

EAU

APRIL 2025
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 194



DESIGN DESIGNATION

A.A.D.T.	(2024)	=	3500
A.A.D.T.	(2044)	=	5000
D.H.V.		=	
D.D.		=	
T.		=	25%
DESIGN SPEED		=	45 MPH/55 MPH
ESALS		=	1,700,000

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

ROCK	
LABEL	
95.36	
E	
FO	
G	
SAN	
SS	
T	
W	
PP	
TP	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

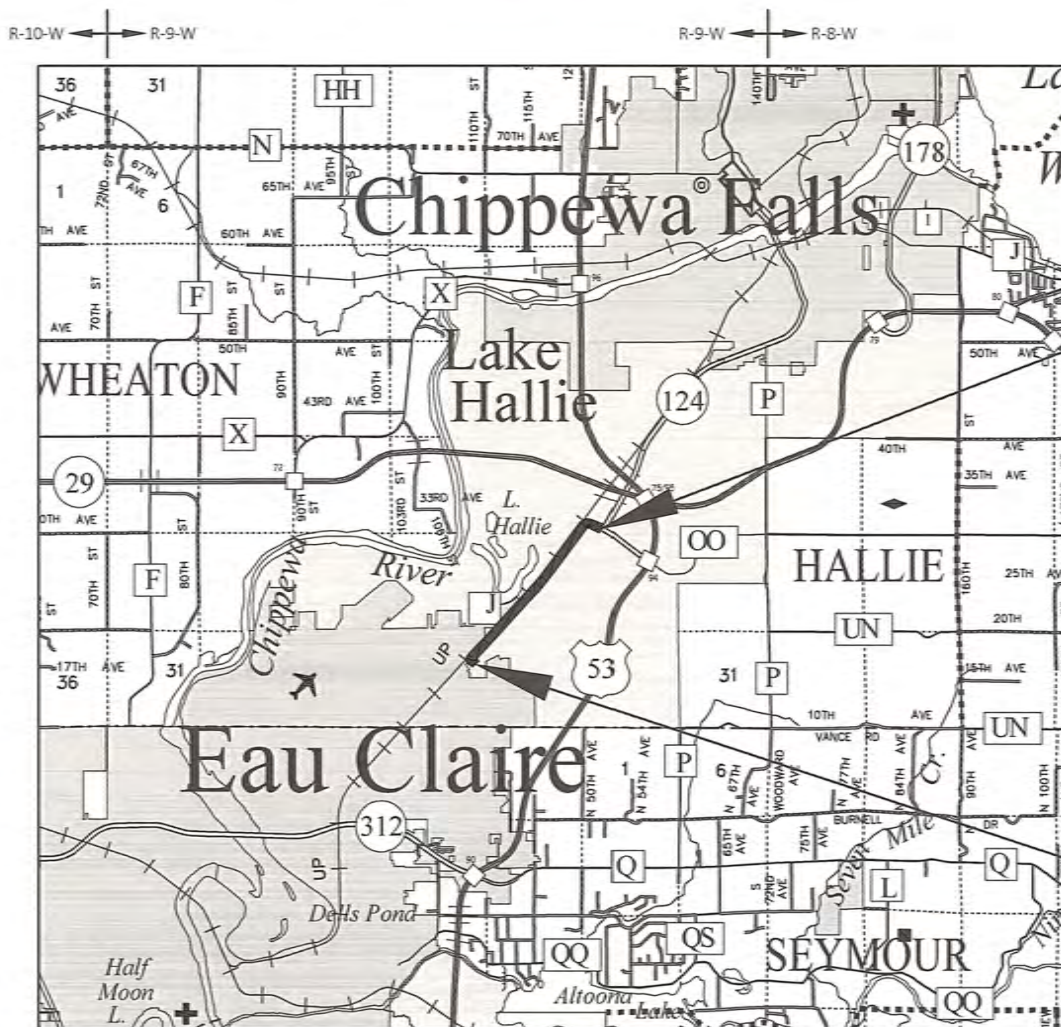
EAU CLAIRE - CHIPPEWA FALLS

BUS 53 TO STH 124

CTH 00

CHIPPEWA COUNTY

STATE PROJECT NUMBER
7864-00-74



END PROJECT
STA 117+59

CHIPPEWA COUNTY
EAU CLAIRE COUNTY

BEGIN PROJECT
STA 10+00
Y = 104,445.74
X = 156,272.24

LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 2.038 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), CHIPPEWA COUNTY, NAD83 HYPER, IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.
ELEVATIONS ARE REFERENCED TO NAVD 88 HYPER. GPS DERIVED ELEVATIONS ARE BASED ON GEOID XX.

STATE PROJECT

7864-00-74

FEDERAL PROJECT

PROJECT

WISC 2025428

CONTRACT

1

ACCEPTED FOR

COUNTY of CHIPPEWA

10-28-24
(Date)
Jeffrey A. Abramson
(Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

AYRES



10/28/2024
(Date)
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES, INC.
Designer	AYRES ASSOCIATES, INC.
Project Manager	TYLER RONGSTAD, P.E.
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT

DATE: 10/28/24
(Signature)

E

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

THE EXACT LOCATION AND WIDTH OF DRIVEWAY ENTRANCES WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF NORMAL CONSTRUCTION LIMITS.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PIPE REPLACEMENT, MILLING/PAVEMENT REMOVAL OR PAVING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE CITY OF EAU CLAIRE - WATER DEPARTMENT AND VILLAGE OF LAKE HALLIE - WATER DEPARTMENT WILL ADJUST WATER SERVICES, CURB STOPS AND VALVE BOXES, IN NON-PAVED AREAS ONCE THE DITCH GRADING IS COMPLETED.

UTILITY CONTACTS

AT&T - COMMUNICATION
304 SOUTH DEWEY STREET
EAU CLAIRE, WI 54701
ATTN: RICK PADOLAK
CELL: 715-410-0656
rp4514@att.com

CITY OF EAU CLAIRE - SEWER
1040 FOREST STREET
EAU CLAIRE, WI 54701
ATTN: JAHN EBERHARDT
OFFICE: 715-839-4950
CELL: 715-271-9464
jahn.eberhardt@eauclairewi.gov

CITY OF EAU CLAIRE - WATER
1040 FOREST STREET
EAU CLAIRE, WI 54701
ATTN: JAHN EBERHARDT
OFFICE: 715-839-4950
CELL: 715-271-9464
jahn.eberhardt@eauclairewi.gov

DAIRYLAND POWER COOPERATIVE - ELECTRIC
3200 EAST AVENUE SOUTH
LA CROSSE, WI 54601
ATTN: MIKE LYDON
OFFICE: 608-787-1381
michael.lydon@dairylandpower.com

SPECTRUM - COMMUNICATION
1201 MCCANN DRIVE
ALTOONS, WI 54720
ATTN: SUNNY RICHARDSON
OFFICE: 715-896-6503
sunny.richardson@charter.com

VILLAGE OF LAKE HALLIE PUBLIC WORKS - WATER
13136 30TH AVENUE
LAKE HALLIE, WI 54729
ATTN: SAM BAUTCH
OFFICE: 715-726-2660
CELL: 715-559-7019
PWDept@lakehallie.us

XCEL ENERGY - ELECTRICITY
1400 WESTERN AVENUE
EAU CLAIRE, WI 54703
ATTN: TYSON KALIEN
715-226-8936
tyson.kalien@xcelenergy.com

XCEL ENERGY - GAS/PETROLEUM
1400 WESTERN AVENUE
EAU CLAIRE, WI 54703
ATTN: BECKY MARQUARDT
715-737-1590
rebecca.k.marquardt@xcelenergy.com

* DENOTES NOT A DIGGERS HOTLINE MEMBER

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

DNR CONTACT

DNR WEST CENTRAL REGION HQ
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
ATTN: LEAH NICOL
715-934-9014
leah.nicol@wisconsin.gov

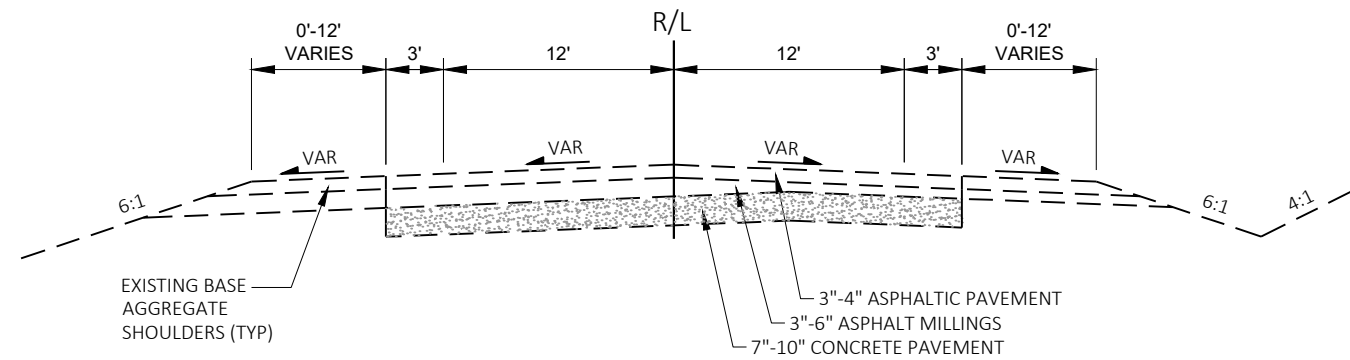
DESIGN CONTACT

AYRES ASSOCIATES INC
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: JEFF ABRAMSON, PE
715-834-3161
abramsonj@ayresassociates.com

RUNOFF COEFFICIENT TABLE

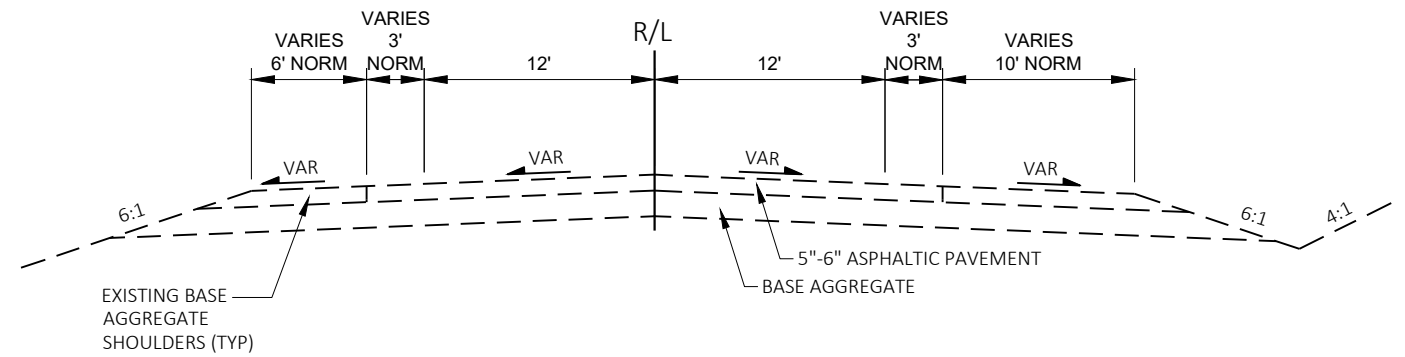
LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPETURF:			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT:	.70 - .95											
CONCRETE:	.80 - .95											
BRICK:	.70 - .80											
DRIVES, WALKS:	.75 - .85											
ROOFS:	.75 - .95											
GRAVEL ROADS, SHOULDERS:	.40 - .60											

TOTAL PROJECT AREA = 16.48 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 12.04 ACRES

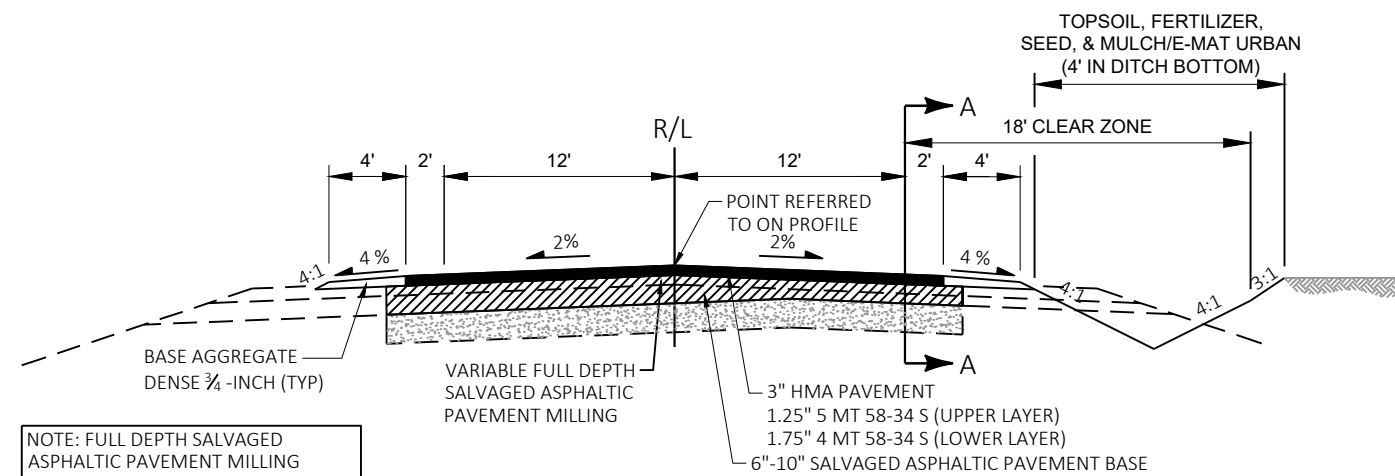


EXISTING TYPICAL SECTION - CTH OO

STA 10+00 - STA 111+23



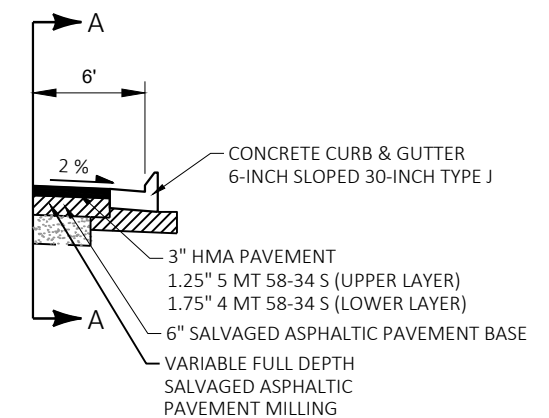
EXISTING TYPICAL SECTION - HOGATH ST

STA 199+88 - STA 202+30.66
STA 100+00 - STA 100+37

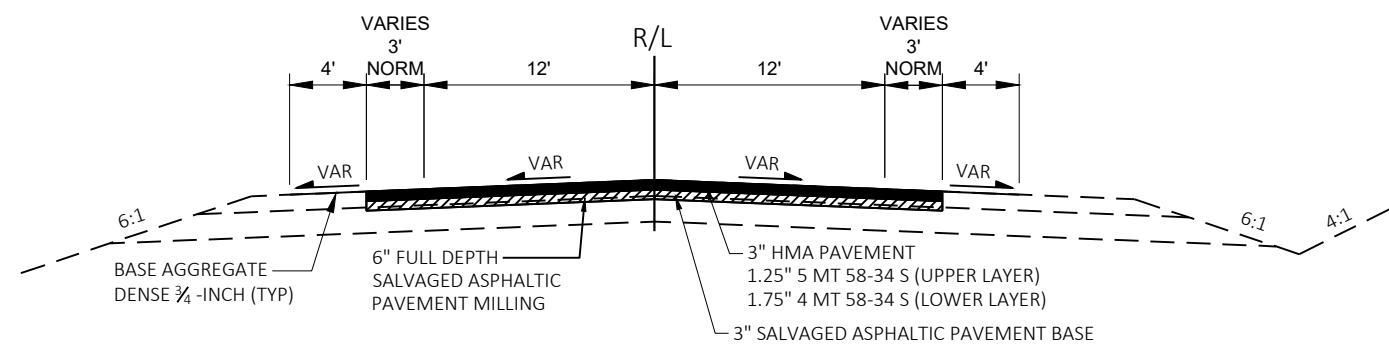
NOTE: FULL DEPTH SALVAGED ASPHALTIC PAVEMENT MILLING SHALL BE PERFORMED FROM PAVED SHOULDER TO PAVED SHOULDER. A TOTAL PAVED WIDTH OF APPROXIMATELY 30'±.

FINISHED TYPICAL SECTION - CTH OO

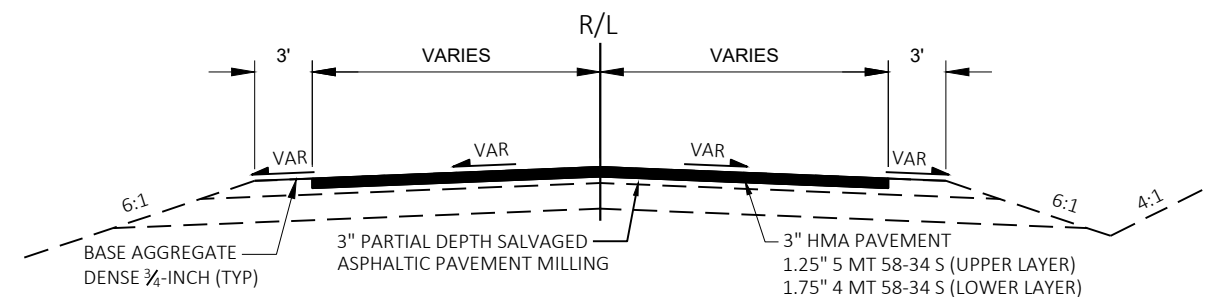
STA 10+42 - STA 108+80



STA 103+70 - STA 105+81

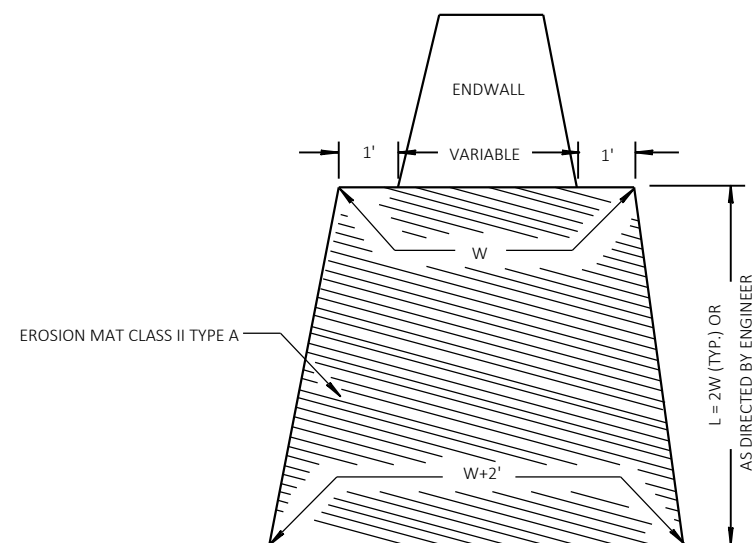


FINISHED TYPICAL SECTION - HOGATH ST

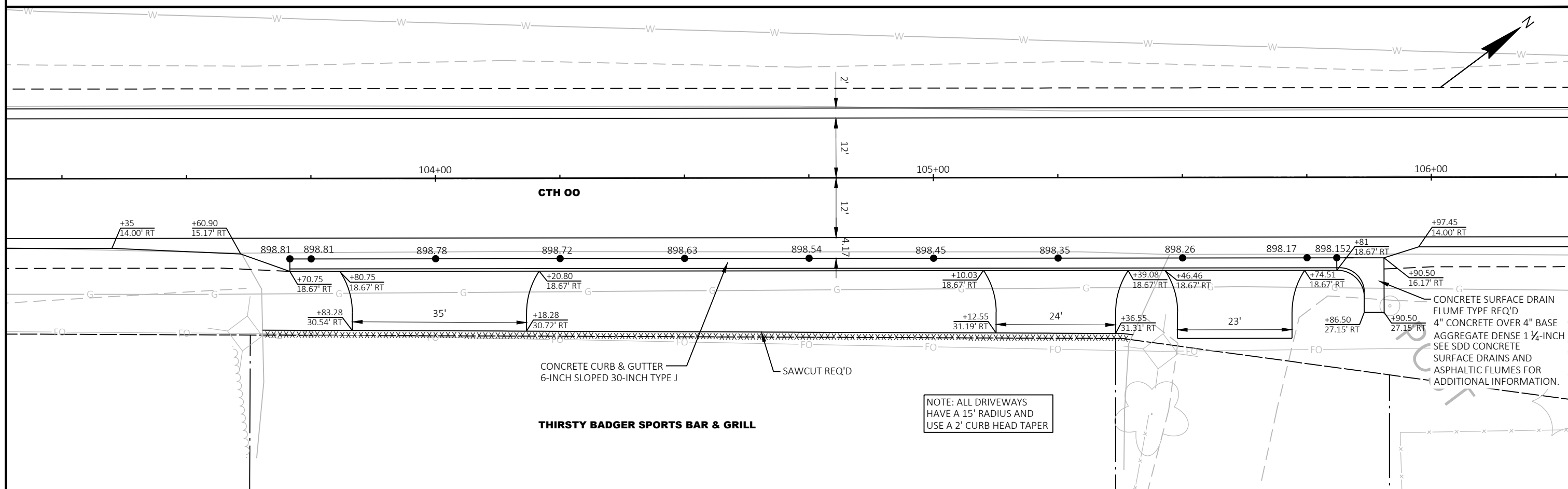
STA 199+88 - STA 202+30.66
STA 100+00 - STA 100+37

FINISHED TYPICAL SECTION - SIDEROADS

110TH ST LT/RT
18TH AVE
111TH ST
22ND AVE
118TH ST LT/RT
27TH AVE
30TH AVE LT/RT
S JOLIS PKWY



EROSION MAT TREATMENT AT CULVERTS



PROJECT NO: 7864-00-74

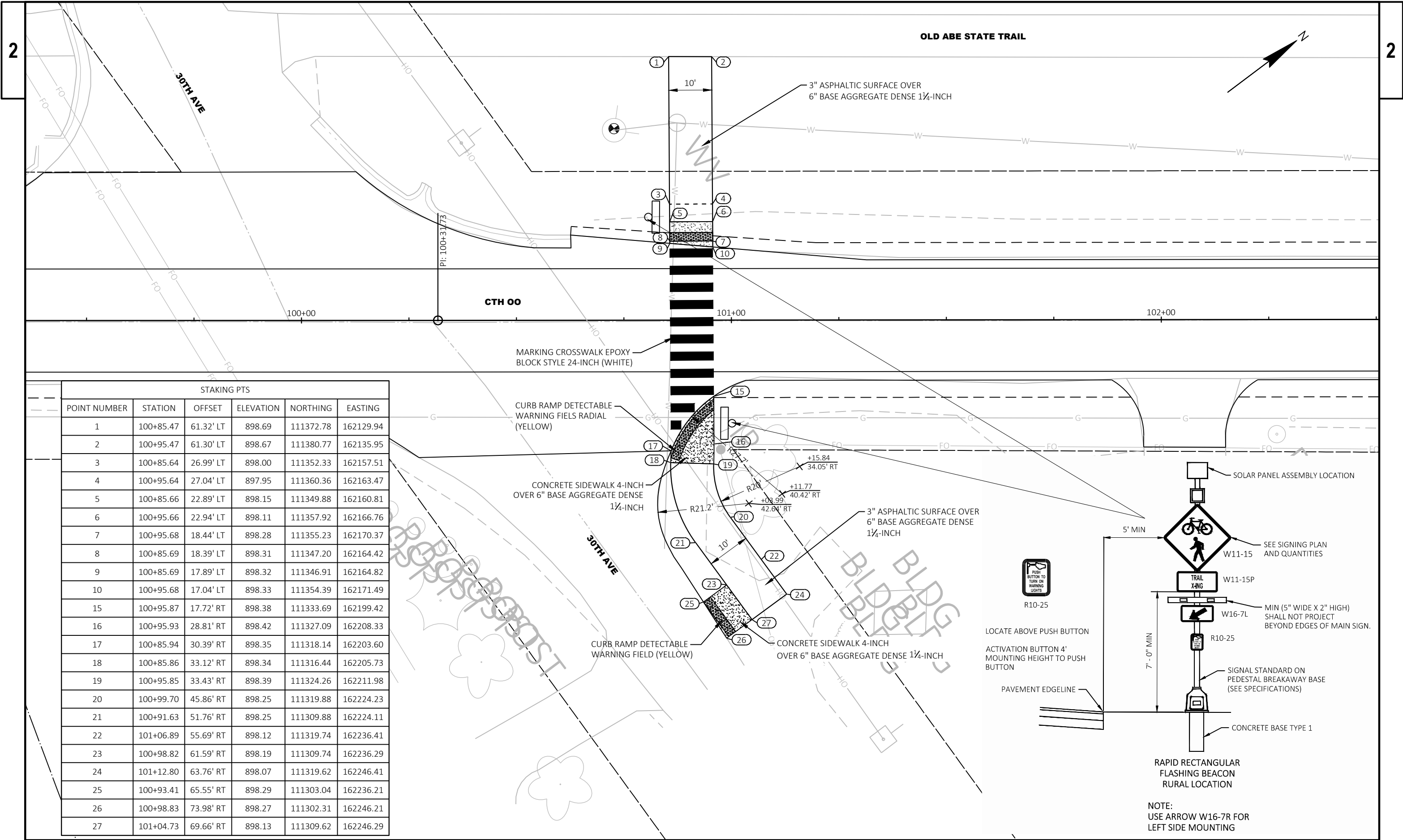
HWY: CTH 00

COUNTY: CHIPPEWA

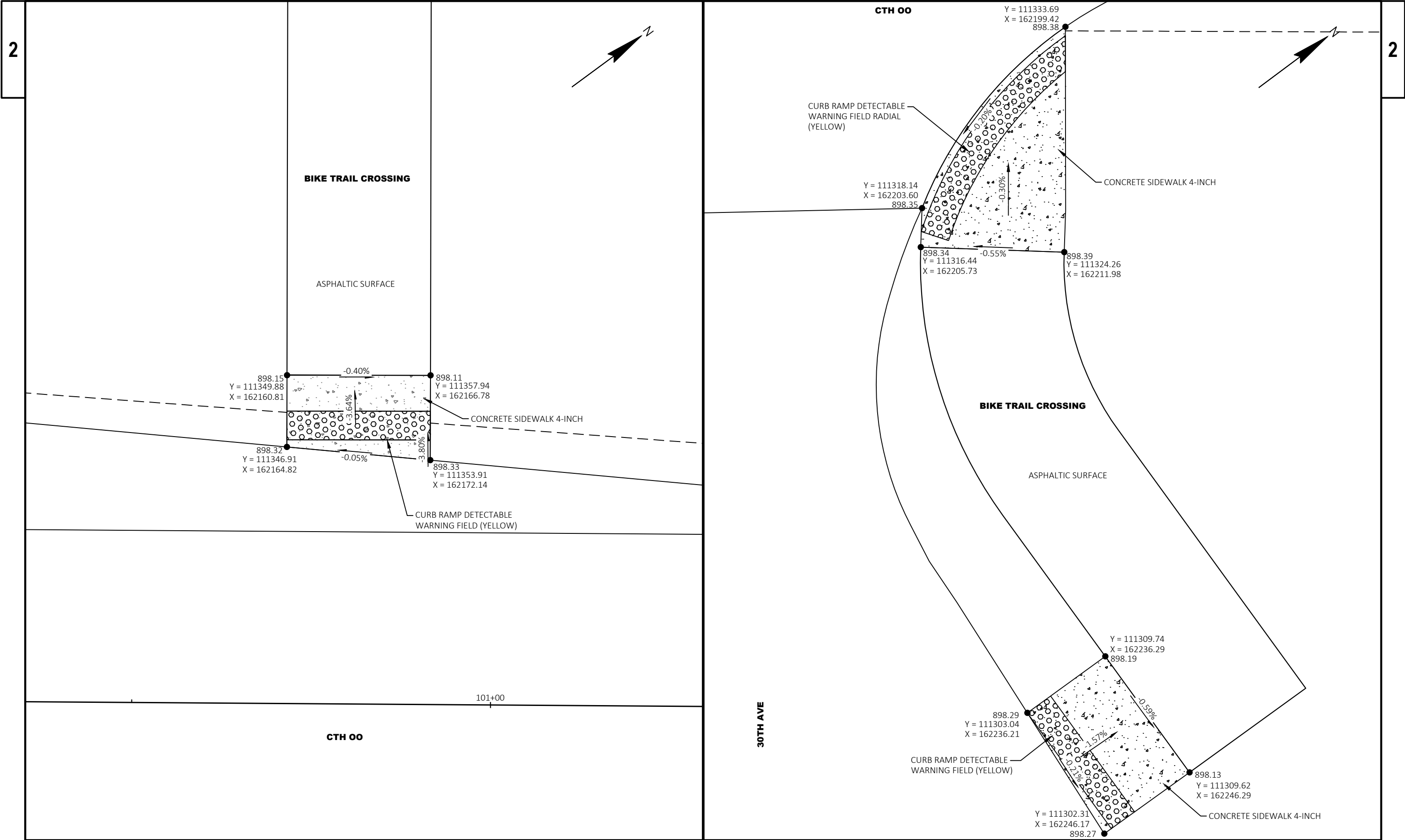
CONSTRUCTION DETAILS

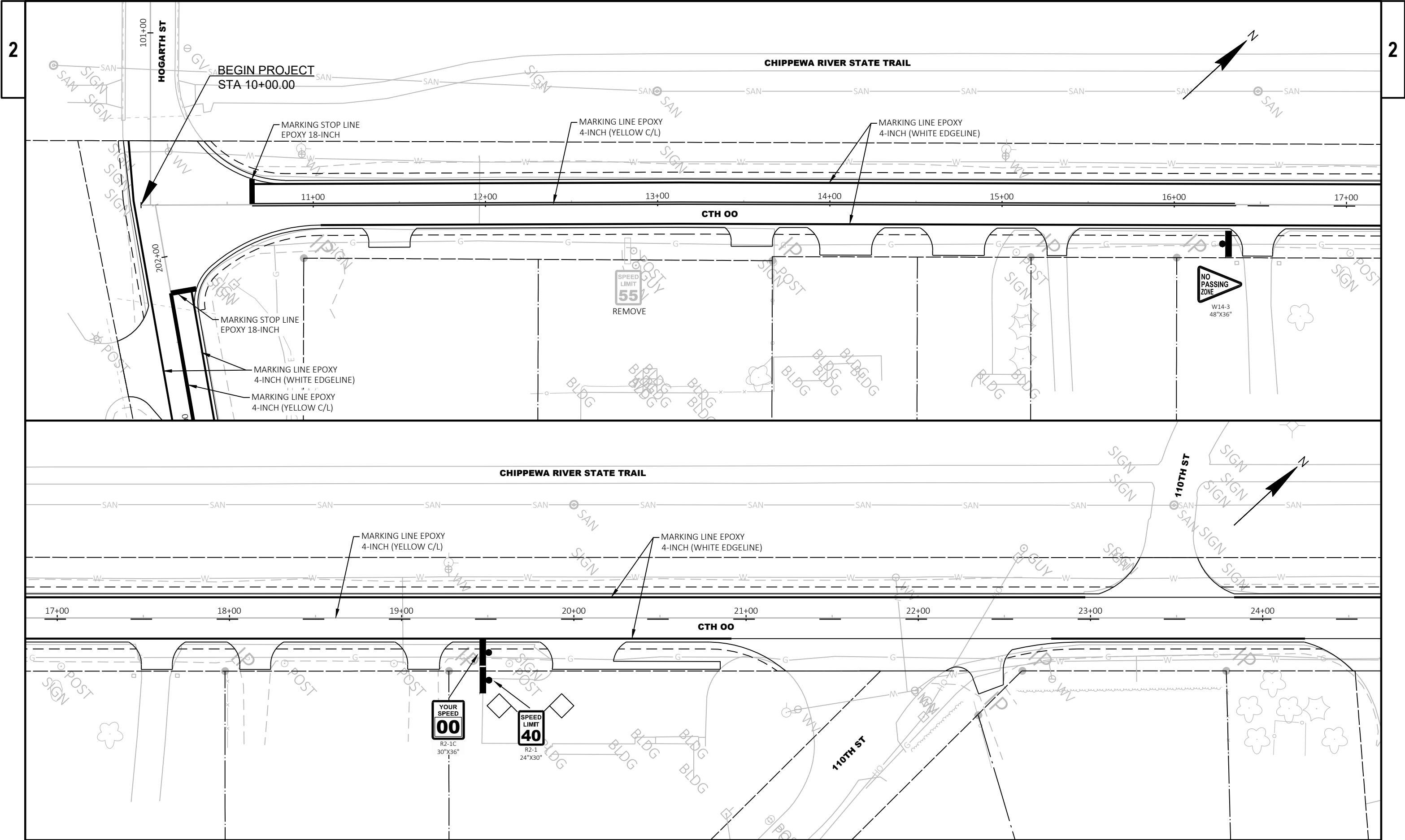
SHEET

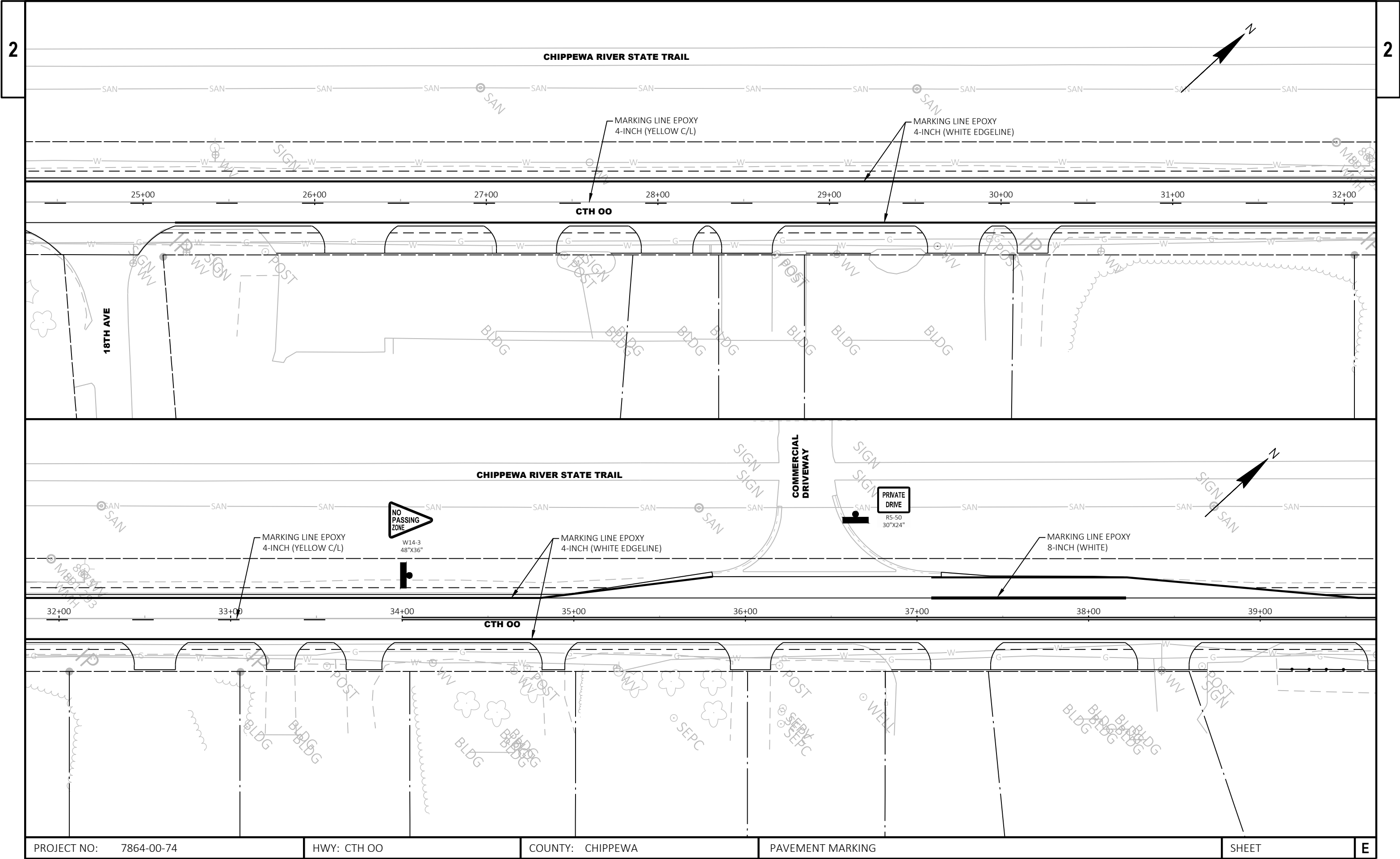
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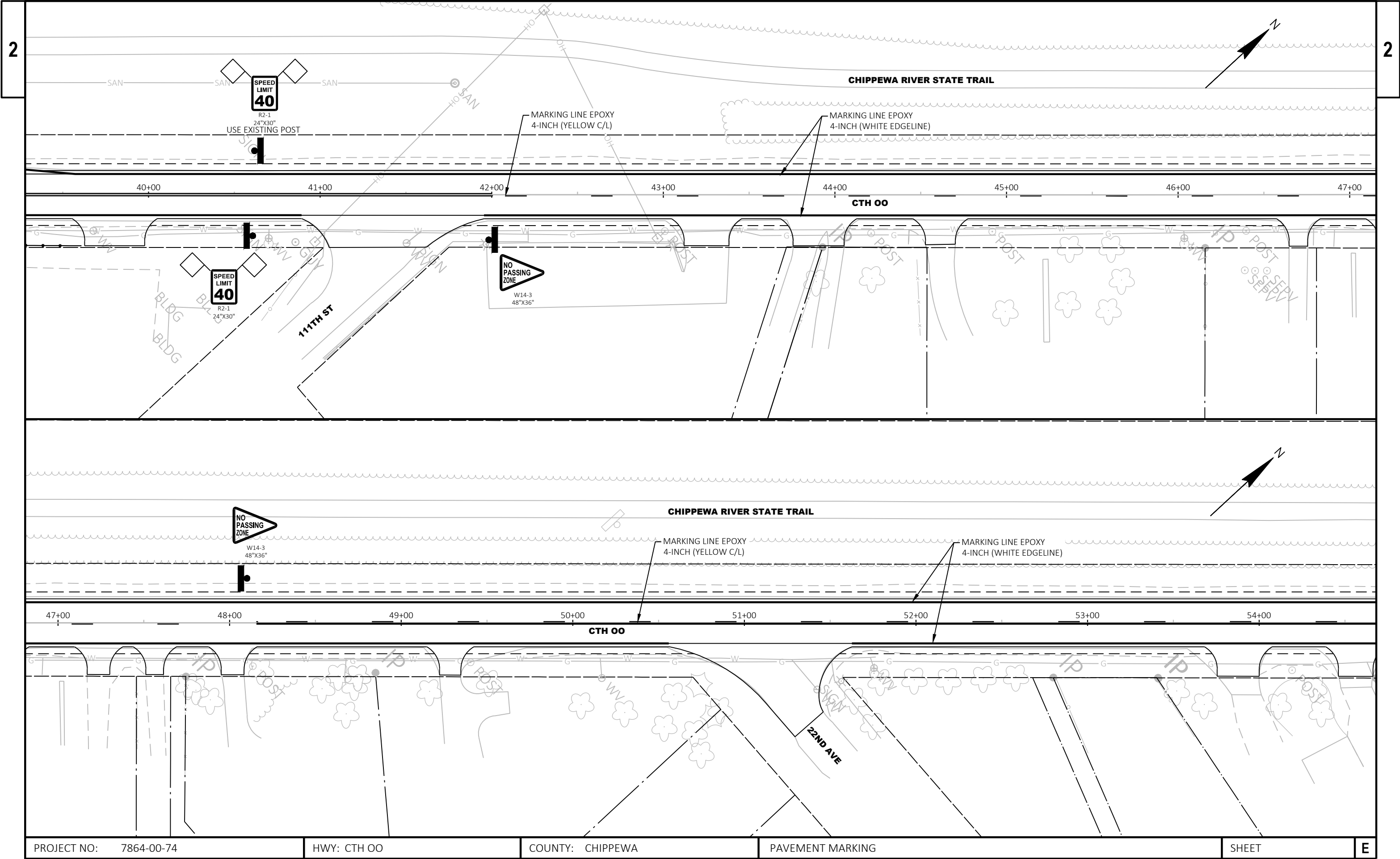
STAKING PTS					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	100+85.47	61.32' LT	898.69	111372.78	162129.94
2	100+95.47	61.30' LT	898.67	111380.77	162135.95
3	100+85.64	26.99' LT	898.00	111352.33	162157.51
4	100+95.64	27.04' LT	897.95	111360.36	162163.47
5	100+85.66	22.89' LT	898.15	111349.88	162160.81
6	100+95.66	22.94' LT	898.11	111357.92	162166.76
7	100+95.68	18.44' LT	898.28	111355.23	162170.37
8	100+85.69	18.39' LT	898.31	111347.20	162164.42
9	100+85.69	17.89' LT	898.32	111346.91	162164.82
10	100+95.68	17.04' LT	898.33	111354.39	162171.49
15	100+95.87	17.72' RT	898.38	111333.69	162199.42
16	100+95.93	28.81' RT	898.42	111327.09	162208.33
17	100+85.94	30.39' RT	898.35	111318.14	162203.60
18	100+85.86	33.12' RT	898.34	111316.44	162205.73
19	100+95.85	33.43' RT	898.39	111324.26	162211.98
20	100+99.70	45.86' RT	898.25	111319.88	162224.23
21	100+91.63	51.76' RT	898.25	111309.88	162224.11
22	101+06.89	55.69' RT	898.12	111319.74	162236.41
23	100+98.82	61.59' RT	898.19	111309.74	162236.29
24	101+12.80	63.76' RT	898.07	111319.62	162246.41
25	100+93.41	65.55' RT	898.29	111303.04	162236.21
26	100+98.83	73.98' RT	898.27	111302.31	162246.21
27	101+04.73	69.66' RT	898.13	111309.62	162246.29

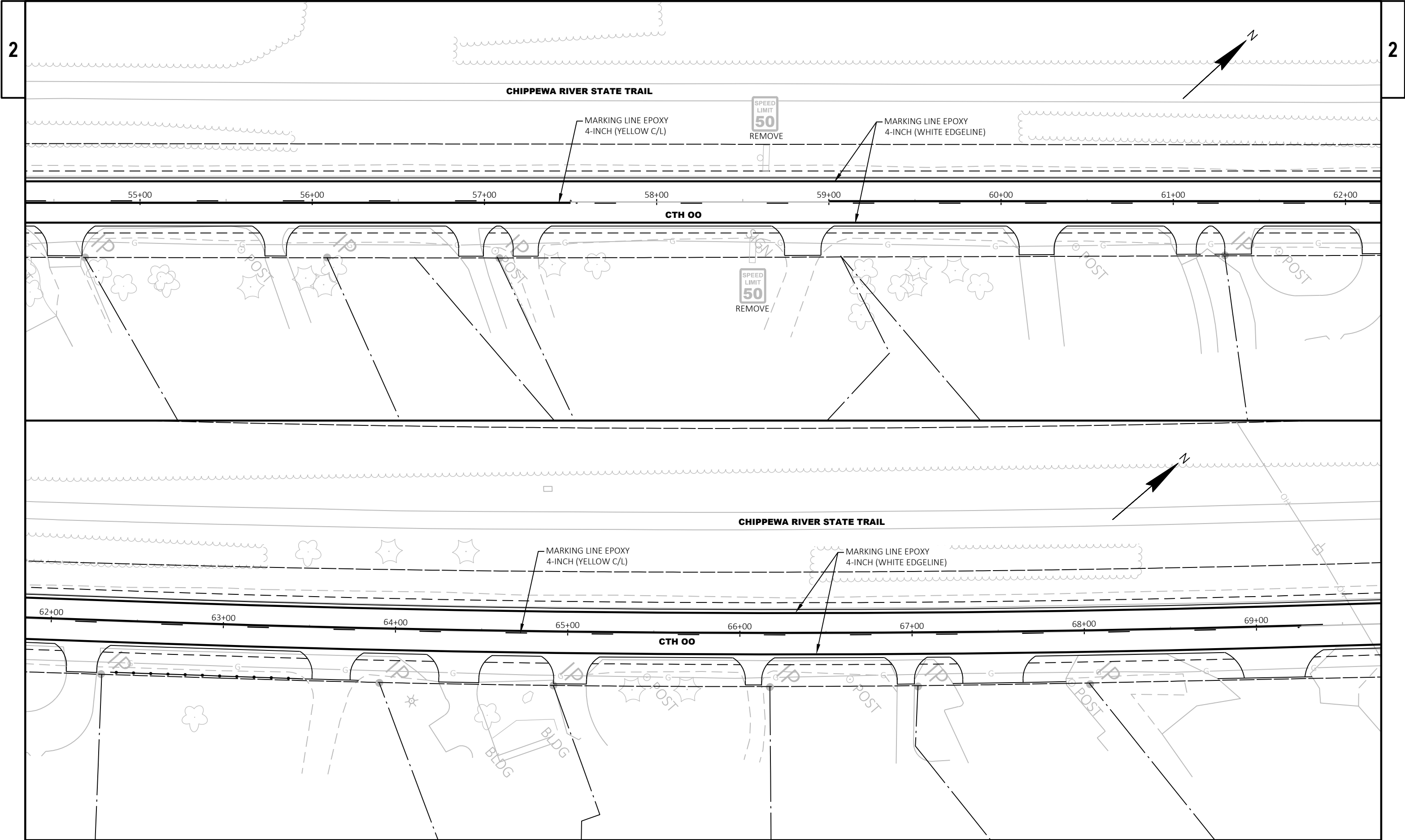




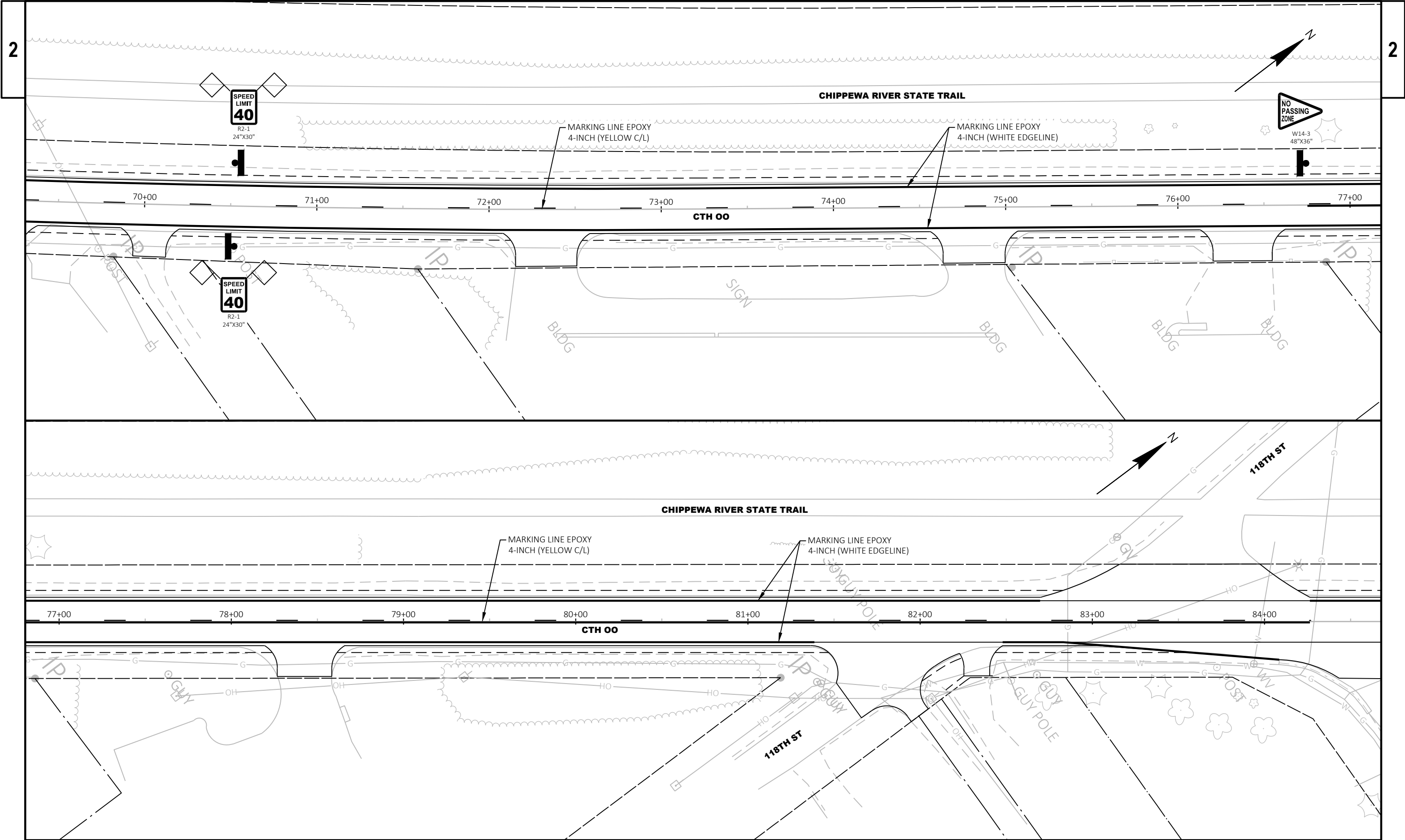


PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PAVEMENT MARKING	SHEET	E
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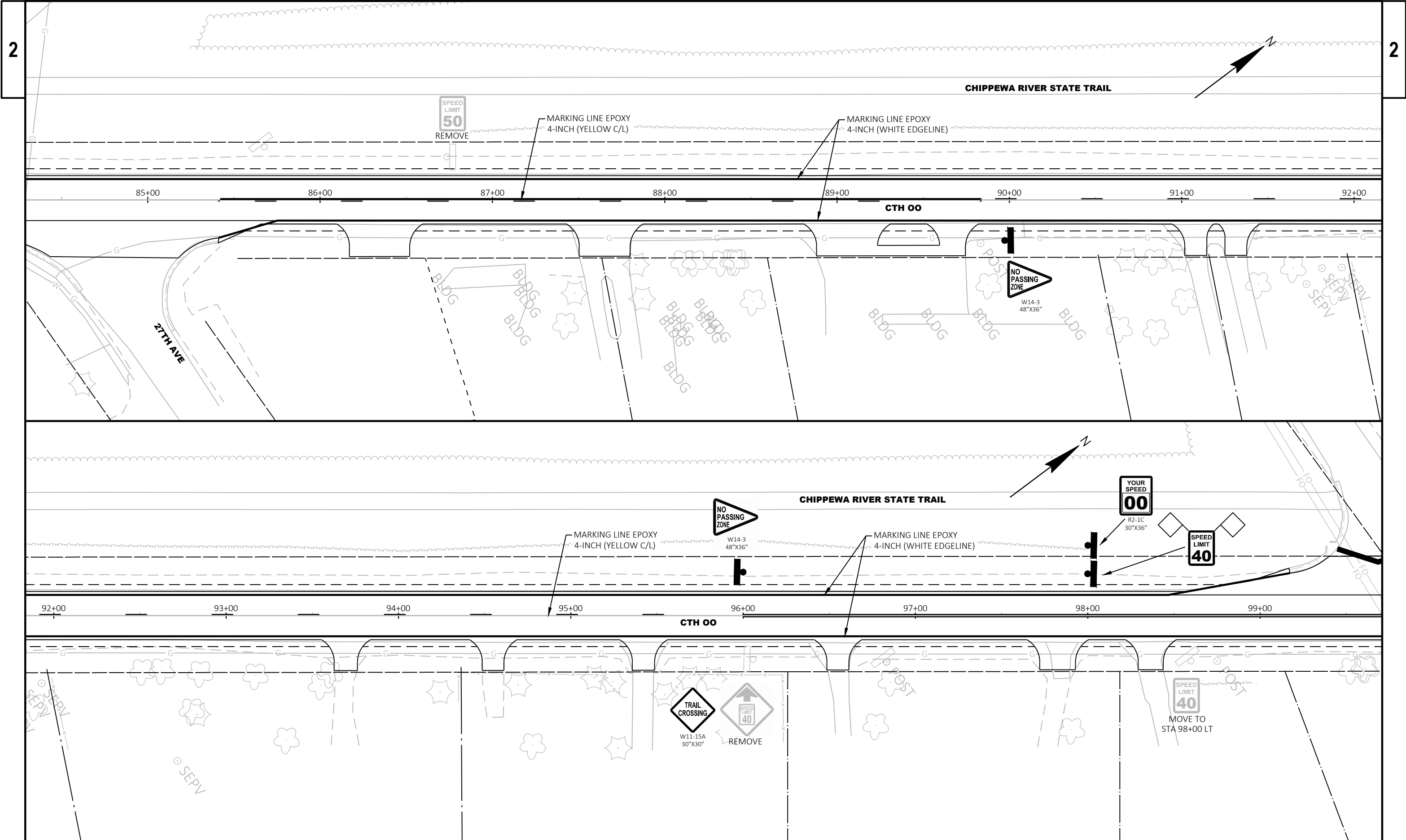




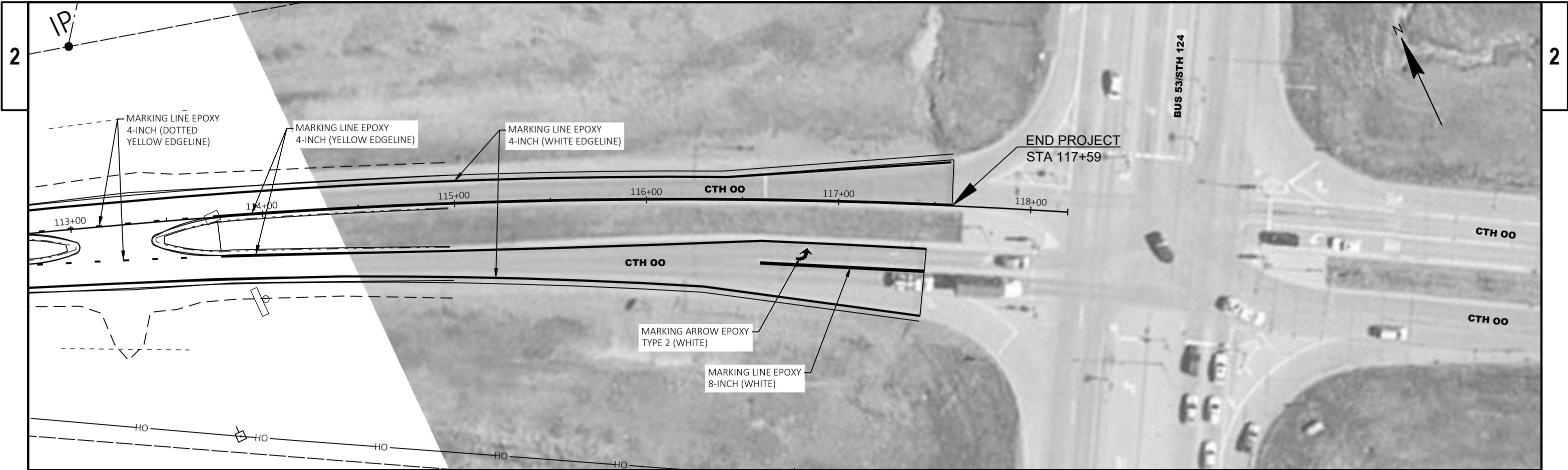
PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PAVEMENT MARKING	SHEET	E
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PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PAVEMENT MARKING	SHEET	E
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PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	PAVEMENT MARKING	SHEET	E
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PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PAVEMENT MARKING	SHEET	E
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DETOUR NOTES:

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

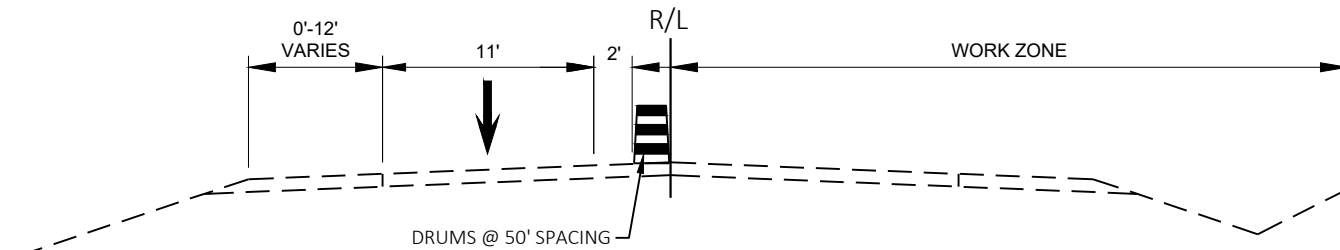
IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. THERE IS AN UNDISTRIBUTED AMOUNT IN THE QUANTITIES FOR THESE SIGNS.

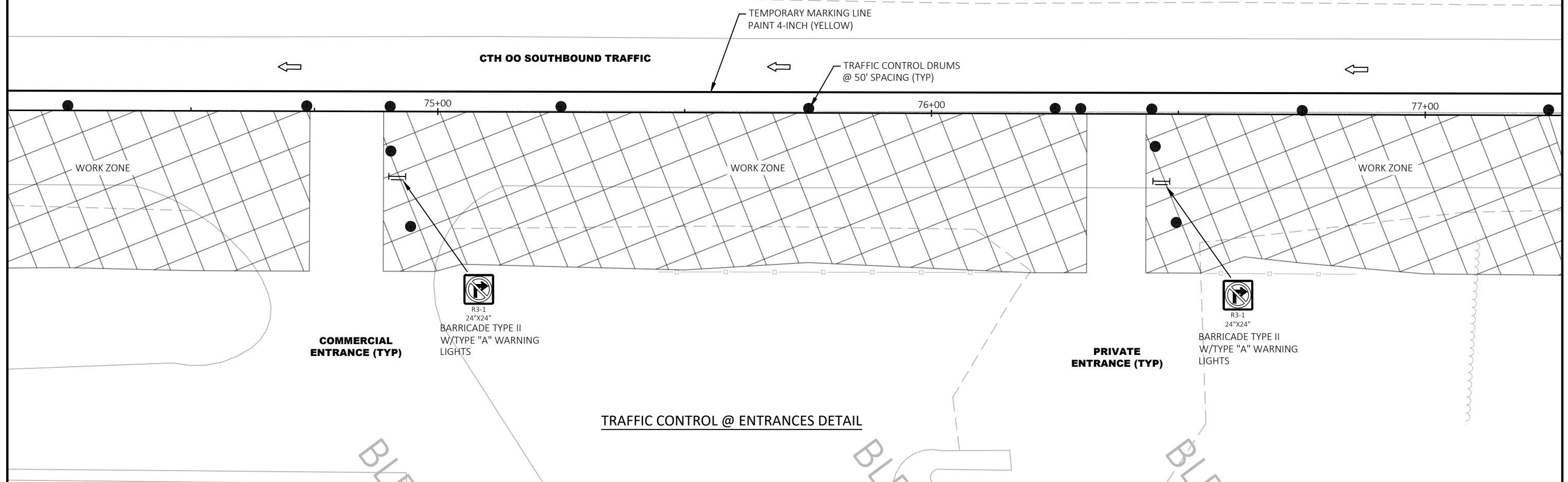
ALL SIGNS SHALL BE 48"X48" UNLESS NOTED BY THE ENGINEER.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE.

FOR DETAILS NOT SHOWN SEE SDD "BARRICADES AND SIGNS FOR MAINLINE, DETOUR", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL INFORMATION.



TRAFFIC CONTROL TYPICAL SECTION - STAGE 1
SOUTHBOUND TRAFFIC ONLY



PROJECT NO: 7864-00-74

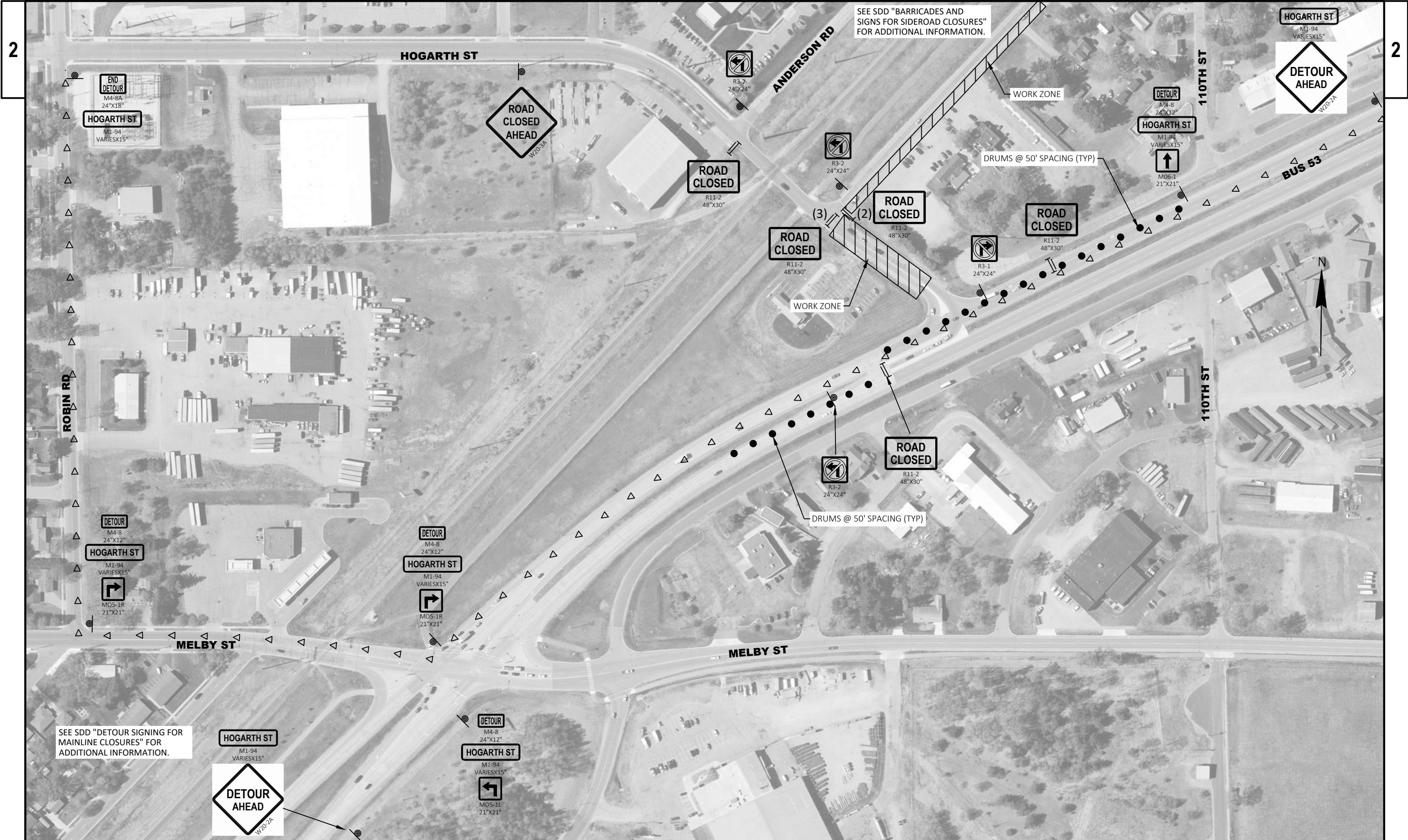
HWY: CTH 00

COUNTY: CHIPPEWA

TRAFFIC CONTROL - STAGE 1

SHEET

E



SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR ADDITIONAL INFORMATION.

SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL INFORMATION.

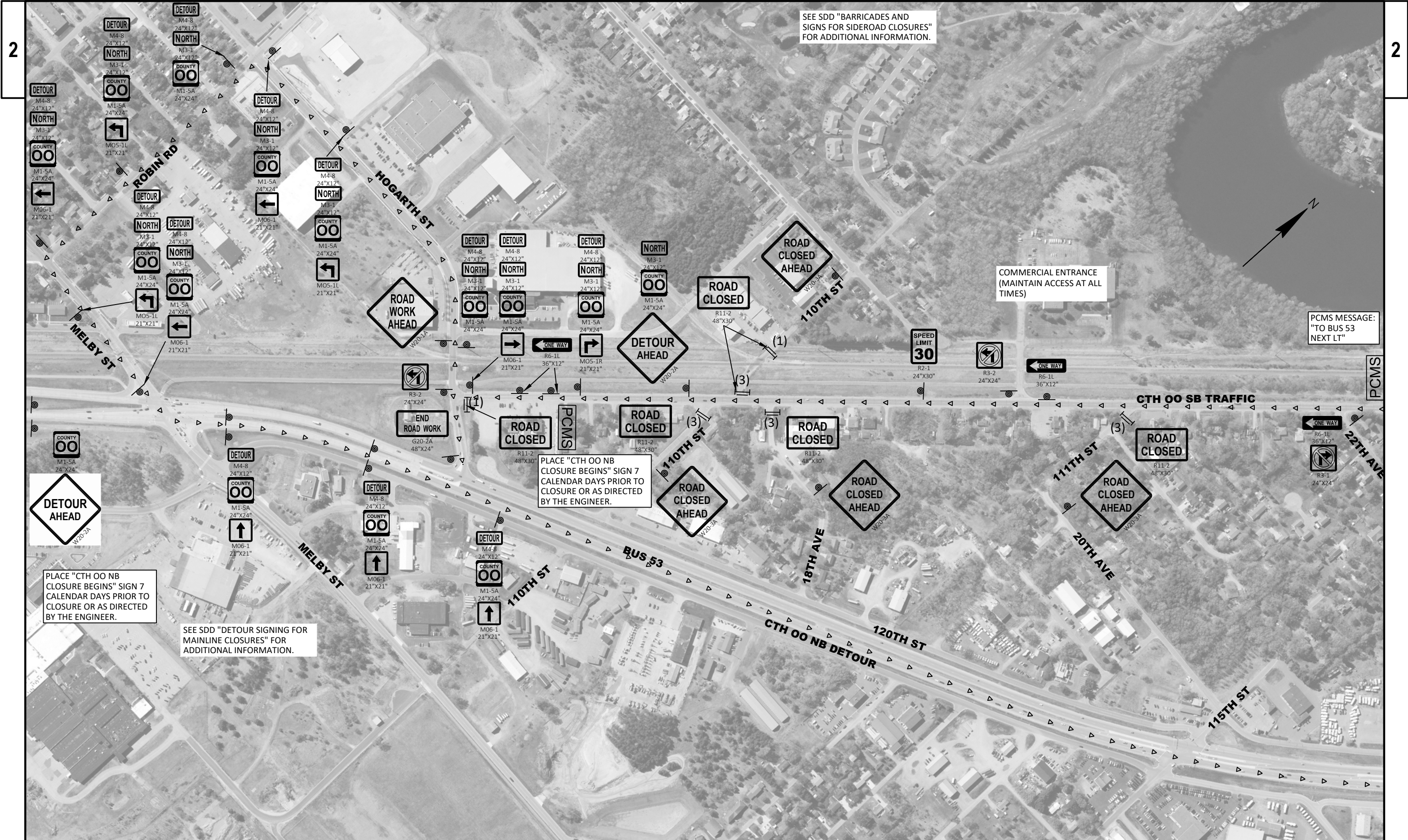
HOGARTH ST
M1-94
VARIESX15"
DETOUR AHEAD
W20-2A

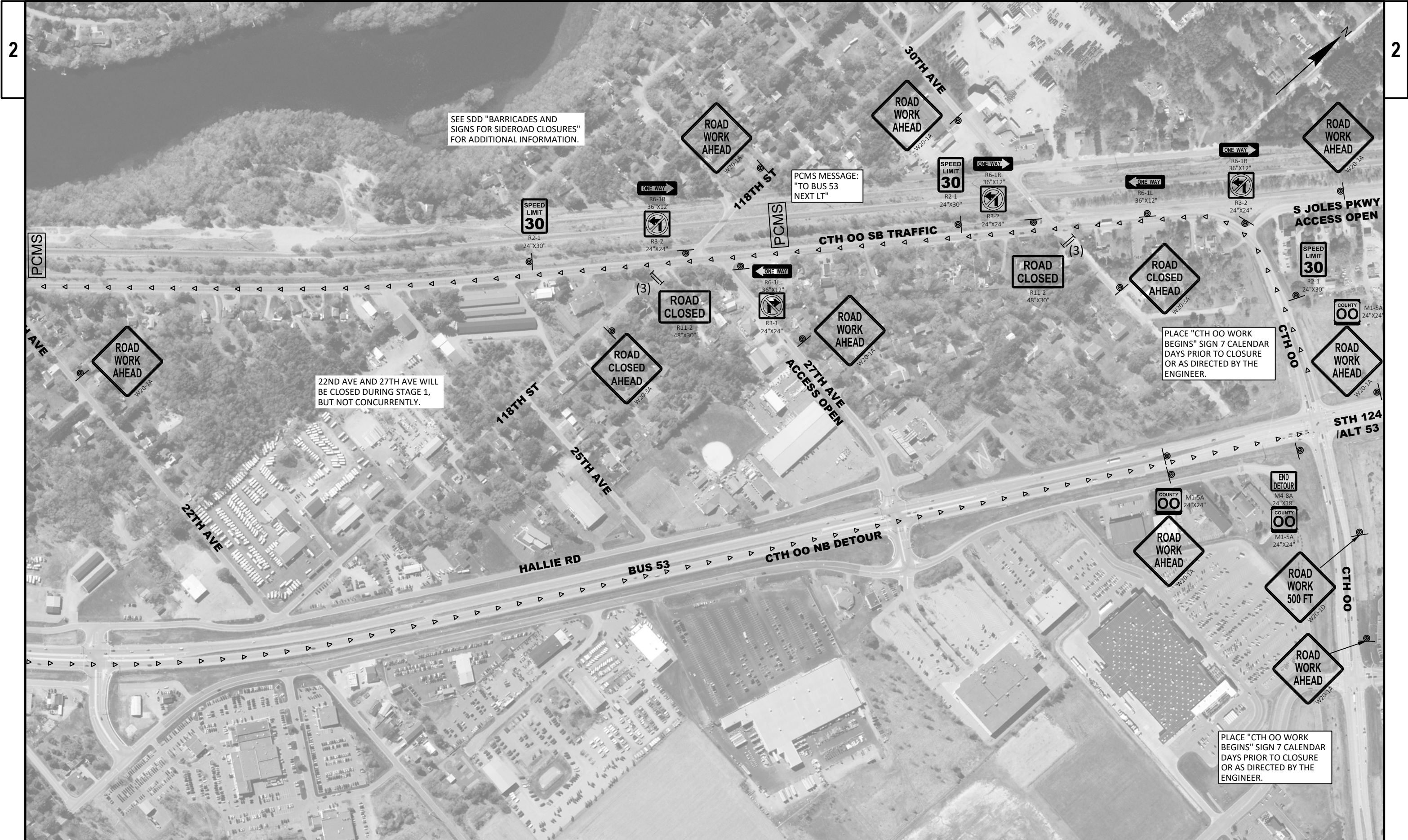
DETOUR
M4-8
24"x12"
HOGARTH ST
M1-94
VARIESX15"
MO5-1R
21"x21"

DETOUR
M4-8
24"x12"
HOGARTH ST
M1-94
VARIESX15"
MO5-1L
21"x21"

DETOUR
M4-8
24"x12"
HOGARTH ST
M1-94
VARIESX15"
MO6-1
21"x21"

HOGARTH ST
M1-94
VARIESX15"
DETOUR AHEAD
W20-2A





SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL INFORMATION.

PCMS MESSAGE:
"TO BUS 53
NEXT LT"

22ND AVE AND 27TH AVE WILL
BE CLOSED DURING STAGE 1,
BUT NOT CONCURRENTLY.

PLACE "CTH 00 WORK
BEGINS" SIGN 7 CALENDAR
DAYS PRIOR TO CLOSURE
OR AS DIRECTED BY THE
ENGINEER.

PLACE "CTH 00 WORK
BEGINS" SIGN 7 CALENDAR
DAYS PRIOR TO CLOSURE
OR AS DIRECTED BY THE
ENGINEER.

DETOUR NOTES:

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

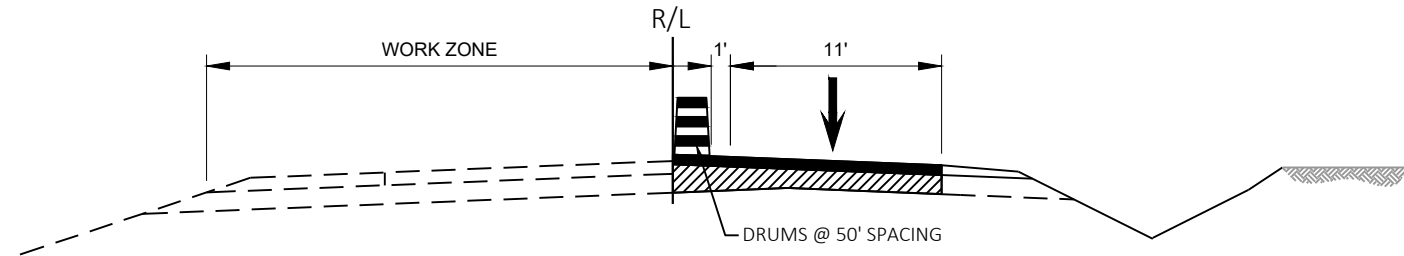
IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. THERE IS AN UNDISTRIBUTED AMOUNT IN THE QUANTITIES FOR THESE SIGNS.

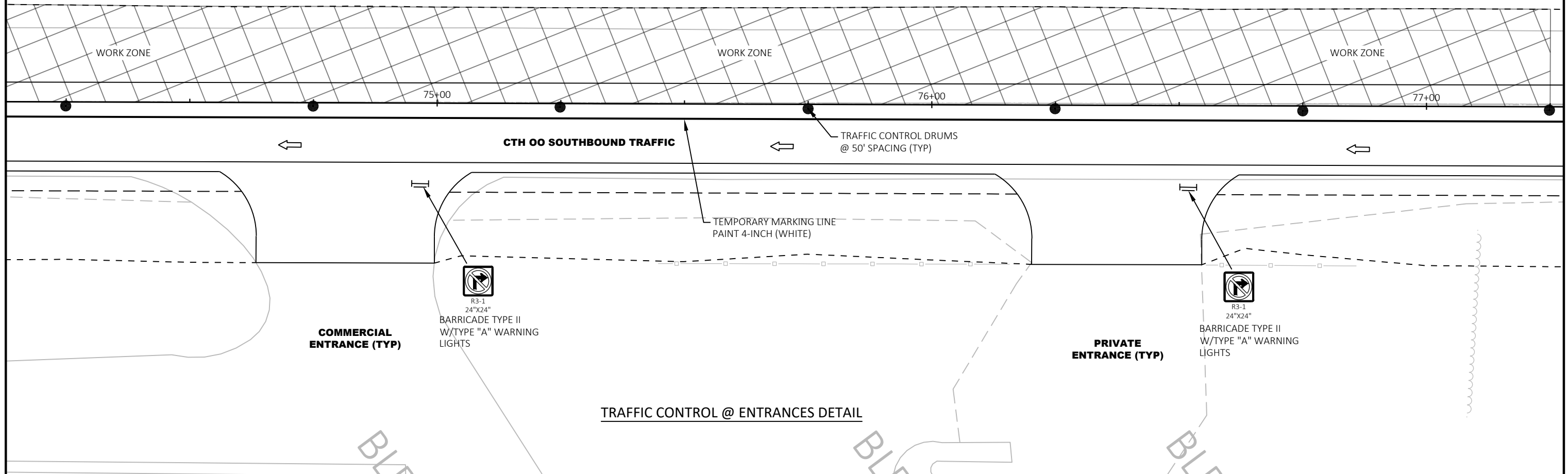
ALL SIGNS SHALL BE 48"X48" UNLESS NOTED BY THE ENGINEER.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE.

FOR DETAILS NOT SHOWN SEE SDD "BARRICADES AND SIGNS FOR MAINLINE, DETOUR", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL INFORMATION.



TRAFFIC CONTROL TYPICAL SECTION - STAGE 2
SOUTHBOUND TRAFFIC ONLY



PROJECT NO: 7864-00-74

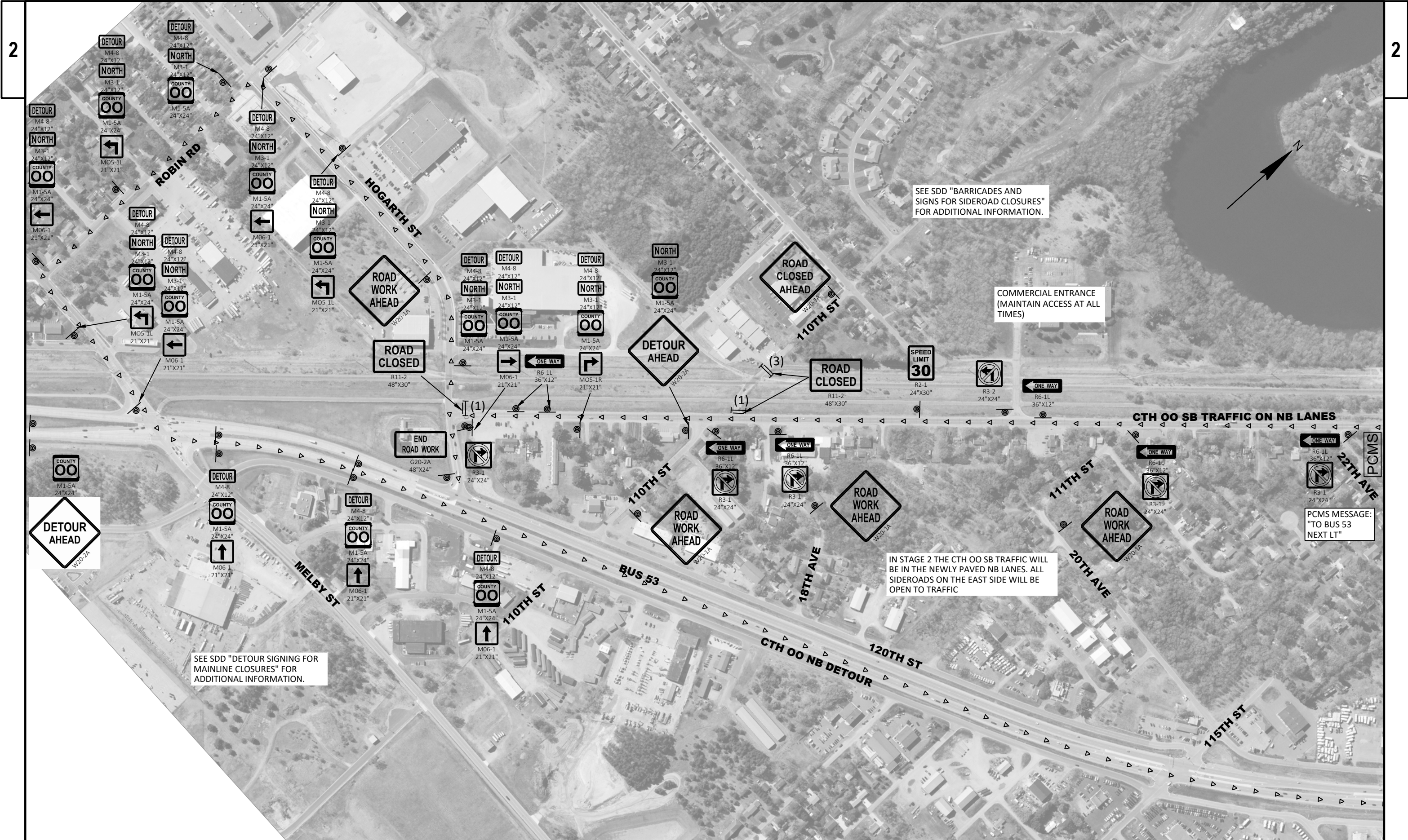
HWY: CTH 00

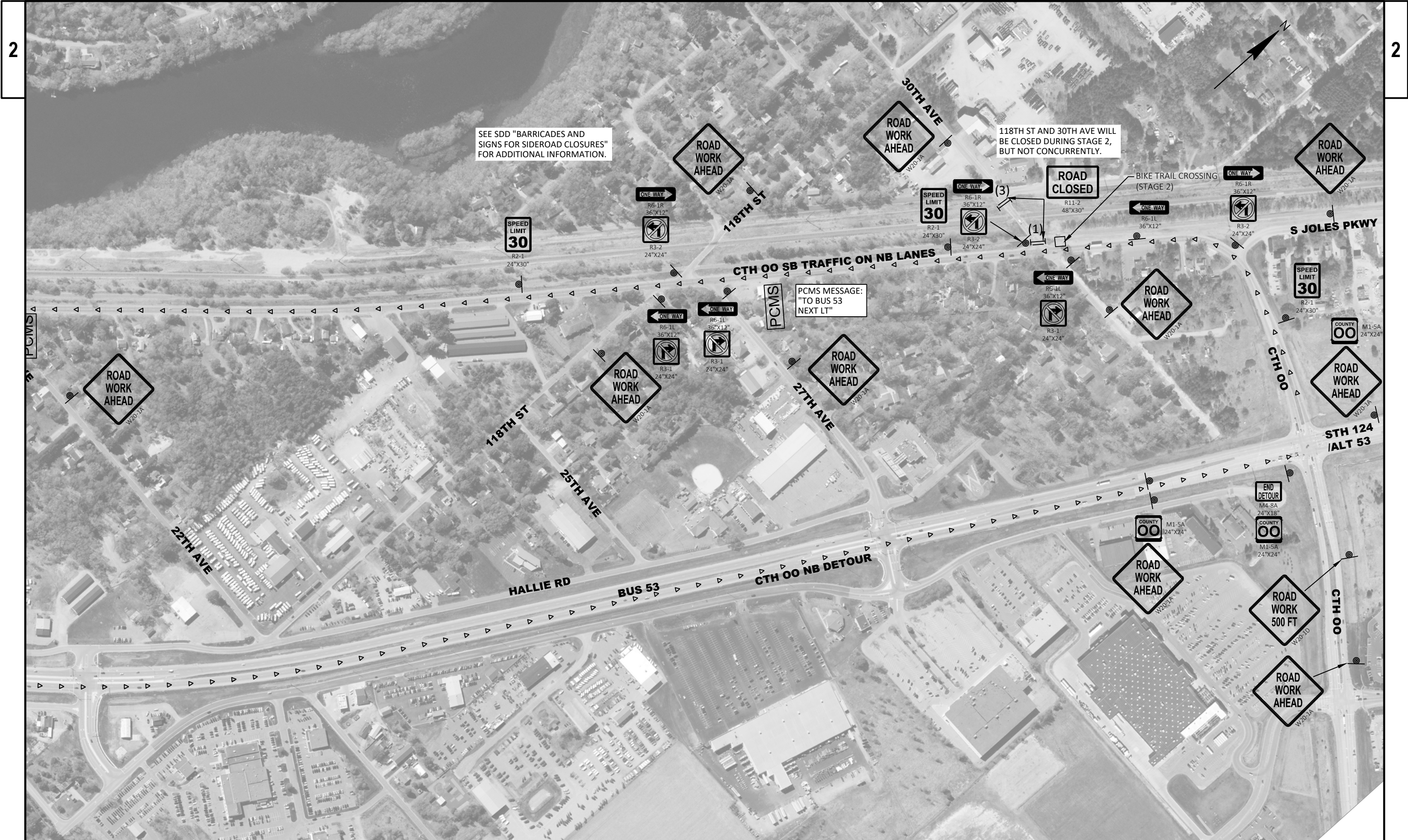
COUNTY: CHIPPEWA

TRAFFIC CONTROL - STAGE 2

SHEET

E

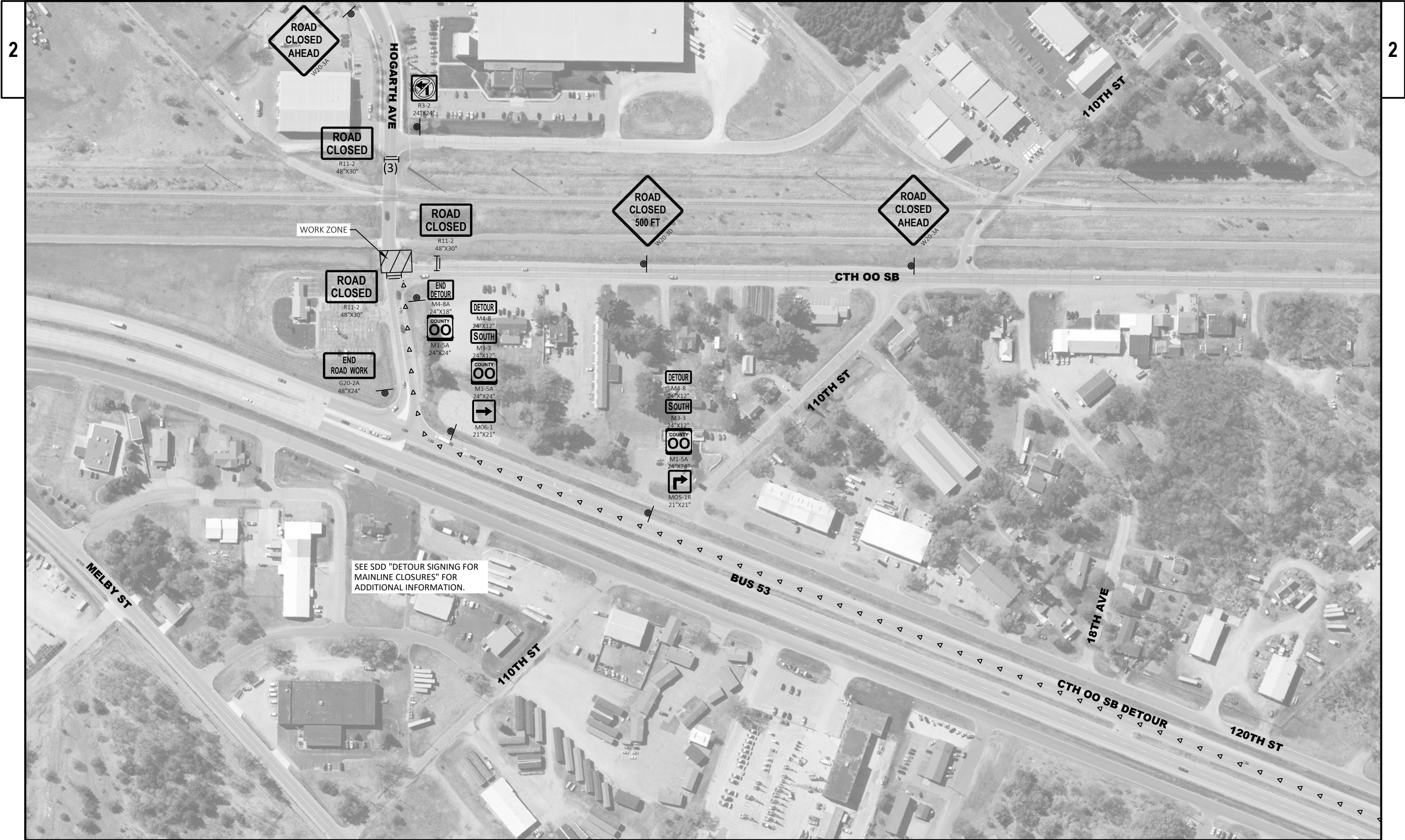




SEE SDD "BARRICADES AND
SIGNS FOR SIDEROAD CLOSURES"
FOR ADDITIONAL INFORMATION.

118TH ST AND 30TH AVE WILL
BE CLOSED DURING STAGE 2,
BUT NOT CONCURRENTLY.

PCMS MESSAGE:
"TO BUS 53
NEXT LT"



PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	TRAFFIC CONTROL - STAGE 3	SHEET	E
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Estimate Of Quantities

7864-00-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	7.000	7.000
0004	201.0205	Grubbing	STA	7.000	7.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	71.000	71.000
0010	205.0100	Excavation Common	CY	4,074.000	4,074.000
0012	208.0100	Borrow	CY	524.000	524.000
0014	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 7864-00-74	EACH	1.000	1.000
0016	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	107.000	107.000
0018	213.0100	Finishing Roadway (project) 01. 7864-00-74	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,445.000	1,445.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,293.000	1,293.000
0024	455.0605	Tack Coat	GAL	5,061.000	5,061.000
0026	460.6244	HMA Pavement 4 MT 58-34 S	TON	2,409.000	2,409.000
0028	460.6245	HMA Pavement 5 MT 58-34 S	TON	3,771.000	3,771.000
0030	465.0105	Asphaltic Surface	TON	16.000	16.000
0032	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	636.000	636.000
0034	520.3318	Culvert Pipe Class III-A 18-Inch	LF	122.000	122.000
0036	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	6.000	6.000
0038	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	210.000	210.000
0040	602.0405	Concrete Sidewalk 4-Inch	SF	230.000	230.000
0042	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000
0044	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	32.000	32.000
0046	602.0810	Concrete Driveway 6-Inch	SY	95.000	95.000
0048	602.3010	Concrete Surface Drains	CY	1.000	1.000
0050	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7864-00-74	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	473.000	473.000
0056	625.0100	Topsoil	SY	14,215.000	14,215.000
0058	627.0200	Mulching	SY	10,355.000	10,355.000
0060	628.1504	Silt Fence	LF	545.000	545.000
0062	628.1520	Silt Fence Maintenance	LF	545.000	545.000
0064	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0068	628.2006	Erosion Mat Urban Class I Type A	SY	6,835.000	6,835.000
0070	628.2021	Erosion Mat Class II Type A	SY	19.000	19.000
0072	628.7555	Culvert Pipe Checks	EACH	8.000	8.000
0074	629.0205	Fertilizer Type A	CWT	10.000	10.000
0076	630.0140	Seeding Mixture No. 40	LB	257.000	257.000
0078	630.0500	Seed Water	MGAL	162.000	162.000
0080	633.0200	Delineators Flexible	EACH	4.000	4.000
0082	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	21.000	21.000
0084	637.2210	Signs Type II Reflective H	SF	43.500	43.500
0086	637.2230	Signs Type II Reflective F	SF	22.750	22.750
0088	638.2102	Moving Signs Type II	EACH	11.000	11.000
0090	638.2602	Removing Signs Type II	EACH	7.000	7.000
0092	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0094	638.4000	Moving Small Sign Supports	EACH	11.000	11.000
0096	642.5201	Field Office Type C	EACH	1.000	1.000
0098	643.0300	Traffic Control Drums	DAY	30,290.000	30,290.000

Estimate Of Quantities

7864-00-74

Line	Item	Item Description	Unit	Total	Qty
0100	643.0410	Traffic Control Barricades Type II	DAY	4,730.000	4,730.000
0102	643.0420	Traffic Control Barricades Type III	DAY	2,075.000	2,075.000
0104	643.0705	Traffic Control Warning Lights Type A	DAY	7,355.000	7,355.000
0106	643.0715	Traffic Control Warning Lights Type C	DAY	250.000	250.000
0108	643.0900	Traffic Control Signs	DAY	20,065.000	20,065.000
0110	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
0112	643.1050	Traffic Control Signs PCMS	DAY	218.000	218.000
0114	643.5000	Traffic Control	EACH	1.000	1.000
0116	646.1020	Marking Line Epoxy 4-Inch	LF	32,387.000	32,387.000
0118	646.3020	Marking Line Epoxy 8-Inch	LF	201.000	201.000
0120	646.5020	Marking Arrow Epoxy	EACH	1.000	1.000
0122	646.6120	Marking Stop Line Epoxy 18-Inch	LF	99.000	99.000
0124	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	101.000	101.000
0126	648.0100	Locating No-Passing Zones	MI	1.920	1.920
0128	650.5000	Construction Staking Base	LF	10,130.000	10,130.000
0130	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	210.000	210.000
0132	650.8000	Construction Staking Resurfacing Reference	LF	880.000	880.000
0134	650.9000	Construction Staking Curb Ramps	EACH	3.000	3.000
0136	650.9911	Construction Staking Supplemental Control (project) 01. 7864-00-74	EACH	1.000	1.000
0138	650.9920	Construction Staking Slope Stakes	LF	10,300.000	10,300.000
0140	690.0150	Sawing Asphalt	LF	1,668.000	1,668.000
0142	690.0250	Sawing Concrete	LF	31.000	31.000
0144	740.0440	Incentive IRI Ride	DOL	1.000	1.000
0146	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	800.000	800.000
0148	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0150	SPV.0060	Special 01. Rectangular Rapid Flashing Beacon (RRFB) System CTH OO NB STA 101+00	EACH	1.000	1.000
0152	SPV.0060	Special 02. Rectangualr Rapid Flashing Beason (RRFB) System CTH OO SB STA 100+85	EACH	1.000	1.000
0154	SPV.0060	Special 03. Radar Driver Feedback Sign STA 19+50	EACH	1.000	1.000
0156	SPV.0060	Special 04. Radar Driver Feedback Sign STA 98+00	EACH	1.000	1.000
0158	SPV.0195	Special 01. Salvaged Asphaltic Pavement Milling	TON	17,154.000	17,154.000
0160	SPV.0195	Special 02. Salvaged Asphaltic Pavement Base	TON	14,685.000	14,685.000

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CLEARING & GRUBBING

				201.0105 CLEARING STA	201.0205 GRUBBING STA
STATION	TO	STATION	LOCATION	STA	STA
48+00	-	49+00	RT	1	1
79+00	-	82+00	RT	3	3
92+00	-	93+00	RT	1	1
99+00	-	100+00	RT	1	1
106+00	-	107+00	RT	1	1
TOTAL 0010				7	7

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)	208.0100 BORROW	
		CUT (2)	EXCAVATION (3)				FACTOR 1.30				
DIVISION 1	11+00/111+14.902										
CTH OO - Northbound		4,005	0	769	3,236	15	20	3,217	3,217	0	
DIVISION 1 SUBTOTAL		4,005	0	769	3,236	15	20	3,217	3,217	0	
DIVISION 2											
CTH OO - Southbound	11+00/111+14.902	69	0	437	-368	120	156	-524	0	524	
DIVISION 2 SUBTOTAL		69	0	437	-368	120	156	-524	0	524	
GRAND TOTAL		4,074	0	1,206	2,868	135	176	2,693	3,217	524	
TOTAL COMMON EXC		4,074									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUALE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUALE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTEXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

REMOVING SMALL PIPE CULVERTS

				203.0100 REMOVING SMALL PIPE CULVERTS EACH	SIZE/MATERIAL
STATION		LOCATION		EACH	SIZE/MATERIAL
109+32		RT		1	18"x30' CMCP
TOTAL 0010				1	

REMOVING CONCRETE PAVEMENT

			204.0100 REMOVING CONCRETE PAVEMENT SY
STATION		LOCATION	SY
95+42		RT	32
107+17		RT	39
TOTAL 0010			71

BASE AGGREGATE DENSE

				305.0110	305.0120	SPV.0195.02 SPECIAL (02. SALVAGED ASPHALTIC PAVEMENT BASE)
				BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	TON
STATION	TO	STATION	LOCATION	TON	TON	TON
199+88	-	100+37	HOGARTH ST	30	--	185
10+42	-	108+80	CTH OO	1,415	--	14,500
103+50	-	105+90	RT	--	101	--
			TRAIL CROSSING	--	14	--
10+00	-	24+00	RT	--	168	--
24+00	-	39+50	RT	--	227	--
39+50	-	54+25	RT	--	136	--
54+25	-	69+50	RT	--	217	--
69+50	-	82+50	RT	--	138	--
82+50	-	98+25	RT	--	189	--
98+25	-	111+23	RT	--	103	--
TOTAL 0010				1,445	1,293	14,685

FINISHING ROADWAY

		213.0100.01 FINISHING ROADWAY (PROJECT) (01. 7864-00-74) EACH
PROJECT ID		EACH
7864-00-74		1
TOTAL 0010		1

PREPARE FOUNDATION

			211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 7864-00-74) EACH	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
STATION	TO	STATION	PROJECT ID	STA
			7864-00-74	--
10+00	-	117+00	CTH OO	107
TOTAL 0010			1	107

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

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ASPHALT PAVEMENT ITEMS								
STATION	TO	STATION	LOCATION	455.0605	460.6244	460.6245	465.0105	465.0120
				TACK COAT GAL	HMA PAVEMENT 4 MT 58-34 S TON	HMA PAVEMENT 5 MT 58-34 S TON	ASPHALTIC SURFACE TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
			HOGARTH ST	150	75	105	--	13
10+42	-	108+80	CTH OO	4,305	2,153	3,014	--	--
108+80	-	117+59	CTH OO	239	--	383	--	--
			S 110TH ST	35	18	25	--	--
			N 110TH ST	16	8	12	--	--
			18TH AVE	17	9	12	--	--
			COMMERCIAL DRWY	59	30	41	--	--
			111TH ST	20	10	14	--	--
			22ND AVE	35	18	24	--	--
			N HANSON ST	29	15	20	--	--
			CAROL ST	35	18	25	--	--
			27TH AVE	43	22	30	--	--
			N 30TH AVE	43	22	30	--	--
			S 30TH AVE	22	11	16	--	--
			TRAIL CROSSING	--	--	--	16	--
			S JOLES PKWY	13	--	20	--	--
10+00	-	24+00	RT	--	--	--	--	103
24+00	-	39+50	RT	--	--	--	--	115
39+50	-	54+25	RT	--	--	--	--	69
54+25	-	69+50	RT	--	--	--	--	111
69+50	-	82+50	RT	--	--	--	--	70
82+50	-	98+25	RT	--	--	--	--	95
98+25	-	111+23	RT	--	--	--	--	60
TOTAL 0010				5,061	2,409	3,771	16	636

CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

STATION	TO	STATION	LOCATION	601.0415
				CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF
103+71	-	105+81	RT	210
TOTAL 0010				210

CONCRETE SIDEWALK 4-INCH & CURB RAMP DETECTABLE WARNING FIELD

STATION	LOCATION	602.0405	602.0505	602.0605	650.9000	REMARKS
		CONCRETE SIDEWALK 4-INCH SF	CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	CURB RAMP DETECTABLE WARNING FIELD RADIAL SF	CONSTRUCTION STAKING CURB RAMPS EACH	
100+91	LT	55	20	--	1	TRAIL CROSSING
100+91	RT	105	--	32	1	TRAIL CROSSING
	30TH AVE	70	20	--	1	TRAIL CROSSING
TOTAL 0010		230	40	32	3	

CONCRETE SURFACE DRAINS

STATION	LOCATION	602.3010
		CONCRETE SURFACE DRAINS CY
105+88	RT	1
TOTAL 0010		1

CULVERT PIPES AND ENDWALLS

STATION	LOCATION	520.3318	521.1018
		CULVERT PIPE CLASS III-A 18-INCH LF	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH
106+49	RT	40	2
107+17	RT	30	2
109+32	RT	52	2
TOTAL 0010		122	6

MAINTENANCE AND REPAIR OF HAUL ROADS

618.0100.01	
MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7864-00-74)	
PROJECT ID	EACH
7864-00-74	1
TOTAL 0010	1

MOBILIZATION

PROJECT ID	619.1000 MOBILIZATION EACH
7864-00-74	1
TOTAL 0010	1

WATER

	624.0100
	WATER
LOCATION	MGAL
DUST CONTROL	125
COMPACTION	348
TOTAL 0010	473

EROSION CONTROL

STATION	TO	STATION	LOCATION	628.1504	628.1520	628.2006	628.2021	628.7555
				SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT URBAN CLASS I TYPE A SY	EROSION MAT CLASS II TYPE A SY	CULVERT PIPE CHECKS EACH
11+00	-	24+25	RT	115	115	380	--	--
25+25	-	50+55	RT	55	55	810	--	--
51+65	-	74+60	RT	265	265	815	--	--
75+00	-	111+15	RT	--	--	1,080	--	--
		105+90	RT	--	--	--	3	--
		106+49	RT	--	--	--	4	2
		107+17	RT	--	--	--	4	2
		109+32	RT	--	--	--	4	2
		UNDISTRIBUTED		110	110	750	4	2
TOTAL 0010				545	545	3,835	19	8

RESTORATION ITEMS

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905	628.1910
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT LIMITS	2	3
TOTAL 0010		3

STATION	TO	STATION	LOCATION	625.0100	627.0200	629.0205	630.0140	630.0500
				TOPSOIL SY	MULCHING SY	FERTILIZER TYPE A CWT	SEEDING MIXTURE NO. 40 LB	SEED WATER MGAL
11+00	-	24+25	CTH OO	1210	830	1	54	14
25+25	-	50+55	CTH OO	2460	1650	2	111	28
51+65	-	74+60	CTH OO	2645	1830	2	119	30
75+00	-	108+75	CTH OO	5055	3975	3	227	57
		UNDISTRIBUTED		2,845	2,070	2	129	33
TOTAL 0010				14,215	10,355	10	640	162

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS & MOVING SIGNS												
		634.0614	637.2210	637.2230	638.2102	638.2602	638.3000	638.4000	SPV.0060.03 SPECIAL (03. RADAR DRIVER FEEDBACK SIGN STA 19+50)	SPV.0060.04 SPECIAL (04. RADAR DRIVER FEEDBACK SIGN STA 98+00)		
APPROX STATION	LOCATION	SIGN CODE	SIGN SIZE INCHES	POSTS WOOD 4X6- INCH X 14-FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	MOVING SMALL SIGN SUPPORTS EACH		REMARKS
12+85	RT	R2-1	24x30	--	--	--	--	1	1	--	--	
16+40	RT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
19+50	RT	R2-1	24x30	1	5.00	--	--	--	--	--	--	"40" TEMP FLAGS REQ.D
19+50	RT	R2-1C	30x36	1	--	--	--	--	--	--	1	
19+73	RT			--	--	--	1	--	--	1	--	
34+00	LT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
36+65	LT	R5-50	30x24	1	5.00	--	--	--	--	--	--	
40+60	RT	R2-1	24x30	--	5.00	--	--	1	--	1	--	"40", USE EX POST, TEMP FLAGS REQ.D
40+60	LT	R2-1	24x30	--	5.00	--	--	1	--	--	--	"40", USE EX POST, TEMP FLAGS REQ.D
42+00	RT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
48+15	LT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
56+10	RT			--	--	--	1	--	--	1	--	
58+60	LT			--	--	--	--	1	1	--	--	
58+60	RT			--	--	--	--	1	1	--	--	
69+40	RT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
70+50	LT	R2-1	24x30	1	5.00	--	--	--	--	--	--	"40", TEMP FLAGS REQ'D
70+50	RT	R2-1	24x30	1	5.00	--	--	--	--	--	--	"40", TEMP FLAGS REQ'D
76+75	LT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
79+35	RT			--	--	--	1	--	--	1	--	
86+73	LT			--	--	--	--	1	1	--	--	
90+00	RT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
90+50	RT			--	--	--	1	--	--	1	--	
95+95	RT			--	--	--	1	--	--	1	--	
96+00	LT	W14-3	48x36	1	--	5.56	--	--	--	--	--	
96+06	RT	W11-15A	30x30	--	--	6.25	--	1	--	1	--	USE EX POST
96+83	RT			--	--	--	1	--	--	1	--	
98+00	LT			1	--	--	1	--	1	--	--	MOVE FROM STA 98+60 RT, TEMP FLAGS REQ.D
98+00	LT	R2-1C		1	--	--	--	--	--	--	1	
100+80	30TH AVE 23' LT	W11-2	30x30	--	--	6.25	--	--	--	1	--	
		W16-7L	24x12	--	--	2.00	--	--	--	--	--	MOUNT TO RRFB SYSTEM
		R10-25	9x12	--	0.75	--	--	--	--	--	--	MOUNT TO RRFB SYSTEM
101+00	23' RT	W11-2	30x30	--	--	6.25	--	--	--	--	--	MOUNT TO RRFB SYSTEM
		W16-7L	24x12	--	--	2.00	--	--	--	--	--	MOUNT TO RRFB SYSTEM
101+20	RT	R10-25	9x12	--	0.75	--	--	--	--	--	--	MOUNT TO RRFB SYSTEM
				1	--	--	1	--	--	--	--	MOVE TO STA 101+90
102+24	LT	R7-1D	18x24	1	3.00	--	--	--	--	--	--	
102+24	RT	R7-1D	18x24	1	3.00	--	--	--	--	--	--	
103+40	RT	R7-1D	18x24	1	3.00	--	--	--	--	--	--	
103+58	RT			--	--	--	1	--	--	1	--	
104+00	LT	W11-15A	30x30	1	--	6.25	--	--	--	--	--	
104+70	RT	R7-1D	18x24	1	3.00	--	--	--	--	--	--	
106+15	RT			--	--	--	1	--	--	1	--	
TOTAL 0010				21.00	43.50	22.75	11	7	5	11	1	1

LOCATION OF "NO PASSING ZONE" SIGNS TO BE DETERMINED BY LOCATING NO-PASSING ZONES.

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

DELINEATORS FLEXIBLE

633.0200 DELINEATORS FLEXIBLE EACH				
STATION	TO	STATION	LOCATION	
104+20	-	105+00	RT	4
TOTAL 0010				4

FIELD OFFICE TYPE C

642.5201 FIELD OFFICE TYPE C EACH	
PROJECT ID	
7864-00-74	1
TOTAL 0010	1

TRAFFIC CONTROL

643.5000 TRAFFIC CONTROL EACH	
PROJECT	
7864-00-74	1
TOTAL 0010	1

TRAFFIC CONTROL

		643.0300	643.0410	643.0420	643.0705	643.0715	643.0900
		TRAFFIC	TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC
		CONTROL	BARRICADES	BARRICADES	WARNING LIGHTS	WARNING LIGHTS	CONTROL
		DRUMS	TYPE II	TYPE III	TYPE A	TYPE C	SIGNS
DAYS		DAY	DAY	DAY	DAY	DAY	DAY
STAGE 1/HOGARTH	30	720	0	210	330	--	840
STAGE 1	50	18,500	4,150	1,000	5,550	--	6,500
STAGE 2	45	9,990	180	405	810	--	6,615
NB DETOUR	100	0	0	0	0	--	5,400
STAGE 3/SB DETOUR	5	80	0	60	65	--	310
UNDISTRIBUTED	20	1,000	400	400	600	250	400
TOTAL 0010		30,290	4,730	2,075	7,355	250	20,065

TRAFFIC CONTROL SIGNS PCMS

643.1050 TRAFFIC CONTROL SIGNS PCMS			
LOCATION	STAGE	DAY	MESSAGE
BUS 53 PRIOR TO SOUTH OF MELBY	PRIOR	7	CTH OO NB CLOSURE BEGINS (DATE)
CTH OO AT HOGATH	PRIOR	7	CTH OO NB CLOSURE BEGINS (DATE)
CTH OO AT BUS 53 INT	PRIOR	7	CTH OO WORK BEGINS (DATE)
CTH OO EAST OF CTH OO/COMMERCIAL INT	PRIOR	7	CTH OO WORK BEGINS (DATE)
NORTH OF 27TH AVE	1/2	95	TO BUS 53 NEXT LT
NORTH OF 22ND AVE	1/2	95	TO BUS 53 NEXT LT
TOTAL 0010		218	

TRAFFIC CONTROL COVERING SIGNS TYPE II

643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH			
LOCATION	CYCLES		REMARKS
BUS 53 NB, RT	1	1	JCT, OO
BUS 53 NB, MEDIAN	1	1	OO, LT ARROW
TOTAL 0010		2	

MARKING LINE EPOXY

STATION	TO	STATION	LOCATION	TYPE	646.1020	646.3020	646.5020	646.6120	646.7520
					MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	MARKING ARROW EPOXY EACH	MARKING STOP LINE EPOXY 18-INCH LF	MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH LF
199+88	-	201+80	HOGARTH ST	DBL YELLOW	435	--	--	--	--
199+88	-	201+80	HOGARTH ST	EDGE LINE	465	--	--	15	--
10+65	-	117+59	CTH OO	EDGE LINE	19,710	--	--	15	--
10+65	-	111+30	CTH OO	CENTERLINE	10,675	--	--	--	--
37+08	-	38+22	CTH OO	CHANNELIZING	--	115	--	--	--
		100+91	TRAIL CROSSING		--	--	--	--	101
			30TH AVE		--	--	--	69	--
111+30	-	117+59	CTH OO	YELLOW EDGE LINE	1,032	--	--	--	--
112+74	-	113+77	CTH OO	DOTTED YELLOW EDGE LINE	70	--	--	--	--
116+59	-	117+46	CTH OO	CHANNELIZING	--	86	1	--	--
TOTAL 0010					32,387	201	1	99	101

NOTE: THERE MAY BE MORE STOP BARS IF COUNTY WANTS TO PUT THEM ON EVERY SIDE ROAD.
QUANTITIES ARE BASED ON EXISTING PAVEMENT MARKING WITH A FEW EXCEPTIONS;
STA 10+65 TO STA 16+40, STA 34+00 TO STA 42+00, AND STA 96+00 TO THE END WILL BE NO PASSING AREAS.
ALL OTHER NO PASSING ZONES WILL NEED TO BE ESTABLISHED.

LOCATING NO-PASSING ZONES

648.0100 LOCATING NO- PASSING ZONES MI				
STATION	TO	STATION	LOCATION	
10+00	-	111+23	CTH OO	1.92
TOTAL 0010				1.92

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CONSTRUCTION STAKING

				650.5000	650.5500	650.8000	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7864-00-74)	650.9920
				CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7864-00-74) EACH	CONSTRUCTION STAKING SLOPE STAKES LF
STATION	TO	STATION	LOCATION					
10+42	-	117+59	CTH OO	9,850	--	880	1	10,300
199+88	-	202+31	HOGARTH ST	280	--	--	--	--
103+71	-	105+81	CTH OO, RT	--	210	--	--	--
TOTAL 0010				10,130	210	880	1	10,300

SAWING

				690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STATION	TO	STATION	LOCATION		
10+00	-	24+00	RT	268	--
24+00	-	39+50	RT	517	--
39+50	-	54+25	RT	129	--
54+25	-	69+50	RT	265	10
69+50	-	82+50	RT	104	--
82+50	-	98+25	RT	165	13
98+25	-	111+23	RT	220	8
TOTAL 0010				1,668	31

SALVAGED ASPHALTIC PAVEMENT MILLING

				SPV.0195.01 SPECIAL (01. SALVAGED ASPHALTIC PAVEMENT MILLING) TON
STATION	TO	STATION	LOCATION	
10+42	-	108+80	CTH OO	15,750
			S 110TH ST	45
			N 110TH ST	21
			18TH AVE	21
			COMMERCIAL DRWY	70
			111TH ST	25
			22ND AVE	42
			N HANSON ST	34
			CAROL ST	42
			27TH AVE	51
			N 30TH AVE	53
			S 30TH AVE	28
			CTH OO	602
108+80	-	117+59	CTH OO	602
199+88	-	100+37	HOGARTH ST	370
TOTAL 0010				17,154

RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM CTH OO

		SPV.0060.01 SPECIAL (01. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM CTH OO NB STA 101+00) EACH	SPV.0060.02 SPECIAL (02. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM CTH OO SB STA 100+85) EACH
STATION	LOCATION		
101+00	32' RT	1	--
100+85	32' LT	--	1
TOTAL 0010		1	1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

THIS TLE IS FOR THE RIGHT TO CONSTRUCT, CUT, AND/OR FILL SLOPES, INCLUDING FOR SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES DEEM NECESSARY OR DESIRABLE.

R/W PROJECT NUMBER: 7864-00-04

SHEET NUMBER: 1

TLE ACQUISITION EXHIBIT
RELOCATION ORDER FOR CTH 00
BUSINESS 53 TO STH 124

CTH 00

CHIPPEWA COUNTY

PART OF THE SOUTHEAST ¼ OF THE SOUTHEAST ¼, SECTION 23, T28N, R09W, VILLAGE OF LAKE HALLIE, CHIPPEWA COUNTY, WISCONSIN

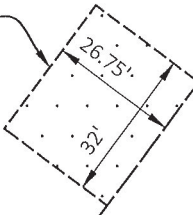
4

SE-SE

TAX PARCEL NUMBER
22809-2344-09990000

TLE
856± SF

1



EXISTING R/W

35'

30'

EXISTING R/W

CTH 00

IP
1" IP

EXISTING R/W

PI: 100+31.73

SECTION LINE

30TH AVE

30TH AVE

33'

33'

EXISTING R/W

SE-SE

100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE
PURPOSES ONLY AND ARE SUBJECT TO CHANGE
PRIOR TO THE TRANSFER OF LAND INTERESTS TO
THE COUNTY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	VILLAGE OF LAKE HALLIE	TLE	856±

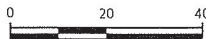
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

GN



SCALE, FEET



THIS MAP IS APPROVED FOR CHIPPEWA COUNTY.

SIGNATURE:

Brian Kelley

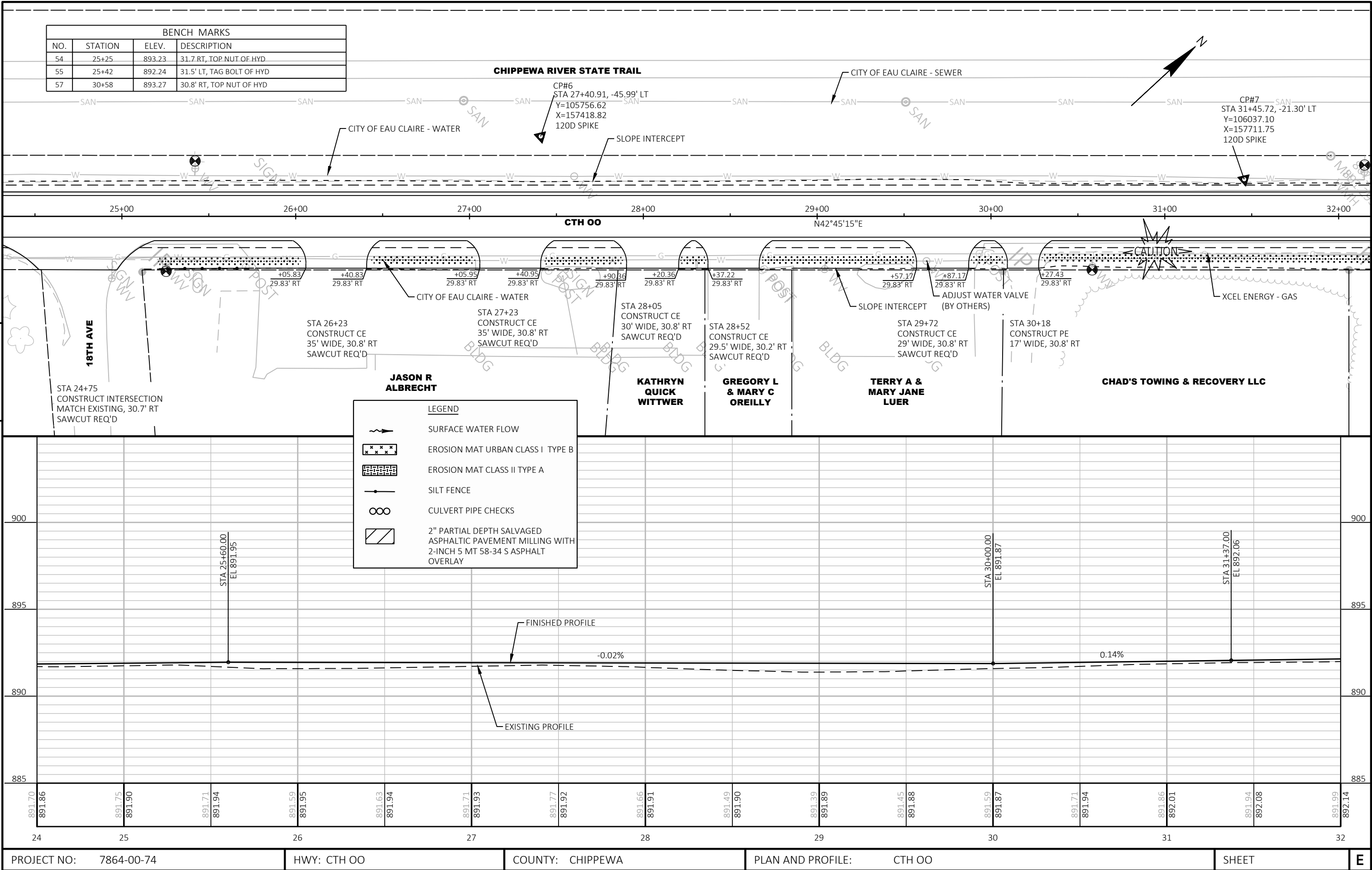
DATE:

5-29-24

PRINT NAME:

Brian Kelley

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
54	25+25	893.23	31.7 RT, TOP NUT OF HYD
55	25+42	892.24	31.5' LT, TAG BOLT OF HYD
57	30+58	893.27	30.8' RT, TOP NUT OF HYD



PROJECT NO: 7864-00-74

HWY: CTH 00

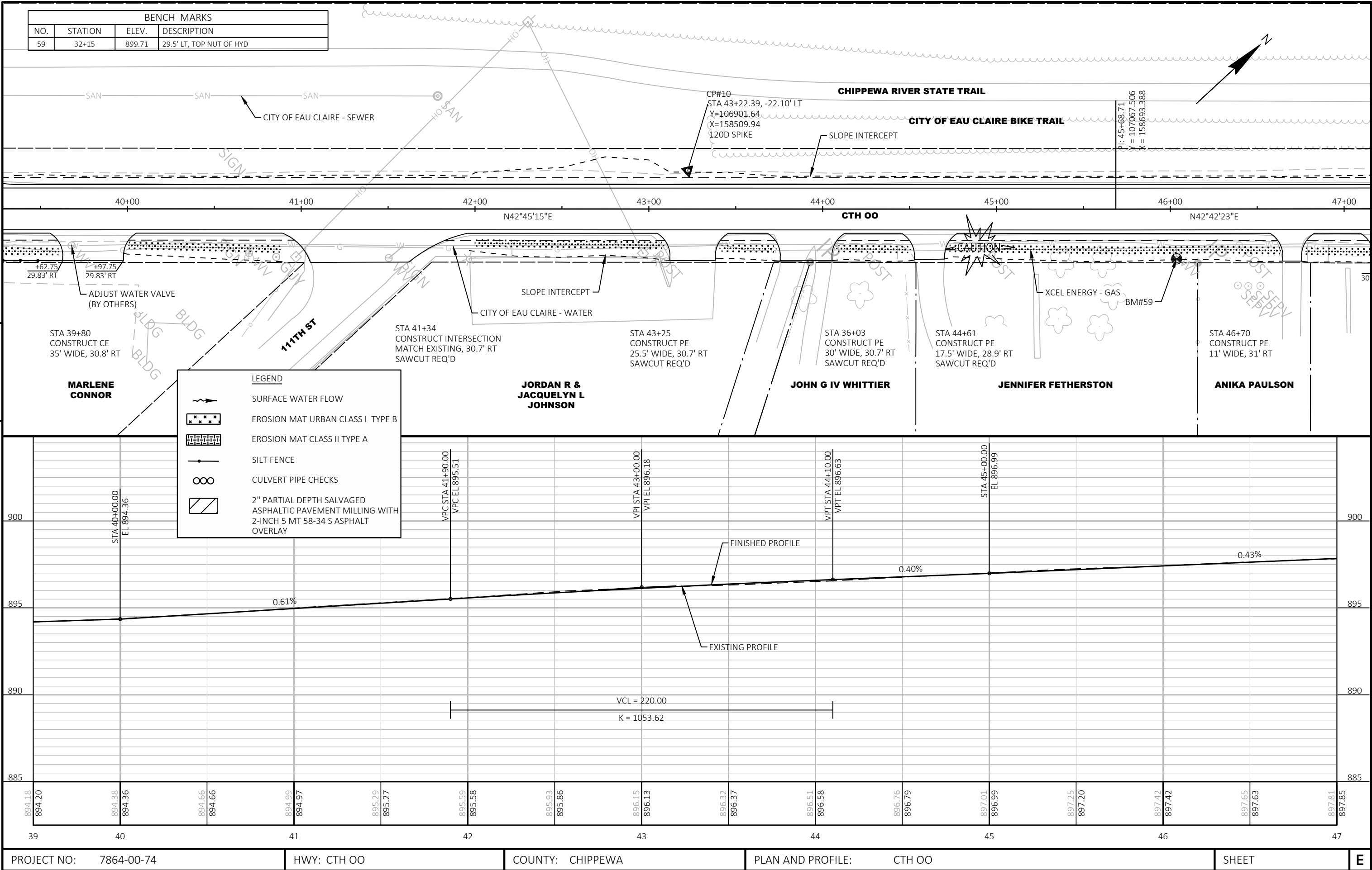
COUNTY: CHIPPEWA

PLAN AND PROFILE: CTH 00

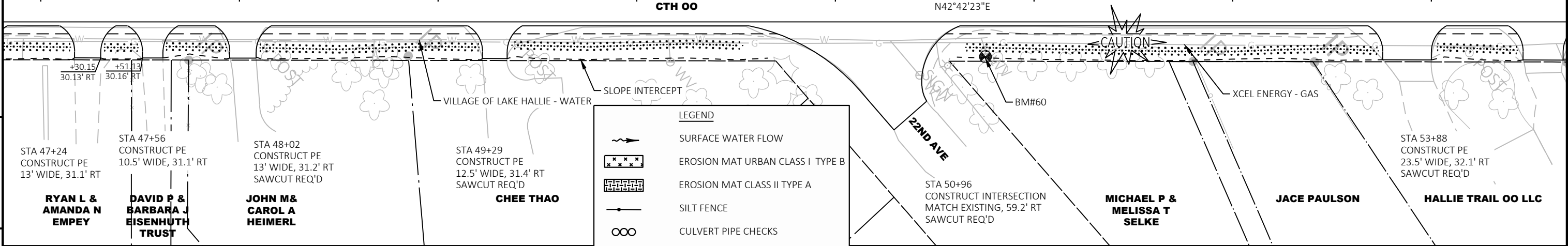
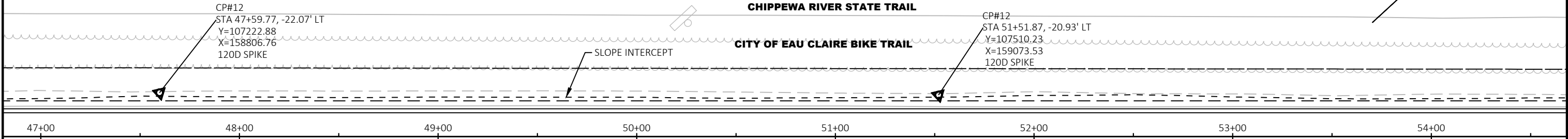
SHEET

E

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
59	32+15	899.71	29.5' LT, TOP NUT OF HYD

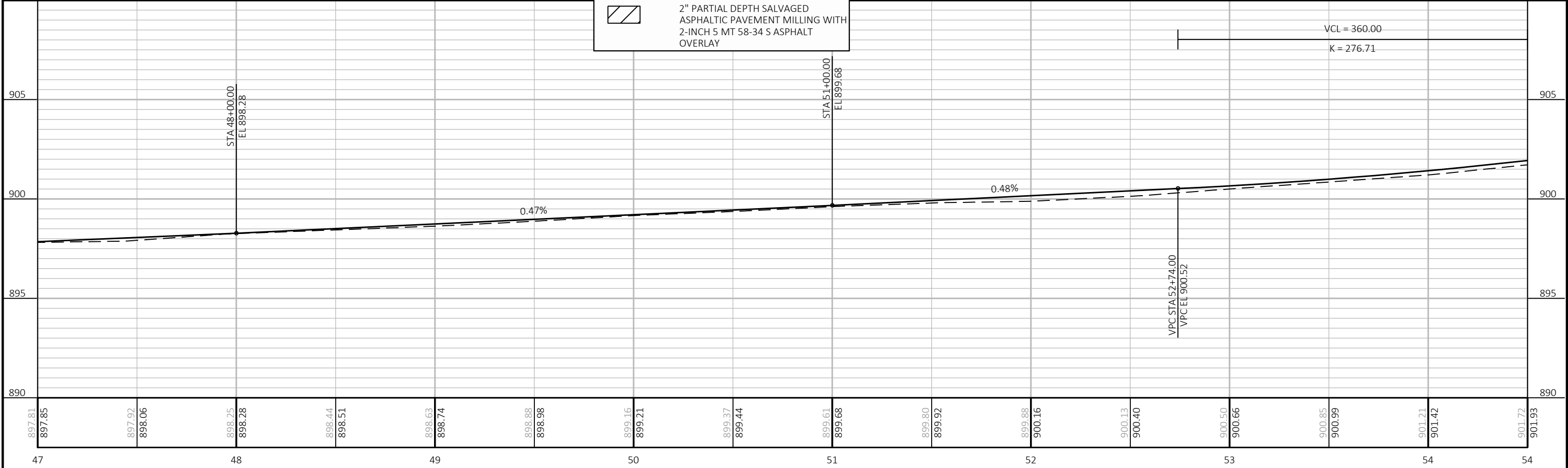


BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
60	51+75	902.03	29.5' LT, TOP NUT OF HYD

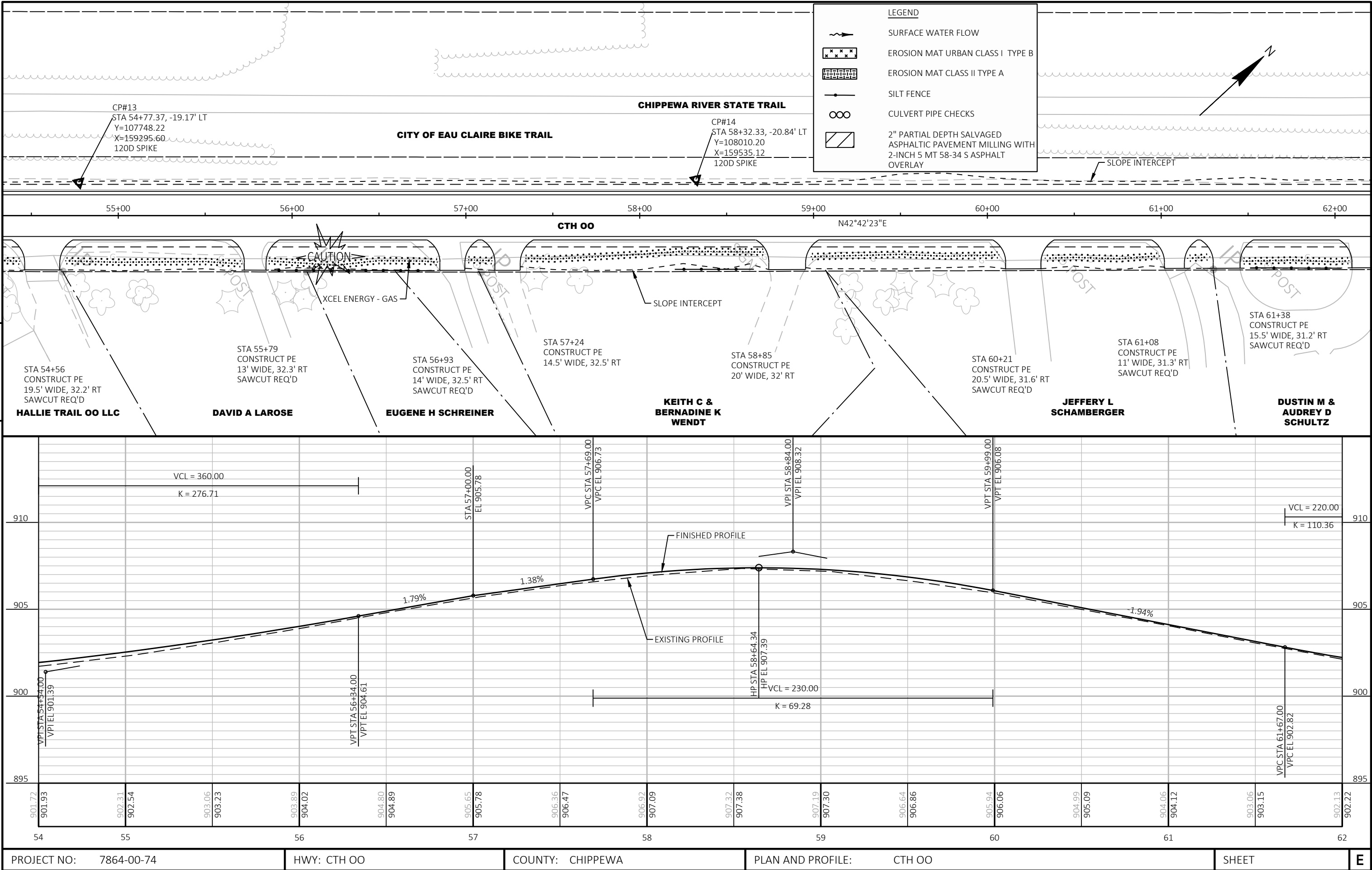


LEGEND

- SURFACE WATER FLOW
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE A
- SILT FENCE
- CULVERT PIPE CHECKS
- 2" PARTIAL DEPTH SALVAGED ASPHALTIC PAVEMENT MILLING WITH 2-INCH 5 MT 58-34 S ASPHALT OVERLAY



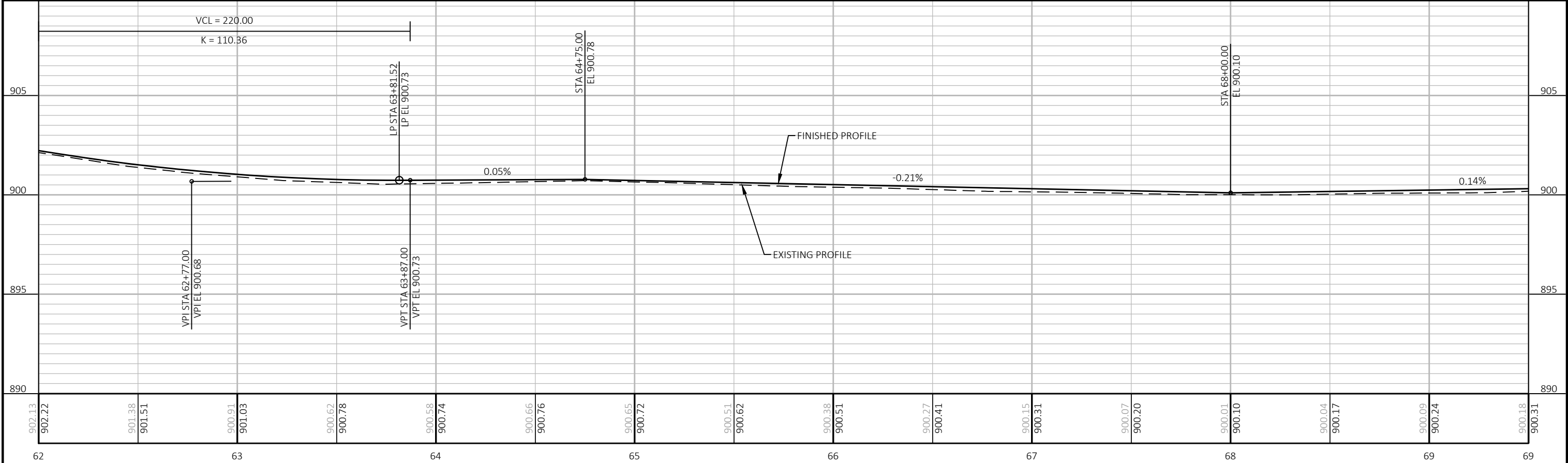
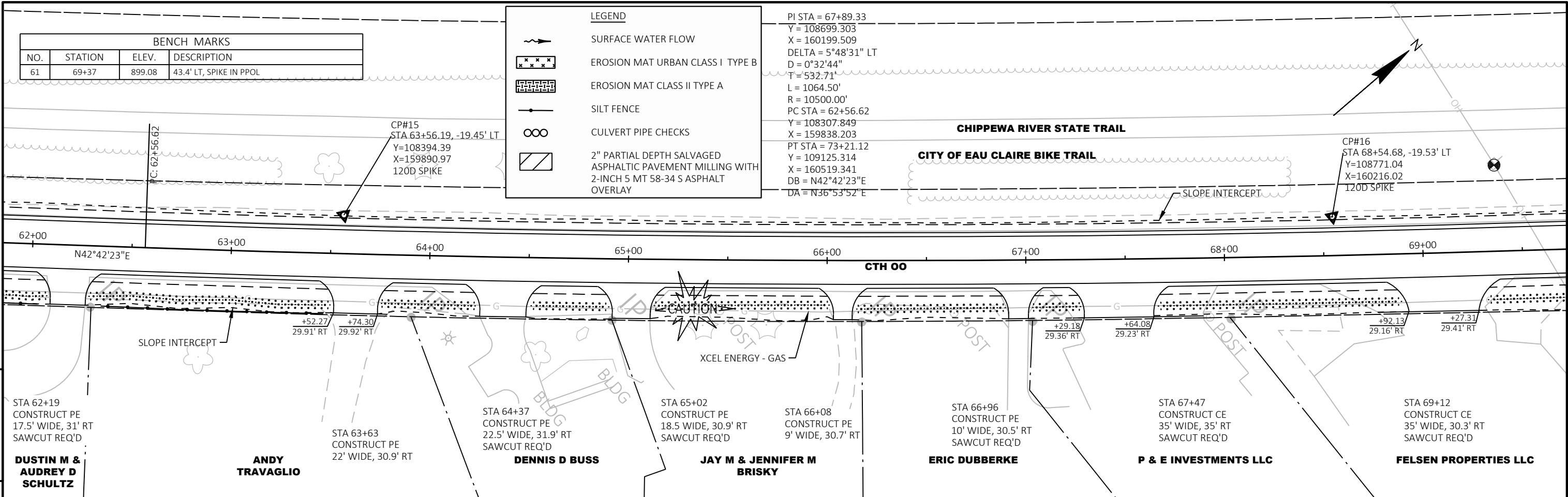
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	PLAN AND PROFILE: CTH OO	SHEET	E
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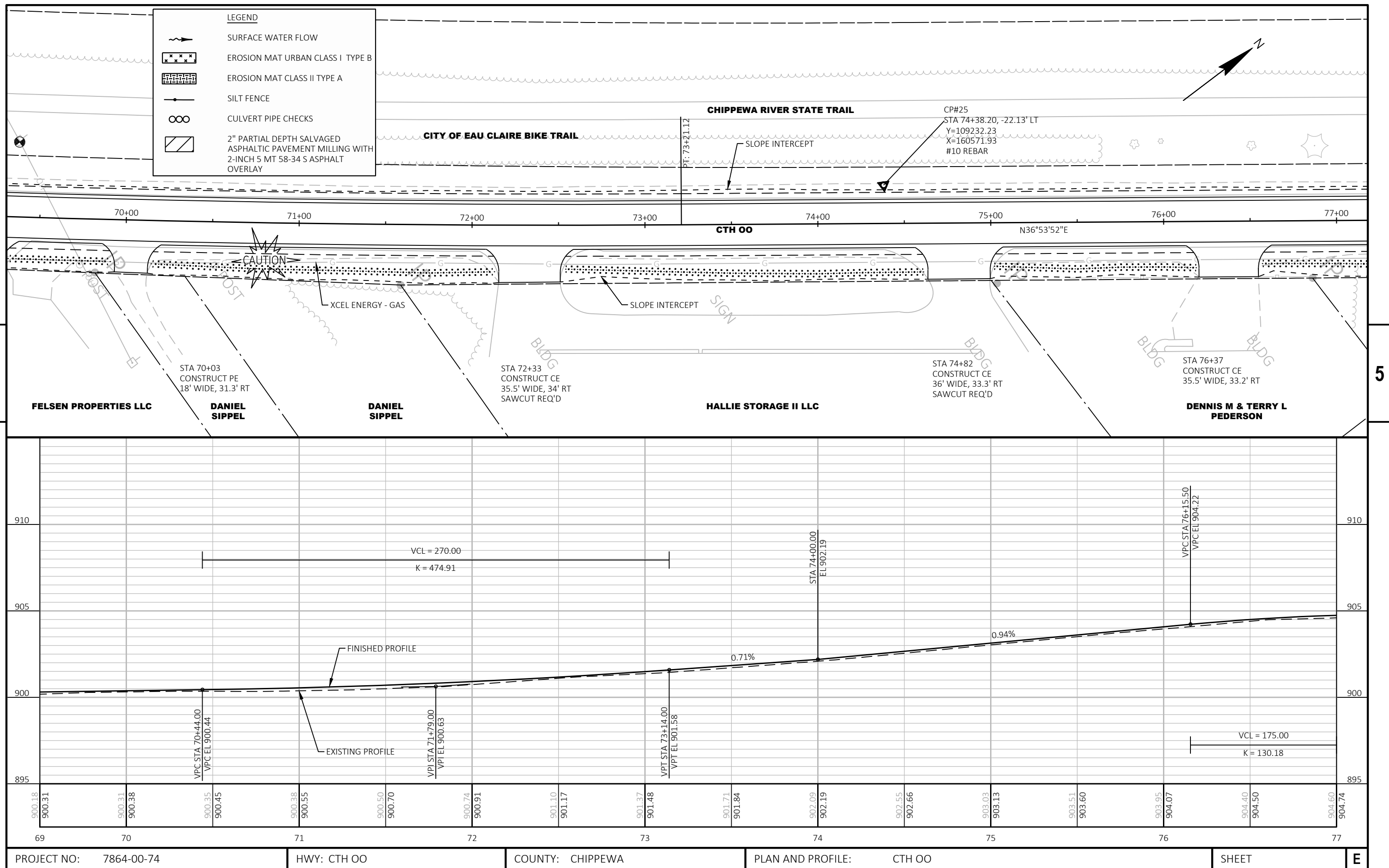
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
61	69+37	899.08	43.4' LT, SPIKE IN PPOL

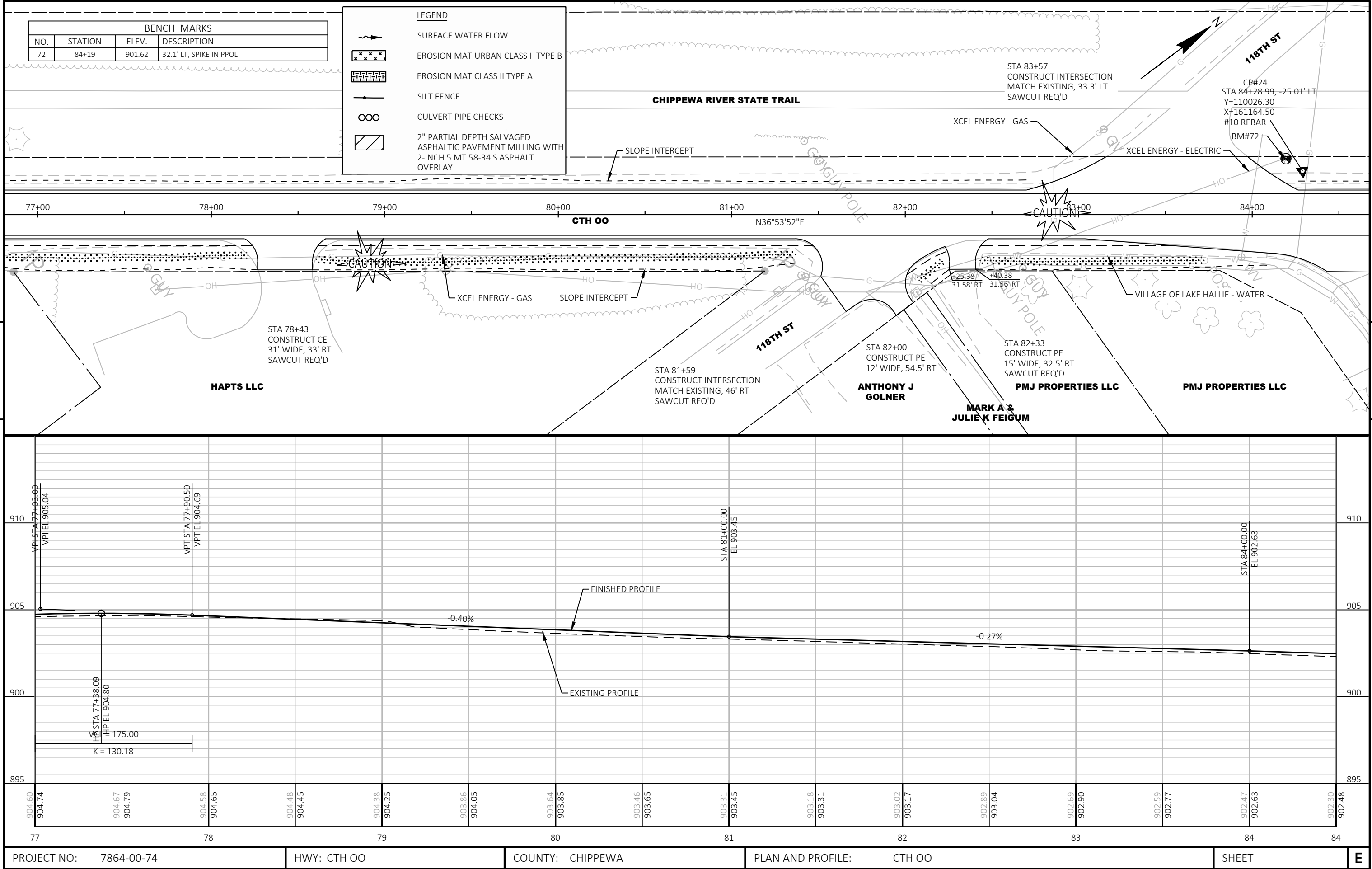
LEGEND	
	SURFACE WATER FLOW
	EROSION MAT URBAN CLASS I TYPE B
	EROSION MAT CLASS II TYPE A
	SILT FENCE
	CULVERT PIPE CHECKS
	2" PARTIAL DEPTH SALVAGED ASPHALTIC PAVEMENT MILLING WITH 2-INCH 5 MT 58-34 S ASPHALT OVERLAY

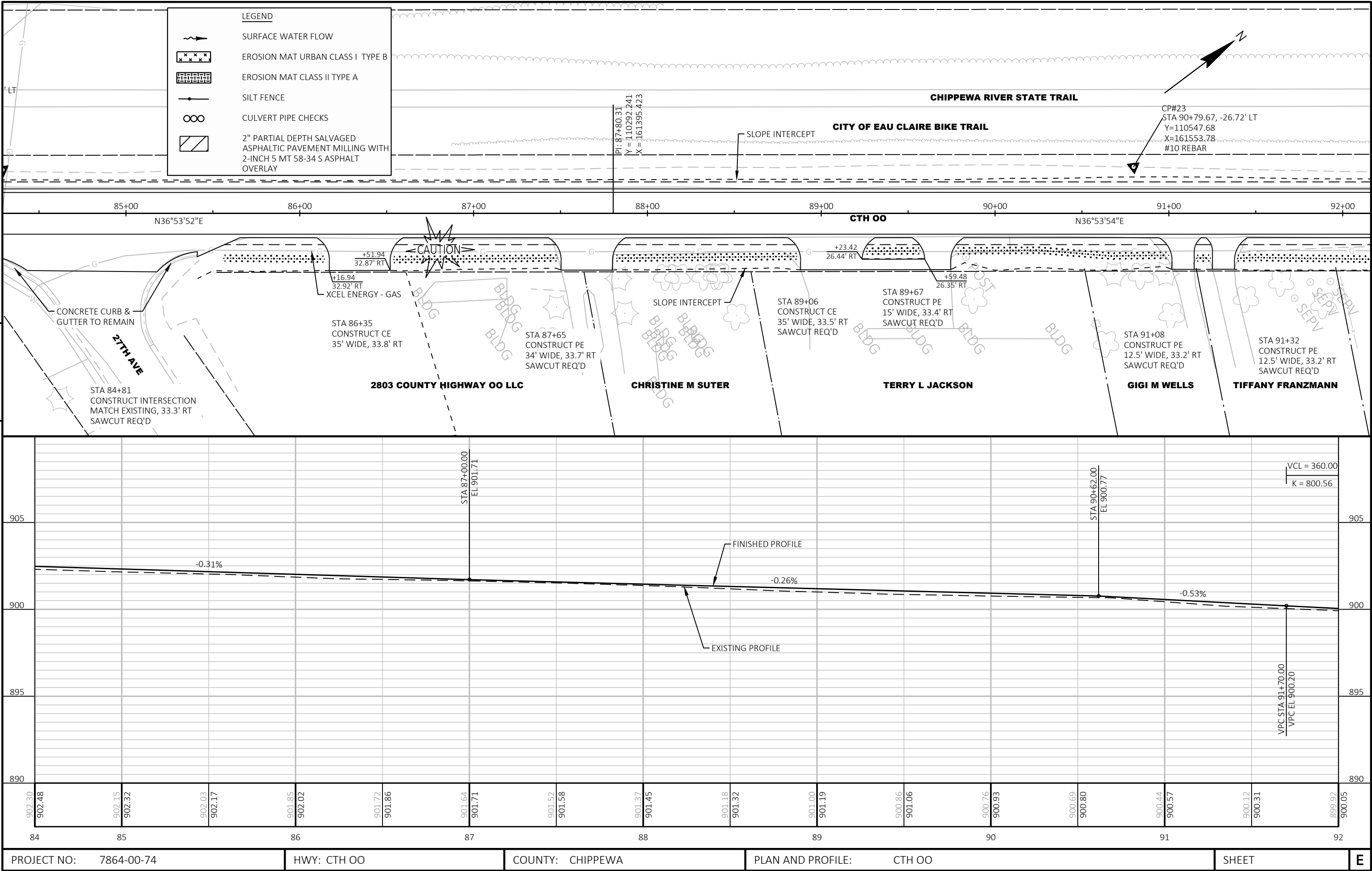
PI STA = 67+89.33
Y = 108699.303
X = 160199.509
DELTA = 5°48'31" LT
D = 0°32'44"
T = 532.71'
L = 1064.50'
R = 10500.00'
PC STA = 62+56.62
Y = 108307.849
X = 159838.203
PT STA = 73+21.12
Y = 109125.314
X = 160519.341
DB = N42°42'23"E
DA = N36°53'52"E

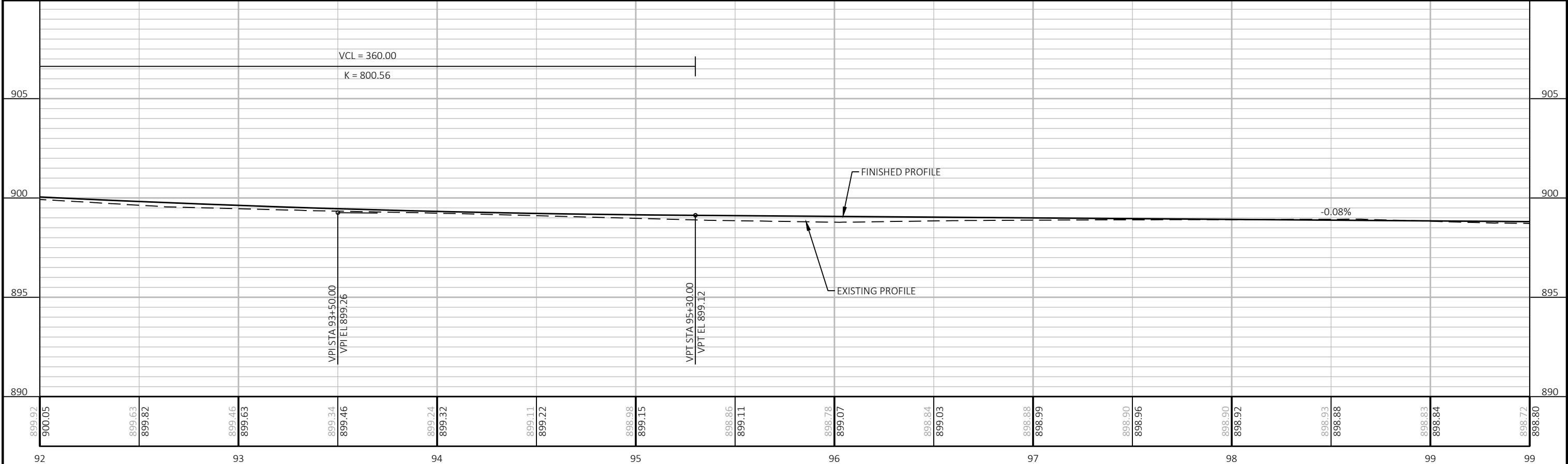
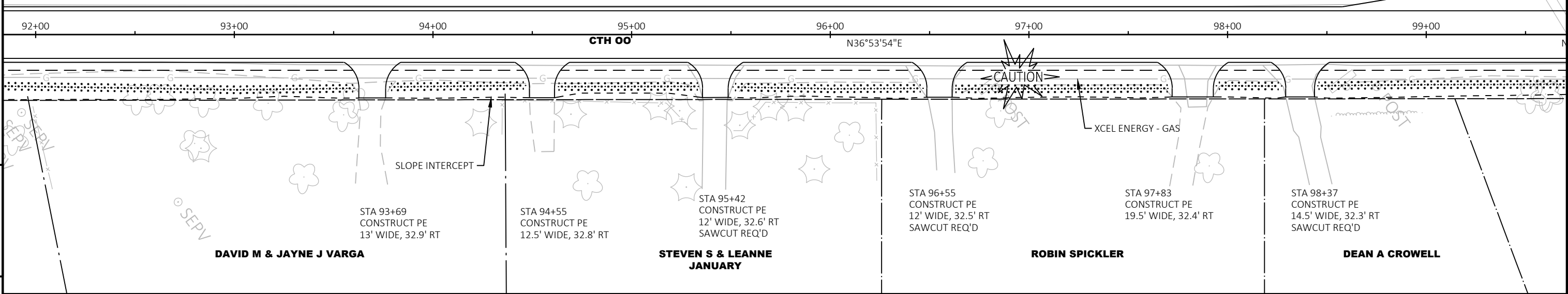
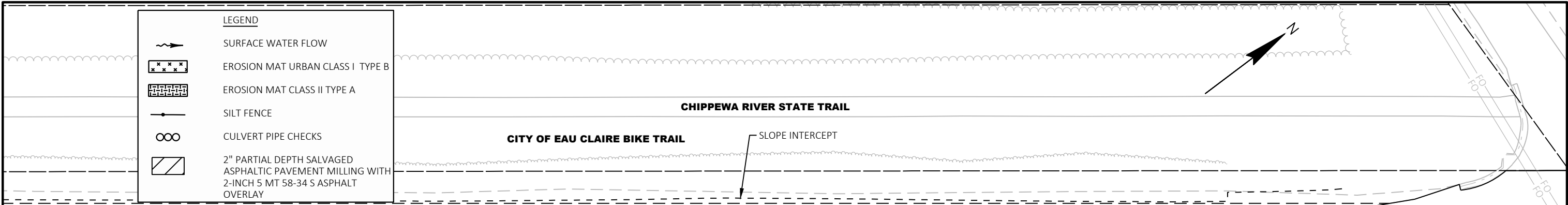


PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PLAN AND PROFILE: CTH 00	SHEET E
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PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PLAN AND PROFILE: CTH 00	SHEET	E
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BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
71	100+73	900.10	44.6' LT, TAG BOLT ON HYD

LEGEND

SURFACE WATER FLOW

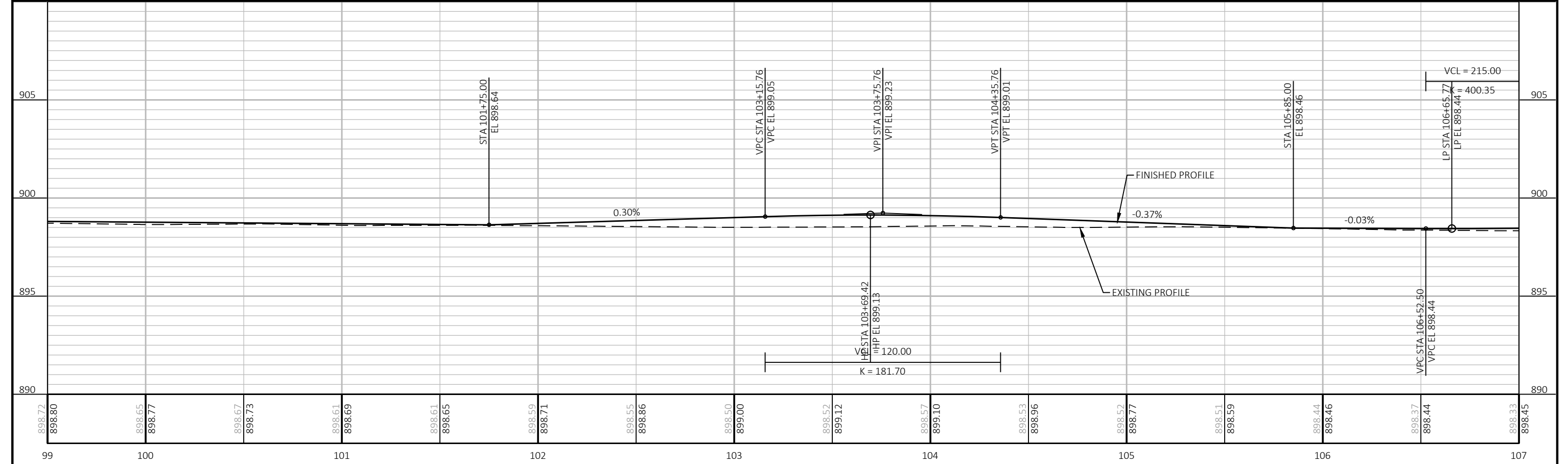
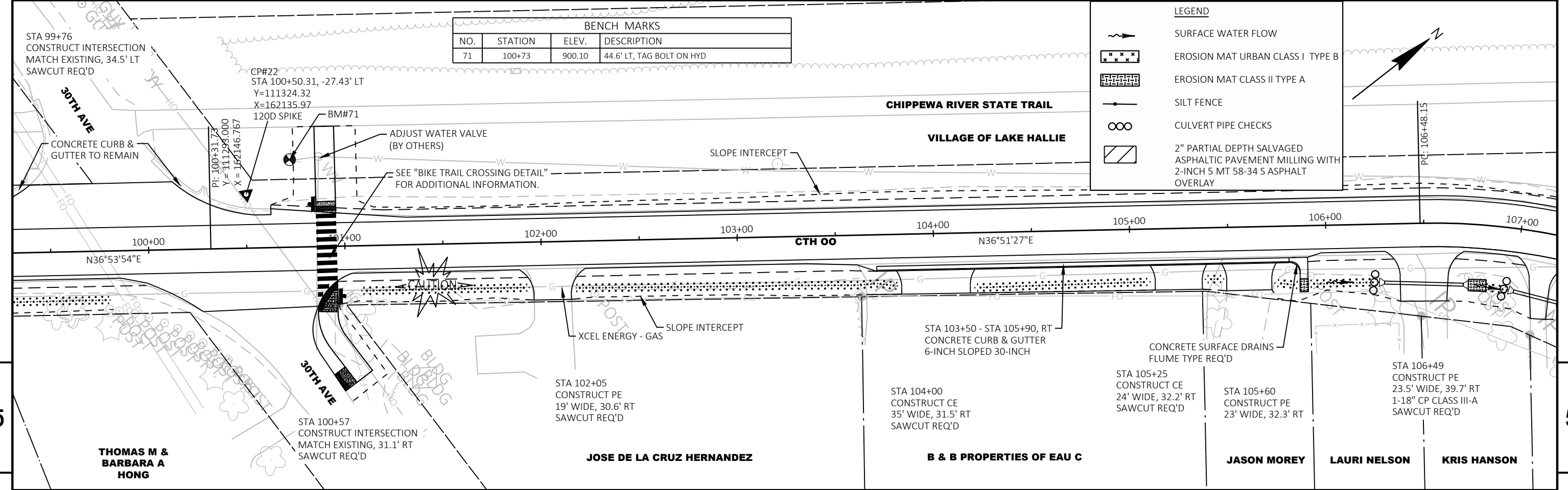
EROSION MAT URBAN CLASS I TYPE B

EROSION MAT CLASS II TYPE A

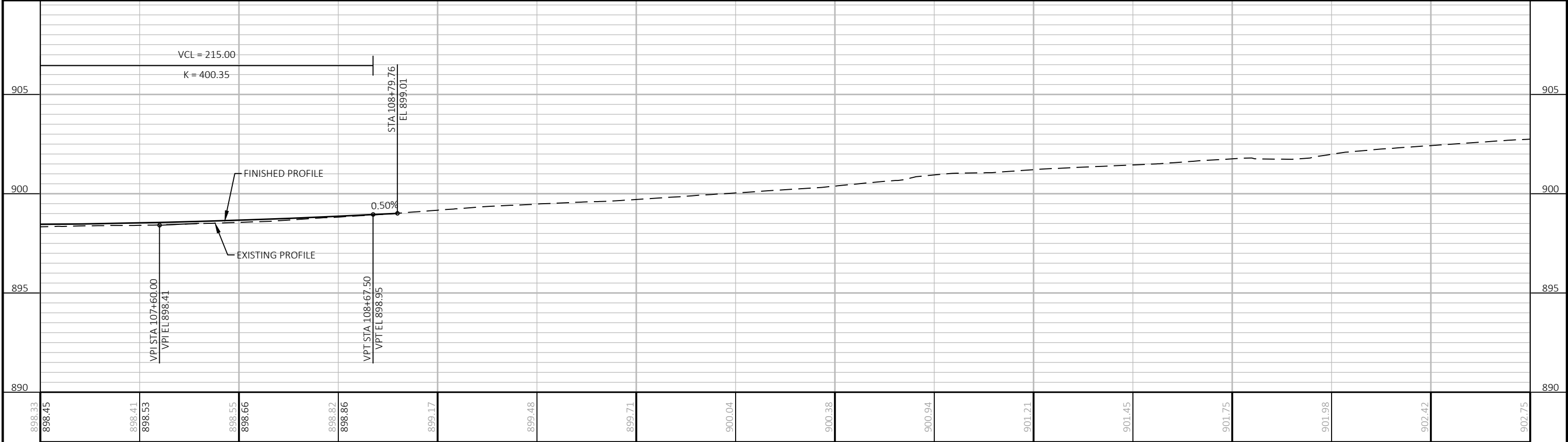
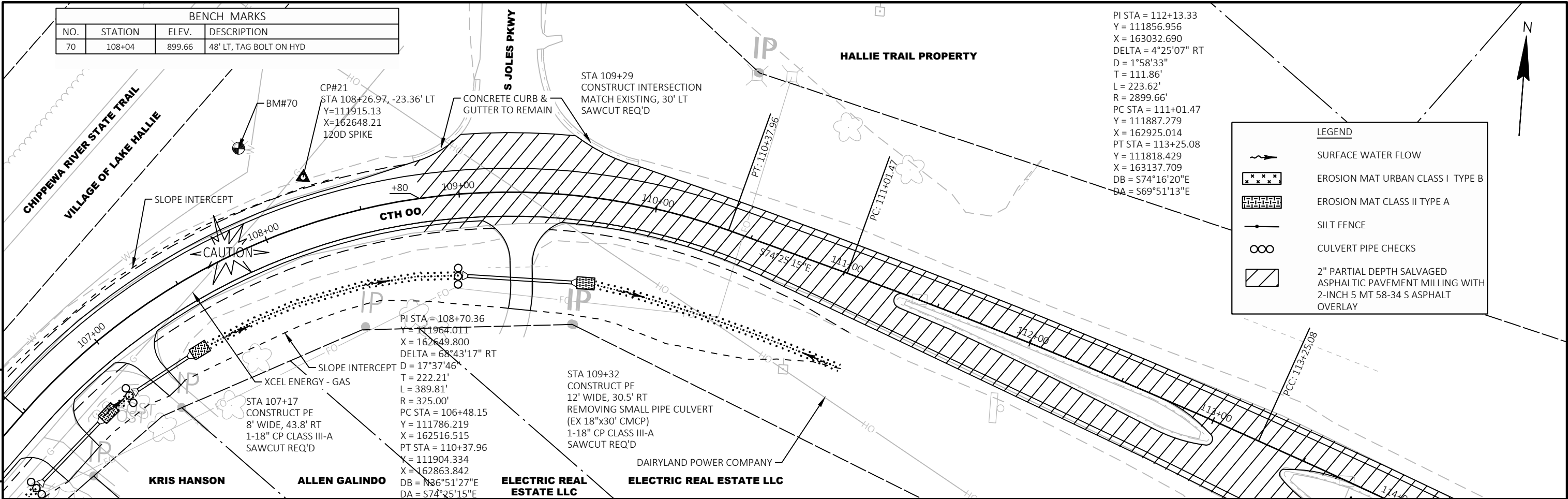
SILT FENCE

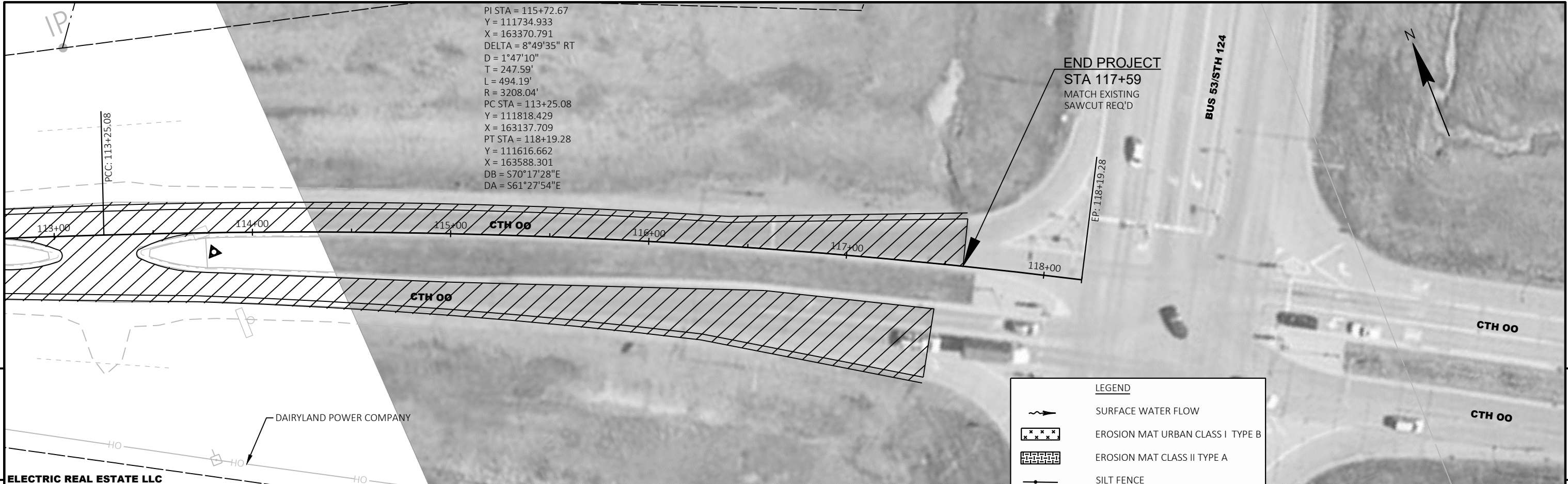
CULVERT PIPE CHECKS

2" PARTIAL DEPTH SALVAGED ASPHALTIC PAVEMENT MILLING WITH 2-INCH 5 MT 58-34 S ASPHALT OVERLAY



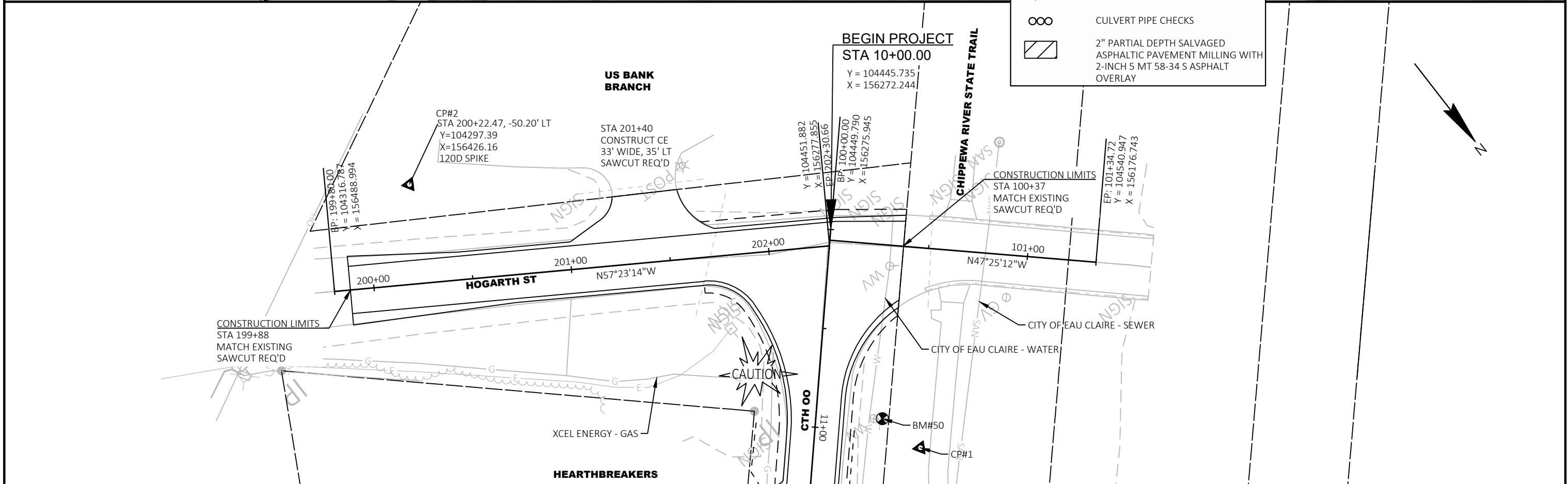
PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PLAN AND PROFILE: CTH 00	SHEET	E
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LEGEND

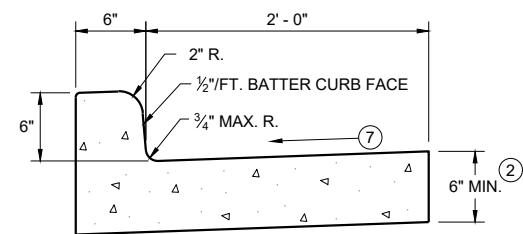
- SURFACE WATER FLOW
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE A
- SILT FENCE
- CULVERT PIPE CHECKS
- 2" PARTIAL DEPTH SALVAGED ASPHALTIC PAVEMENT MILLING WITH 2-INCH 5 MT 58-34 S ASPHALT OVERLAY



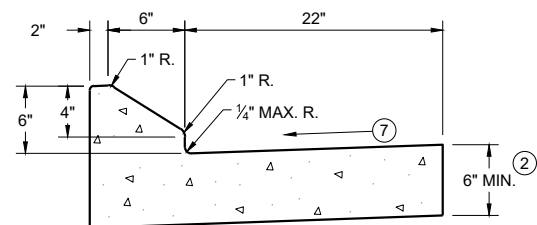
PROJECT NO: 7864-00-74	HWY: CTH 00	COUNTY: CHIPPEWA	PLAN AND PROFILE: CTH 00	SHEET E
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Standard Detail Drawing List

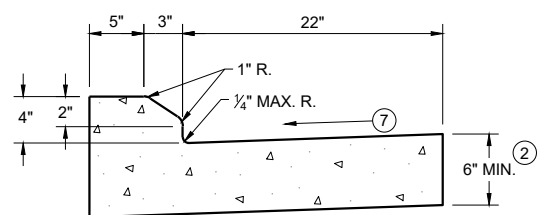
08D01-23A	CONCRETE CURB & GUTTER
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
15A04-08A	FLEXIBLE DELINEATOR POST
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D46-01	TRAFFIC CONTROL, ONE - WAY SIGNING
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



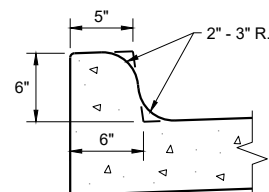
TYPES A^① & D



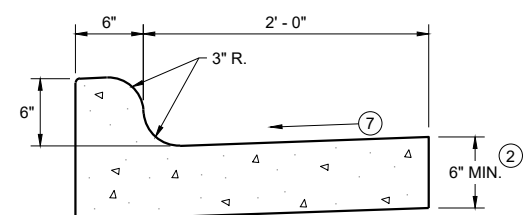
6" SLOPED CURB TYPES G ^① & J



4" SLOPED CURB TYPES G^① & J

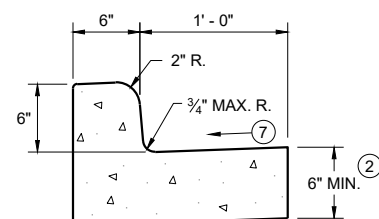


TYPES K^① & L
(OPTIONAL CURB SHAPE)



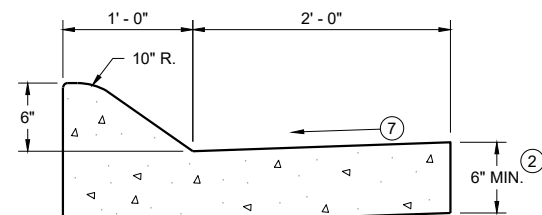
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

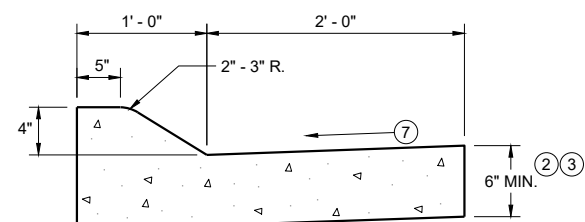


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

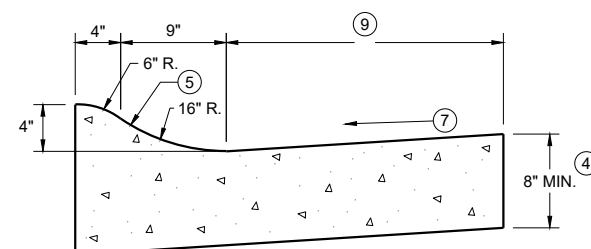


6" SLOPED CURB TYPES A^① & D



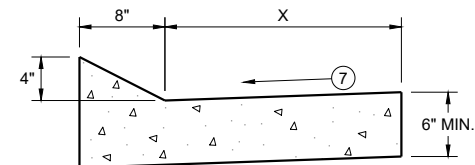
4" SLOPED CURB TYPES A ^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

TBT & TBTT	X
30"	22"
36"	28"

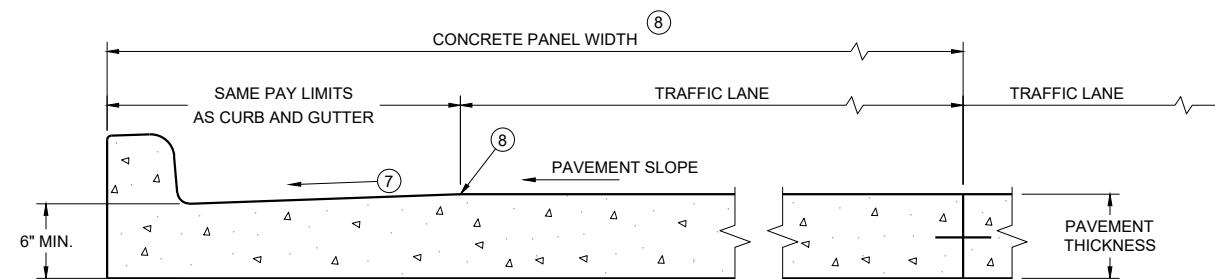


TYPES TBT & TBTT ^①

CONCRETE CURB AND GUTTER

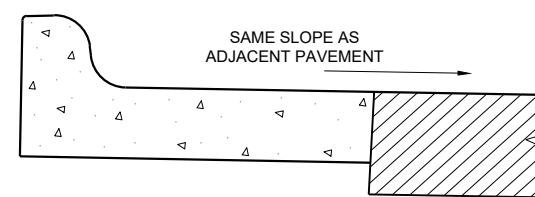
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

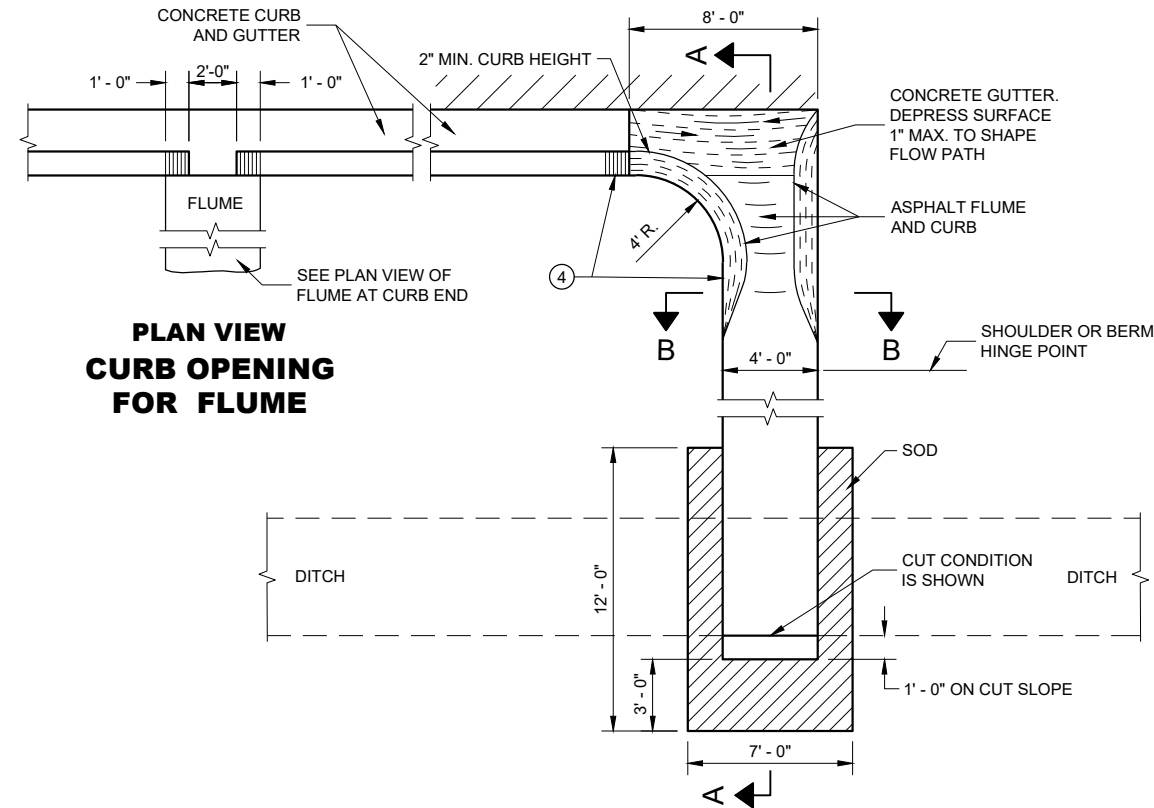
6

SDD 08D01-23a

SDD 08D01-23a

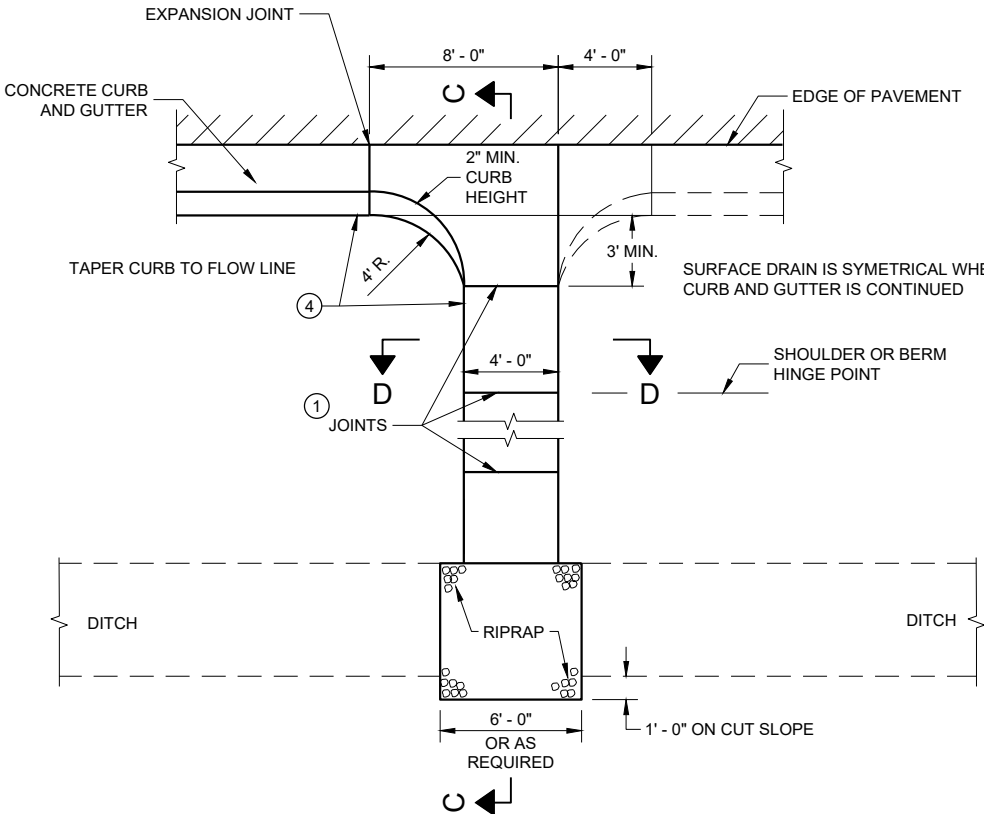
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



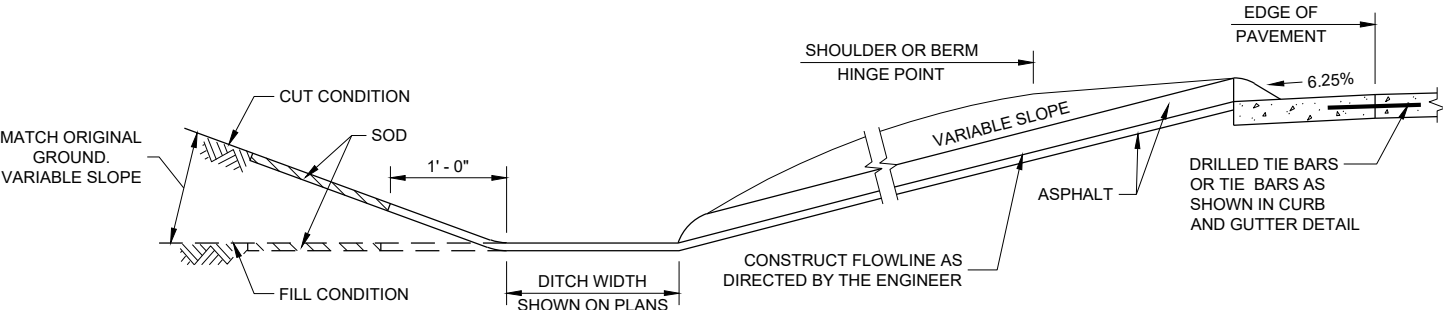
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

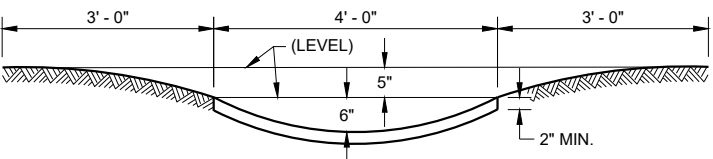
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

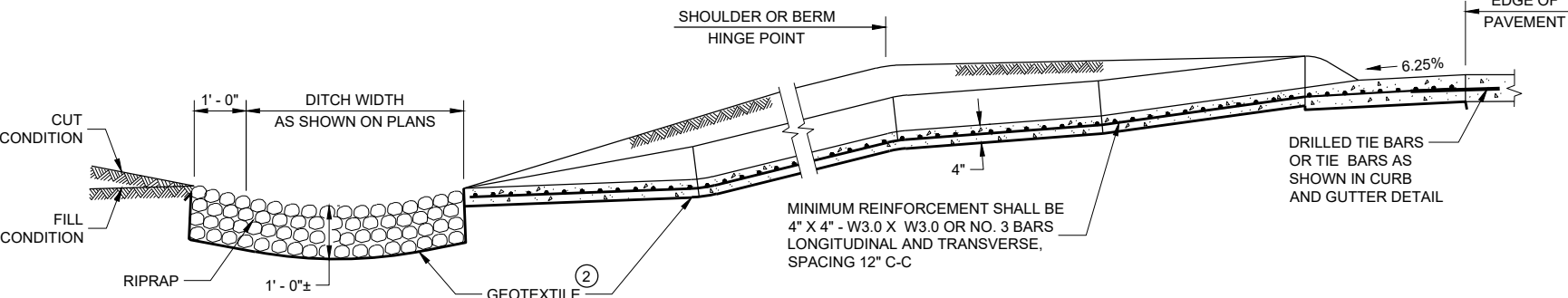
- JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



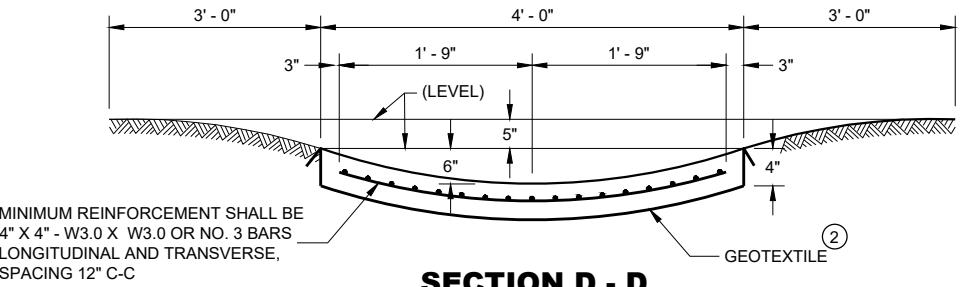
SECTION A - A



SECTION B - B



SECTION C - C



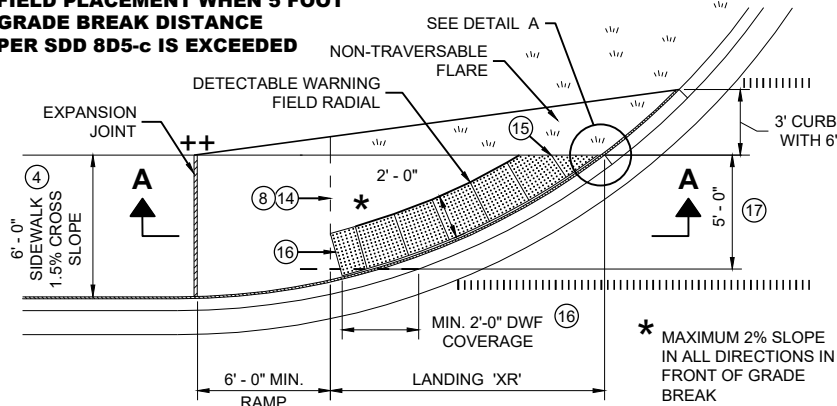
SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

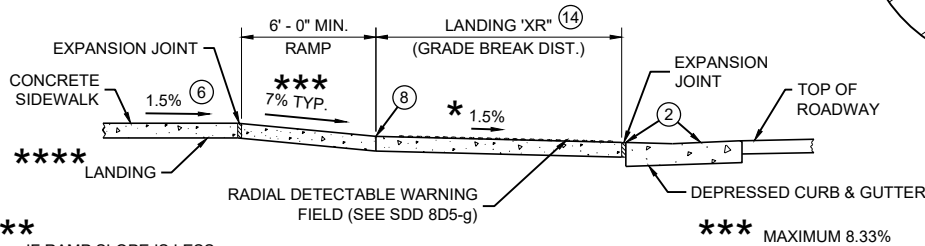
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

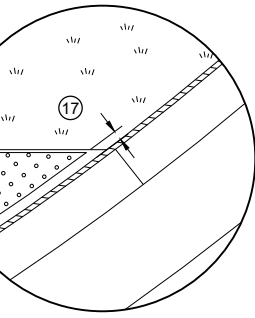
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

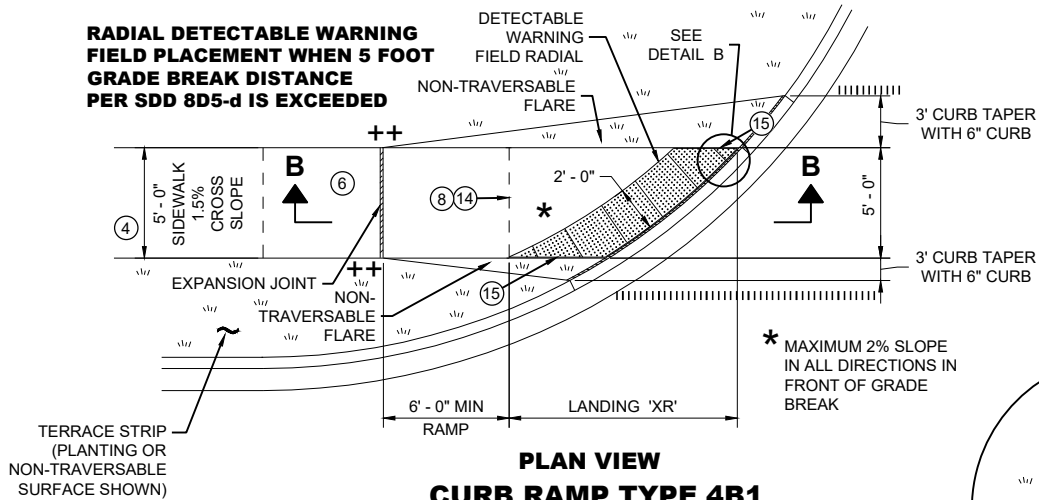


SECTION A - A FOR TYPE 4A1

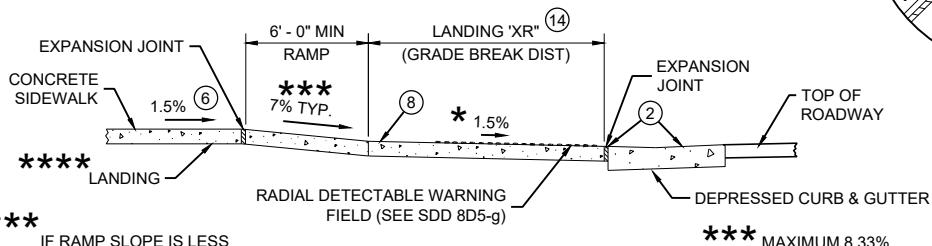


DETAIL A

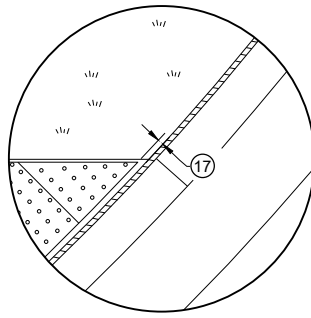
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



SECTION B - B FOR TYPE 4B1



DETAIL B

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

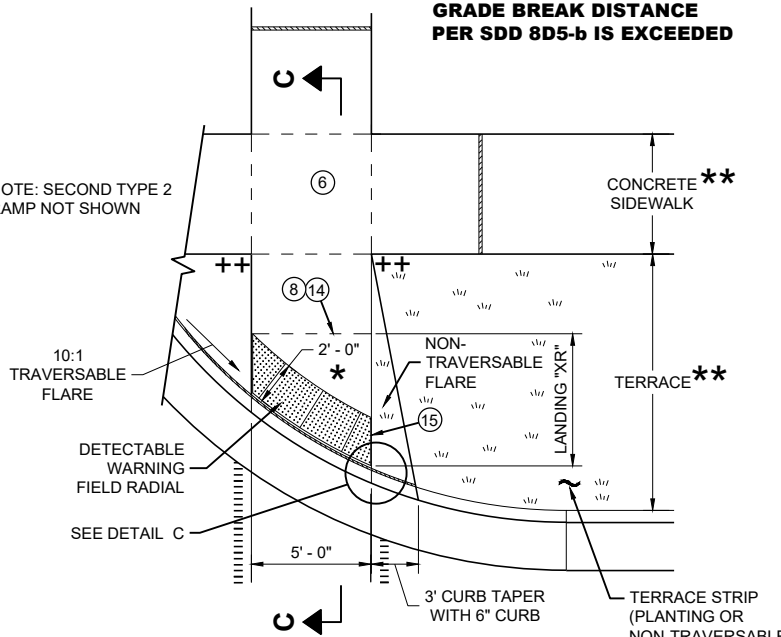
FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

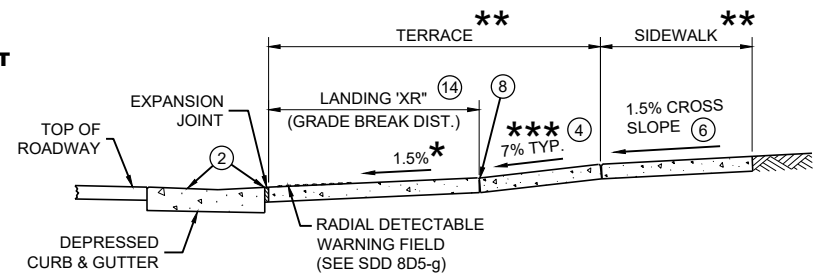
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/2" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**

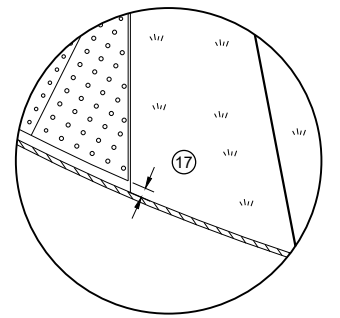
NOTE: SECOND TYPE 2
RAMP NOT SHOWN



**PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)**



SECTION C - C FOR TYPE 2



DETAIL C

*** MAXIMUM 2% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE
BREAK

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

*** MAXIMUM 8.33%

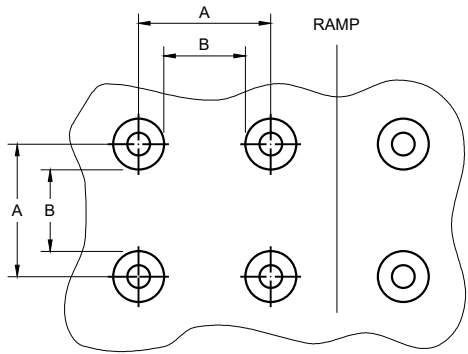
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

**CURB RAMPS
RADIAL DETECTABLE WARNING**

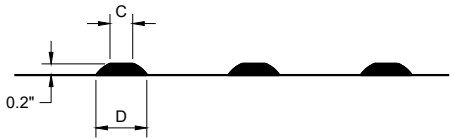
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

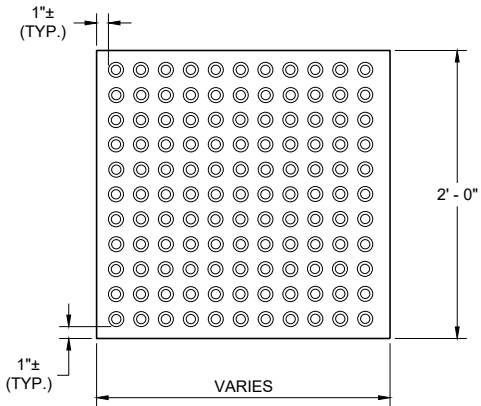


PLAN VIEW

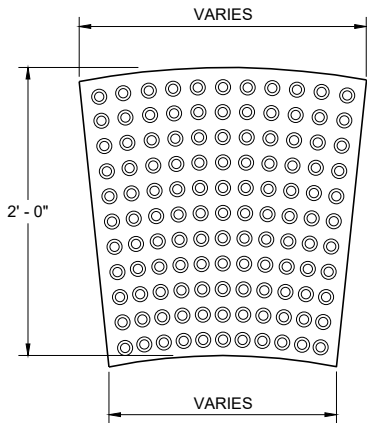


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

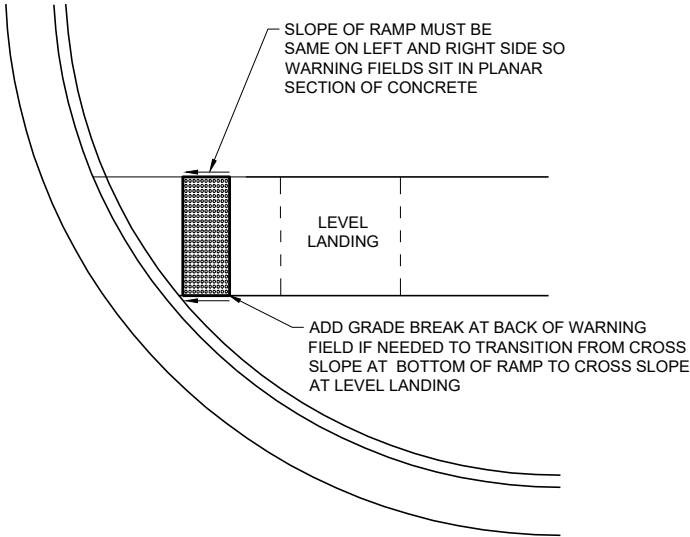


RECTANGULAR
PLATES

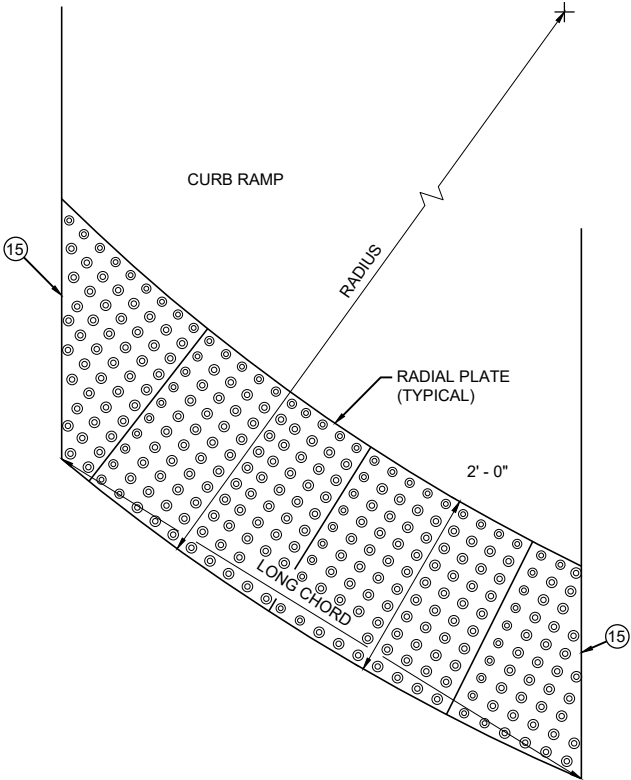


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

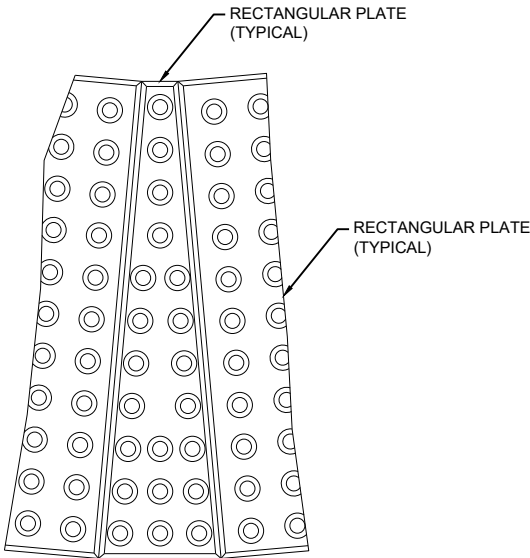
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8\"/>

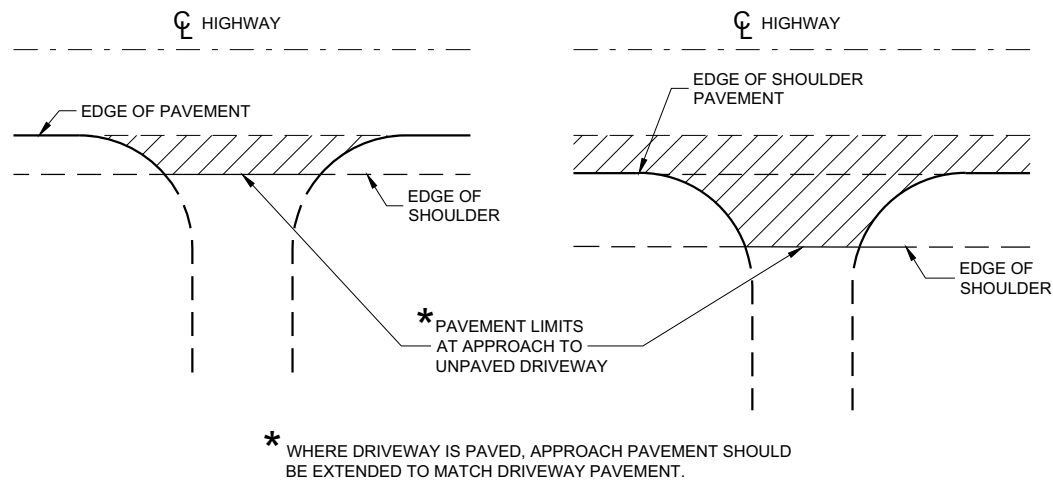


PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

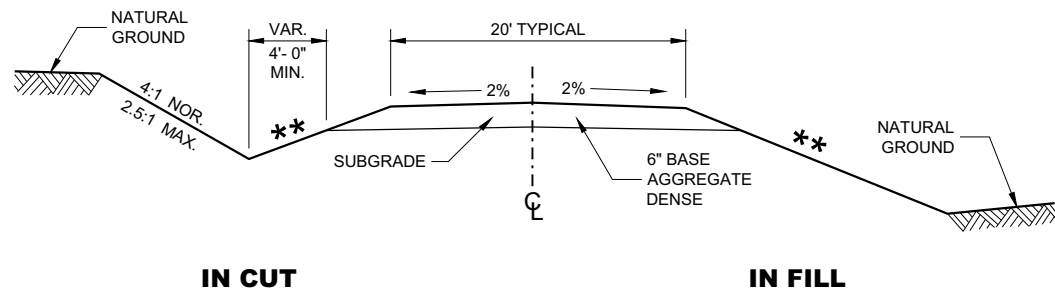
APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

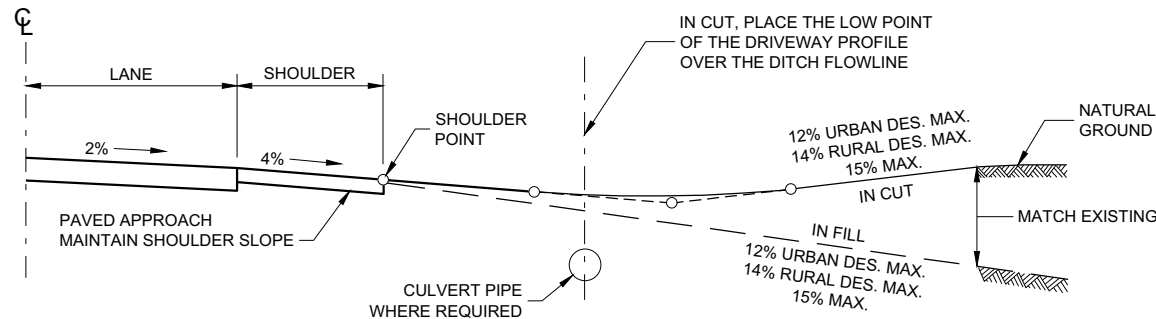
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



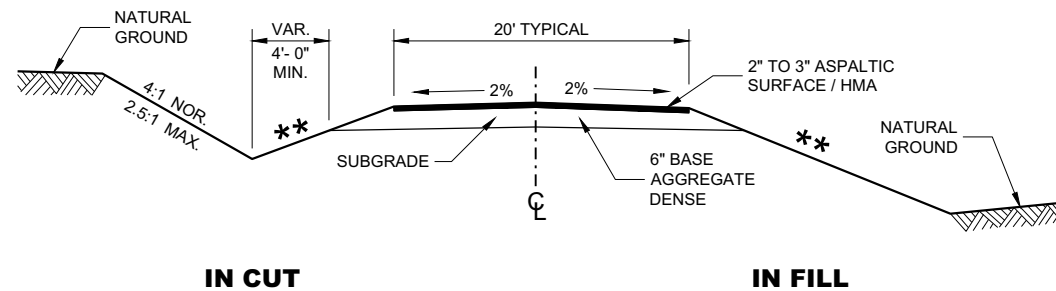
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES

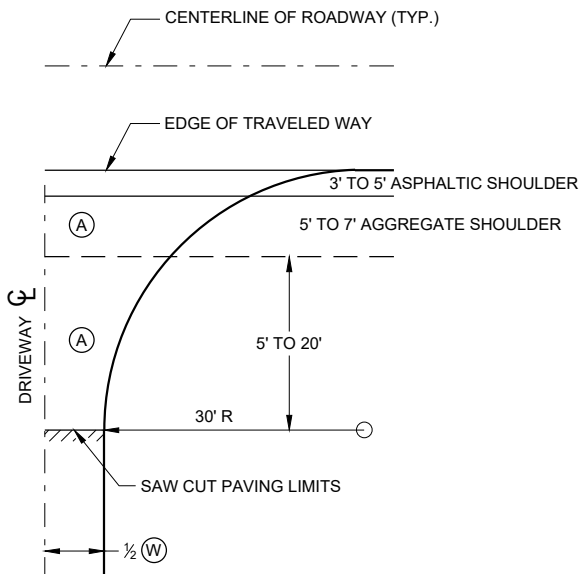


**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

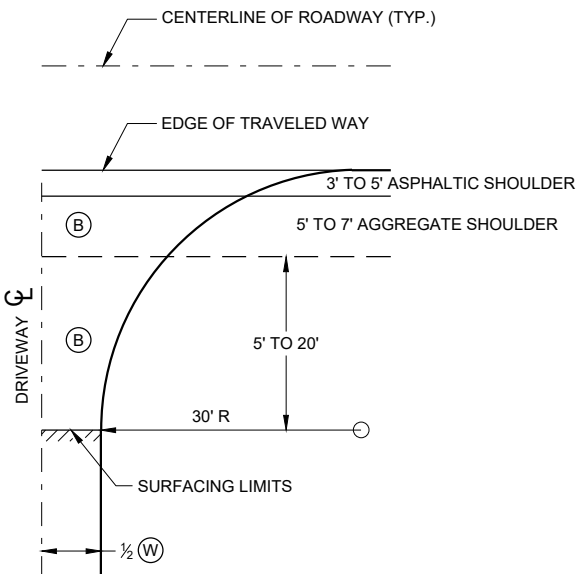
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

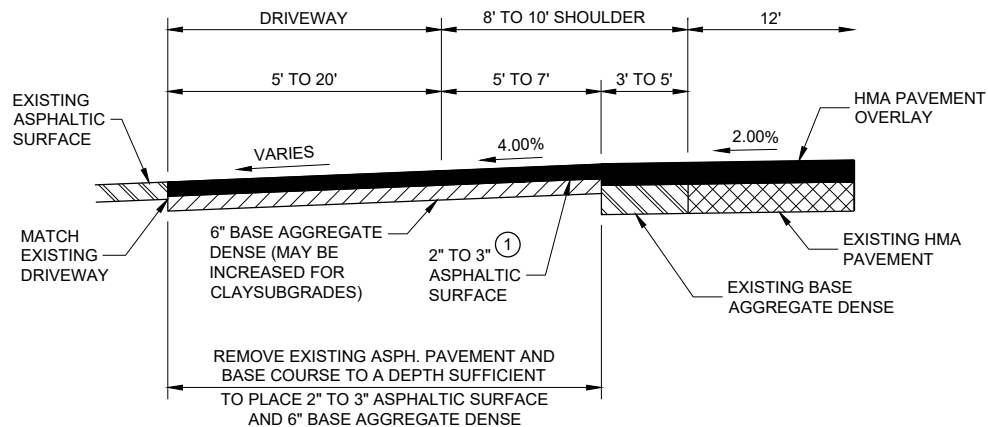


**PLAN VIEW
HALF SECTION**

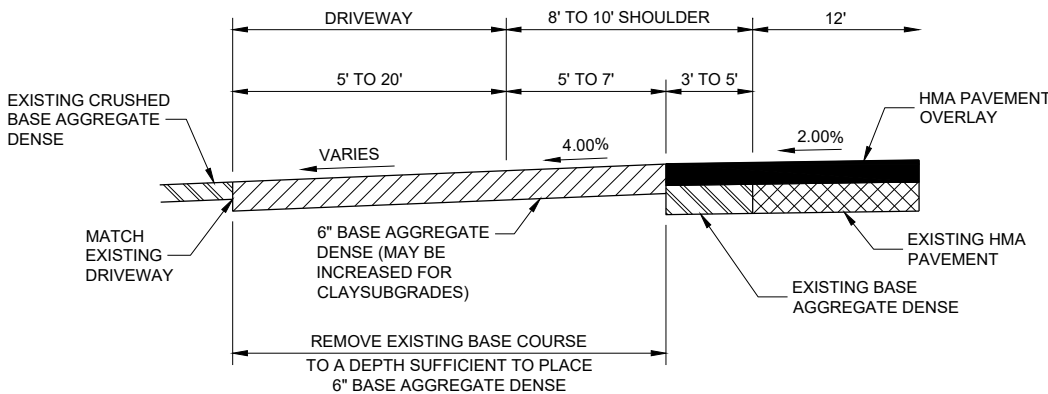
- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

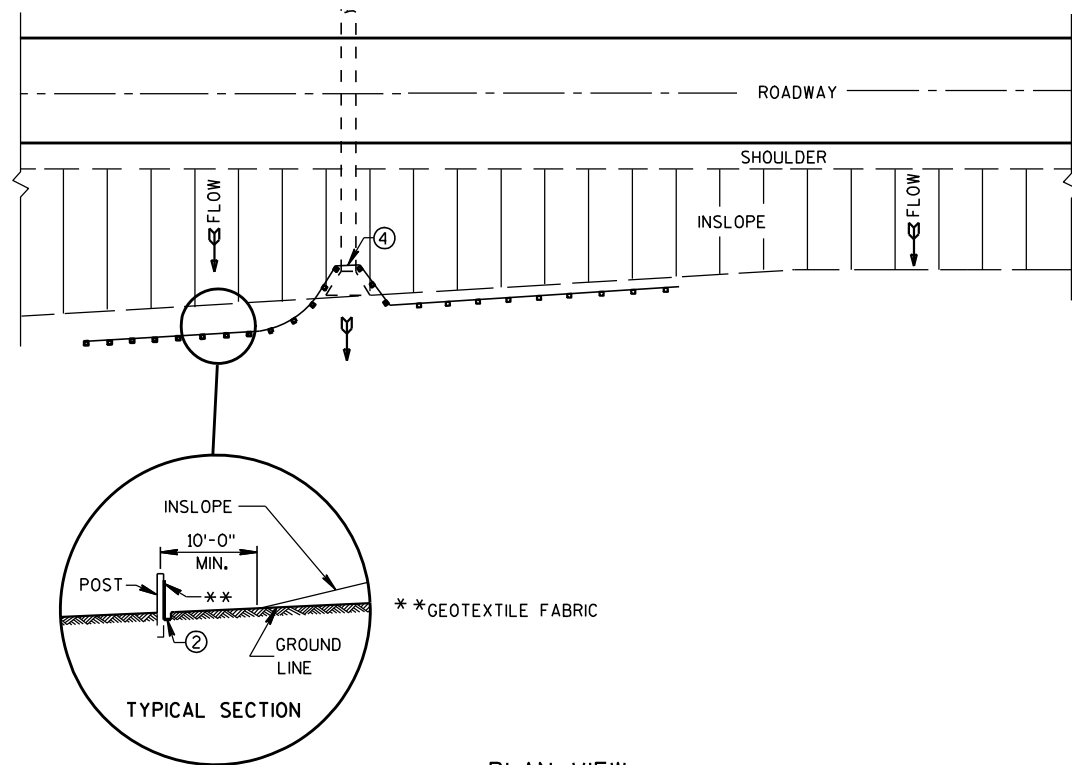
GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

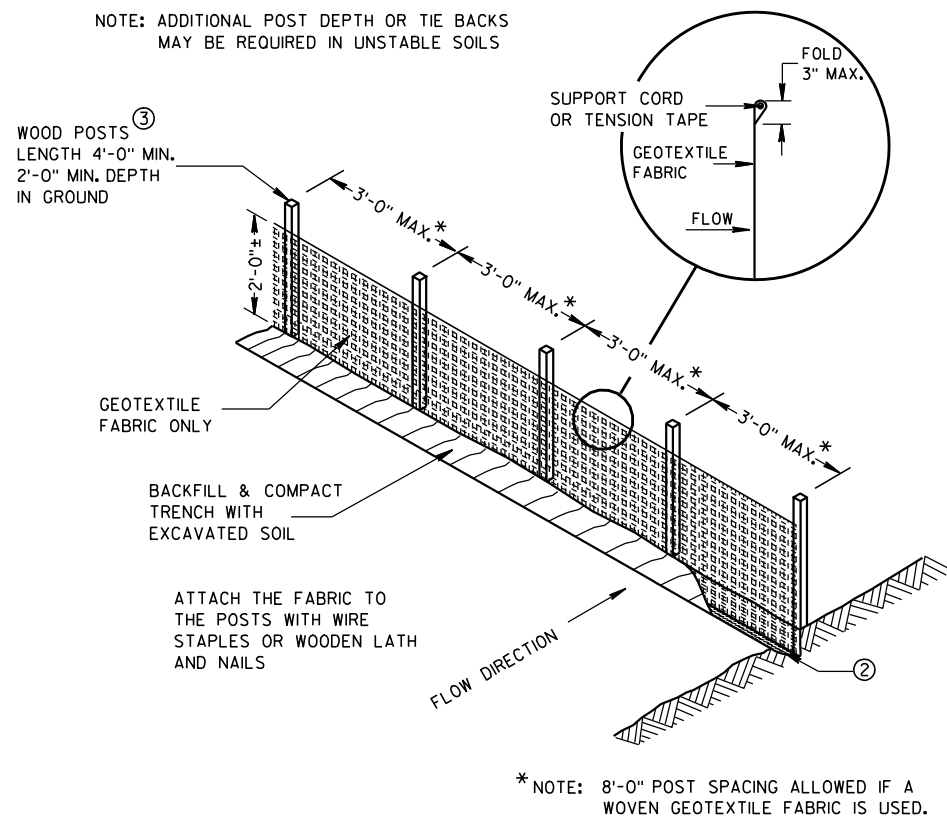
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

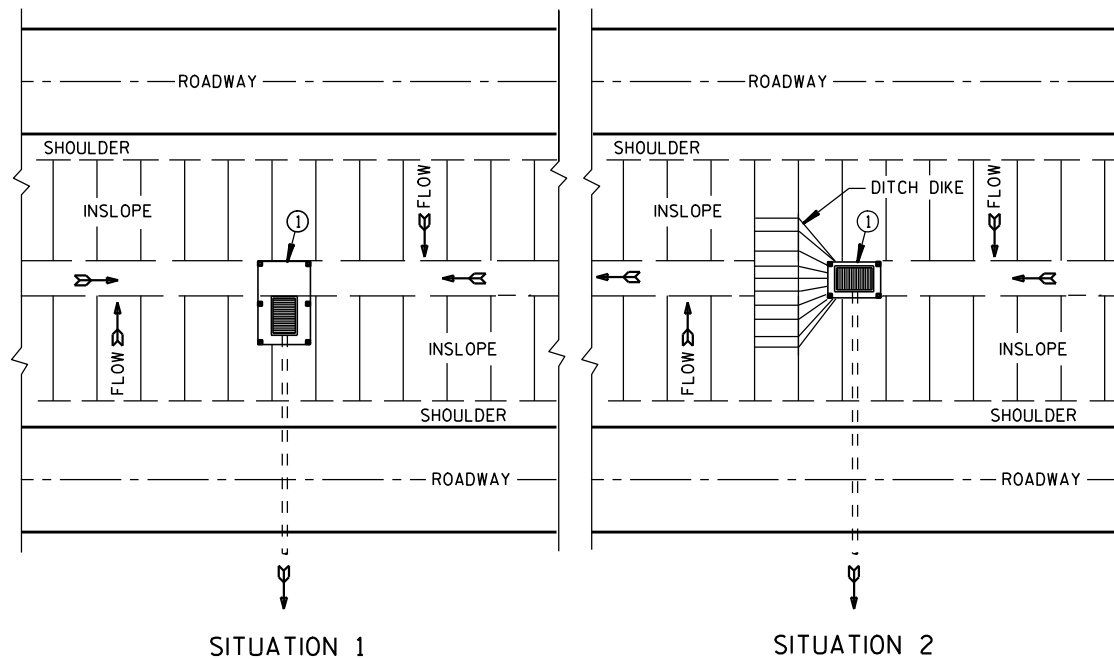


TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

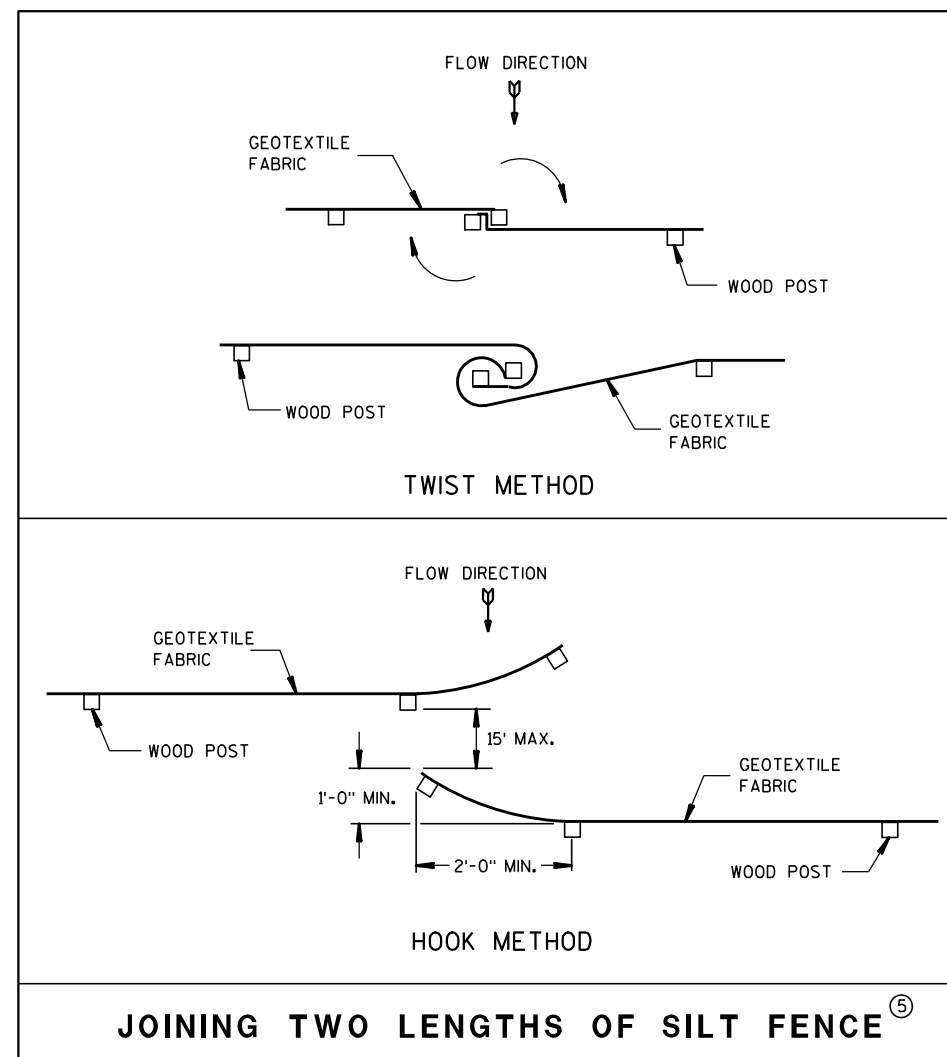


SILT FENCE



PLAN VIEW

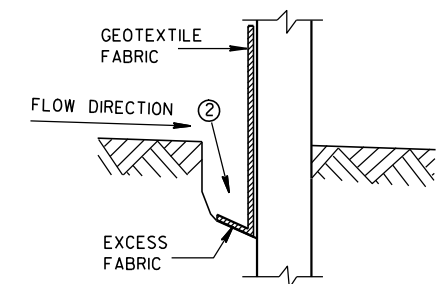
SILT FENCE AT MEDIAN SURFACE DRAINS



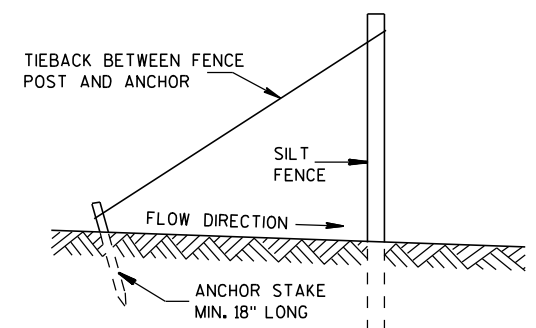
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

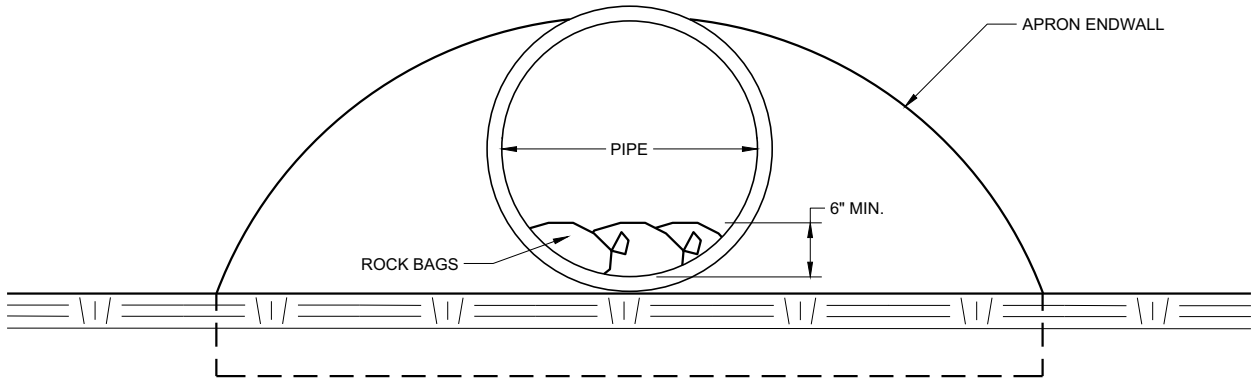
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

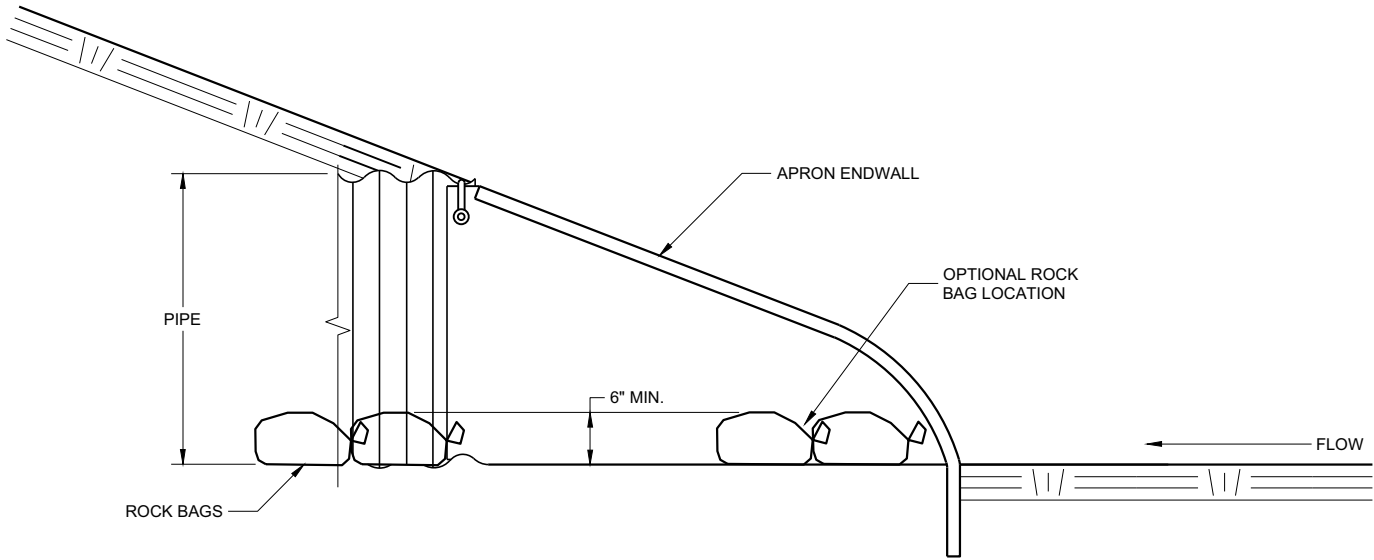
4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



SIDE VIEW

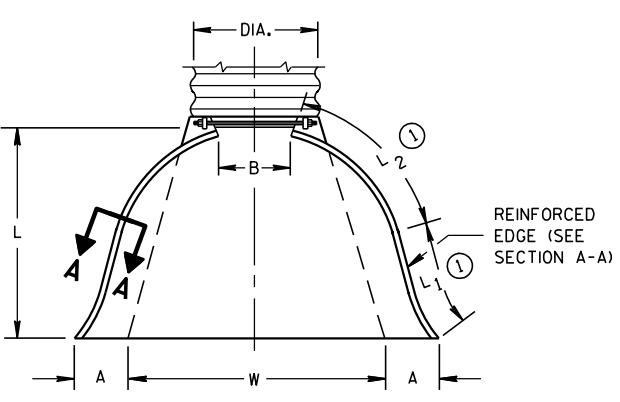
CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER

FHWA

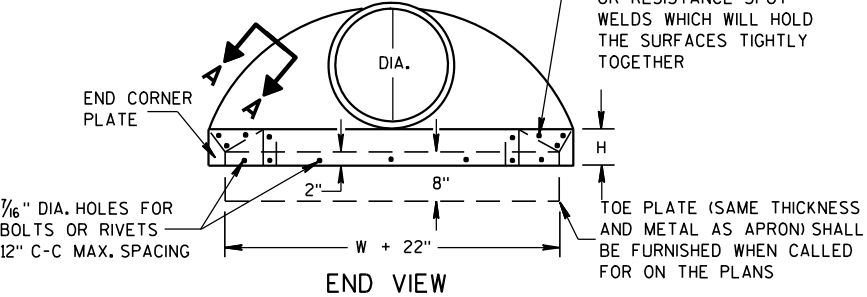
METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.	
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.	
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.	
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.	
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.	
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.	
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.	
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.	
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.	
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.	
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.	
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.	
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.	
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.	
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.	
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.	
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.	

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

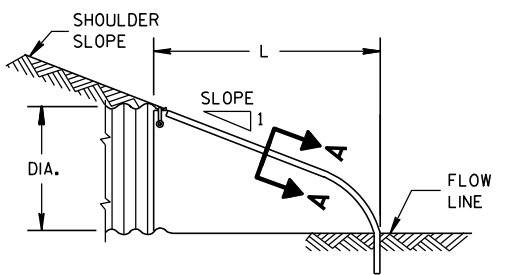


PLAN VIEW

END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



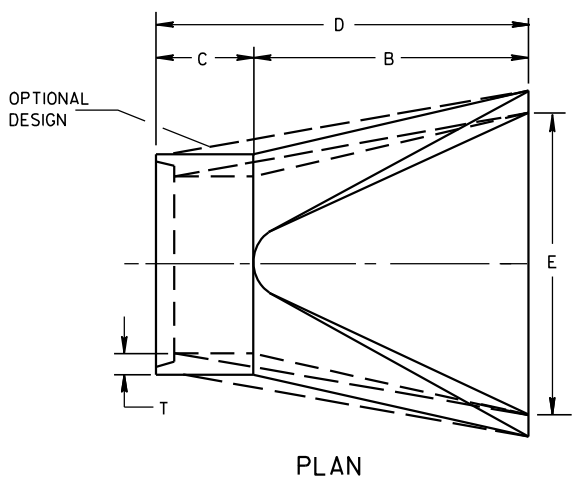
END VIEW



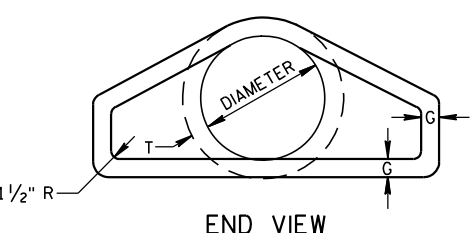
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ¹ / ₈	72 ¹ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	33 ¹ / ₄ -35	98 ¹ / ₄ -100	90	5 ¹ / ₂	2 ¹ / ₂ to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	24-30	72-78	21-27	99	102	5 ¹ / ₂	2 to 1
72	7	24-36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	24-36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

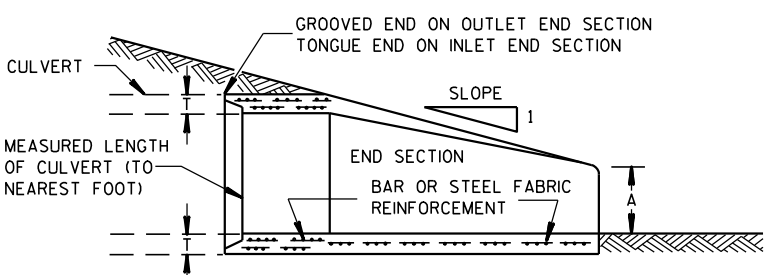
* MINIMUM
** MAXIMUM



PLAN

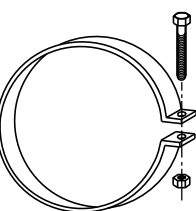


END VIEW

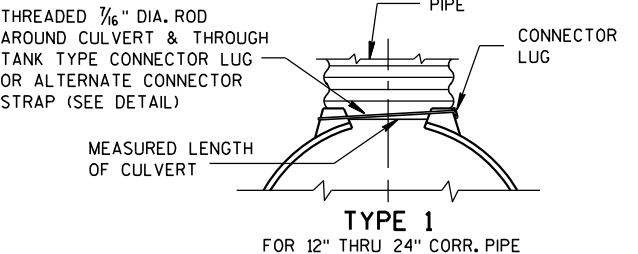


LONGITUDINAL SECTION
CONCRETE ENDWALLS

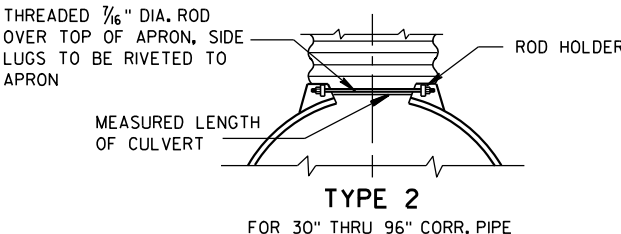
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



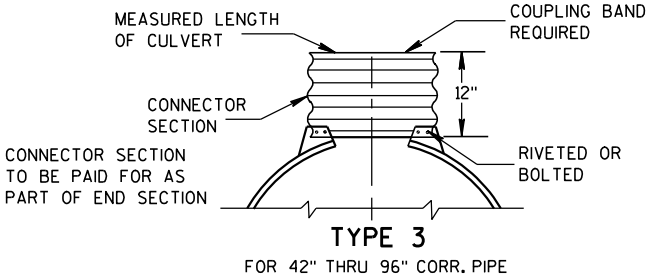
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



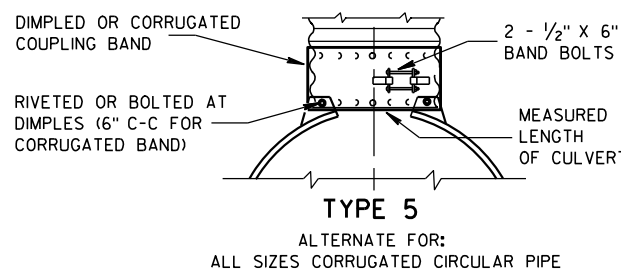
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

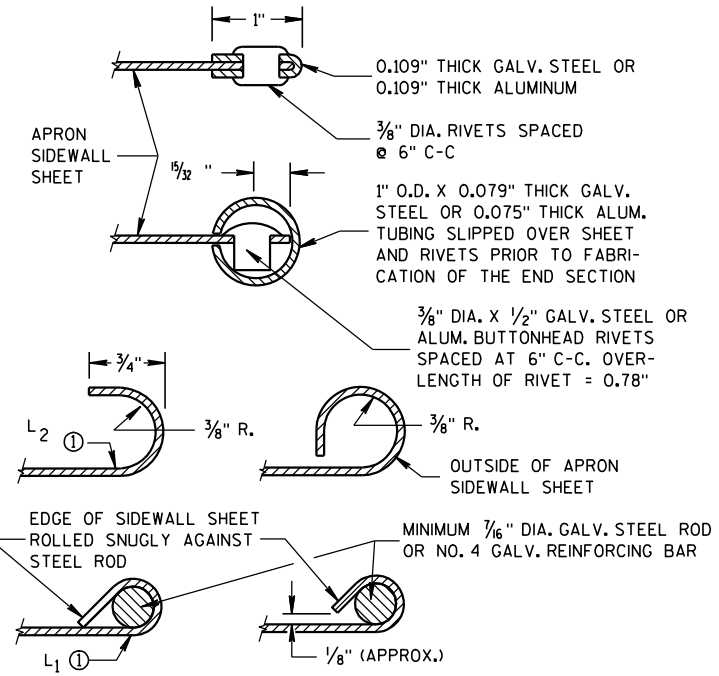
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

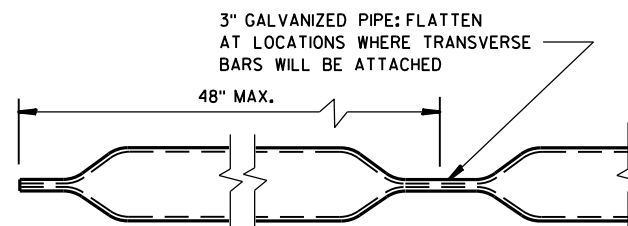
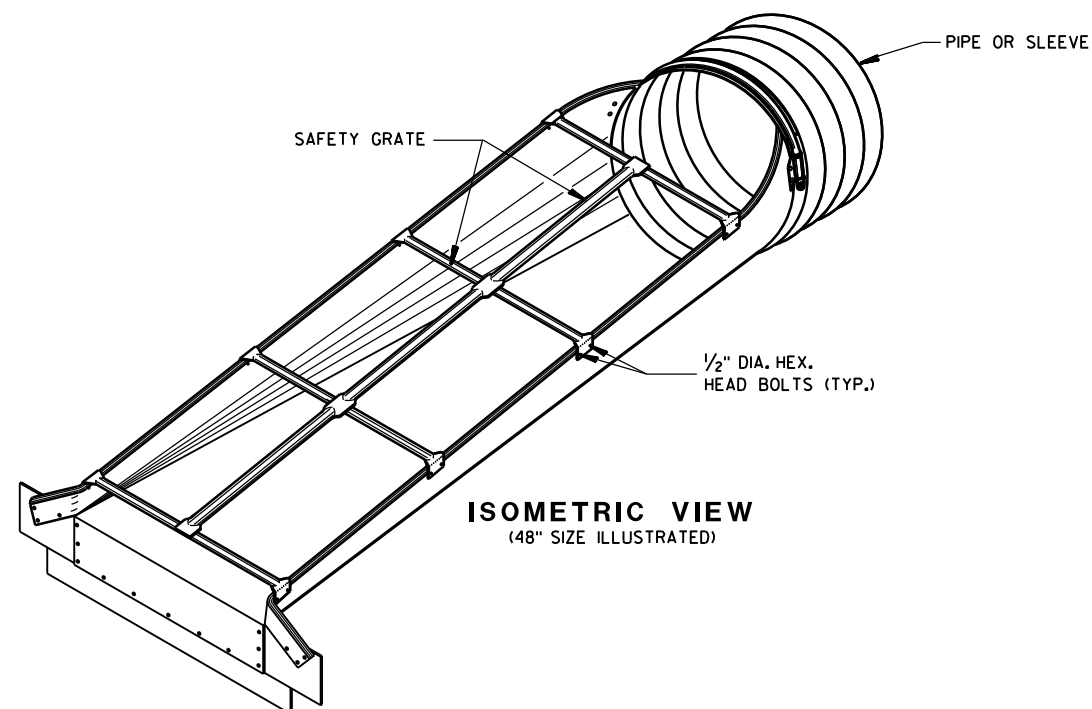
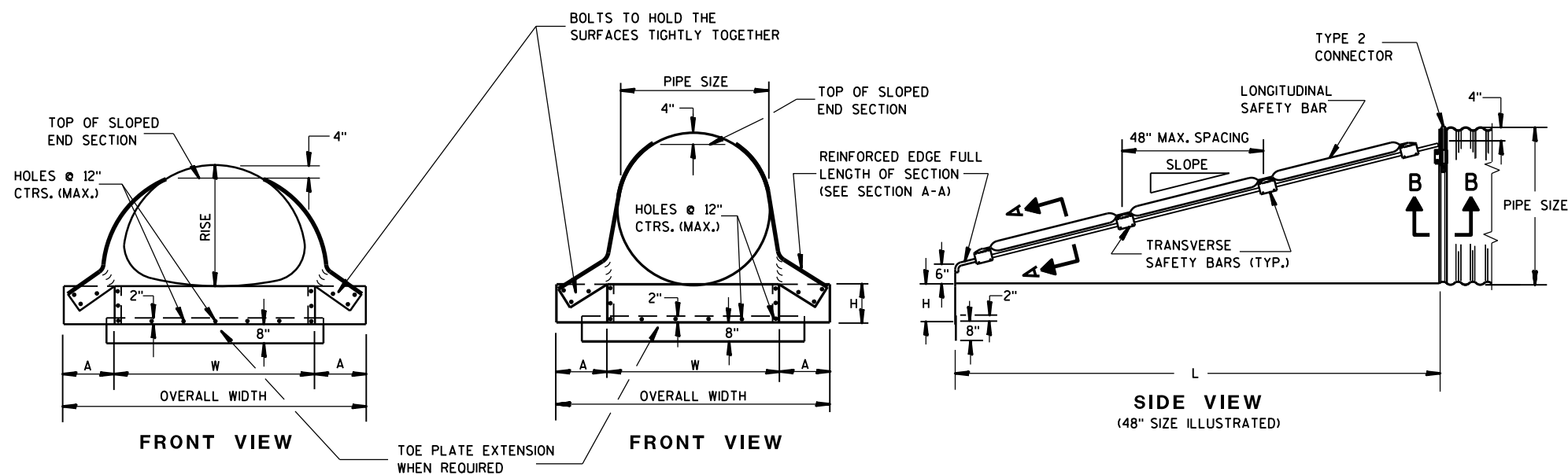
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

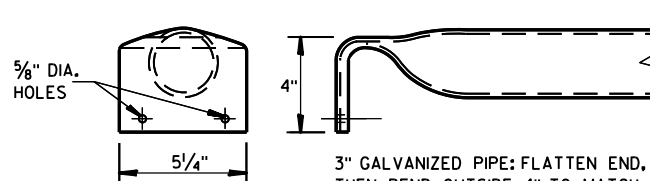
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



LONGITUDINAL SAFETY BAR



TRANSVERSE SAFETY BAR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

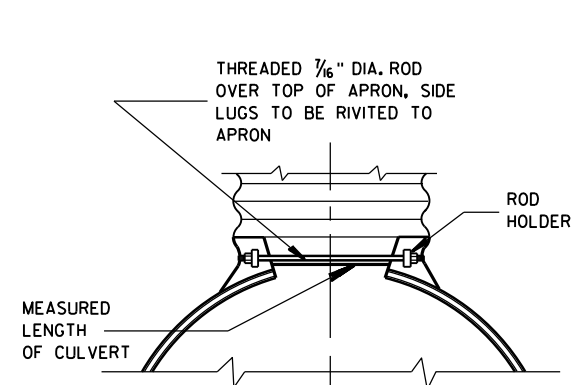
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

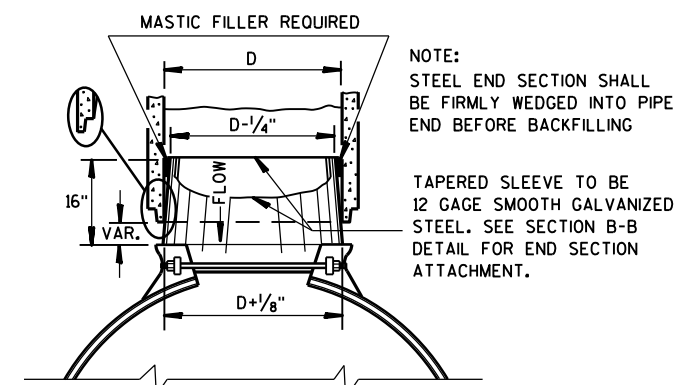
PIPE DIA. (IN.)	MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

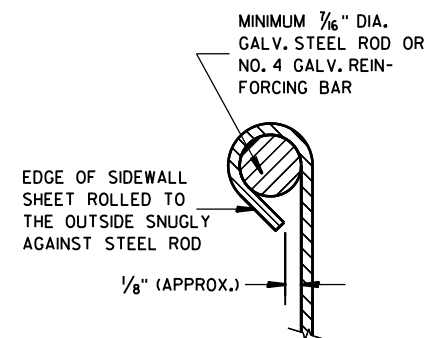
EQUIV. DIA. (IN.)	INCHES		MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
	SPAN	RISE			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



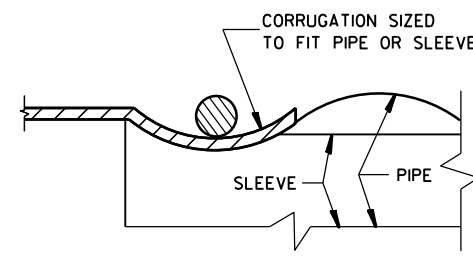
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



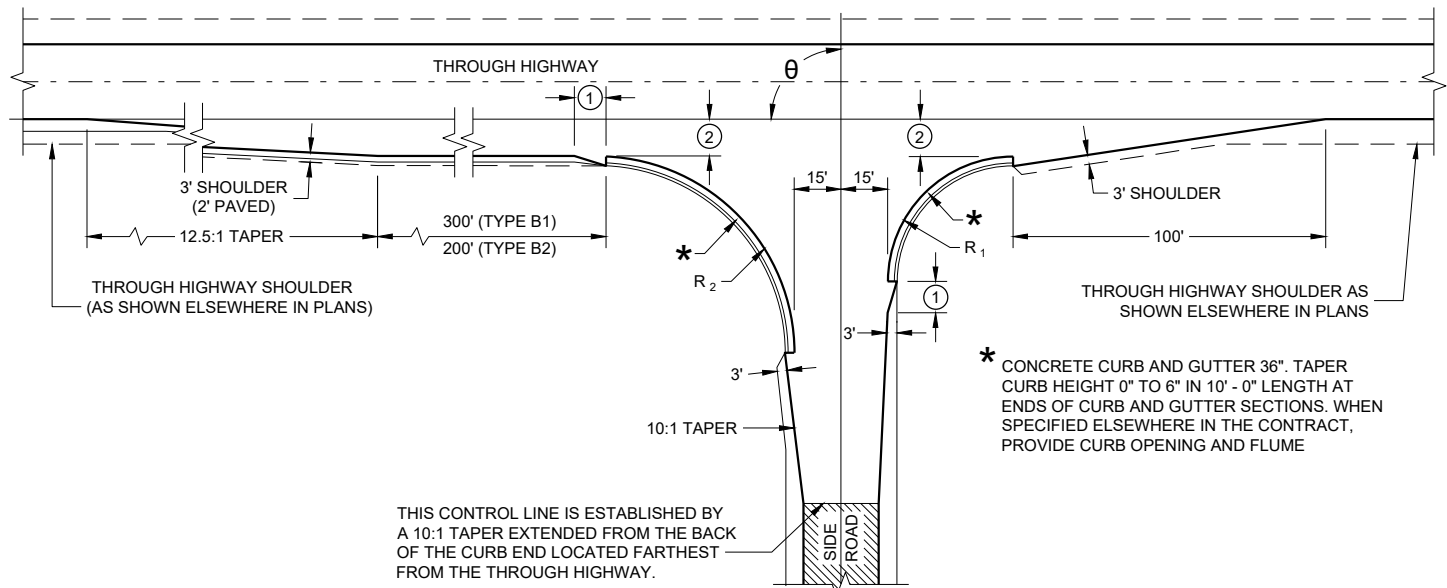
SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

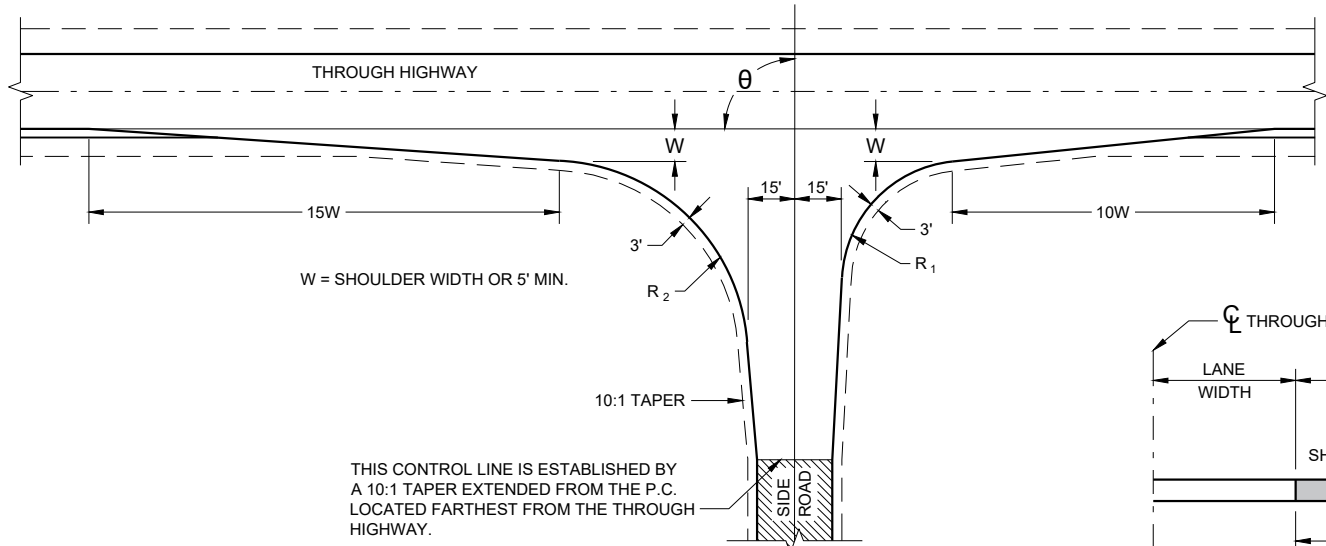
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

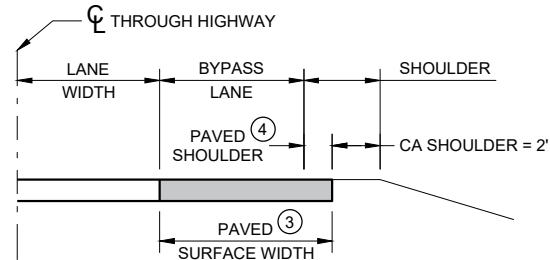
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



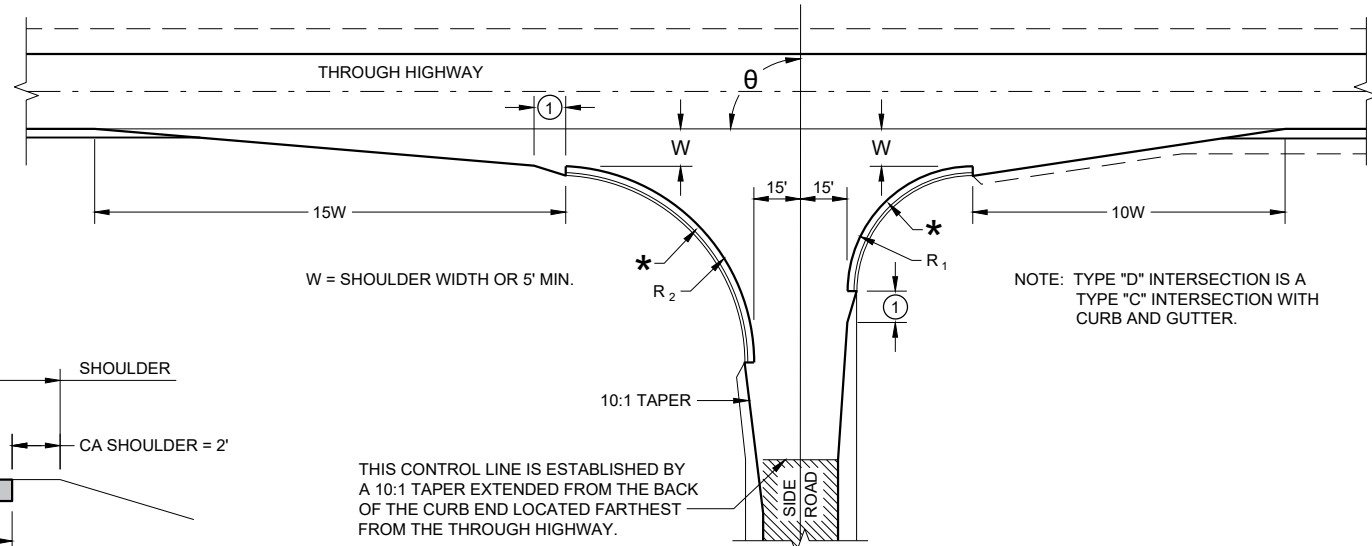
TYPE "B1" AND "B2"



TYPE "C"



SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



TYPE "D"

RADII DIMENSIONS FOR TYPES "B1",
"B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

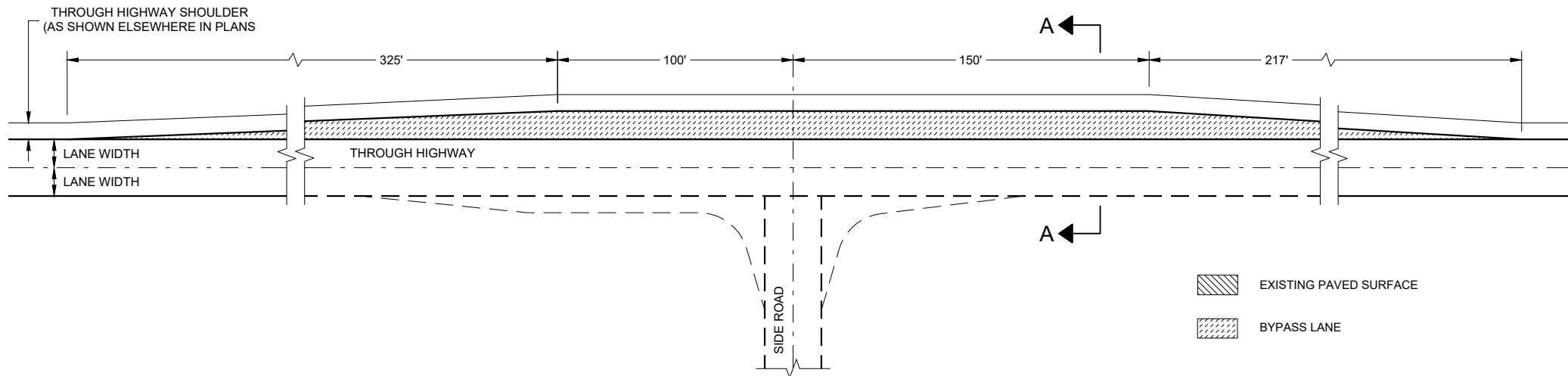
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
** 10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.

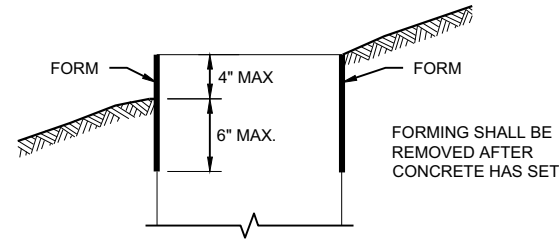


TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD
INTERSECTION TYPES "B1",
"B2", "C", "D" AND TEE
INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

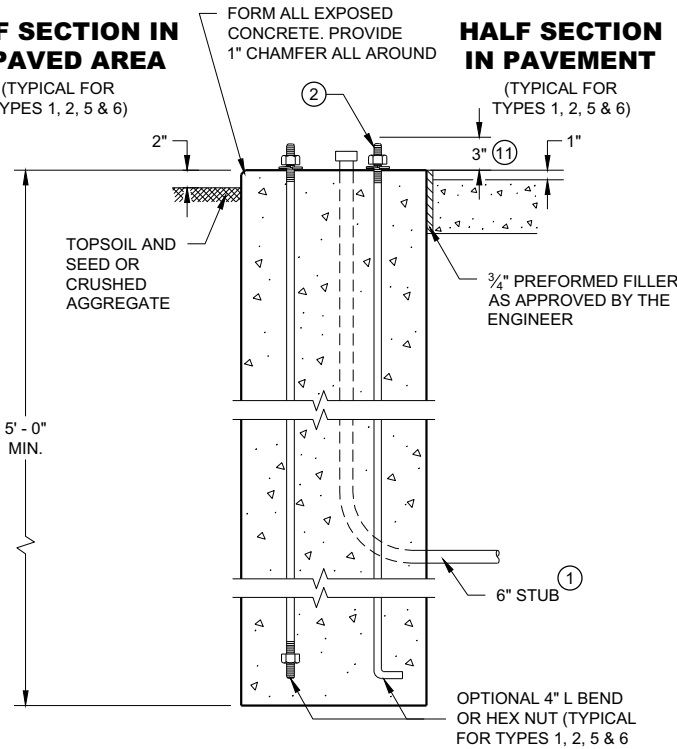
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

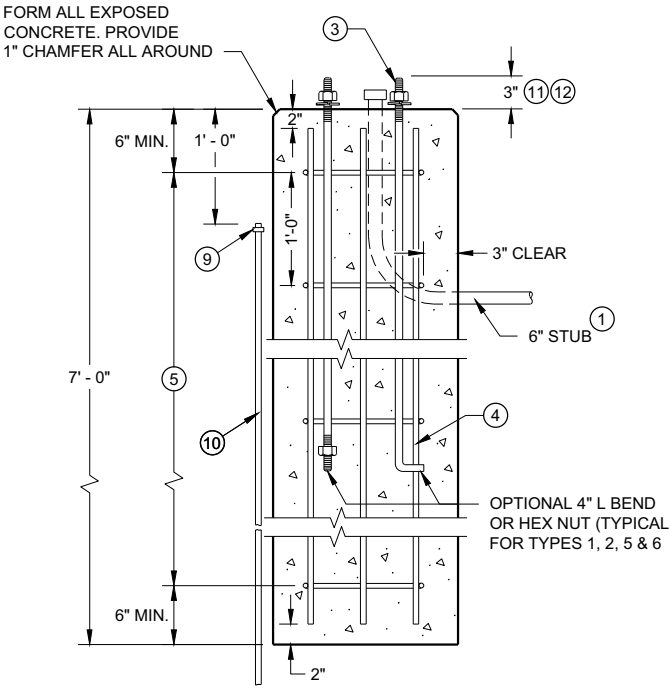
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- 4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 9 EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- 10 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- 11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/2" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 12 FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA



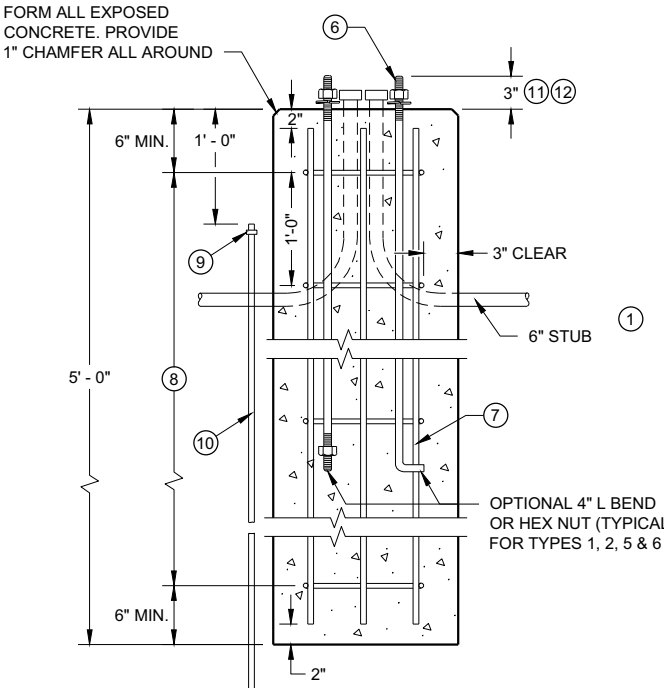
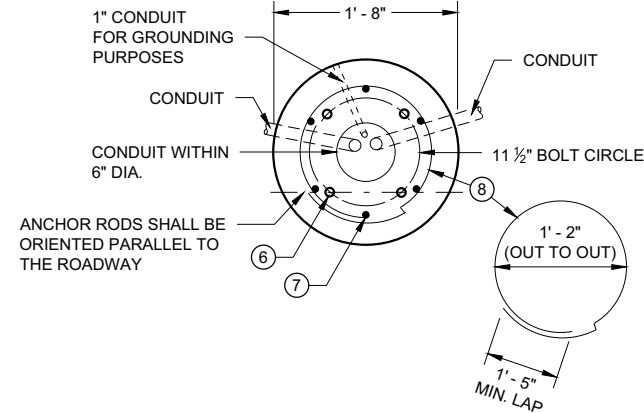
TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2

CONCRETE BASES



TYPE 5 & 6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

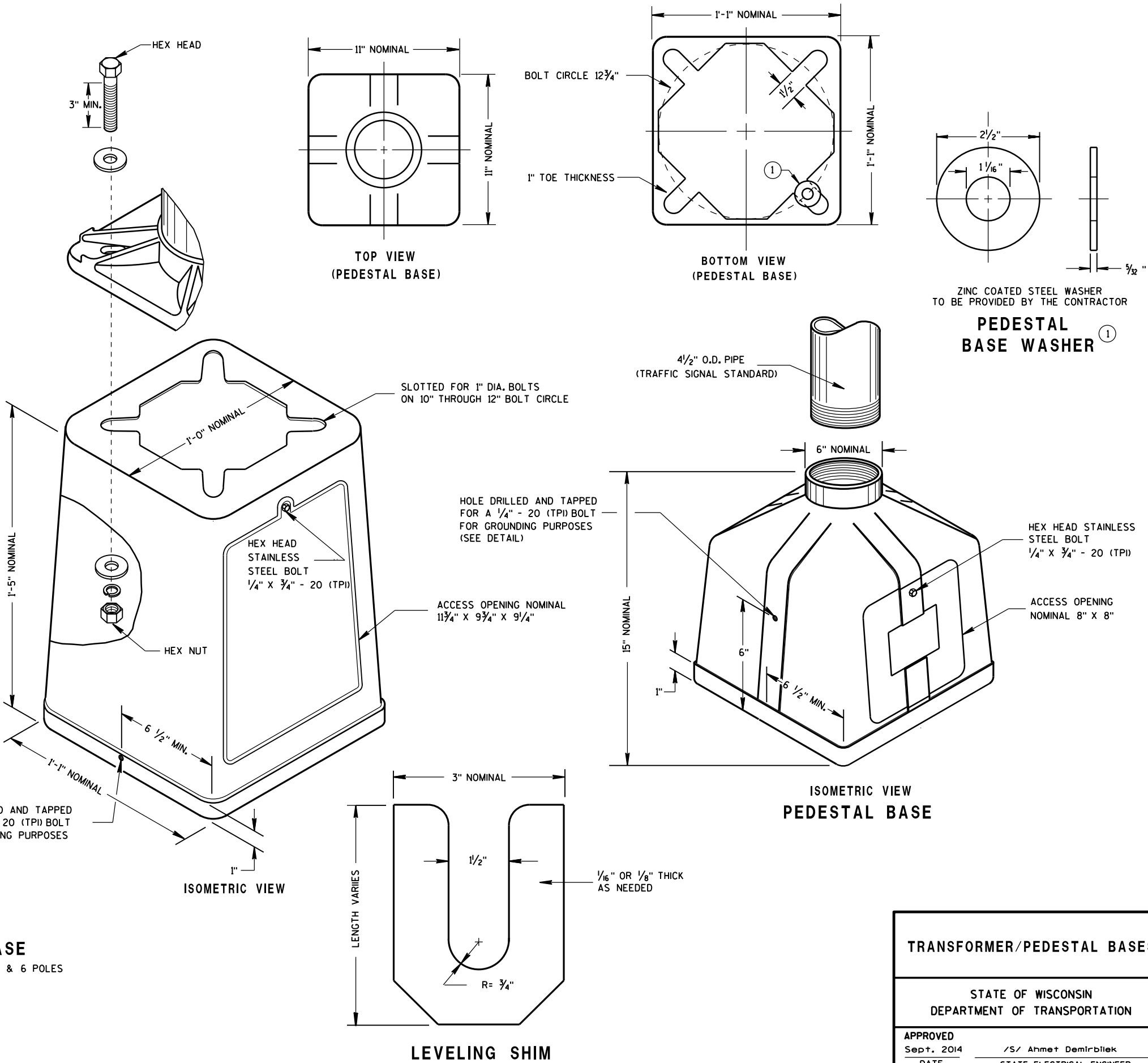
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



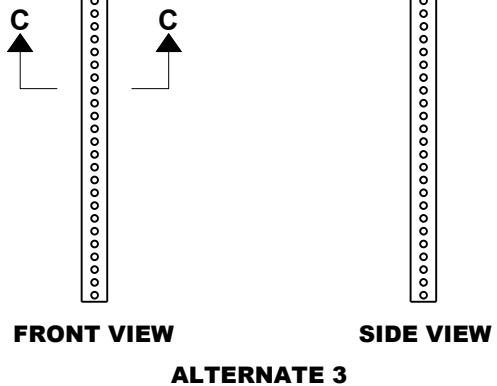
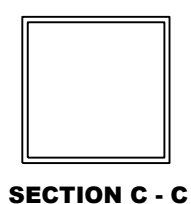
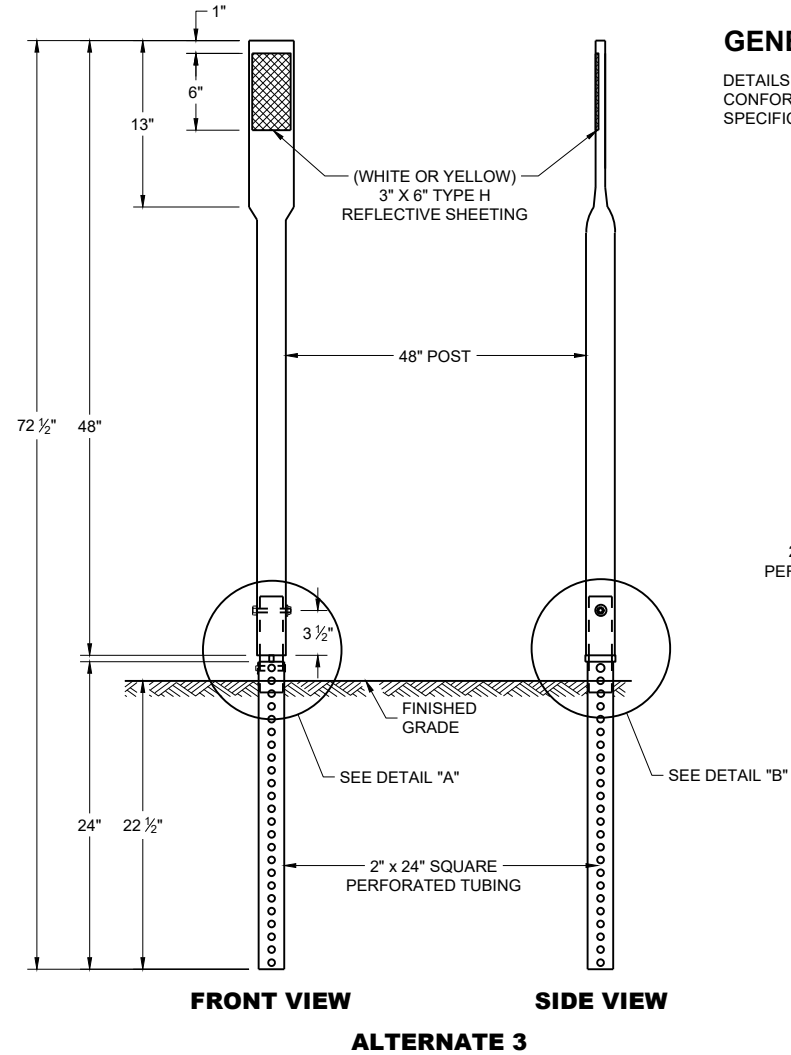
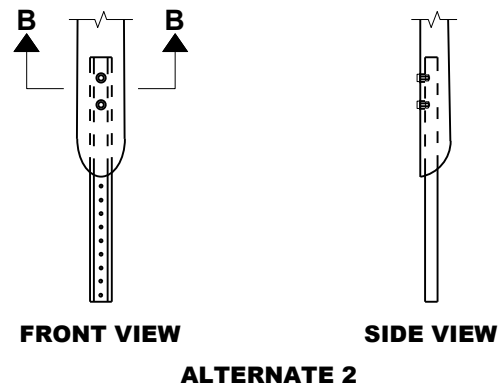
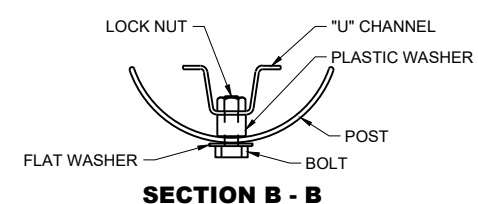
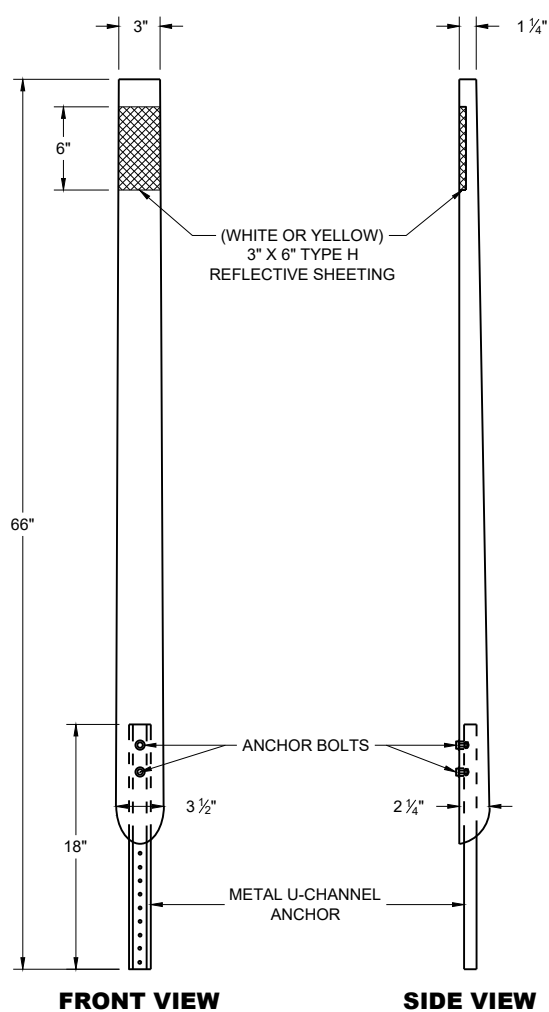
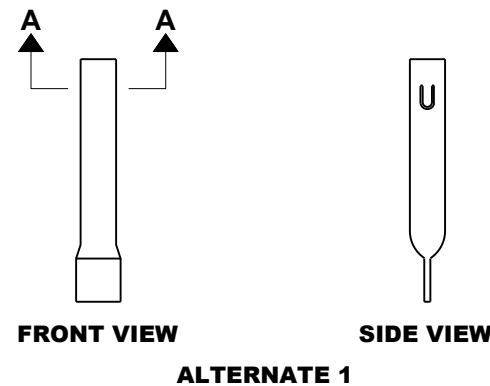
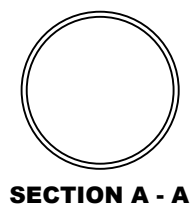
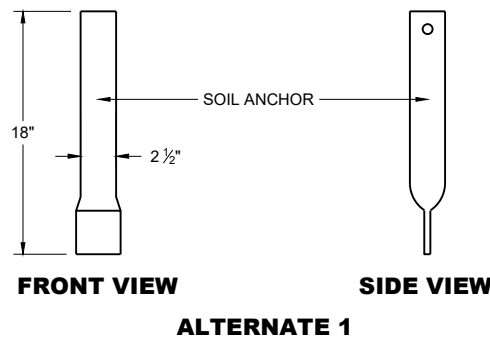
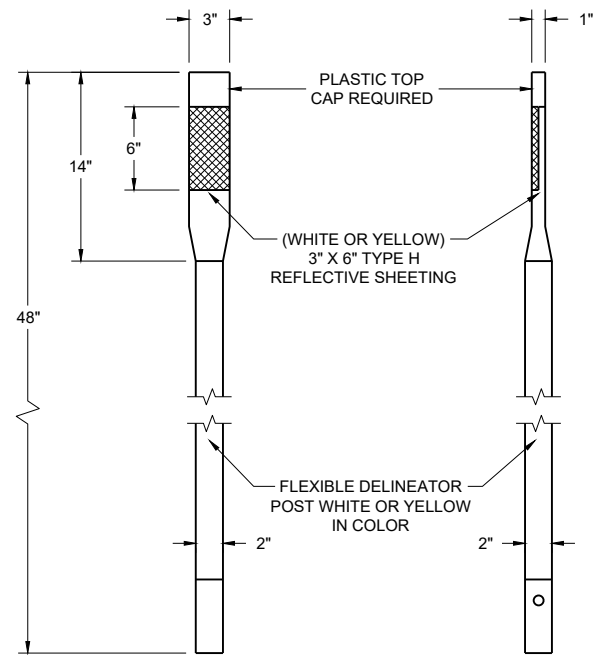
TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

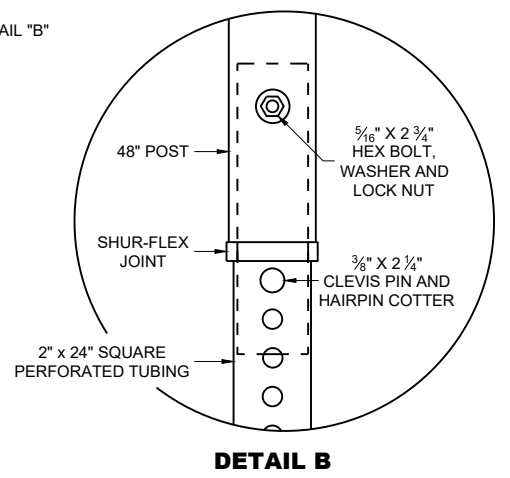
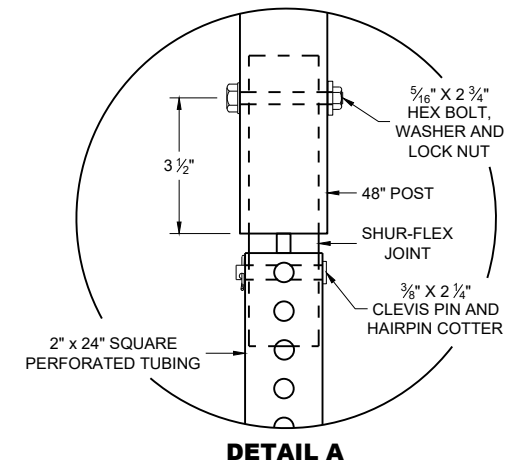
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA



GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



REFLECTOR SPACING TABLE

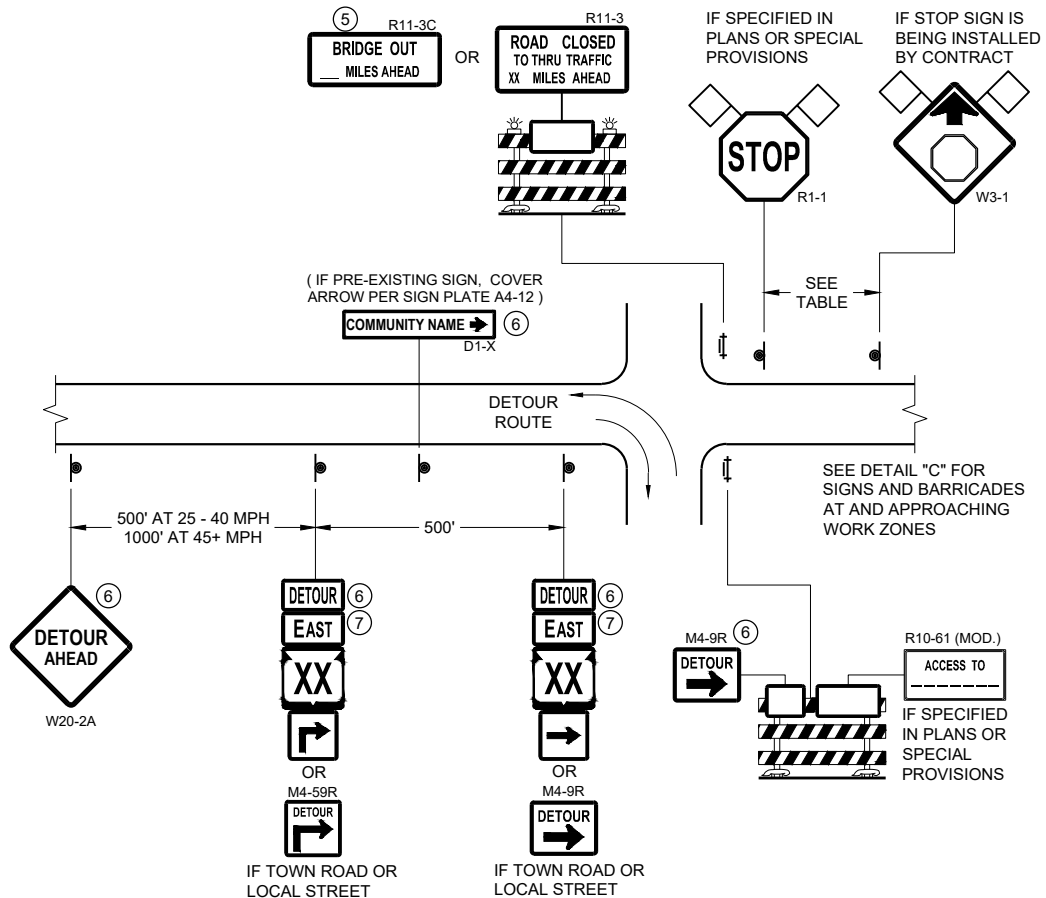
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

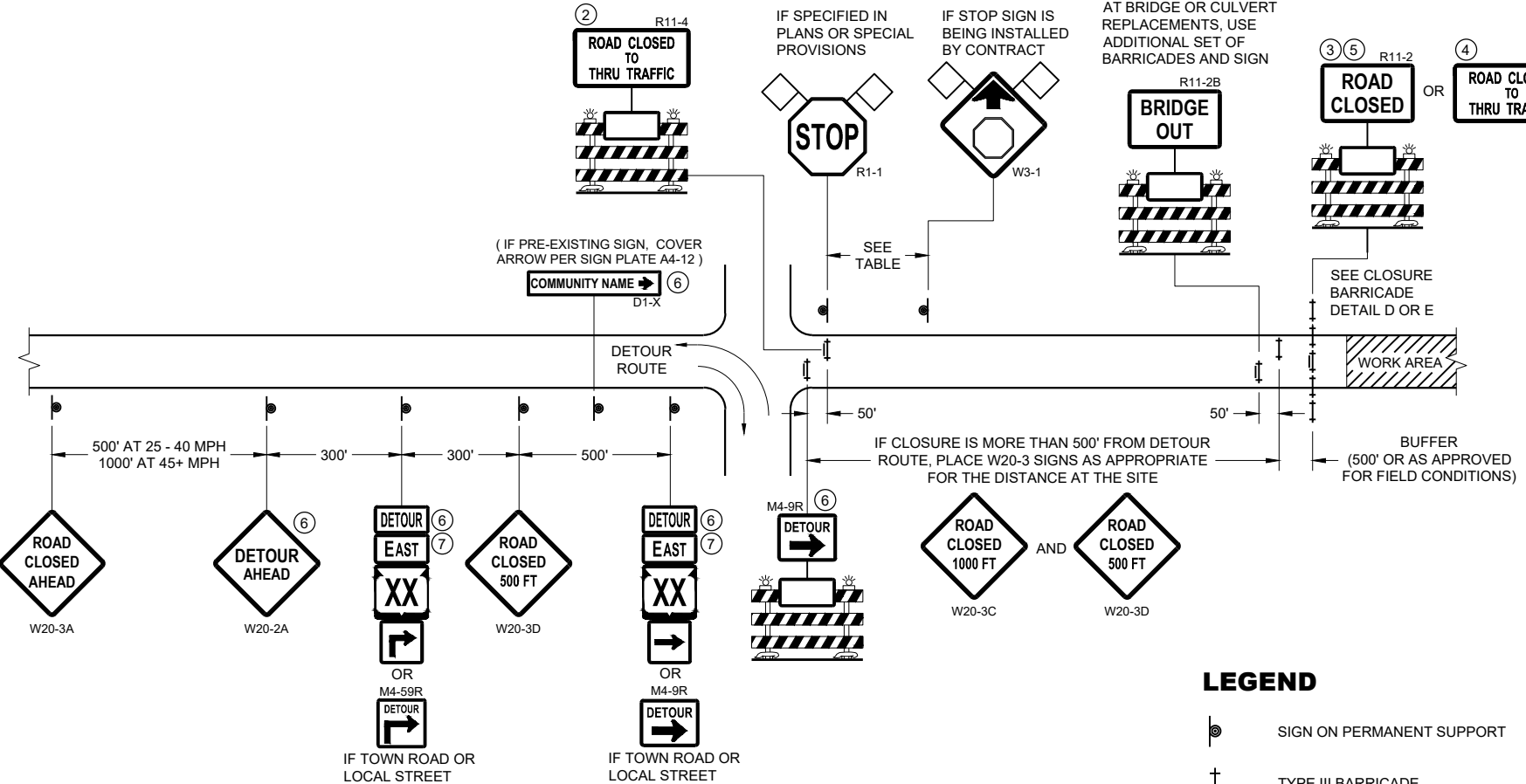
FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

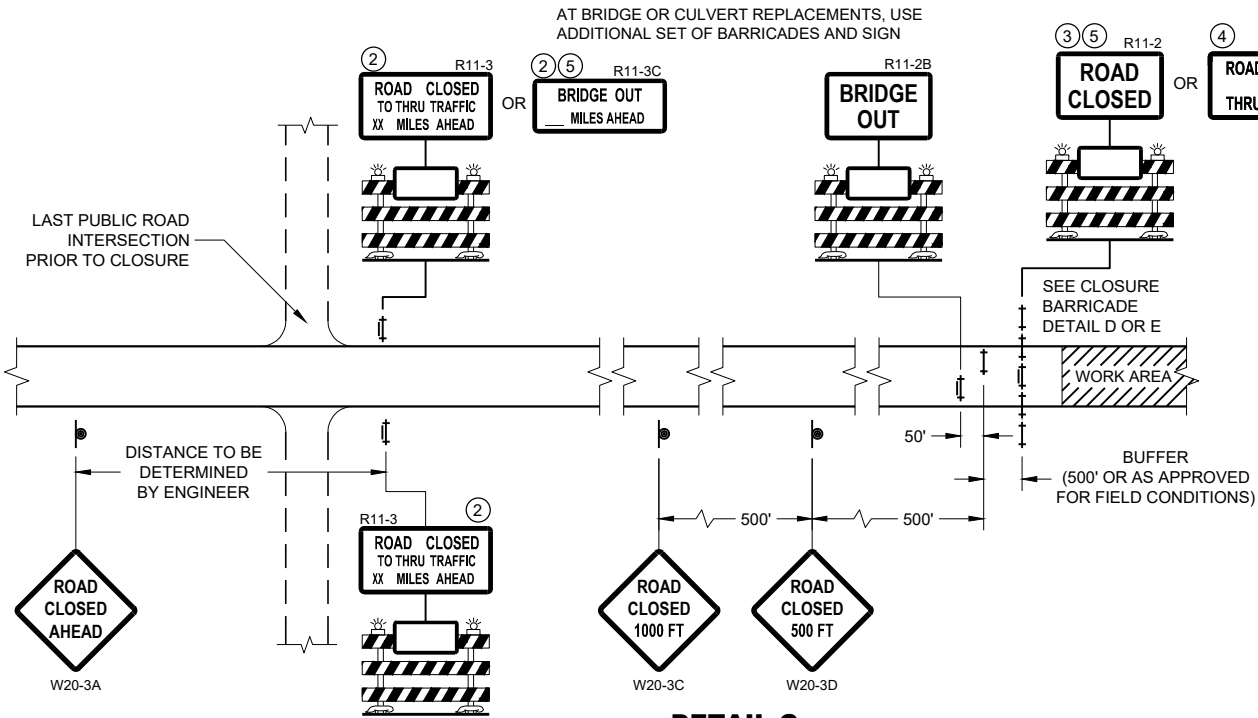
APPROVED
March 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

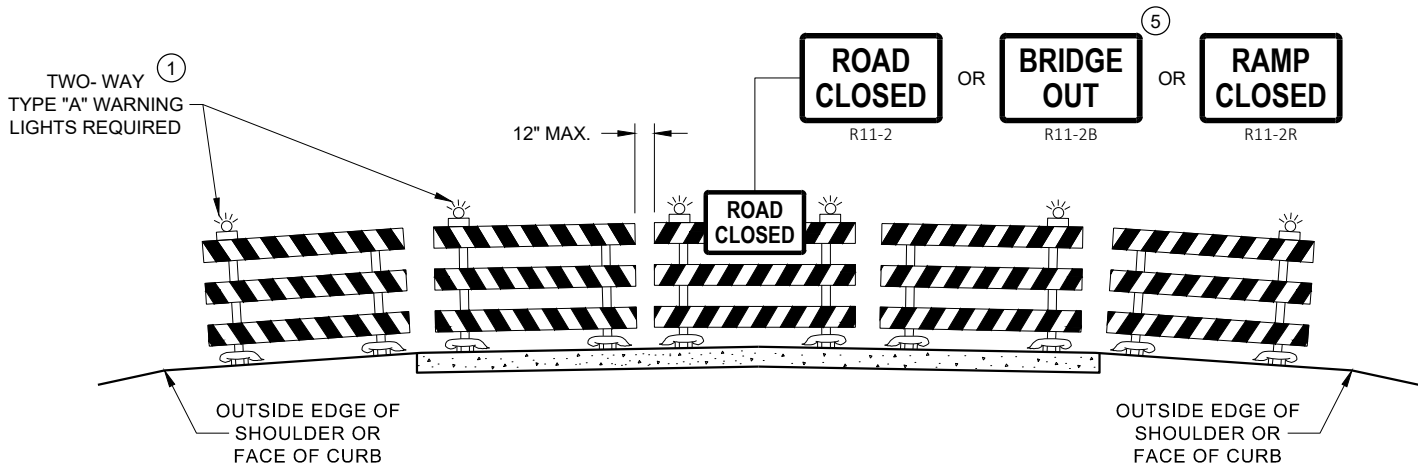
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- OR M05 - 1 OR M06 - 1

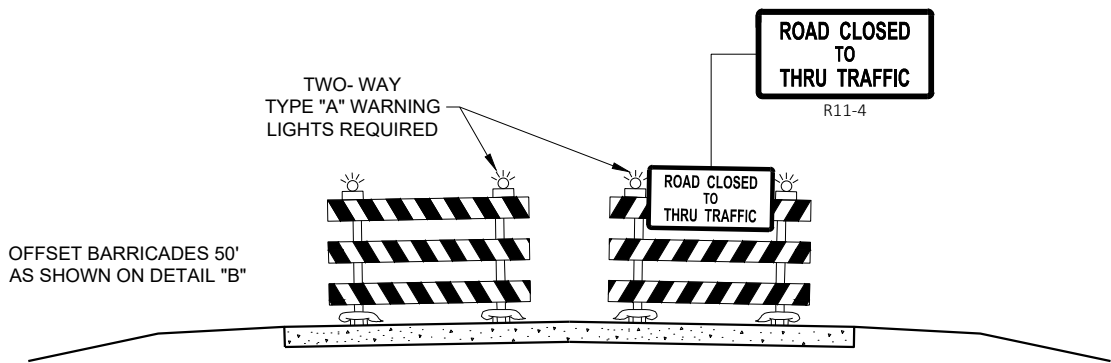
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

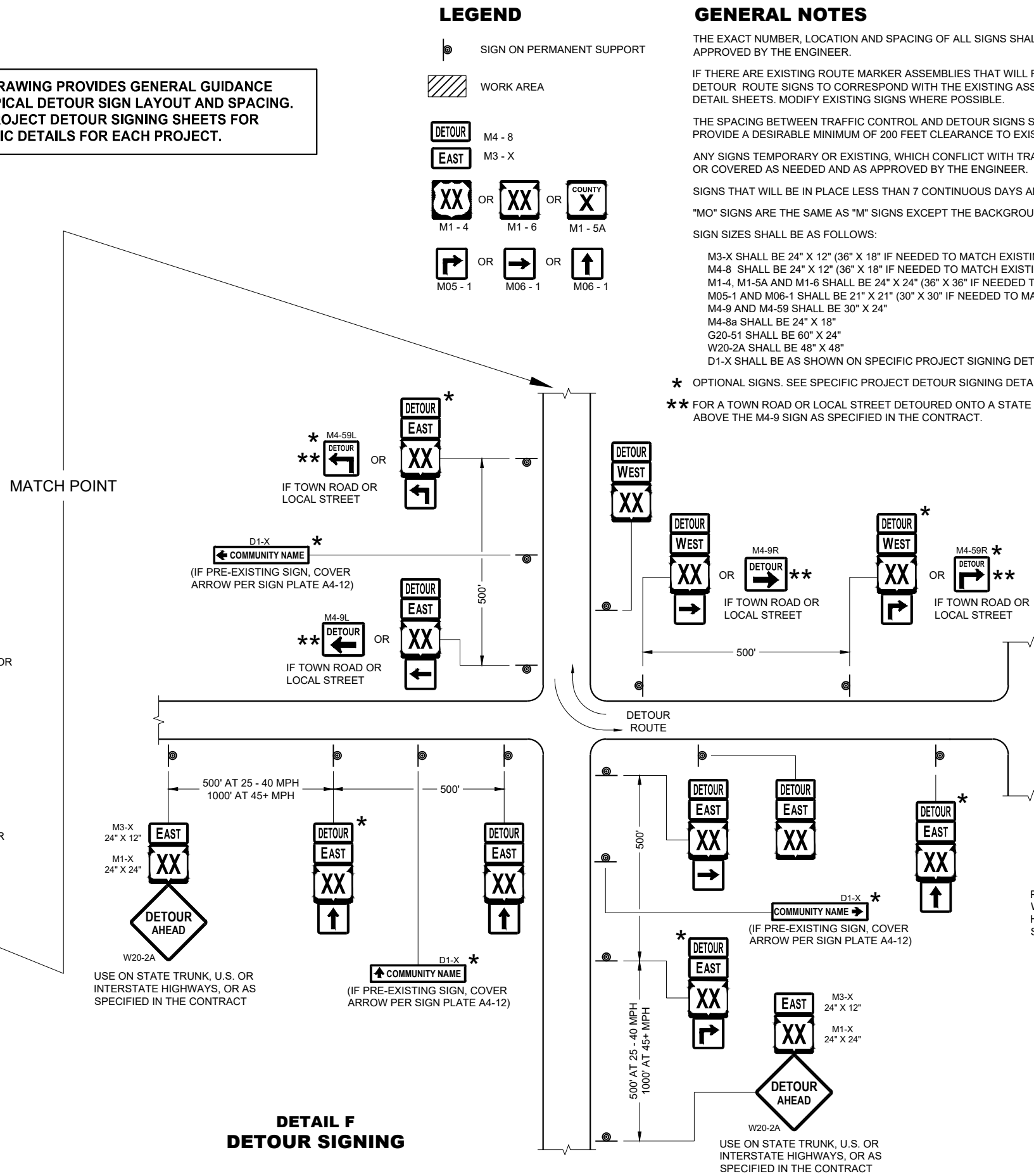
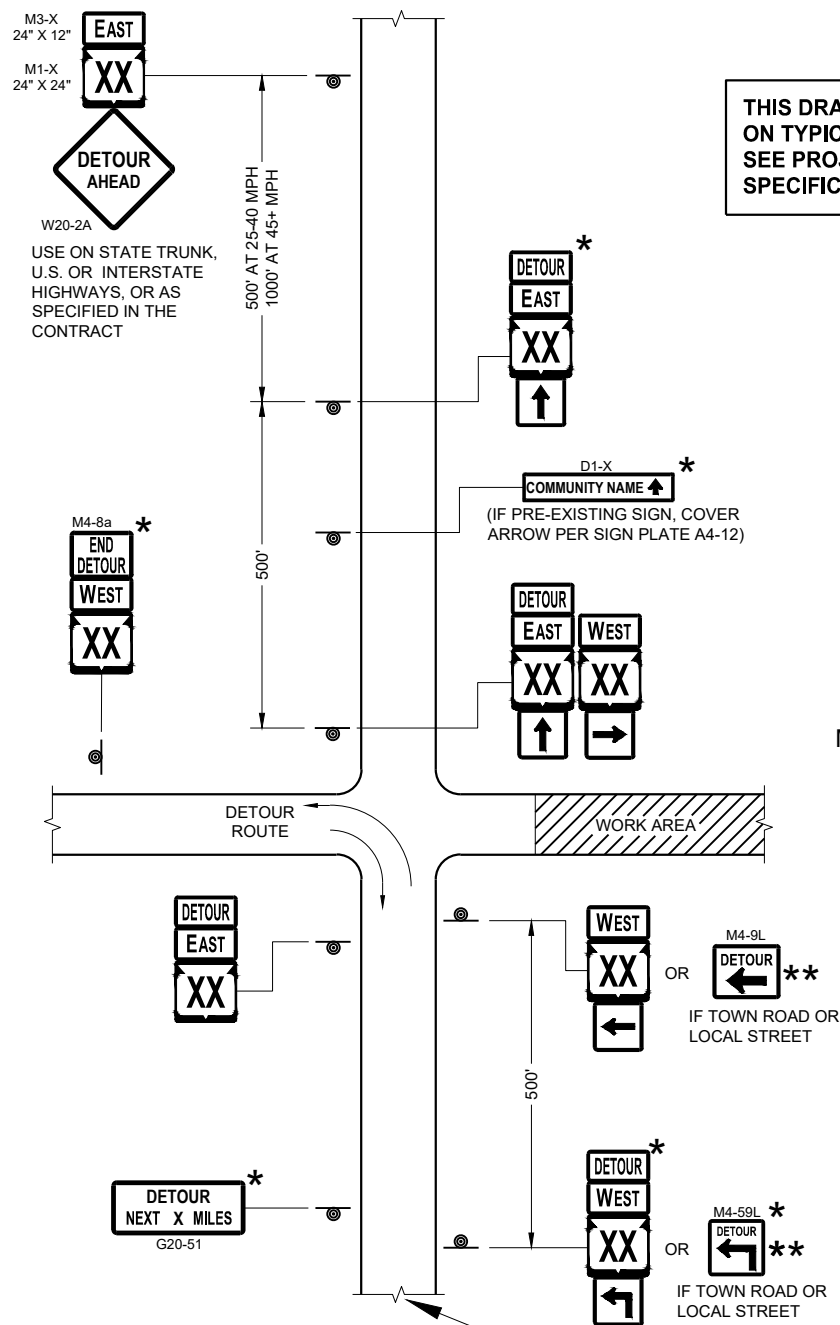
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

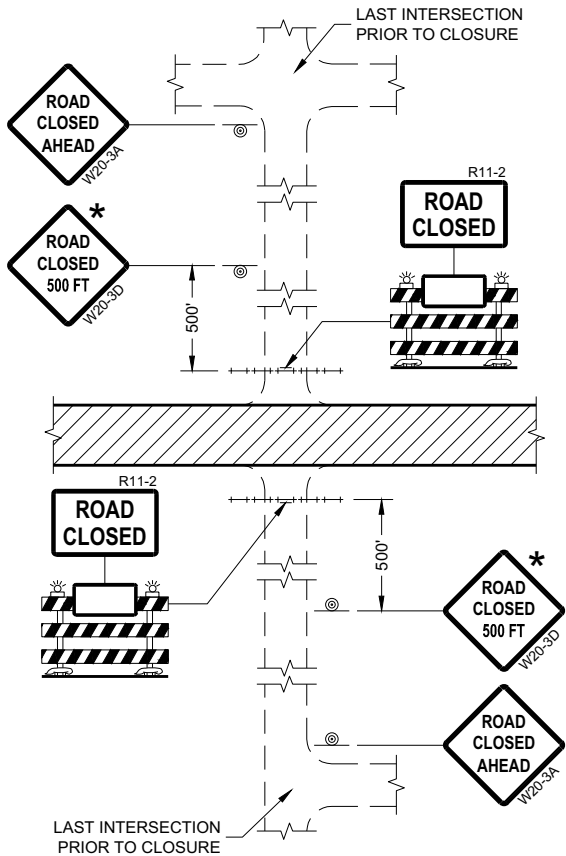
BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

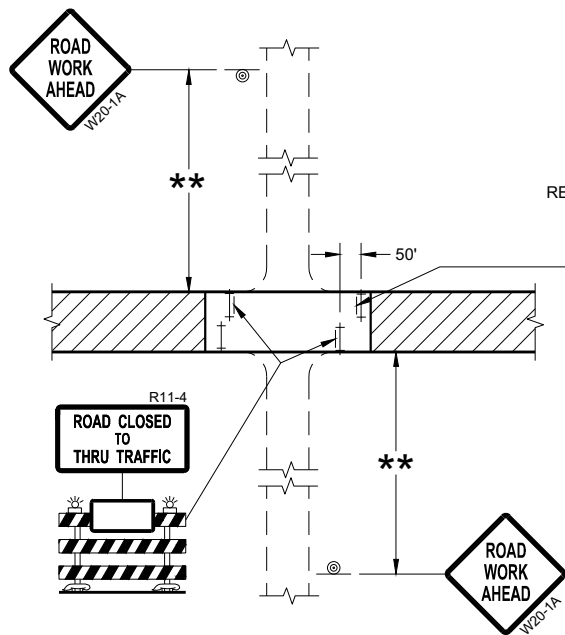
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

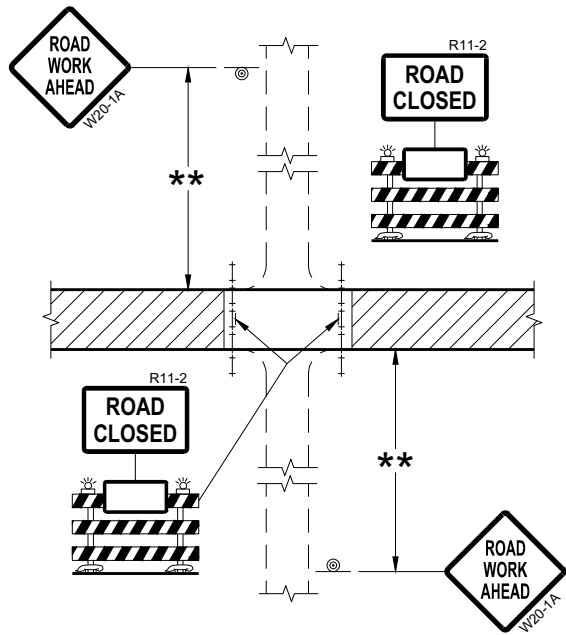




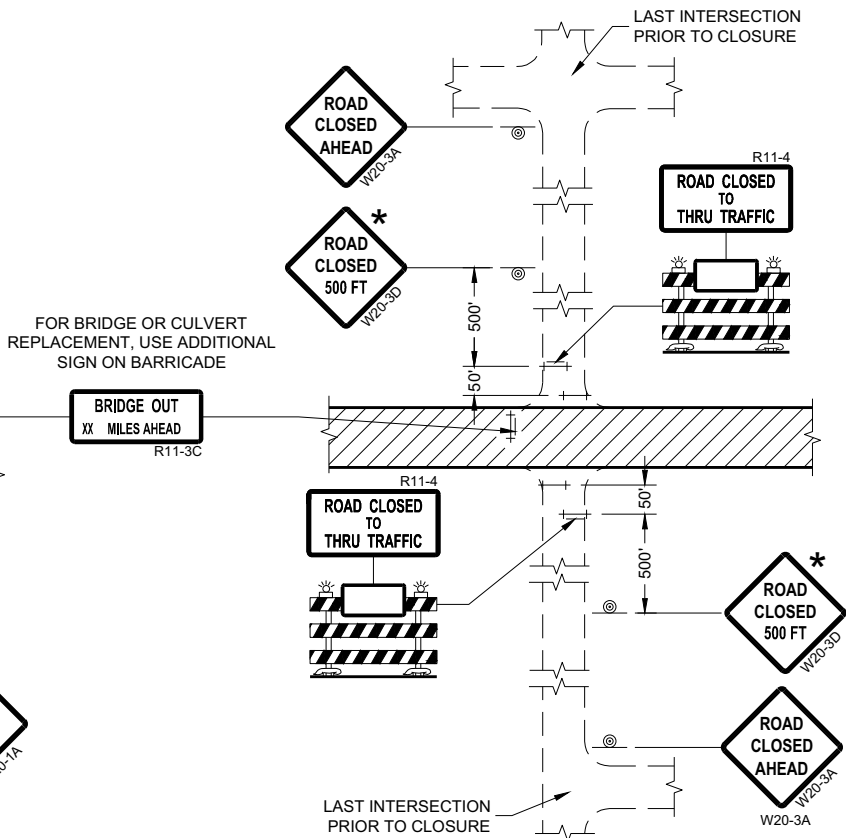
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

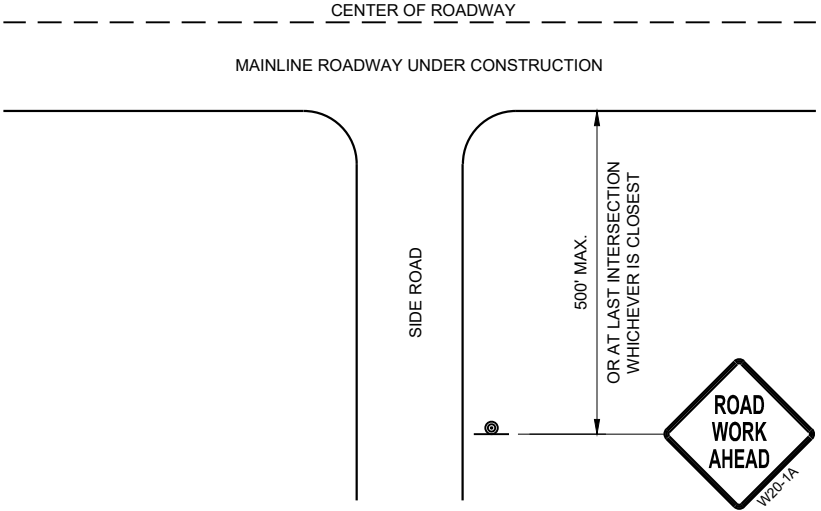
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

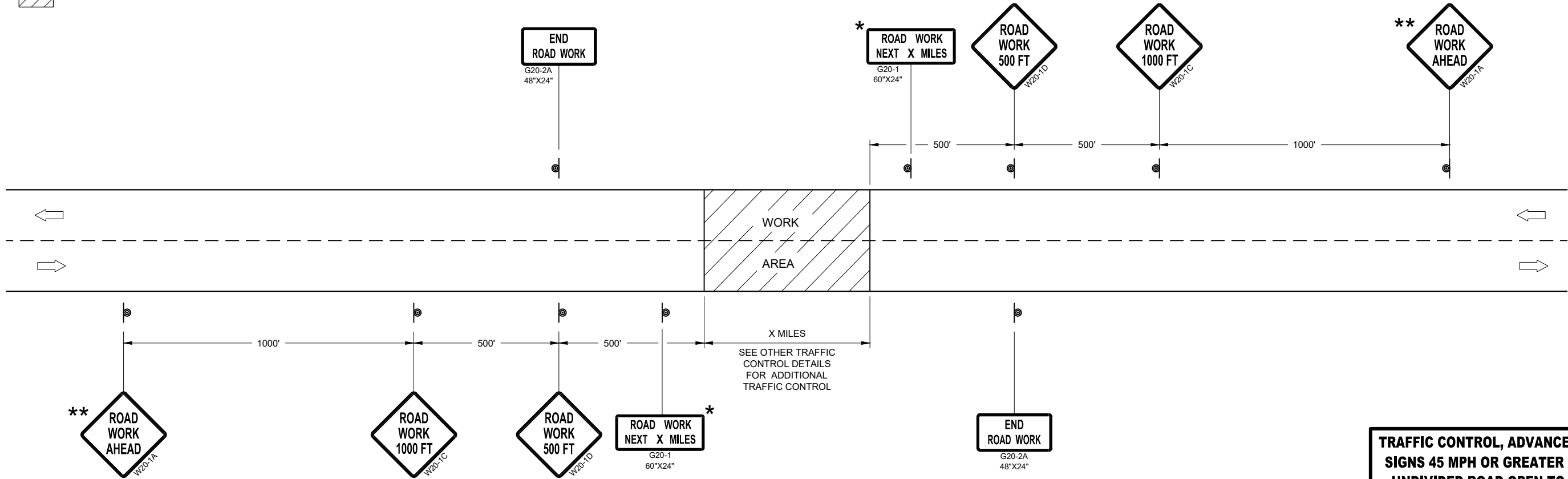
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

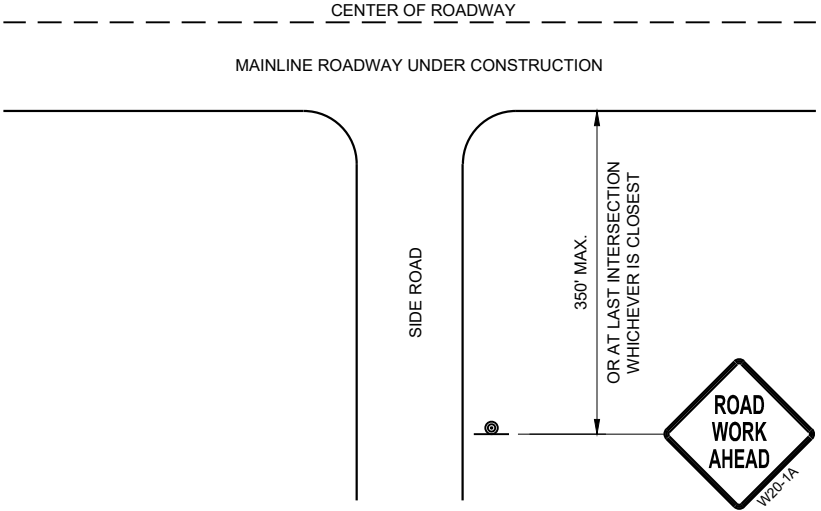
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

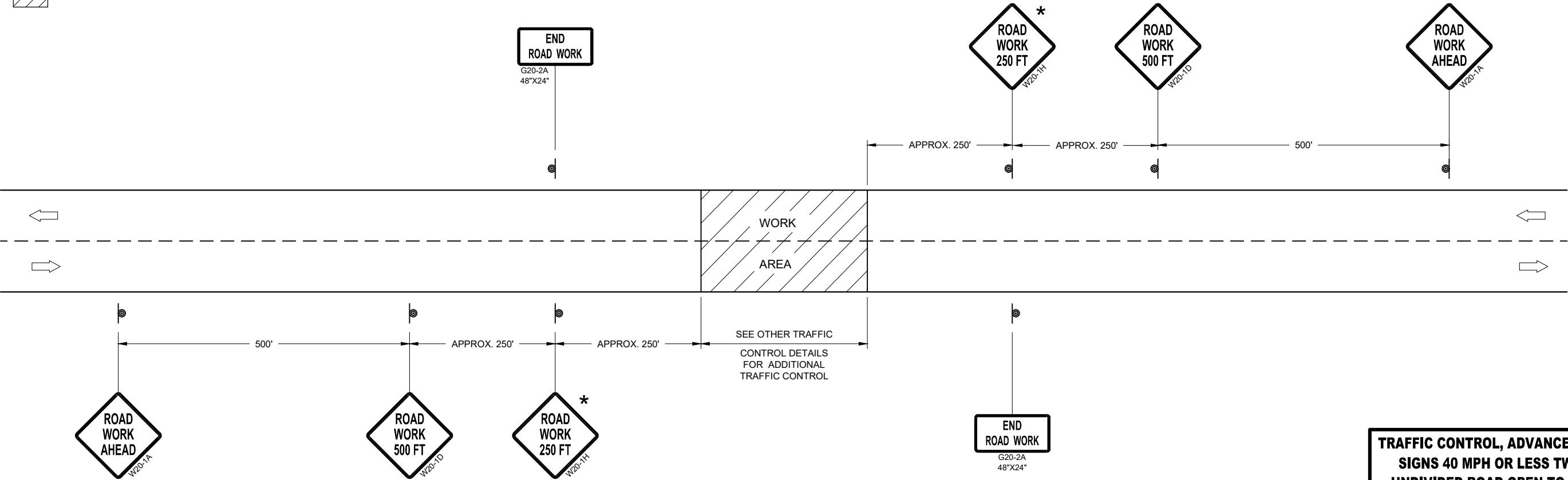
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

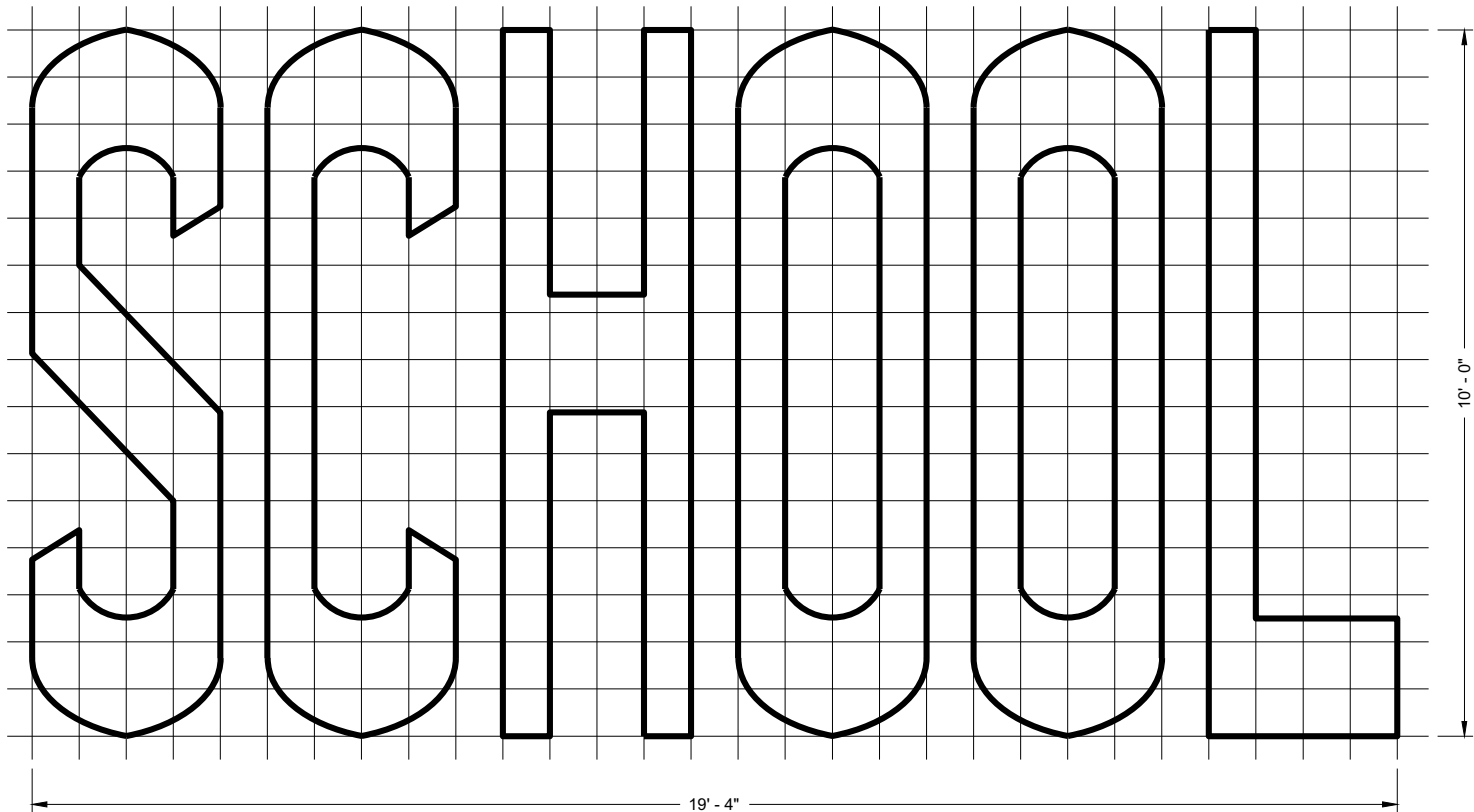
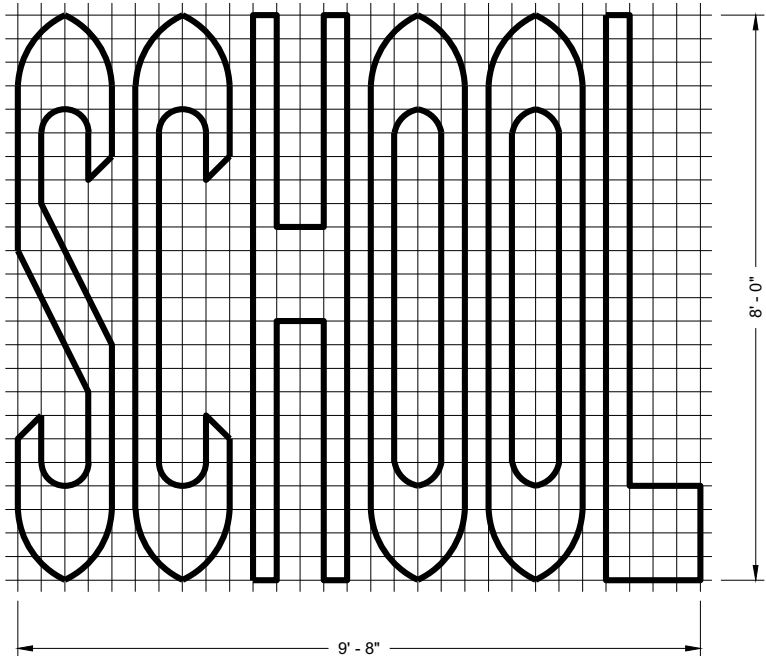
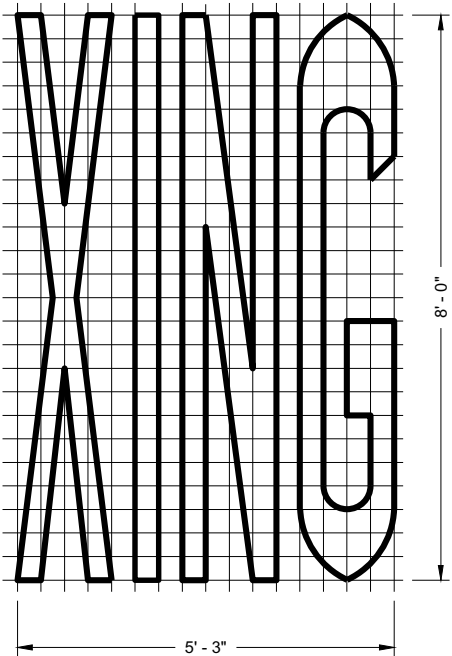
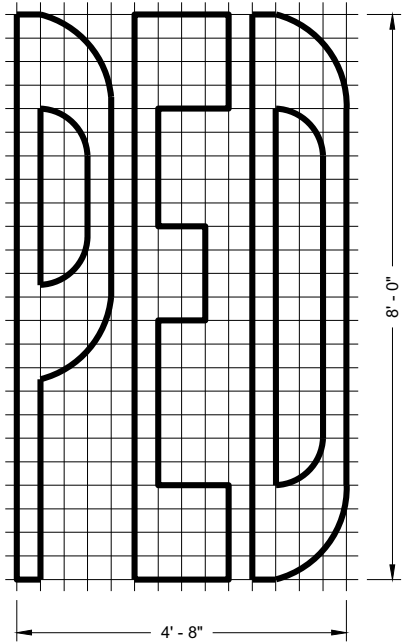
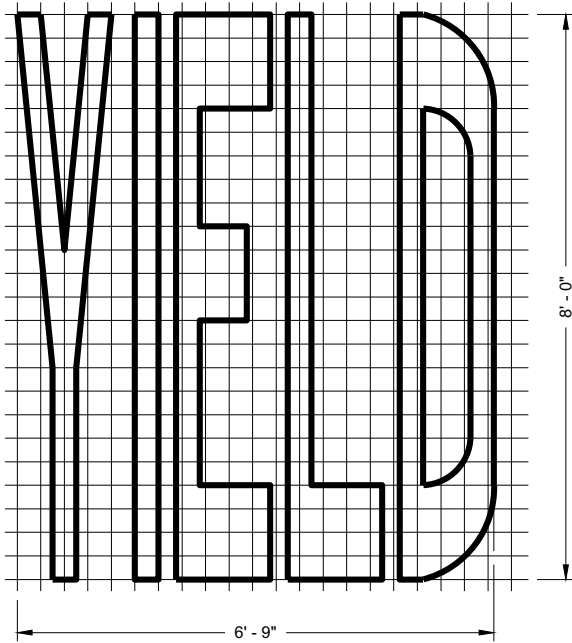
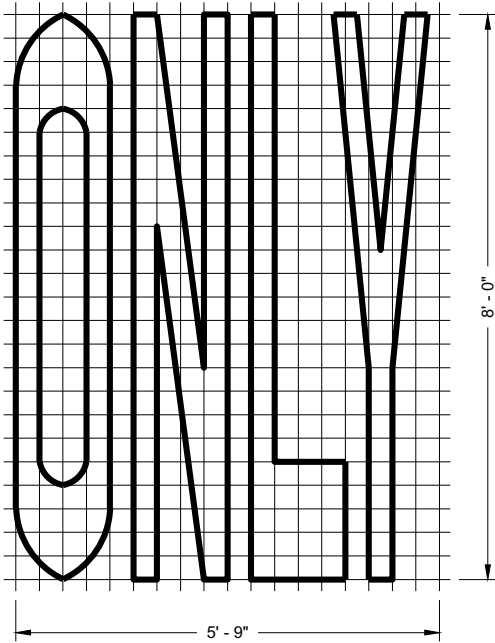
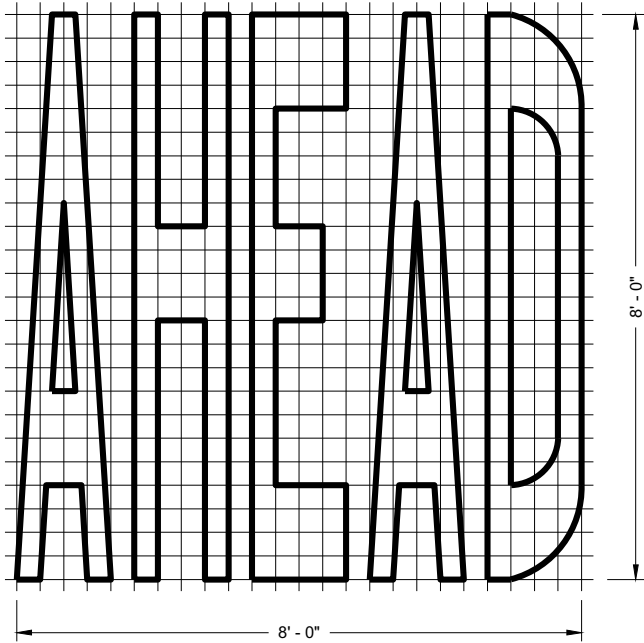
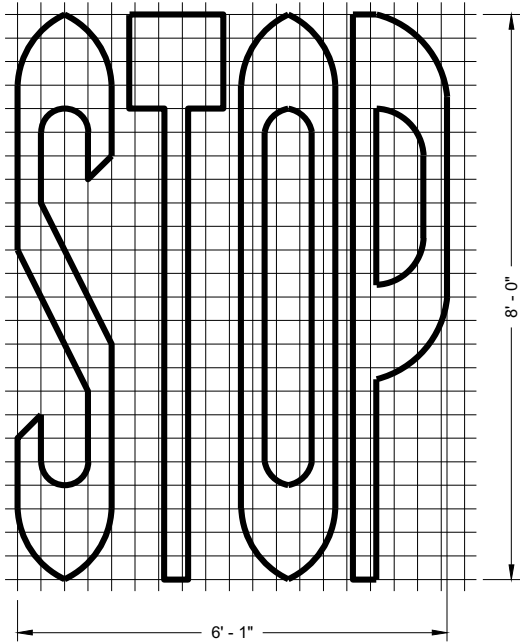


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

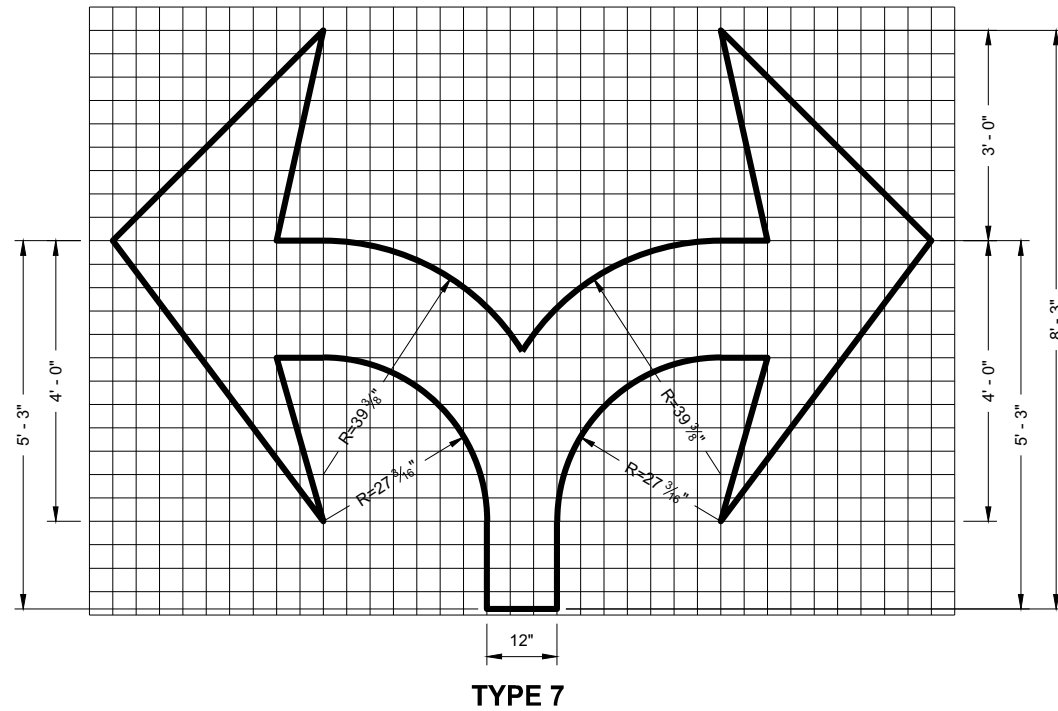
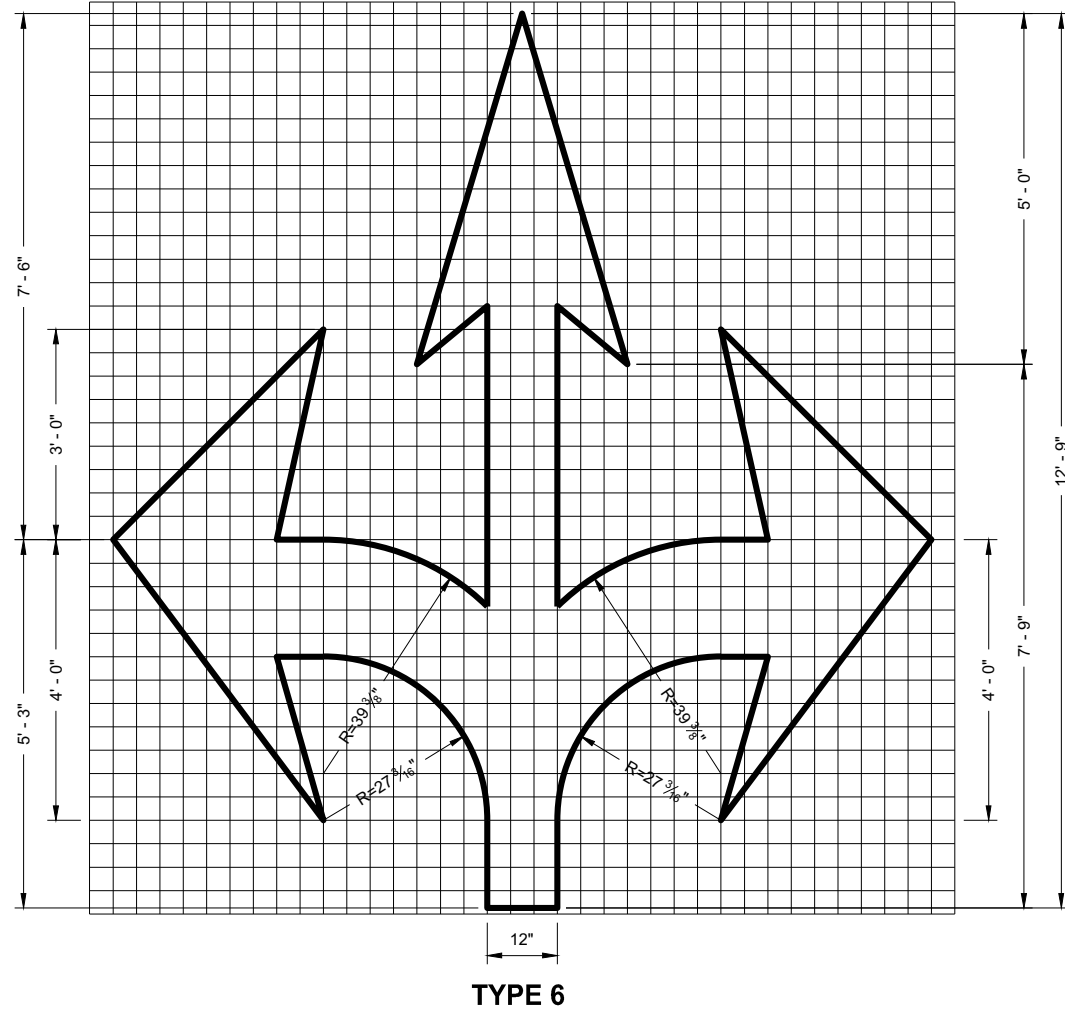
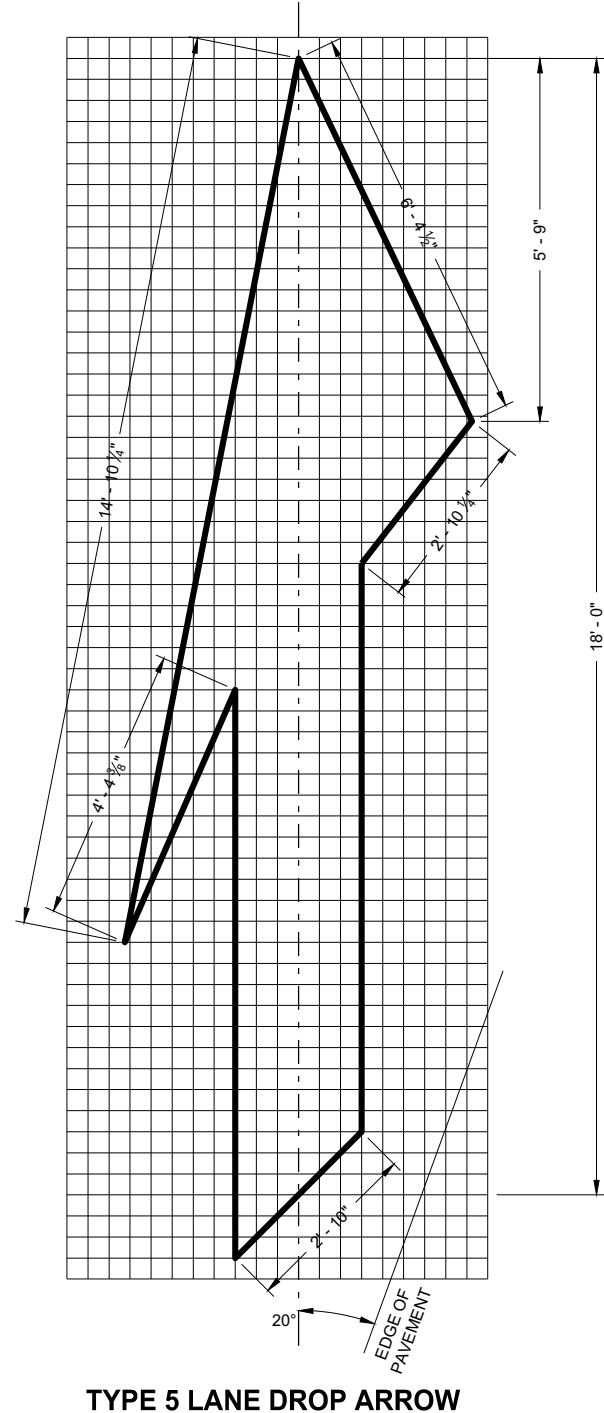
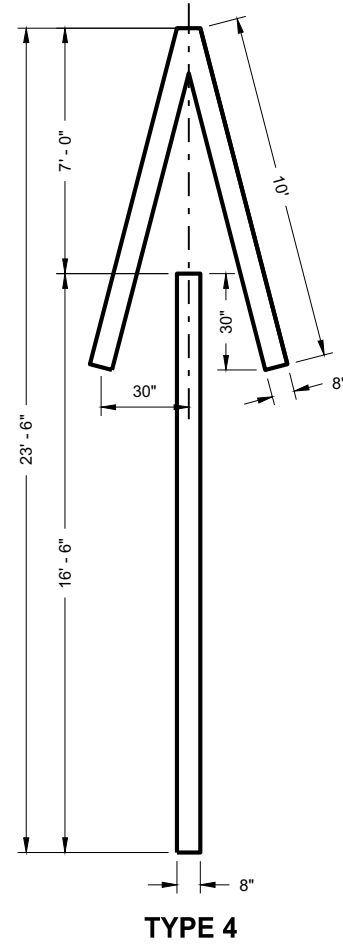
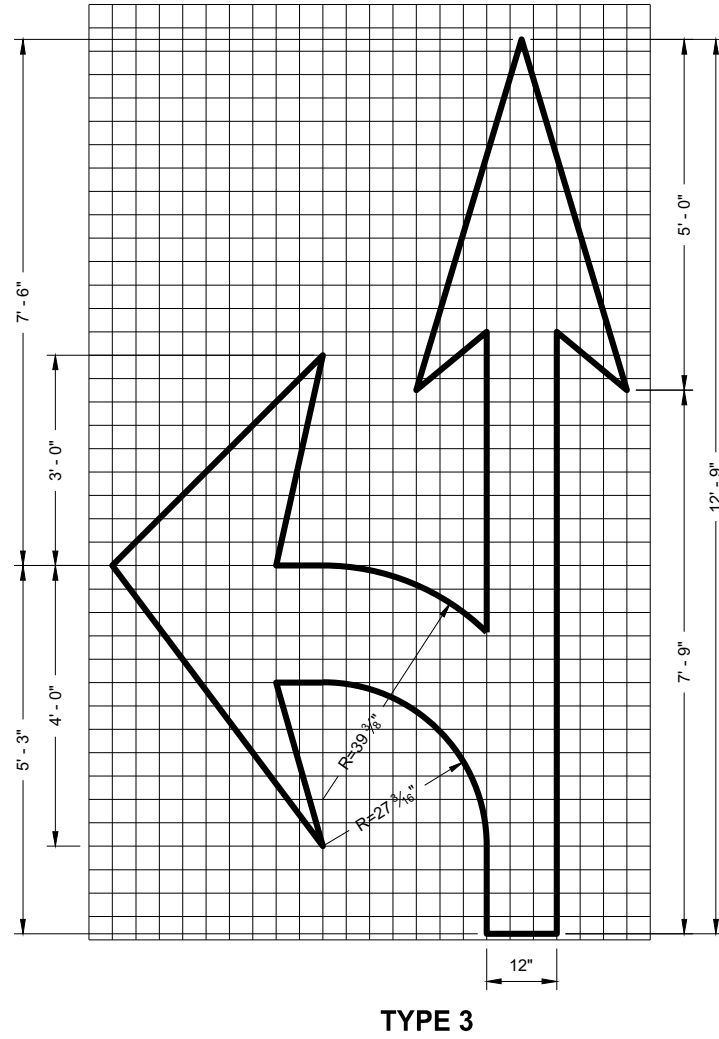
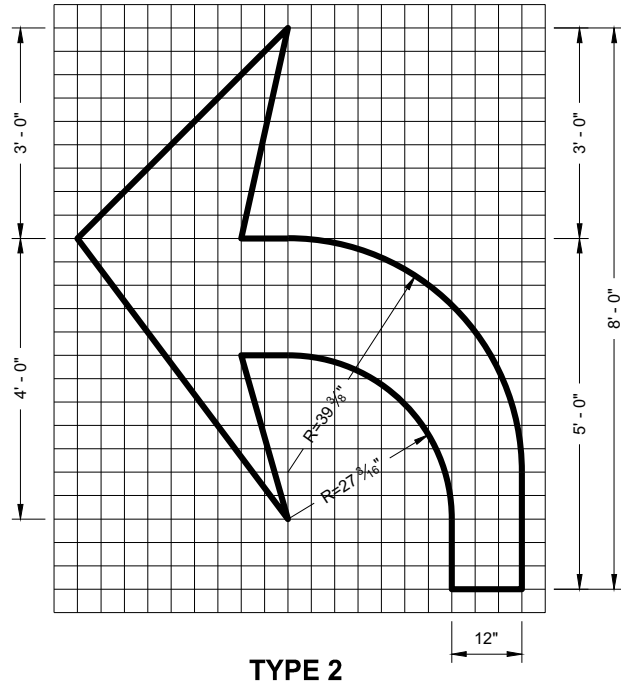
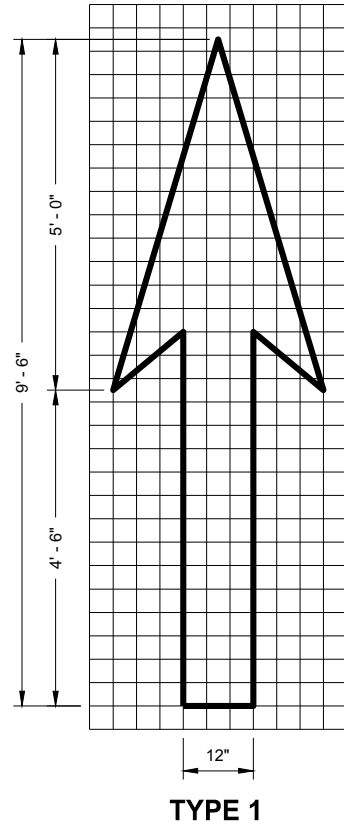
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

FHWA



GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE /S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER
FHWA

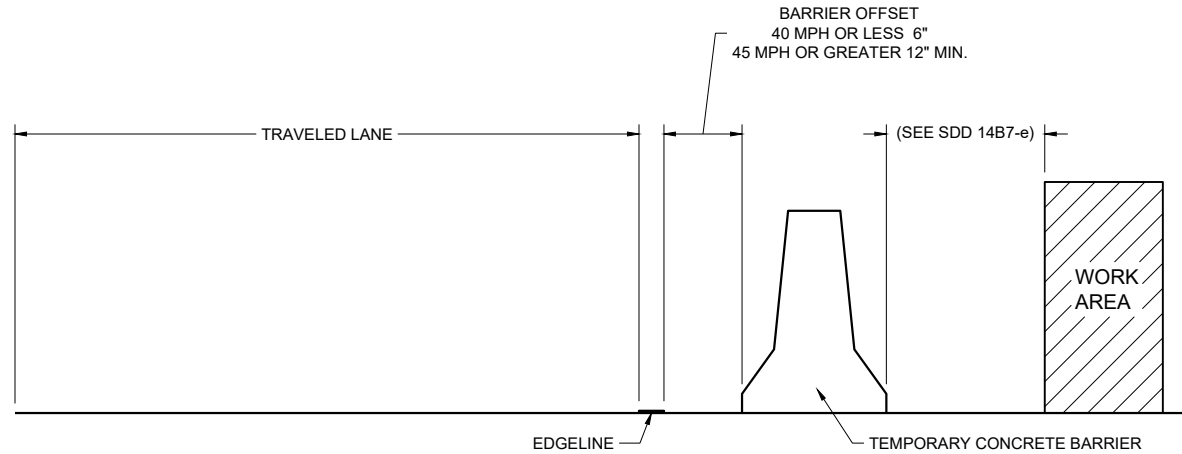


PERMANENT PAVEMENT MARKING

 "T" MARKING
 SIGN ON PERMANENT SUPPORT
 DIRECTION OF TRAFFIC

APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer



TEMPORARY BARRIER OFFSET FROM EDGE LINE

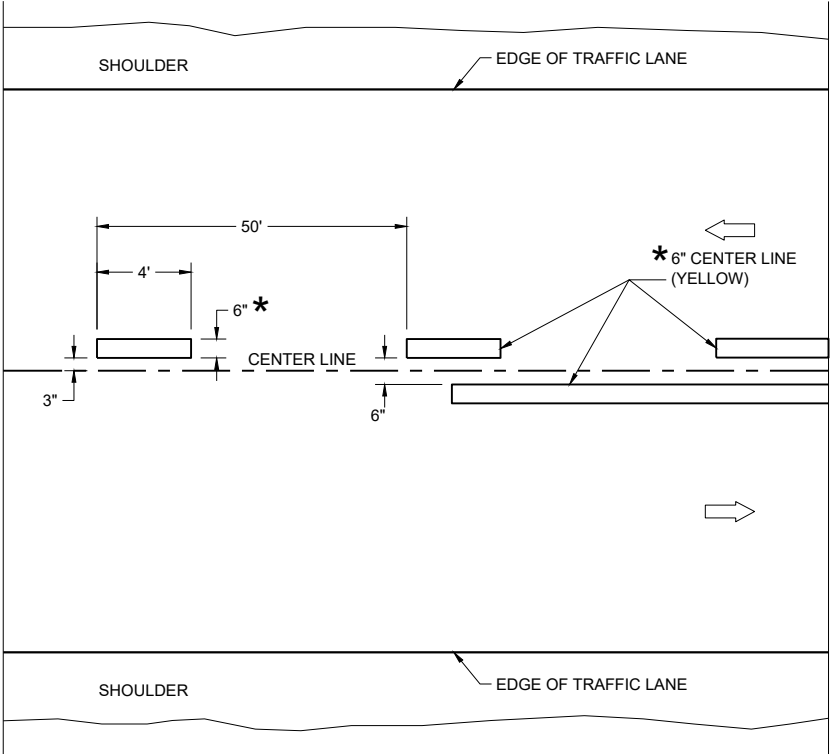
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

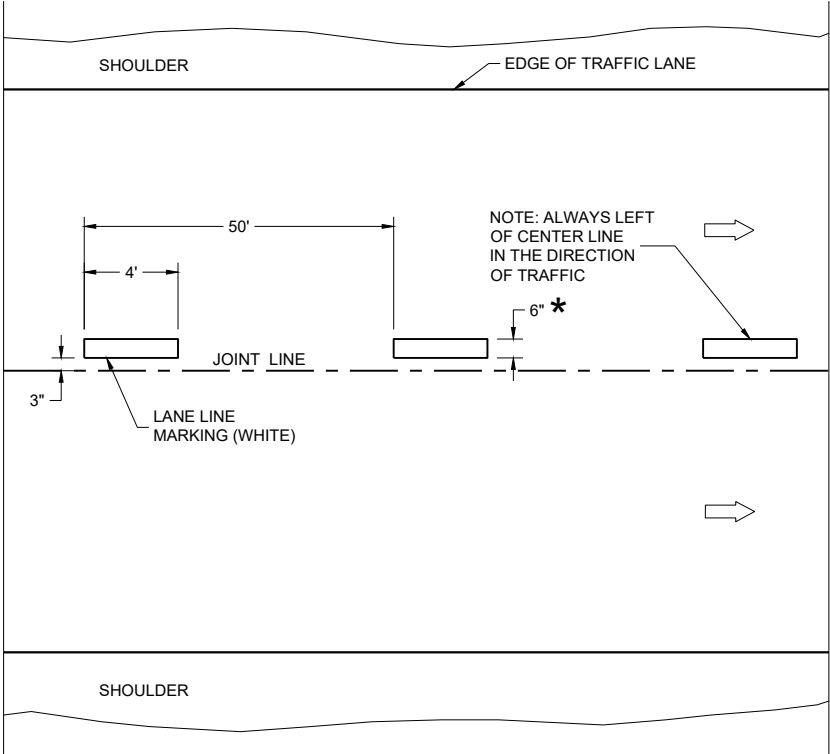
LEGEND

DIRECTION OF TRAFFIC

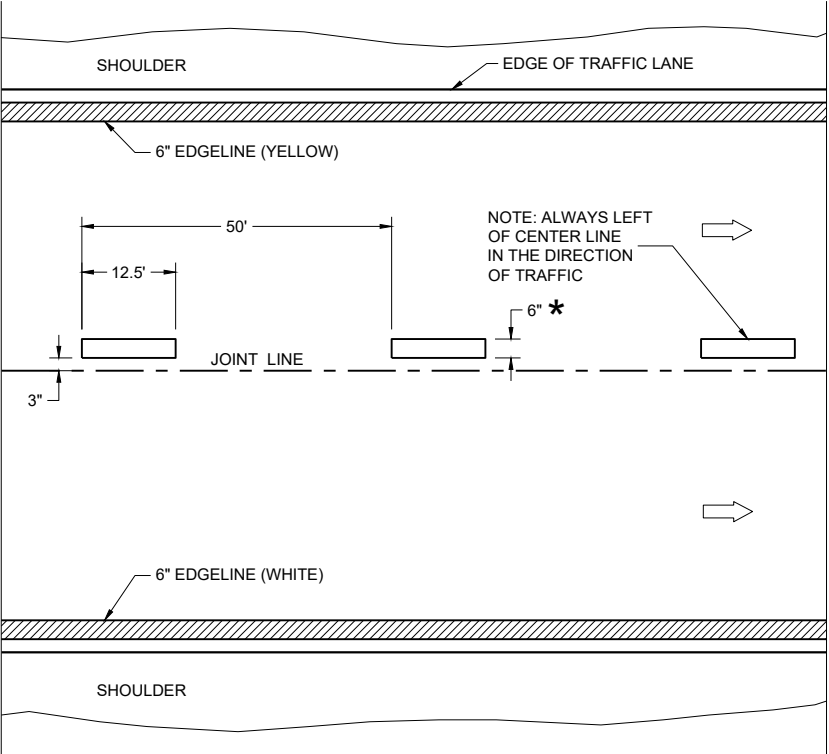
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



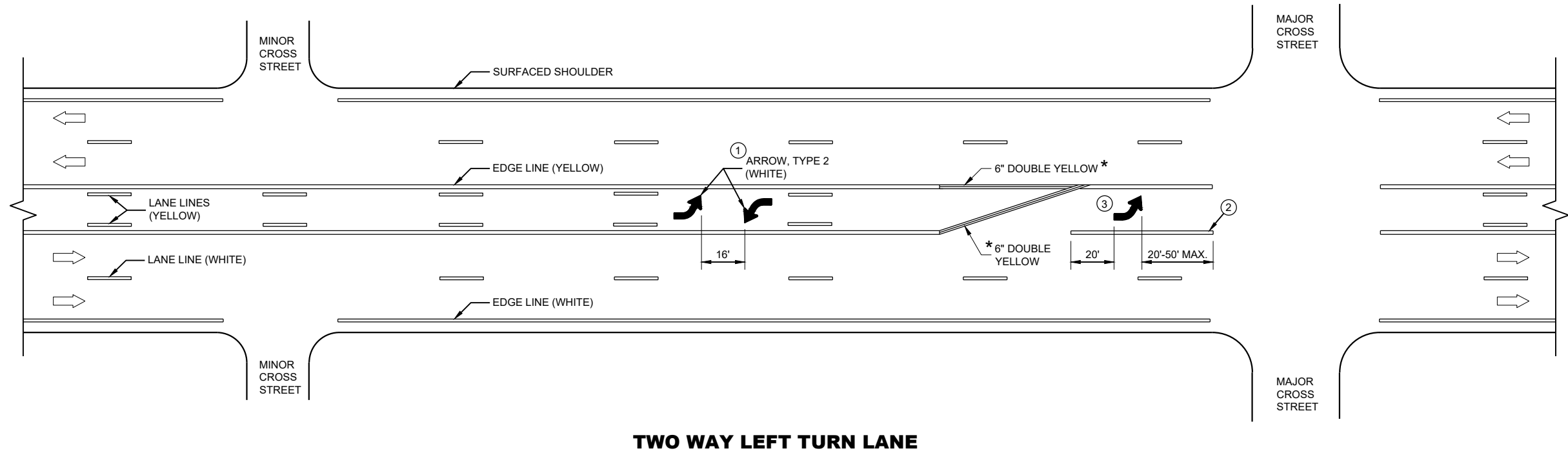
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



GENERAL NOTES

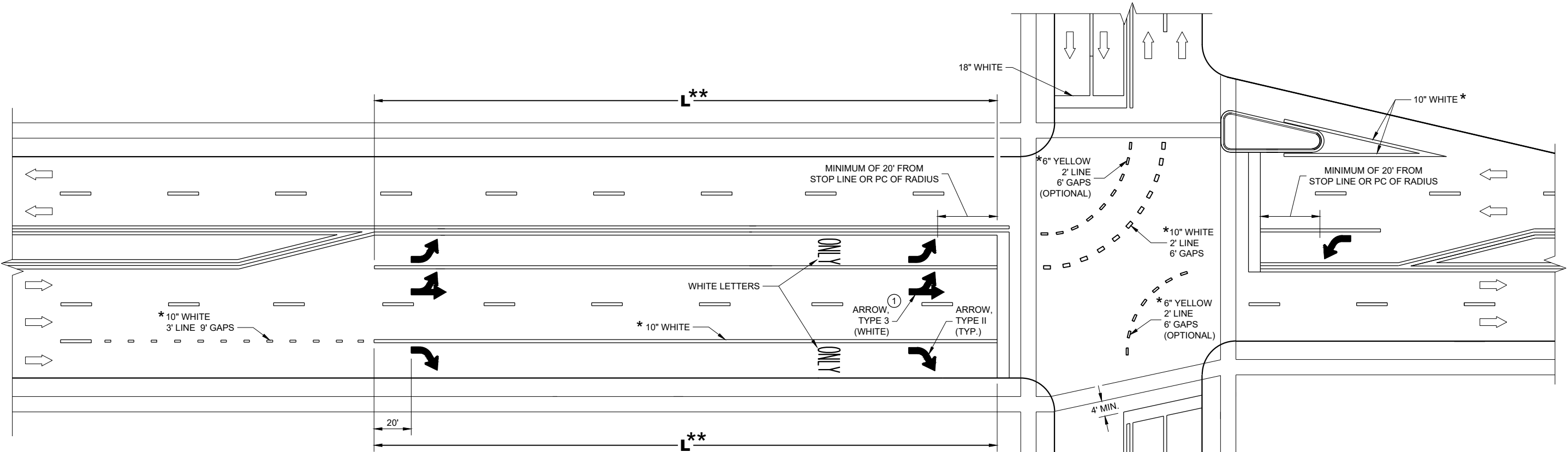
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING
(TURN LANES)**

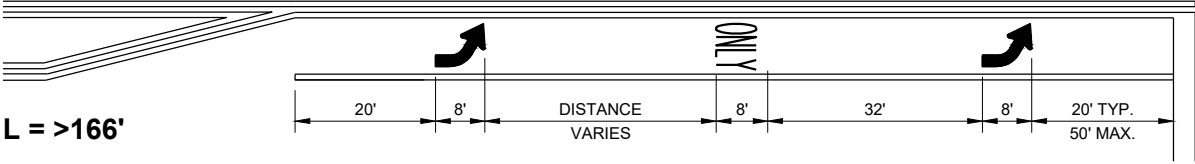
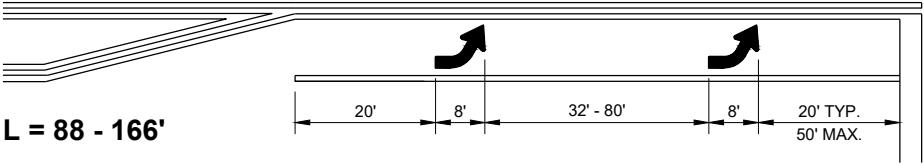
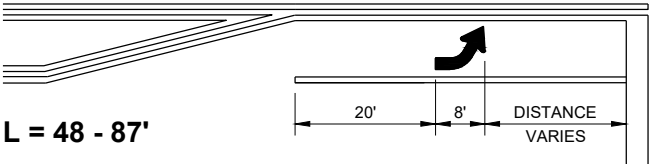
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

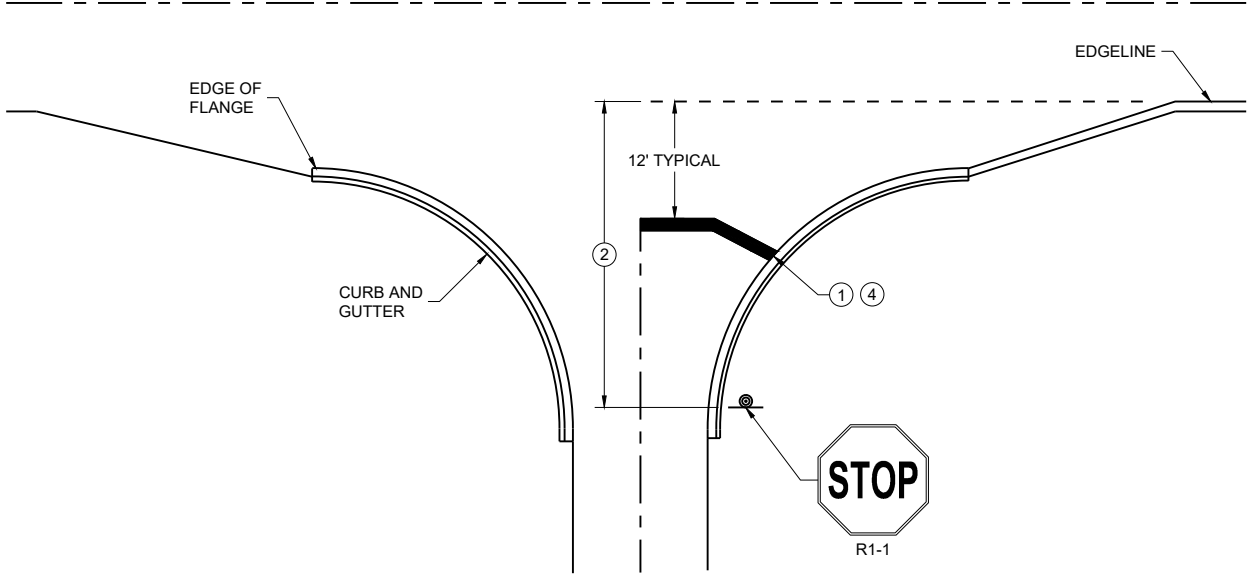
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

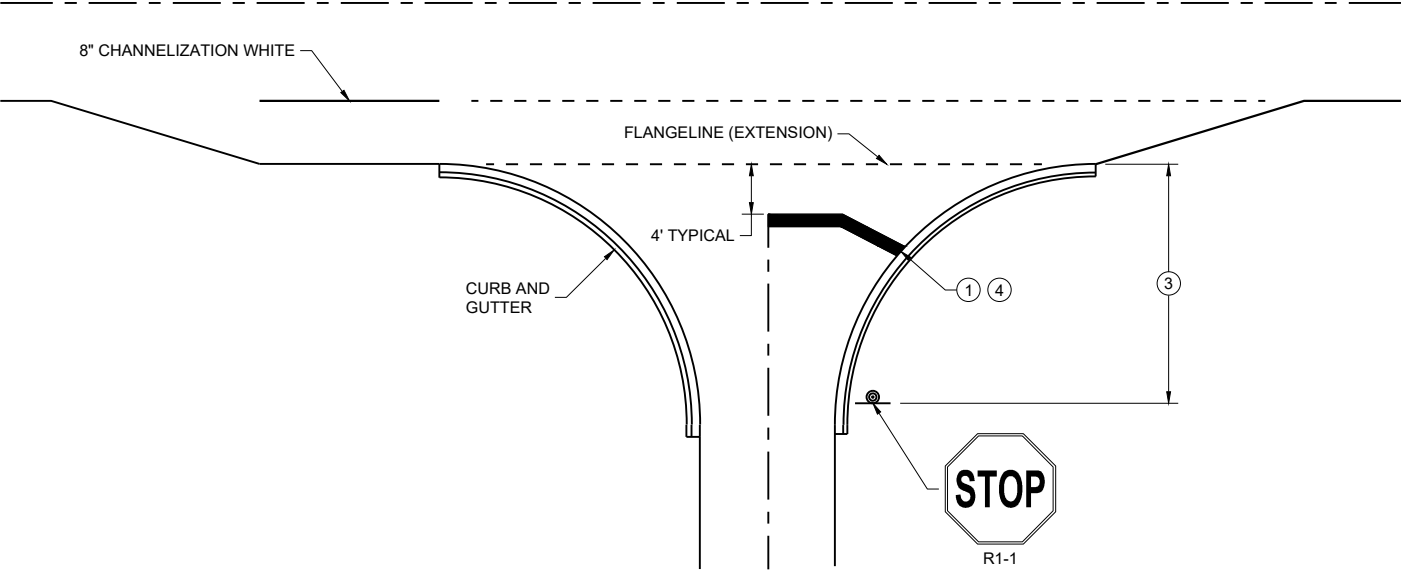
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING
(TURN LANES)

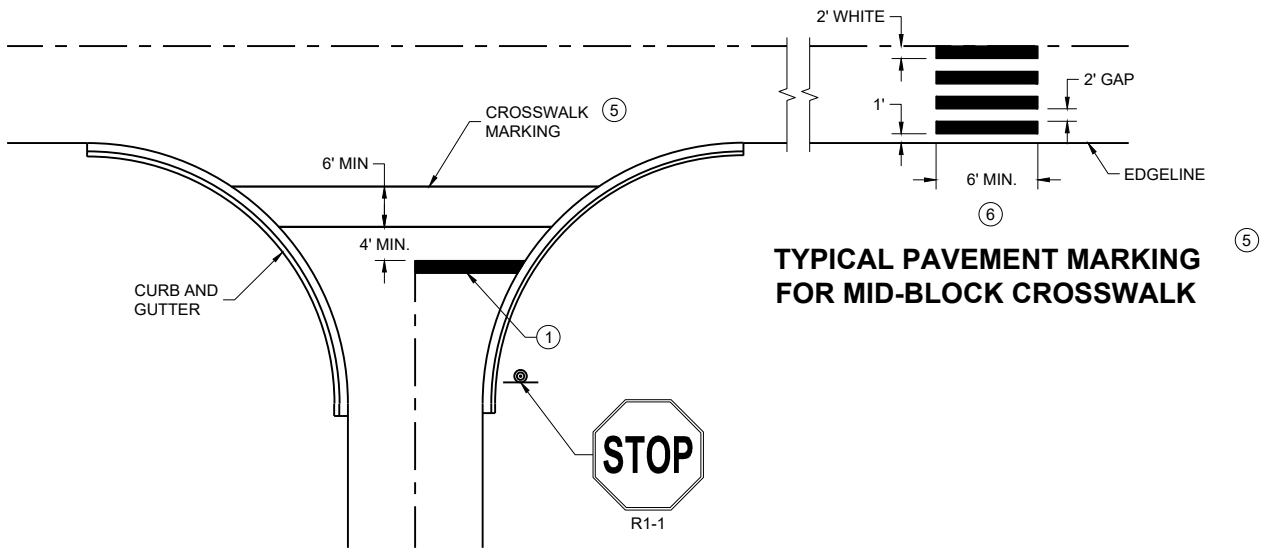
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



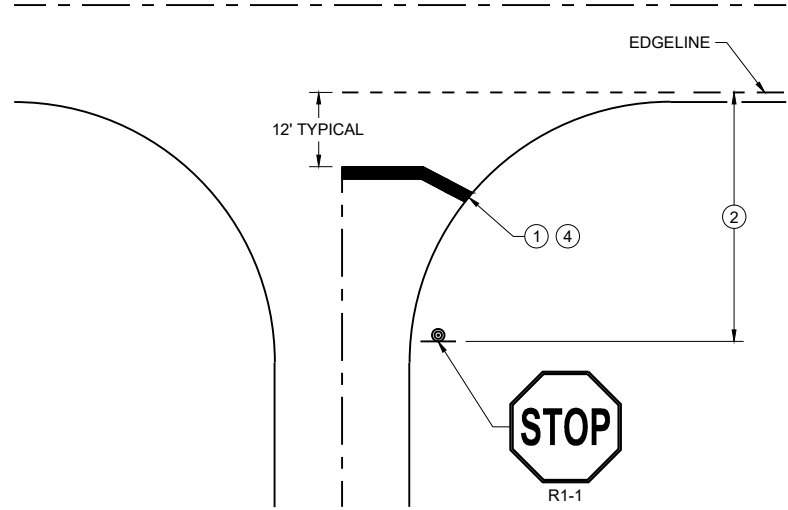
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

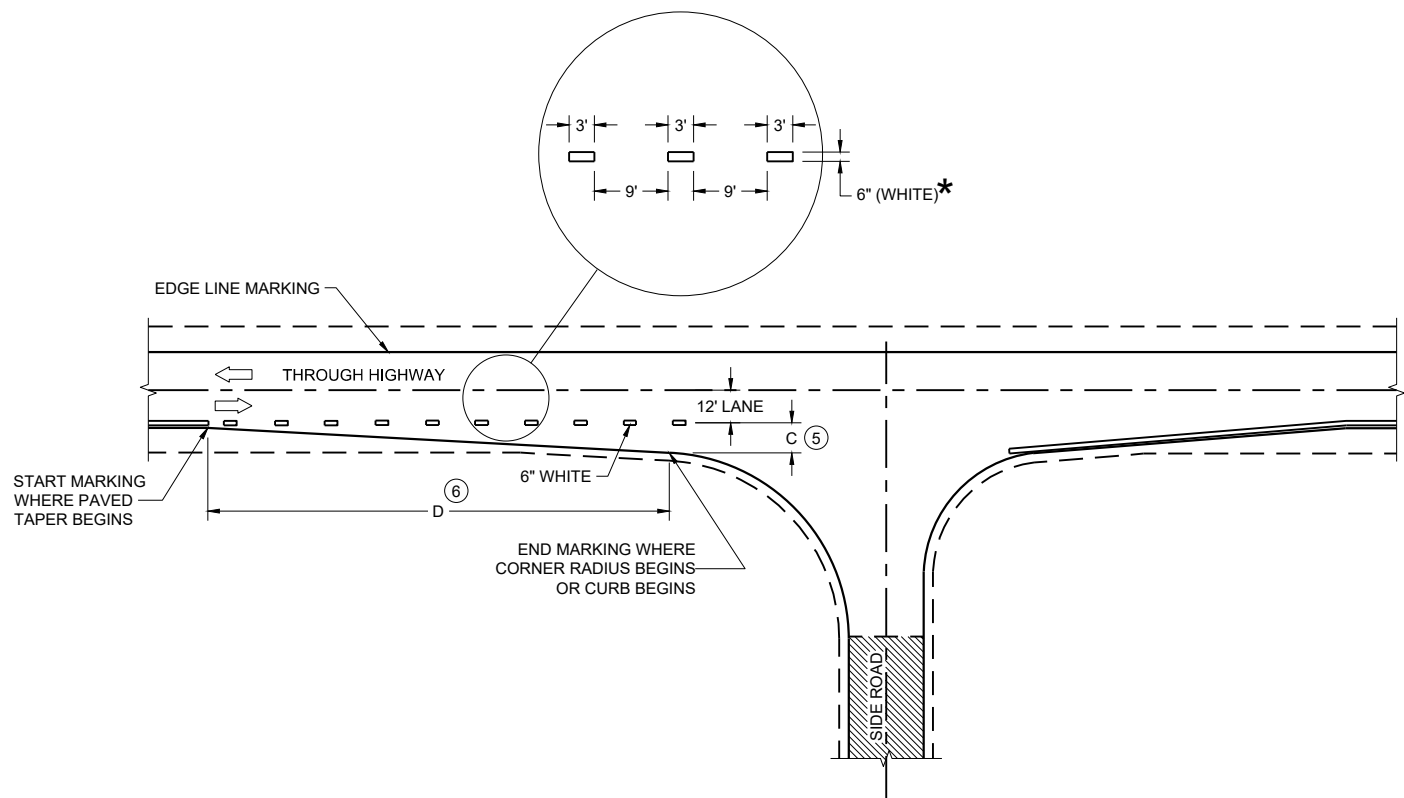
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

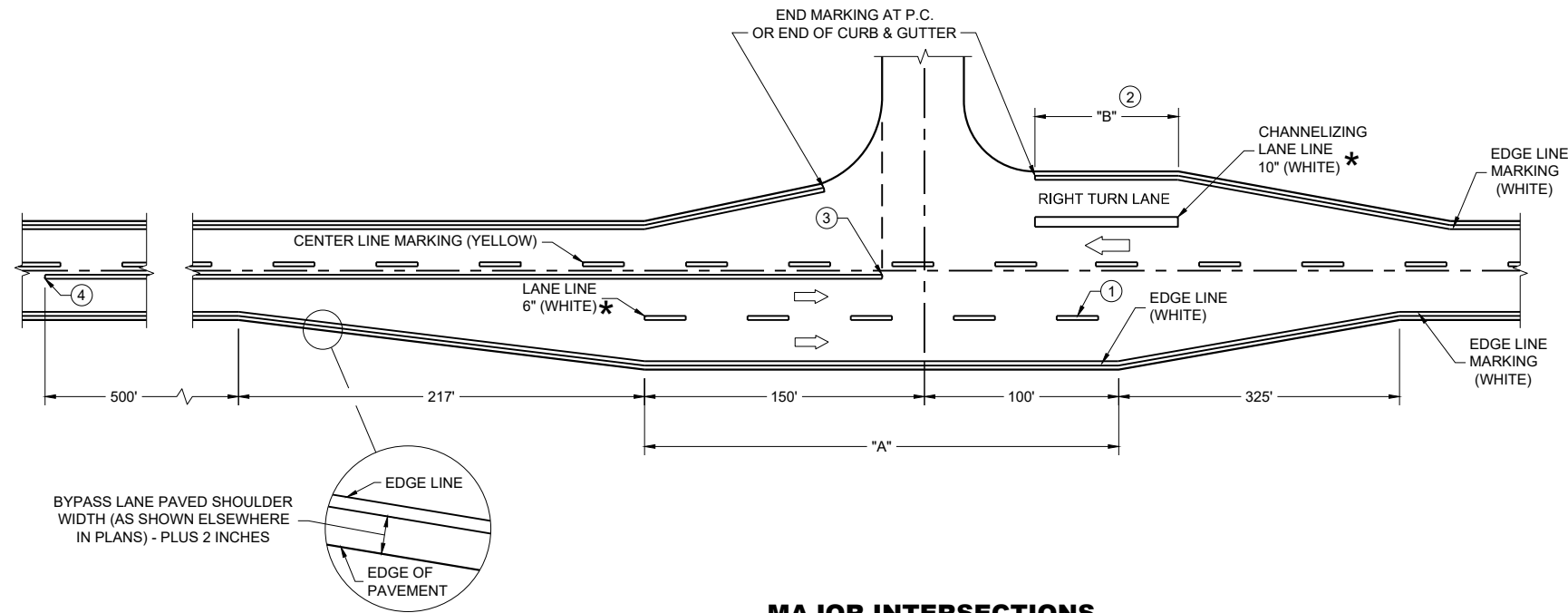
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER
FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

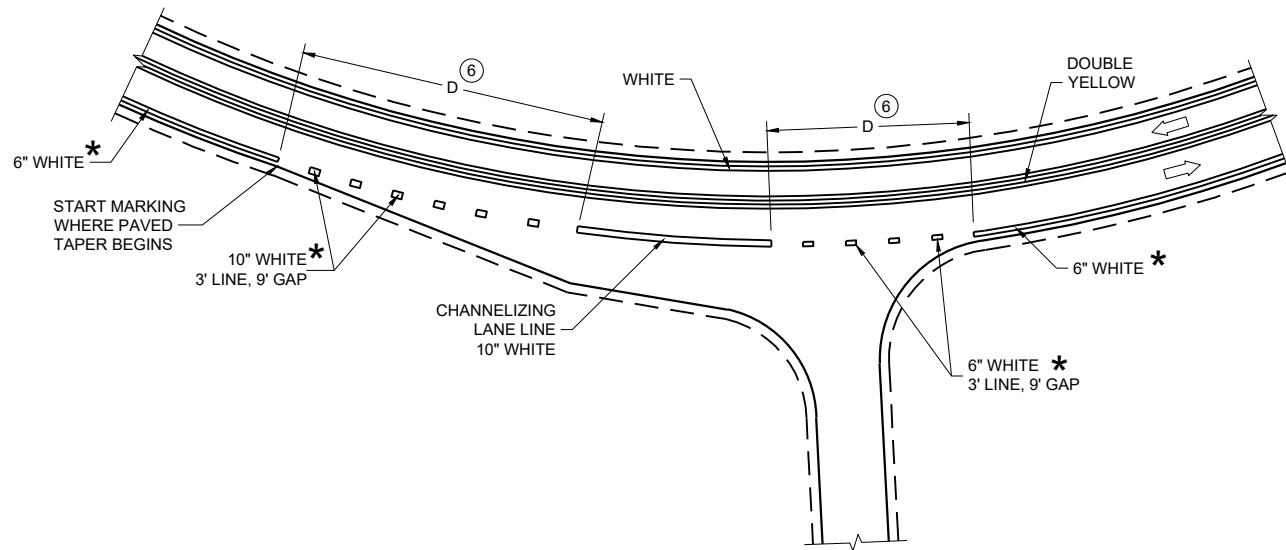
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

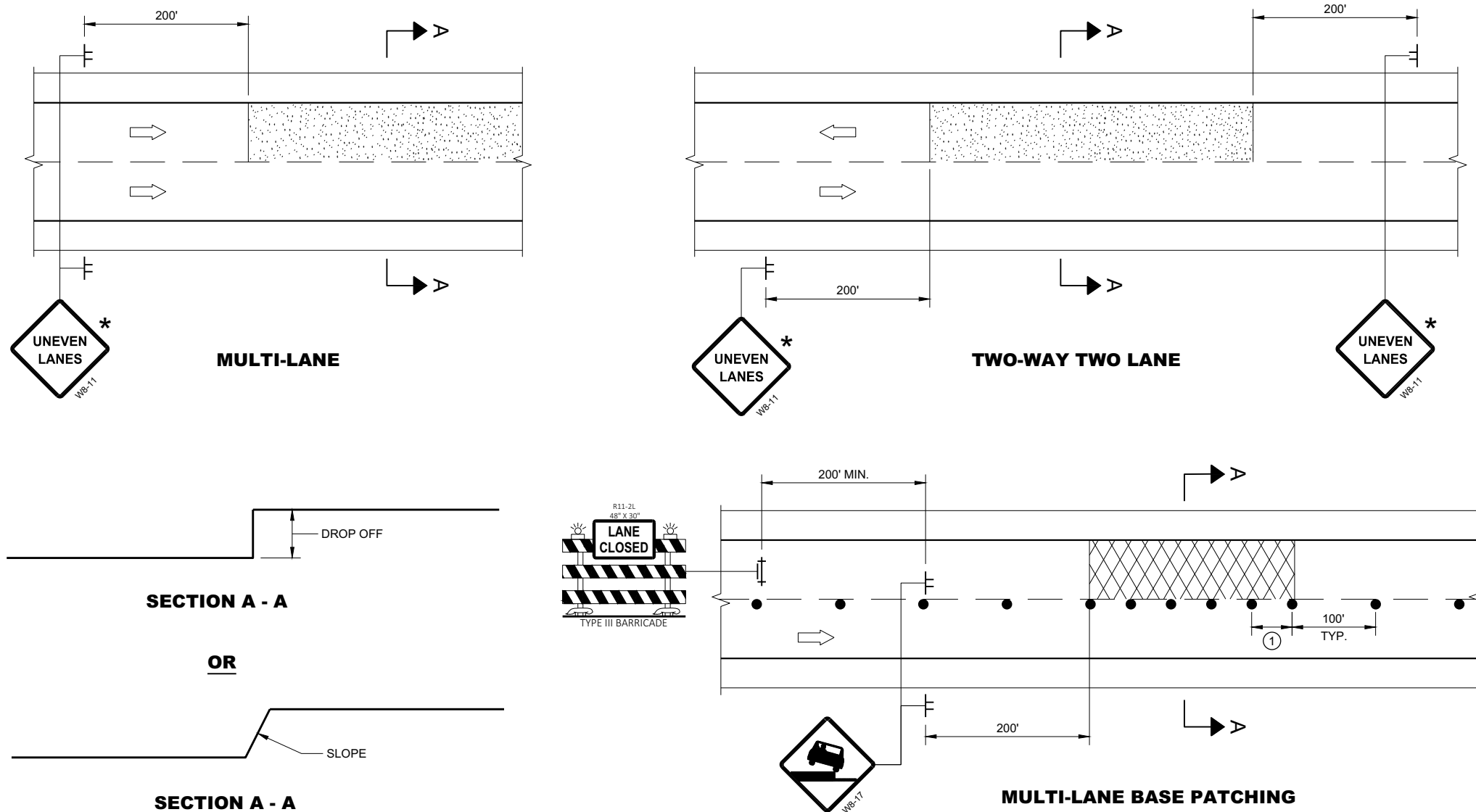
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



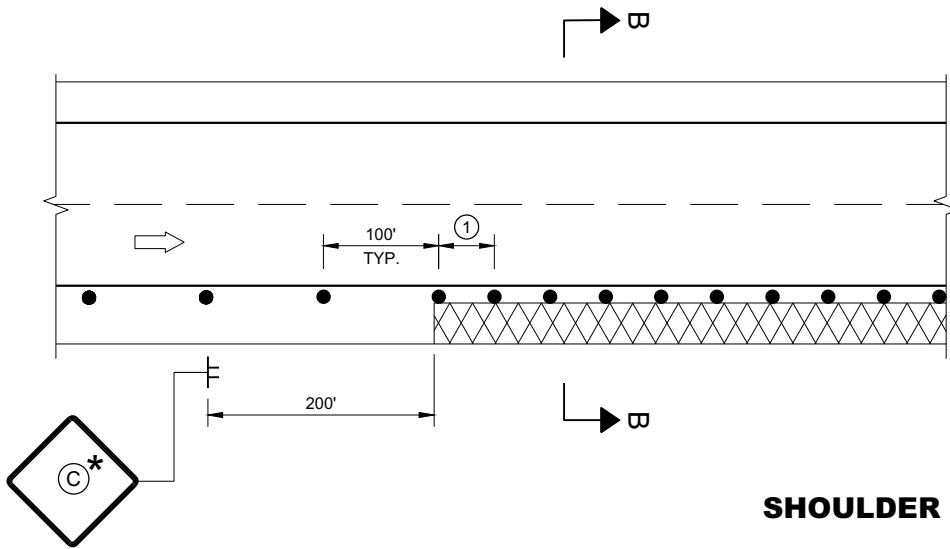
ADJACENT LANE DROP-OFFS

GENERAL NOTES

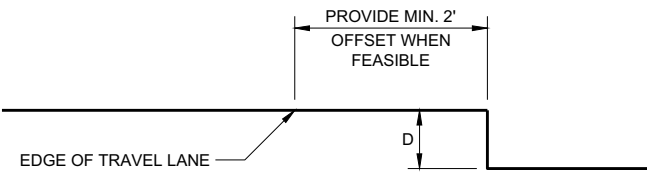
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

LEGEND

- EXISTING SIGN ON PERMANENT SUPPORT
- NEW SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

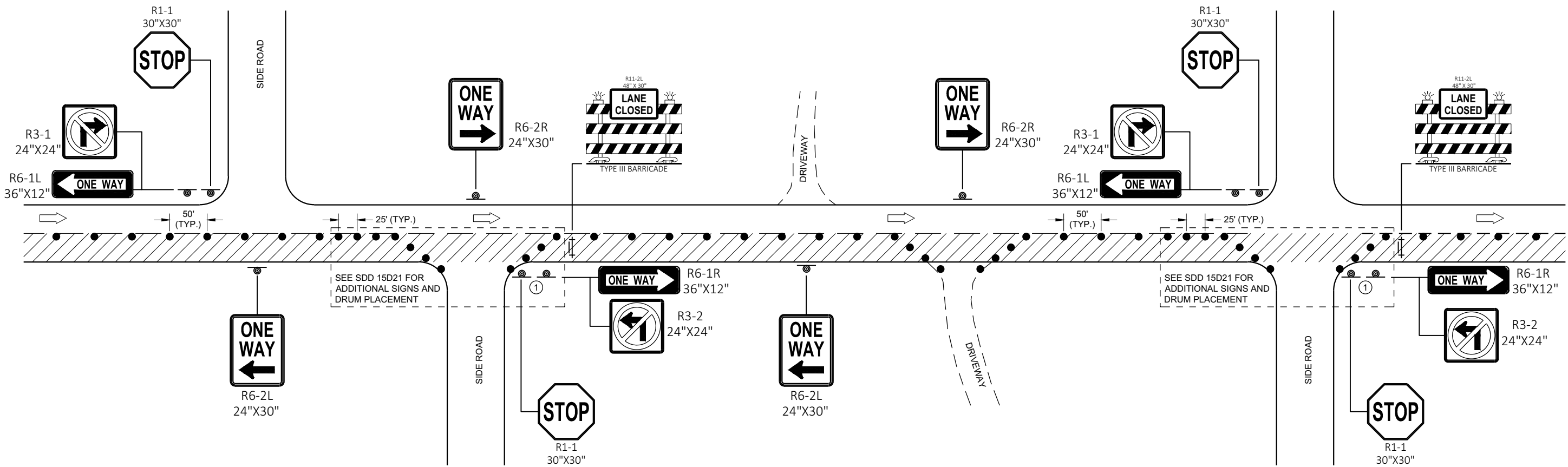
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

① IF WORK OPERATIONS ALLOWS, MOVE R1-1, R6-1R, AND R3-2 CLOSER TO INTERSECTION.

6



6

TRAFFIC CONTROL
ONE - WAY SIGNING

TRAFFIC CONTROL
ONE-WAY SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

SDD 15D46 - 01

SDD 15D46 - 01

LEGEND

- V1

WORK VEHICLE
- V2

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

FLASHING ARROW PANEL (CAUTION)
- 

WORK AREA
- 

DIRECTION OF TRAFFIC

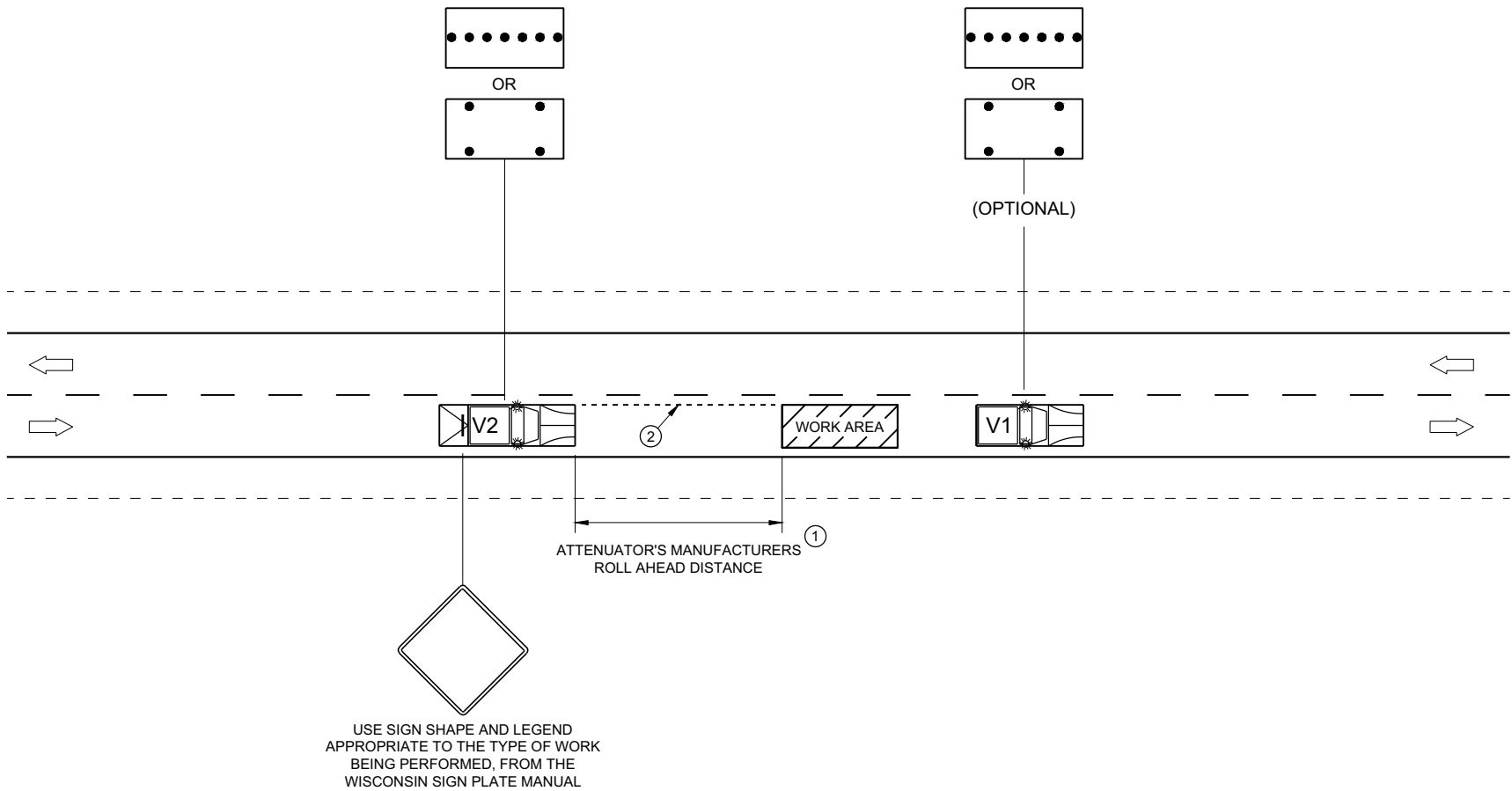
POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- ①

DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ②

ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY

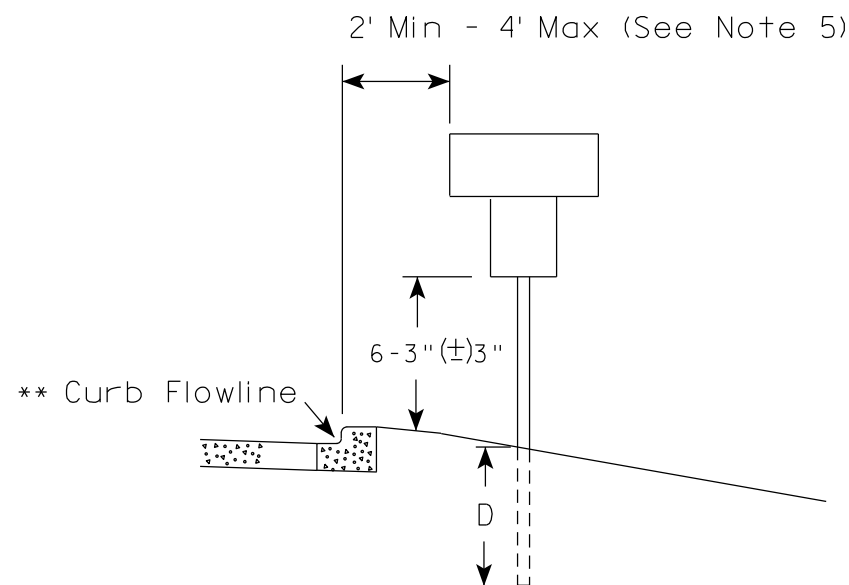
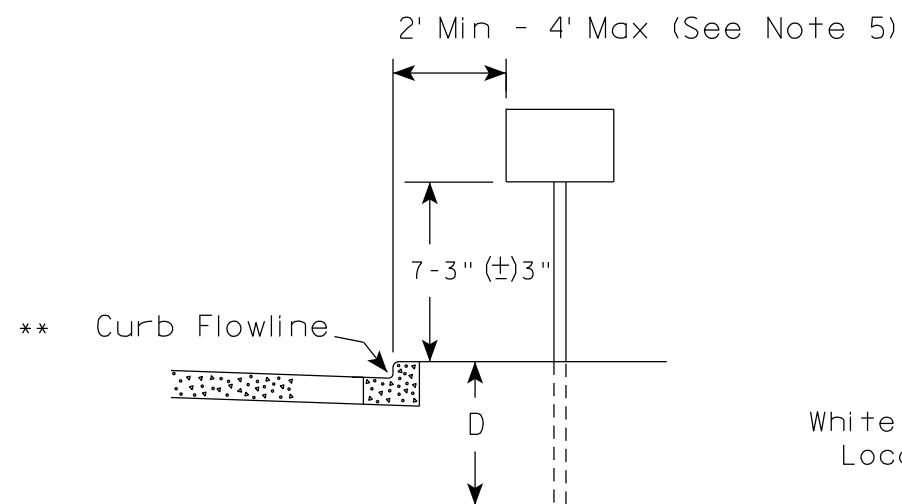
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

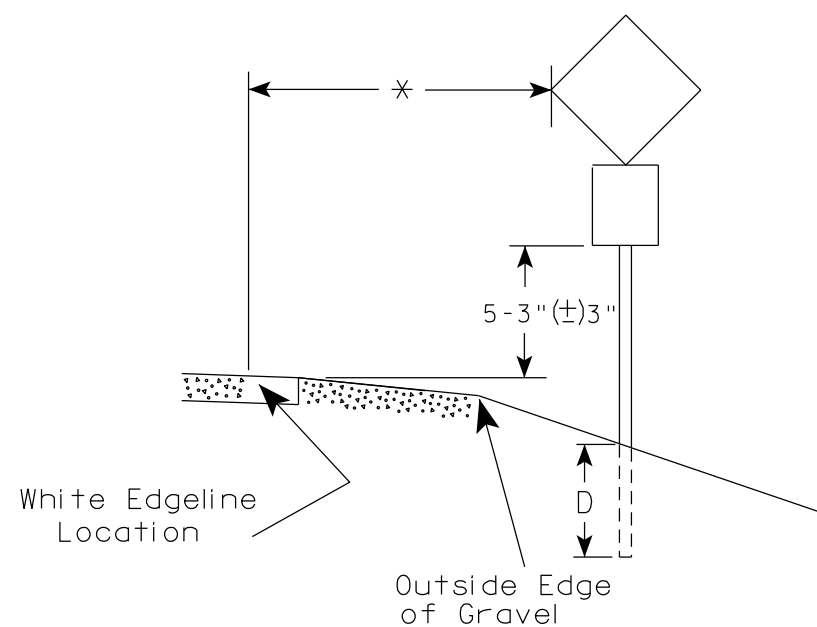
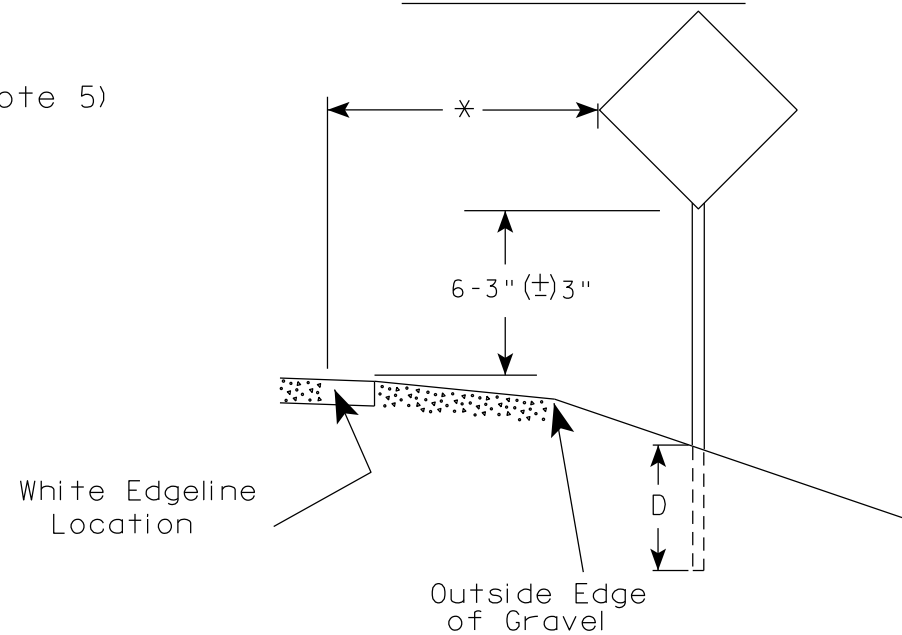
FHWA

URBAN AREA



* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

RURAL AREA (See Note 2)



* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

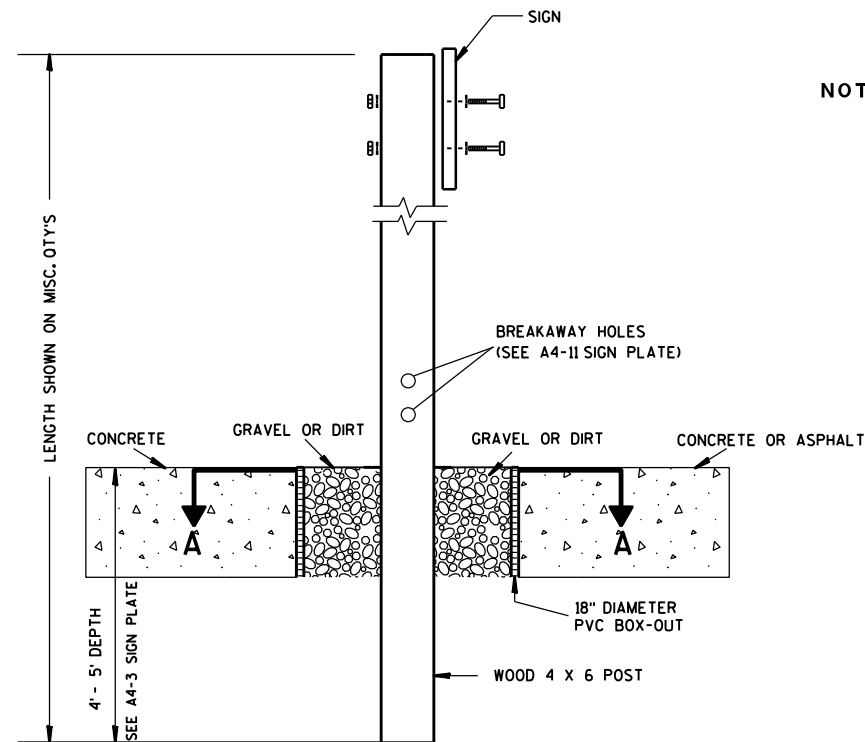
- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
- For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

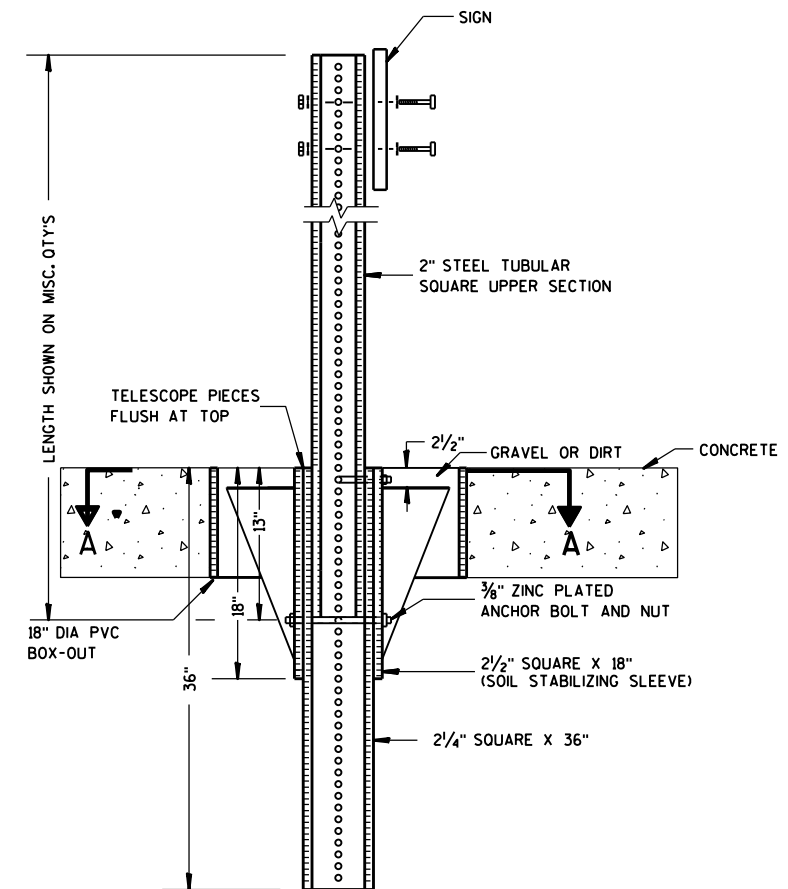
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

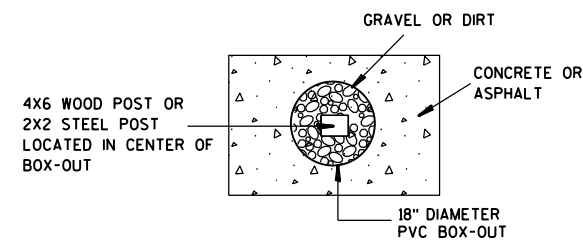
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:

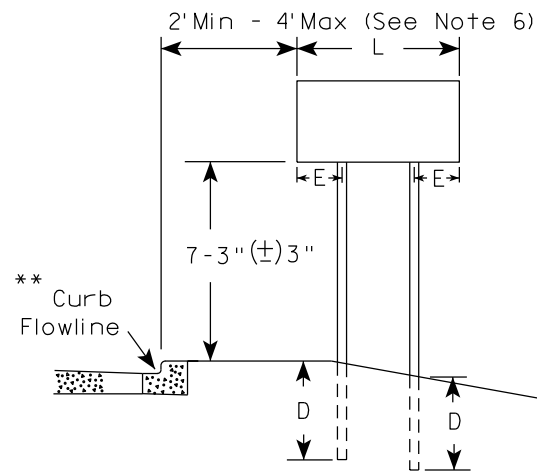
HWY:

COUNTY:

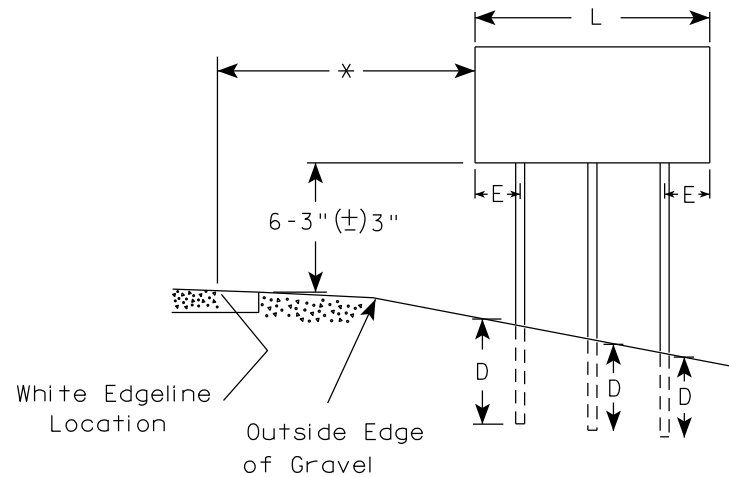
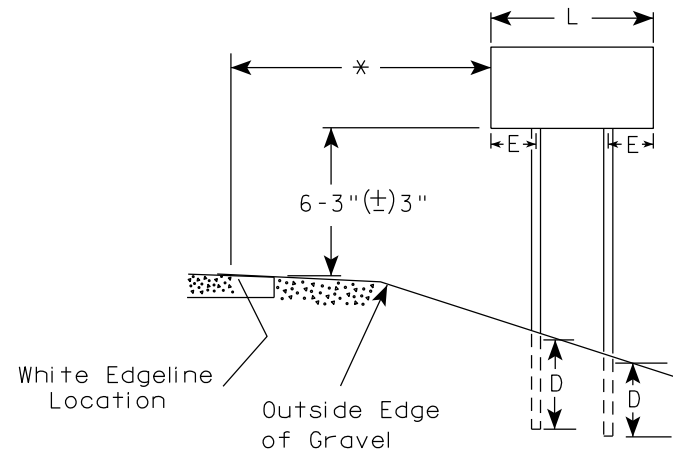
SHEET NO:

E

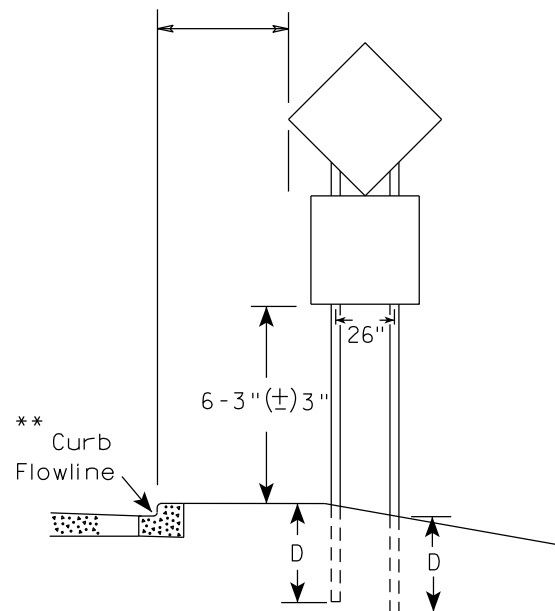
URBAN AREA



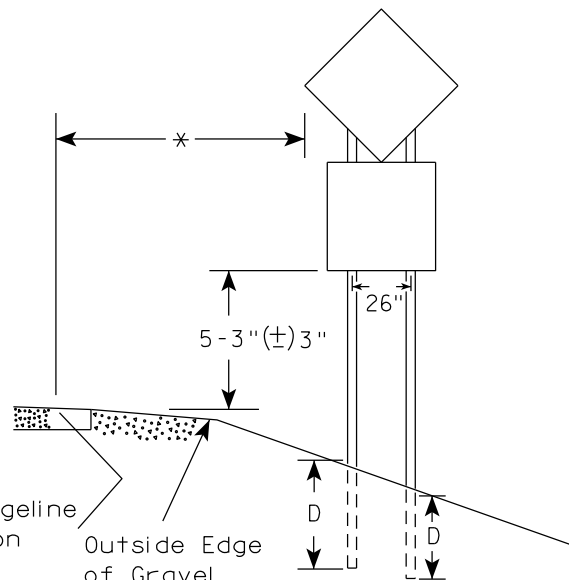
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

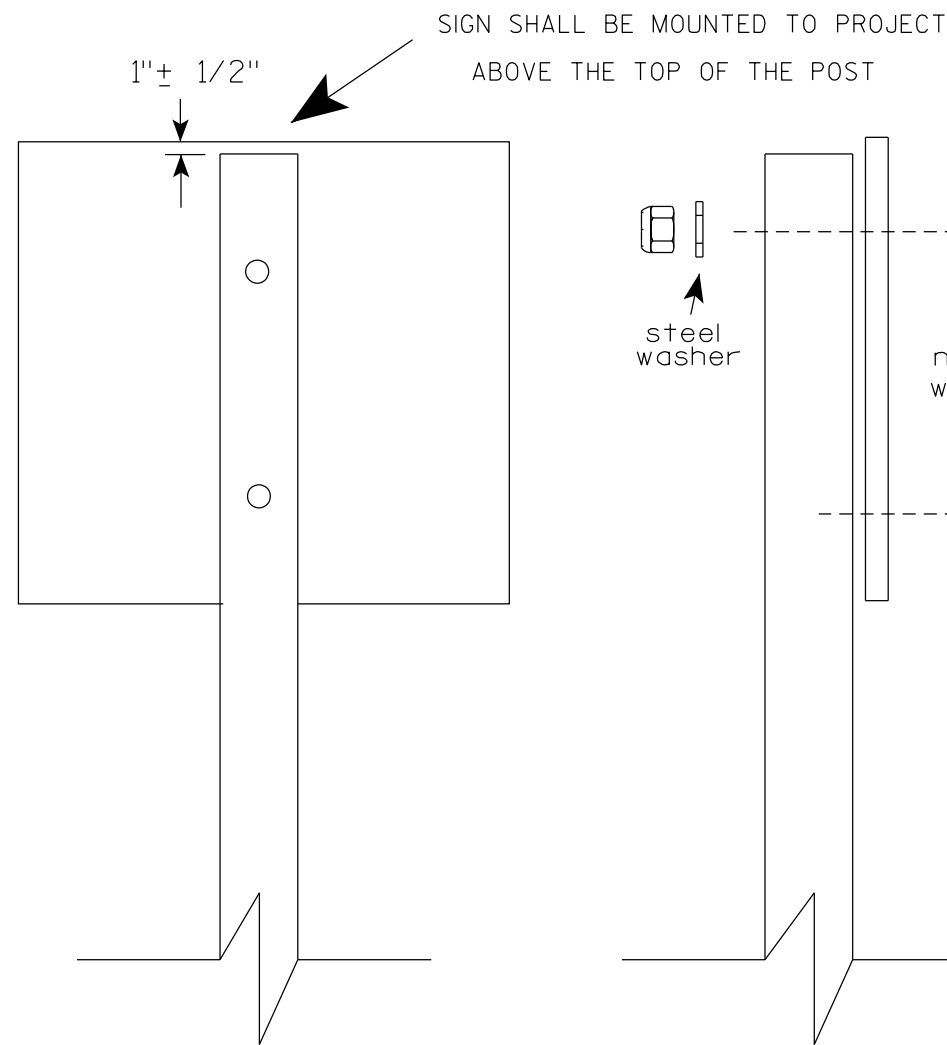
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

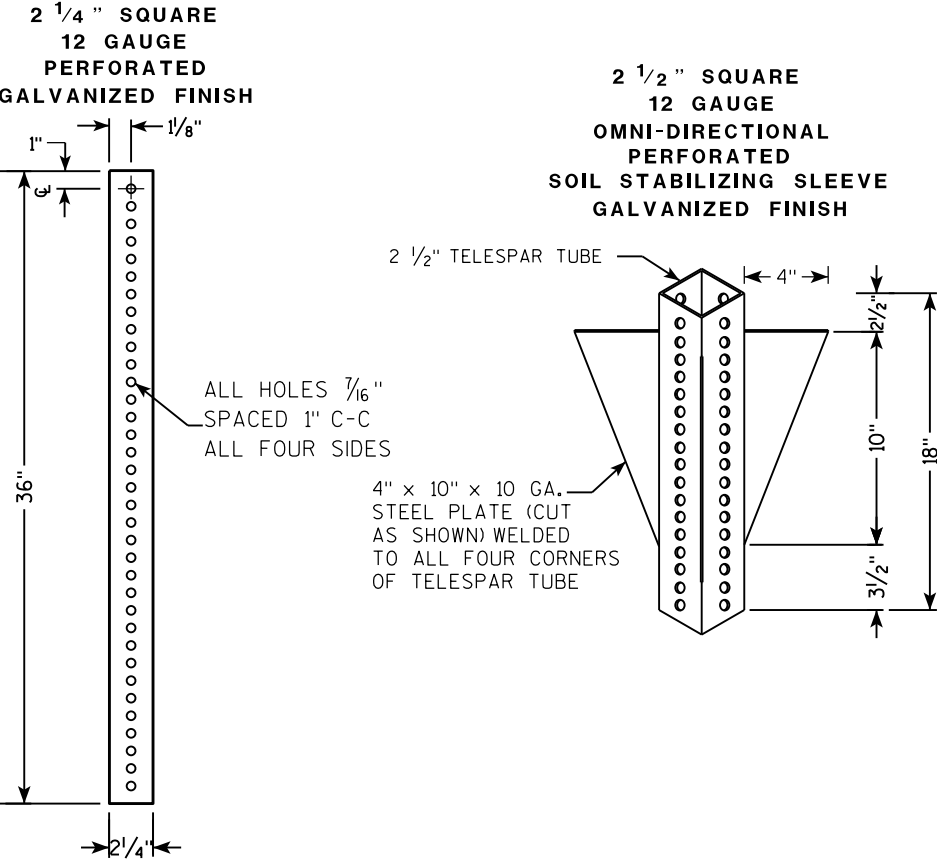
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

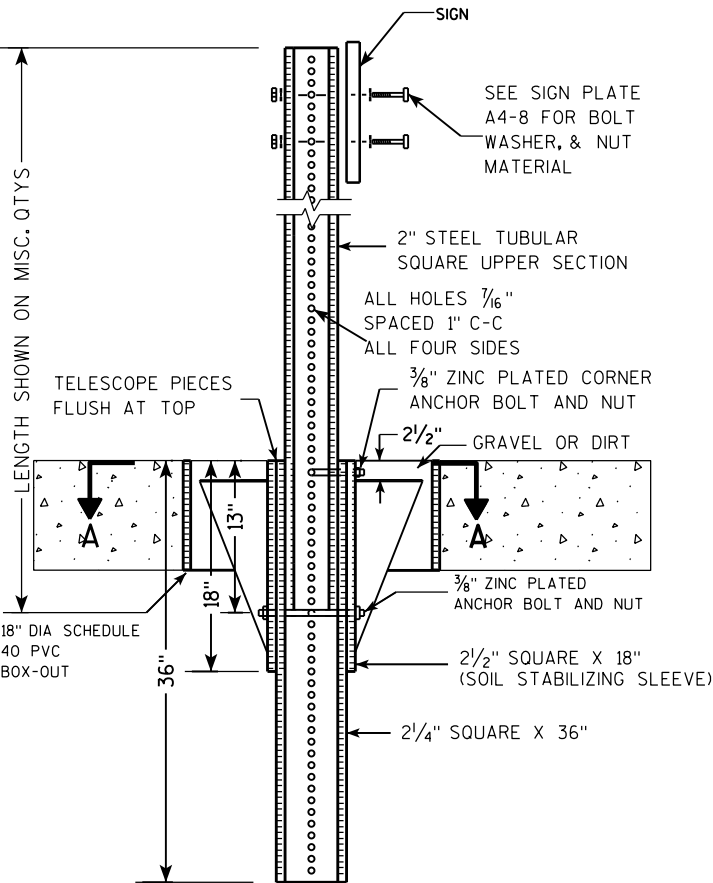
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

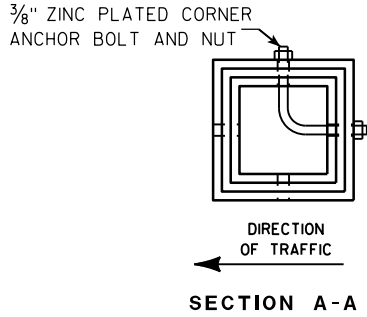
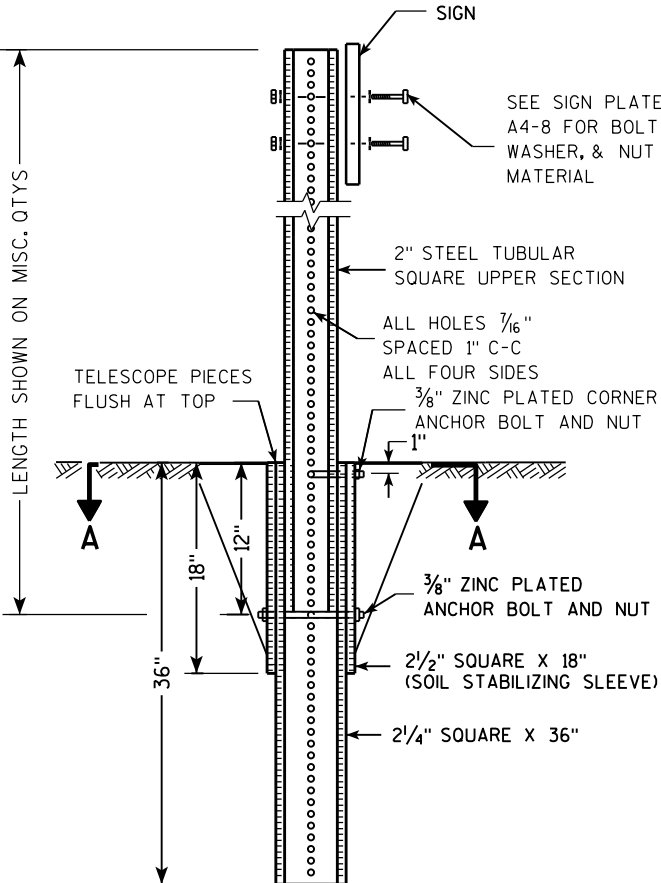
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

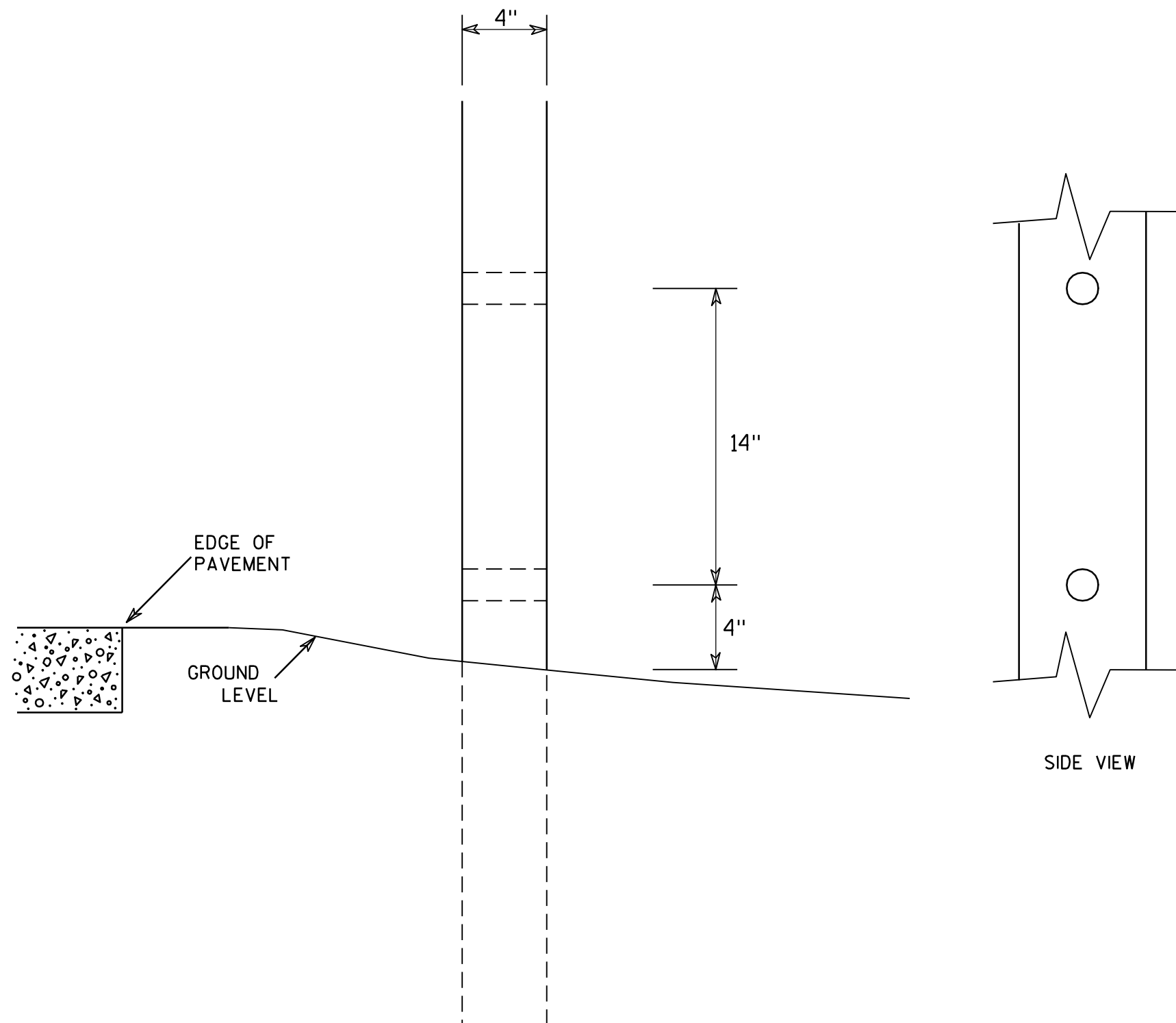
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

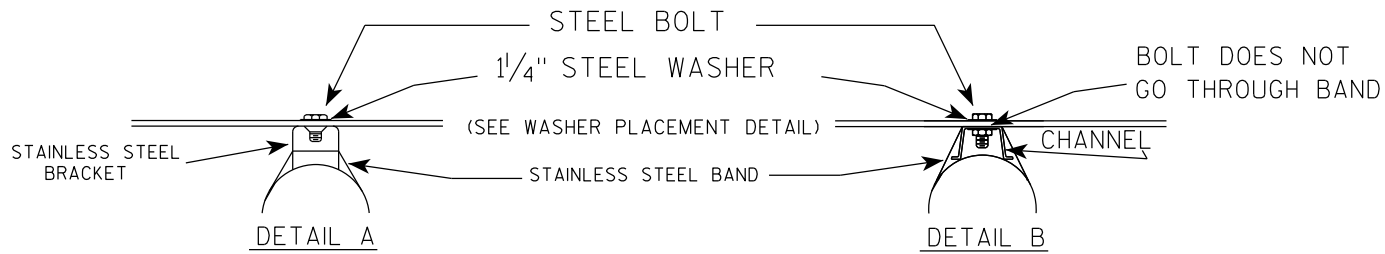
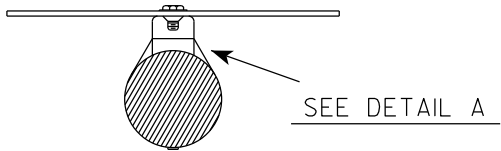
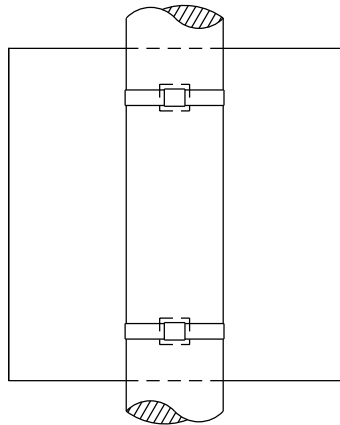
COUNTY:

SHEET NO:

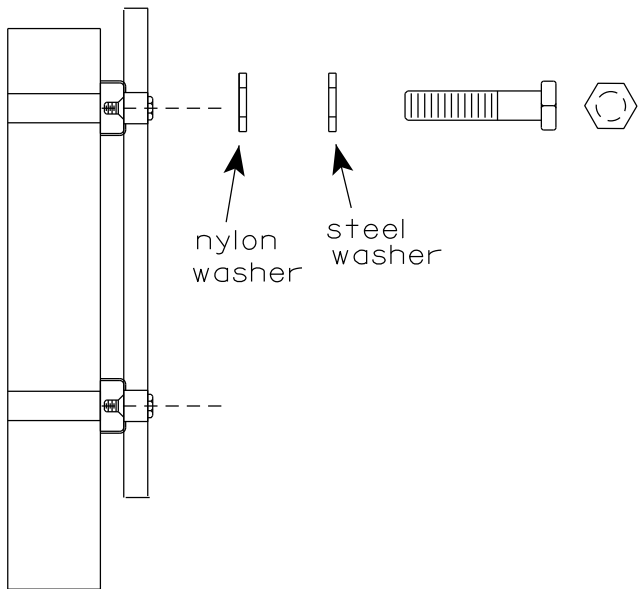
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

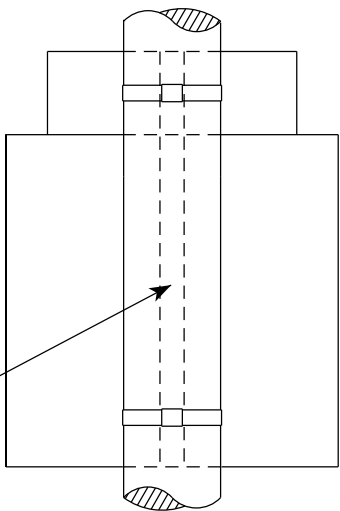


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

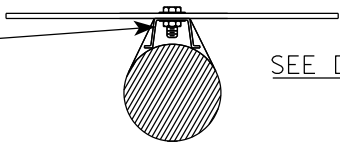
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



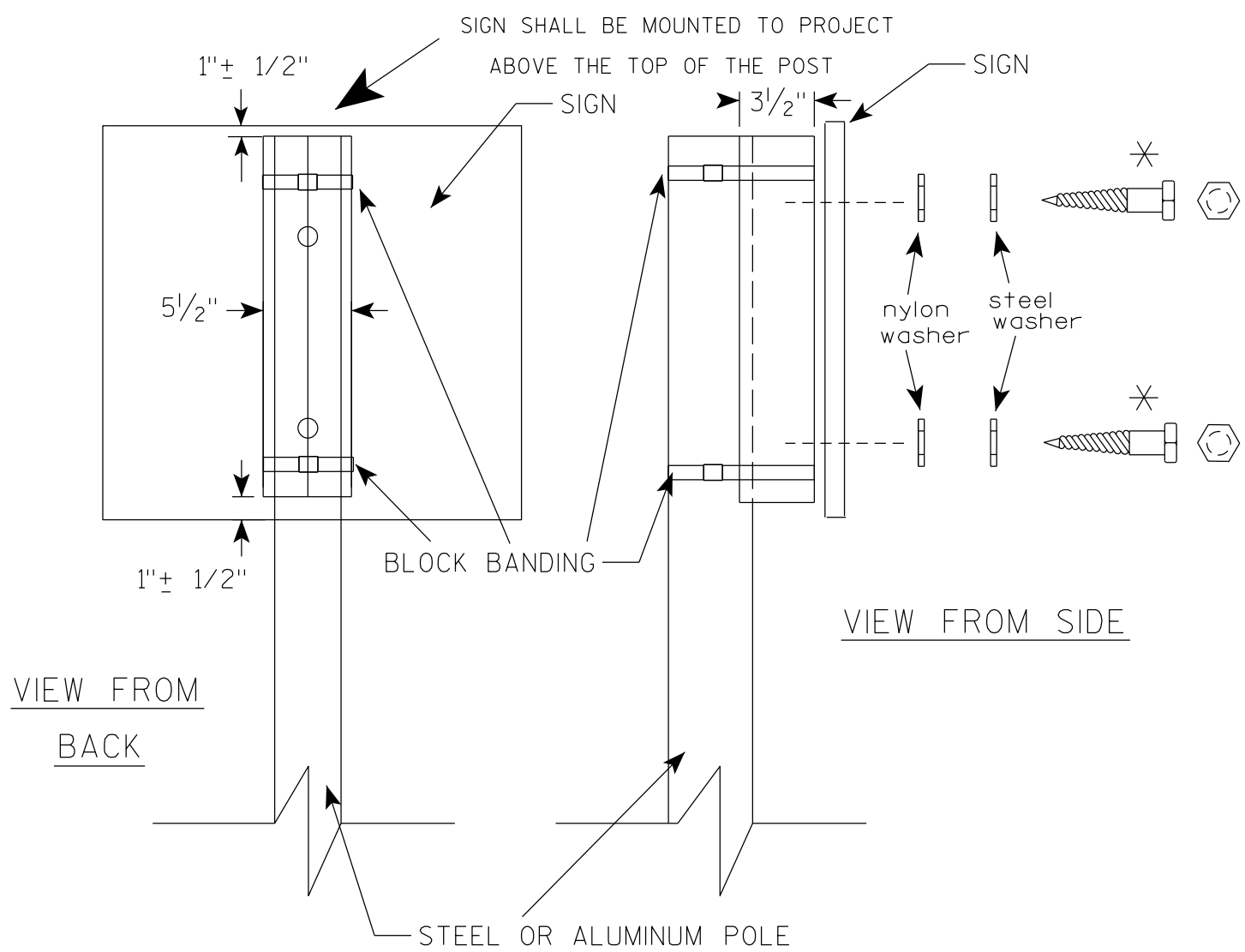
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

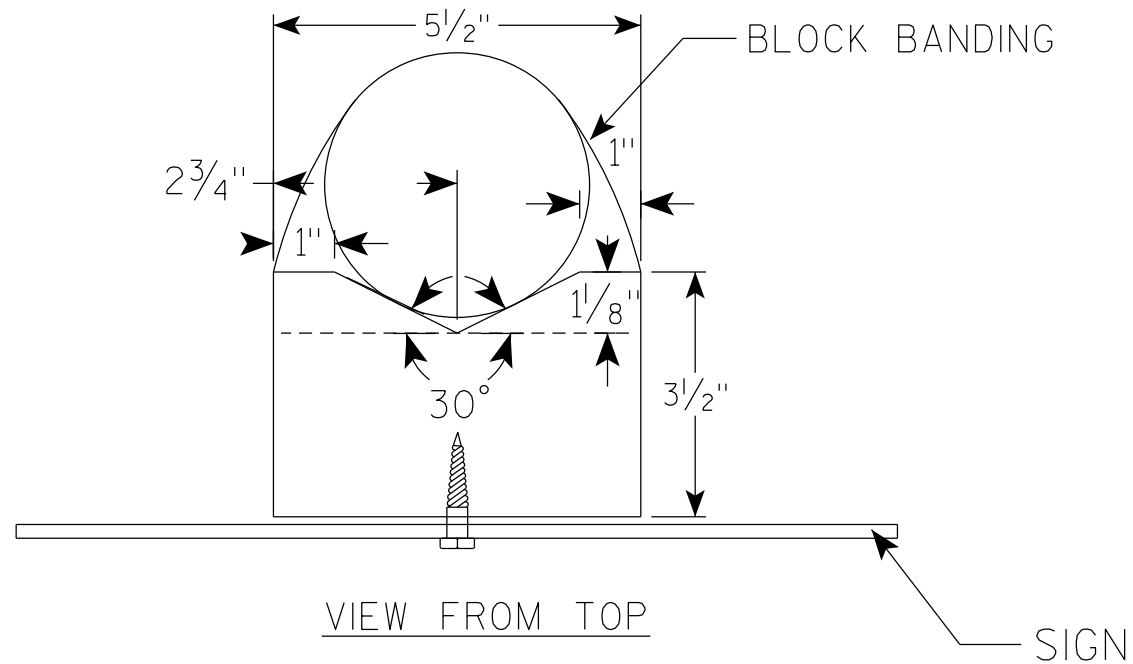
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

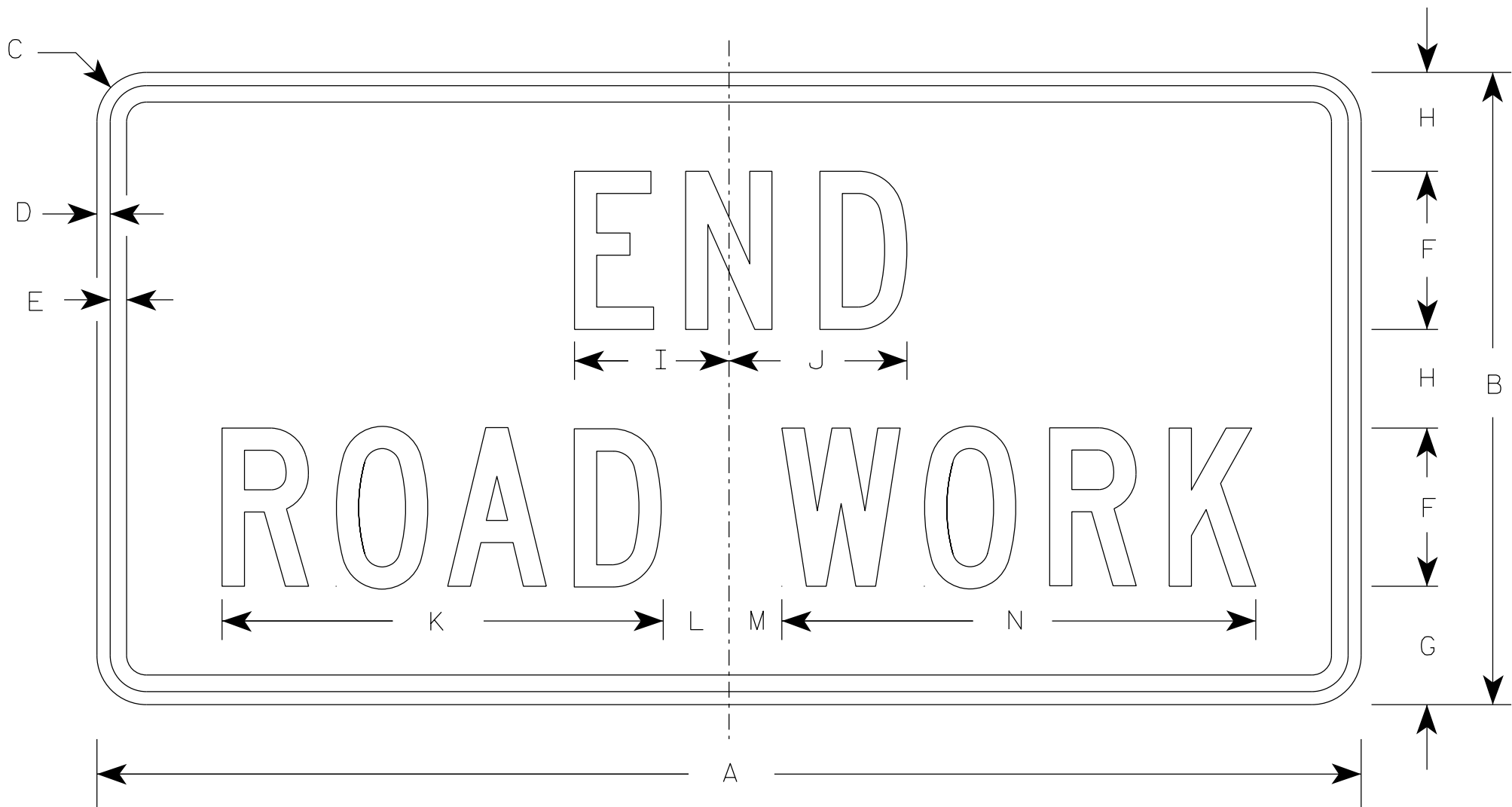
E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - Orange

Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

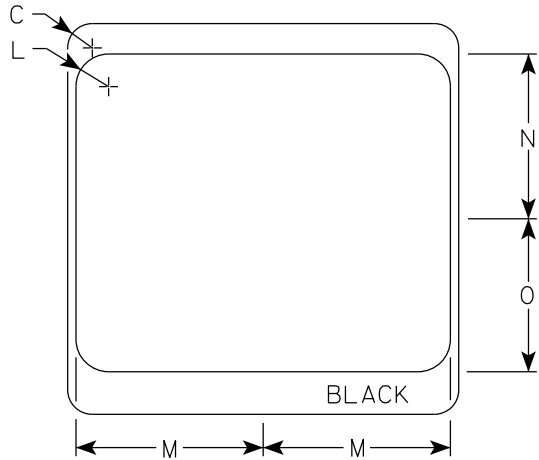
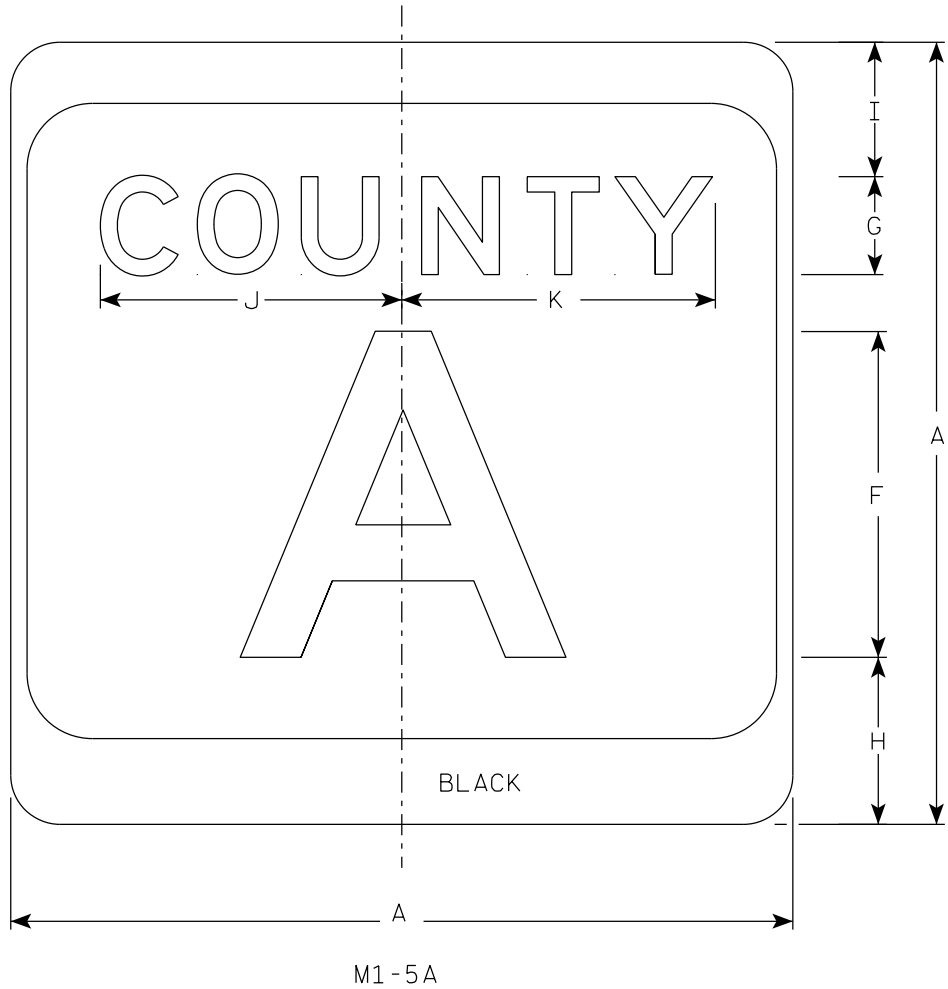
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 1/26/2023

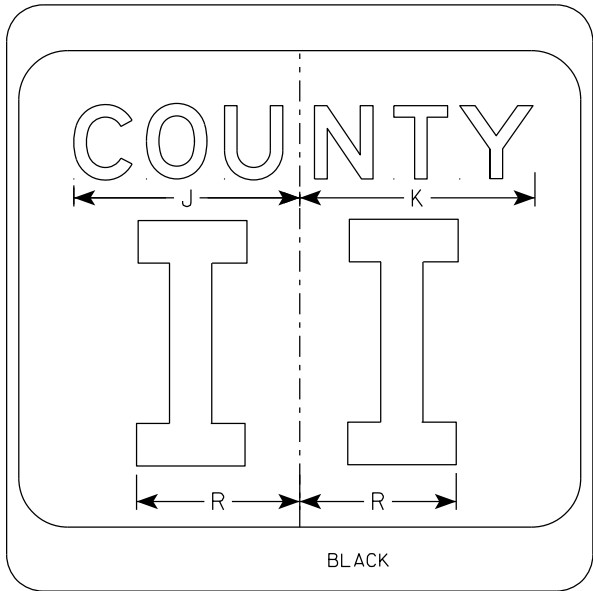
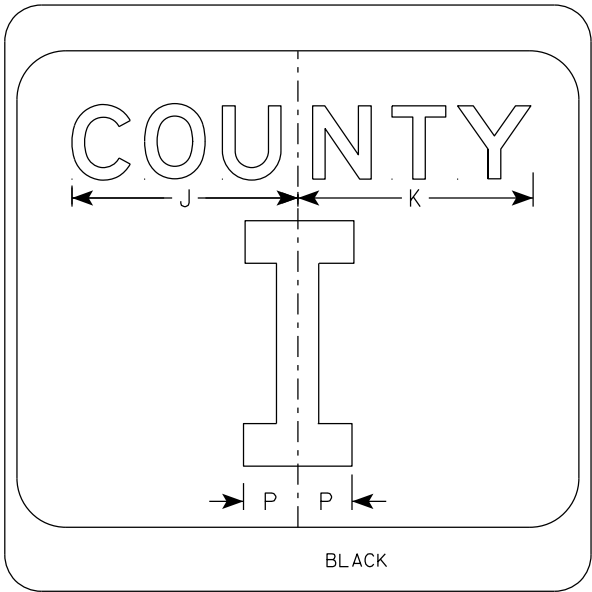
PLATE NO. G20-2A.10

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless
message is too big then Series C.
Message Series C for 3 letters unless
message is too big then Series B.
5. Substitute appropriate letters & optically
center to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

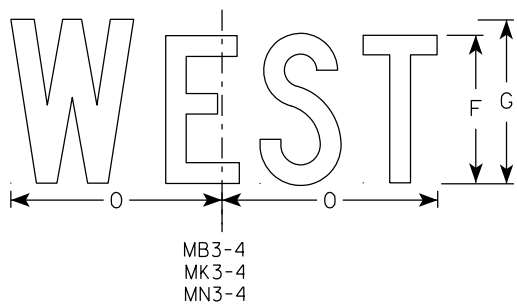
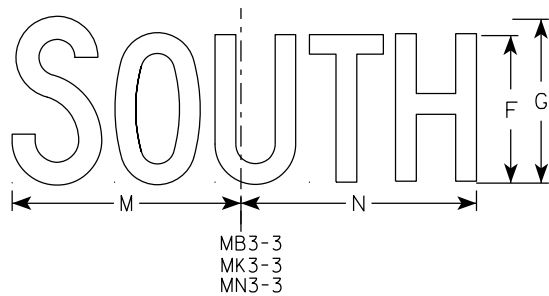
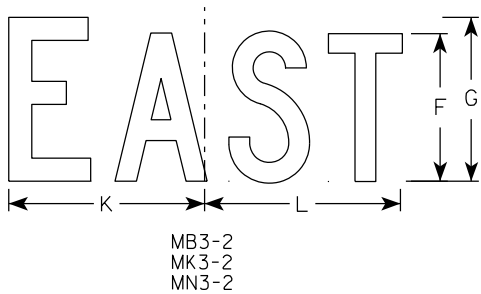
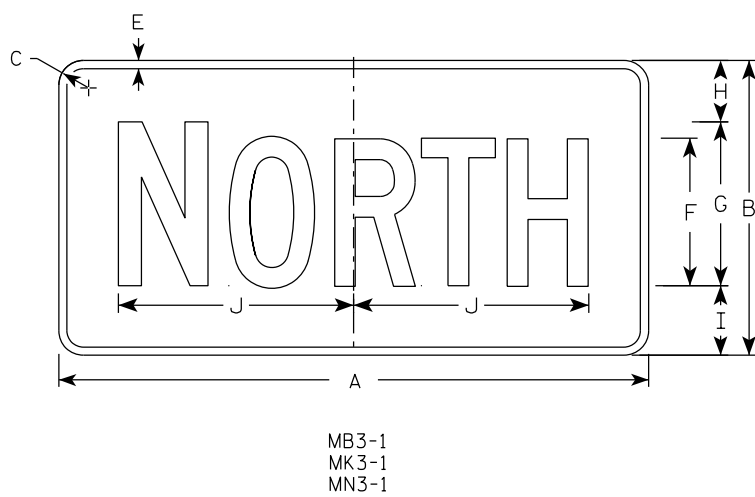
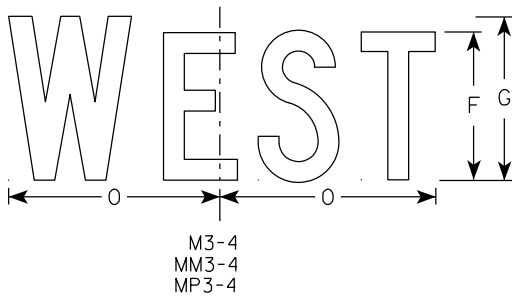
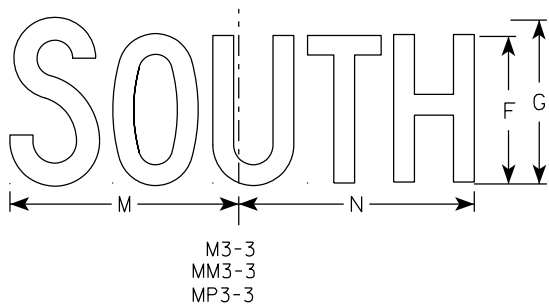
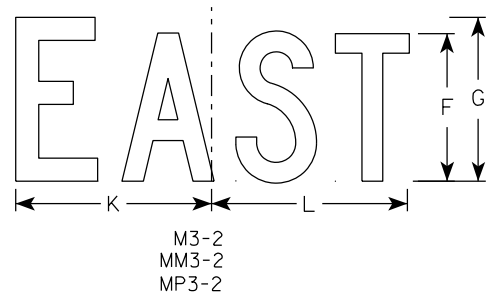
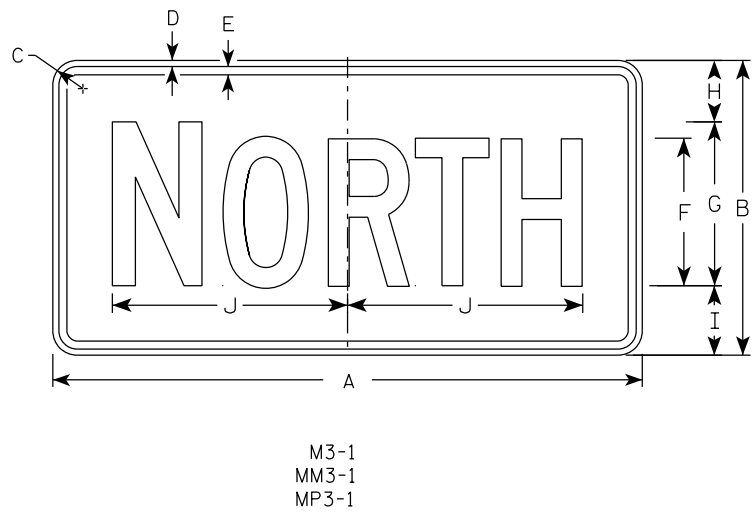
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

7



NOTES

1. All Signs Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

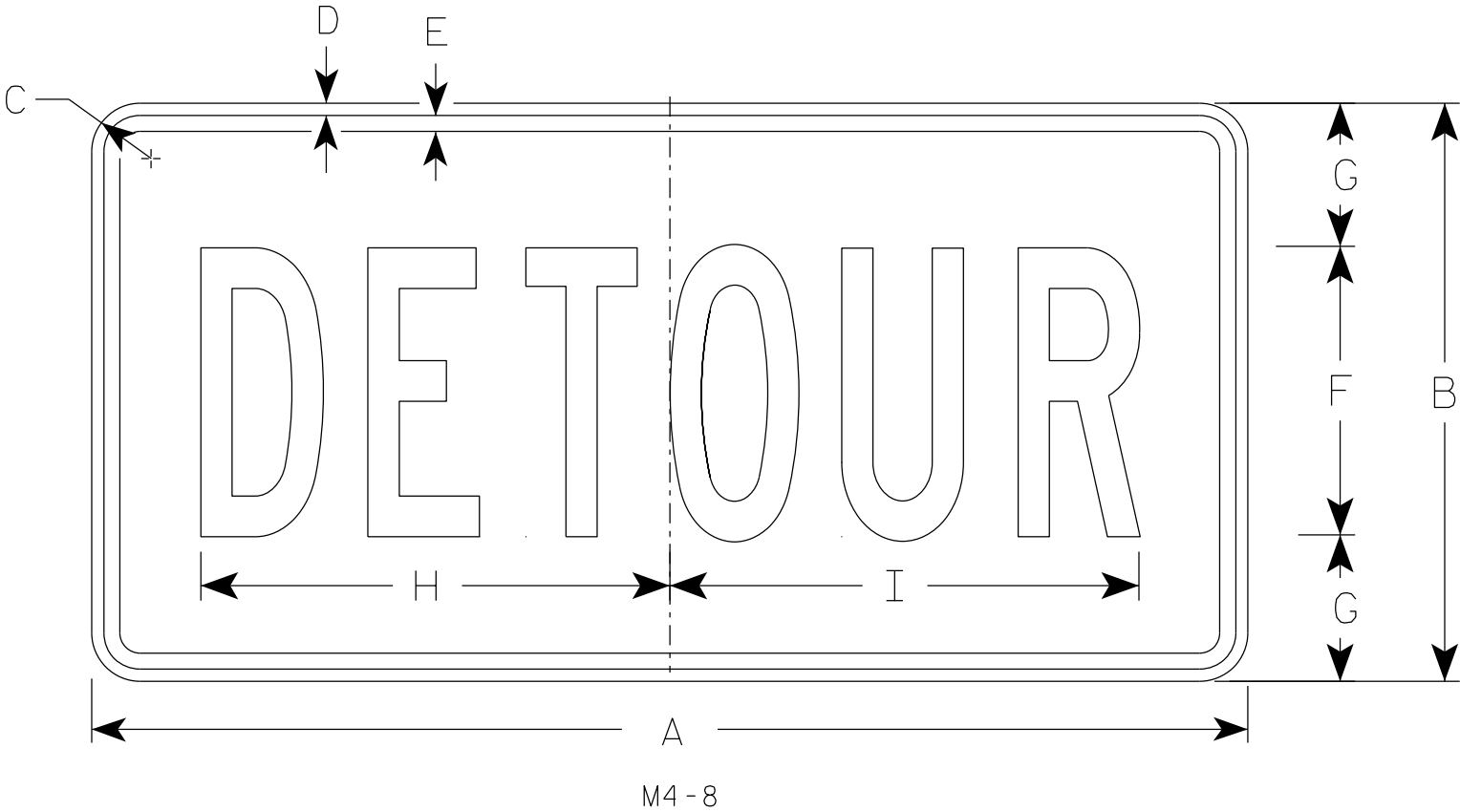
DATE 2/8/2023 PLATE NO. M3-1.15

NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - Orange

Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

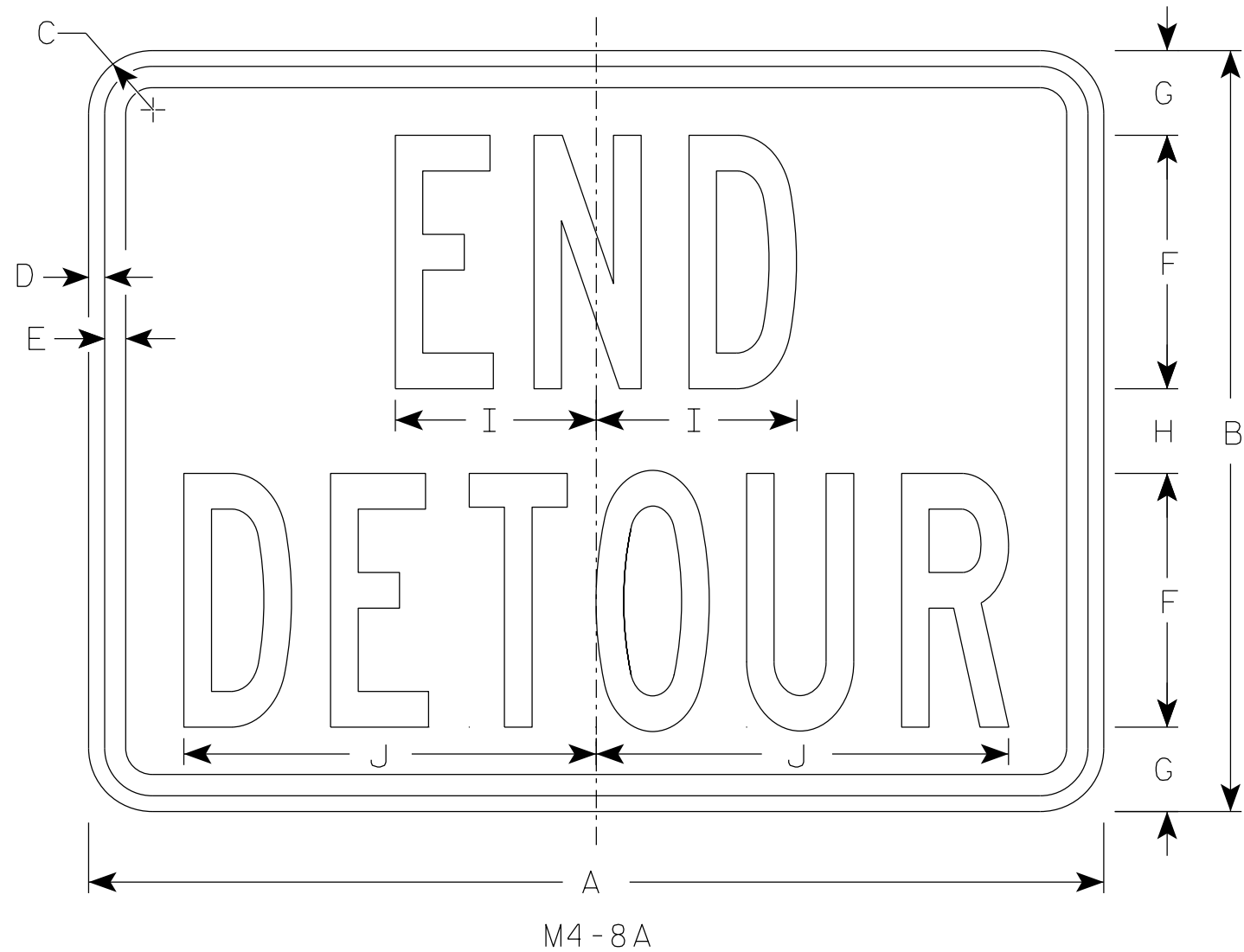
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

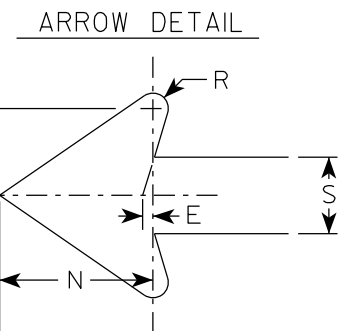
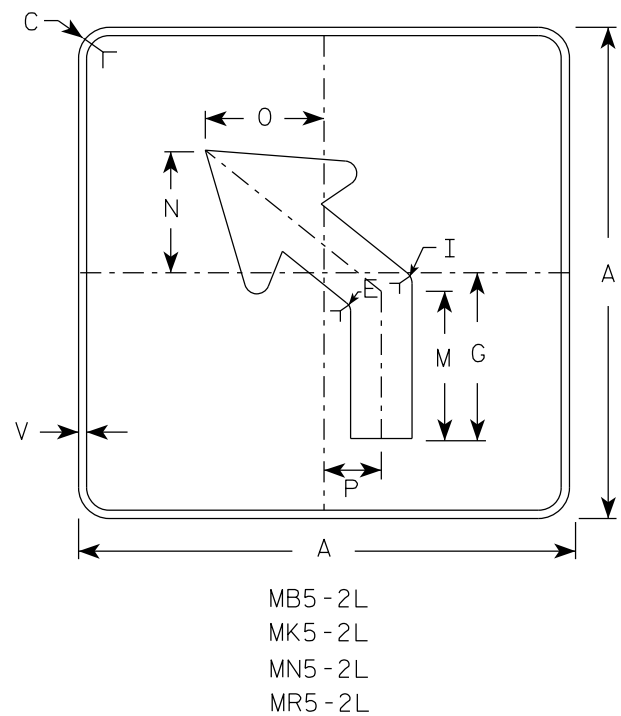
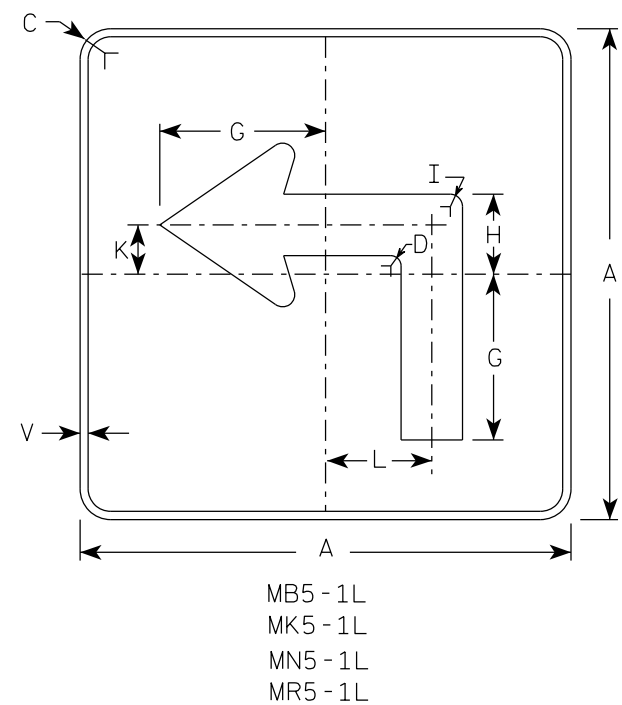
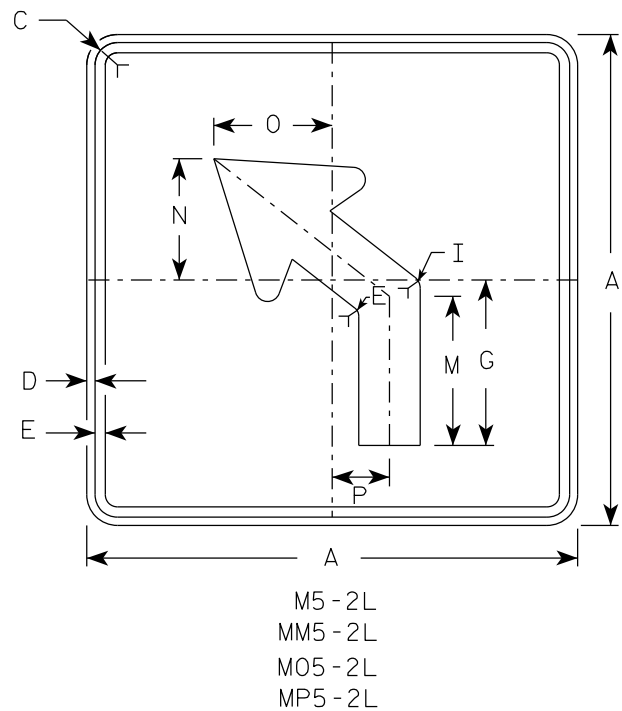
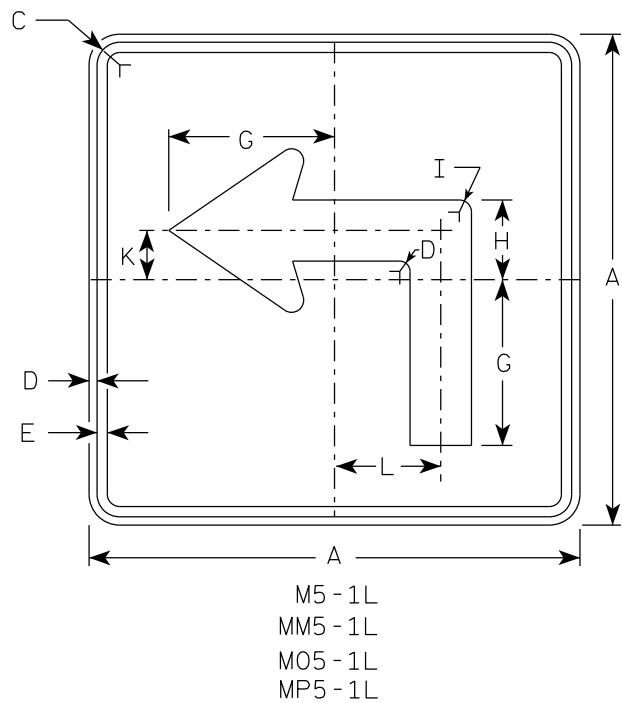
STANDARD SIGN

M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

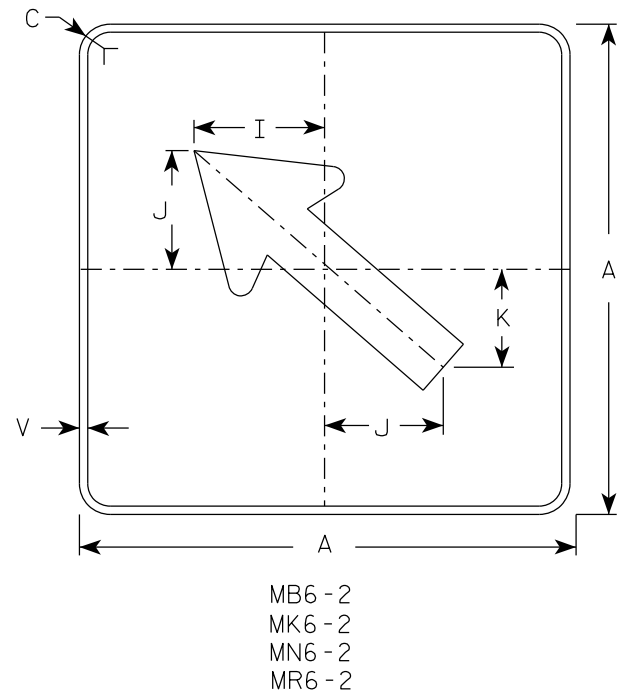
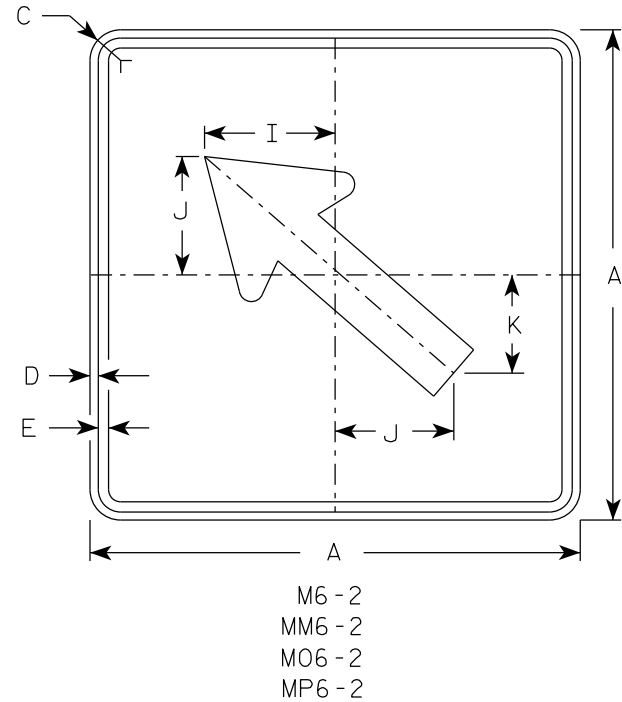
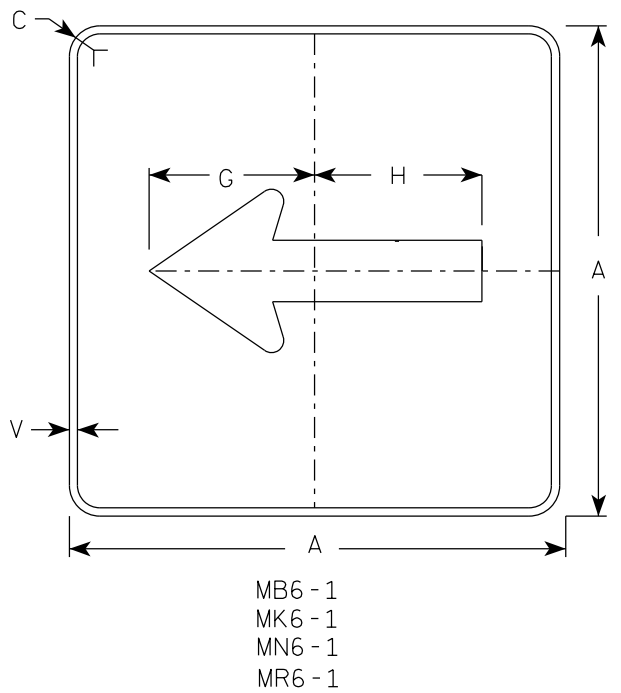
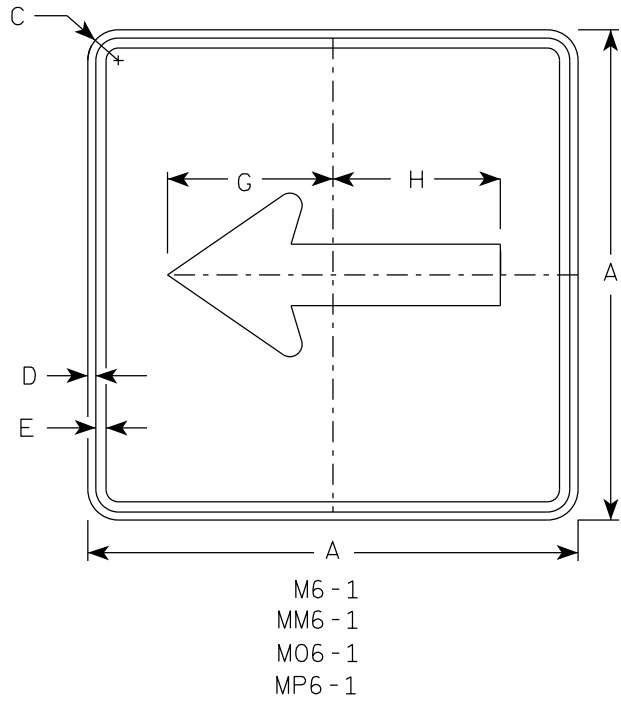


NOTES

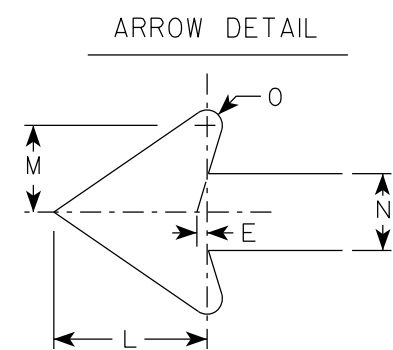
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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- NOTES
1. Signs are Type II - Type H Reflective except as Shown
 2. Color:
Background - See note 4
Message - See note 4
 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

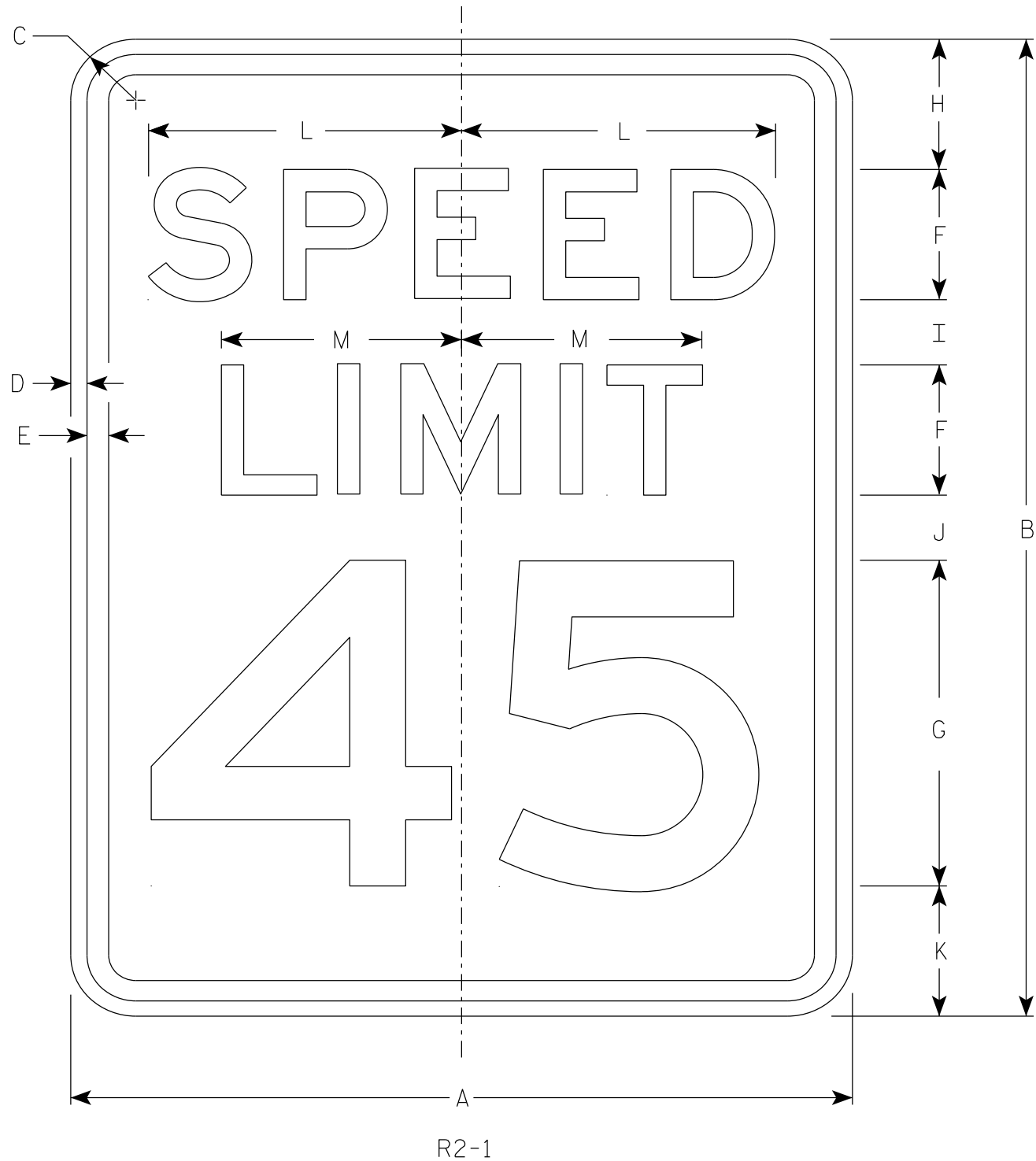
STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

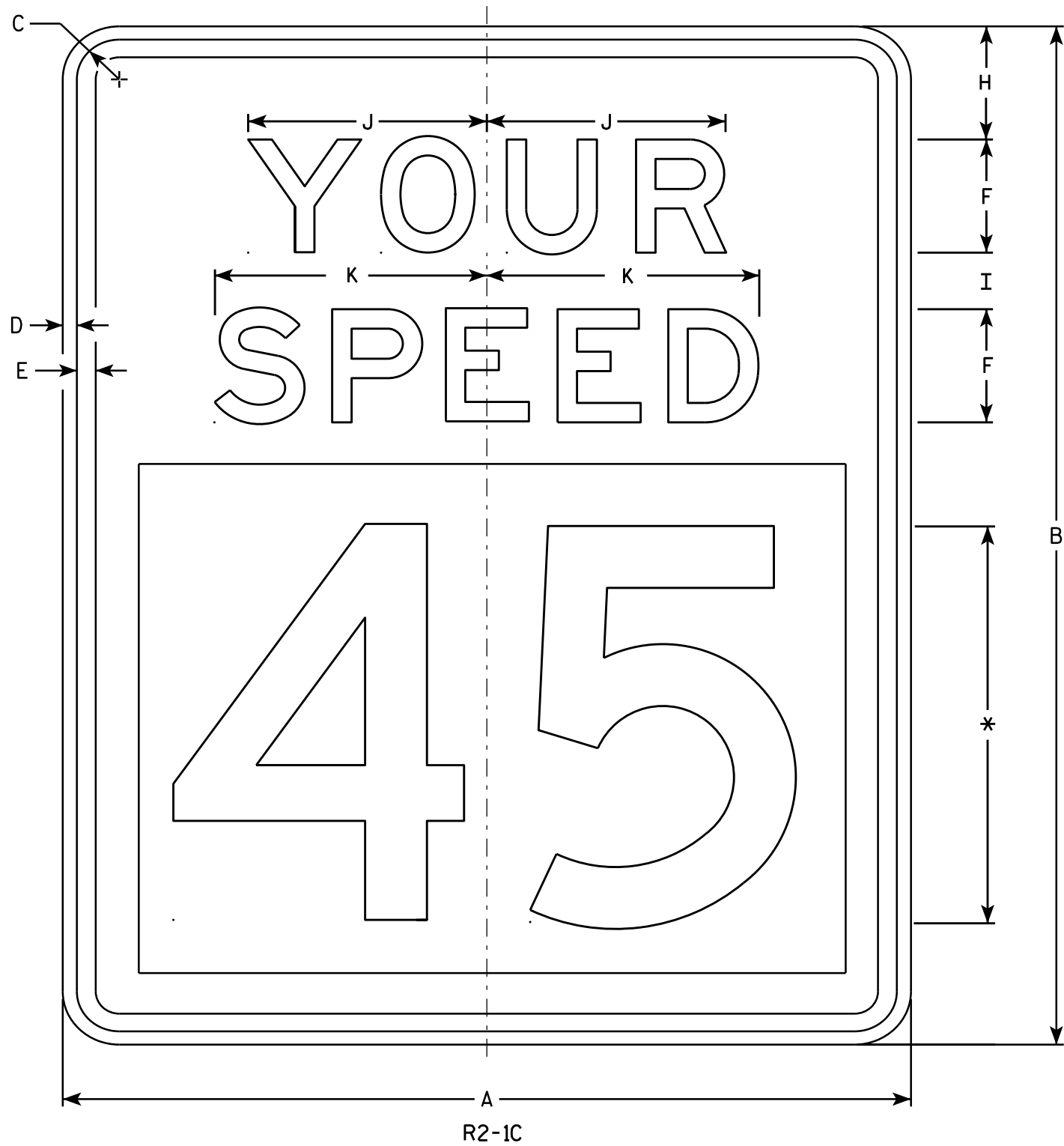
STANDARD SIGN

R2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E, Lines 1 & 2
- 4. LED screen shall have a minimum of 12" numbers for posted speeds of less than 45 MPH and a minimum of 18" numbers should be used for posted speeds of 45 MPH or greater.

* SEE NOTE 4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	VARIES	VARIES	1 1/8	3/8	1/2	4		3	2 1/4	8 1/2	9 5/8																VARIES
2M	VARIES	VARIES	1 1/8	3/8	1/2	4		3	2 1/4	8 1/2	9 5/8																VARIES
3	VARIES	VARIES	1 3/8	1/2	5/8	6		6	5	13	15 1/2																VARIES
4	VARIES	VARIES	1 3/8	1/2	5/8	6		6	5	13	15 1/2																VARIES
5																											

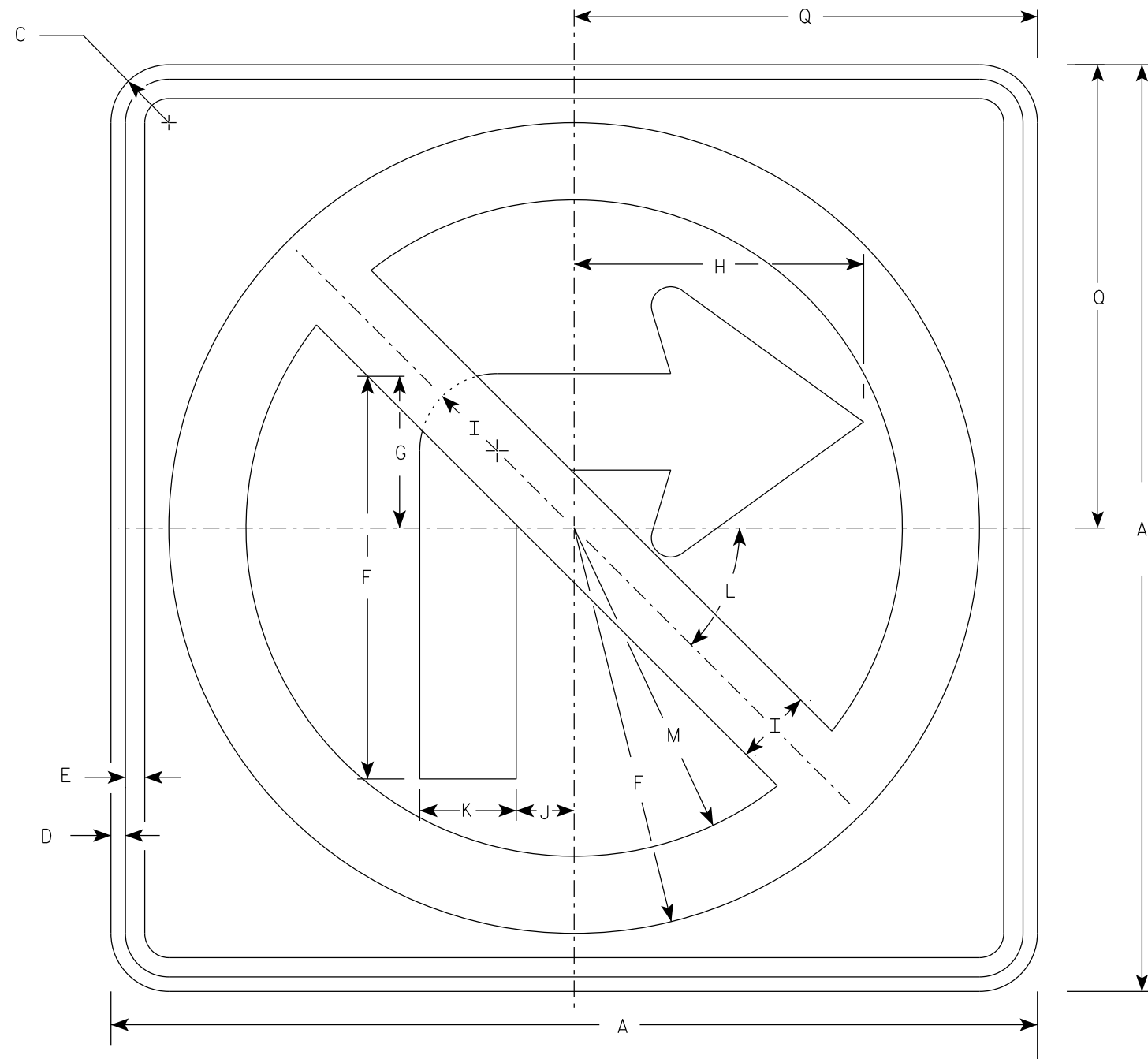
STANDARD SIGN
R2-1C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 2/13/14 PLATE NO. R2-1C.3

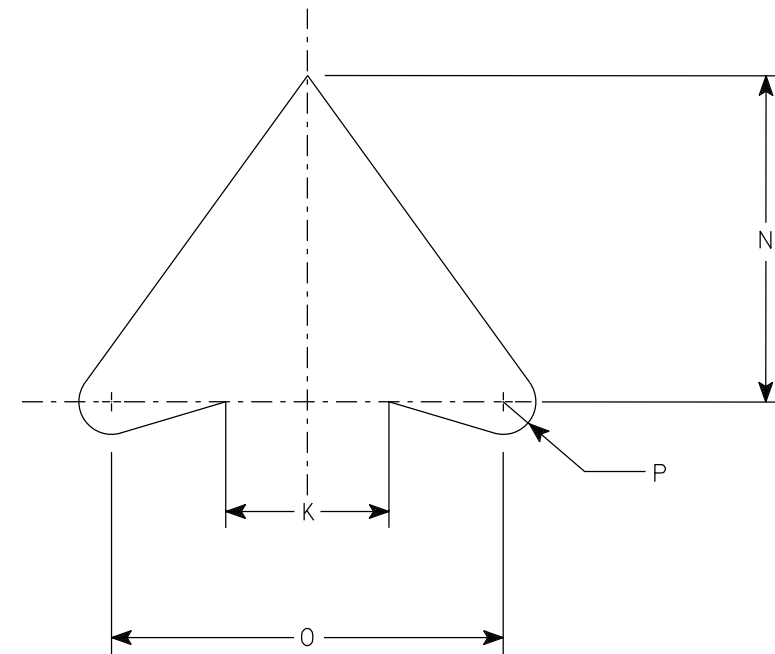
7



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

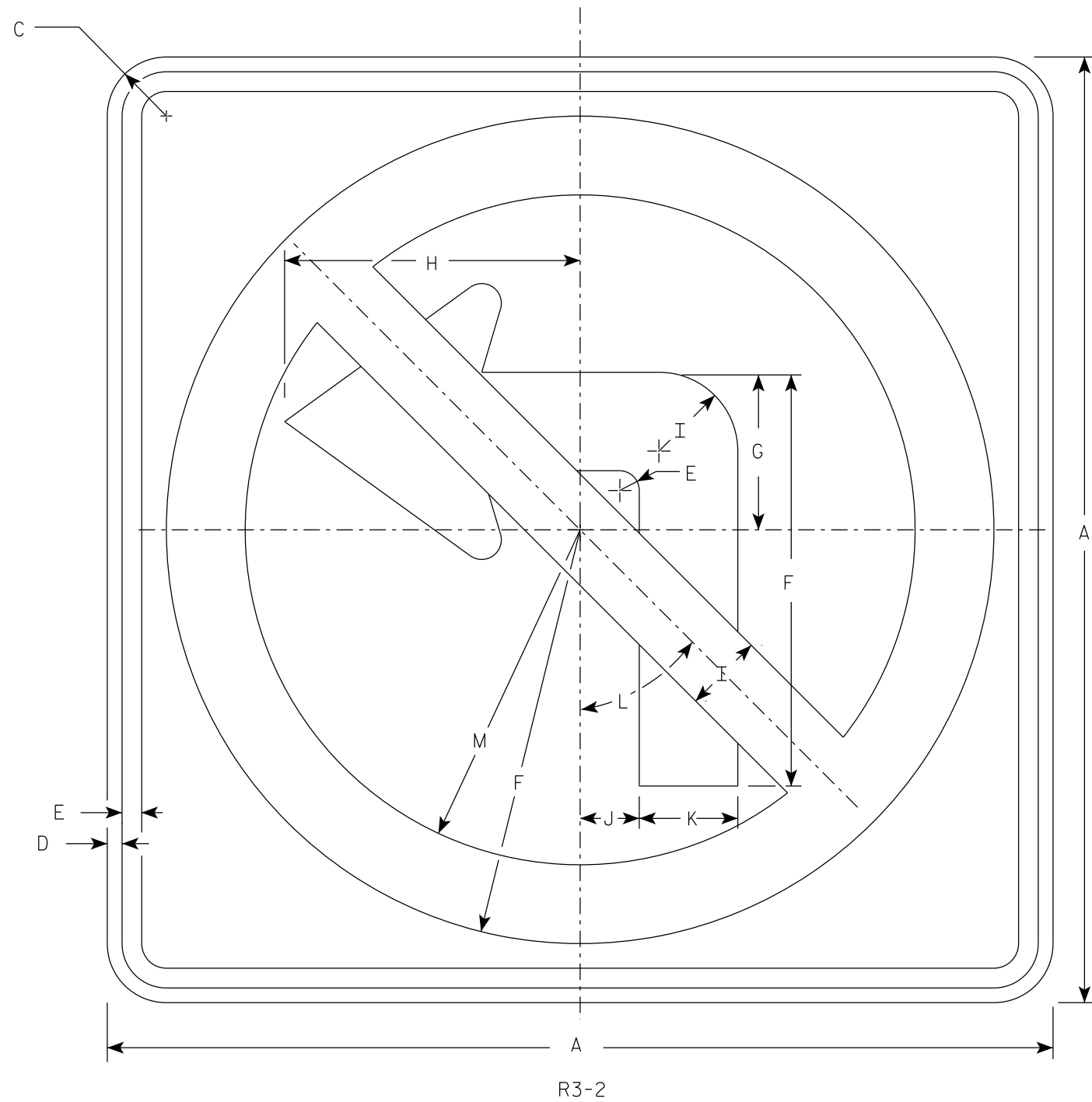


ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

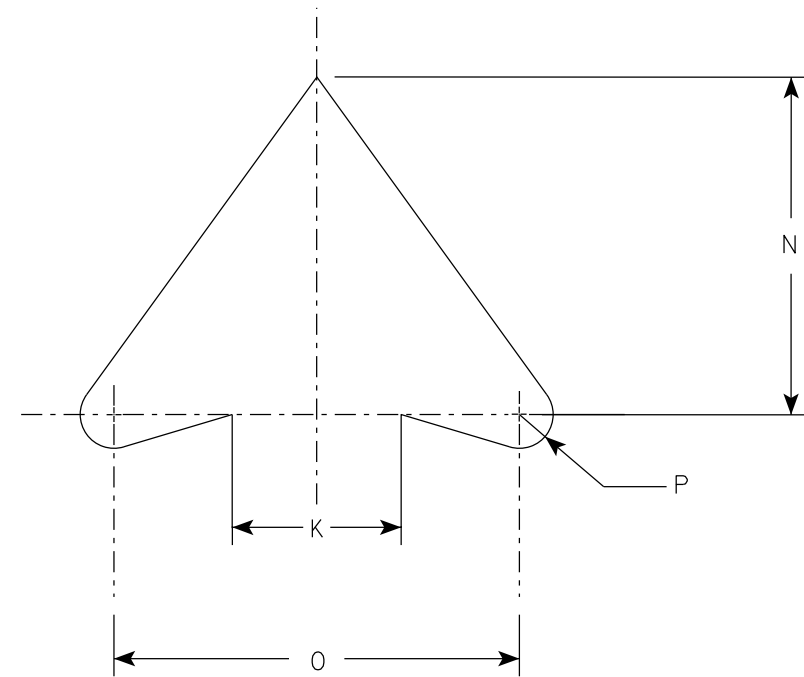
PROJECT NO:	HWY:	COUNTY:	SHEET NO:												E
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7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

PROJECT NO:

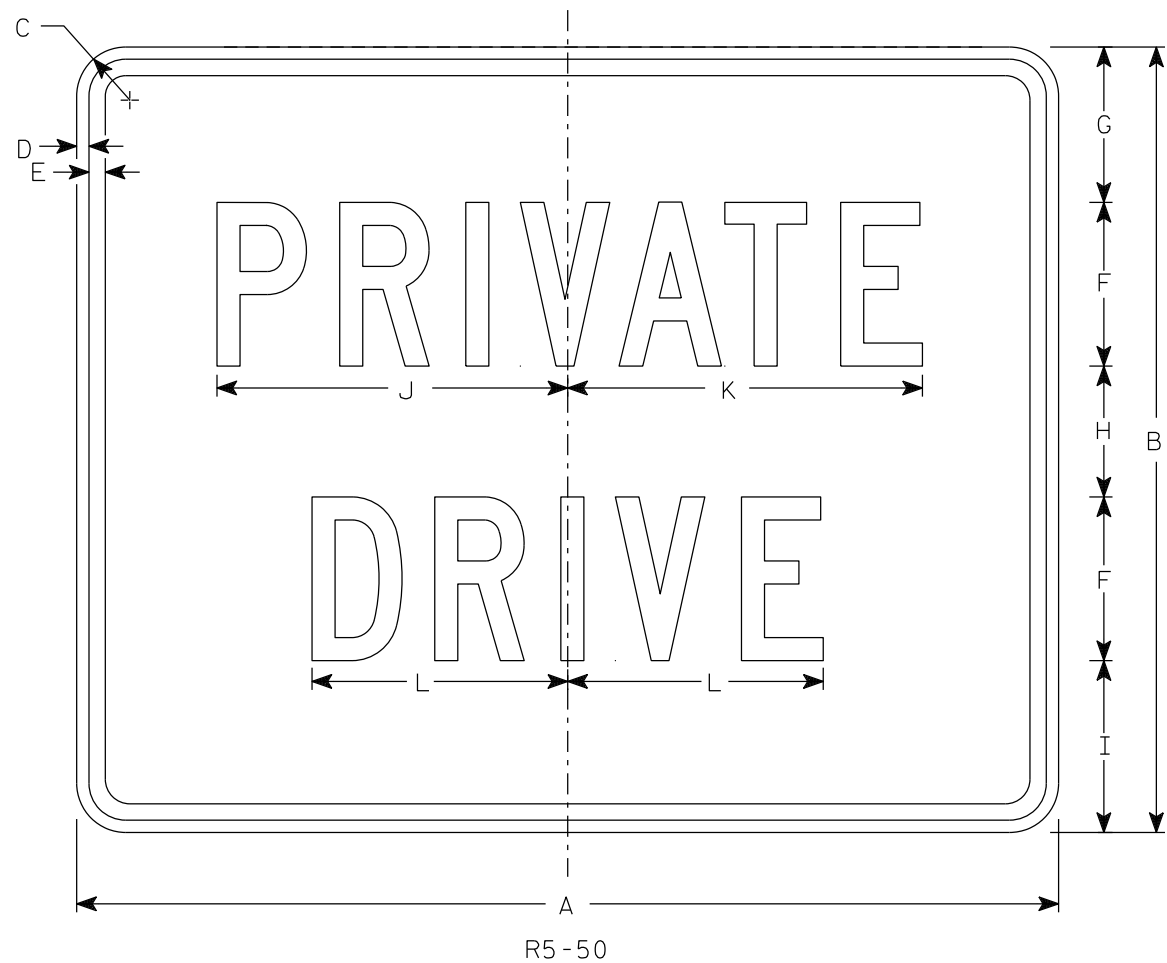
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - C

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	4 3/4	4	5 1/4	10 3/4	10 7/8	7 3/4															5.0
2M	30	24	1 1/2	3/8	1/2	5	4 3/4	4	5 1/4	10 3/4	10 7/8	7 3/4															5.0
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

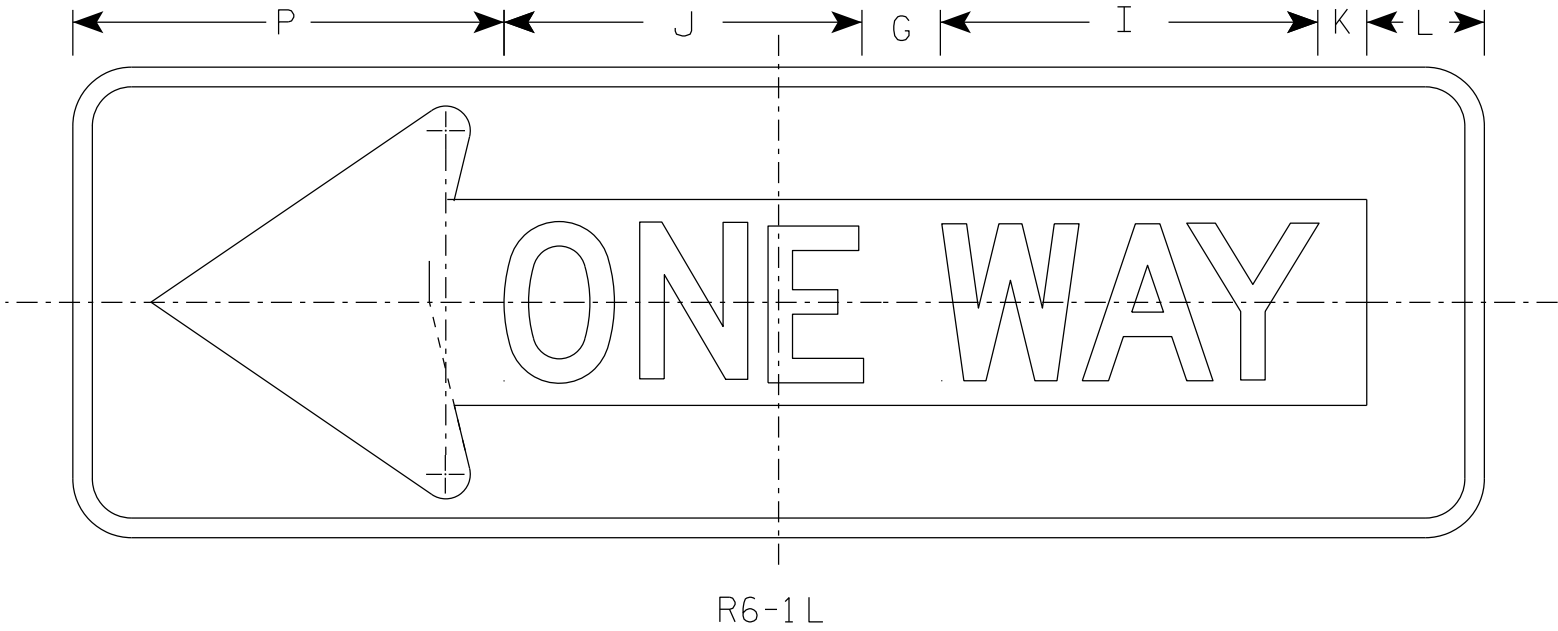
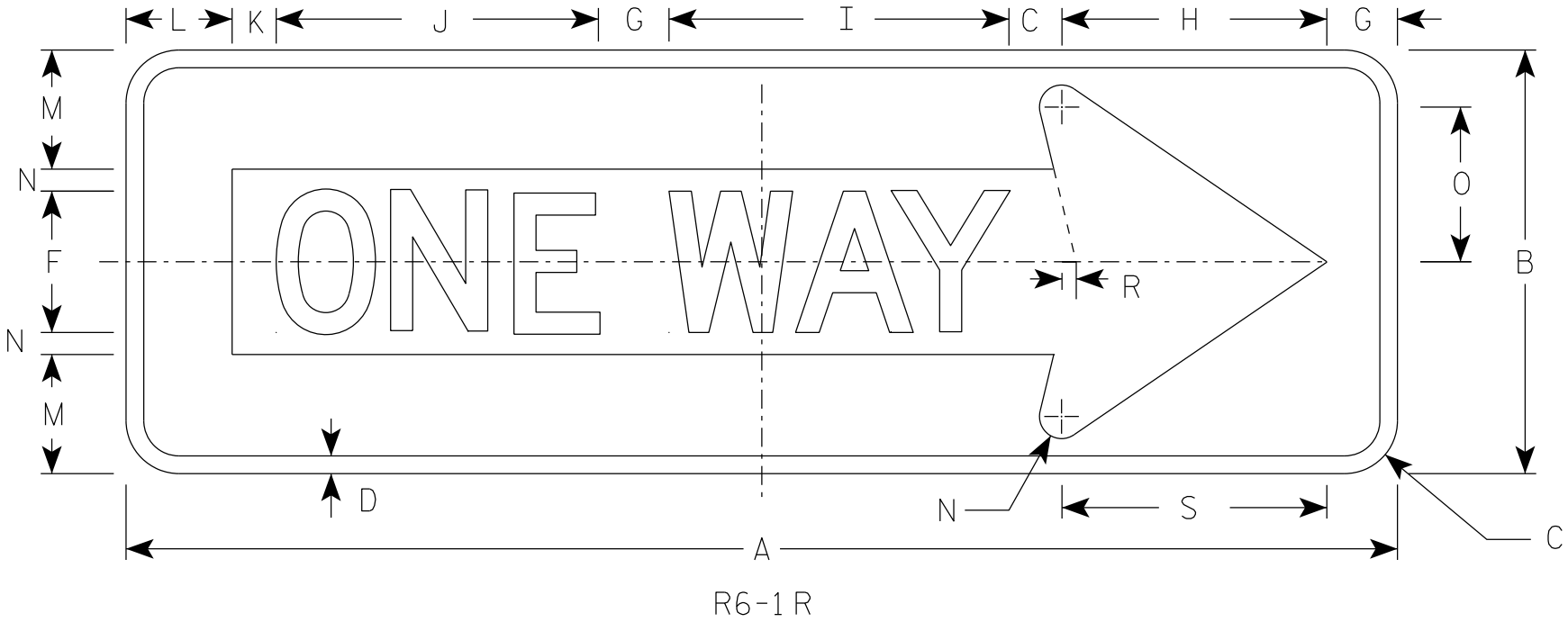
E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - Black

Message - Black Legend & White Arrow & Border
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	1 1/2	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN

R6-1 L&R

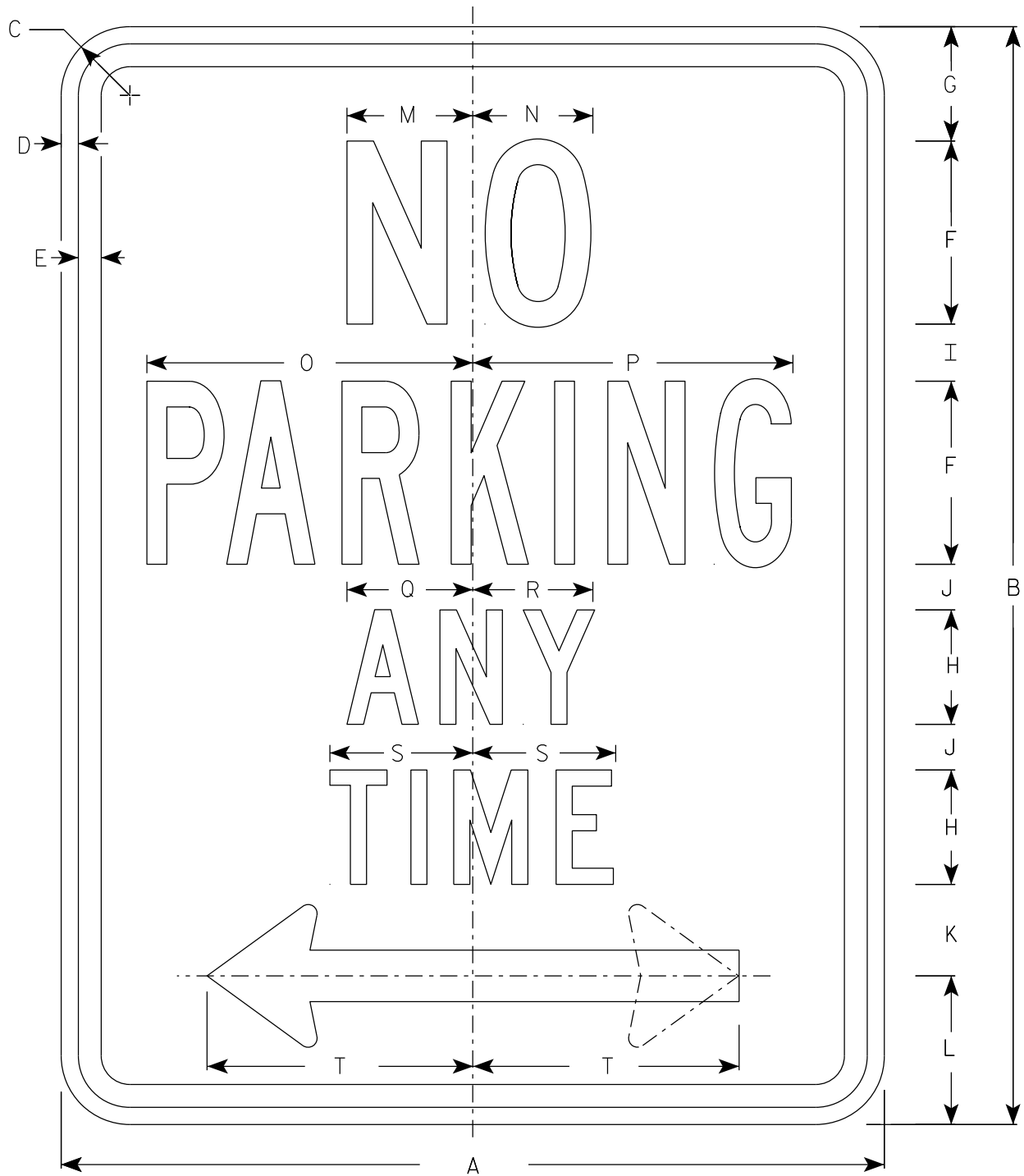
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 8/30/23

PLATE NO. R6-1.4

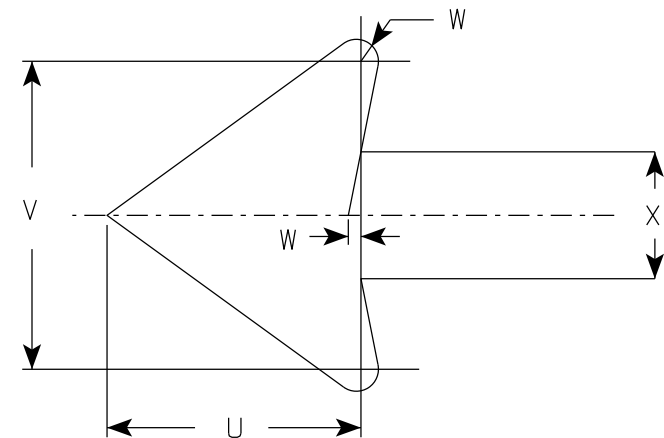


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/2	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

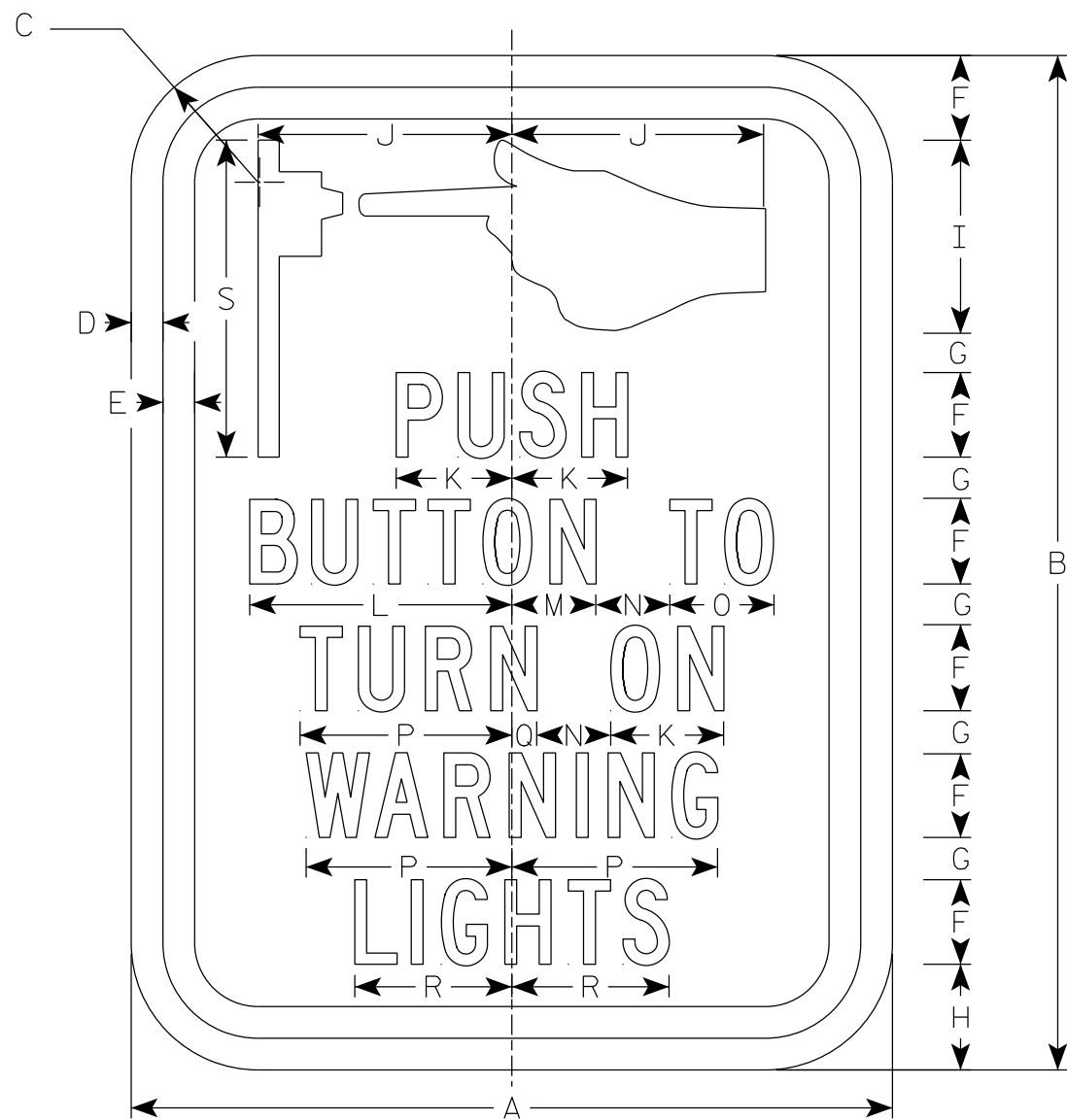
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



R10-25

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Size (1) comes as a decal only.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	6	9	1 1/2	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/2	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/2	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

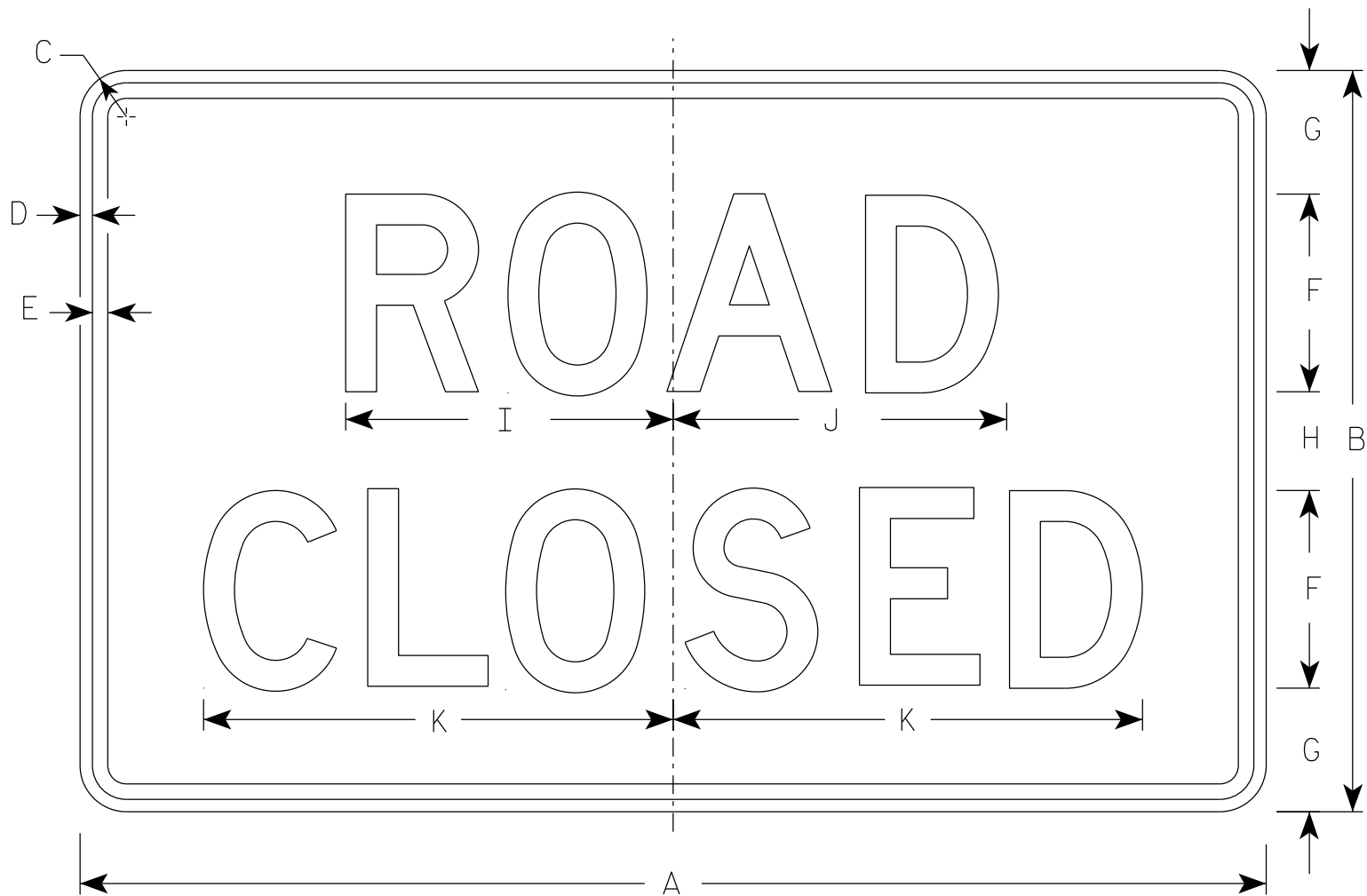
E

STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

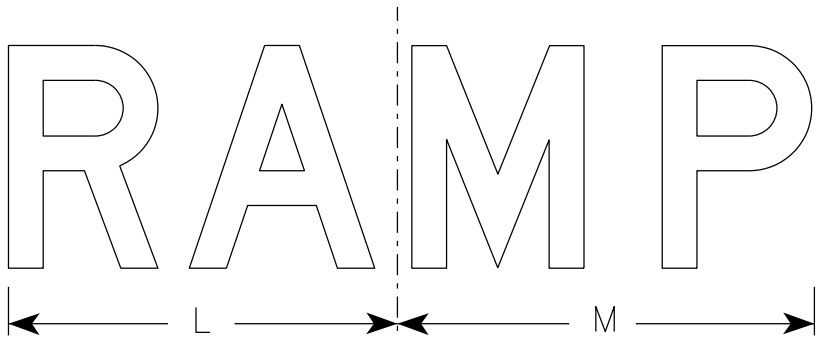
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R10-25.2

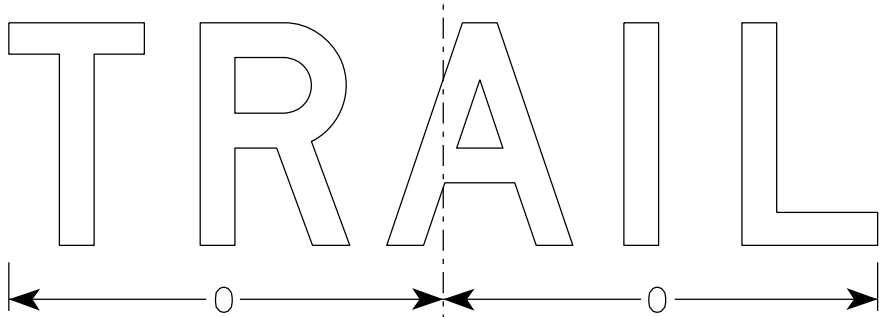


R11-2

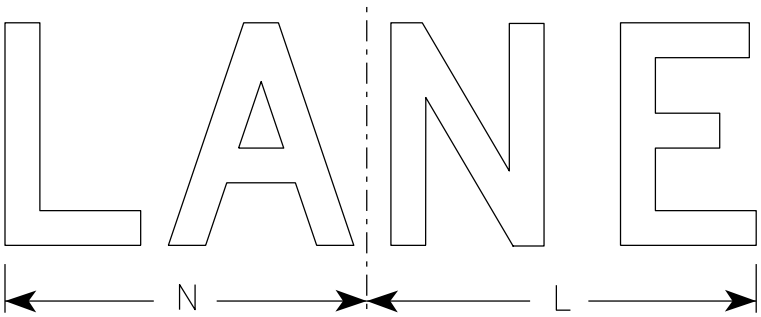
- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. Modify the message as required.



R11-2R



R11-2T



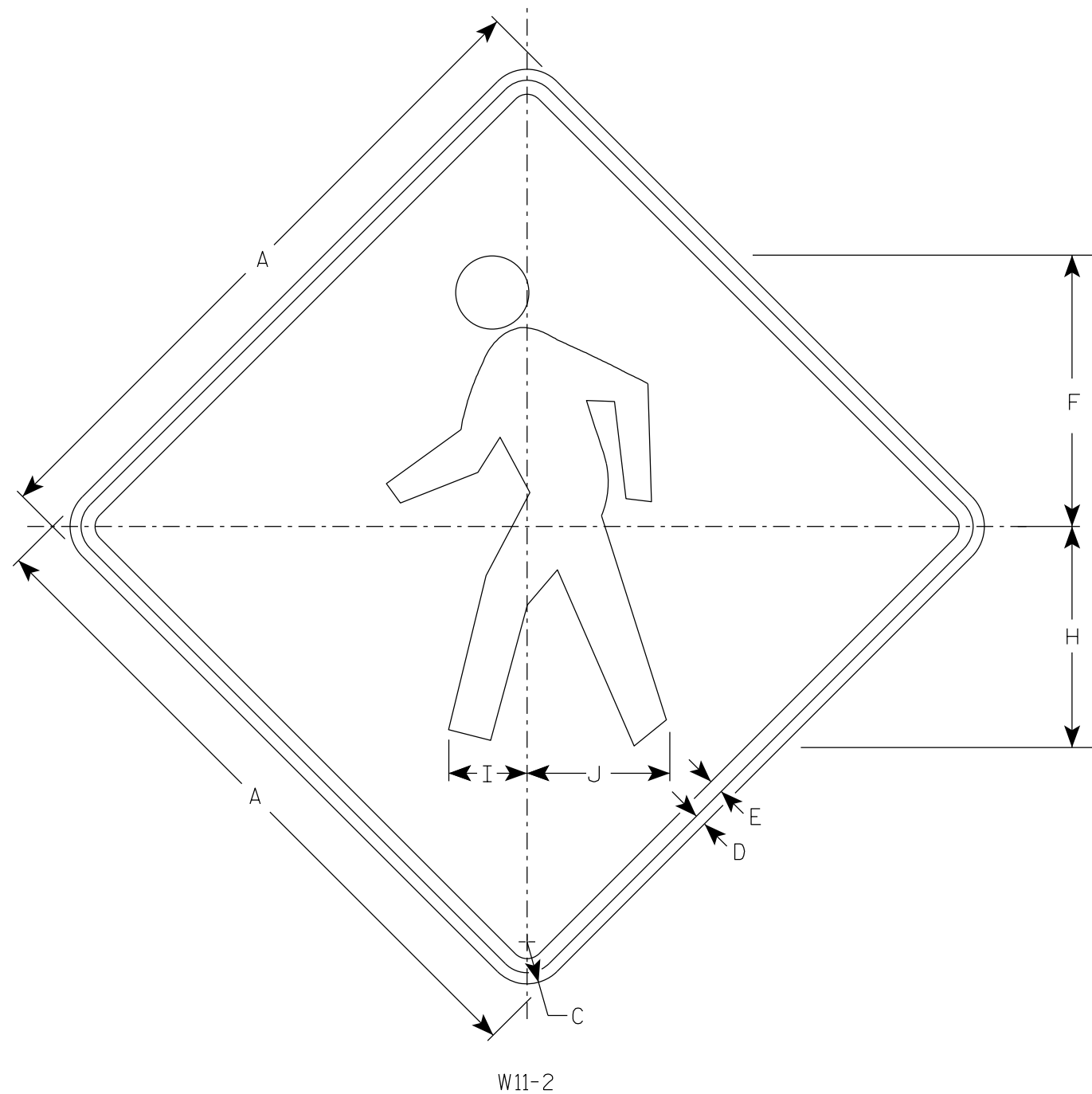
R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 2/5/24	PLATE NO. R11-2.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7



NOTES

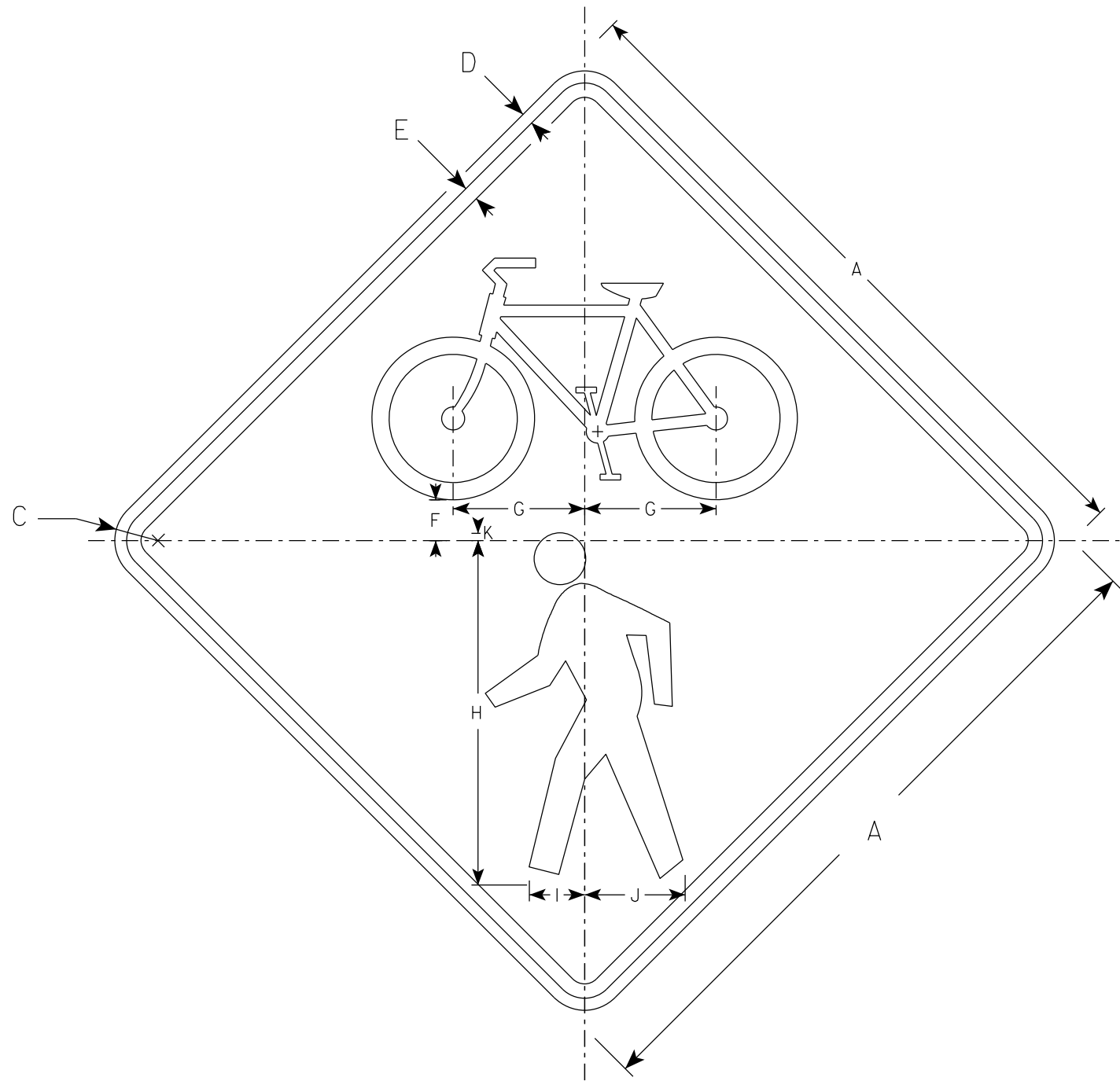
1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

PROJECT NO:		HWY:		COUNTY:		SHEET NO:		E
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7



W11-15

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 7/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
4	48		3	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN
W11-15

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 11/21/2023 PLATE NO. W11-15.5

7



W11-15A

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - C

7

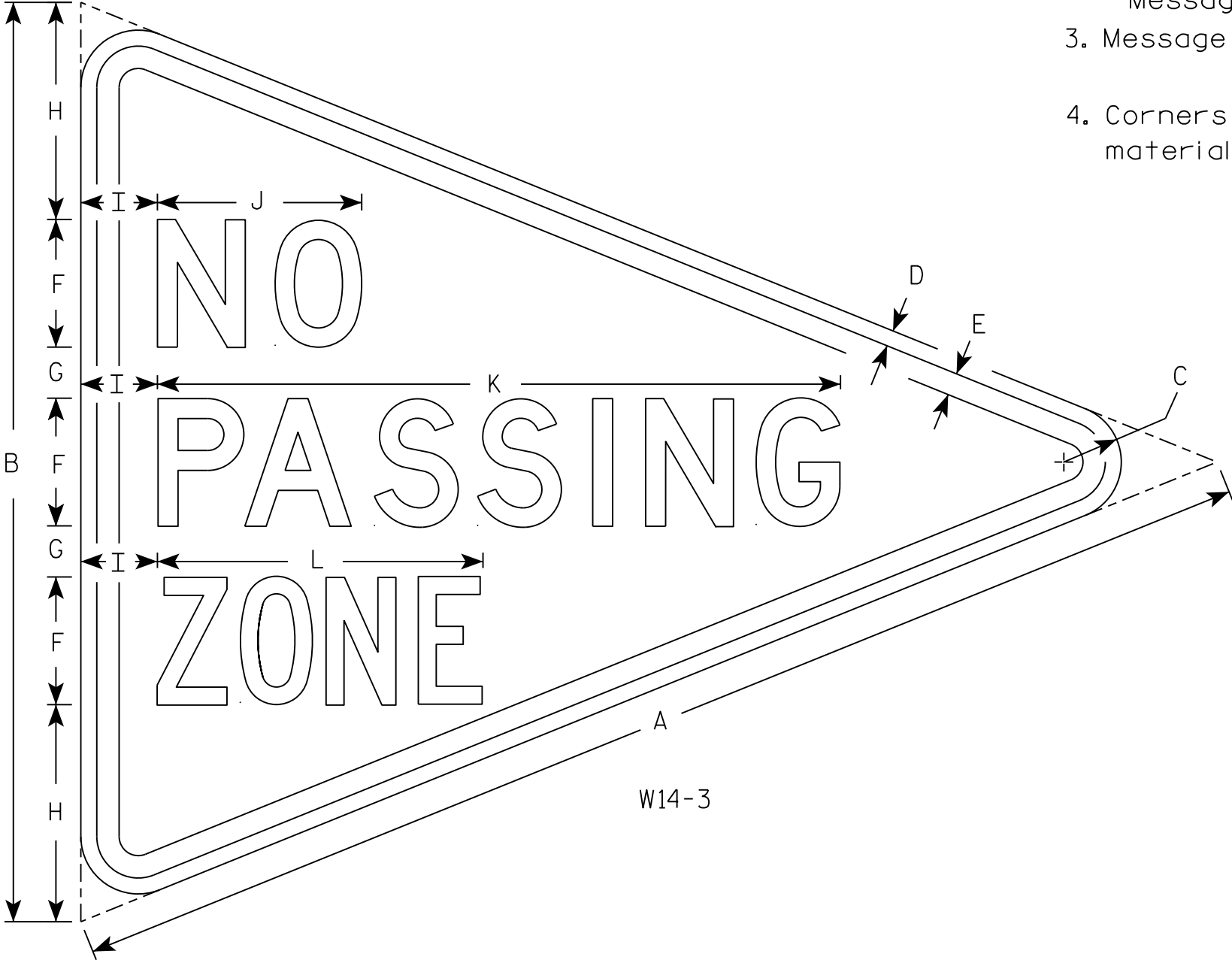
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	4	2 3/8	6 1/8	10 3/4																		4.0
2S	30		1 7/8	1/2	5/8	5	3	7 3/4	13 3/8																		6.25
2M	36		2 1/4	5/8	3/4	6	3 1/2	9 1/4	16																		9.0
3	36		2 1/4	5/8	3/4	6	3 1/2	9 1/4	16																		9.0
4	48		3	3/4	1	8	5	12 7/8	21 1/4																		16.0
5																											

STANDARD SIGN
W11-15A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 11/21/2023 PLATE NO. W11-15A.2



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - Lines 1 and 2 are Series D.
Line 3 is series C.
- 4. Corners and borders shall be rounded on all base materials for this sign.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
W14-3

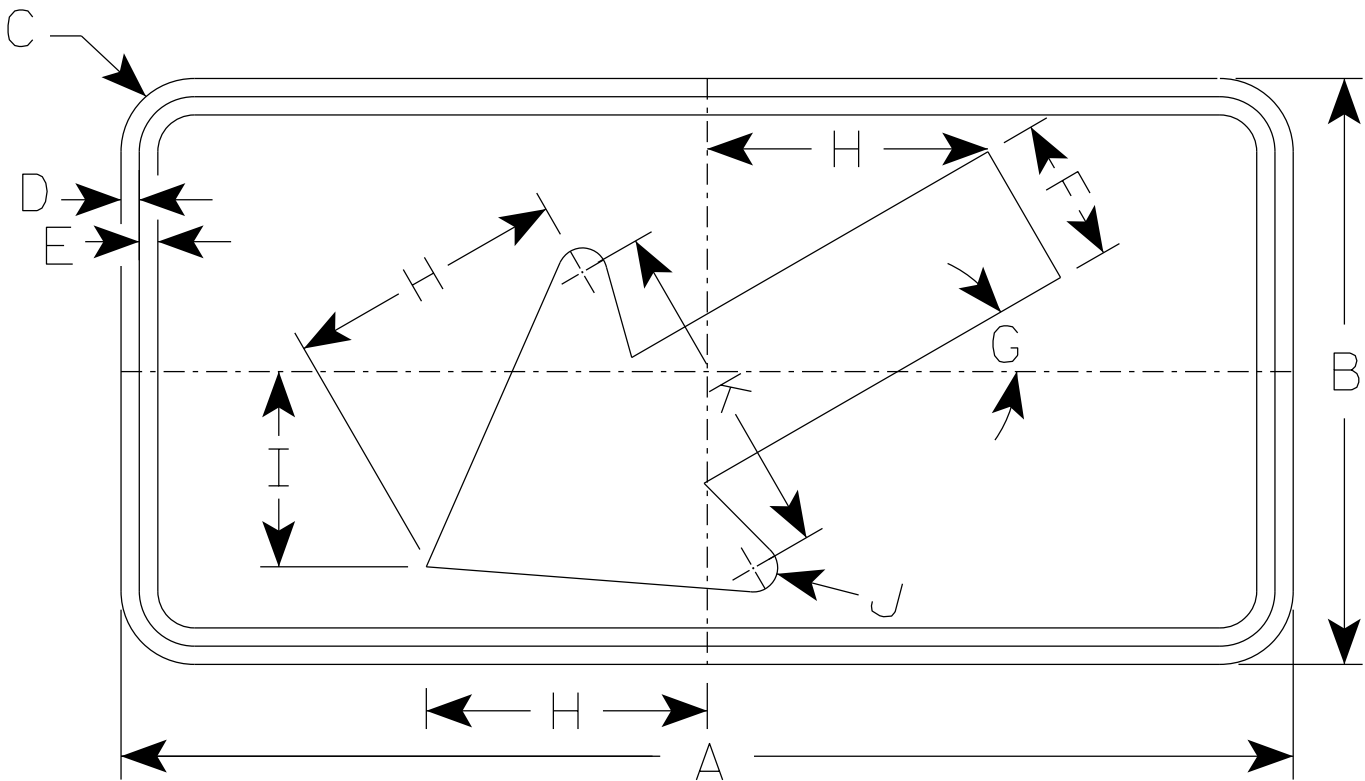
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W16-7R is the same as W16-7L
except the arrow is reversed along
the vertical centerline.



W16-7L

- * For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
* 2M	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 3	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

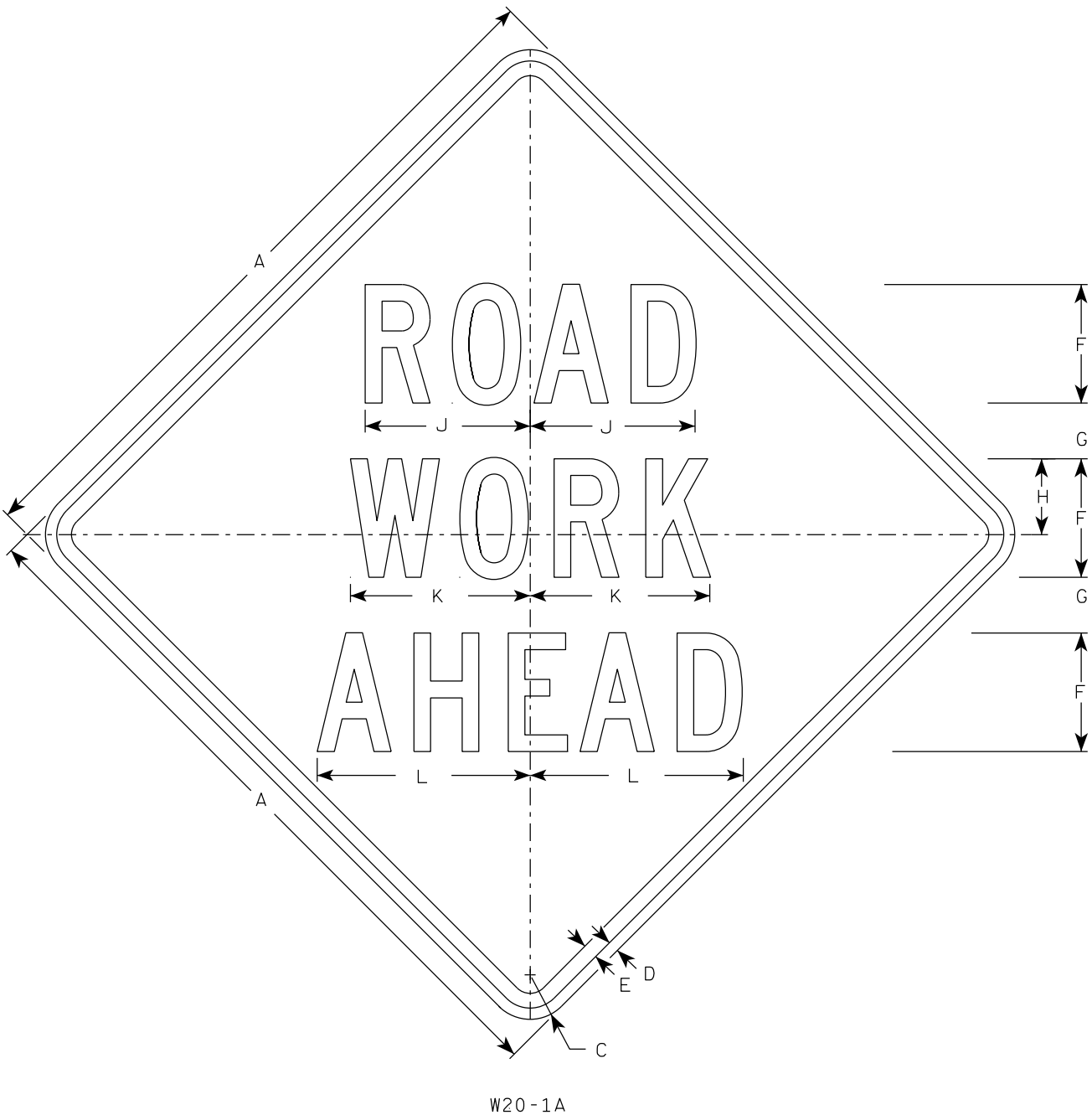
STANDARD SIGN

W16-7

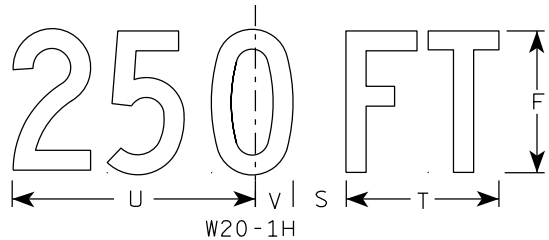
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

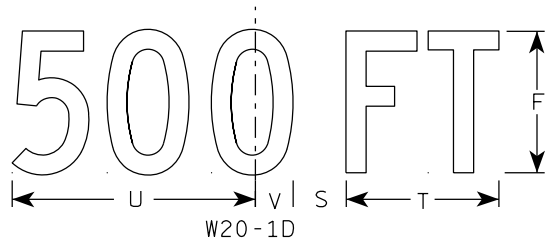
DATE 1/9/2024 PLATE NO. W16-7.9



W20-1A



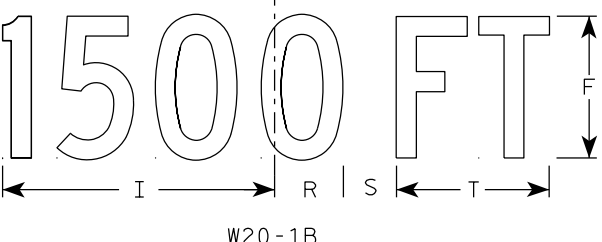
W20-1H



W20-1D

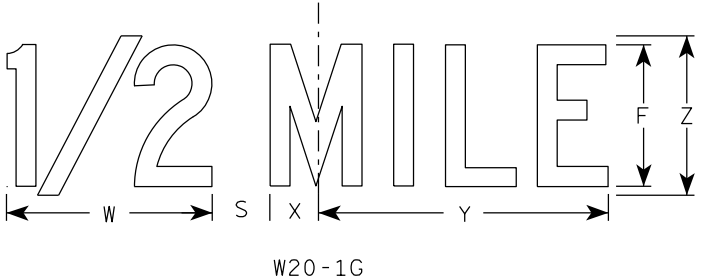


W20-1C

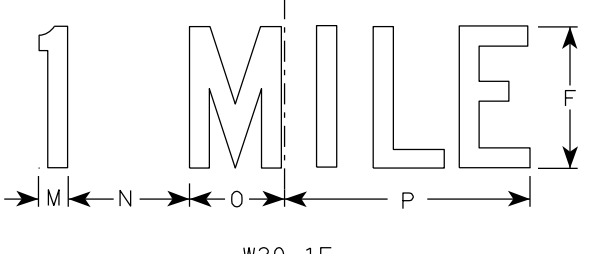


W20-1B

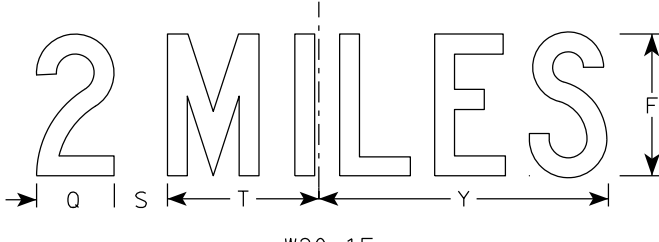
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



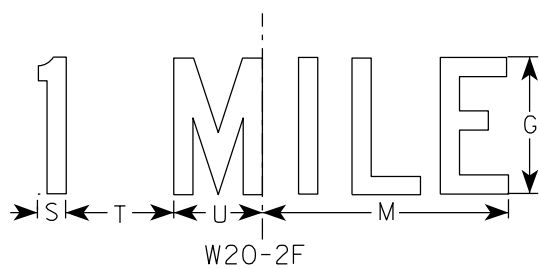
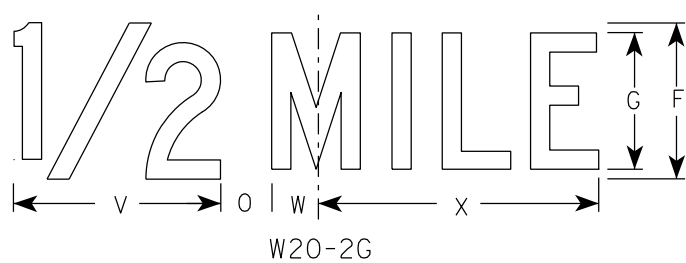
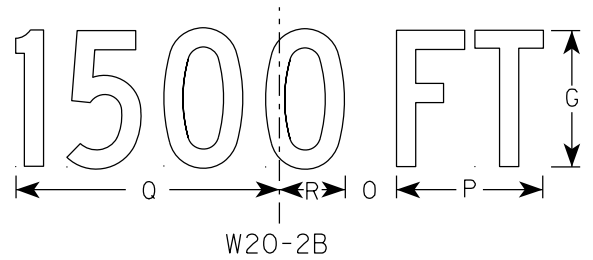
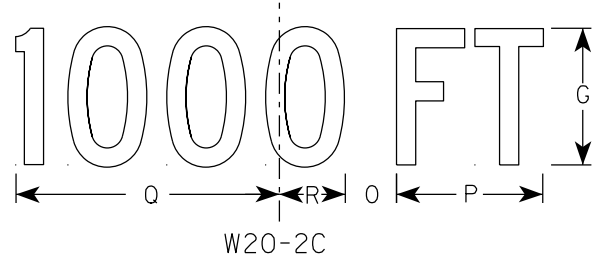
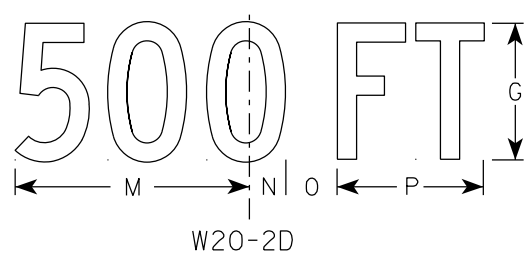
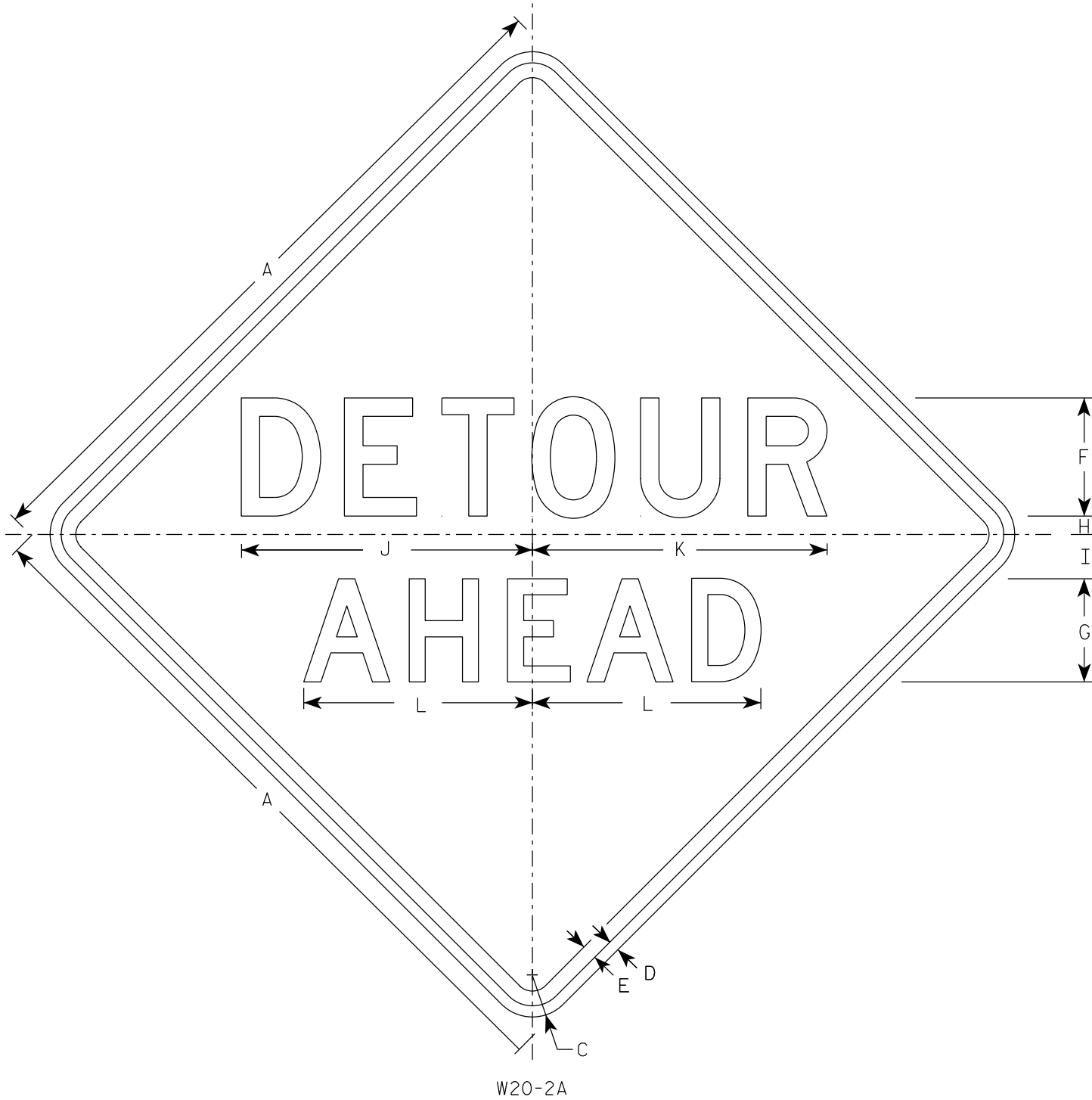
W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

PROJECT NO:

SHEET NO:

E



NOTES

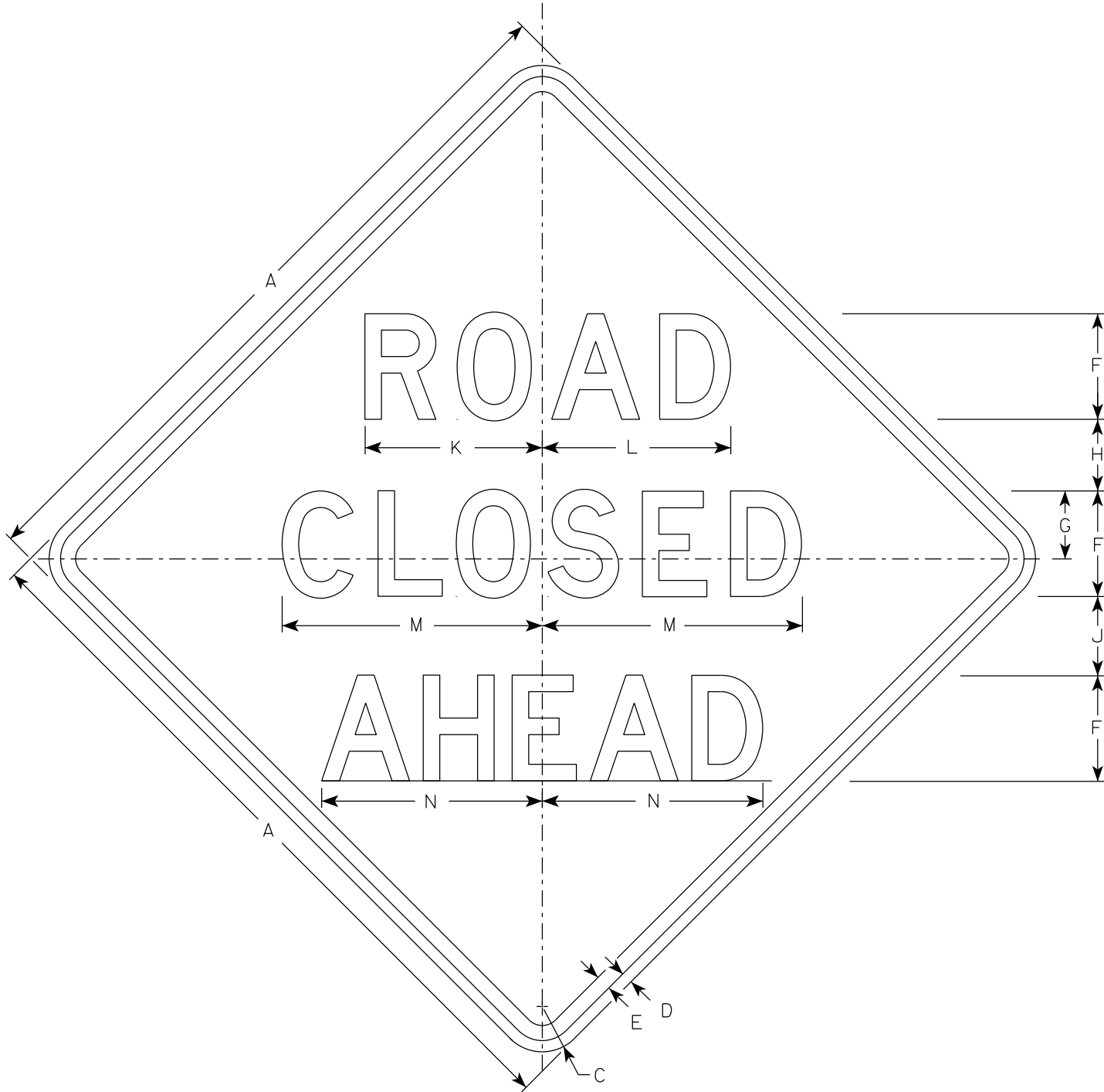
- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

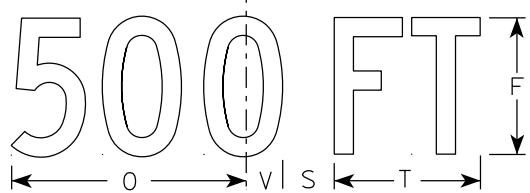
STANDARD SIGN W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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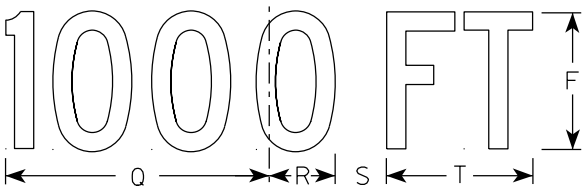
7



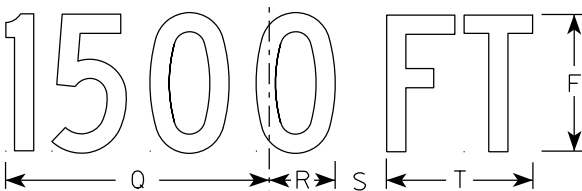
W20-3A



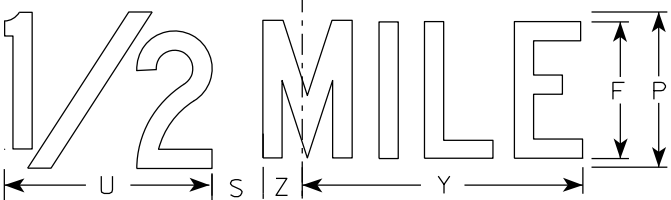
W20-3D



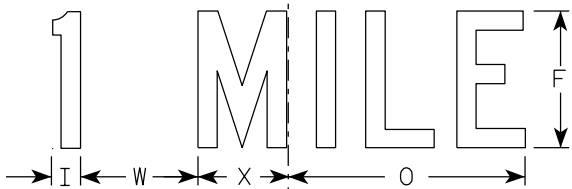
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

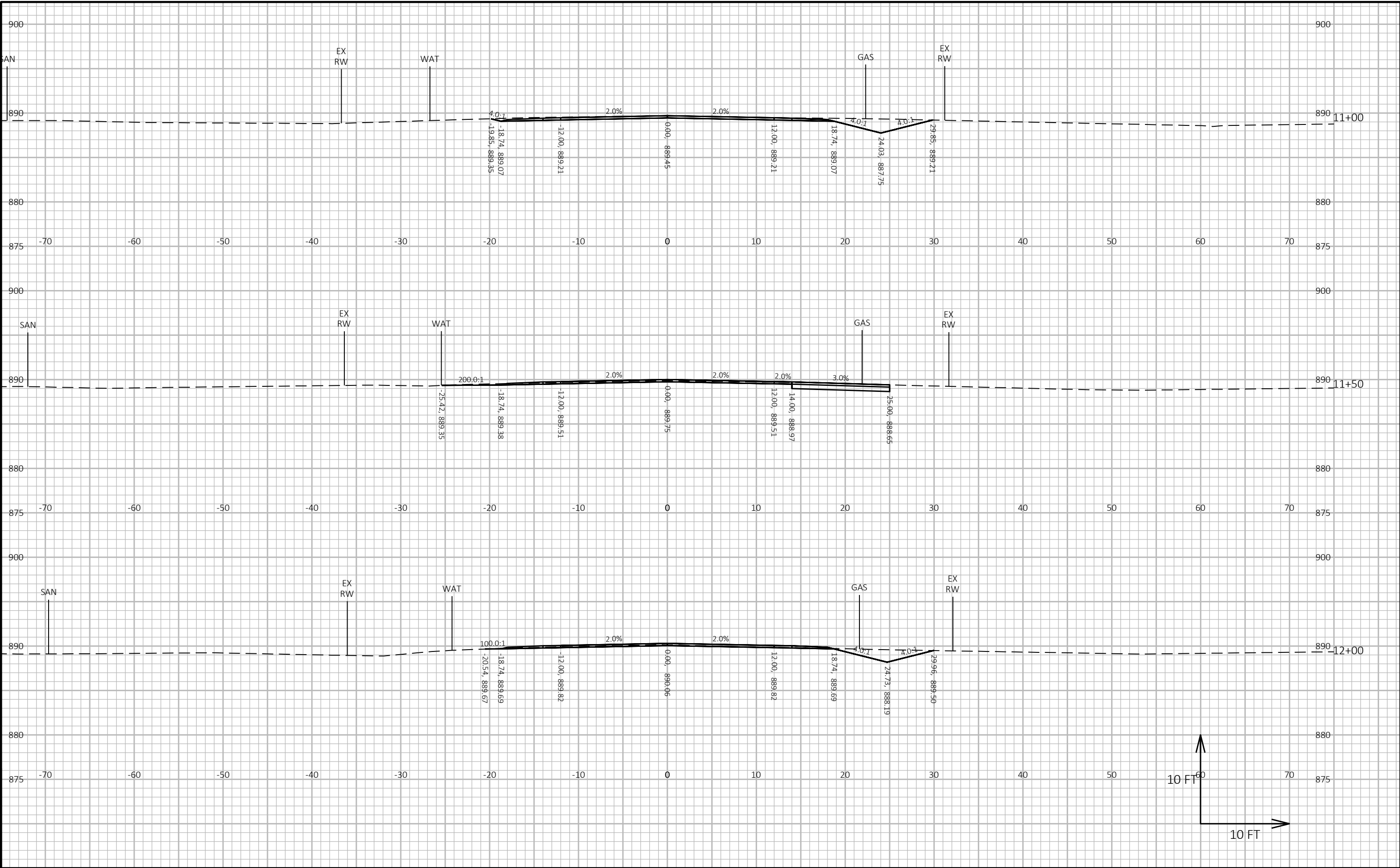
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

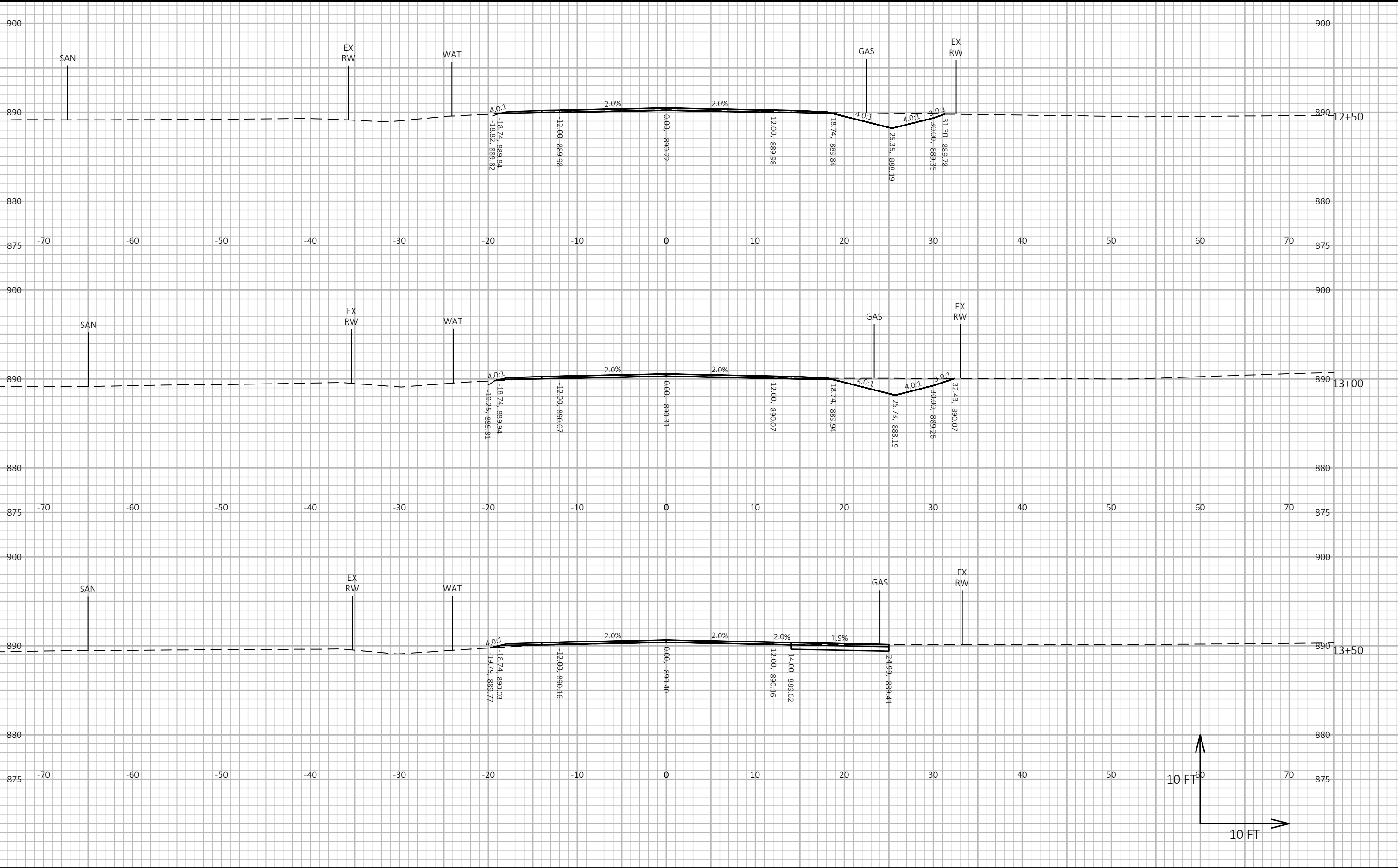
DATE 1/10/2024 PLATE NO. W20-3.8

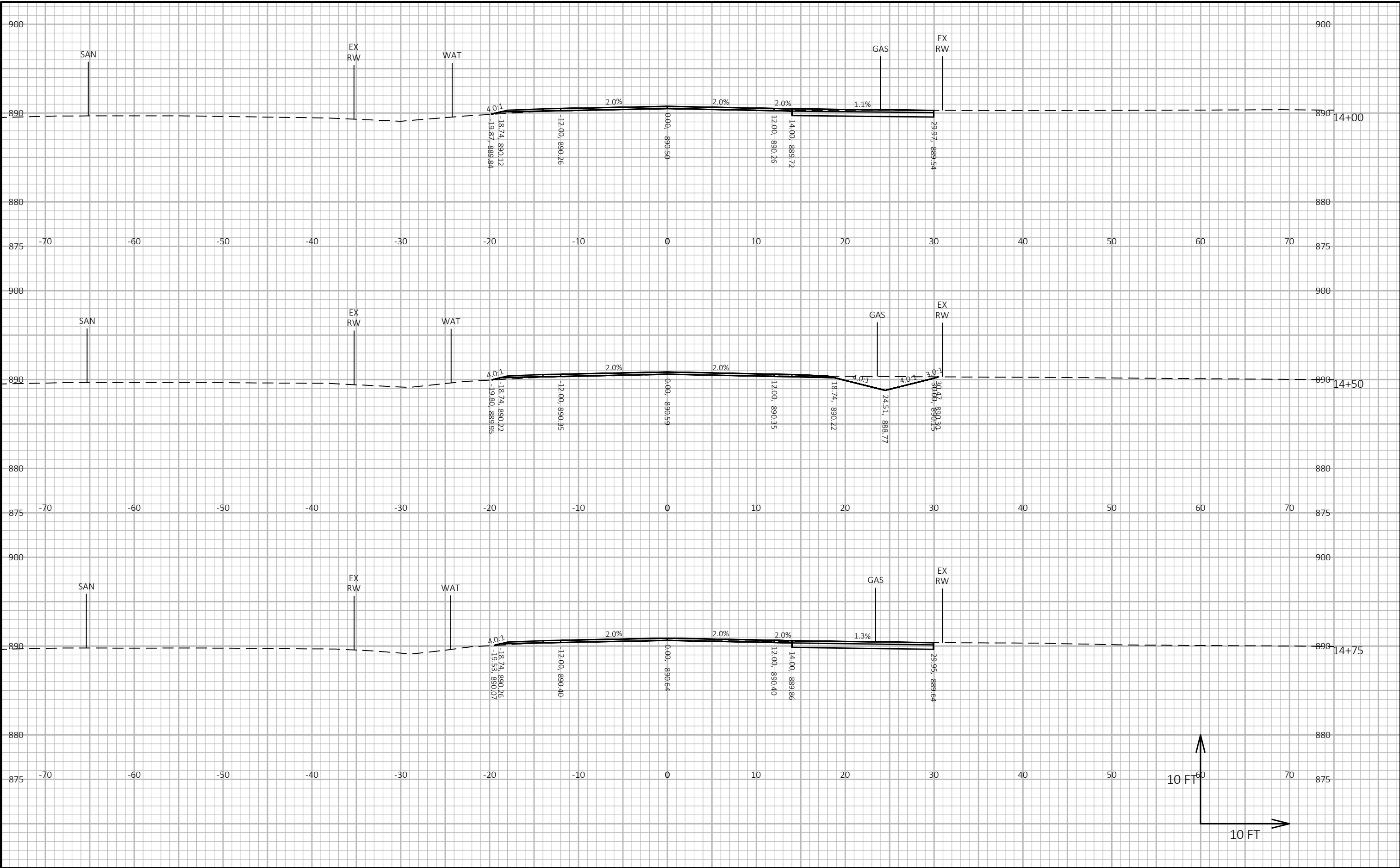
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)													
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE											
11+00	0.00	11.13	2.00	0.00	0	0	0	0	0	0	36+04.862	54.86	10.41	2.00	0.00	20	4	0	735	5	534
11+50	50.00	8.09	2.00	0.00	18	4	0	18	0	14	36+50	45.14	9.26	2.00	0.00	16	3	0	751	5	547
12+00	50.00	8.22	2.00	0.00	15	4	0	33	0	25	37+00	50.00	9.88	2.00	0.00	18	4	0	769	5	561
12+50	50.00	11.46	2.00	0.00	18	4	0	51	0	39	37+26.556	26.56	11.29	2.00	0.00	10	2	0	779	5	569
13+00	50.00	14.30	2.00	0.00	24	4	0	75	0	59	37+50	23.44	7.96	2.00	0.00	8	2	0	787	5	575
13+50	50.00	6.98	2.00	0.00	20	4	0	95	0	75	38+00	50.00	11.68	2.00	0.00	18	4	0	805	5	589
14+00	50.00	10.58	2.00	0.00	16	4	0	111	0	87	38+42.082	42.08	11.25	2.00	0.00	18	3	0	823	5	604
14+50	50.00	10.28	2.00	0.00	19	4	0	130	0	102	39+00	57.92	11.77	2.00	0.00	25	4	0	848	5	625
14+75.335	25.34	11.39	2.00	0.00	10	2	0	140	0	110	39+50	50.00	12.41	2.00	0.00	22	4	0	870	5	643
15+00	24.66	11.18	2.00	0.00	10	2	0	150	0	118	39+81.094	31.09	13.94	2.00	0.00	15	2	0	885	5	656
15+32.299	32.30	10.66	2.00	0.00	13	2	0	163	0	129	40+50	68.91	9.23	2.00	0.00	30	5	0	915	5	681
15+50	17.70	8.38	2.00	0.00	6	1	0	169	0	134	41+00	50.00	0.00	2.00	0.00	9	4	0	924	5	686
16+00	50.00	10.14	2.00	0.00	17	4	0	186	0	147	41+50	50.00	0.00	2.00	0.00	0	4	0	924	5	682
16+50	50.00	10.33	2.00	0.00	19	4	0	205	0	162	42+00	50.00	5.17	2.00	0.00	5	4	0	929	5	683
17+00	50.00	8.43	2.00	0.15	17	4	0	222	0	175	42+50	50.00	8.79	2.00	0.00	13	4	0	942	5	692
17+58.388	58.39	10.98	2.00	0.00	21	4	0	243	0	192	43+00	50.00	8.77	2.00	0.00	16	4	0	958	5	704
18+00	41.61	10.29	2.00	0.00	16	3	0	259	0	205	43+25.011	25.01	12.91	2.00	0.00	10	2	0	968	5	712
18+15.916	15.92	11.75	2.00	0.00	6	1	0	265	0	210	43+50	24.99	8.85	2.00	0.00	10	2	0	978	5	720
18+50	34.08	8.95	2.00	0.00	13	3	0	278	0	220	43+90.053	40.05	10.77	2.00	0.00	15	3	0	993	5	732
19+00	50.00	7.14	2.00	0.02	15	4	0	293	0	231	44+62.107	72.05	11.70	2.00	0.00	30	5	0	1,023	5	757
19+12.671	12.67	9.94	2.00	0.00	4	1	0	297	0	234	45+00	37.89	10.85	2.00	0.00	16	3	0	1,039	5	770
19+50	37.33	6.36	2.00	0.00	11	3	0	308	0	242	45+50	50.00	12.39	2.00	0.00	22	4	0	1,061	5	788
20+00	50.00	10.29	2.00	0.00	15	4	0	323	0	253	46+00	50.00	10.06	2.00	0.00	21	4	0	1,082	5	805
20+50	50.00	2.70	2.00	0.00	12	4	0	335	0	261	46+50	50.00	12.22	2.00	0.00	21	4	0	1,103	5	822
21+00	50.00	0.00	2.00	0.00	2	4	0	337	0	259	46+70.38	20.38	12.10	2.00	0.00	9	2	0	1,112	5	829
21+50	50.00	0.00	2.00	0.00	0	4	0	337	0	255	47+00	29.62	10.91	2.00	0.00	13	2	0	1,125	5	840
22+00	50.00	0.00	2.00	0.00	0	4	0	337	0	251	47+23.555	23.56	10.48	2.00	0.00	9	2	0	1,134	5	847
22+50	50.00	0.00	2.00	0.00	0	4	0	337	0	247	47+57.212	33.66	10.58	2.00	0.00	13	2	0	1,147	5	858
23+00	50.00	7.16	2.00	0.00	7	4	0	344	0	250	48+02.895	45.68	11.64	2.00	0.00	19	3	0	1,166	5	874
23+50	50.00	7.84	2.00	0.00	14	4	0	358	0	260	48+50	47.11	10.20	2.00	0.00	19	3	0	1,185	5	890
24+00	50.00	8.83	2.00	0.00	15	4	0	373	0	271	49+00	50.00	8.97	2.00	0.00	18	4	0	1,203	5	904
24+50	50.00	0.00	2.00	0.00	8	4	0	381	0	275	49+29.455	29.45	10.48	2.00	0.00	11	2	0	1,214	5	913
25+00	50.00	0.00	2.00	0.00	0	4	0	381	0	271	49+50	20.55	9.79	2.00	0.00	8	2	0	1,222	5	919
25+50	50.00	7.17	2.00	0.40	7	4	0	388	0	274	50+00	50.00	12.23	2.00	0.00	20	4	0	1,242	5	935
26+00	50.00	7.22	2.00	1.02	13	4	1	401	1	282	50+50	50.00	12.32	2.00	0.00	23	4	0	1,265	5	954
26+23.298	23.30	9.58	2.00	0.00	7	2	0	408	1	287	51+00	50.00	0.00	2.00	0.00	11	4	0	1,276	5	961
26+50	26.70	8.20	2.00	0.37	9	2	0	417	1	294	51+50	50.00	0.00	2.00	0.00	0	4	0	1,276	5	957
27+00	50.00	9.26	2.00	0.00	16	4	0	433	1	306	52+00	50.00	9.78	2.00	0.11	9	4	0	1,285	5	962
27+23.482	23.48	10.55	2.00	0.00	9	2	0	442	1	313	52+50	50.00	9.68	2.00	0.14	18	4	0	1,303	5	976
27+50	26.52	8.60	2.00	0.00	9	2	0	451	1	320	53+00	50.00	8.30								

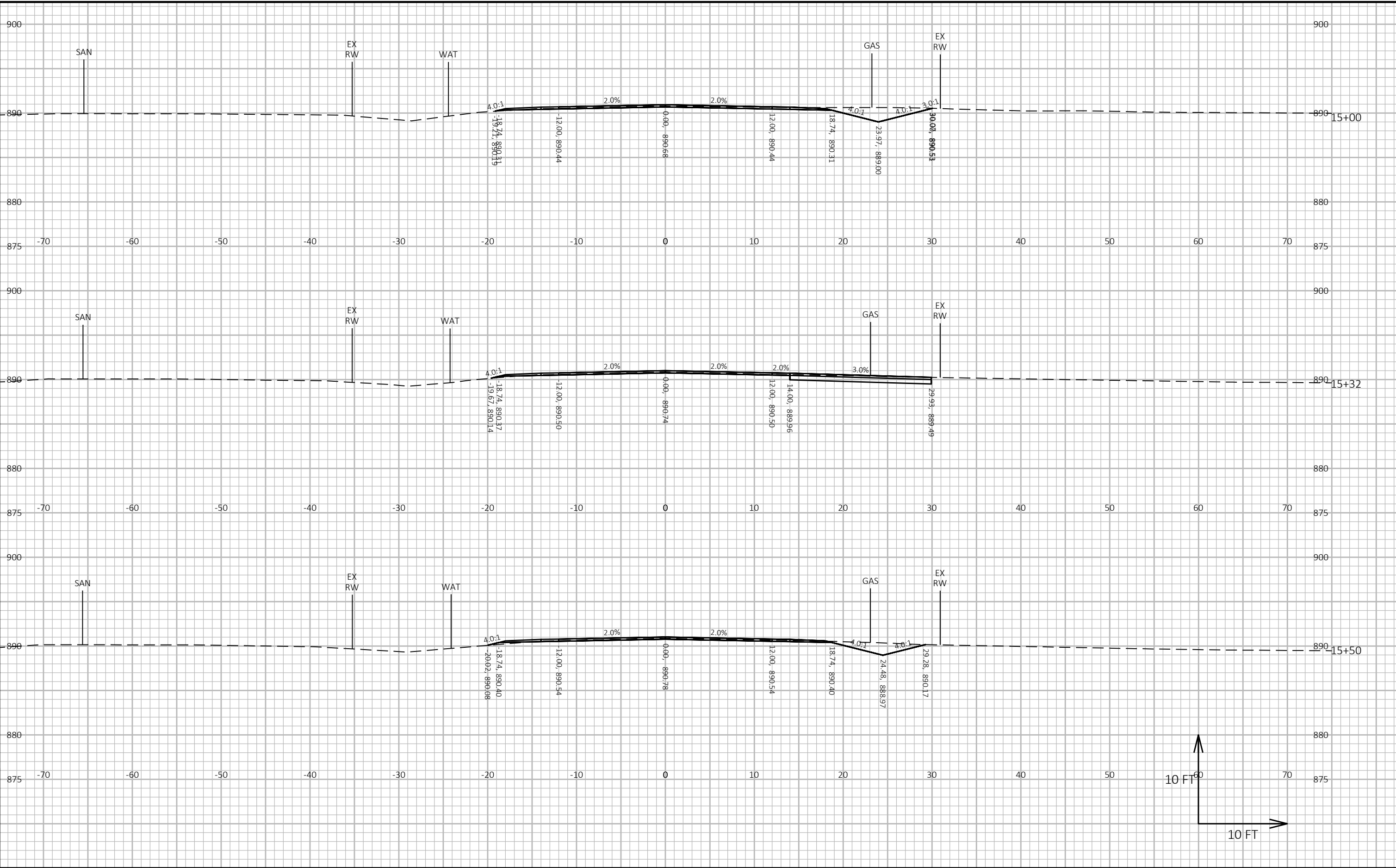
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
																						1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00	1.30	1.00

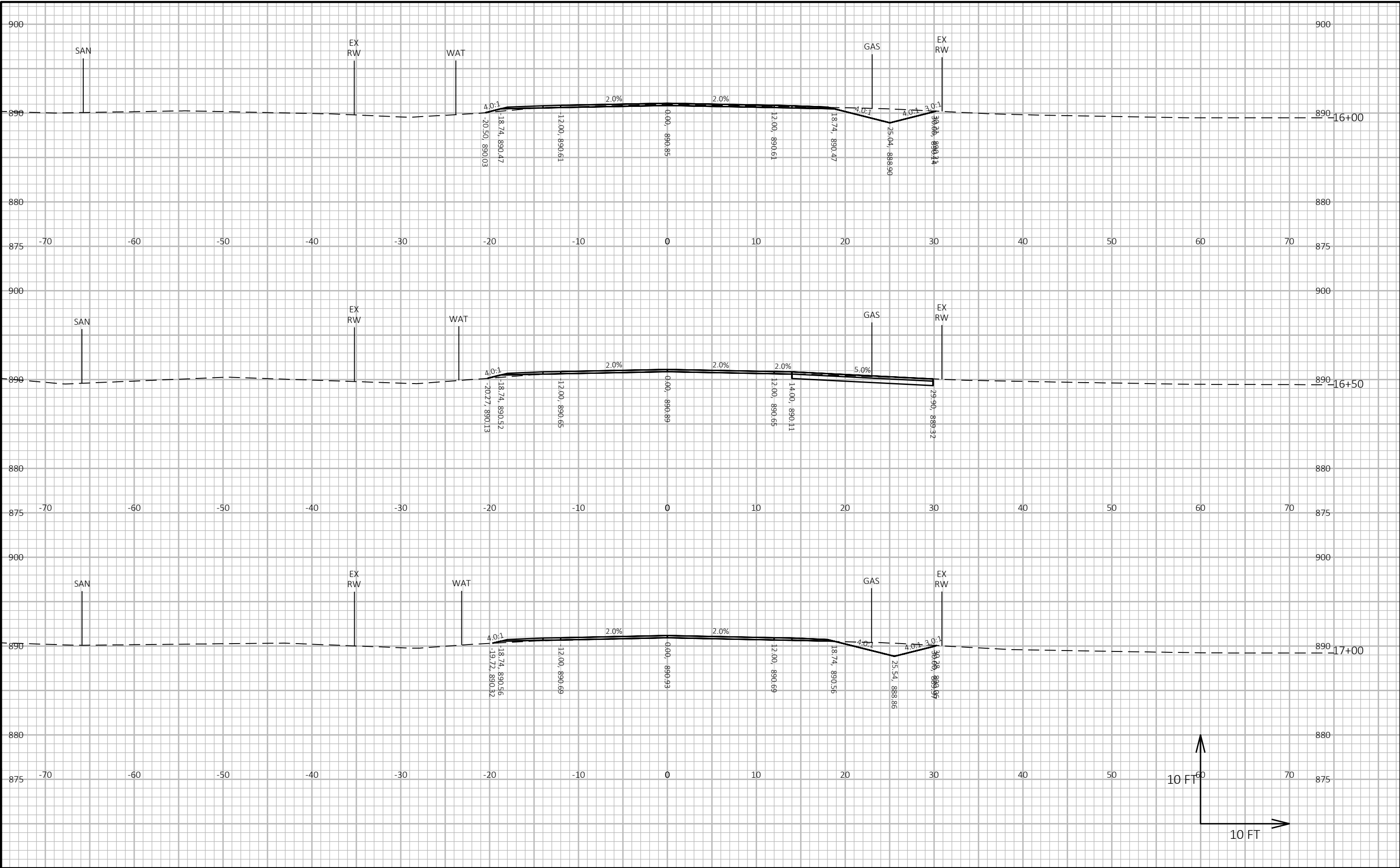
STATION	DISTANCE	CTH OO SB									STATION	DISTANCE	CTH OO SB								
		AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)					AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE			CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE
								1.00	1.30									1.00	1.30		
61+37.771	29.78	0.23	1.25	0.55	0	1	0	45	77	-245	89+05.749	55.75	0.00	1.25	0.47	0	3	1	59	95	-373
61+50	12.23	0.20	1.25	0.74	0	1	0	45	77	-246	89+50	44.25	0.01	1.25	0.44	0	2	1	59	96	-376
62+00	50.00	0.19	1.25	0.67	0	2	1	45	78	-249	89+66.557	16.56	0.02	1.25	0.38	0	1	0	59	96	-377
62+18.094	18.09	0.21	1.25	0.56	0	1	0	45	78	-250	90+00	33.44	0.00	1.25	0.45	0	2	1	59	97	-381
62+50	31.91	0.13	1.25	0.52	0	1	1	45	79	-252	90+50	50.00	0.00	1.25	0.65	0	2	1	59	99	-384
63+00	50.00	0.13	1.25	0.22	0	2	1	45	81	-256	91+09.091	59.09	0.00	1.25	0.95	0	3	2	59	101	-389
63+64.475	64.47	0.24	1.25	0.04	0	3	0	45	81	-259	91+31.502	22.41	0.00	1.25	0.92	0	1	1	59	103	-392
64+00	35.53	0.21	1.25	0.06	0	2	0	45	81	-261	91+50	18.50	0.00	1.25	0.66	0	1	1	59	104	-394
64+37.894	37.89	0.15	1.25	0.17	0	2	0	45	81	-263	92+00	50.00	0.03	1.25	0.41	0	2	1	59	105	-397
65+00	62.11	0.18	1.25	0.26	0	3	0	45	81	-266	92+50	50.00	0.01	1.25	0.42	0	2	1	59	107	-401
65+50	50.00	0.28	1.25	0.09	0	2	0	45	81	-268	93+00	50.00	0.01	1.25	0.41	0	2	1	59	108	-404
66+07.94	57.94	0.26	1.25	0.08	1	3	0	46	81	-270	93+50	50.00	0.05	1.25	0.24	0	2	1	59	109	-407
66+50	42.06	0.29	1.25	0.03	0	2	0	46	81	-272	93+69.803	19.80	0.11	1.25	0.14	0	1	0	59	109	-408
66+96.121	46.12	0.35	1.25	0.01	1	2	0	47	81	-273	94+00	30.20	0.22	1.25	0.06	0	1	0	59	109	-409
67+25	28.88	0.35	1.25	0.03	0	1	0	47	81	-274	94+55.137	55.14	0.05	1.25	0.28	0	3	0	59	109	-412
67+50	25.00	0.25	1.25	0.08	0	1	0	47	81	-275	95+00	44.86	0.00	1.25	0.58	0	2	1	59	111	-416
68+00	50.00	0.20	1.25	0.11	0	2	0	47	81	-277	95+42.397	42.40	0.00	1.25	1.20	0	2	1	59	112	-419
68+50	50.00	0.08	1.25	0.24	0	2	0	47	81	-279	96+00	57.60	0.00	1.25	1.18	0	3	3	59	116	-426
69+09.598	59.60	0.23	1.25	0.08	0	3	0	47	81	-282	96+55.14	55.14	0.00	1.25	0.58	0	3	2	59	118	-431
69+50	40.40	0.34	1.25	0.05	0	2	0	47	81	-284	97+00	44.86	0.06	1.25	0.16	0	2	1	59	120	-435
70+05.086	55.09	0.42	1.25	0.09	1	3	0	48	81	-286	97+50	50.00	0.23	1.25	0.02	0	2	0	59	120	-437
70+50	44.91	0.45	1.25	0.03	1	2	0	49	81	-287	97+83.316	33.32	0.39	1.25	0.00	0	2	0	59	120	-439
71+00	50.00	0.47	1.25	0.00	1	2	0	50	81	-288	98+00	16.68	0.82	1.25	0.00	0	1	0	59	120	-440
71+50	50.00	0.22	1.25	0.03	1	2	0	51	81	-289	98+37.192	37.19	2.00	1.25	0.01	2	2	0	61	120	-440
72+00	50.00	0.20	1.25	0.26	0	2	0	51	81	-291	98+50	12.81	2.37	1.25	0.00	1	1	0	62	120	-440
72+33.119	33.12	0.39	1.25	0.13	0	2	0	51	81	-293	99+00	50.00	0.00	1.25	0.00	2	2	0	64	120	-440
73+00	66.88	0.23	1.25	0.26	1	3	0	52	81	-295	99+50	50.00	0.00	1.25	0.00	0	2	0	64	120	-442
73+50	50.00	0.24	1.25	0.40	0	2	1	52	82	-298	100+00	50.00	0.00	1.25	0.00	0	2	0	64	120	-444
74+00	50.00	0.45	1.25	0.17	1	2	1	53	83	-300	100+50	50.00	0.00	1.25	0.00	0	2	0	64	120	-446
74+50	50.00	0.47	1.25	0.09	1	2	0	54	83	-301	101+00	50.00	0.00	1.25	0.00	0	2	0	64	120	-448
74+83.994	33.99	0.32	1.25	0.15	0	2	0	54	83	-303	101+50	50.00	0.42	1.25	0.00	0	2	0	64	120	-450
75+50	66.01	0.18	1.25	0.15	1	3	0	55	83	-305	102+06.329	56.33	0.02	1.25	0.28	0	3	0	64	120	-453
76+00	50.00	0.03	1.25	0.29	0	2	0	55	83	-307	102+50	43.67	0.00	1.25	1.01	0	2	1	64	121	-456
76+25	25.00	0.01	1.25	0.38	0	1	0	55	83	-308	103+00	50.00	0.01	1.25	1.76	0	2	3	64	125	-462
76+39.415	14.42	0.02	1.25	0.32	0	1	0	55	83	-309	103+50	50.00	0.00	1.25	3.10	0	2	5	64	131	-470
77+00	60.58	0.00	1.25	0.39	0	3	1	55	84	-314	104+00	50.00	0.00	1.25	3.08	0	2	6	64	139	-480
77+50	50.00	0.05	1.25	0.23	0	2	1	55	86	-317	104+50	50.00	0.00	1.25	2.11	0	2	5	64	146	-489
78+00	50.00	0.29	1.25	0.05	0	2	0	55	86	-319	104+88.019	38.02	0.00	1.25	1.54	0	2	3	64	150	-495
78+44.588	44.59	0.98	1.25	0.00	1	2	0	56	86	-320	105+00	11.98	0.00	1.25	1.40	0	1	1	64	151	-497
79+00	55.41	0.82	1.25	0.00	2	3	0	58	86	-321	105+50	50.00	0.03	1.25	0.49	0	2	2	64	153	-501
79+50	50.00	0.00	1.25	0.90	1	2	1														

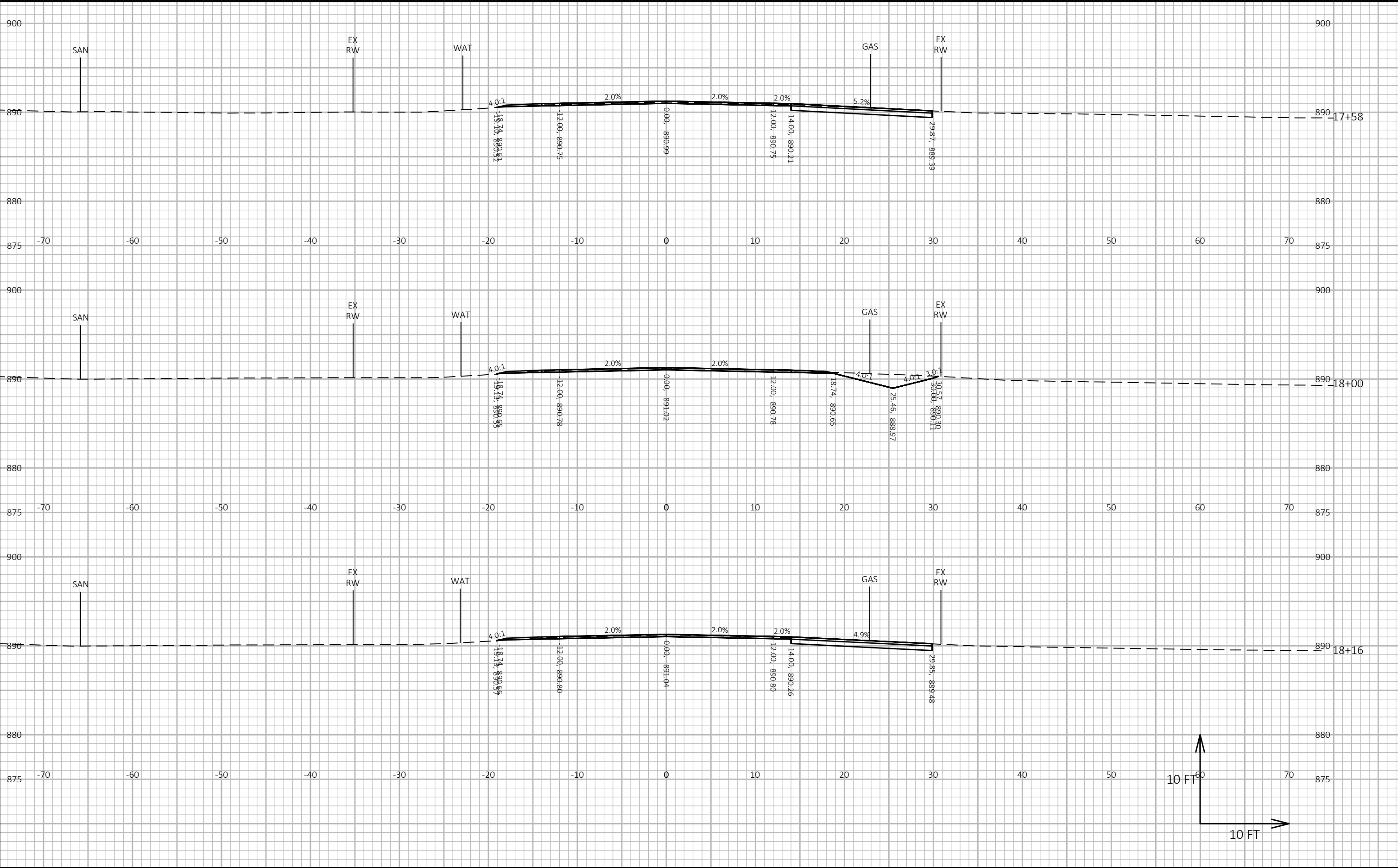


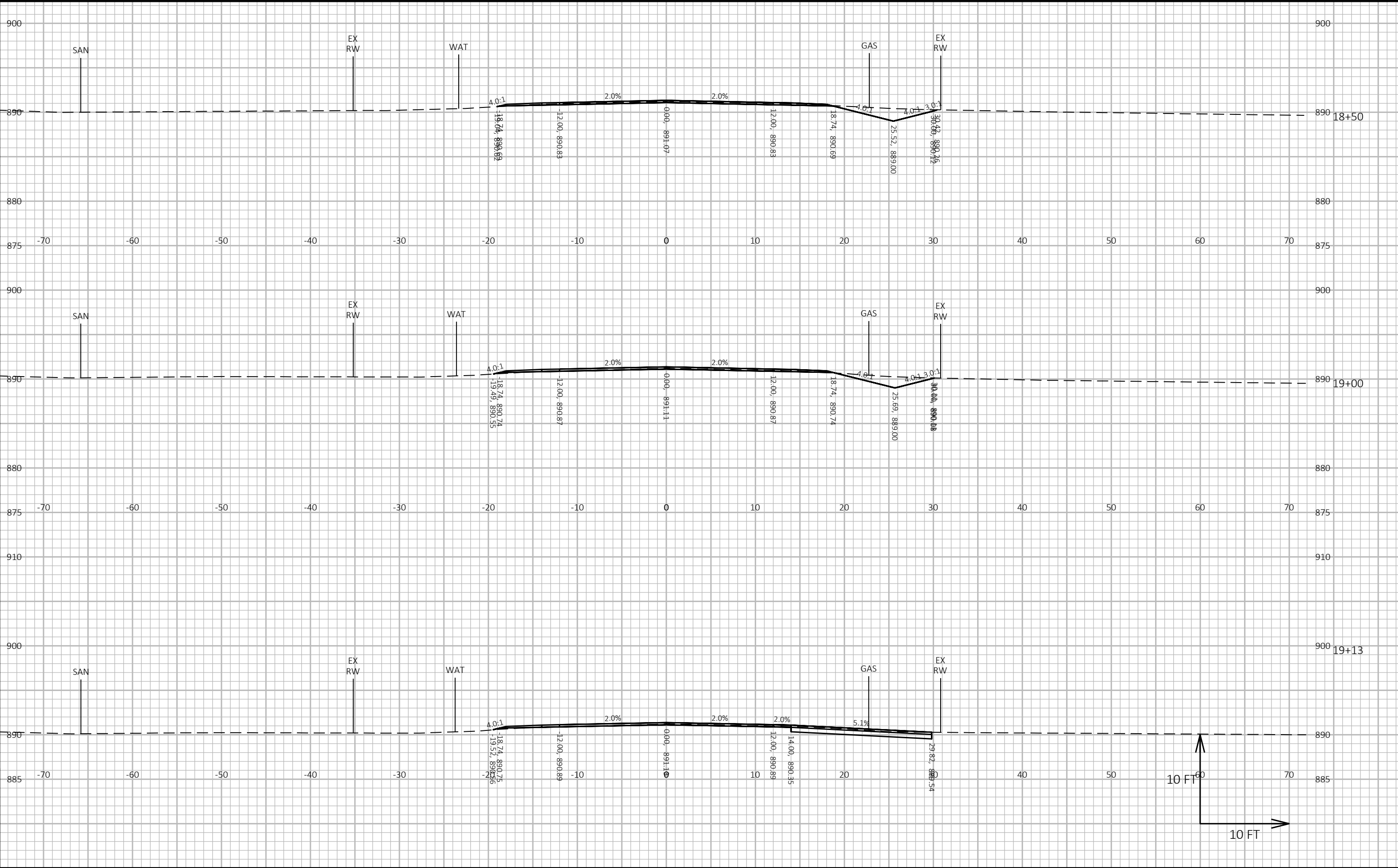


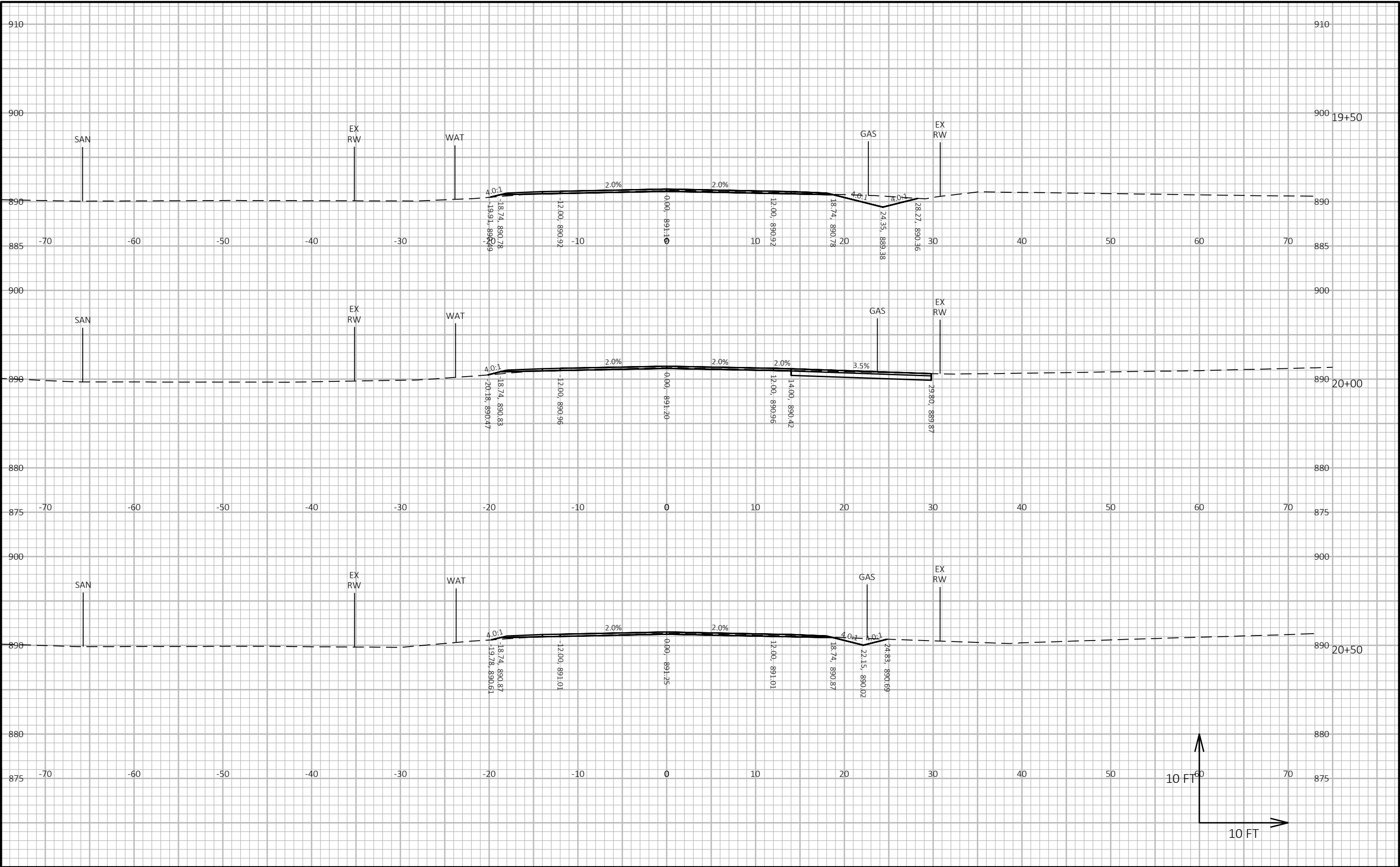


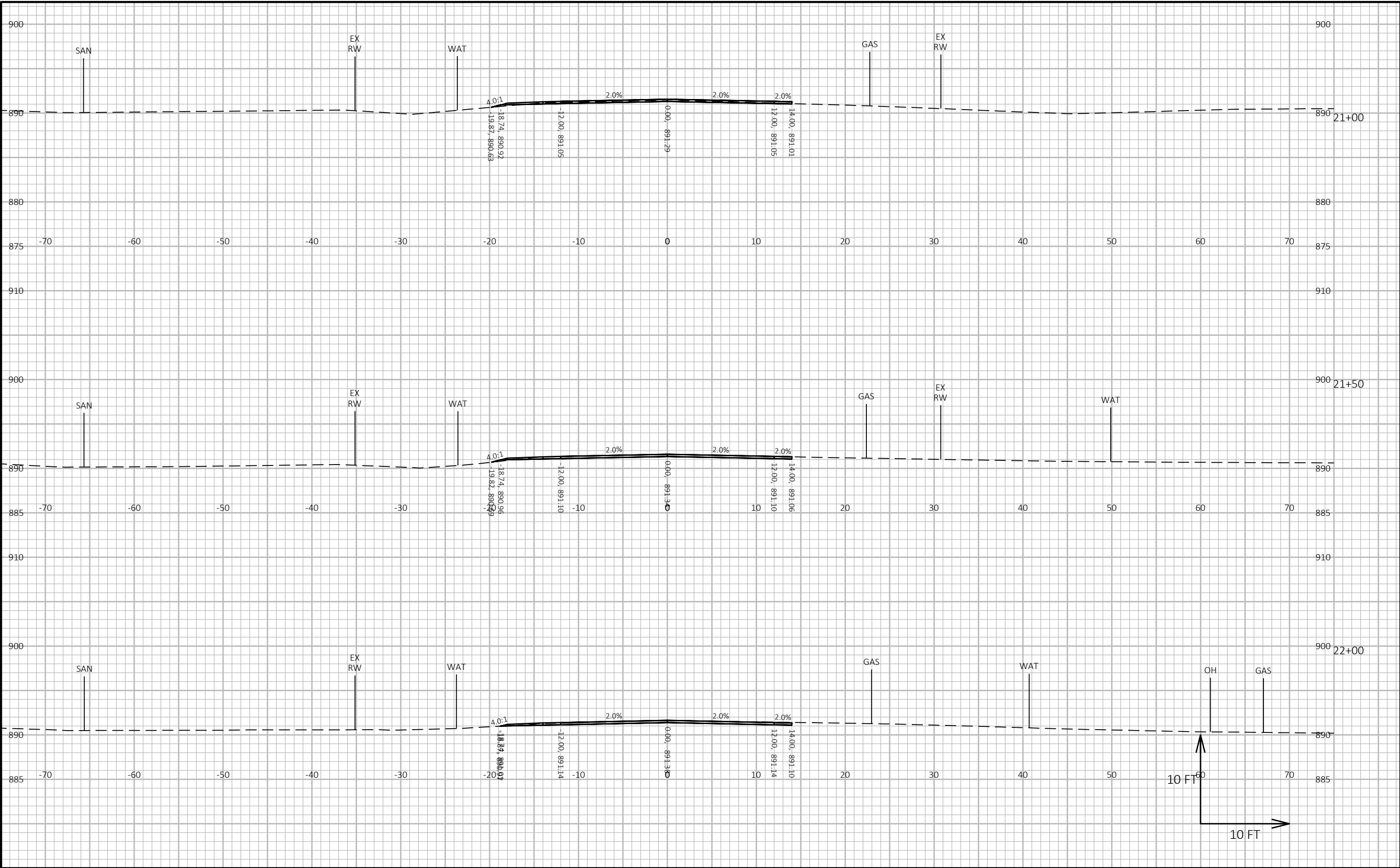


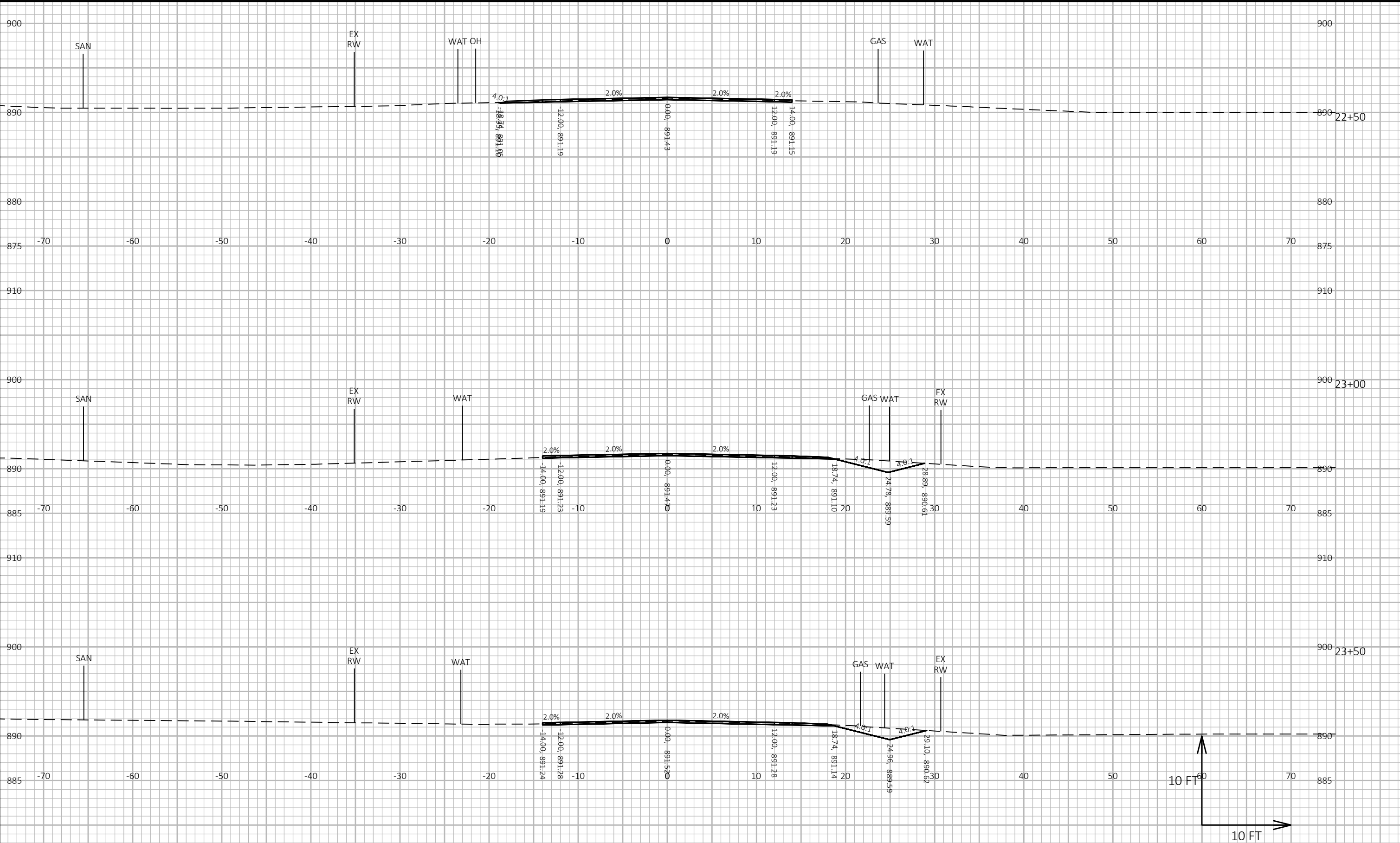


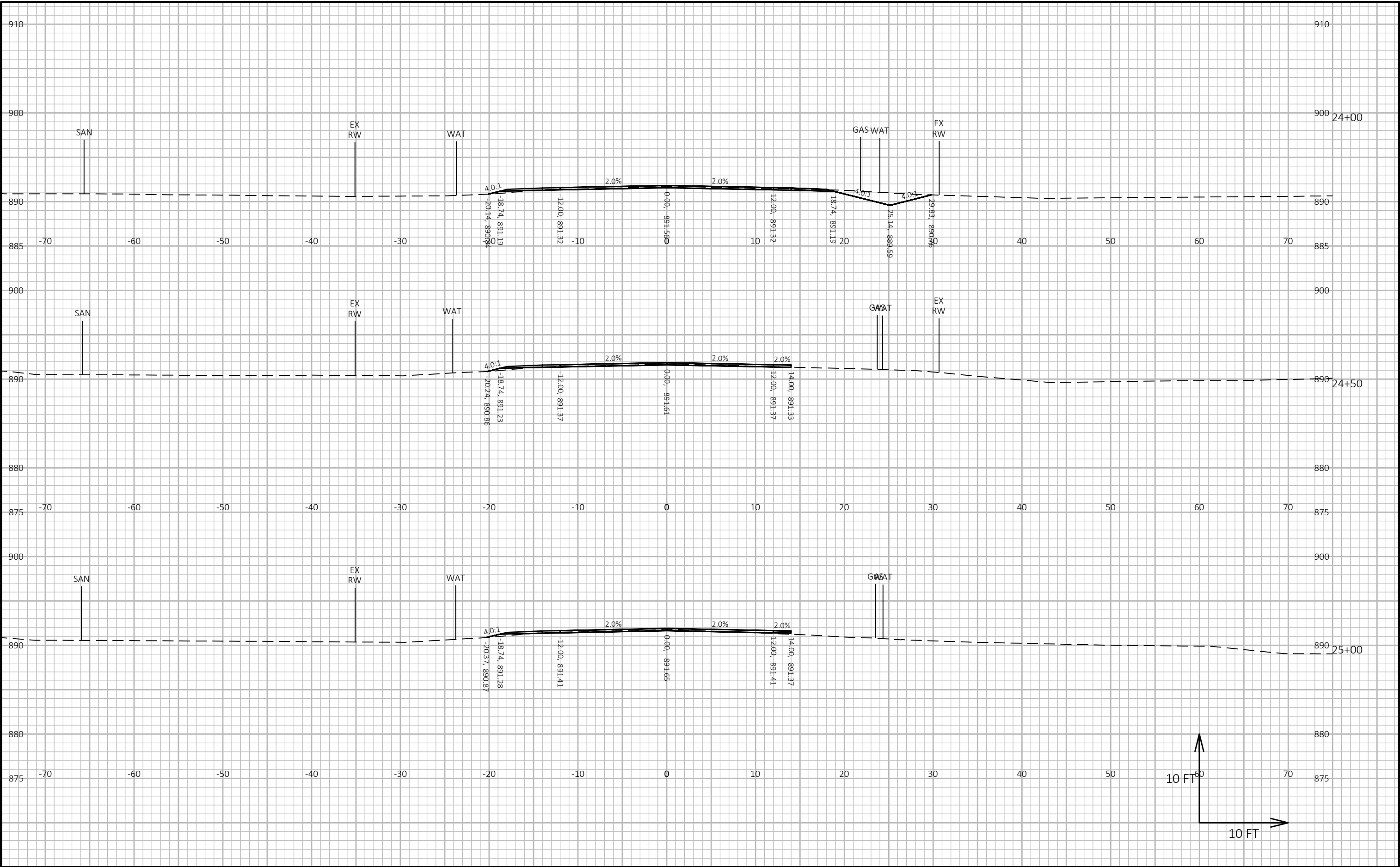


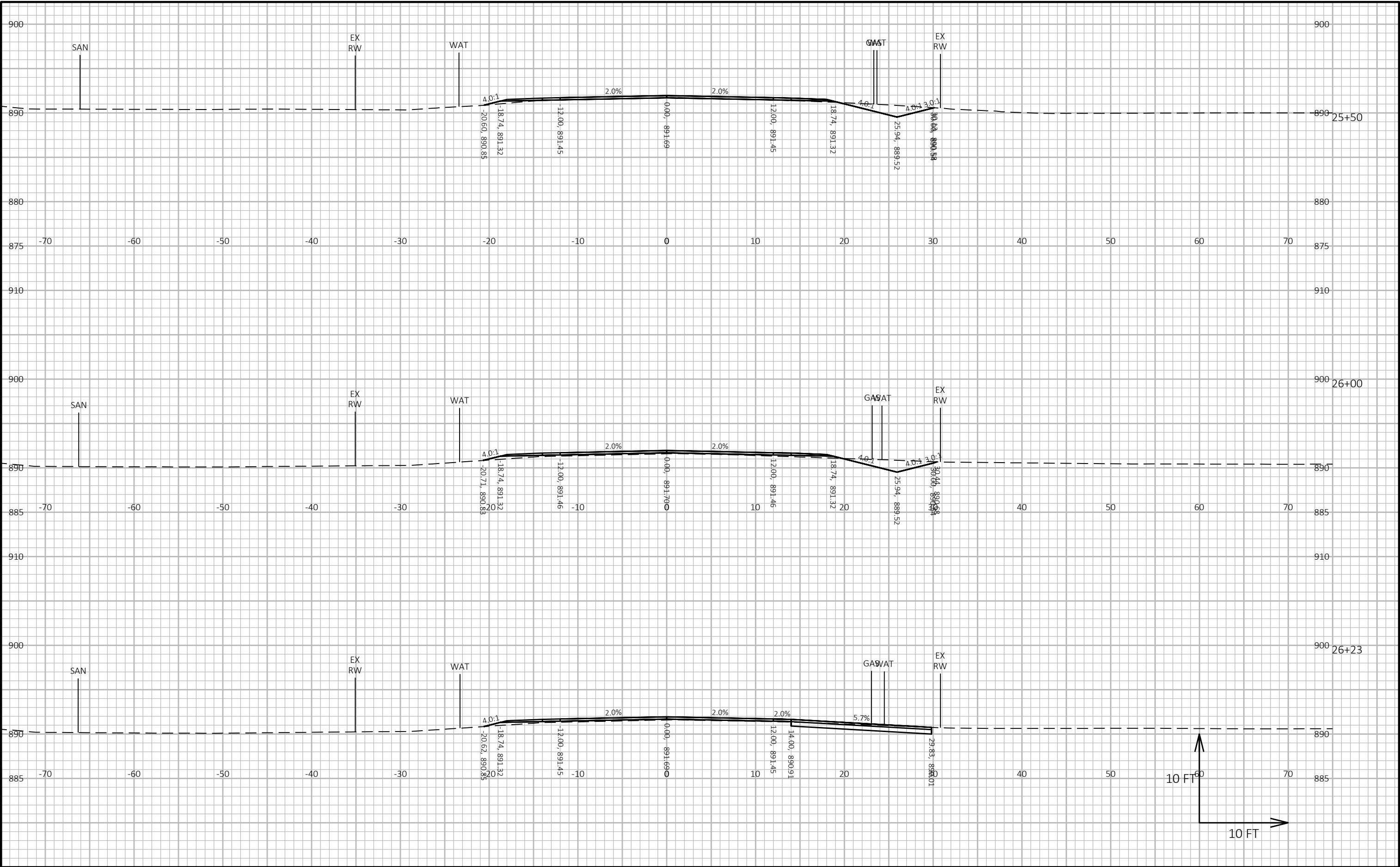


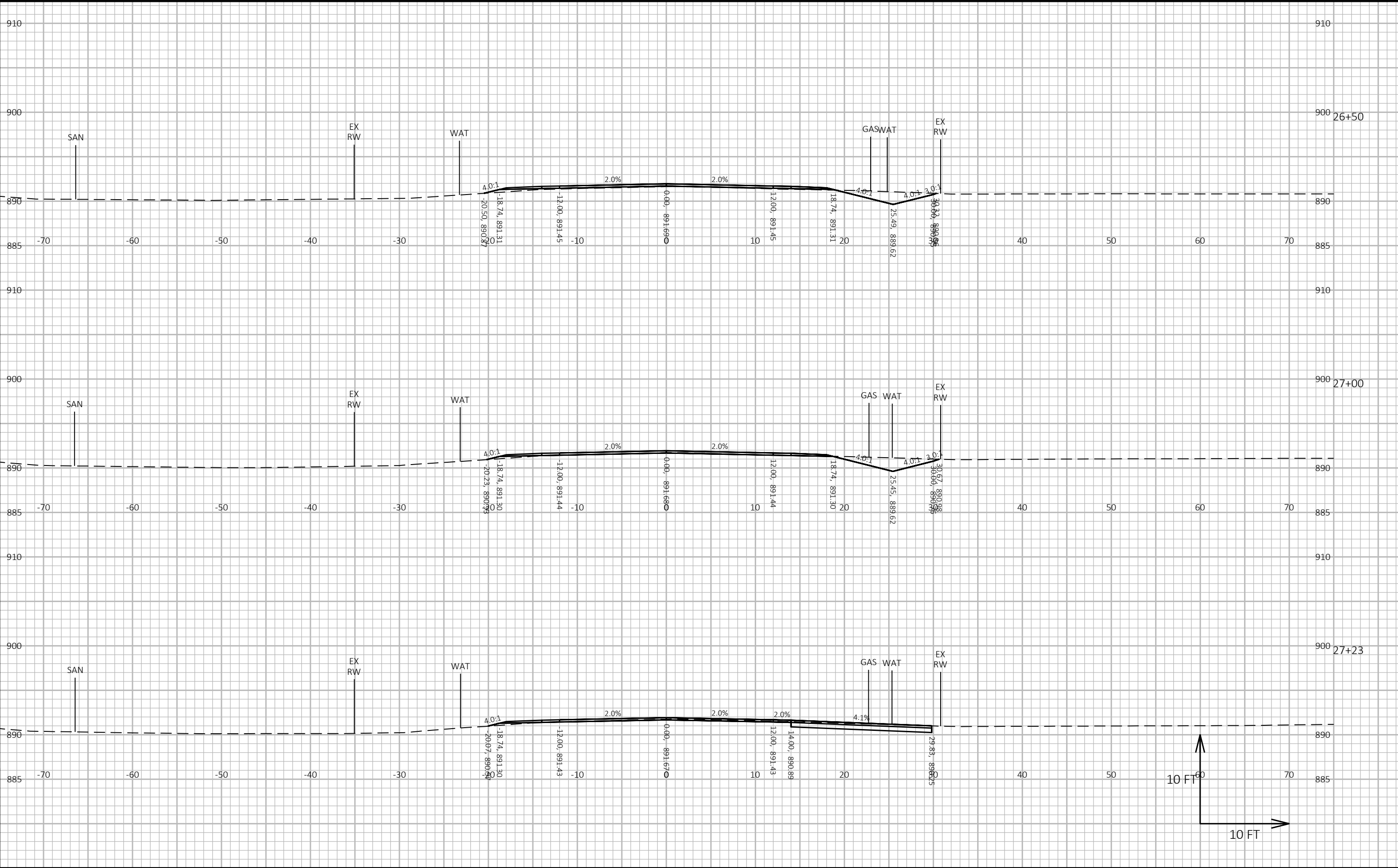


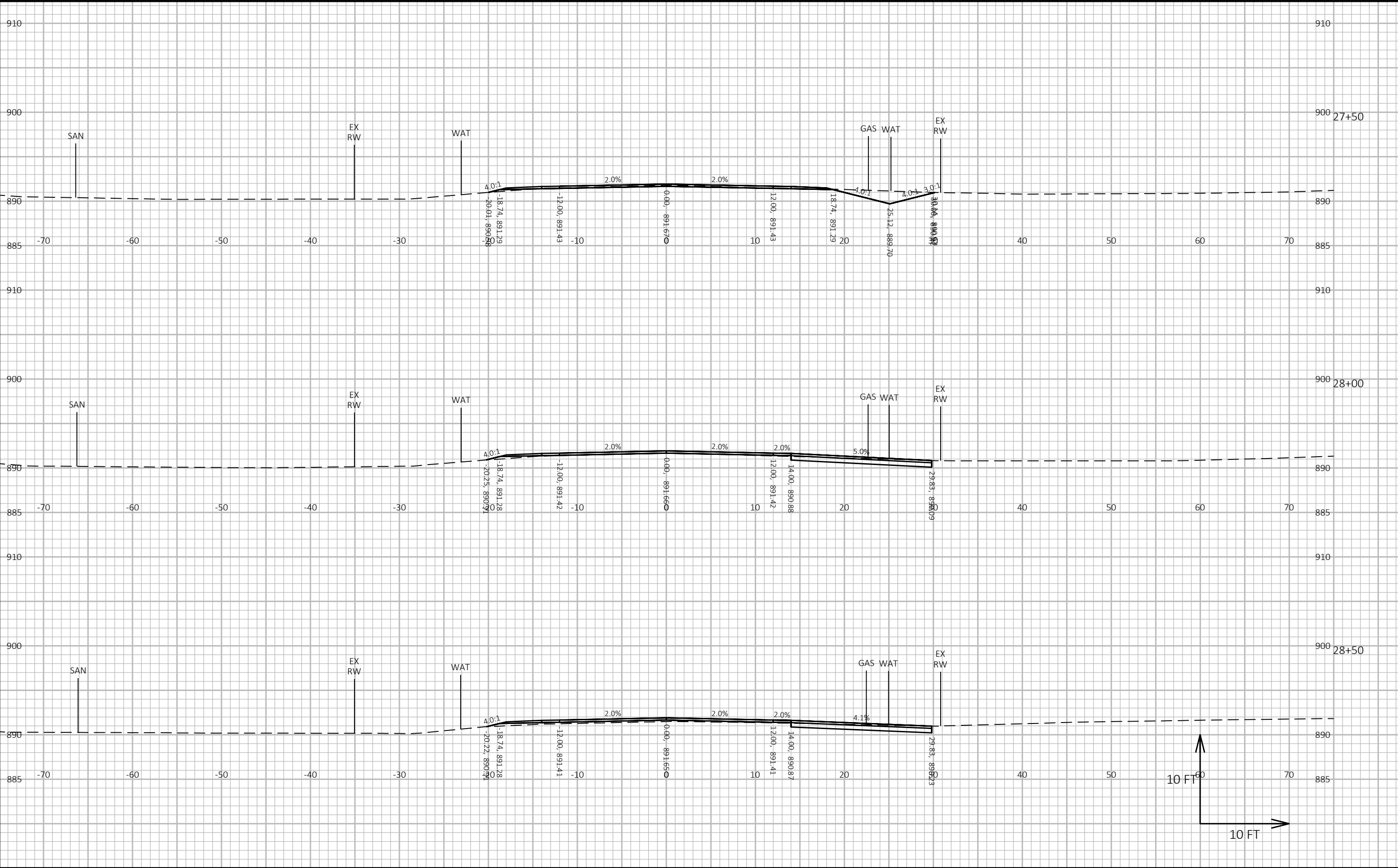


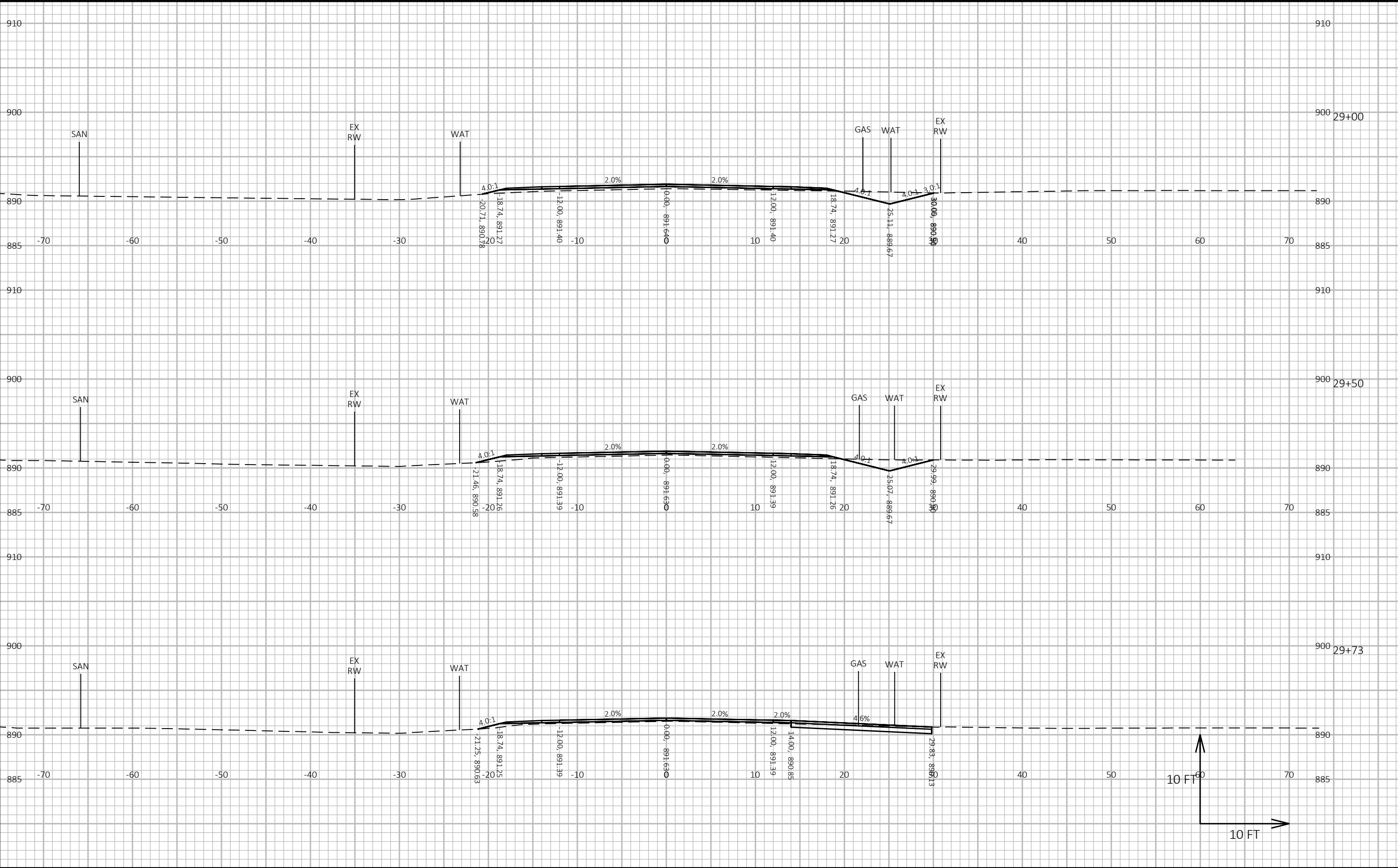


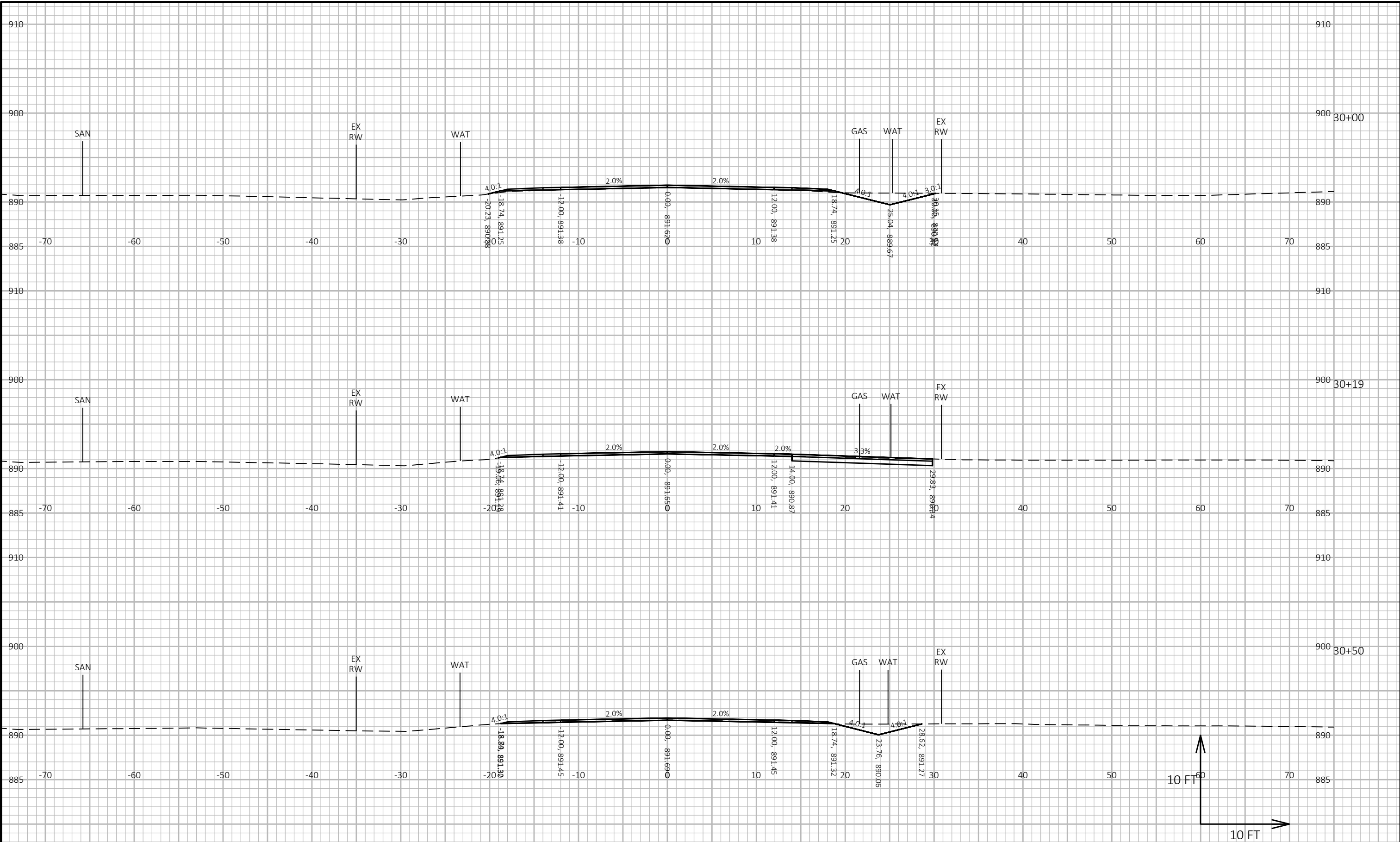


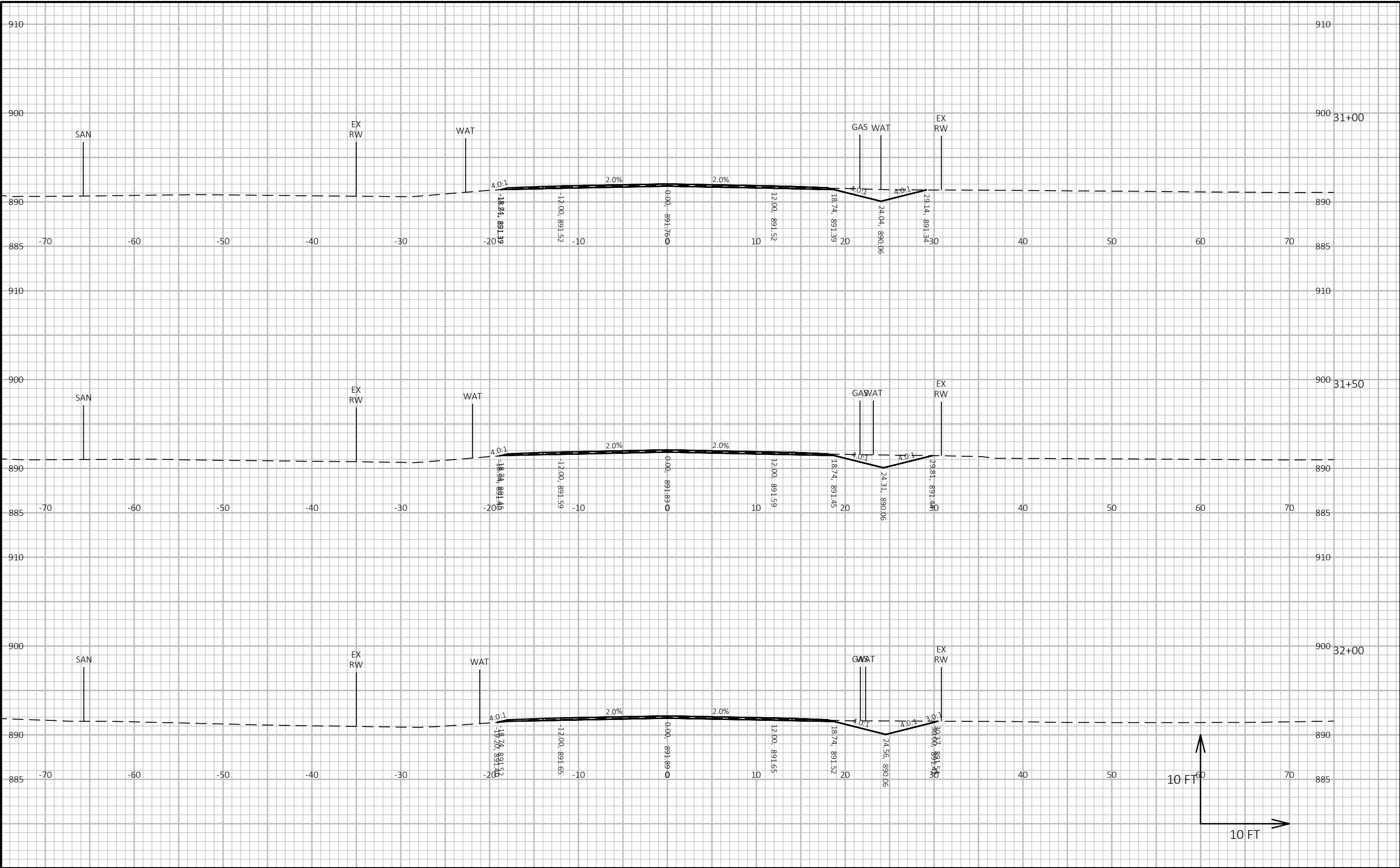


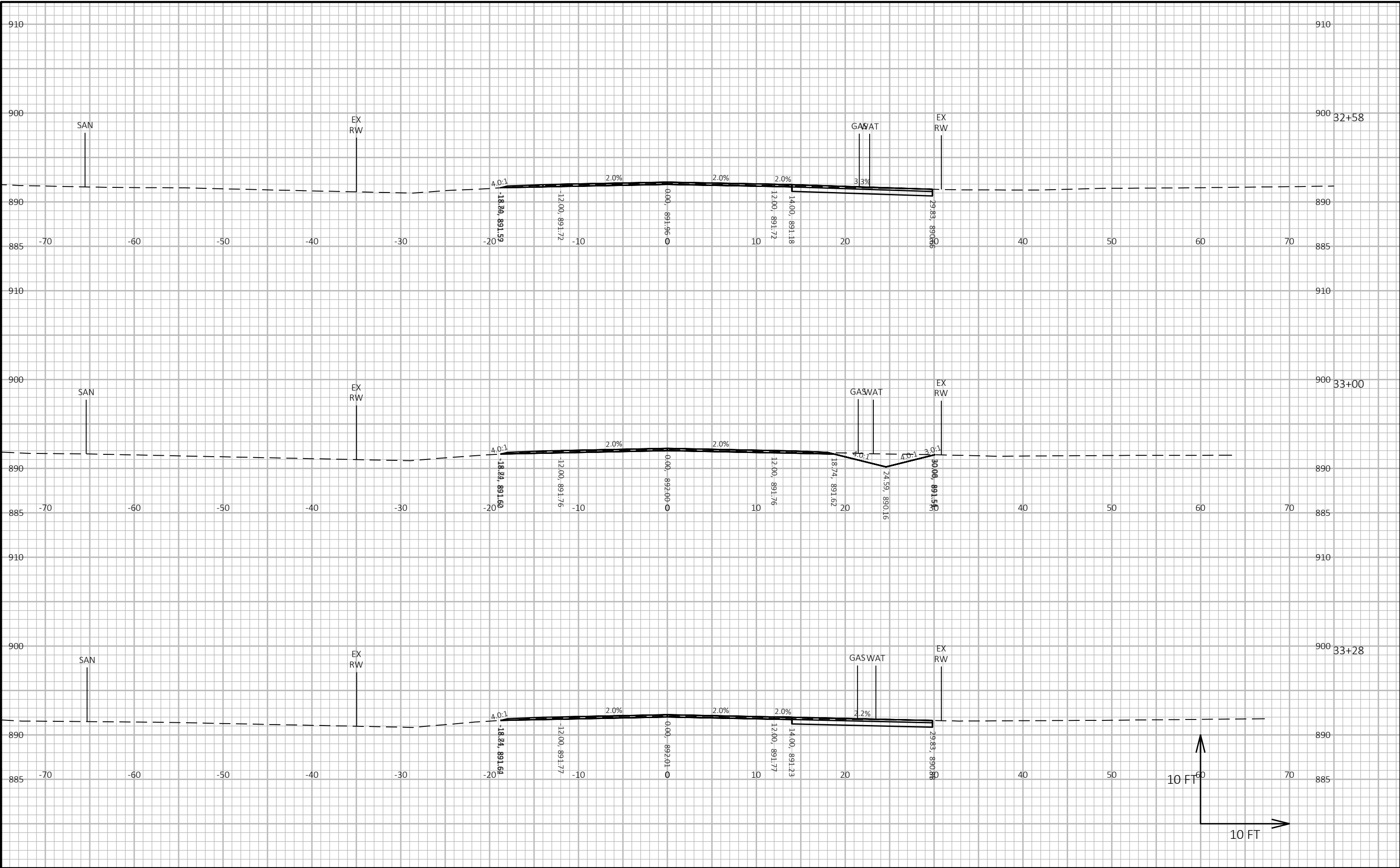


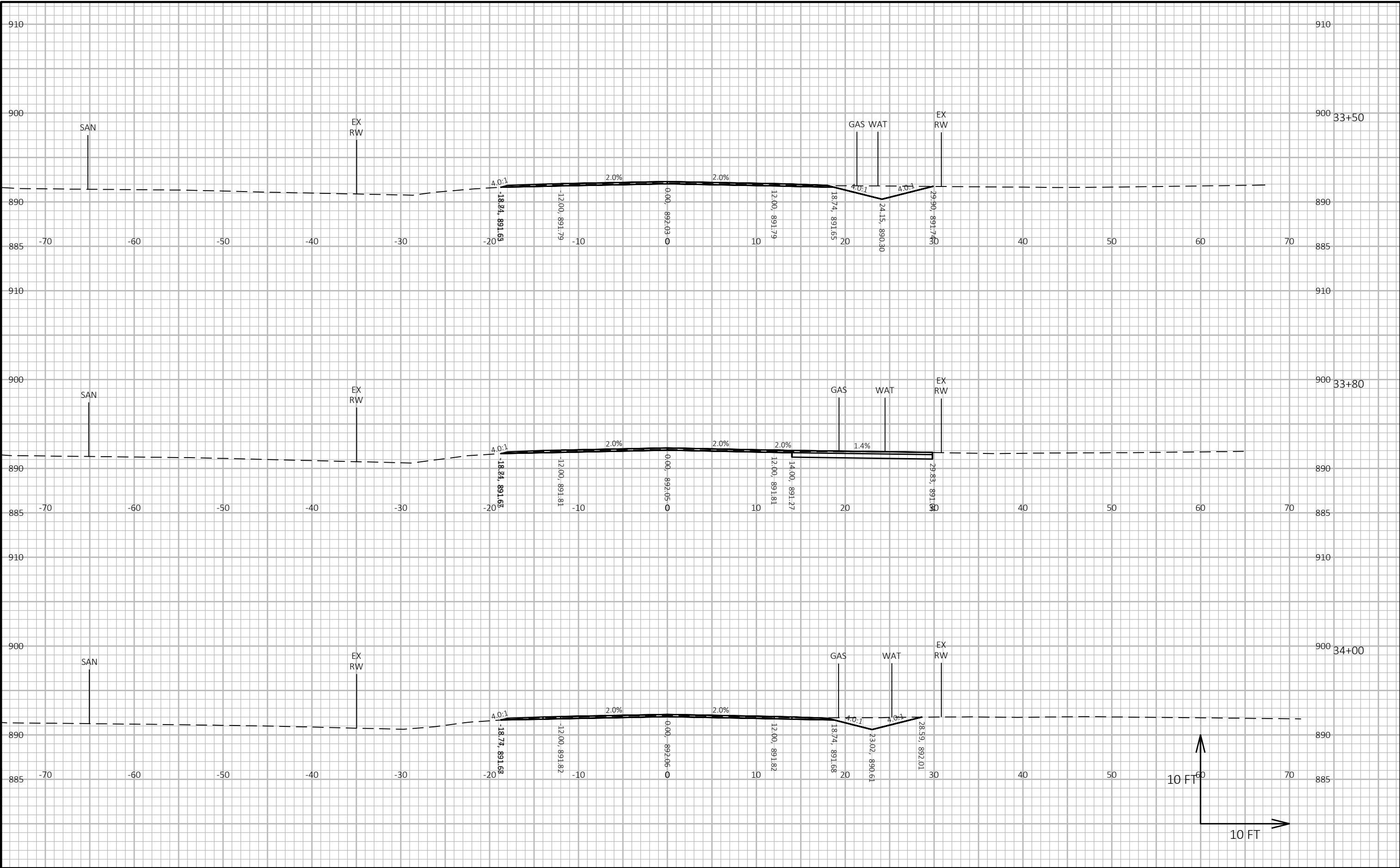


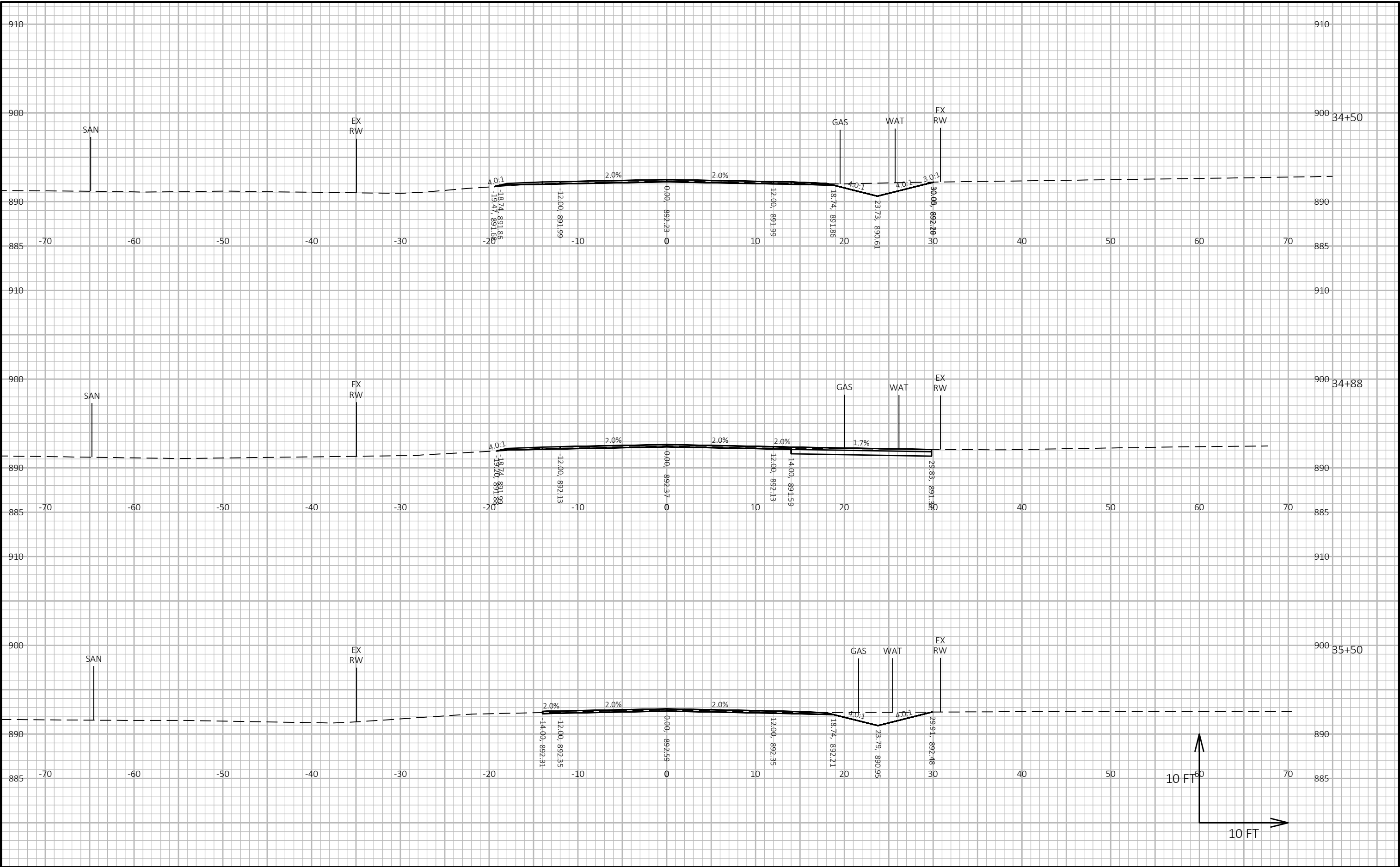


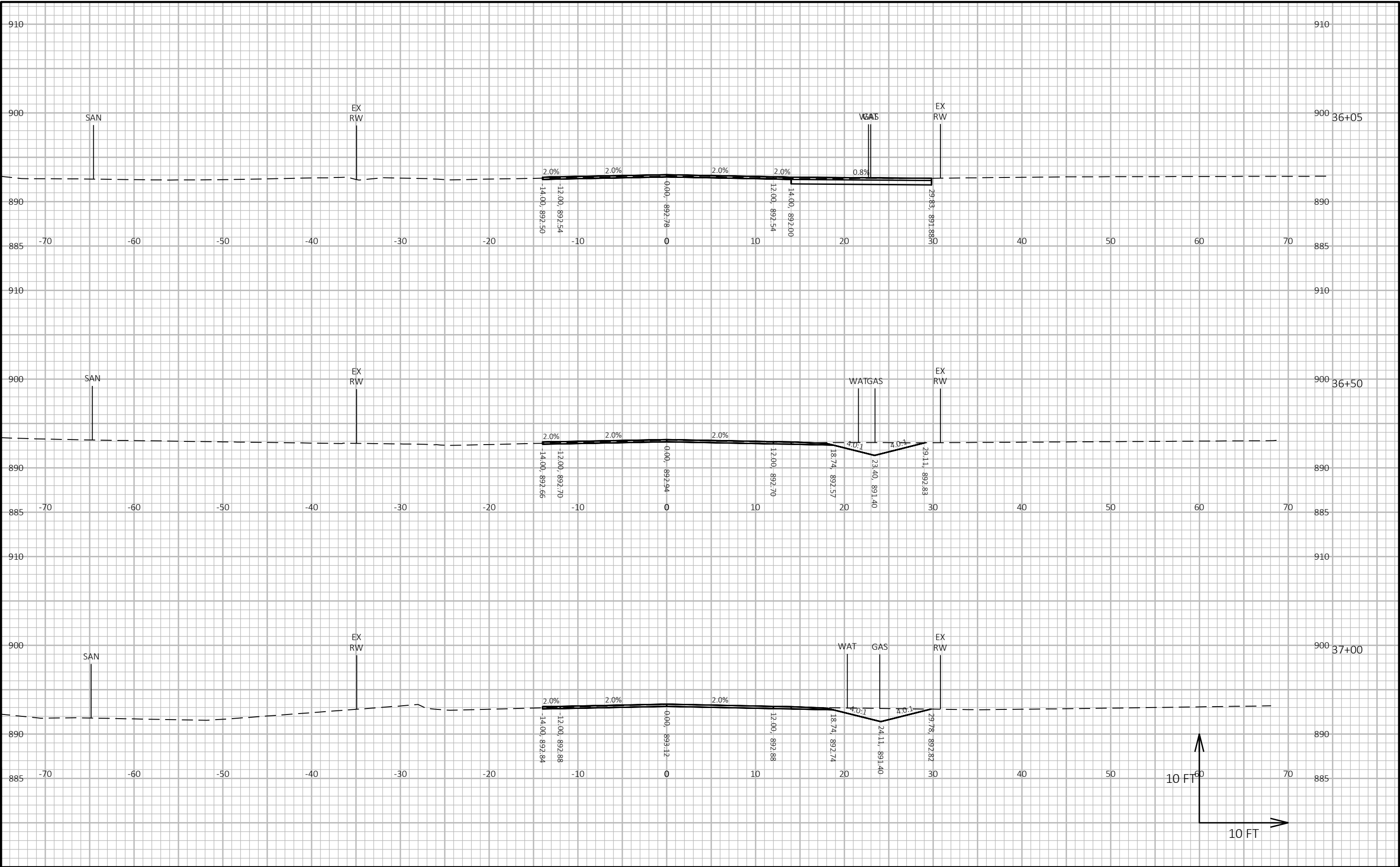


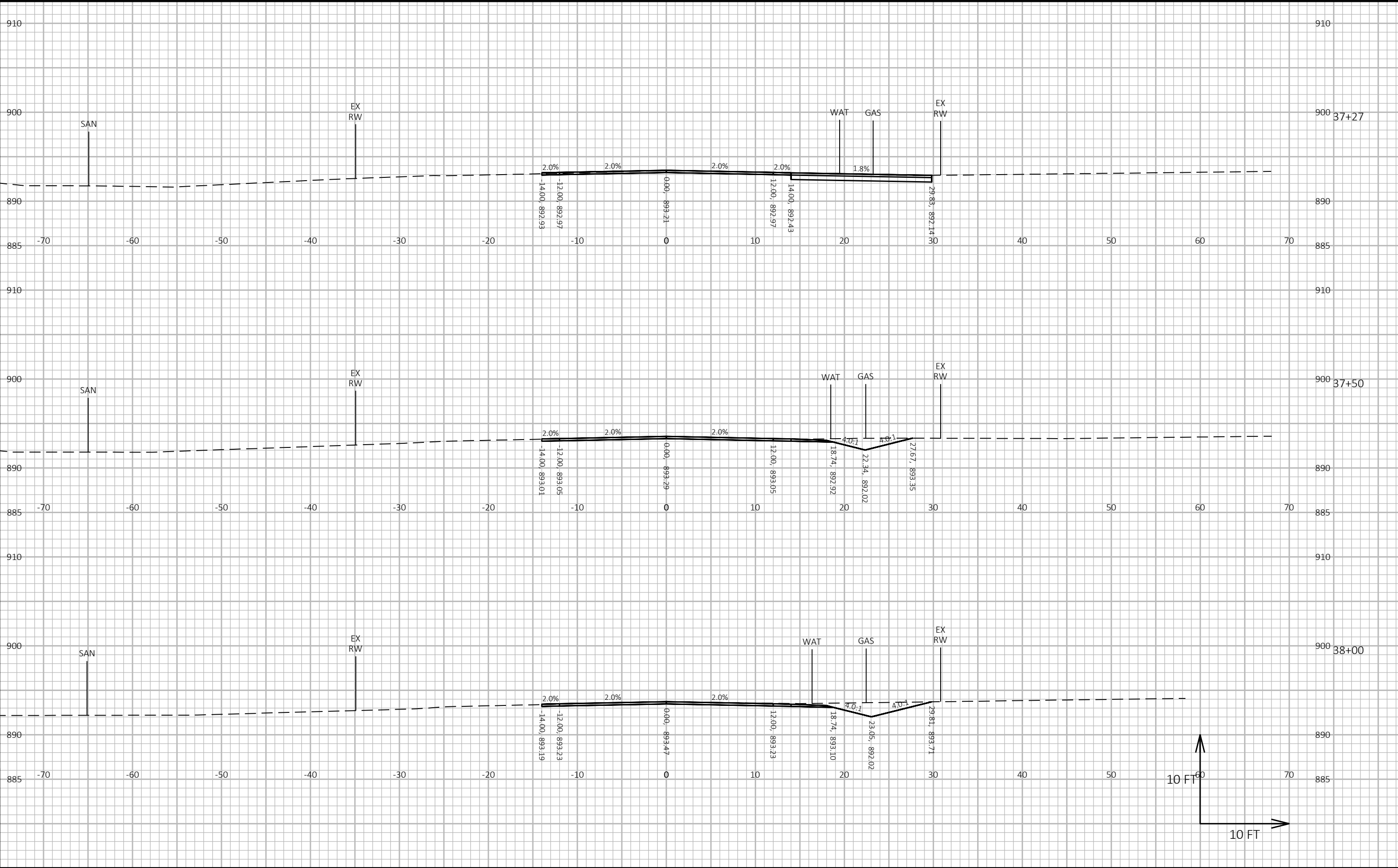




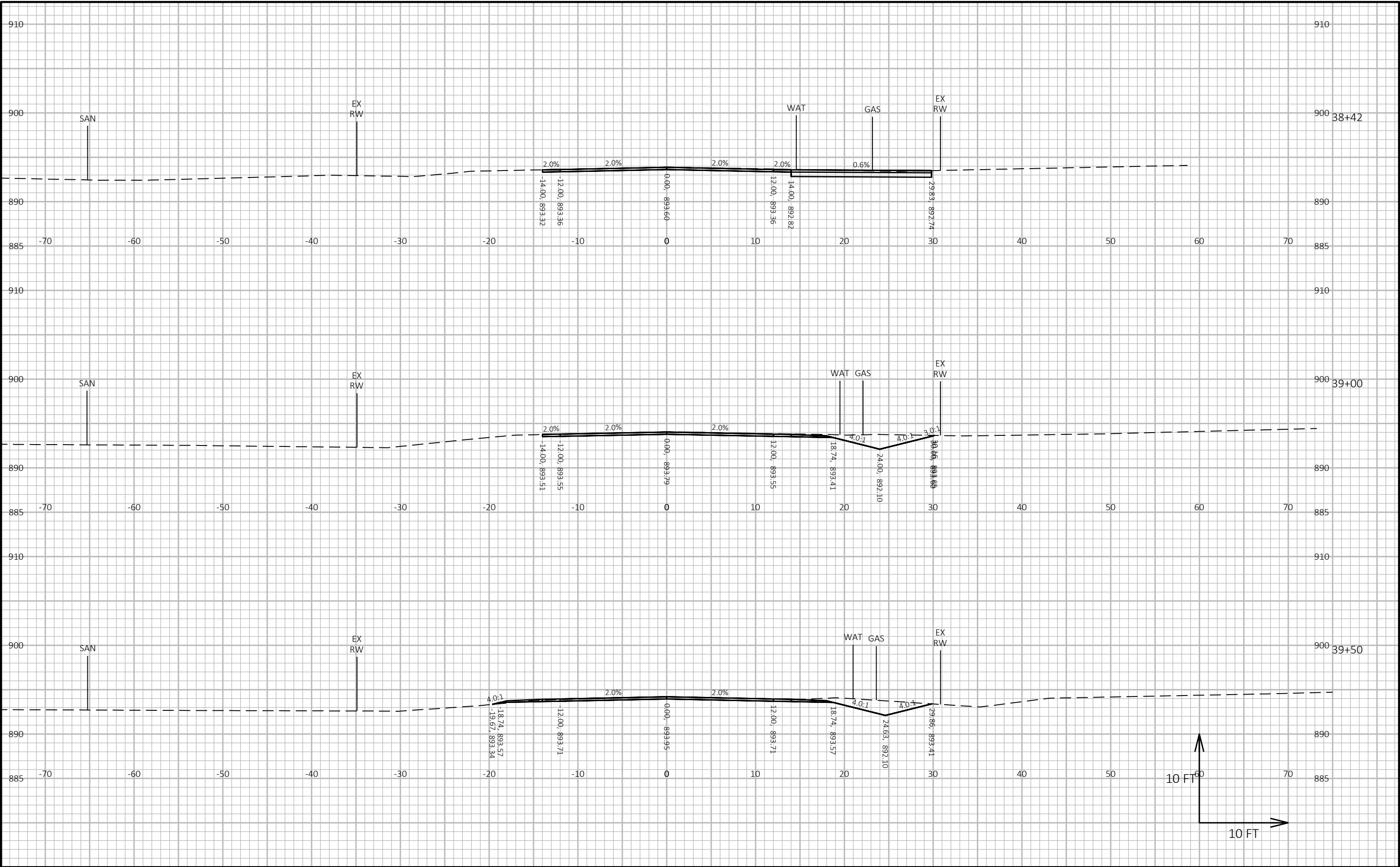


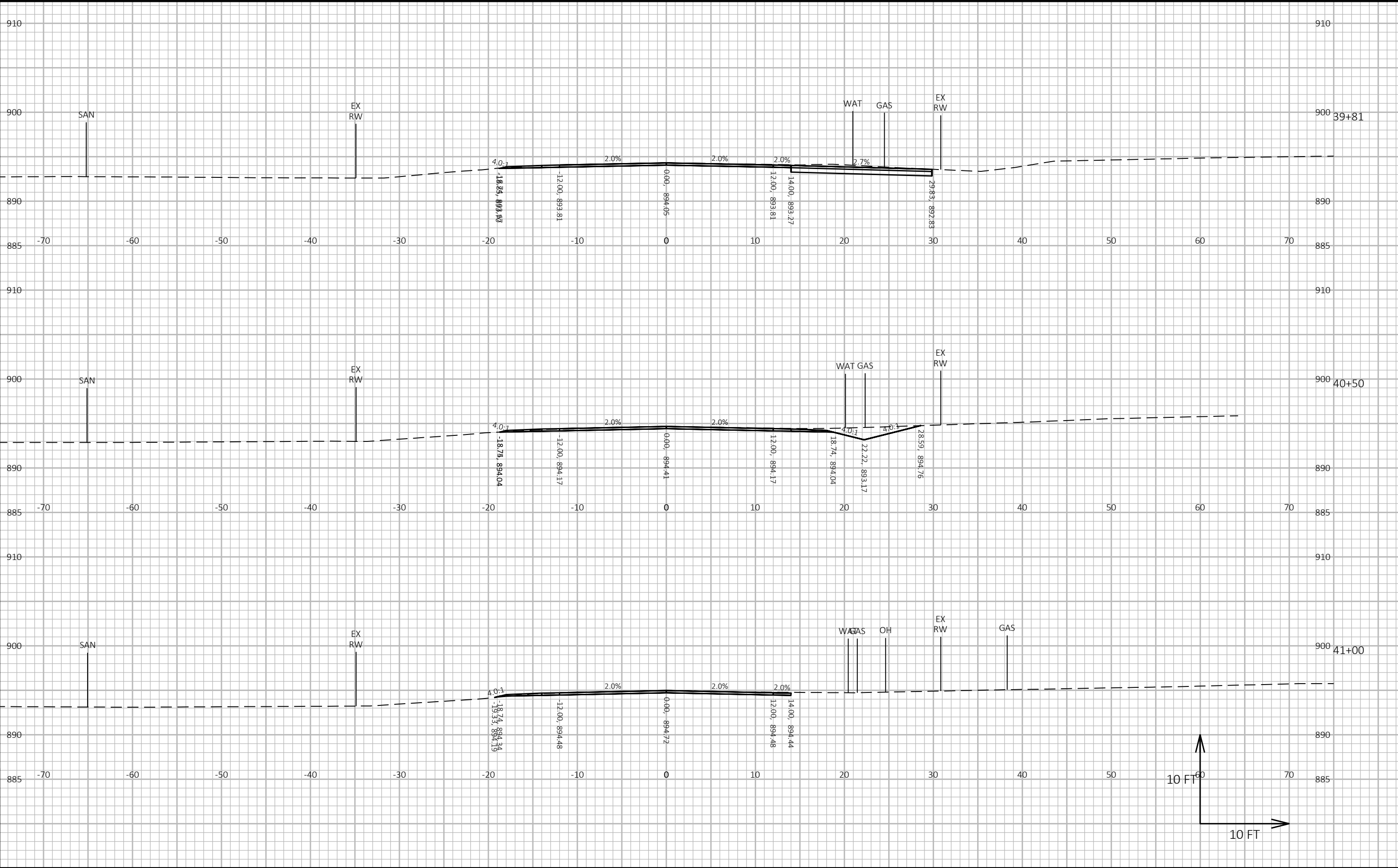


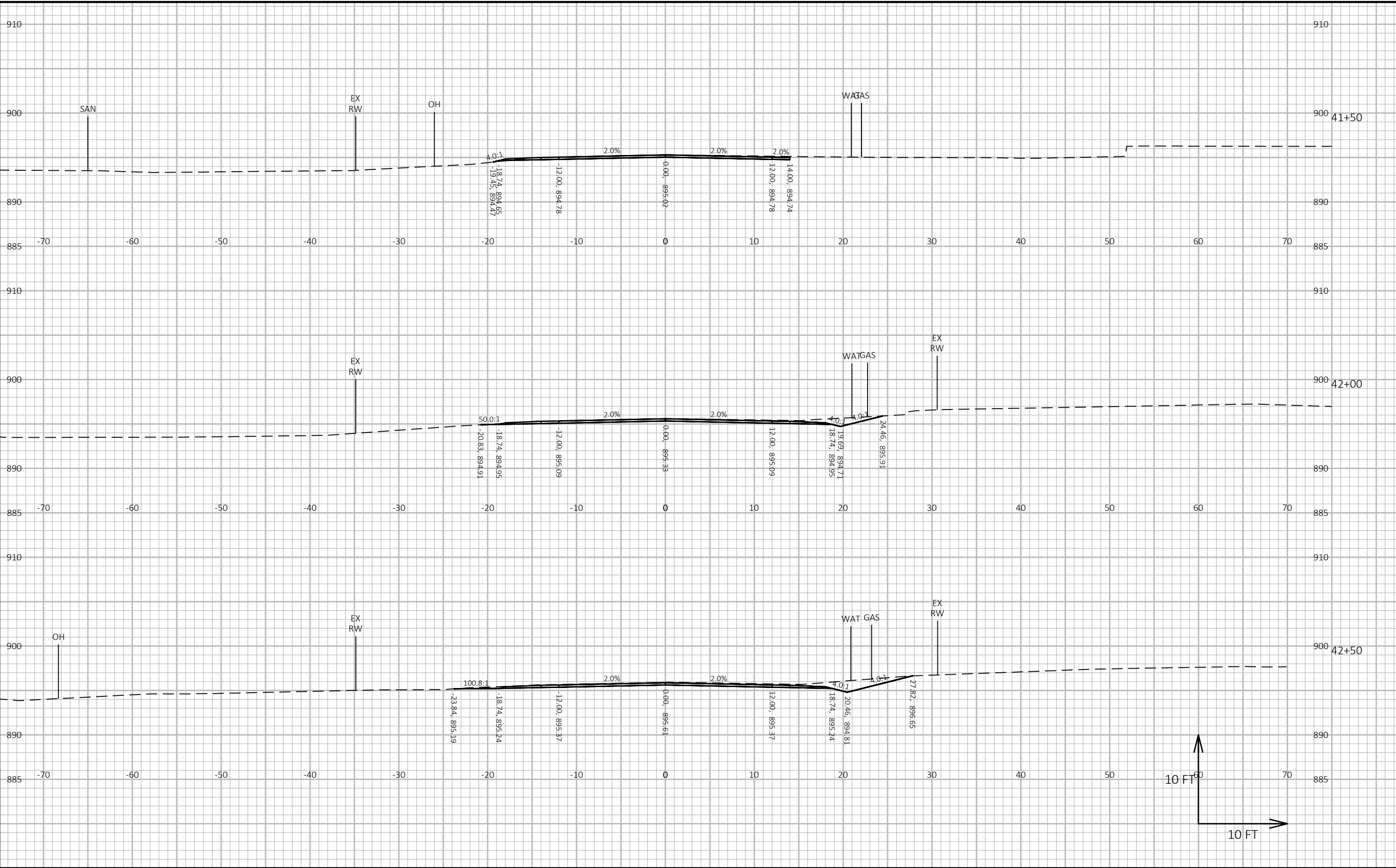


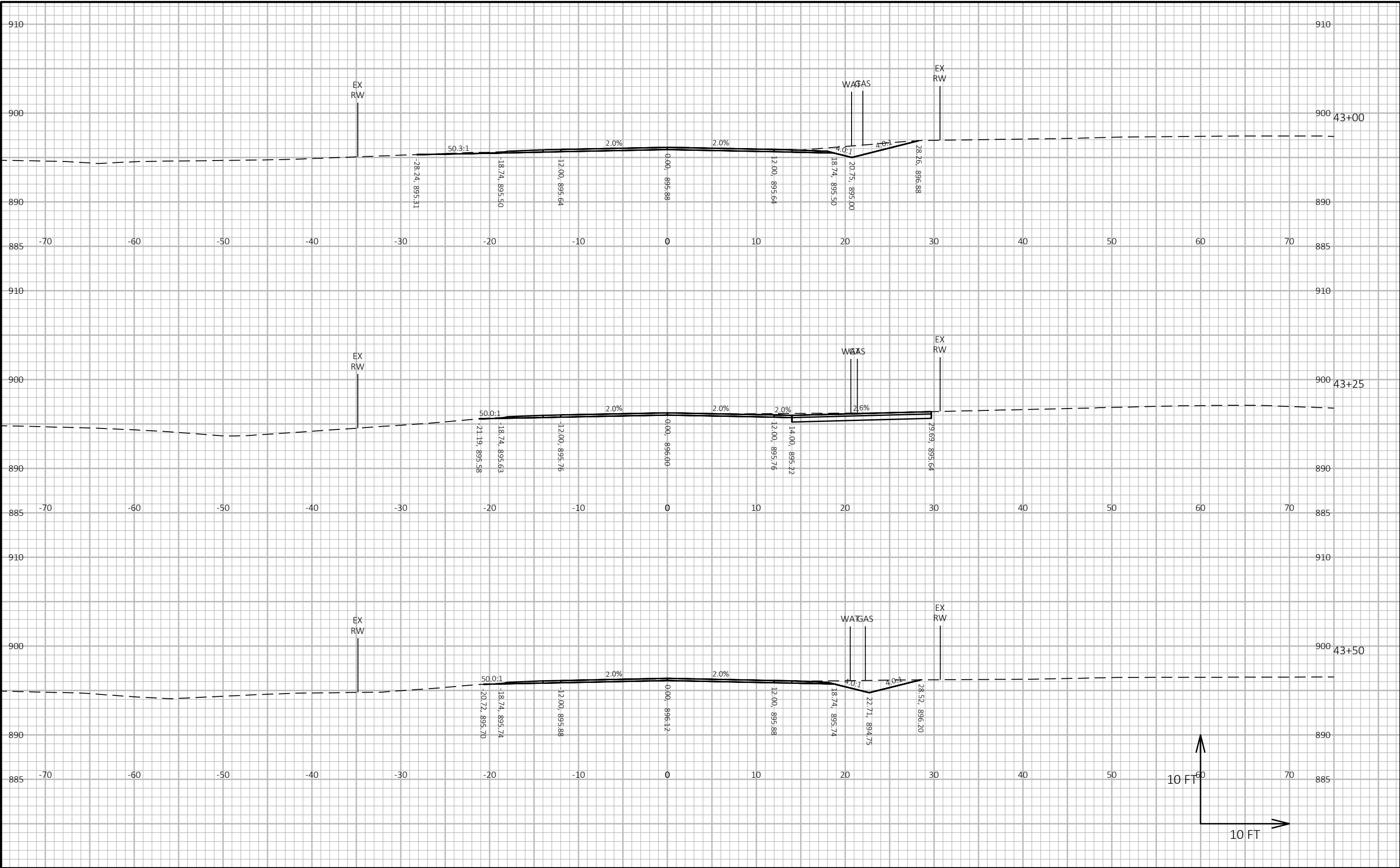


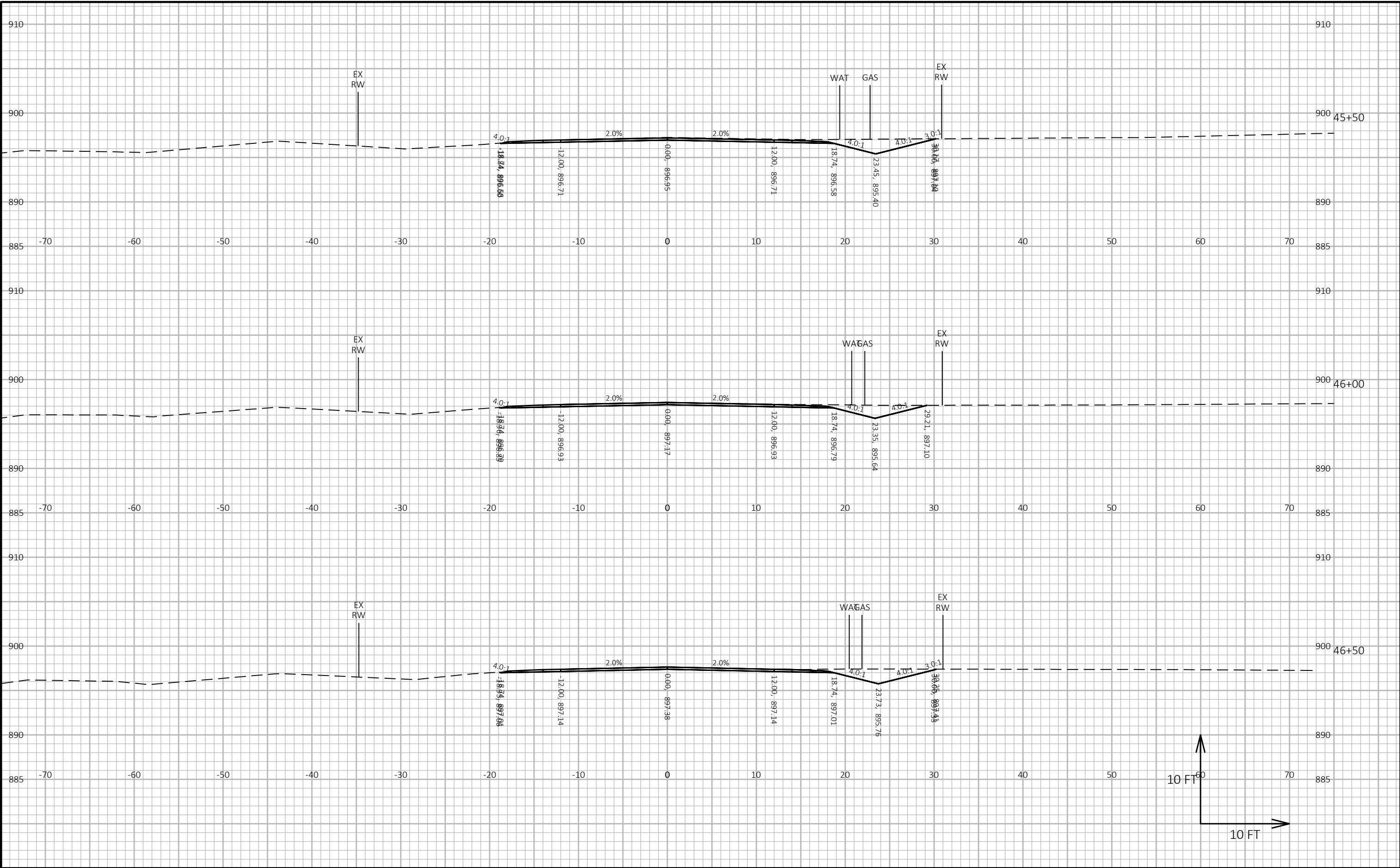
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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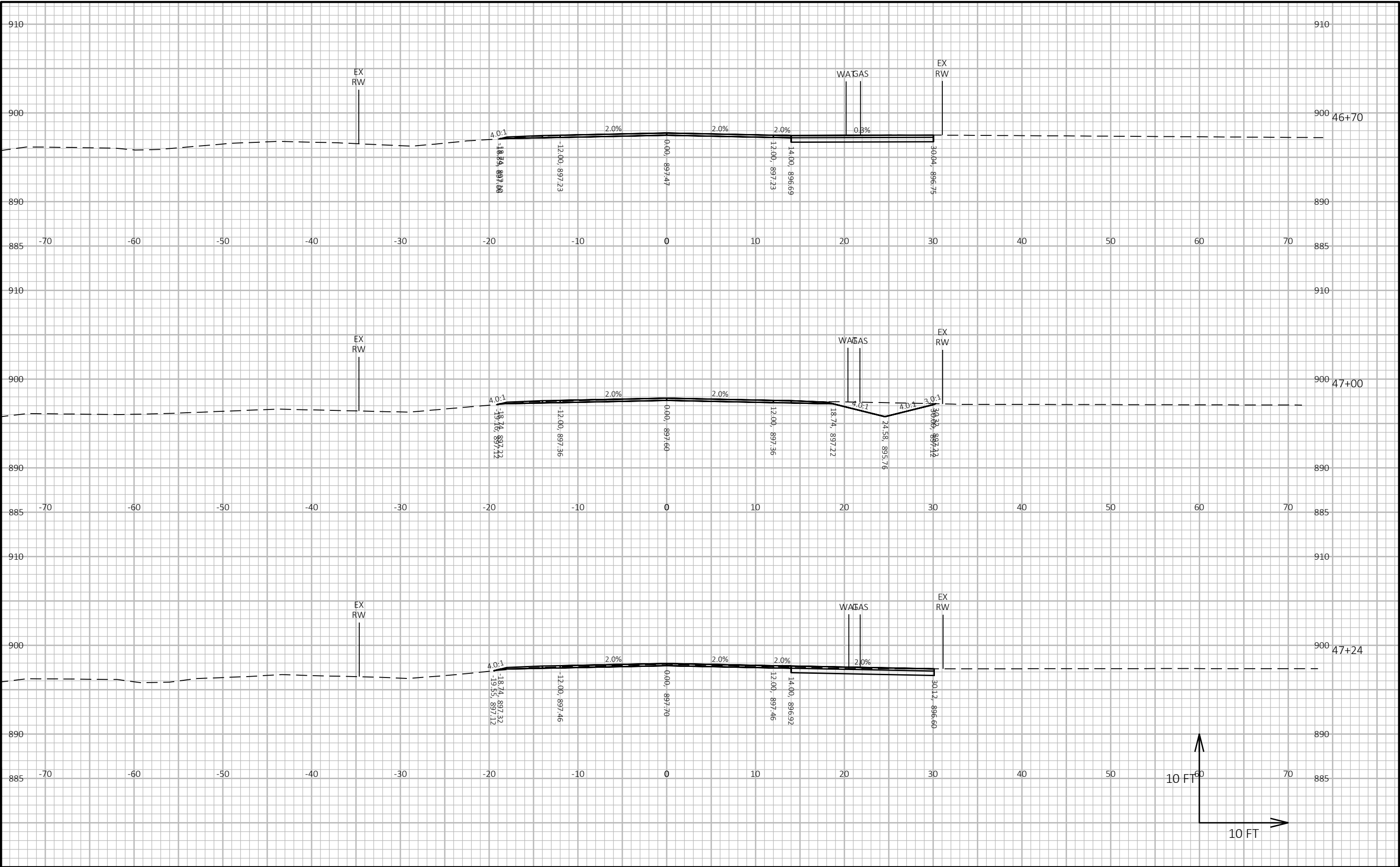


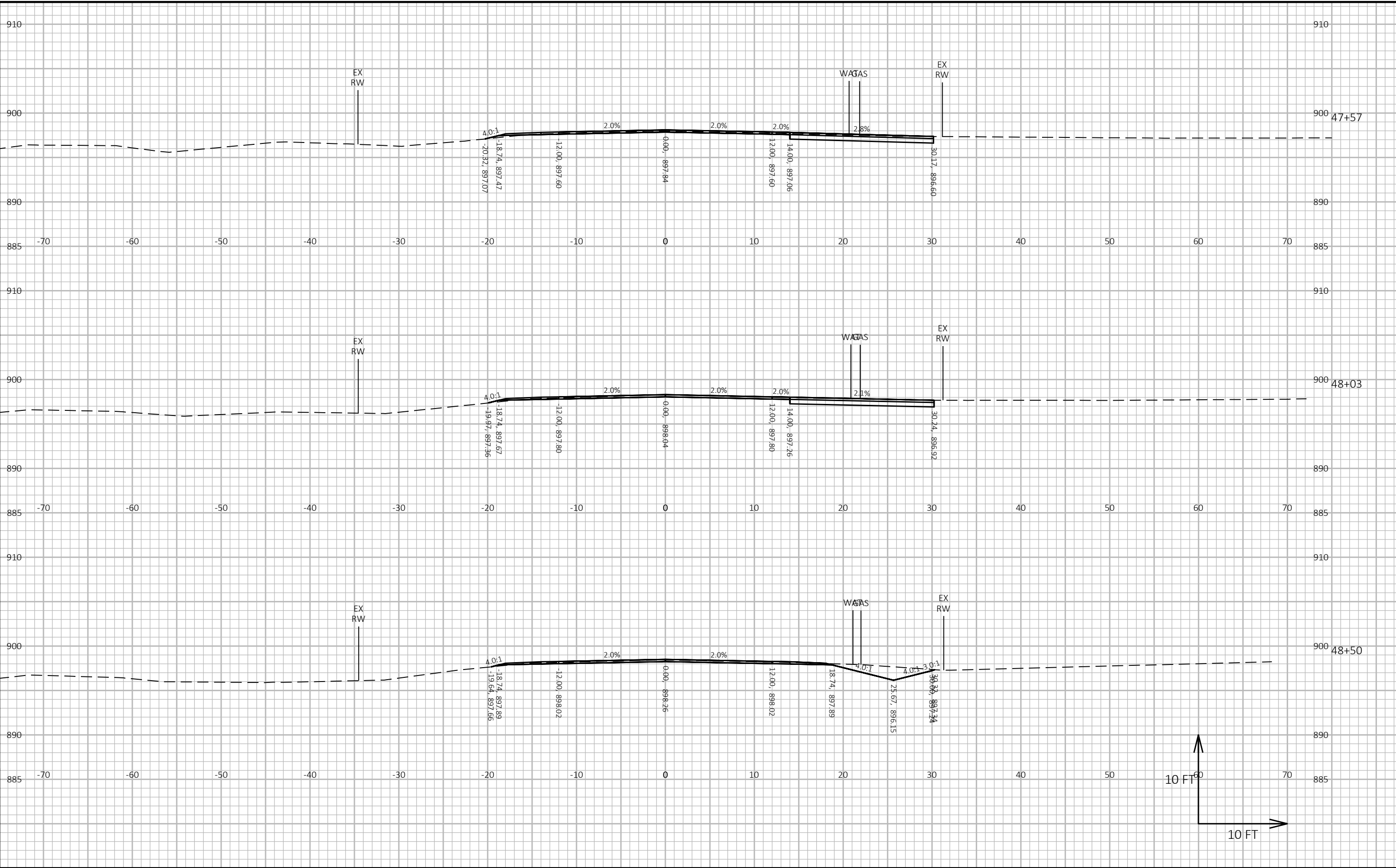


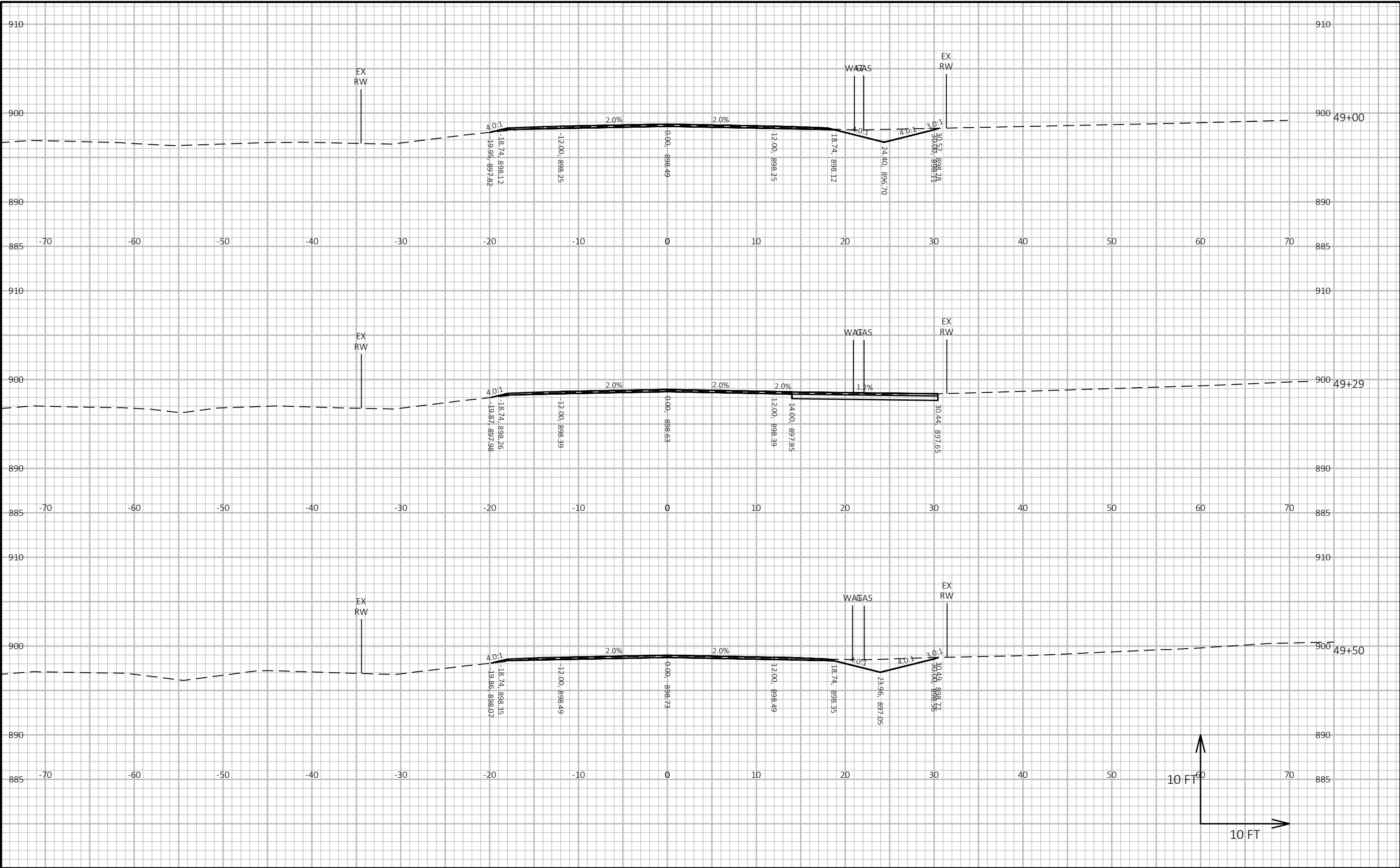


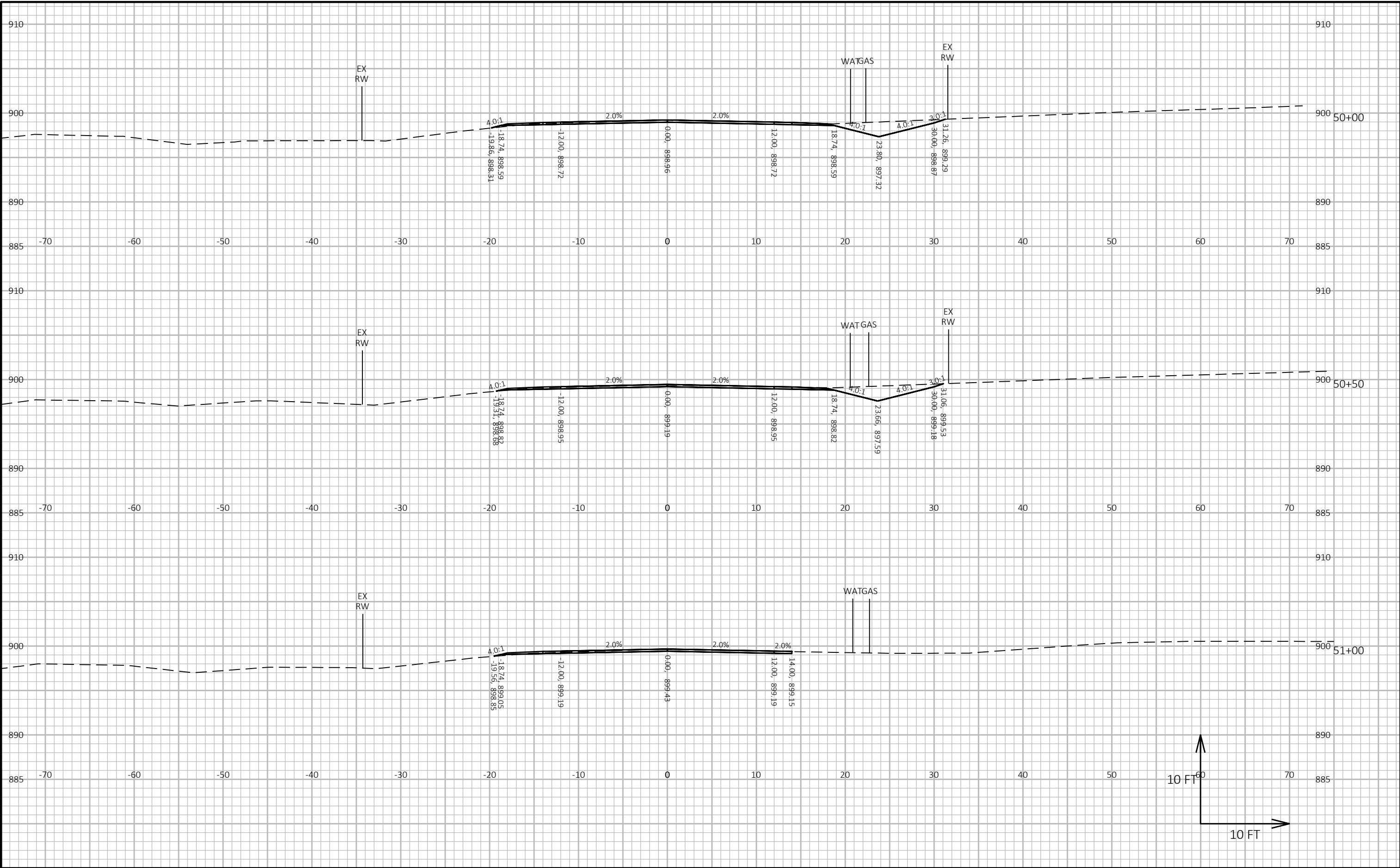


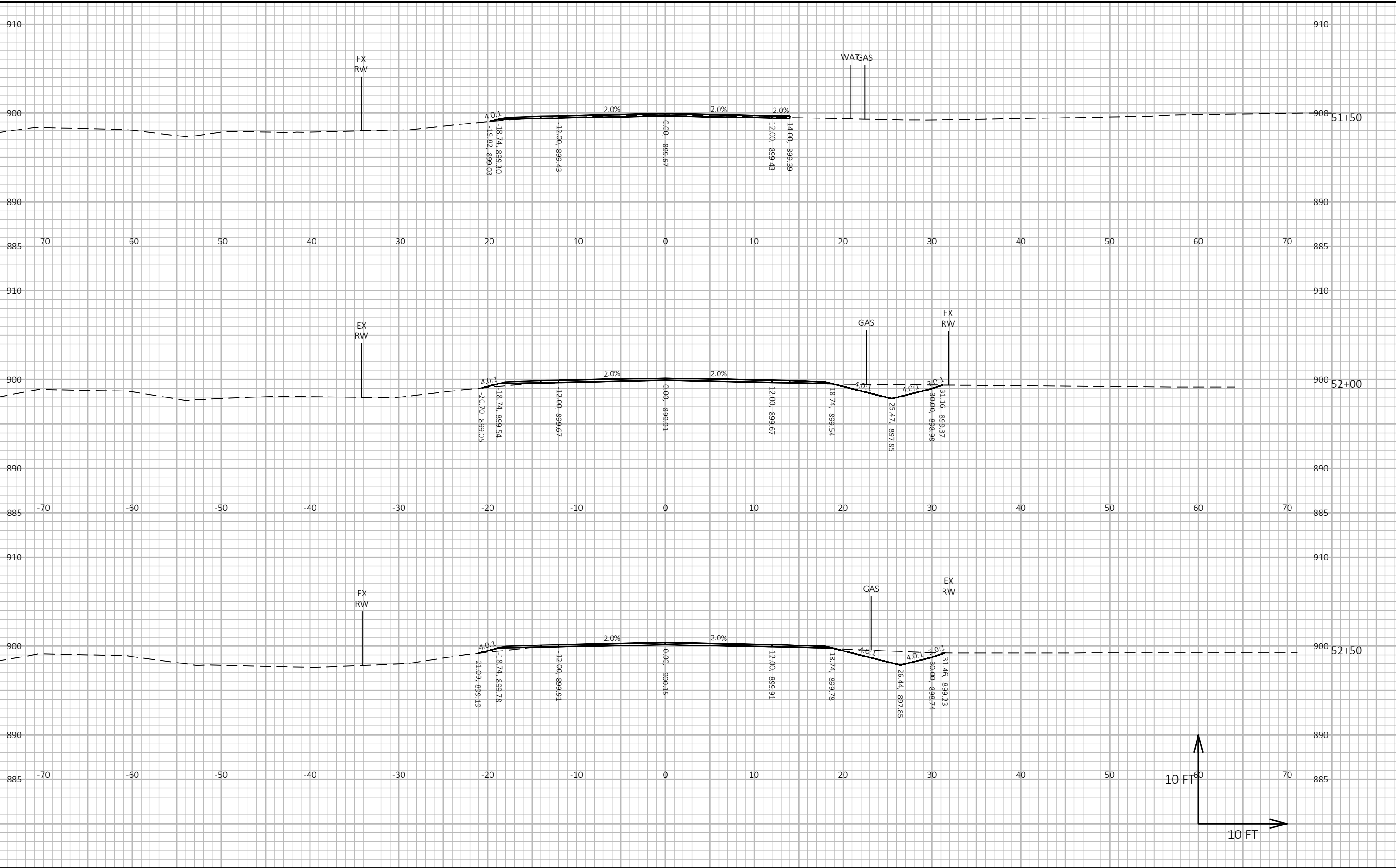


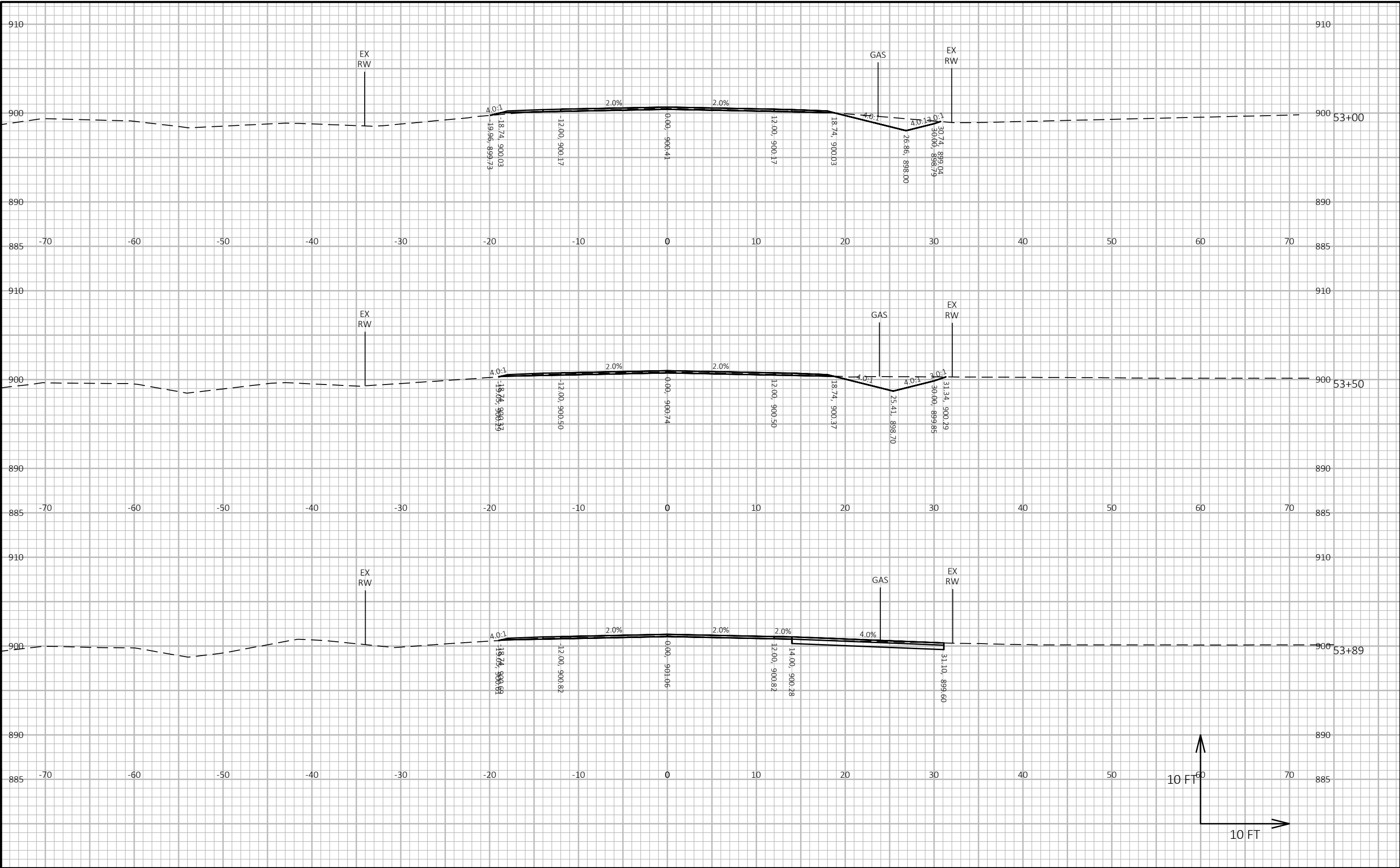


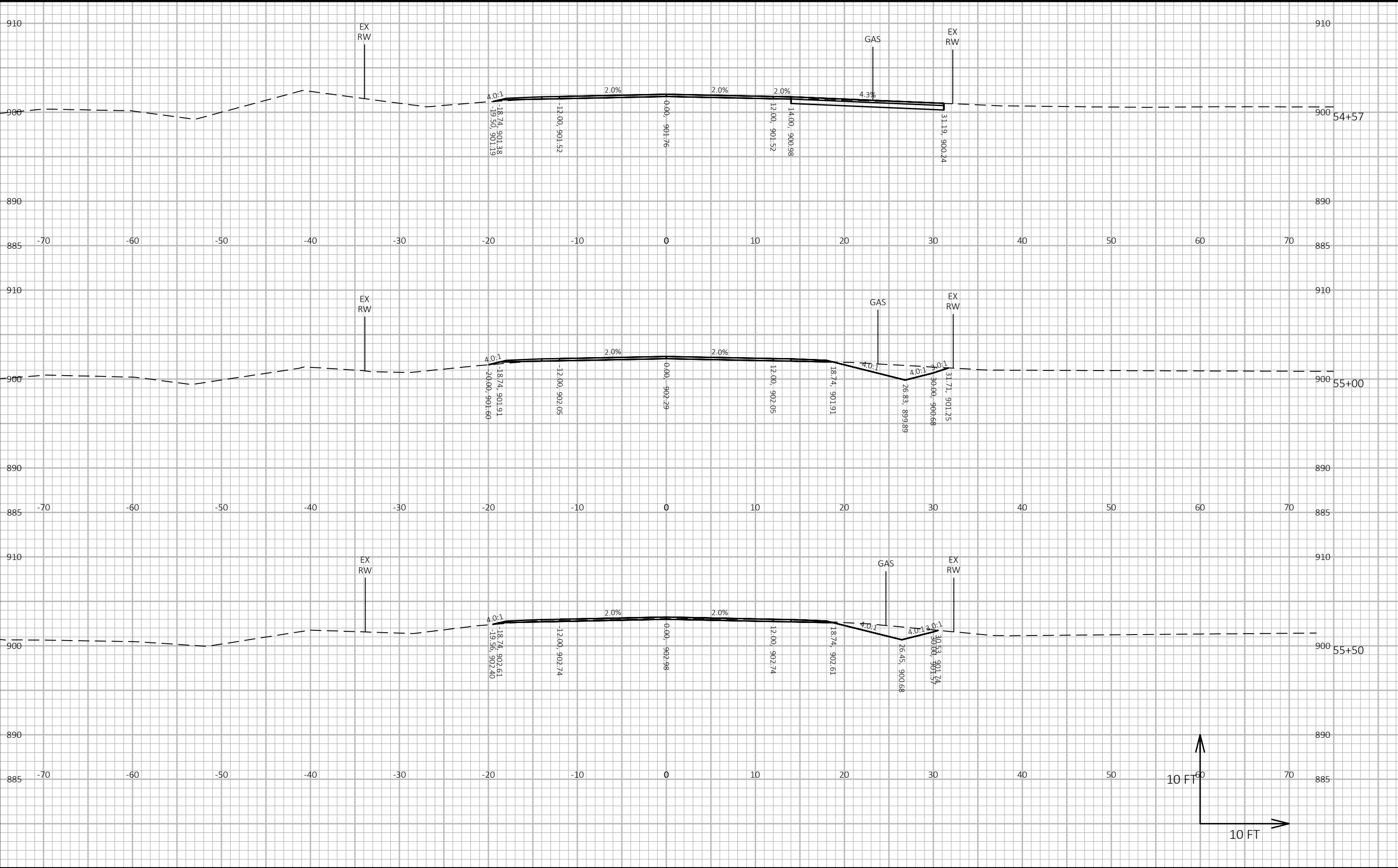




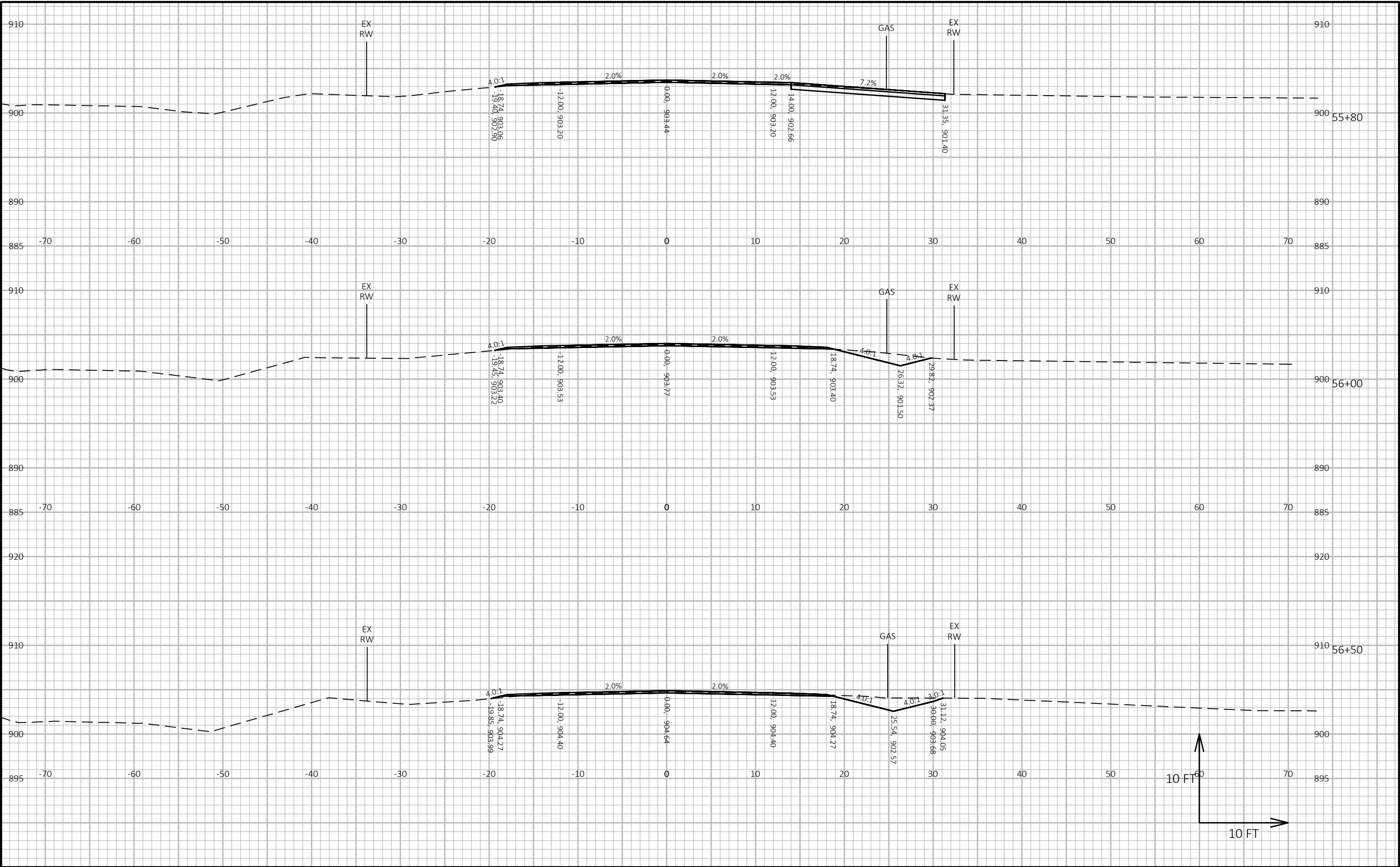


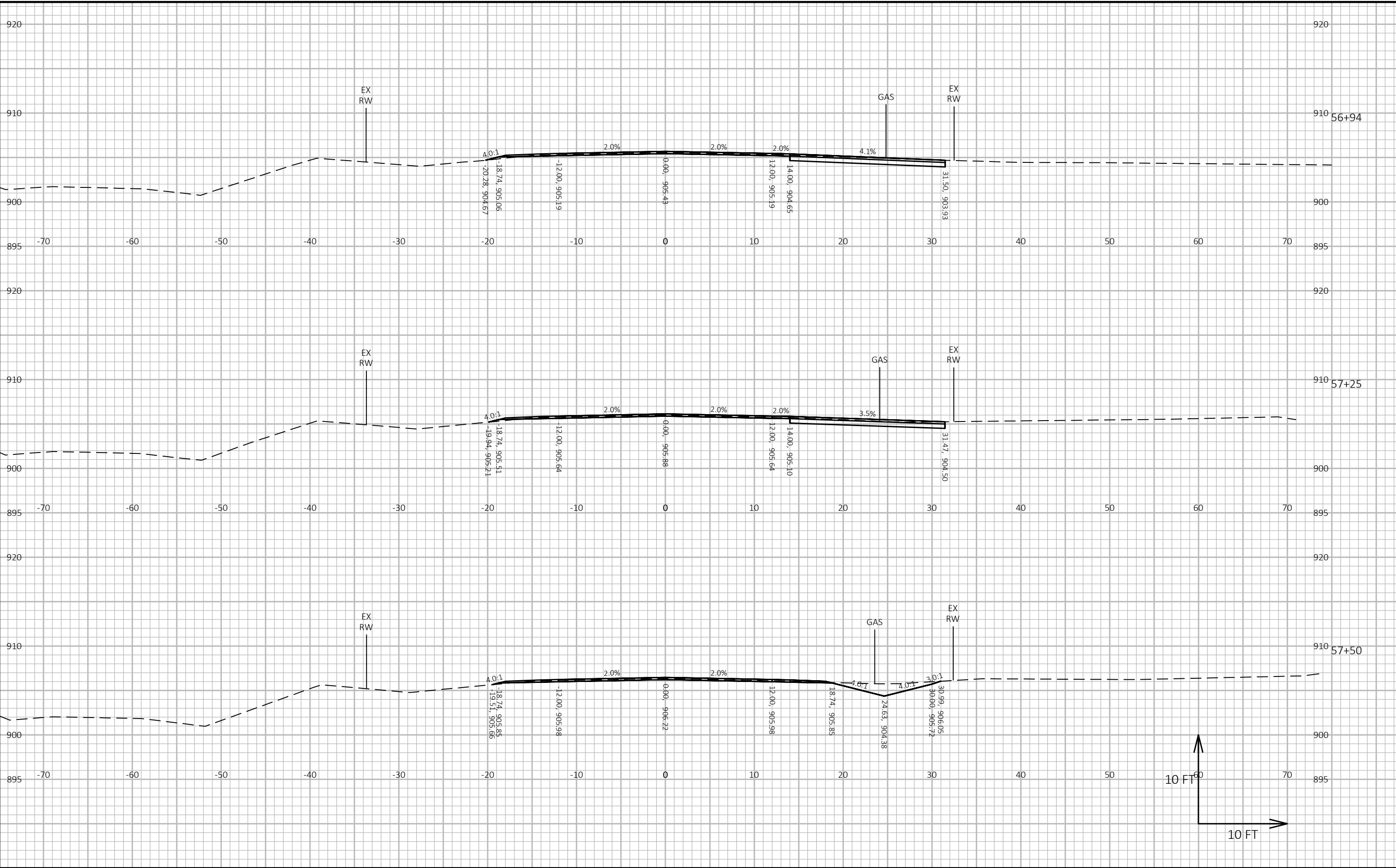


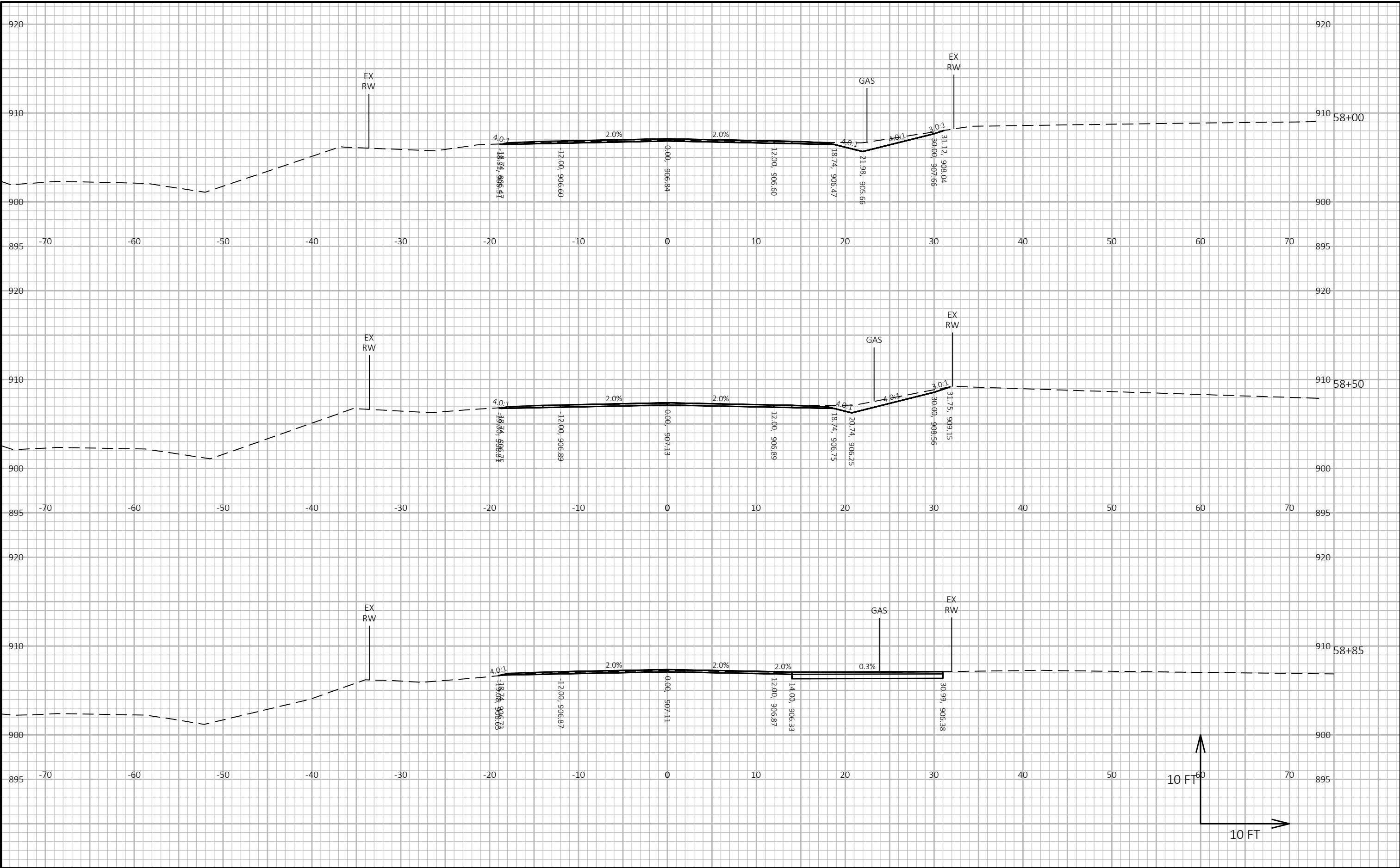


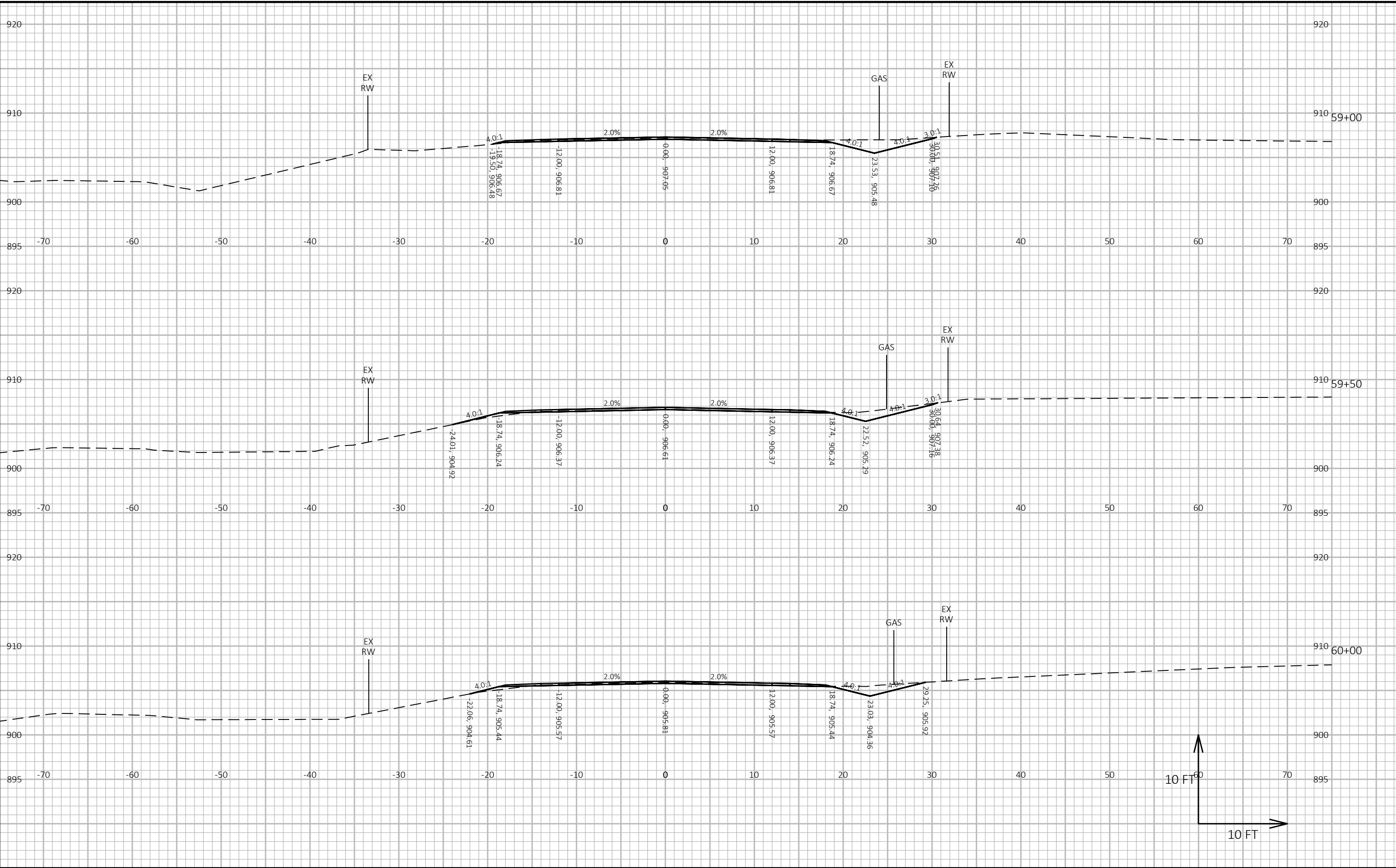


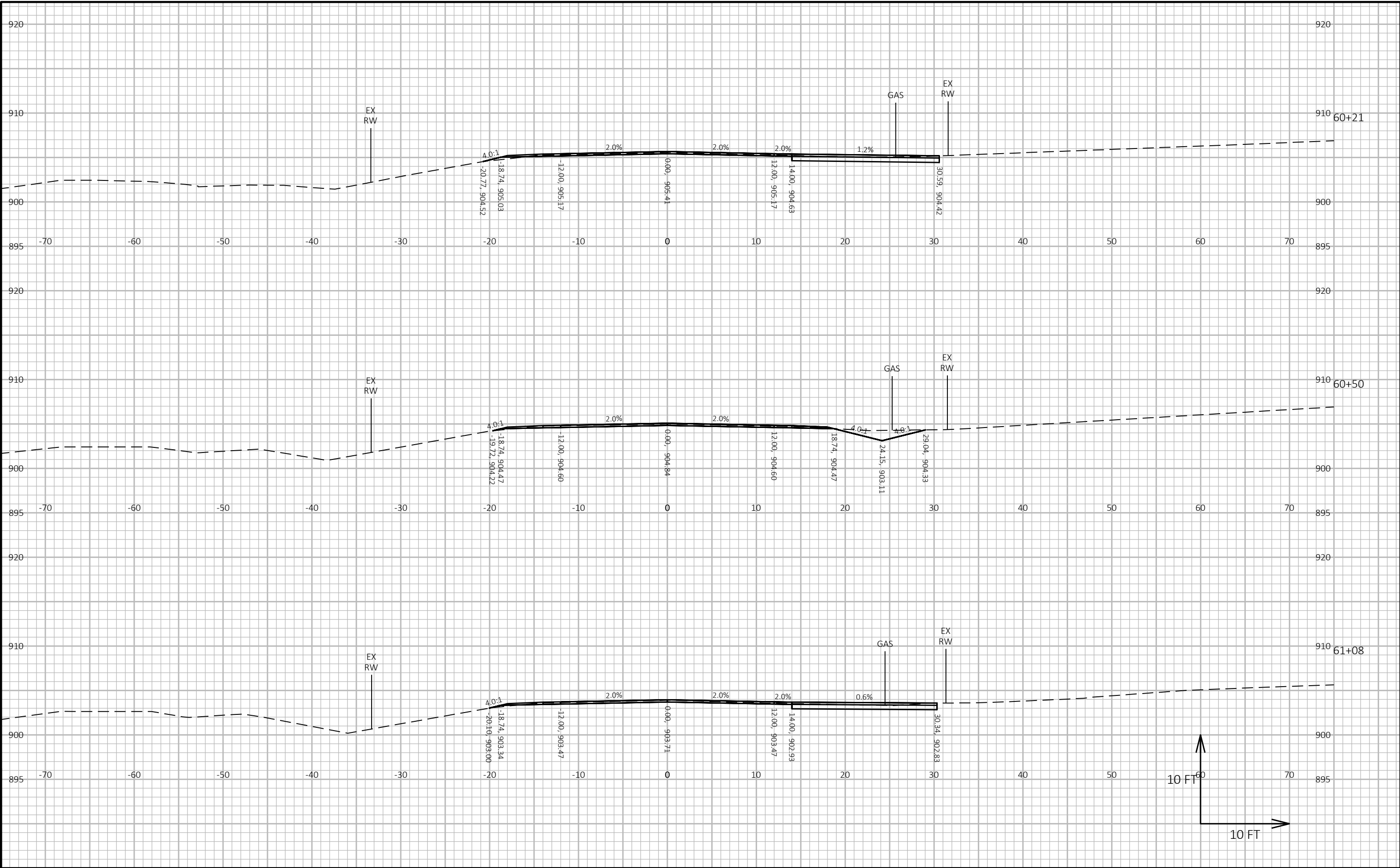
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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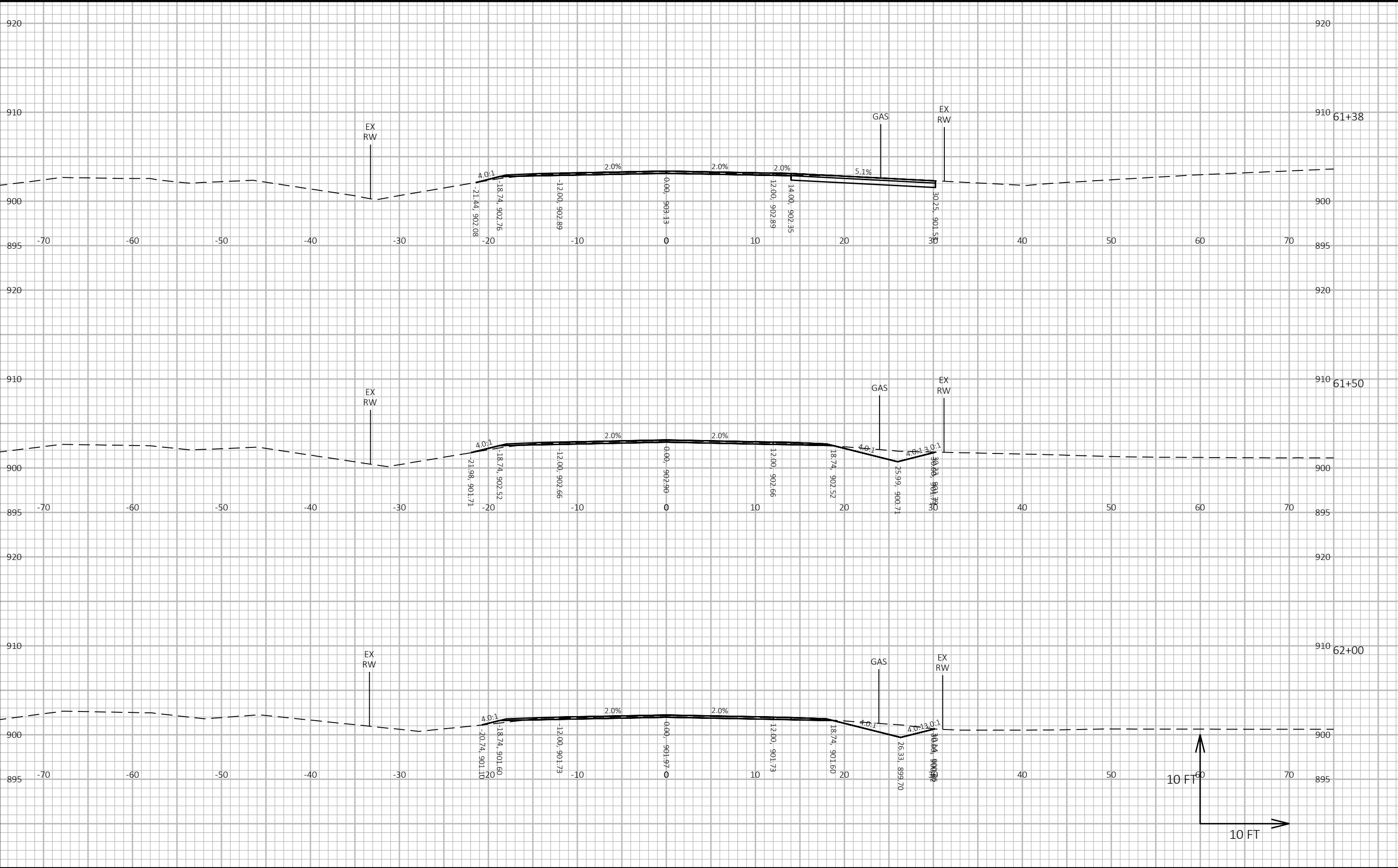








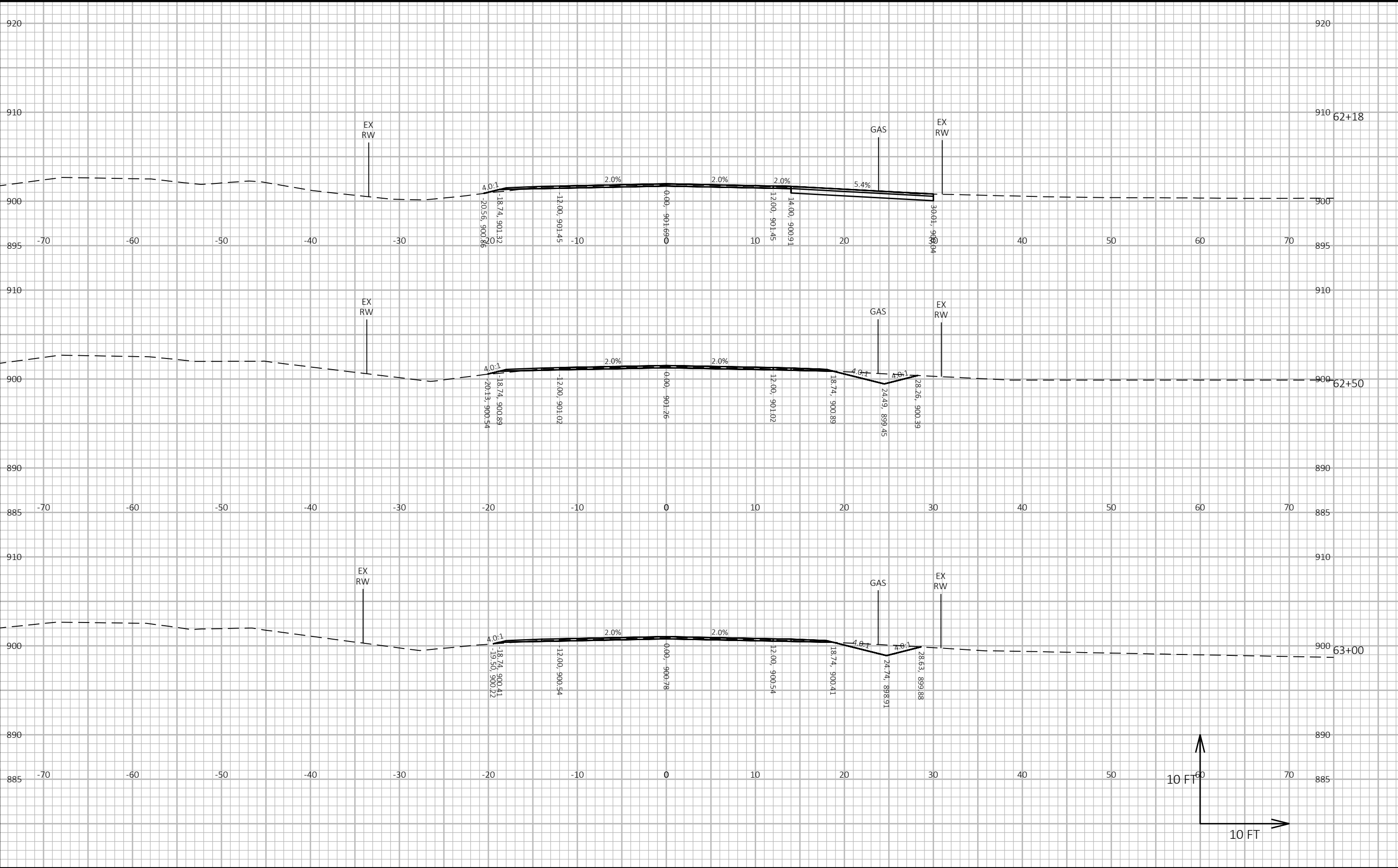


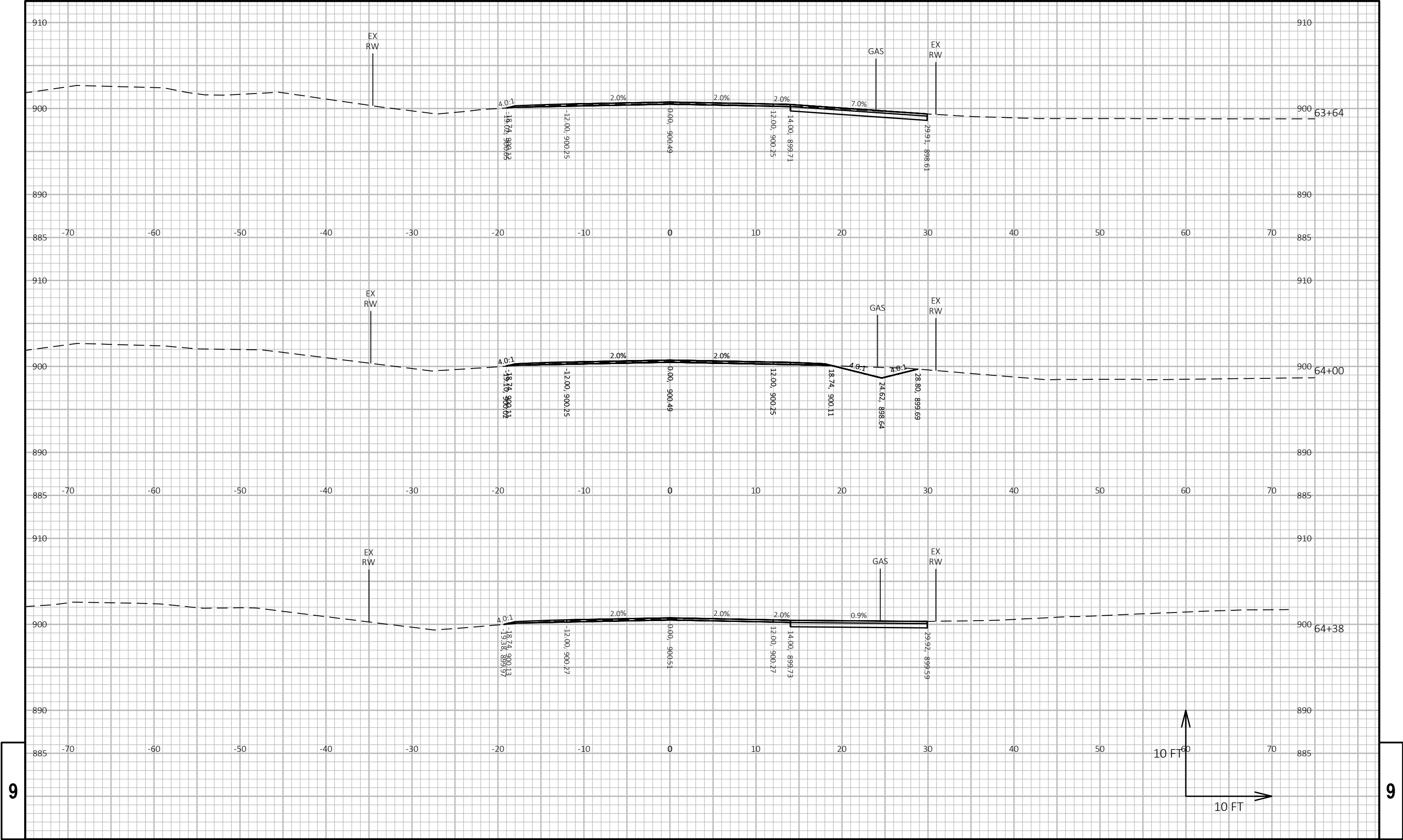


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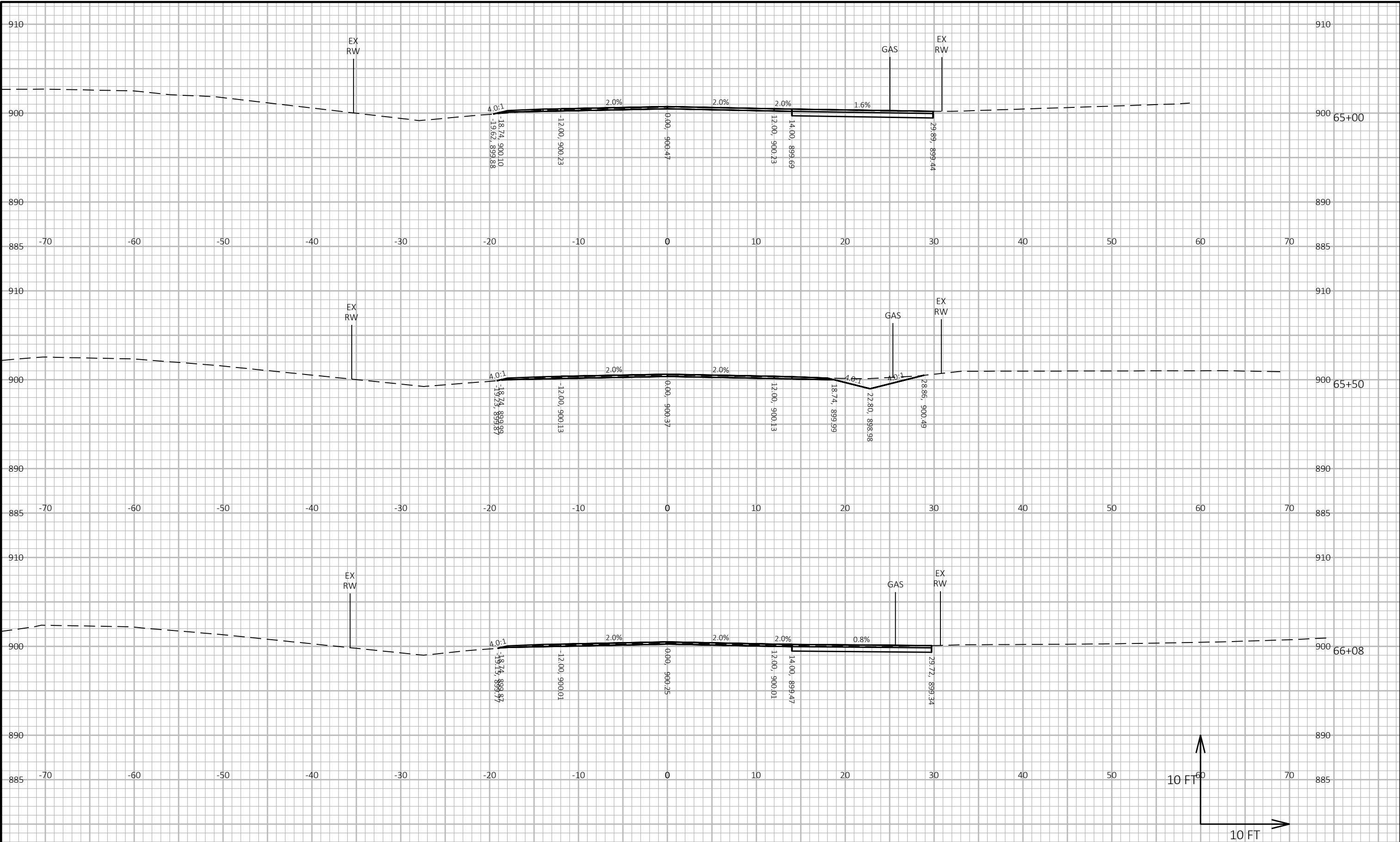
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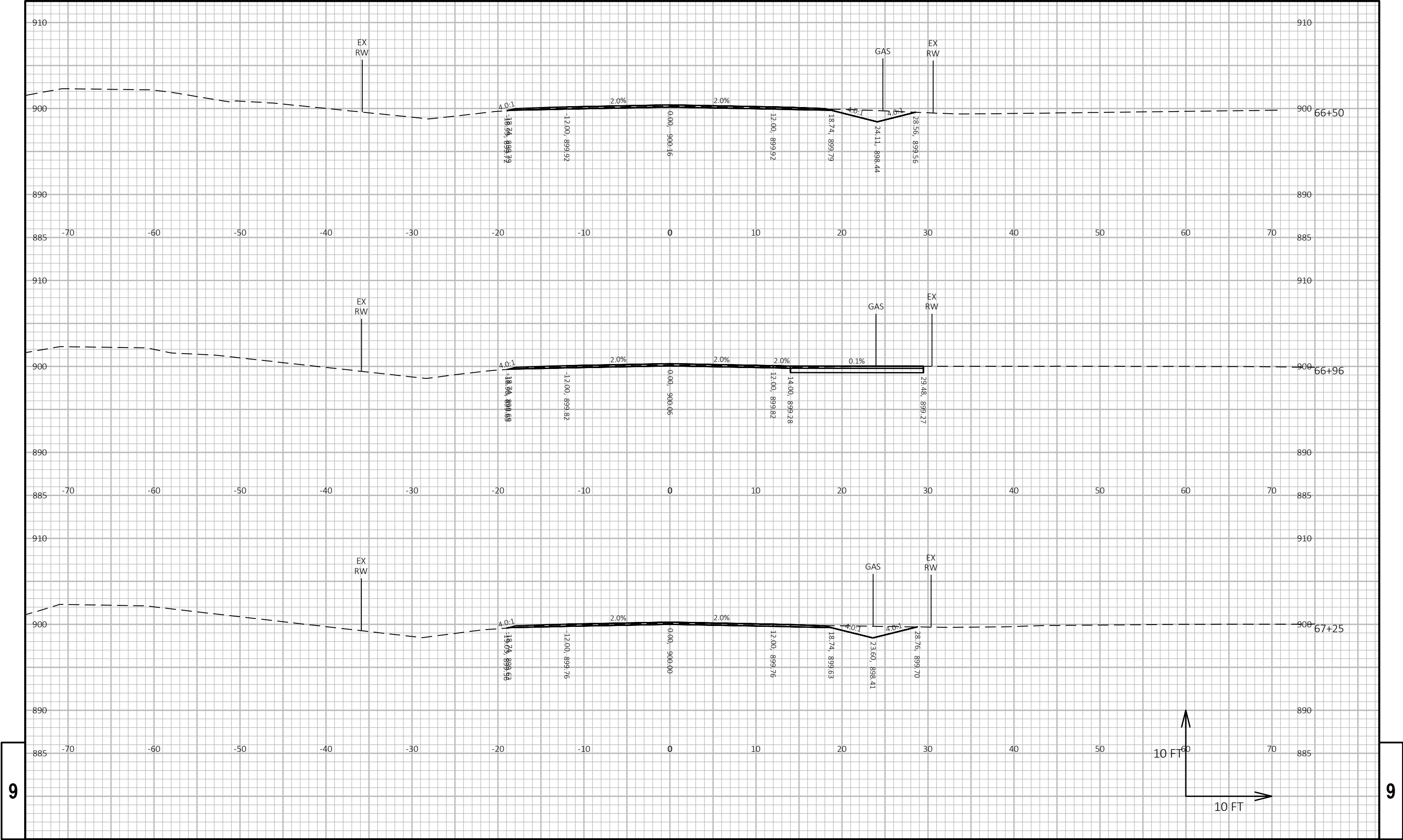
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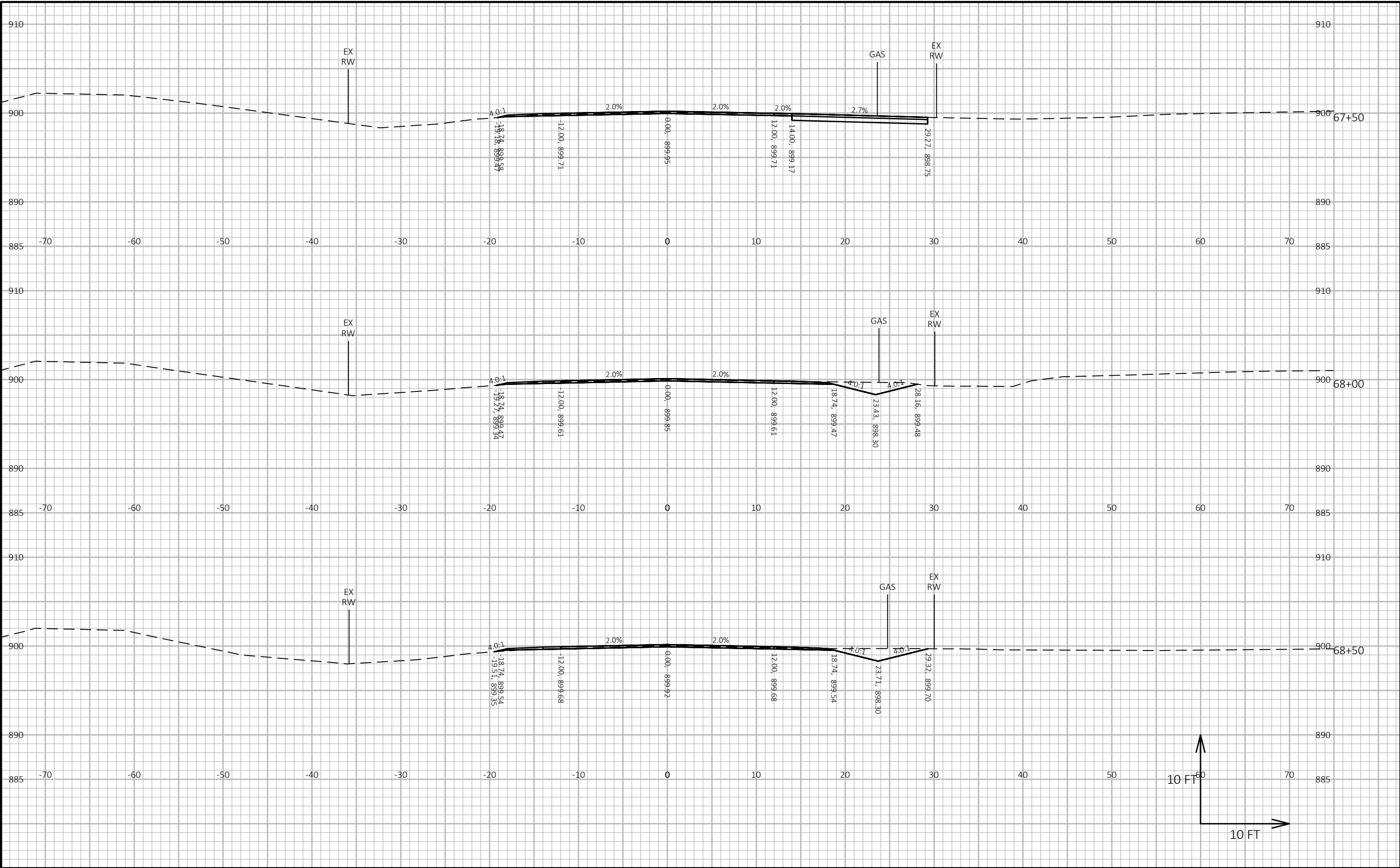
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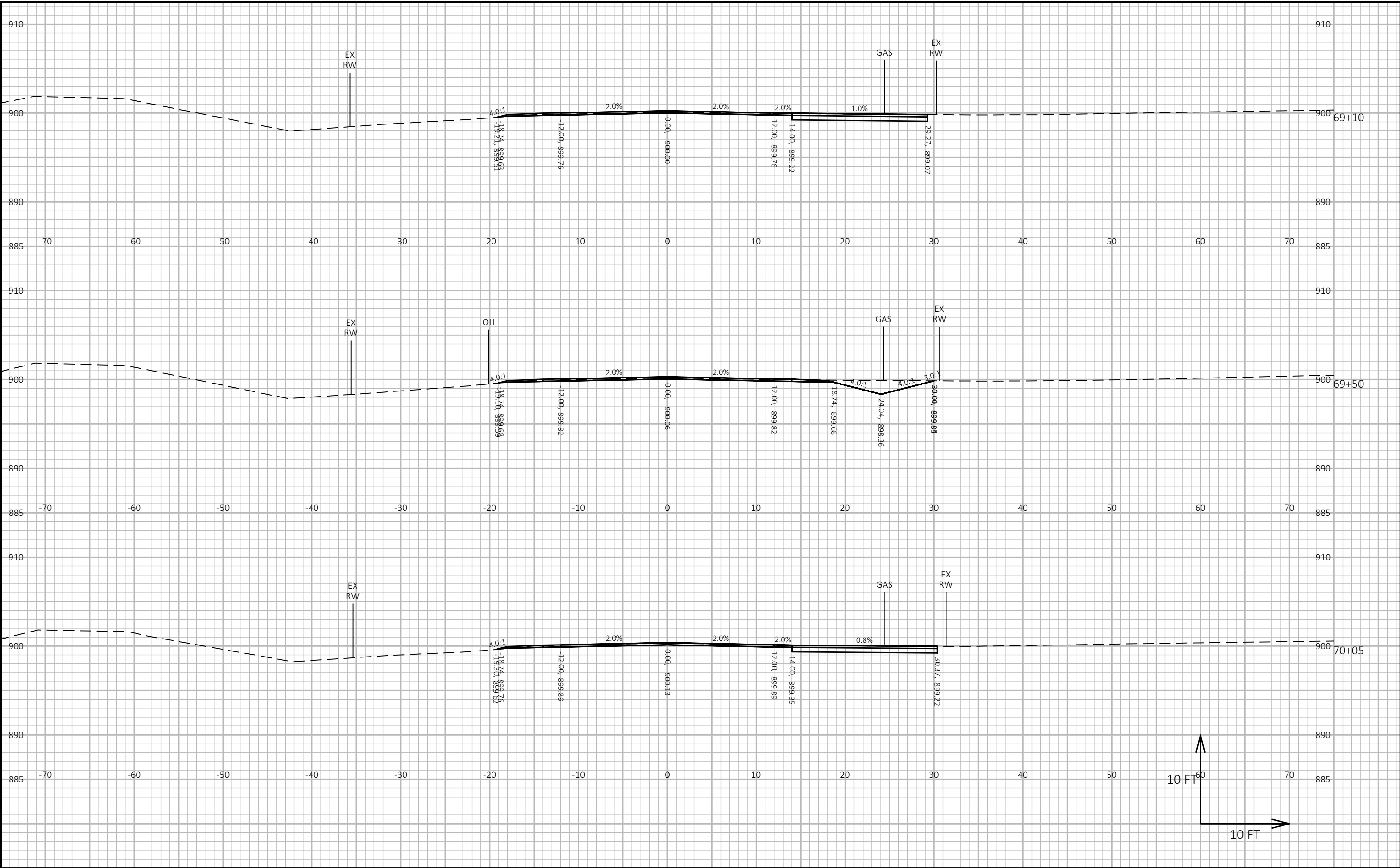
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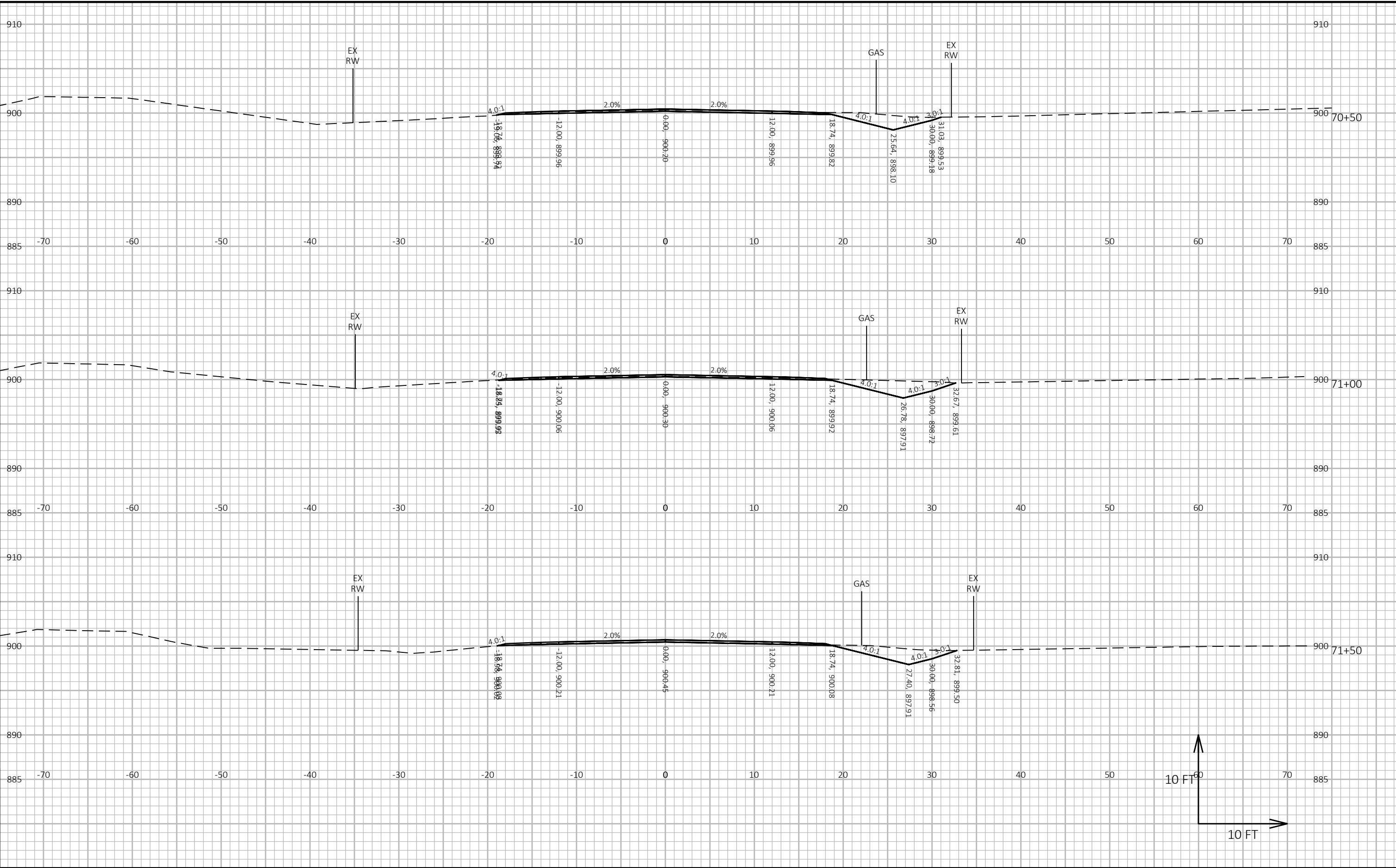
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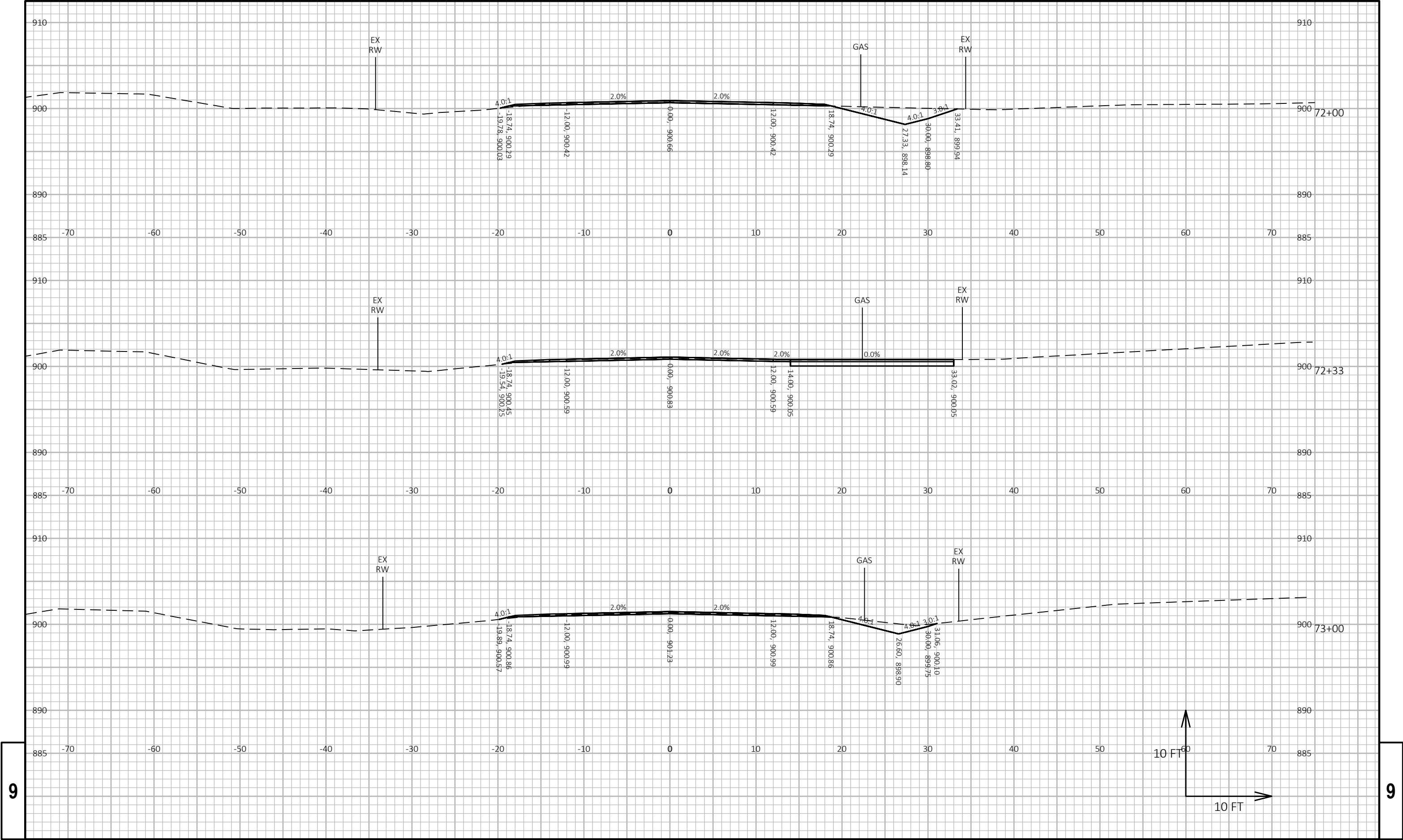
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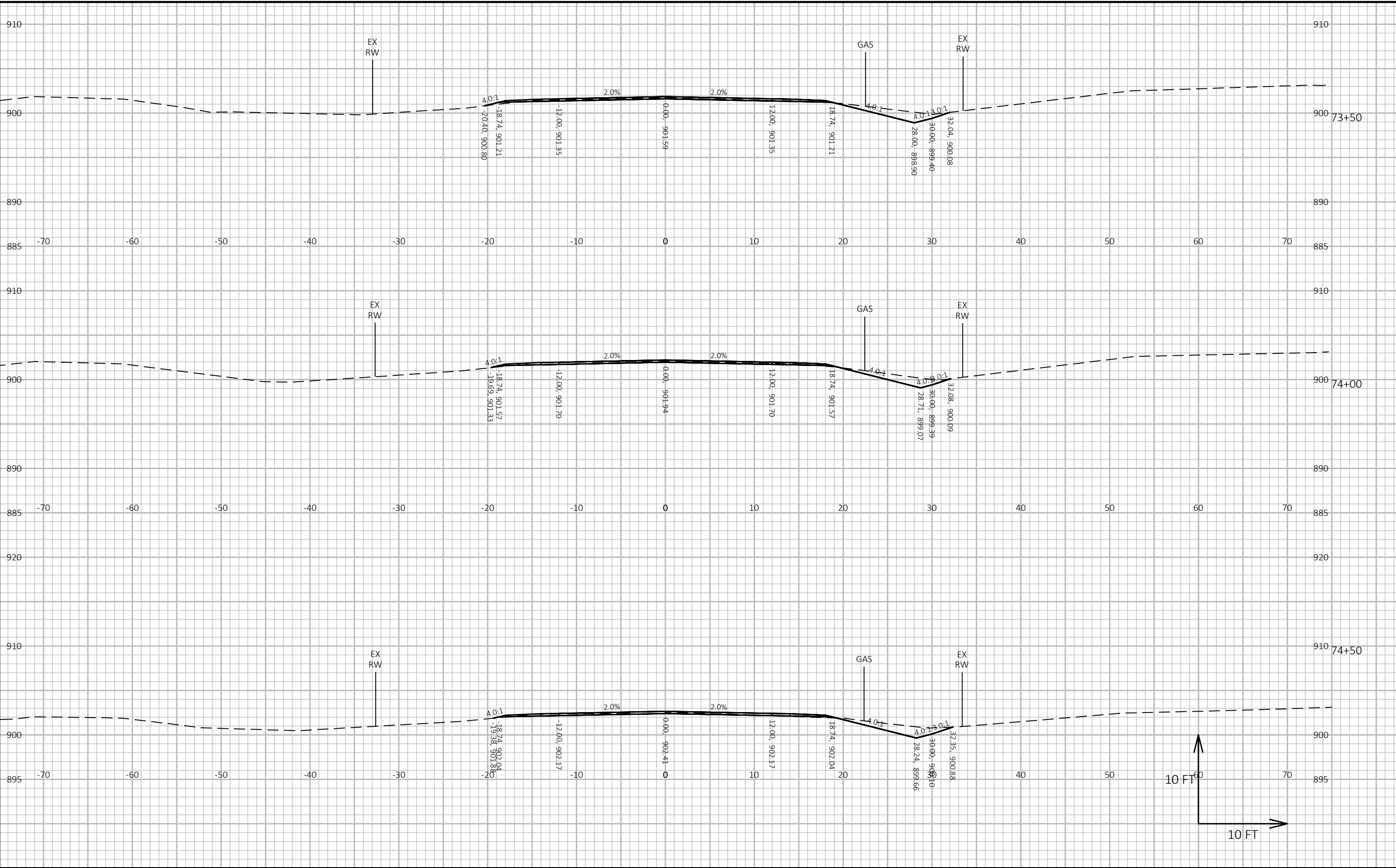


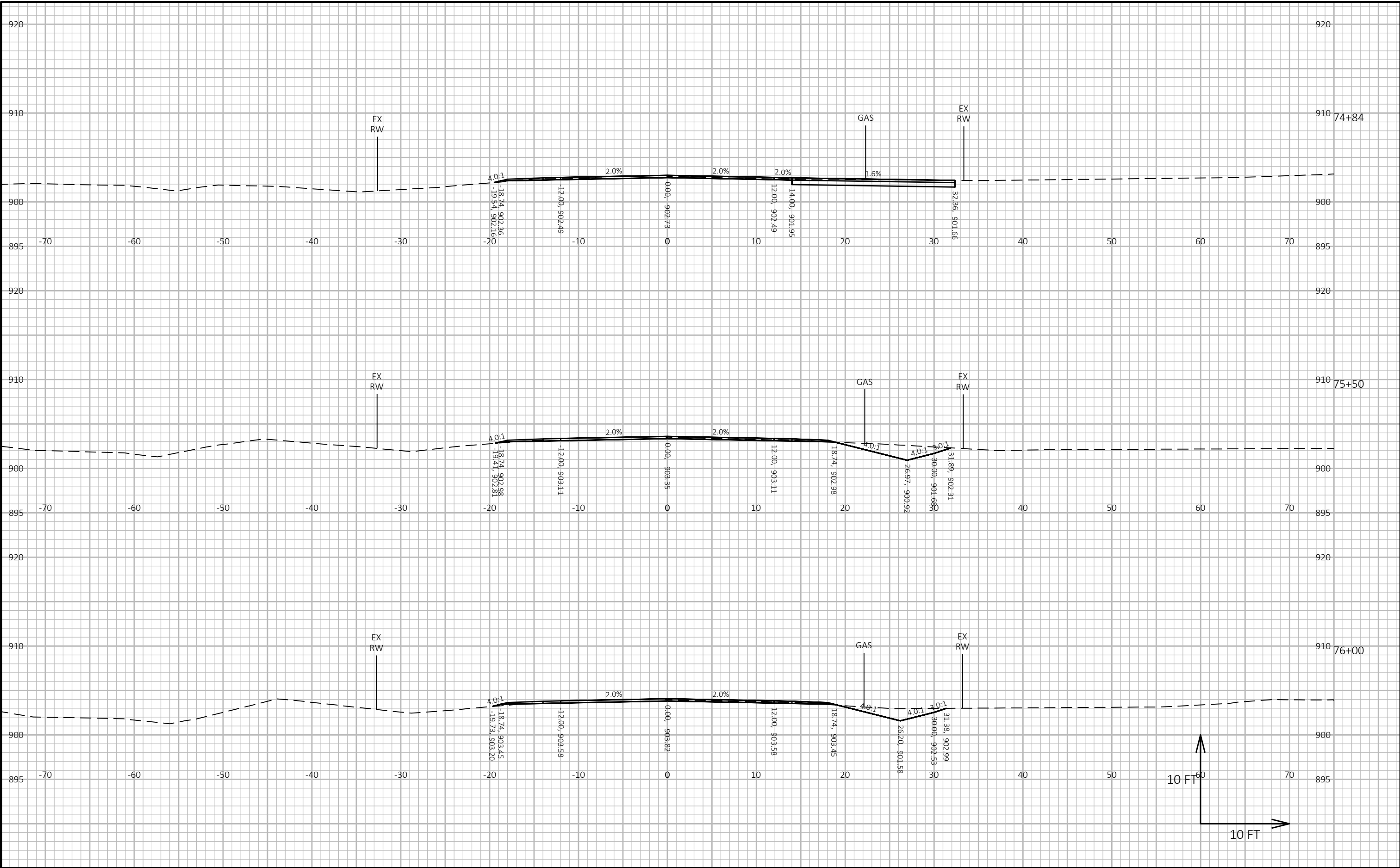


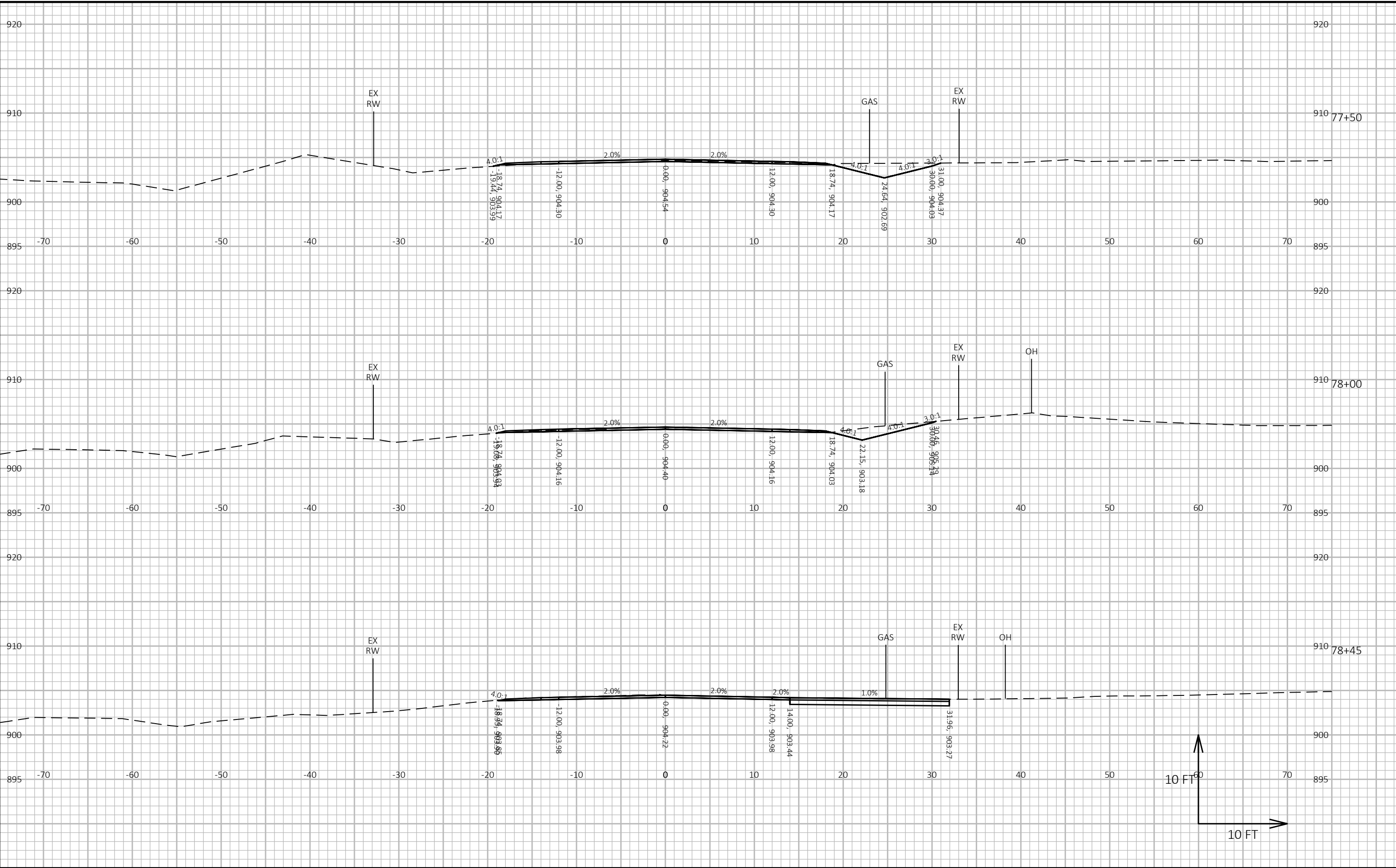
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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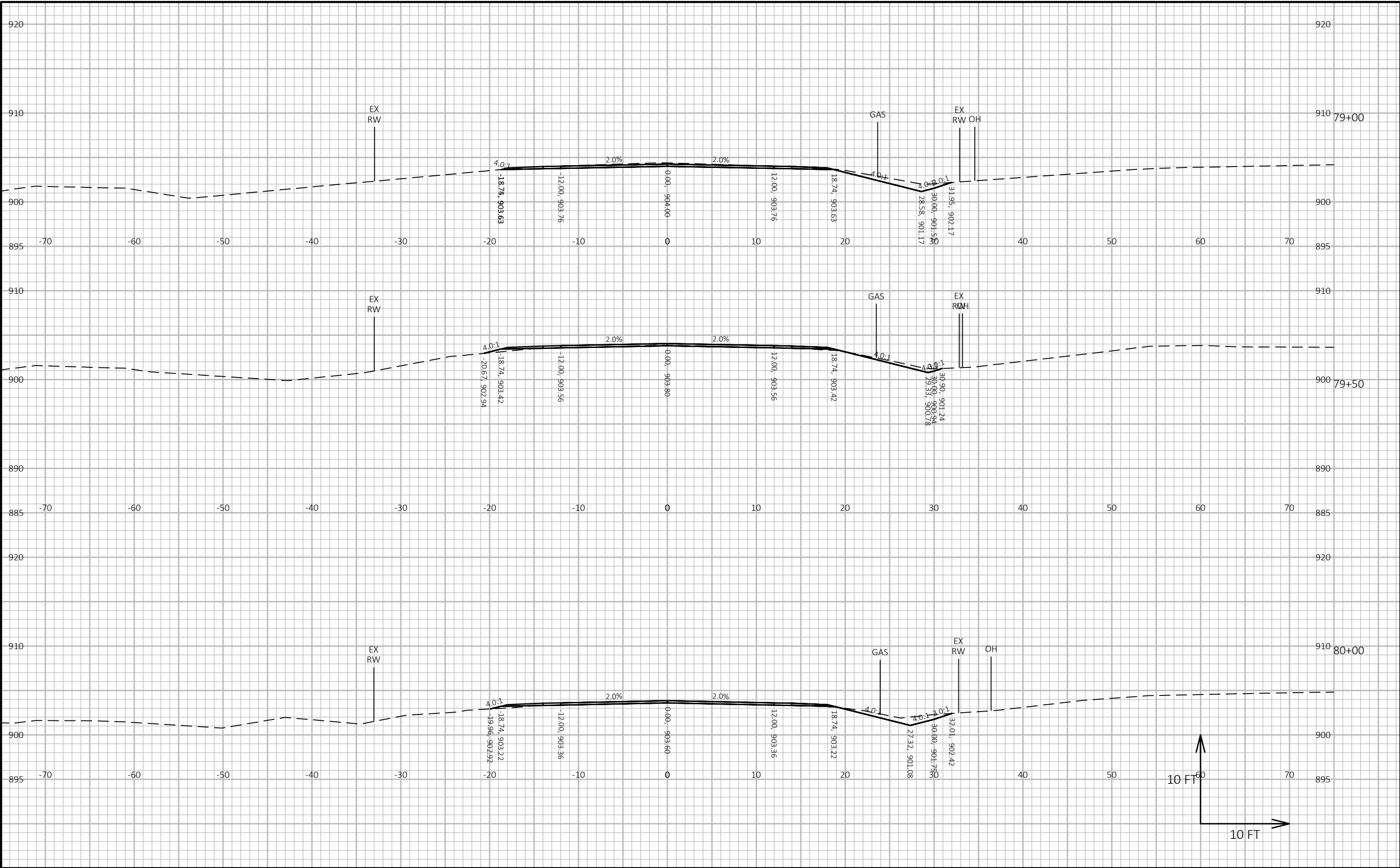


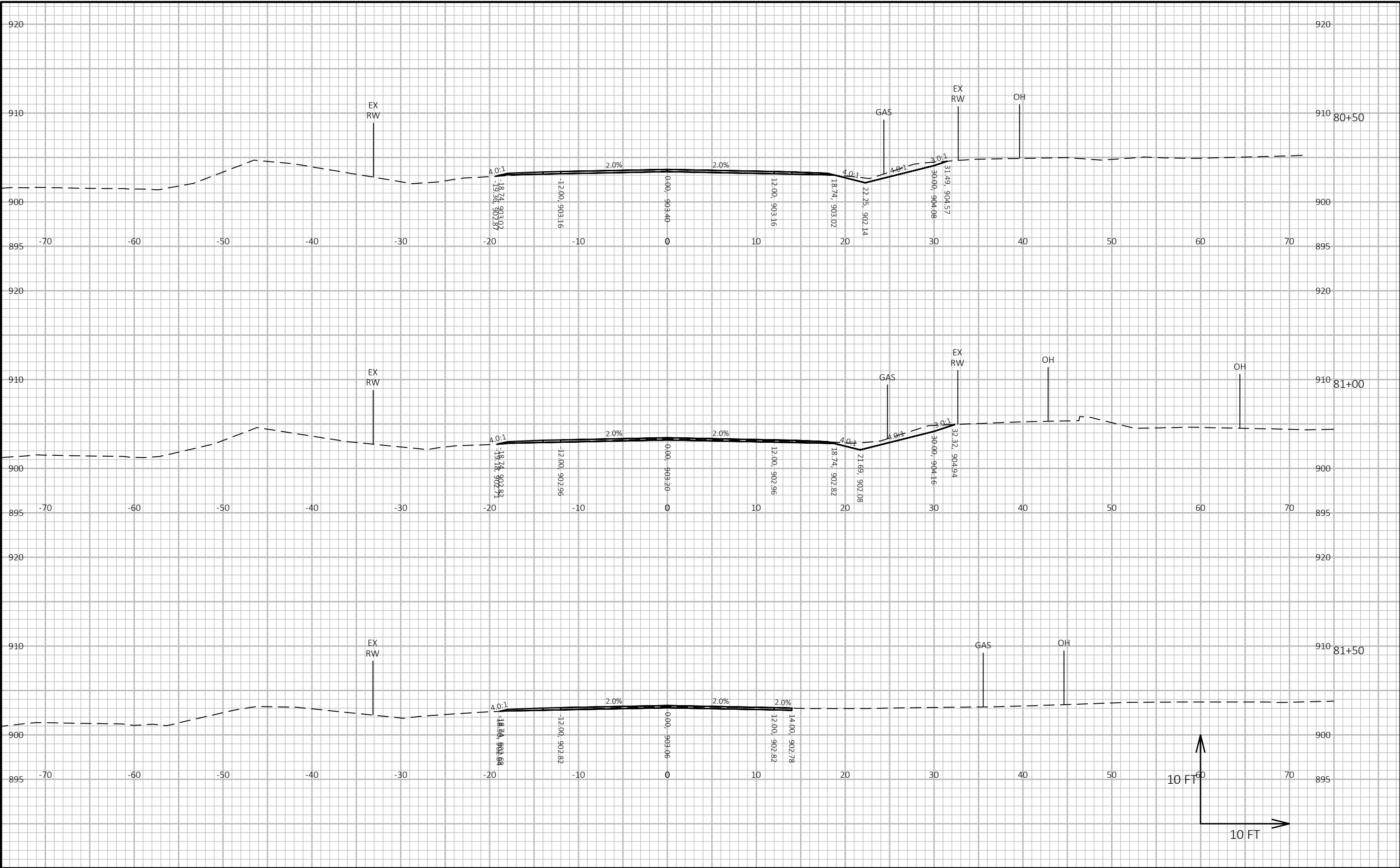


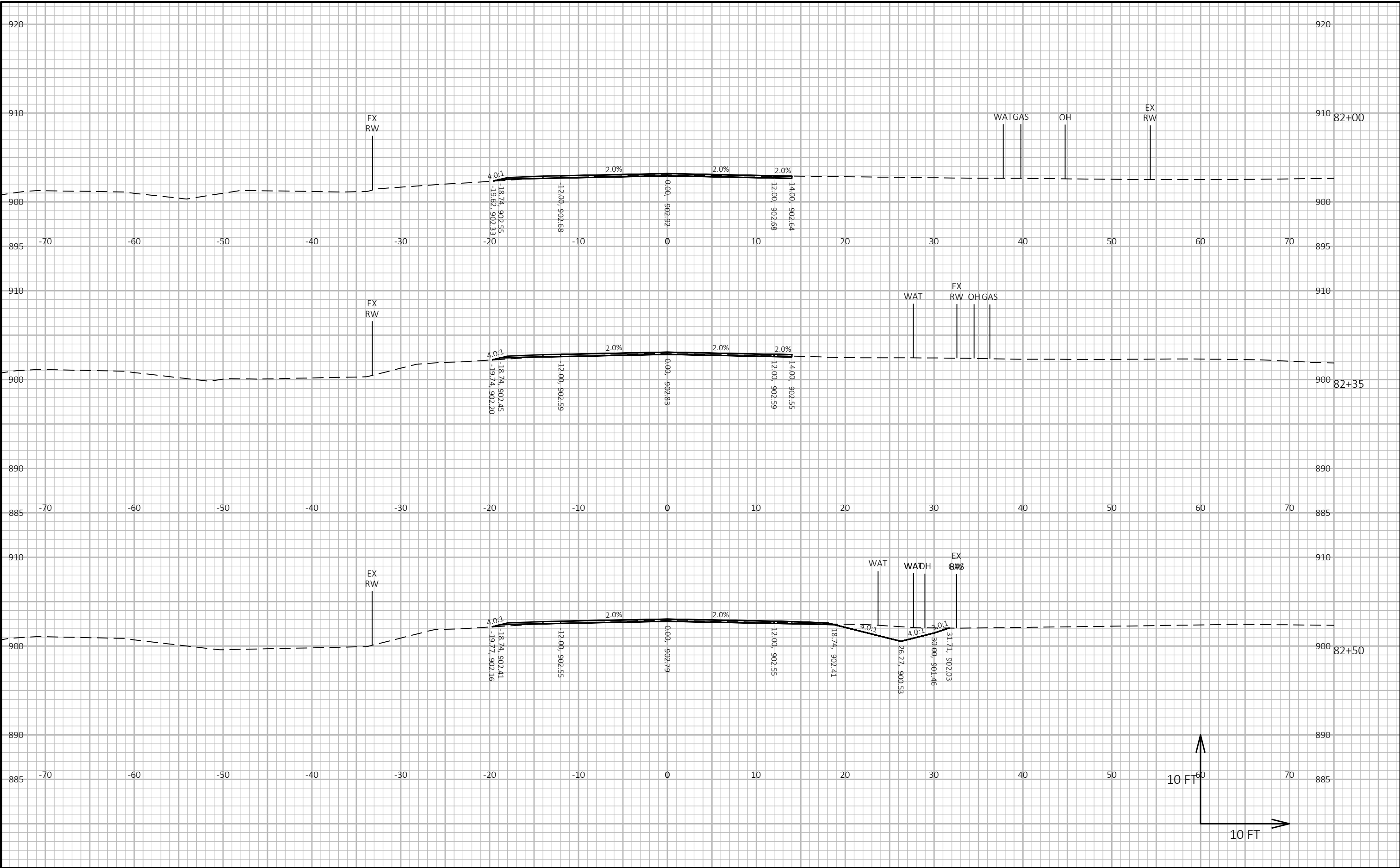


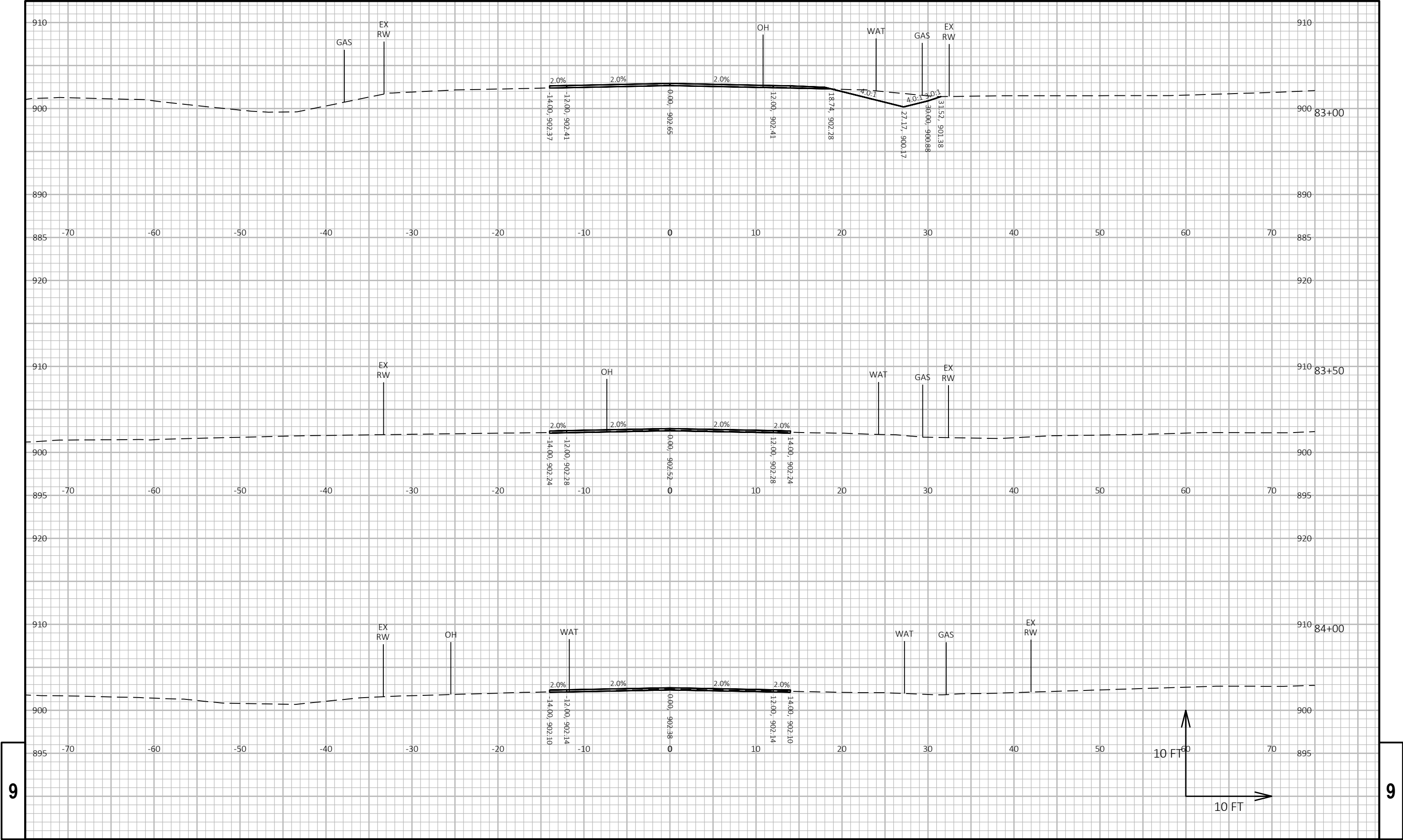








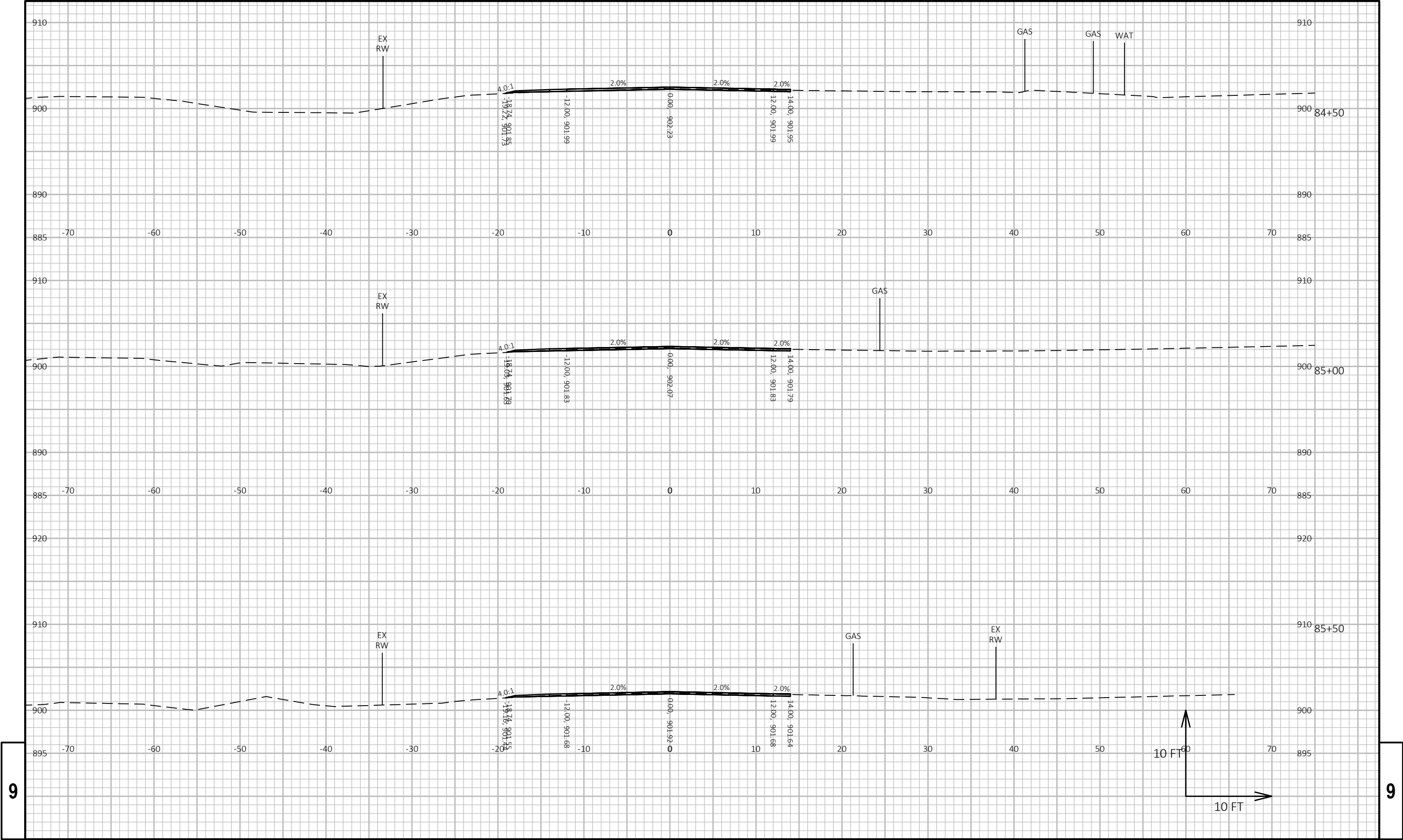


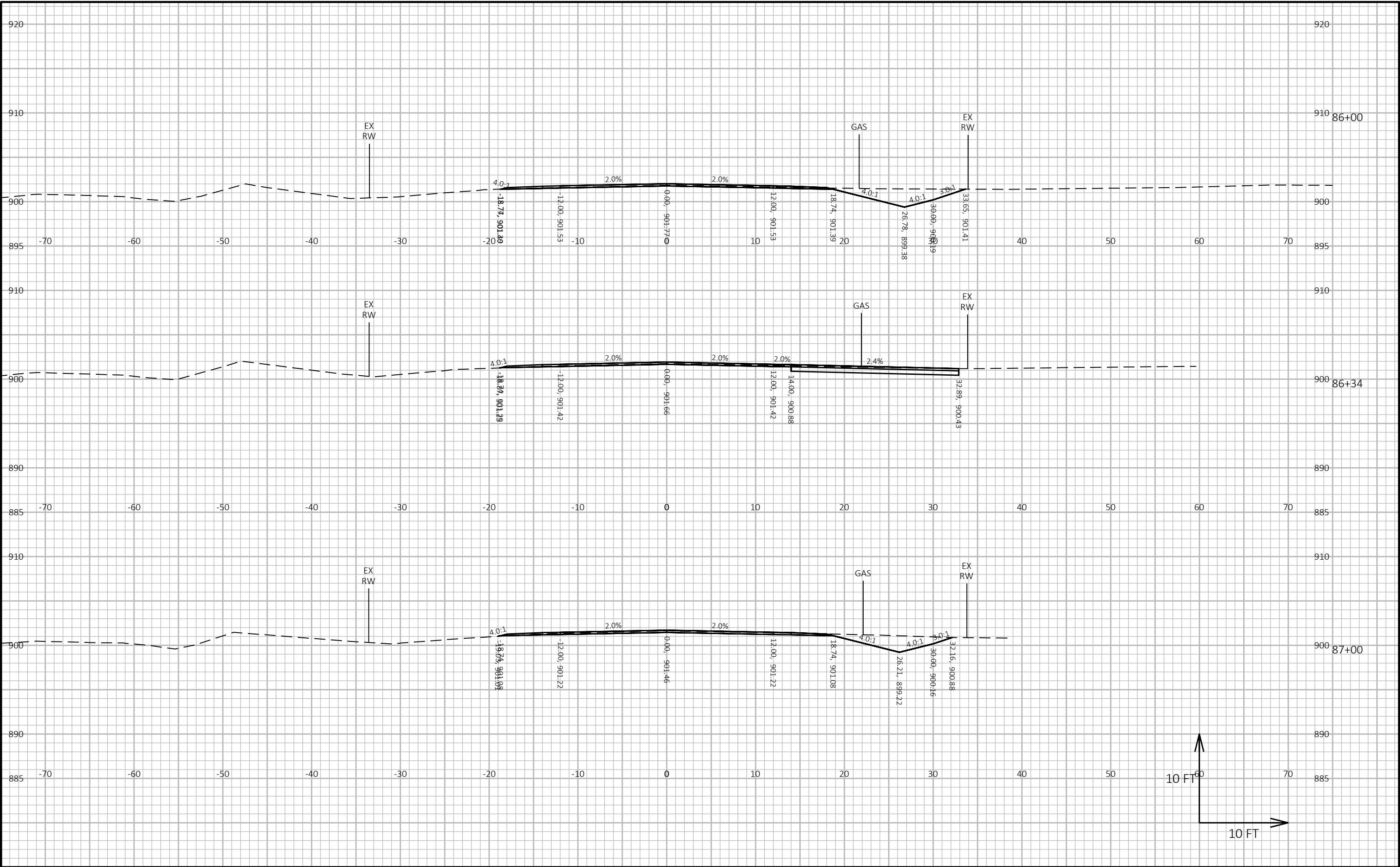


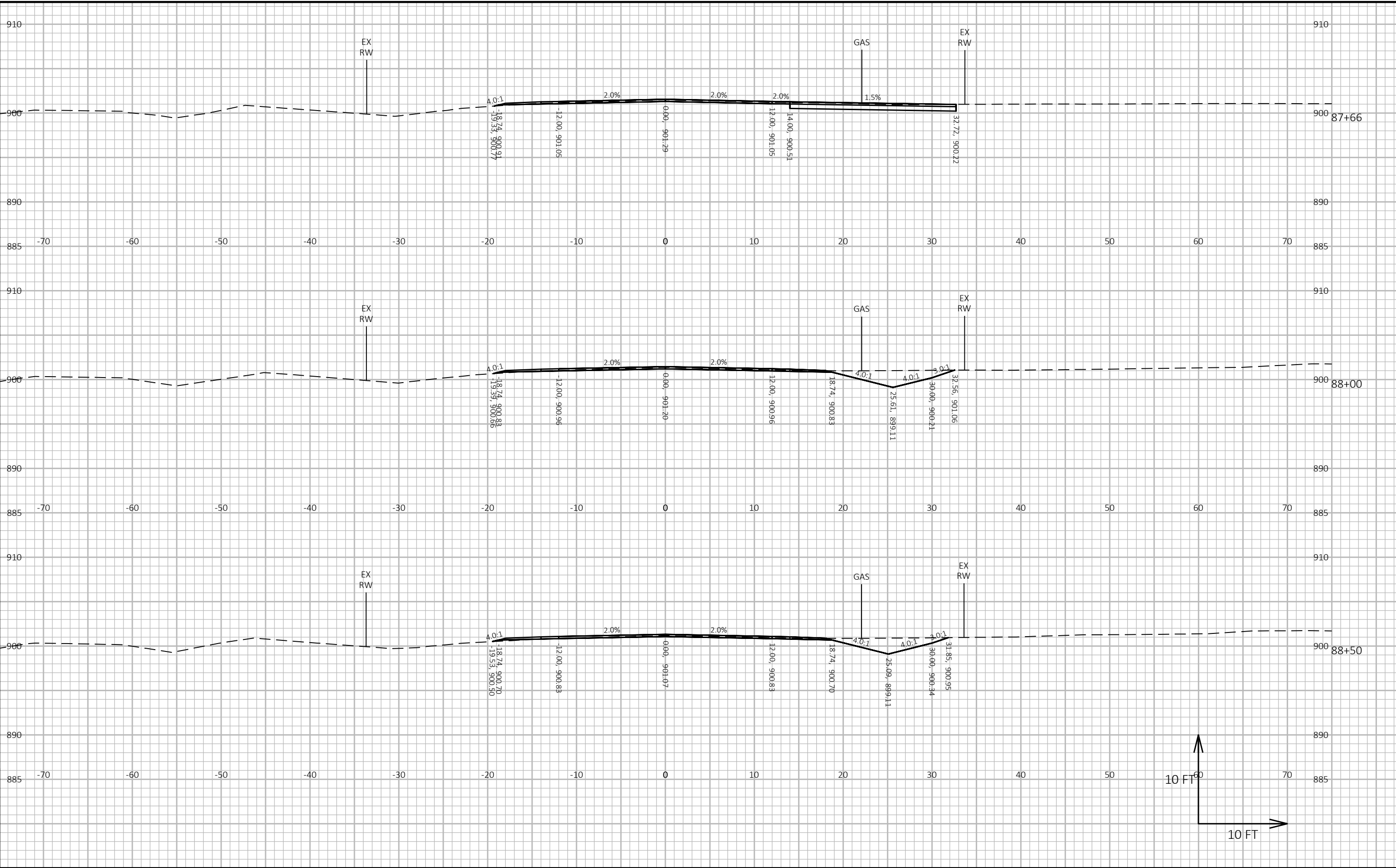
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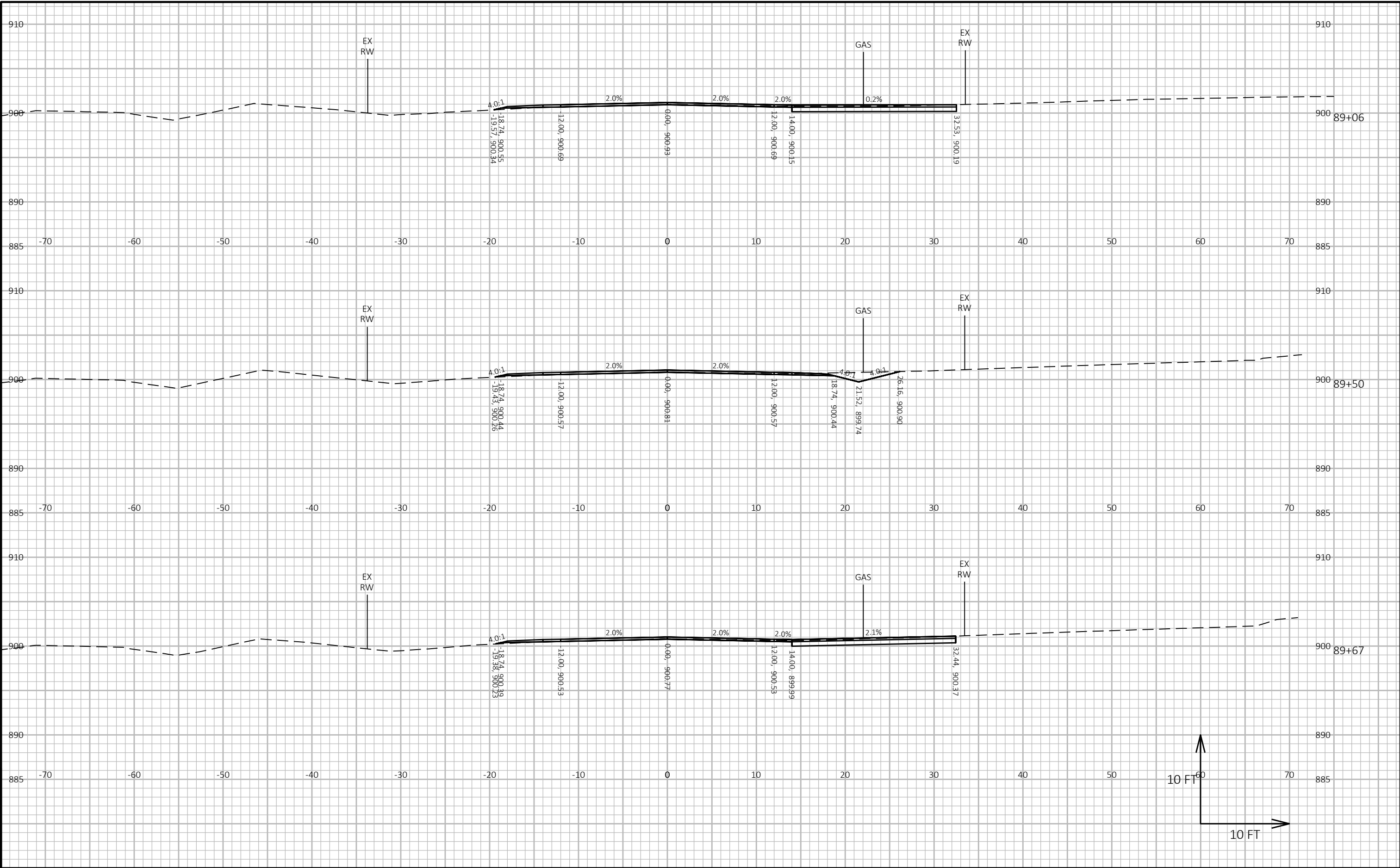
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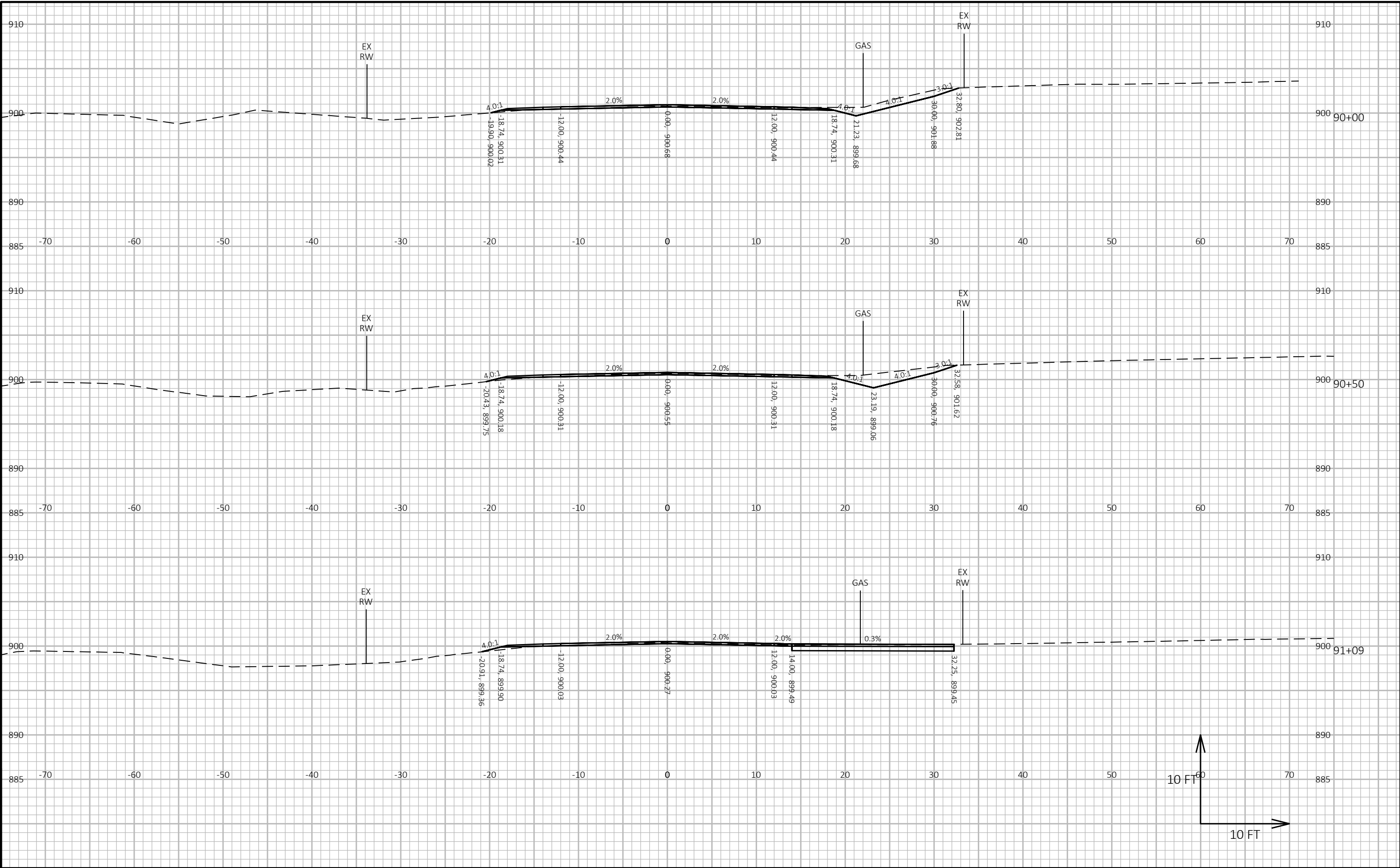
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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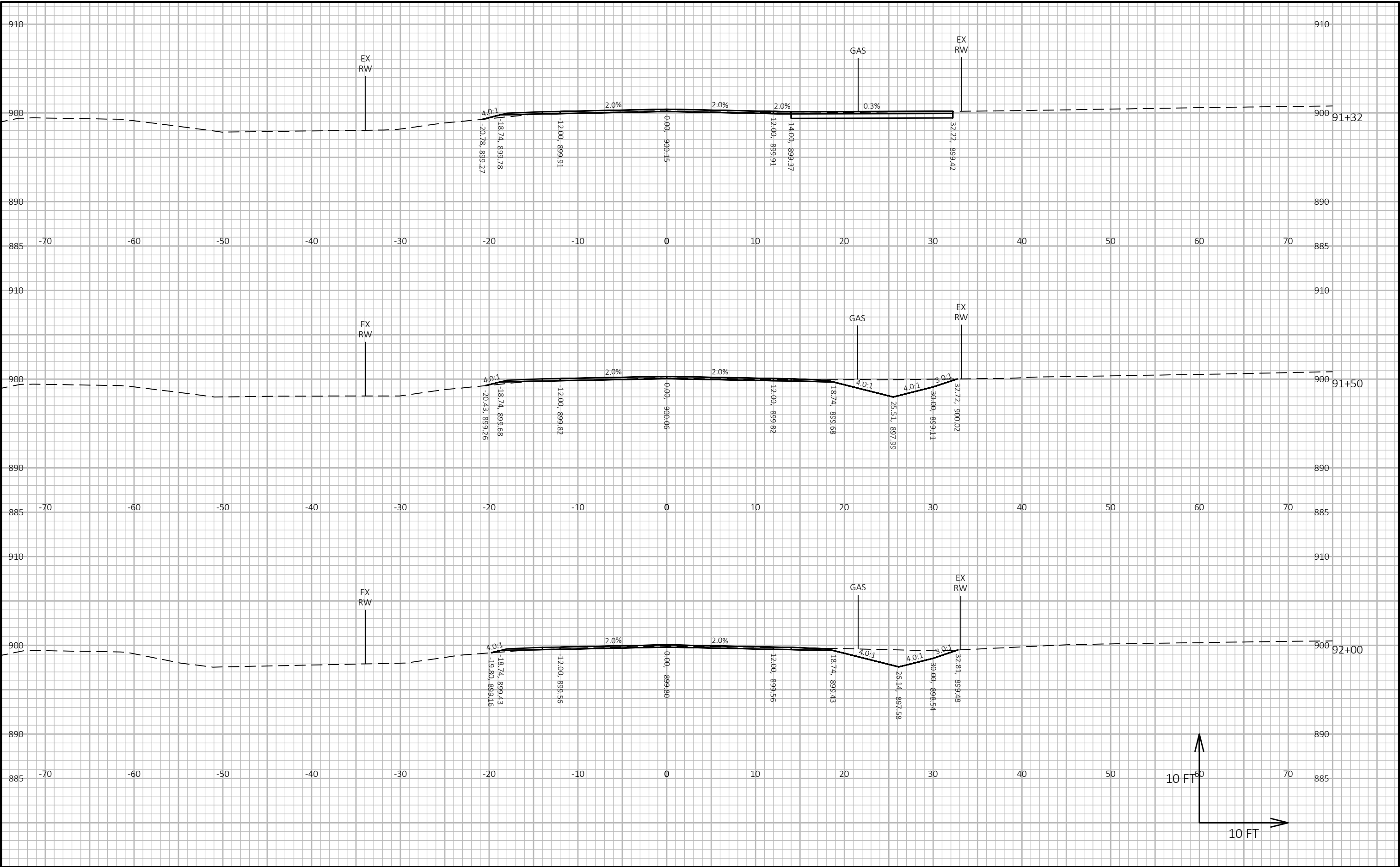


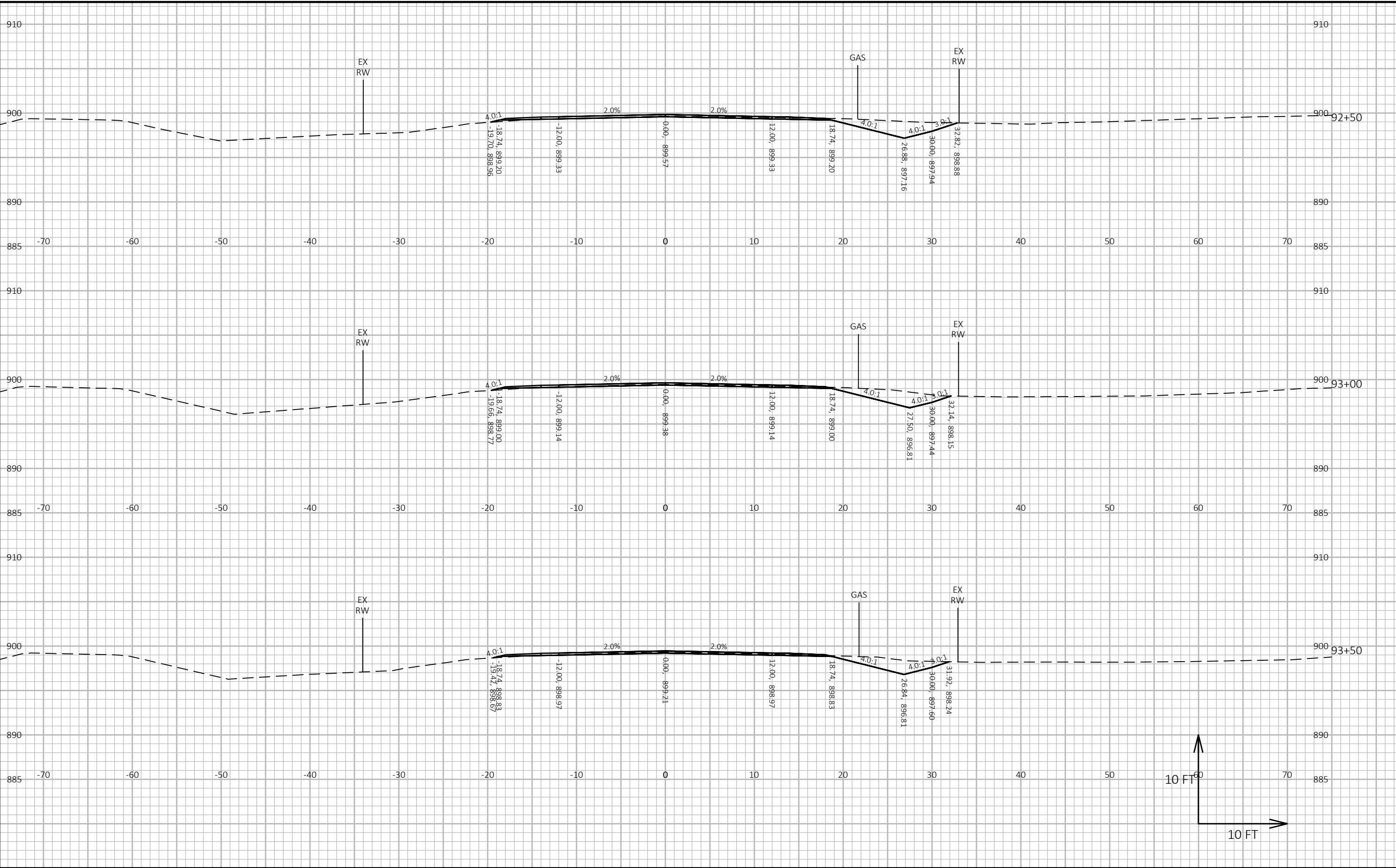


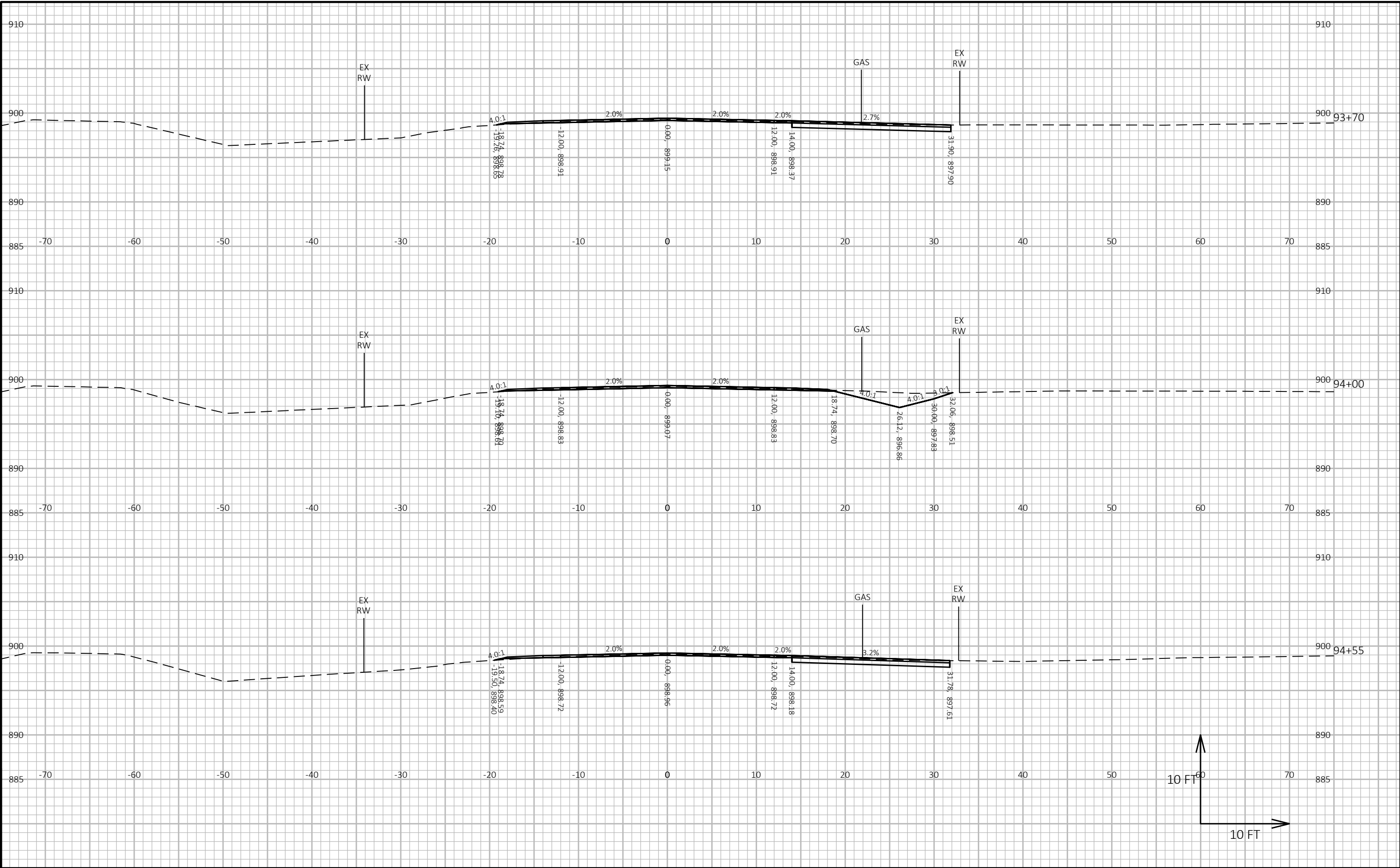


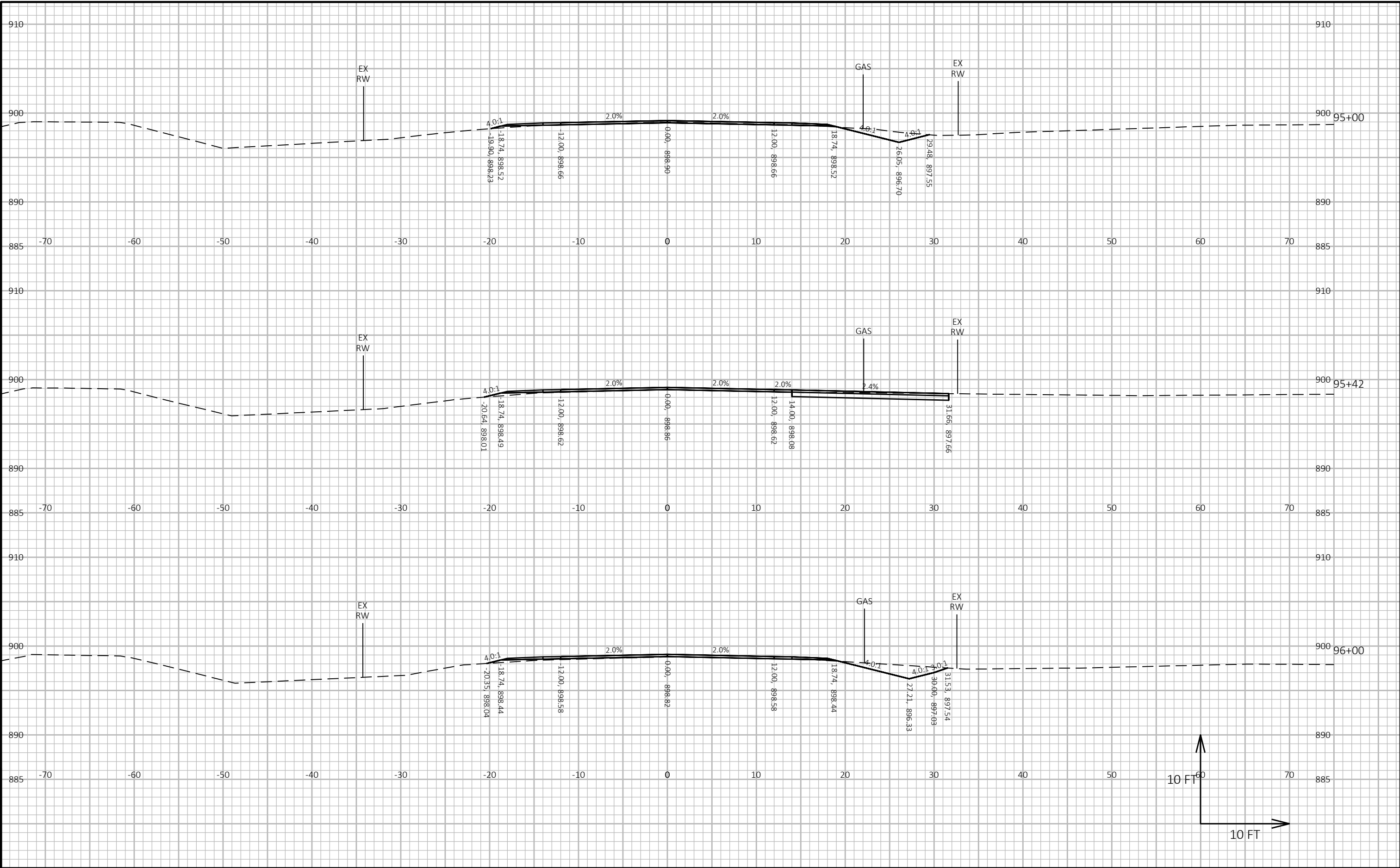




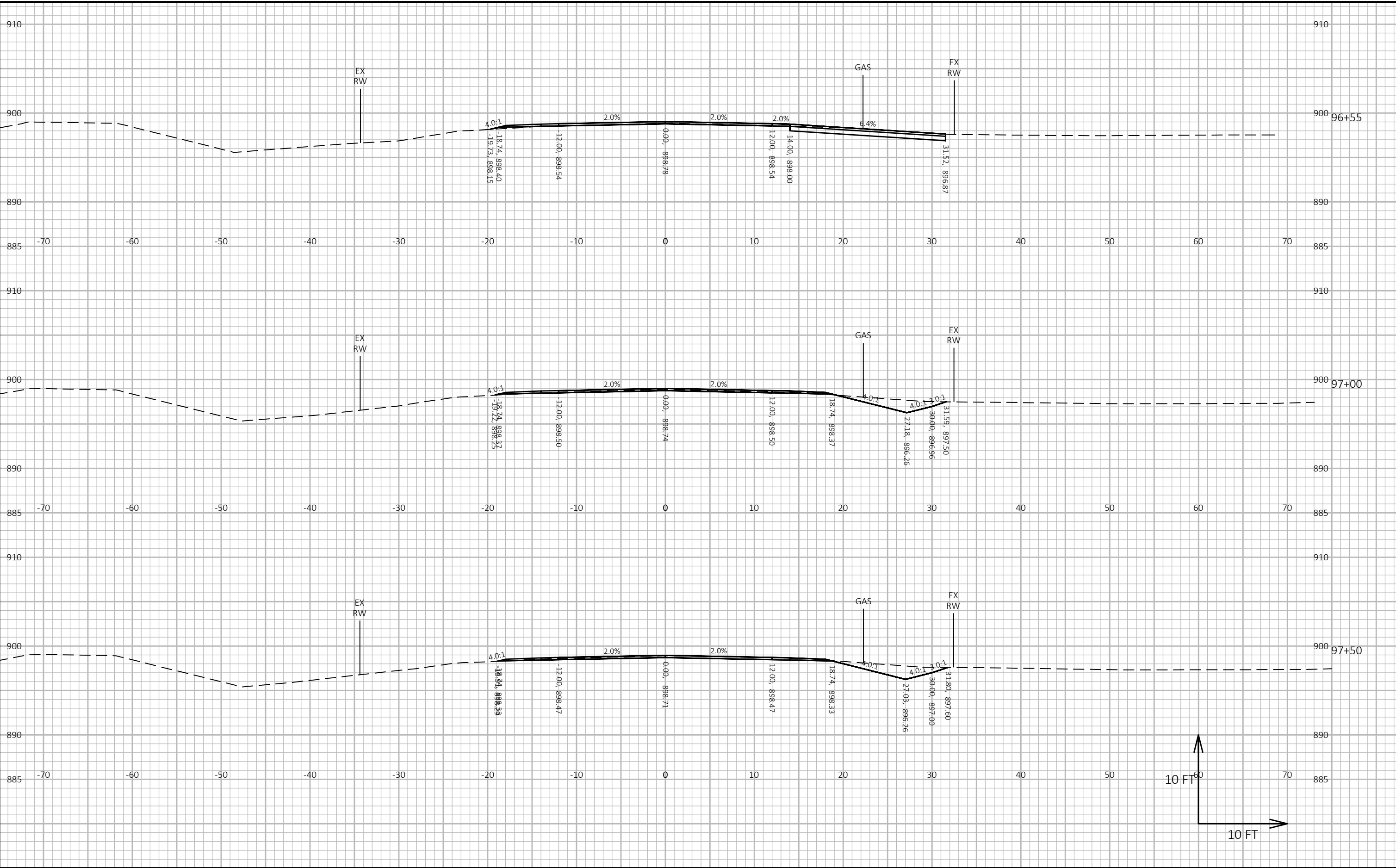


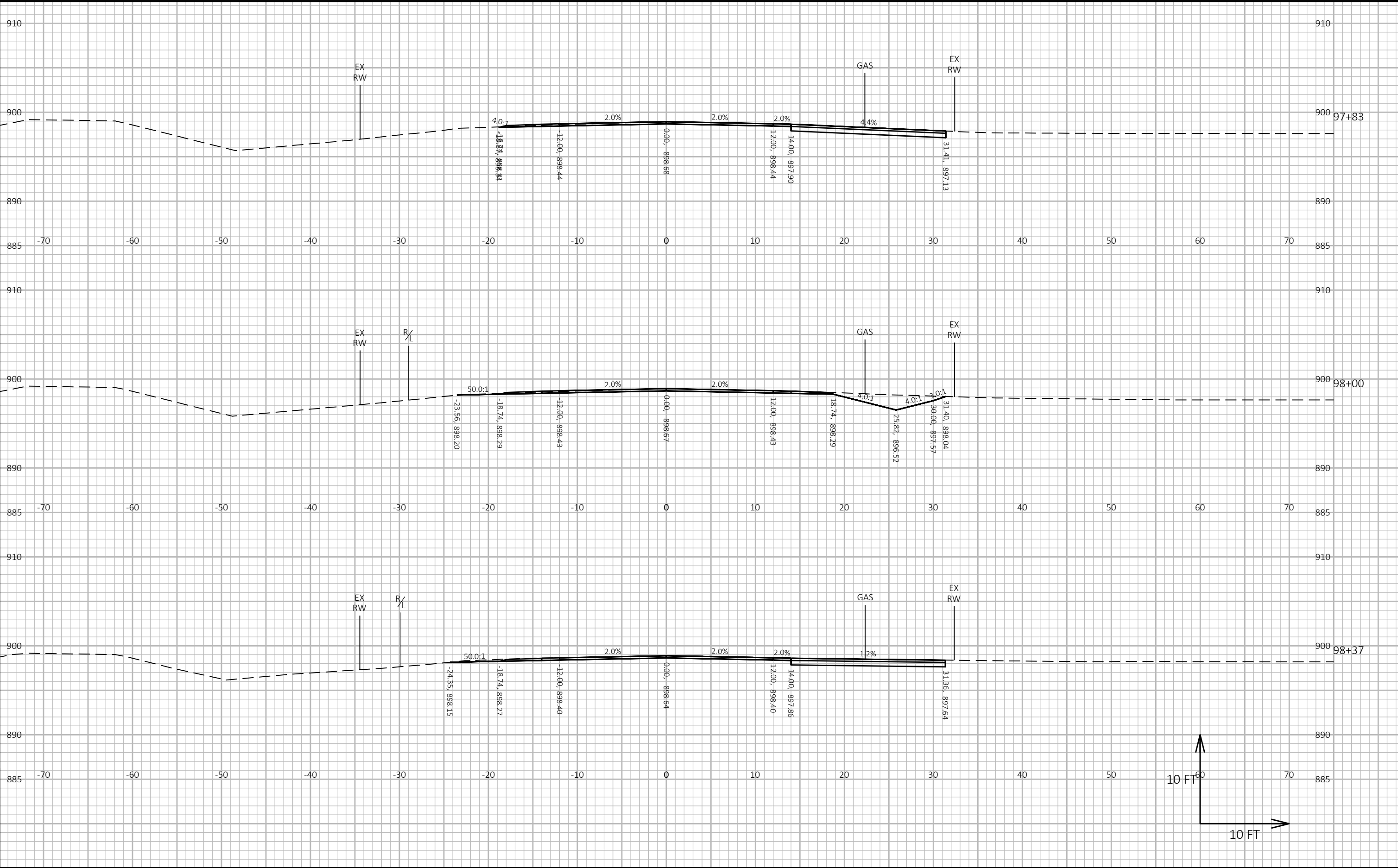


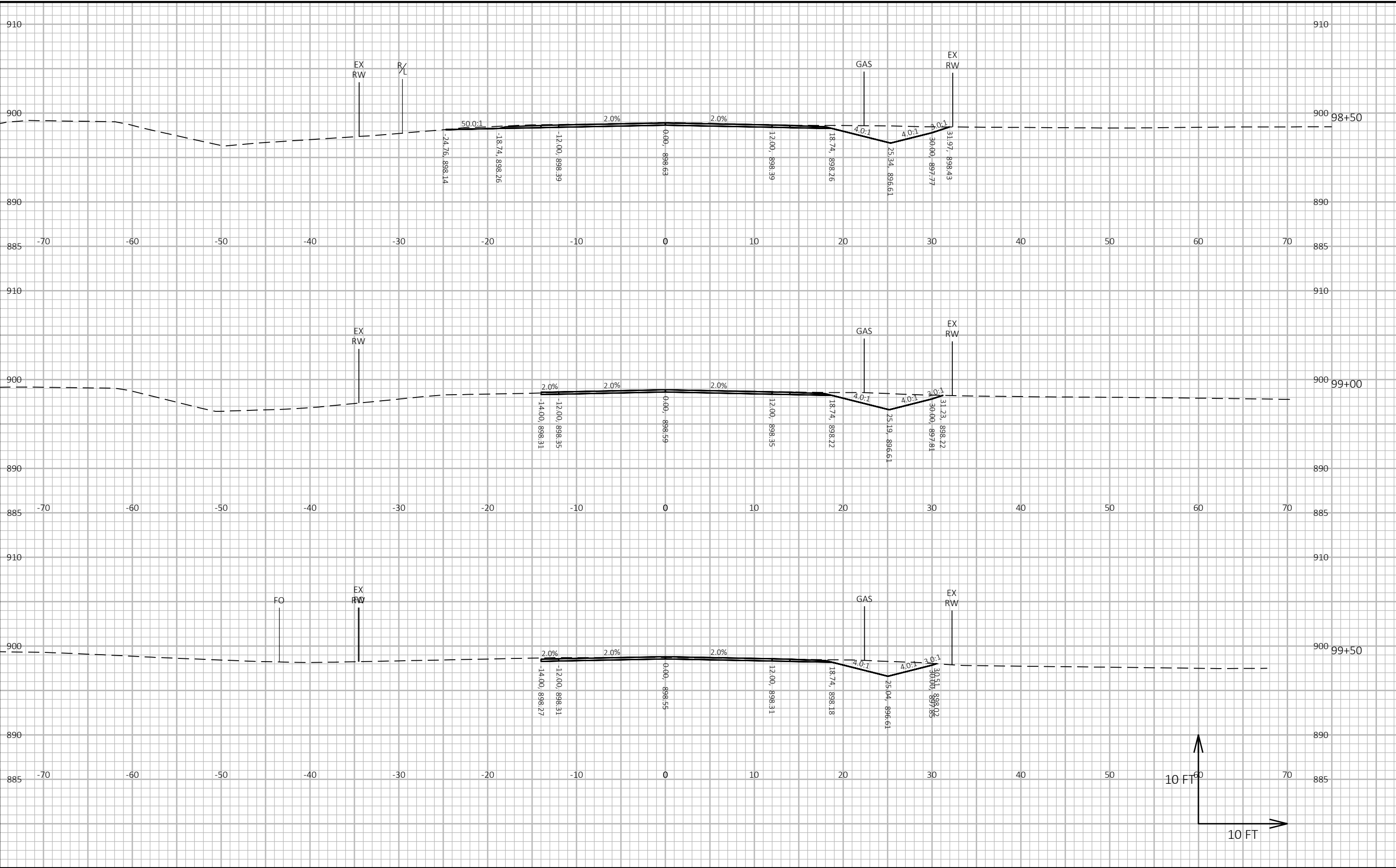




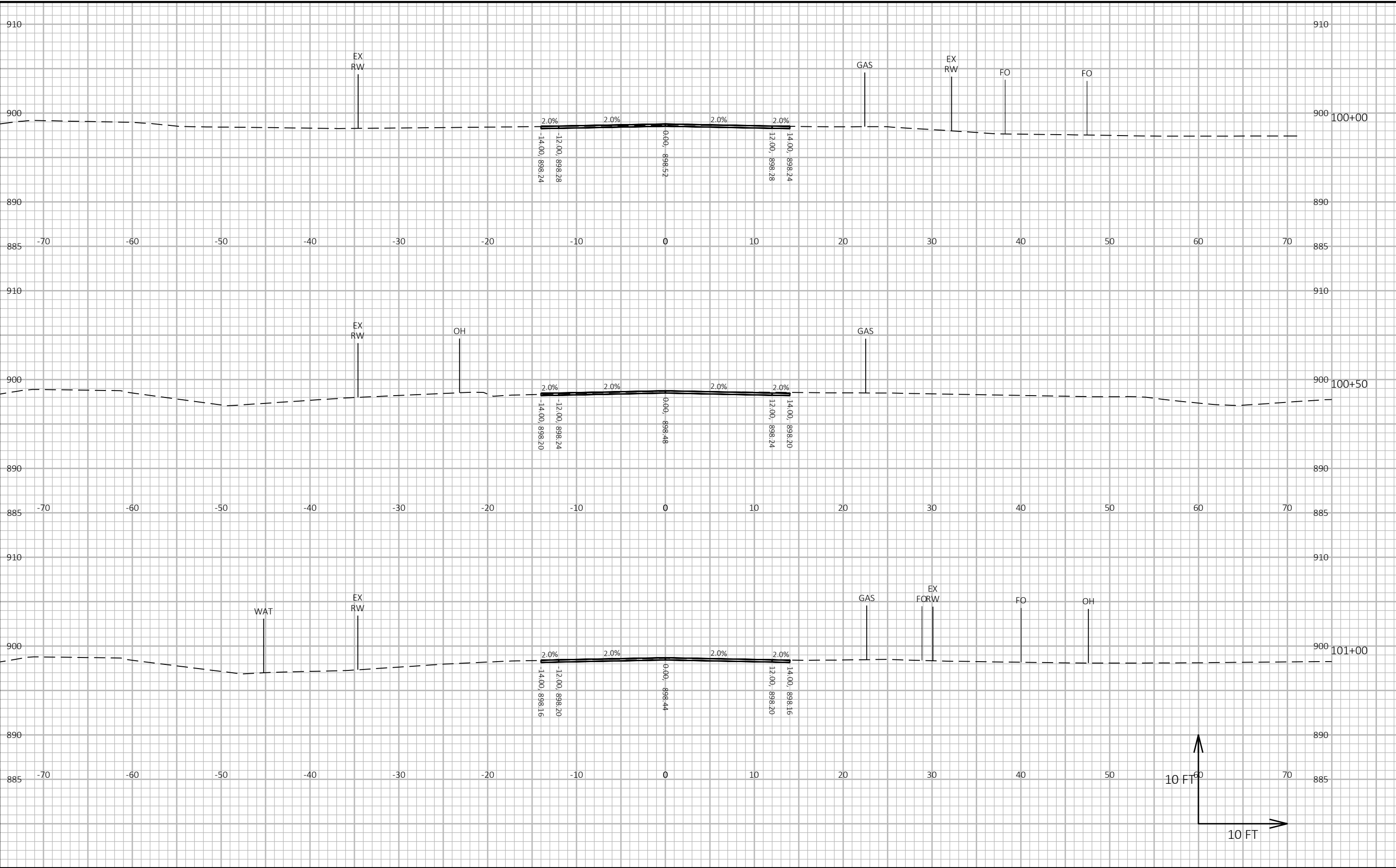
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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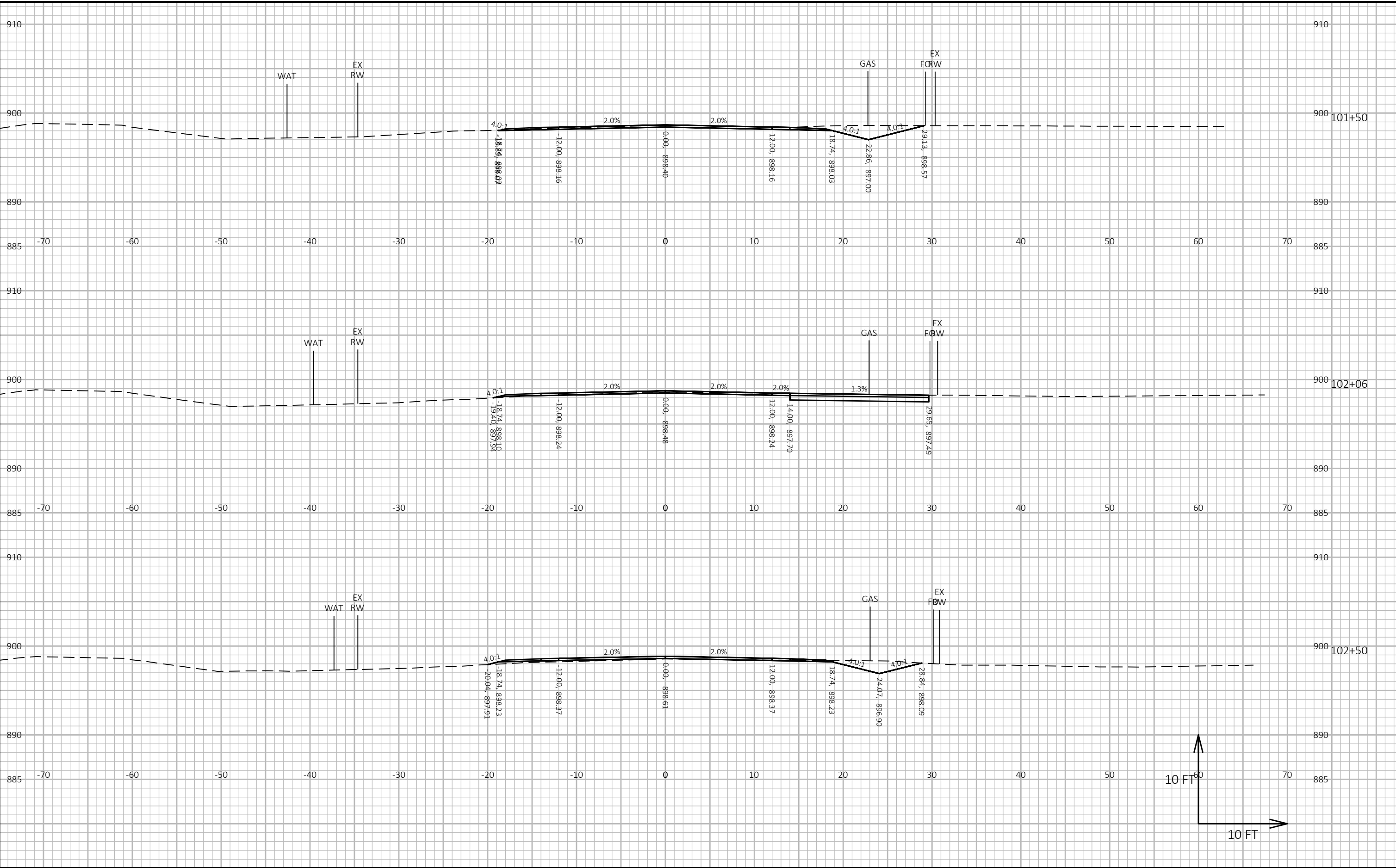


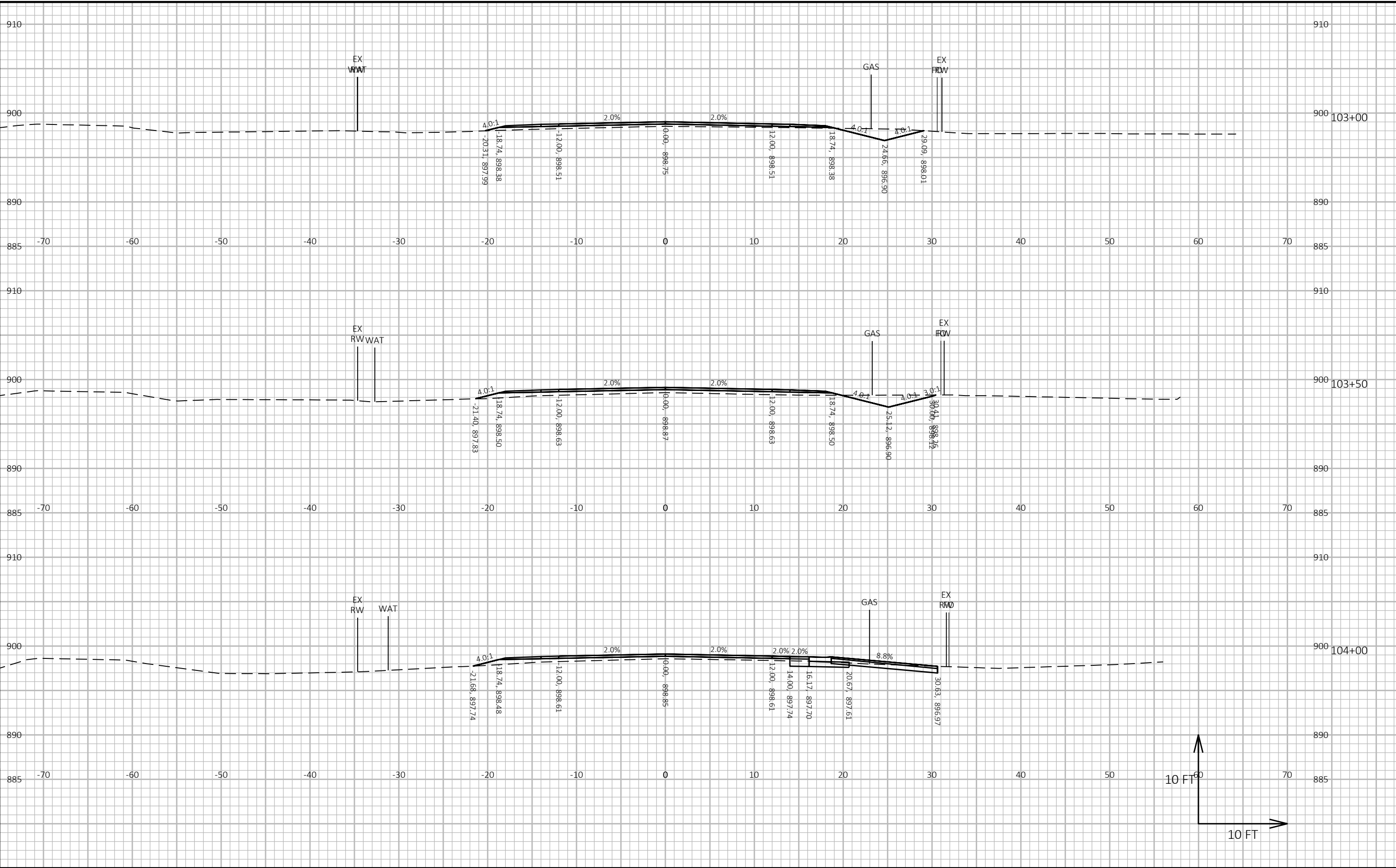


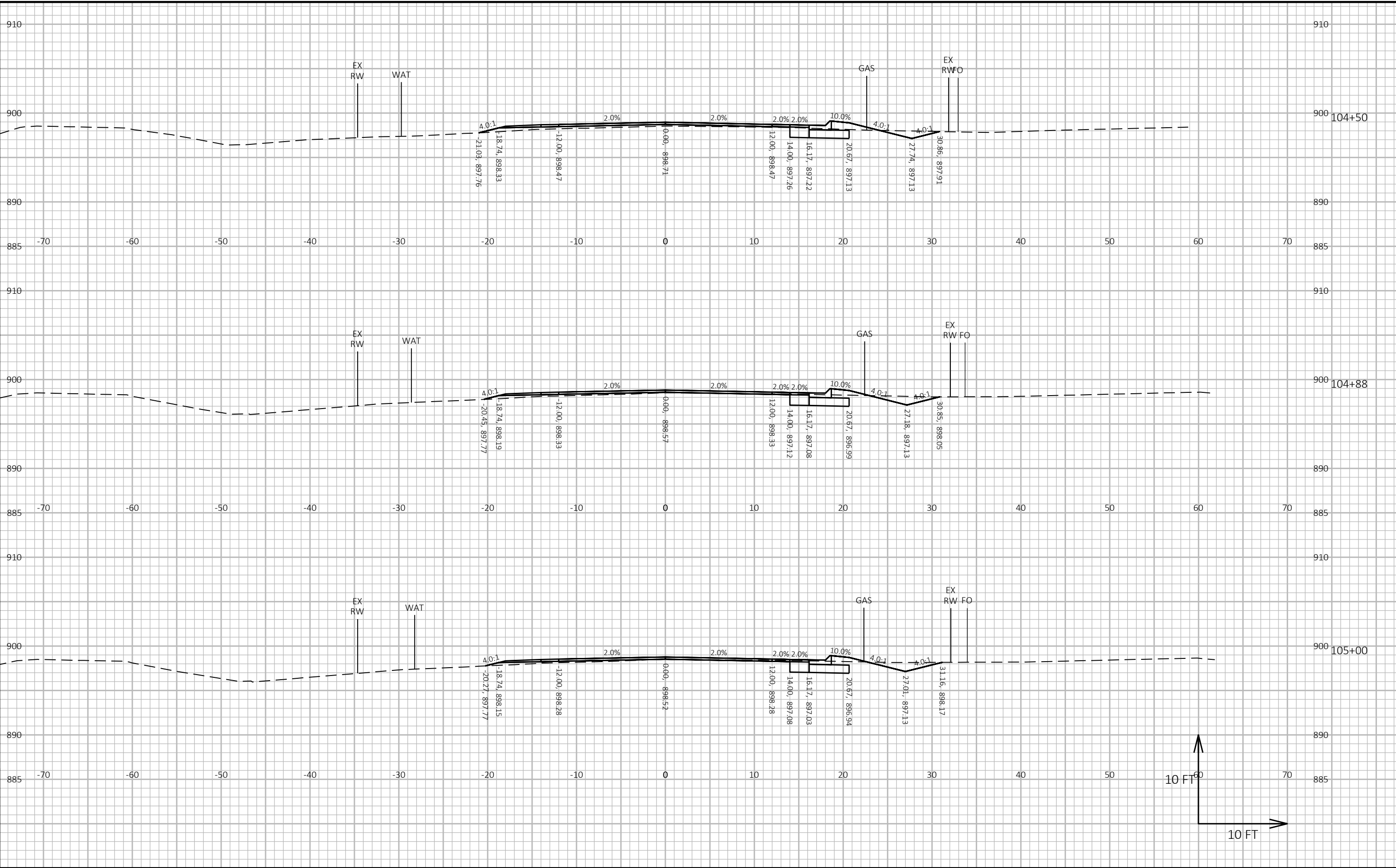


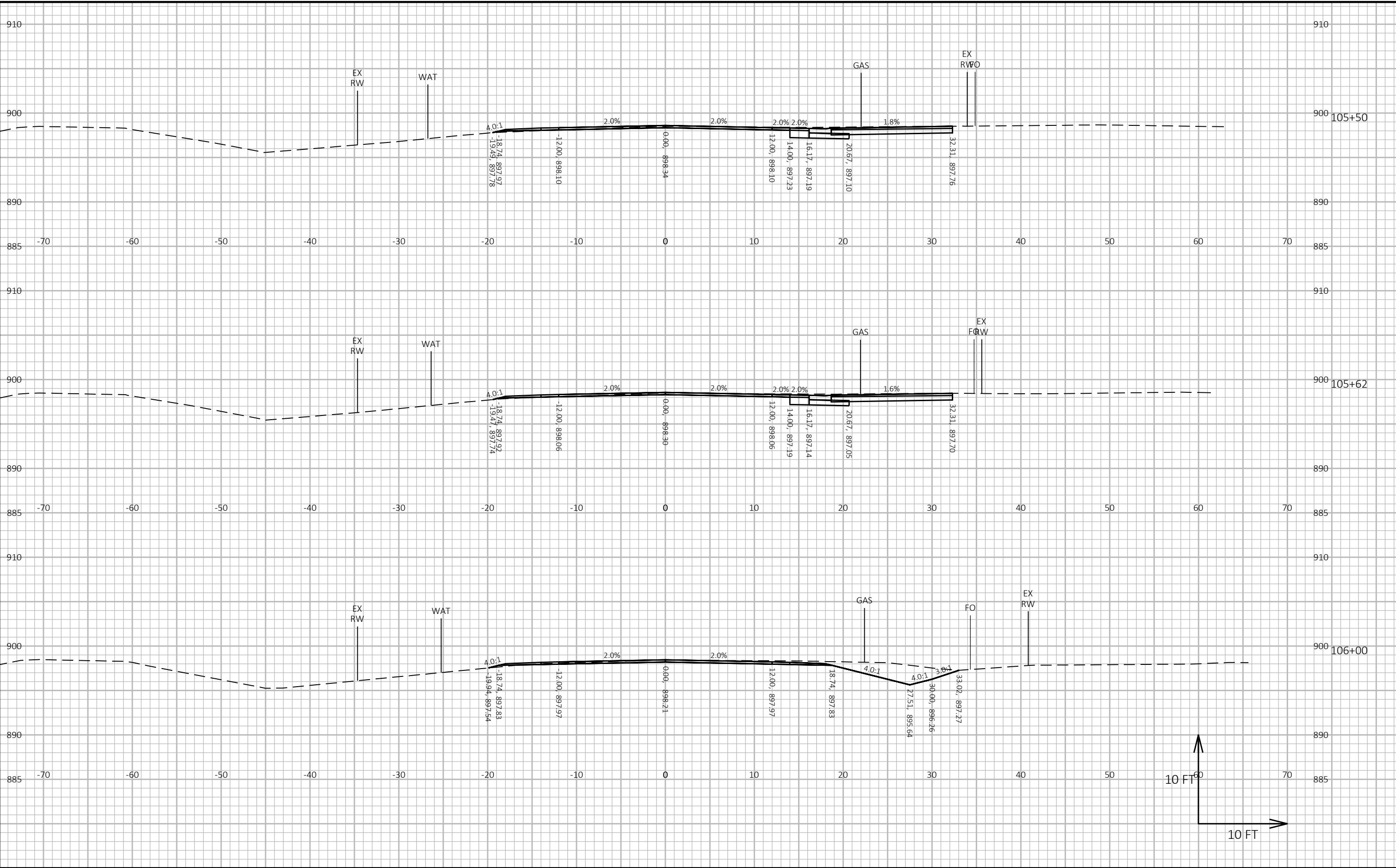
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET	E
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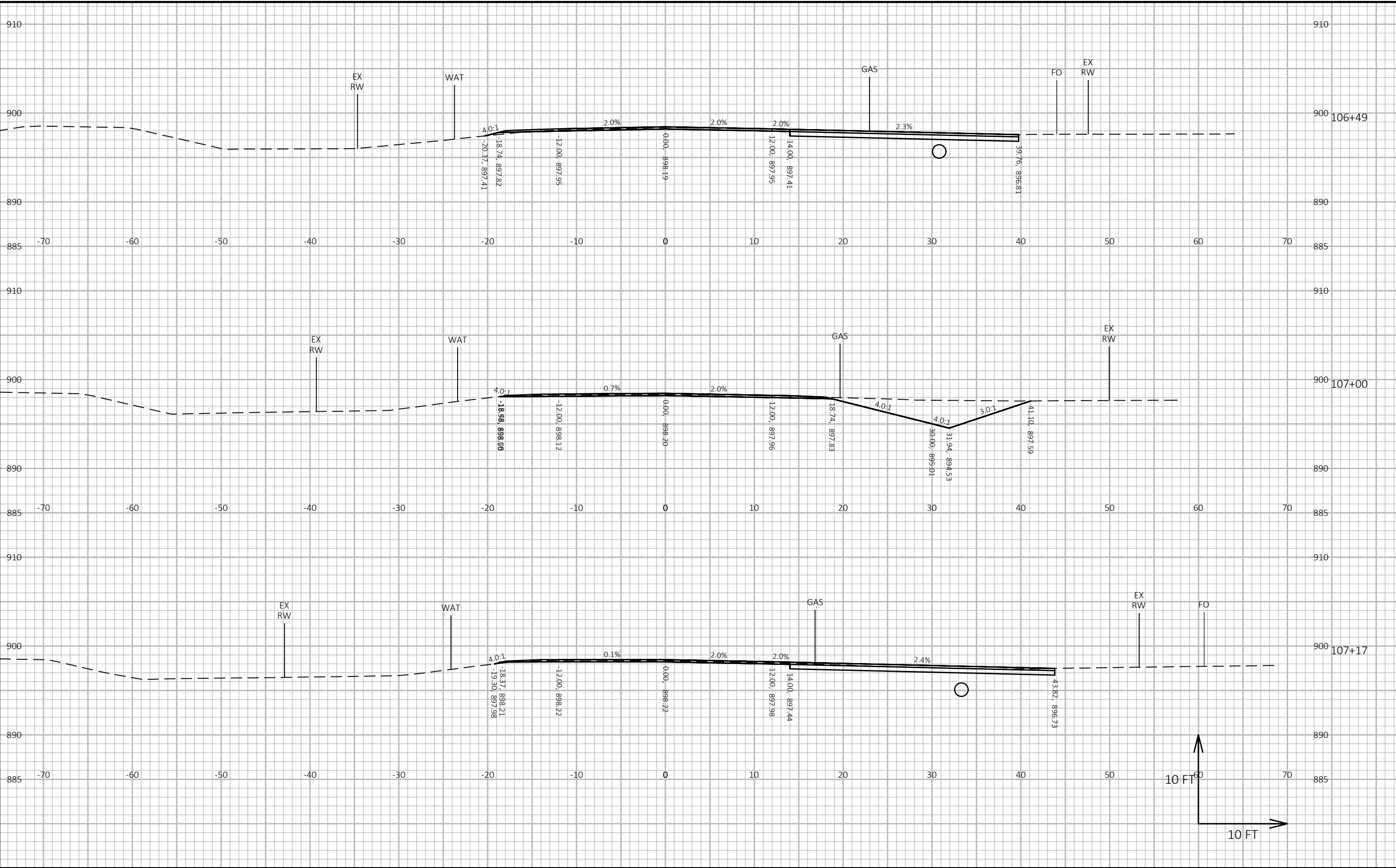




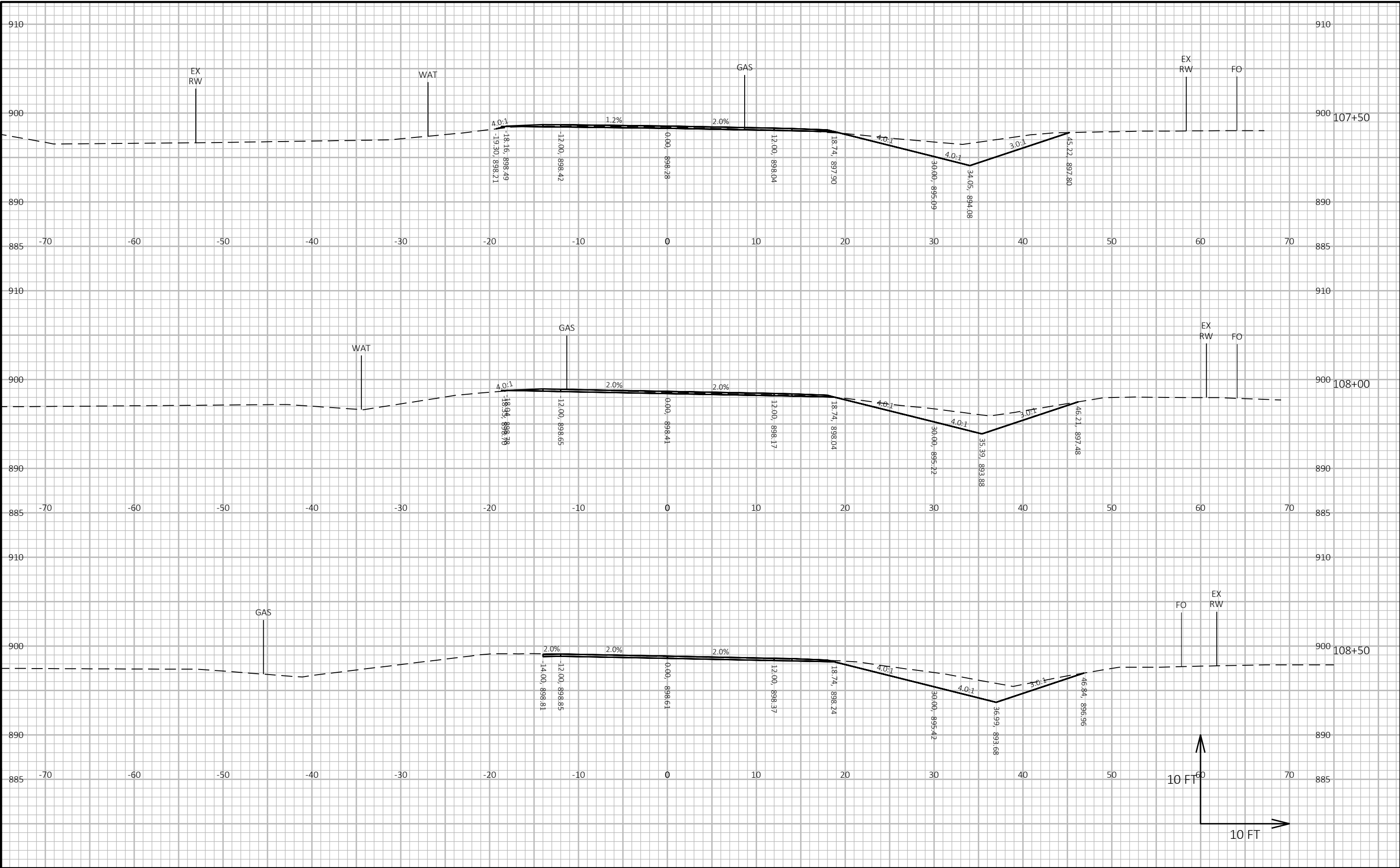


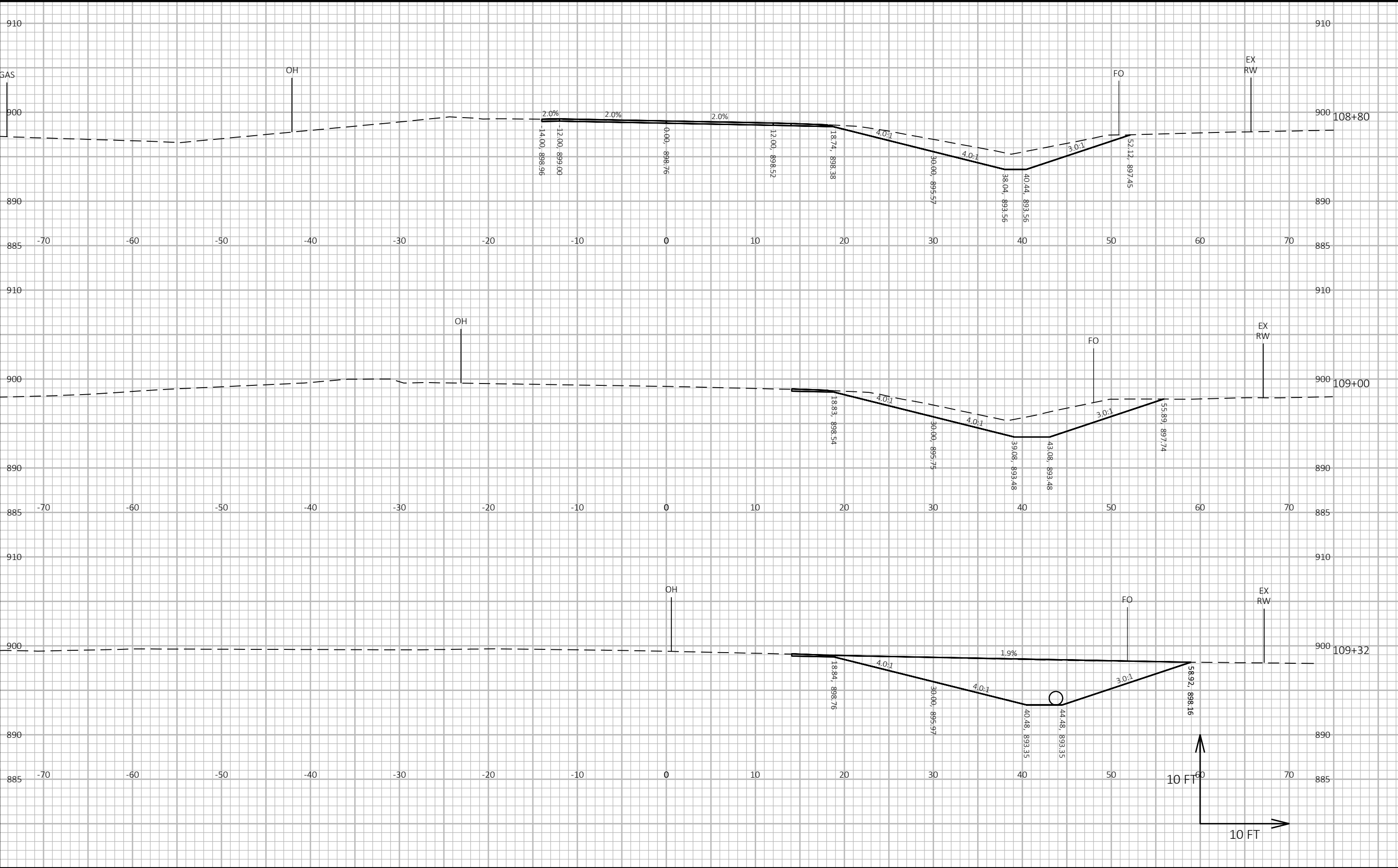




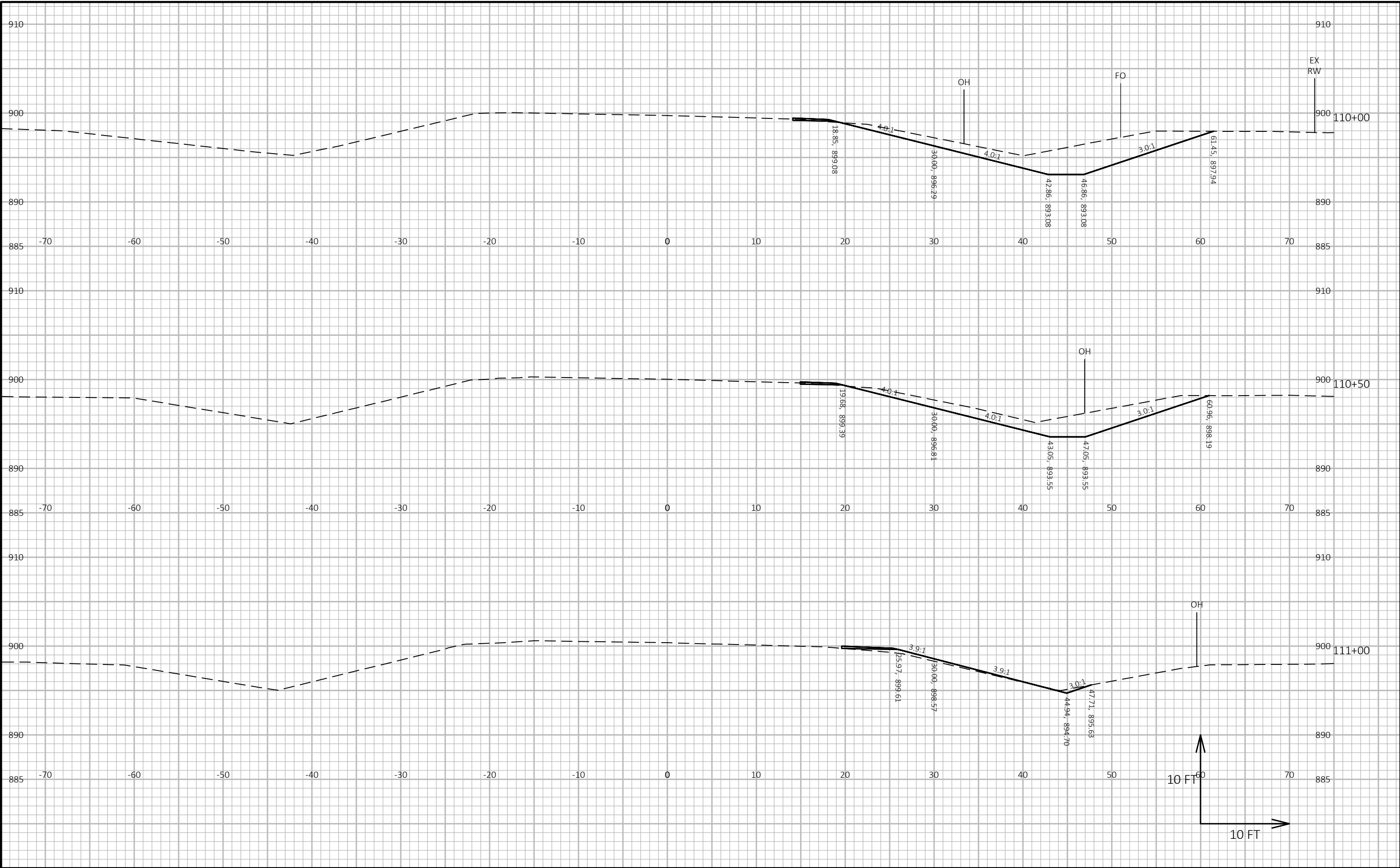


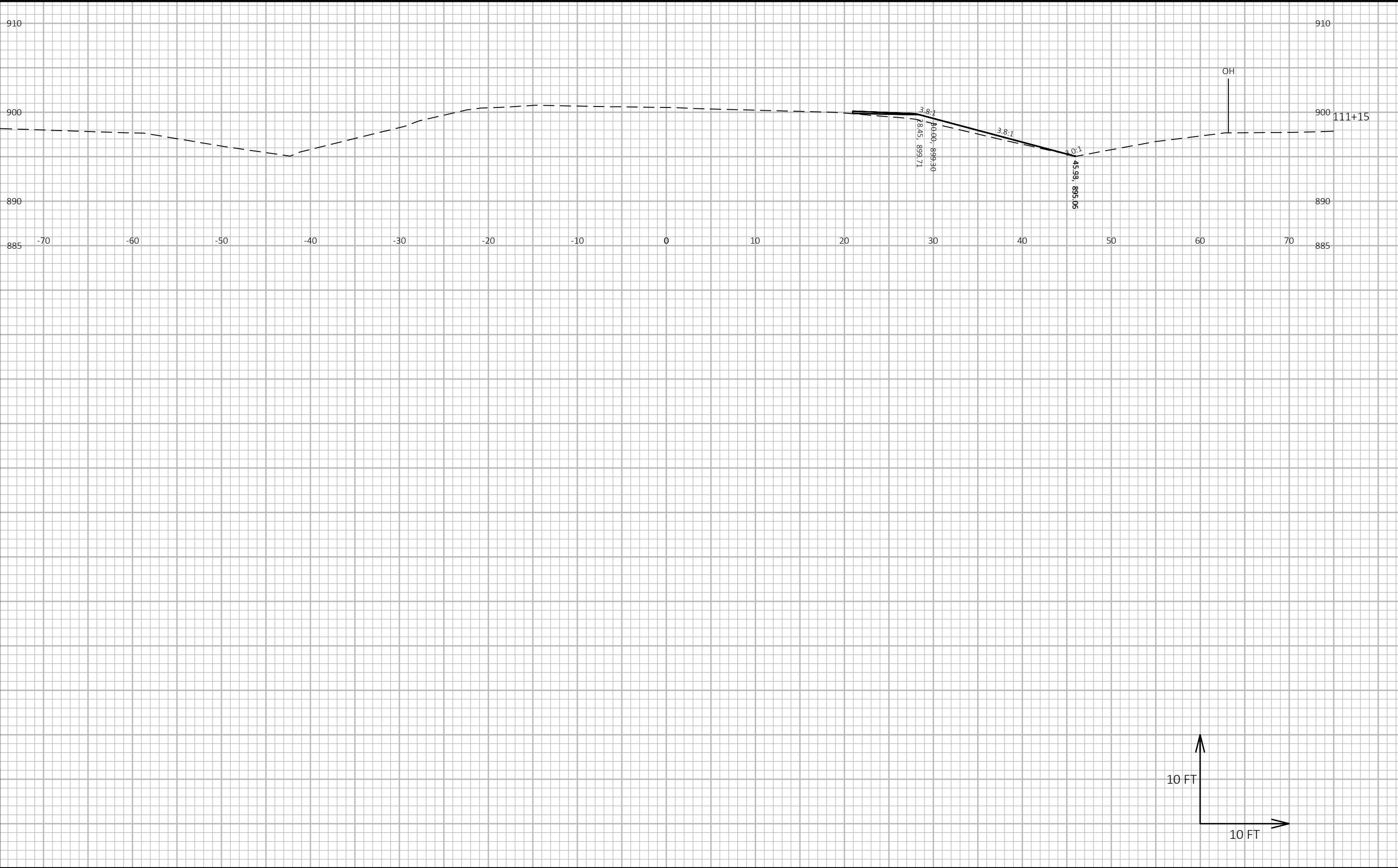
PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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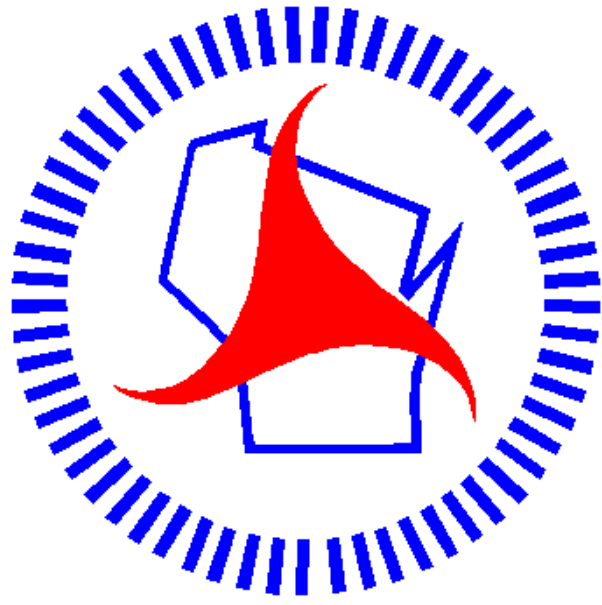




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PROJECT NO: 7864-00-74	HWY: CTH OO	COUNTY: CHIPPEWA	CROSS SECTIONS: CTH OO	SHEET E
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