

GRE

PROJECT ID:

4996-22-71

COUNTY:

SHEBOYGAN

JULY 2018

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details (Includes Erosion Control Plans)
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plot
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 = 156



18

DESIGN DESIGNATION

A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

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	

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

UTILITY CORRIDOR MULTI-USE PATH

S. BUSINESS DR - S. 18TH ST

NON-HIGHWAY

SHEBOYGAN COUNTY

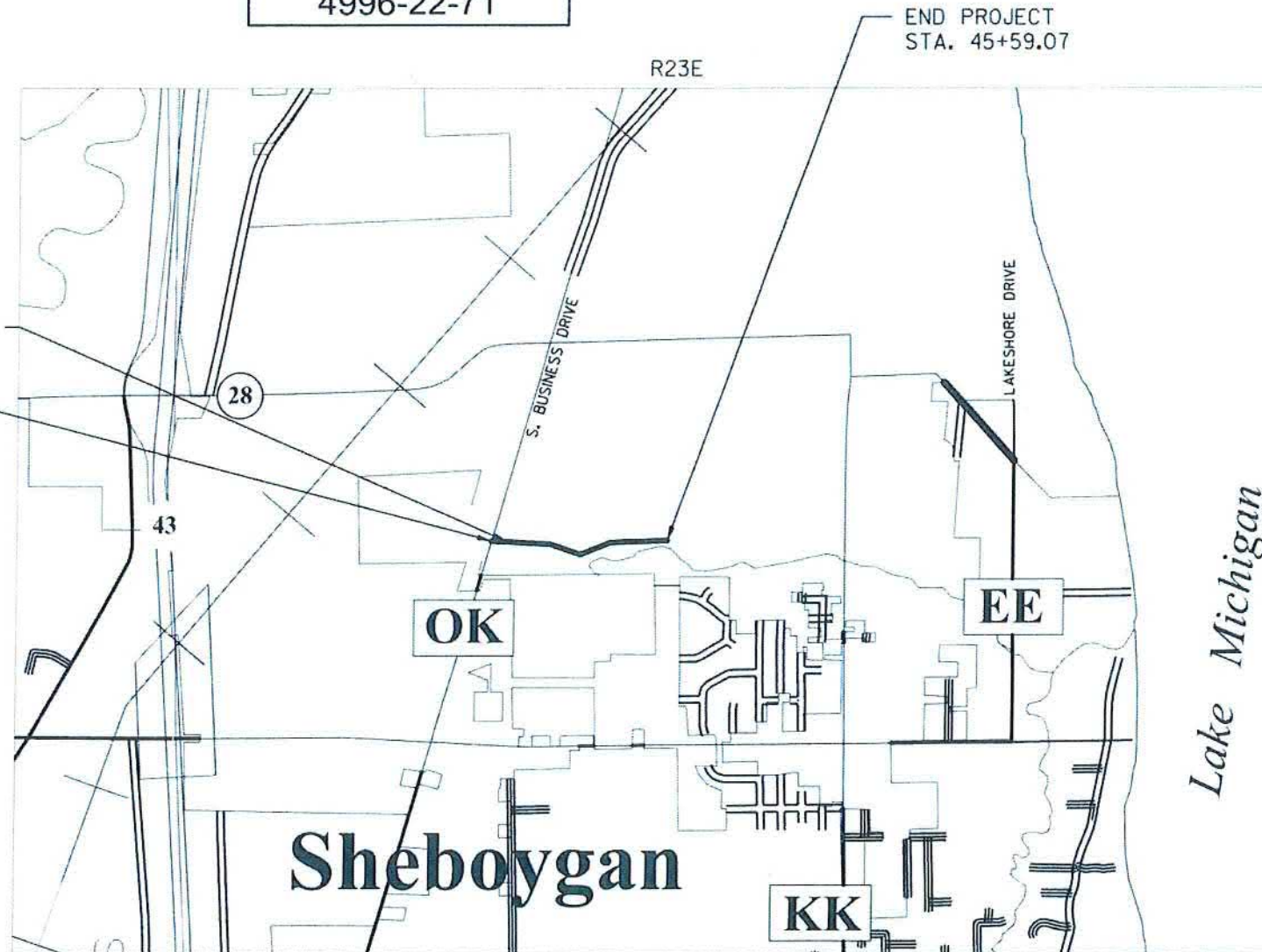
STATE PROJECT NUMBER

4996-22-71

END PROJECT
STA. 45+59.07

STA 104+50.00 M =
STA 18+29.98

BEGIN PROJECT
STA. 100+17.00 M
Y = 161,480.06
X = 211,243.89



LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.599

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SHEBOYGAN COUNTY, NAD83 (2011).
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCES TO THE NORTH AMERICAN VERTICAL DATUM OF 1988-NAVD 88 (2011)

STATE PROJECT

4996-22-71

FEDERAL PROJECT

PROJECT

WISC 2018345

CONTRACT

1

ACCEPTED FOR

SHEBOYGAN COUNTY

1-30-18

(Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

SA
STRAND
ASSOCIATES®
226 NORTH JEFFERSON STREET SUITE 350
MILWAUKEE, WISCONSIN 53202
(414) 271-0771

WISCONSIN
ASHLEY L. PRIDEMORE
E-45534
MILWAUKEE, WI
PROFESSIONAL ENGINEER
1/29/2018

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY: STRAND ASSOCIATES, INC.
Surveyor: STRAND ASSOCIATES, INC.
Designer: STRAND ASSOCIATES, INC.
Management Consultant: SHORT ELLIOTT HENDRICKSON, INC.

APPROVED FOR THE DEPARTMENT
DATE: 1-30-18 Alex J. Lawrence
(Management Consultant Signature)

E

GENERAL NOTES
EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

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

PIPE ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA PAVEMENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.

THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE APPROVED BY THE ENGINEER IN THE FIELD.

MISCELLANEOUS REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION.

ANY CONFLICTING SIGN SHALL BE COVERED OR REMOVED.

EXISTING PIPE CULVERT SIZES ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE IT'S BID ON THE ACTUAL FIELD SIZES.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. SEED WITH TEMPORARY SEED AND MULCH ANY AND ALL DISTURBED AREAS THAT WILL NOT BE PERMANENTLY RESTORED IN 14 DAYS OR LESS.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND MULCH.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NOT LONGER REQUIRED.

REMOVAL OF TEMPORARY EROSION CONTROL DEVICES IS INCLUDED IN THE COST THEIR RESPECTIVE BID ITEMS.

SECTION 2 ORDER OF SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- EROSION CONTROL
- PERMANENT SIGNING AND PAVEMENT MARKING
- TRAFFIC CONTROL
- DETOUR
- ALIGNMENT DETAILS
- CONTROL POINT DATA

UTILITIES

* ALLIANT ENERGY - ELECTRIC

JOE KOCHAN
4421 TOWER DRIVE
SHEBOYGAN, WI 53081
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joekochan@alliantenergy.com

* CHARTER COMMUNICATIONS

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* CITY OF SHEBOYGAN
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RYAN SAZAMA
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*DENOTES DIGGERS HOTLINE MEMBER

* ATC - TRANSMISSION

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khackelberg@atcillc.com

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GAS

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CELL: (920) 946-3198

* SHEBOYGAN WATER UTILITY

DAMIAN NEVERS
72 PARK STREET
SHEYBOYGAN, WI 53081
PH: (920) 459-3806

* AT&T - COMMUNICATIONS

CHUCK BARTELT
70 E. DIVISION STREET
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cb146i@att.com

* WINDSTREAM KDL, INC. -
COMMUNICATION

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MADISON, WI 53704
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dennis.ruess@windstream.com

* CITY OF SHEBOYGAN ELECTRIC

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2026 NEW JERSEY AVENUE
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OTHER CONTACTS

WISDNR CONTACT

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jeremiah.schiefelbein@wisconsin.gov

SHEBOYGAN COUNTY

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DESIGN CONSULTANT

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STRAND ASSOCIATES, INC.
126 N JEFFERSON STREET
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PH: (414) 271-0771
ashleypridemore@strand.com

ASPHALTIC PAVING TABLE

MOENNING ROAD		
UPPER LAYER	1.75"	4 LT 58-28 S
LOWER LAYER	2.25"	3 LT 58-28 S

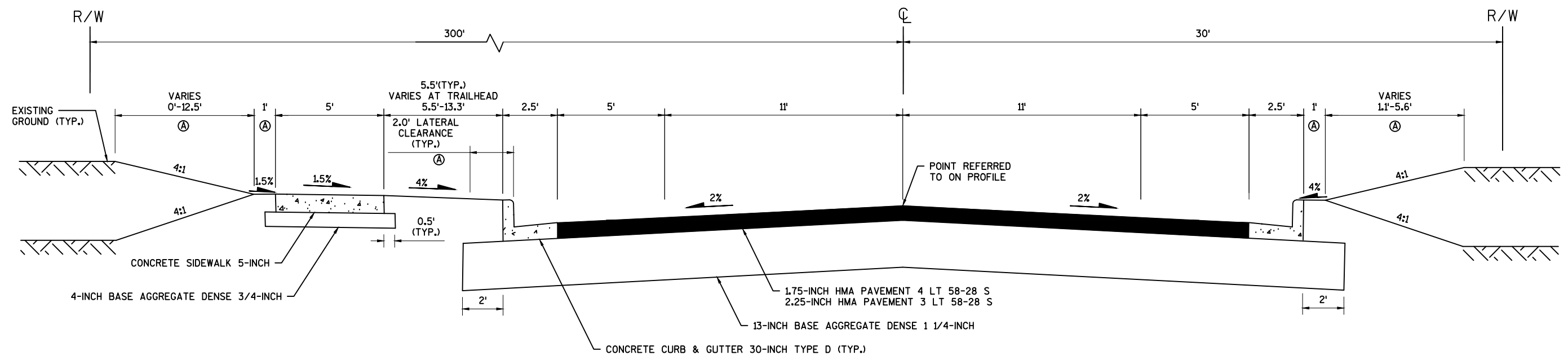
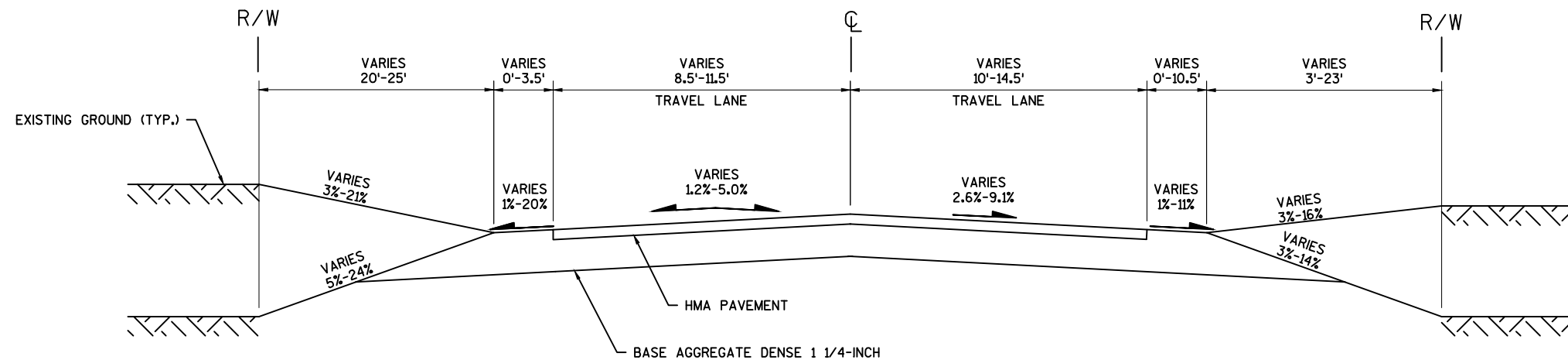


Dial 811 or (800)242-8511

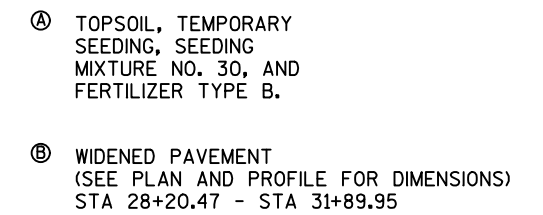
www.DiggersHotline.com



PROJECT NO: 4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 3	E
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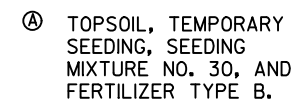


Ⓐ TOPSOIL, TEMPORARY SEEDING, SEEDING MIXTURE NO. 40, AND FERTILIZER TYPE B.



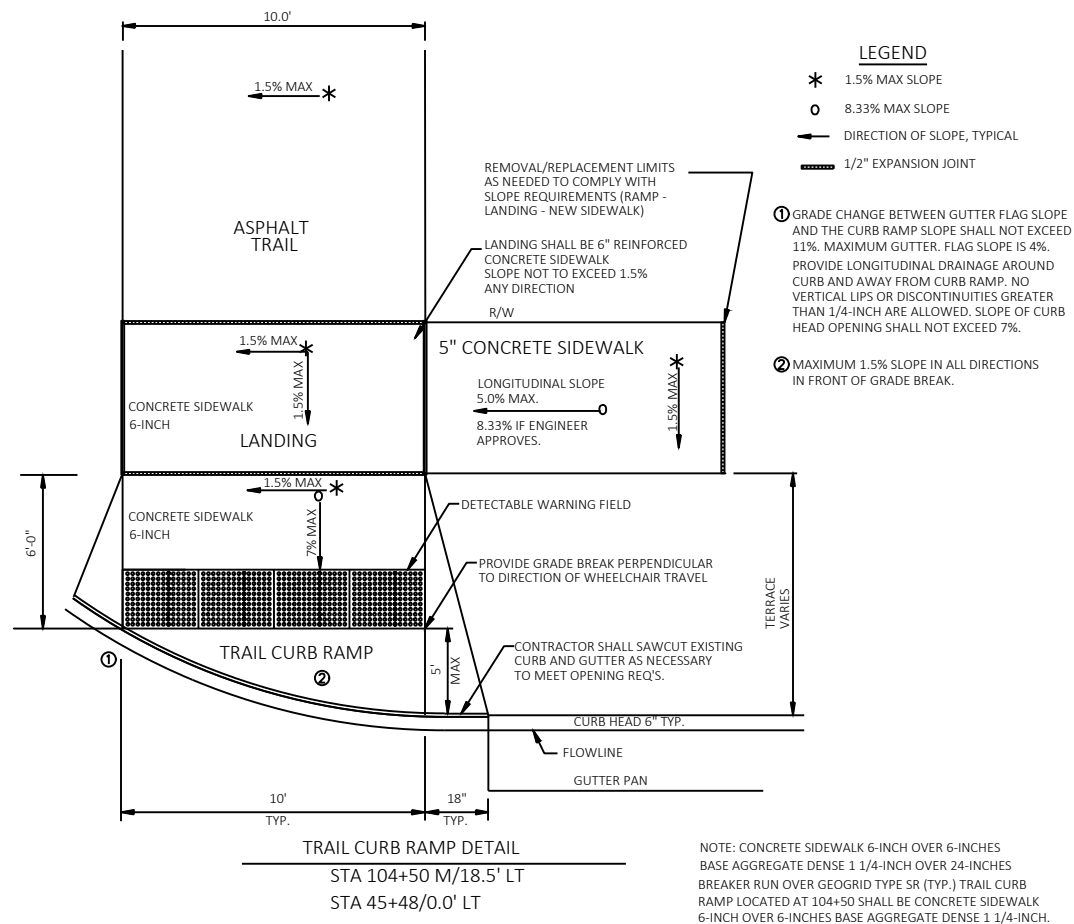
STA. 18+59.15 TO STA. 34+65.00

* INSTALL AND DAYLIGHT PIPE
UNDERDRAIN AT PROPOSED
LOW POINTS, SEE
MISCELLANEOUS QUANTITIES
FOR LOCATIONS



STA. 34+65.00 TO STA. 45+59.07

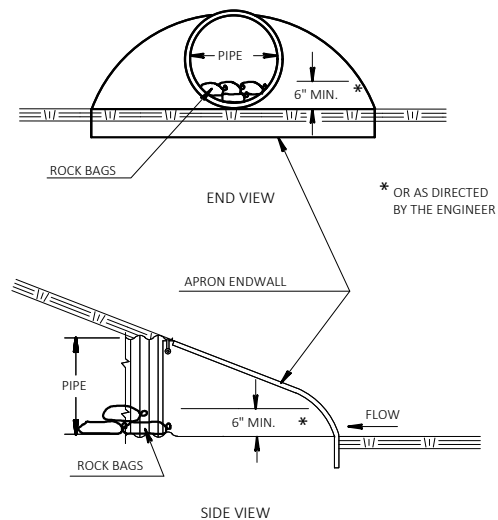
* INSTALL AND DAYLIGHT PIPE UNDERDRAIN AT PROPOSED LOW POINTS, SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS



RUNOFF COEFFICIENT TABLE

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

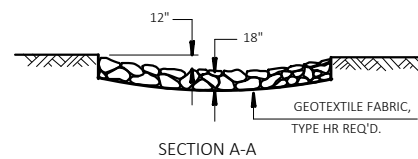
TOTAL PROJECT AREA = 41.48 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.30 ACRES



CULVERT PIPE CHECKS

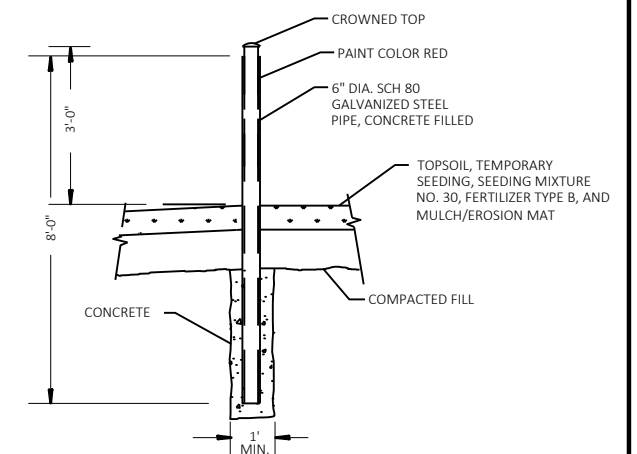
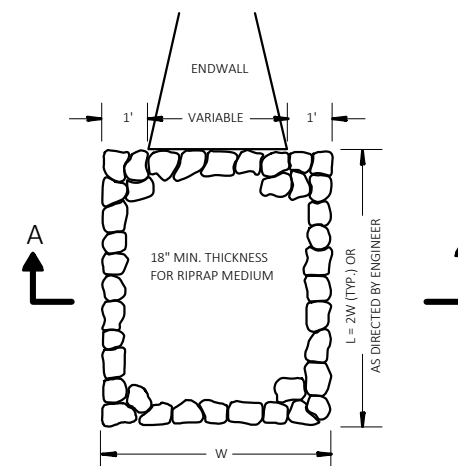
STA 105+34 M/19.1' RT

ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
18"	2
24"	3
30"	5
48"	10
54"	10
60"	13
72"	16



RIPRAP MEDIUM TREATMENT AT STORM SEWER OUTFALLS AND ASPHALTIC FLUMES

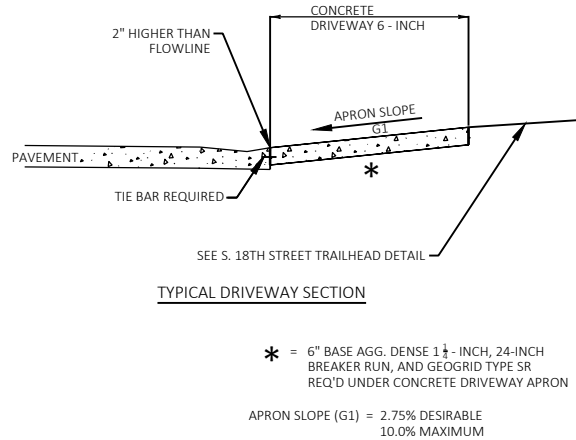
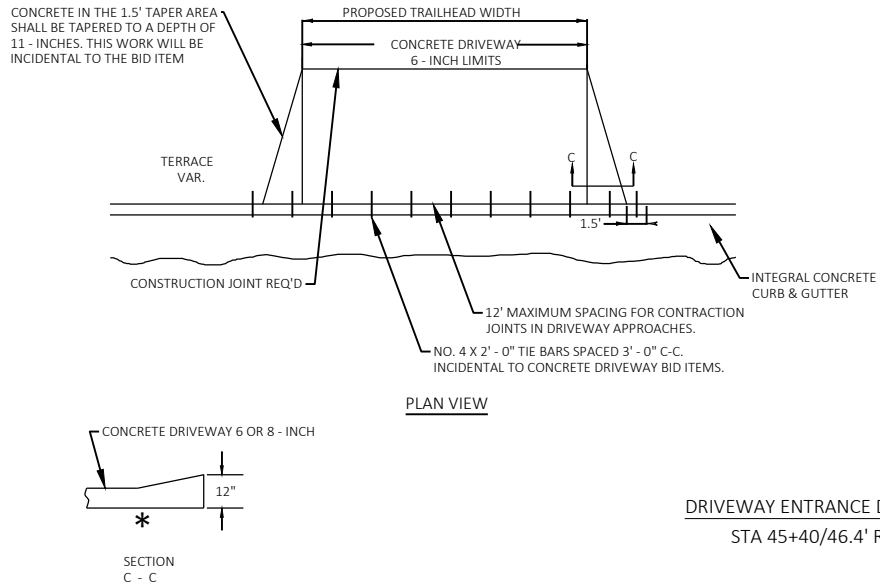
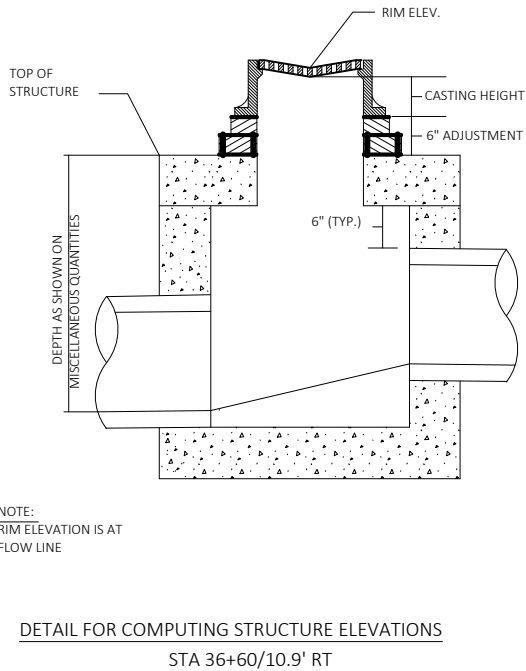
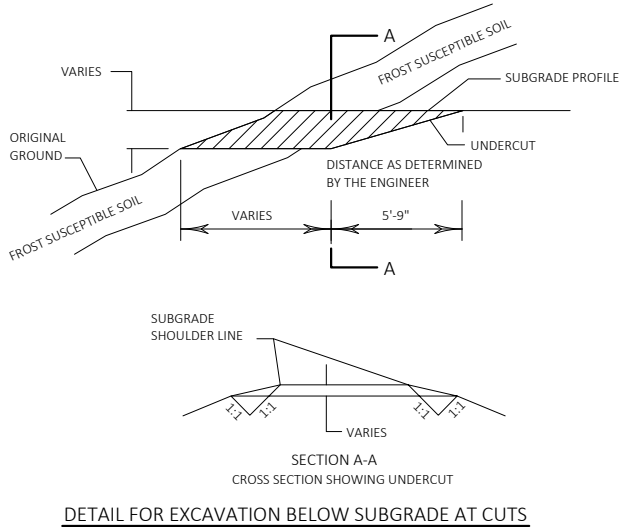
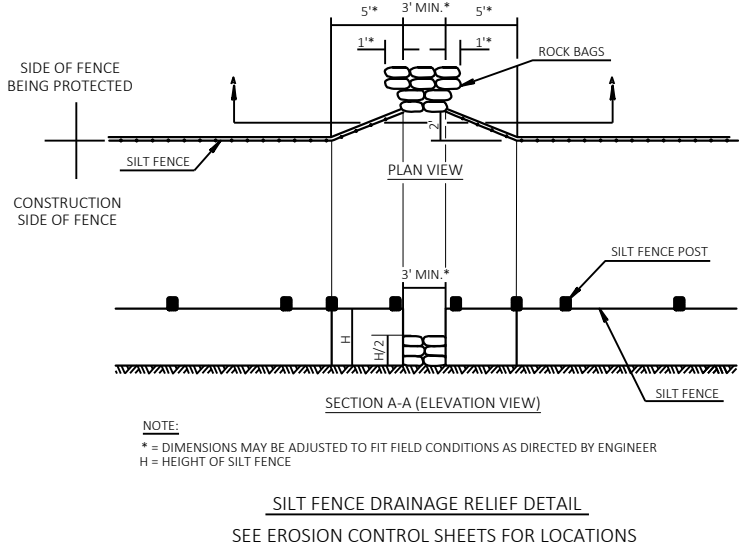
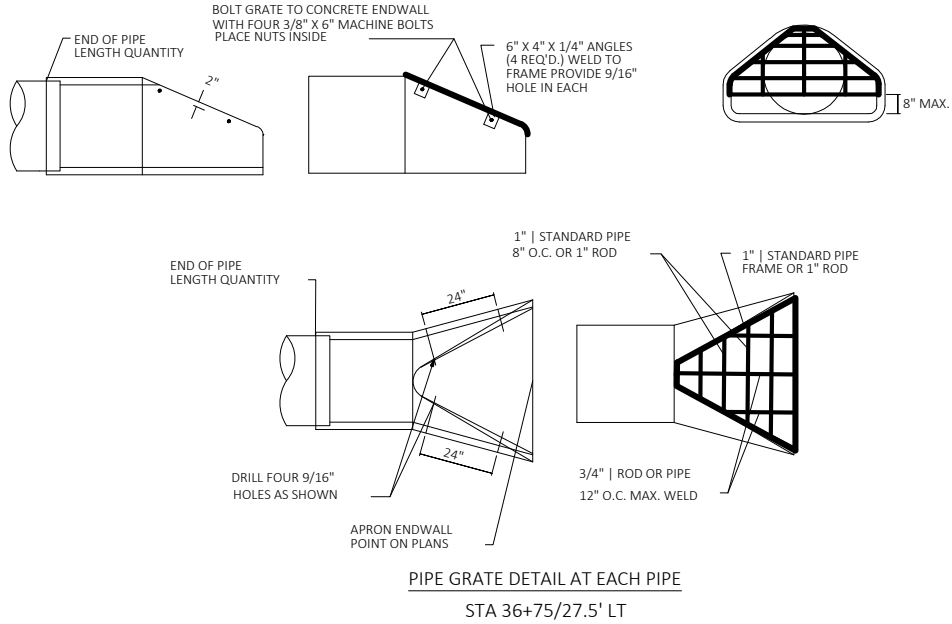
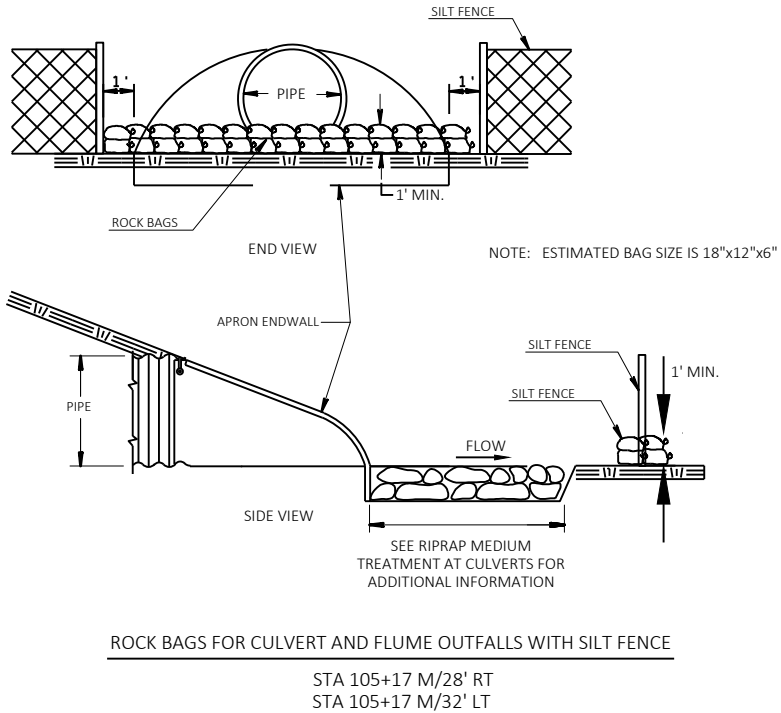
STA 104+97 M/20.7' RT
STA 104+96 M/26.0' LT
STA 36+77/33.2' LT



BOLLARD

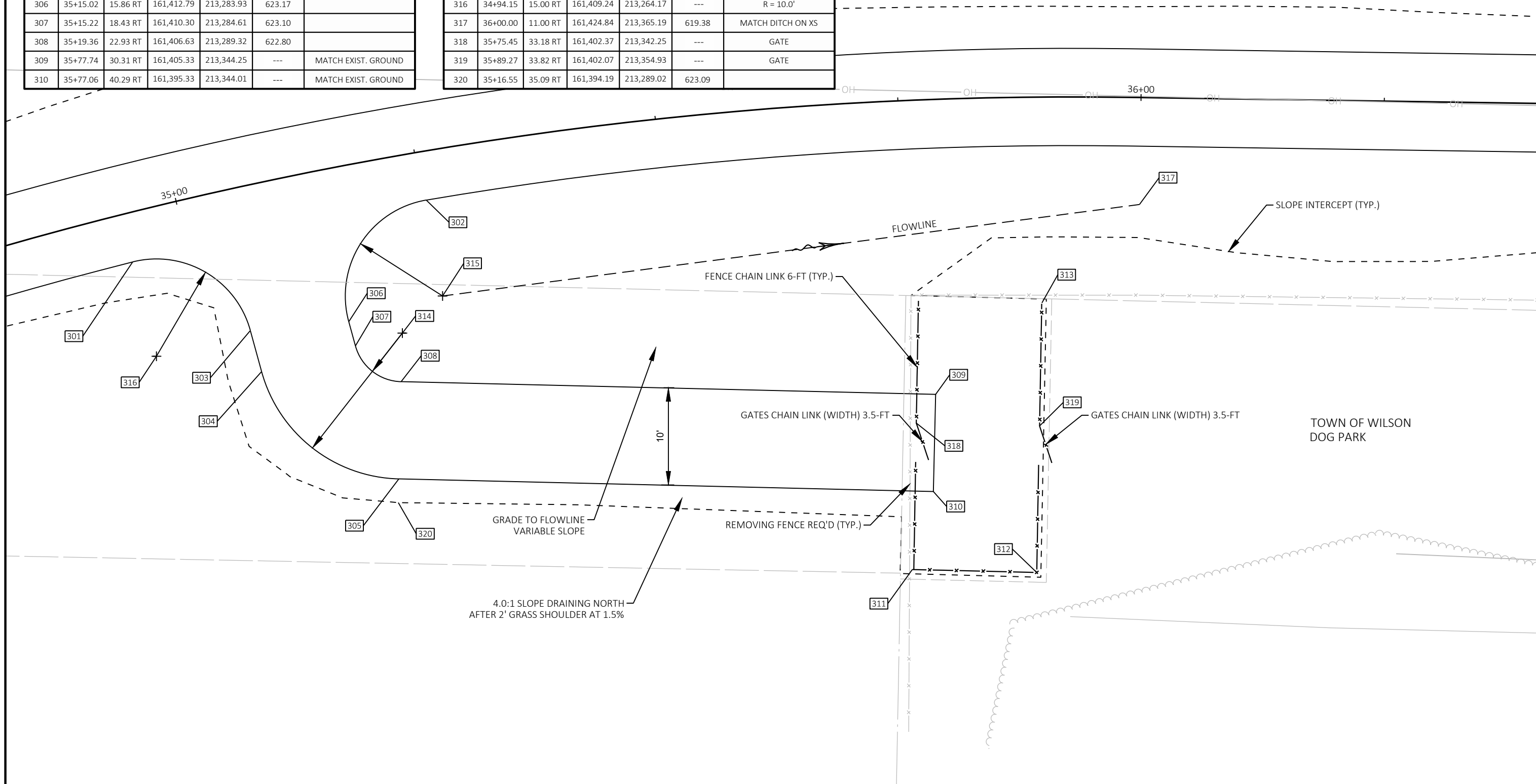
STA 18+70/8.0' LT
STA 18+70/8.0' RT

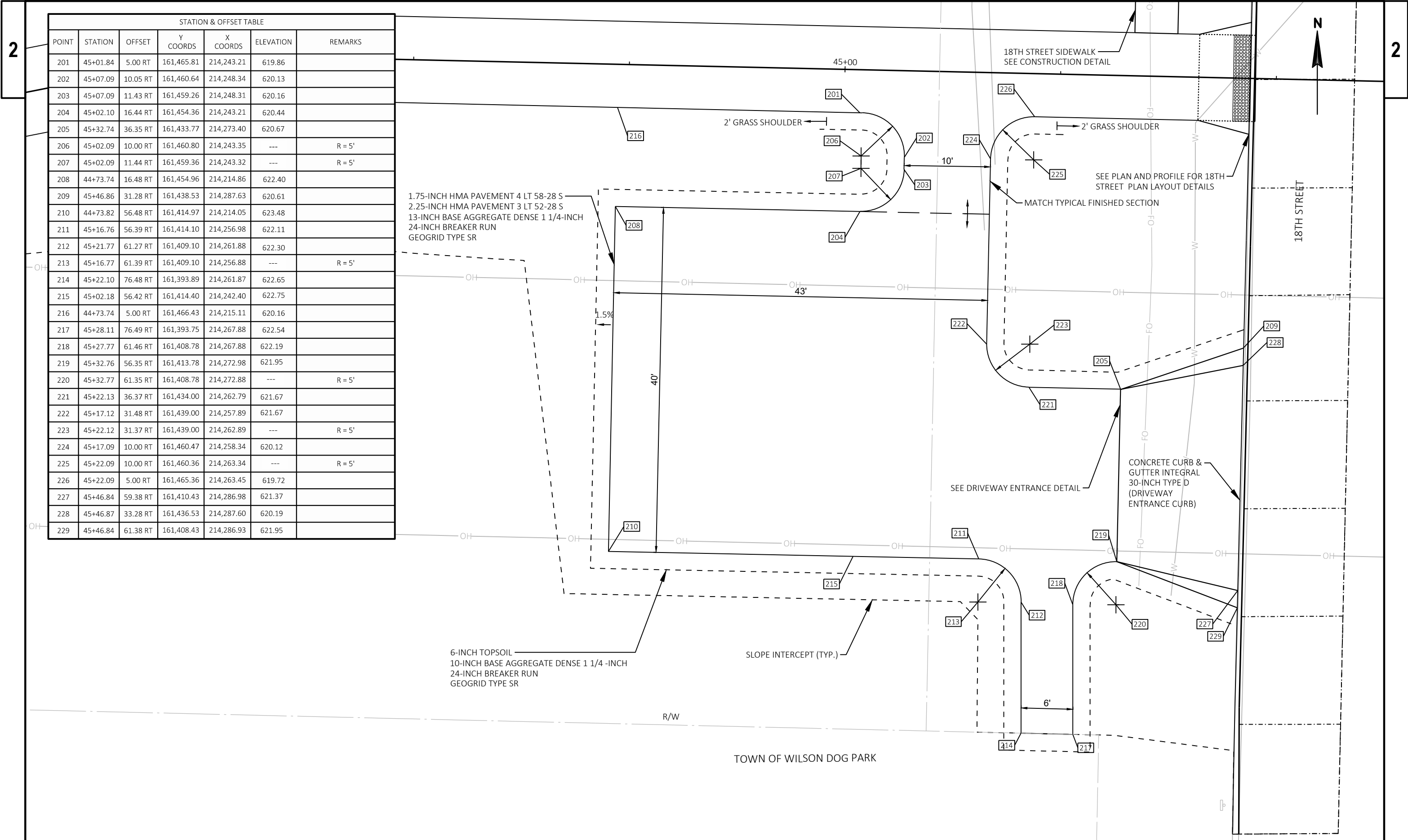
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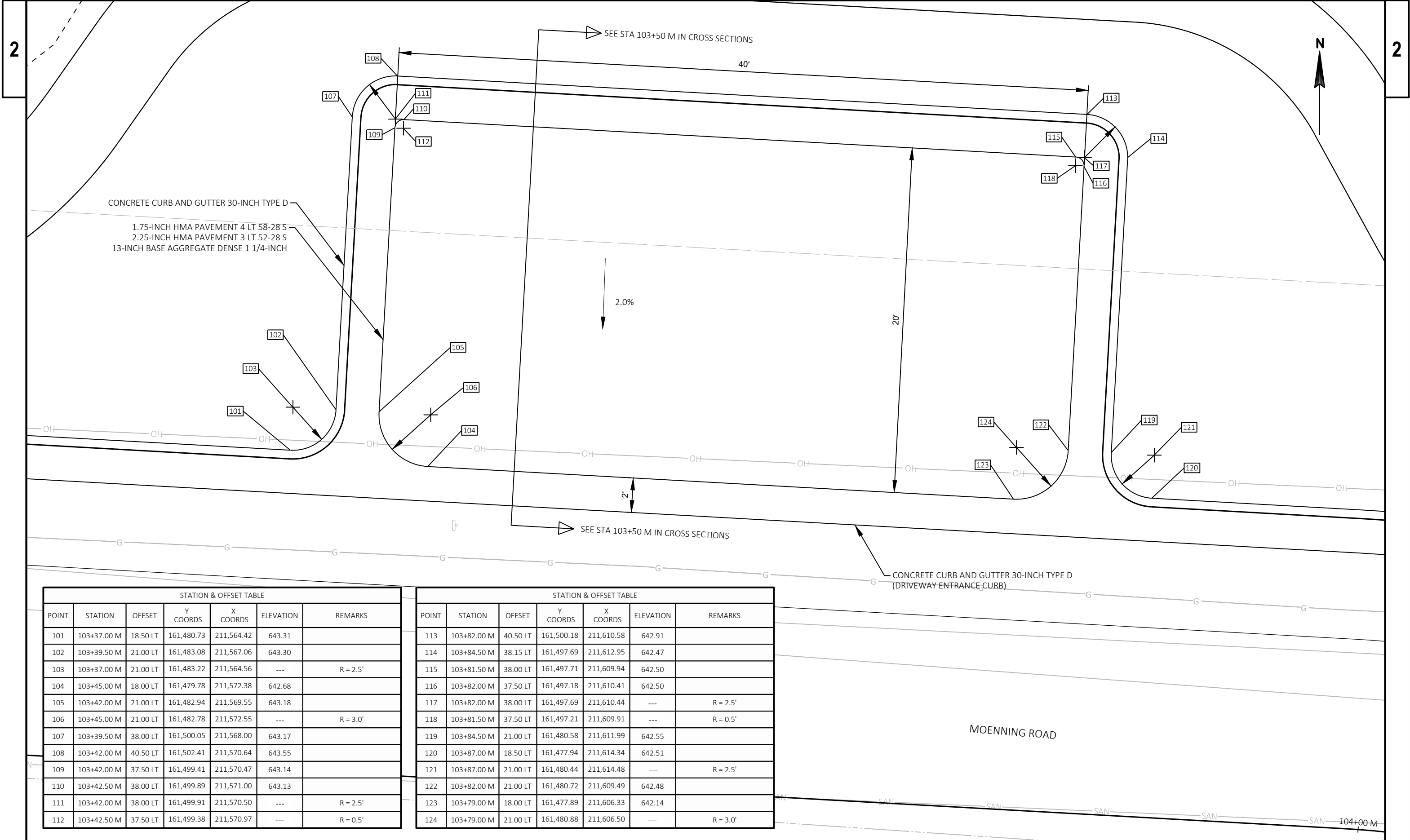


STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	REMARKS
301	34+94.15	5.00 RT	161,418.93	213,261.72	624.27	
302	35+25.38	5.00 RT	161,425.29	213,291.89	622.87	
303	35+04.53	14.66 RT	161,411.88	213,273.81	623.36	
304	35+04.74	19.03 RT	161,407.66	213,274.97	623.25	
305	35+17.12	32.71 RT	161,396.63	213,289.08	622.95	
306	35+15.02	15.86 RT	161,412.79	213,283.93	623.17	
307	35+15.22	18.43 RT	161,410.30	213,284.61	623.10	
308	35+19.36	22.93 RT	161,406.63	213,289.32	622.80	
309	35+77.74	30.31 RT	161,405.33	213,344.25	---	MATCH EXIST. GROUND
310	35+77.06	40.29 RT	161,395.33	213,344.01	---	MATCH EXIST. GROUND

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	REMARKS
311	35+74.24	48.21 RT	161,387.31	213,341.85	---	
312	35+88.78	48.88 RT	161,387.01	213,354.64	---	
313	35+89.64	21.16 RT	161,414.73	213,355.17	---	
314	35+20.44	18.03 RT	161,411.62	213,289.43	---	R = 5.0', 15.0'
315	35+25.38	15.00 RT	161,415.44	213,293.57	621.14	R = 10.0'
316	34+94.15	15.00 RT	161,409.24	213,264.17	---	R = 10.0'
317	36+00.00	11.00 RT	161,424.84	213,365.19	619.38	MATCH DITCH ON XS
318	35+75.45	33.18 RT	161,402.37	213,342.25	---	GATE
319	35+89.27	33.82 RT	161,402.07	213,354.93	---	GATE
320	35+16.55	35.09 RT	161,394.19	213,289.02	623.09	







STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	REMARKS
401	37+12.09	5.00 LT	161,439.18	213,477.50	619.09	
402	37+14.59	7.50 LT	161,441.64	213,480.04	618.98	
403	37+14.59	10.00 LT	161,444.14	213,480.08	619.10	
404	37+12.09	7.00 LT	161,441.18	213,477.53	619.14	GRASS SHOULDER
405	37+12.59	7.50 LT	161,441.67	213,478.04	619.13	GRASS SHOULDER
406	37+12.09	7.50 LT	161,441.68	213,477.54	---	R = 2.5'
407	37+12.59	12.00 LT	161,446.17	213,478.11	619.08	GRASS SHOULDER
408	37+36.59	12.00 LT	161,445.82	213,502.10	619.03	GRASS SHOULDER
409	37+34.59	10.00 LT	161,443.85	213,500.07	619.07	
410	37+34.59	7.50 LT	161,441.35	213,500.04	618.95	
411	37+37.09	5.00 LT	161,438.81	213,502.50	619.04	
412	37+36.59	7.50 LT	161,441.32	213,502.04	619.07	GRASS SHOULDER
413	37+37.09	7.00 LT	161,440.81	213,502.53	619.08	GRASS SHOULDER
414	37+37.09	7.50 LT	161,441.31	213,502.54	---	R = 2.5'
415	37+34.57	7.54 LT	161,441.38	213,500.01	---	BACK OF BENCH
416	37+29.03	5.50 LT	161,439.43	213,494.45	---	BACK OF BENCH

NOTE: FINAL LOCATION OF BENCH SHALL BE APPROVED IN FIELD BY COUNTY.

POST

2' GRASS SHOULDER

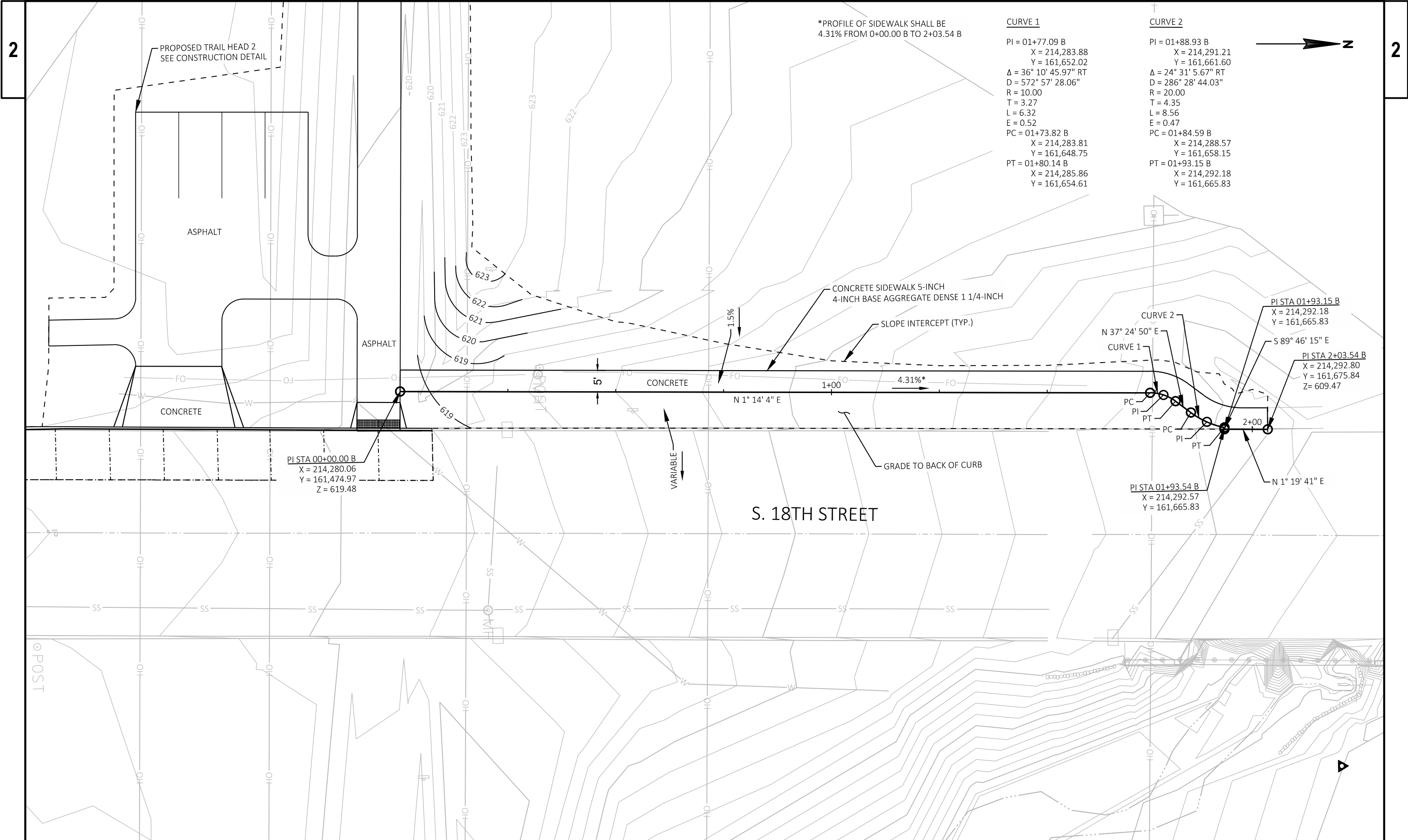
BENCH REQ'D

2' GRASS SHOULDER

SLOPE INTERCEPT (TYP.)

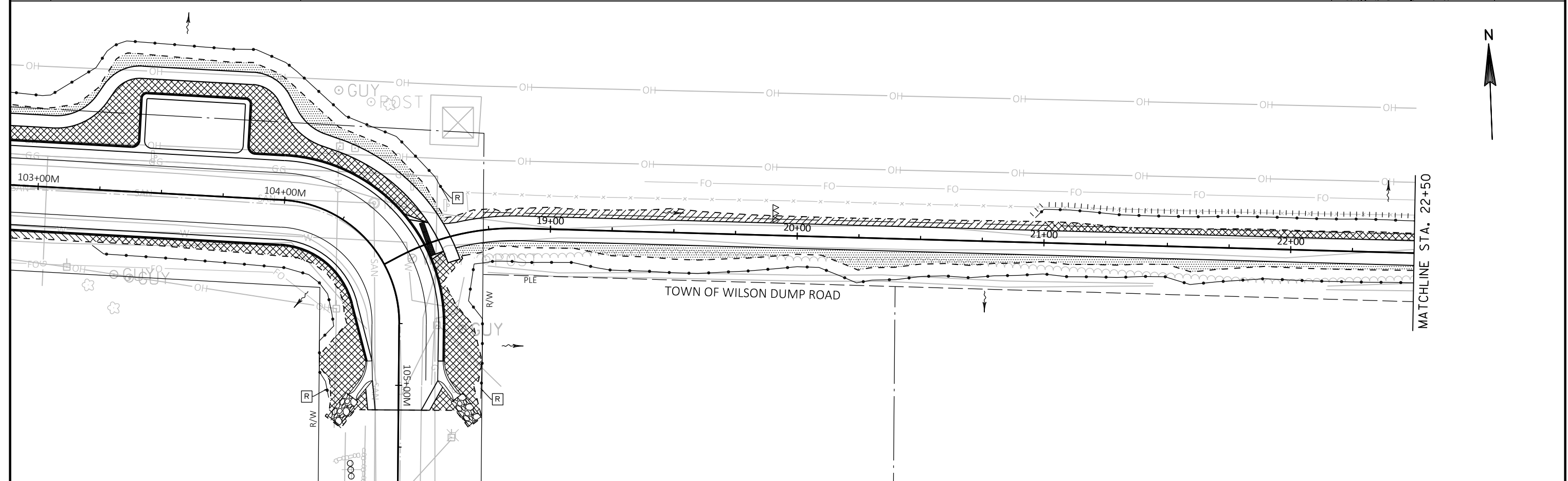
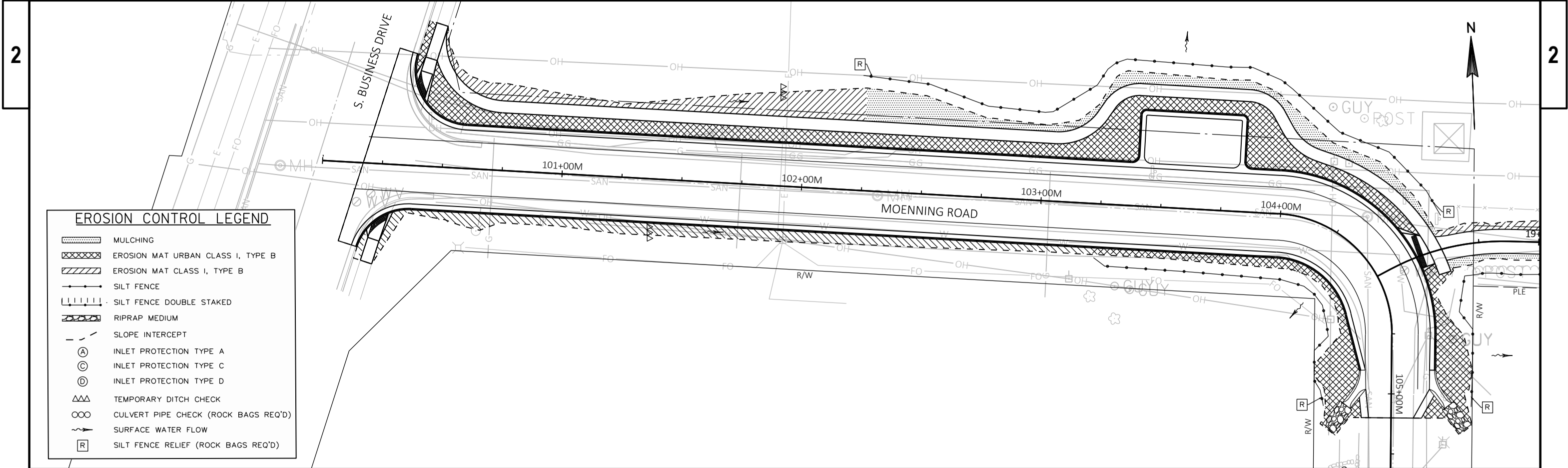
MATCH TYPICAL FINISHED SECTION
(3-INCH ASPHALTIC SURFACE
6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
24-INCH BREAKER RUN
GEOGRID TYPE SR)

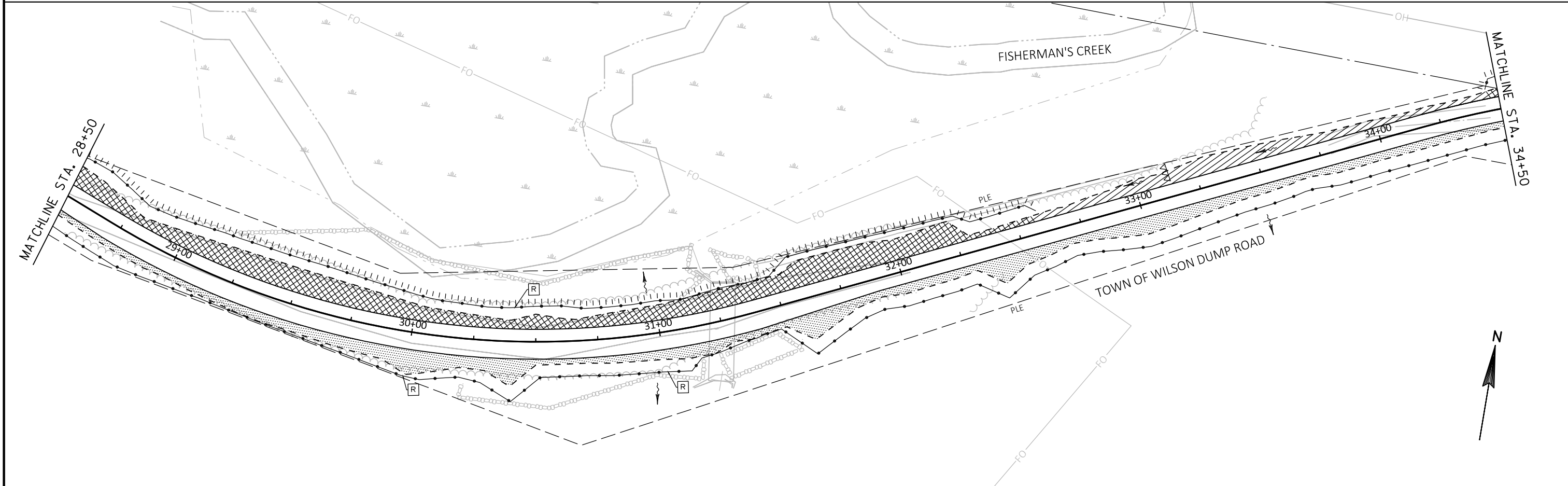
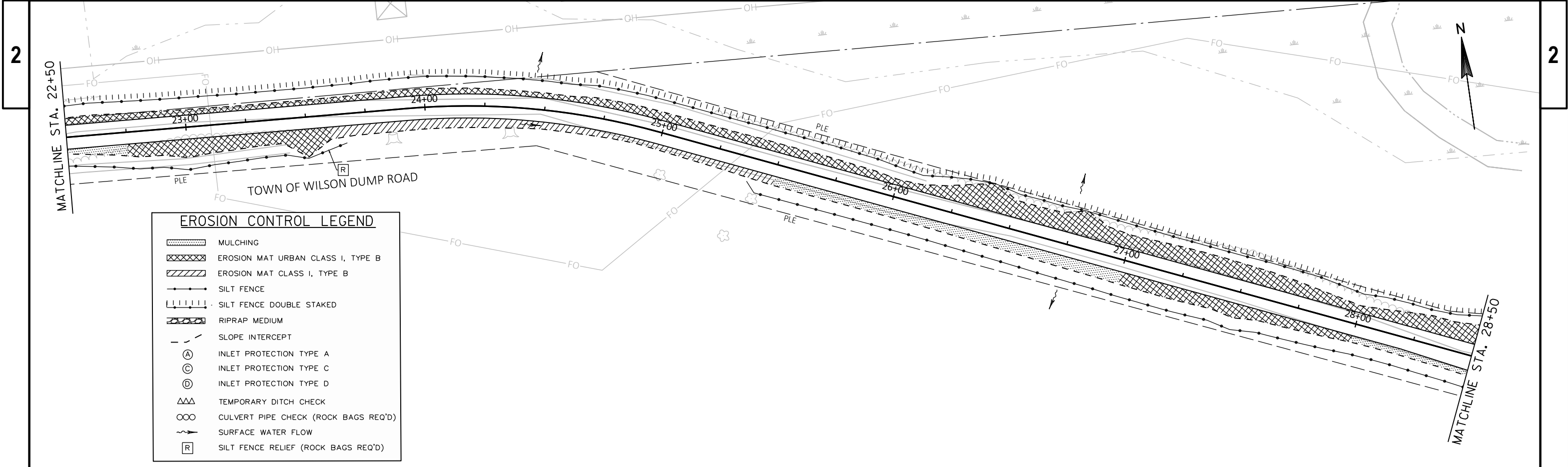
2' GRASS SHOULDER

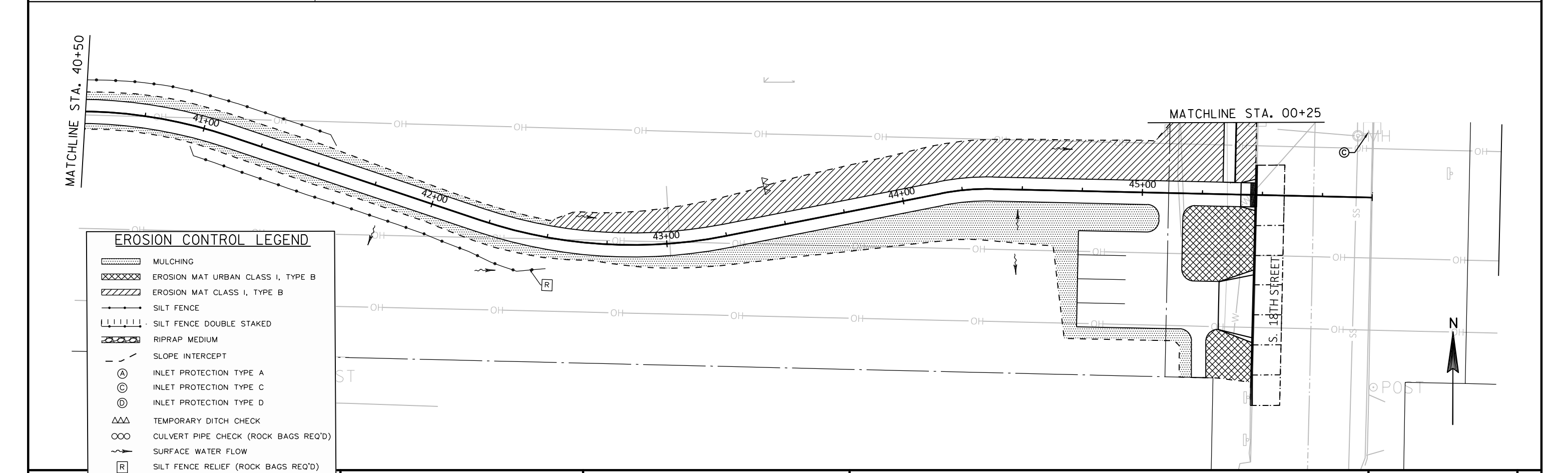
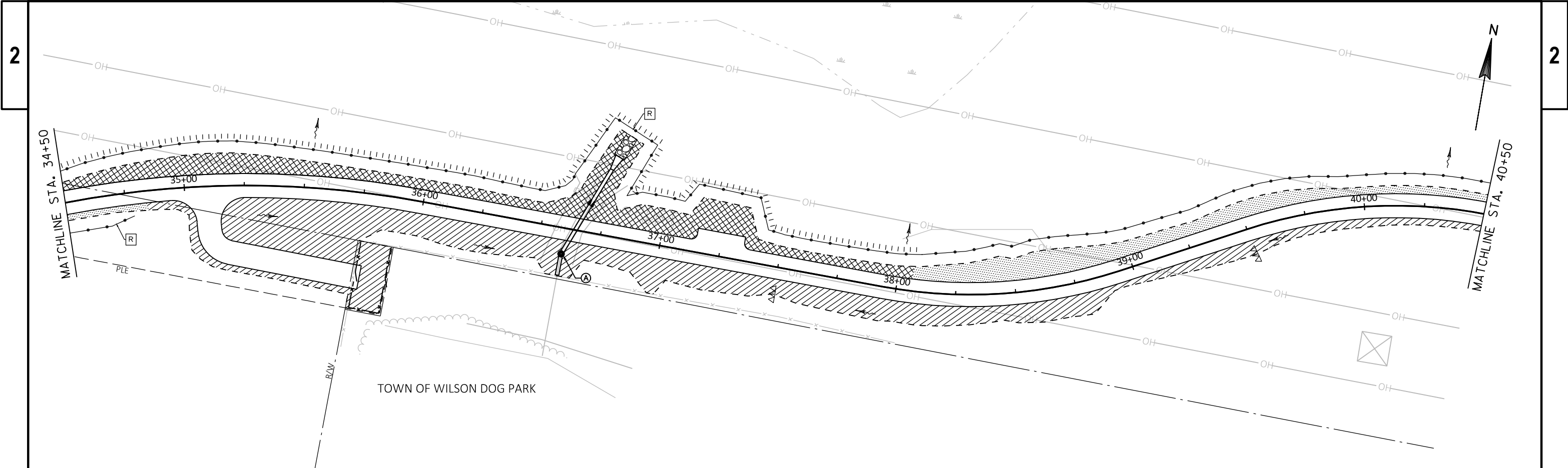


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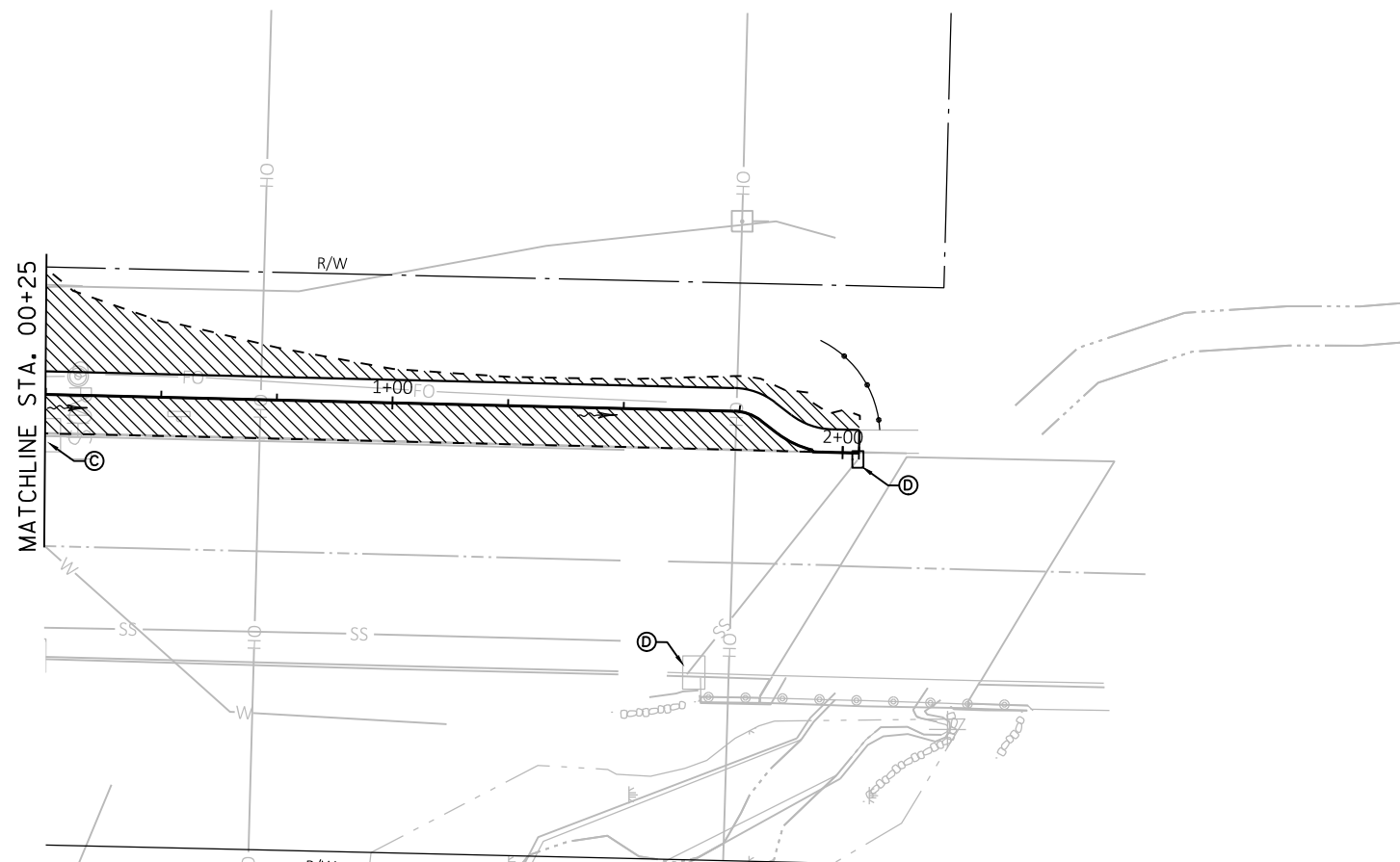


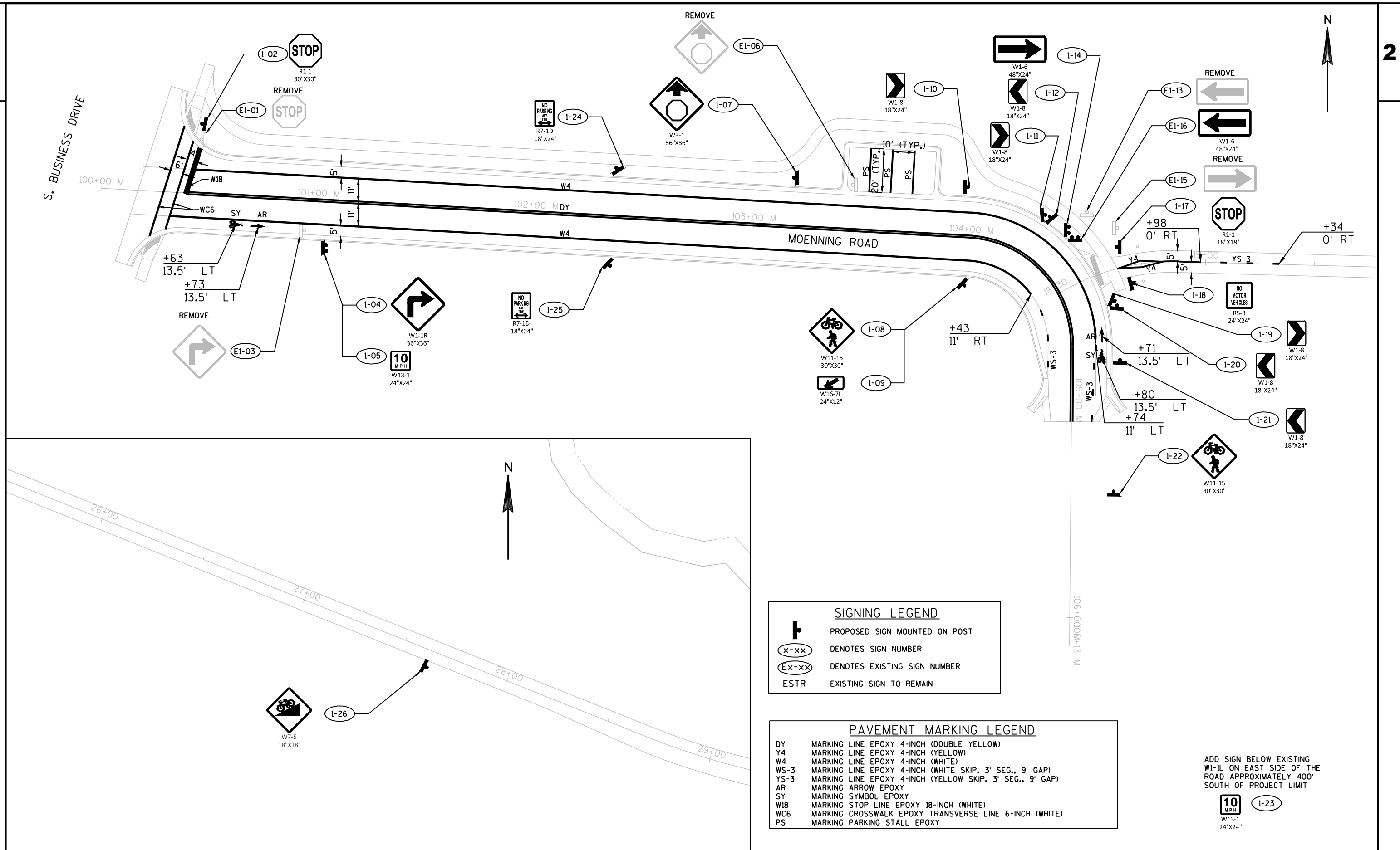


EROSION CONTROL LEGEND	
	MULCHING
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS I, TYPE B
	SILT FENCE
	SILT FENCE DOUBLE STAKED
	RIPRAP MEDIUM
	SLOPE INTERCEPT
	INLET PROTECTION TYPE A
	INLET PROTECTION TYPE C
	INLET PROTECTION TYPE D
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK (ROCK BAGS REQ'D)
	SURFACE WATER FLOW
	SILT FENCE RELIEF (ROCK BAGS REQ'D)

EROSION CONTROL LEGEND

	MULCHING
	EROSION MAT URBAN CLASS I, TYPE B
	EROSION MAT CLASS I, TYPE B
	SILT FENCE
	SILT FENCE DOUBLE STAKED
	RIPRAP MEDIUM
	SLOPE INTERCEPT
	INLET PROTECTION TYPE A
	INLET PROTECTION TYPE C
	INLET PROTECTION TYPE D
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK (ROCK BAGS REQ'D)
	SURFACE WATER FLOW
	SILT FENCE RELIEF (ROCK BAGS REQ'D)





PAVEMENT MARKING LEGEND

DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
Y4	MARKING LINE EPOXY 4-INCH (YELLOW)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
WS-3	MARKING LINE EPOXY 4-INCH (WHITE SKIP, 3' SEG., 9' GAP)
YS-3	MARKING LINE EPOXY 4-INCH (YELLOW SKIP, 3' SEG., 9' GAP)
AR	MARKING ARROW EPOXY
SY	MARKING SYMBOL EPOXY
W18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WC6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
PS	MARKING PARKING STALL EPOXY



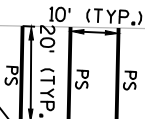
2-03



2-04



2-05



2-01

2-02



2-08



SIGNING LEGEND

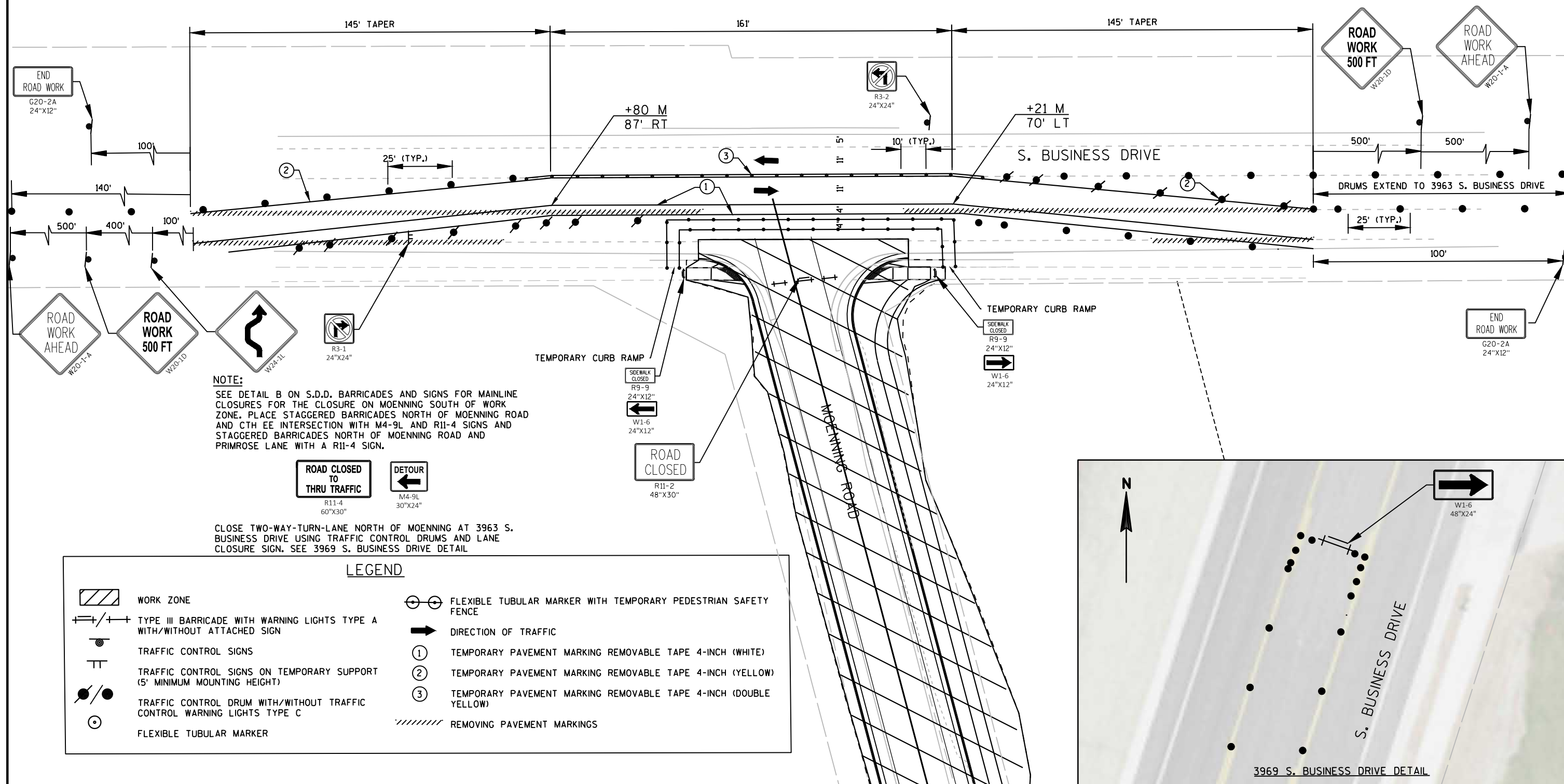
	PROPOSED SIGN MOUNTED ON POST
	DENOTES SIGN NUMBER
	DENOTES EXISTING SIGN NUMBER
ESTR	EXISTING SIGN TO REMAIN

POST

POST

POST

S. 18TH STREET

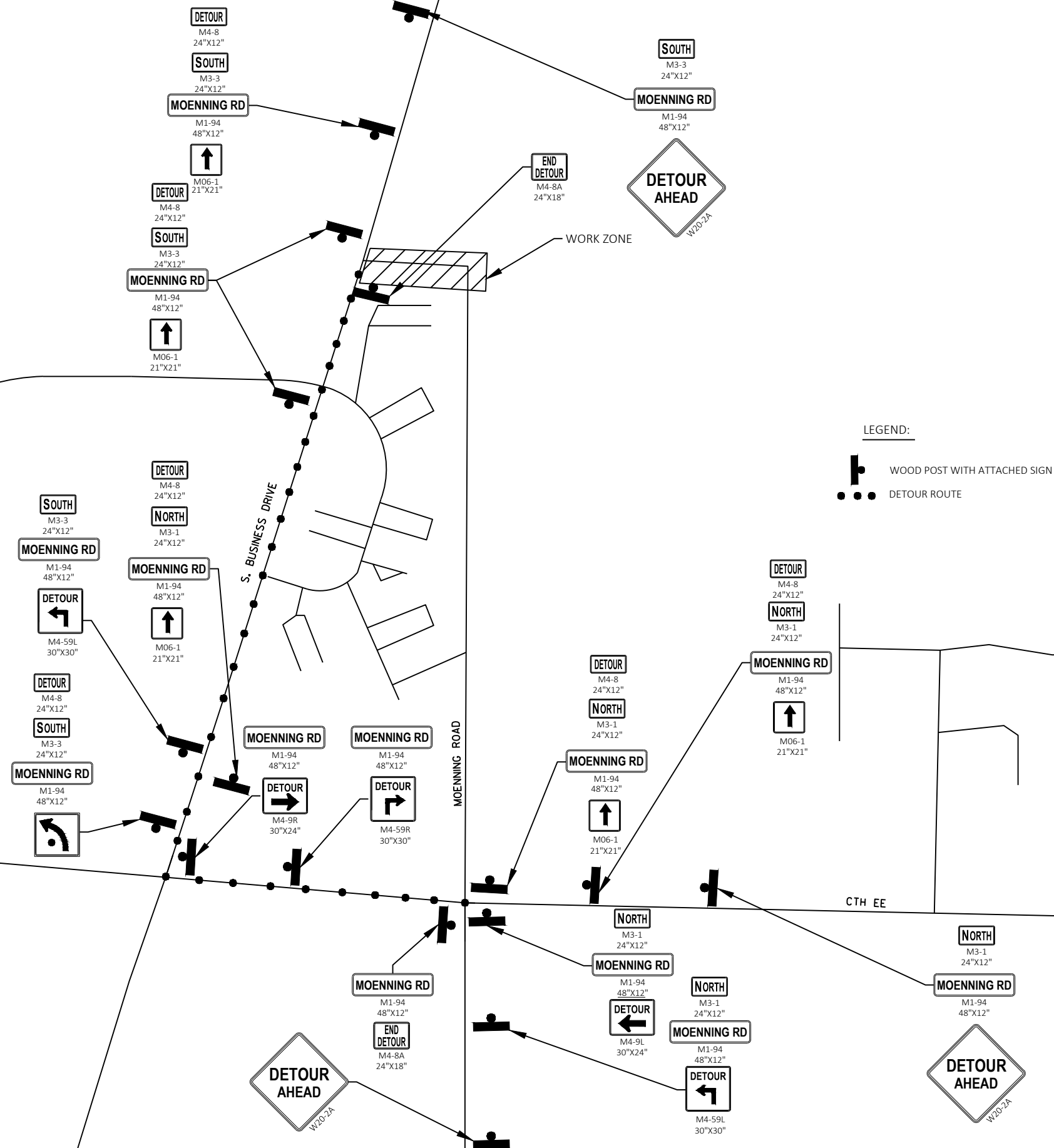


DETOUR SIGN SUMMARY (FOR INFORMATION ONLY)

DESCRIPTION	SIGN CODE	SIZE (INCH X INCH)	EACH
MOENNING RD	M1-94	48"x12"	15
NORTH	M3-1	24"x12"	6
SOUTH	M3-3	24"x12"	6
ARROW UP LEFT(RAB)	R3-5X (MOD.)	30"x30"	1
DETOUR	M4-8	24"x12"	7
END DETOUR	M4-8A	24"x18"	2
DETOUR LT ARROW	M4-9L	30"x24"	1
DETOUR RT ARROW	M4-9R	30"x24"	1
DETOUR LT TURN	M4-59L	30"x30"	2
DETOUR RT TURN	M4-59R	30"x30"	1
ARROW AHEAD/LT/RT	M06-1	21"x21"	6
DETOUR AHEAD	W-20-2A	48"x48"	3
TOTAL:			51



R3-5X (MOD.)
APPROX. SIZE 30" X 30"
BACKGROUND - ORANGE
MESSAGE - BLACK



GENERAL NOTES:

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

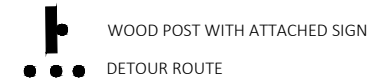
ALL SIGNS SHOWN SHALL BE PAID FOR AS TRAFFIC CONTROL SIGNS.

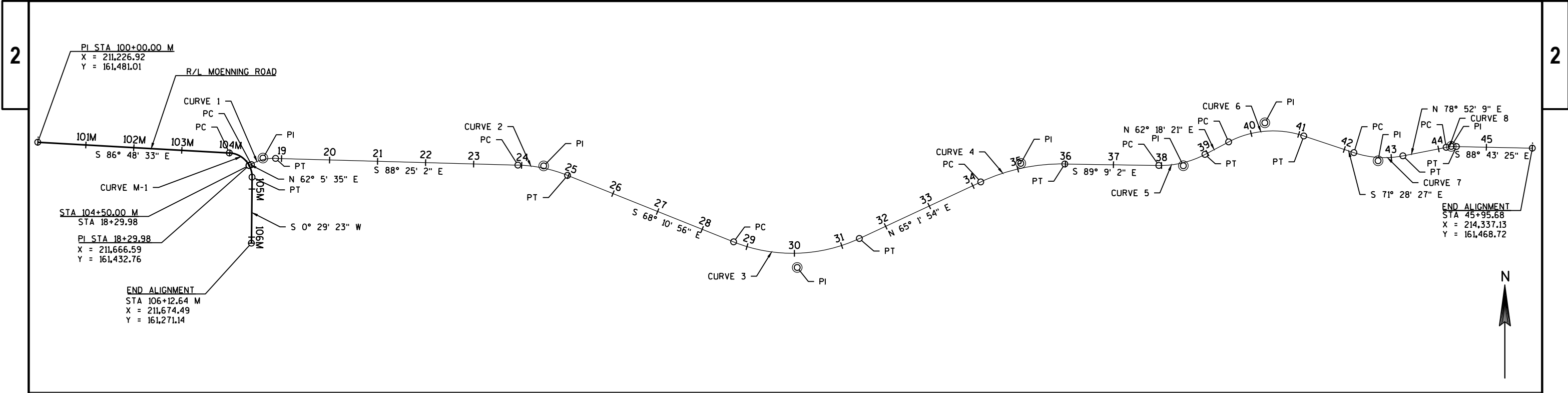
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

ALL M3 SERIES SIGNS (NORTH, SOUTH, EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

LEGEND:





CURVE M-1
PI = 104+46.85 M
X = 211,673.08
Y = 161,456.14
Δ = 87° 17' 56.33" RT
D = 114° 35' 29.61"
R = 50.00'
T = 47.70'
L = 76.18'
E = 19.10'
PC = 103+99.15 M
X = 211,625.45
Y = 161,458.79
PT = 104+75.34 M
X = 211,672.67
Y = 161,408.44
S.E. = NONE

CURVE 1
PI = 18+62.65
X = 211,695.47
Y = 161,448.05
Δ = 29° 29' 23.15" RT
D = 57° 17' 44.81"
R = 100.00'
T = 94.11'
L = 51.47'
E = 3.41'
PC = 18+36.33
X = 211,672.21
Y = 161,435.73
PT = 18+87.8
X = 211,721.77
Y = 161,447.32
S.E. = 1.5%

CURVE 2
PI = 24+45.90
X = 212,279.66
Y = 161,431.91
Δ = 20° 14' 5.87" RT
D = 19° 5' 54.94"
R = 300.00'
T = 53.53'
L = 105.95'
E = 4.74'
PC = 23+92.36
X = 212,226.14
Y = 161,433.39
PT = 24+98.31
X = 212,329.35
Y = 161,412.01
S.E. = 1.5%

CURVE 3
PI = 30+13.22
X = 212,807.38
Y = 161,220.65
Δ = 46° 47' 9.49" LT
D = 17° 21' 44.49"
R = 330.00'
T = 142.76'
L = 269.47'
E = 29.55'
PC = 28+70.47
X = 212,674.85
Y = 161,273.70
PT = 31+39.93
X = 212,936.79
Y = 161,280.91
S.E. = -1.5%

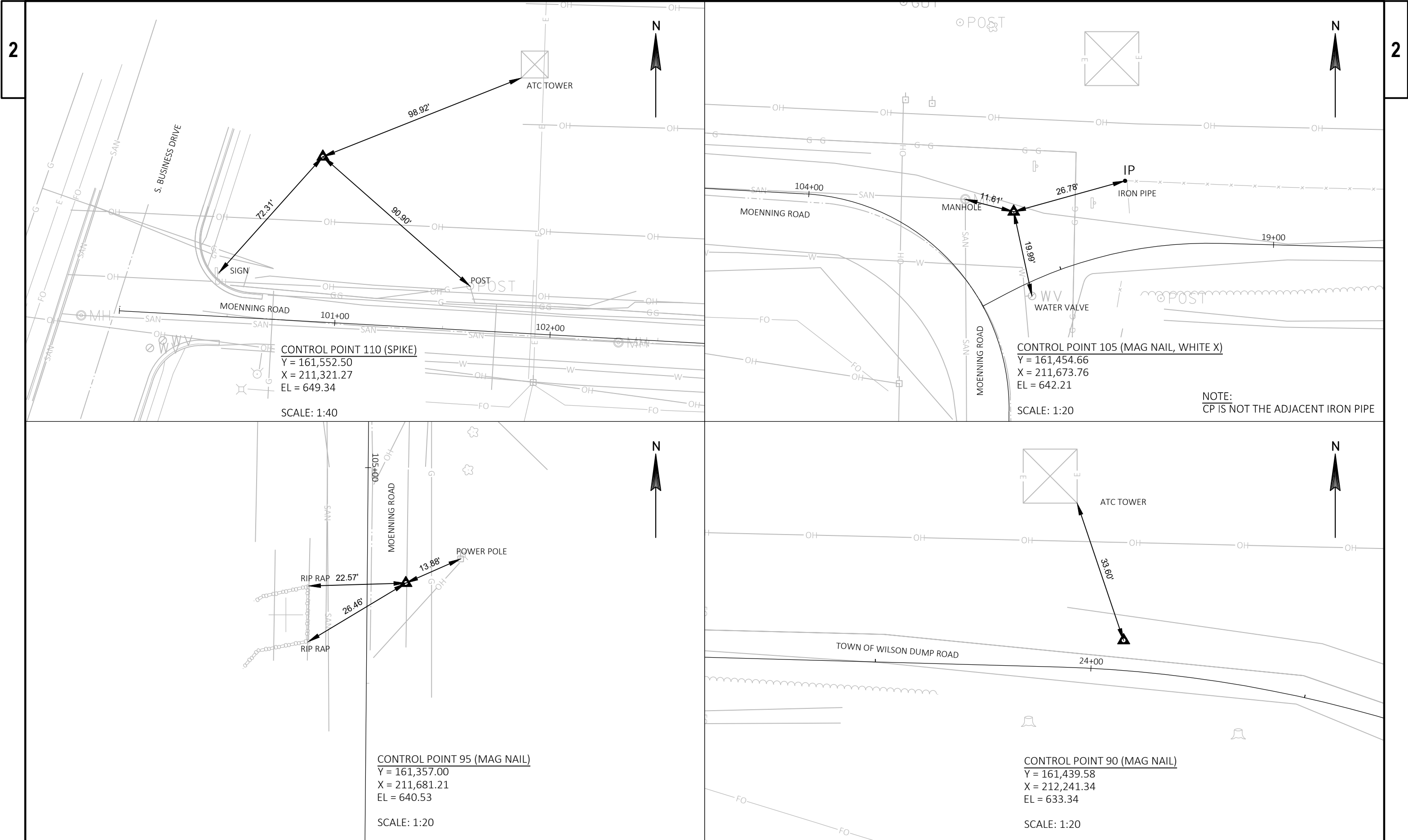
CURVE 4
PI = 35+10.24
X = 213,272.49
Y = 161,437.22
Δ = 25° 49' 3.3" RT
D = 14° 19' 26.2"
R = 400.00'
T = 91.68'
L = 180.24'
E = 10.37'
PC = 34+18.57
X = 213,189.38
Y = 161,398.52
PT = 35+98.81
X = 213,364.16
Y = 161,435.86
S.E. = 1.5%

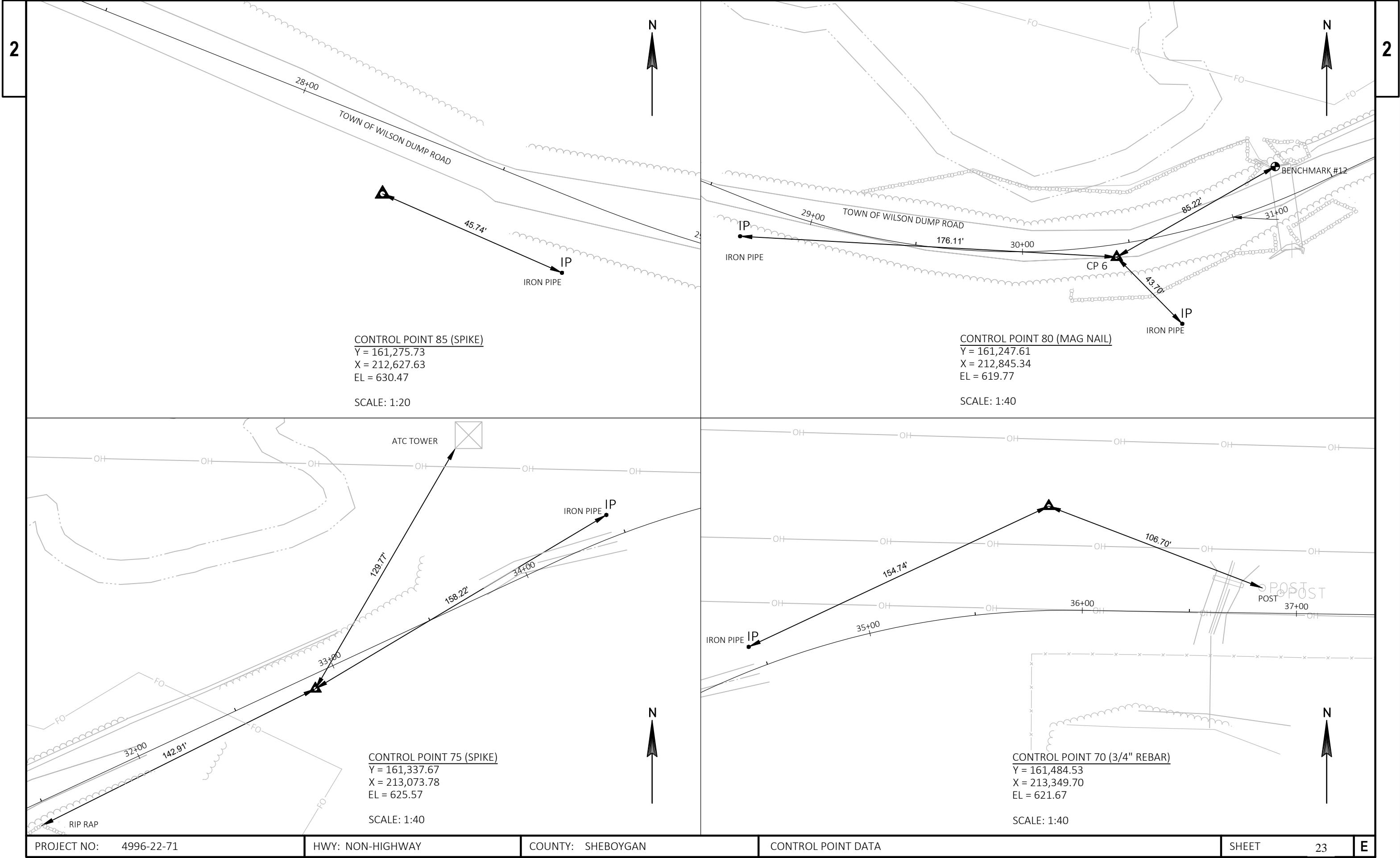
CURVE 5
PI = 38+45.46
X = 213,610.79
Y = 161,432.20
Δ = 28° 32' 36.91" LT
D = 28° 38' 52.4"
R = 200.00'
T = 50.88'
L = 99.64'
E = 6.37'
PC = 37+94.59
X = 213,559.92
Y = 161,432.96
PT = 38+94.22
X = 213,655.83
Y = 161,455.85
S.E. = -1.5%

CURVE 6
PI = 40+35.20
X = 213,780.66
Y = 161,521.37
Δ = 46° 13' 12.63" RT
D = 28° 38' 52.4"
R = 200.00'
T = 85.35'
L = 161.34'
E = 17.45'
PC = 39+49.85
X = 213,705.09
Y = 161,481.70
PT = 41+11.19
X = 213,861.59
Y = 161,494.25
S.E. = 1.5%

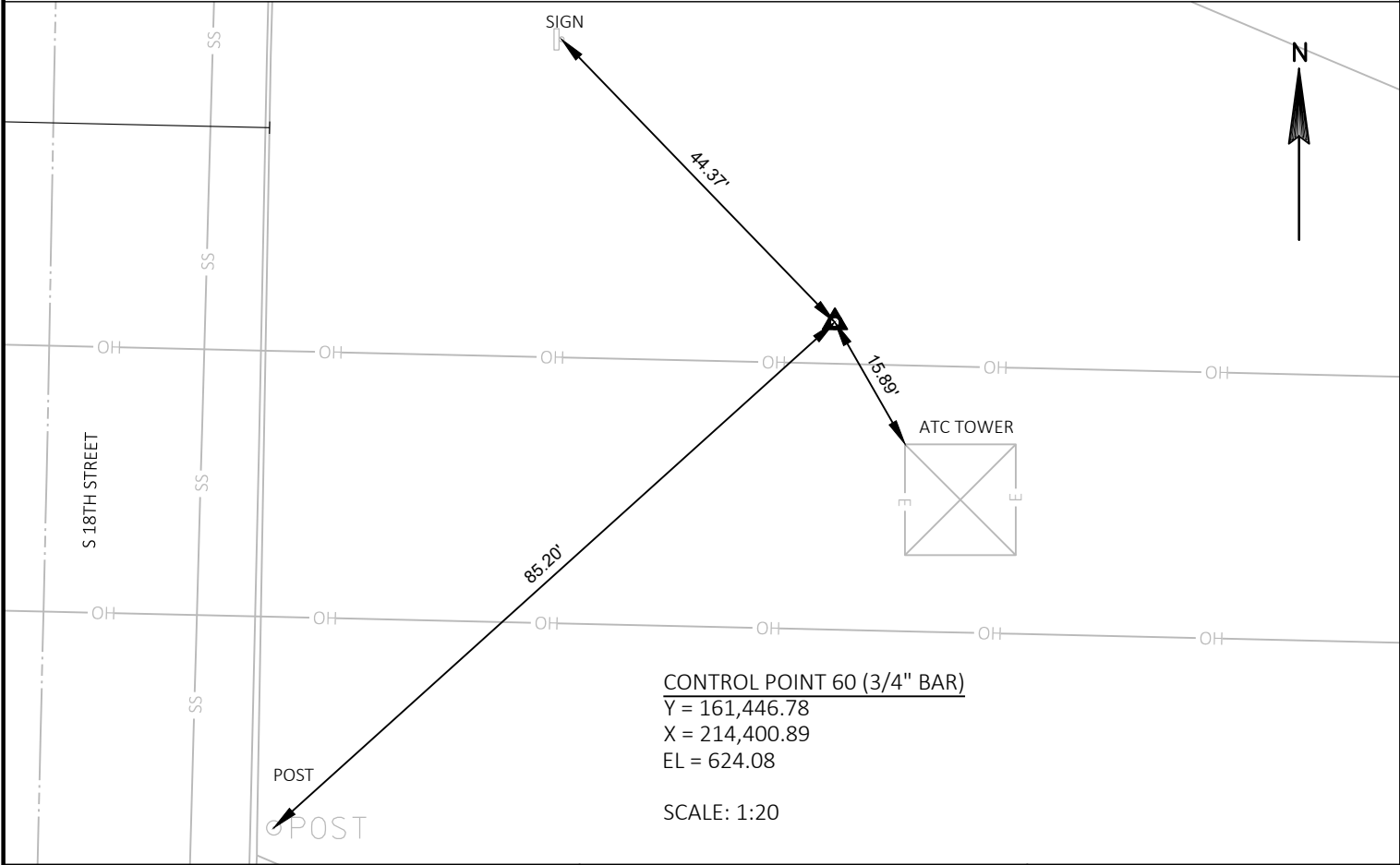
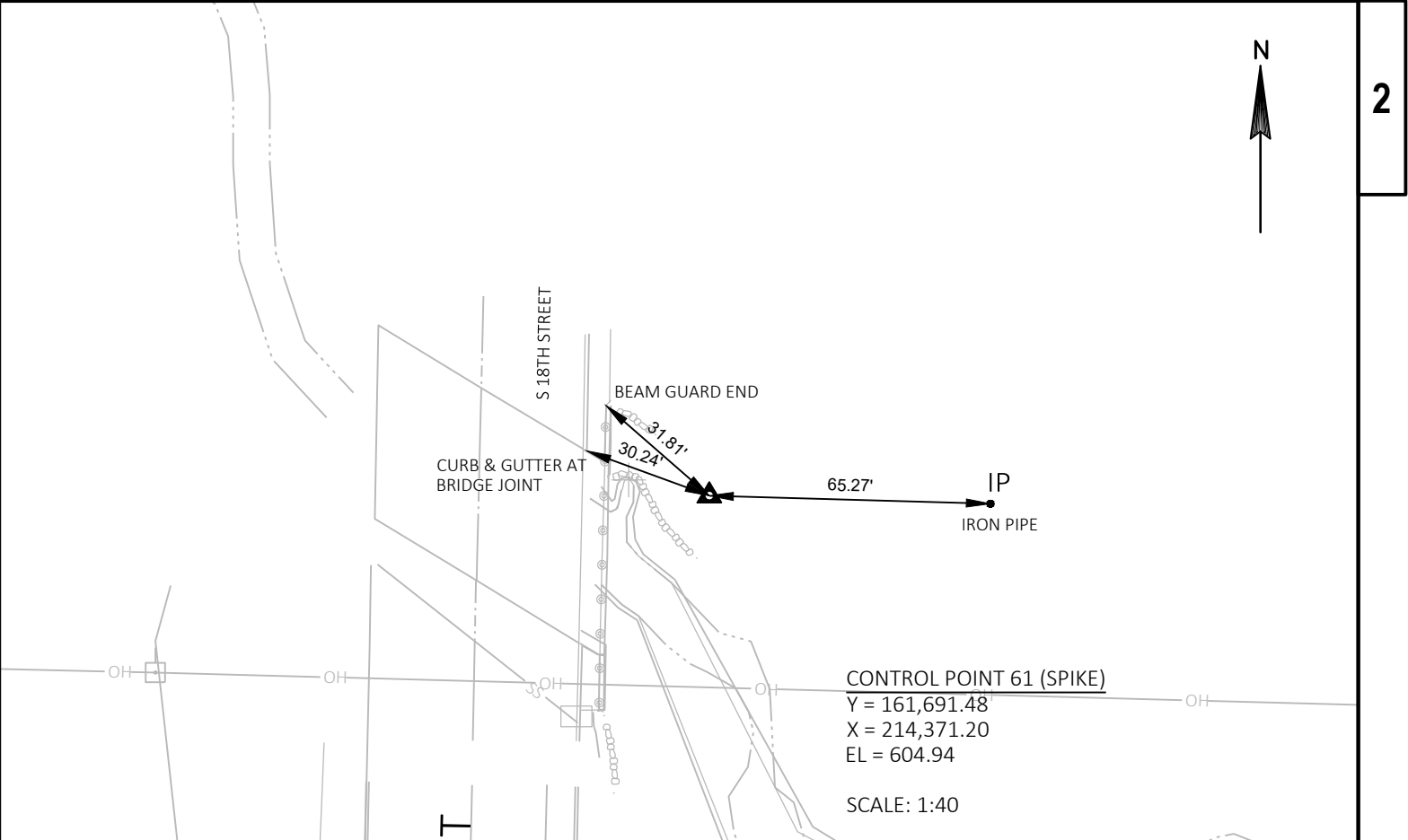
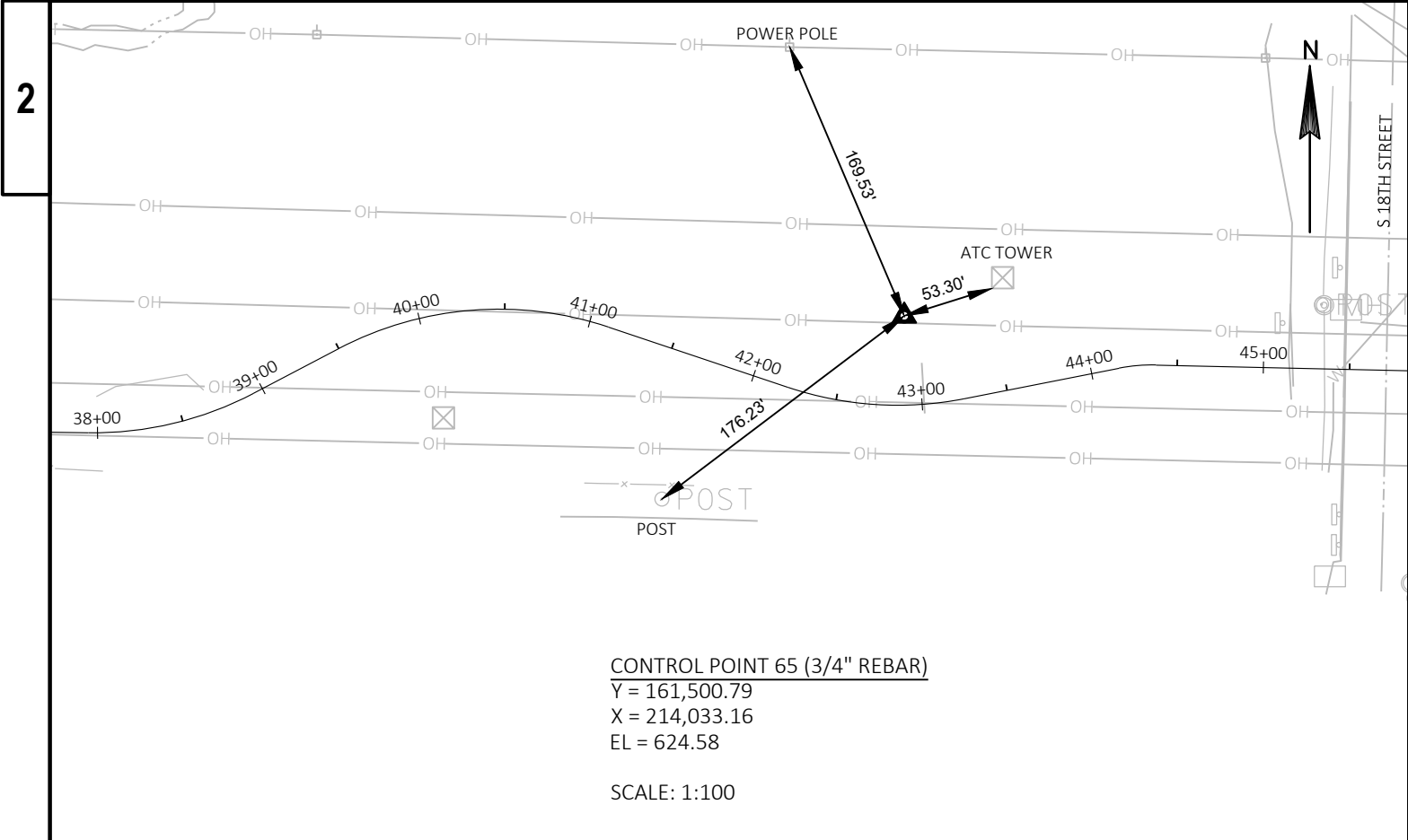
CURVE 7
PI = 42+74.06
X = 214,016.02
Y = 161,442.50
Δ = 29° 39' 23.95" LT
D = 28° 38' 52.4"
R = 200.00'
T = 52.95'
L = 103.52'
E = 6.89'
PC = 42+21.12
X = 213,965.82
Y = 161,459.32
PT = 43+24.64
X = 214,067.97
Y = 161,452.72
S.E. = -1.5%

CURVE 8
PI = 44+26.97
X = 214,168.38
Y = 161,472.48
Δ = 12° 24' 26.1" RT
D = 57° 17' 44.81"
R = 100.00'
T = 10.87'
L = 21.66'
E = 0.59'
PC = 44+16.10
X = 214,157.71
Y = 161,470.38
PT = 44+37.75
X = 214,179.25
Y = 161,472.23
S.E. = -1.5%





PROJECT NO:	4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	CONTROL POINT DATA	SHEET	23	E
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PROJECT NO: 4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	CONTROL POINT DATA	SHEET 24	E
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Estimate Of Quantities

4996-22-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	199.000	199.000
0004	201.0210	Grubbing	SY	199.000	199.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	204.0100	Removing Pavement	SY	135.000	135.000
0010	204.0150	Removing Curb & Gutter	LF	97.000	97.000
0012	204.0155	Removing Concrete Sidewalk	SY	32.000	32.000
0014	204.0170	Removing Fence	LF	28.000	28.000
0016	205.0100	Excavation Common	CY	4,412.000	4,412.000
0018	208.0100	Borrow	CY	206.000	206.000
0020	213.0100	Finishing Roadway (project) 01. 4996-22-71	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	126.000	126.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,465.000	3,465.000
0026	311.0110	Breaker Run	TON	2,754.000	2,754.000
0028	415.0070	Concrete Pavement 7-Inch	SY	107.000	107.000
0030	416.0160	Concrete Driveway 6-Inch	SY	39.000	39.000
0032	416.0610	Drilled Tie Bars	EACH	39.000	39.000
0034	416.0620	Drilled Dowel Bars	EACH	18.000	18.000
0036	455.0605	Tack Coat	GAL	213.000	213.000
0038	460.5223	HMA Pavement 3 LT 58-28 S	TON	261.000	261.000
0040	460.5224	HMA Pavement 4 LT 58-28 S	TON	207.000	207.000
0042	465.0105	Asphaltic Surface	TON	525.000	525.000
0044	465.0315	Asphaltic Flumes	SY	14.000	14.000
0046	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0048	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000
0050	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,035.000	1,035.000
0052	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	100.000	100.000
0054	602.0410	Concrete Sidewalk 5-Inch	SF	3,560.000	3,560.000
0056	602.0415	Concrete Sidewalk 6-Inch	SF	240.000	240.000
0058	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	48.000	48.000
0060	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	34.000	34.000
0062	606.0200	Riprap Medium	CY	13.000	13.000
0064	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	49.000	49.000
0066	611.0609	Inlet Covers Type B-A	EACH	1.000	1.000
0068	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0070	611.9800.S	Pipe Grates	EACH	1.000	1.000
0072	612.0404	Pipe Underdrain Wrapped 4-Inch	LF	225.000	225.000
0074	616.0206	Fence Chain Link 6-FT	LF	66.000	66.000
0076	616.0329	Gates Chain Link (width) 01. 4-FT	EACH	2.000	2.000

Estimate Of Quantities

4996-22-71

Line	Item	Item Description	Unit	Total	Qty
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	623.0200	Dust Control Surface Treatment	SY	7,300.000	7,300.000
0082	624.0100	Water	MGAL	165.000	165.000
0084	625.0100	Topsoil	SY	6,030.000	6,030.000
0086	627.0200	Mulching	SY	1,688.000	1,688.000
0088	628.1504	Silt Fence	LF	3,383.000	3,383.000
0090	628.1520	Silt Fence Maintenance	LF	11,165.000	11,165.000
0092	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0096	628.2004	Erosion Mat Class I Type B	SY	2,275.000	2,275.000
0098	628.2008	Erosion Mat Urban Class I Type B	SY	2,063.000	2,063.000
0100	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0102	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0104	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0106	628.7504	Temporary Ditch Checks	LF	120.000	120.000
0108	628.7555	Culvert Pipe Checks	EACH	2.000	2.000
0110	628.7560	Tracking Pads	EACH	3.000	3.000
0112	628.7570	Rock Bags	EACH	166.000	166.000
0114	629.0210	Fertilizer Type B	CWT	3.900	3.900
0116	630.0130	Seeding Mixture No. 30	LB	90.000	90.000
0118	630.0140	Seeding Mixture No. 40	LB	19.000	19.000
0120	630.0200	Seeding Temporary	LB	170.000	170.000
0122	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	6.000	6.000
0124	634.0810	Posts Tubular Steel 2x2-Inch X 10-FT	EACH	5.000	5.000
0126	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	13.000	13.000
0128	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	4.000	4.000
0130	637.2210	Signs Type II Reflective H	SF	38.080	38.080
0132	637.2230	Signs Type II Reflective F	SF	85.000	85.000
0134	638.2602	Removing Signs Type II	EACH	5.000	5.000
0136	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0138	642.5201	Field Office Type C	EACH	1.000	1.000
0140	643.0300	Traffic Control Drums	DAY	4,500.000	4,500.000
0142	643.0420	Traffic Control Barricades Type III	DAY	600.000	600.000
0144	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	51.000	51.000
0146	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	51.000	51.000
0148	643.0705	Traffic Control Warning Lights Type A	DAY	1,320.000	1,320.000
0150	643.0715	Traffic Control Warning Lights Type C	DAY	840.000	840.000
0152	643.0900	Traffic Control Signs	DAY	1,140.000	1,140.000
0154	643.1050	Traffic Control Signs PCMS	DAY	240.000	240.000
0156	643.5000	Traffic Control	EACH	1.000	1.000

Estimate Of Quantities

4996-22-71

Line	Item	Item Description	Unit	Total	Qty
0158	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	40.000	40.000
0160	644.1601.S	Temporary Curb Ramp	EACH	2.000	2.000
0162	644.1616.S	Temporary Pedestrian Safety Fence	LF	290.000	290.000
0164	645.0120	Geotextile Type HR	SY	48.000	48.000
0166	645.0220	Geogrid Type SR	SY	1,938.000	1,938.000
0168	646.1020	Marking Line Epoxy 4-Inch	LF	1,871.000	1,871.000
0170	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000
0172	646.5220	Marking Symbol Epoxy	EACH	2.000	2.000
0174	646.6120	Marking Stop Line Epoxy 18-Inch	LF	22.000	22.000
0176	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	95.000	95.000
0178	646.8320	Marking Parking Stall Epoxy	LF	120.000	120.000
0180	646.9000	Marking Removal Line 4-Inch	LF	560.000	560.000
0182	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,525.000	1,525.000
0184	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0186	650.4500	Construction Staking Subgrade	LF	3,470.000	3,470.000
0188	650.5000	Construction Staking Base	LF	3,470.000	3,470.000
0190	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,135.000	1,135.000
0192	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0194	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0196	650.9910	Construction Staking Supplemental Control (project) 01. 4996-22-71	LS	1.000	1.000
0198	650.9920	Construction Staking Slope Stakes	LF	3,400.000	3,400.000
0200	690.0150	Sawing Asphalt	LF	115.000	115.000
0202	690.0250	Sawing Concrete	LF	140.000	140.000
0204	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0206	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	150.000	150.000
0208	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0210	SPV.0060	Special 01. Bollard	EACH	2.000	2.000
0212	SPV.0060	Special 02. Foldable Bollard	EACH	1.000	1.000
0214	SPV.0060	Special 03. Bench	EACH	1.000	1.000
0216	SPV.0090	Special 01. Construction Staking Concrete Sidewalk	LF	709.000	709.000
0218	SPV.0090	Special 02. Silt Fence Double Staked	LF	2,200.000	2,200.000
0220	SPV.0170	Special 01. Test Rolling	STA	16.000	16.000

CLEARING & GRUBBING				
CATEGORY	STATION - STATION	LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
0010	19+17 - 20+83	RT	39	39
	22+62 - 23+76	RT	76	76
	26+30 - 28+70	LT	28	28
	28+85 - 32+04	RT	55	55
TOTALS			199	199

REMOVING PAVEMENT			
CATEGORY	STATION - STATION	LOCATION	204.0100 SY
0010	45+47 - 45+59	LT/RT	135

REMOVING CONCRETE SIDEWALK			
CATEGORY	STATION - STATION	LOCATION	204.0155 SY
0010	100+18M - 100+31M	RT	13
	100+36M - 100+48M	LT	19
TOTAL			32

REMOVING SMALL PIPE CULVERTS				
CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	36+60	RT	1	8' 18" RCCP

REMOVING CURB & GUTTER				
CATEGORY	STATION	-	STATION	204.0150 LOCATION LF
0010	100+16M	-	100+47M	RT 42
	100+38M	-	100+66M	LT 55
TOTAL				97

REMOVING FENCE			
CATEGORY	STATION	LOCATION	204.0170 LF
0010	35+74	RT	28

3

3

EARTHWORK SUMMARY

CATEGORY	LOCATION	STA TO STA	(C) CUT CY	(1)(E) UNDISTRIBUTED EBS EXCAVATION CY	(2) 205.0100 EXCAVATION COMMON CY	SALVAGED/ USABLE PAVEMENT MATERIAL CY	(3) AVAILABLE MATERIAL CY	(4) 110.0% EXPANDED EBS BACKFILL CY	UNEXPANDED FILL CY	(5) 100.0% *** 311.0110 BREAKER RUN TON*	(6) ** 120.00% EXPANDED FILL CY	(7) MASS ORDINATE EXCESS (SHORTAGE) CY	(8) 208.0100 BORROW CY
0010	SHEBOYGAN BIKE PATH	19+00 - 45+59	2,403	120	2,523	--	--	132	143	231	172	(172)	172
	MOENNING ROAD	100+36M - 105+10M	1,474	74	1,548	140	140	81	145	142	174	(34)	34
	18TH STREET PARKING LOT	44+74 - 45+33	297	15	312	--	--	17	---	29	---	---	---
	18TH STREET SIDEWALK	45+33 - 45+47	28	1	29	--	--	1	---	2	---	---	---
TOTALS			4,202	210	4,412	140	140	231	288	404	346	(206)	206

NOTES

- 1) UNDISTRIBUTED EBS EXCAVATION (E)=5% OF CUT (C). SOILS REMOVED AS EBS SHALL BE HAULED OFFSITE AND NOT REUSED AS FILL.
- 2) EXCAVATION COMMON IS THE SUM OF THE CUT (C) AND EBS EXCAVATION (E).
- 3) CUT MATERIAL SHALL NOT BE USED AS FILL MATERIAL. ONLY EXISTING MOENNING PAVEMENT IS USABLE (4" DEPTH ASSUMED)
- 4) EXPANDED EBS BACKFILL. THIS IS TO BE FILLED WITH BREAKER RUN. EBS EXPANSION FACTOR 1.10.
- 5) UNDISTRIBUTED QUANTITY OF BREAKER RUN USED TO FILL EBS.
- 6) EXPANDED FILL = {UNEXPANDED FILL * 120% FILL FACTOR}.
- 7) MASS ORDINATE = AVAILABLE MATERIAL - EXPANDED FILL
- 8) BORROW SHALL BE BROUGHT IN FROM OFF SITE

* CY TO TON CONVERSION FACTOR = 1.75 TON/CY
** FILL EXPANSION FACTOR = 1.20
***ADDITIONAL QUANTITIY LISTED ELSEWHERE

FINISHING ROADWAY (PROJECT) 4996-22-71

CATEGORY	PROJECT	213.0100 EACH
0010	4996-22-71	1

TEST ROLLING

CATEGORY	STATION - STATION	SPV.0170.01 STA
0010	18+48 - 34+65	16

BASE AGGREGATE DENSE				
CATEGORY	STATION - STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
0010	100+08M - 105+10M	LT/RT	80	1,750
	18+48 - 45+50	LT/RT	40	1,550
	UNDISTRIBUTED		6	165
	TOTALS		126	3,465

CONCRETE PAVEMENT 7-INCH			
CATEGORY	STATION - STATION	LOCATION	415.0070 SY
0010	45+49 - 45+59	LT/RT	107

DRILLED				
CATEGORY	STATION	LOCATION	416.0610 TIE BARS EACH	416.0620 DOWEL BARS EACH
0010	45+47 - 45+59	LT/RT	39	18

BREAKER RUN				
CATEGORY	STATION - STATION	LOCATION	* 311.0110 TON	
0010	34+65 - 45+59	LT/RT	2,350	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE DRIVEWAY 6-INCH			
CATEGORY	STATION - STATION	LOCATION	416.0160 SY
0010	45+33 - 45+47	LT/RT	39

ASPHALTIC ITEMS						
CATEGORY	STATION - STATION	LOCATION	455.0605	460.5223	460.5224	465.0105
			TACK	HMA	HMA	
			COAT	PAVEMENT	PAVEMENT	ASPHALTIC
			GAL	3 LT 58-28 S	4 LT 58-28 S	SURFACE
			TON	TON	TON	TON
0010	100+08M - 105+10M	LT/RT	180	220	175	---
	103+42M - 103+82M	LT	9	11	9	---
	18+58 - 45+41	LT/RT	---	---	---	525
	44+74 - 45+47	RT	24	30	23	---
TOTALS			213	261	207	525

CURB AND GUTTER					
CATEGORY	STATION - STATION	LOCATION	601.0452	601.0411	650.5500
			CONCRETE	CONCRETE	CONSTRUCTION
			CURB & GUTTER	CURB & GUTTER	STAKING CURB,
			INTEGRAL 30-INCH	30-INCH	GUTTER AND
			TYPE D	TYPE D	CURB & GUTTER
			LF	LF	LF
0010	100+38M - 104+90M	LT	---	580	580
	100+16M - 104+90M	RT	---	455	455
	45+32 - 45+49	LT/RT	100	---	100
TOTALS			100	1,035	1,135

CONCRETE SIDEWALK				
CATEGORY	STATION - STATION	LOCATION	602.0410	602.0415
			5-INCH	6-INCH
			SF	SF
0010	100+18M - 100+30M	RT	110	---
	100+37M - 104+58M	LT	2,450	170
	45+29 - 45+47	LT	1,000	---
	45+41 - 45+47	LT/RT	---	70
TOTALS			3,560	240

ASPHALTIC FLUMES			
CATEGORY	STATION	LOCATION	465.0315
			SY
0010	104+90 M	LT	7
	104+90 M	RT	7
TOTAL			14

CONSTRUCTION STAKING CURB RAMPS			
CATEGORY	STATION	LOCATION	650.9000
			EACH
0010	100+23M	RT	1
	100+42M	LT	1
	104+50M	LT	1
	45+41	LT/RT	1
TOTAL			4

CONSTRUCTION STAKING CONCRETE SIDEWALK			
CATEGORY	STATION - STATION	LOCATION	SPV.0090.01
			LF
0010	100+18M - 100+25M	RT	10
	100+39M - 104+58M	LT	496
	45+29 - 45+47	LT	203
TOTAL			709

CURB RAMP DETECTABLE WARNING FIELD YELLOW				
CATEGORY	STATION	LOCATION	602.0505	602.0605
			YELLOW	RADIAL YELLOW
			SF	SF
0010	100+23M	RT	---	17
	100+42M	LT	---	17
	104+50M	LT	28	---
	45+45	LT/RT	20	---
TOTALS			48	34

CULVERT PIPE ITEMS							
CATEGORY	STATION	LOCATION	520.8000	608.0418	522.1018	650.6000	611.9800.5
			CONCRETE	STORM SEWER	APRON ENDWALLS	CONSTRUCTION	
			COLLARS	PIPE REINFORCED	FOR CULVERT PIPE	STAKING	
			FOR PIPE	CONCRETE CLASS IV	REINFORCED CONCRETE	PIPE	PIPE
			EACH	18-INCH	18-INCH	CULVERTS	GRATES
			LF	EACH	EACH	EACH	EACH
0010	36+60	LT/RT	---	41	1	1	1
	36+60	RT	1	8	---	---	---
TOTALS			1	49	1	1	1

PIPE UNDERDRAIN WRAPPED 4-INCH			
CATEGORY	STATION - STATION	LOCATION	612.0404
			LF
0010	25+96 - 26+71	LT	75
	30+78 - 31+53	LT	75
	36+93 - 37+68	LT	75
	TOTAL		225

TEMPOARY PEDESTRIAN ACCOMODATIONS				
CATEGORY	LOCATION	644.1410.S	644.1601.S	644.1616.S
		TEMPORARY	TEMPORARY	TEMPORARY
		PEDESTRAN	CURB	PEDESTRIAN
		SURFACE ASPHALT	RAMP	SAFETY FENCE
		SF	EACH	LF
0010	S. BUSINESS DRIVE	40	2	290

MANHOLES AND INLET COVERS					
CATEGORY	STATION	OFFSET	611.2004	611.0609	650.4000
			MANHOLES	INLET	CONSTRUCTION
			4-FT DIAMETER	COVERS	STAKING STORM
			EACH	TYPE B-A	SEWER
				EACH	EACH
0010	36+60	10.8' RT	1	1	1

FENCE				
CATEGORY	STATION - STATION	LOCATION	616.0206	616.0329
			FENCE CHAIN	GATES CHAIN
			LINK 6-FT	LINK (WIDTH) 4-FT
			LF	EACH
0010	35+74 - 35+90	RT	66	2

MOBILIZATION		
CATEGORY	PROJECT	619.1000
		EACH
0010	4996-22-71	1

DUST CONTROL SURFACE TREATMENT				
CATEGORY	STATION - STATION	LOCATION	623.0200 SY	
0010	100+08M - 105+10M	LT/RT	2,800	
	18+48 - 45+50	LT/RT	4,500	
	TOTAL		7,300	

RIPRAP ITEMS				
CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010	105+10 M	22' RT	4	14
	105+10 M	28' LT	4	14
	36+78	38' LT	3	11
	UNDISTRIBUTED		3	10
	TOTALS		13	48

MOBILIZATIONS EROSION CONTROL		
CATEGORY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	2	2

WATER			
CATEGORY	STATION - STATION	LOCATION	624.0100 MGAL
0010	100+08M - 105+10M	LT/RT	50
	18+48 - 45+50	LT/RT	115
	TOTAL		165

SILT FENCE SUMMARY						
CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	SPV.0090.02 SILT FENCE DOUBLE STAKED LF	628.1520 SILT FENCE MAINTENANCE LF	
0010	100+08M - 105+10M	LT/RT	460	---	920	
	18+48 - 45+50	LT/RT	2,000	1,600	7,200	
	BORROW SITE		246	160	812	
	UNDISTRIBUTED		677	440	2,233	
	TOTALS		3,383	2,200	11,165	

MULCHING AND EROSION MAT ITEMS					
CATEGORY	STATION - STATION	LOCATION	627.0200	628.2004	628.2008
			MULCHING SY	EROSION MAT CLASS I TYPE B SY	EROSION MAT URBAN CLASS I TYPE B SY
0010	100+08M - 105+10M 18+48 - 45+50 UNDISTRIBUTED	LT/RT	150	270	500
		LT/RT	1,200	1,550	1,150
			338	455	413
		TOTALS	1,688	2,275	2,063

TEMPORARY DITCH CHECKS			
CATEGORY	STATION	LOCATION	628.7504 LF
0010	101+37 M	RT	12
	101+89 M	LT	12
	19+90	LT	12
	33+14	LT	12
	37+51	RT	12
	39+51	RT	12
	43+44	LT	12
	UNDISTRIBUTED		36
	TOTAL		120

TRACKING PADS		
CATEGORY	STATION	628.7560 EACH
0010	100+50 M	1
	45+50	1
	UNDISTRIBUTED	1
	TOTAL	3

FINISHING ITEMS							
CATEGORY	STATION - STATION	LOCATION	625.0100	629.0210	630.0140	630.0130	630.0200
					SEEDING	SEEDING	
				FERTILIZER	MIXTURE	MIXTURE	SEEDING
			TOPSOIL	TYPE B	NO. 40	NO. 30	TEMPORARY
			SY	CWT	LB	LB	LB
0010	100+08M - 105+10M	LT/RT	930	0.6	15	---	25
	18+48 - 45+50	LT/RT	3,900	2.5	---	70	110
	UNDISTRIBUTED		1,200	0.8	4	20	35
		TOTALS	6,030	3.9	19	90	170

INLET PROTECTION					
CATEGORY	STATION	OFFSET	628.7005	628.7015	628.7020
			TYPE A EACH	TYPE C EACH	TYPE D EACH
0100	36+60	11.0 'RT	1	---	---
	45+48	206.0 'LT	---	---	1
	45+50	30.0 'LT	---	1	---
	45+93	28.0 'LT	---	1	---
	45+95	170.0 'LT	---	---	1
	UNDISTRIBUTED		1	1	1
	TOTALS		2	3	3

CULVERT PIPE CHECKS			
CATEGORY	STATION	LOCATION	628.7555 EACH
0010	105+24 M	19' LT	1
	UNDISTRIBUTED		1
	TOTAL		2

ROCK BAGS		
CATEGORY	LOCATION	628.7570 EACH
0010	SILT FENCE DRAINAGE RELIEF LOCATIONS	110
	CULVERT OR FLUME OUTFALLS WITH SILT FENCE	16
	UNDISTRIBUTED	40
	TOTAL	166

PERMANENT SIGNING SUMMARY															
CATEGORY	SIGN NO.	APPROX. STA.	LOC.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210	637.2230	634.0808	634.0810	634.0812	634.0814	638.2602	638.3000	REMARKS
							SIGNS TYPE II REFLECTIVE H	SIGNS TYPE II REFLECTIVE F	POSTS TUBULAR STEEL 2x2-INCH				REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS	
							SF	SF	x 8-FT EACH	x 10-FT EACH	x 12-FT EACH	x 14-FT EACH	EACH	EACH	
0010	E1-01	100+45M	LT	R1-1	STOP	30 x 30	---	---	---	---	---	---	1	1	
	1-02	100+45M	LT	R1-1	STOP	30 x 30	5.18	---	---	---	1	---	---	---	
	E1-03	100+94M	RT	W1-1R	RIGHT TURN	36 x 36	---	---	---	---	---	---	1	1	
	1-04	101+04M	RT	W1-1R	RIGHT TURN	36 x 36	---	9.00	---	---	---	2	---	---	
	1-05	101+04M	RT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	24 x 24	---	4.00	---	---	---	---	---	---	SIGN MOUNTED ON SAME POST AS E1-02
	E1-06	103+45M	LT	W3-1	STOP AHEAD	36 x 36	---	---	---	---	---	---	1	1	
	1-07	103+18M	LT	W3-1	STOP AHEAD	36 x 36	---	9.00	---	---	---	1	---	---	
	1-08	103+97M	RT	W11-15	TRAIL CROSSING (BIKE AND PED SYMBOL)	30 x 30	---	6.25	---	---	---	1	---	---	
	1-09	103+97M	RT	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 x 12	---	2.00	---	---	---	---	---	---	SIGN MOUNTED ON SAME POST AS 1-05
	1-10	103+97M	LT	W1-8	CHEVRON	18 x 24	---	3.00	1	---	---	---	---	---	
	1-11	104+24M	LT	W1-8	CHEVRON	18 x 24	---	3.00	1	---	---	---	---	---	
	1-12	104+26M	LT	W1-8	CHEVRON	18 x 24	---	3.00	1	---	---	---	---	---	
	E1-13	104+34M	LT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	---	---	---	---	---	1	1	
	1-14	104+33M	LT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	8.00	---	---	2	---	---	---	
	E1-15	104+42M	LT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	---	---	---	---	---	1	1	
	1-16	104+37M	LT	W1-6	NIGHT ARROW (SINGLE)	48 x 24	---	8.00	---	---	2	---	---	---	
	1-17	18+62	LT	R1-1	STOP	18 x 18	1.86	---	1	---	---	---	---	---	
	1-18	104+57M	LT	R5-3	NO MOTOR VEHICLES	24 x 24	4.00	---	---	1	---	---	---	---	
	1-19	104+60M	LT	W1-8	CHEVRON	18 x 24	---	3.00	---	1	---	---	---	---	
	1-20	104+63M	LT	W1-8	CHEVRON	18 x 24	---	3.00	---	1	---	---	---	---	
	1-21	104+82M	LT	W1-8	CHEVRON	18 x 24	---	3.00	---	1	---	---	---	---	
	1-22	105+43M	LT	W11-15	TRAIL CROSSING (BIKE AND PED SYMBOL)	30 x 30	---	6.25	---	1	---	---	---	---	
	1-23	109+10M	LT	W13-1	ADVISORY SPEED PLATE (YELLOW BACK)	24 x 24	---	4.00	---	---	---	---	---	---	SIGN MOUNTED ON EXISTING WOOD POST
	1-24	102+36M	LT	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	18 x 24	3.00	---	---	---	1	---	---	---	
	1-25	102+36M	RT	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	18 x 24	3.00	---	---	---	1	---	---	---	
	1-26	27+63	RT	W7-5	HILL (BICYCLE)	18 x 18	---	2.25	1	---	---	---	---	---	
	2-01	45+23	RT	R5-3	NO MOTOR VEHICLES	24 x 24	4.00	---	---	---	1	---	---	---	
	2-02	45+26	LT	R5-3	NO MOTOR VEHICLES	24 x 24	4.00	---	---	---	1	---	---	---	
	2-03	45+36	RT	R7-52R	NO PARKING BETWEEN SIGNS - RIGHT ARROW	18 x 24	3.00	---	---	---	1	---	---	---	
	2-04	45+45	RT	R1-1	STOP	30 x 30	5.18	---	---	---	1	---	---	---	
	2-05	45+43	RT	R1-1	STOP	18 x 18	1.86	---	1	---	---	---	---	---	
	2-06	45+43	LT	W11-15	TRAIL CROSSING (BIKE AND PED SYMBOL)	30 x 30	---	6.25	---	---	1	---	---	---	
	2-07	45+43	LT	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 x 12	---	2.00	---	---	---	---	---	---	SIGN MOUNTED ON SAME POST AS 2-06
	2-08	45+41	LT	R7-52L	NO PARKING BETWEEN SIGNS - LEFT ARROW	18 x 24	3.00	---	---	---	1	---	---	---	
TOTALS							38.08	85.00	6	5	13	4	5	5	

FIELD OFFICE TYPE C		
CATEGORY	PROJECT	642.5201 EACH
0010	4996-22-71	1

TRAFFIC CONTROL		
CATEGORY	PROJECT	643.5000 EACH
0010	4996-22-71	1

TRAFFIC CONTROL																		
CATEGORY	LOCATION	DURATION (DAYS)	643.0300		643.0420 BARRICADES TYPE III		643.0500 FLEXIBLE TUBULAR MARKER POSTS		643.0600 FLEXIBLE TUBULAR MARKER BASES		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0900 SIGNS		643.1050 SIGNS PCMS	
			DRUMS		EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
			EACH	DAYS														
0010	S. BUSINESS DRIVE AND MOENNING ROAD S 18TH STREET	60	61	3,660	10	600	51		51		22	1,320	14	840	16	960	4	240
		60	14	840	0	0	0		0		0	0	0	0	3	180	0	0
	TOTALS			4,500		600	51		51		1,320		840		1,140		240	

PAVEMENT MARKING ITEMS													
CATEGORY	STATION	-	STATION	MARKING									
				646.1020				646.5020	646.5220	646.6120	646.7420	646.8320	646.9000
				LINE EPOXY 4-INCH				ARROW	SYMBOL	STOP LINE	CROSSWALK EPOXY	PARKING	REMOVAL
				SKIPS 3' SEG., 9' GAP				EPOXY	EPOXY	EPOXY 18-INCH	TRANSVERSE LINE 6-INCH	STALL EPOXY	LINE 4-INCH
				(WHITE)	(YELLOW)	(WHITE)	(YELLOW)	(WHITE)	(WHITE)	(WHITE)	(WHITE)	(YELLOW)	
LF	LF	LF	LF	EACH	EACH	LF	LF	LF	LF	LF			
0010	100+00M - 105+10M			845	940	18	---	2	2	22	95	60	560
	18+59 - 19+34M			---	59	---	9	---	---	---	---	---	---
	44+74 - 46+58			---	---	---	---	---	---	---	---	60	---
	TOTALS				1,871			2	2	22	95	120	560

GEOGRID		
CATEGORY	STATION - STATION	645.0220 TYPE SR SY
0010	34+65 - 45+74	1,938

TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH			
CATEGORY	LOCATION	649.0150	
		(WHITE) LF	(YELLOW) LF
0010	S. BUSINESS DRIVE	890	635
	TOTAL		1,525

CONSTRUCTION STAKING					
CATEGORY	STATION	-	STATION	650.4500	650.5000
				SUBGRADE	BASE
				LF	LF
0010	100+08M	-	105+17M	500	500
	18+59	-	45+41	2,970	2,970
TOTALS				3,470	3,470

SAWING CONCRETE			
CATEGORY	STATION - STATION	LOCATION	690.0250
			LF
0010	100+14M - 100+48M	LT/RT	15
	45+47 - 45+59	LT/RT	125
TOTAL			140

SAWING ASPHALT			
CATEGORY	STATION	LOCATION	690.0150
			LF
0010	100+08M - 100+35M	LT/RT	96
	105+10M - 105+10M	LT/RT	19
TOTAL			115

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL		
CATEGORY	PROJECT	650.9910
		LS
0010	4996-22-71	1

BOLLARD ITEMS				
CATEGORY	STATION	LOCATION	SPV.0060.01	SPV.0060.02
			BOLLARD	FOLDABLE BOLLARD
0010	18+70	8' LT	1	---
	18+70	0' RT	---	1
	18+70	8' RT	1	---
TOTALS			2	1

BENCH			
CATEGORY	STATION	LOCATION	SPV.0060.03
			EACH
0010	37+32	LT	1



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (3/4" REBAR UNLESS NOTED)	
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN			
EXISTING R/W OR HE LINE	---				
PROPERTY LINE	---				
LOT, TIE & OTHER MINOR LINES	---				
SLOPE INTERCEPT	---				
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING	---				
BRIDGE	---				

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

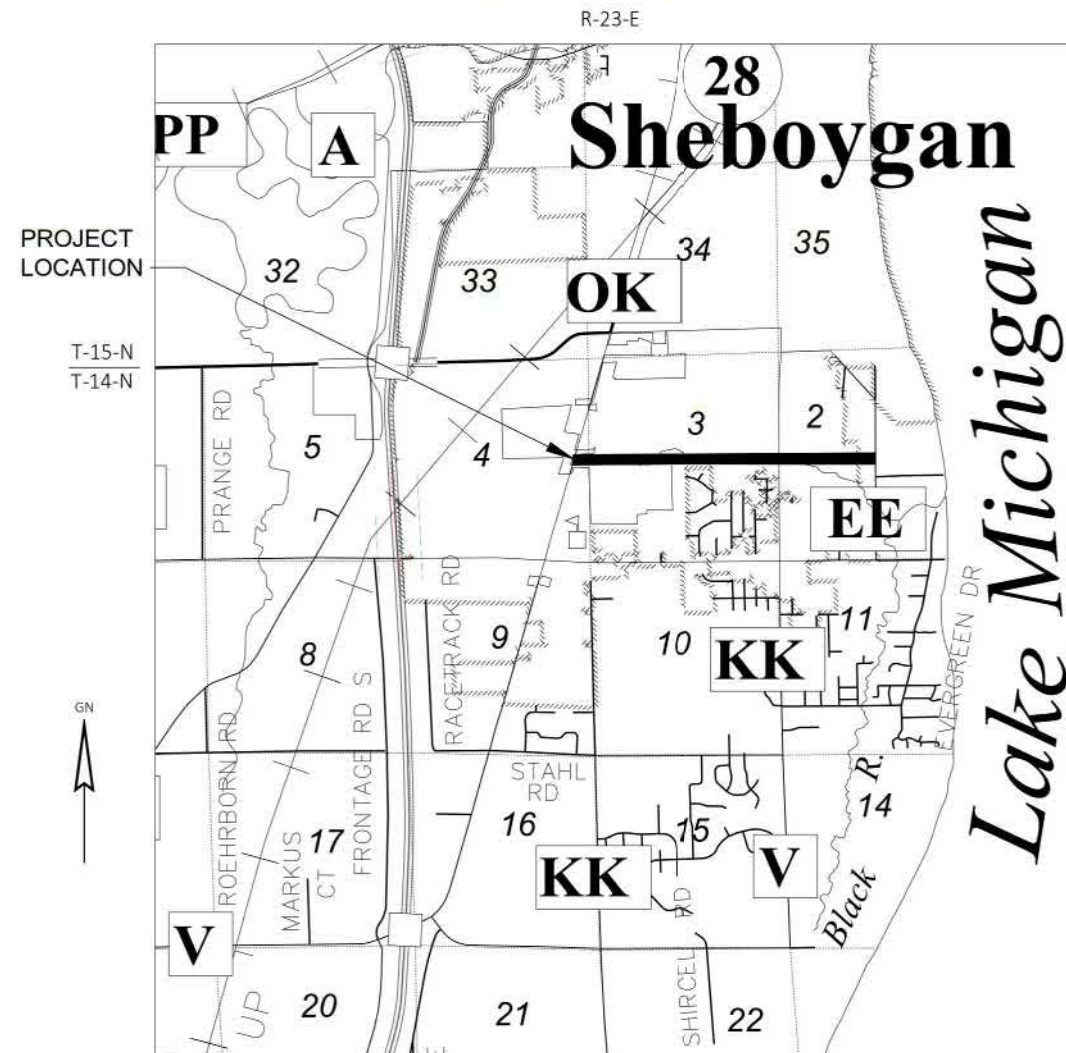
CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

---	WATER
---	GAS
---	TELEPHONE
---	OVERHEAD
---	TRANSMISSION LINES
---	ELECTRIC
---	CABLE TELEVISION
---	FIBER OPTIC
---	SANITARY SEWER
---	STORM SEWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
4996-22-71
UTILITY CORRIDOR MULTI-USE PATH
LAKESHORE DR - TAYLOR
LOCAL PLAT
SHEBOYGAN COUNTY



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 4996-22-71.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE 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 MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF SHEBOYGAN AND THE SHEBOYGAN COUNTY HIGHWAY DEPARTMENT.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING R/W FOR COUNTY RD OK BASED ON PREVIOUS PROJECT: 4996-01-21

EXISTING R/W FOR MOENING ROAD BASED ON PREVIOUS PROJECT: 4996-01-21, TOWN OF WILSON ROAD RECORDS V.1, P.11.

EXISTING R/W FOR 18TH STREET BASED ON: CAMELOT ESTATES, PLAINWOOD, CREEKSIDE AND EASEMENT DOCUMENT NO. 1498957.

EXISTING R/W FOR FOX HILL ROAD BASED ON: CAMELOT ESTATES

EXISTING R/W FOR KNOLL CREST DRIVE BASED ON: CAMELOT ESTATES

EXISTING R/W FOR 12TH STREET BASED ON: CAMELOT ESTATES, CSM RECORDED IN VOL. 1, P. 57, CSM RECORDED IN VOL. 1 P. 59, CSM RECORDED IN VOL. 8, P. 364 AND THE EAST LINE OF SECTION 3.

EXISTING R/W FOR CAMELOT BOULEVARD BASED ON: CAMELOT ESTATES.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4996-22-71 - 4.01
SHEET 2 OF 2
AMENDMENT NO: 38

TRANSPORTATION PROJECT PLAT NO: 4996-22-71 - 4.01

THAT PART OF PARCEL A OF CSM RECORDED IN VOLUME 1, PAGE 47 AS DOCUMENT NO.893676 LOCATED IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 4 AND THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 3 AND OTHER LANDS IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 4, AND THAT PART OF TRACT 1 OF CSM RECORDED IN VOLUME 1, PAGE 55 AS DOCUMENT 901012 LOCATED IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 3 AND OTHER LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 3, TOWNSHIP 14 NORTH, RANGE 23 EAST, CITY OF SHEBOYGAN, AND THAT PART OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 3, TOWNSHIP 14 NORTH, RANGE 23 EAST, TOWN OF WILSON, ALL IN SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER UTILITY CORRIDOR MULTI-USE PATH (LAKESHORE DR - TAYLOR) LOCAL PLAT SHEBOYGAN COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, SHEBOYGAN COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 83.07 & 83.08 WISCONSIN STATUTES, SHEBOYGAN COUNTY HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF SHEBOYGAN COUNTY, PURSUANT TO THE PROVISIONS OF SECTION 83.07 & 83.08, WISCONSIN STATUTES.

COURSE	BEARING	DISTANCE
PLE101-PLE102	S 67° 54' 41" E	369.30'
PLE102-PLE103	S 78° 53' 22" E	146.84'
PLE103-PLE104	N 79° 30' 25" E	133.79'
PLE104-PLE105	N 66° 56' 24" E	72.41'
PLE105-PLE106	S 00° 47' 38" W	49.29'
PLE106-PLE107	S 62° 24' 02" W	128.81'
PLE107-PLE108	N 78° 47' 45" W	210.67'
PLE108-PLE109	N 68° 26' 27" W	420.74'
PLE109-PLE110	N 88° 19' 17" W	571.81'
PLE110-PLE100	N 00° 29' 18" E	25.19'

POINT #	STATION	OFFSET
100	22+49.94	0.00'
101	22+40.49	-33.00'
102	22+34.38	-54.33'
103	22+98.49	-303.50'
104	24+94.47	-295.71'
105	39+49.33	-300.00'
106	39+51.34	0.00'
PLE100	26+65.48	0.00'
PLE101	32+65.33	0.00'
PLE102	36+10.69	130.80'
PLE103	37+55.40	155.71'
PLE104	38+86.35	128.26'
PLE105	39+52.29	98.35'
PLE106	39+52.76	147.63'
PLE107	38+40.04	209.97'
PLE108	36+32.48	173.90'
PLE109	32+37.66	28.52'
PLE110	26+65.85	25.19'

STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

I, HEATHER S. BARTELT, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF SHEBOYGAN COUNTY, I HAVE SURVEYED & MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: Heather S. Bartelt DATE: 5/31/17

PRINT NAME: HEATHER S. BARTELT

REGISTRATION NUMBER: S-2797

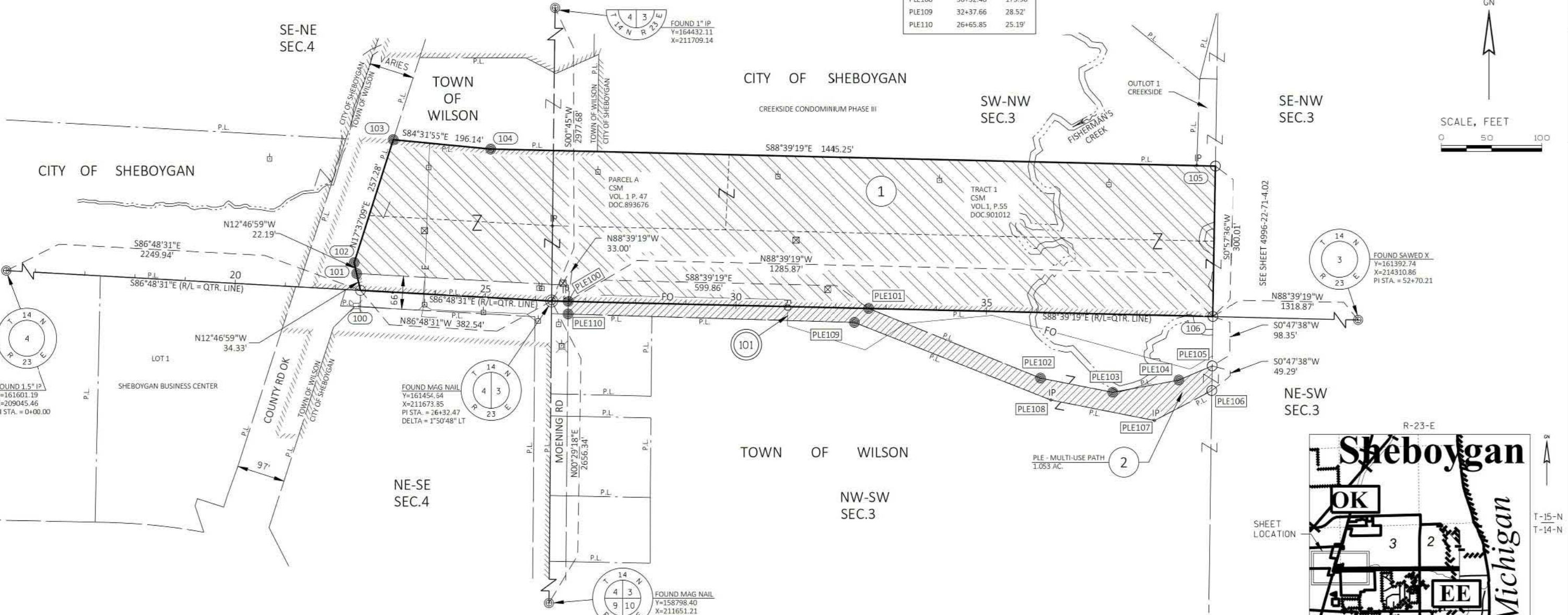
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR SHEBOYGAN COUNTY

SIGNATURE: _____ DATE: _____

PRINT NAME: AARON C. BRAULT

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4996-22-71-4.01
AMENDMENT NO: _____
SHEET 1 OF 2



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W	ACRES REQUIRED	PLE AC.
1	WISCONSIN POWER & LIGHT COMPANY	FEE	NEW	EXISTING TOTAL	
2	TOWN OF WILSON	PLE	---	---	1.053

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	WISCONSIN POWER & LIGHT	RELEASE OF RIGHTS
101	AT&T-WISCONSIN (COMMUNICATIONS)	RELEASE OF RIGHTS

FOUND IRON PINS ARE 3/4" REBAR UNLESS OTHERWISE NOTED.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SHEBOYGAN COUNTY, NAD83 2011 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF SHEBOYGAN OR THE SHEBOYGAN COUNTY HIGHWAY DEPARTMENT.

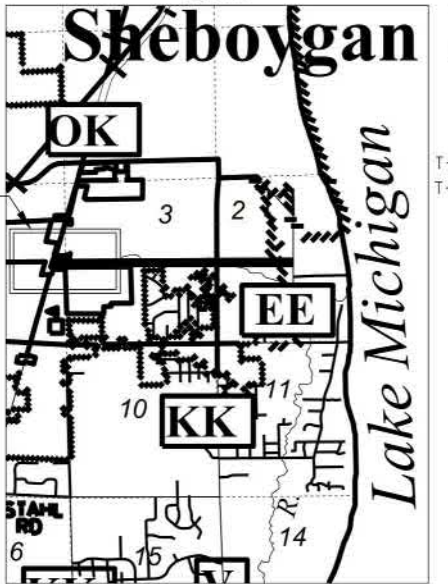
EXISTING R/W FOR COUNTY RD OK BASED ON PREVIOUS PROJECT: 4996-01-21.

EXISTING R/W FOR MOENING ROAD BASED ON PREVIOUS PROJECT: 4996-01-21, TOWN OF WILSON ROAD RECORDS V.1, P.11.

WISCONSIN POWER & LIGHT
BLANKET EASEMENT
ALONG NORTH, SOUTH & EAST LINES
SOUTH 1/2 OF NW 1/4 SEC.3
DOC.233620

100 WISCONSIN POWER & LIGHT
BLANKET EASEMENT
ALONG NORTH LINE
NORTH 1/2 OF SW 1/4 SEC.3
DOC.233619
PARCEL 2

101 AT&T-WISCONSIN (COMMUNICATIONS)
NO RECORDED EASEMENT
PARCELS 1 & 2



LAYOUT
SCALE 0 0.5 MI.

TRANSPORTATION PROJECT PLAT NO: 4996-22-71 - 4.02 AMENDMENT NO. 1

AMENDS PARCEL 1 AND AMENDS UTILITY NUMBER 101 OF TRANSPORTATION PROJECT PLAT 4996-22-71-4.02 RECORDED AS DOCUMENT NUMBER 2040699 AND FILED IN VOLUME 1 ON PAGE 169.

THAT PART OF TRACT 1 OF CSM RECORDED IN VOLUME 1, PAGE 55 AS DOCUMENT NUMBER 901012 AND OTHER LANDS IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 3, AND PART OF TRACT 1 OF CSM RECORDED IN VOLUME 1, PAGE 58 AS DOCUMENT 901015 AND OTHER LANDS IN THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 3, AND PART OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 3, TOWNSHIP 14 NORTH, RANGE 23 EAST, CITY OF SHEBOYGAN, AND PART OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 3, TOWNSHIP 14 NORTH, RANGE 23 EAST, TOWN OF WILSON, ALL IN SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER UTILITY CORRIDOR MULTI-USE PATH (LAKESHORE DR - TAYLOR) LOCAL PLAT SHEBOYGAN COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, SHEBOYGAN COUNTY DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 83.07 & 83.08 WISCONSIN STATUTES, SHEBOYGAN COUNTY HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE COUNTY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF SHEBOYGAN COUNTY, PURSUANT TO THE PROVISIONS OF SECTION 83.07 & 83.08, WISCONSIN STATUTES.

COURSE	BEARING	DISTANCE
PLE201-PLE202	S 1° 05' 59" W	29.17'
PLE201-PLE203	N 88° 38' 37" W	148.37'
PLE203-PLE106	S 62° 24' 02" W	244.84'
PLE106-PLE105	N 0° 47' 38" E	49.29'
PLE105-PLE200	N 66° 56' 24" E	238.02'
PLE200-PLE201	S 88° 39' 21" E	146.22'

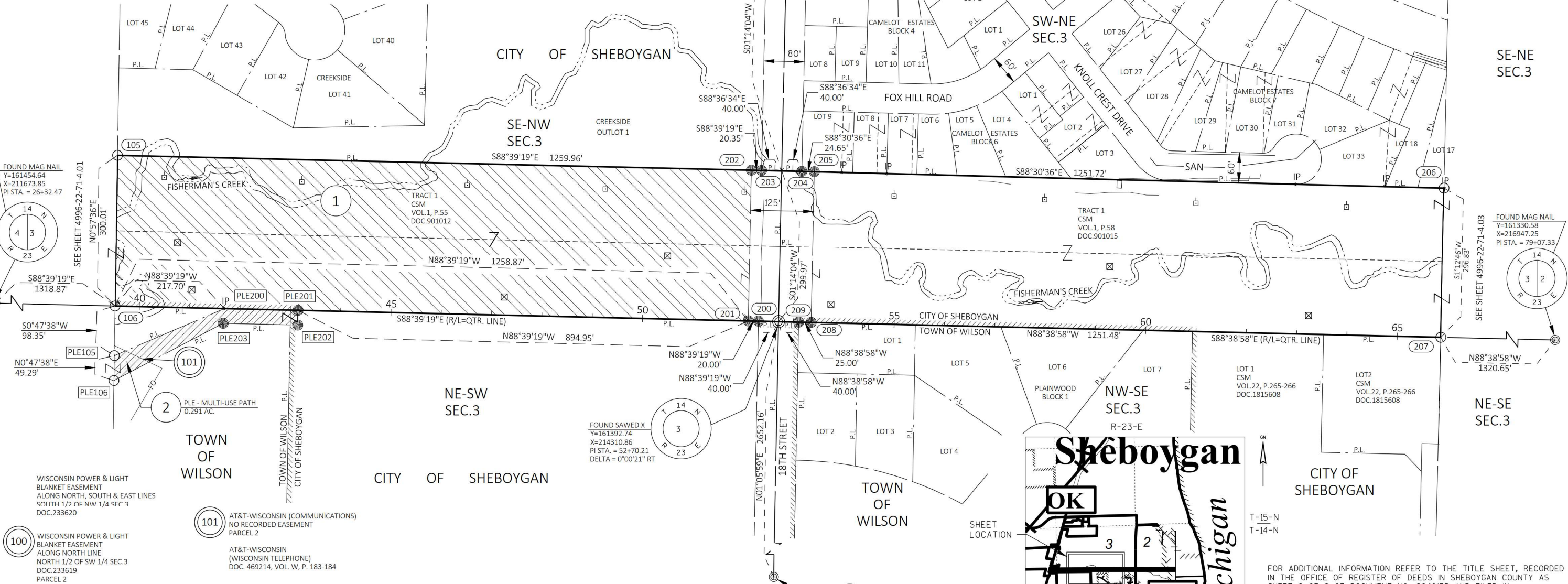
POINT #	STATION	OFFSET
105	39+49.33	-300.00'
106	39+51.34	0.00'
200	52+30.21	0.00'
201	52+10.21	0.00'
202	52+09.28	-300.00'
203	52+29.63	-300.00'
204	53+09.60	-299.94'
205	53+34.25	-299.88'
206	65+85.97	-296.84'
207	65+86.69	0.00'
208	53+35.21	0.00'
209	53+10.21	0.00'
PLE105	39+52.29	98.35'
PLE106	39+52.76	147.63'
PLE200	41+69.04	0.00'
PLE201	43+15.26	0.00'
PLE202	43+15.39	29.17'
PLE203	41+67.02	29.14'

GN

SCALE, FEET



RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4996-22-71-4.02
AMENDMENT NO: 1



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W	ACRES REQUIRED NEW	EXISTING TOTAL	PLE AC.
1	WISCONSIN POWER & LIGHT COMPANY	FEE	8.674	0.861	9.535	---
2	TOWN OF WILSON	PLE	---	---	---	0.291

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	WISCONSIN POWER & LIGHT	RELEASE OF RIGHTS
101	AT&T-WISCONSIN (COMMUNICATIONS)	RELEASE OF RIGHTS

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

FOUND IRON PINS ARE 3/4" REBAR UNLESS OTHERWISE NOTED.

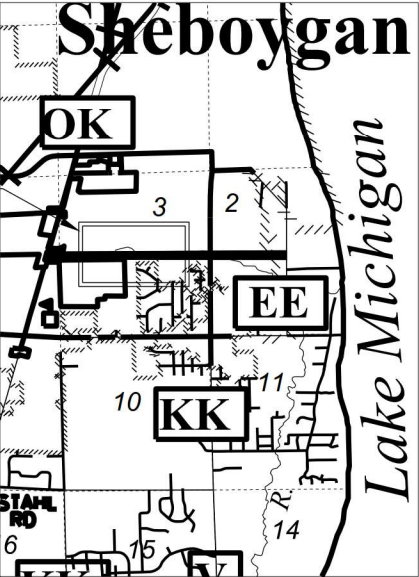
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SHEBOYGAN COUNTY, NAD83 2011 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF SHEBOYGAN OR THE SHEBOYGAN COUNTY HIGHWAY DEPARTMENT.

EXISTING R/W FOR 18TH STREET BASED ON: CAMELOT ESTATES, PLAINWOOD, CREEKSIDE AND EASEMENT DOCUMENT NO. 1498957.

EXISTING R/W FOR FOX HILL ROAD BASED ON: CAMELOT ESTATES

EXISTING R/W FOR KNOLL CREST DRIVE BASED ON: CAMELOT ESTATES



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN SHEBOYGAN COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 2040155 AND FILED IN VOLUME 1 ON PAGE 168.

STRAND ASSOCIATES, INC. ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843

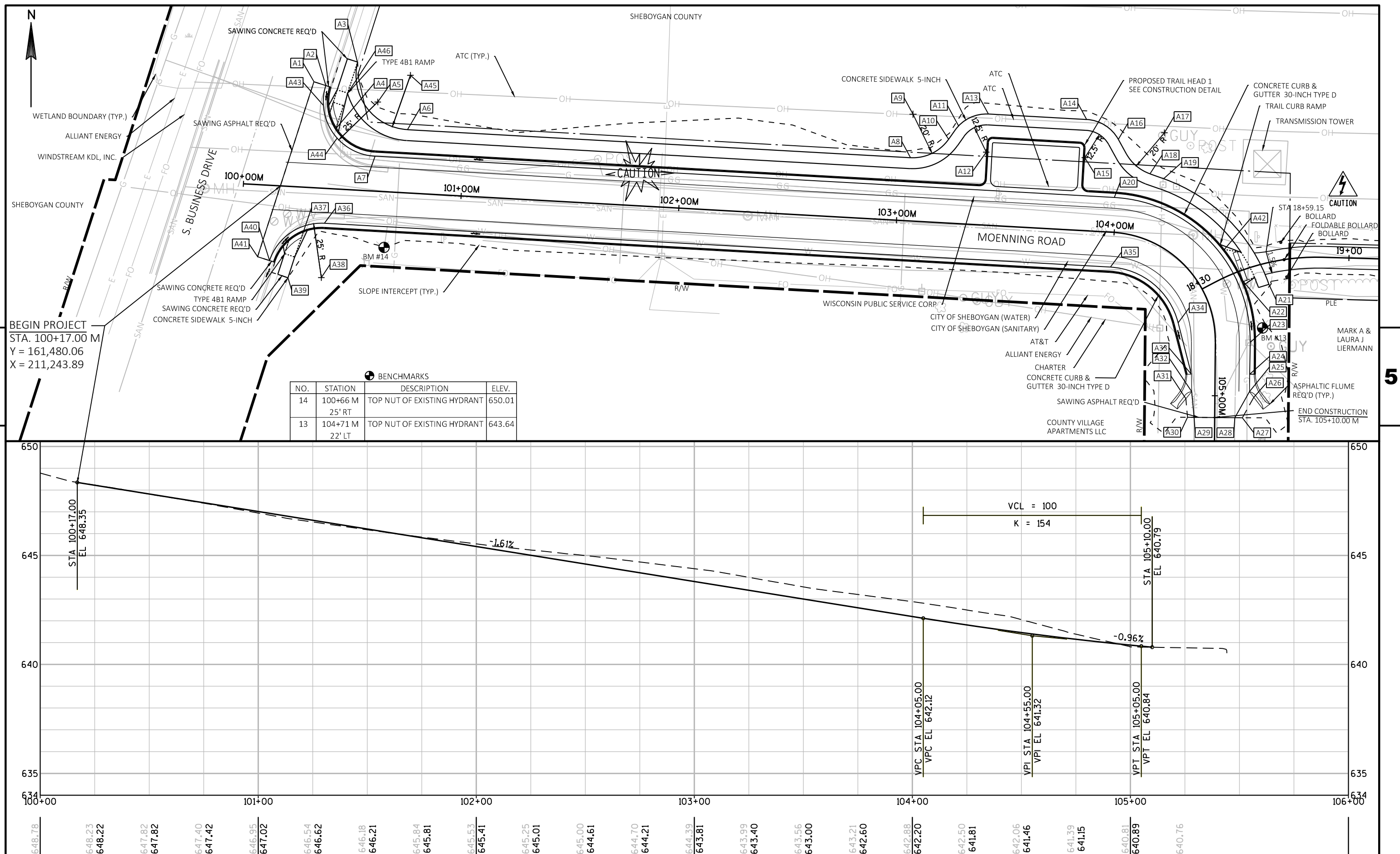
I, HEATHER S. BARTELT, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF SHEBOYGAN COUNTY, I HAVE SURVEYED & MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Heather S. Bartelt* DATE: 2/2/18
PRINT NAME: HEATHER S. BARTELT
REGISTRATION NUMBER: S-2797

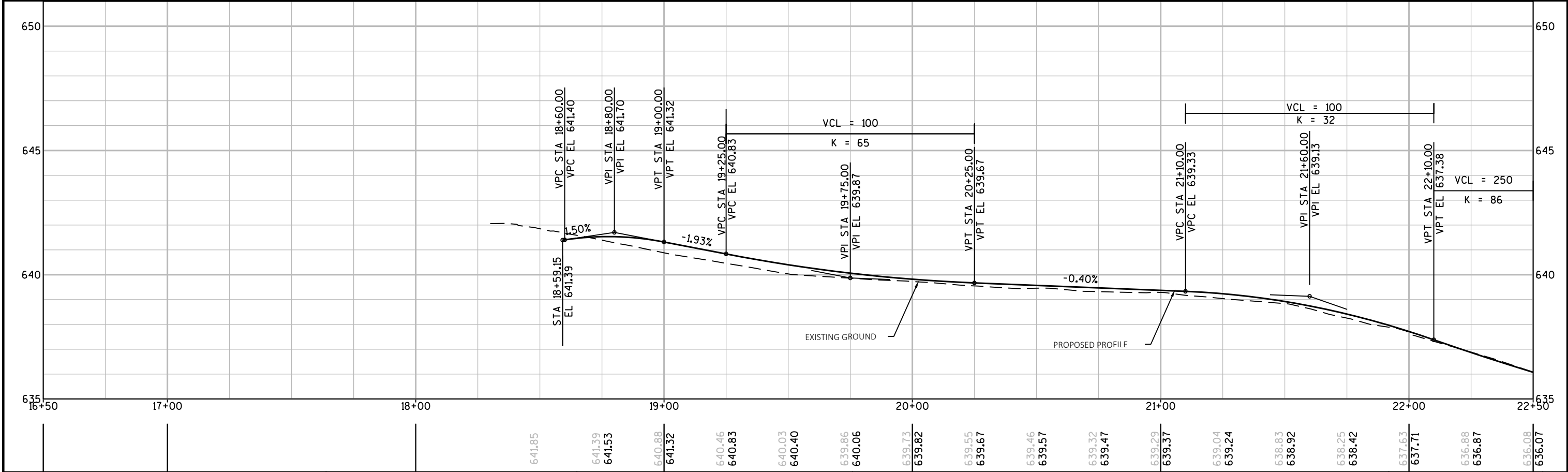
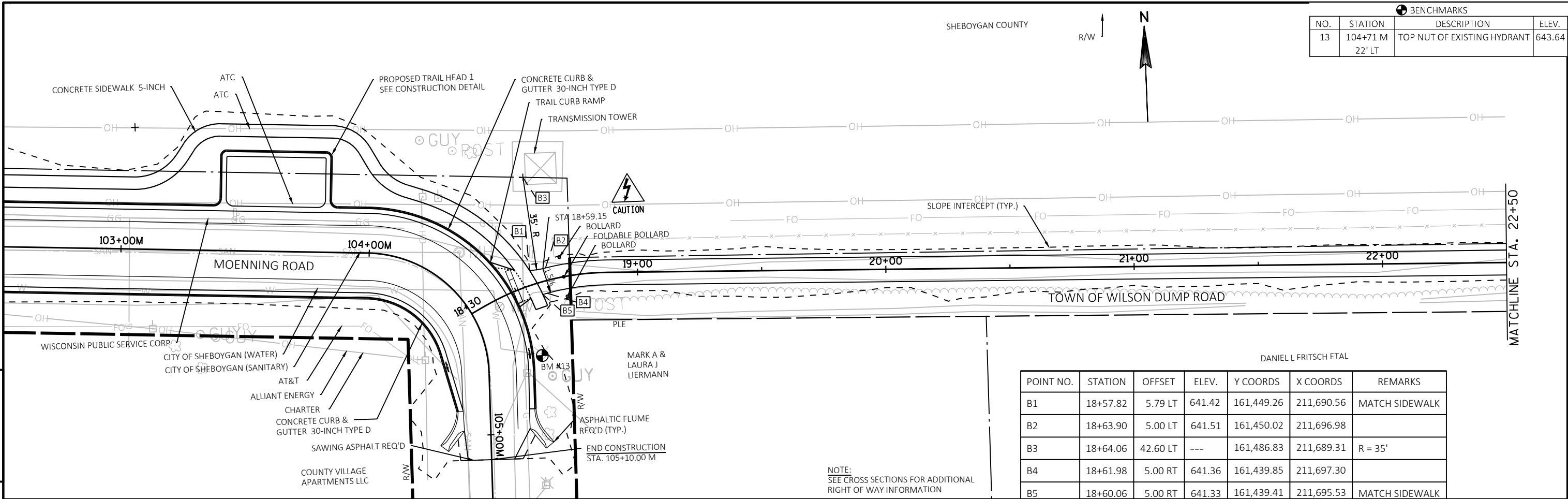
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR SHEBOYGAN COUNTY

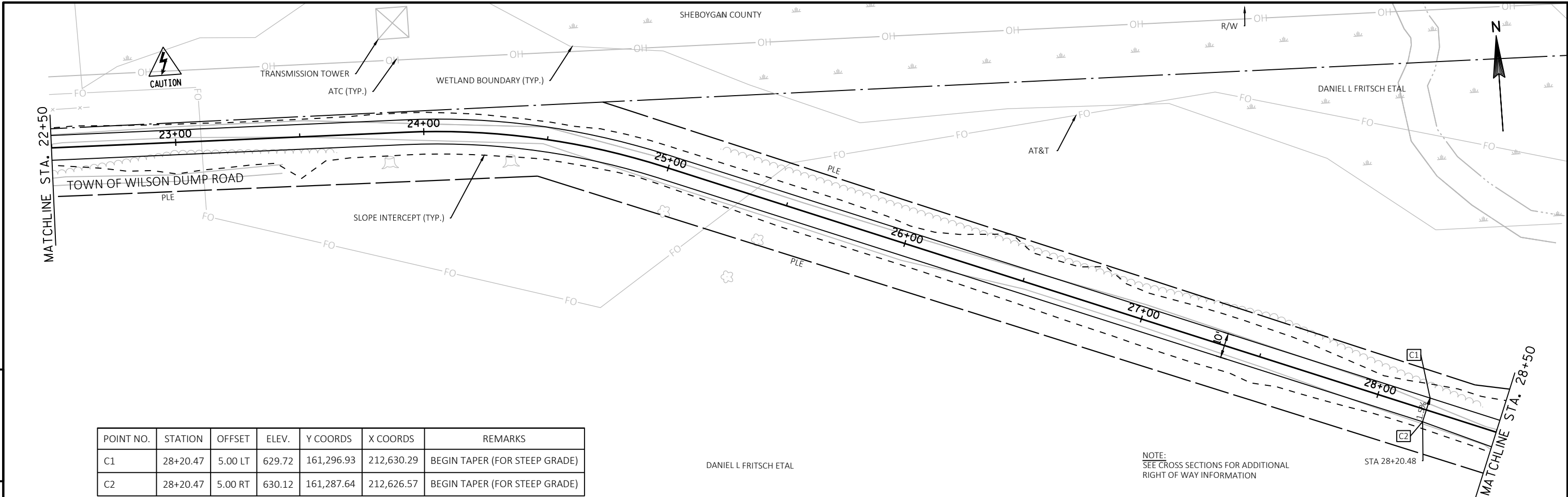
SIGNATURE: _____ DATE: _____
PRINT NAME: AARON C. BRAULT 40



POINT NO.	STATION		OFFSET	ELEV.	Y COORDS	X COORDS	REMARKS
A1	100+29.69	M	48.56 LT	---	161,527.84	211,259.27	MATCH EXIST. PAVEMENT
A2	100+35.22	M	47.12 LT	---	161,526.09	211,264.70	MATCH EXIST. 30-INCH C&G
A3	100+49.07	M	58.76 LT	---	161,536.94	211,279.18	MATCH EXIST. SIDEWALK
A4	100+41.14	M	27.93 LT	648.06	161,506.61	211,269.54	BOC; CURB RAMP OPENING
A5	100+59.43	M	40.92 LT	---	161,518.56	211,288.53	R = 25'
A6	100+73.73	M	29.00 LT	647.83	161,505.86	211,302.15	BOS
A7	100+59.58	M	16.00 LT	647.35	161,493.67	211,287.30	
A8	103+04.84	M	29.00 LT	644.15	161,493.00	211,532.90	BOS
A9	103+04.84	M	48.99 LT	---	161,512.95	211,534.01	R = 20'
A10	103+21.80	M	38.41 LT	644.15	161,501.45	211,550.36	BOS
A11	103+26.01	M	44.81 LT	644.31	161,507.61	211,554.92	BOS
A12	103+39.37	M	33.50 LT	---	161,495.57	211,567.62	R = 12.5'
A13	103+39.37	M	51.00 LT	643.89	161,513.04	211,568.60	BOS
A14	103+84.51	M	51.00 LT	643.22	161,510.53	211,613.67	BOS
A15	103+84.65	M	33.45 LT	---	161,493.00	211,612.83	R = 12.5'
A16	103+99.34	M	42.73 LT	643.03	161,501.43	211,628.17	BOS
A17	104+09.97	M	49.23 LT	---	161,504.45	211,649.33	R = 20'
A18	104+09.13	M	29.28 LT	642.45	161,485.58	211,642.68	BOS
A19	104+13.33	M	29.00 LT	642.39	161,483.37	211,648.95	BOS
A20	103+99.15	M	16.00 LT	641.89	161,474.77	211,626.34	
A21	104+58.13	M	29.00 LT	641.71	161,434.88	211,697.27	BOS
A22	104+54.40	M	18.50 LT	641.02	161,436.19	211,685.49	BOC; TRAIL CURB RAMP OPENING
A23	104+75.34	M	16.00 LT	640.83	161,408.30	211,688.67	
A24	104+90.00	M	15.87 LT	640.67	161,393.64	211,688.41	ASPHALTIC FLUME
A25	104+98.00	M	15.86 LT	640.59	161,385.65	211,688.33	
A26	105+00.57	M	17.87 LT	640.43	161,383.06	211,690.32	
A27	105+10.00	M	12.68 LT	---	161,373.67	211,685.05	MATCH EXIST. SHOULDER
A28	105+10.00	M	9.25 LT	---	161,373.70	211,681.63	MATCH EXIST. PAVEMENT
A29	105+10.00	M	9.44 RT	---	161,373.86	211,662.93	MATCH EXIST. PAVEMENT
A30	105+10.00	M	12.44 RT	---	161,373.88	211,659.93	MATCH EXIST. SHOULDER
A31	105+01.48	M	13.30 RT	640.44	161,382.41	211,659.14	
A32	104+98.20	M	10.62 RT	640.68	161,385.67	211,661.86	
A33	104+90.20	M	10.86 RT	640.77	161,393.67	211,661.68	ASPHALTIC FLUME
A34	104+62.44	M	16.00 RT	640.98	161,417.26	211,655.62	
A35	103+99.15	M	16.00 RT	641.89	161,442.82	211,624.56	
A36	100+38.07	M	16.00 RT	647.69	161,462.91	211,264.04	
A37	100+28.66	M	20.56 RT	647.80	161,458.88	211,254.39	BOC; CURB RAMP OPENING
A38	100+38.07	M	40.98 RT	---	161,437.98	211,262.65	R = 25'
A39	100+22.80	M	41.90 RT	---	161,437.91	211,247.35	MATCH EXIST. SIDEWALK
A40	100+13.94	M	34.48 RT	---	161,445.80	211,238.91	MATCH EXIST. 30-INCH C&G
A41	100+08.35	M	33.02 RT	---	161,447.57	211,233.42	MATCH EXIST. PAVEMENT
A42	104+41.90	M	18.50 LT	641.17	161,450.88	211,676.77	BOC; TRAIL CURB RAMP OPENING

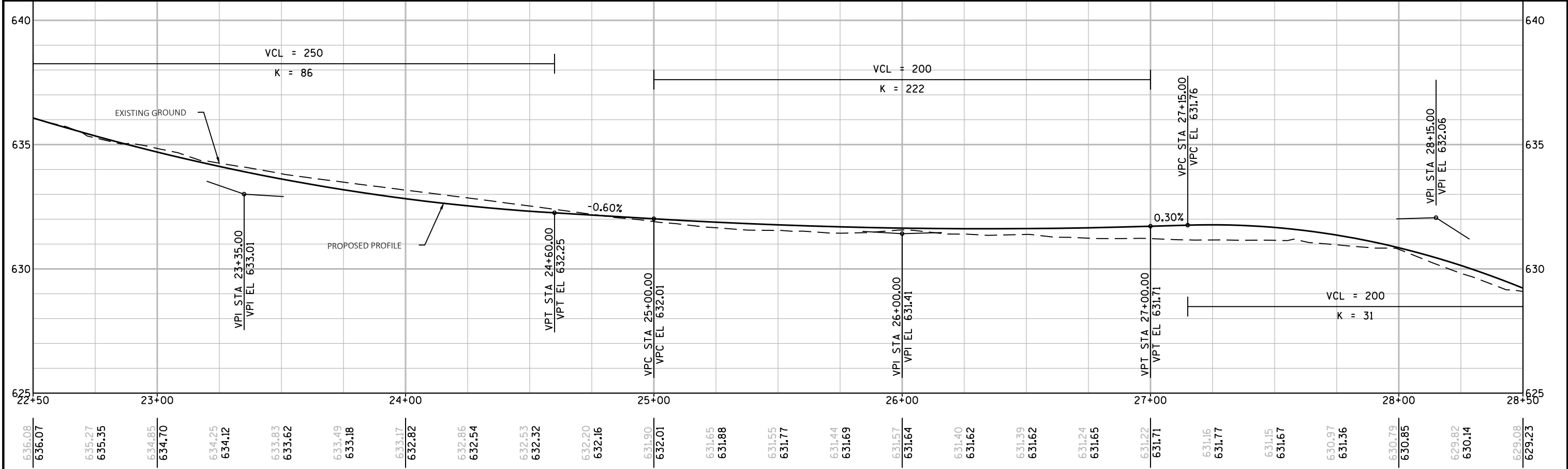
POINT NO.	STATION		OFFSET	ELEV.	Y COORDS	X COORDS	REMARKS
A43	100+34.64	M	37.96 LT	648.33	161,516.98	211,263.62	
A44	100+41.77	M	23.33 LT	648.08	161,501.98	211,269.92	
A45	100+73.73	M	54.00 LT	---	161,530.82	211,303.54	R = 25'
A46	100+45.38	M	44.22 LT	648.62	161,522.63	211,274.69	





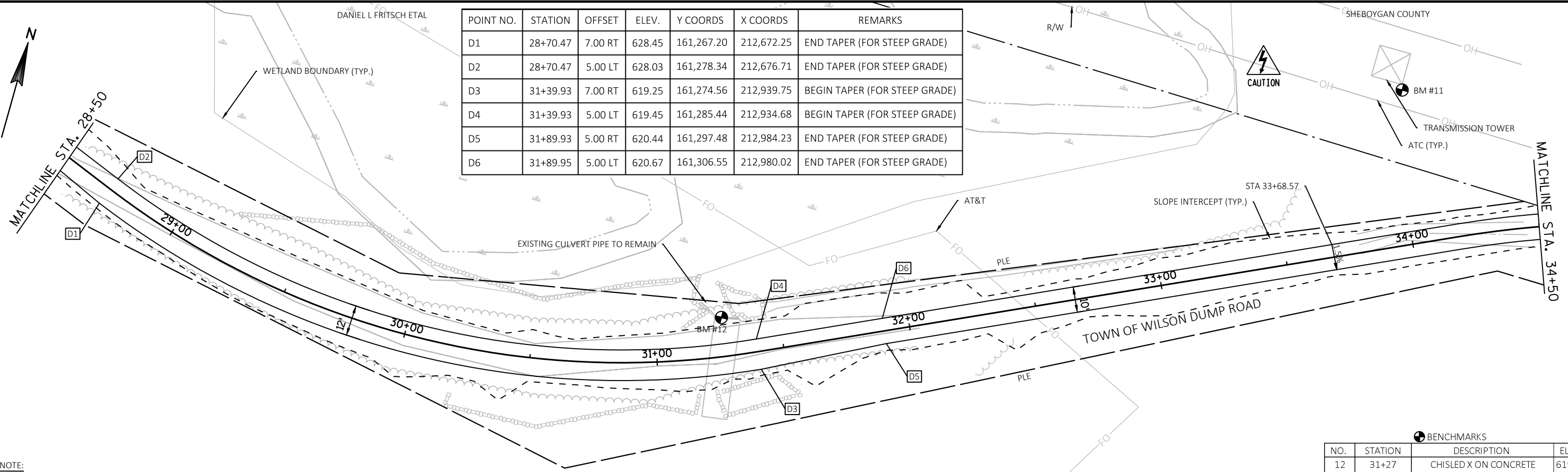
POINT NO.	STATION	OFFSET	ELEV.	Y COORDS	X COORDS	REMARKS
C1	28+20.47	5.00 LT	629.72	161,296.93	212,630.29	BEGIN TAPER (FOR STEEP GRADE)
C2	28+20.47	5.00 RT	630.12	161,287.64	212,626.57	BEGIN TAPER (FOR STEEP GRADE)

NOTE:
SEE CROSS SECTIONS FOR ADDITIONAL
RIGHT OF WAY INFORMATION



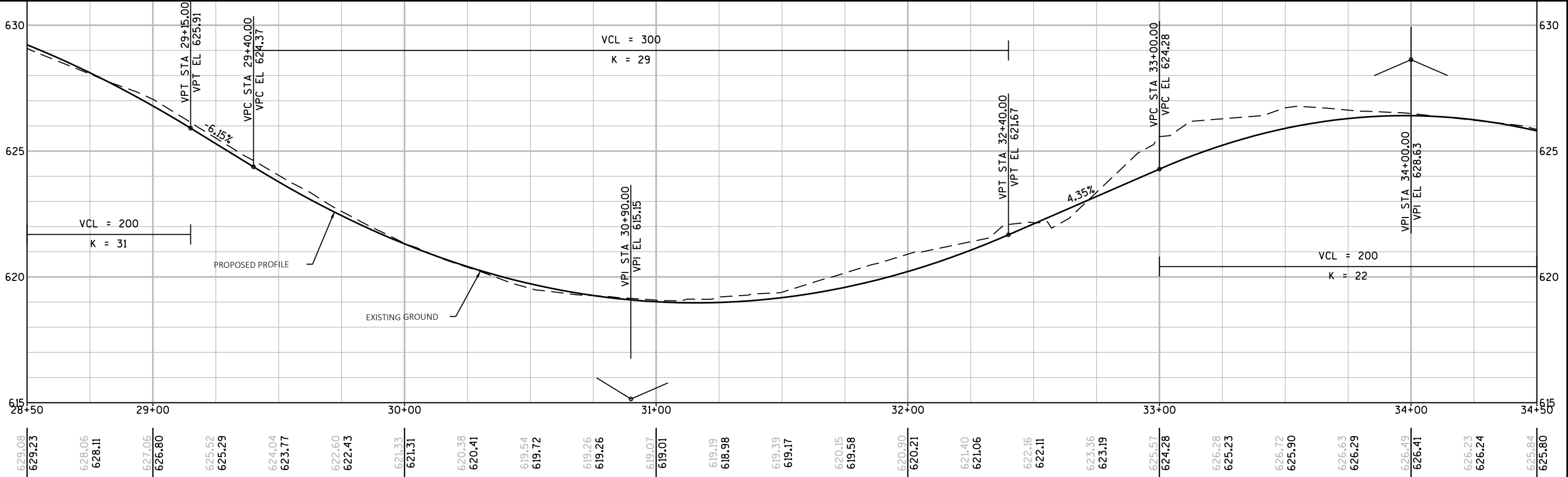
PROJECT NO: 4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	PLAN AND PROFILE: MULTI-USE PATH	SHEET 44	E
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POINT NO.	STATION	OFFSET	ELEV.	Y COORDS	X COORDS	REMARKS
D1	28+70.47	7.00 RT	628.45	161,267.20	212,672.25	END TAPER (FOR STEEP GRADE)
D2	28+70.47	5.00 LT	628.03	161,278.34	212,676.71	END TAPER (FOR STEEP GRADE)
D3	31+39.93	7.00 RT	619.25	161,274.56	212,939.75	BEGIN TAPER (FOR STEEP GRADE)
D4	31+39.93	5.00 LT	619.45	161,285.44	212,934.68	BEGIN TAPER (FOR STEEP GRADE)
D5	31+89.93	5.00 RT	620.44	161,297.48	212,984.23	END TAPER (FOR STEEP GRADE)
D6	31+89.95	5.00 LT	620.67	161,306.55	212,980.02	END TAPER (FOR STEEP GRADE)

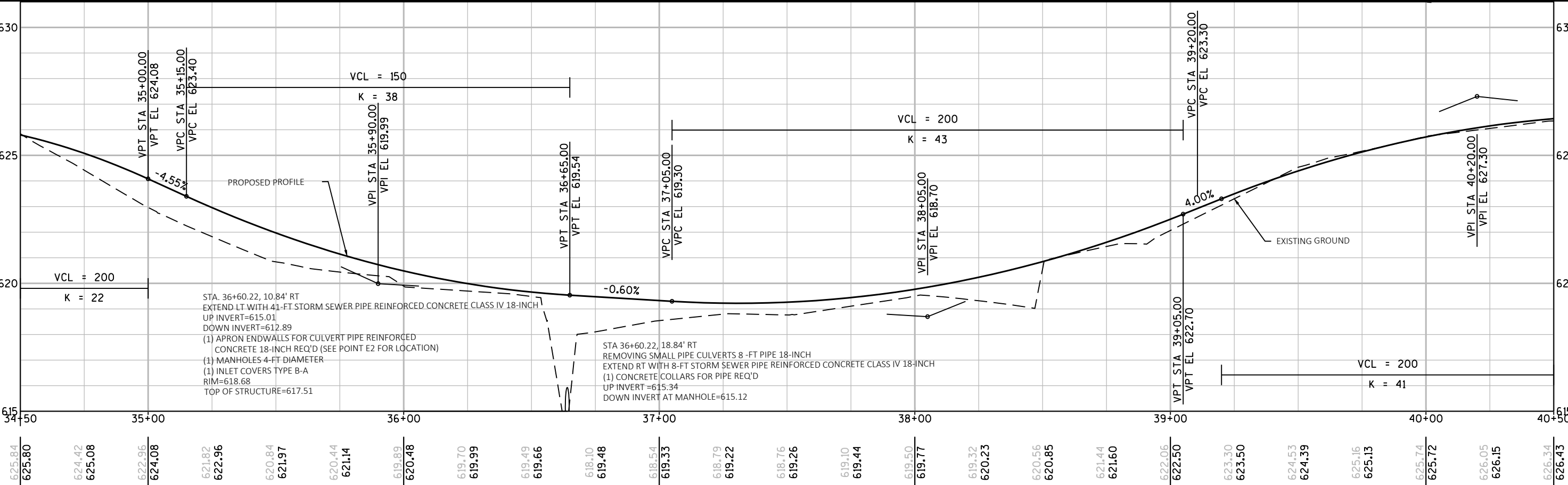
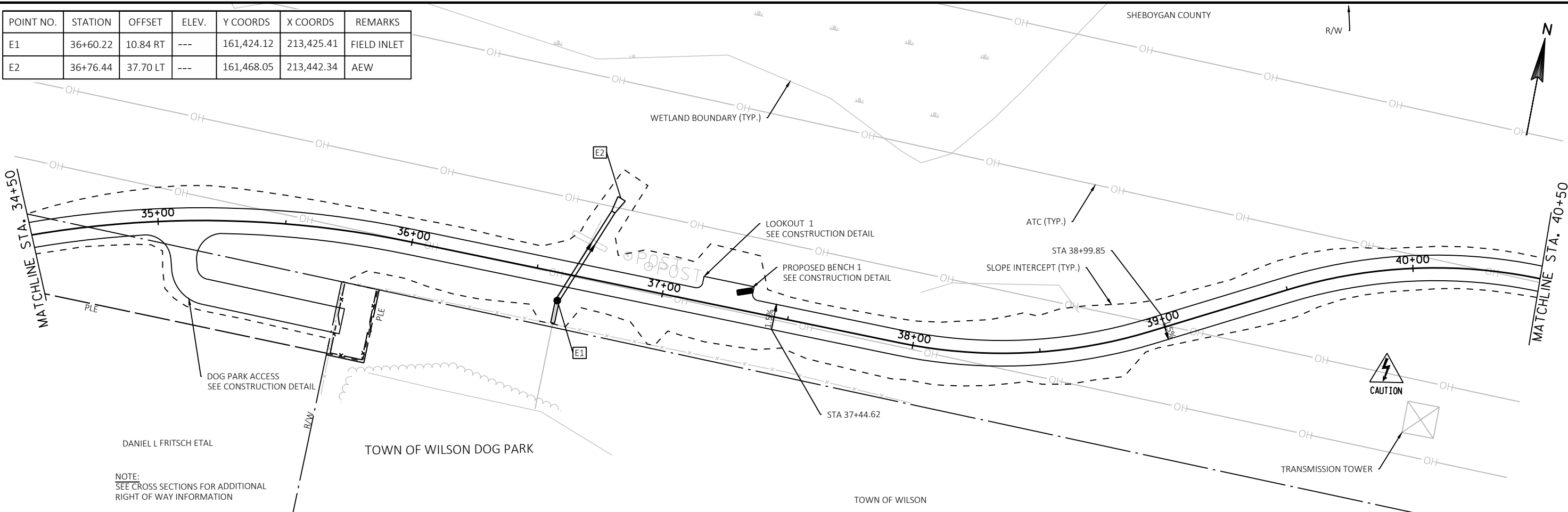


NOTE:
SEE CROSS SECTIONS FOR ADDITIONAL
RIGHT OF WAY INFORMATION

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
12	31+27 15' LT	CHISLED X ON CONCRETE	619.71
11	34+06 60' LT	TOP NUT ON TOWER LEG	628.51



POINT NO.	STATION	OFFSET	ELEV.	Y COORDS	X COORDS	REMARKS
E1	36+60.22	10.84 RT	---	161,424.12	213,425.41	FIELD INLET
E2	36+76.44	37.70 LT	---	161,468.05	213,442.34	AEW



PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

PLAN AND PROFILE: MULTI-USE PATH

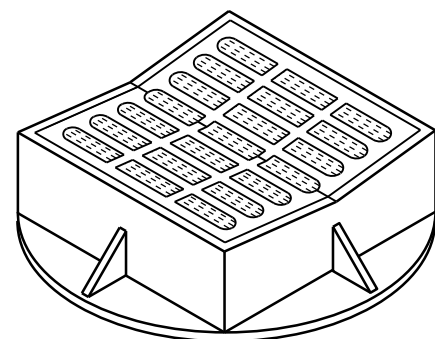
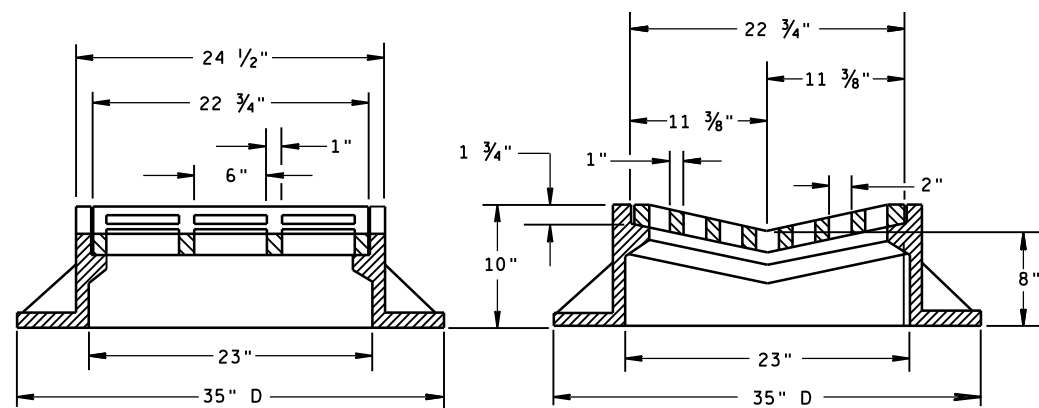
SHEET

46

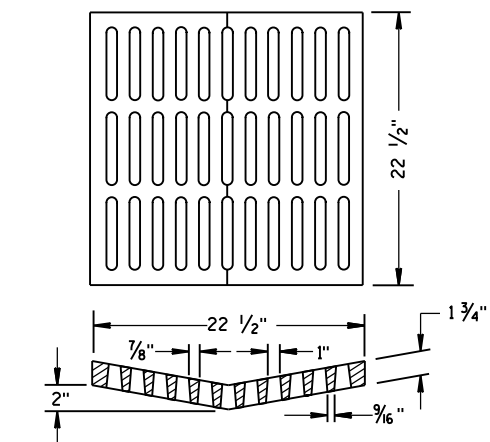
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Standard Detail Drawing List

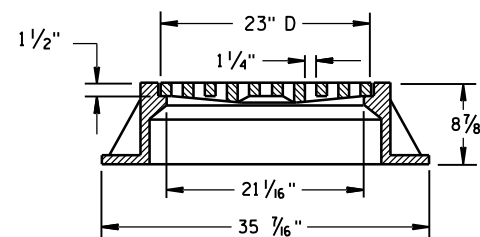
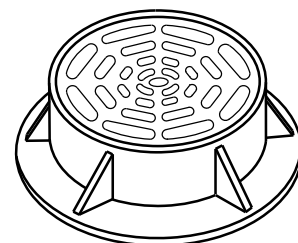
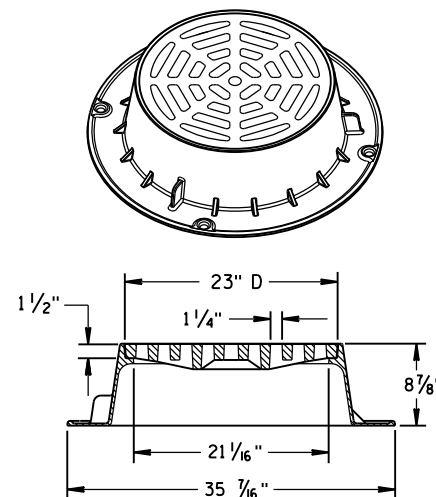
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-04	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C29-05A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
 NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

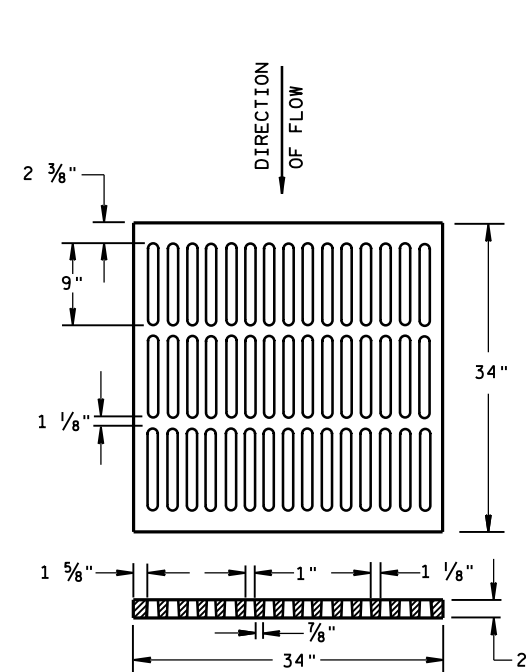
NOTE: EITHER CASTING IS ACCEPTABLE

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.

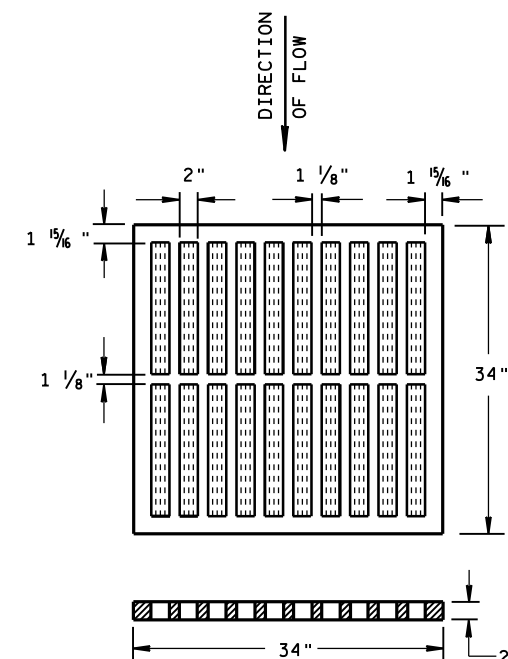
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



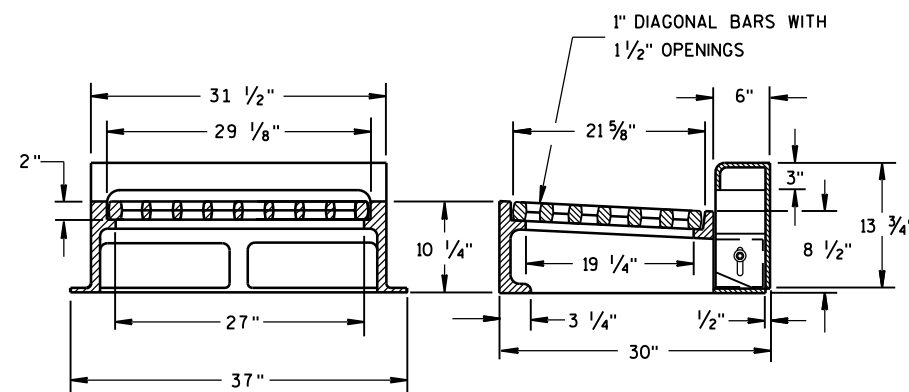
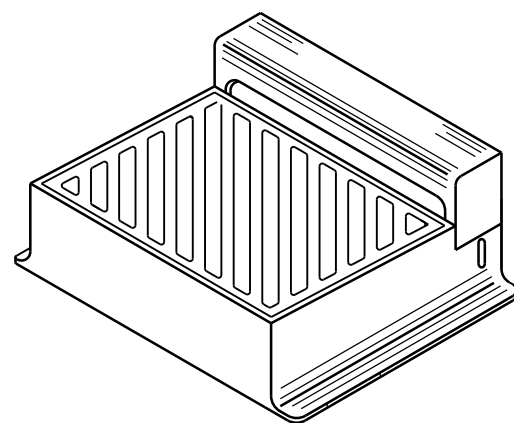
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
 NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
 NOTED AS TYPE MS ON DRAINAGE TABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIAGONAL SLOTS, SHALL BE ORIENTED
 TO THE DIRECTION OF FLOW AS ILLUSTRATED.
 GRATES ARE MANUFACTURED TO BE REVERSIBLE.

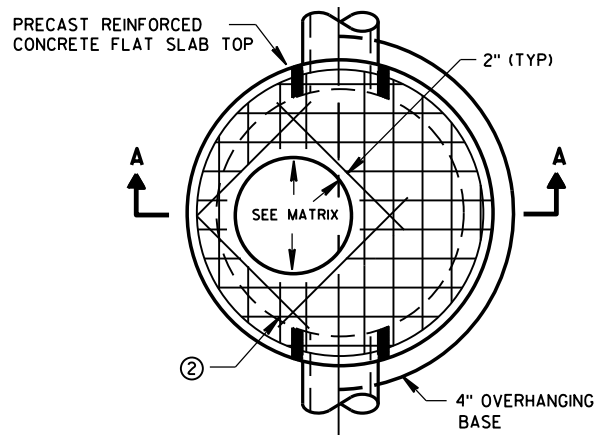
DIRECTION
OF FLOW

INLET COVERS
 TYPE B, B-A, C,
 MS, MS-A, & WM

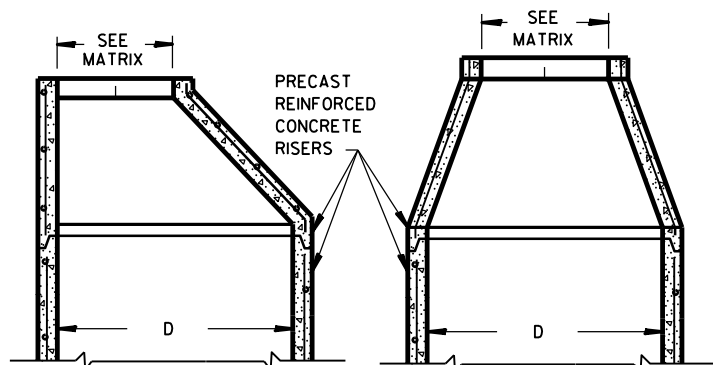
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 DATE 11/27/2013
 FHWA

/S/ Jerry H. 49
 ROADWAY STANDARDS
 ENGINEER
 JPMENT

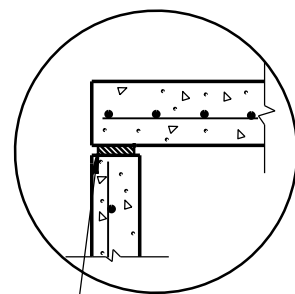


PLAN VIEW CIRCULAR OPENING

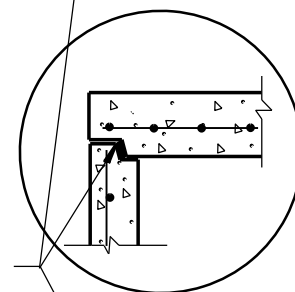


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

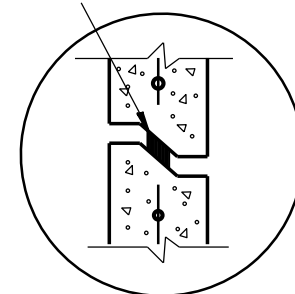
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

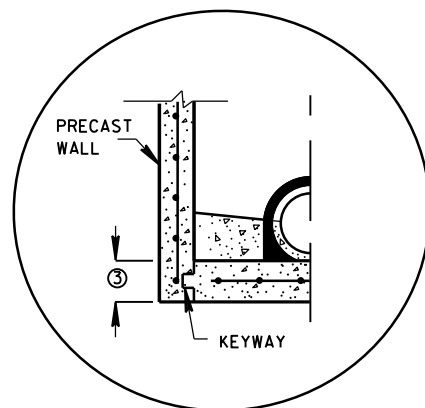


TOP WITH TONGUE AND GROOVE JOINT

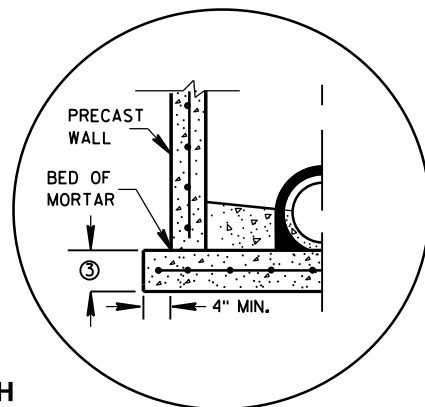


DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

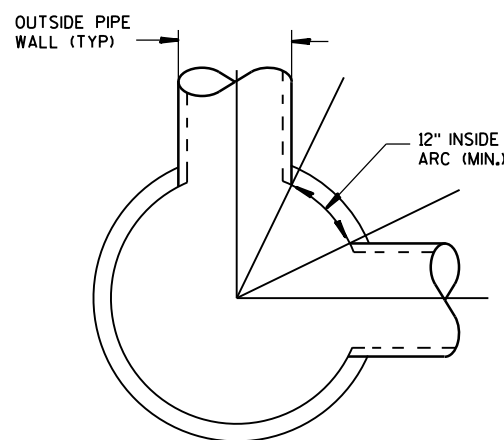


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

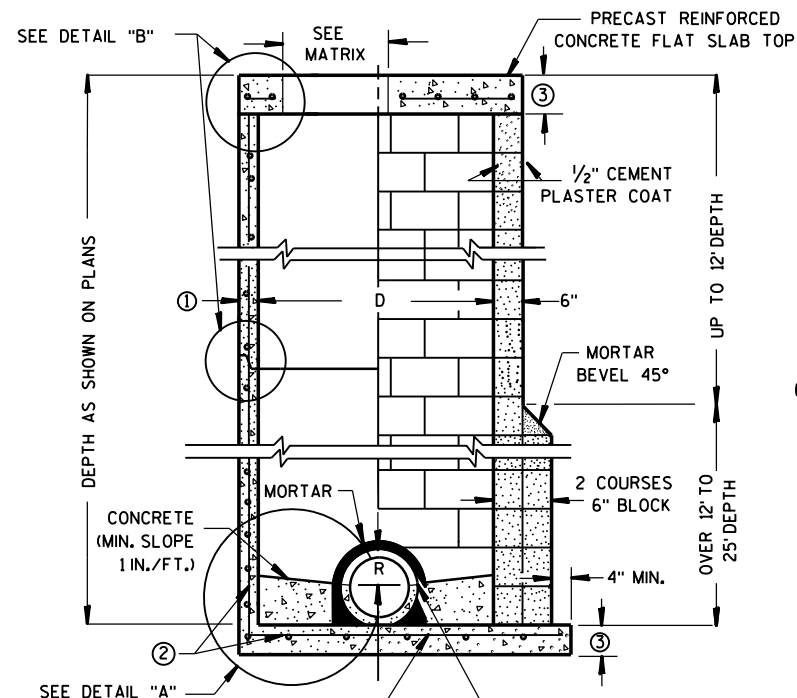


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

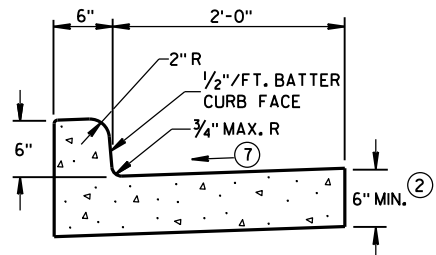
PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

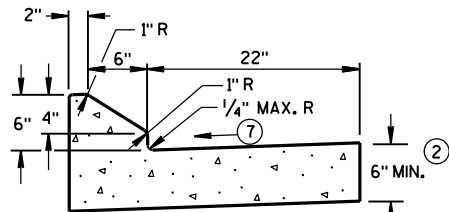
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

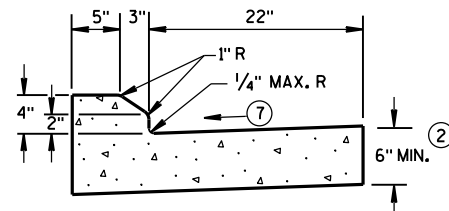
APPROVED
Sep 11, 2016 DATE /S/ Rodney Taylor
ROADWAY STANDARD UNIT SUPERVISOR
FHWA 50 LOPMENT



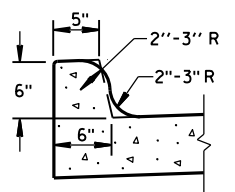
TYPES A^① & D



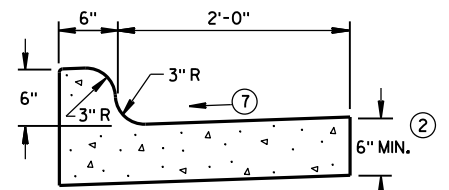
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

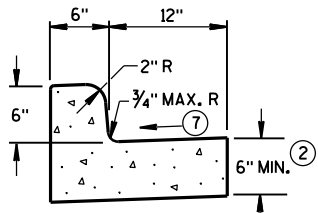


TYPES K^① & L
(OPTIONAL CURB SHAPE)



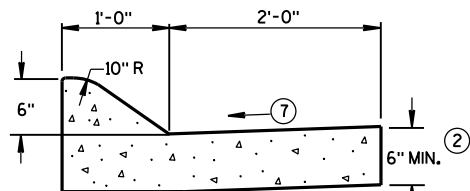
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

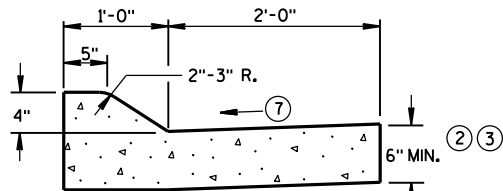


TYPES A^① & D

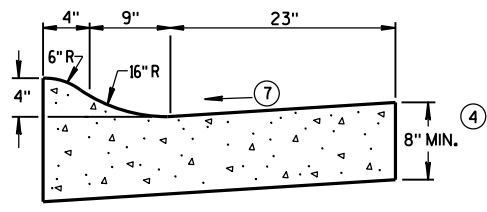
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

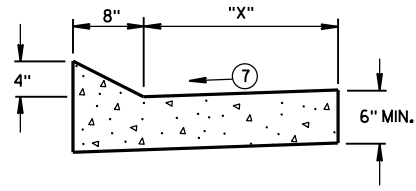


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

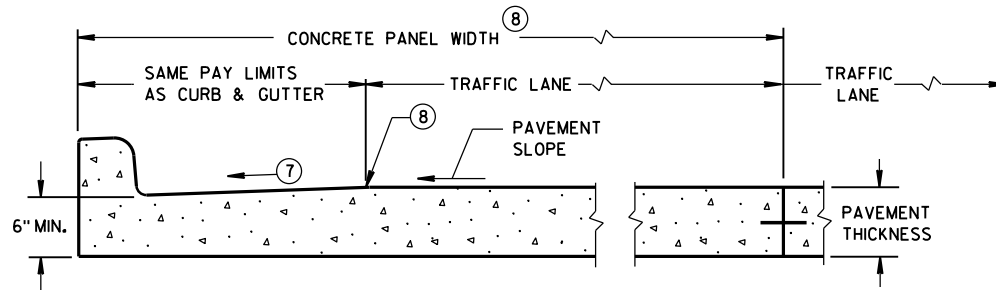
CONCRETE CURB & GUTTER 36"



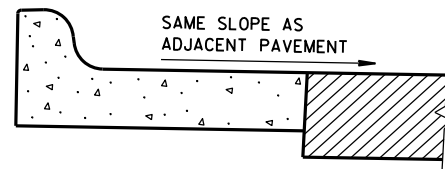
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

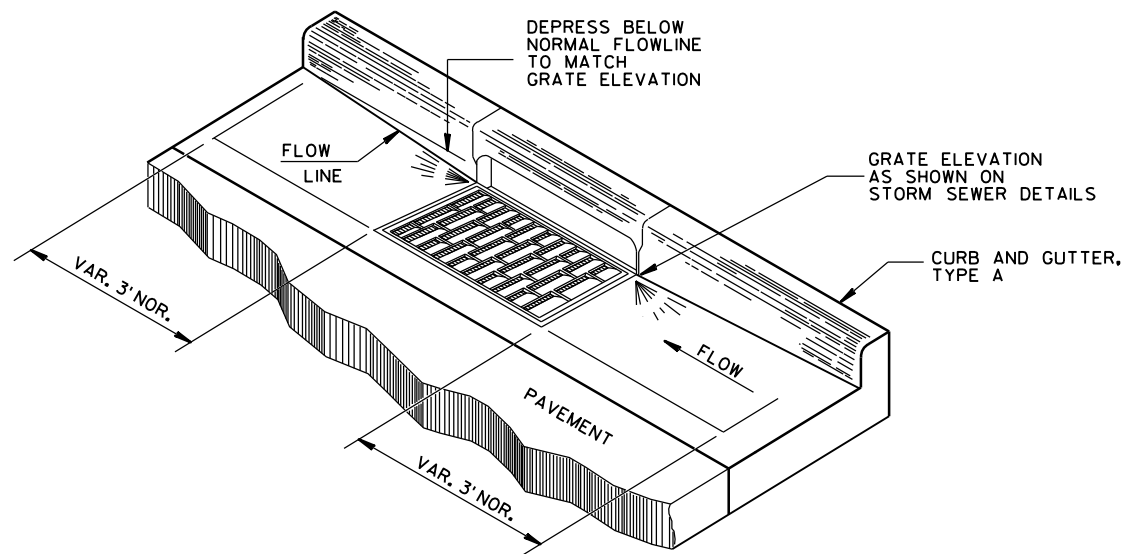
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

* BIKE LANE IS NOT SHOWN.

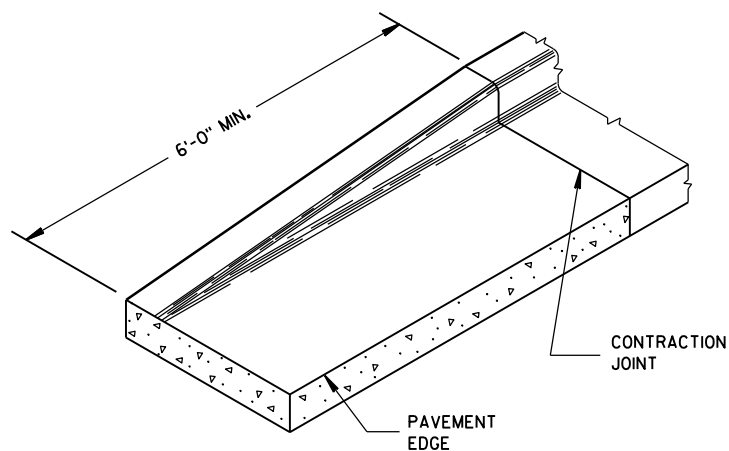
CONCRETE CURB & GUTTER

STATE OF WISCON 51
DEPARTMENT OF TRANSPORTATION

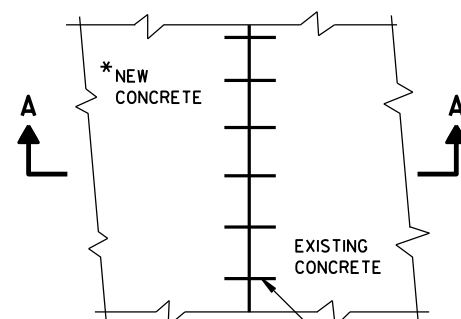


DETAIL OF CURB AND GUTTER AT INLETS

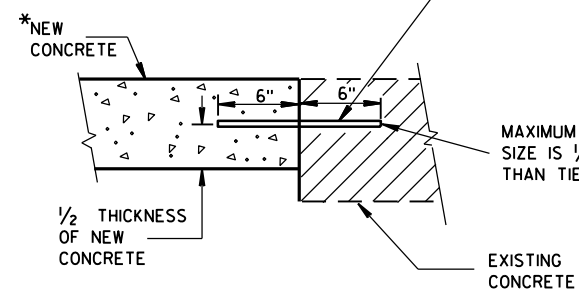
(TYPE H INLET COVER SHOWN)



END SECTION CURB & GUTTER



PLAN VIEW



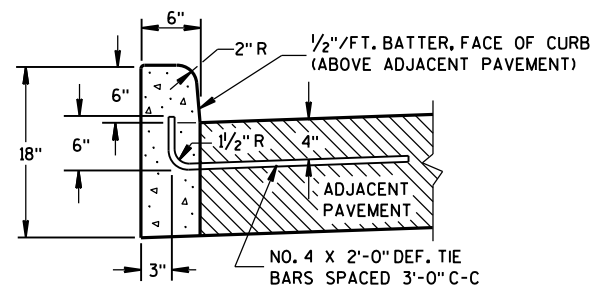
**SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT**

*NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

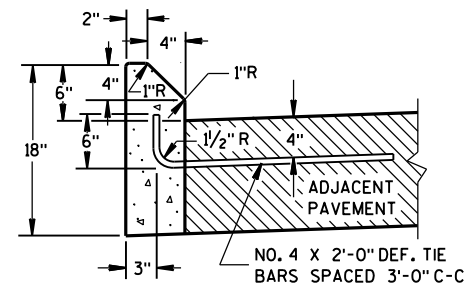
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

EXISTING
CONCRETE



TYPES A^① & D



TYPES G^① & J

GENERAL NOTES

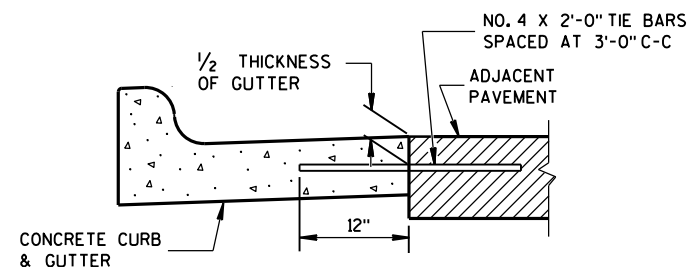
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

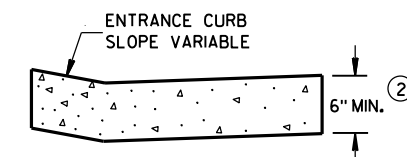
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

CONCRETE CURB



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2017

DATE

FHWA

/S/ Rodney

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

6



PLAN VIEW
FLUME AT CURB END



6

S.D.D. 8 D 4-5

- ① JOINTS SHALL BE $\frac{1}{8}$ O $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

EXPANSION JOINT

CONCRETE CURB AND GUTTER

2" MIN. CURB HEIGHT

4" R

TAPER CURB TO FLOW LINE

INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS

8'-0"

4'-0"

EDGE OF PAVEMENT

3'-0" MIN.

SURFACE DRAIN IS SYMMETRICAL WHEN CURB AND GUTTER IS CONTINUED

SHOULDER OR BERM HINGE POINT

JOINTS

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

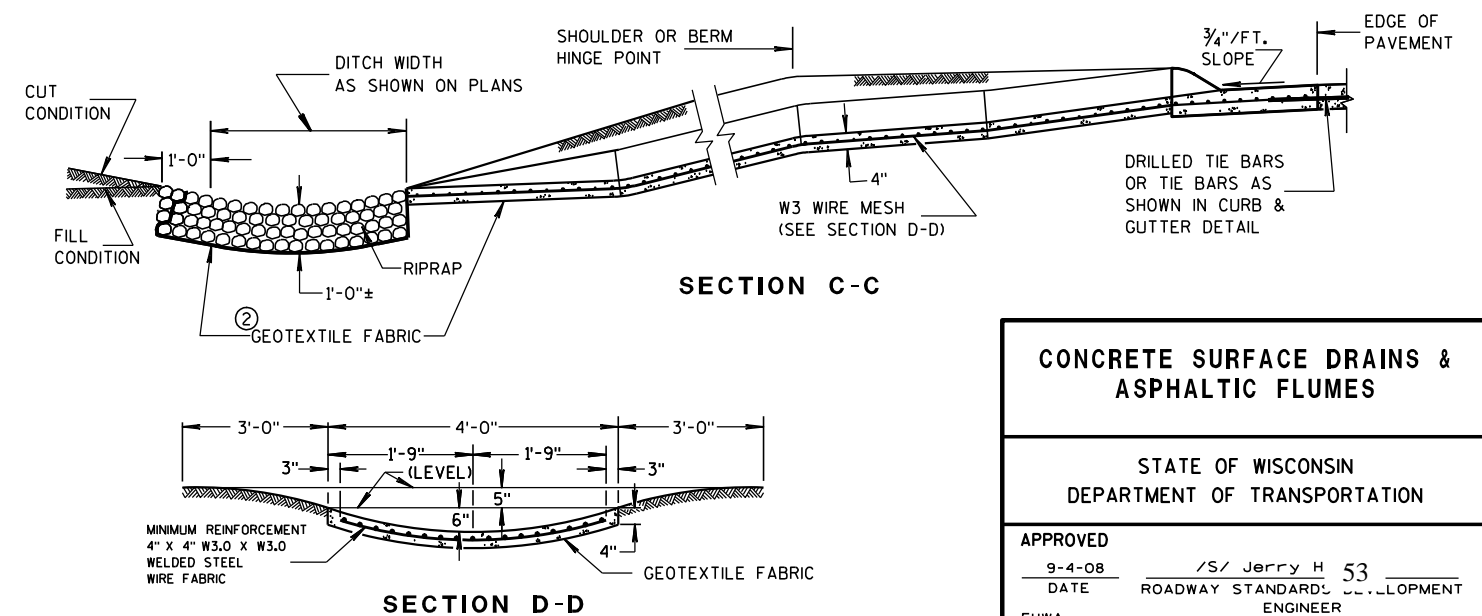
6'-0" OR AS REQUIRED

1'-0" ON CUT SLOPE

DITCH

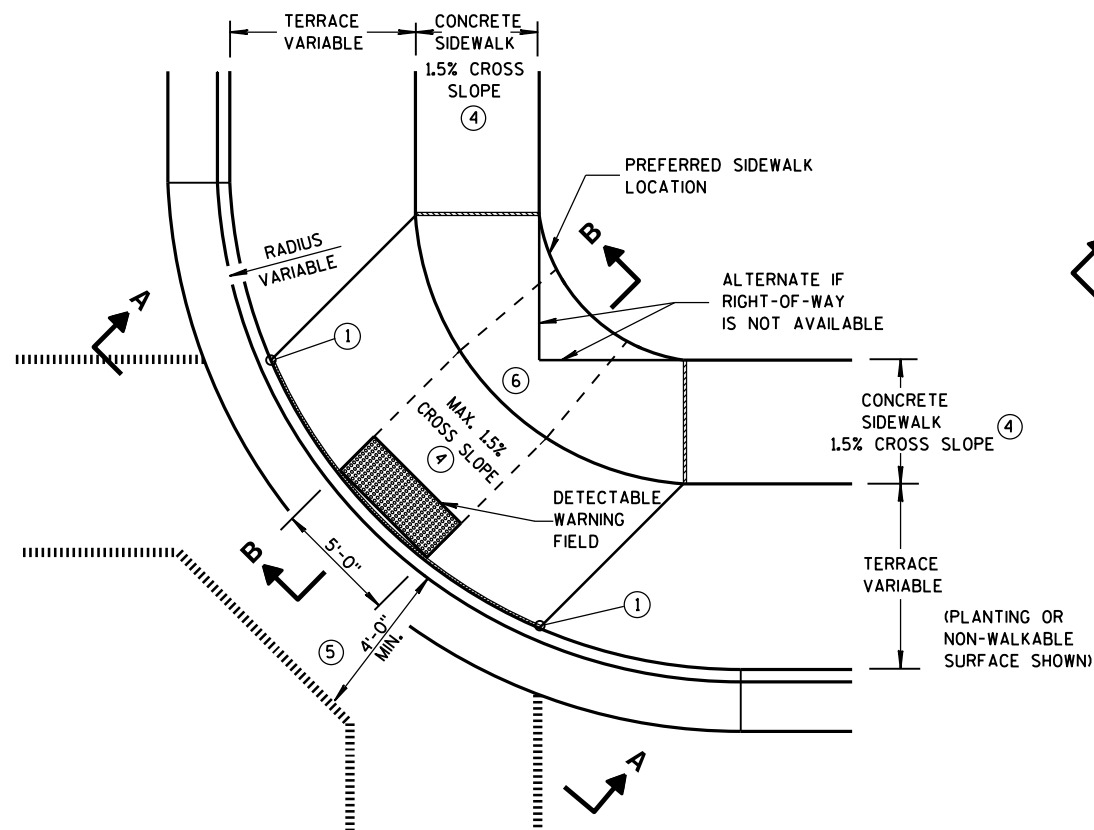
PLAN VIEW

PLAN VIEW

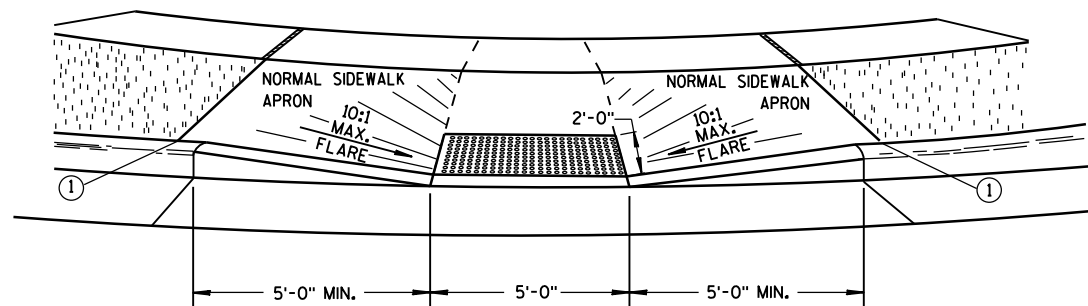


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 /S/ Jerry H 53
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

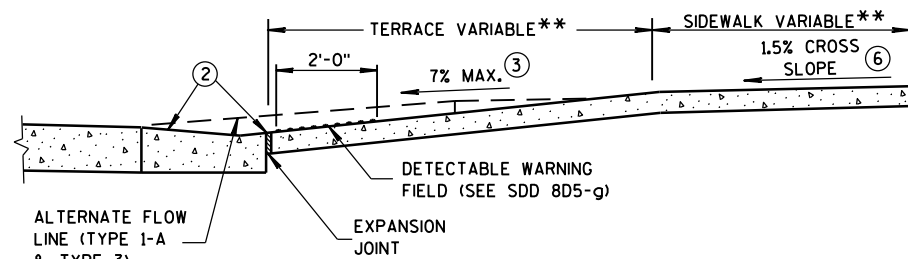


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

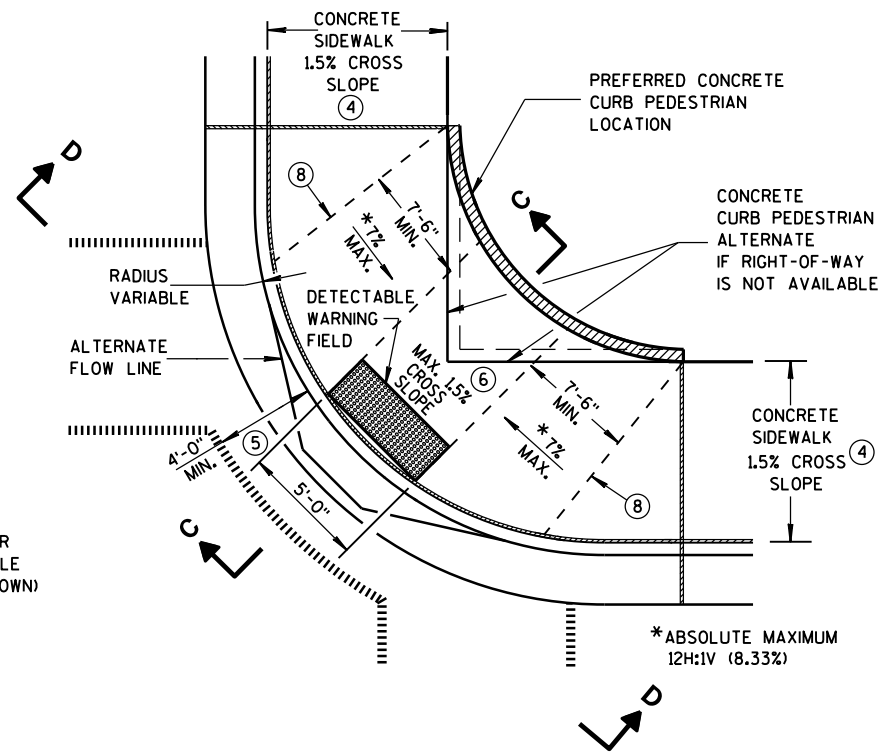


VIEW A-A

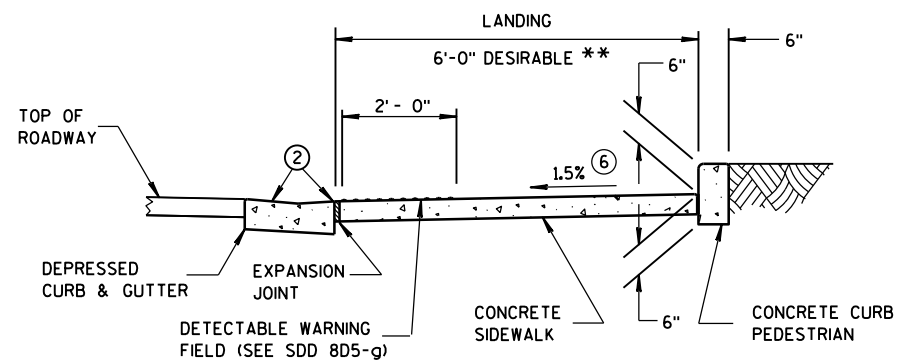
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



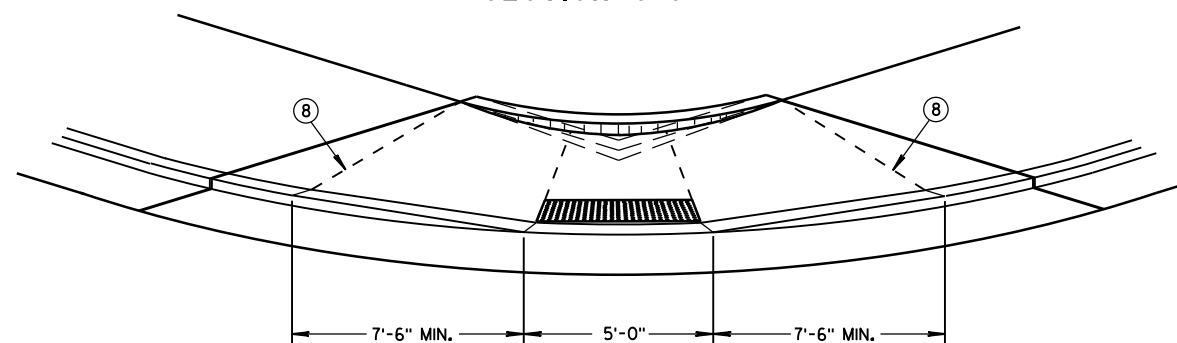
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

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

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

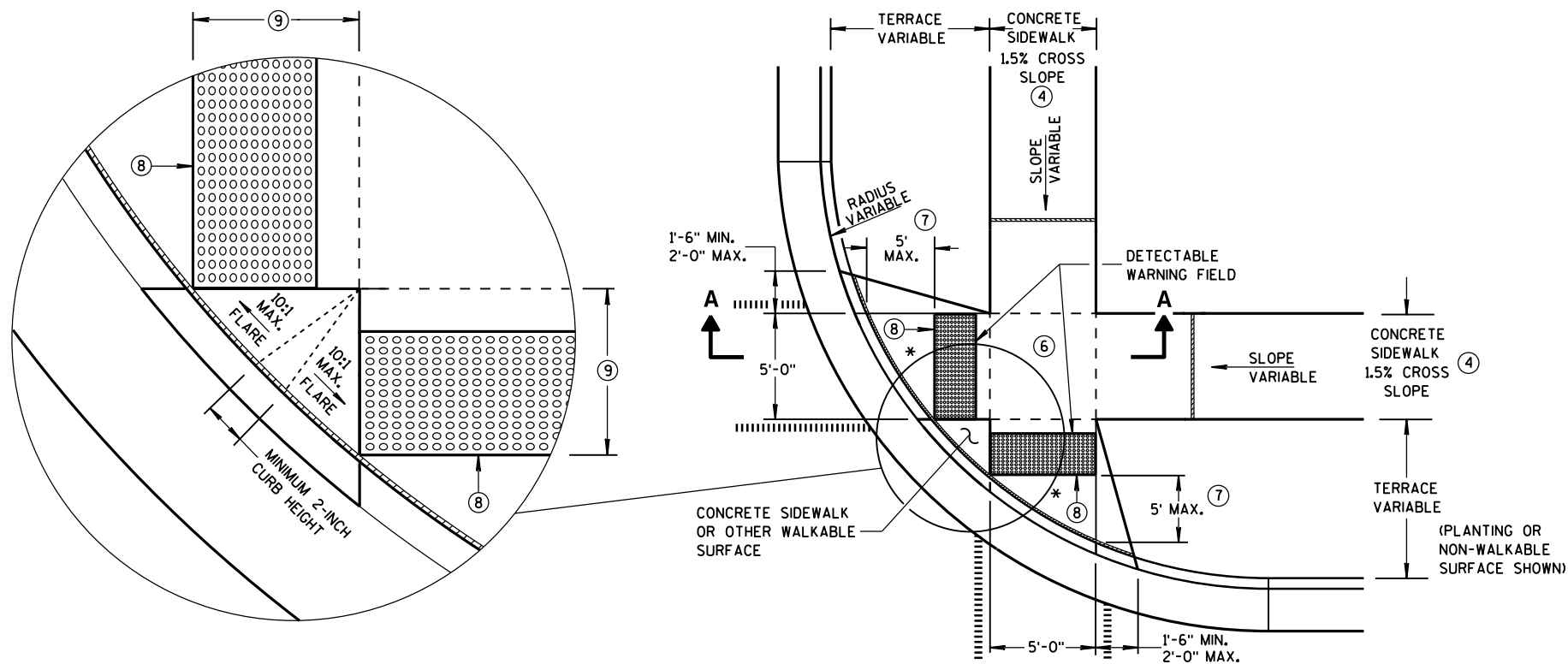
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. 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 ABSOLUTE MAXIMUM 12H:1V (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.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

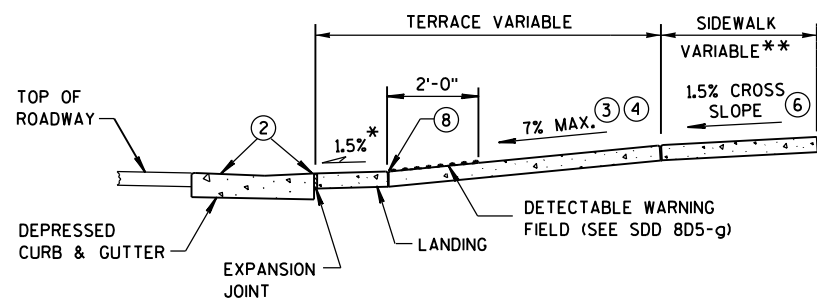
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN 54
DEPARTMENT OF TRANSPORTATION



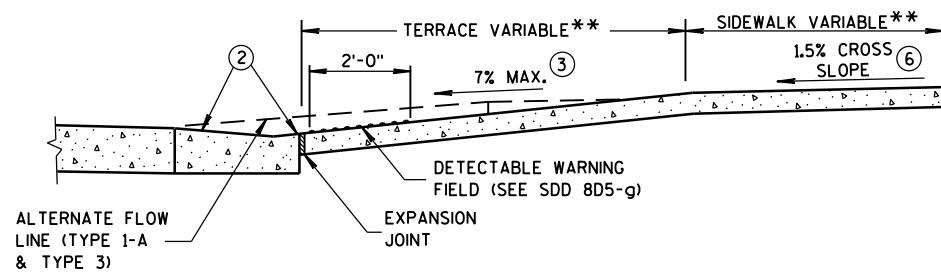
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

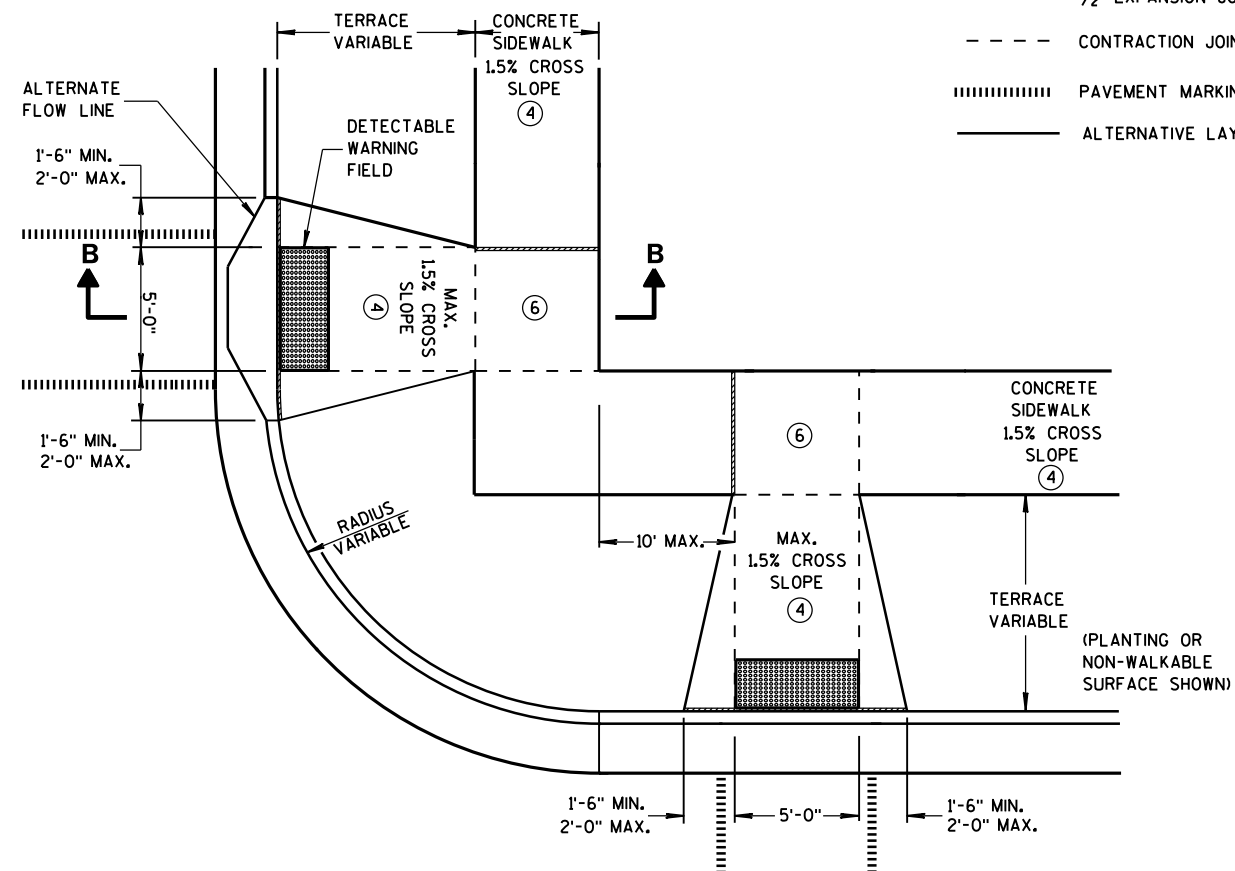
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- 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 ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

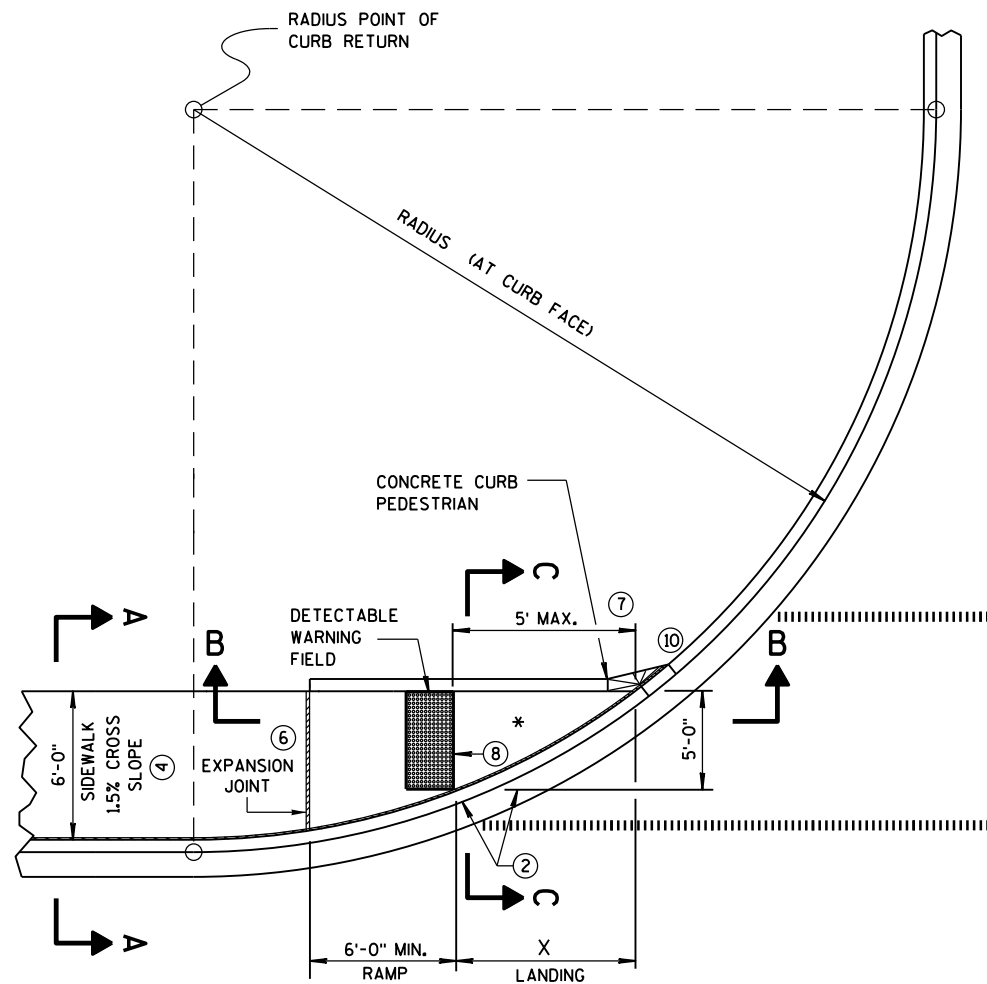
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



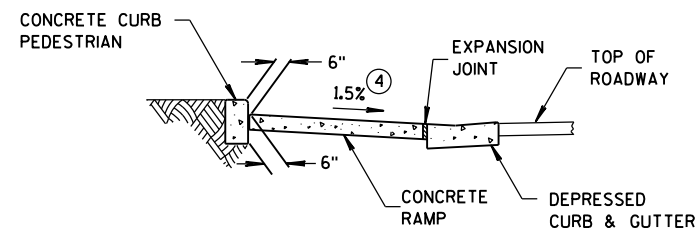
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

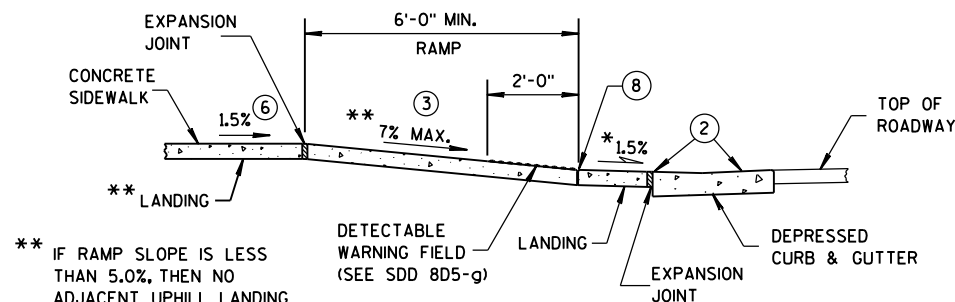


CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

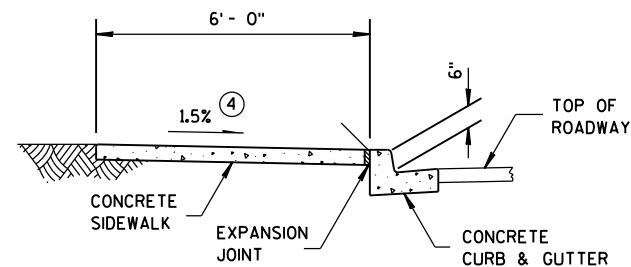


SECTION B-B FOR TYPE 4A

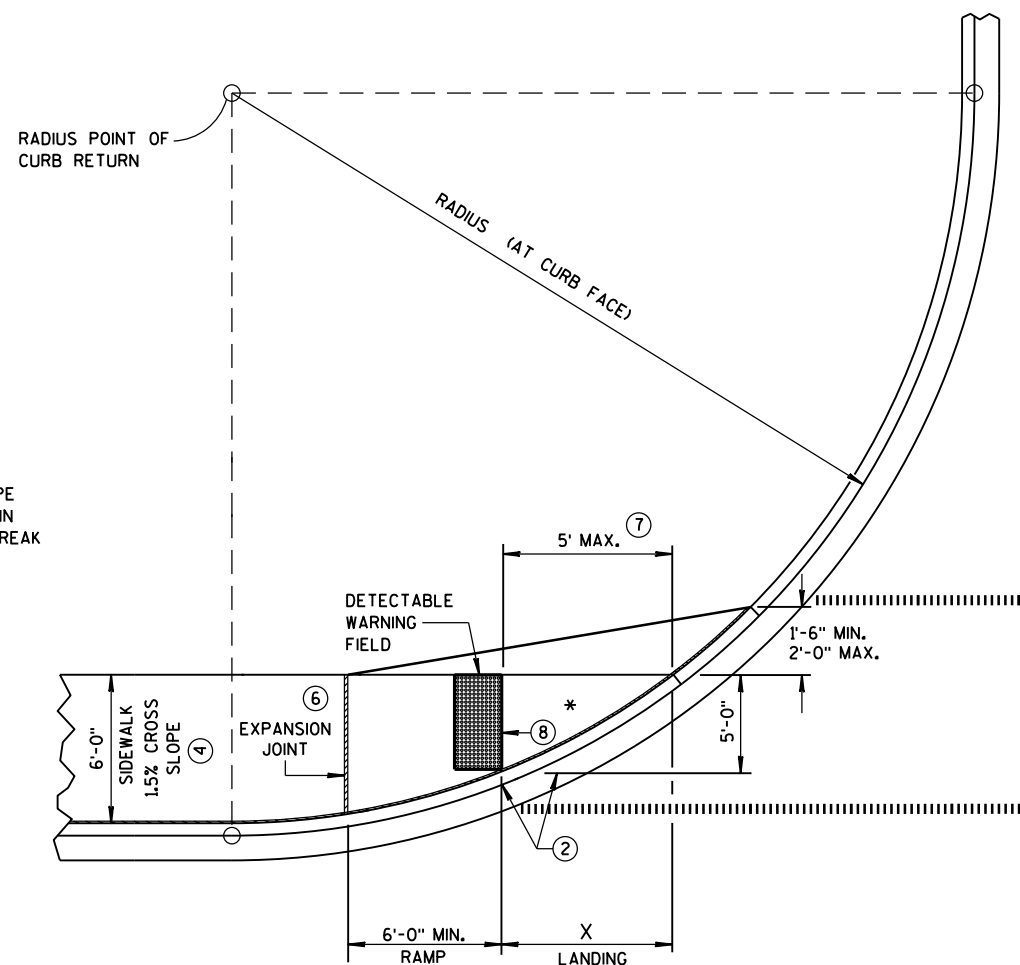
** IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL LANDING
IS REQUIRED

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



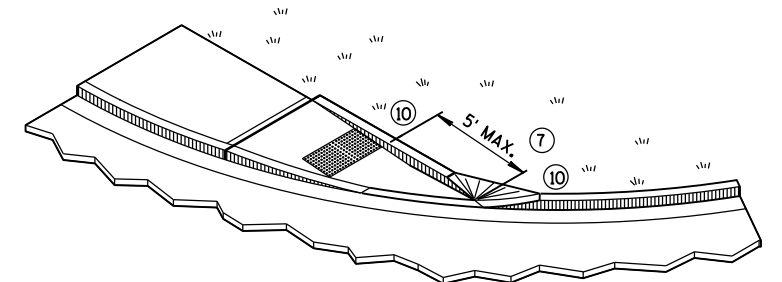
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

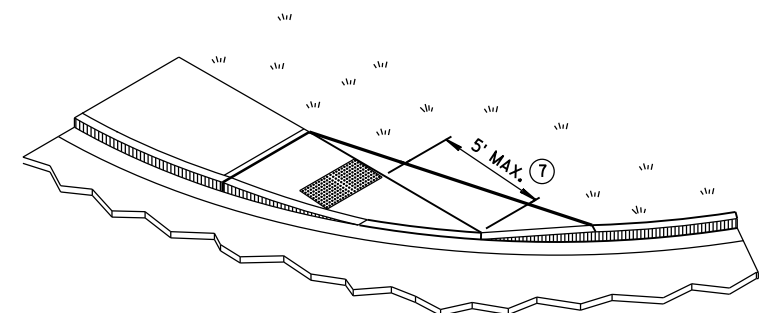
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- 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 ¼-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 ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



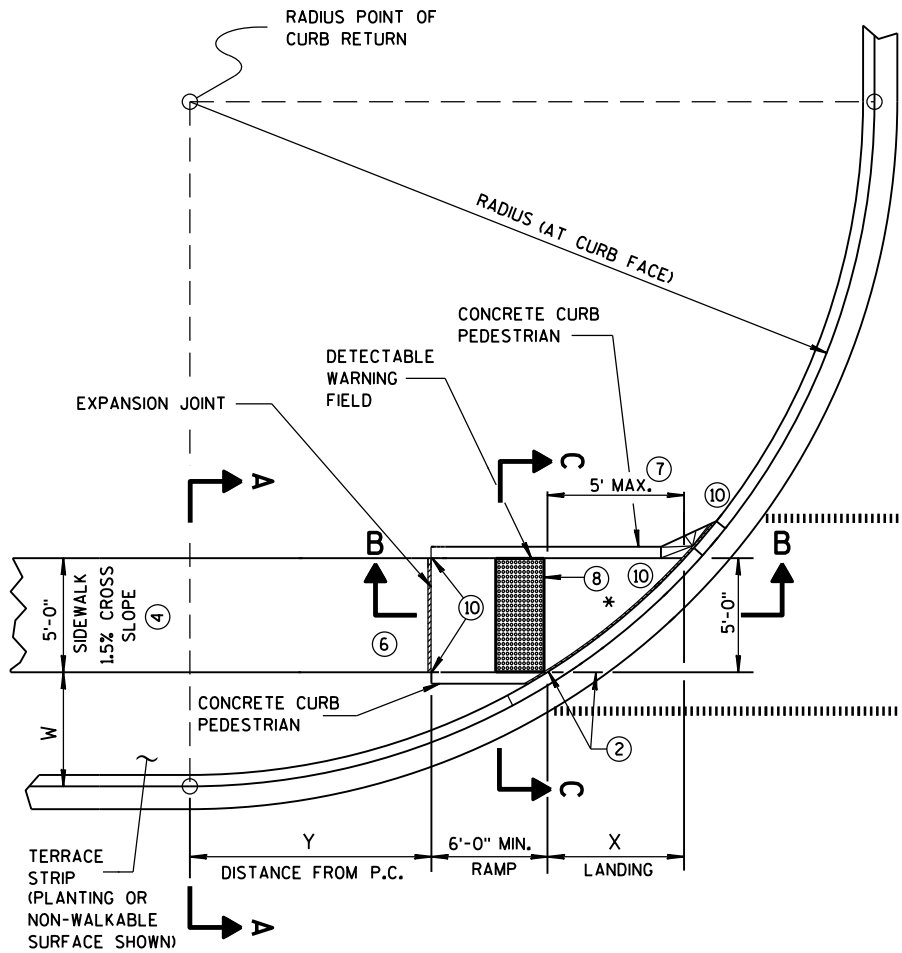
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

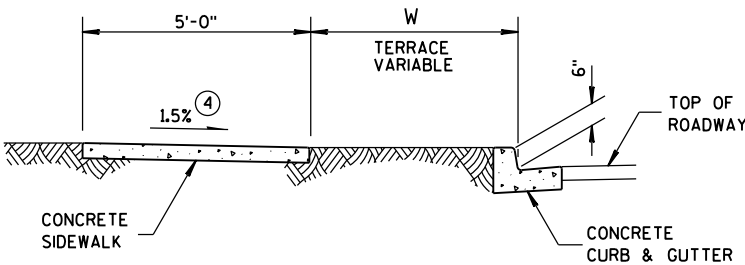
- ½" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

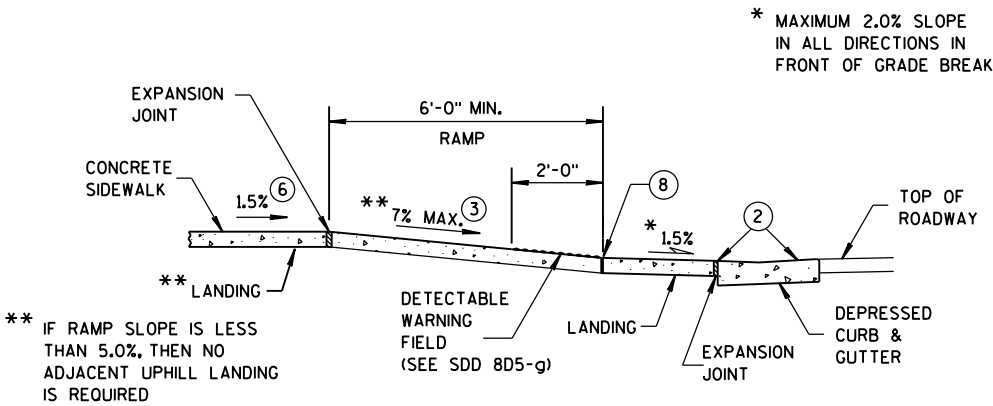
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



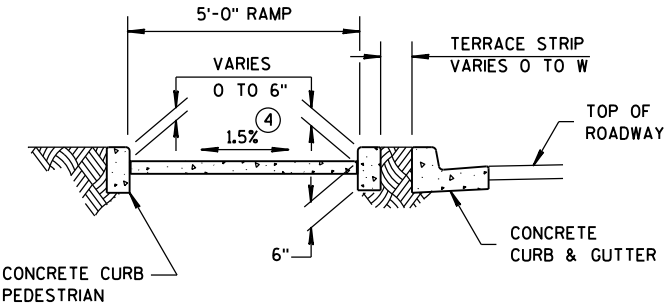
SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 1/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 1/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

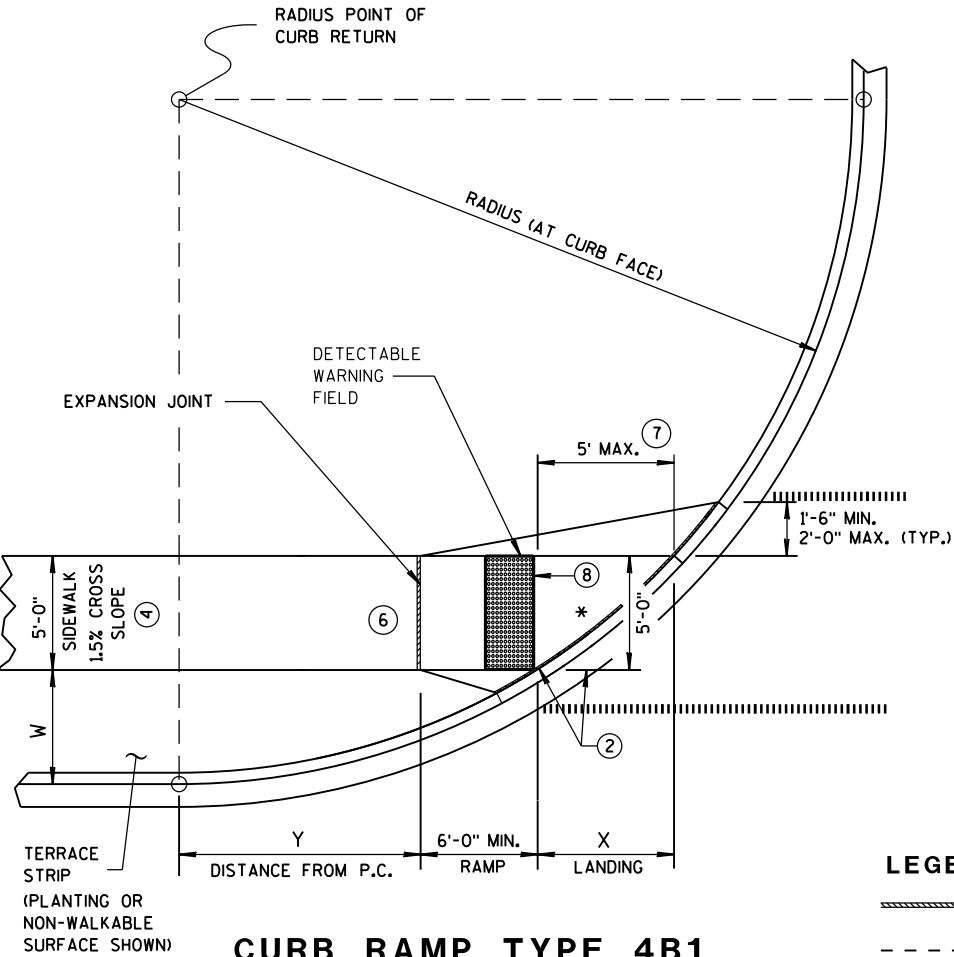
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

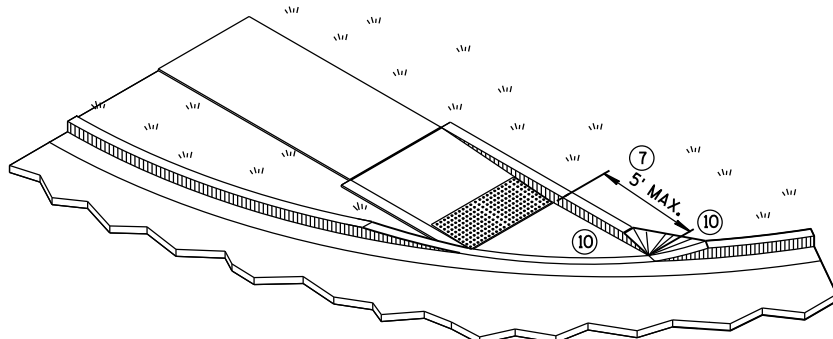
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. 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.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



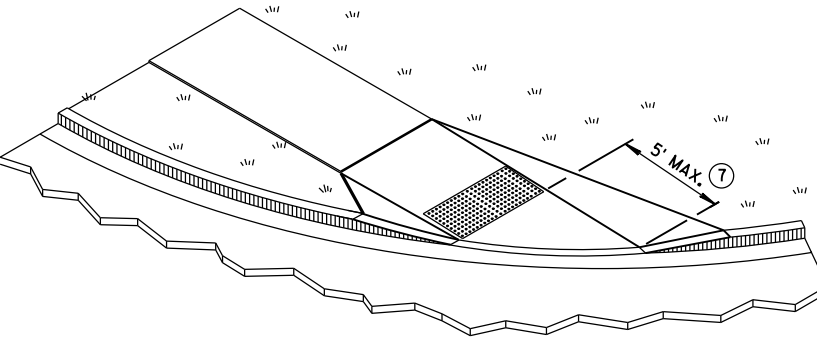
SECTION C-C FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



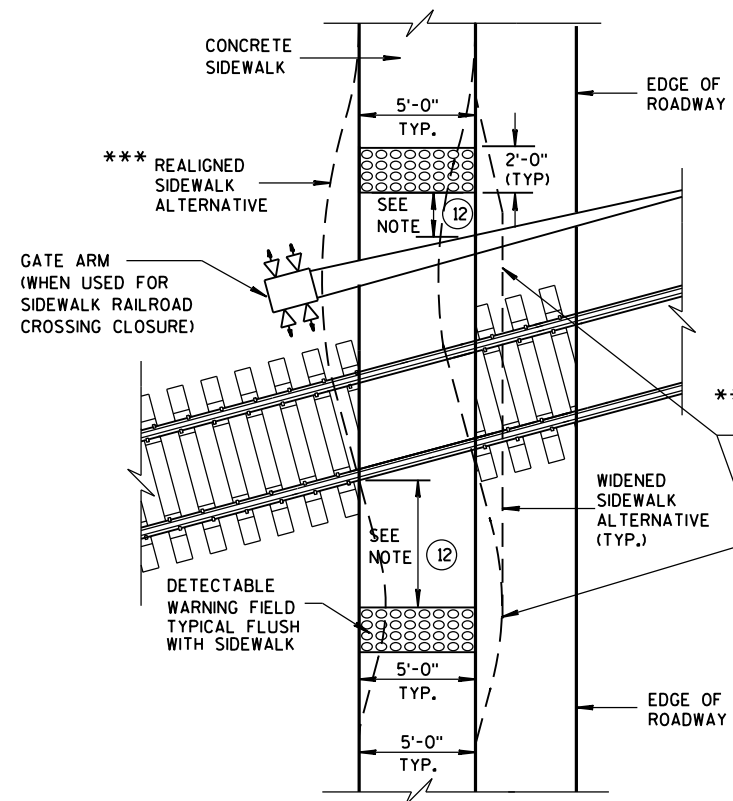
ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

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

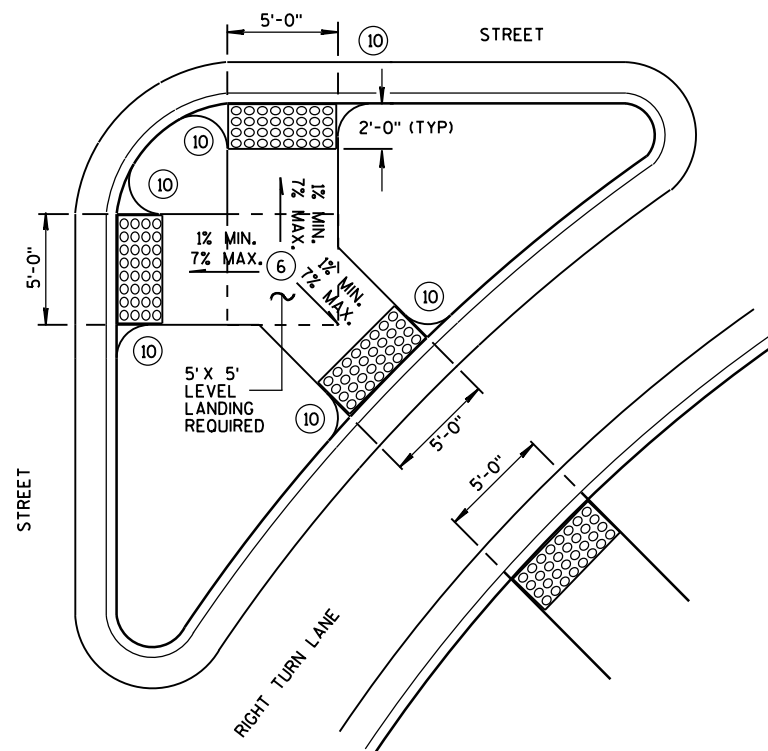
CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

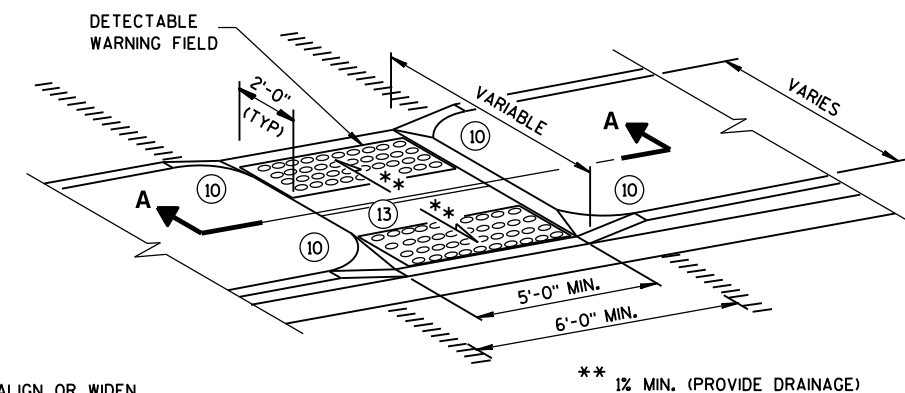


TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMP

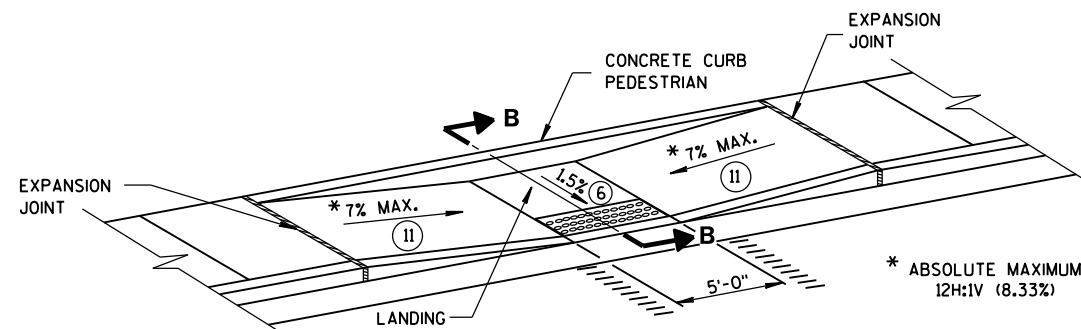


TYPE 6
DETECTABLE WARNING AT ISLANDS

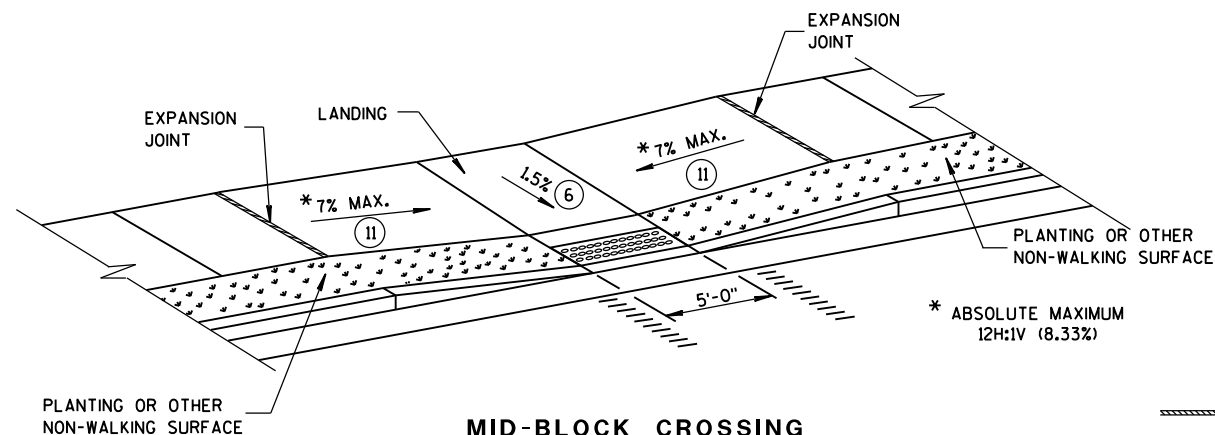


MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

*** DETAILS TO BE DETERMINED
BY DESIGNER



MID-BLOCK CROSSING
TYPE 7A

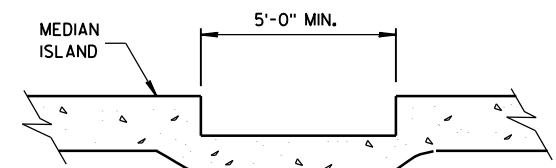


MID-BLOCK CROSSING
TYPE 7B

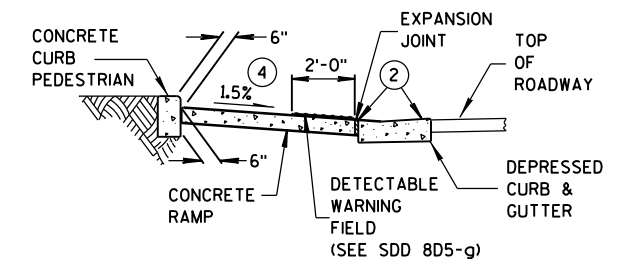
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMP
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- 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 ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



SECTION A-A



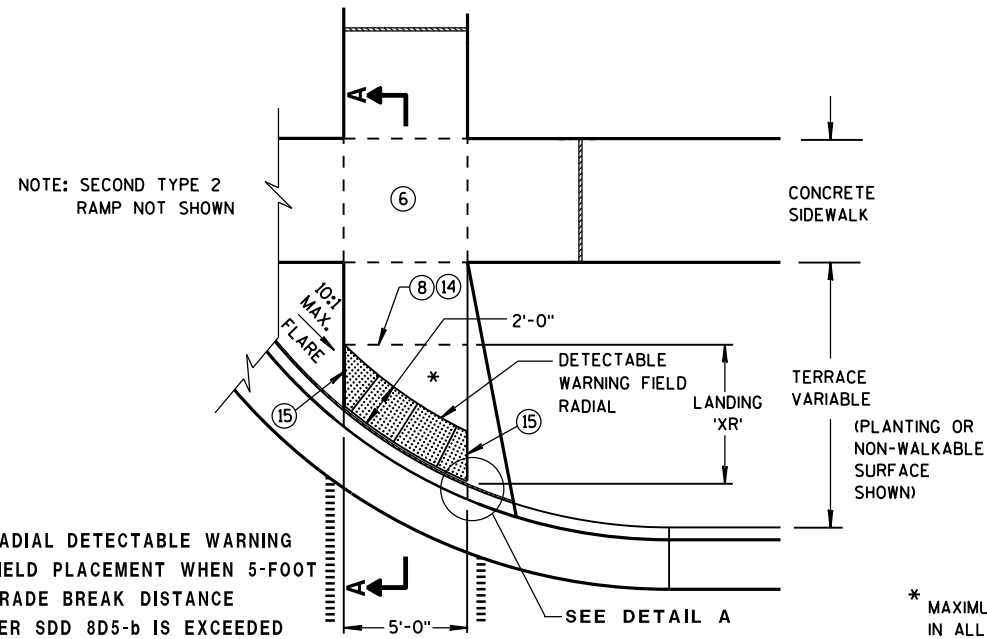
SECTION B-B

LEGEND

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

CURB RAMP
TYPES 5, 6, 7A, 7B & 8

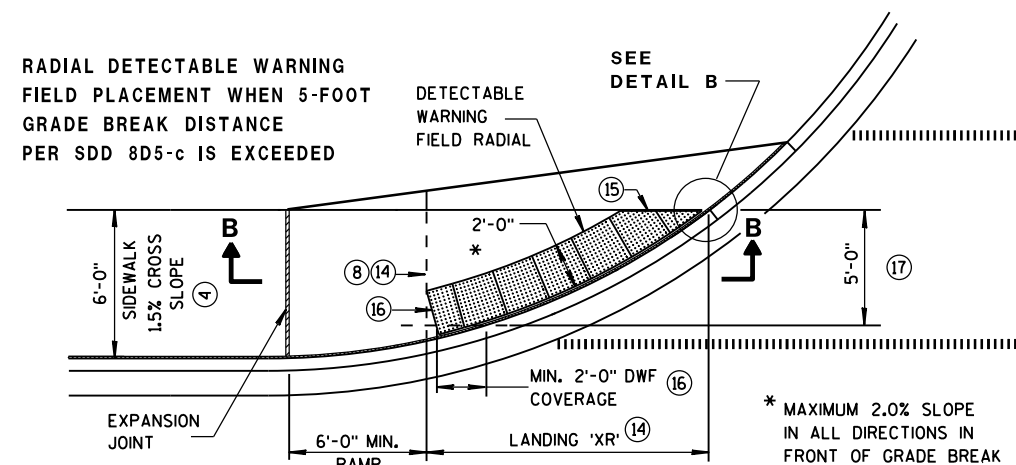
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TYPE 2 RAMP PLAN VIEW

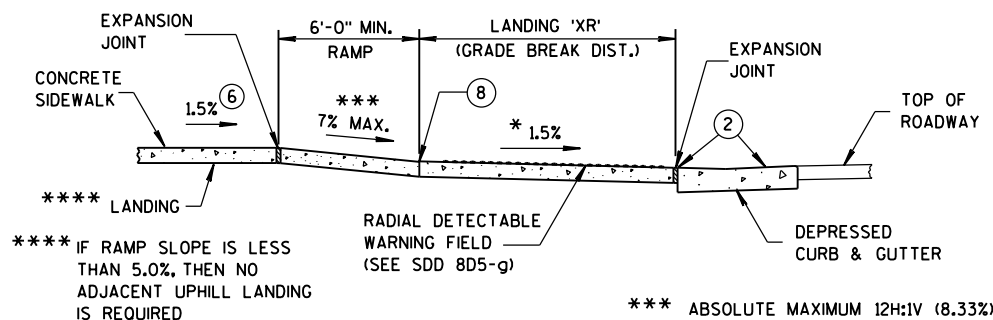
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

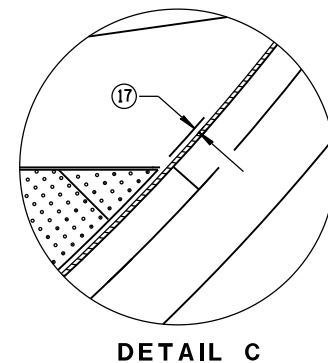
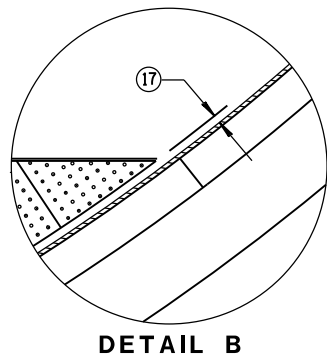
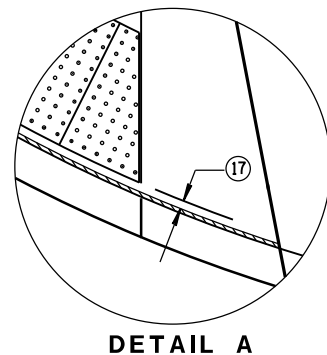
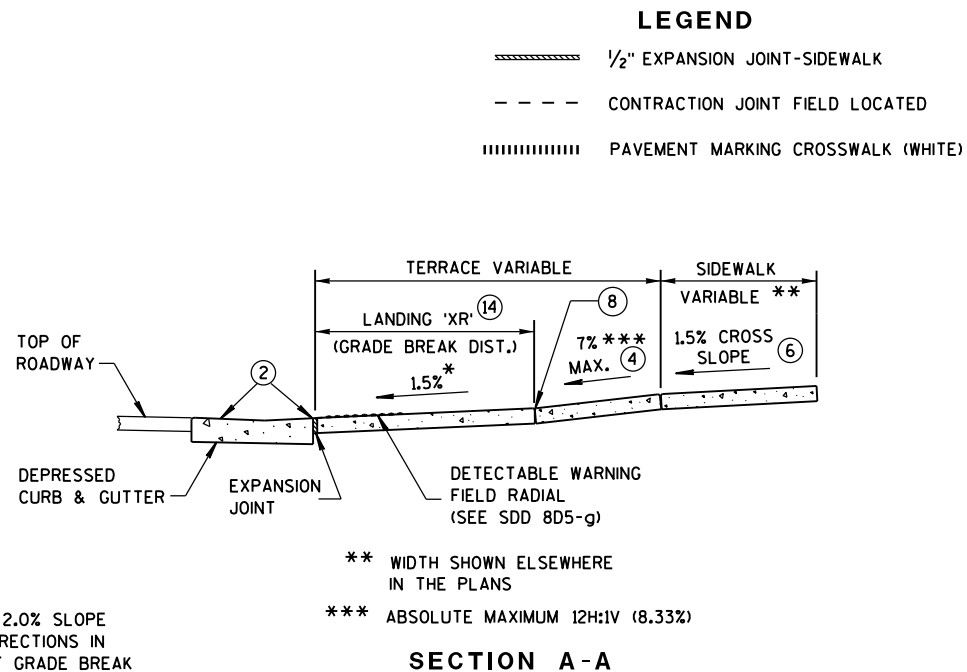


CURB RAMP TYPE 4A1 PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B-B FOR TYPE 4A1



GENERAL NOTES

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

DETECTABLE WARNING FIELDS (DWFs) 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 FIELD 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.

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 ABSOLUTE MAXIMUM 12H:1V (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 X 5 FEET.

8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

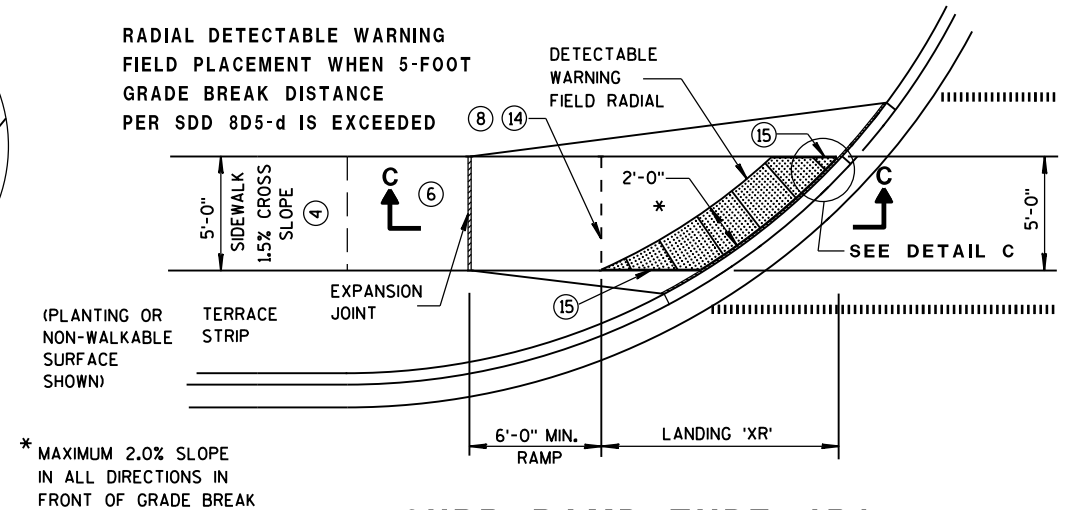
14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

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 1/8" 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.

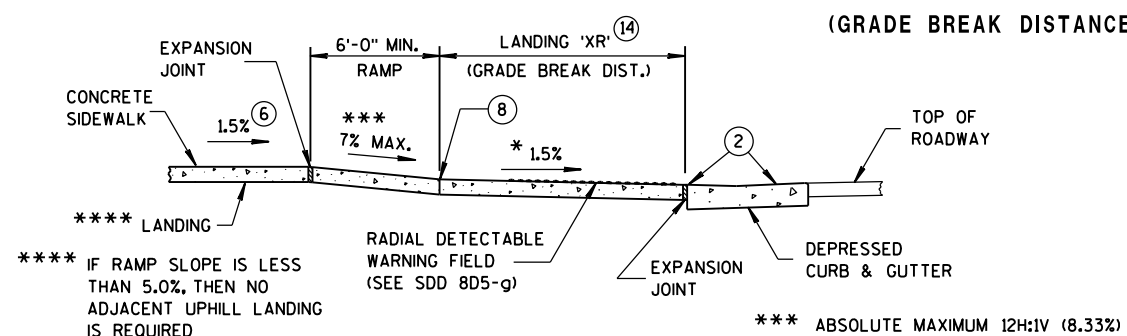
17 A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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



CURB RAMP TYPE 4B1 PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



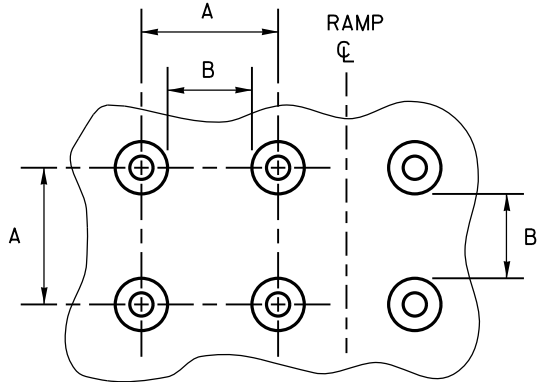
SECTION C-C FOR TYPE 4B1

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

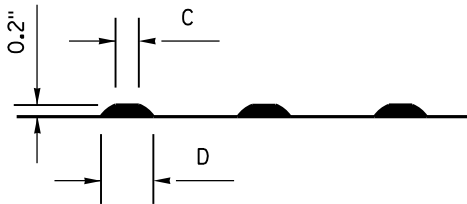
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

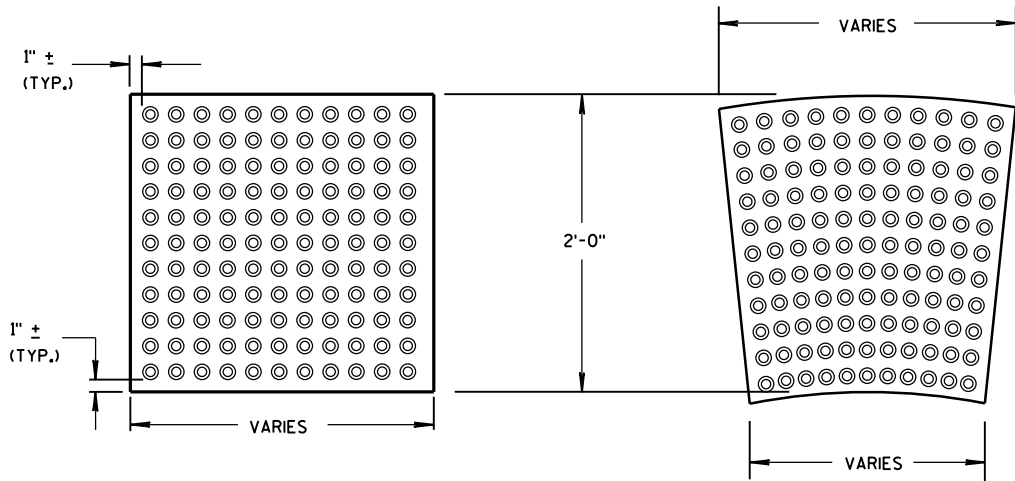


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES
RADIAL PLATES
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, 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 FIELD ARE PROHIBITED.

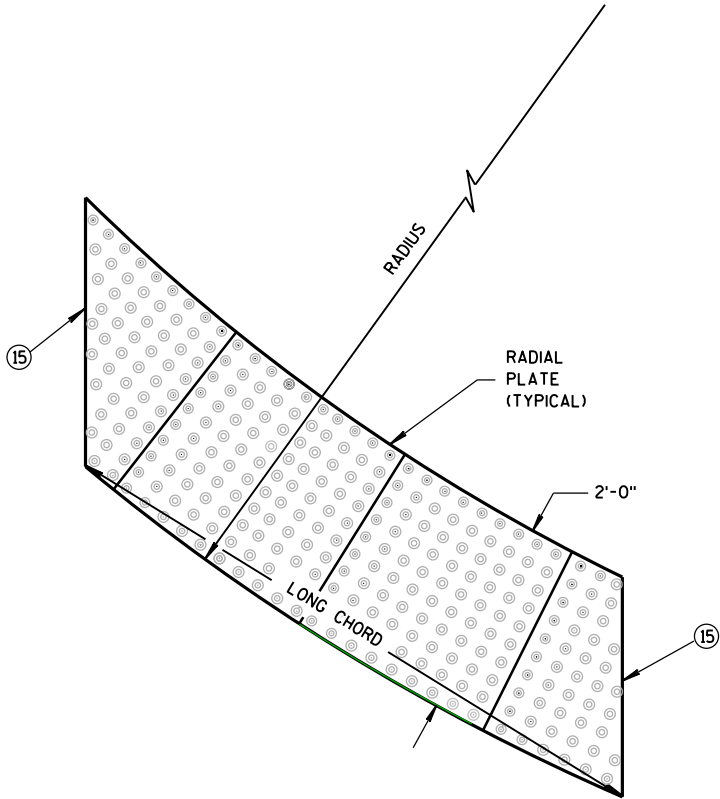
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGES IN COMBINATION WITH SQUARE PANELS 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" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



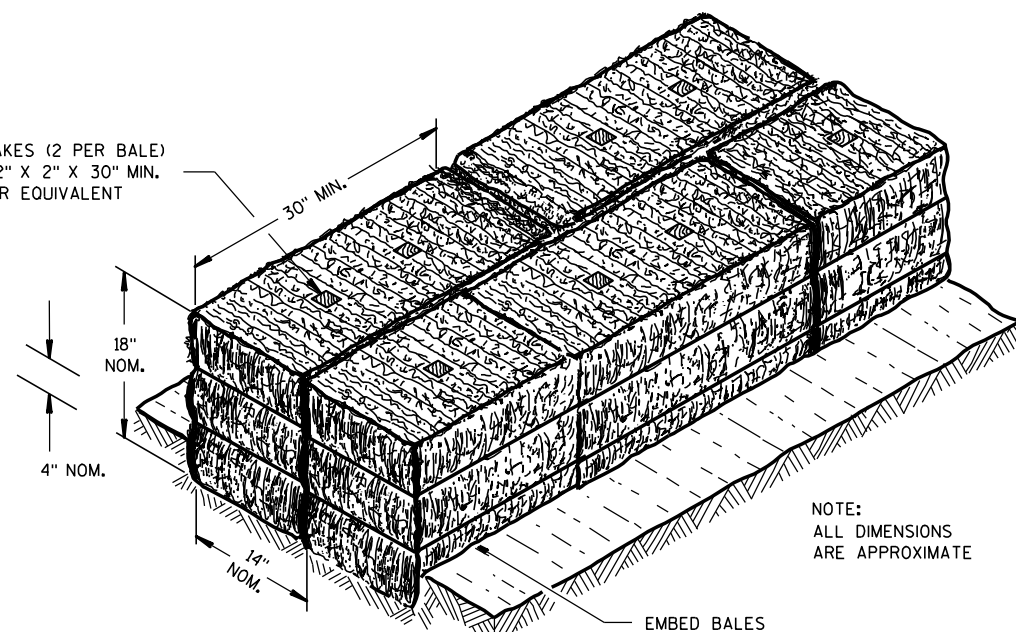
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

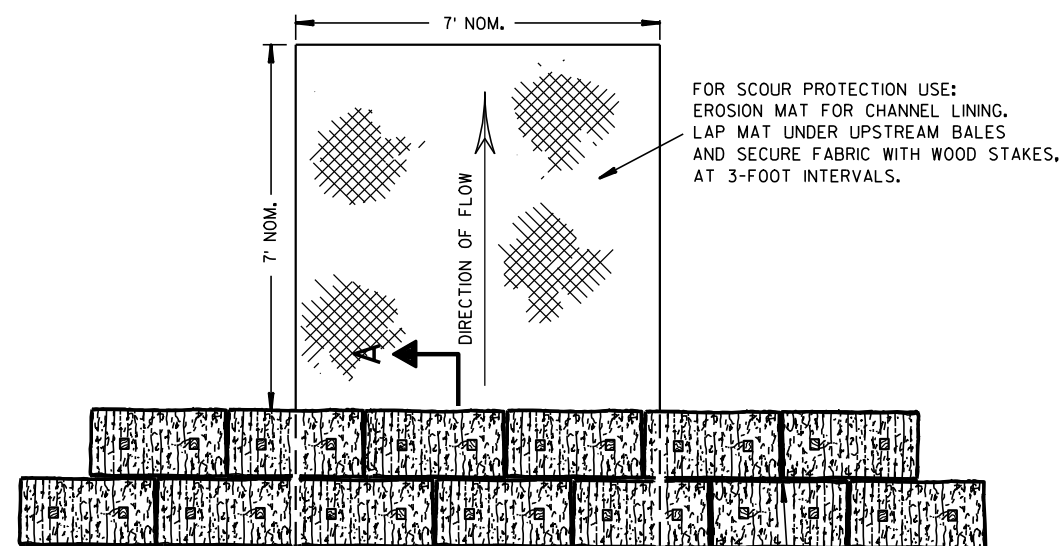
APPROVED
June, 2017 /S/ Rodney -
DATE ROADWAY STANDARD: 60 OPMENT
FHWA UNIT SUPERVISOR

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A

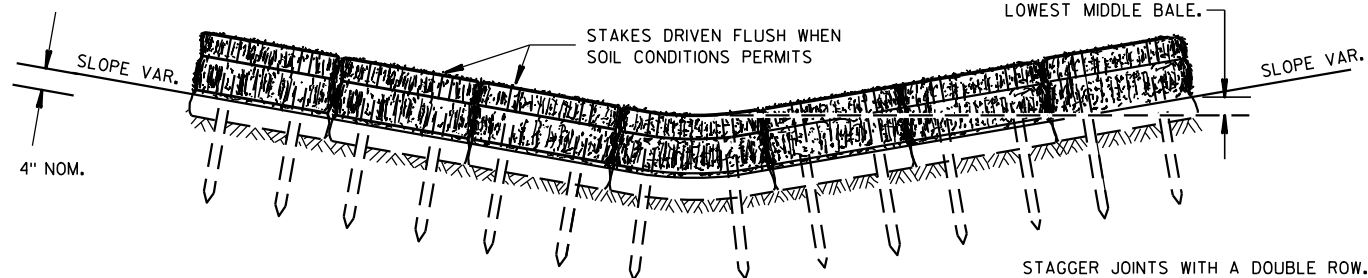
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



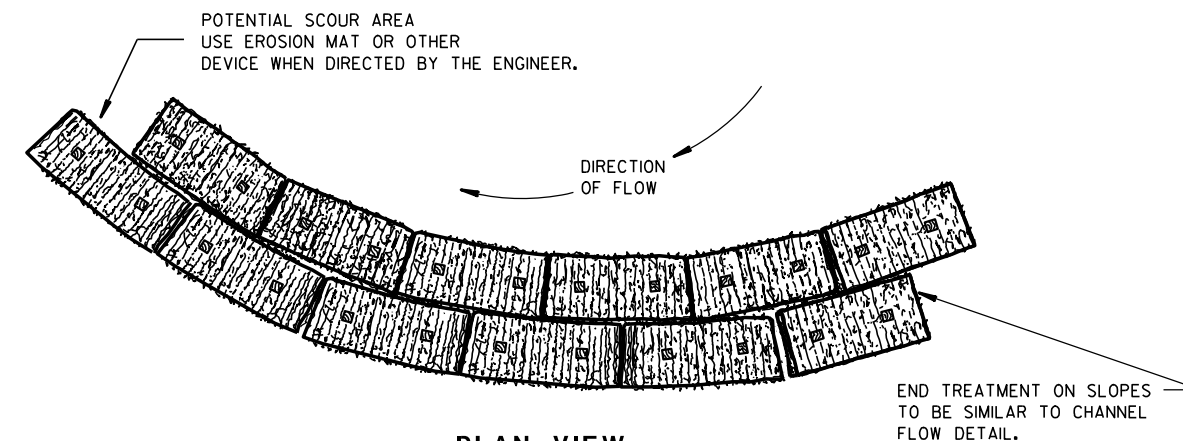
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

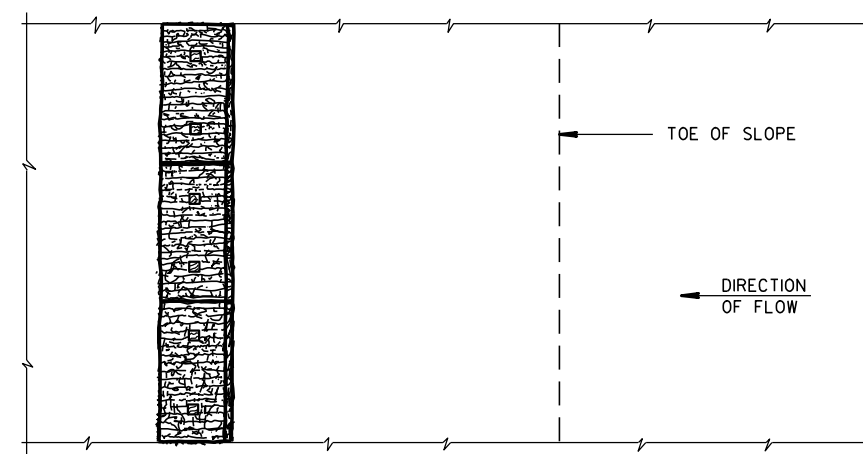
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

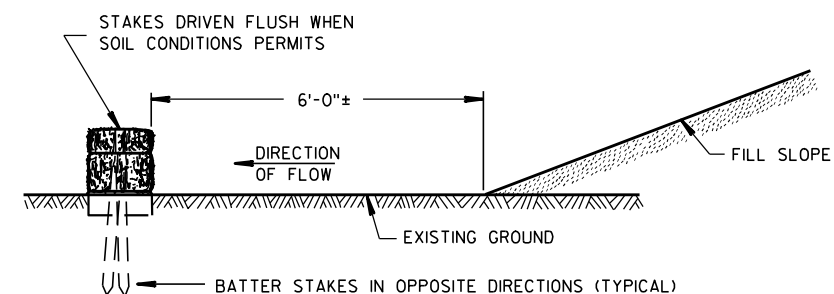


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Car 61 a
CHIEF ROADWAY DEVEL. ENGINEER



- 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.



SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Car 62 a
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



INLET PROTECTION, TYPE A

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



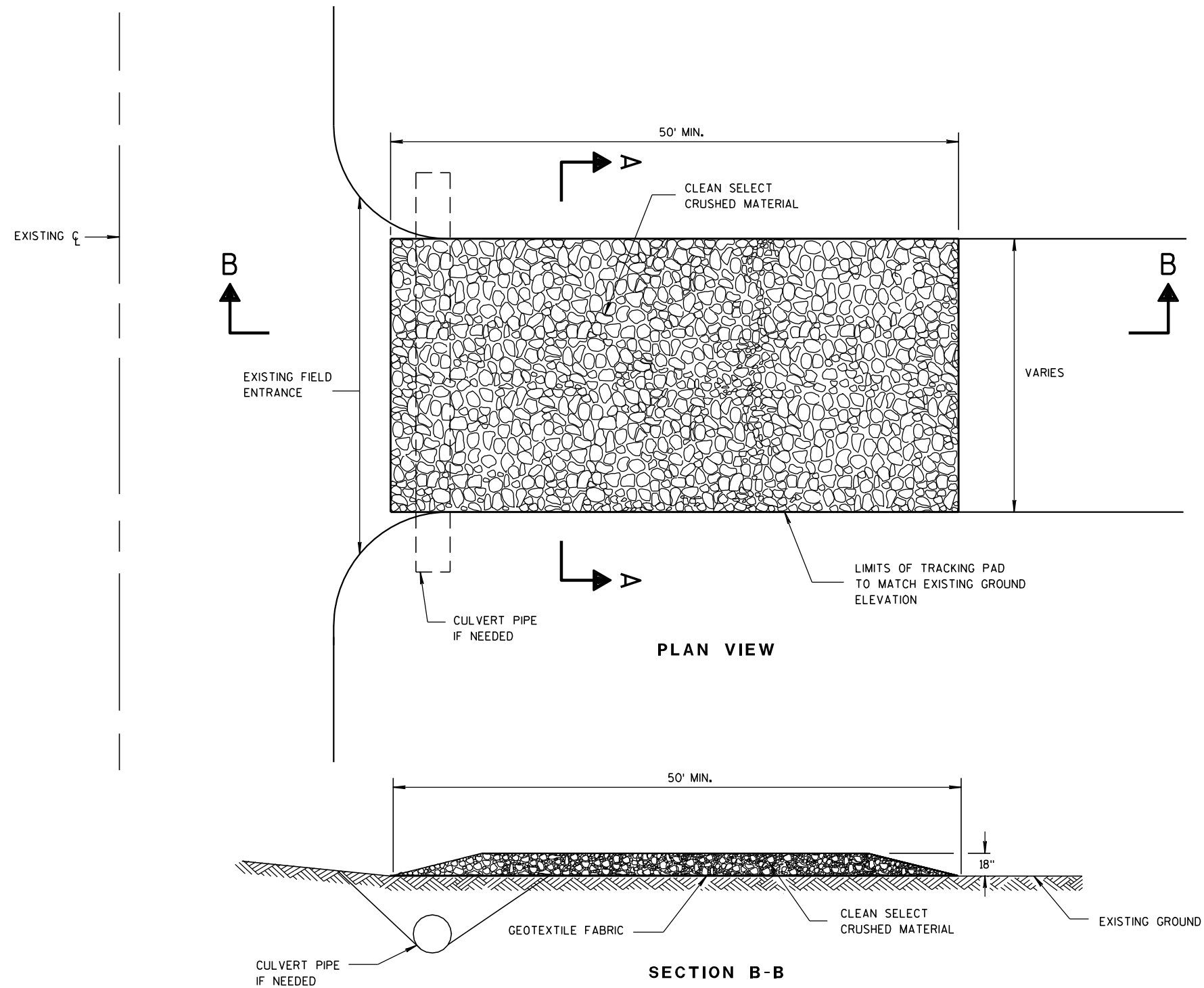
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Can 63 p
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



TRACKING PAD

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

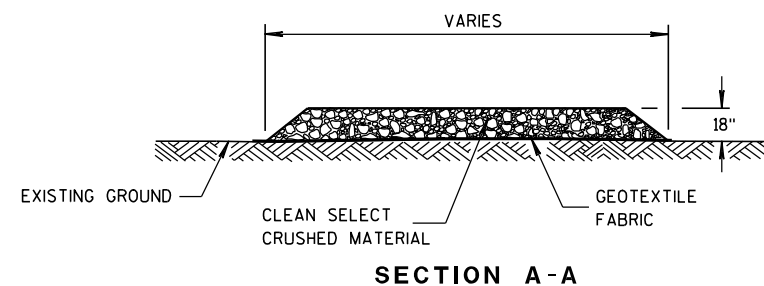
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

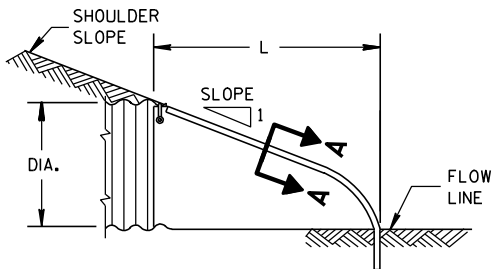
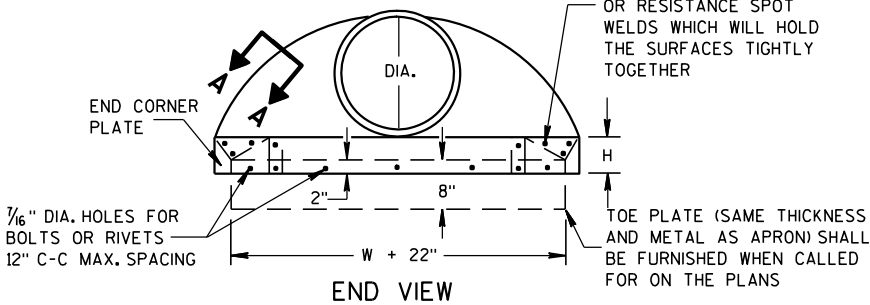
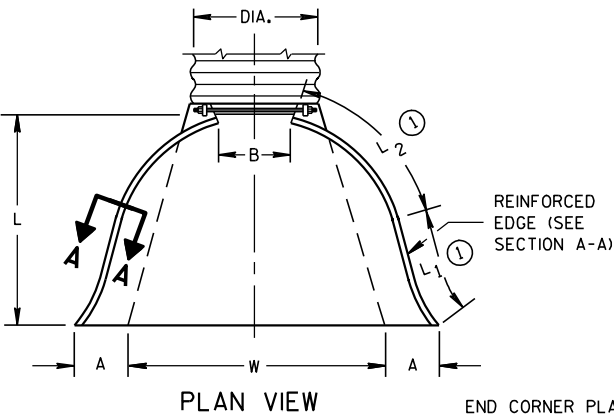
/S/ Jerry H. Z

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

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.

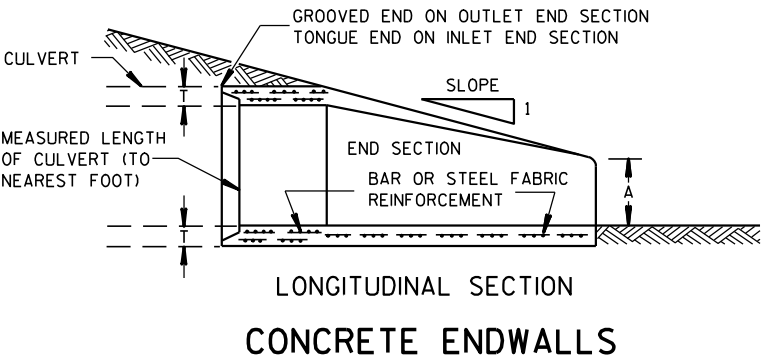
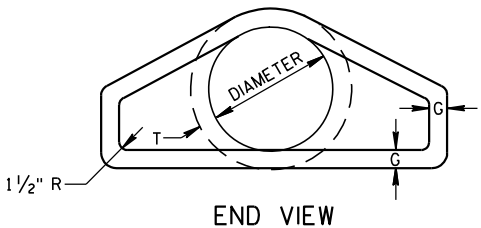
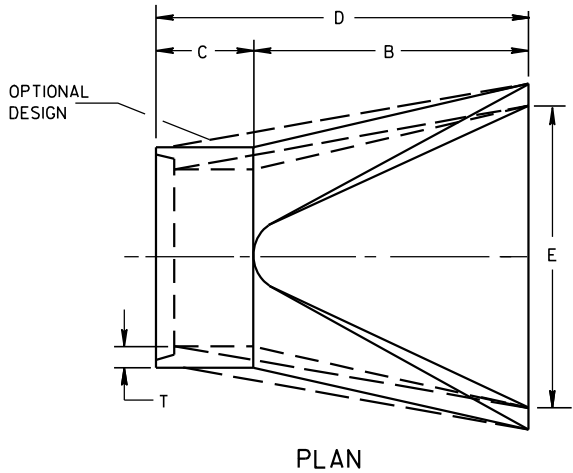
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

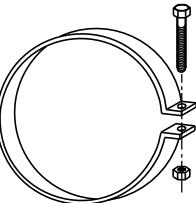
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ¹ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 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

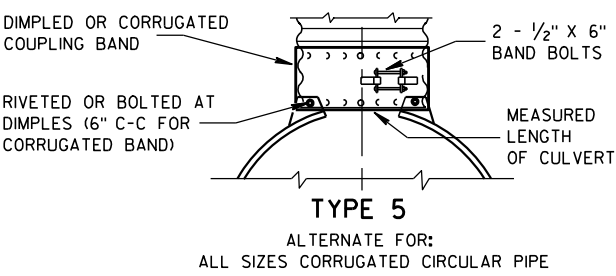
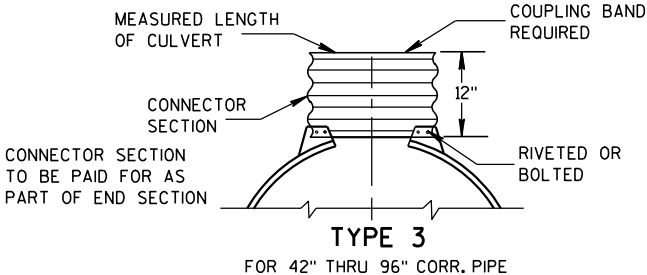
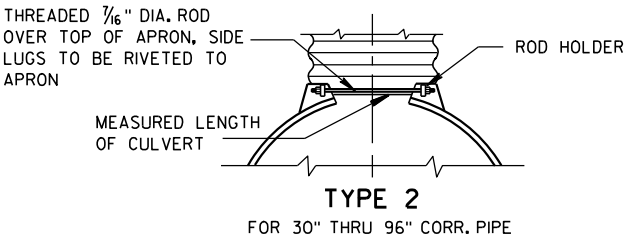
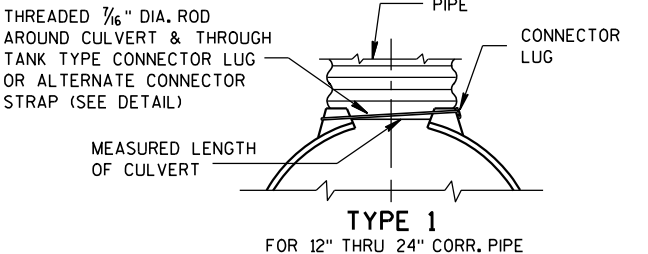


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



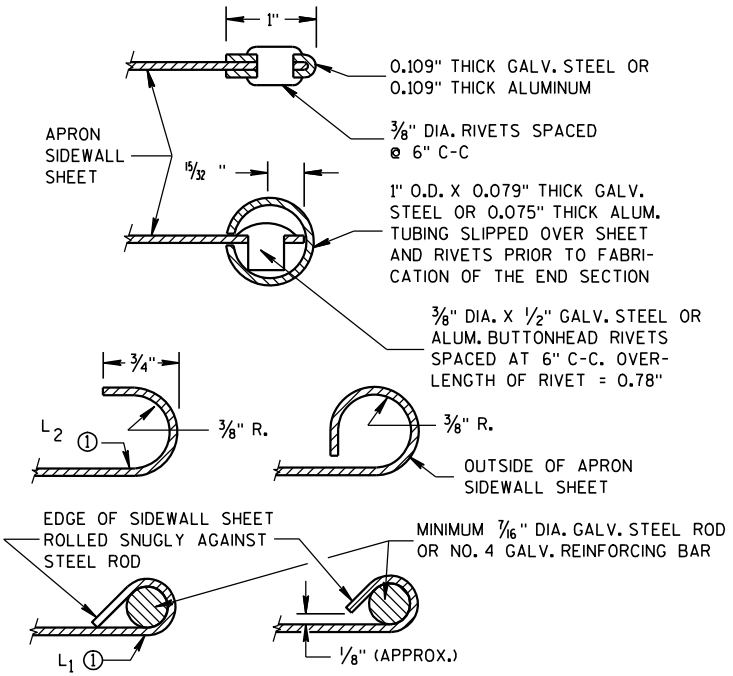
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

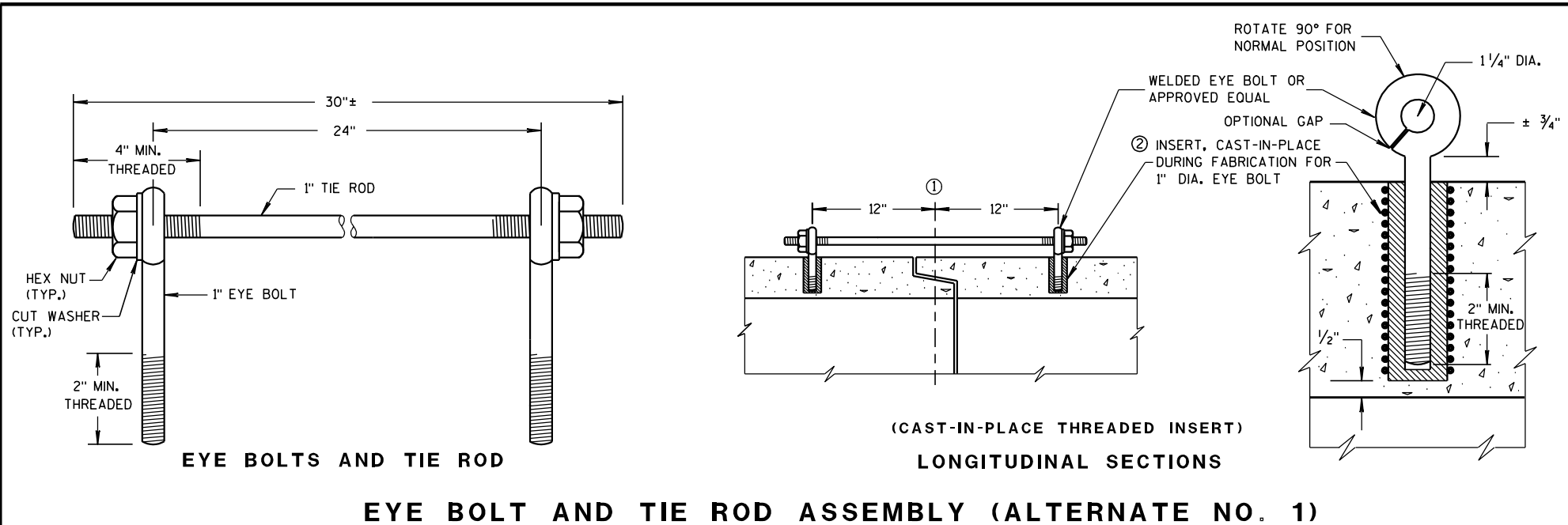
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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. Rh 65 lth
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



GENERAL NOTES

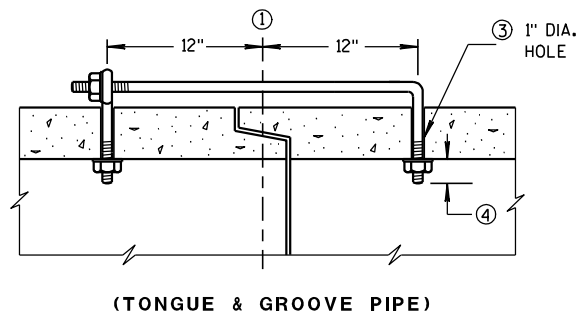
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

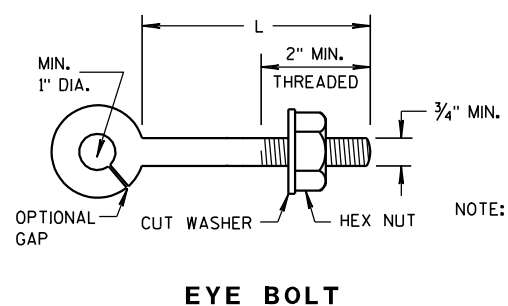
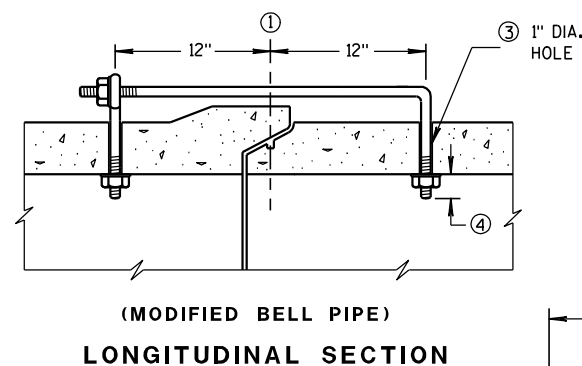
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① ϕ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ϕ OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



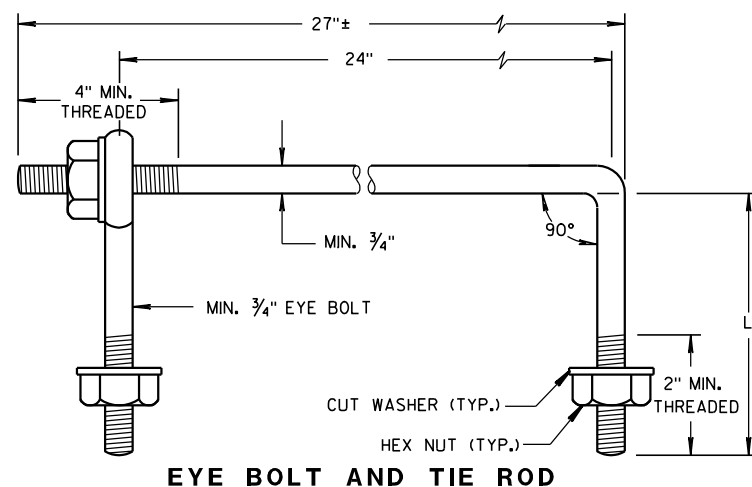
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.

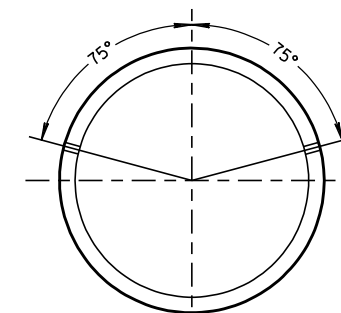
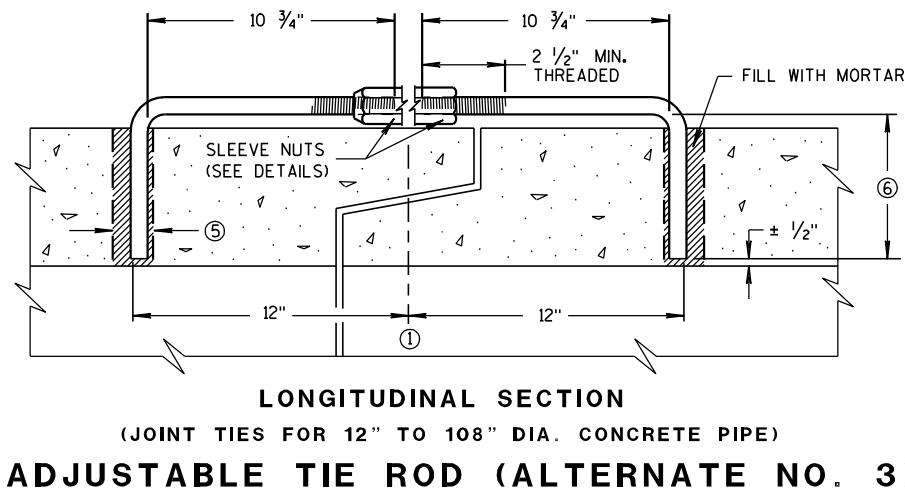
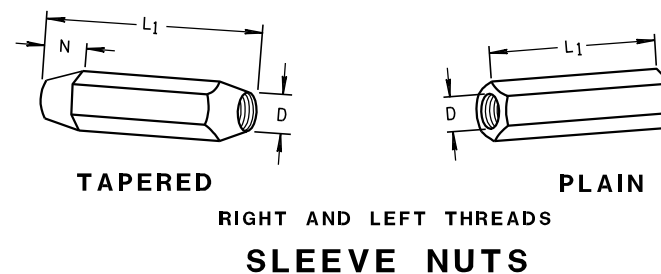
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



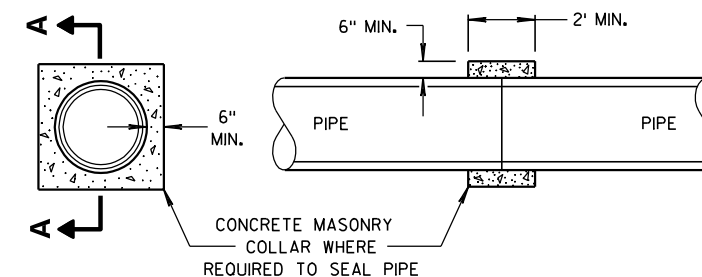
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

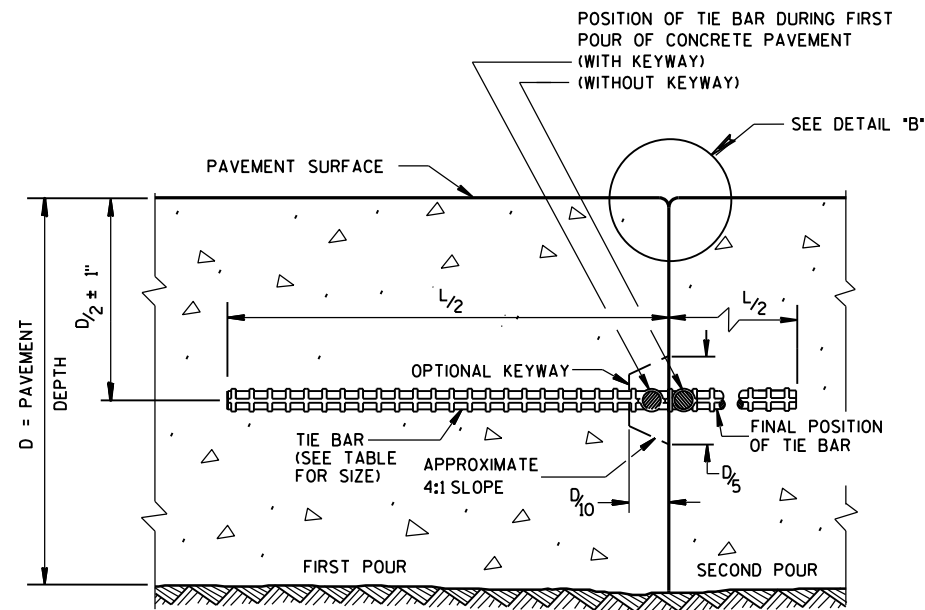


CONCRETE COLLAR DETAIL

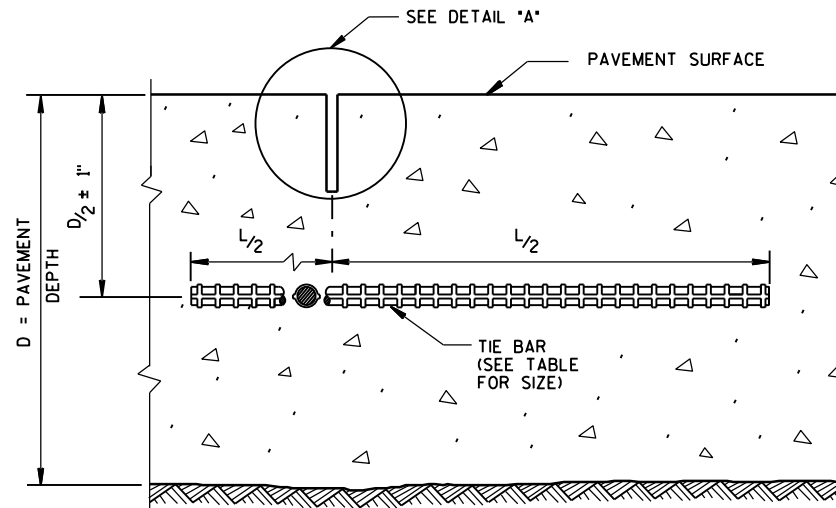
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry L. 66 g
DATE ROADWAY STANDARD DEVELOPMENT
FHWA ENGINEER



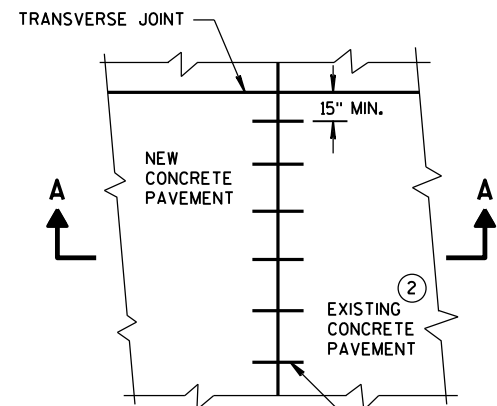
CONSTRUCTION JOINT



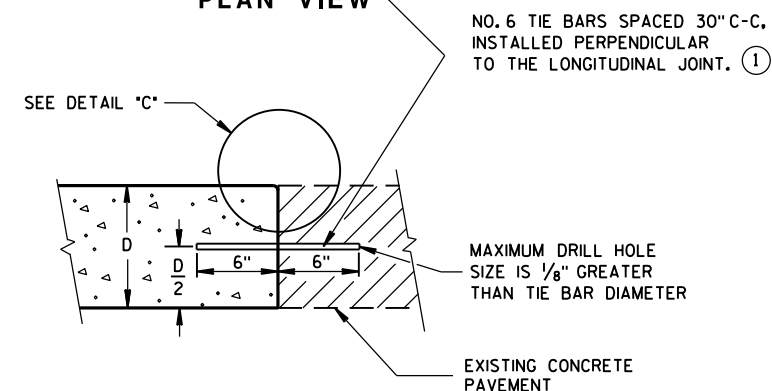
SAWED JOINT

GENERAL NOTES

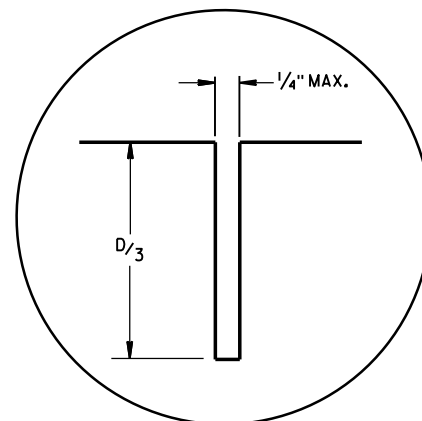
- DO NOT SEAL OR FILL LONGITUDINAL JOINTS.
- CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



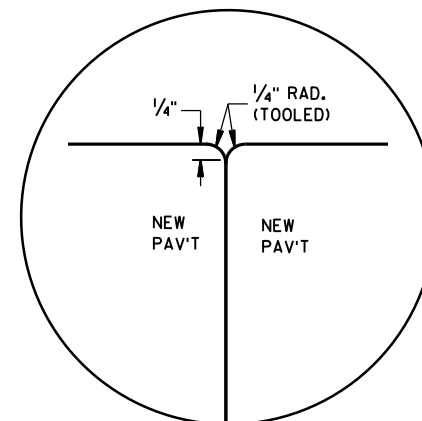
PLAN VIEW



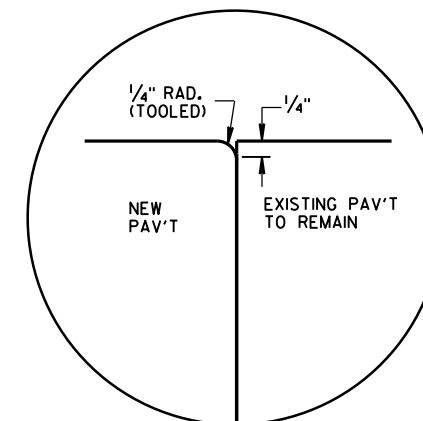
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"

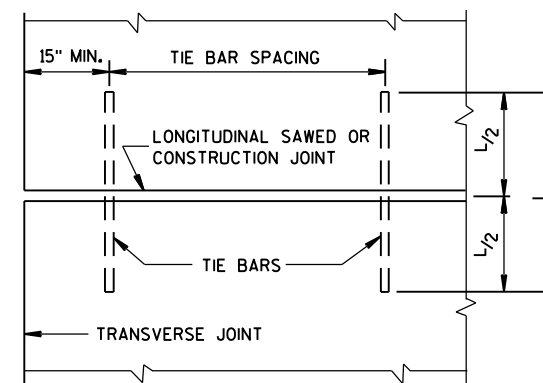


DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

- * SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)
- ** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

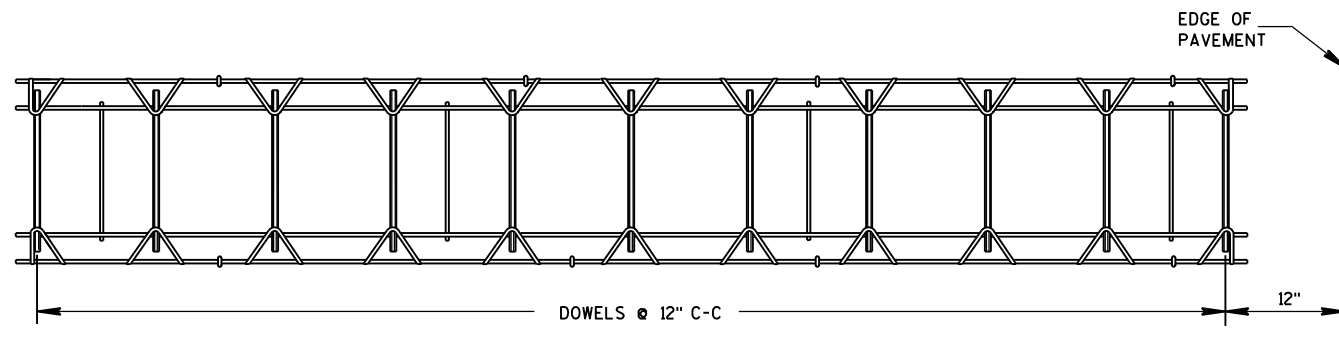


PLAN VIEW
SHOWING LOCATION OF TIE BARS

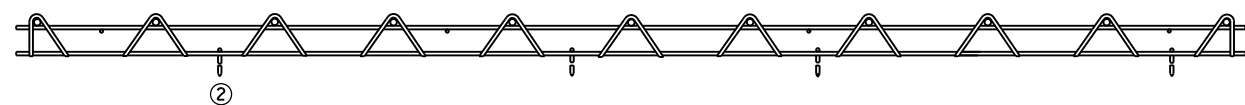
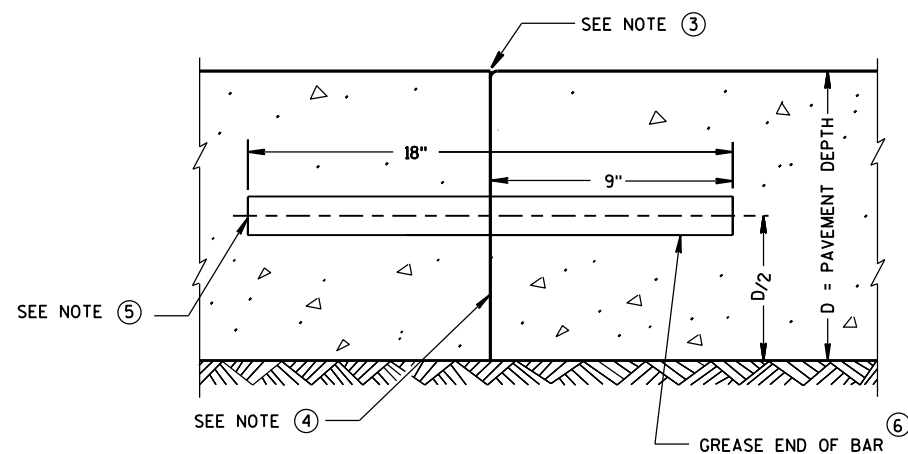
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

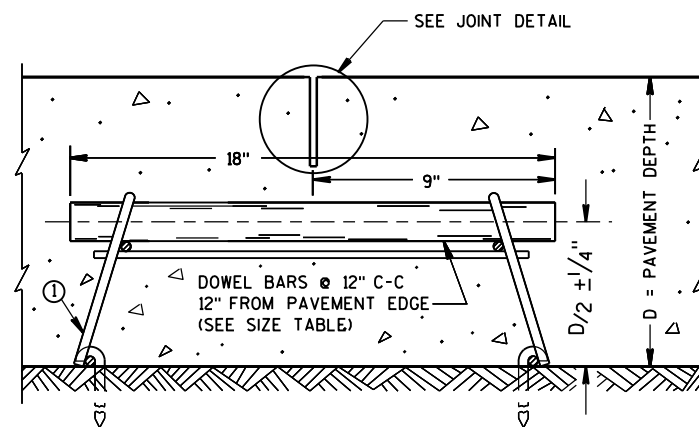
APPROVED
June, 2015 /S/ Peter Ken
DATE PAVEMENT SUP 67
FHWA



PLAN VIEW

SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY ①

TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

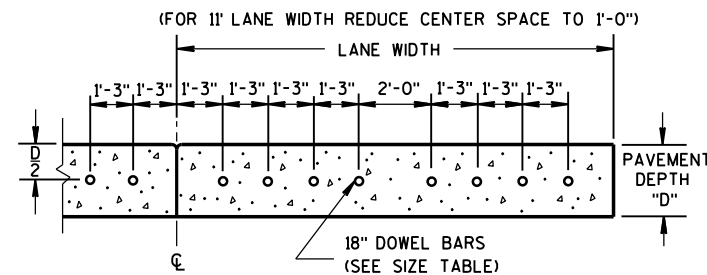
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

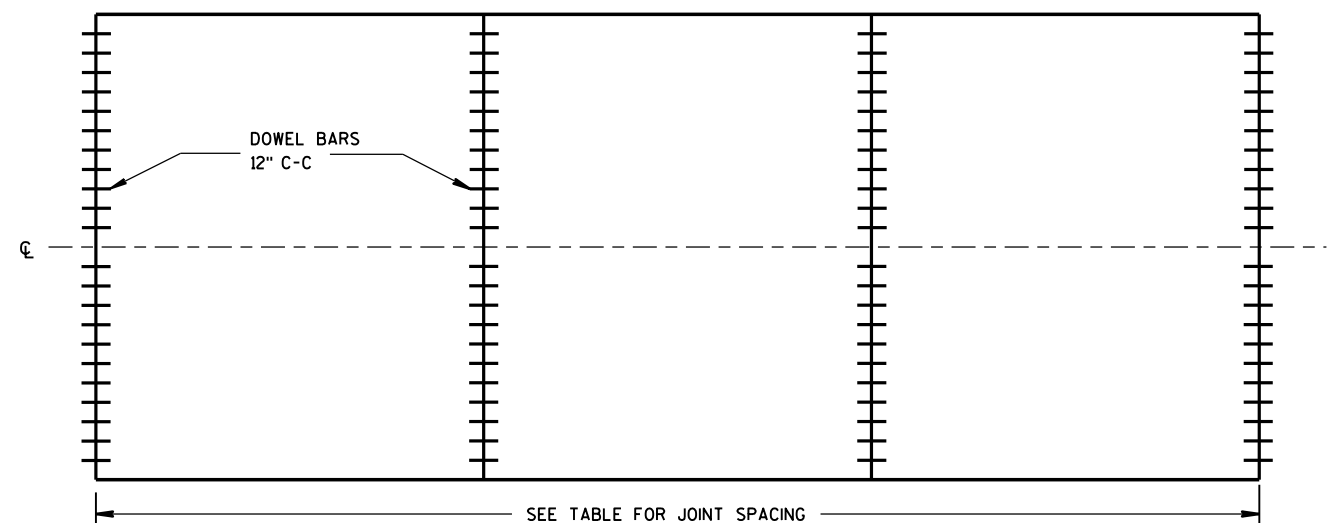
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

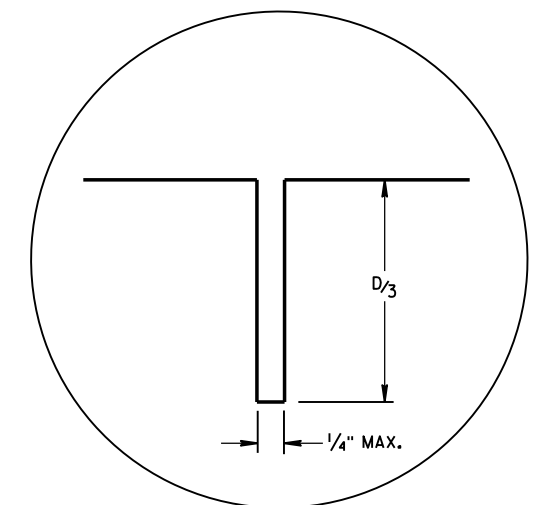
- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS



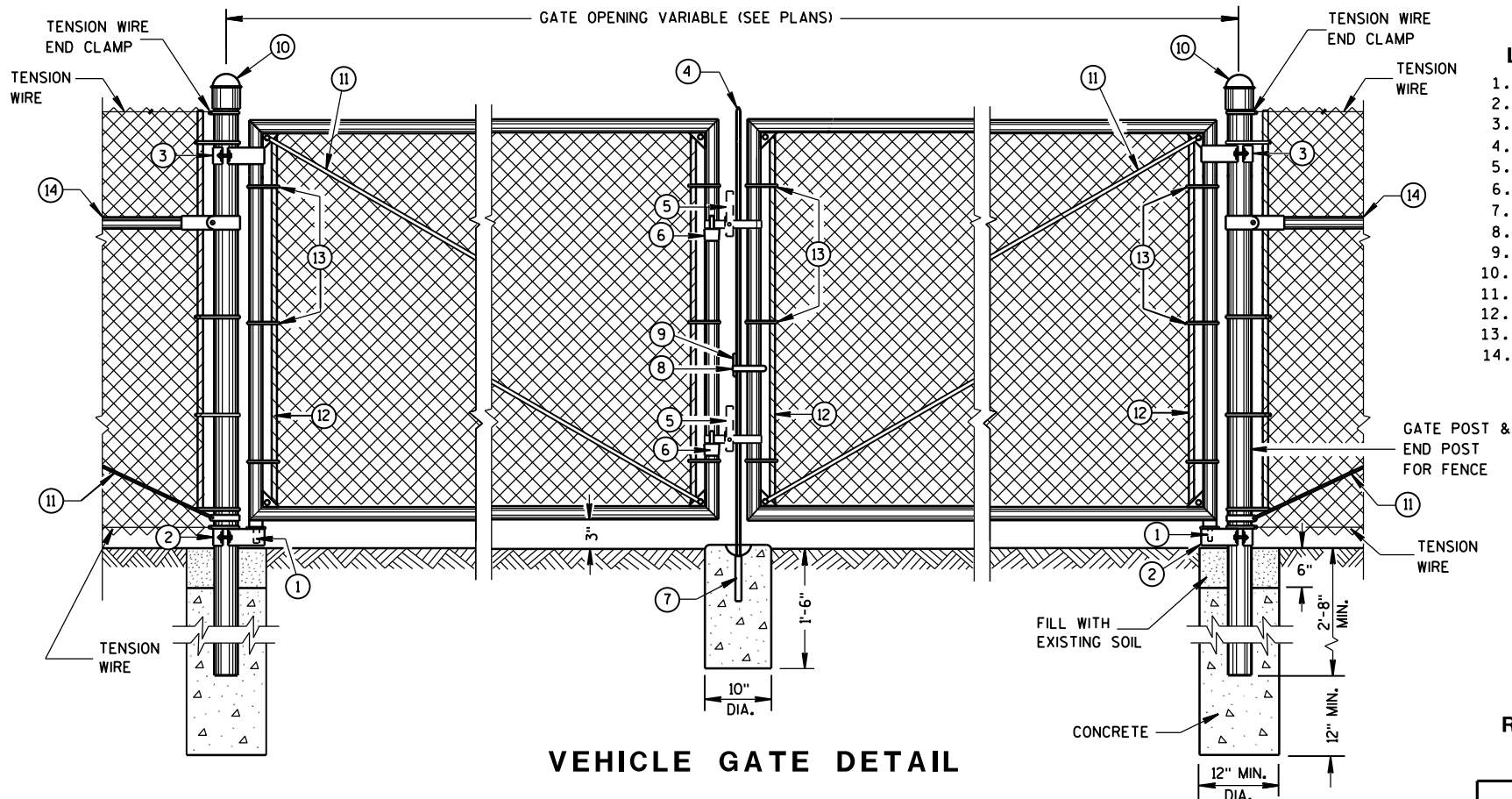
JOINT DETAIL

URBAN DOWELED
CONCRETE PAVEMENTSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

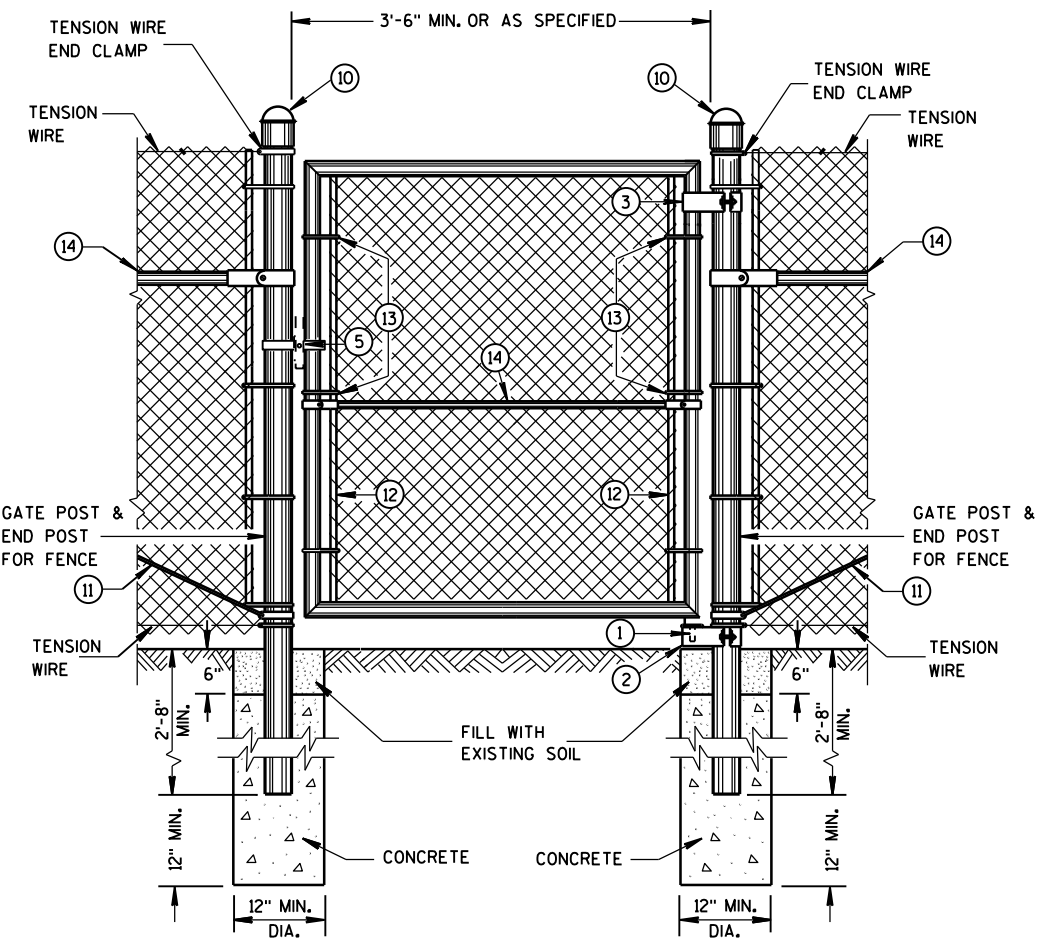
APPROVED

5/3/2013
DATE/S/ Deb Bisc
PAVEMENT POLICY & C 68 ENGINEER

FHWA



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2+
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

LEGEND

1. STRAIGHT PLUG
 2. BOTTOM HINGE
 3. TOP HINGE
 4. PLUNGER ROD
 5. FULCRUM LATCH
 6. FORK CATCH *
 7. PLUNGER ROD CATCH
 8. LOCK KEEPER GUIDE
 9. LOCK KEEPER
 10. DOME TOPS
 11. TRUSS RODS
 12. TENSION BAR
 13. TENSION BANDS
 14. BRACE RAIL
- *NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

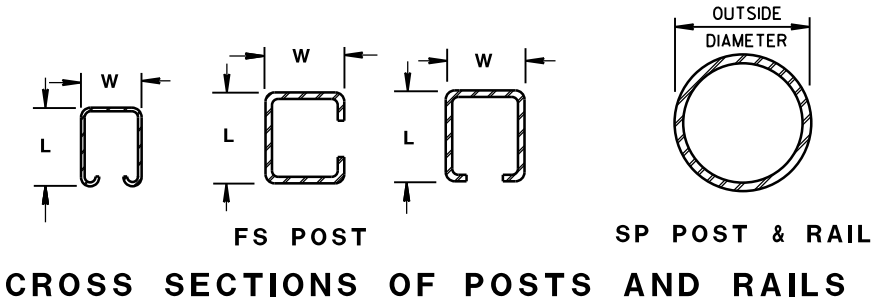
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



ROLLED-FORMED STEEL FENCE POST
(2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2+	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

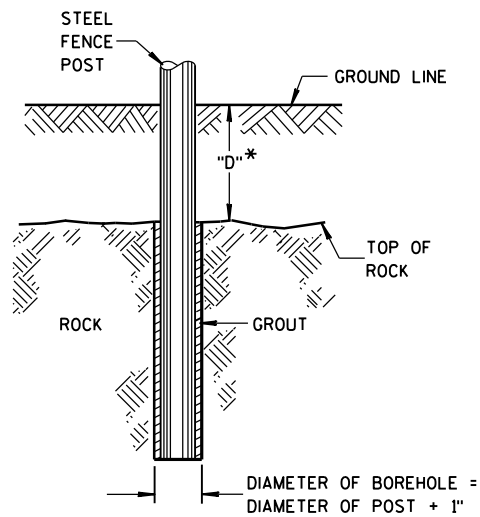
USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST
(1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

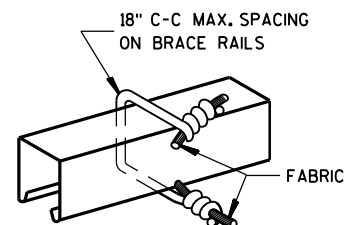
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



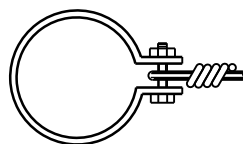
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

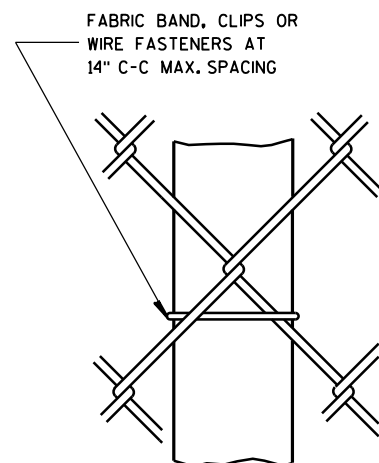


BRACE RAIL FABRIC FASTENER

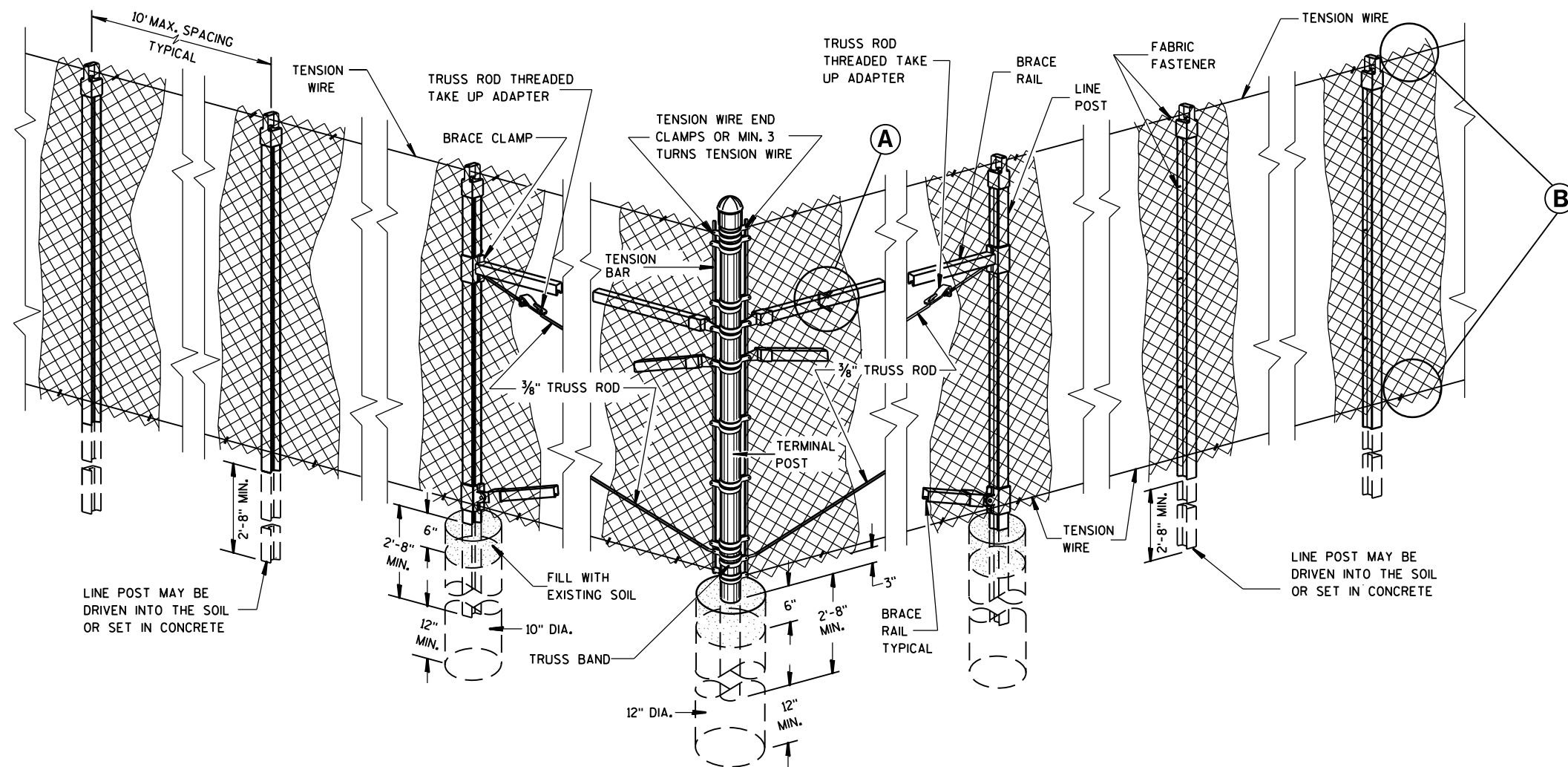
(A)



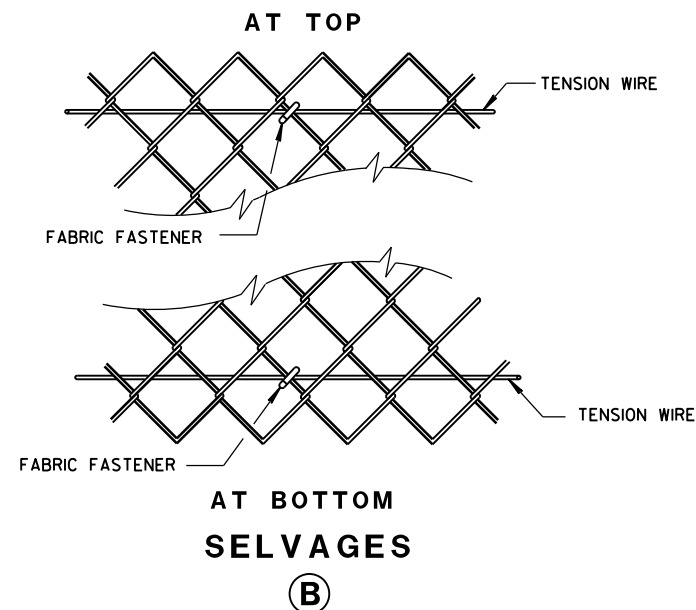
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



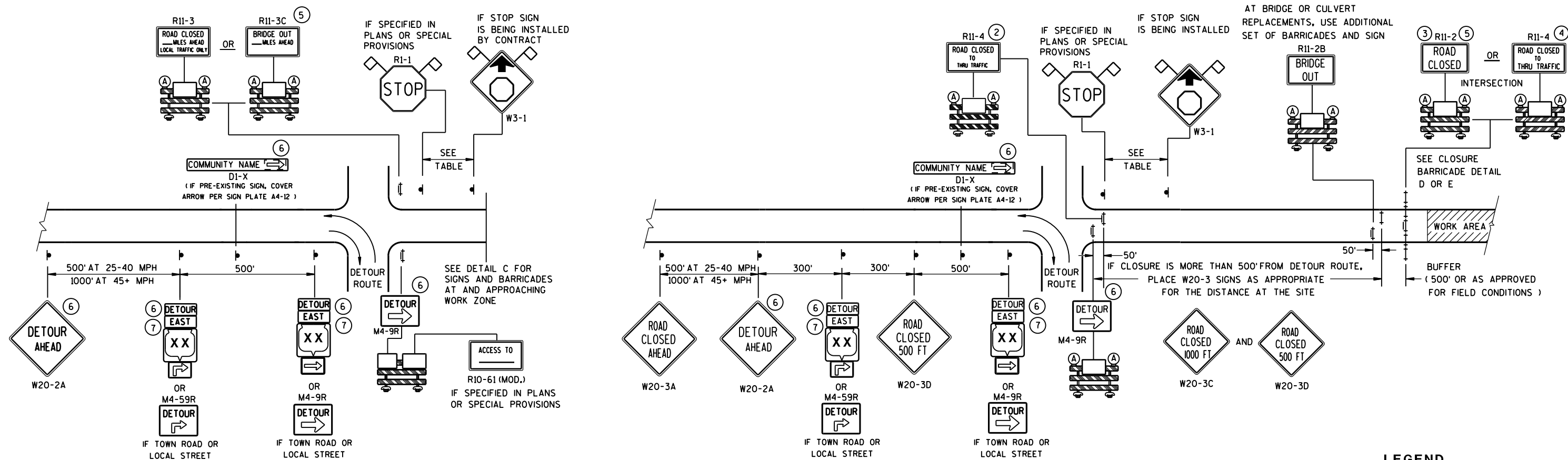
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

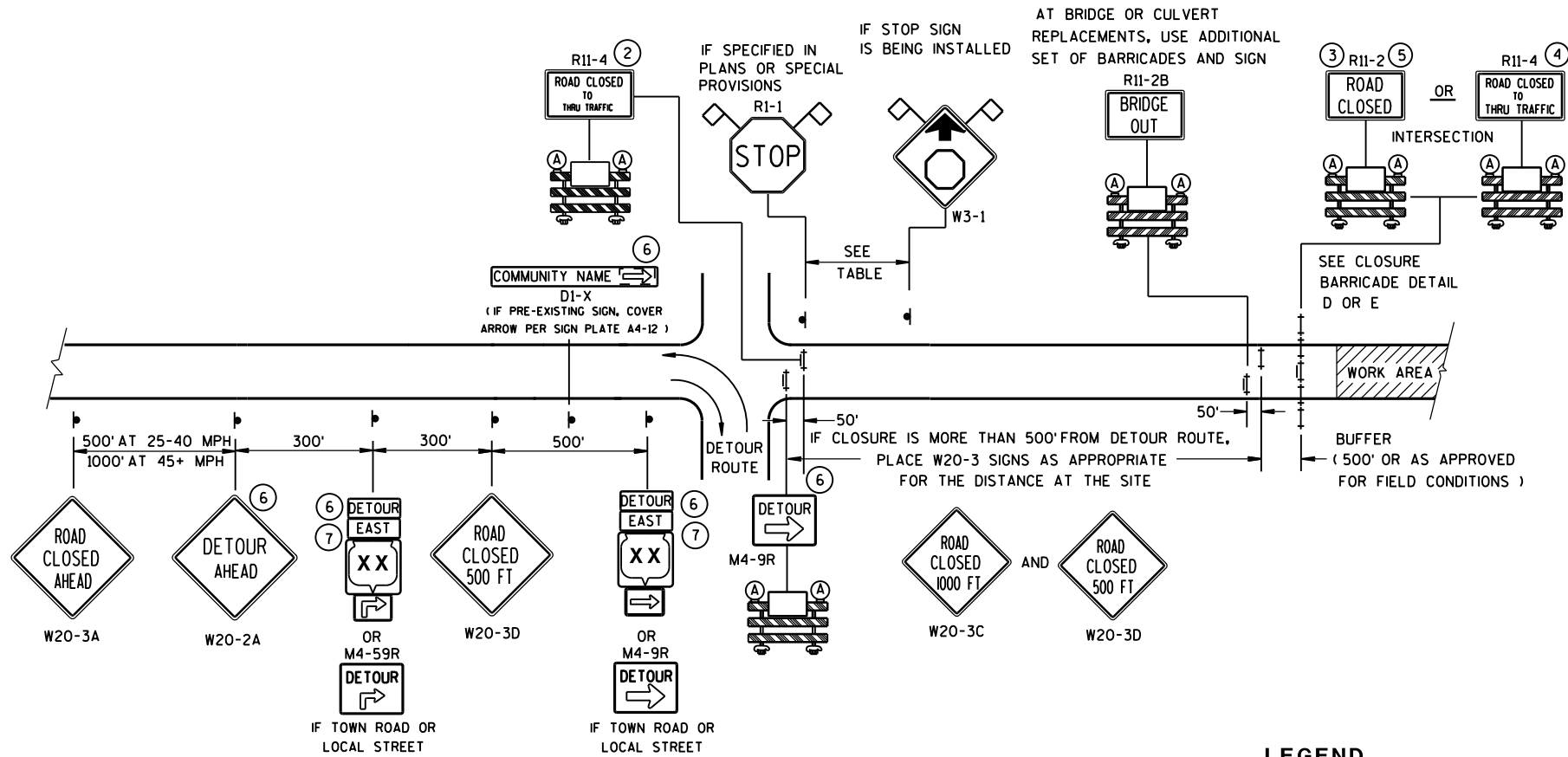
APPROVED
FEB. 2015
DATE
/S/ Jerry H. 70
ROADWAY STANDARDS DEPARTMENT
ENGINEER



DETAIL A

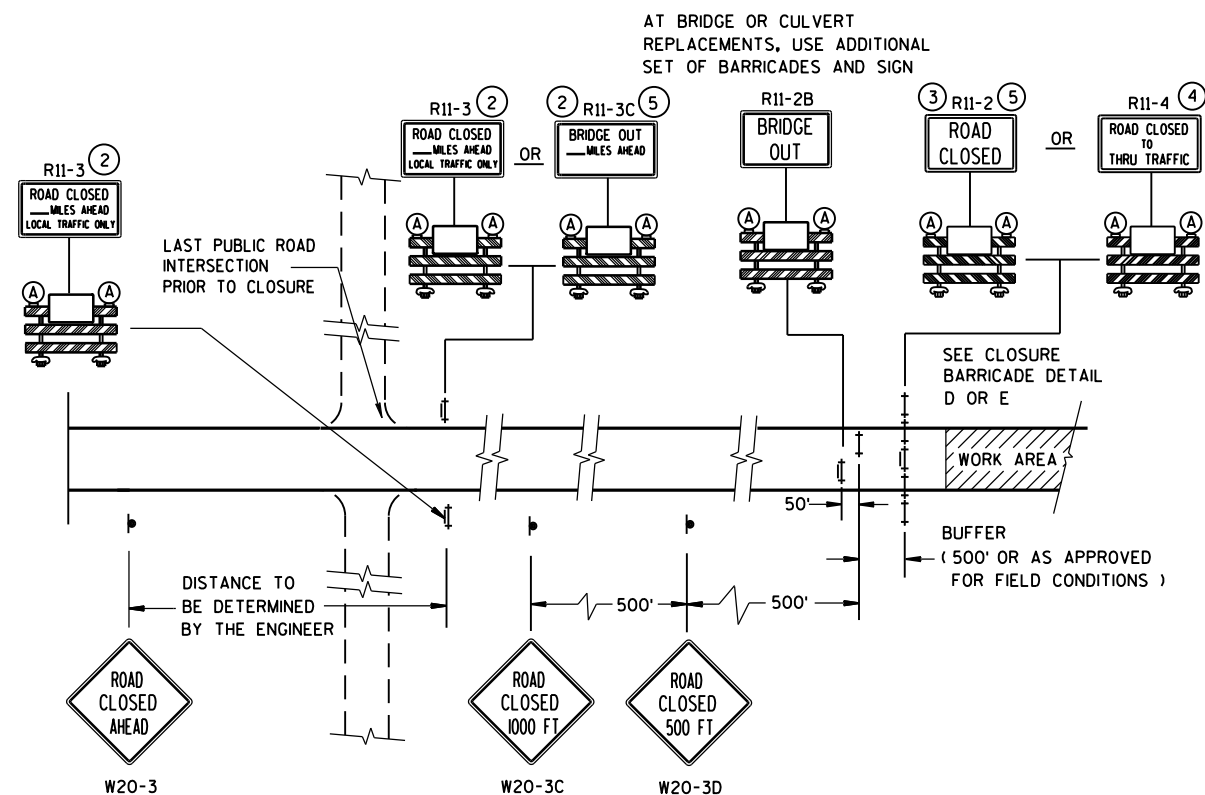
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)
















DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 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

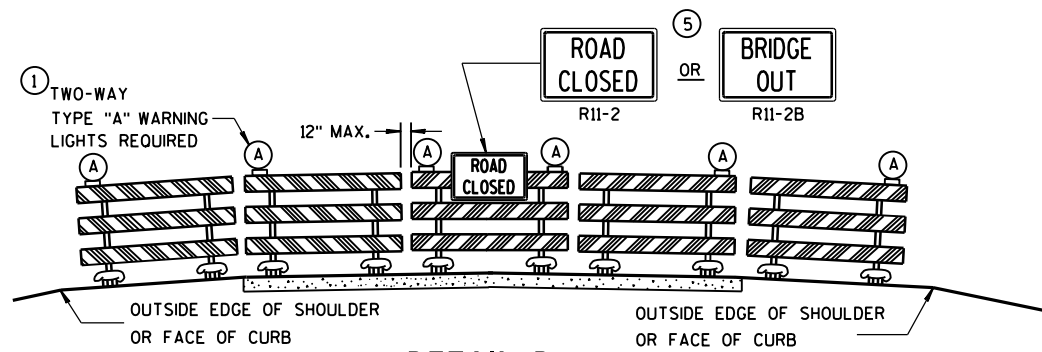
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
-  M3-X
-  M1-4
- OR
-  M1-5A
- OR
-  M1-6
-  M05-1
- OR
-  M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

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

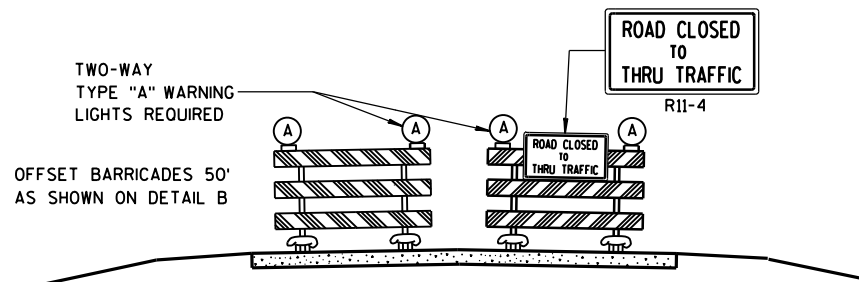
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amador 71
DATE STATEWIDE WORK 2 RAFFIC
FWHA SAFETY ENGINEER



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

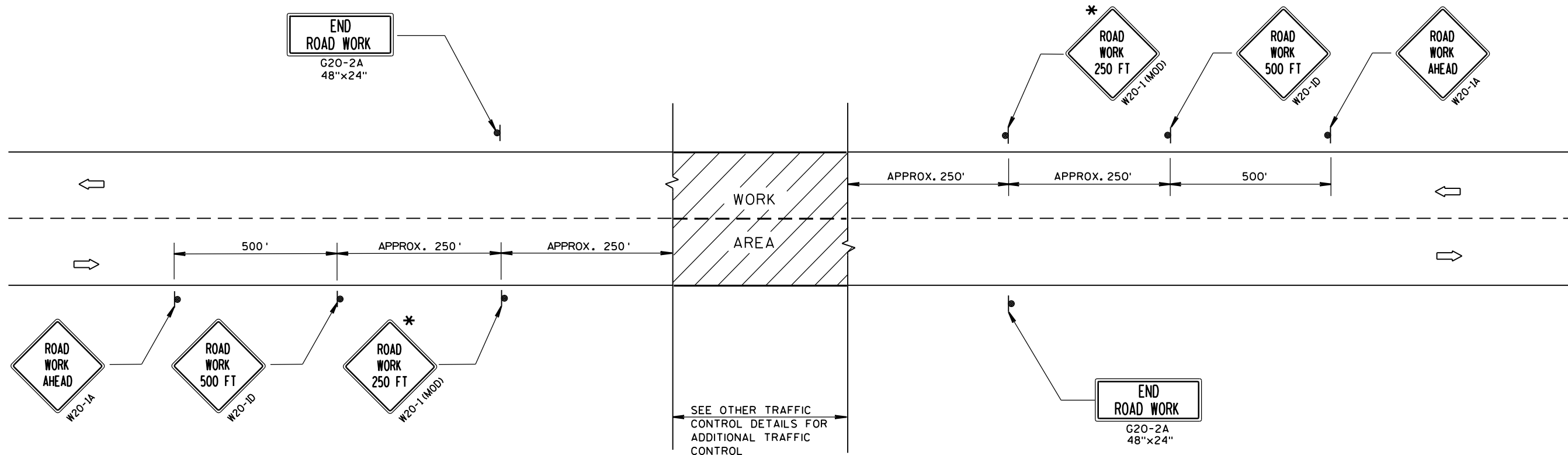
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

- R11-2 SHALL BE 48" X 30".
- R11-3, 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". (30" X 15" 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.)
- M05-1 AND M06-1 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 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 LANE 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 MAINLINE CLOSURES			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
Sept. 2015 DATE	/S/ Peter Amokch STATEWIDE WORK	72 TRAFFIC	SAFE ENGINEER
FHWA			



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

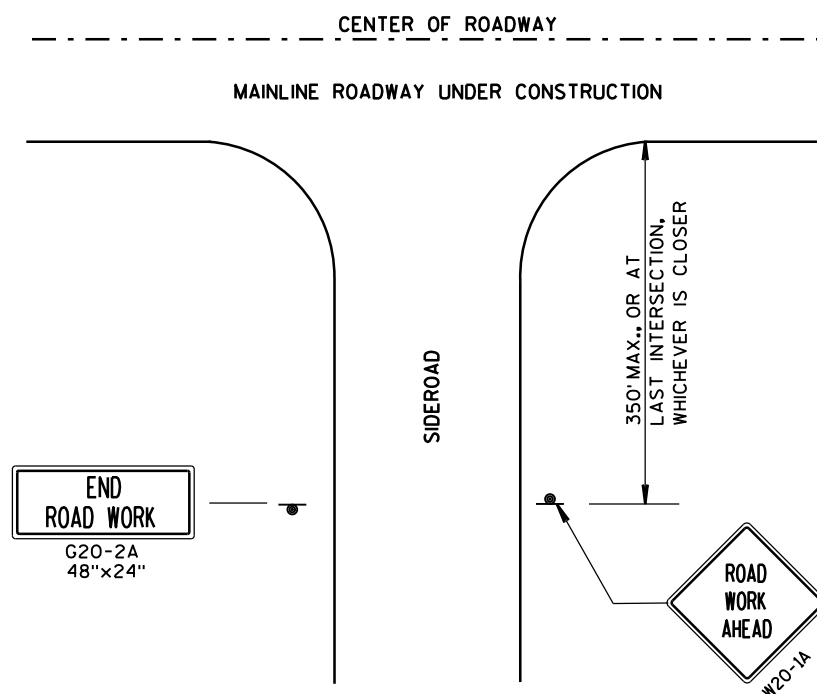
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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



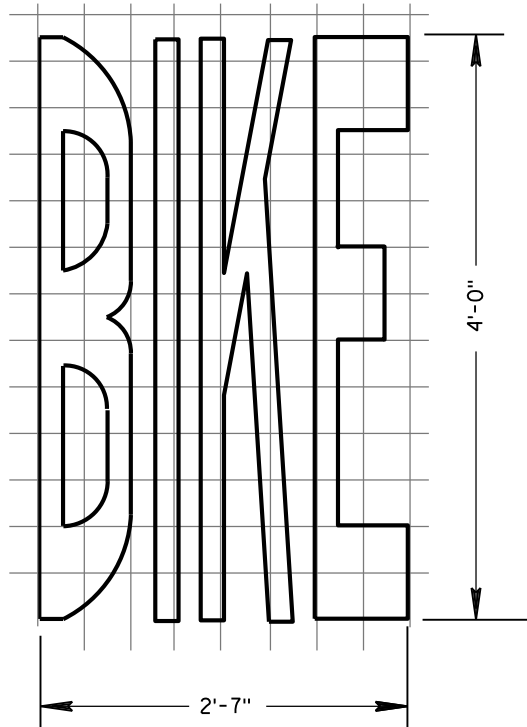
LEGEND

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

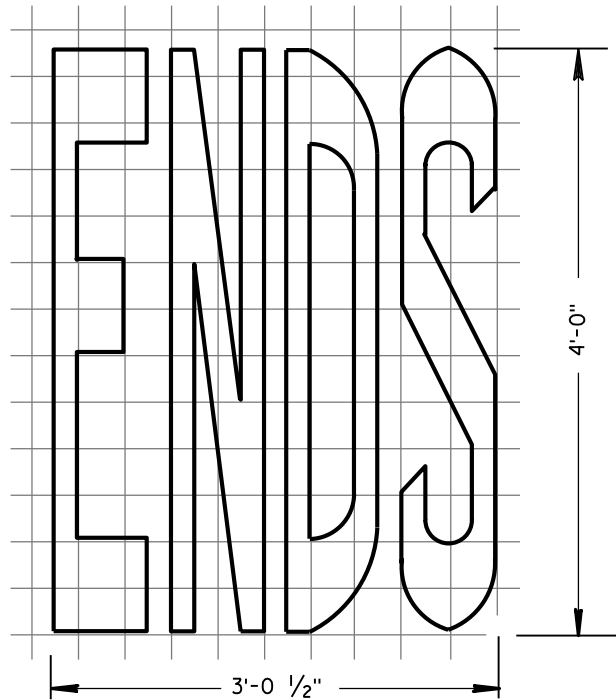
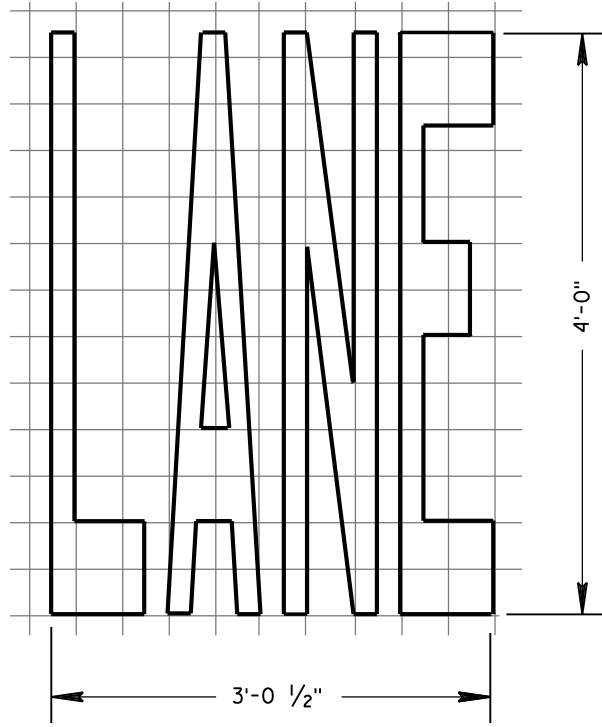
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE Sept. 2017 /S/ Andrew H. 74
FHWA WORK ZONE EN



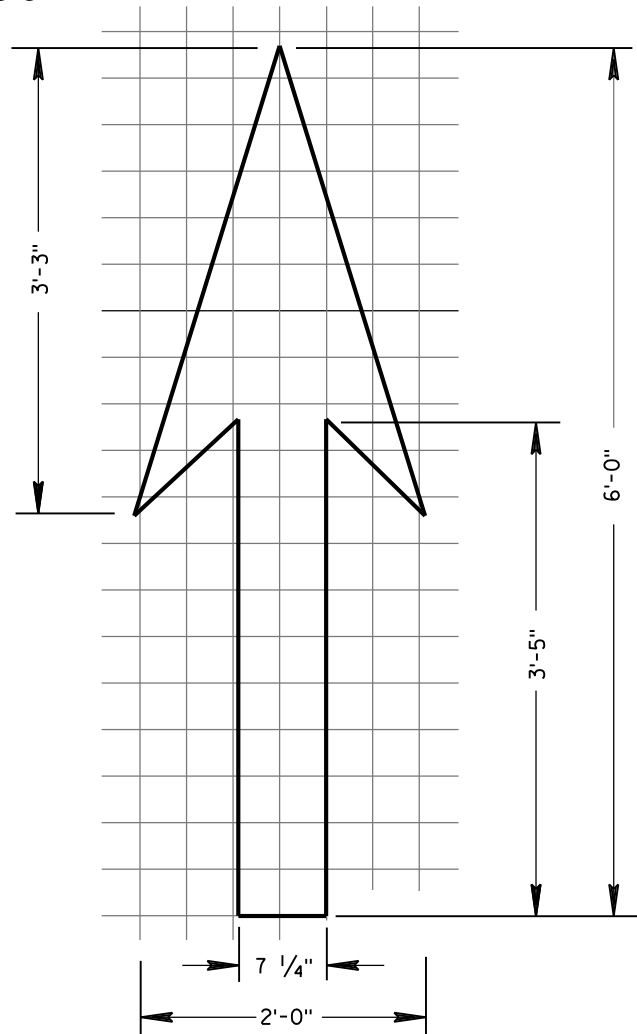
BIKE LANE WORDS



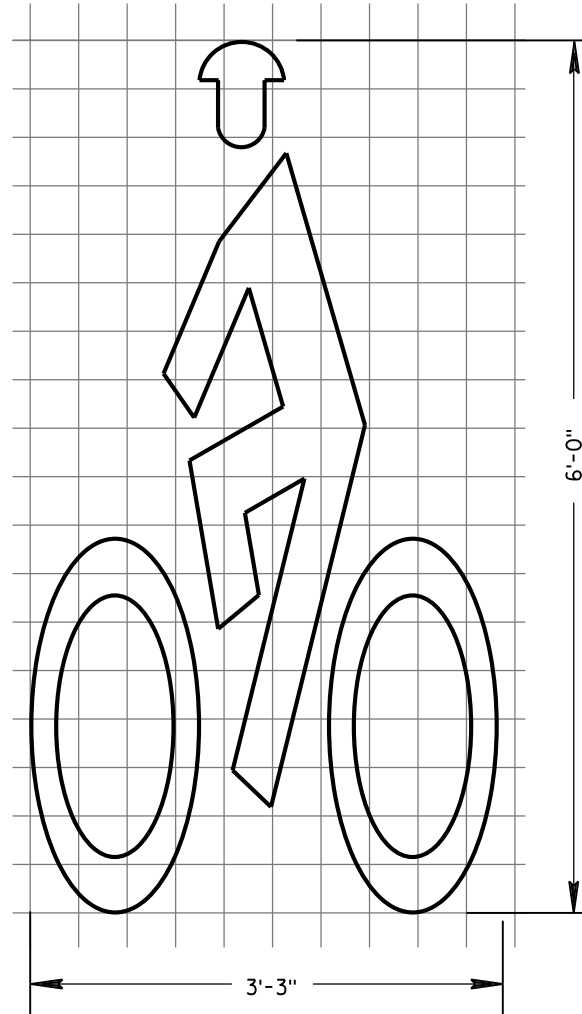
BIKE LANE WORDS

GENERAL NOTES

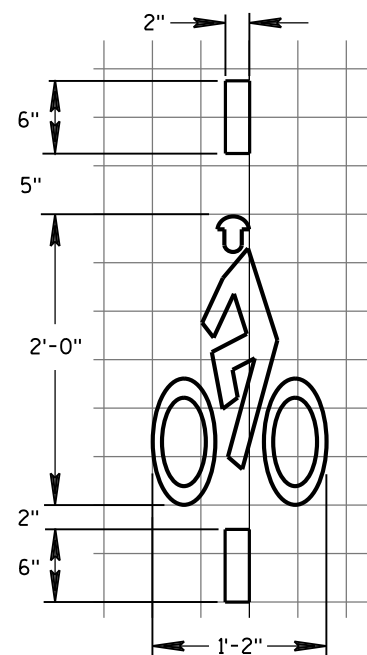
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



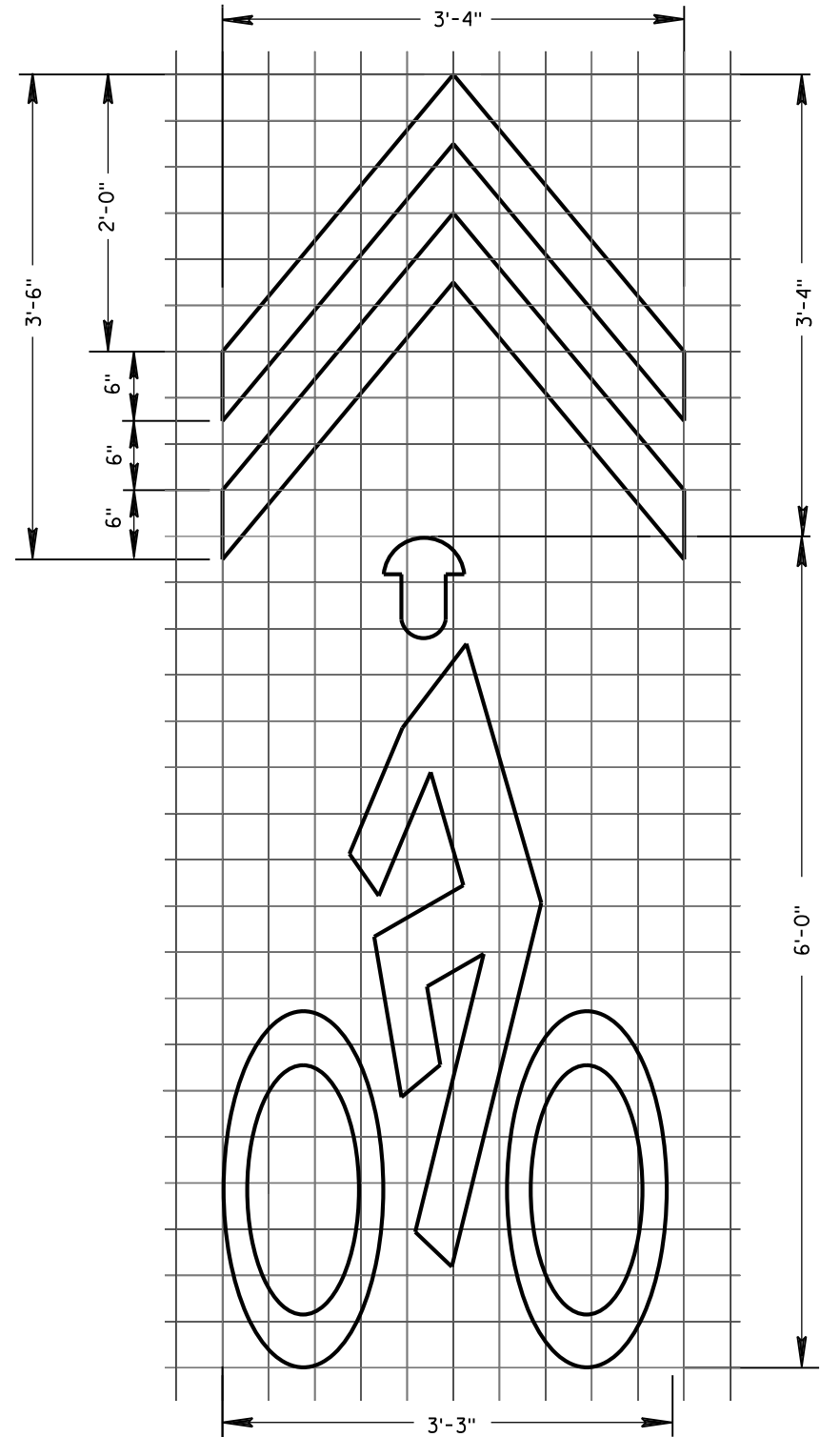
BIKE LANE ARROW



BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING

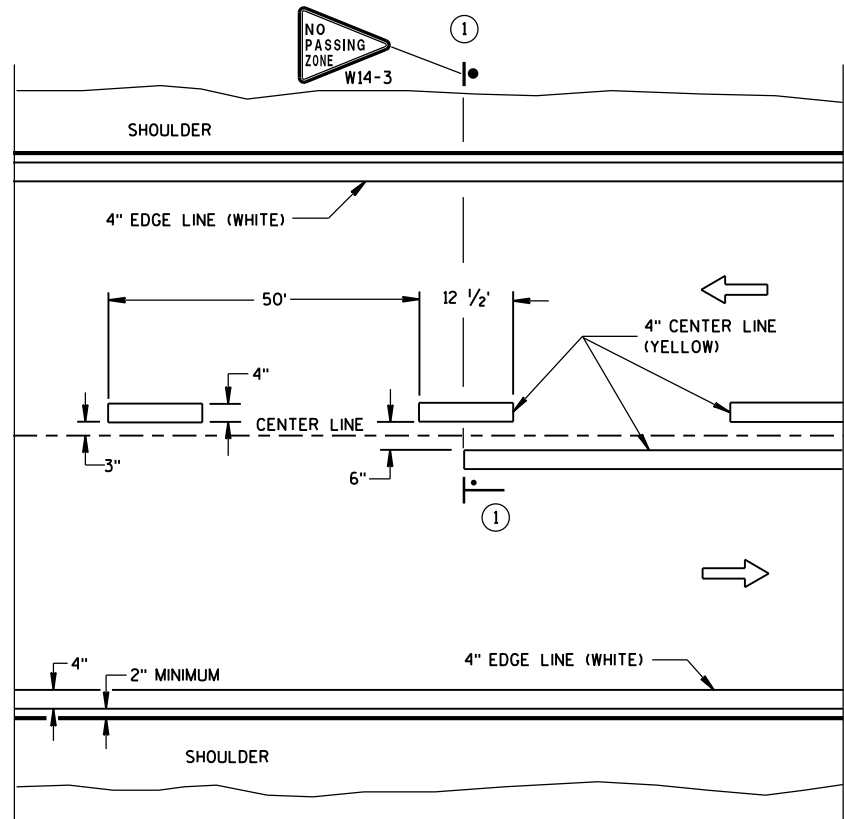


BIKE SYMBOL FOR SHARED LANE

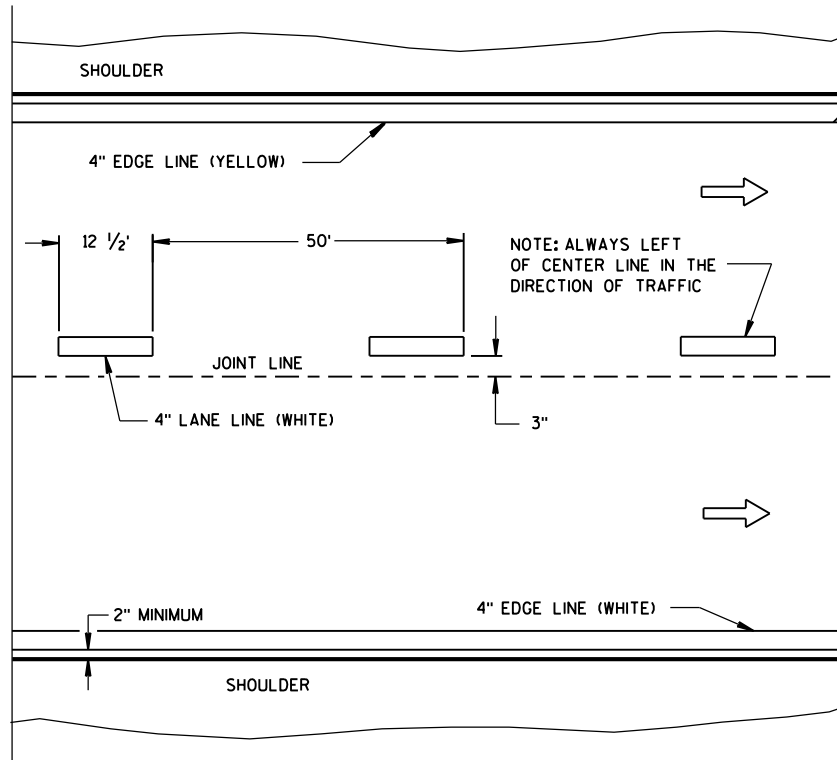
PAVEMENT MARKING FOR
BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2017 /S/ Matthew P. 75
DATE STATE SIGNING AND MAINTENANCE ENGINEER
FHWA

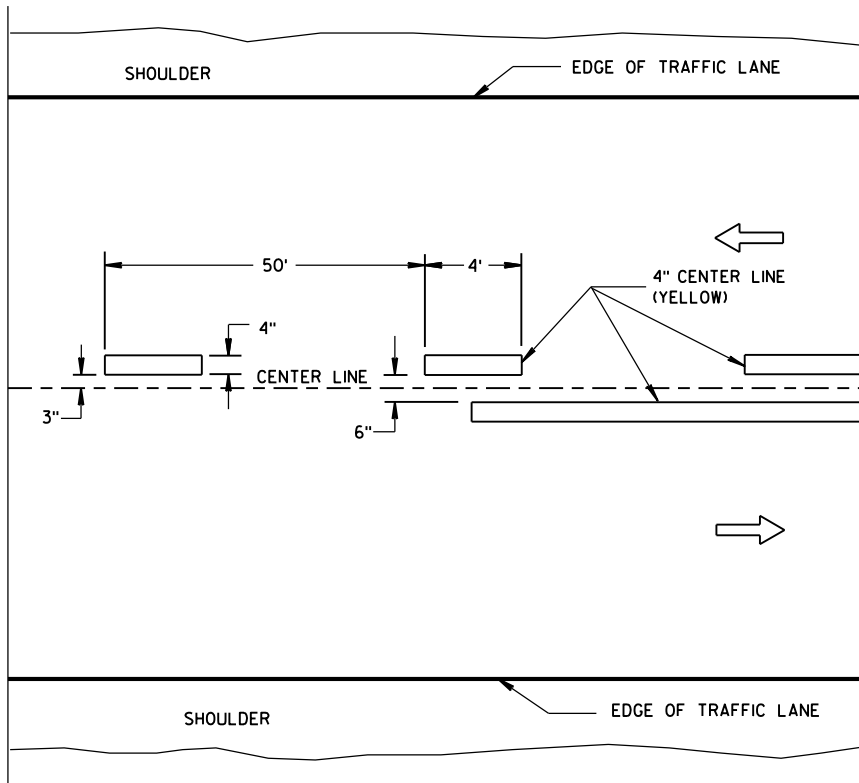


TWO WAY TRAFFIC

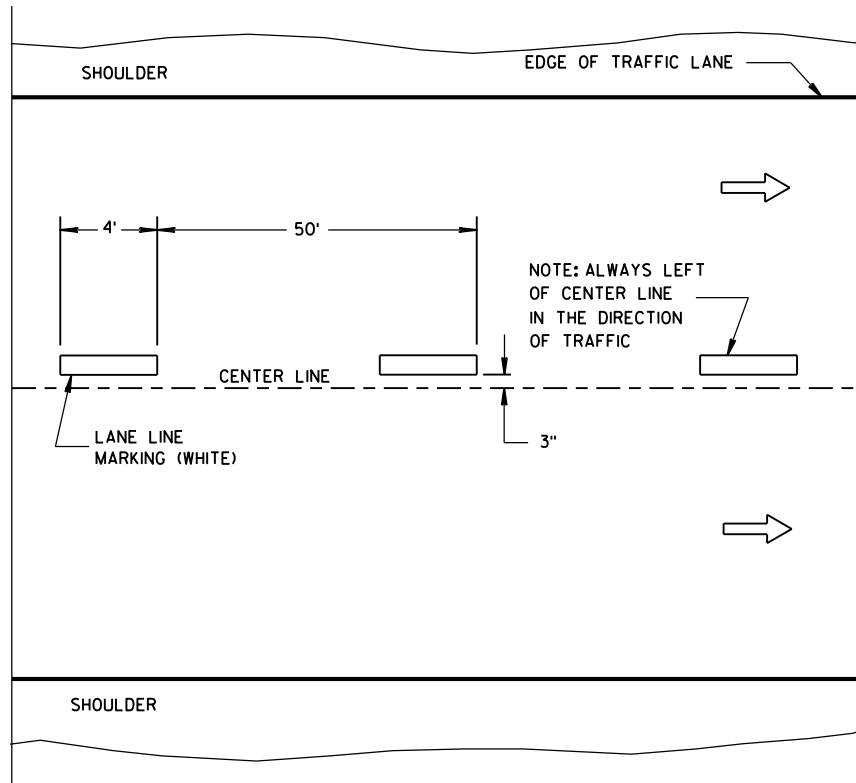


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

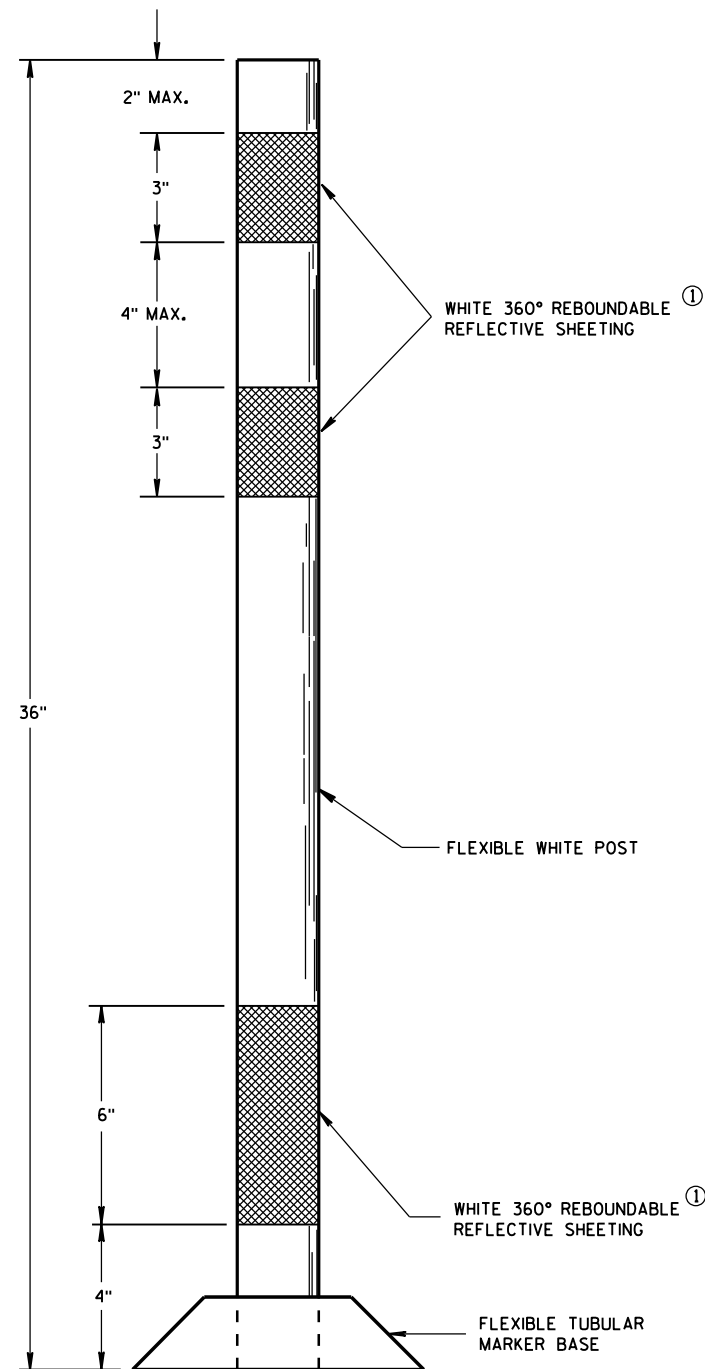
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

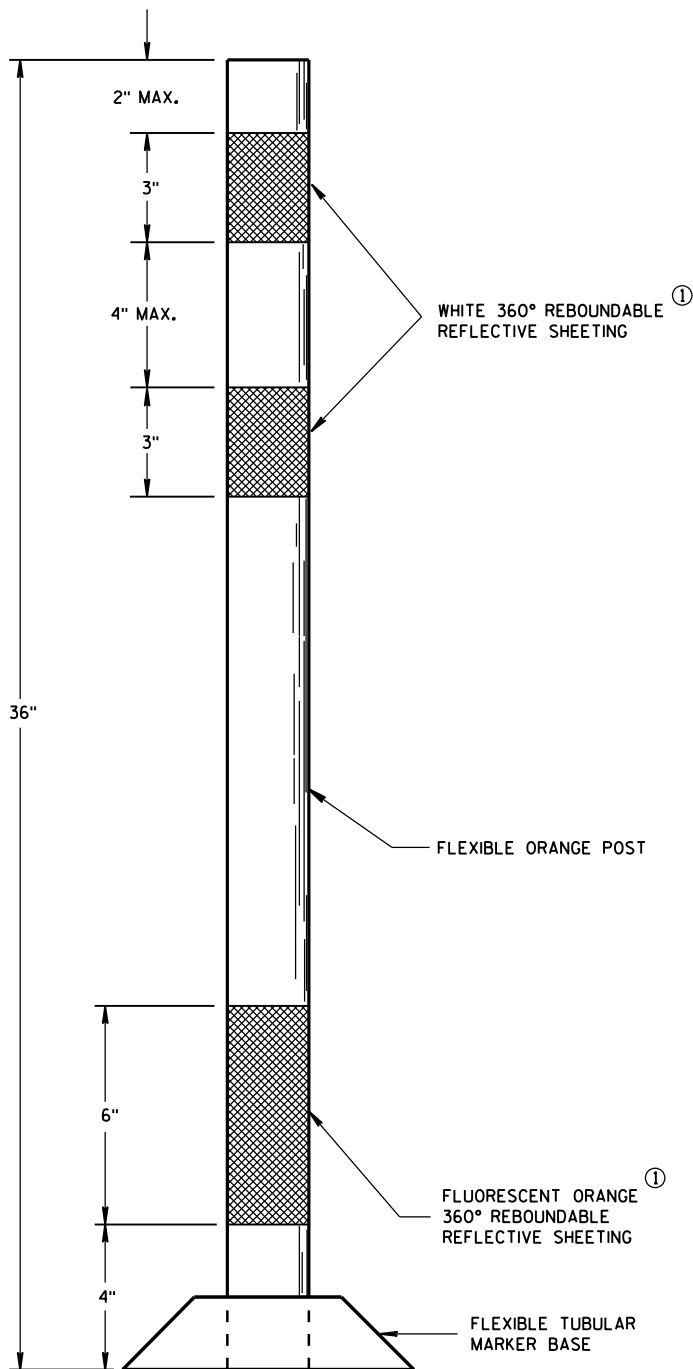
LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2017 /S/ Matthew f 76 n
DATE STATE SIGNING AND M/ ENGINEER
FHWA



**FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER**



**FLEXIBLE
TUBULAR MARKER POST
WORK ZONE**

GENERAL NOTES

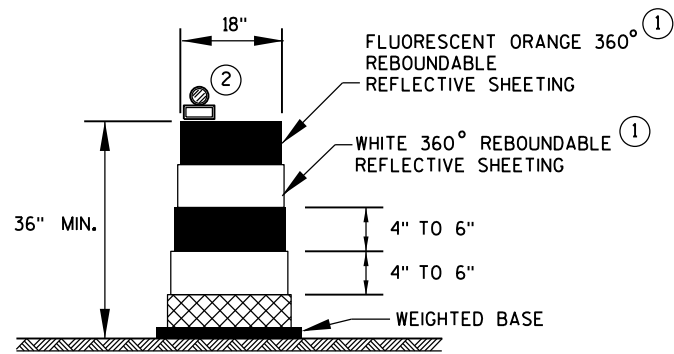
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

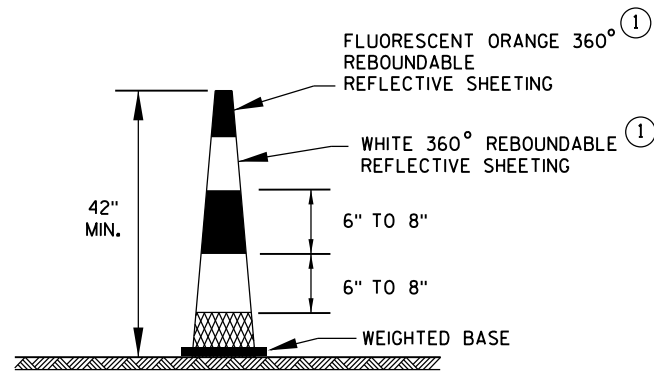
THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED June 2017 DATE	/S/ Andrew H WORK ZONE EN	77
FHWA		



DRUM

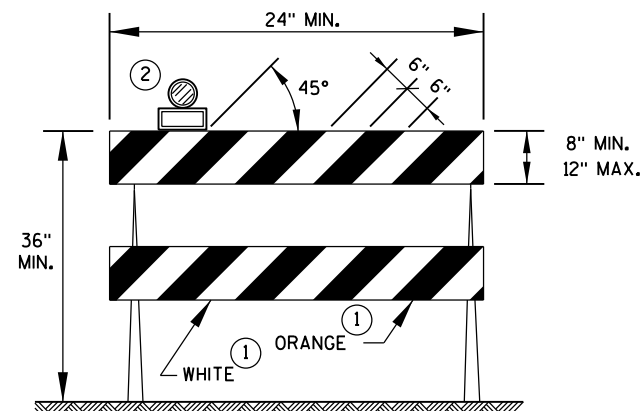


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

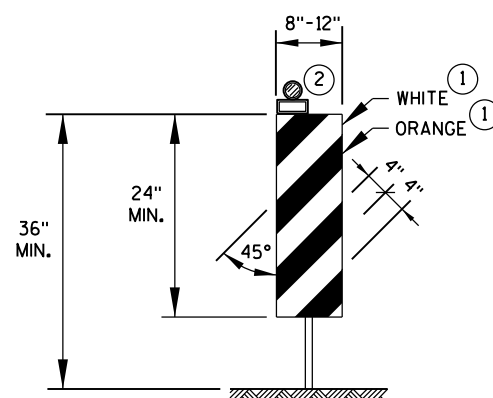
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



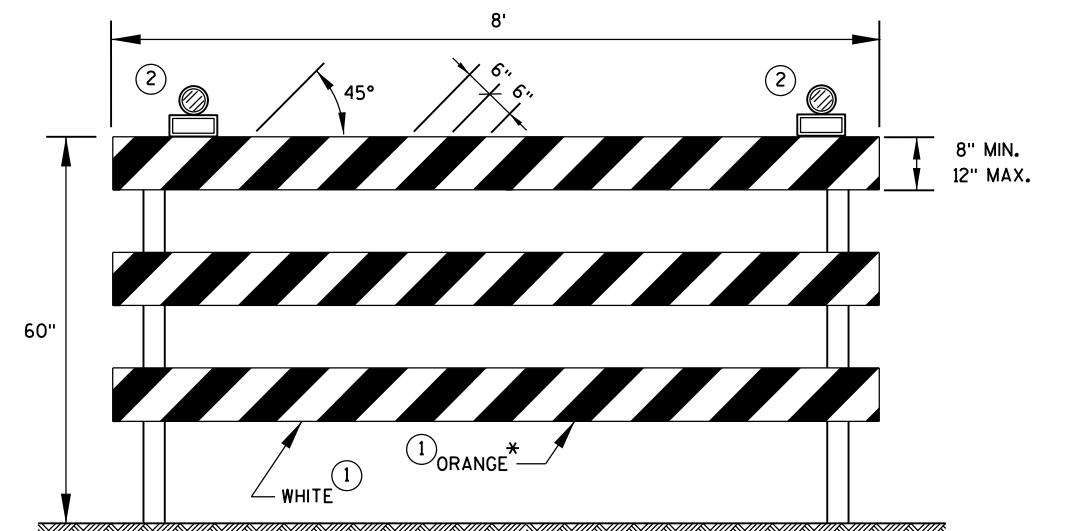
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew I
WORK ZONE EN

78

FHWA

GENERAL NOTES

- ① DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- ② MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- ③ DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- ④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥ 45 MPH.
- ⑥ OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
- ⑦ REFER TO CONTRACT PLANS FOR LANE WIDTH.

➔ DIRECTION OF TRAVEL

DESIGNATED BICYCLE LANE NO PARKING

4 LANE DIVIDED WITHOUT ISLAND

4 LANE DIVIDED WITH ISLAND

BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS (4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BICYCLE LANE MARKING

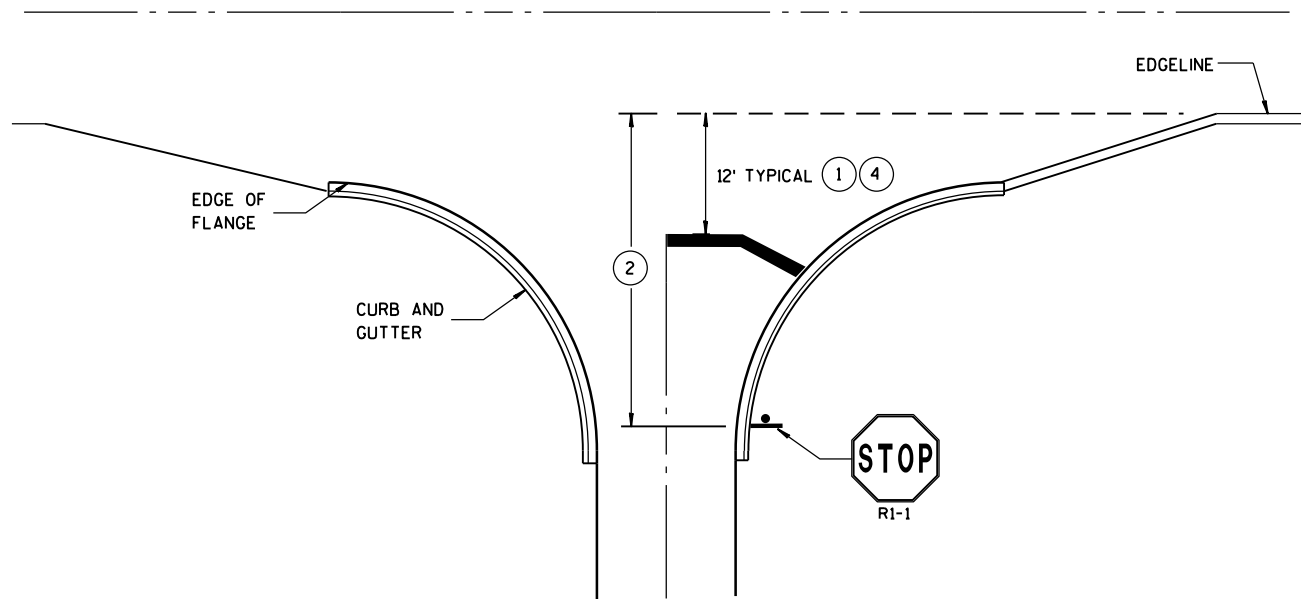
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

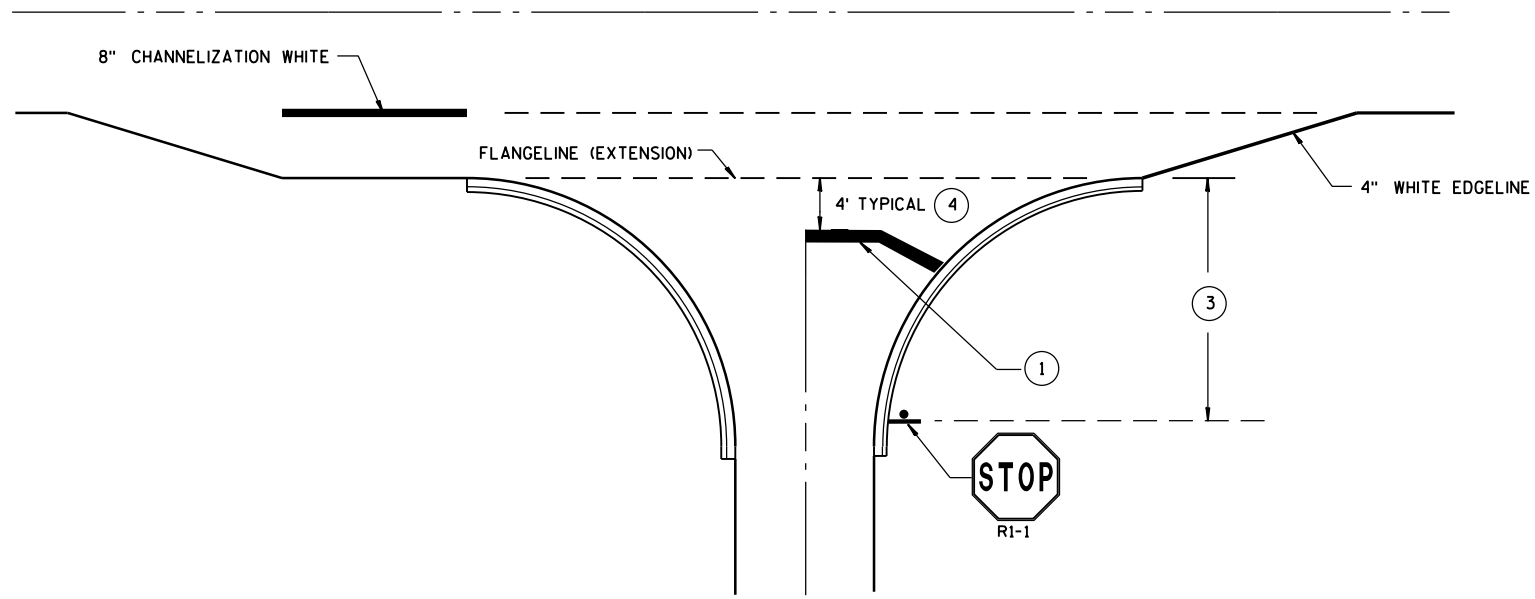
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DATE

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/S/ Matthew F 79 :h
STATE SIGNING AND M. ENGINEER



TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER

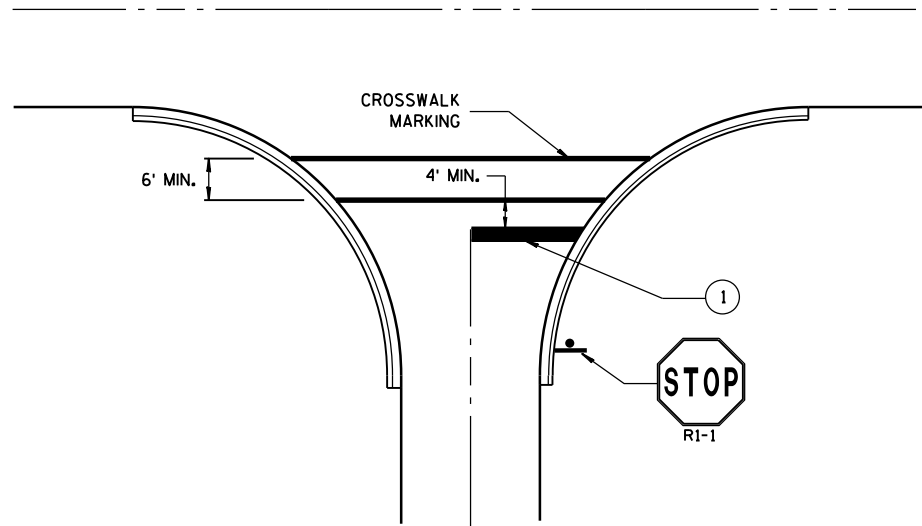


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE

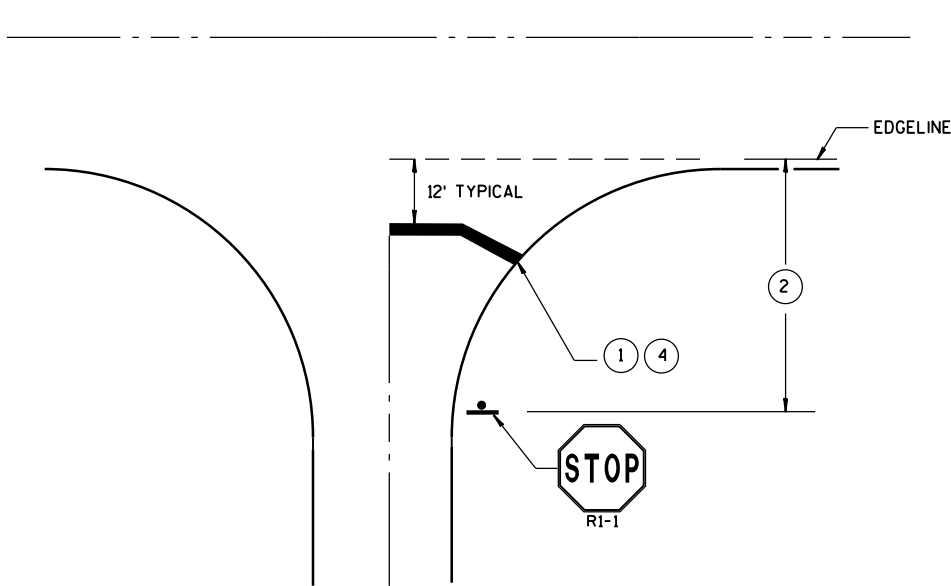
GENERAL NOTES

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

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

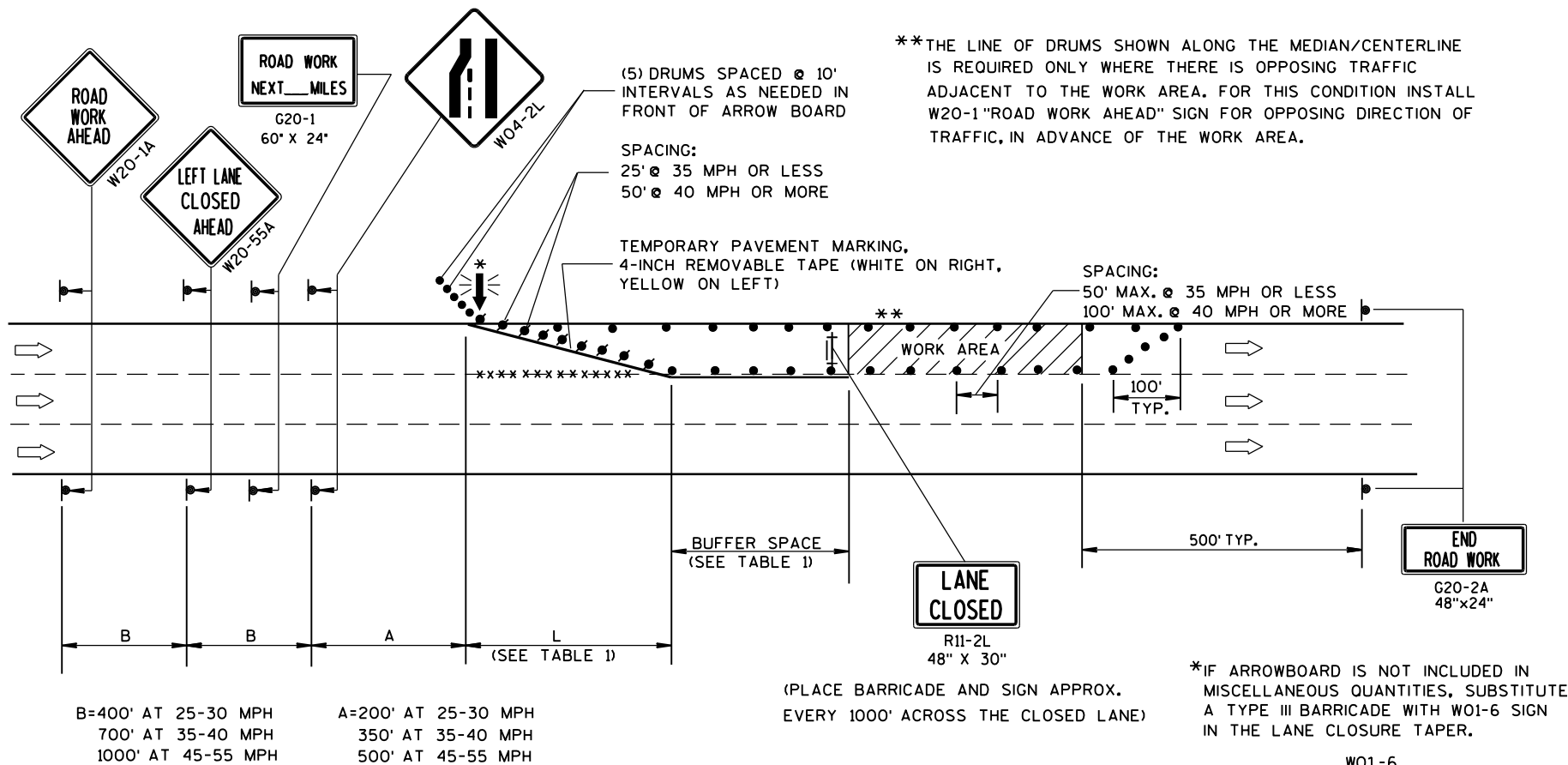


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED	DATE	STATE SIGNING AND M	ENGINEER
Sept., 2017		/S/ Matthew	jch
		80	
FHWA			



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

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

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':
L = WS AT 45 MPH OR GREATER
L = $\frac{WS^2}{60}$ AT 40 MPH OR LESS
L = TAPER LENGTH IN FEET
S = NON-CONSTRUCTION SPEED LIMIT (MPH)
W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/S/ Peter Amak STATEWIDE WORK ZONE SAFETY ENGINEER 81 TRAFFIC
FHWA	

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

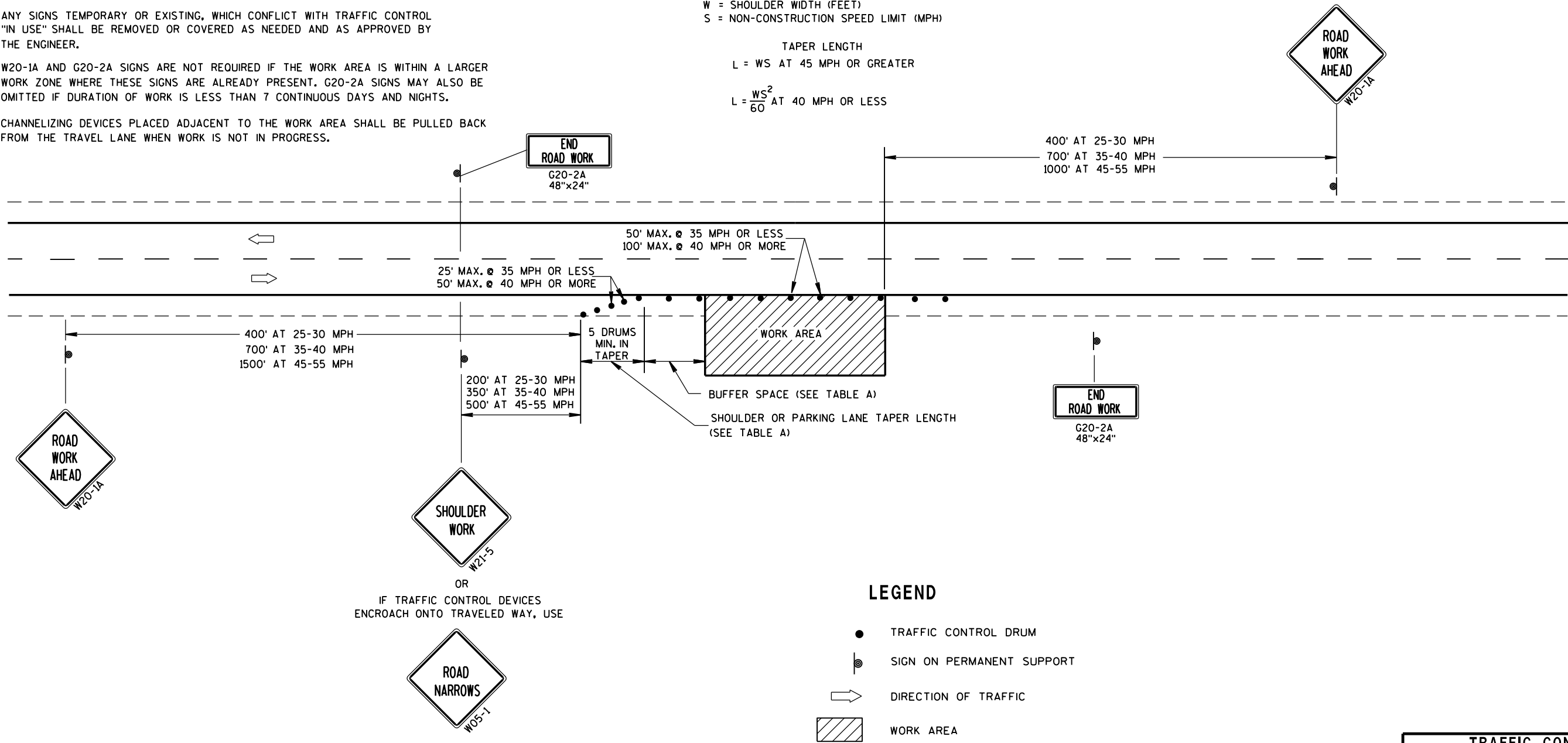
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015 /S/ Peter Amak 82 tepe
DATE STATEWIDE WORK 2 RAFFIC
FHWA SAFETY ENGINEER

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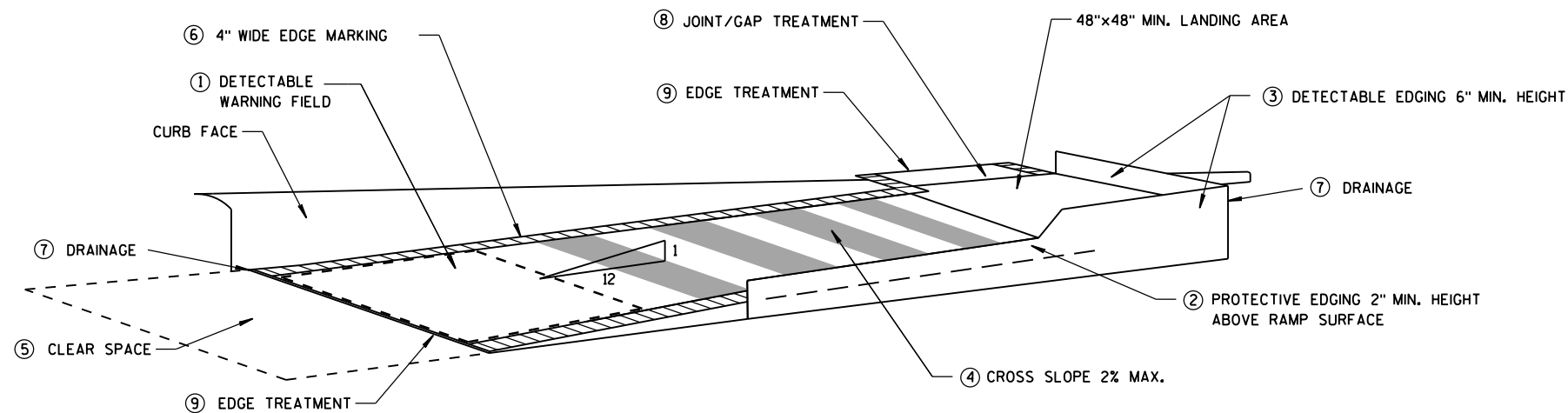
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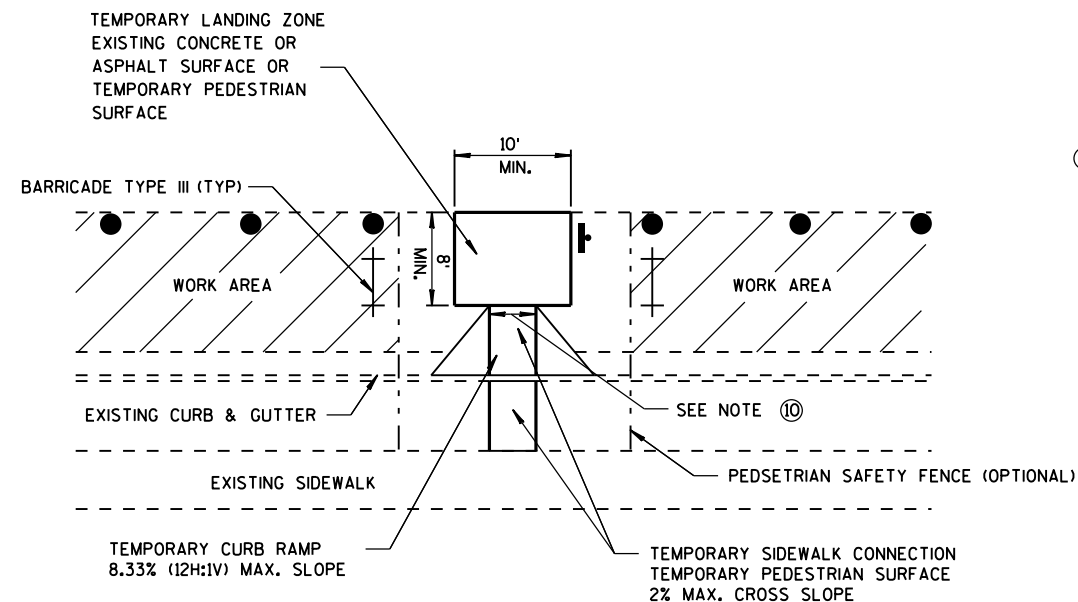
STATE OF WISCONSIN 83
DEPARTMENT OF TRANSPORTATION



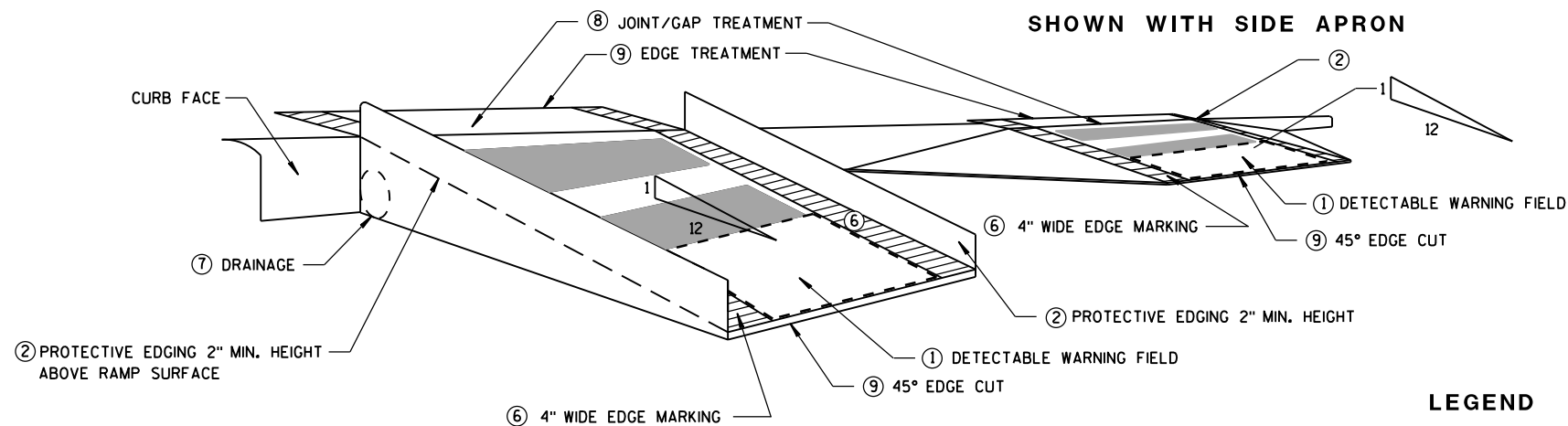
TEMPORARY CURB RAMP
PARALLEL TO CURB

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY
TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
 - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
 - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
 - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
 - 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD

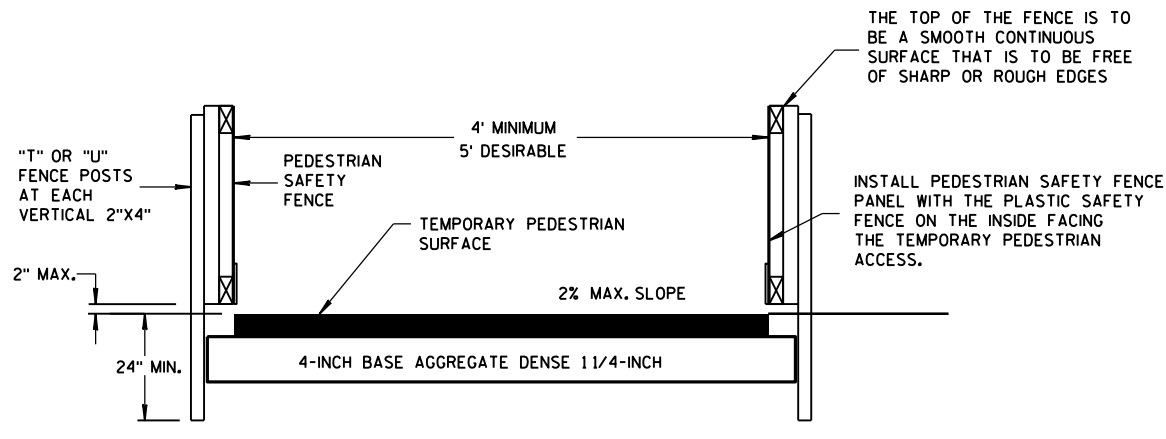


SHOWN WITH PROTECTIVE EDGE

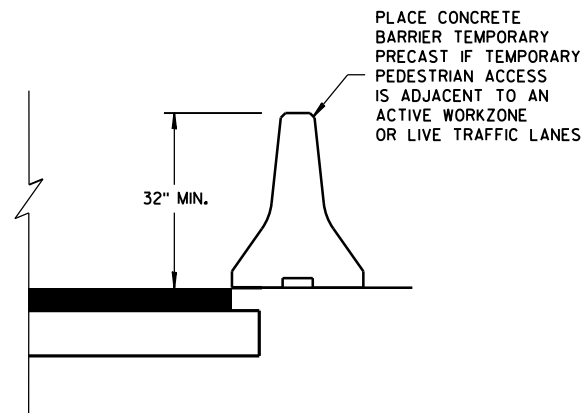
TEMPORARY CURB RAMP
PERPENDICULAR TO CURB

- LEGEND
- WORK AREA
 - TYPE III BARRICADE
 - TRAFFIC CONTROL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/S/ Peter Amakc STATEWIDE WORK Z SAFETY ENGINEER
84 TRAFFIC	
FHWA	

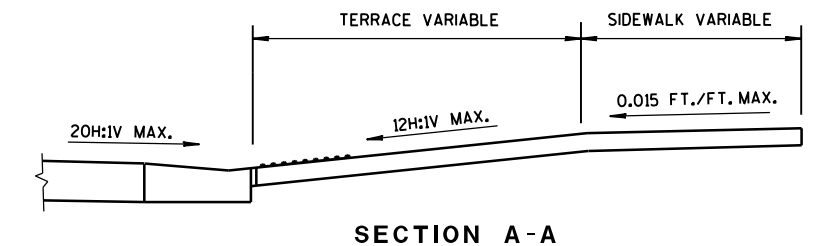


TEMPORARY PEDESTRIAN ACCESS

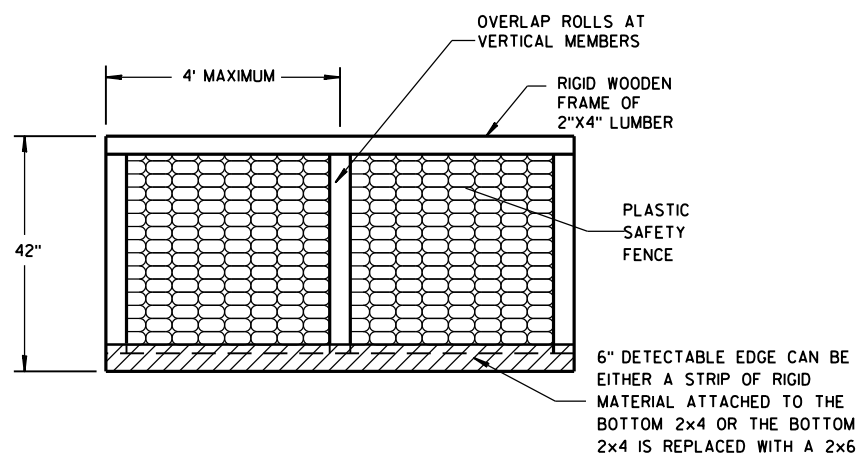


GENERAL NOTES

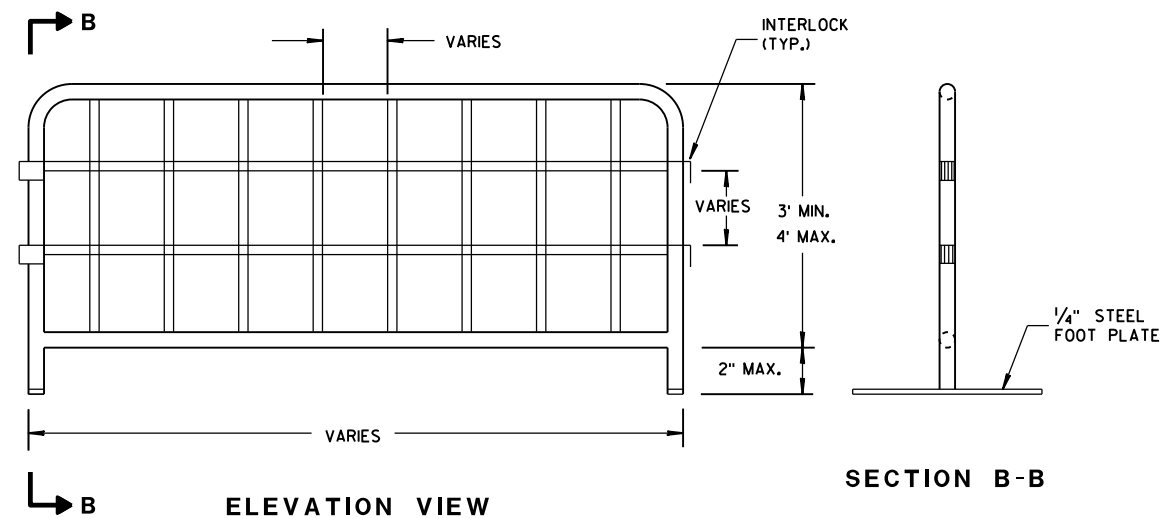
- INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



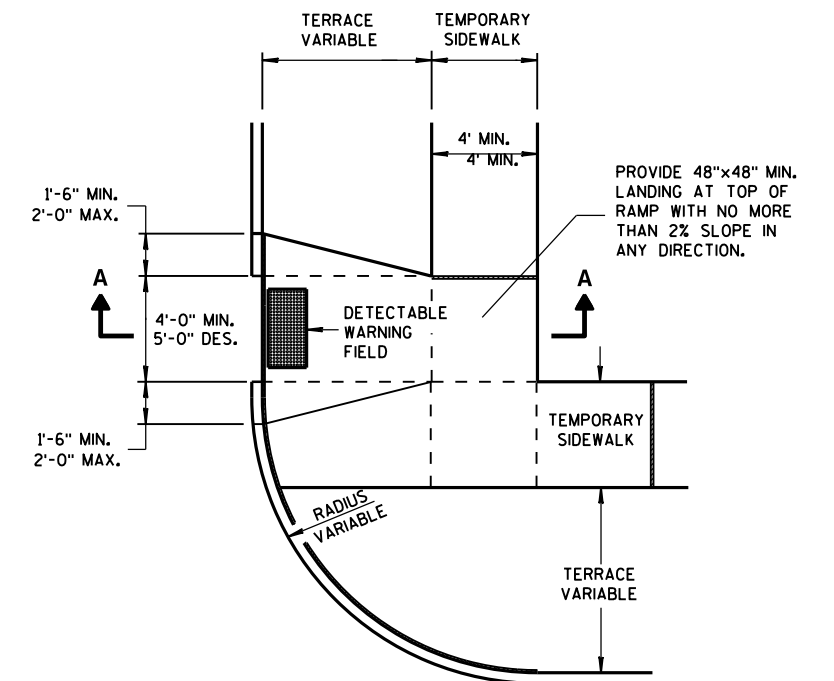
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

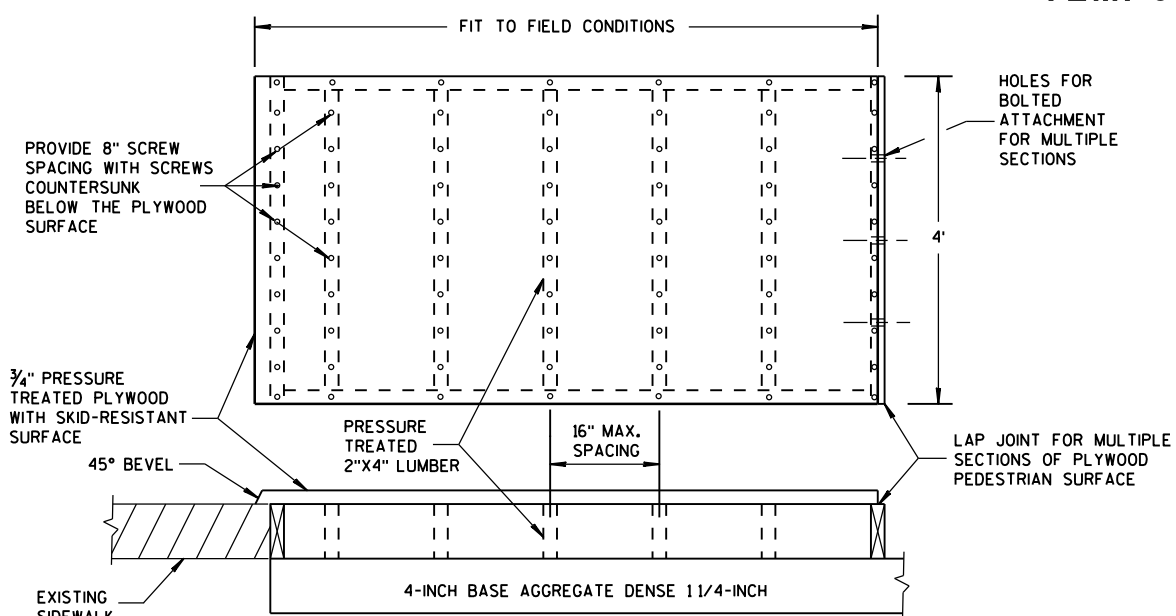
TEMPORARY PEDESTRIAN STEEL BARRICADE



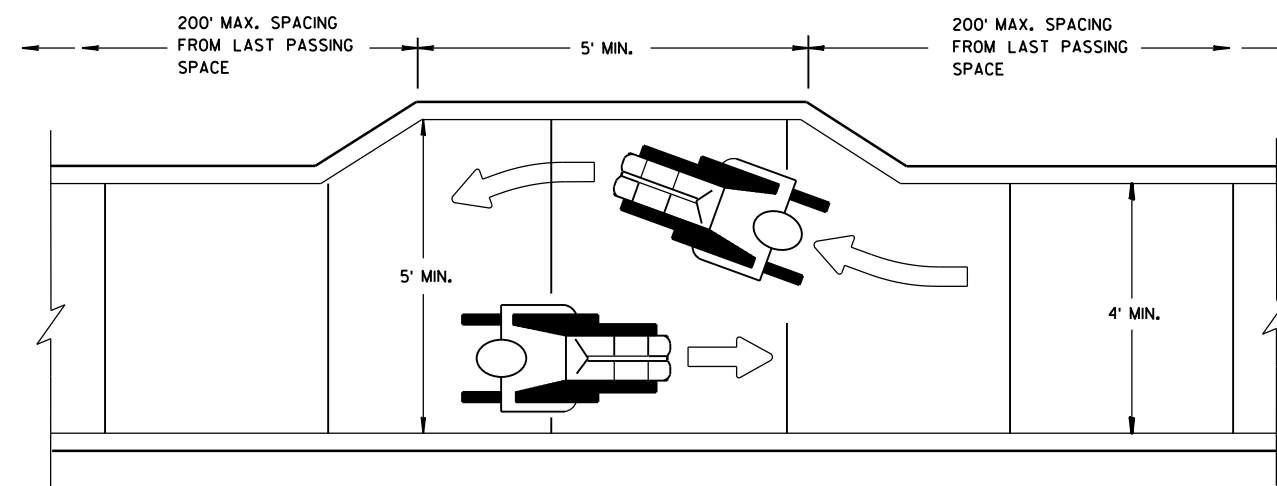
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

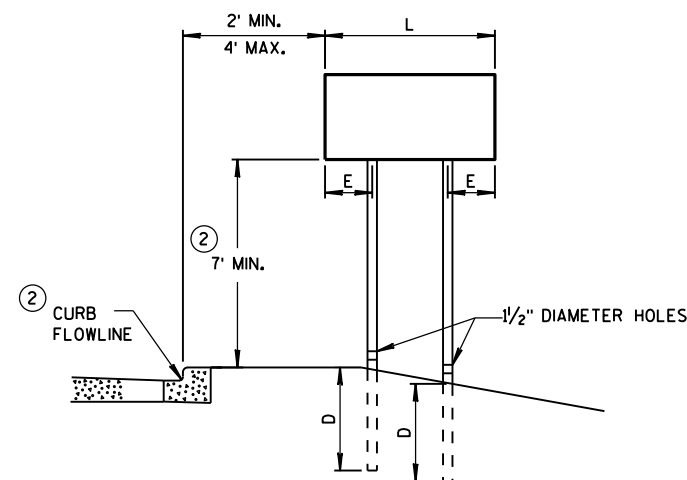
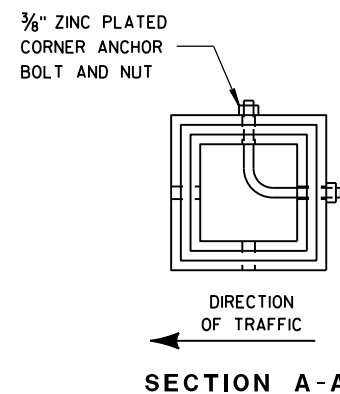
APPROVED
June 2016
DATE
FWHA
/S/ Peter Amakocha Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
85



TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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 LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

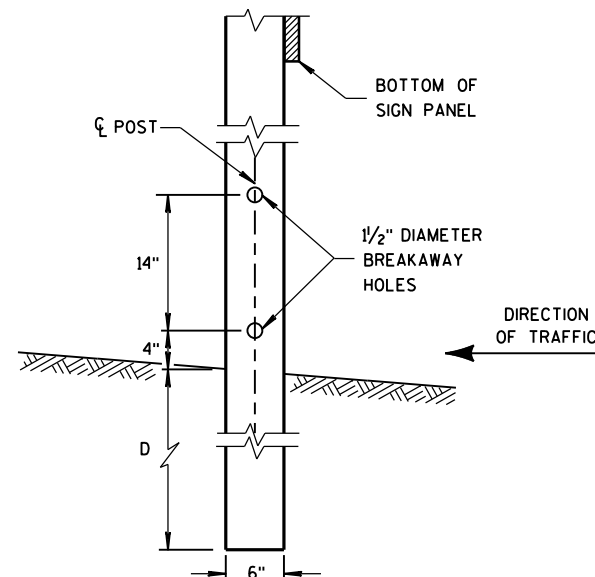


URBAN AREA

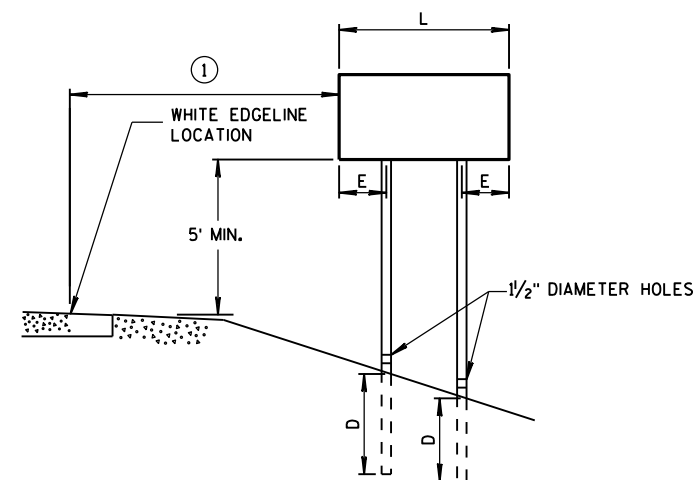
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

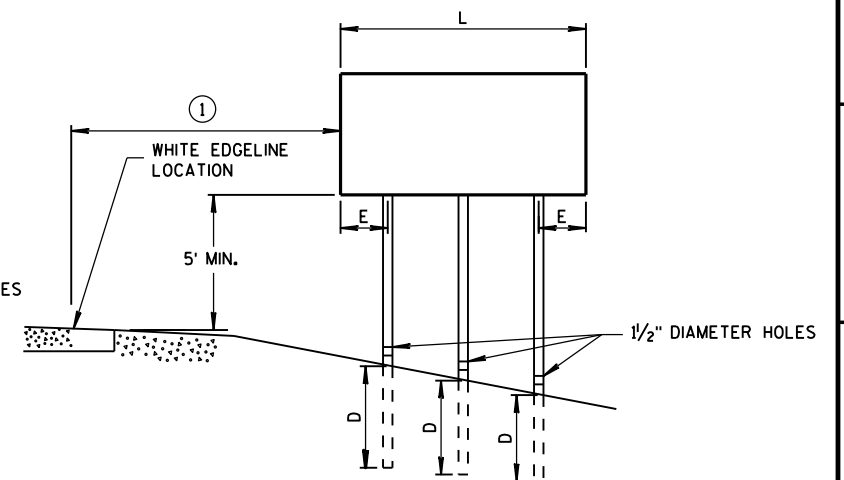
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

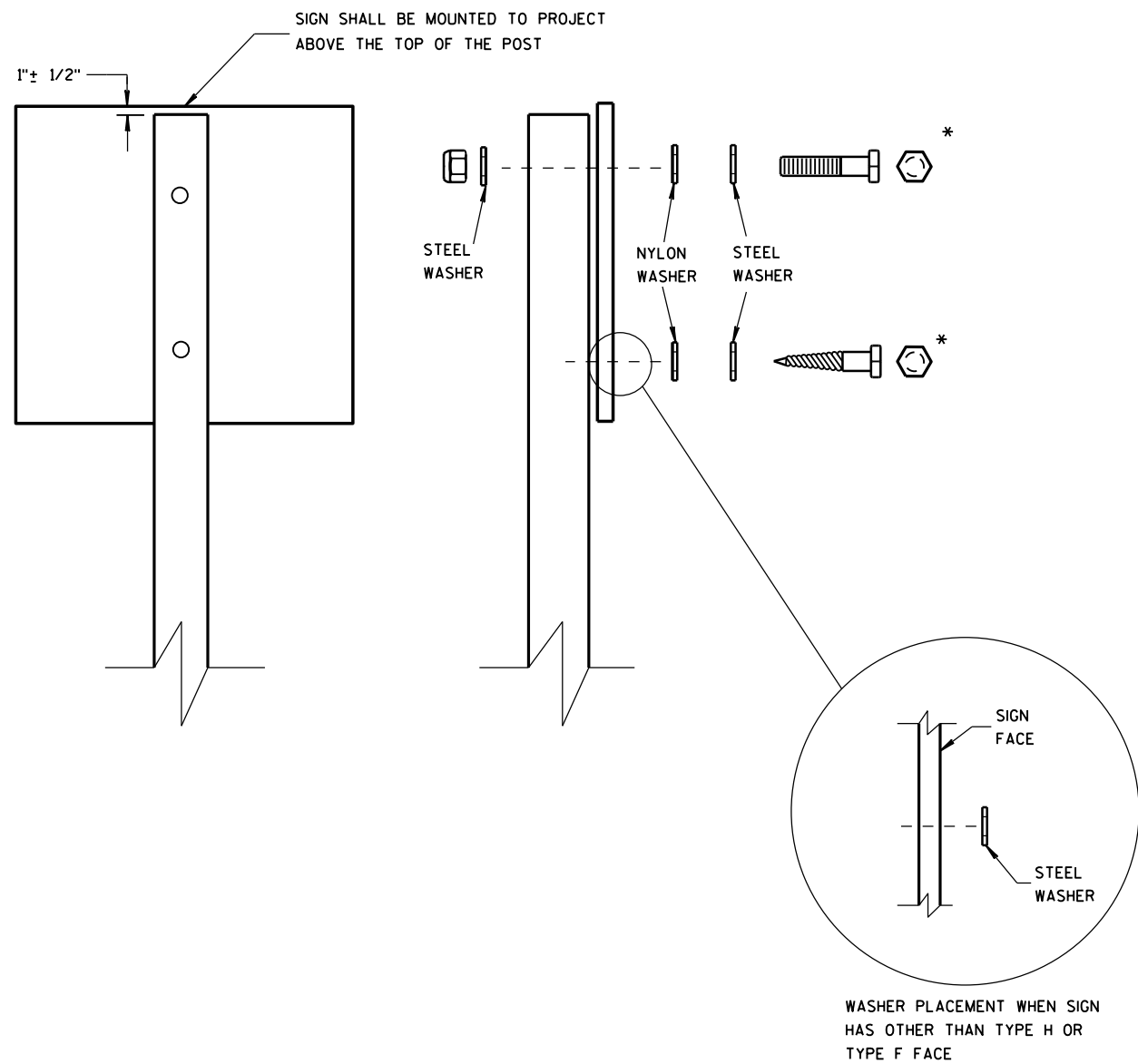
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN 86
DEPARTMENT OF TRANSPORTATION



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.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

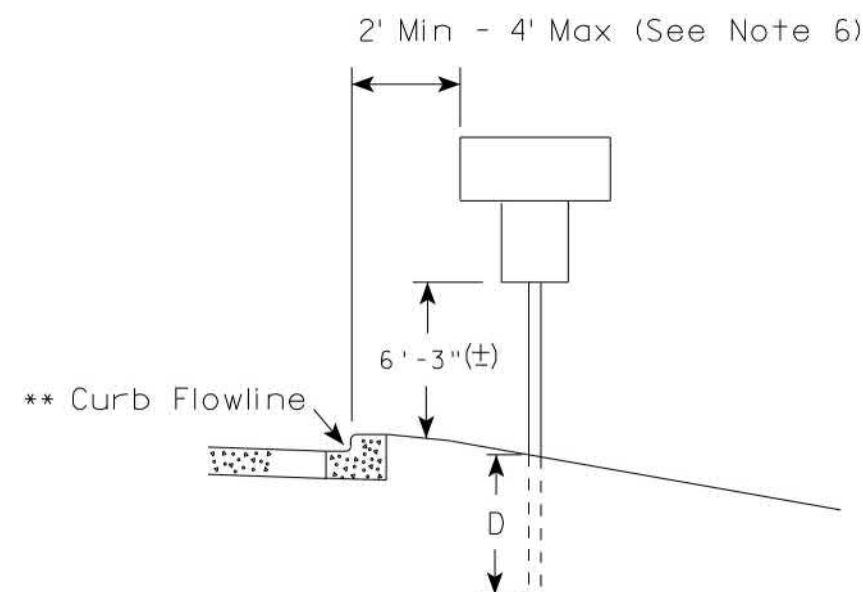
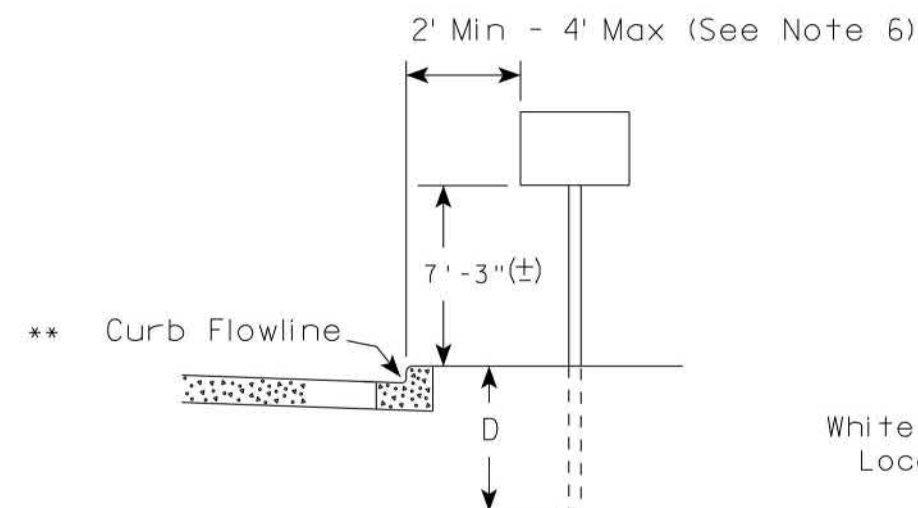
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 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

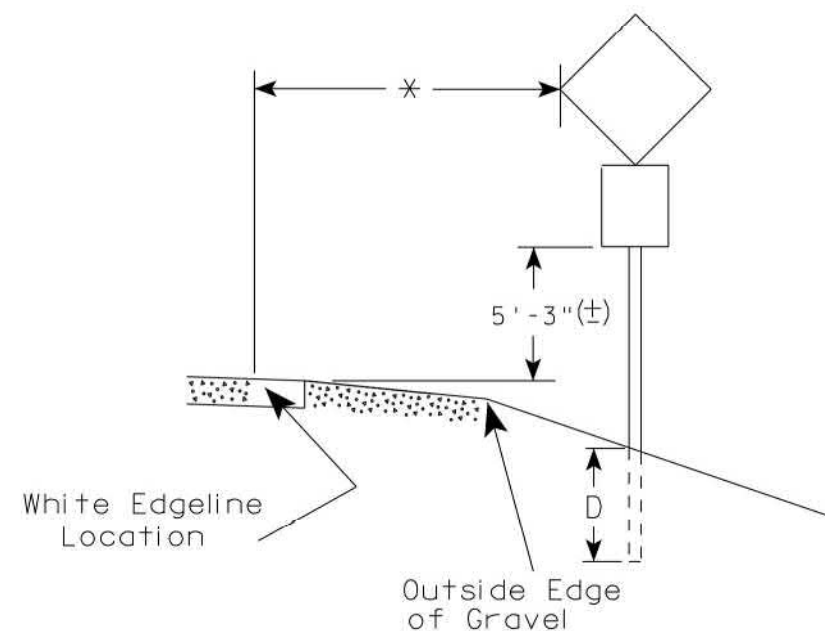
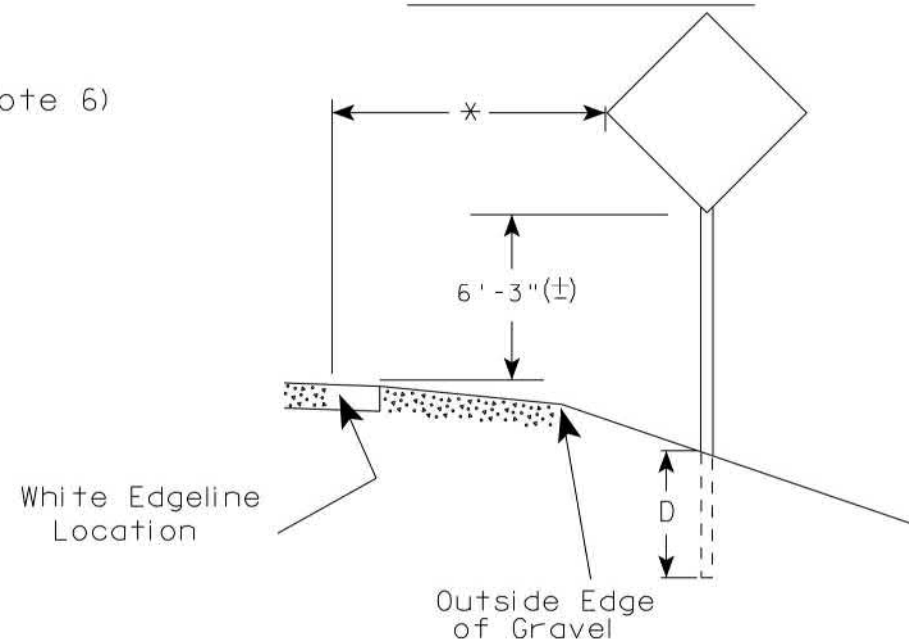
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew WORK ZONE E 87 te
FHWA	

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-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" (±).

POST EMBEDMENT DEPTH

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

×× 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.

* 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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

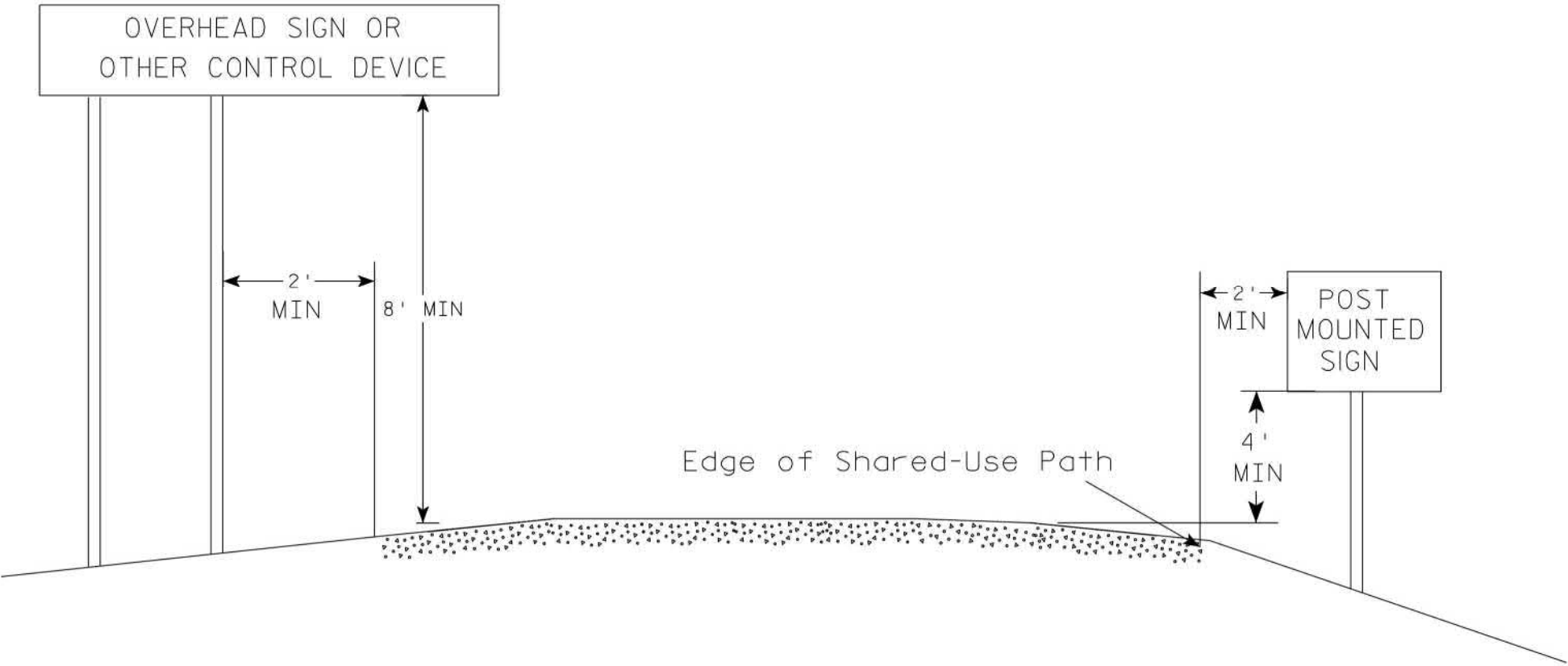
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20
88

GENERAL NOTES

- 1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
- 2. Offset distance shall be consistent with existing signs or consistent throughout length of project.



POST EMBEDMENT DEPTH

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

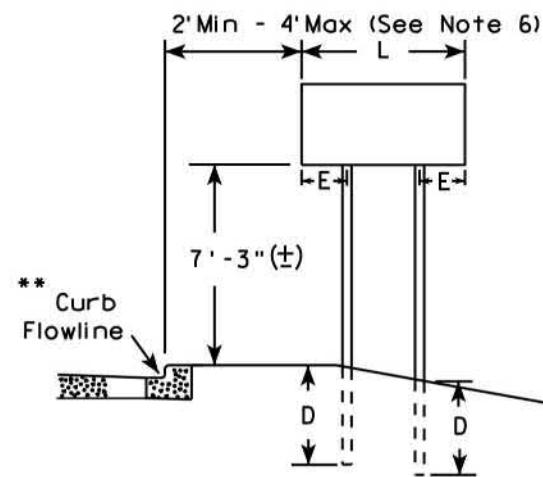
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON MULTI USE PATHS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/5/2012 PLATE NO. A4-3S.1

URBAN AREA



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

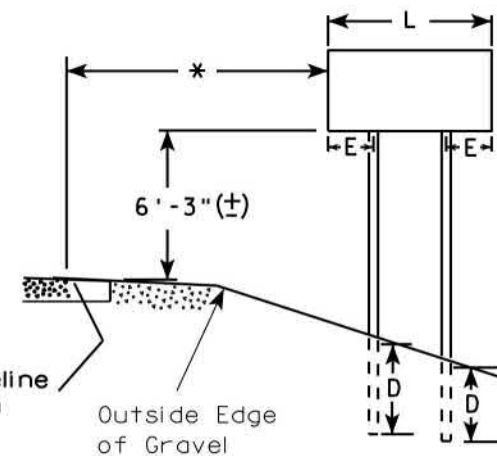
** Curb Flowline

6'-3" (±)

D

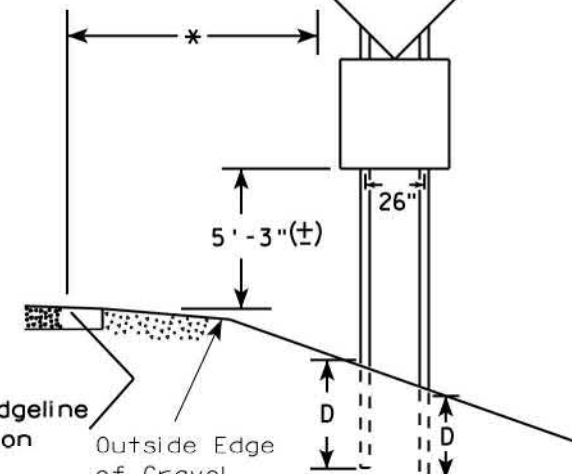
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)



White Edgeline Location

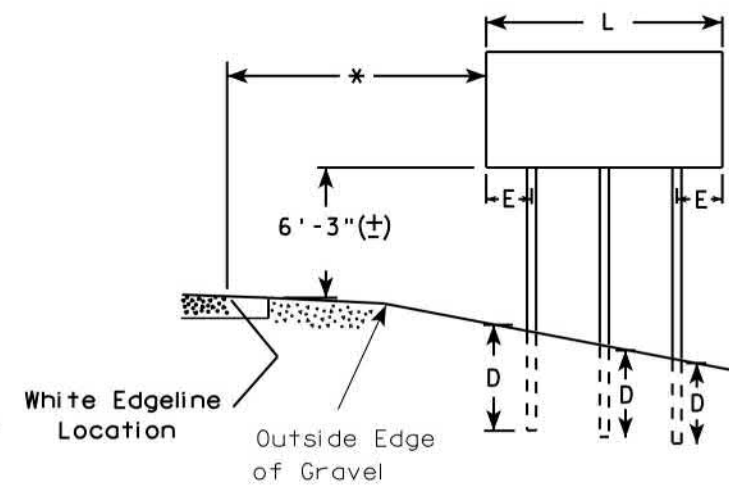
Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel

48" DIAMOND WARNING SIGN



White Edgeline Location

Outside Edge of Gravel

* 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 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	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 7/23/15

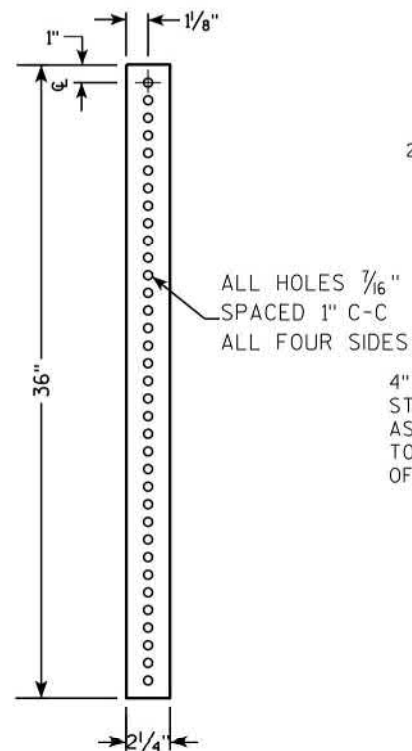
PLATE NO. 90 4.14

GENERAL NOTES

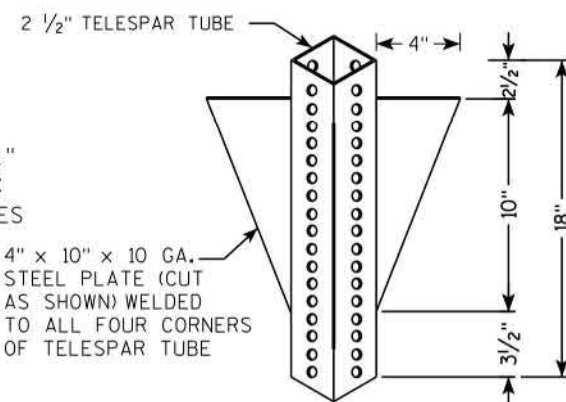
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- 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" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-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" (±).

TELESCOPIC TUBING ANCHORS TWO PIECE SYSTEM

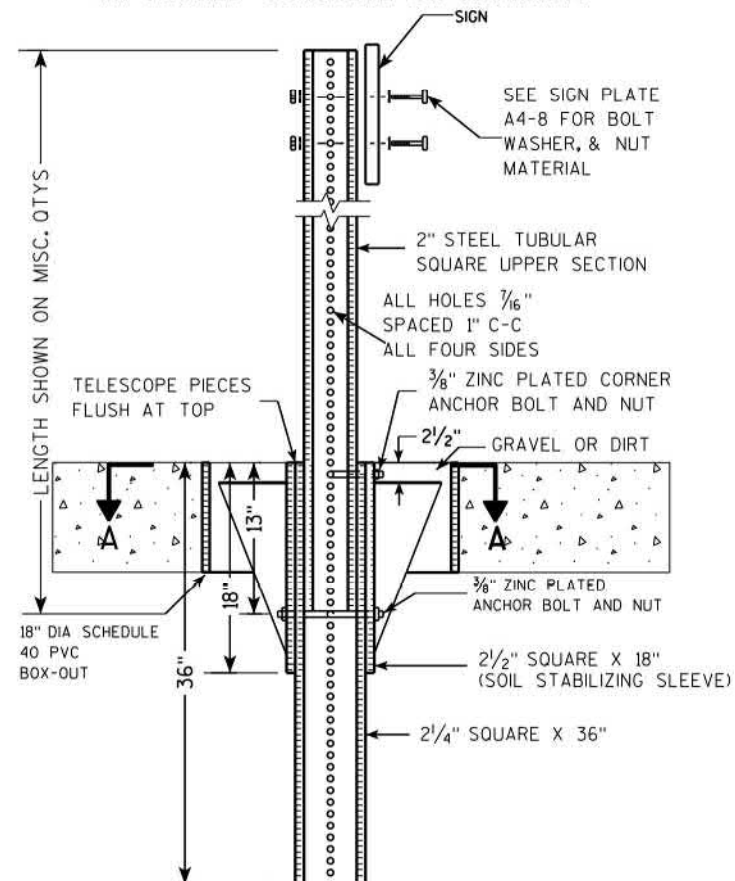
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



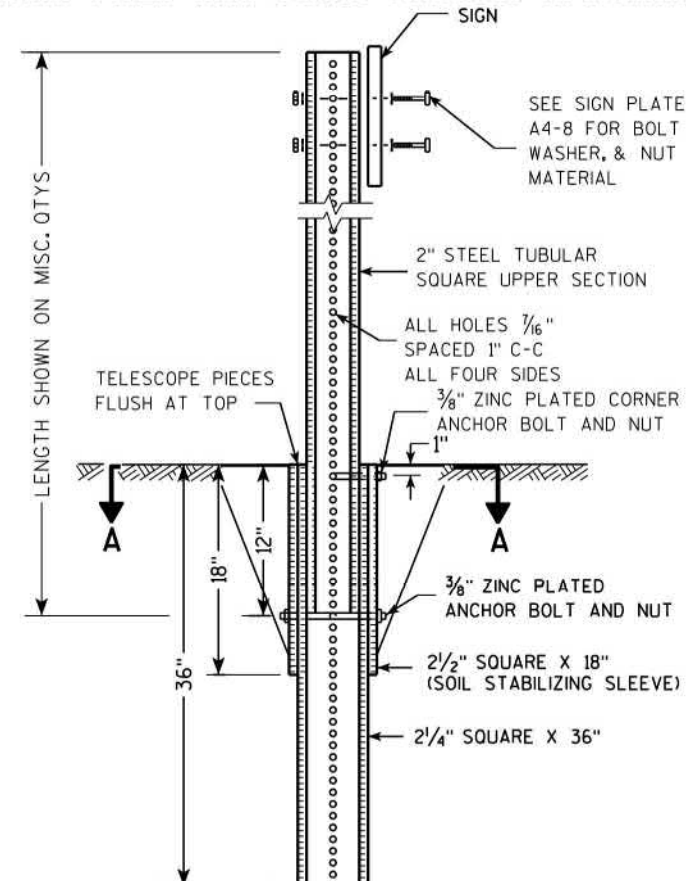
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



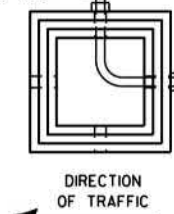
DETAIL OF TUBULAR STEEL SIGN POST (IN POURED CONCRETE OR ASPHALT)



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



3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



SECTION A-A

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

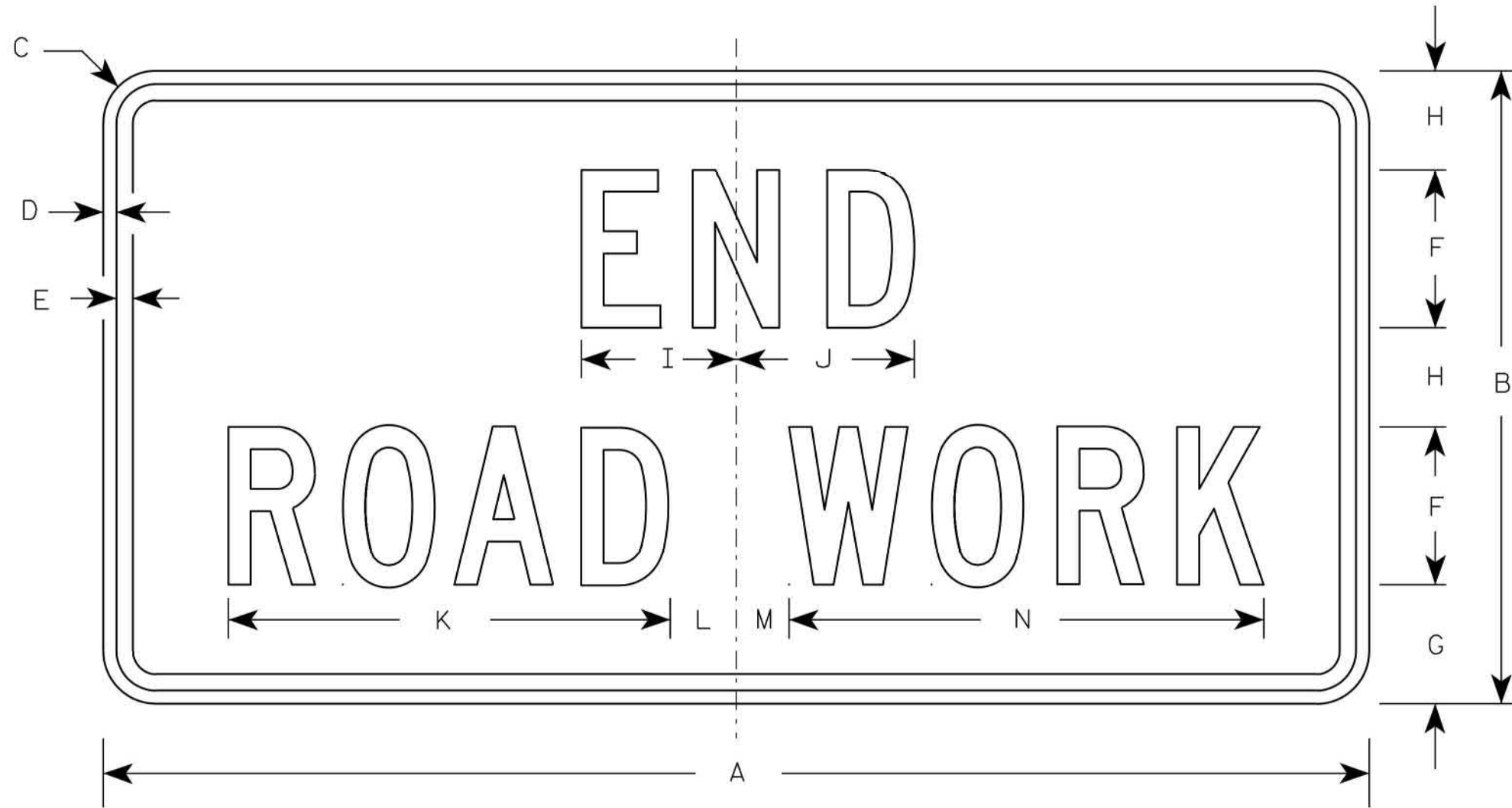
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLA 91 A4-9.9



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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.	Area sq. m.
1	36	18	1 1/8	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	0.41
2	48	24	1 1/2	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	0.72
3	48	24	1 1/2	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	0.72
4	48	24	1 1/2	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	0.72
5	48	24	1 1/2	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	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 92

E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Green
Message - White - Type H Reflective
- 3. Message Series - E
- 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.



M1-94

* Minimum dimension is normally height of upper case letter.

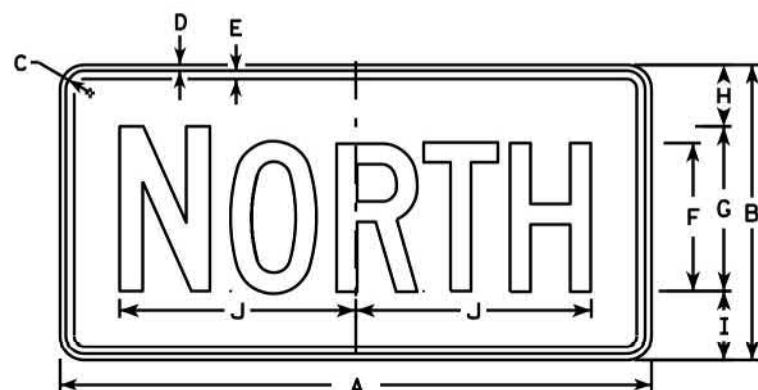
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	Varies	15	2 1/4		3/4	4 1/2	6	5	4 1/8	8 5/8	5 1/4	14 5/8	7 3/4	6	8 1/2			30									Varies
3																											
4	Varies	21	3		1	6	8	7 1/8	4 3/4	9 1/2	5 3/4	17 1/2	9 1/4	7	12			36									Varies
5	Varies	21	3		1	6	8	7 1/8	4 3/4	9 1/2	5 3/4	17 1/2	9 1/4	7	12			36									Varies

STANDARD SIGN
M1-94

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

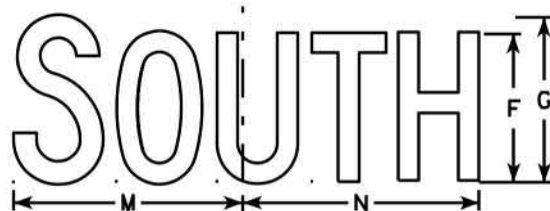
DATE 12/16/10 PLATE NO. M1-94.6



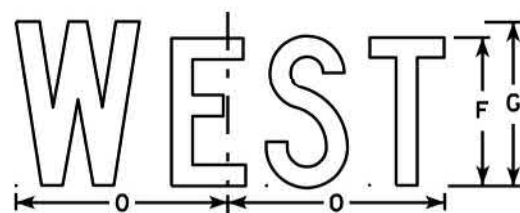
M3-1
MM3-1
MP3-1



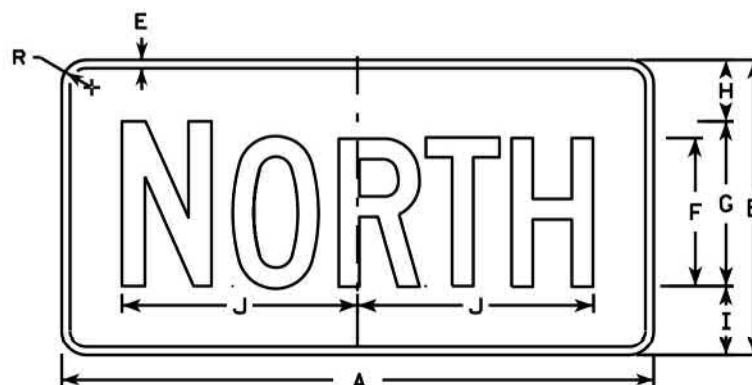
M3-2
MM3-2
MP3-2



M3-3
MM3-3
MP3-3



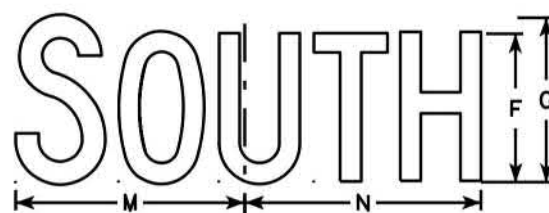
M3-4
MM3-4
MP3-4



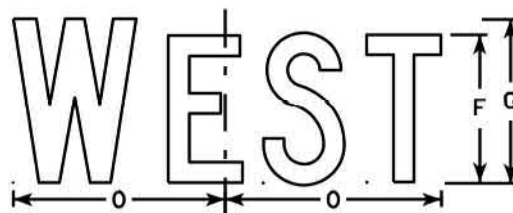
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

SIGN PLATES

SHEBOYGAN

NON-HIGHWAY

4996-22-71

NOTES

1. All Signs Type II - Type H
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																											
2	24	12	1 1/8	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			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

PROJECT NO: 4996-22-71

HWY:NON-HIGHWAY

COUNTY:SHEBOYGAN

SIGN PLATES

SHEET NO: 94

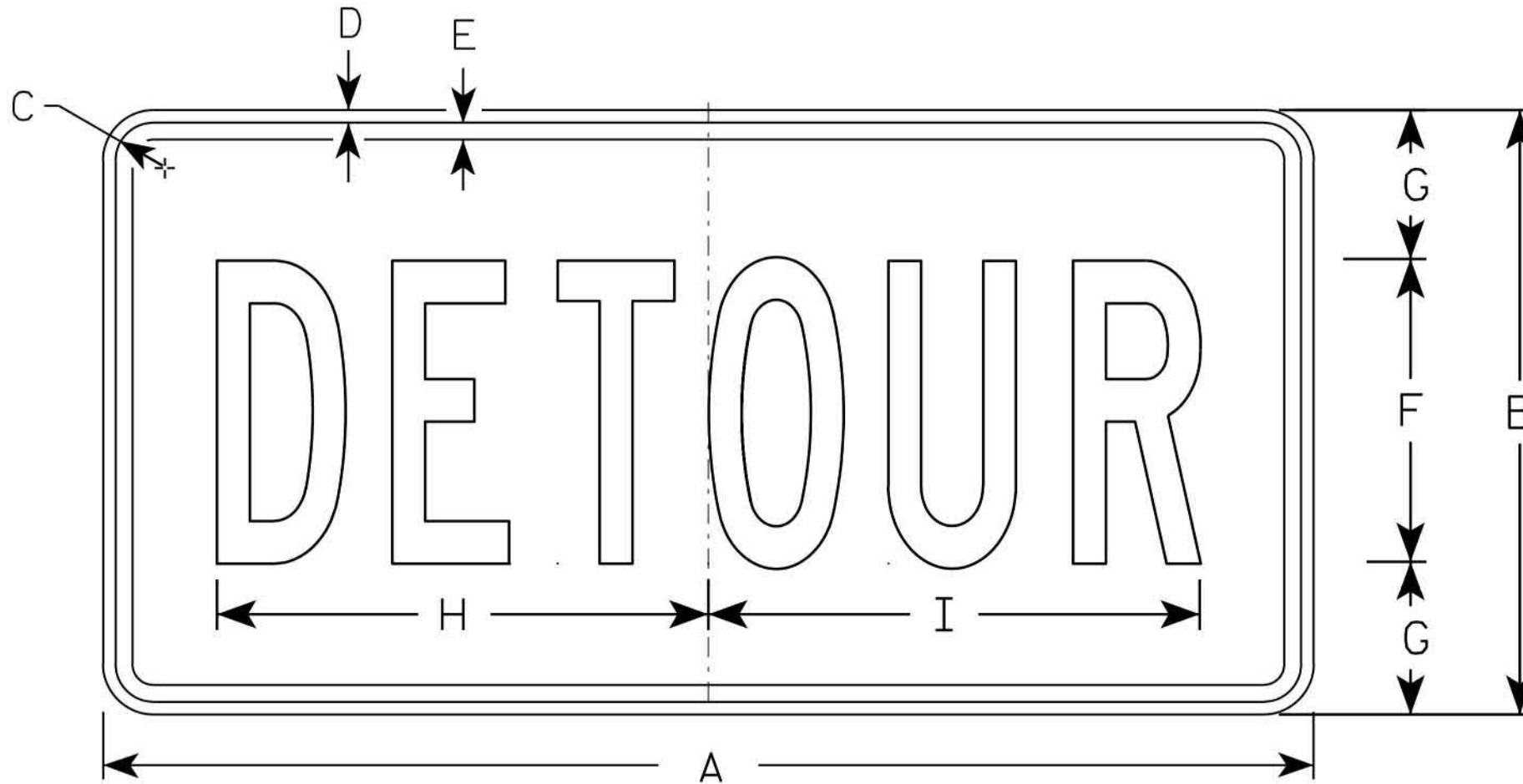
E

STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14



M4 - 8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 95

E

STANDARD SIGN

M4 - 8

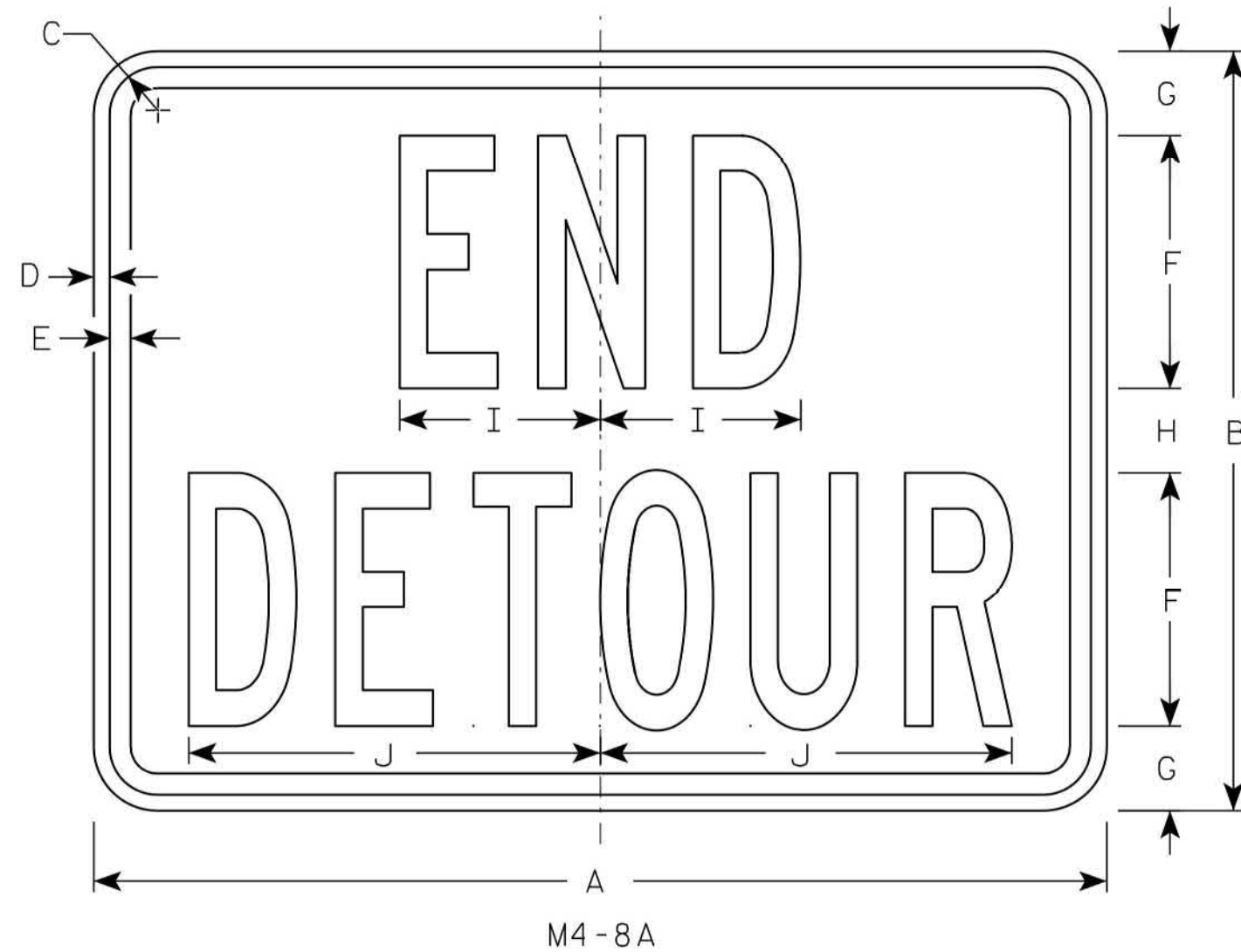
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10

PLATE NO. M4-8.2



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.

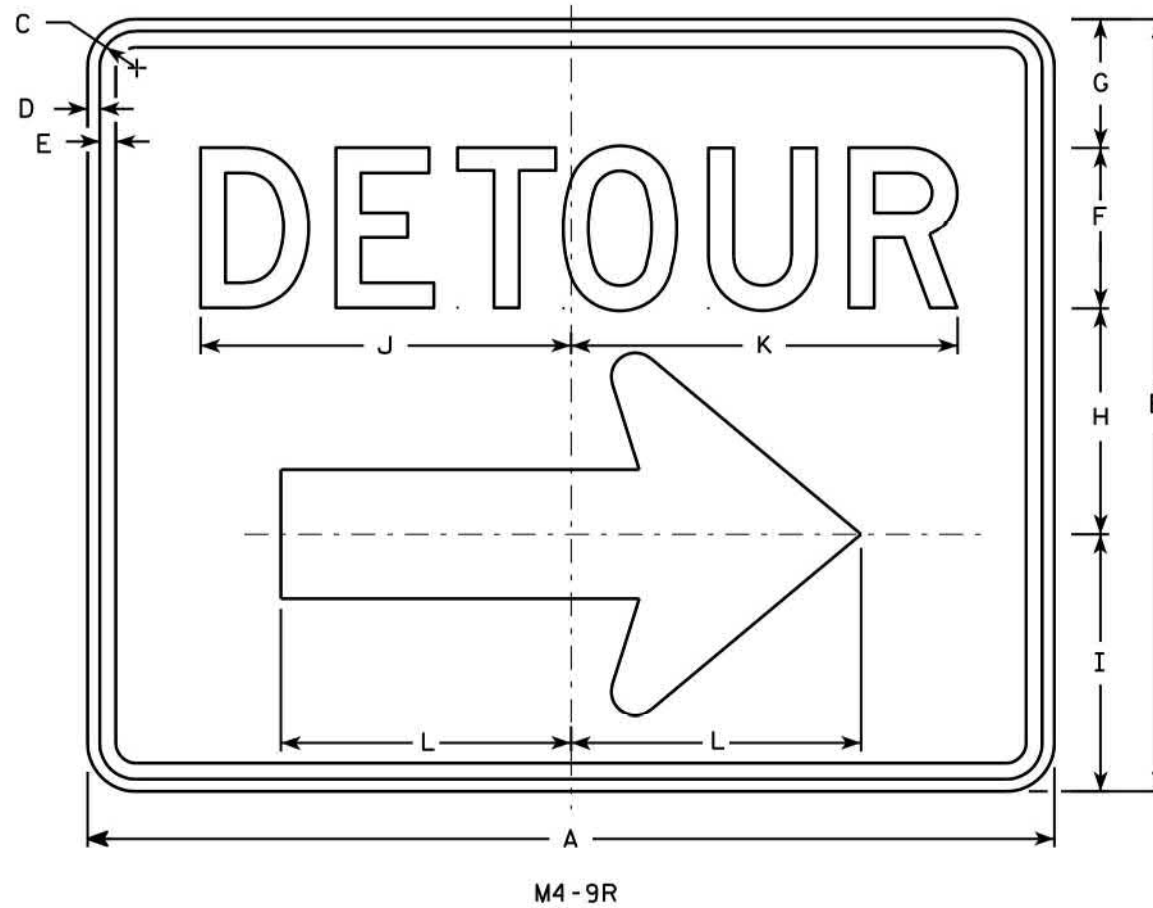
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

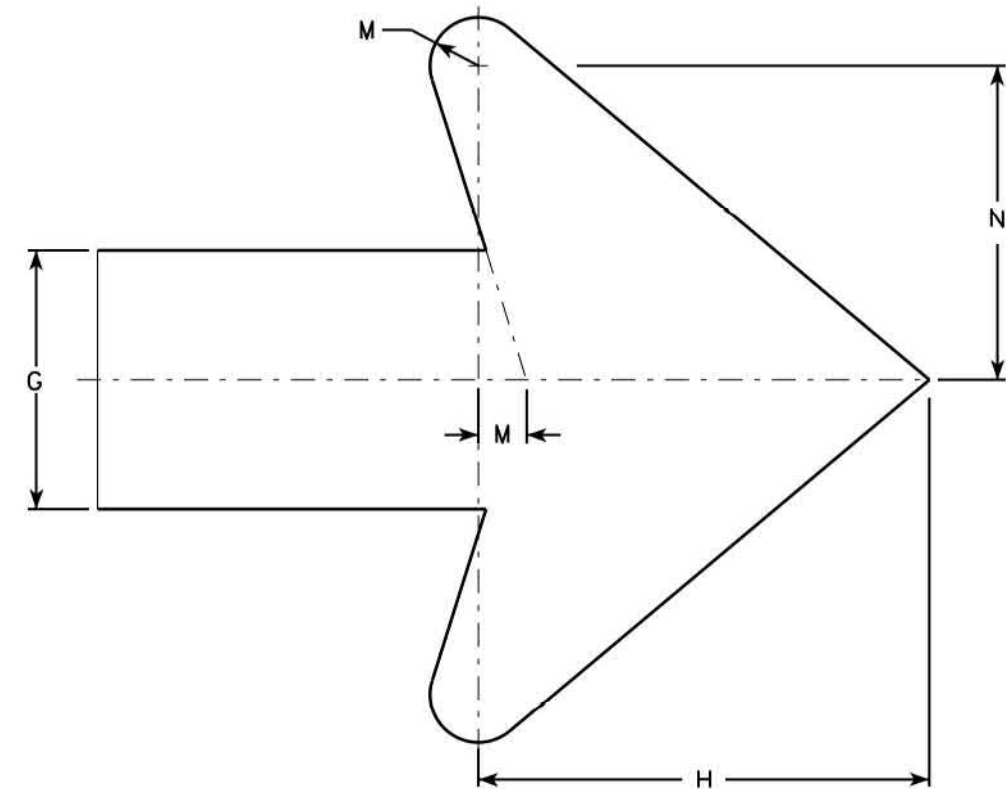
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

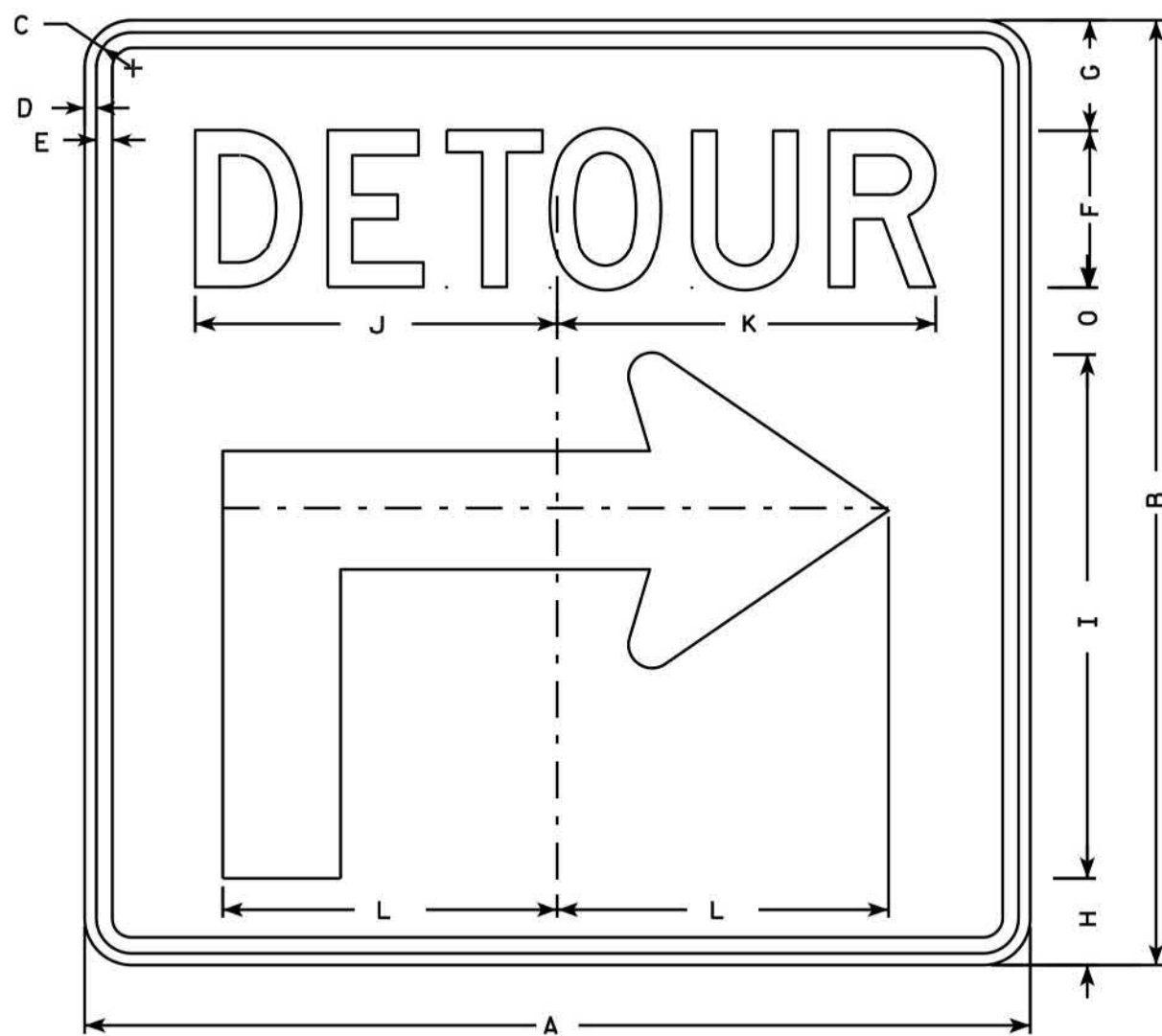
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4



M4-59R

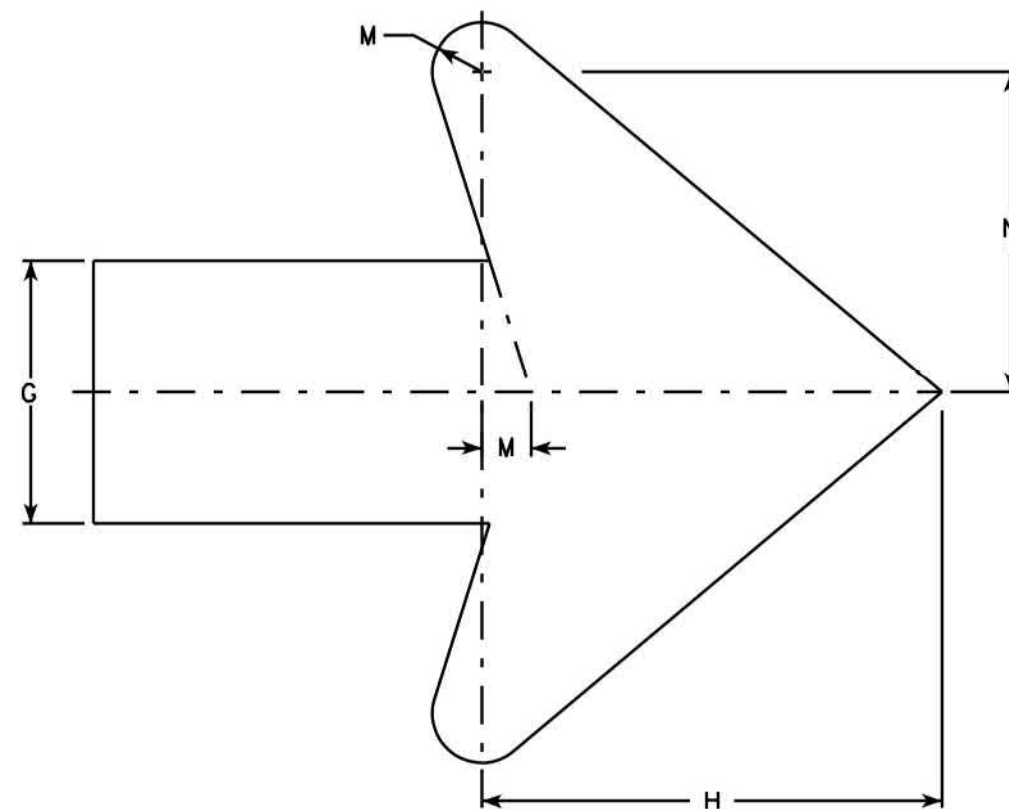
SIGN PLATES

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
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.
5. M4-59L is the same as M4-59R except the arrow is reversed.

SHEBOYGAN

NON-HIGHWAY



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	4596	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

STANDARD SIGN
M4-59 L&R

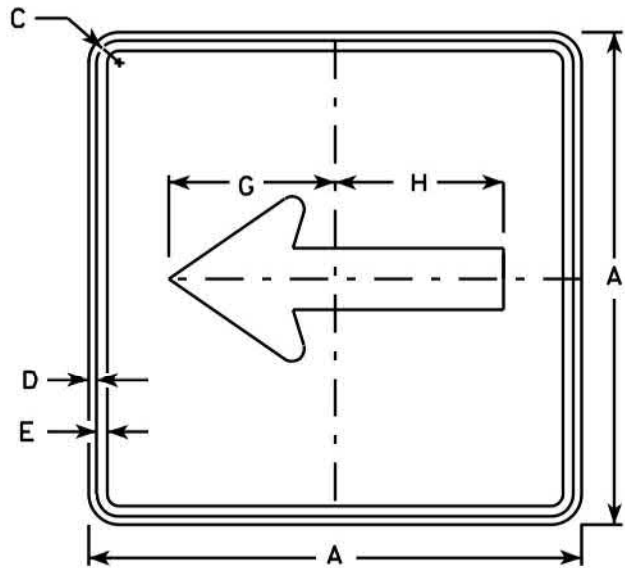
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

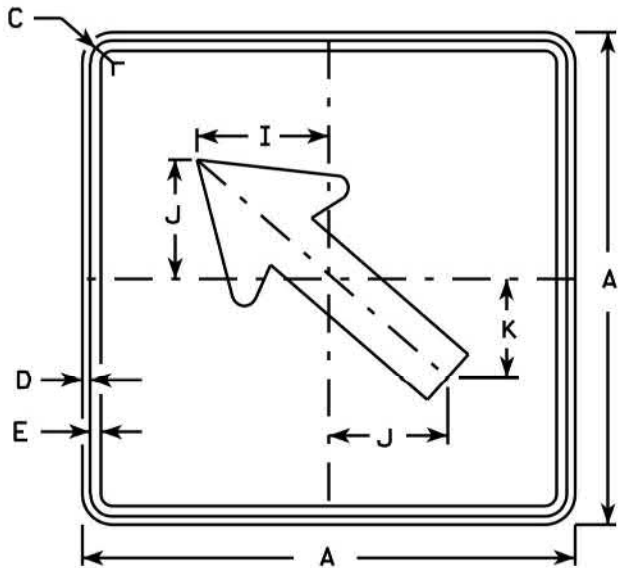
DATE 11/10/15 PLATE NO. M4-59.1

SHEET NO: 98

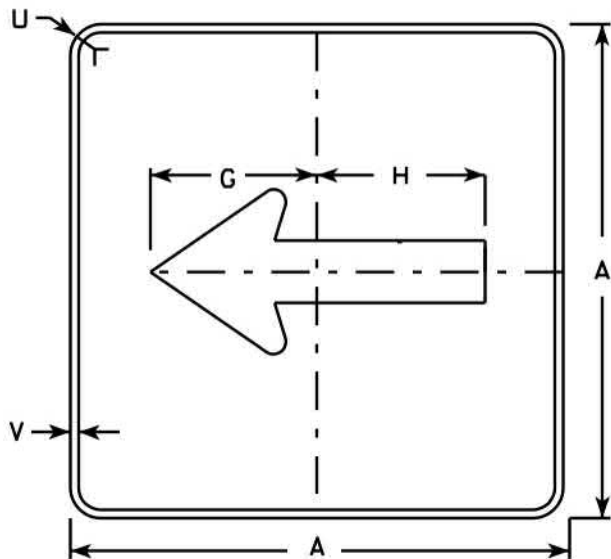
E



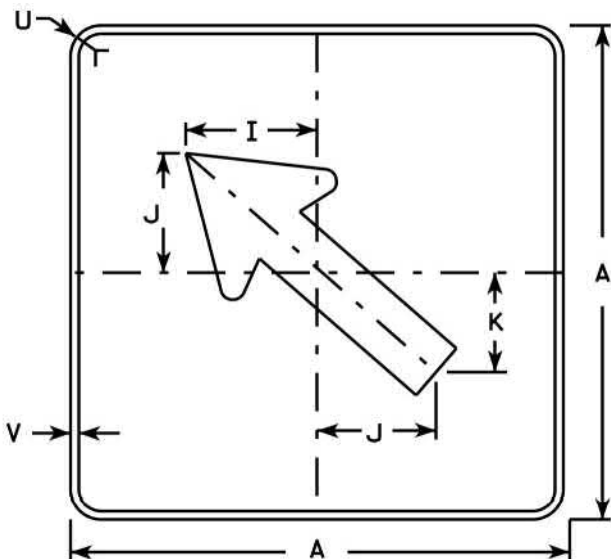
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

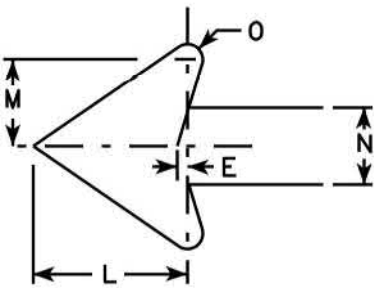


MB6-2
MK6-2
MN6-2
MR6-2

SIGN PLATES

SHEBOYGAN

NON-HIGHWAY



NOTES

- Signs are Type II - Type H 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.
- 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
MO6-1 and MO6-2 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	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 1/2	1/2					3.06
3	30		1 3/8	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 7/8	1/2					6.25
4	30		1 3/8	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 7/8	1/2					6.25
5	30		1 3/8	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 7/8	1/2					6.25

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

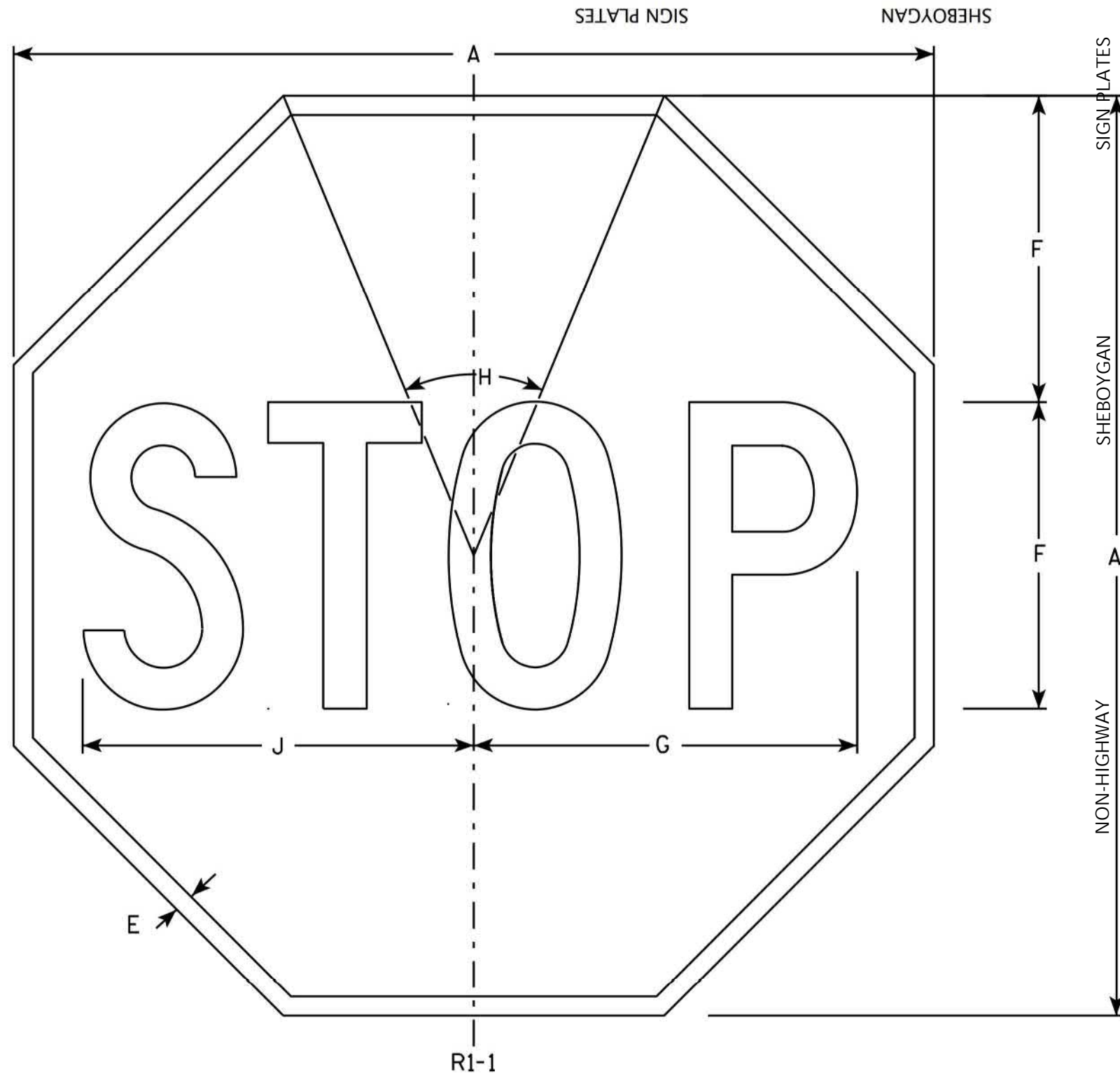
SHEET NO: E

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



- NOTES**
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Red
Message - White
 3. Message Series - C

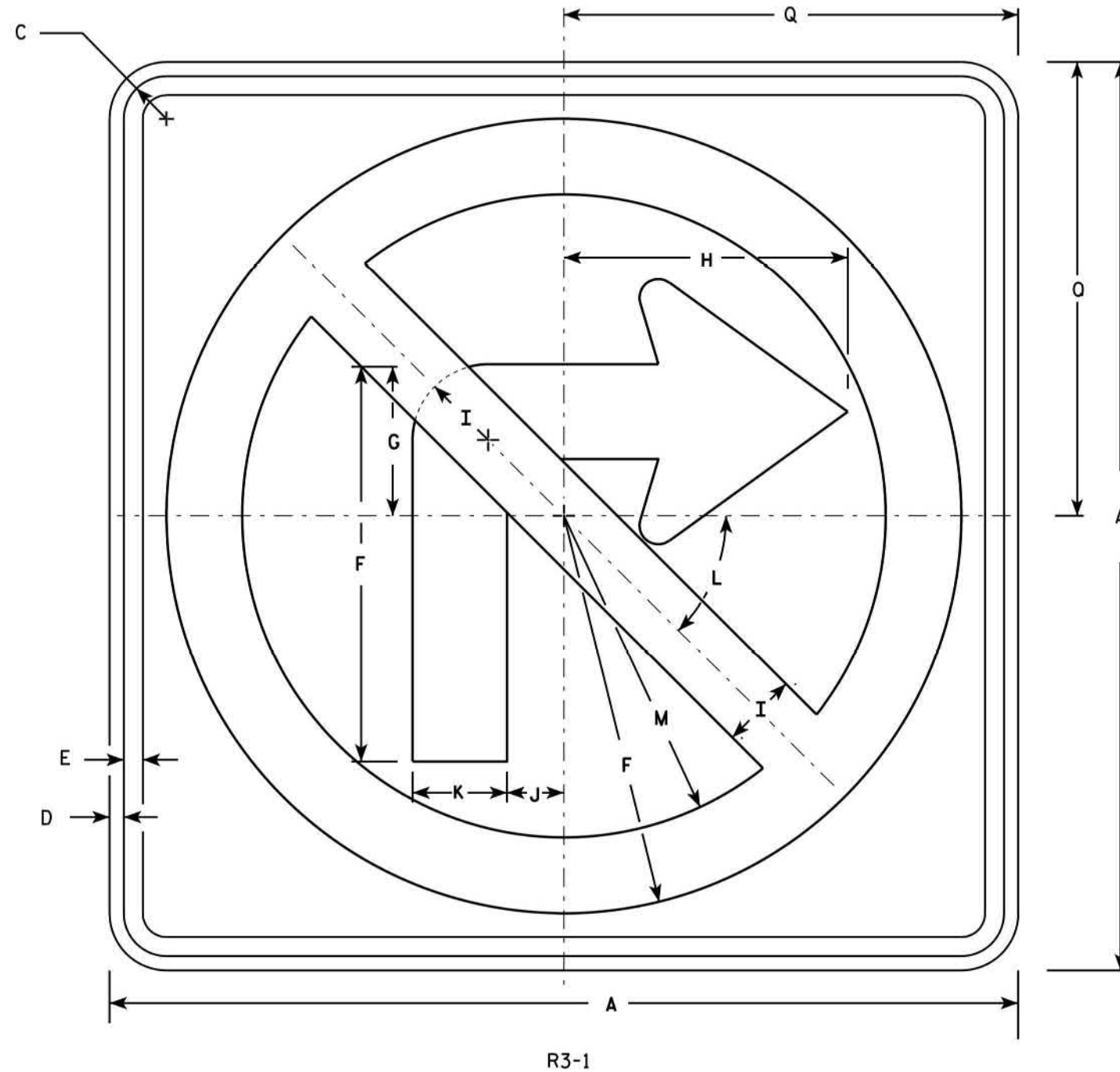
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

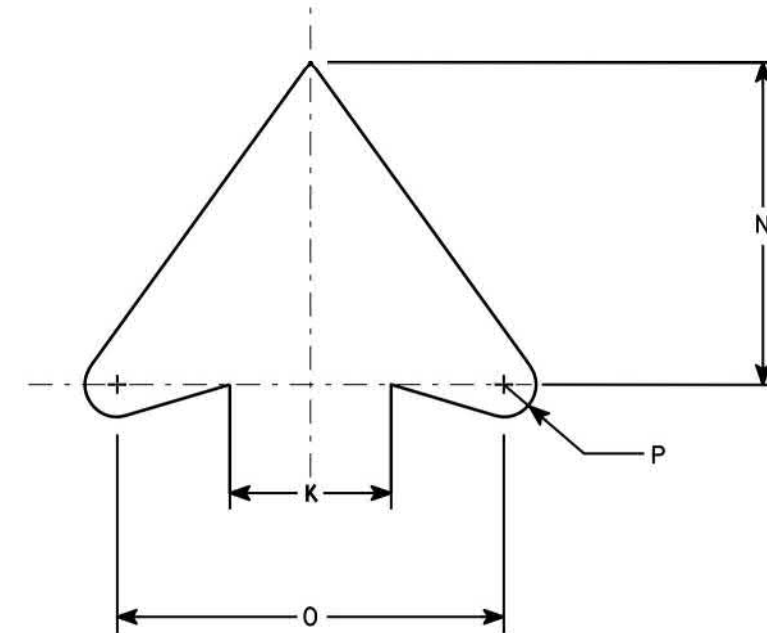
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO R1-L12

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
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. 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 1/8	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 1/8	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		1 5/8	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		1 5/8	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		1 5/8	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: 4996-22-71

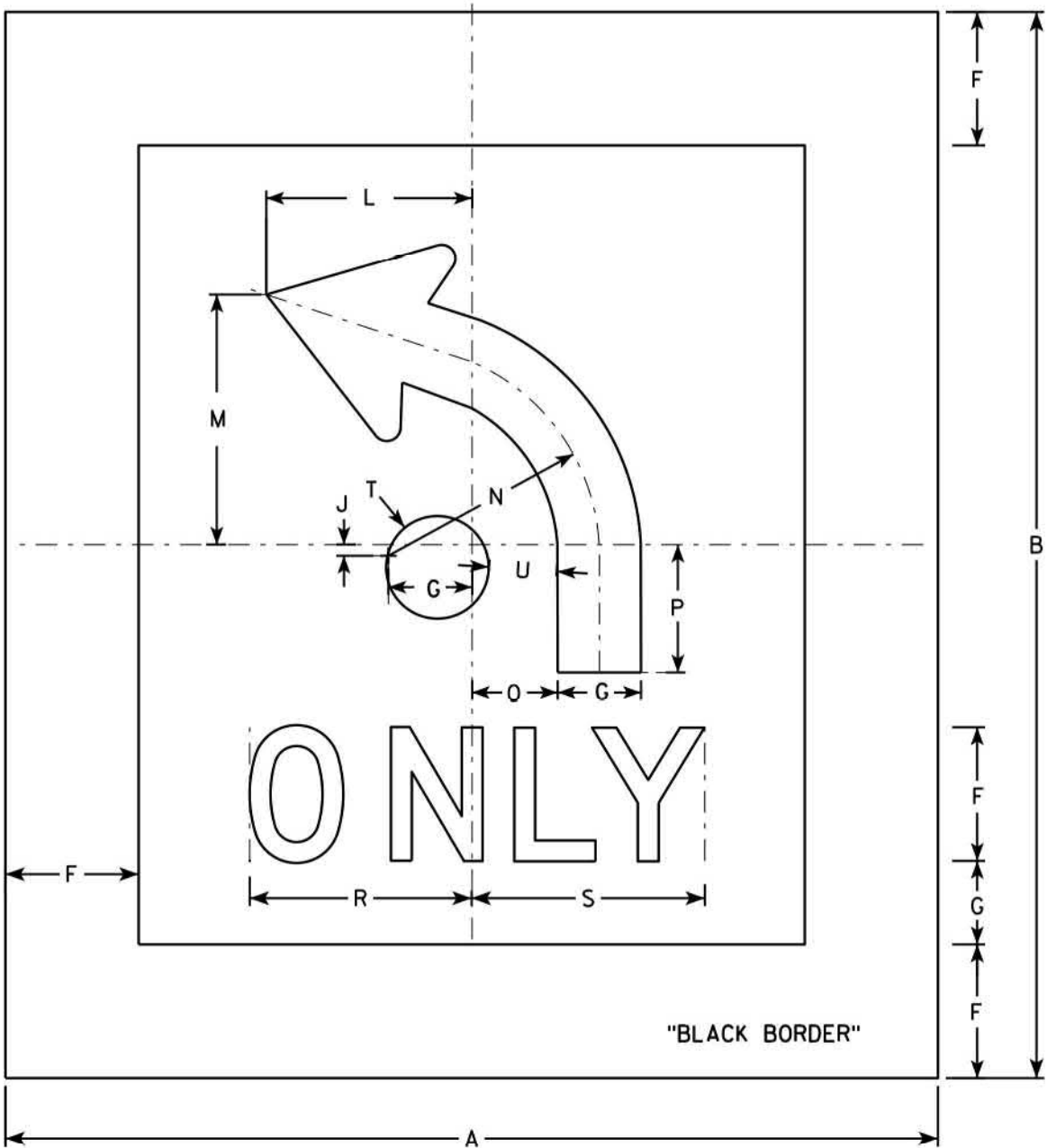
HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 101

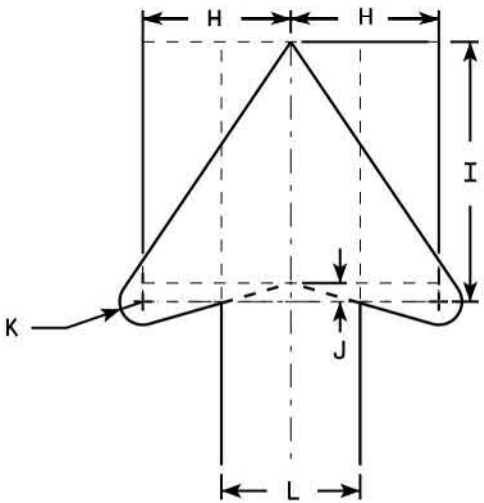
E



R3-5X

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. When base material is metal, the corners shall be rounded.
- 5. The 6" border is non-reflective black.



ARROW DETAIL

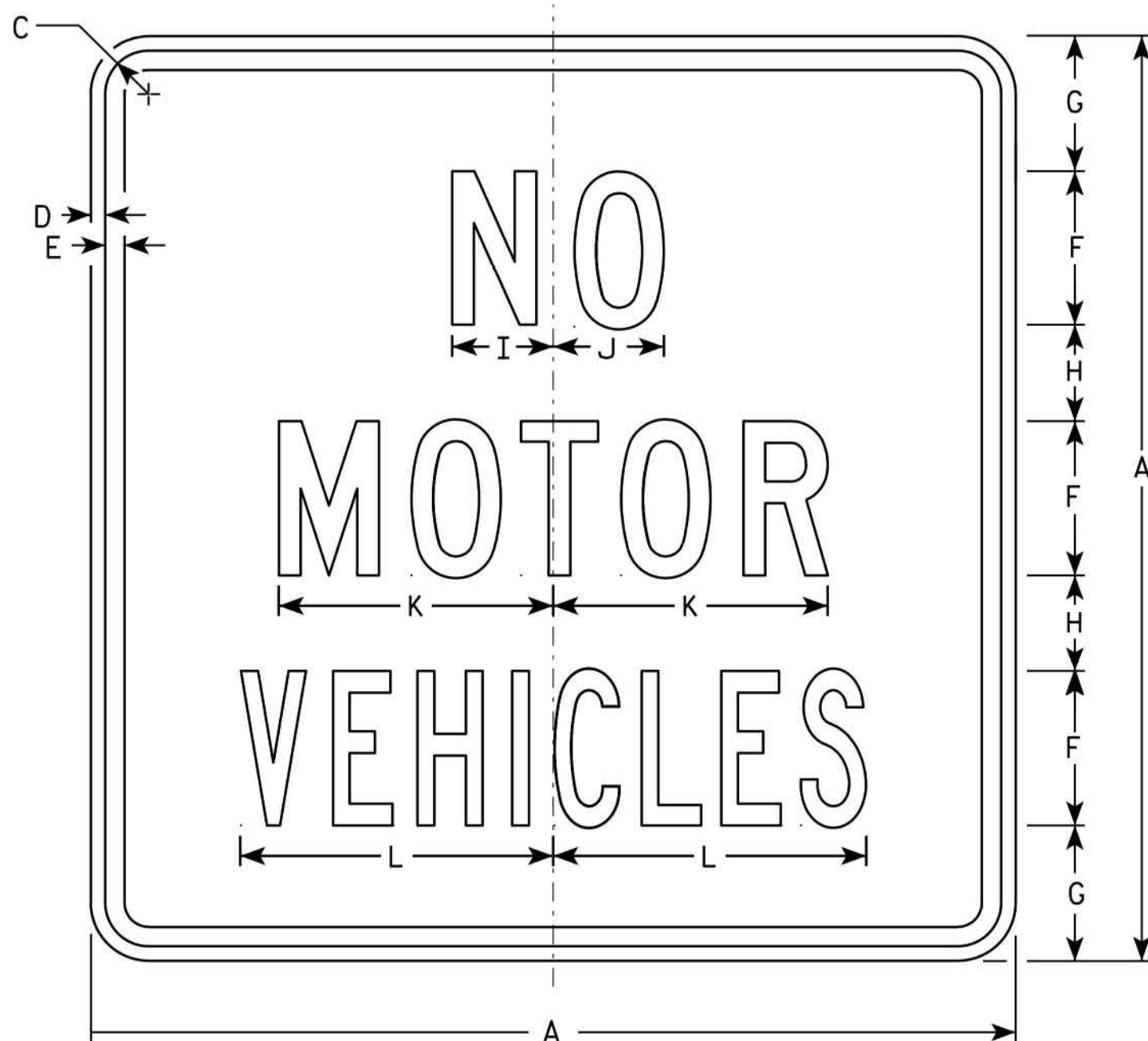
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 ¾	4	7	½	⅝	9 ¼	11 ¼	9 ½	3 ⅞	5 ¾		10	10 ½	4 ½	3						14.0
2M	42	48				6	3 ¾	4	7	½	⅝	9 ¼	11 ¼	9 ½	3 ⅞	5 ¾		10	10 ½	4 ½	3						14.0
3																											
4																											
5																											

STANDARD SIGN
R3-5X

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLA1102 R3-5X.3



R5-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
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 & 2 are Series C.
Line 3 is Series B.

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		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
3																											
4																											
5																											

STANDARD SIGN
R5-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

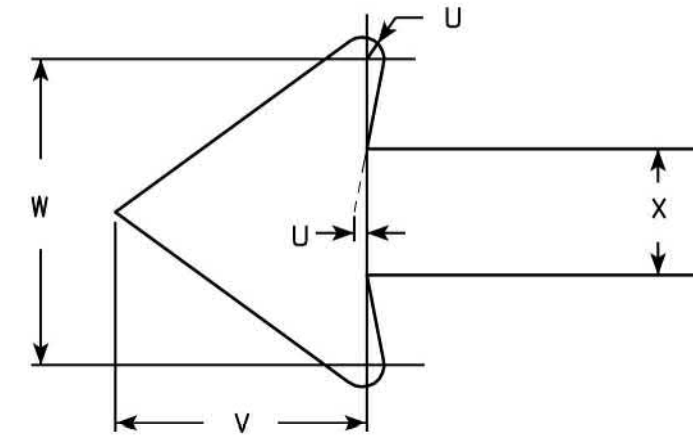
DATE 3/29/2011 PLATE NO. R5-3.2



R7-52

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
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, 3 and 4 are series C, line 2 is series B.
6. R7-52D (double arrow)
R7-52L (left arrow)
R7-52R (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 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	5 1/8	5	3 1/8	3 7/8	1/8	1 1/2	1 3/4	3/4			1.5
2S	18	24	1 1/8	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	6 3/8	6 1/4	3 7/8	5 7/8	1/4	2 1/4	2 5/8	1 1/8			3.0
2M	24	30	1 1/8	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	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
3	24	30	1 1/8	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	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
4																											
5																											

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 104

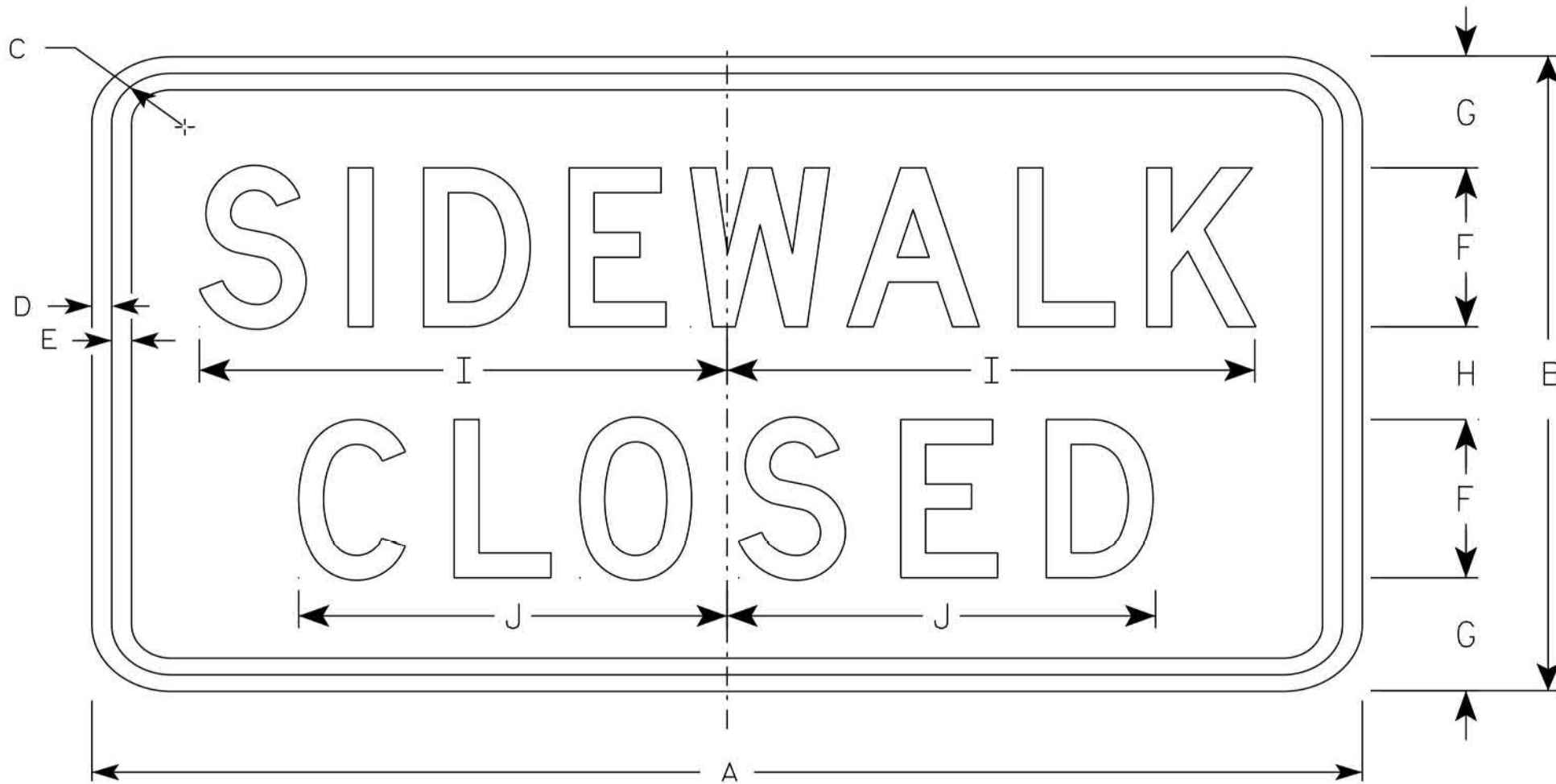
E

STANDARD SIGN
R7-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-52.6



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
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.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

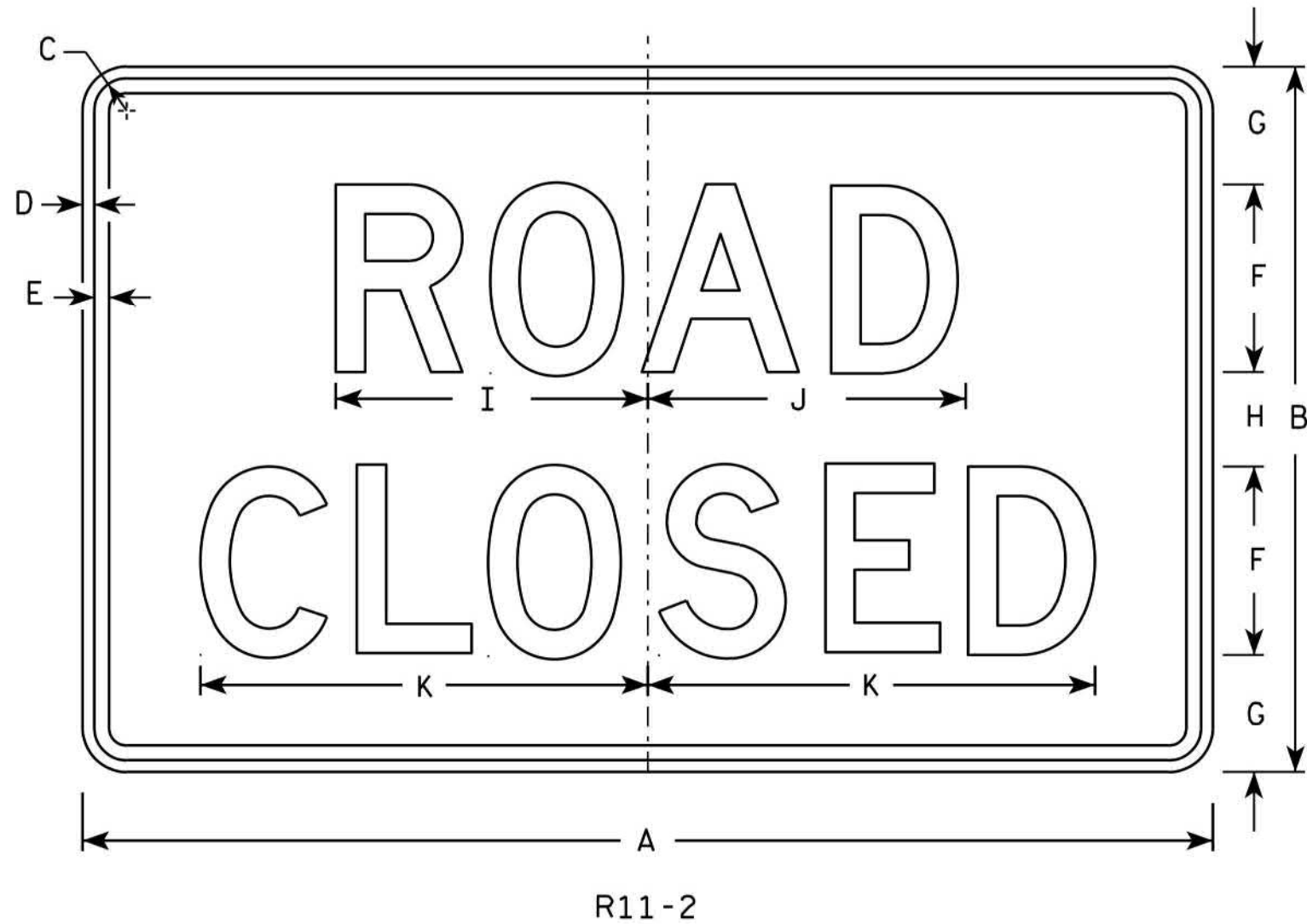
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ¾	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

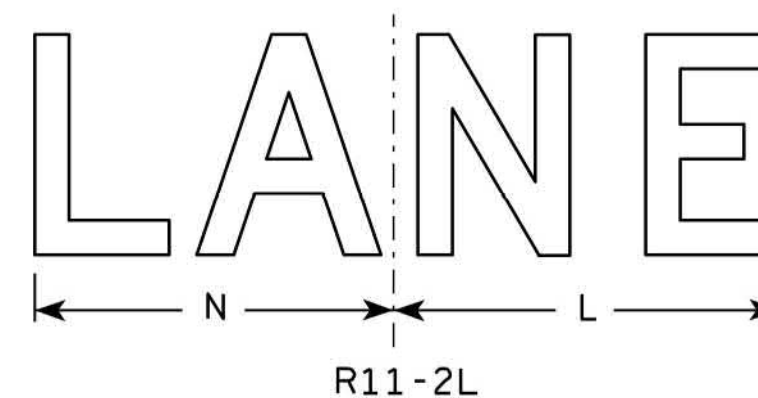
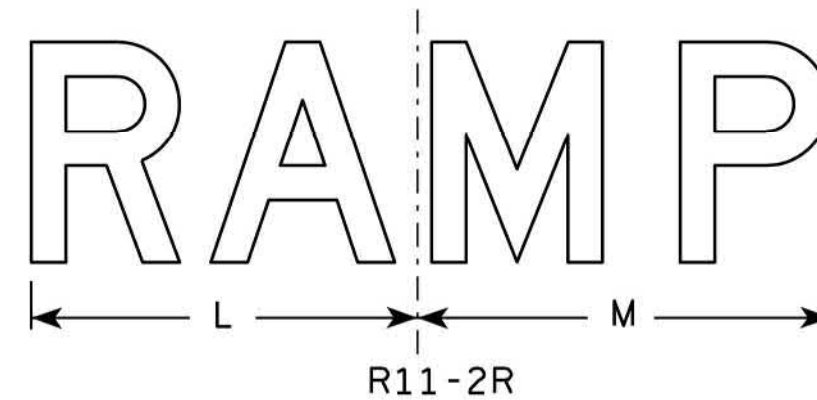
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/11/16 PLA 105 R9-9.6



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.



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 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

STANDARD SIGN
R11-2

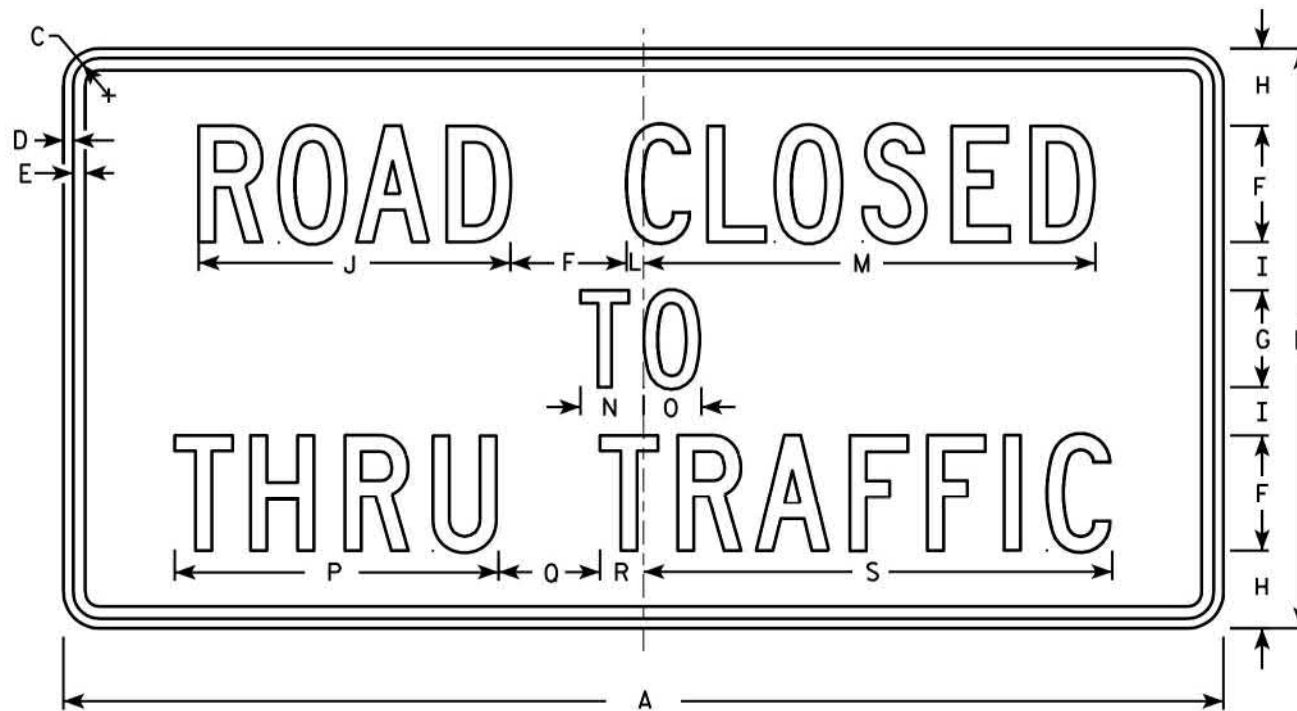
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

SHEET NO: 106

E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
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.

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	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
3																											
4																											
5																											

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

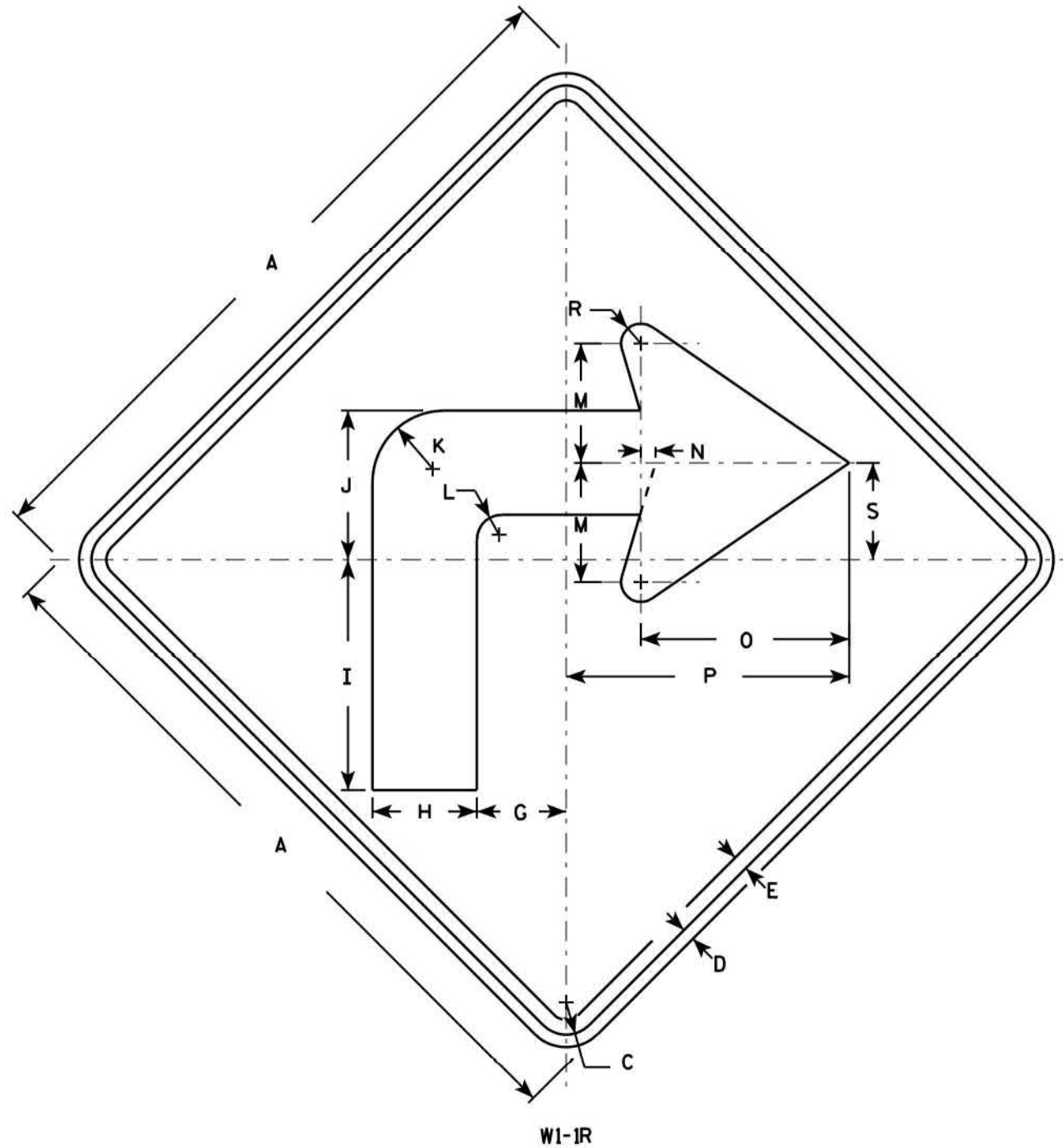
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

SHEET NO: 107

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
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. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

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 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN

W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: 4996-22-71

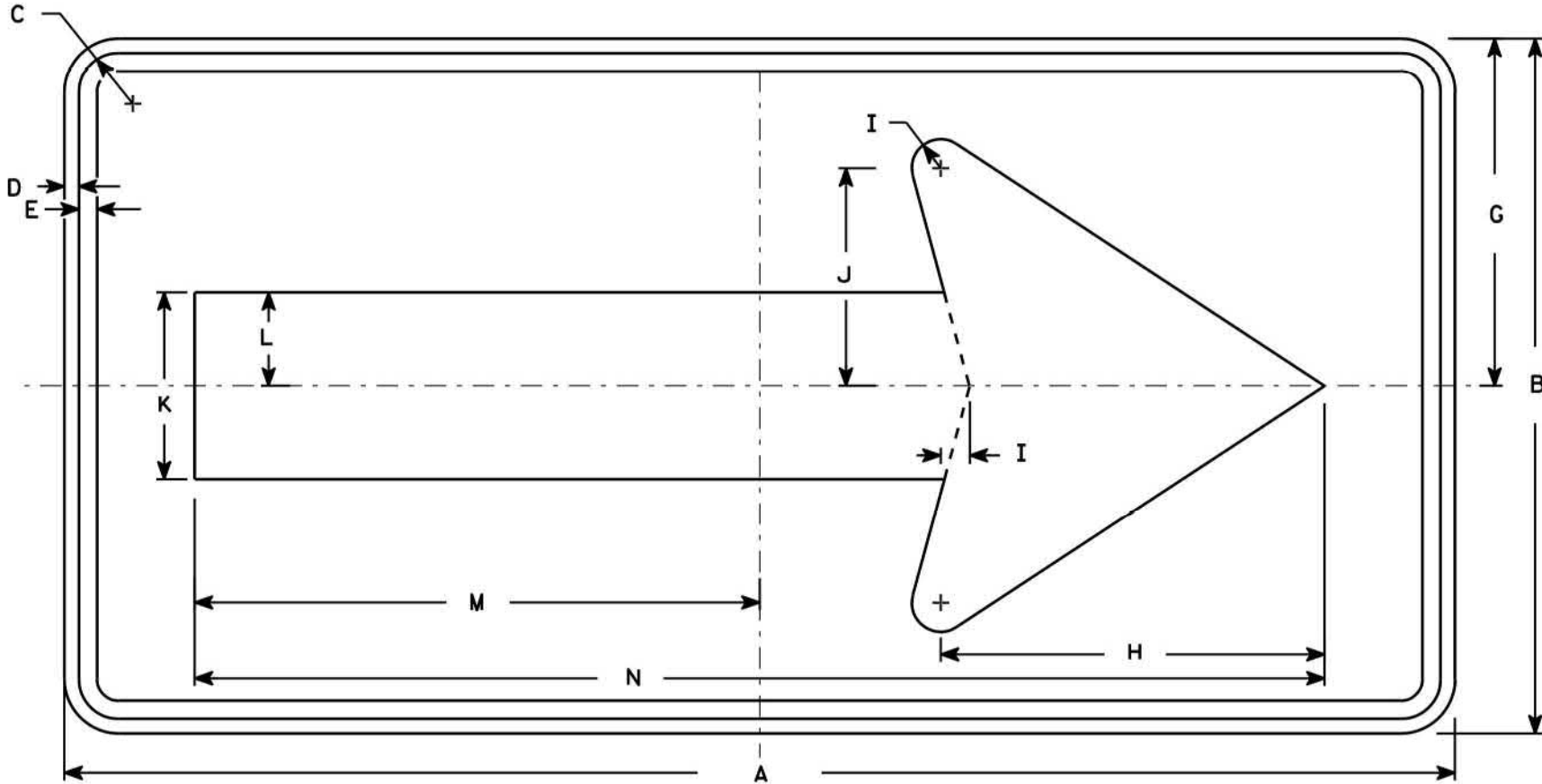
HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 108

E



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
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.

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 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN

W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8

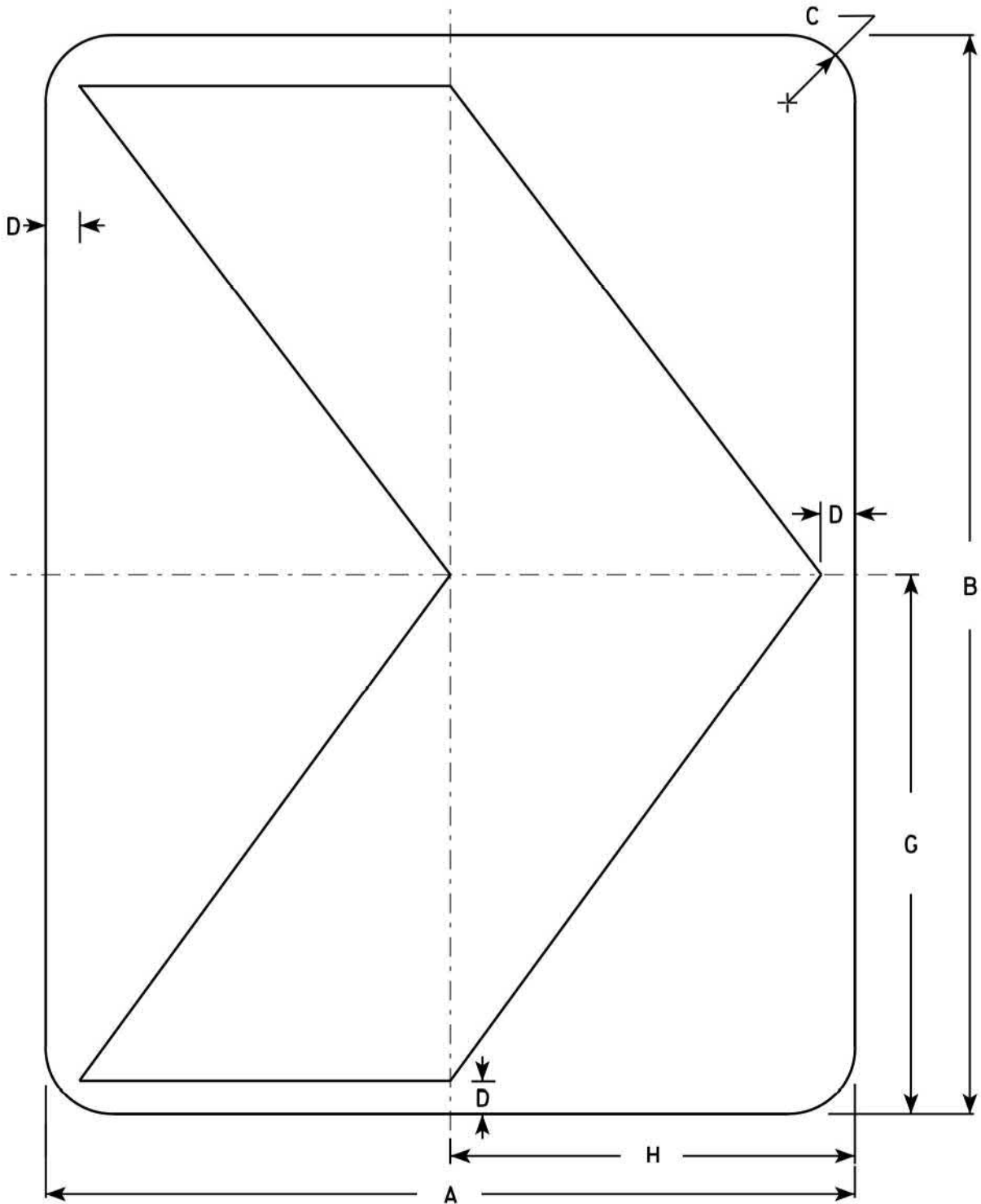
PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 109



W1-8

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 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.

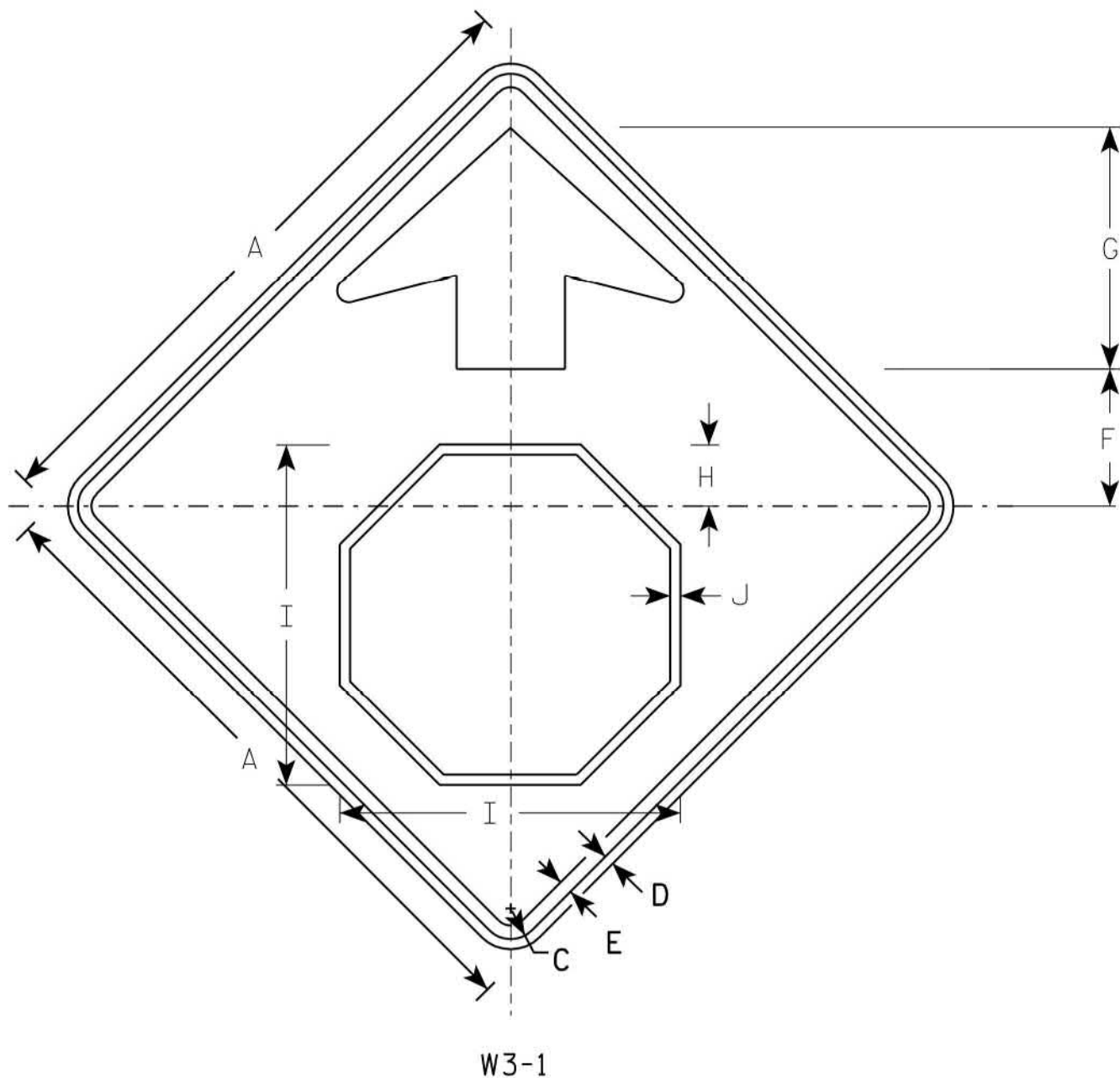
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN
W1-8

WISCONSIN DEPT OF TRANSPORTATION

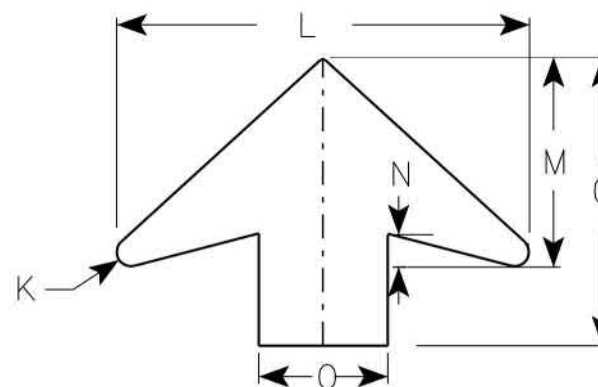
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO: 4996-22-71

HIGHWAY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 111

E

STANDARD SIGN
W3-1

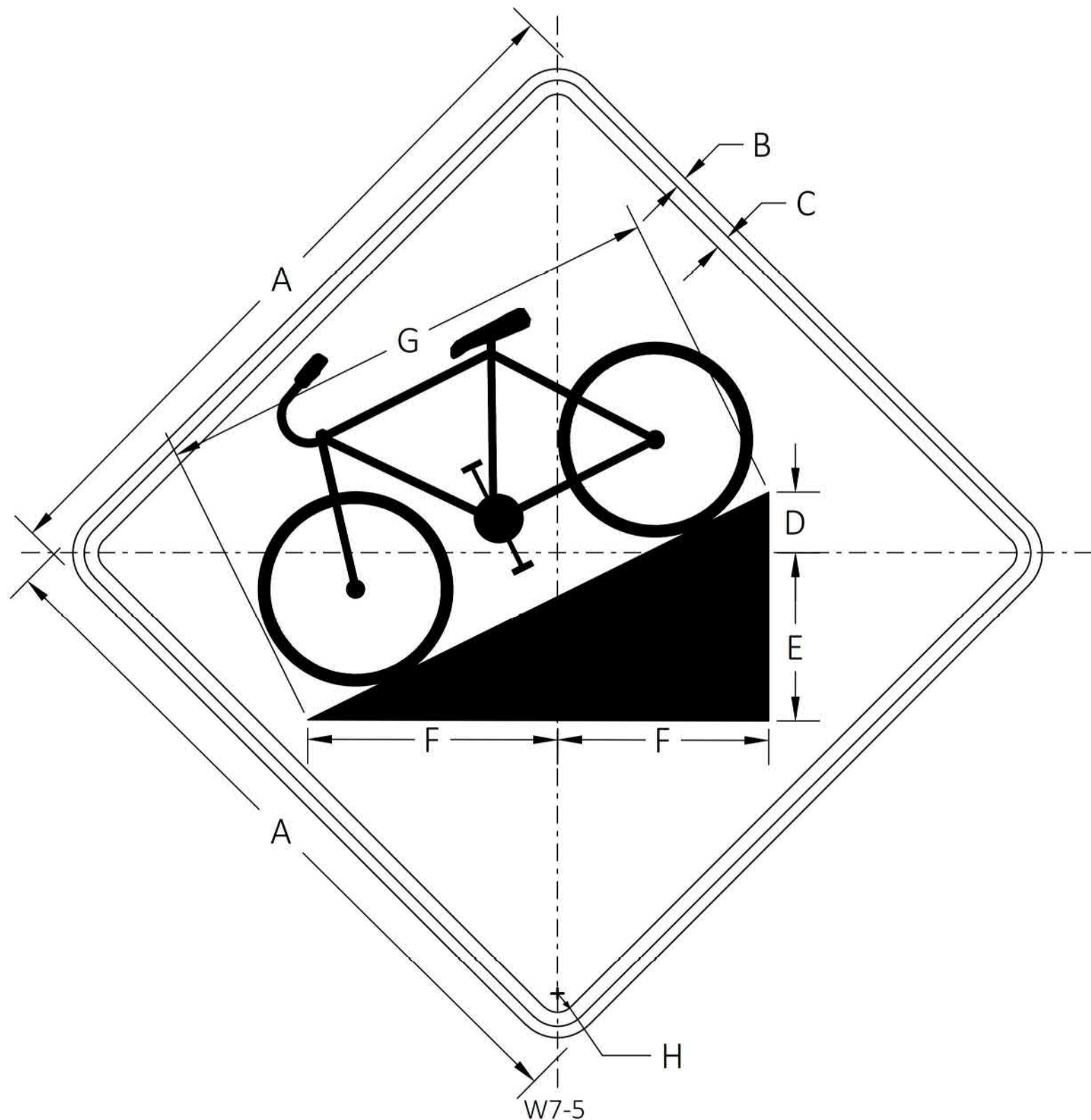
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 6/7/10

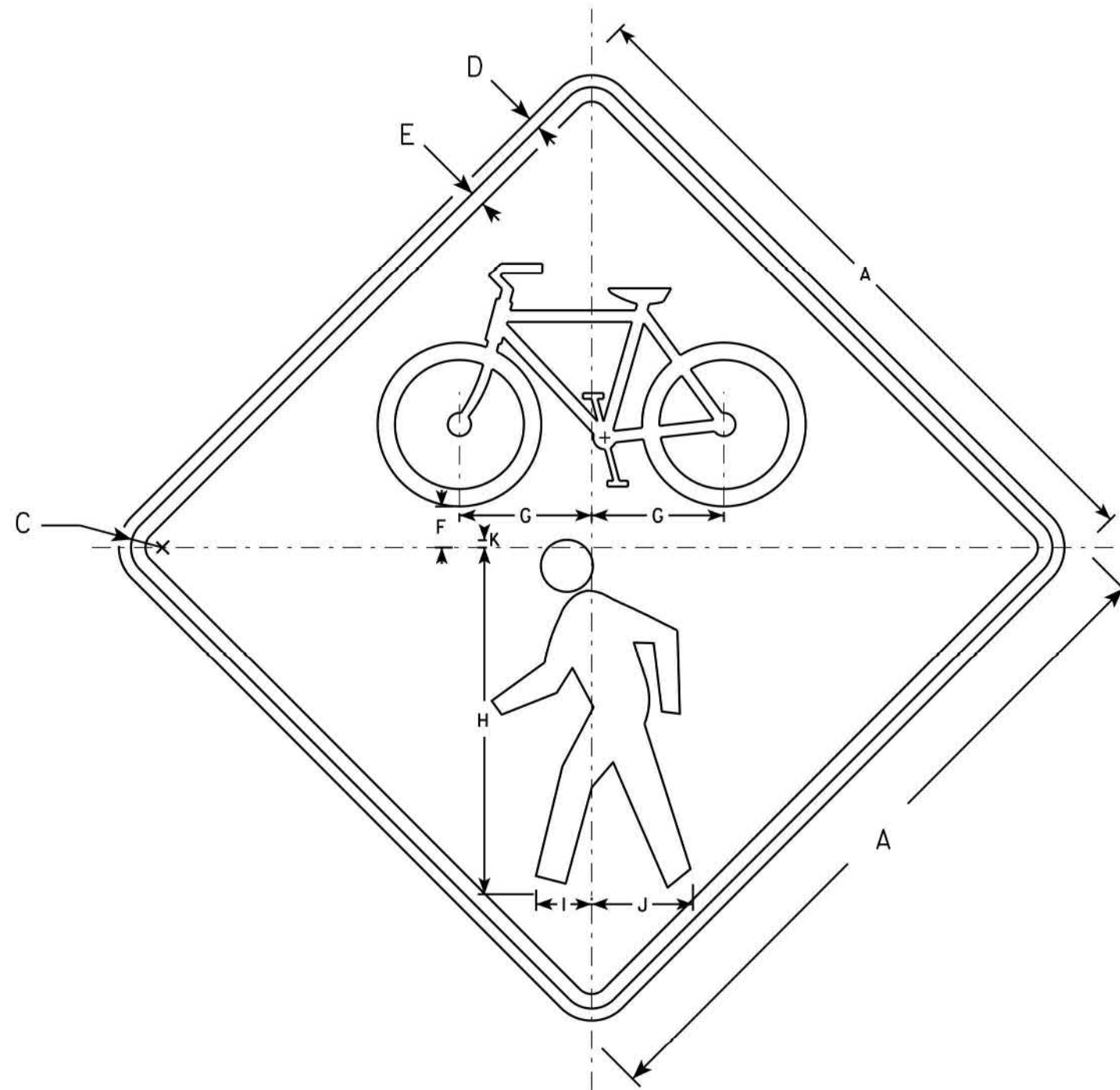
PLATE NO. W3-1.12



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
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.

A	B	C	D	E	F	G	H
18	.375	.625	1.75	4	5.625	12.625	1.5
24	.375	.625	2.3	5.3	7.5	16.833	1.5



W11-15

NOTES

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

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 1/8	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 3/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																16.0
4	48		2 1/4	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN

W11-15

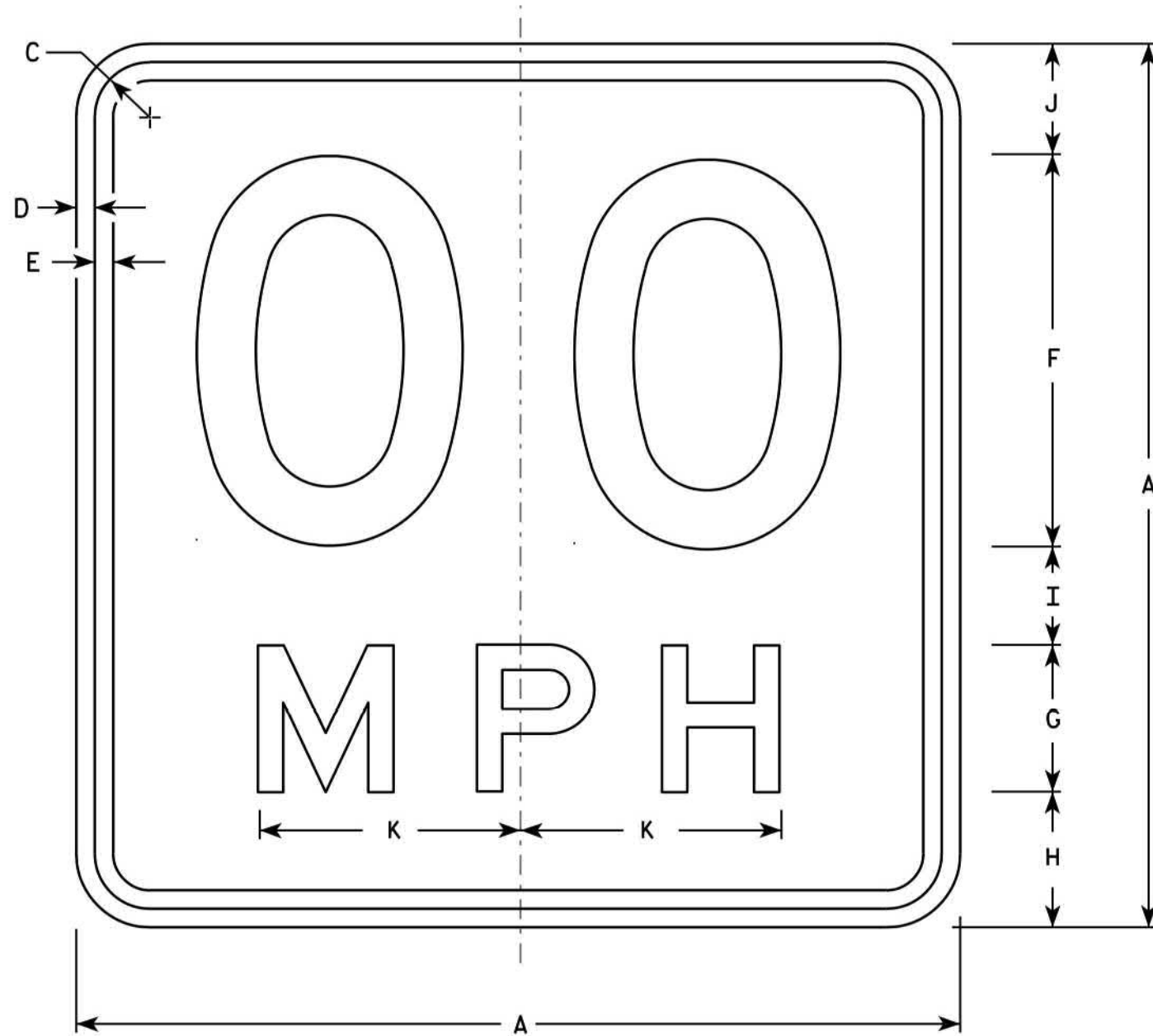
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 2/13/14

PLATE 113 W11-15.4



W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: 4996-22-71

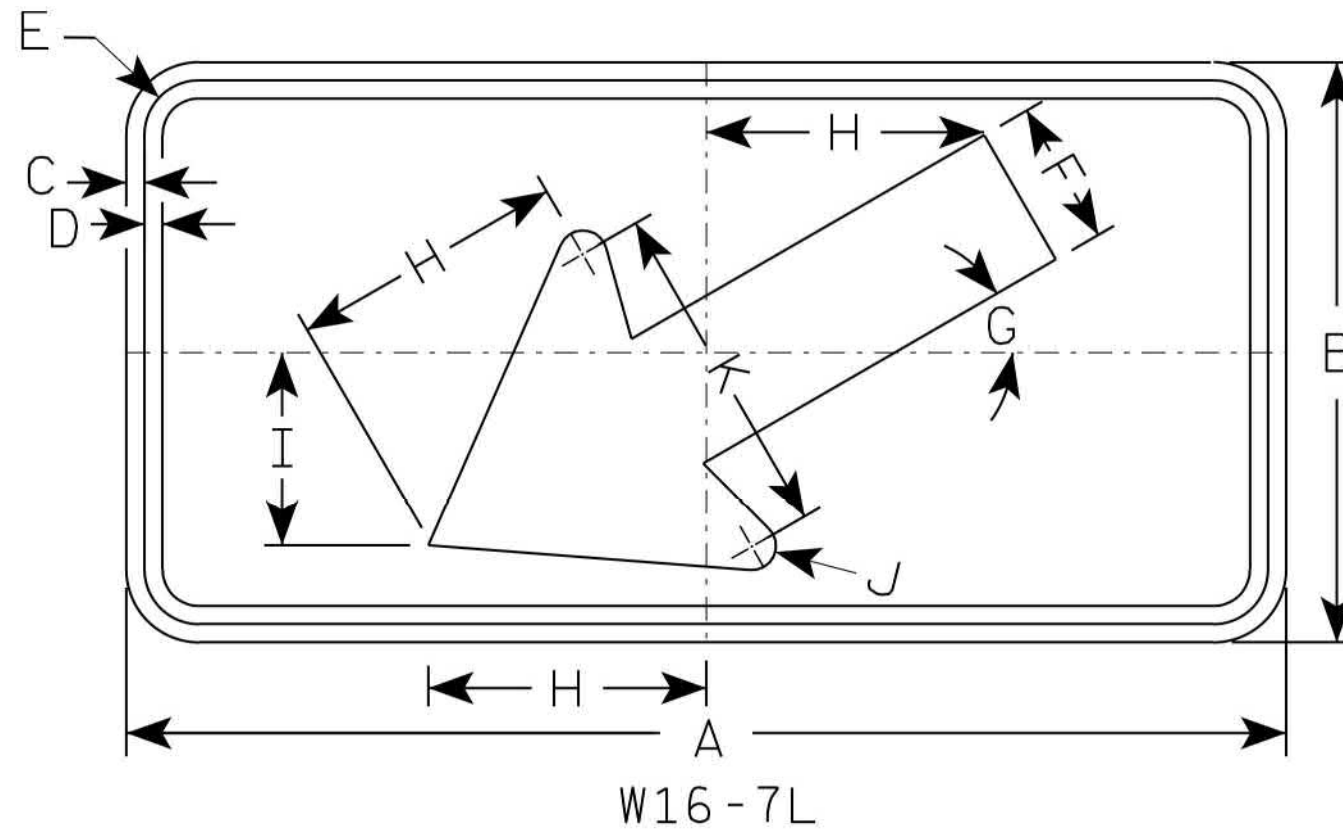
HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO: 114

E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
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. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

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	$\frac{3}{8}$	$\frac{3}{8}$	$1 \frac{1}{8}$	3	30°	$5 \frac{3}{4}$	4	$\frac{1}{2}$	7																2.0
2M	30	18	$\frac{3}{8}$	$\frac{1}{2}$	$1 \frac{1}{8}$	$4 \frac{1}{2}$	30°	$8 \frac{1}{2}$	6	$\frac{5}{8}$	$10 \frac{1}{4}$																3.75
3	30	18	$\frac{3}{8}$	$\frac{1}{2}$	$1 \frac{1}{8}$	$4 \frac{1}{2}$	30°	$8 \frac{1}{2}$	6	$\frac{5}{8}$	$10 \frac{1}{4}$																3.75
4																											8
5																											8

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

STANDARD SIGN
W16-7

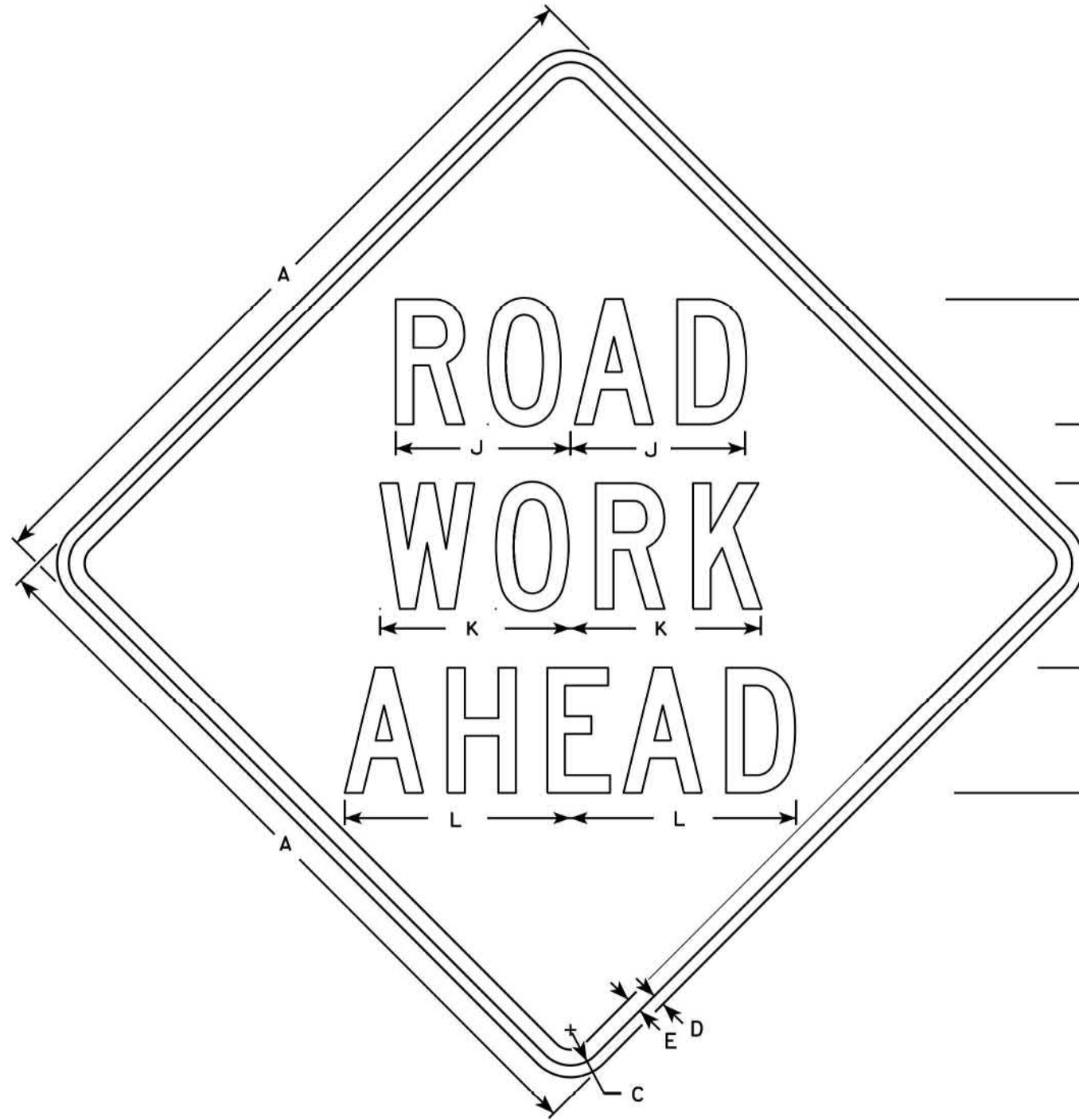
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

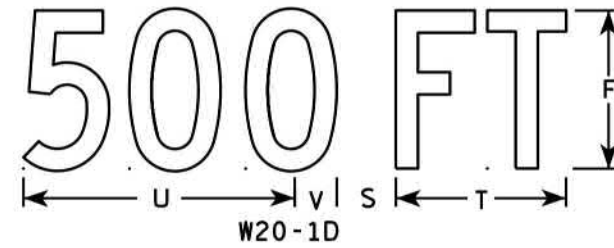
DATE 11/02/10 PLATE NO. W16-7.5

SHEET NO: 115

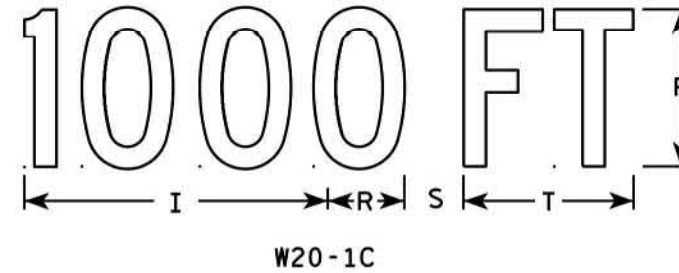
E



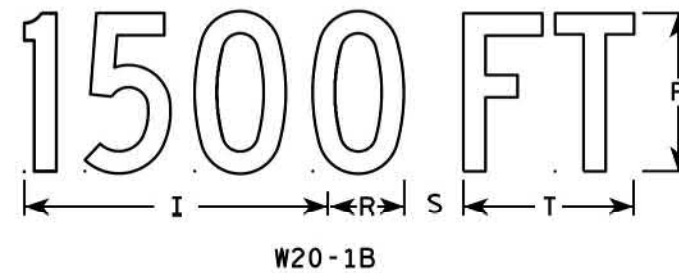
W20-1A



W20-1D



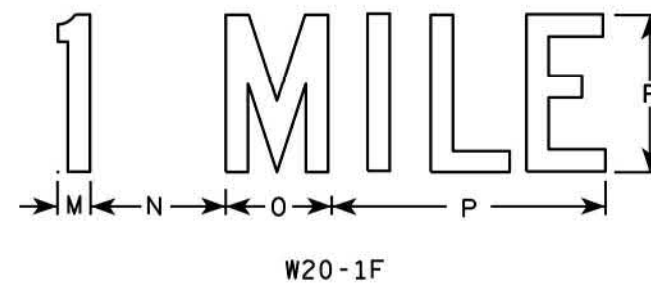
W20-1C



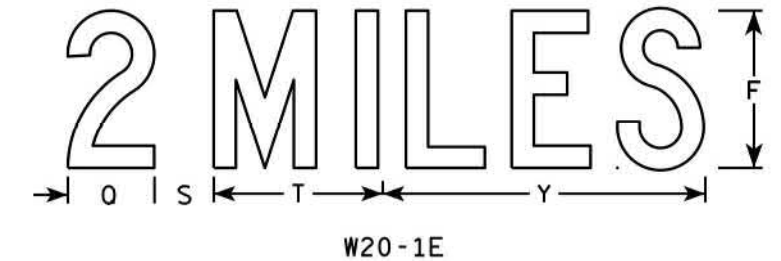
W20-1B



W20-1G



W20-1F



W20-1E

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.

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		1 3/8	1/2	5/8	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		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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

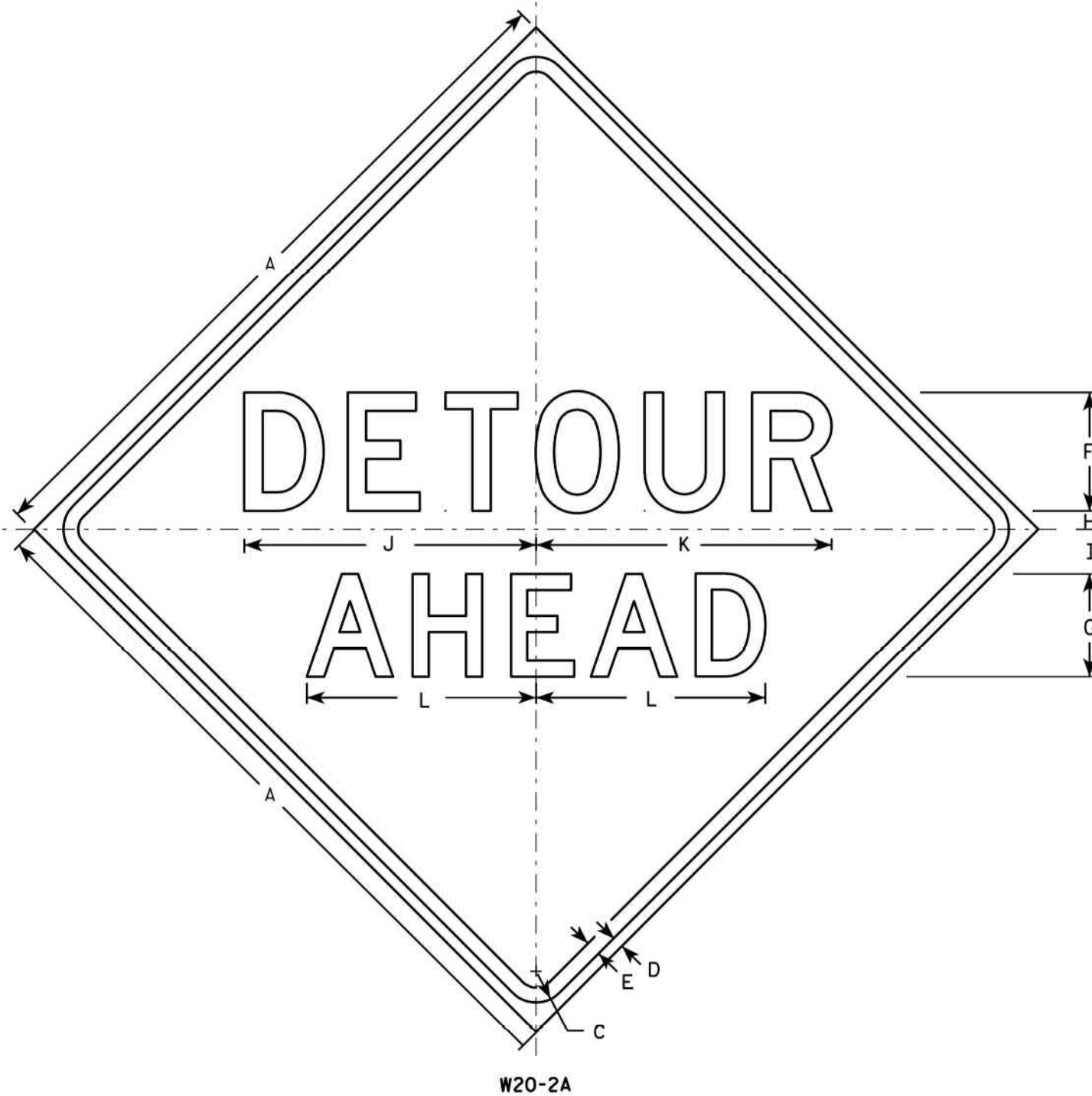
STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

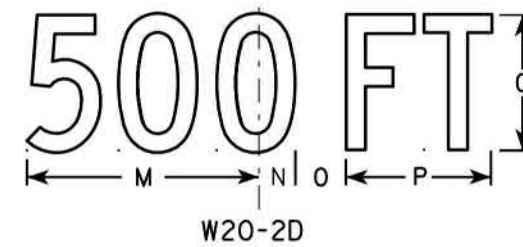
APPROVED

State Traffic Engineer

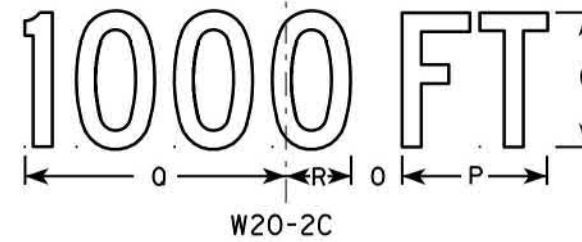
DATE 5/07/15 PL 116 W20-1.10



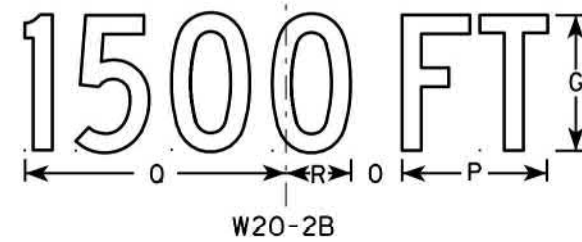
W20-2A



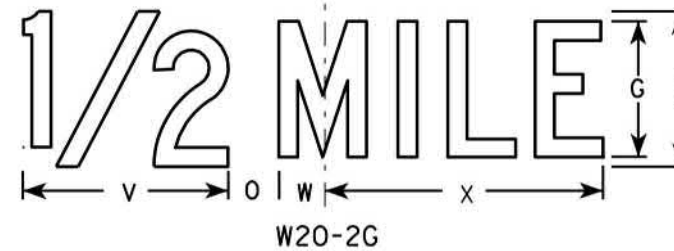
W20-2D



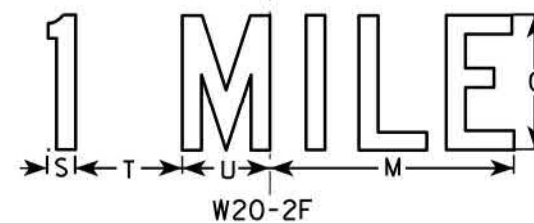
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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. 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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

PROJECT NO: 4996-22-71

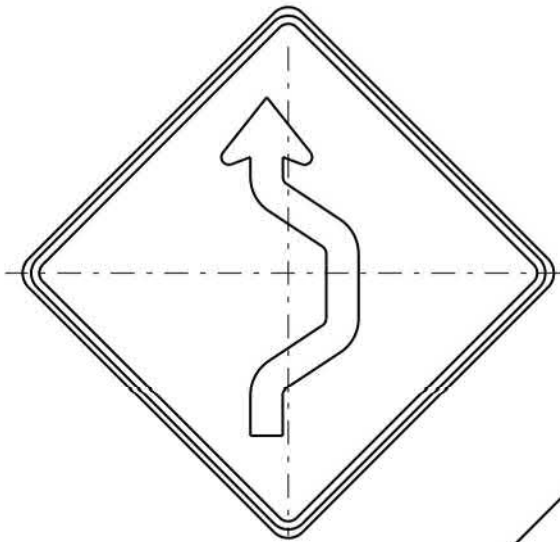
HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

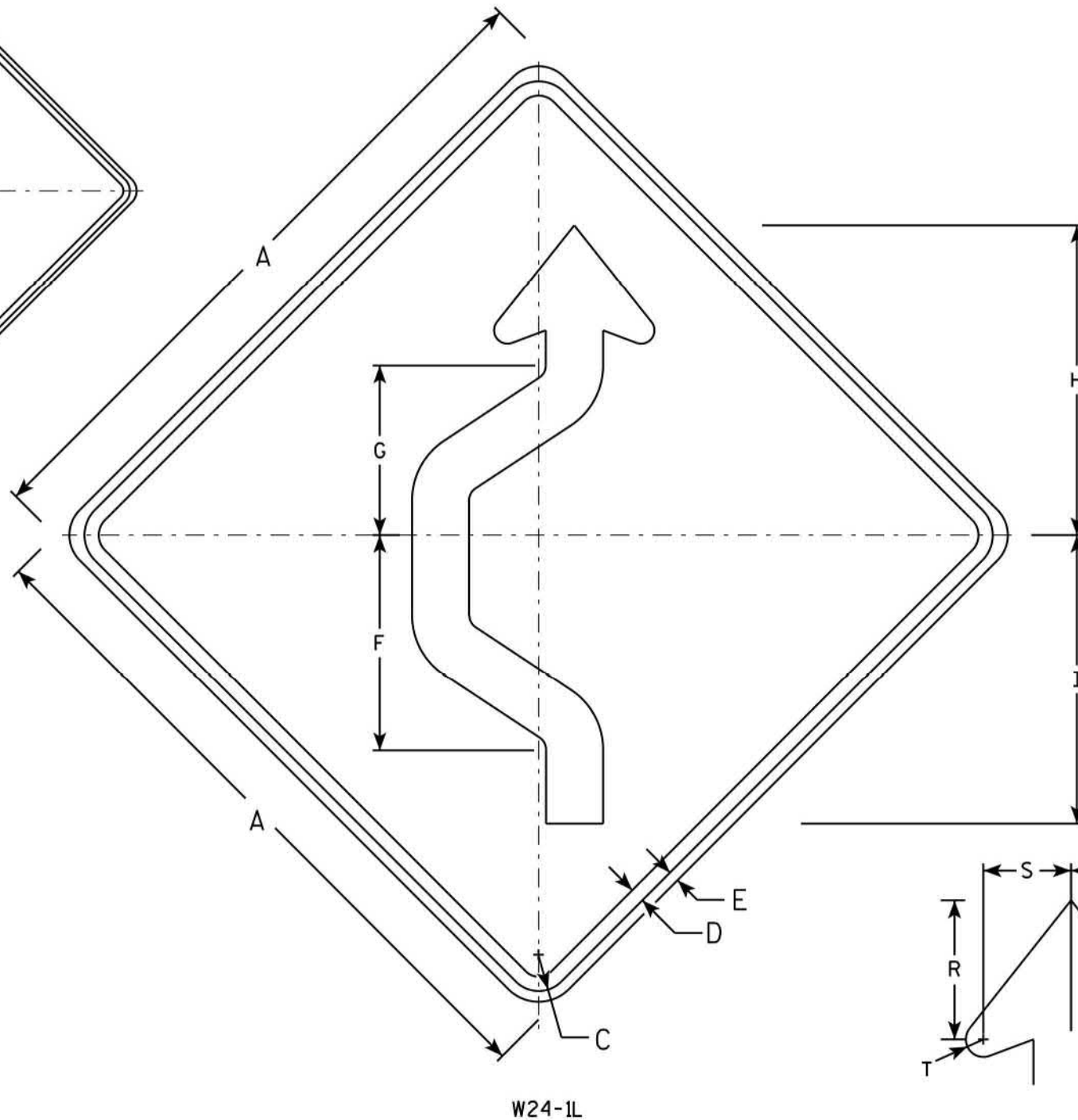
SIGN PLATES

SHEET NO: 117

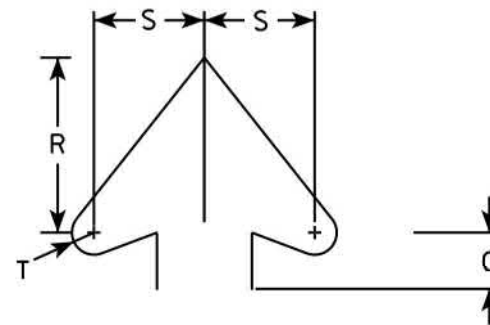
STANDARD SIGN	
W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/18/11	PLATE NO. W20-2.6



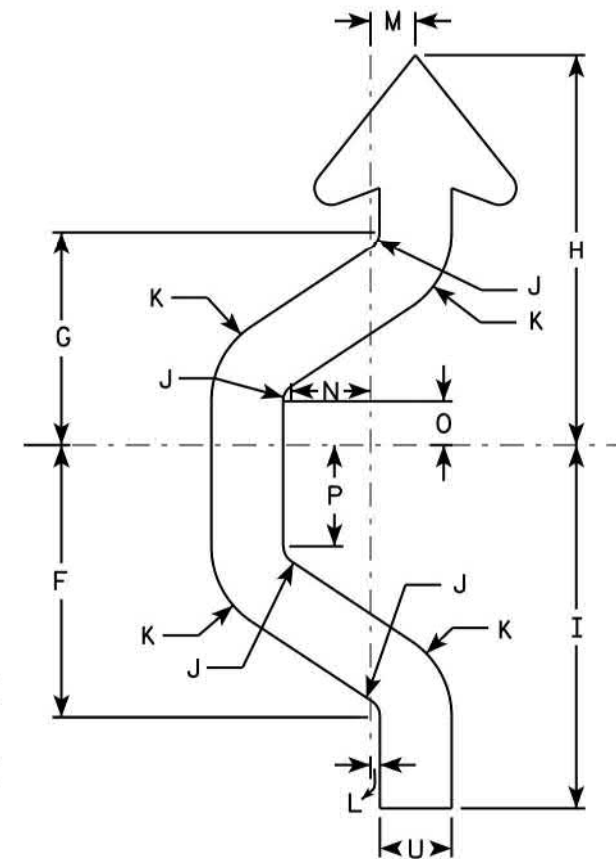
W24-1R



W24-1L



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
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. W24-1R is the same as W24-1L except reversed along the vertical centerline.

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		1 3⁄8	5⁄8	1⁄2	11 3⁄8	8 7⁄8	16 3⁄8	15 1⁄4	3⁄4	3 3⁄4	3⁄8	2	3 3⁄8	1 7⁄8	4 1⁄4		5 1⁄2	3 1⁄2	5⁄8	3						9
2M	36		1 3⁄8	5⁄8	1⁄2	11 3⁄8	8 7⁄8	16 3⁄8	15 1⁄4	3⁄4	3 3⁄4	3⁄8	2	3 3⁄8	1 7⁄8	4 1⁄4		5 1⁄2	3 1⁄2	5⁄8	3						9
3																											
4																											
5																											

PROJECT NO: 4996-22-71

HWY: NON-HIGHWAY

COUNTY: SHEBOYGAN

SIGN PLATES

SHEET NO:

E

STANDARD SIGN
W24-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

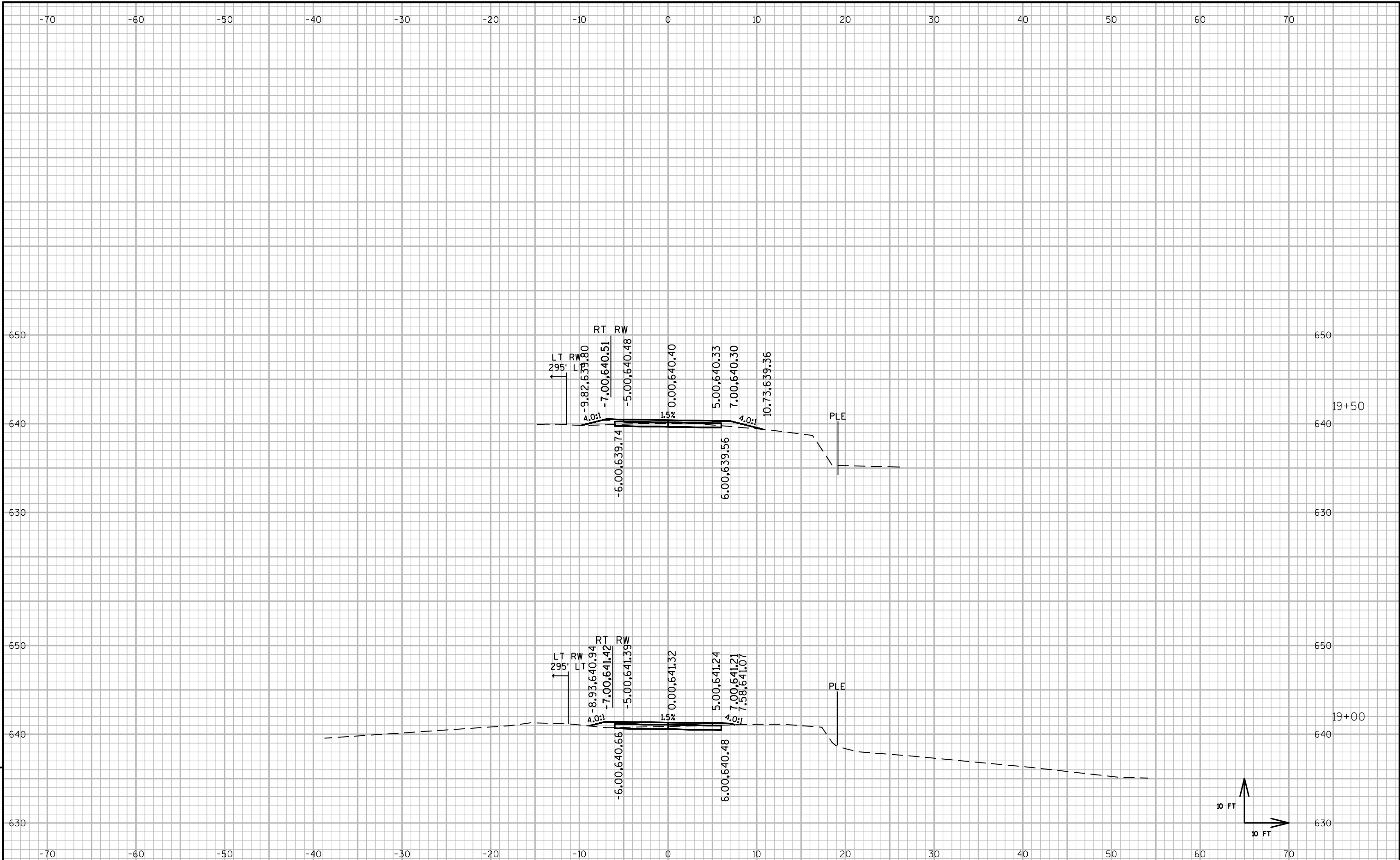
DATE 9/25/2013 PLA1118 W24-1.3

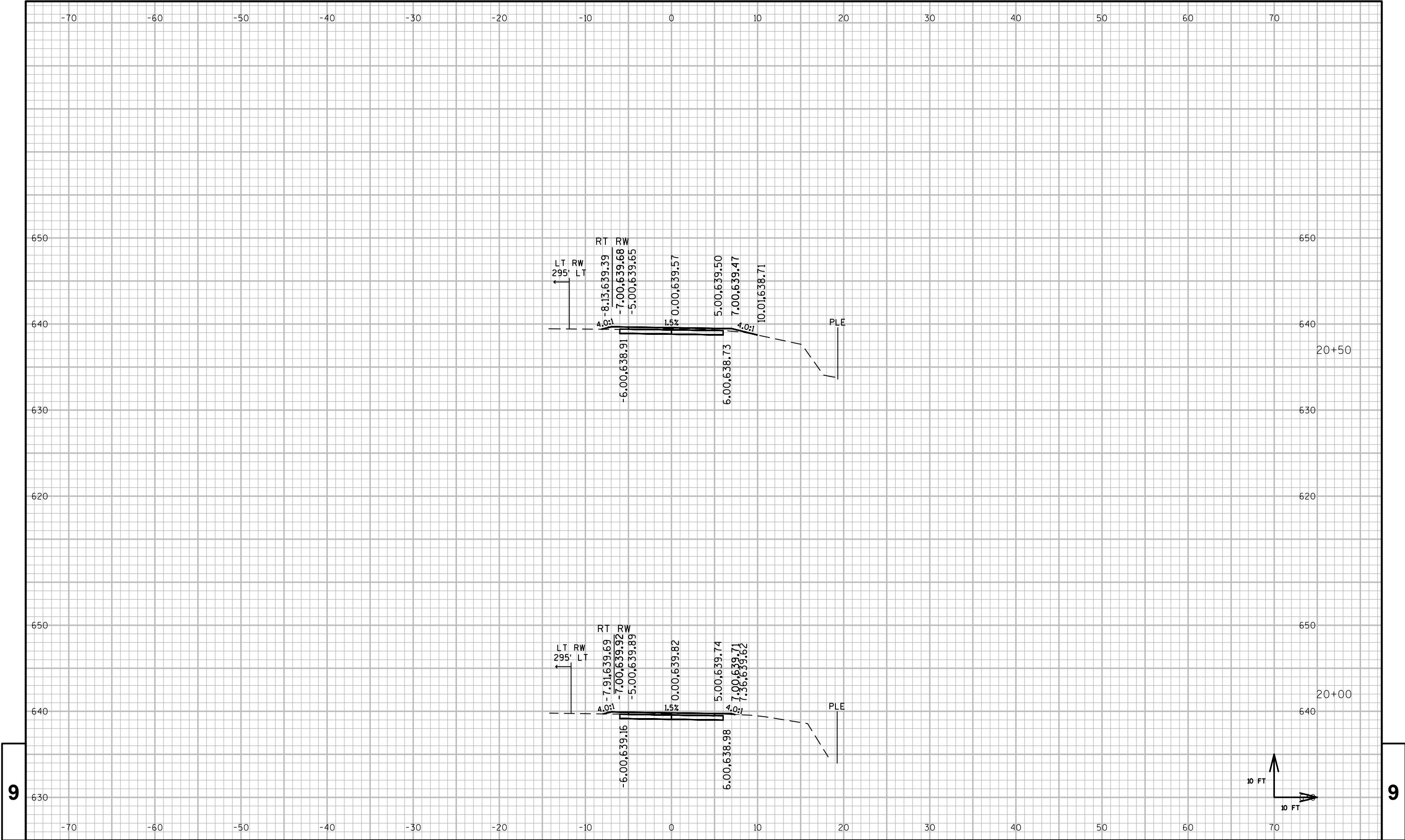
SHEBOYGAN BIKE PATH											
CATEGORY	REFERENCE LINE STATION	EXCAVATION				EMBANKMENT					EXCESS/ (SHORTAGE) CUMM VOLUME (CY)
		DISTANCE (FT)	END AREA CUT (SF)	VOLUME CUT (CY)	CUMM VOLUME CUT (CY)	END AREA FILL (SF)	VOLUME FILL (CY)	FILL FACTOR	EXPANDED VOLUME FILL (CY)	CUMM VOLUME FILL (CY)	
0010	19+00		1			3					
		50		4	4		7	1.2	8	8	(4)
	19+50		3			4					
		50		10	14		4	1.2	5	13	1
	20+00		8			0					
		50		14	27		1	1.2	2	15	13
	20+50		7			1					
		50		14	41		2	1.2	2	16	24
	21+00		8			1					
		50		14	55		1	1.2	1	17	38
	21+50		8			0					
		50		15	70		0	1.2	1	18	52
	22+00		8			0					
		50		15	85		1	1.2	1	19	67
	22+50		9			0					
		50		17	103		3	1.2	3	22	81
	23+00		10			2					
		50		18	120		7	1.2	8	30	90
	23+50		9			5					
		50		22	142		5	1.2	6	36	107
	24+00		14			0					
		50		24	167		0	1.2	0	36	131
	24+50		12			0					
		50		18	184		1	1.2	1	36	148
	25+00		7			1					
		50		12	196		2	1.2	2	39	158
	25+50		6			1					
		50		12	209		2	1.2	2	41	167
	26+00		7			1					
		50		12	220		4	1.2	5	46	174
	26+50		5			4					
		50		7	228		7	1.2	8	55	173
	27+00		3			3					
		50		7	235		3	1.2	4	58	176
	27+50		5			0					
		50		12	246		0	1.2	1	59	187
	28+00		8			1					
		50		14	260		4	1.2	4	63	197
	28+50		7			3					
		50		19	279		3	1.2	4	67	212
	29+00		13			0					
		50		25	304		0	1.2	0	67	236
	29+50		14			0					
		50		21	325		4	1.2	5	72	253
	30+00		9			4					
		50		16	341		5	1.2	6	78	263
	30+50		8			1					
		50		16	357		2	1.2	3	81	276
	31+00		10			1					
		50		23	381		1	1.2	1	82	299
	31+50		16			0					
		50		33	414		0	1.2	0	82	332
	32+00		20			0					
		50		30	444		1	1.2	1	83	361
	32+50		12			1					
		50		41	485		1	1.2	1	84	402
	33+00		33			0					
		50		51	536		0	1.2	0	84	453
	33+50		22			0					
		50		30	566		0	1.2	0	84	482
	34+00		10			0					
		50		17	584		1	1.2	1	85	498
	34+50		8			1					
		50		19	603		8	1.2	10	95	508
	35+00		13			8					
		50		25	627		13	1.2	15	110	517
	35+50		14			6					
		50		41	668		7	1.2	8	118	550
	36+00		30			2					

SHEBOYGAN BIKE PATH

CATEGORY	REFERENCE LINE STATION	EXCAVATION				EMBANKMENT					EXCESS/ (SHORTAGE) CUMM VOLUME (CY)
		DISTANCE (FT)	END AREA	VOLUME	CUMM VOLUME	END AREA	VOLUME	FILL FACTOR	EXPANDED	CUMM VOLUME	
			CUT (SF)	CUT (CY)	CUT (CY)	FILL (SF)	FILL (CY)		VOLUME FILL (CY)	FILL (CY)	
0010		50		62	730		2	1.2	3	121	609
	36+50		36			1					
		50		57	787		8	1.2	9	130	657
	37+00		25			7					
		50		52	839		8	1.2	10	139	699
	37+50		30			1					
		50		60	898		2	1.2	3	142	756
	38+00		35			1					
		50		60	958		5	1.2	6	148	810
	38+50		30			4					
		50		54	1,013		6	1.2	7	155	858
	39+00		28			2					
		50		60	1,072		4	1.2	5	160	912
	39+50		36			2					
		50		65	1,137		3	1.2	3	163	974
	40+00		34			0					
		50		61	1,199		1	1.2	1	164	1,034
	40+50		32			0					
		50		58	1,257		1	1.2	1	165	1,092
	41+00		31			1					
		50		56	1,313		2	1.2	2	168	1,145
	41+50		29			1					
		50		56	1,369		1	1.2	2	170	1,200
	42+00		32			0					
		50		57	1,426		1	1.2	1	171	1,256
	42+50		30			1					
		50		80	1,507		1	1.2	1	172	1,335
	43+00		56			0					
		50		135	1,641		0	1.2	0	172	1,470
	43+50		89			0					
		50		191	1,832		0	1.2	0	172	1,661
	44+00		117			0					
		50		255	2,087		0	1.2	0	172	1,916
	44+50		158			0					
		50		315	2,403		0	1.2	0	172	2,231
	45+00		182			0					
TOTAL					2,403		143			172	2,231

MOENNING ROAD											
CATEGORY	REFERENCE LINE STATION	EXCAVATION				EMBANKMENT					EXCESS/ (SHORTAGE) CUMM VOLUME (CY)
		DISTANCE (FT)	END AREA CUT (SF)	VOLUME CUT (CY)	CUMM VOLUME CUT (CY)	END AREA FILL (SF)	VOLUME FILL (CY)	FILL FACTOR	EXPANDED VOLUME FILL (CY)	CUMM VOLUME FILL (CY)	
0010	100+36 M BA, AH		68			1					
		14		41	41	0	0	1.2	0	0	41
	100+50 M		88								
		25		81	122	0	0	1.2	0	0	121
	100+75 M		87			0					
		25		74	196	0	0	1.2	0	0	195
	101+00 M		73			0					
		25		60	255	0	1	1.2	1	1	254
	101+25 M		55			1					
		25		47	302		5	1.2	6	7	295
	101+50 M		45			10					
		25		42	344		16	1.2	19	27	317
	101+75 M		45			25					
		25		42	386		32	1.2	38	65	321
	102+00 M		46			44					
		25		46	432		40	1.2	48	113	319
	102+25 M		53			42					
		25		58	490		27	1.2	33	145	345
	102+50 M		72			16					
		25		69	559		9	1.2	10	156	403
	102+75 M		77			2					
		25		81	640		1	1.2	1	157	483
	103+00 M		98			0					
		25		96	736		0	1.2	0	157	579
	103+25 M		110			1					
		25		134	870		0	1.2	0	158	713
	103+50 M		180			0					
		25		165	1,035		0	1.2	0	158	877
	103+75 M		176			0					
		25		136	1,171		0	1.2	0	158	1,013
	104+00 M		118			0					
		25		100	1,271		0	1.2	0	158	1,113
	104+25 M		98			0					
		25		84	1,355		0	1.2	0	158	1,197
	104+50 M		84			0					
		25		66	1,421		3	1.2	4	162	1,260
	104+75 M		57			6					
		25		42	1,463		8	1.2	10	172	1,291
	105+00 M		33			12					
		10		11	1,474		2	1.2	3	174	1,299
	105+10 M		28			0					
TOTAL					1,474		145			174	1,299





PROJECT NO: 4996-22-71

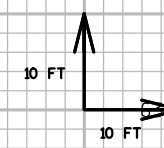
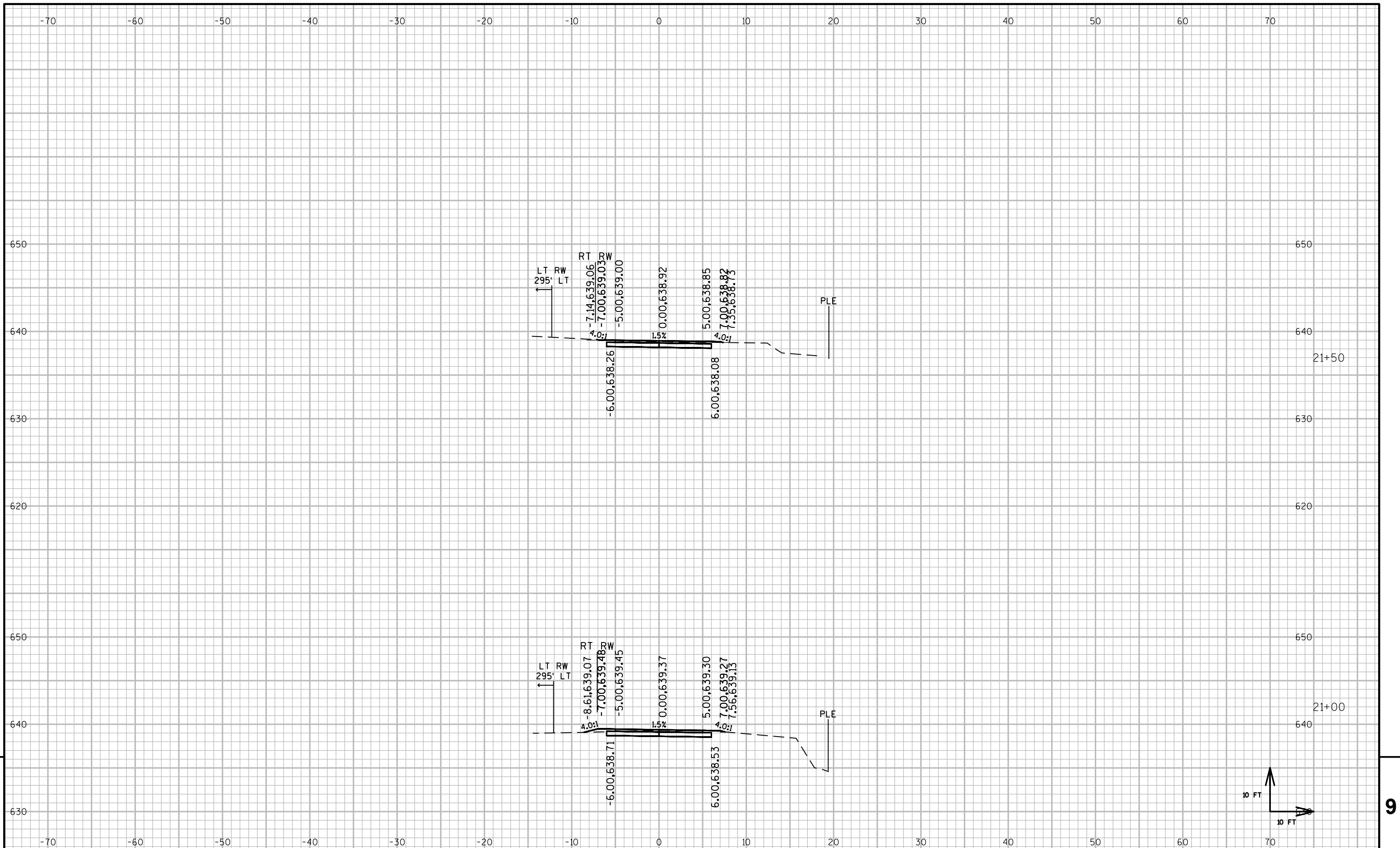
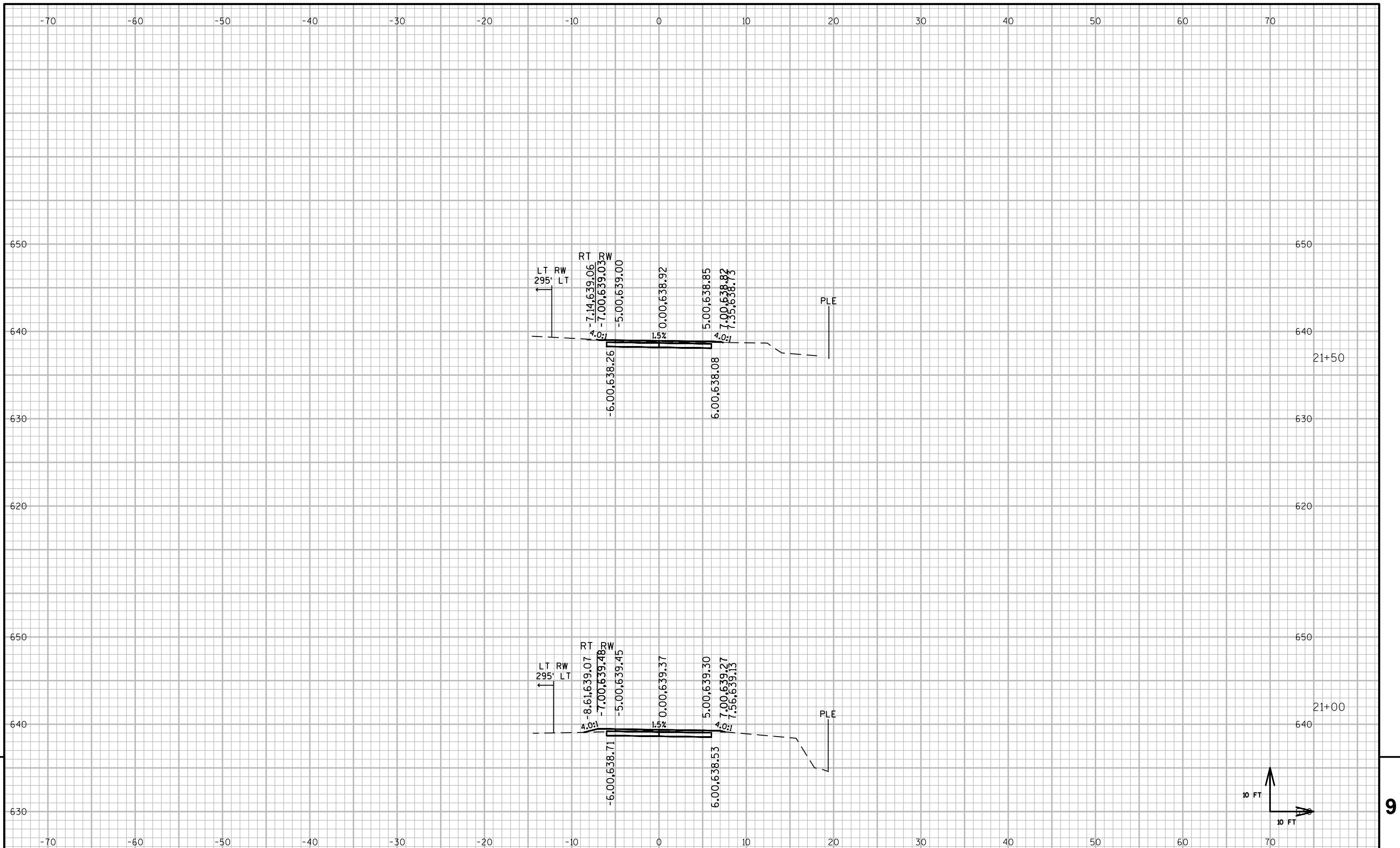
HWY: NON-HIGHWAY

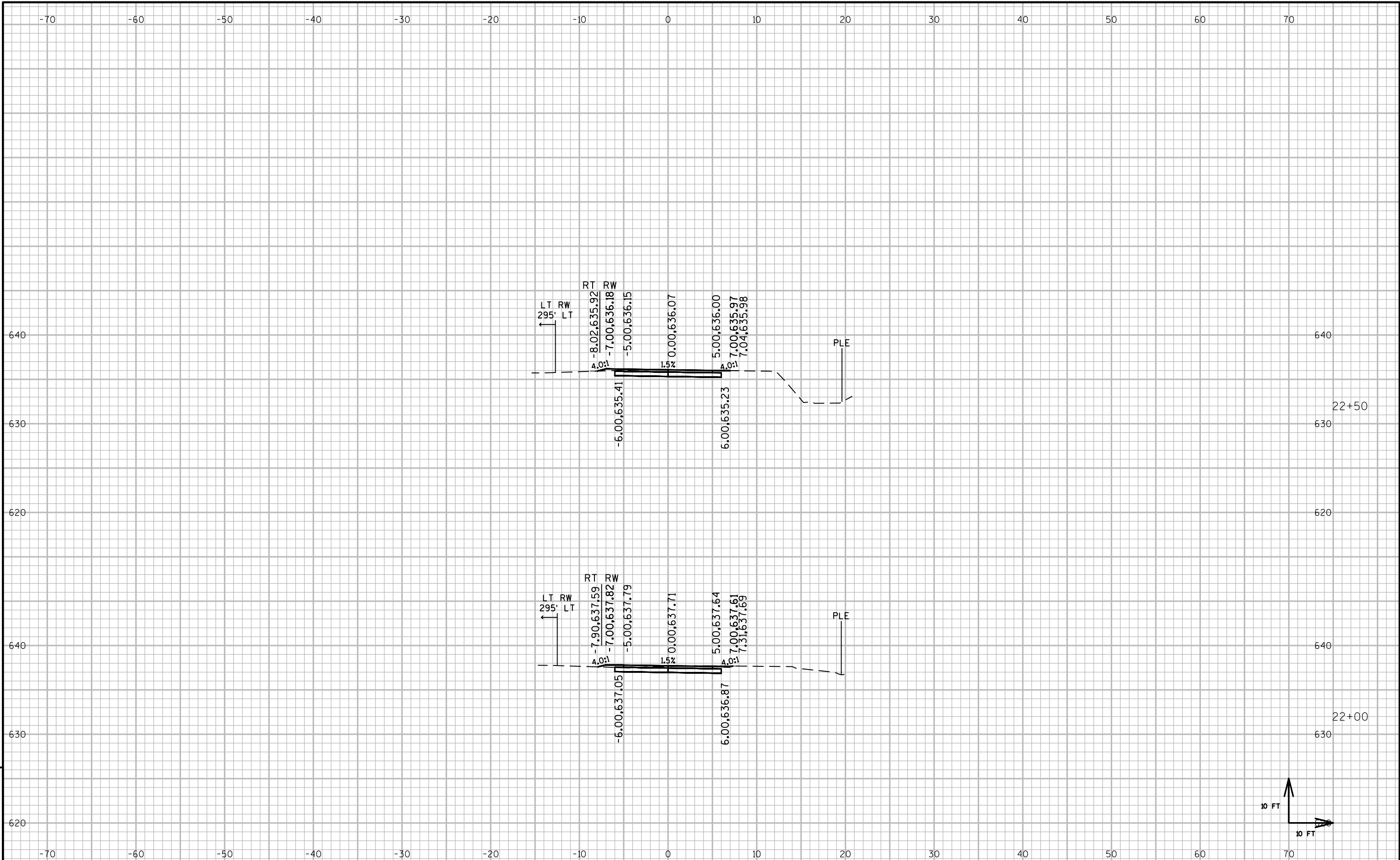
COUNTY: SHEBOYGAN

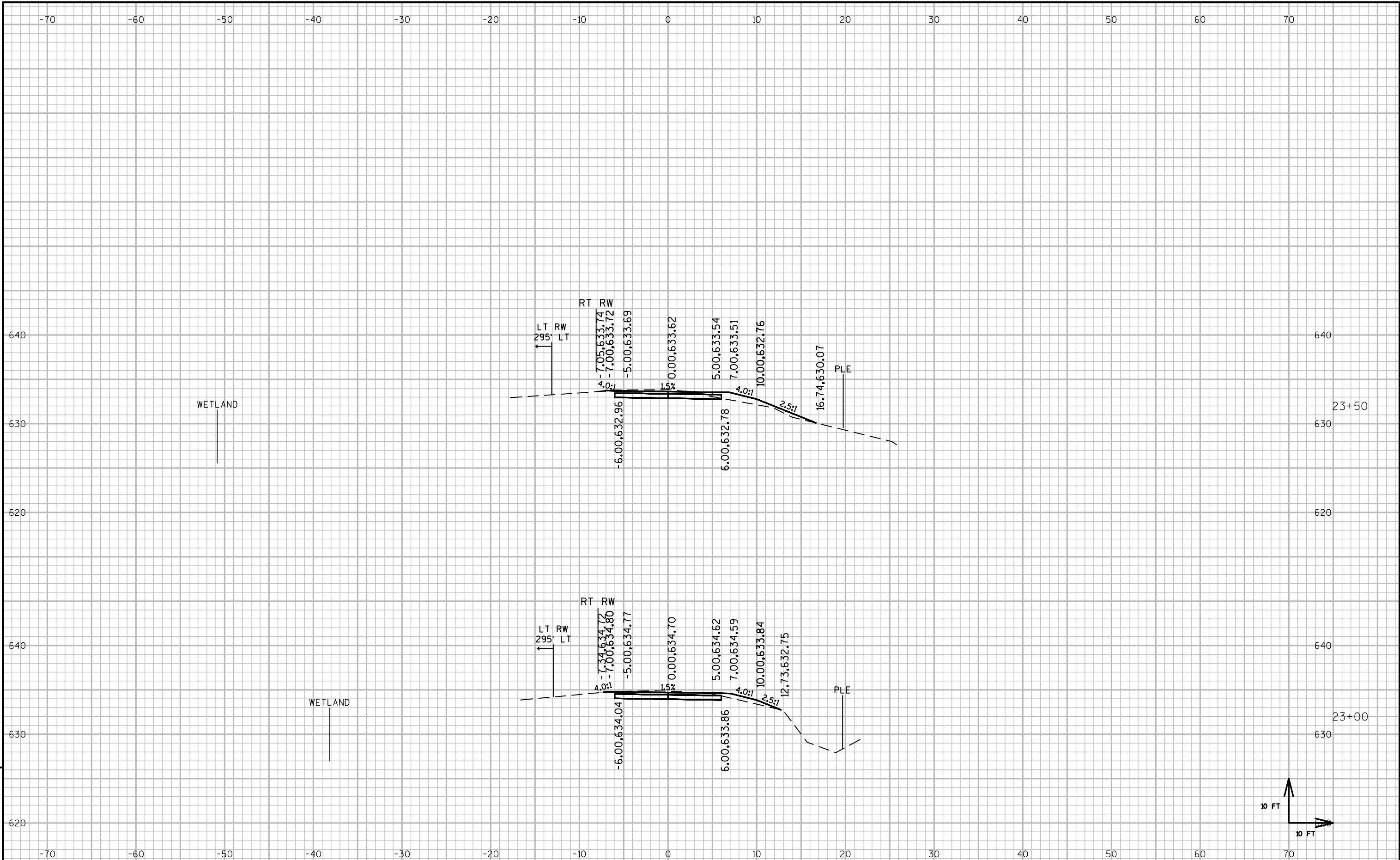
CROSS SECTIONS: MAINLINE

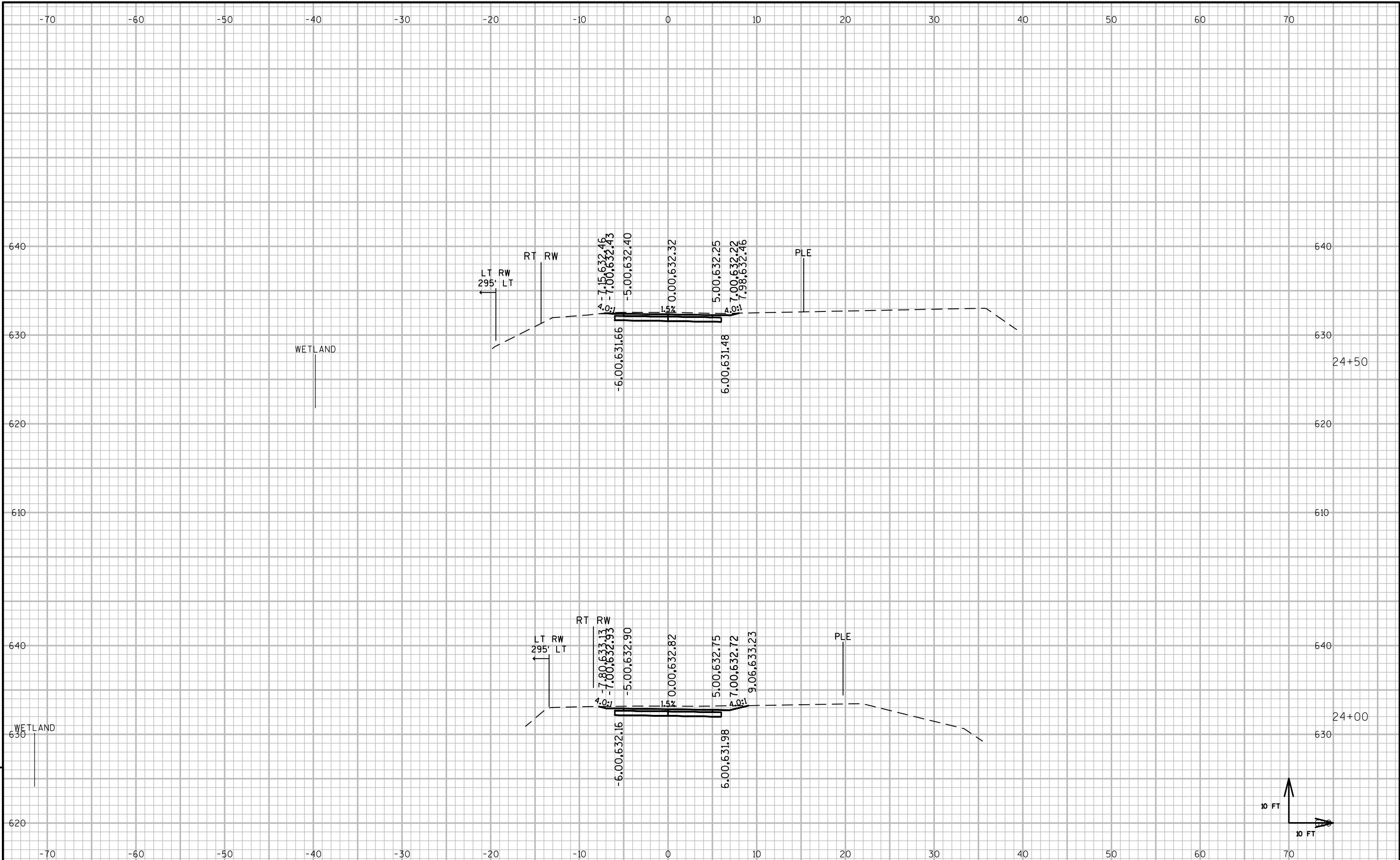
SHEET 123

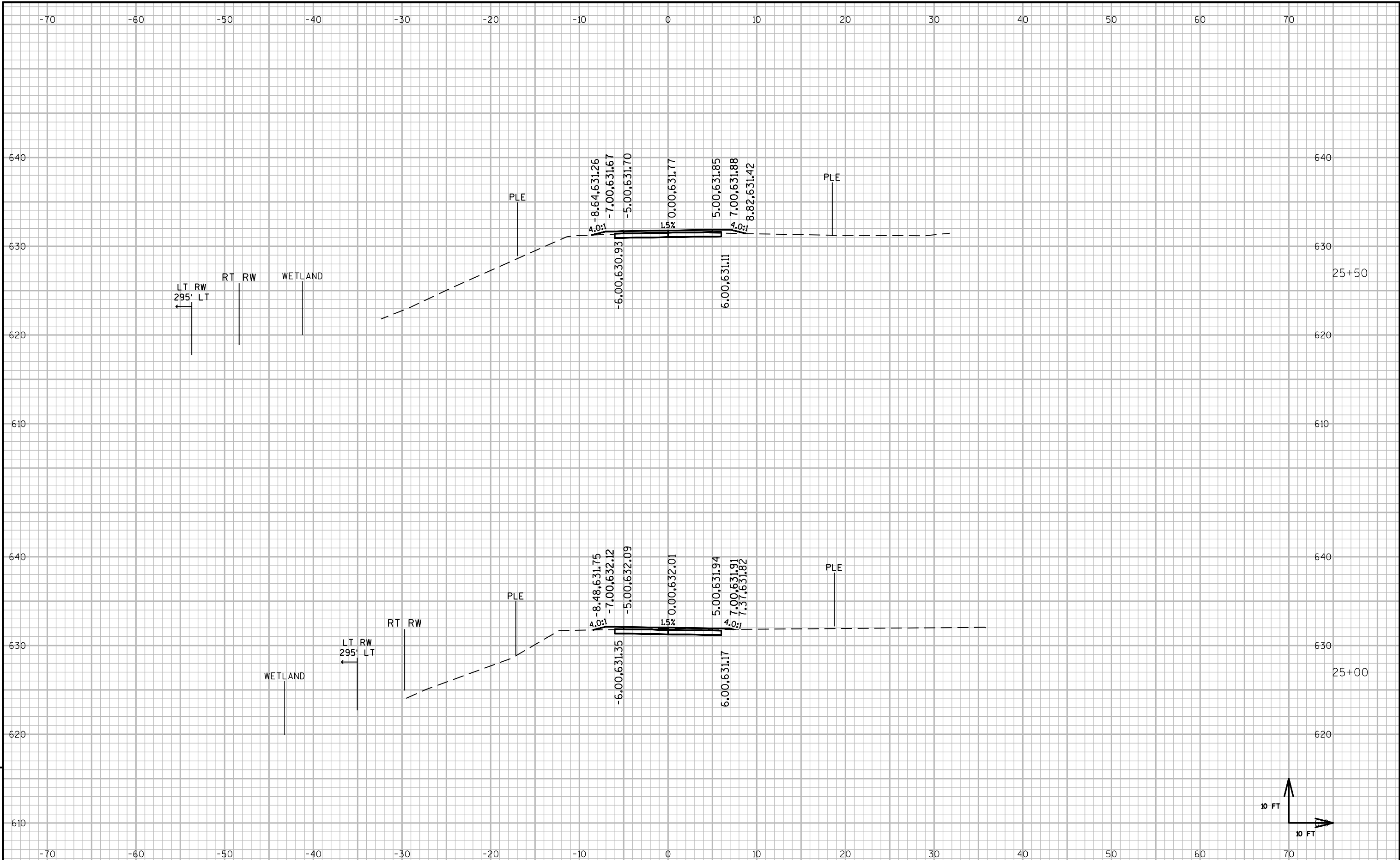
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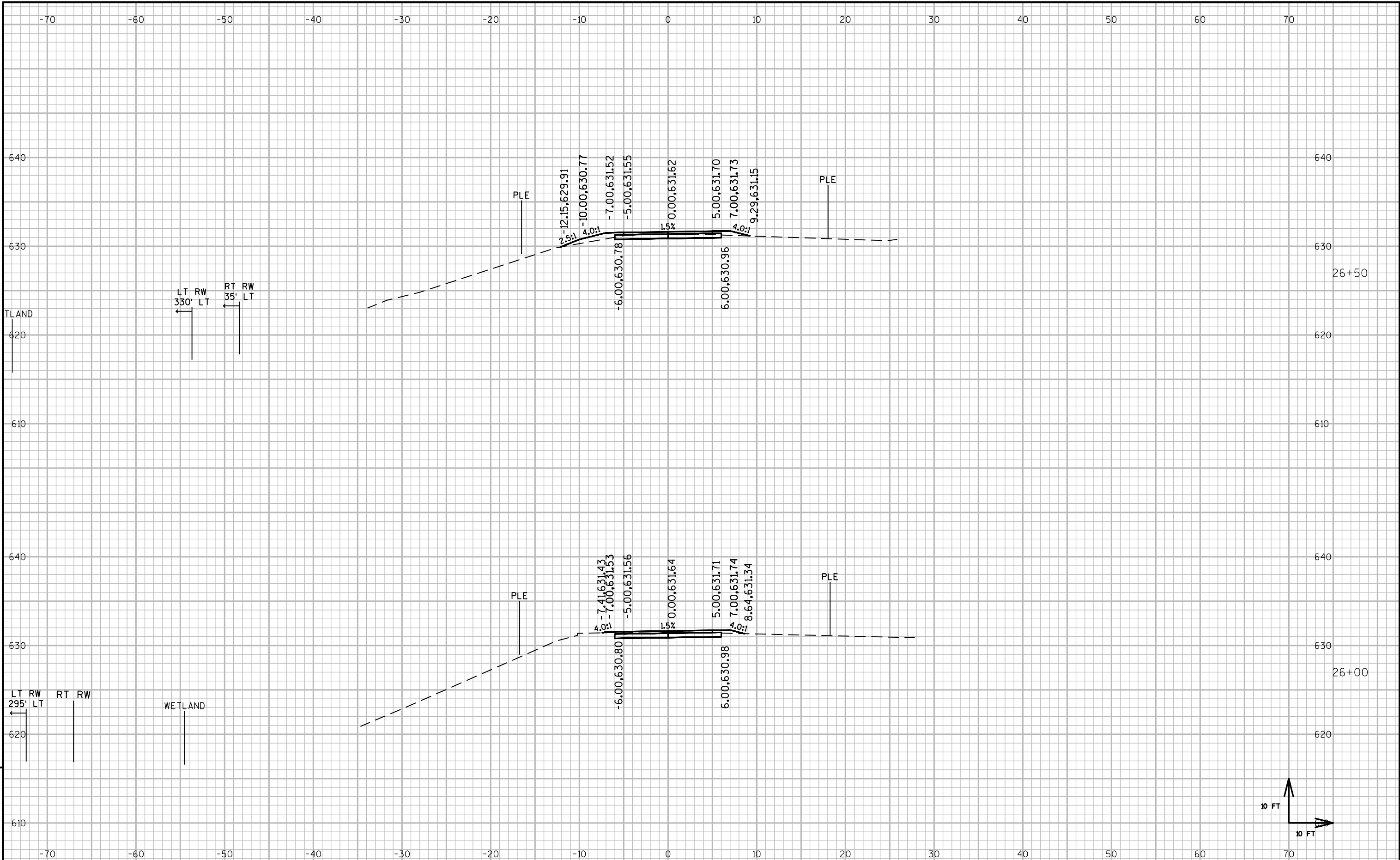


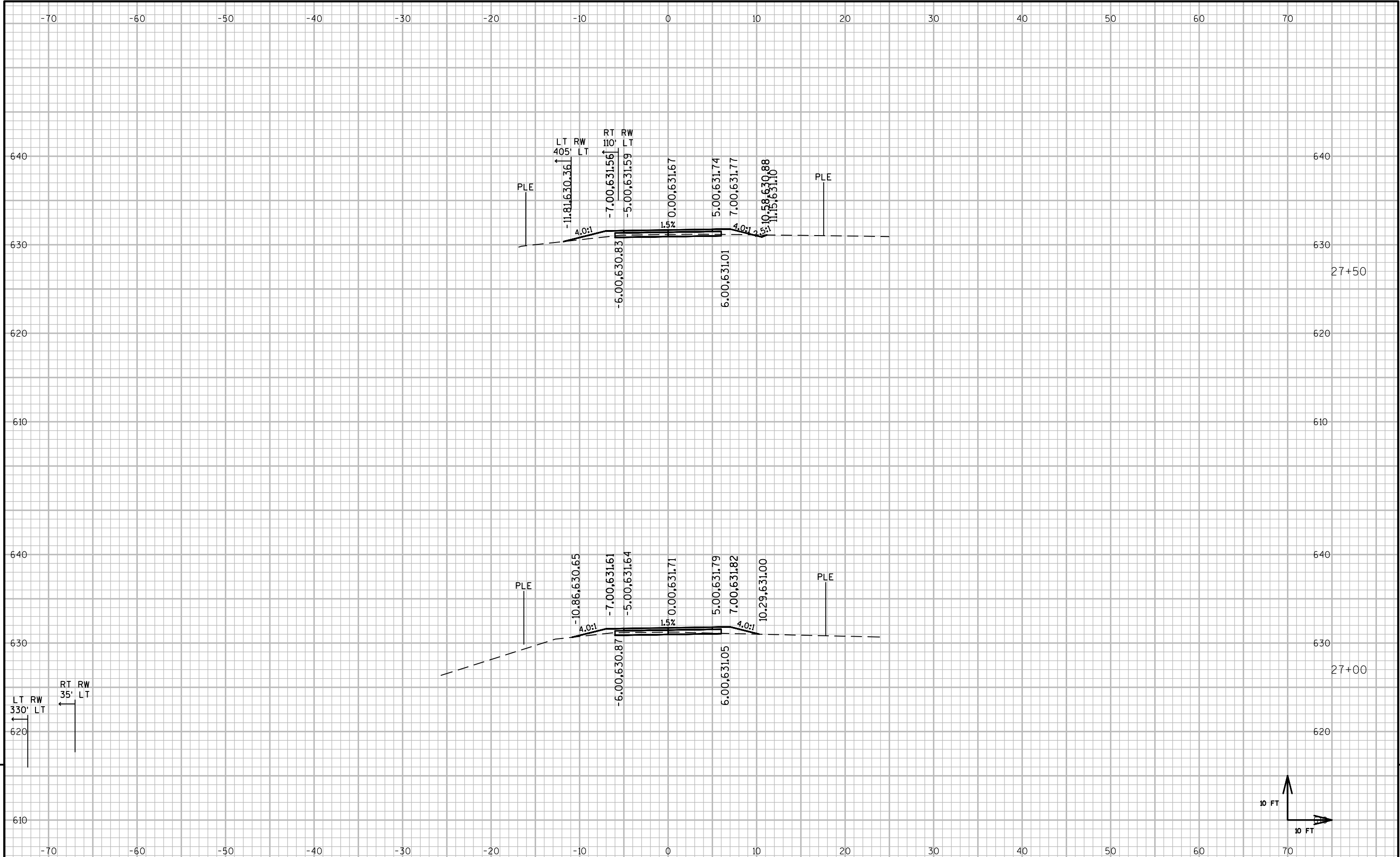


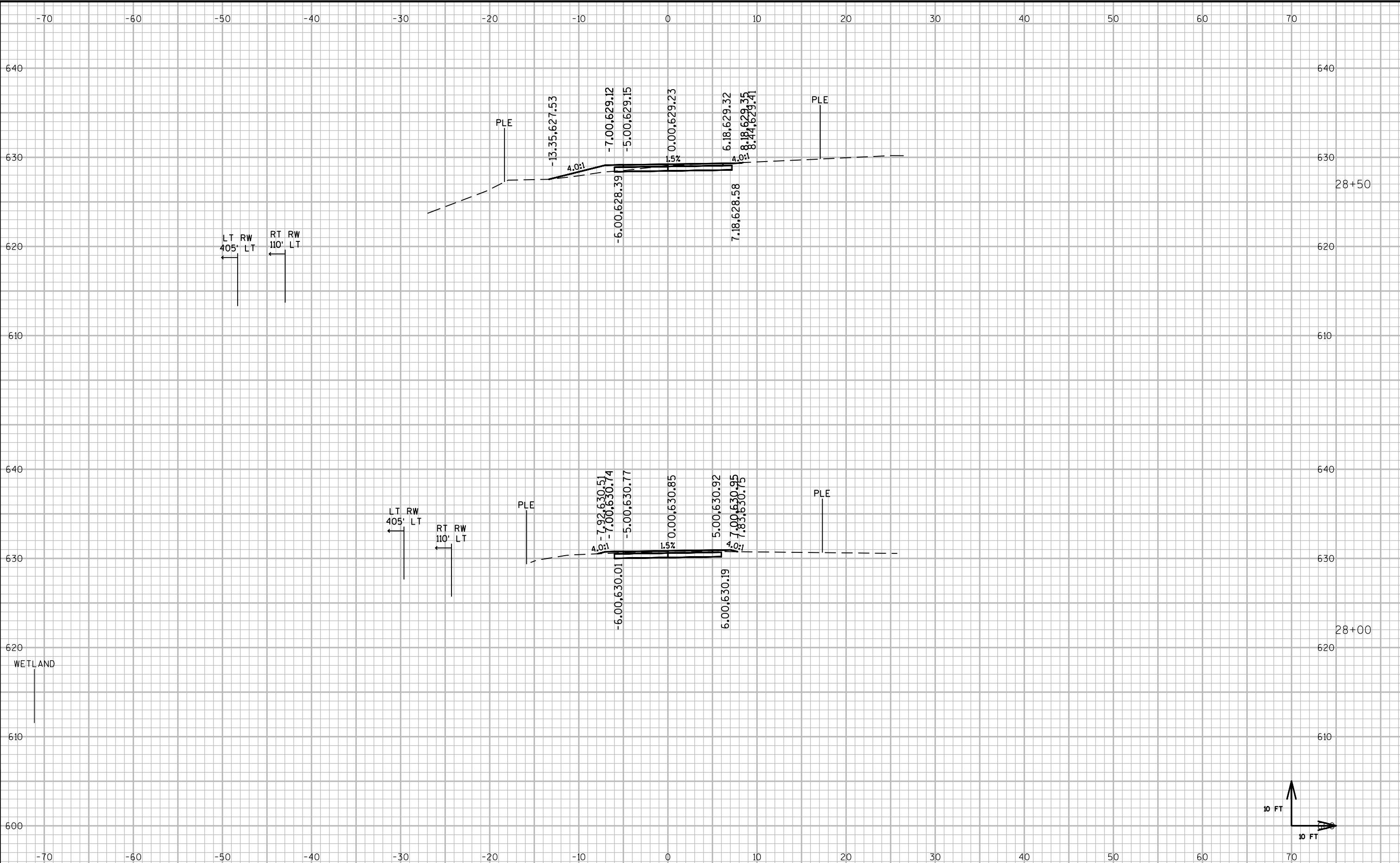








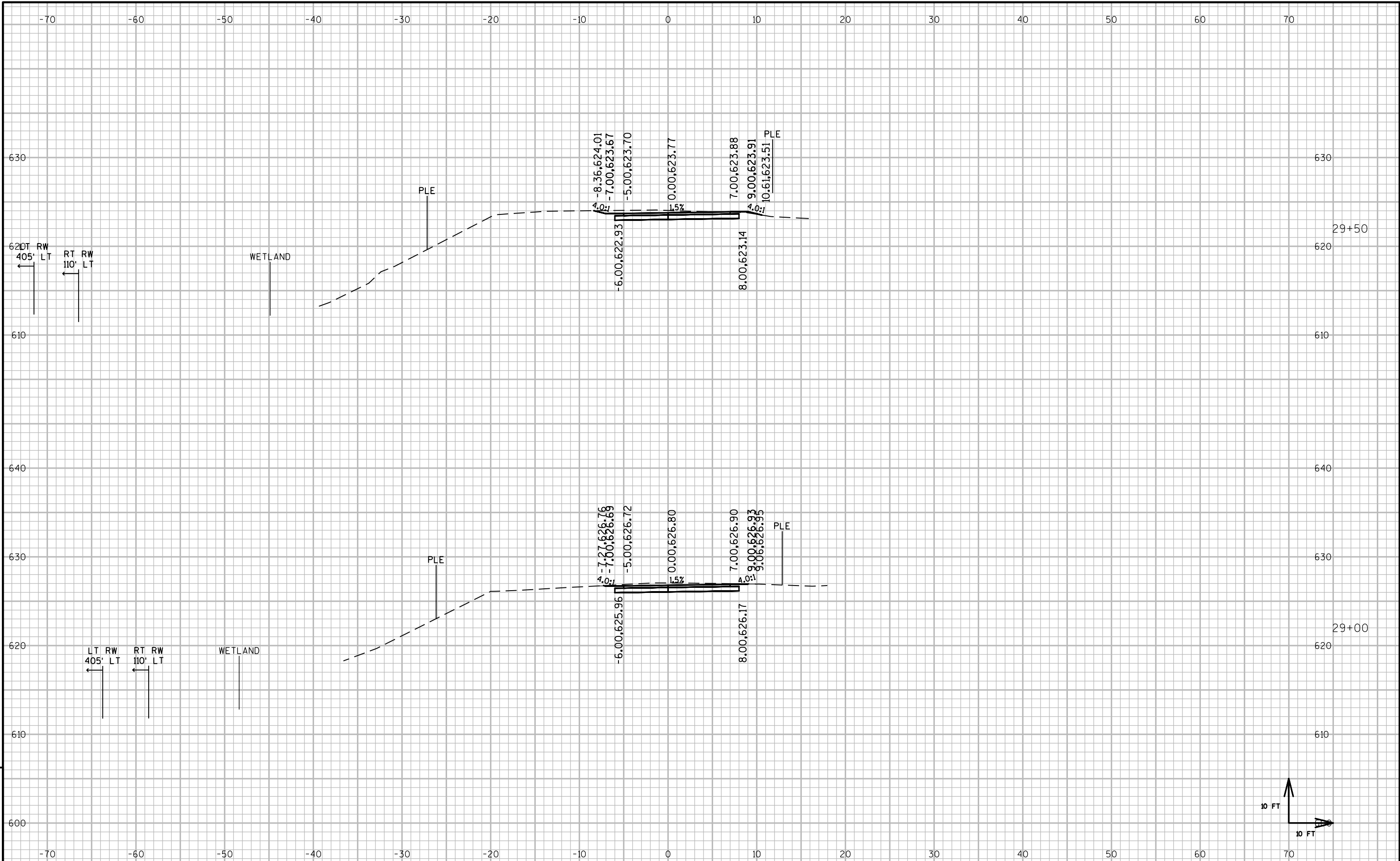


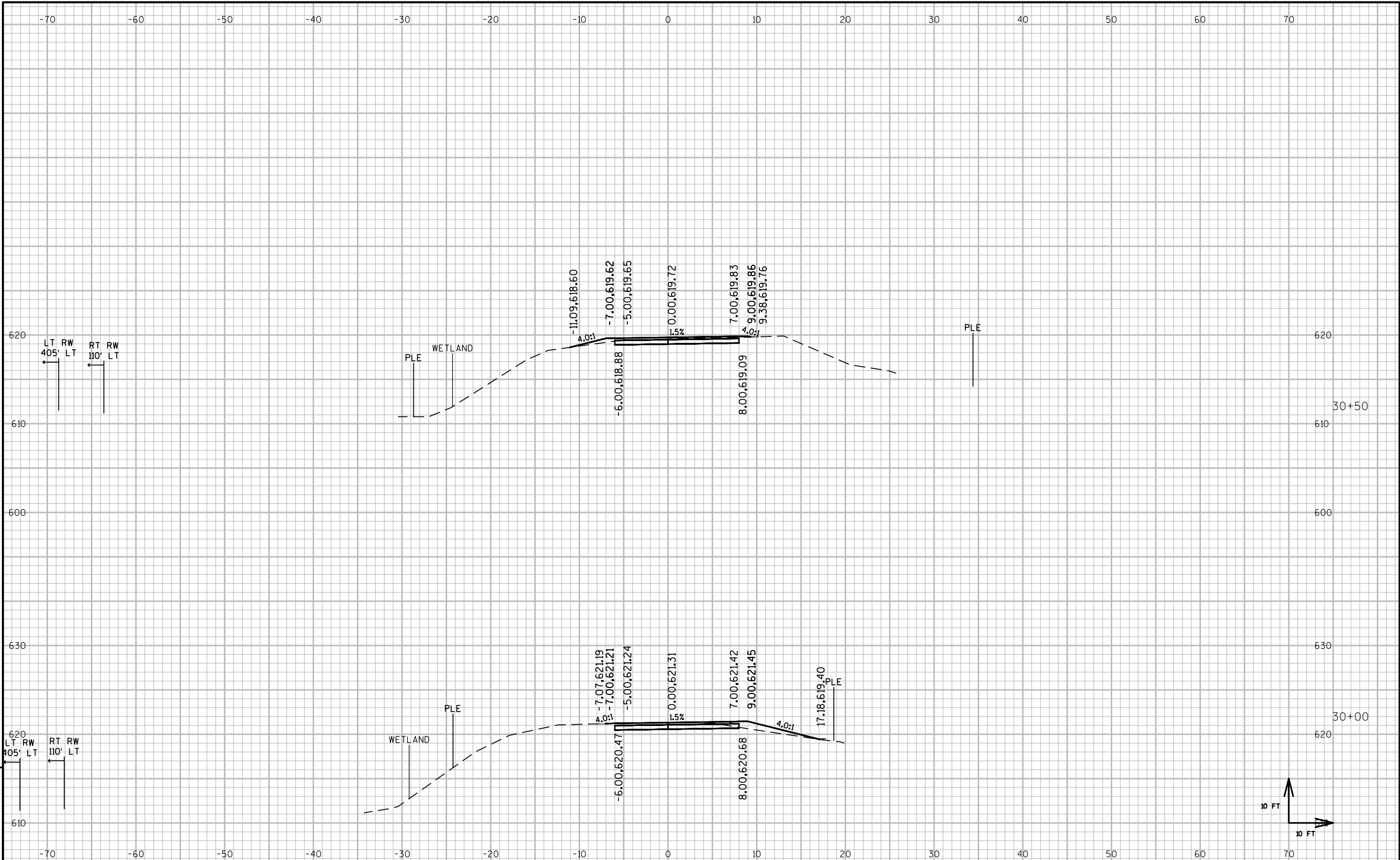


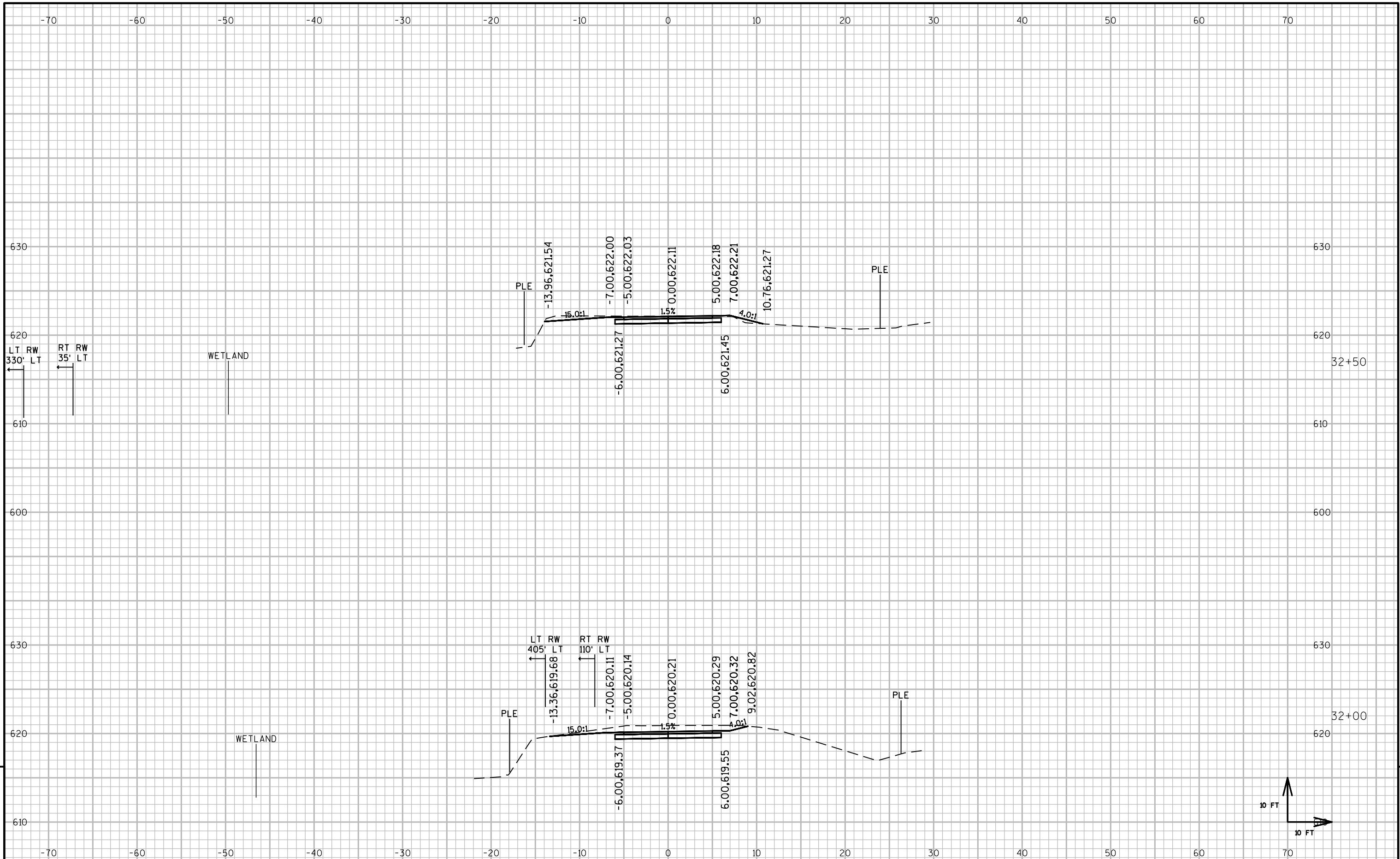
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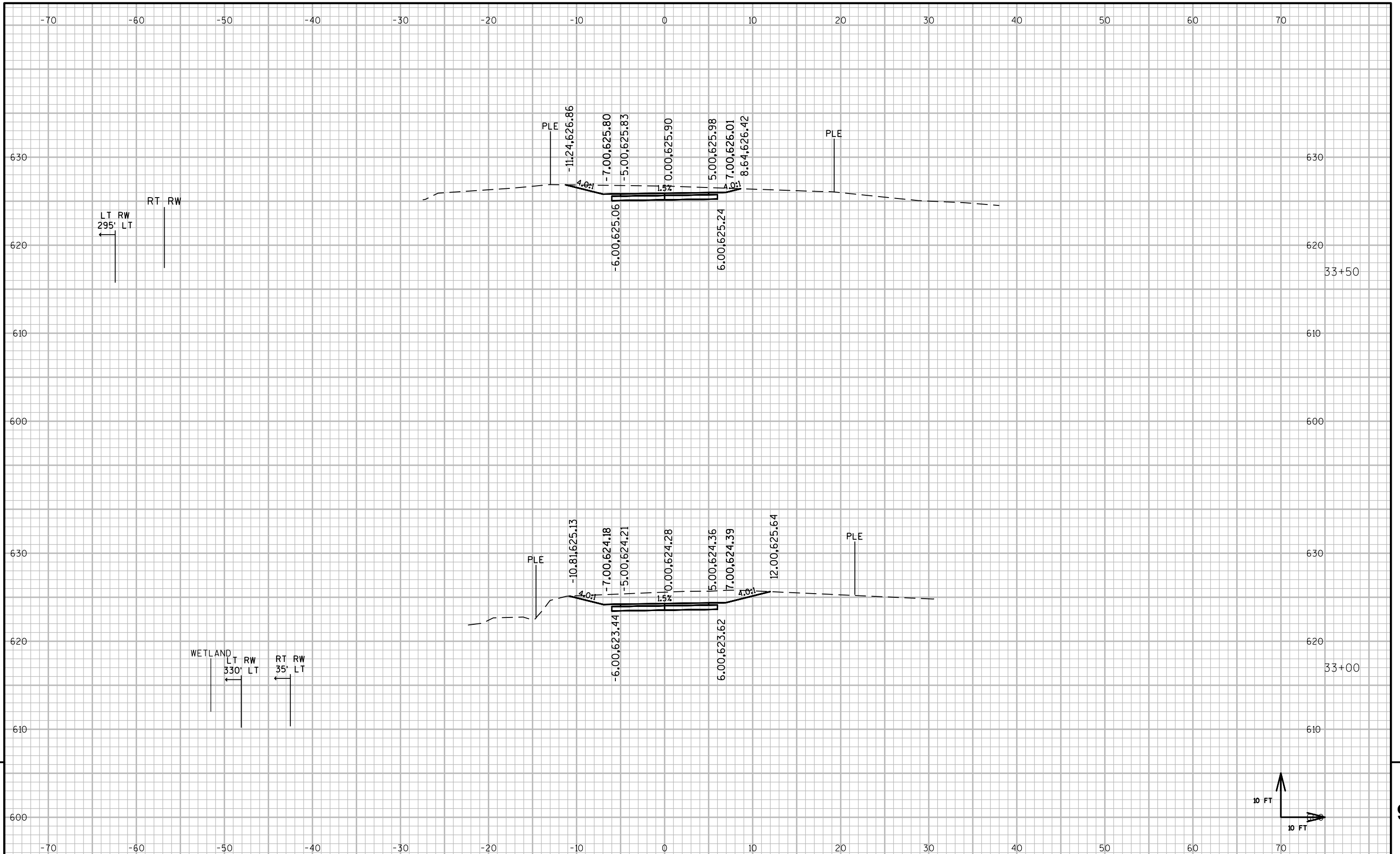
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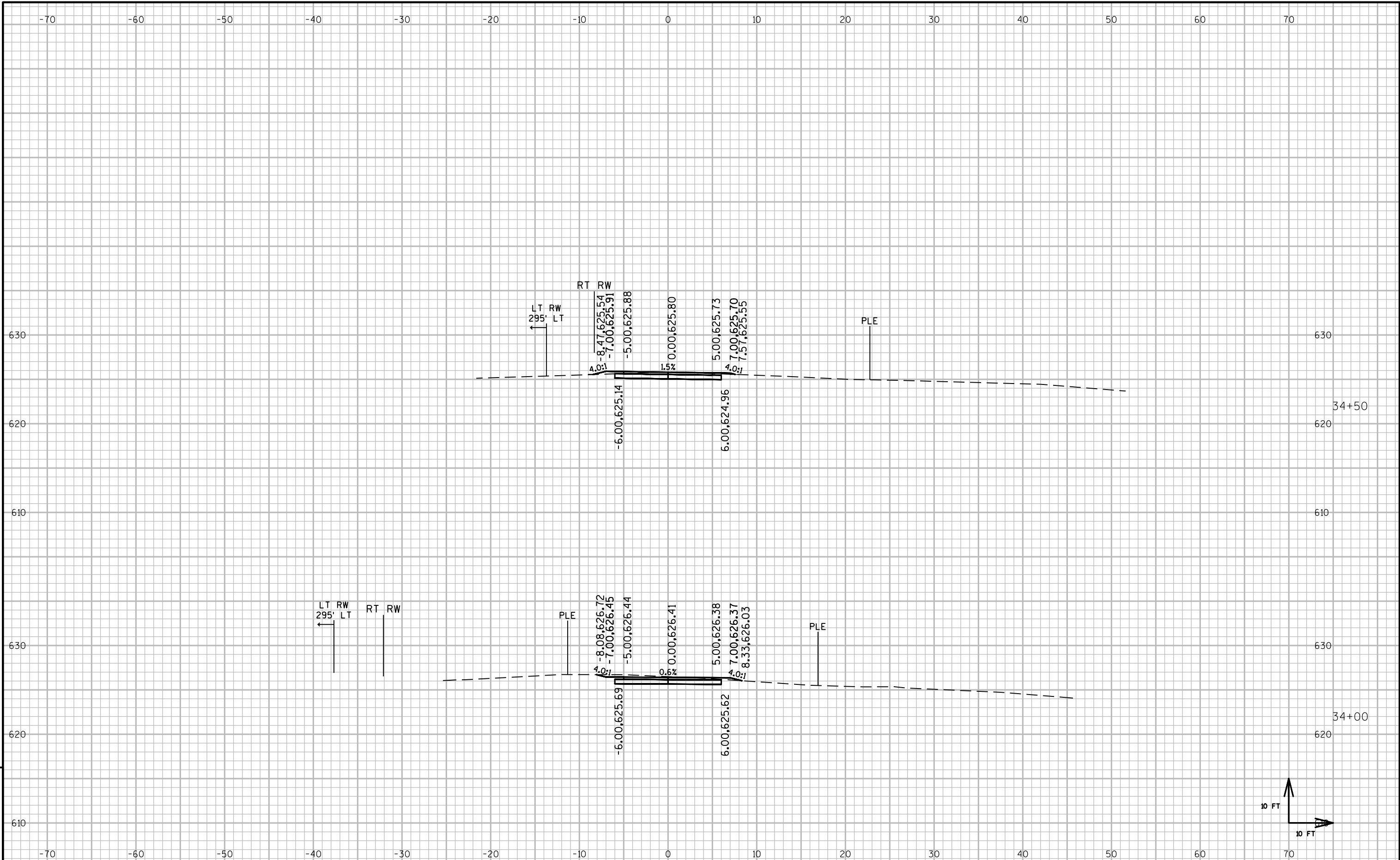
PROJECT NO: 4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	CROSS SECTIONS: MAINLINE	SHEET 131	E
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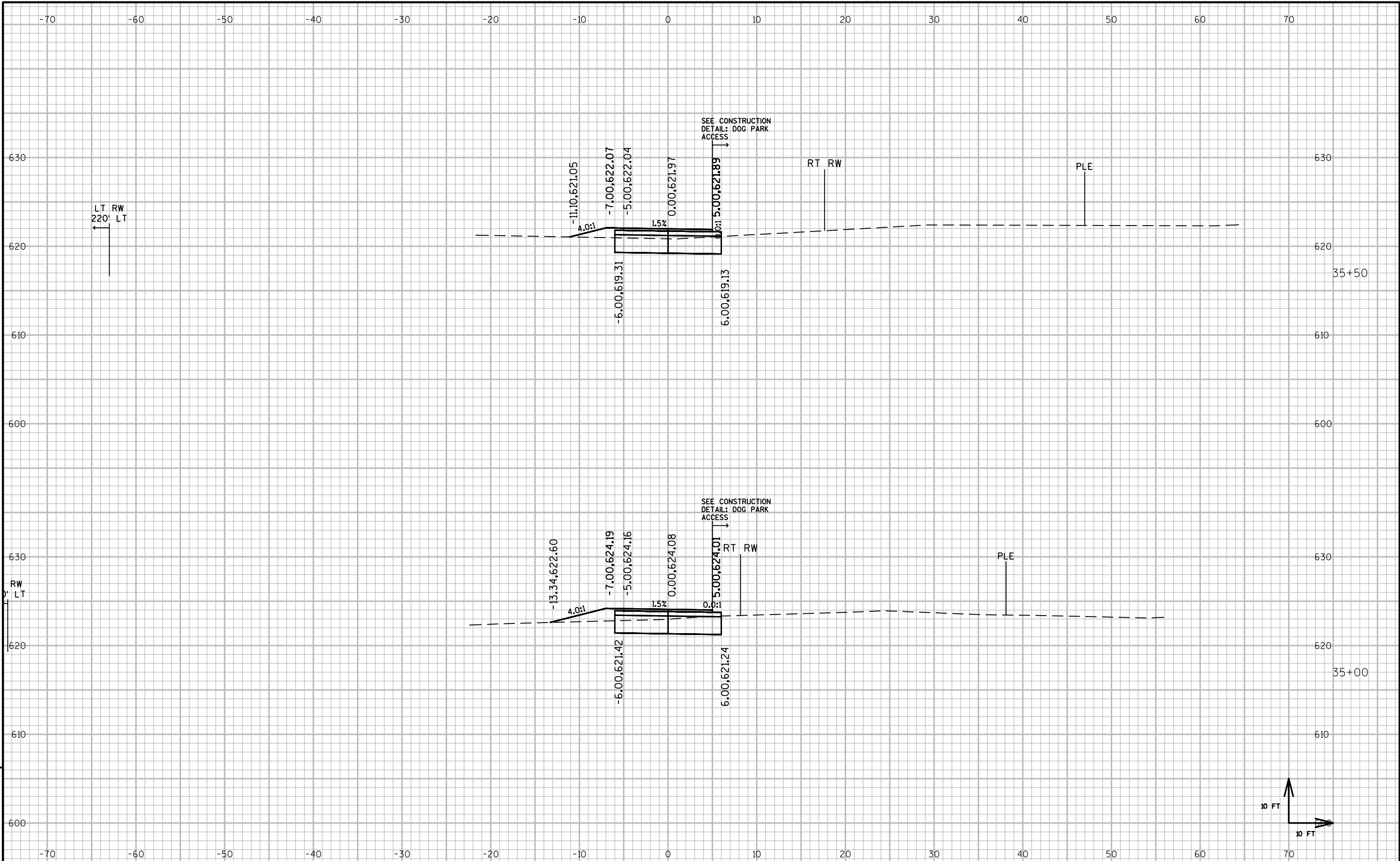


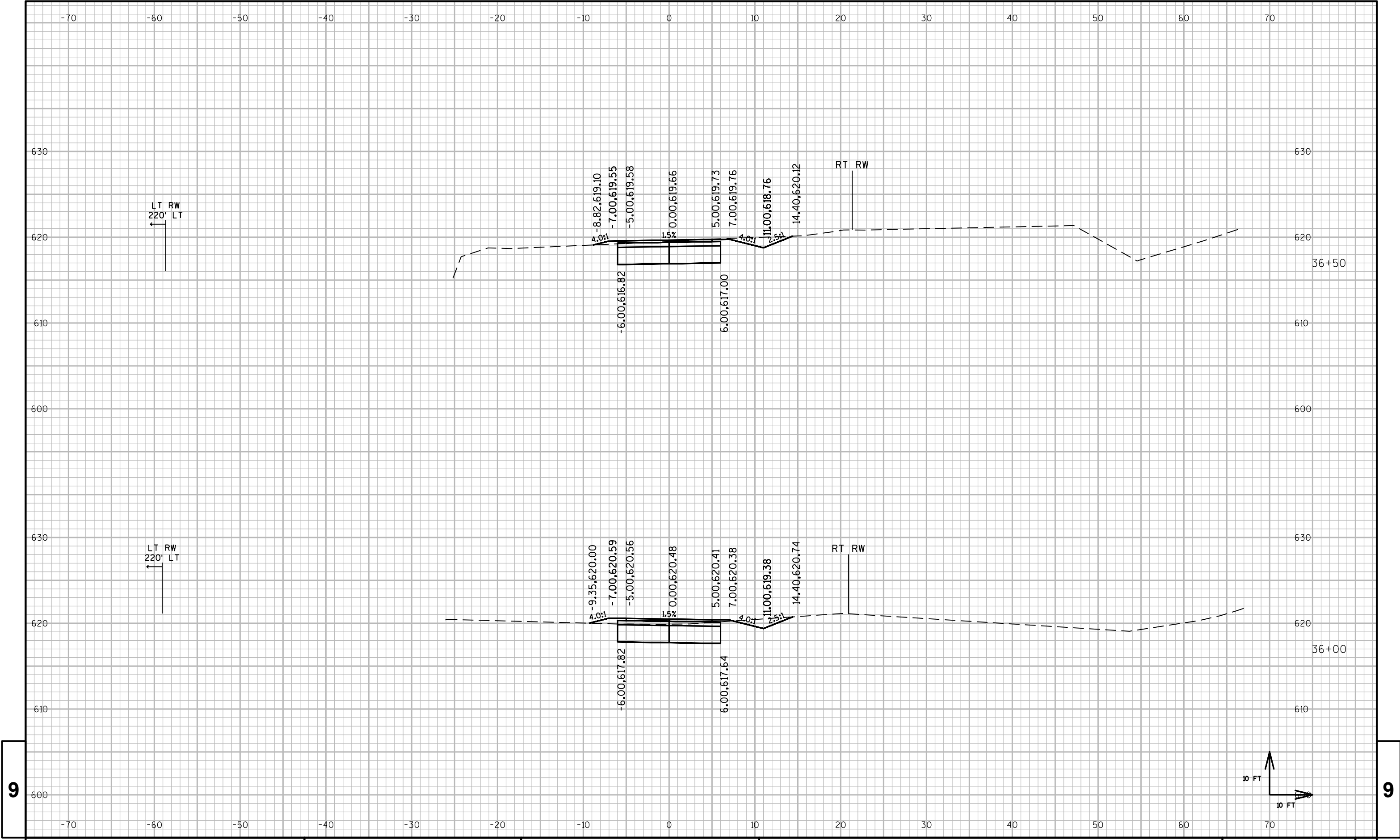


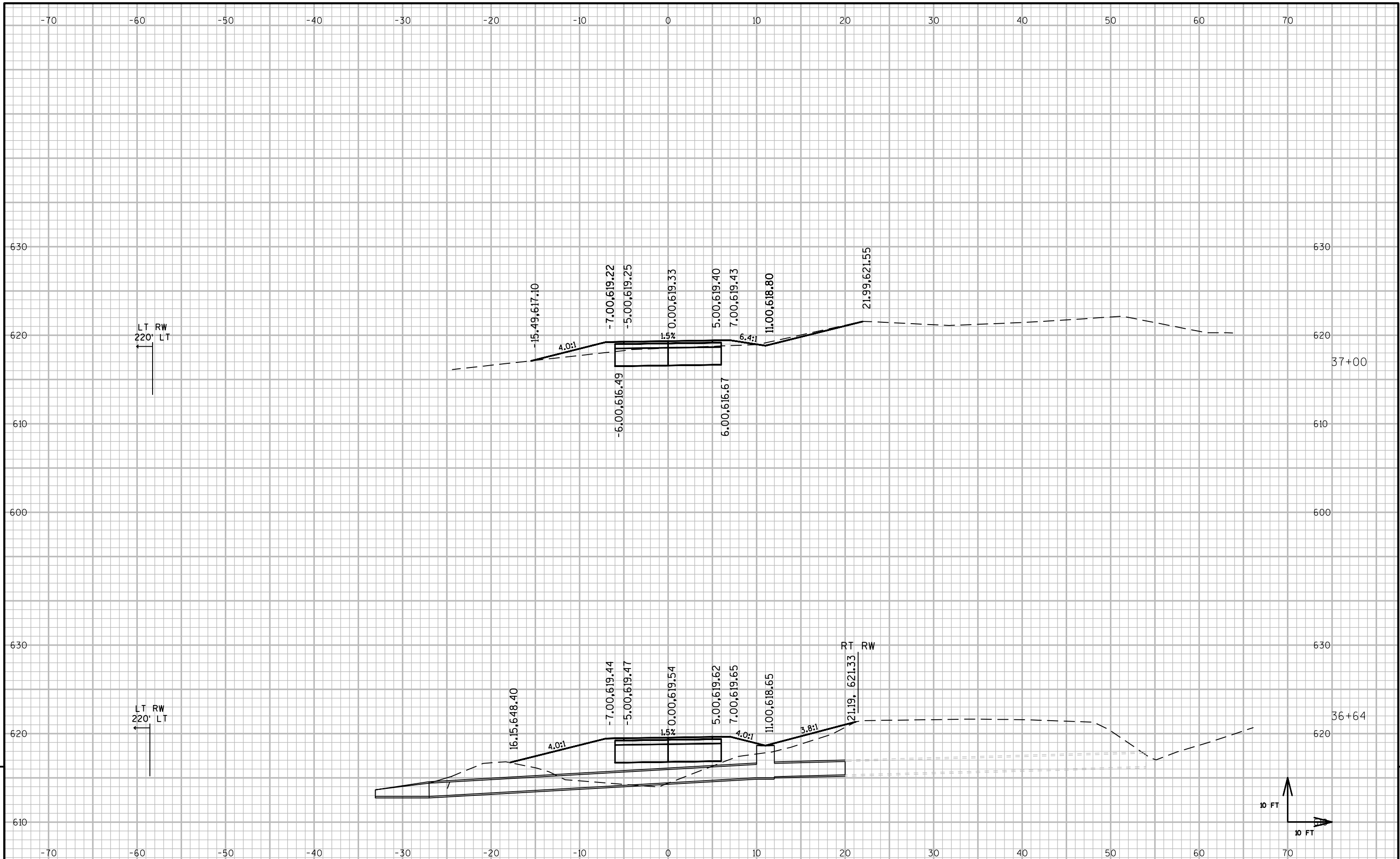


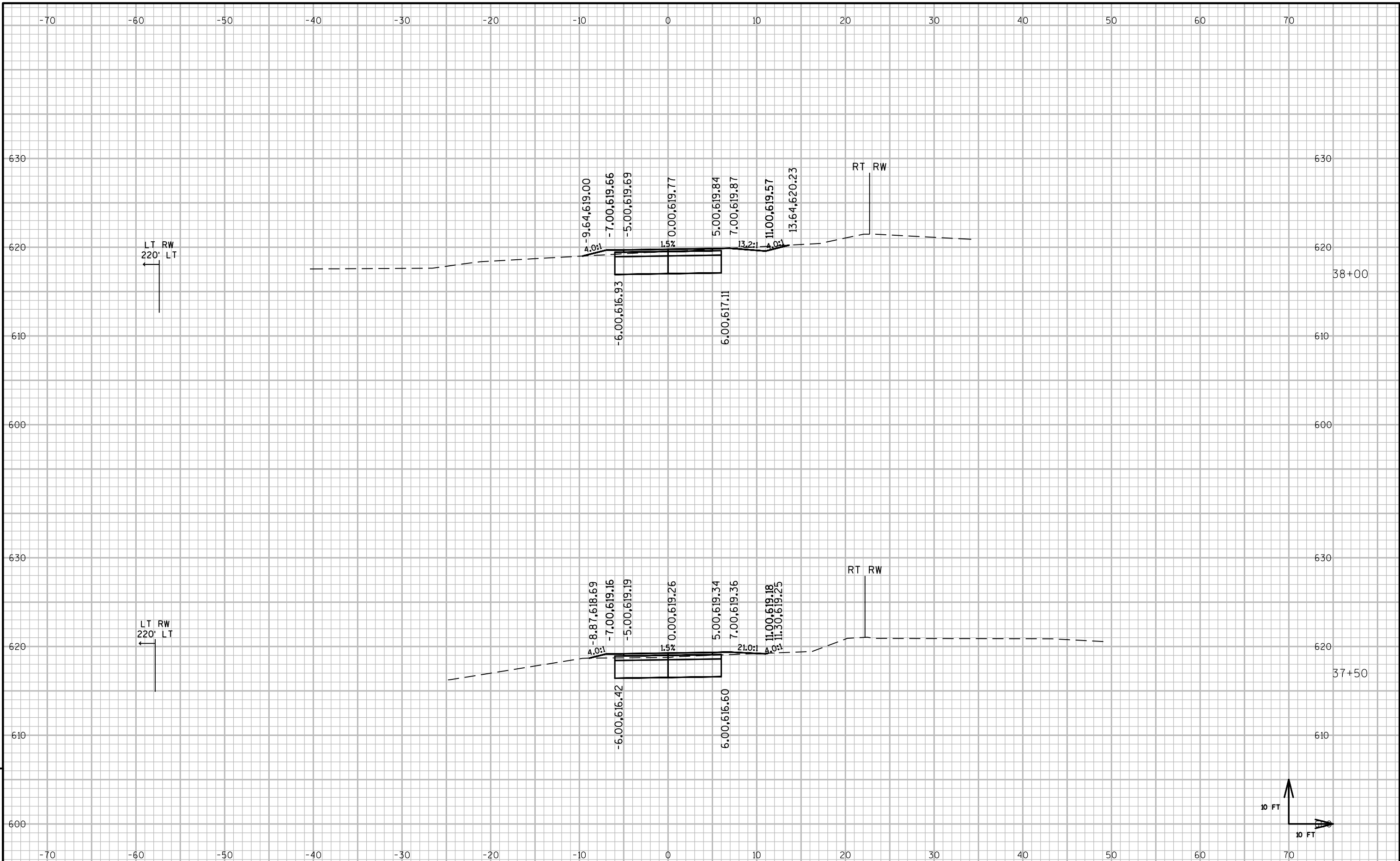


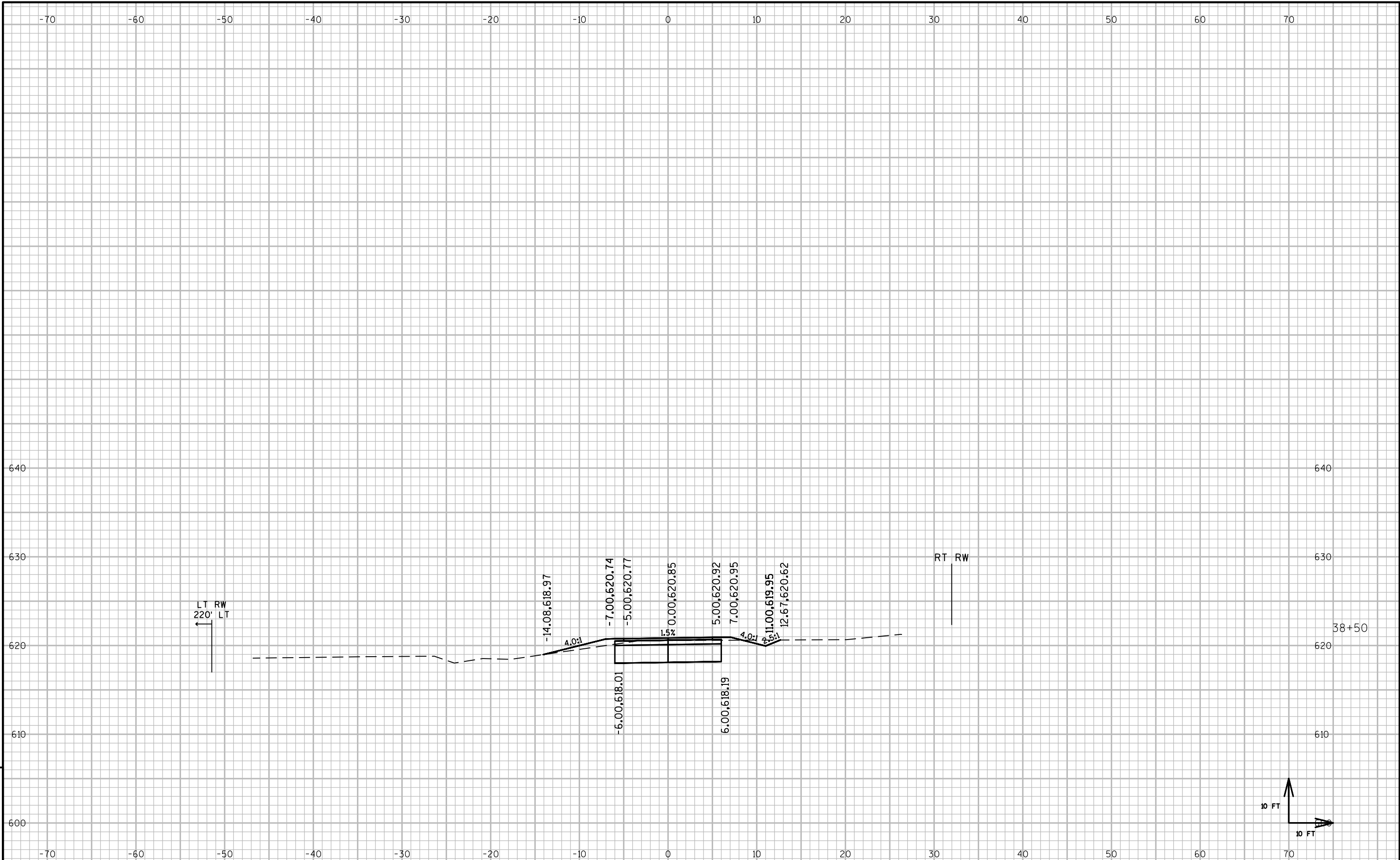






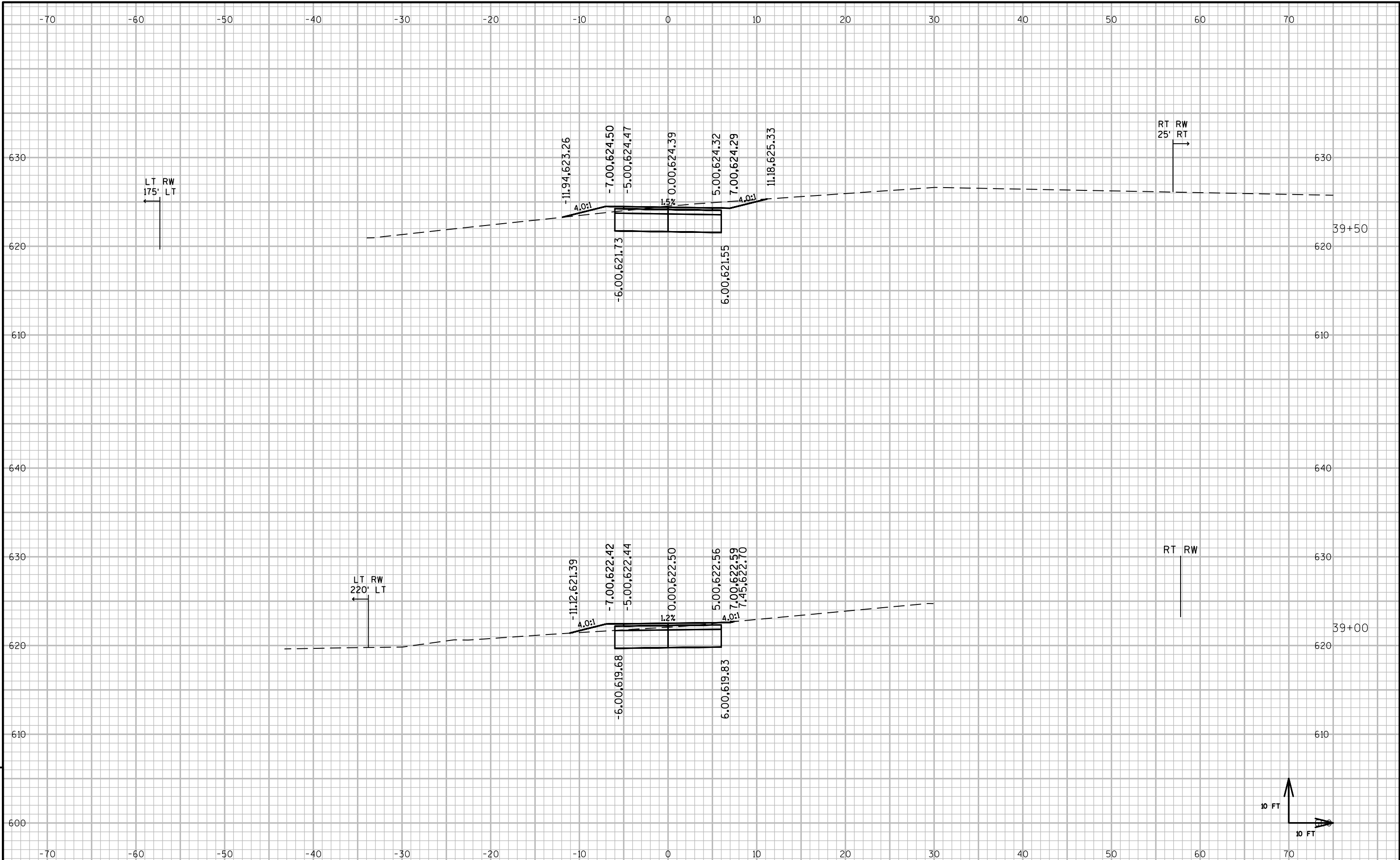


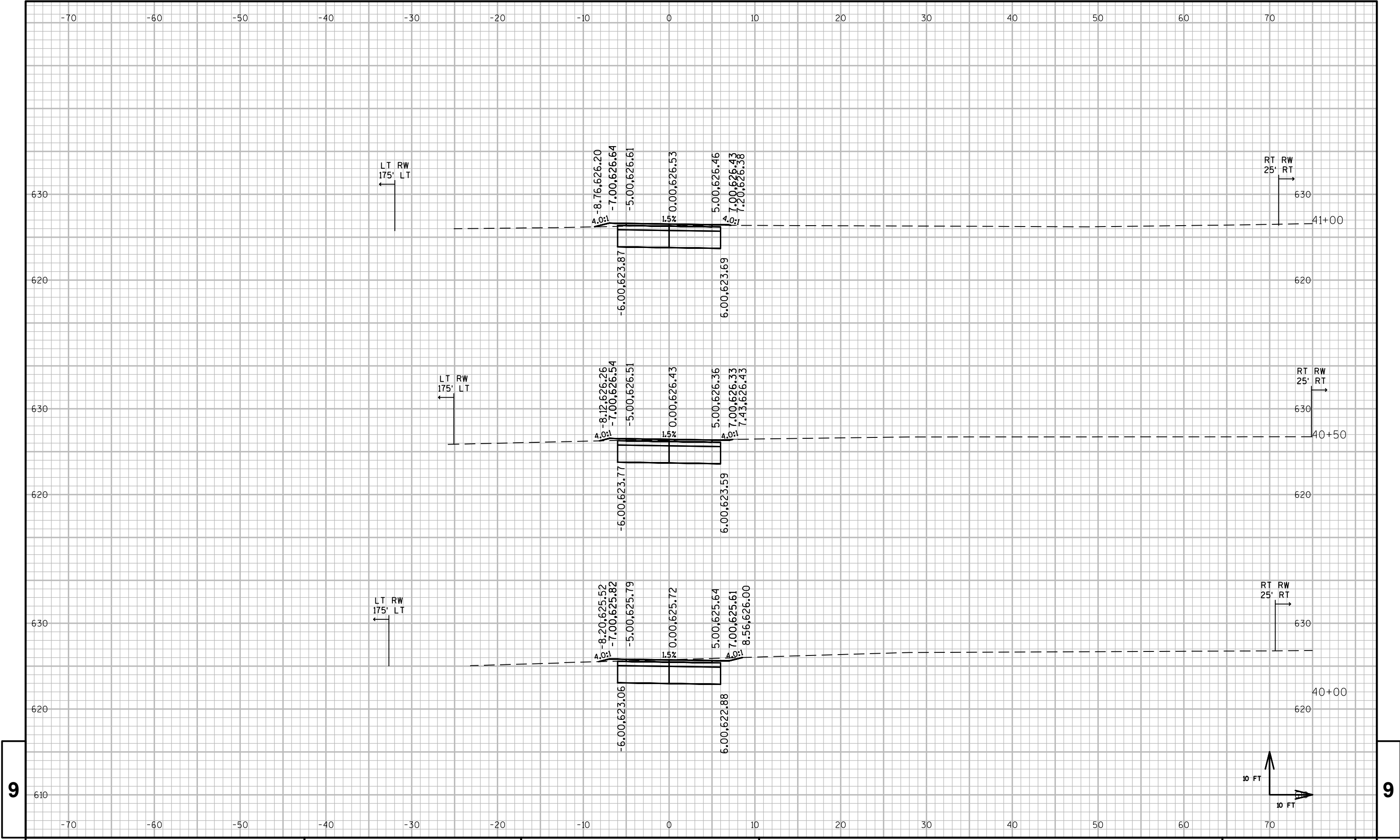


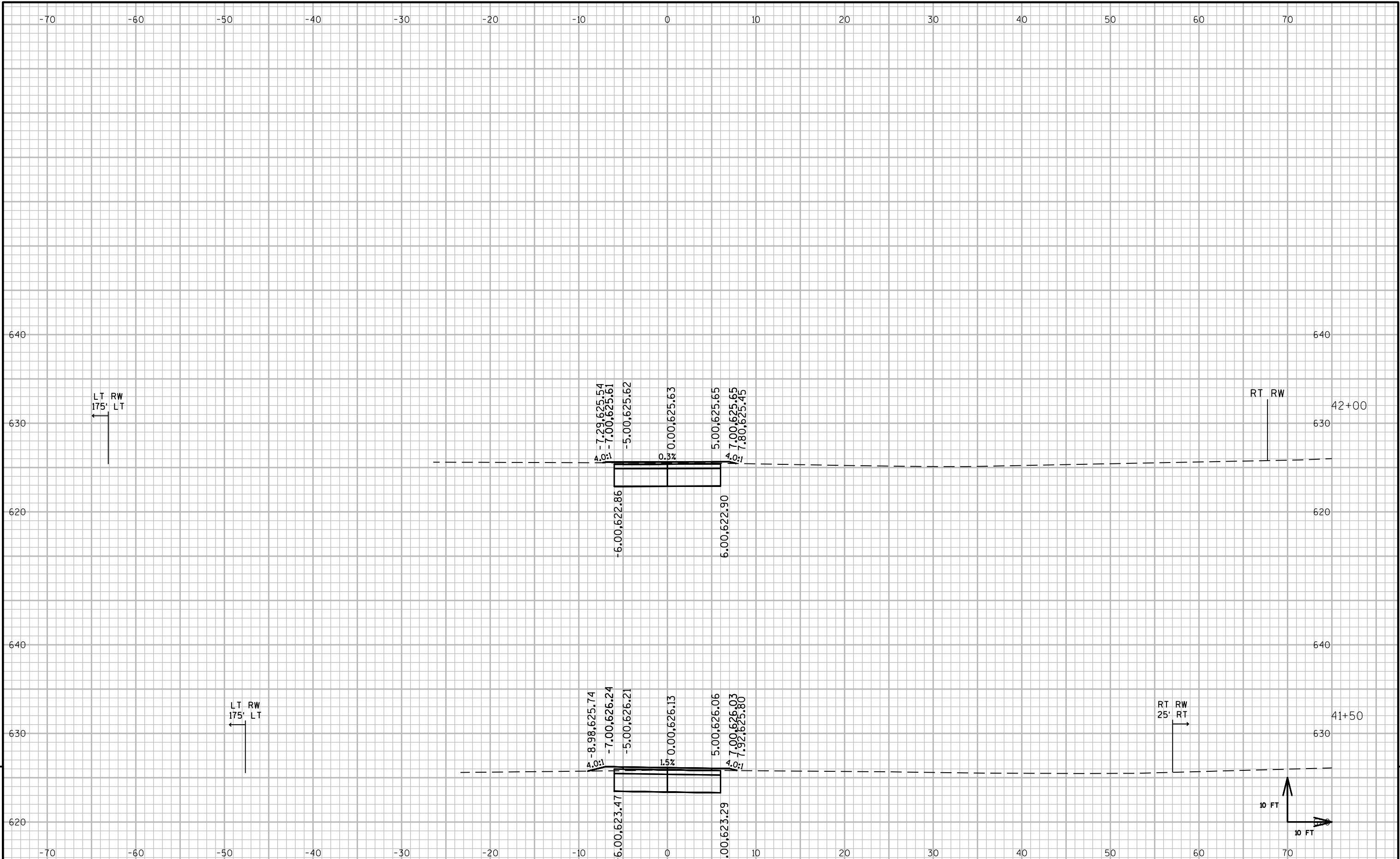


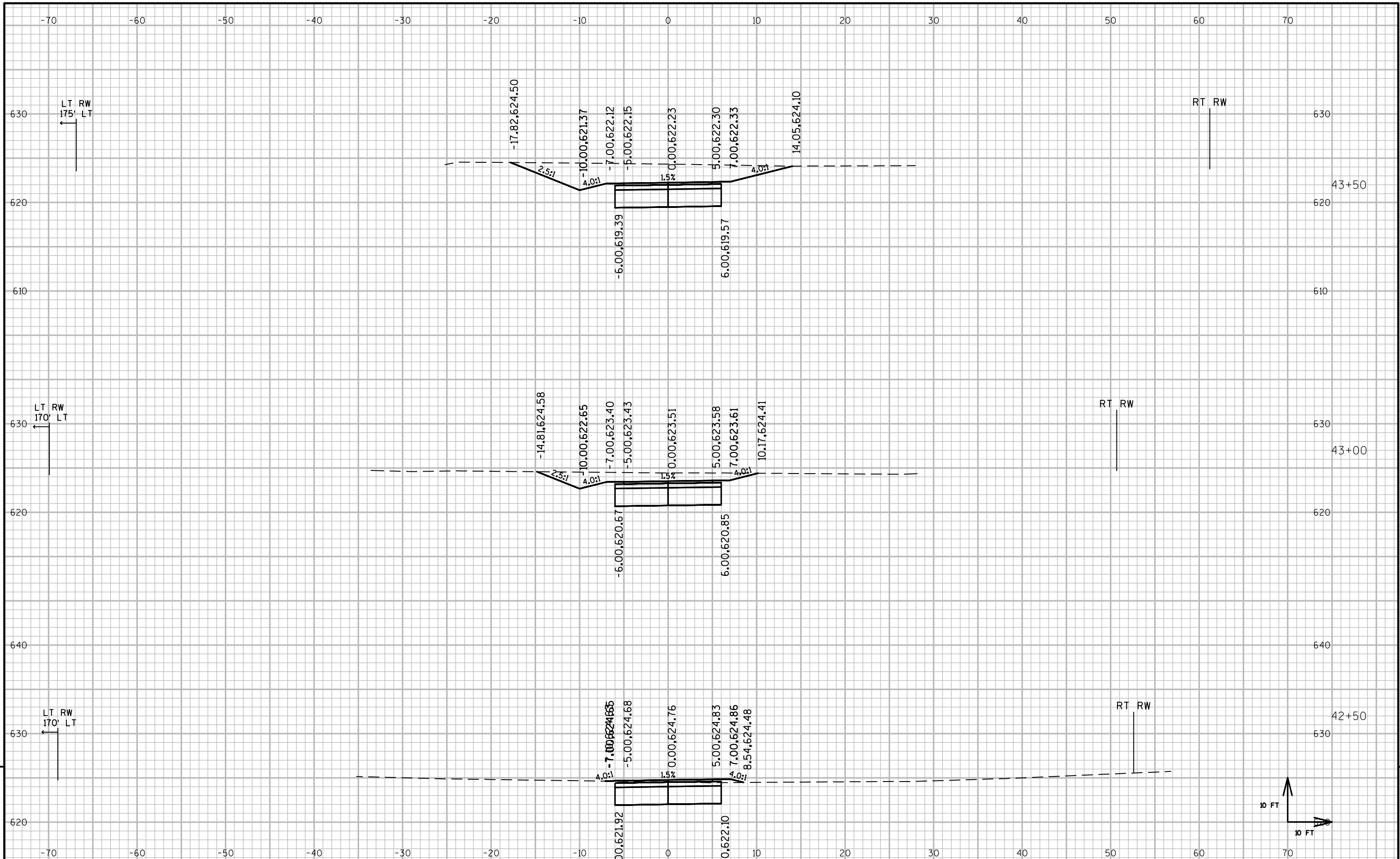
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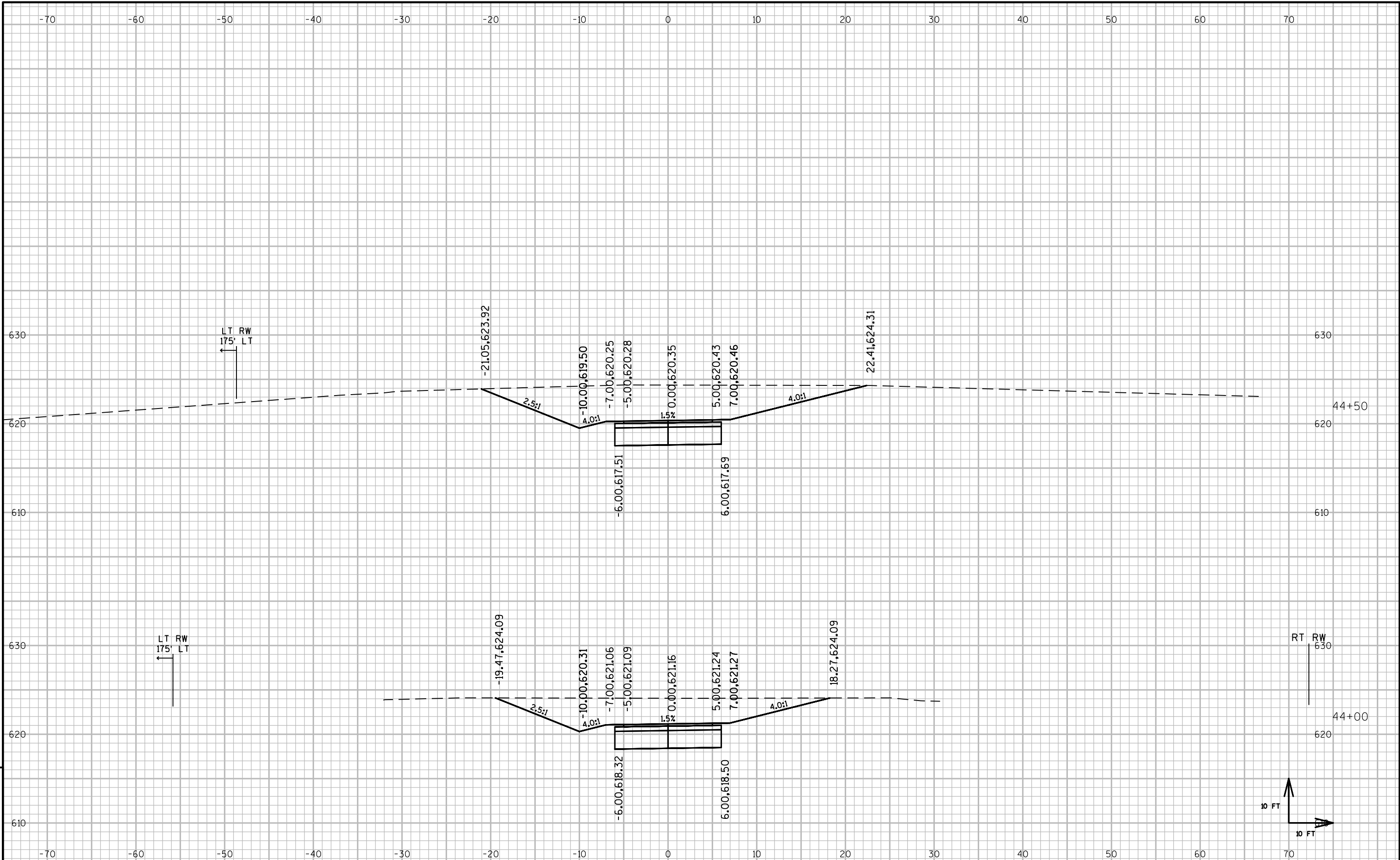
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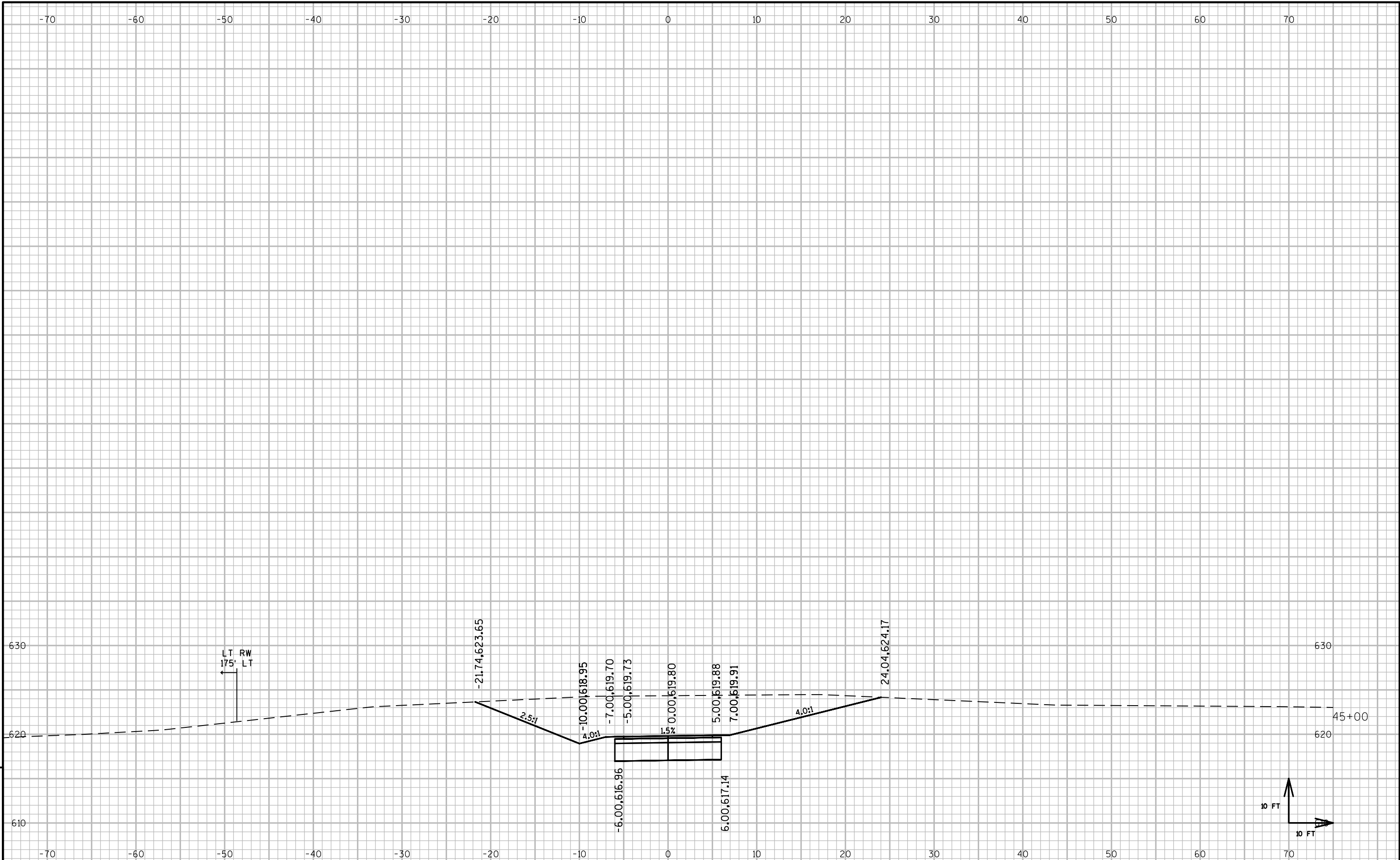


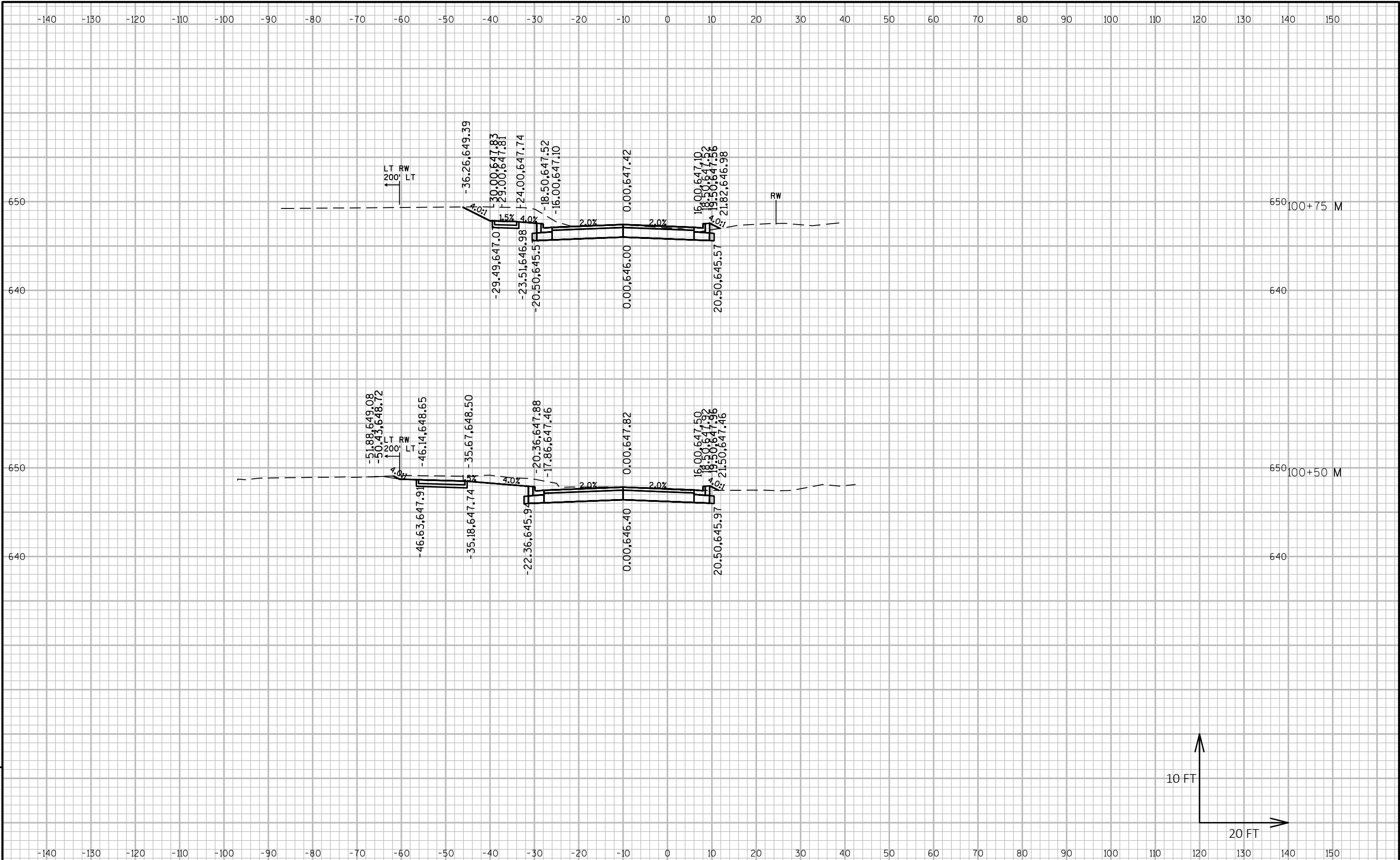


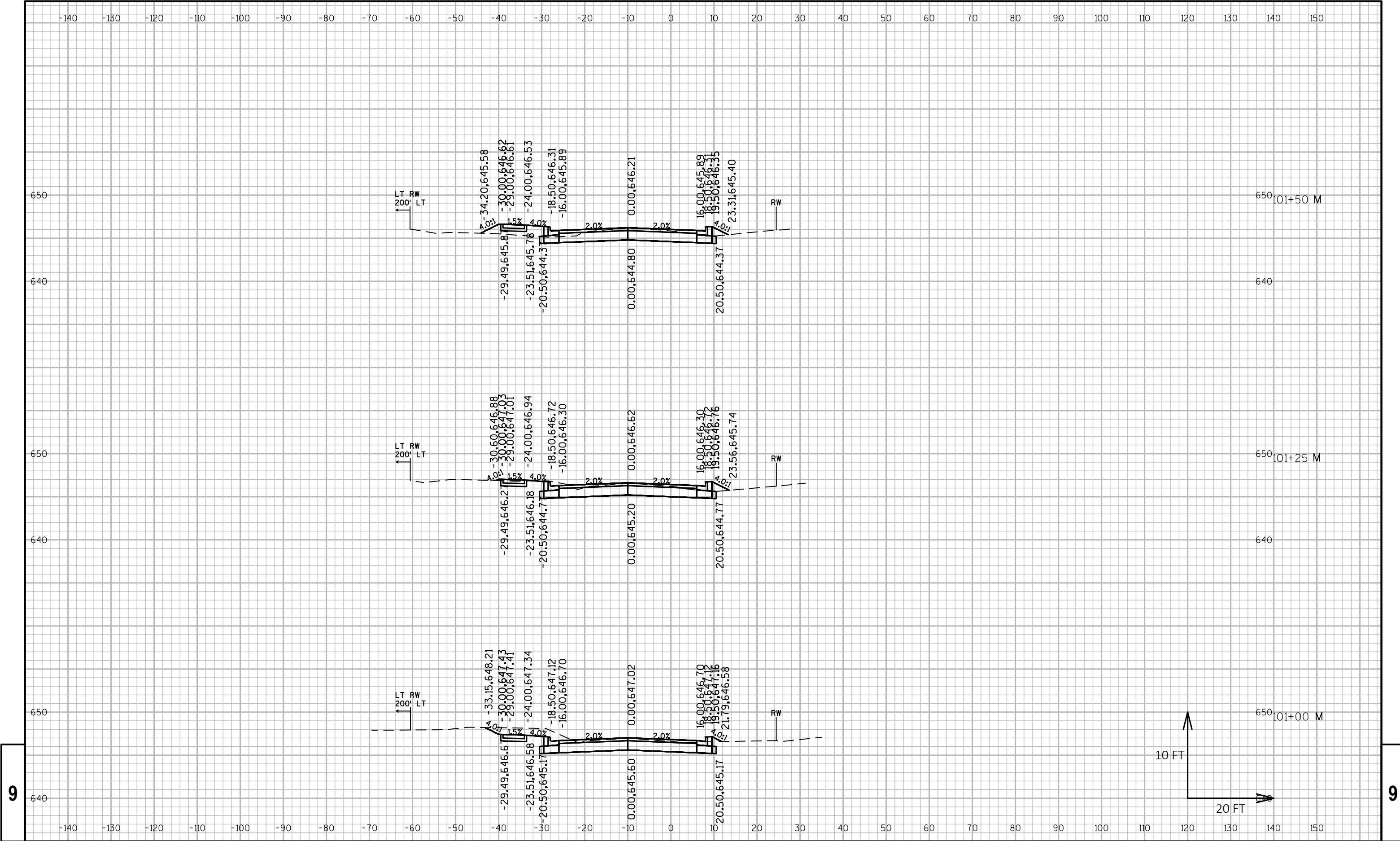






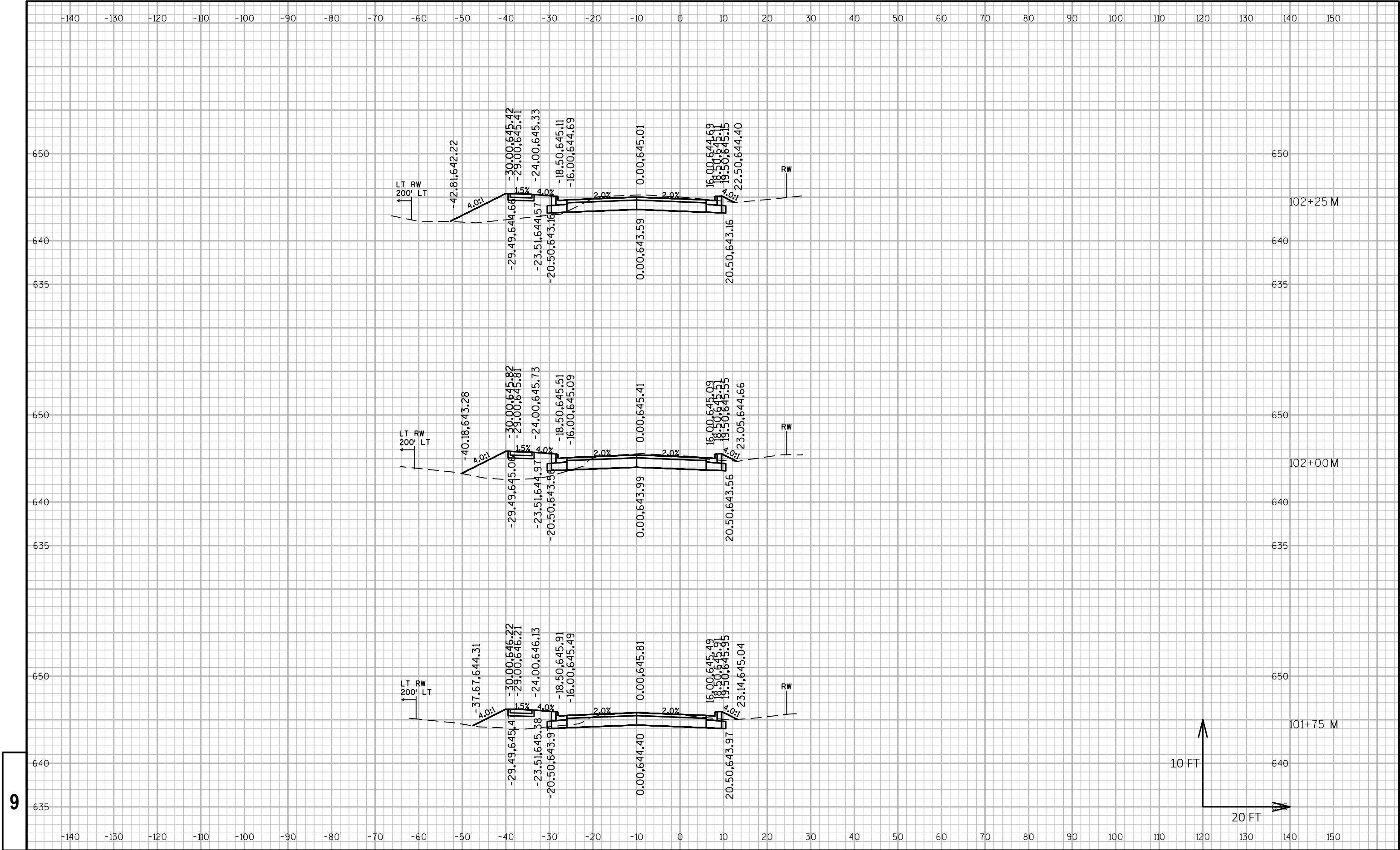


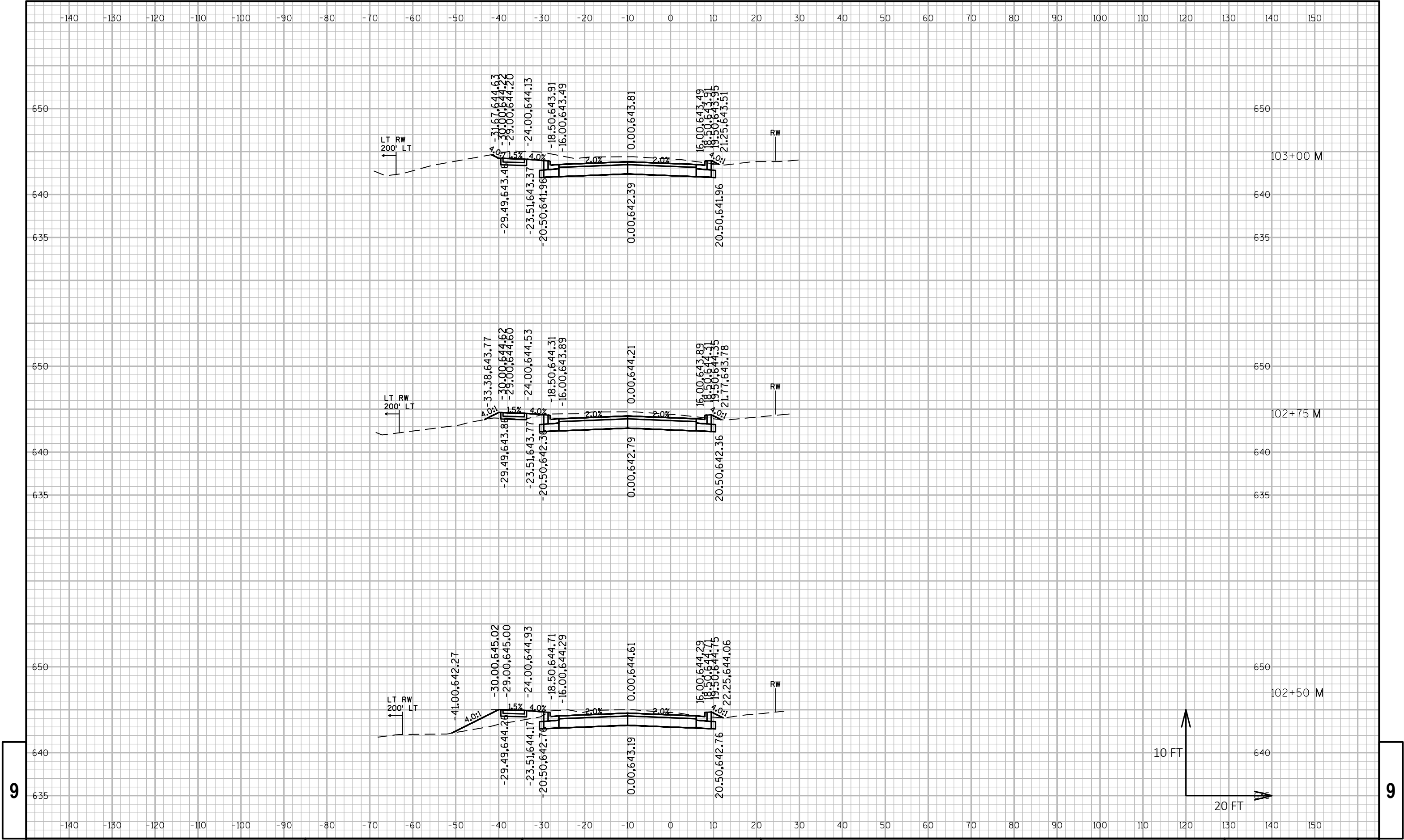


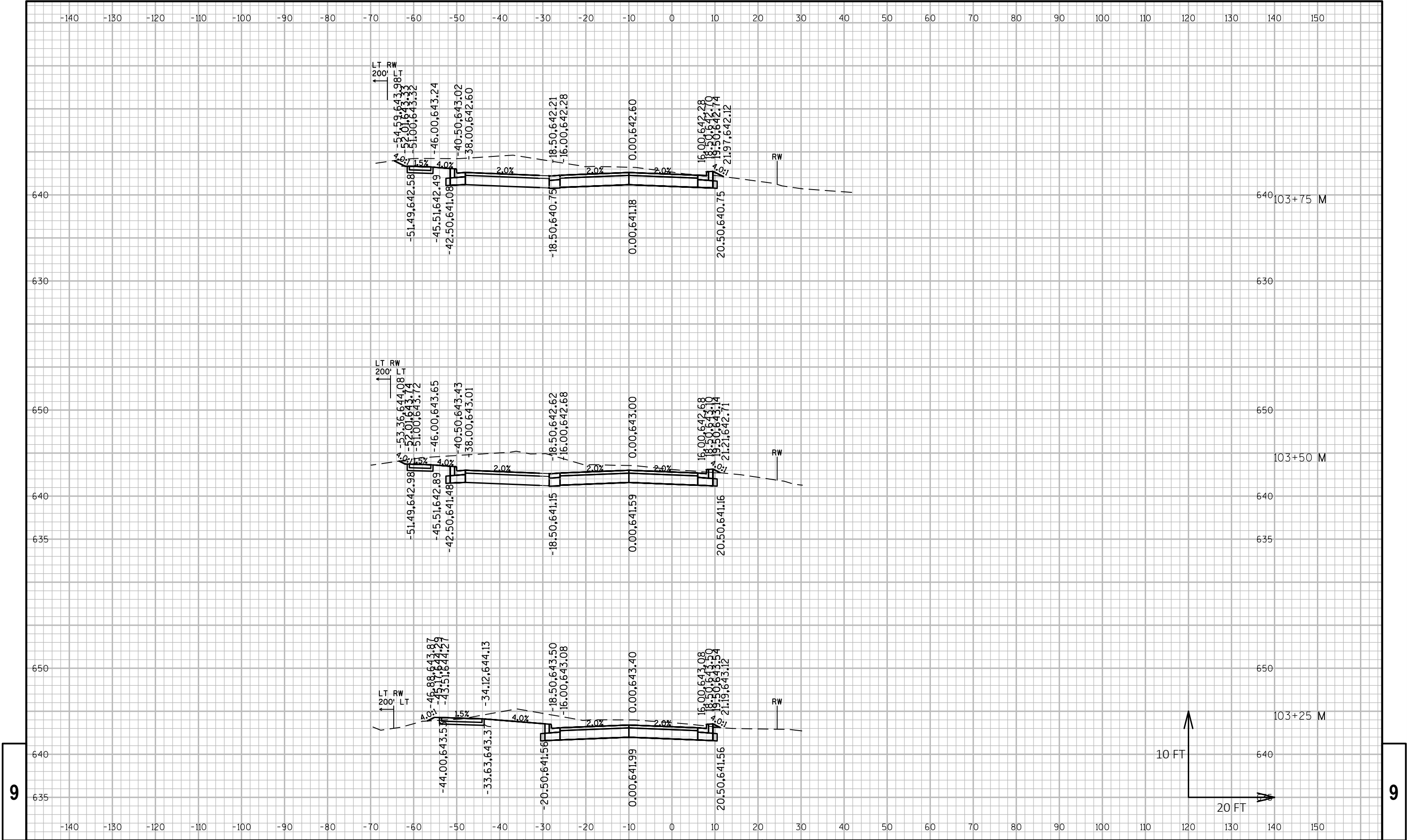


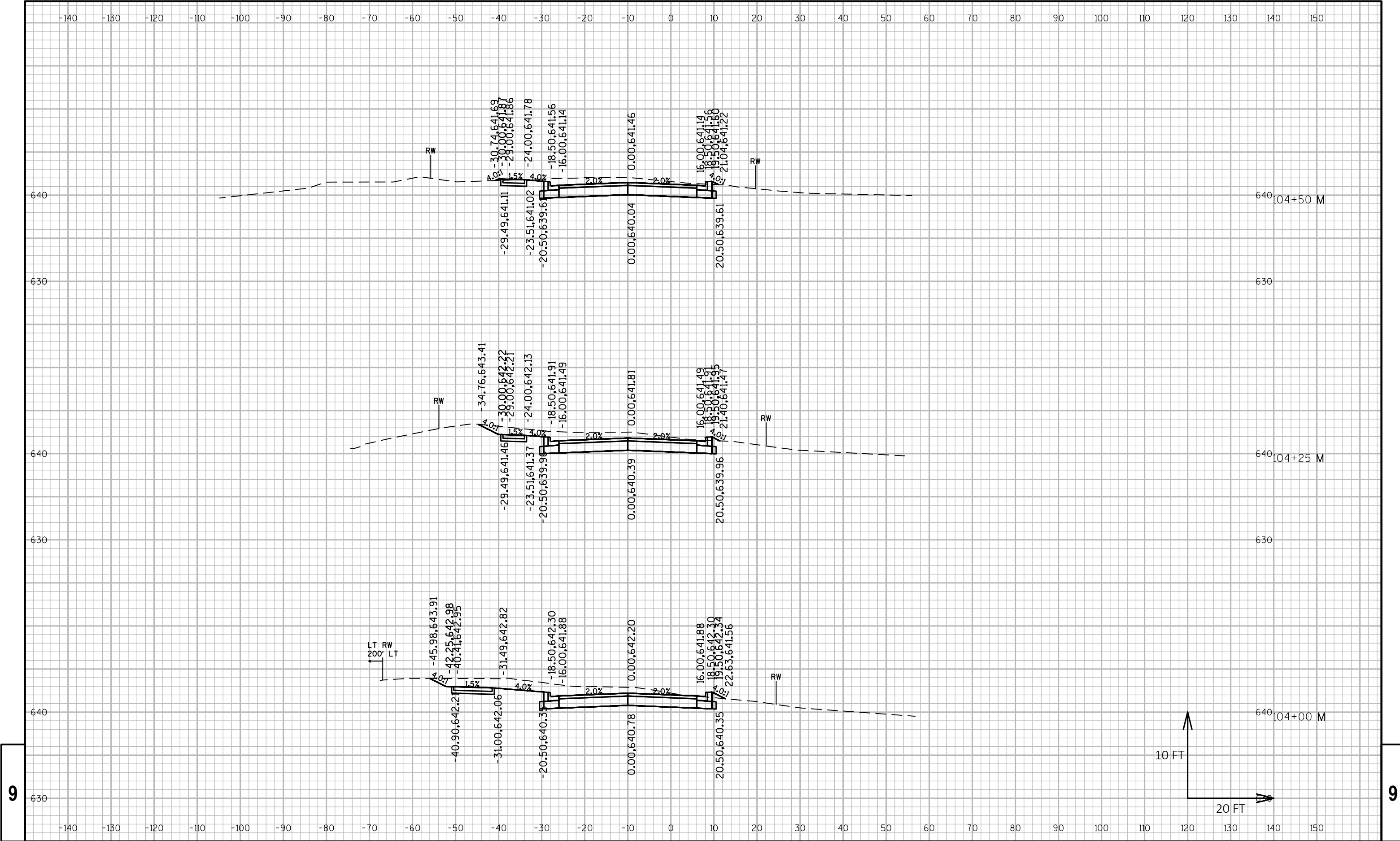
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9



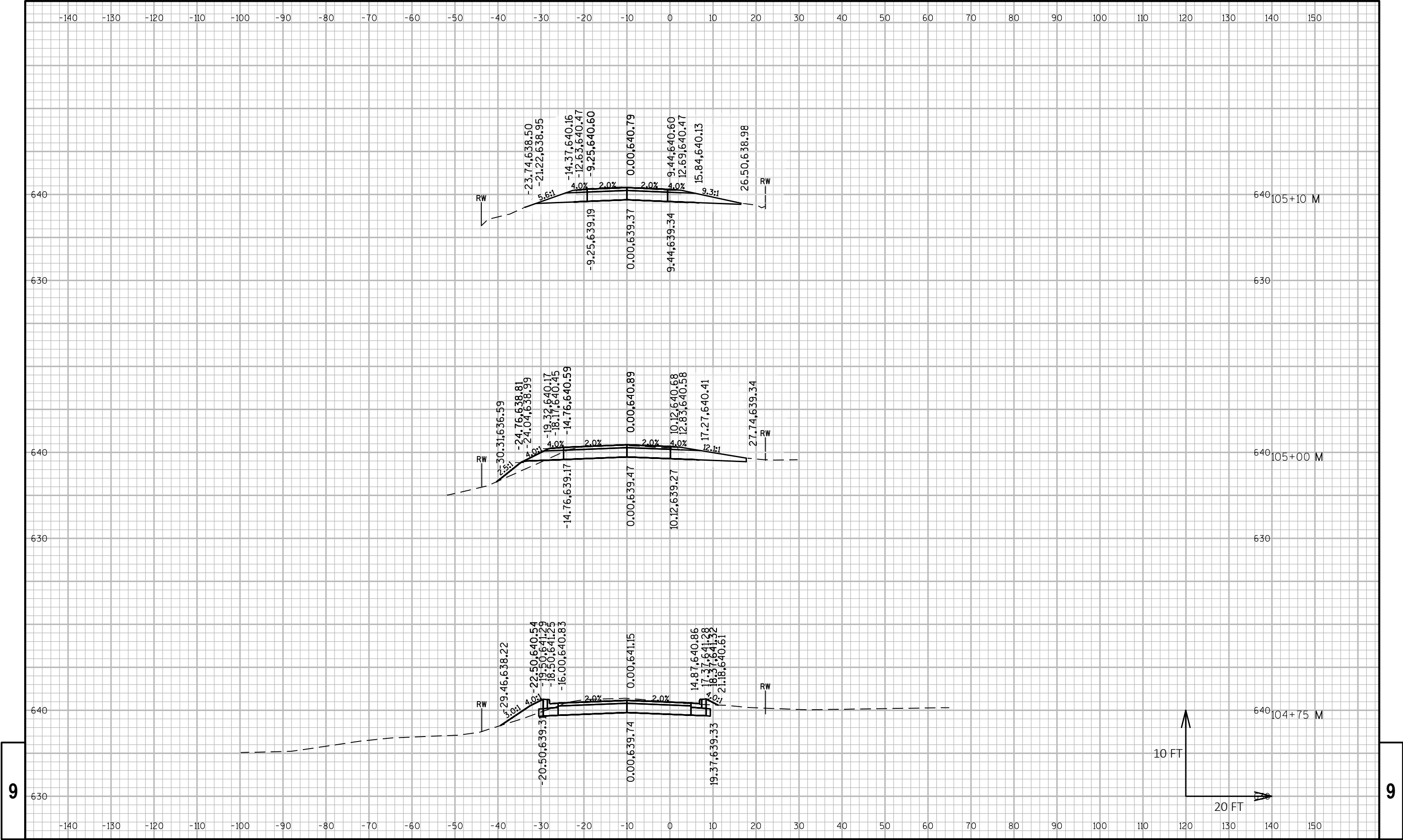






9

9



PROJECT NO: 4996-22-71	HWY: NON-HIGHWAY	COUNTY: SHEBOYGAN	CROSS SECTIONS: M LINE	SHEET 155	E
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Wisconsin Department of Transportation

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