVENESS; MAKE ANY ADJUSTMENTS, CLEAR-OUTS, OR REPAIR; CALL ROADSIDE ENVIRONMENTAL DEPARTMENT FOR INSTALLATION OF A DITCH LINER AND SEEDING AND MULCHING OF ALL DISTURBED AREAS.

12. CONTINUE TO CHECK AND MAINTAIN ALL MEASURES AFTER EACH SIGNIFICANT RAINFALL UNTIL ALL DISTURBED AREAS BECOME STABILIZED.

13. FILL IN ALL SILT BASINS AND SILT DITCHES, REMOVE ALL SILT FENCES AND SLOPE DRAINS, REDISTRIBUTE ALL STONE FROM SILT CHECKS, SEDIMENT DAMS, AND SILT SCREENS. SEED AND MULCH DISTURBED AREAS.

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gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

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

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

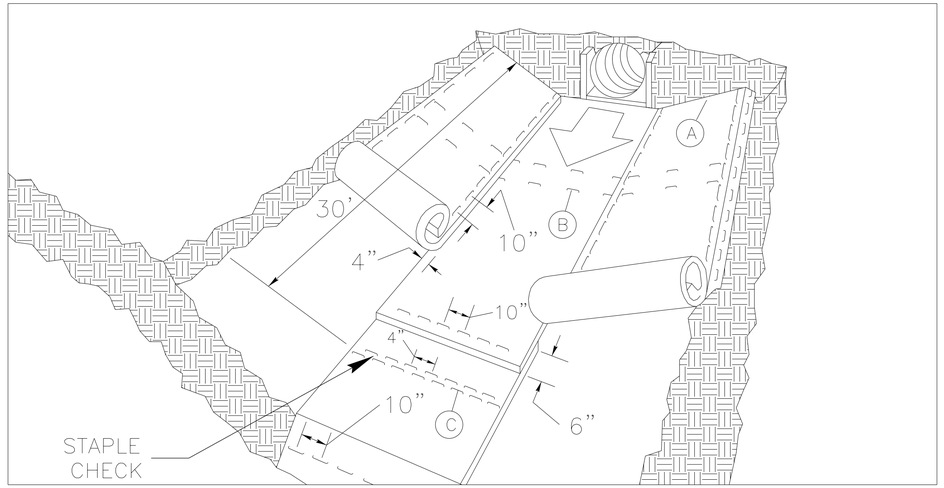
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-L-	30+80	32+50	LT	120
6	-L-	30+80	32+50	RT	120
7	-L-	32+50	38+00	LT	385
7	-L-	32+50	38+00	RT	385
			SUBTOTAL		1010
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					590
				TOTAL	1600
				SAY	1600

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
			SUBTOTAL		
		ADDITIONAL PSRM TO BE INSTALLED			
				TOTAL	
				SAY	

PROJECT REFERENCE NO.	SHEET NO.
W–5708C	EC–3B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

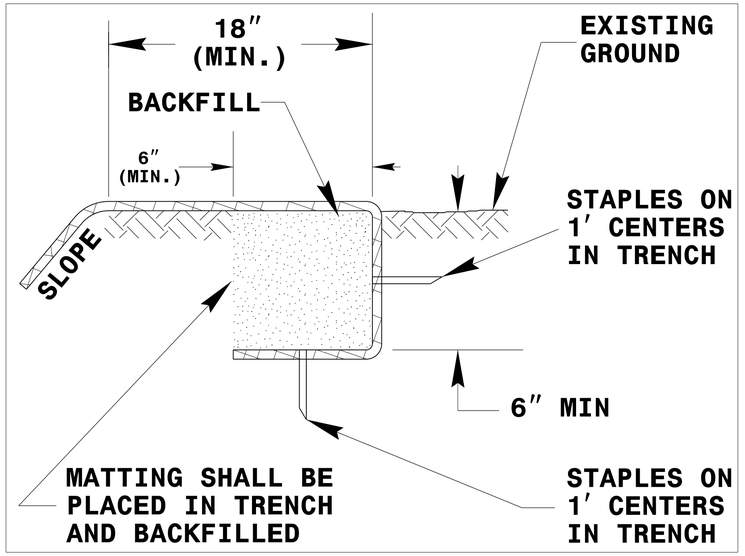
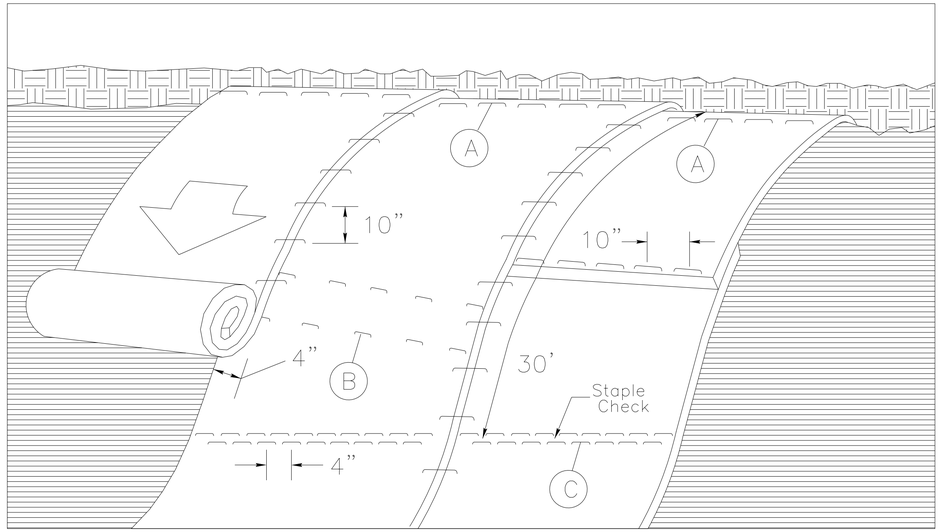
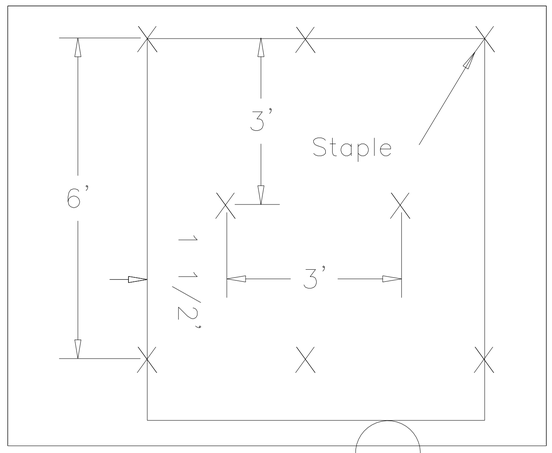


DIAGRAM (A)



MATTING ON SLOPES



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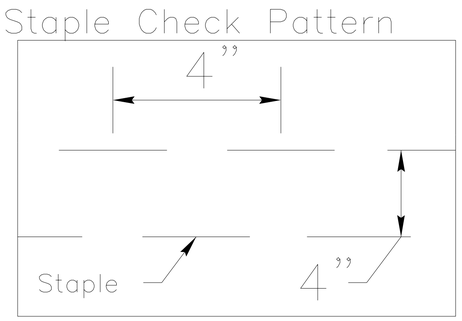


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

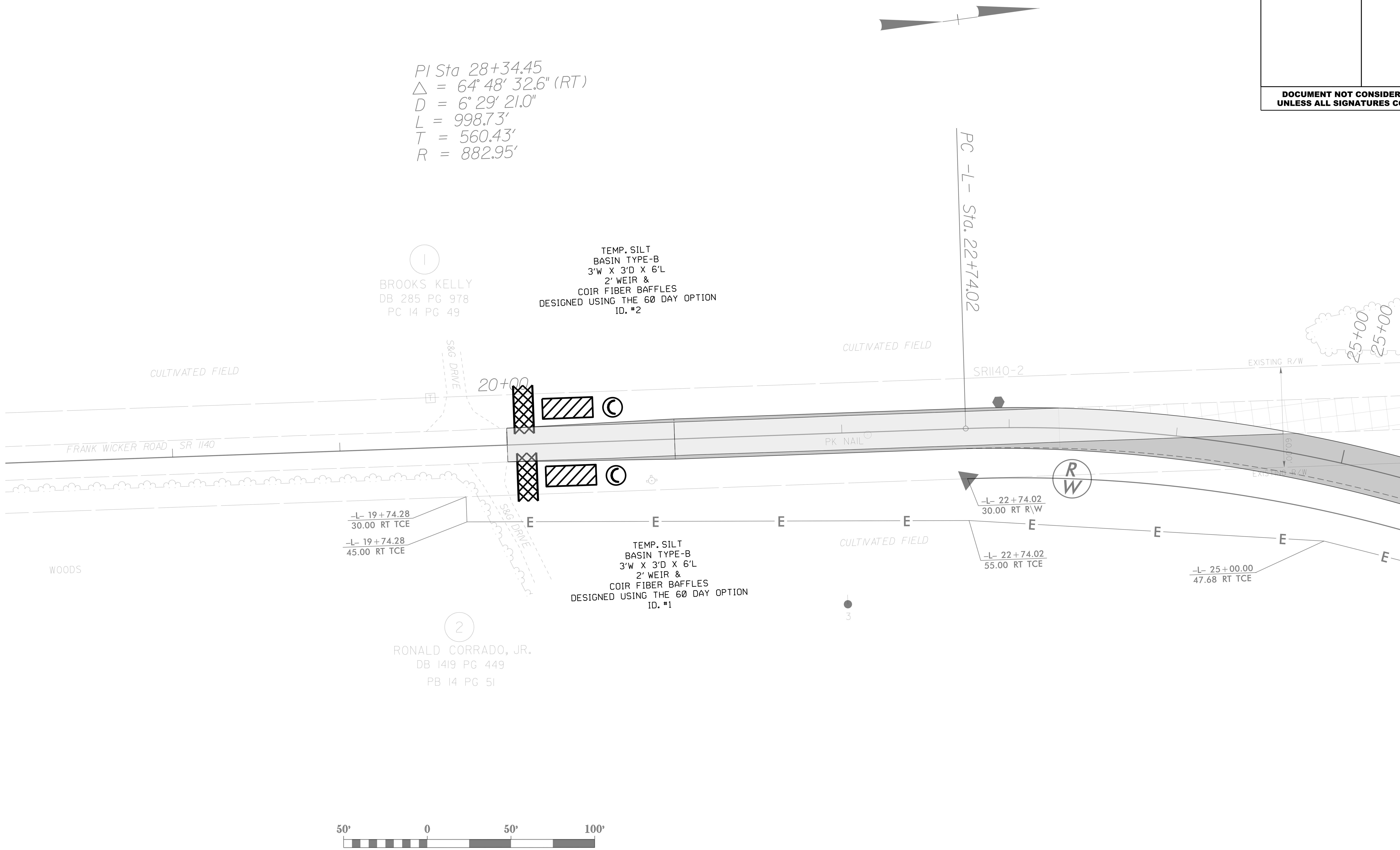
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



MATCH LINE -L- 25+00
SEE SHEET EC-5

REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

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gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5708C	EC-7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

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asdavis AT DIV8-304810

PROJ. REFERENCE NO.	SHEET NO.
W-5708C	X-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

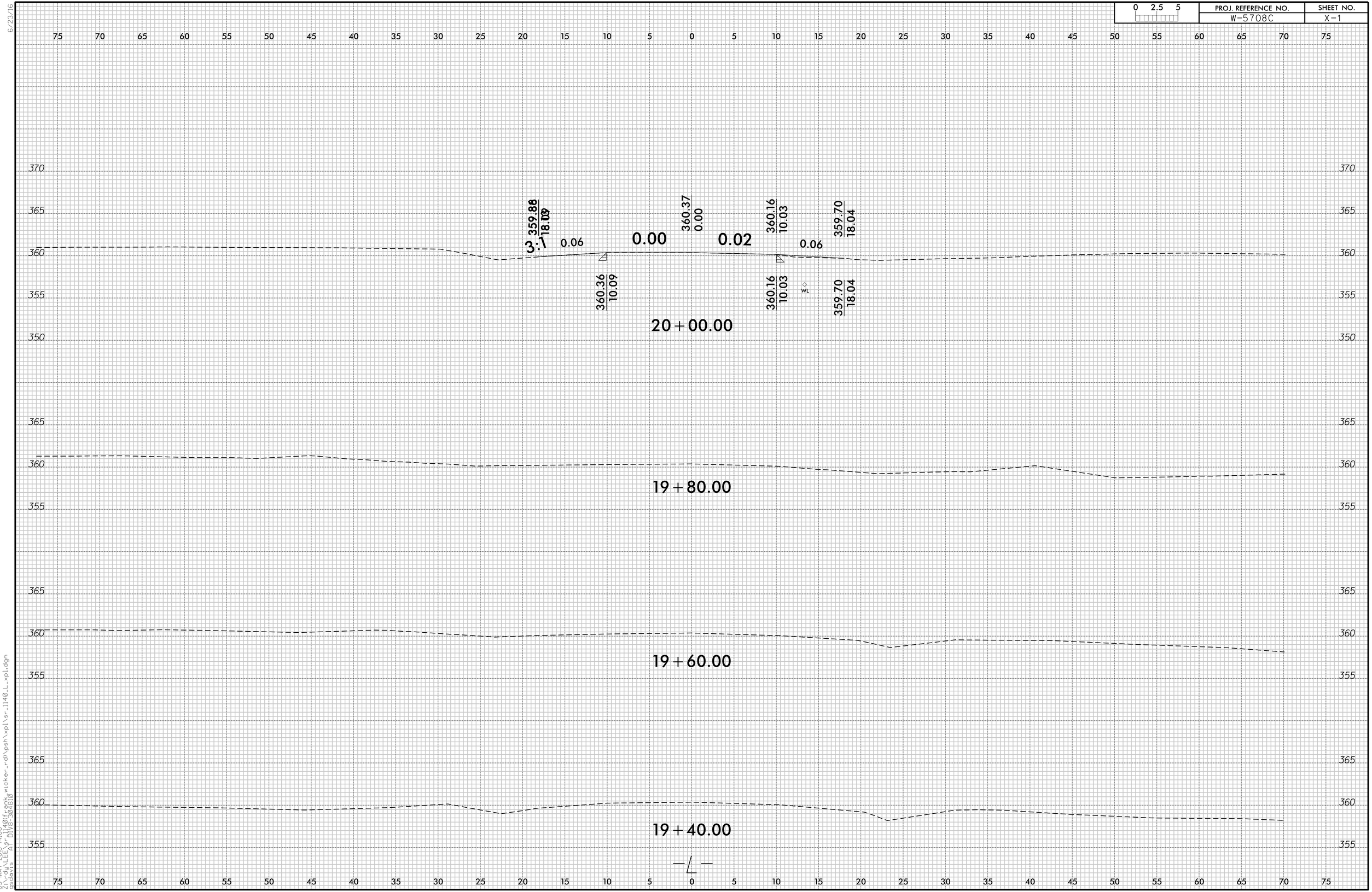
Station -L-	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station -L-	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
20+20.00	0	0	30+20.00	4	98
20+40.00	1	4	30+40.00	6	89
20+60.00	3	7	30+60.00	8	77
20+80.00	5	8	30+80.00	11	66
21+00.00	10	8	31+00.00	15	60
21+20.00	15	7	31+20.00	21	57
21+40.00	20	7	31+40.00	27	55
21+55.02	17	5	31+60.00	30	56
21+60.00	6	2	31+70.74	16	29
21+80.00	24	7	31+80.00	15	24
22+00.00	27	9	32+00.00	33	46
22+20.00	31	10	32+20.00	37	39
22+40.00	32	11	32+40.00	41	33
22+57.03	27	11	32+60.00	45	27
22+60.00	5	2	32+72.75	30	15
22+80.00	32	14	32+80.00	17	8
23+00.00	32	15	33+00.00	43	19
23+08.03	13	6	33+20.00	36	17
23+20.00	21	10	33+40.00	29	20
23+40.00	43	18	33+60.00	21	30
23+60.00	55	19	33+74.75	10	33
23+80.00	64	19	33+80.00	3	14
24+00.00	66	19	34+00.00	10	62
24+20.00	67	21	34+20.00	9	68
24+40.00	72	26	34+40.00	8	53
24+60.00	80	30	34+60.00	16	30
24+80.00	84	35	34+80.00	19	22
25+00.00	85	39	35+00.00	12	21
25+20.00	78	42	35+20.00	10	15
25+40.00	66	45	35+40.00	11	11
25+60.00	56	48	35+60.00	13	11
25+80.00	46	54	35+80.00	13	11
26+00.00	37	66	36+00.00	6	6
26+20.00	24	68	36+20.00	1	2
26+40.00	16	69	36+40.00	1	2
26+60.00	16	81	36+58.90	1	2
26+80.00	16	90	36+60.00	0	0
27+00.00	15	106	36+80.00	1	2
27+20.00	12	127	36+92.91	1	1
27+40.00	9	143	37+00.00	1	1
27+60.00	9	150	37+09.90	1	1
27+80.00	7	159	37+20.00	1	1
28+00.00	4	170	37+40.00	1	2
28+20.00	4	177	37+60.00	1	1
28+40.00	4	180	37+80.00	1	1
28+60.00	3	175			
28+80.00	4	163			
29+00.00	5	144			
29+20.00	6	126			
29+40.00	5	127			
29+60.00	4	128			
29+80.00	4	113			
30+00.00	4	104			

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

NOTE:

Shoulder Material included in Embankment quantities listed

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-1



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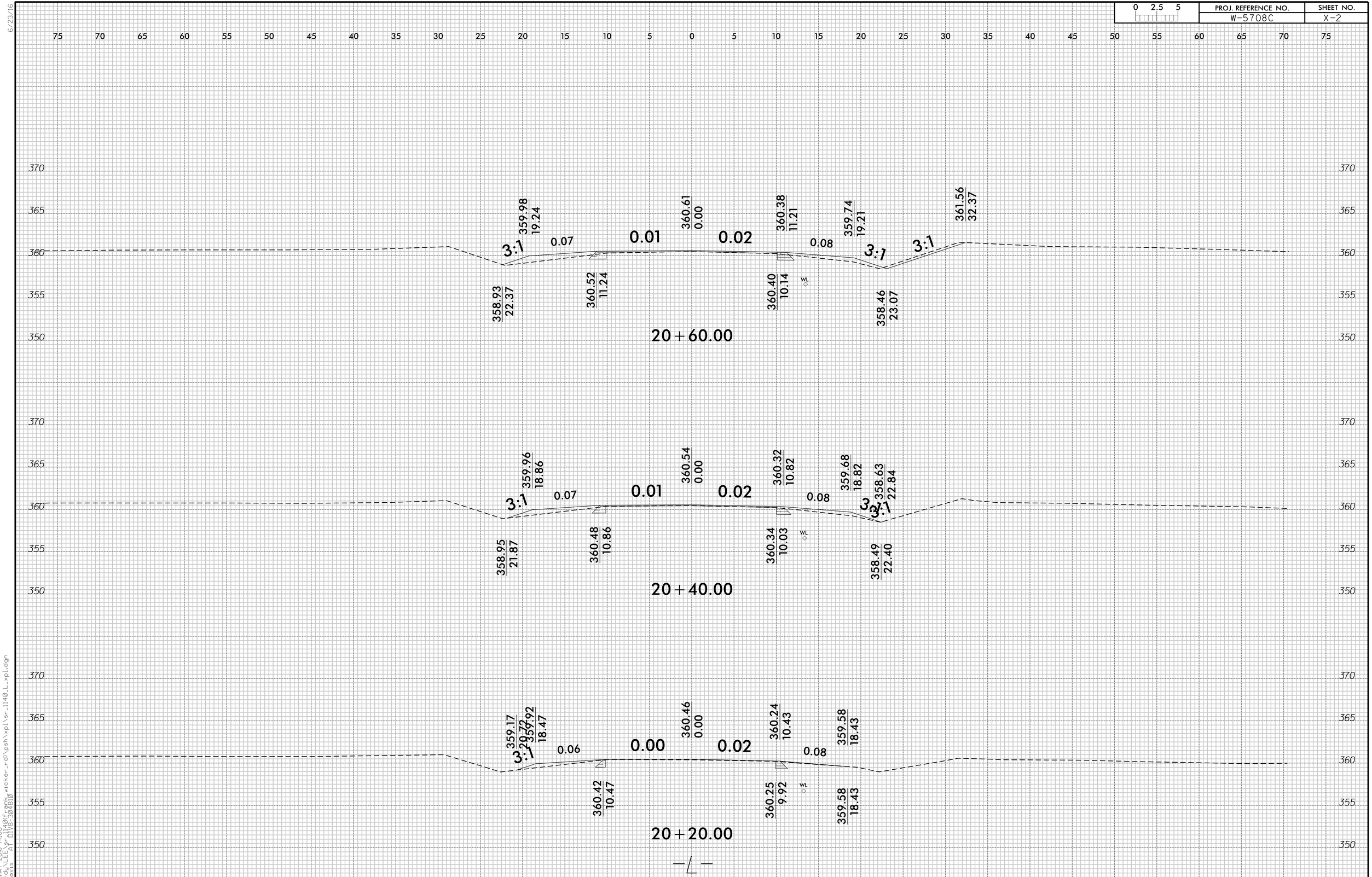

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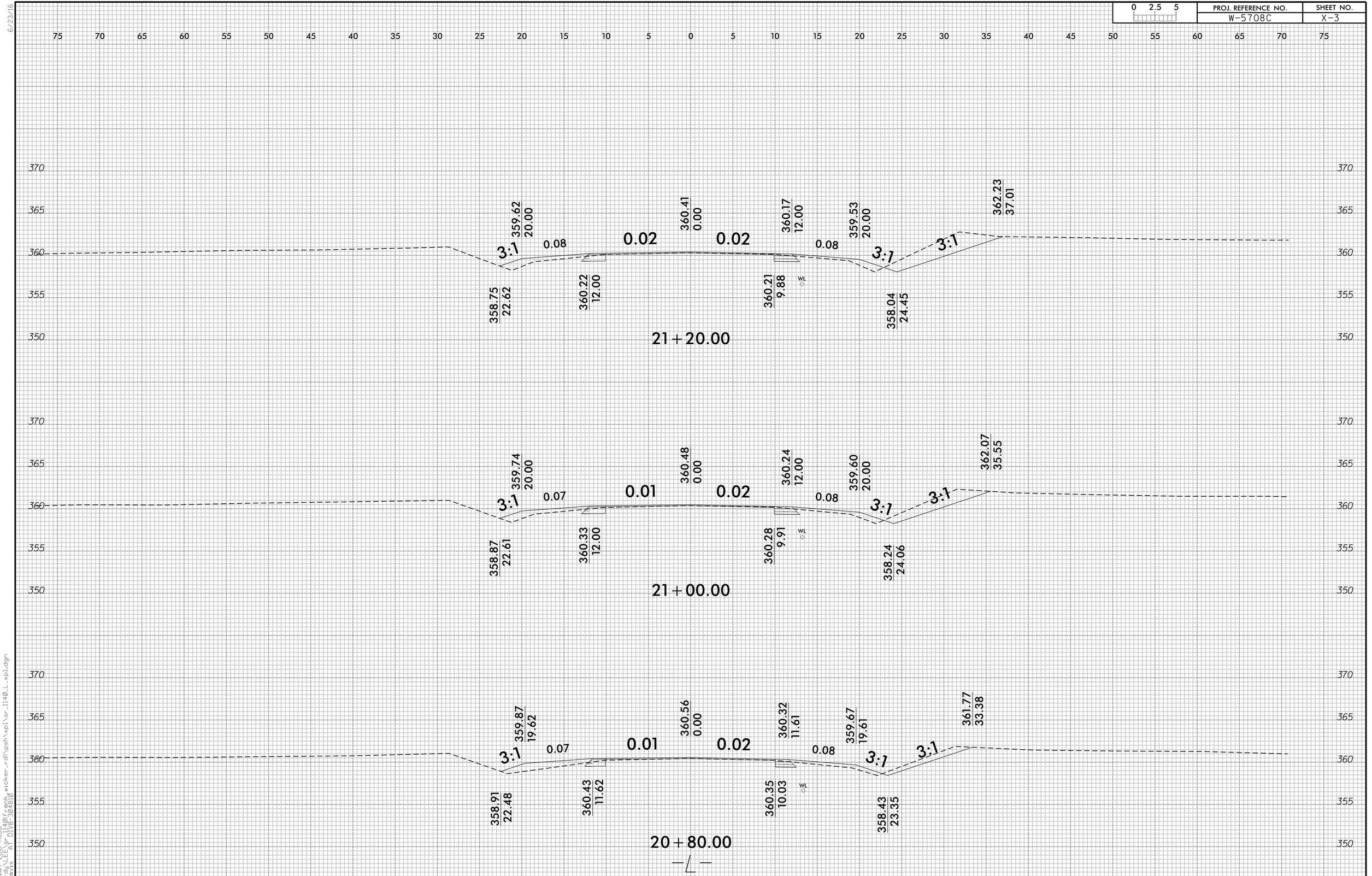

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
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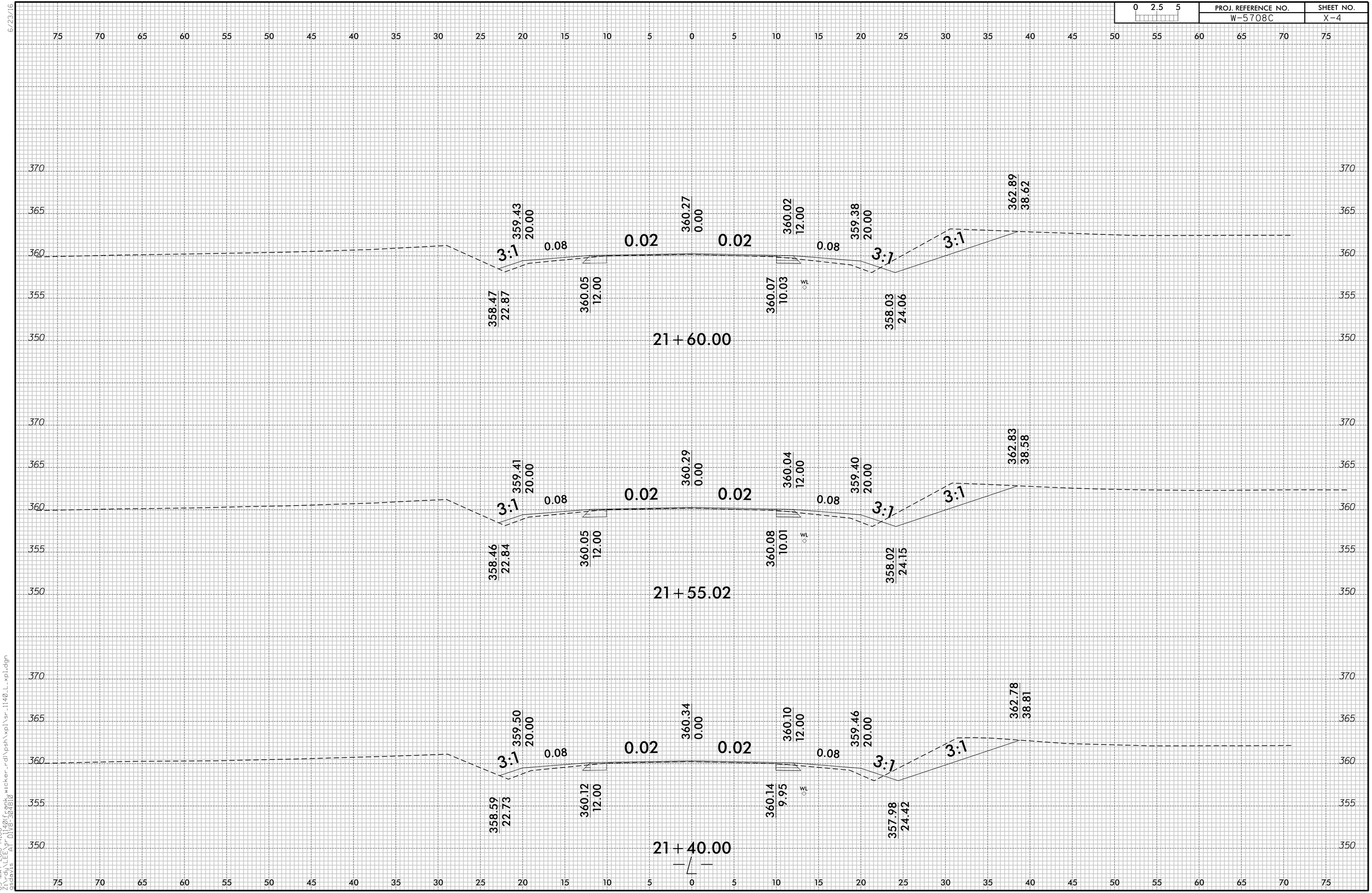

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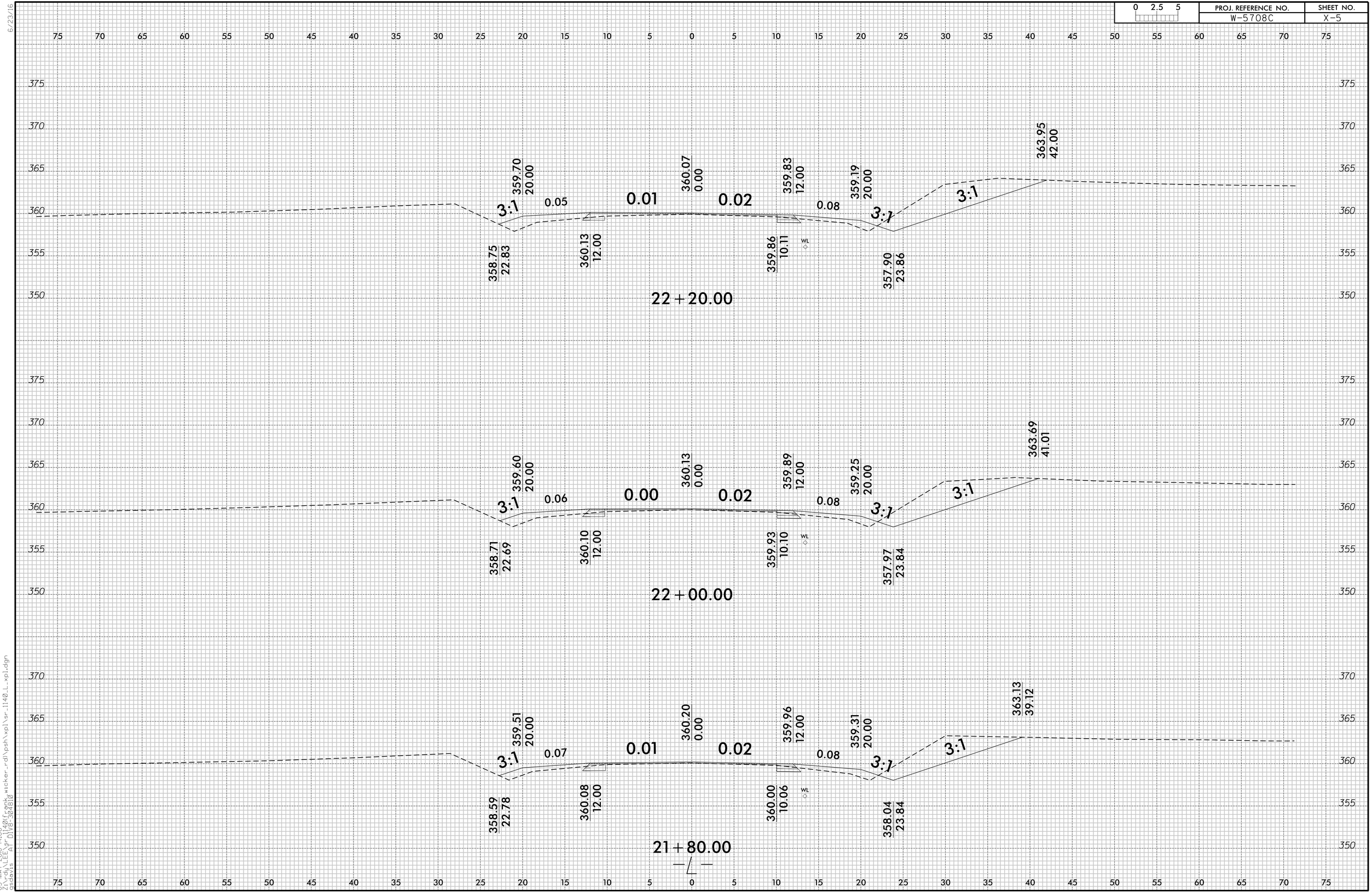
AT DIV8-304810
asdavis

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-5



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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-6

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

375 370 365 360 355 350

359.87 / 20.00 — 3:1 — 0.04 — 0.02 — 359.95 / 0.00 — 0.02 — 359.71 / 12.00 — 0.08 — 359.07 / 20.00 — 3:1 — 364.01 / 42.70

358.77 / 23.31 — 360.19 / 12.00 — 359.75 / 10.15 WL — 357.76 / 23.94

22+57.03

359.79 / 20.00 — 3:1 — 0.05 — 0.01 — 360.01 / 0.00 — 0.02 — 359.77 / 12.00 — 0.08 — 359.13 / 20.00 — 3:1 — 363.89 / 42.10

358.76 / 23.10 — 360.17 / 12.00 — 359.80 / 10.12 WL — 357.83 / 23.90

22+40.00

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

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-7

6/23/16

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

375
370
365
360
355
350

358.82
23.49

360.23
12.00

359.58
10.23
WL

357.68
23.64

359.98
20.00

359.88
0.00

359.53
12.09

358.90
20.00

364.11
42.92

3:1 0.03 0.03 0.03 0.08 3:1 3:1

22+80.00

358.78
23.34

360.20
12.00

359.73
10.16
WL

357.75
23.90

359.89
20.00

359.94
0.00

359.69
12.00

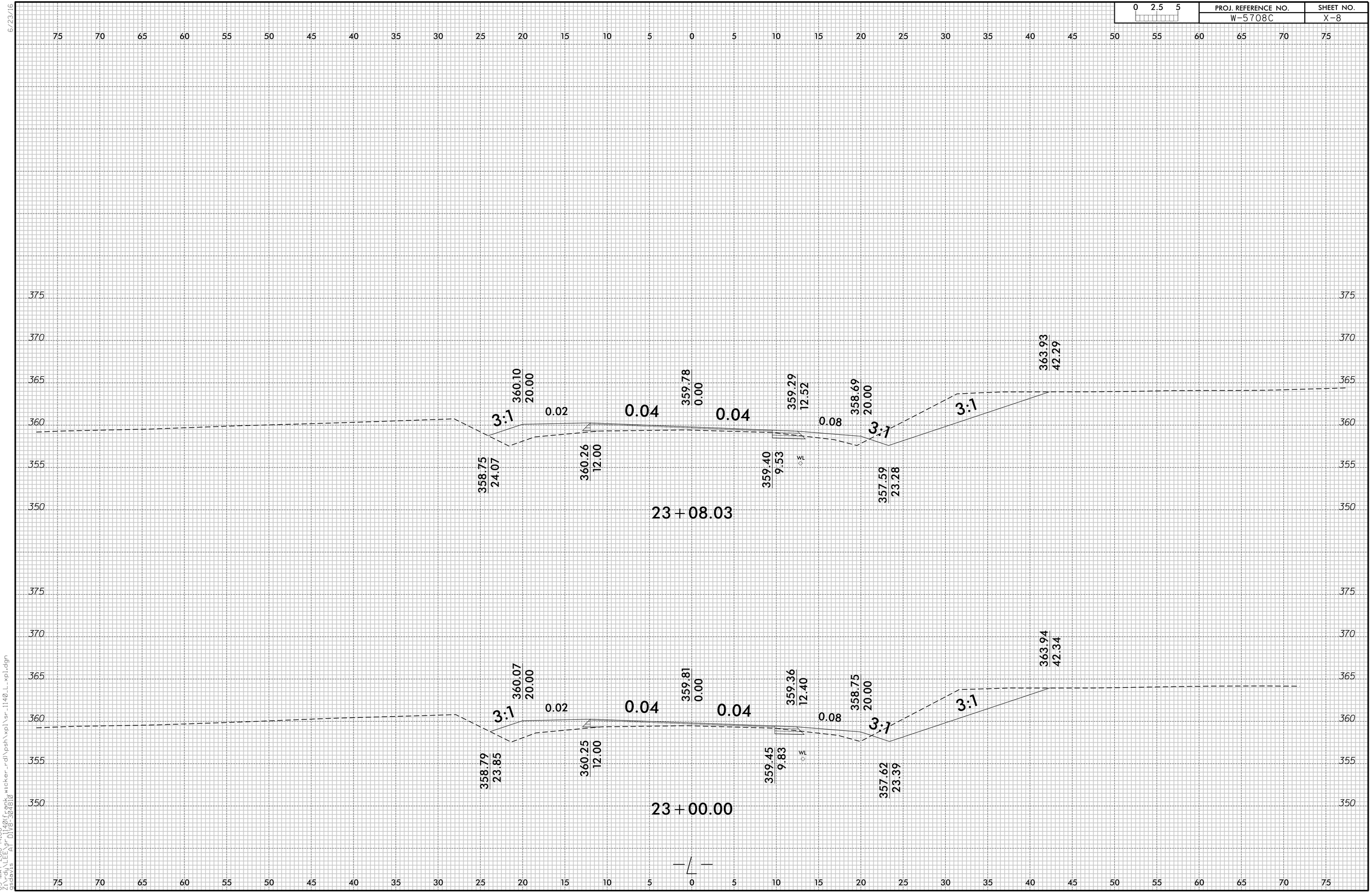
359.05
20.00

364.01
42.70

3:1 0.04 0.02 0.02 0.08 3:1 3:1

22+60.00

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-8



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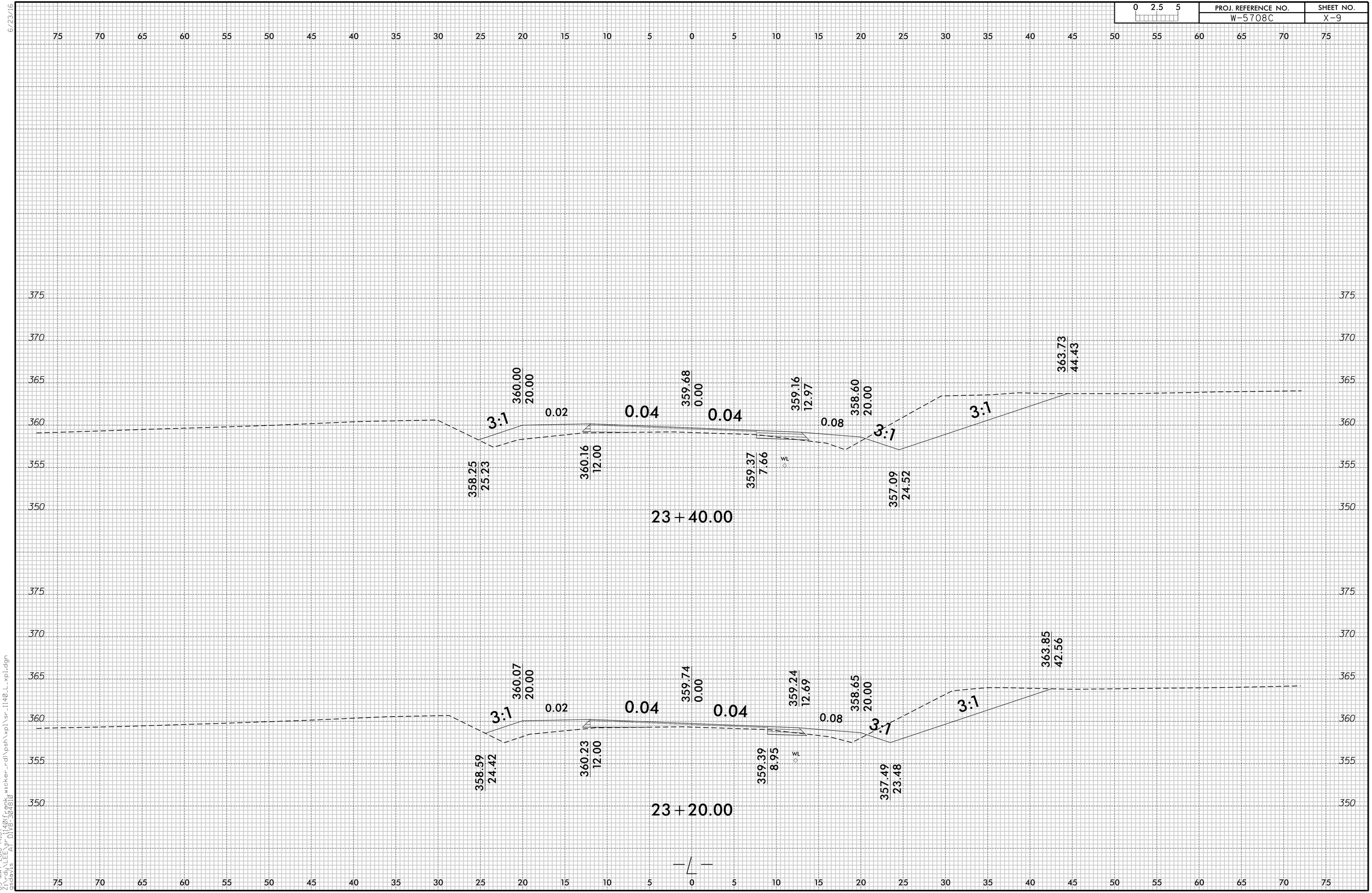
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-9



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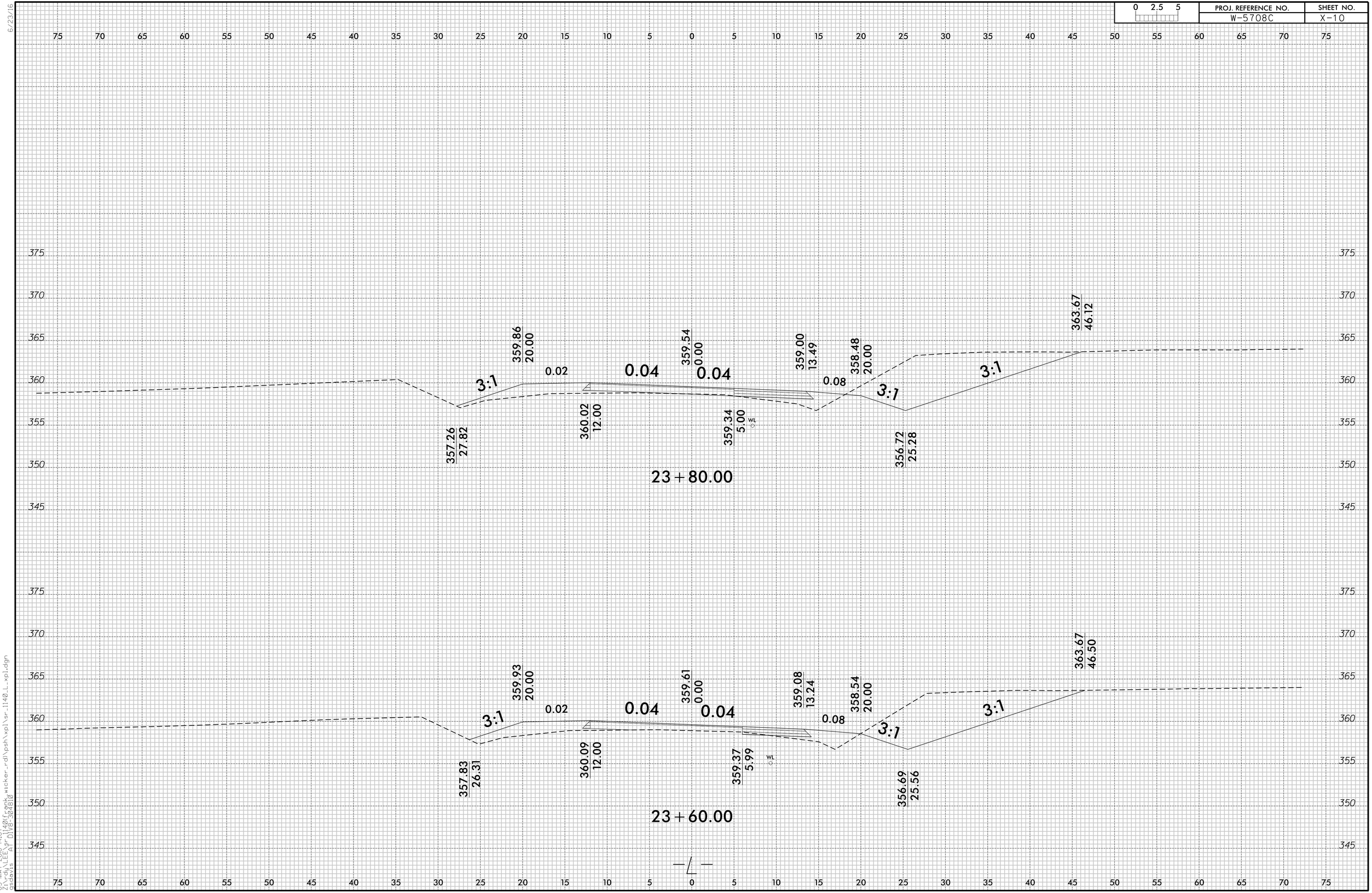
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-10



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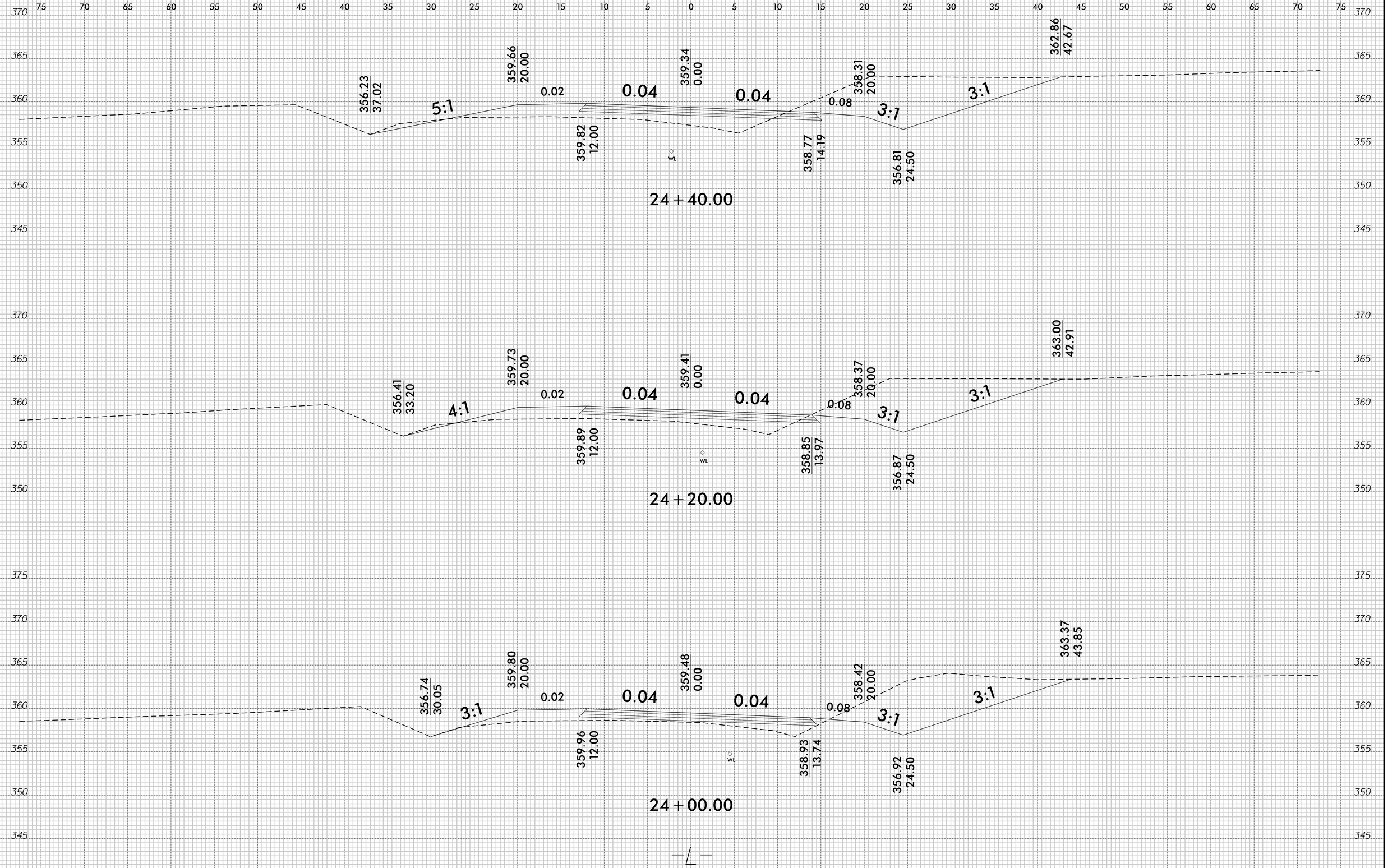
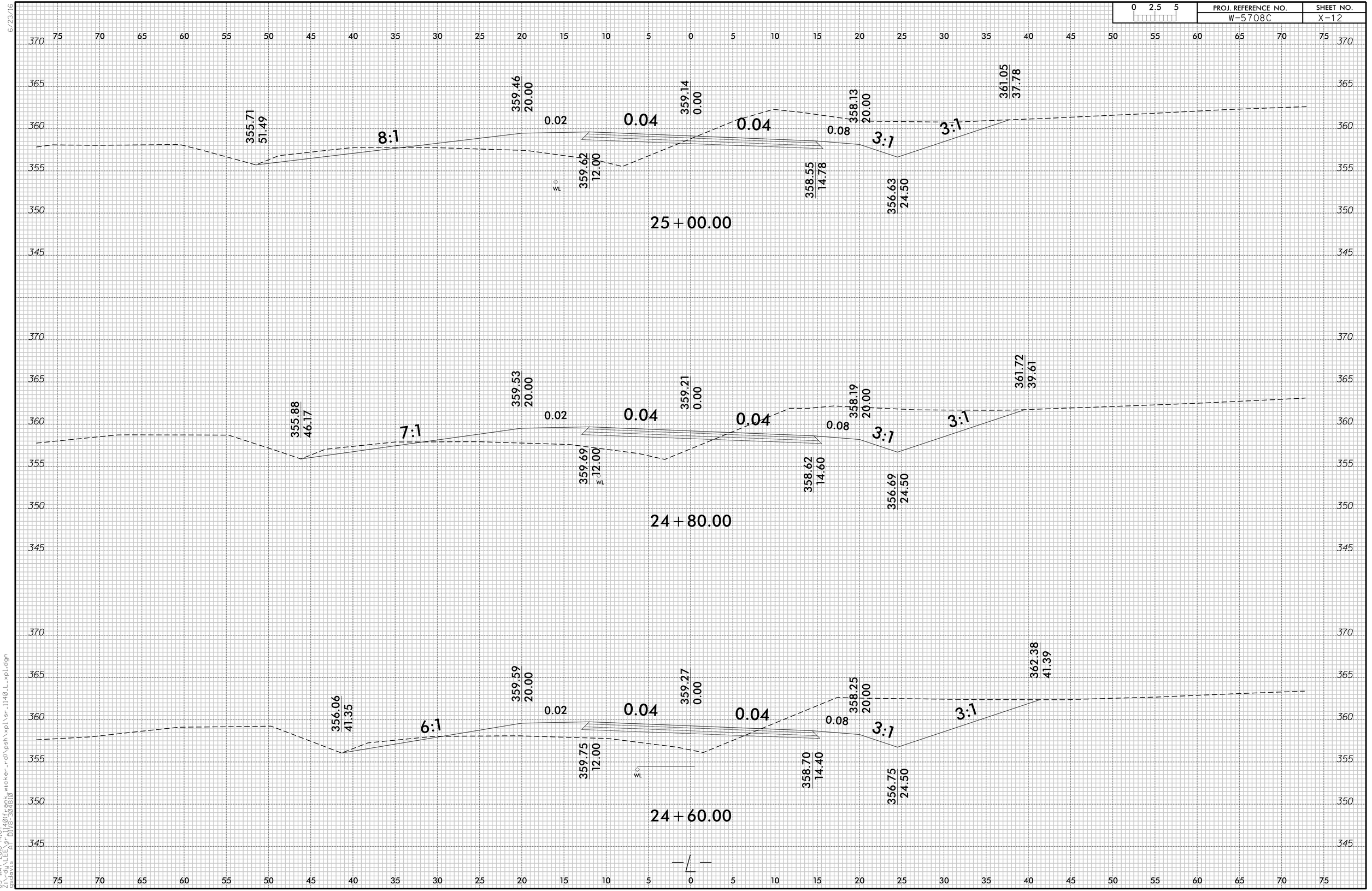
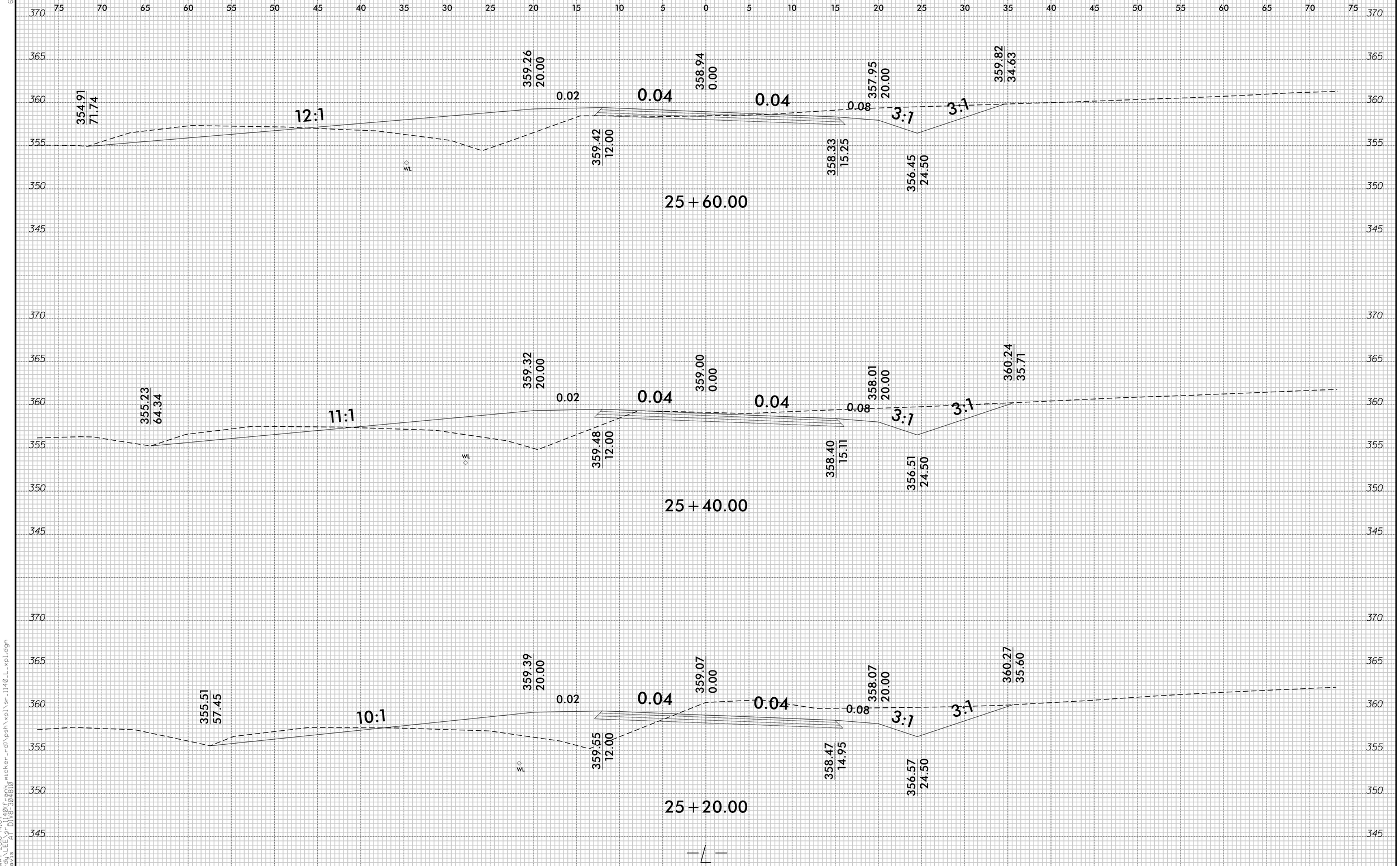
	W-5708C	X-11



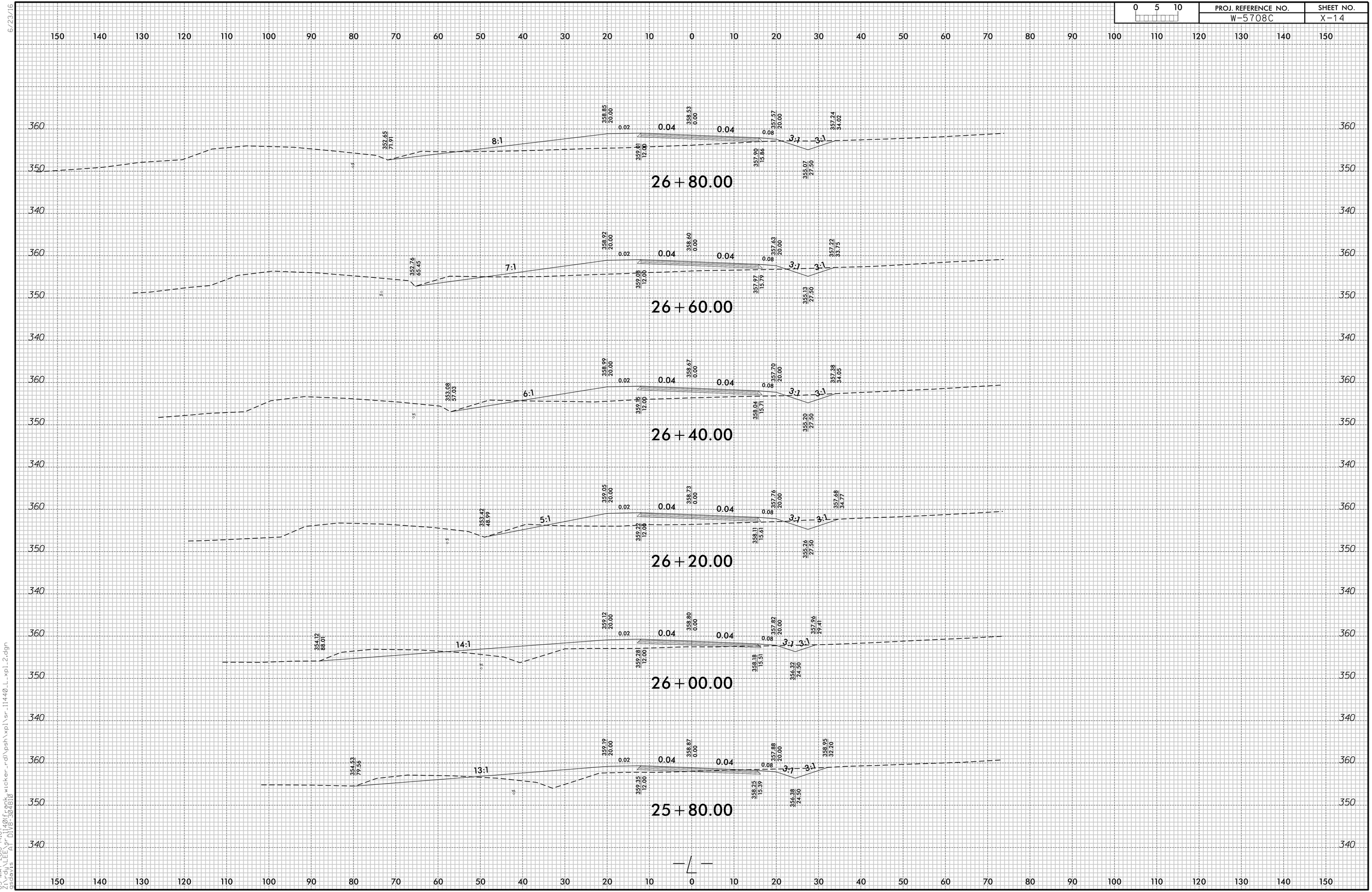
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-12

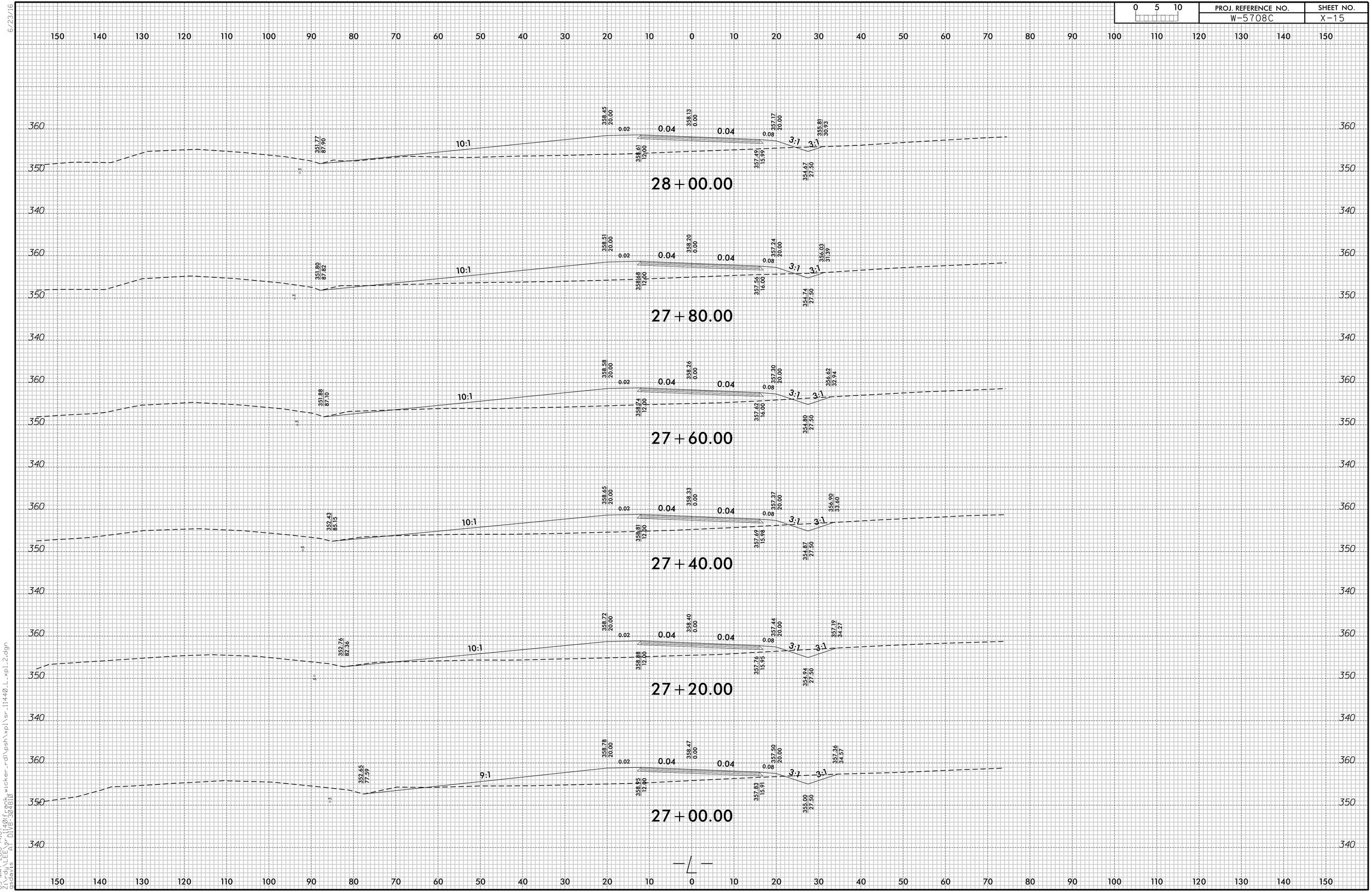


0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-13

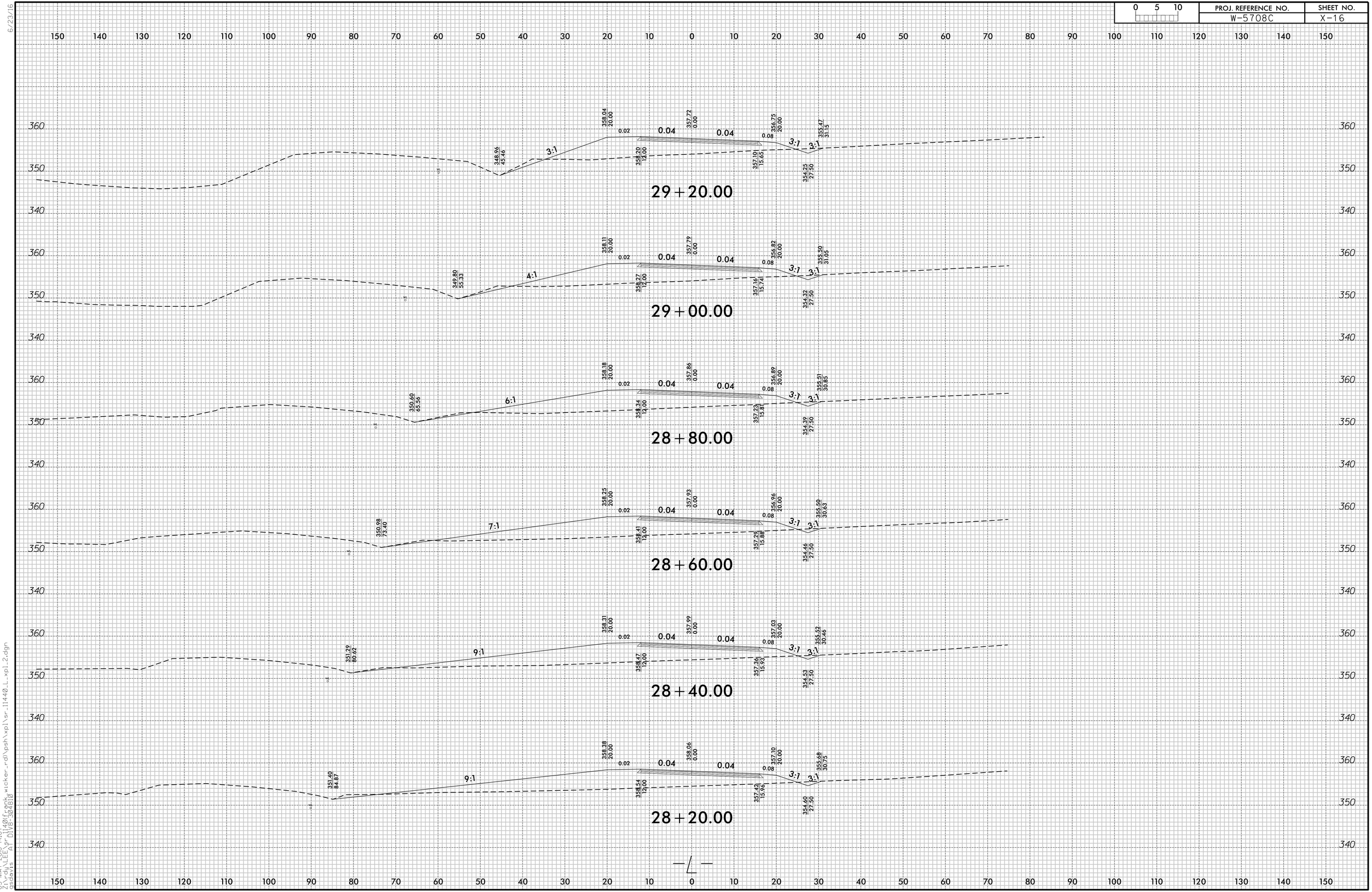


0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-14





0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-16



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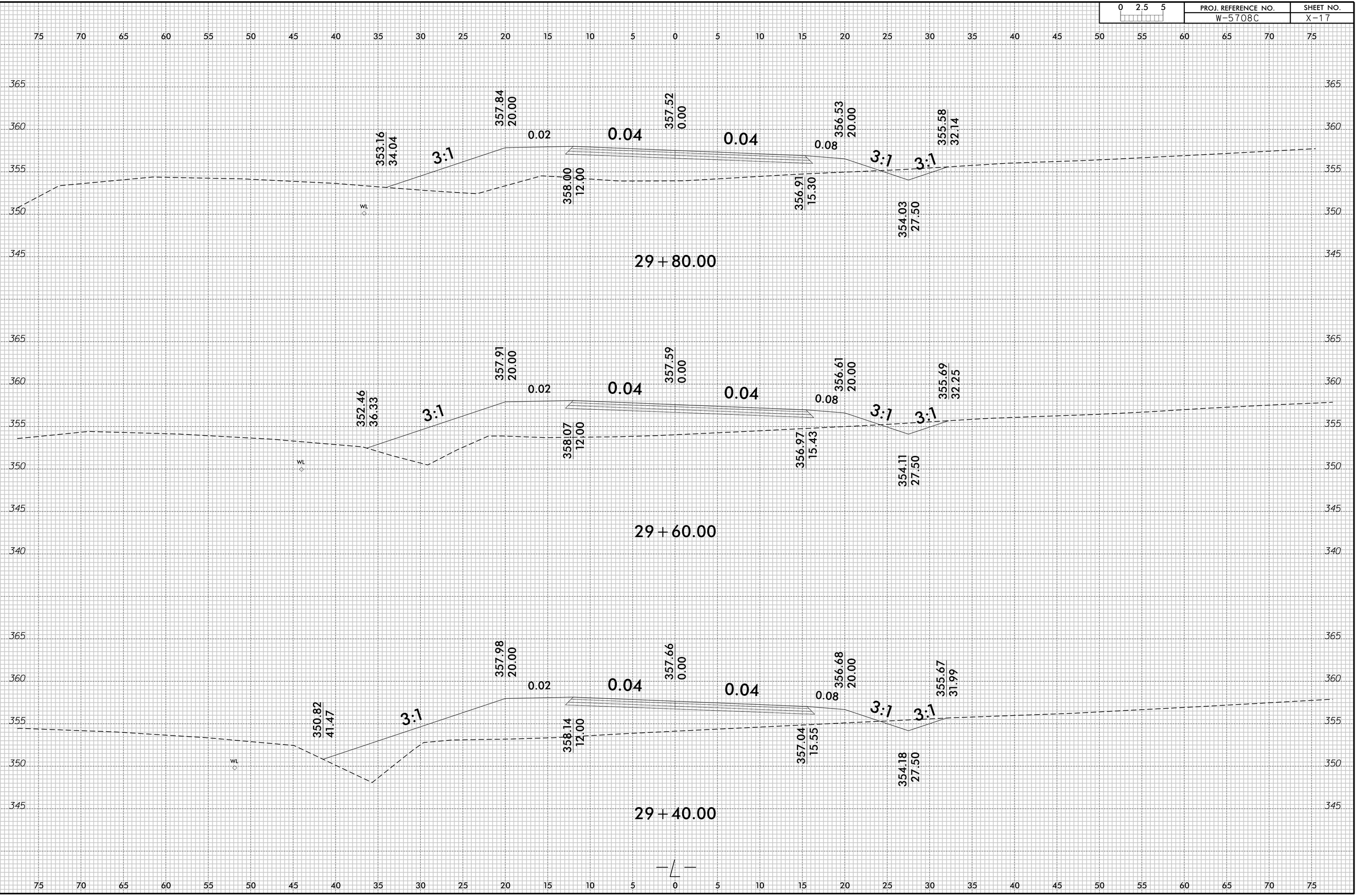
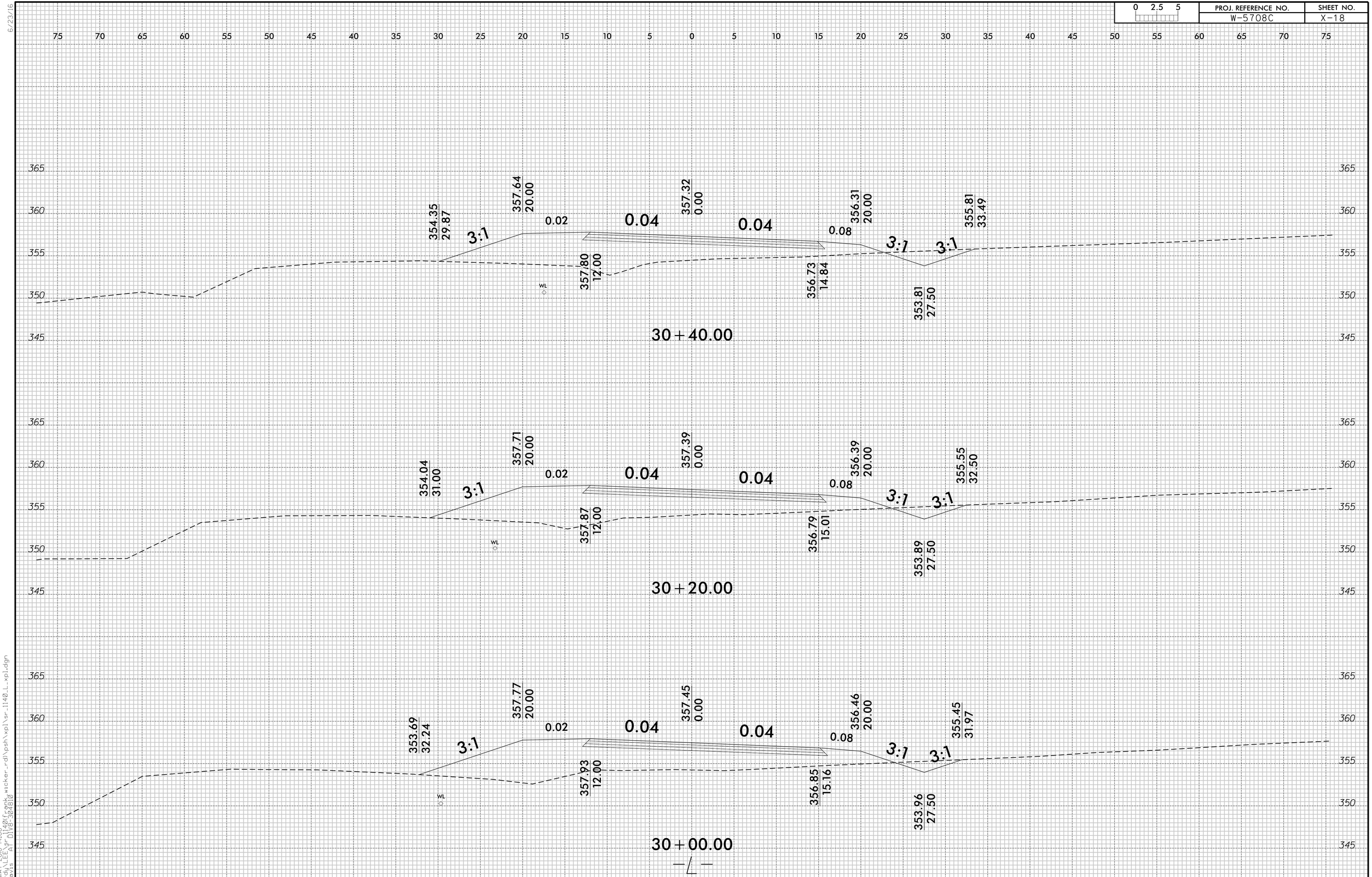
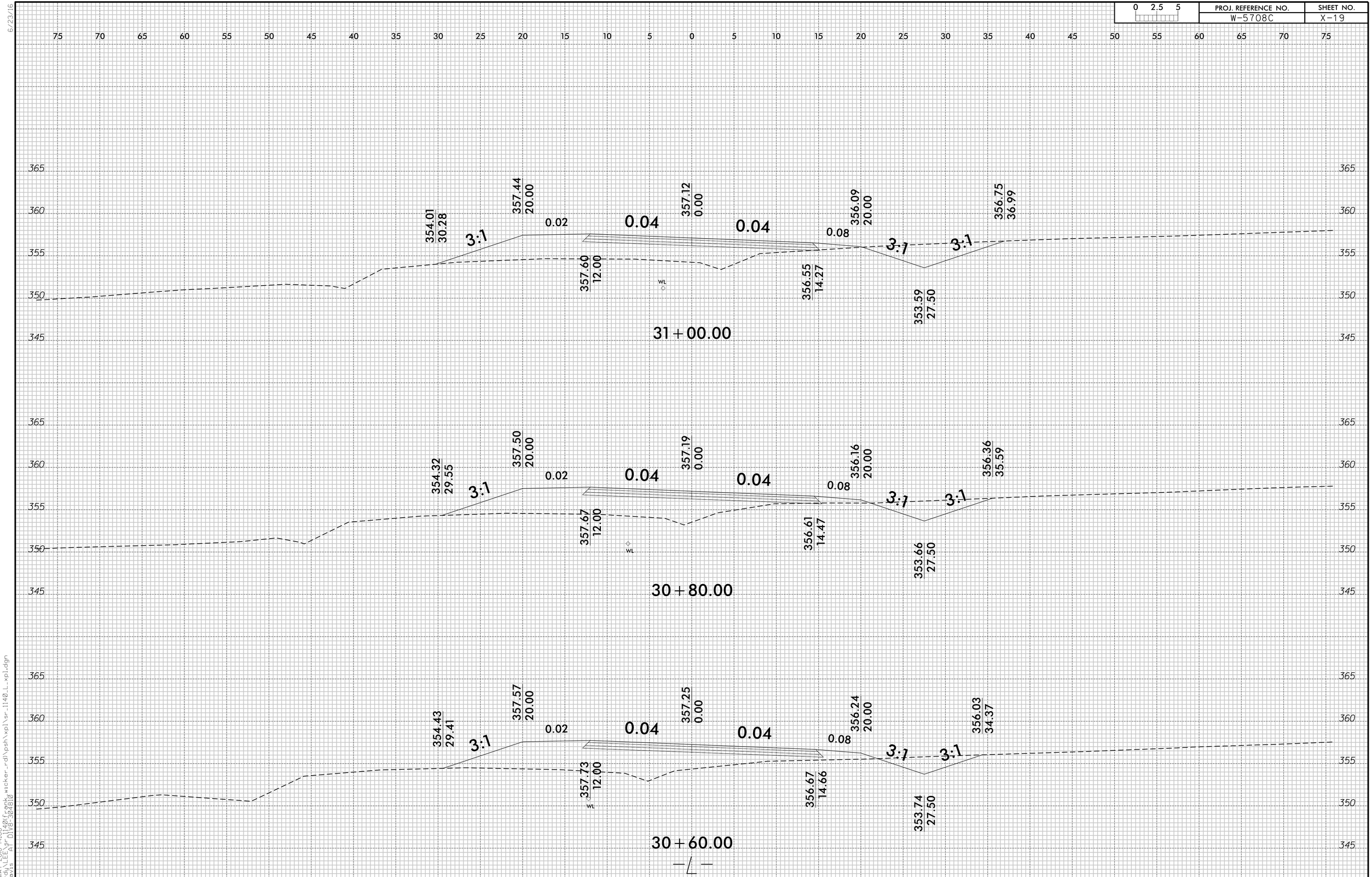
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-17



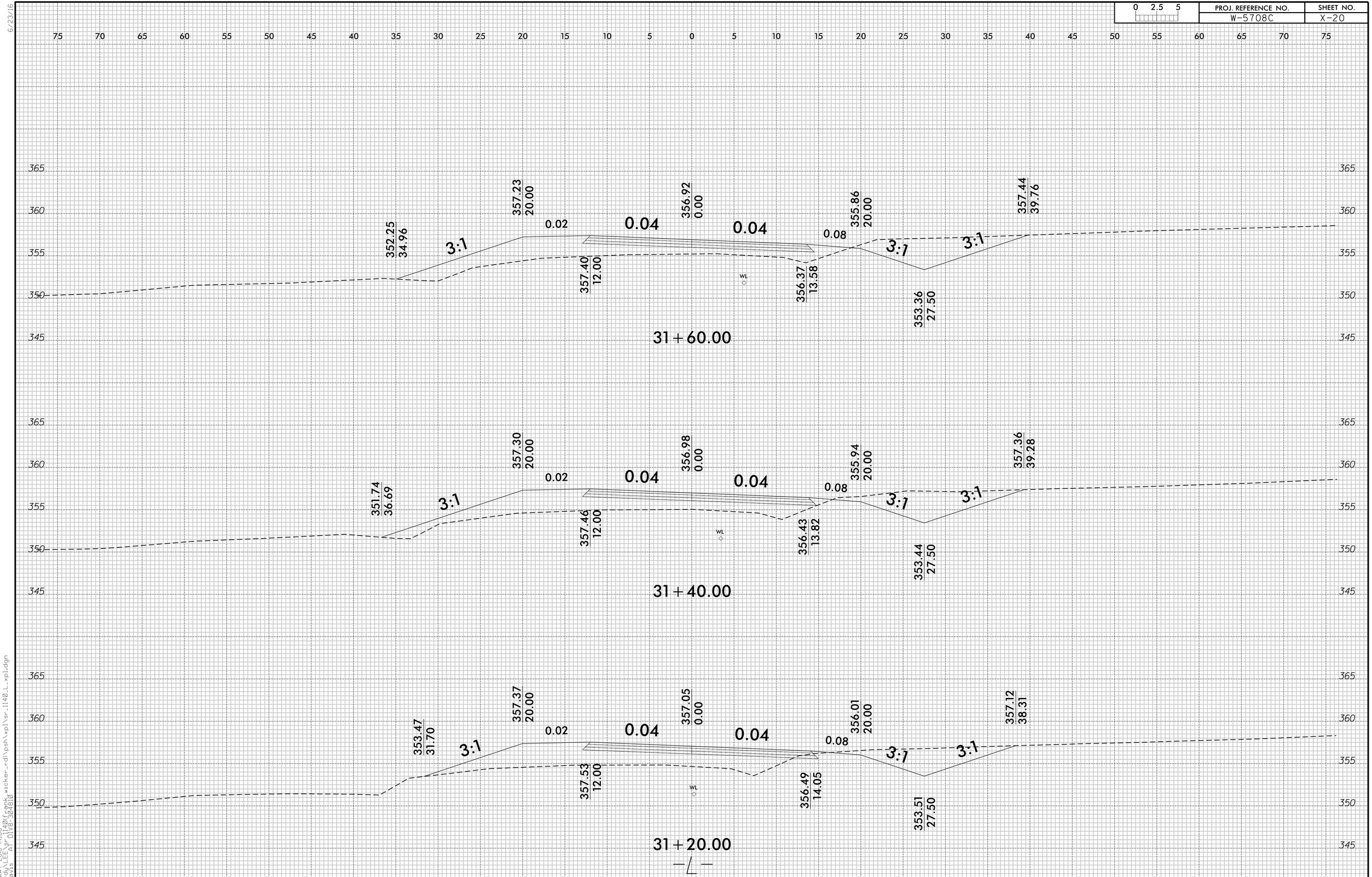
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-18



0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-19



0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-20



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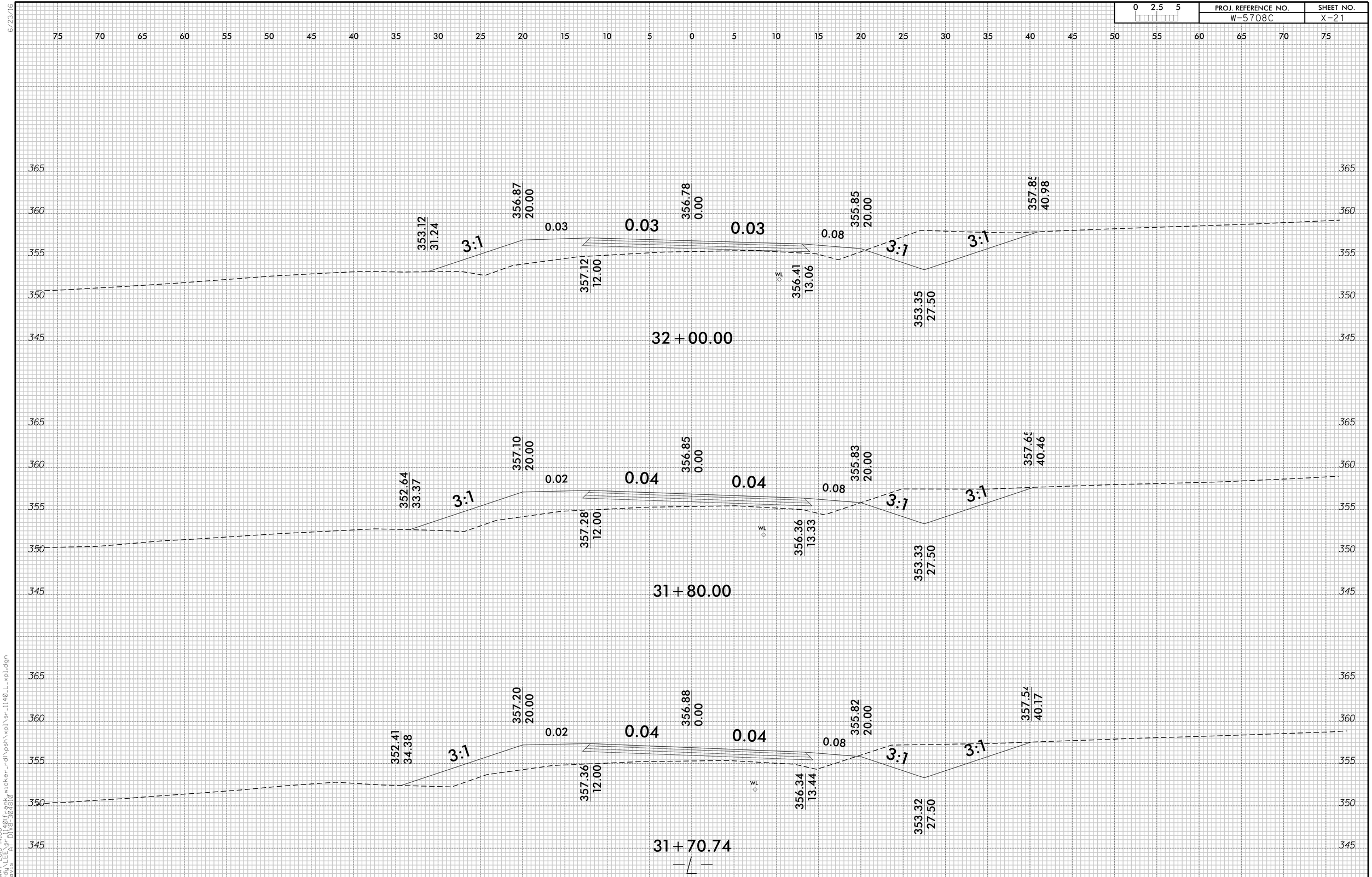
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-21



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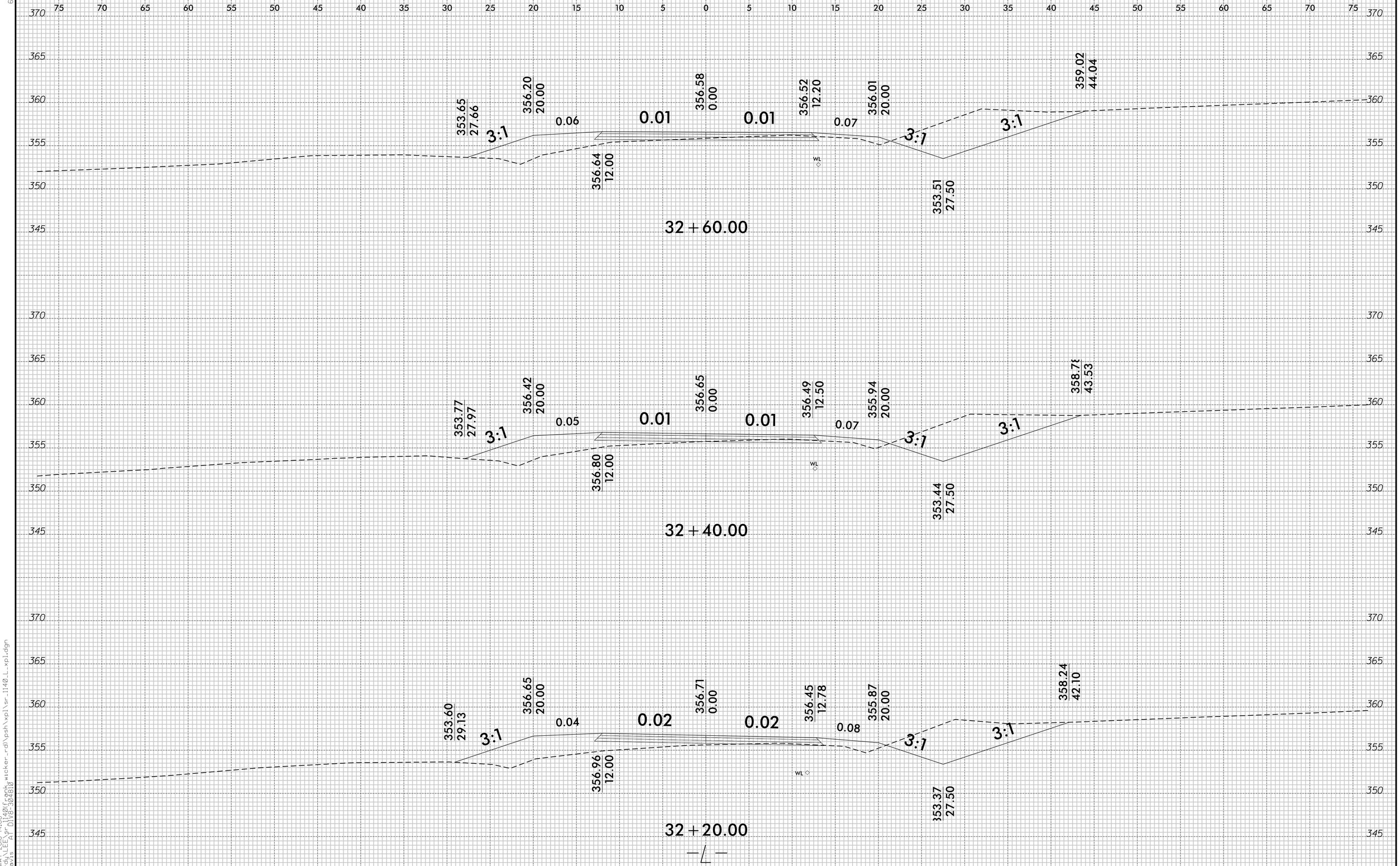
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-22



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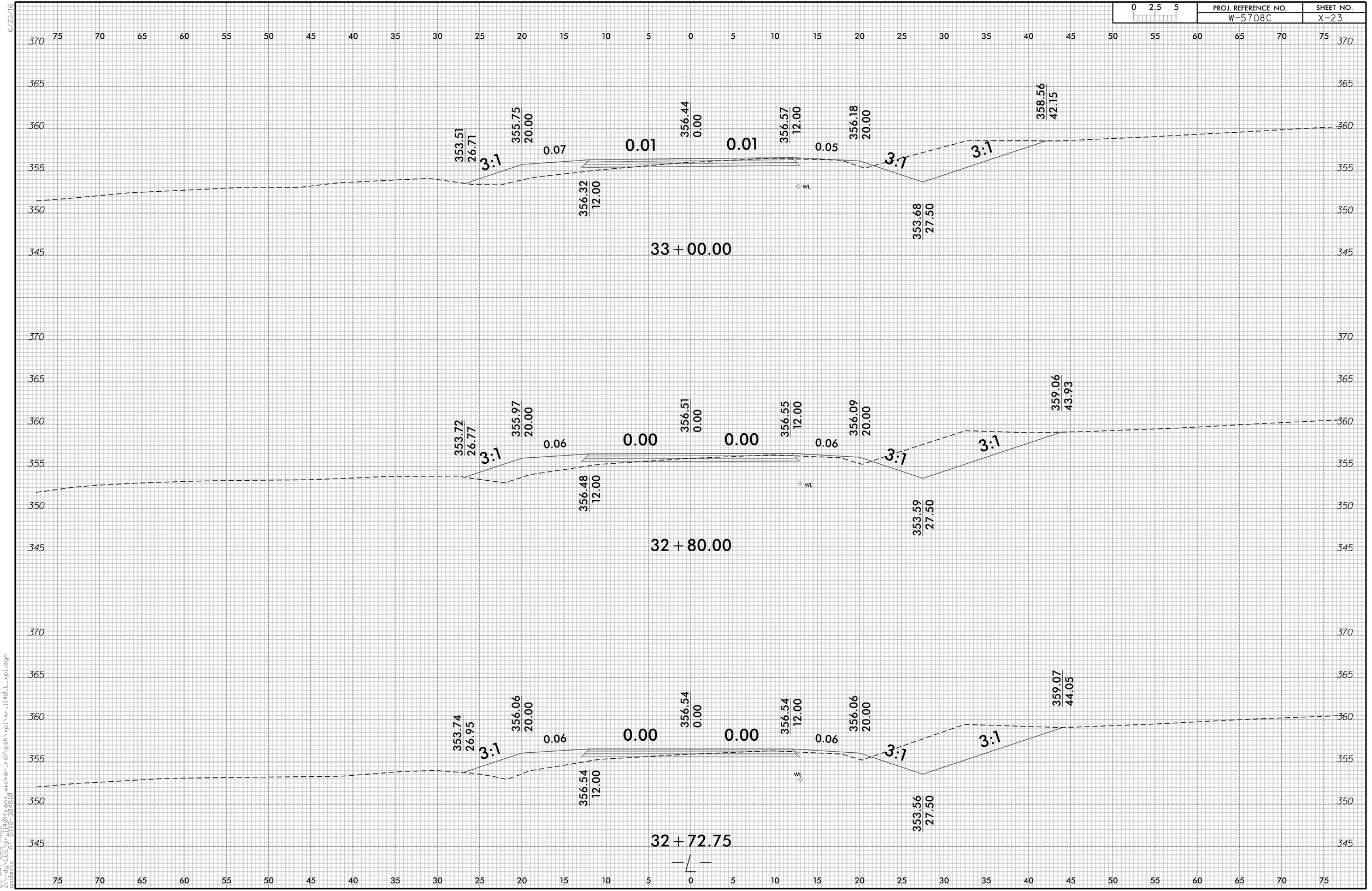
DW: 304810

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-23



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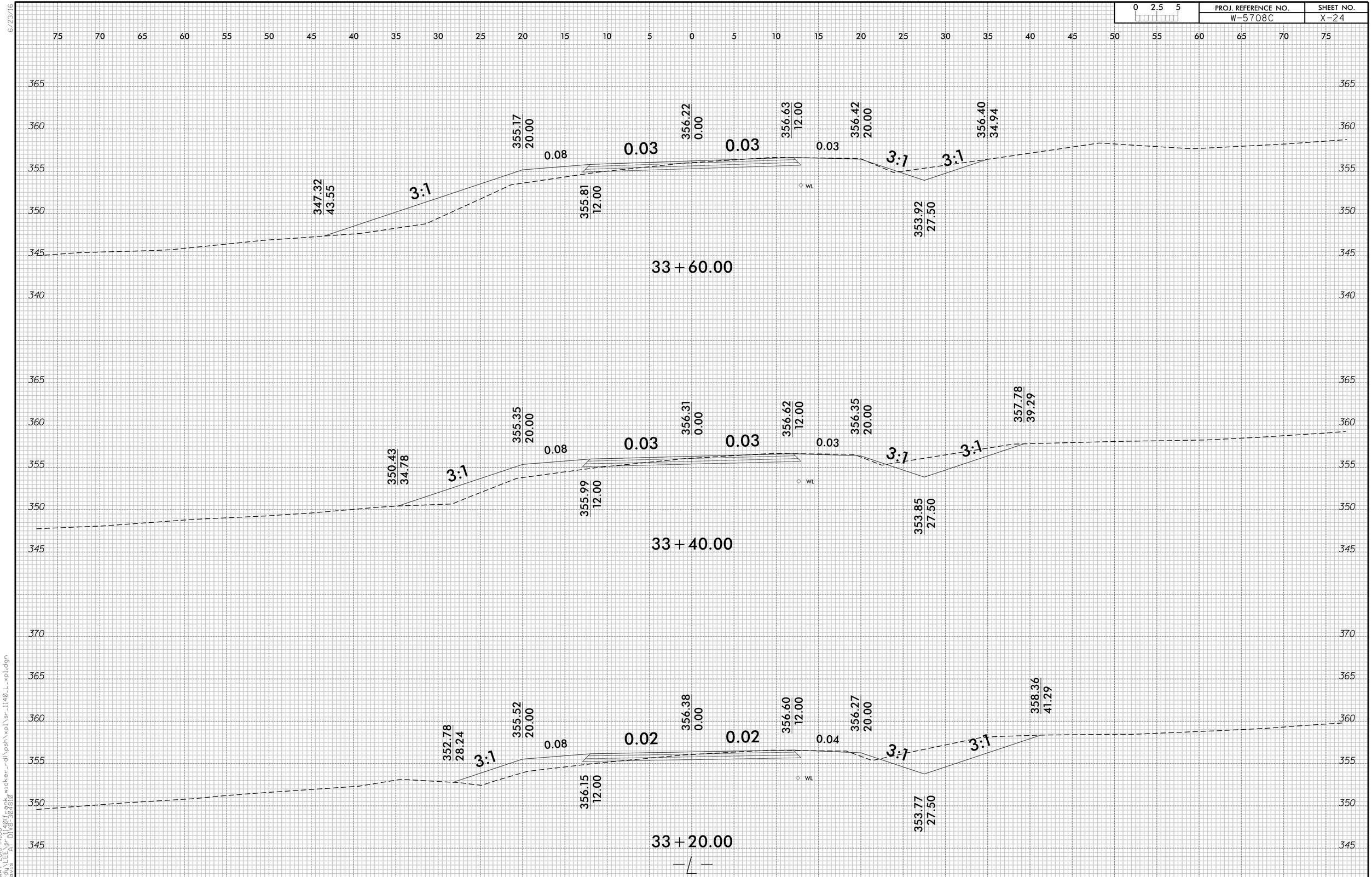
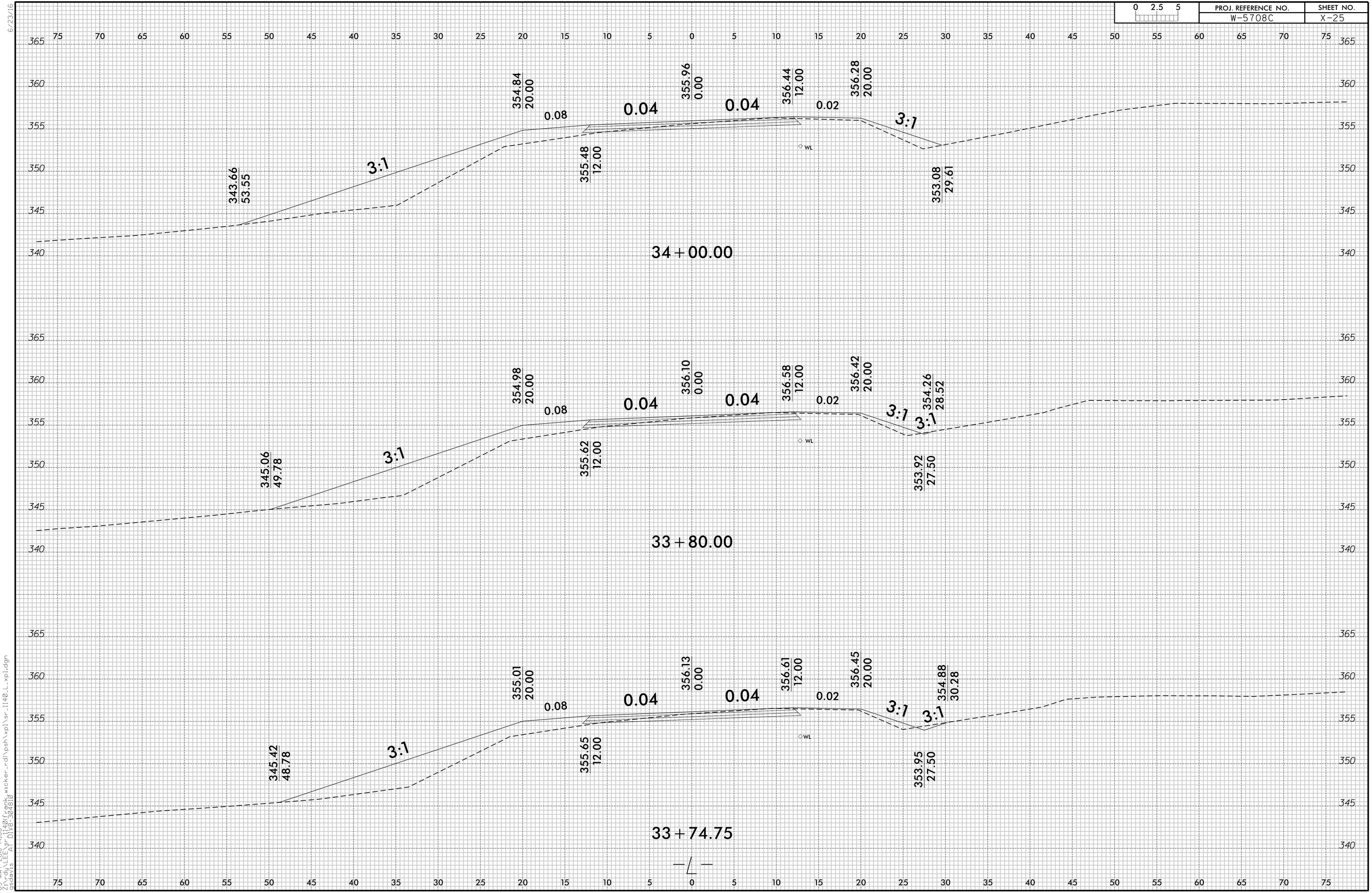
	W-5708C	X-24





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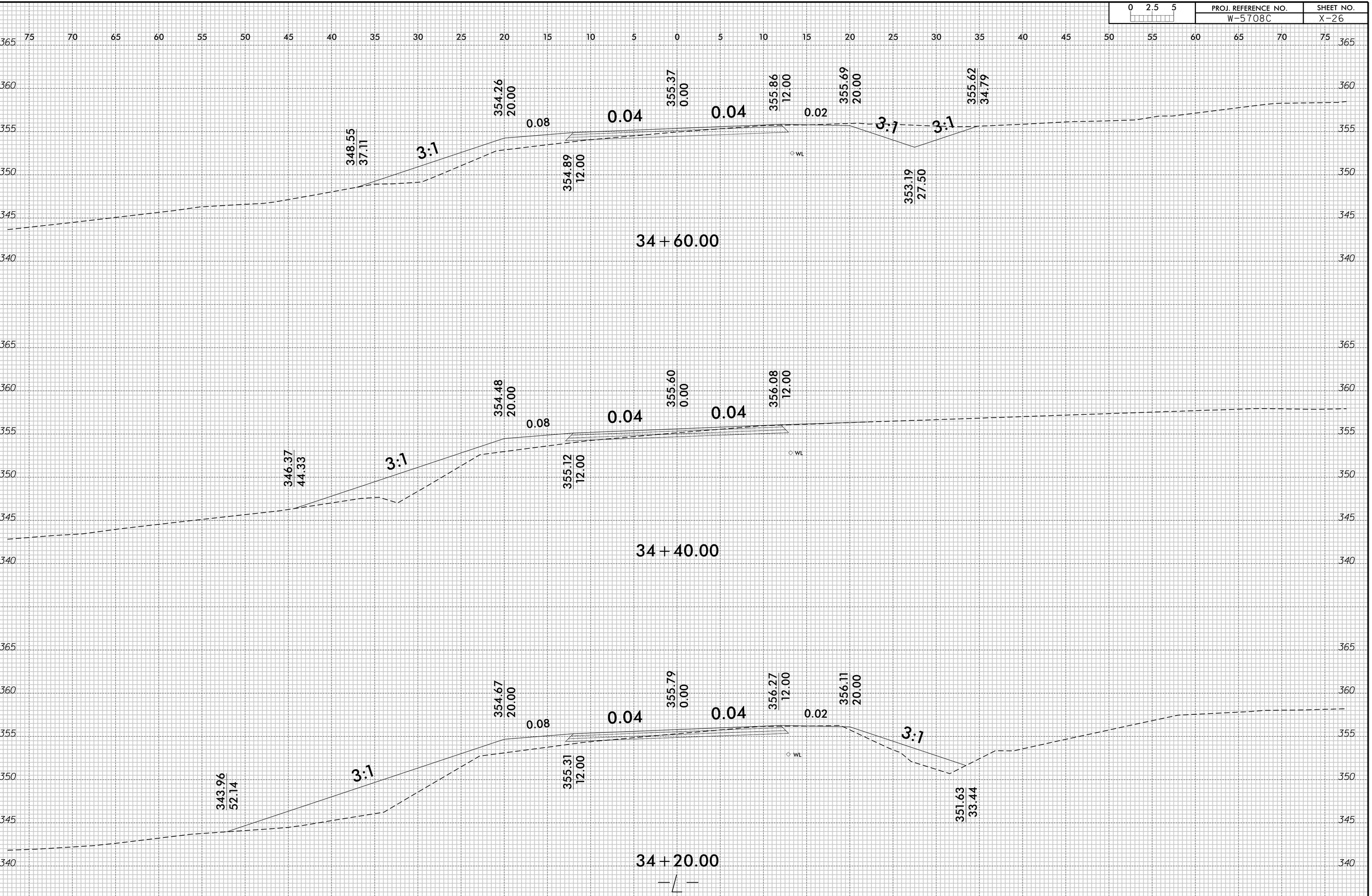
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-26



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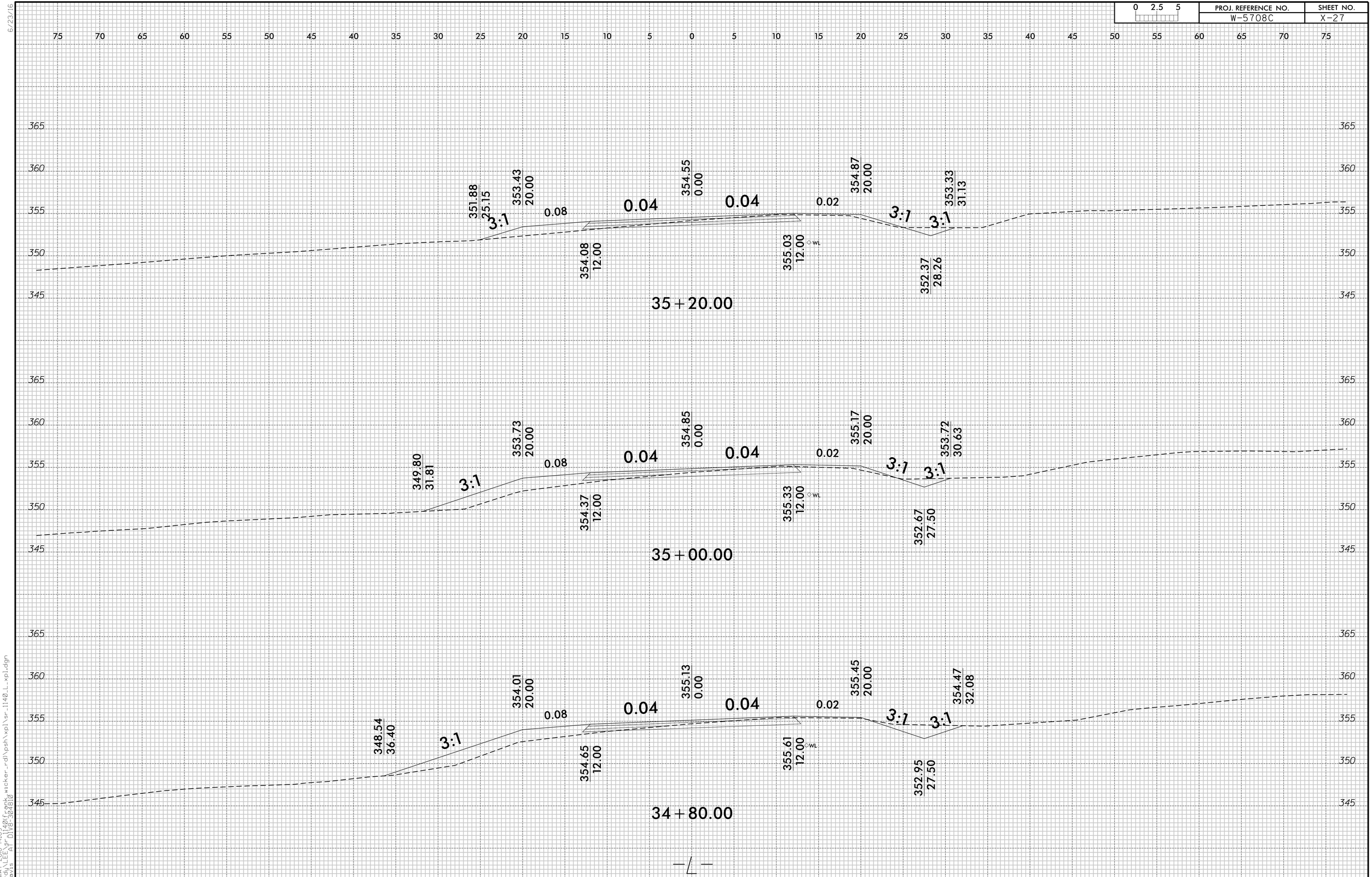
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-27



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	W-5708C	X-28

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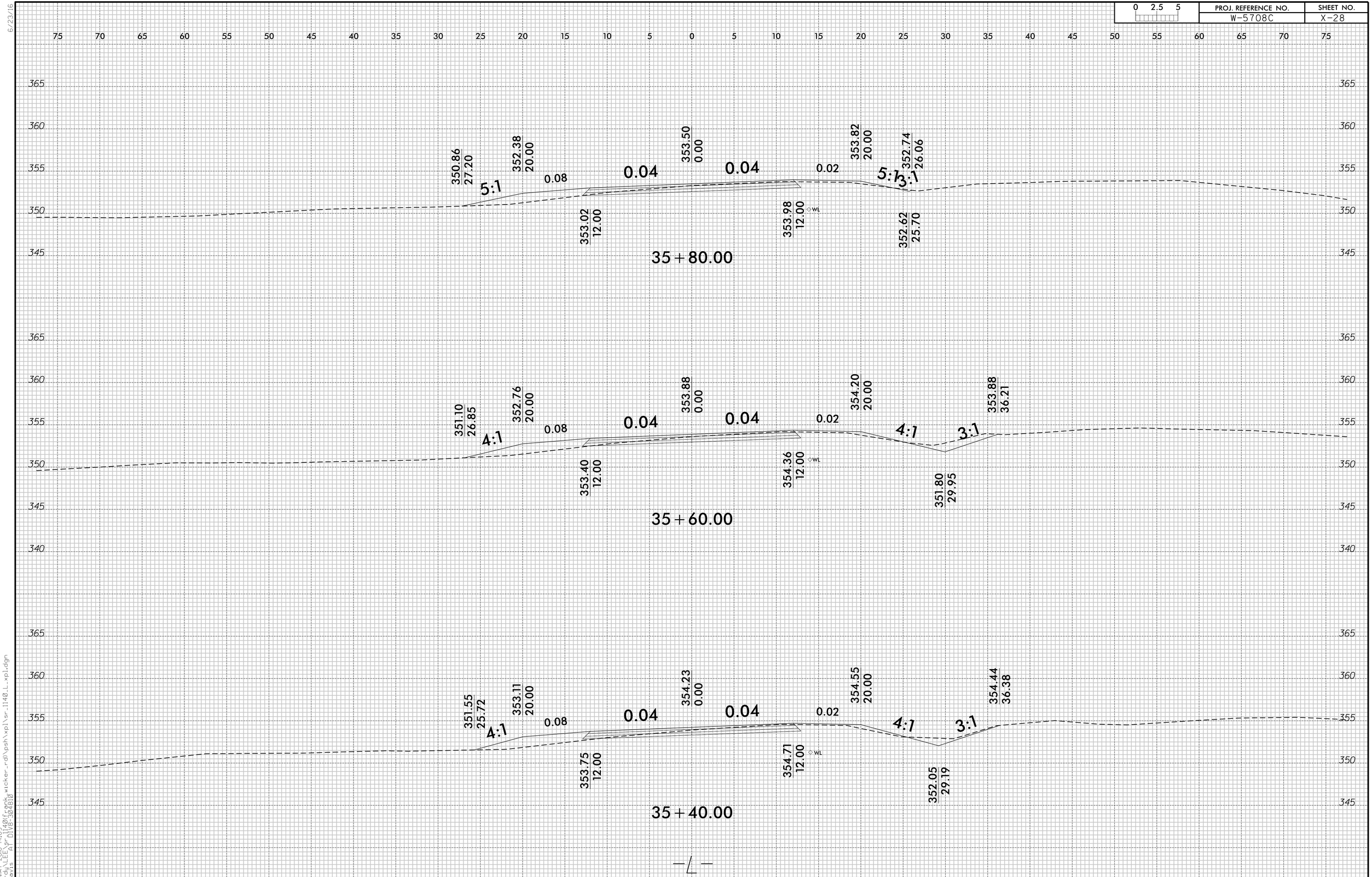

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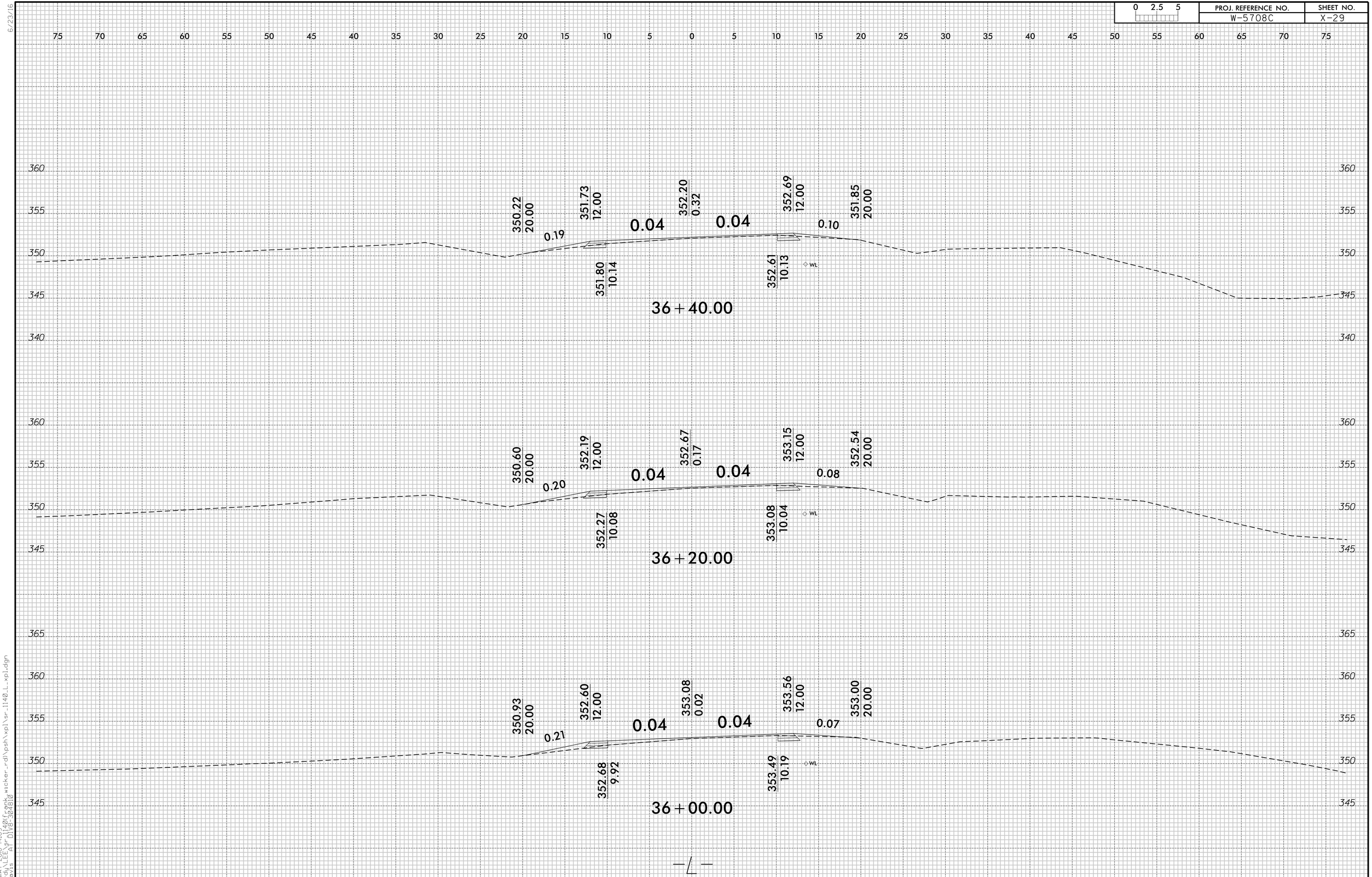
	W-5708C	X-29



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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-30

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

360 355 350 345 340

349.29 / 20.00 — 0.19 — 350.84 / 12.00 — 0.03 — 351.21 / 0.36 — 0.04 — 351.68 / 12.00 — 0.13 — 350.67 / 20.00

350.89 / 10.44 — 351.60 / 9.87 — ◇WL

36+80.00

349.79 / 20.00 — 0.18 — 351.25 / 12.00 — 0.04 — 351.70 / 0.51 — 0.04 — 352.20 / 12.00 — 0.13 — 351.20 / 20.00

351.31 / 10.44 — 352.12 / 9.86 — ◇WL

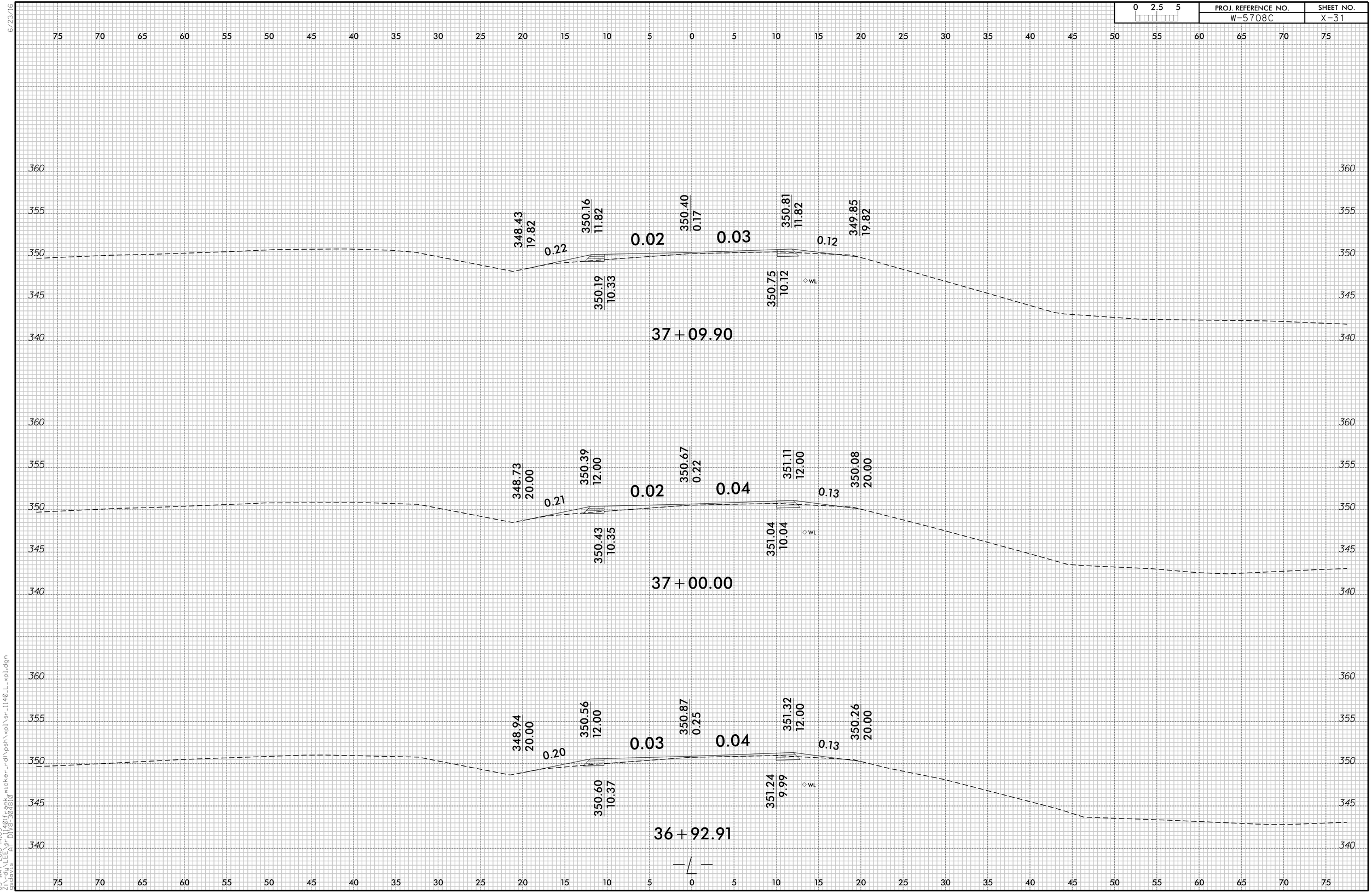
36+60.00

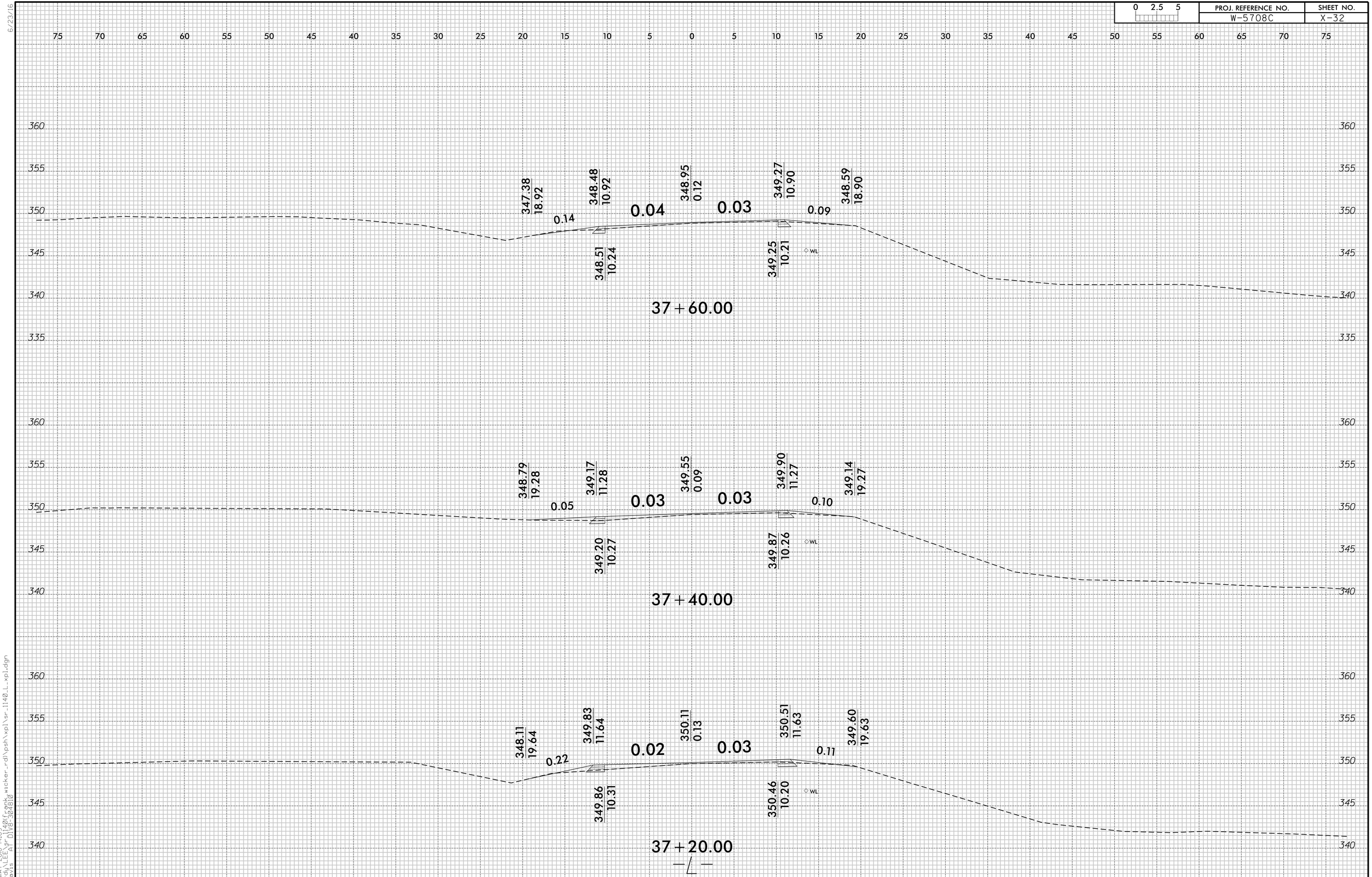
349.82 / 20.00 — 0.18 — 351.27 / 12.00 — 0.04 — 351.73 / 0.50 — 0.04 — 352.23 / 12.00 — 0.12 — 351.23 / 20.00

351.34 / 10.43 — 352.15 / 9.87 — ◇WL

36+58.90

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-31





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AT DIV8-304810

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5708C	X-33

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

350 345 340 335

WL

38+20.00

350 345 340 335

WL

38+00.00

360 355 350 345 340 335

346.70 18.56 | 0.13 | 347.78 10.56 | 0.05 | 348.32 0.15 | 0.03 | 348.61 10.54 | 0.07 | 348.06 18.54

347.80 10.21 | 348.60 10.16

WL

37+80.00

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